CS92x, CX92x, C9235, and XC92x5

5059-x30, -x90, 7559-x78, -x98

Finisher Service Manual

October 17, 2017

www.lexmark.com

Product information

Product name:
Lexmark CS92x, CX92x, C9235, and XC92x5

Machine type:
5059, 7559

Model(s):
0x8, 1x0, 1x8, 3x8, 530, 5x8, 7x8

Edition notice

October 17, 2017

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P/N

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Notices and safety information

Safety information

Safety information

- The safety of this product is based on testing and approvals of the original design and specific components. The manufacturer is not responsible for safety in the event of use of unauthorized replacement parts.
- The maintenance information for this product has been prepared for use by a professional service person and is not intended to be used by others.
- There may be an increased risk of electric shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this and take necessary precautions.

CAUTION—POTENTIAL INJURY

The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

Consignes de sécurité

- La sécurité de ce produit repose sur des tests et des agréations portant sur sa conception d'origine et sur des composants particuliers. Le fabricant n'assume aucune responsabilité concernant la sécurité en cas d'utilisation de pièces de rechange non agréées.
- Les consignes d'entretien et de réparation de ce produit s'adressent uniquement à un personnel de maintenance qualifié.
- Le démontage et l'entretien de ce produit pouvant présenter certains risques électriques, le personnel d'entretien qualifié devra prendre toutes les précautions nécessaires.

AVERTISSEMENT—RISQUE DE BLESSURE

La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n'incinérez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

Norme di sicurezza

- La sicurezza del prodotto si basa sui test e sull'approvazione del progetto originale e dei componenti specifici. Il produttore non è responsabile per la sicurezza in caso di sostituzione non autorizzata delle parti.
- Le informazioni riguardanti la manutenzione di questo prodotto sono indirizzate soltanto al personale di assistenza autorizzato.
- Durante lo smontaggio e la manutenzione di questo prodotto, il rischio di subire scosse elettriche e danni alla persona è più elevato. Il personale di assistenza autorizzato deve, quindi, adottare le precauzioni necessarie.

ATTENZIONE — PERICOLO DI LESIONI

La batteria al litio presente del prodotto non deve essere sostituita. In caso di sostituzione errata della batteria al litio, potrebbe verificarsi un'esplosione. Non ricaricare, smontare o bruciare batterie al litio. Smaltire le batterie al litio usate seguendo le istruzioni del produttore e le norme locali.

Sicherheitshinweise

- Die Sicherheit dieses Produkts basiert auf Tests und Zulassungen des ursprünglichen Modells und bestimmter Bauteile. Bei Verwendung nicht genehmigter Ersatzteile wird vom Hersteller keine Verantwortung oder Haftung für die Sicherheit übernommen.
- Die Wartungsinformationen für dieses Produkt sind ausschließlich für die Verwendung durch einen Wartungsfachmann bestimmt.
- Während des Auseinandernehmens und der Wartung des Geräts besteht ein zusätzliches Risiko eines elektrischen Schlags und körperlicher Verletzung. Das zuständige Fachpersonal sollte entsprechende Vorsichtsmaßnahmen treffen.

VORSICHT - VERLETZUNGSGEFAHR

Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Pautas de Seguridad

- La seguridad de este producto se basa en pruebas y aprobaciones del diseño original y componentes específicos. El fabricante no es responsable de la seguridad en caso de uso de piezas de repuesto no autorizadas.
- La información sobre el mantenimiento de este producto está dirigida exclusivamente al personal cualificado de mantenimiento.
- Existe mayor riesgo de descarga eléctrica y de daños personales durante el desmontaje y la reparación de la máquina. El personal cualificado debe ser consciente de este peligro y tomar las precauciones necesarias.

PRECAUCIÓN: POSIBLES DAÑOS PERSONALES

La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio según las instrucciones del fabricante y las normativas locales.

Informações de Segurança

- A segurança deste produto baseia-se em testes e aprovações do modelo original e de componentes específicos. O fabricante não é responsável pela segunrança, no caso de uso de peças de substituição não autorizadas.
- As informações de segurança relativas a este produto destinam-se a profissionais destes serviços e não devem ser utilizadas por outras pessoas.
- Risco de choques eléctricos e ferimentos graves durante a desmontagem e manutenção deste produto. Os profissionais destes serviços devem estar avisados deste facto e tomar os cuidados necessários.

ATENÇÃO — RISCO DE FERIMENTO

A bateria de lítio neste produto não deve ser substituída. Existe o risco de explosão se uma bateria de lítio for substituída incorretamente. Não recarregue, desmonte ou incinere uma bateria de lítio. Descarte as baterias de lítio usadas de acordo com as instruções do fabricante e regulamentos locais.

Informació de Seguretat

- La seguretat d'aquest producte es basa en l'avaluació i aprovació del disseny original i els components específics. El fabricant no es fa responsable de les qüestions de seguretat si s'utilitzen peces de recanvi no autoritzades.
- La informació pel manteniment d'aquest producte està orientada exclusivament a professionals i no està destinada a ningú que no ho sigui.
- El risc de xoc elèctric i de danys personals pot augmentar durant el procés de desmuntatge i de servei d'aquest producte. El personal professional ha d'estar-ne assabentat i prendre les mesures convenients.

ATENCIÓ

La bateria de liti d'aquest producte no ha estat dissenyada perquè es substitueixi. Hi ha perill d'explosió si no es substitueix correctament la bateria de liti. No recarregueu, desmunteu o incinereu una bateria de liti. Desfeu-vos de les bateries de liti usades d'acord amb les instruccions del fabricant i les regulacions locals.

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本**产**品中的**锂电**池不可更**换**。如果不正确更**换锂电**池，可能会有爆炸危**险**。不要再 充**电**、拆解或焚**烧锂电**池。**丢**弃旧的**锂电**池**时应**按照制造商的指**导**及当地法**规进**行**处**理。

Service conventions and change history

This manual contains maintenance procedures for service personnel.

It is divided into the following chapters:

- **General information** provides a general description of the printer, tools, and equipment needed to service the printer.
- **Diagnostics and troubleshooting** contains diagnostic aids such as error code tables, symptoms, and service checks that you can use to isolate failing field replaceable units (FRUs).
- **Service menus** describes the printer interface, user, and service menus.
- **Parts removal** provides instructions for making printer adjustments and for removing and installing FRUs.
- **Component locations** illustrates the basic and fully configured models and identifies the locations of the basic printer parts.
- **Maintenance** contains the specifications for lubricating the printer and recommendations to prevent printer problems.
- **Parts catalog** shows illustrations and part numbers for the FRUs.
- **Printer specifications** contains detailed specifications of the product.
- **Options and features** contains the available options and other features of the product.
- **Theory of operation** contains the theory on how the printer operates.
- **Acronyms** contains a list of acronyms in the manual and their meanings.

Conventions

Note: A *note* identifies information that could help you.

Warning: A *warning* identifies something that could damage the product hardware or software.

CAUTION: A *caution* indicates a potentially hazardous situation that could injure you.

Different types of caution statements include:


CAUTION—POTENTIAL INJURY: Indicates a risk of injury.


CAUTION—SHOCK HAZARD: Indicates a risk of electrical shock.


CAUTION—HOT SURFACE: Indicates a risk of burn if touched.


CAUTION—TIPPING HAZARD: Indicates a crush hazard.


CAUTION—PINCH HAZARD: Indicates a risk of being caught between moving parts.


CAUTION—ROTATING FAN BLADES: Indicates a risk of laceration from moving fan blades.

Symbols used in this machine

 —On

 —Off

 —Standy

 —Push-push-type switch

 —Ground/earth (Protective bonding terminal)

 —Ground/earth (Protective earthing)

 —Class II equipment

 —Class II equipment with functional earthing

 —Functional earthing

 —CAUTION—DOUBLE POLE / NEUTRAL FUSING

 —Electrostatic discharge (ESD) sensitivity

General caution statements

CAUTION—POTENTIAL INJURY: To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

CAUTION—POTENTIAL INJURY: To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.

CAUTION—POTENTIAL INJURY: Do not use this product with extension cords, multioutlet power strips, multioutlet extenders, or UPS devices. The power capacity of these types of accessories can be easily overloaded by a laser printer and may result in a risk of fire, property damage, or poor printer performance.

CAUTION—POTENTIAL INJURY: Only a Lexmark Inline Surge Protector that is properly connected between the printer and the power cord provided with the printer may be used with this product. The use of non-Lexmark surge protection devices may result in a risk of fire, property damage, or poor printer performance.

Change history

October 17, 2017

Updated the following part numbers:

- Changed PN 40X9573 to PN 41X2214.
- Changed PN 40X9586 to PN 41X2171.
- Changed PN 40X9626 to PN 41X2182.
- Changed PN 40X9628 to PN 41X2185.

September 6, 2017

- SHPF lower left cover FRU (40X9488) was removed from the SHPF—Elevator bin section 1 parts catalog assembly.

General information

The Lexmark™ CS920 and CX920 Series are network-capable, multifunction laser printers that print color print jobs.

The printers support the following finishers and configurations:

Finisher	Configurations
Staple finisher **Note:** This finisher is supported only in some printer models.	Offset stacking and stapling
Staple, hole punch finisher	Offset stacking, stapling, and 2/3-hole or 2/4-hole punching
Hole punch, booklet finisher	Offset stacking, stapling, 2/3-hole or 2/4-hole punching, bifolding, and trifolding

For information on diagnosing a problem, see **"Diagnostics and troubleshooting" on page 25**. For information on removing and reinstalling parts, see **"Parts removal" on page 207**. For information on identifying parts, see**"Parts catalog" on page 530**.

Paper sizes, types, and weights supported by the finishers

The printer engine supports 60–256 g/m^2 (16–68-lb) paper weights.

Note: When a finisher is installed, the standard finisher bin becomes the default bin even for print jobs that do not require finishing.

Supported paper sizes

Paper size	Staple finisher	Staple, hole punch finisher bin 1	Staple, hole punch finisher bin 2	Booklet finisher
A6	√[3]	√[3]	X	X
A5	√[3]	√[3]	√[2]	X
JIS B5	√	√	√	X
JIS B4	√	√	√	√
Executive	√	√	√	X
Letter	√	√	√	√
A4	√	√	√	√

[1] Paper is supported only if the finisher stacks the paper but does not staple or punch holes in it.

[2] Paper is supported only if the finisher stacks or staples the paper but does not punch holes in it.

[3] Paper is supported but the finisher does not stack, staple, or punch holes in it.

[4] Paper is supported only for two-hole punch.

[5] Paper is supported only if the paper size is between 210 x 279.4 mm (8.27 x 11 in.) and 320 x 457.2 mm (12.6 x 18 in.).

Paper size	Staple finisher	Staple, hole punch finisher bin 1	Staple, hole punch finisher bin 2	Booklet finisher
Legal	√	√4	√	√
12 x 18	√1	√3	√1	√
11 x 17	√	√	√	√
SRA3	√1	√3	√1	√
A3	√	√	√	√
Oficio	√1	√3	√3	X
Folio	√1	√3	√3	X
Statement	√1	√3	√3	X
Universal	√	√3	√1	√5

[1] Paper is supported only if the finisher stacks the paper but does not staple or punch holes in it.

[2] Paper is supported only if the finisher stacks or staples the paper but does not punch holes in it.

[3] Paper is supported but the finisher does not stack, staple, or punch holes in it.

[4] Paper is supported only for two-hole punch.

[5] Paper is supported only if the paper size is between 210 x 279.4 mm (8.27 x 11 in.) and 320 x 457.2 mm (12.6 x 18 in.).

Supported paper types

Paper type	Staple finisher	Staple, hole punch finisher	Booklet finisher
Plain Paper	√	√	√4
Card Stock	√2	√2	X
Transparency[1]	√C	√2,3,5	X
Recycled	√	√	√4
Glossy	√	√	√4
Heavy Glossy	√2	√2	X
Labels	√2,5	√2,3,5	X
Bond	√	√	√4
Envelope	√2,5	√2,3,5	X

[1] Print on transparencies by batches of only up to 20 to prevent them from sticking together.

[2] Paper is supported only if the finisher does not staple it.

[3] Paper is supported only if the finisher does not punch holes in it.

[4] Paper is supported only if the finisher staples or folds the paper

[5] Offset is not supported.

Paper type	Staple finisher	Staple, hole punch finisher	Booklet finisher
Rough Envelope	√[2]	√[2,3,5]	X
Letterhead	√	√	√[4]
Preprinted	√	√	√[4]
Colored Paper	√	√	√[4]
Light Paper	√	√	√[4]
Heavy Paper	√[2]	√[2]	X
Rough Cotton	√[2]	√[2]	X
Custom Type	√	√	√[4]

[1] Print on transparencies by batches of only up to 20 to prevent them from sticking together.

[2] Paper is supported only if the finisher does not staple it.

[3] Paper is supported only if the finisher does not punch holes in it.

[4] Paper is supported only if the finisher staples or folds the paper

[5] Offset is not supported.

Tools required for service

- Flat-blade screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- Needle-nose pliers
- Diagonal side cutters
- Spring hook
- Feeler gauges
- Analog or digital multimeter
- Flashlight (optional)

Diagnostics and troubleshooting

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—POTENTIAL INJURY: The device weighs 43–67 kg (95–148 lb) and requires two or more trained personnel to lift it safely. Make sure that your fingers are not under the device when you lift or set the device down.

CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Troubleshooting overview

Performing the initial troubleshooting check

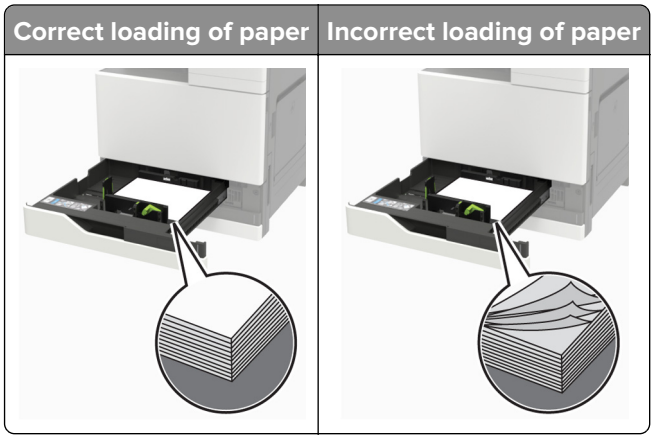
- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure that the printer is properly grounded.
- Make sure that the power supply line voltage is within 10% of the rated line voltage.
- Make sure that the printer is securely installed on a level surface in a well-ventilated area.
- Make sure that the temperature and relative humidity are within the specifications.
- Avoid locations that:
  - Generate ammonia gas
  - Are exposed to direct sunlight
  - Are near open flames
  - Are dusty
- Make sure that the recommended paper for this printer is used.
- Do a test print with paper from a newly opened package, and then check the result.

Paper jams

Avoiding jams

Load paper properly

- Make sure that the paper lies flat in the tray.

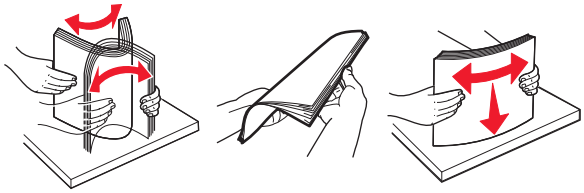


- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.

- Make sure that the paper guides are positioned correctly and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.

Use recommended paper

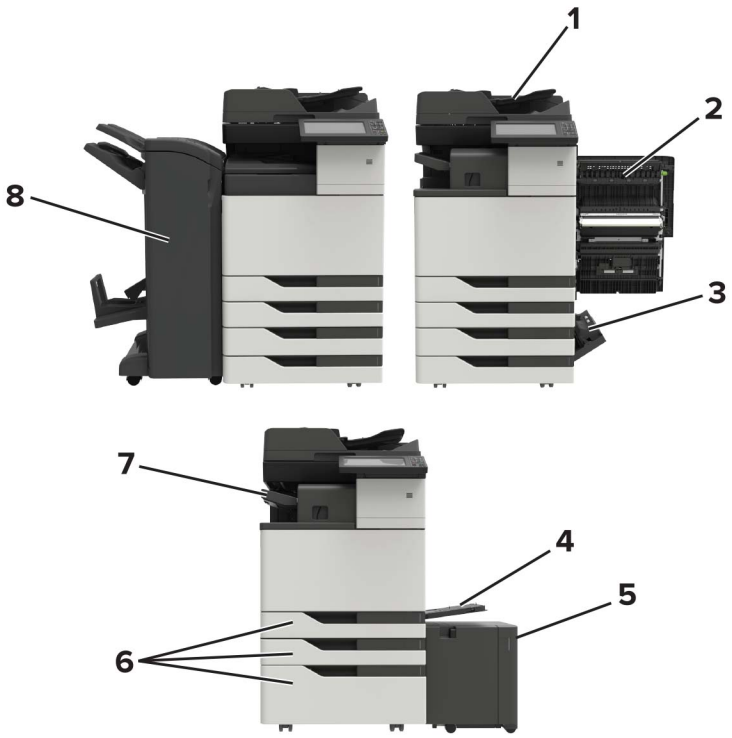
- Use only recommended paper or specialty media.
- Do not load paper that is wrinkled, creased, damp, bent, or curled.
- Flex, fan, and align the paper edges before loading.



- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Note: When Jam Recovery is set to On or Auto, the printer reprints jammed pages.

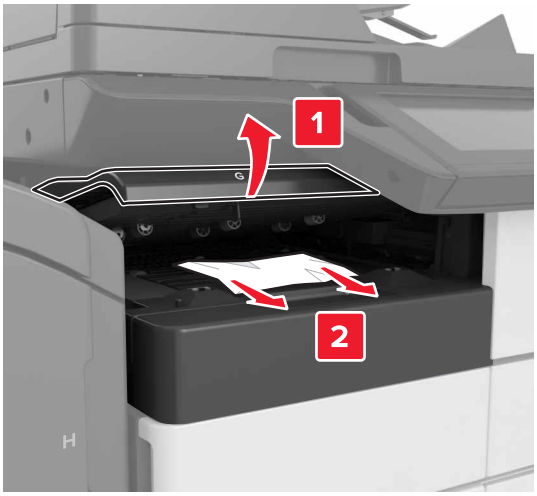


	Jam locations
1	Automatic document feeder (ADF)
2	Door C
3	Door D
4	Multipurpose feeder
5	3000-sheet tray
6	2 x 500- or 2500-sheet tray
7	Staple finisher
8	Finisher • Booklet finisher • Staple, hole punch finisher

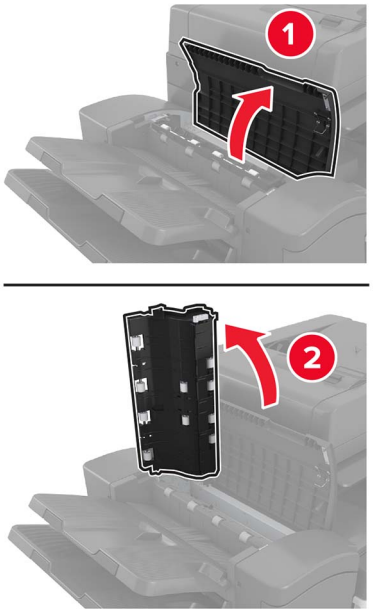
Paper jam in the booklet finisher

1 Open door G, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.



2 Open door J.



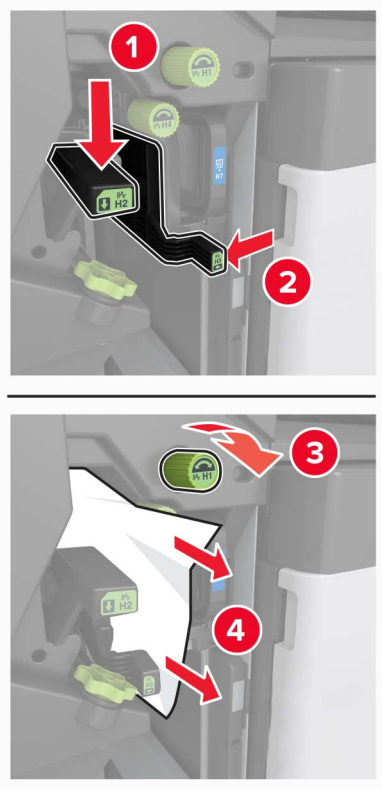
3 Open door H.

4 Remove the jammed paper from any of the following locations.

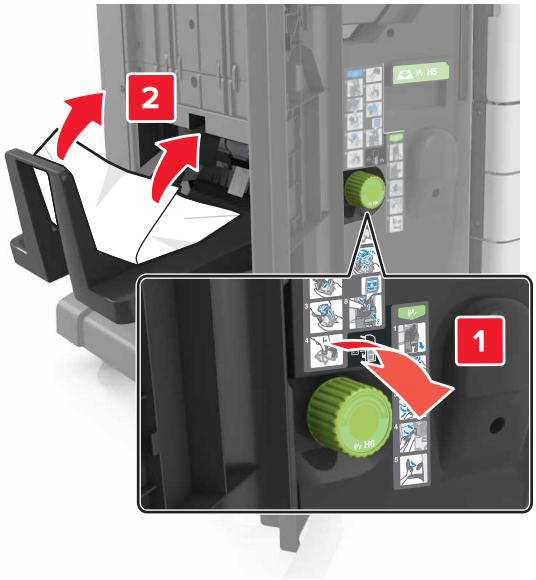
Note: Make sure that all paper fragments are removed.

- Door J

- Areas H1 and H2



- Area H6

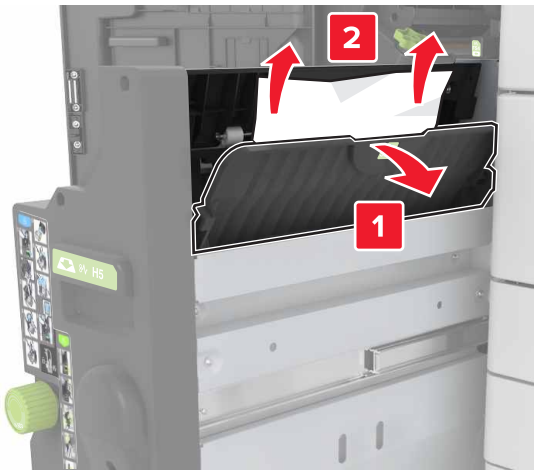


5 Pull out the booklet maker.

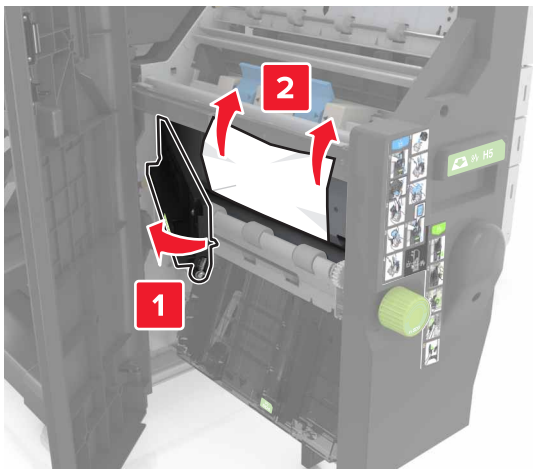
6 Remove the jammed paper from any of the following locations.

Note: Make sure that all paper fragments are removed.

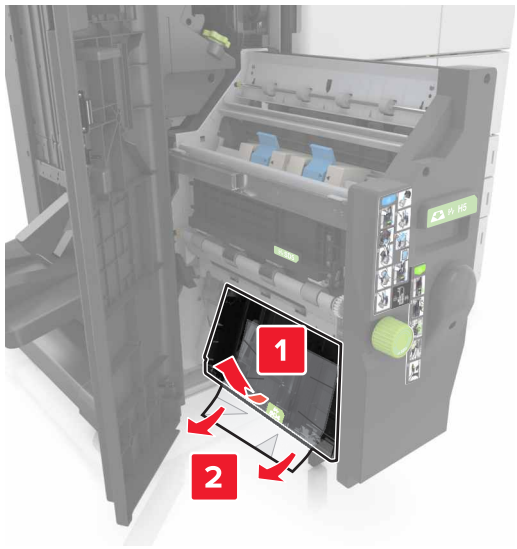
- Area H8



- Area H9



- Area H10



7 Push the booklet maker back into place.

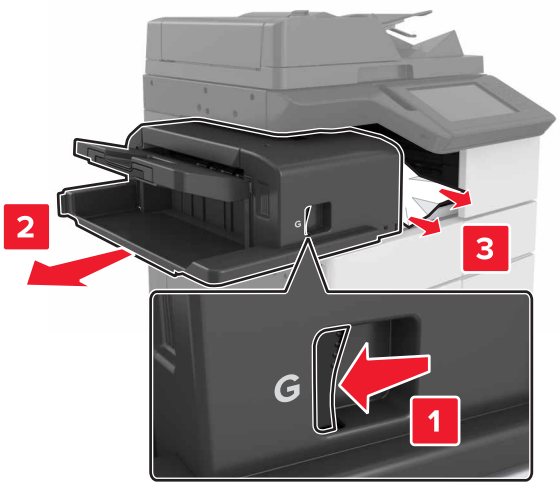
8 Close doors H and J.

Paper jam in the staple finisher

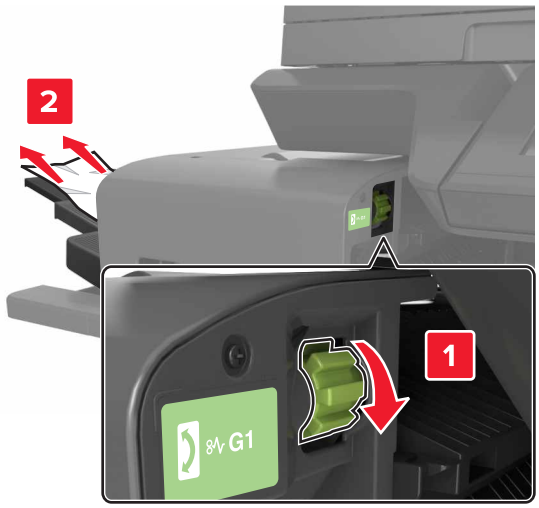
1 Remove paper from the staple finisher bin.

2 Slide the staple finisher, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.



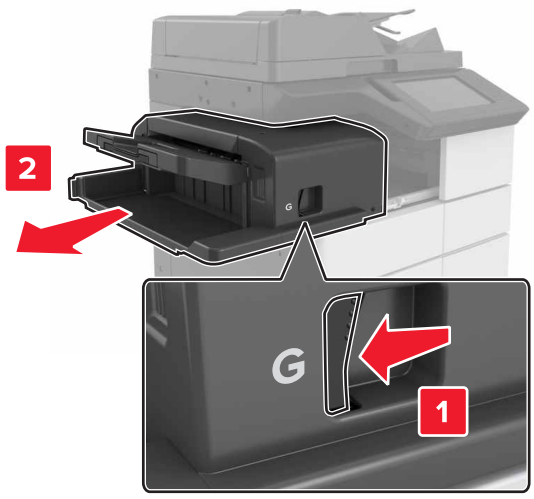
If necessary, turn the spinner wheel G1 downward to feed the jammed paper into the finisher bin, and then remove the jammed paper.



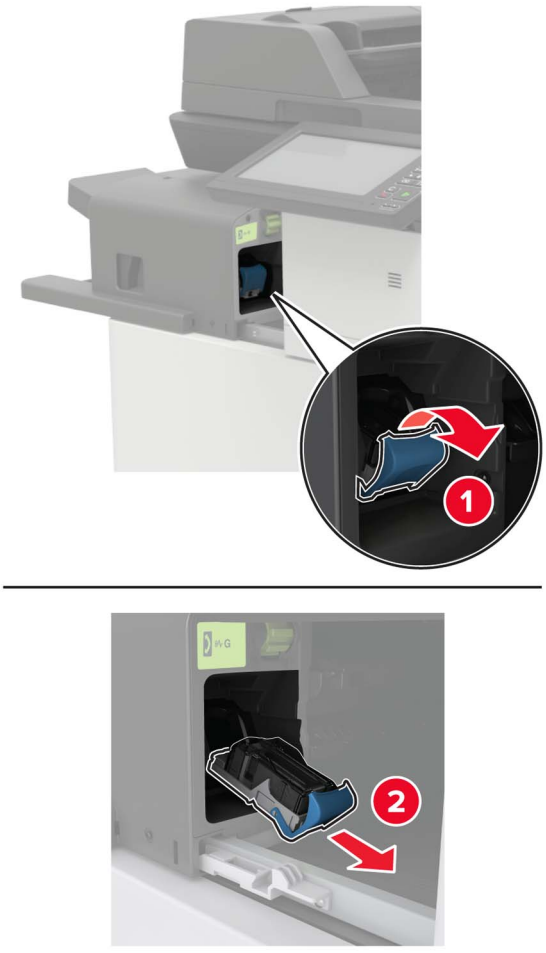
3 Slide the finisher back into place.

Staple jam in the staple finisher

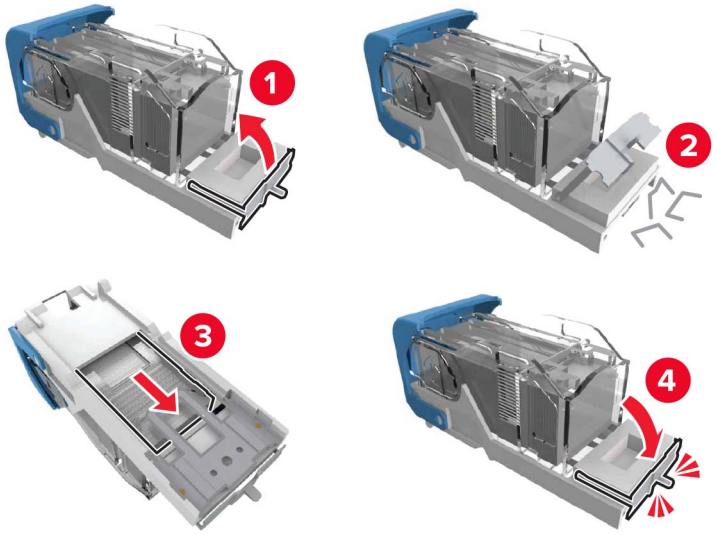
1 Slide the staple finisher.



2 Remove the staple cartridge holder.



3 Remove the loose staples.



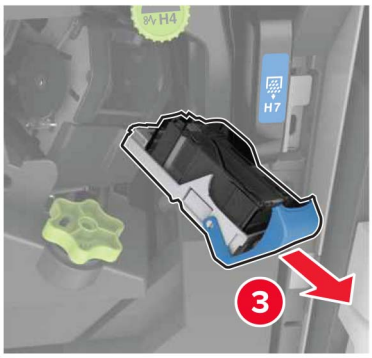
4 Insert the staple cartridge holder until it *clicks* into place.

5 Slide the finisher back into place.

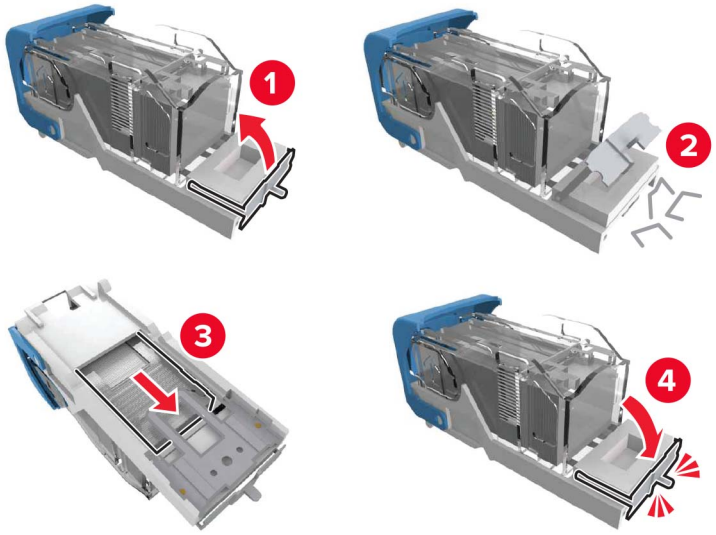
Staple jam in the staple, hole punch finisher

1 Open door H.

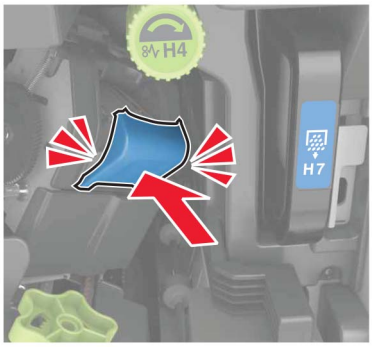
2 Remove the staple cartridge holder.



3 Remove the loose staples.



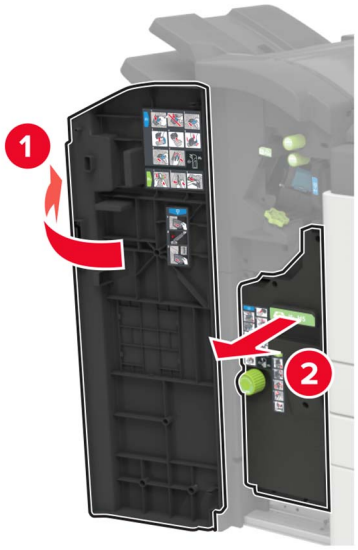
4 Insert the staple cartridge holder until it *clicks* into place.



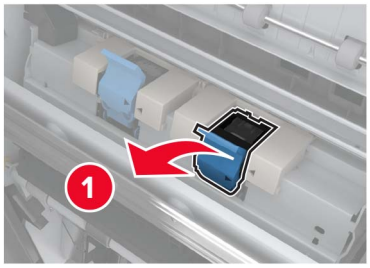
5 Close the door.

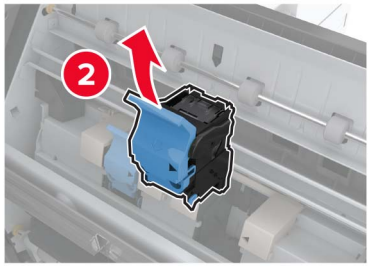
Staple jam in the booklet finisher

1 Open door H, and then pull out the booklet maker.

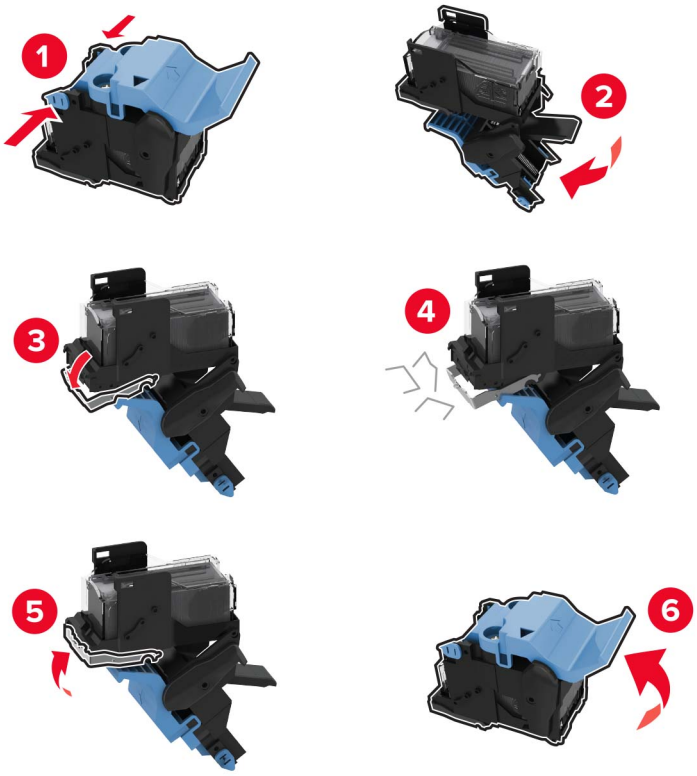


2 Remove the staple cartridge holder.

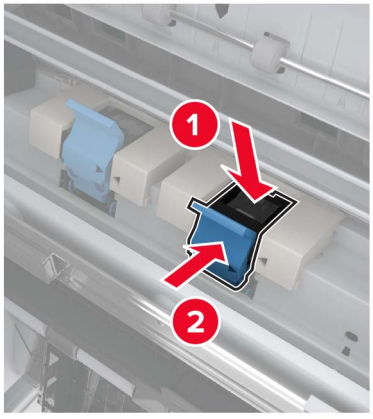




3 Remove the loose staples.



4 Insert the staple cartridge holder until it *clicks* into place.



5 Push the booklet maker back into place, and then close the door.

200 paper jams

200 paper jam messages

Error code	Description	Action
200.91	The paper remains detected in the sensor (staple finisher feed) after the printer is turned on.	See **"Staple finisher static jam service check" on page 47**.
200.91	Paper remains detected at the sensor (HPT feed) after the printer is turned on.	See **"HPT static jam service check" on page 40**.
200.91	Paper remains detected at the sensor (SHPF entrance) after the printer is turned on.	See **"SHPF static jam service check" on page 42**.
200.91	Paper remains detected at the sensor (SHPF top bin exit) after the printer is turned on.	
200.91	Paper remains detected at the sensor (SHPF booklet gate) after the printer is turned on.	See **"Booklet maker static jam service check" on page 44**.
200.91	Paper remains detected at the sensor (SHPF booklet maker transport) after the printer is turned on.	
200.91	Paper remains detected at the sensor (SHPF booklet maker fold exit) after the printer is turned on.	
200.92	Paper was detected earlier than expected at the sensor (HPT feed).	See **"HPT feed jam service check" on page 49**.

HPT static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the HPT and SHPF from the printer. Does the problem remain?	The problem is not with the finisher. For more information, see the printer service manual.	Go to step 3.

Action	Yes	No
Step 3 Check the HPT feed sensor actuator for misalignment and damage. Is the sensor actuator properly installed and free of damage?	Go to step 4.	Go to step 4.
Step 4 Reinstall or replace the sensor actuator. See **"HPT feed sensor actuator removal" on page 315**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (HTU paper entrance). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 7.	Go to step 7.
Step 7 Reinstall or replace the sensor. See **"Sensor (HPT feed) removal" on page 314**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 9.	Go to step 9.
Step 9 Replace the cable. See **"HPT cable removal" on page 317**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the HPT and SHPF from the printer. Does the problem remain?	The problem is not with the finisher. For more information, see the printer service manual.	Go to step 3.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Paper entrance). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 4.
Step 4 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the sensor. See **"Sensor (SHPF entrance) removal" on page 439**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.

Action	Yes	No
Step 7 Replace the SHPF entrance sensor cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Top bin exit). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 9.
Step 9 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor and its actuator for misalignment and damage. Are the sensor and actuator properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the affected sensor or actuator. See **"Sensor (SHPF top bin exit) removal" on page 390**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 13.	Go to step 12.
Step 12 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the sensor (SHPF compiler feed) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 17.	Go to step 14.
Step 14 Reinstall or replace the sensor. See **"Sensor (SHPF compiler feed) removal" on page 435**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 17.	Go to step 16.
Step 16 Replace the SHPF compiler feed sensor cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Booklet maker static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the HPT and SHPF from the printer. Does the problem remain?	The problem is not with the finisher. For more information, see the printer service manual.	Go to step 3.
Step 3 **a** Reseat the sensor (SHPF booklet gate) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 7.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"SHPF booklet maker upper pre-feed guide removal" on page 417**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF booklet gate sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Entrance). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (booklet maker transport) removal" on page 460**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 12.	Go to step 11.
Step 11 Replace the booklet maker transport sensor cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Fold exit). Does the sensor status change while toggling the sensor?	Go to step 17.	Go to step 13.

Action	Yes	No
Step 13 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the sensor. See **"Sensor (booklet maker fold exit) removal" on page 508**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 17.	Go to step 16.
Step 16 Replace the booklet maker fold exit sensor cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the cable. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the staple finisher paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the staple finisher from the printer. Does the problem remain?	The problem is not with the staple finisher. For more information, see the printer service manual.	Go to step 3.
Step 3 **a** Reinstall the staple finisher to the printer. **b** Reseat the staple finisher interface cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (staple finisher paper feed). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 5.
Step 5 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor (staple finisher paper feed). Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (staple finisher tamper paper present). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.

Action	Yes	No
Step 8 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor (staple finisher tamper paper present). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher tamper paper present sensor actuator for proper installation and damage. Is the sensor actuator properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the staple finisher tamper paper present sensor actuator. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the staple finisher paper feed sensor cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the staple finisher paper feed sensor cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the staple finisher interface cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the staple finisher interface cable. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all cable connectors on the staple finisher controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

40y paper jams

400–403 paper jam messages

Error code	Description	Action
400.13	Paper did not reach the sensor (HPT feed).	See **"HPT feed jam service check" on page 49**.
400.15	Paper did not clear the sensor (HPT feed).	
403.13	The SHPF punch drive failed.	See **"Punch unit failure service check" on page 103**.

HPT feed jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Unplug the HPT cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the HPT transport idler rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 4.	Go to step 3.
Step 3 Replace the damaged rollers. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the HPT feed sensor actuator for misalignment and damage. Is the sensor actuator properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the sensor actuator. See **"HPT feed sensor actuator removal" on page 315**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (HTU paper entrance). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 7.
Step 7 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (HPT feed) removal" on page 314**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 11.	Go to step 10.
Step 10 Replace the cable. See **"HPT cable removal" on page 317**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **Note:** Remove the top inner cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **HTU transport** **b** Touch **Start**. Does the motor run?	Go to step 16.	Go to step 12.
Step 12 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Reinstall or replace the motor. See **"Motor (HPT transport) removal" on page 319**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 16.	Go to step 15.
Step 15 Replace the cable. See **"Motor (HPT transport) removal" on page 319**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Clear the HPT transport rollers of debris and dust. **b** Check the rollers for misalignment, wear, and damage. Are the rollers properly installed and free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the rollers. See **"HPT transport rollers removal" on page 321**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the following components for misalignment, wear, and damage: • HPT transport roller belt 1 • HPT transport roller belt 2 • HPT transport roller 1 gear • HPT transport roller 2 gear • HPT transport motor belt • HPT transport motor gear Are the components properly installed and free of wear and damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the affected components. See **"HPT belts and gears removal" on page 321**. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 **a** Reseat the interface cable on the HPT, and then reseat the cable J6 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 23.	Go to step 22.
Step 22 Replace the cable. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

420–457 paper jams

420–457 paper jam messages

Error code	Description	Action
420.13	Paper did not reach the sensor (staple finisher paper feed).	See **"Staple finisher paper feed jam service check" on page 53**.
420.13	Paper did not reach the sensor (SHPF entrance).	See **"SHPF paper feed failure service check" on page 57**.
420.15	Paper did not clear the sensor (staple finisher paper feed).	See **"Staple finisher paper feed jam service check" on page 53**.
420.15	Paper did clear not the sensor (SHPF entrance).	See **"SHPF paper feed failure service check" on page 57**.

Error code	Description	Action
451.23	Paper did not reach the sensor (SHPF top bin exit).	See **"SHPF top bin exit jam service check" on page 60**.
451.25	Paper did not clear the sensor (SHPF top bin exit).	
452.25	Paper did not reach or leave the sensor (staple finisher tamper paper present).	See **"Staple finisher exit jam service check" on page 64**.
452.25	Paper did not reach or leave the sensor (SHPF tamper paper present).	See **"SHPF ejector failure service check" on page 121**.
455.23	Paper did not reach the sensor (SHPF compiler feed).	See **"SHPF compiler feed jam service check" on page 67**.
455.25	Paper did not clear the sensor (SHPF compiler feed).	
457.23	Paper did not reach the sensor (SHPF booklet gate).	See **"SHPF booklet gate jam service check" on page 73**.
457.25	Paper did not clear the sensor (SHPF booklet gate).	

Staple finisher paper feed jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Transport** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (staple finisher transport) removal" on page 239**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the staple finisher transport motor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Paper feed). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher paper feed) removal" on page 250**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 12.	Go to step 11.
Step 11 Replace the staple finisher paper feed sensor cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the cables CN101 and CN111 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. **d** Check the cables for damage. Are the cables free of damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Replace the damaged cables. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Rotate the jam removal knob, and then check the following components for jams and damage: • Staple finisher transport motor belt • Staple finisher jam removal knob • Staple finisher jam removal gears • Staple finisher tamper feed roller secondary gear • Staple finisher tamper feed roller primary gear • Staple finisher transport motor gear Are the components free of jams and damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the affected components. See **"Staple finisher—Transport section 2" on page 537**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Remove the upper guide. See **"Staple finisher upper guide removal" on page 279**. **b** Check the upper and lower guides for wear or damage. Are the guides free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Replace the damaged guide. See **"Staple finisher upper guide removal" on page 279** and **"Staple finisher lower guide removal" on page 283**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the idler rollers on the guides for wear and damage. Are the rollers free of wear and damage?	Go to step 20.	Go to step 19.
Step 19 Replace the damaged rollers. See **"Staple finisher—Transport section 1" on page 535**. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Check the following components for debris, dust, wear, and damage: • Transport roller • Compiler feed roller Are the components free of debris, dust, wear, and damage?	Go to step 22.	Go to step 21.
Step 21 Clean or replace the affected components. See **"Staple finisher transport roller removal" on page 293** and **"Staple finisher compiler feed rollers and gears removal" on page 290**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF paper feed failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the top inner cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Feed** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF feed) removal" on page 348**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the sensor (SHPF diverter cam) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Reinstall or replace the sensor. See **"Sensor (SHPF diverter cam) removal" on page 385**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the diverter cam sensor encoder for misalignment and damage. Is the sensor encoder properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the sensor encoder. See **"SHPF diverter cam removal" on page 384**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the following components for misalignment, wear, and damage: • SHPF entrance roller belt • SHPF diverter feed roller gears • SHPF diverter feed roller belt • SHPF top bin transport roller belt • SHPF top bin transport roller gear Are the components properly installed and free of wear and damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the affected components. See **"SHPF entrance and diverter feed roller gears removal" on page 386**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Rotate the two SHPF knobs, and then check the following rollers for proper operation: • SHPF entrance roller • SHPF diverter feed roller • SHPF top bin exit roller Do the rollers properly turn?	Go to step 16.	Go to step 14.
Step 14 Check the ball bearings of the affected rollers for wear and damage. Are the ball bearings free of wear and damage?	Go to step 16.	Go to step 15.

Action	Yes	No
Step 15 Replace the ball bearings. See **"SHPF—Transport section 3" on page 577** and **"SHPF—Transport section 4" on page 579**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Clear the SHPF entrance roller, SHPF diverter feed roller, and SHPF top bin exit roller of debris and dust. **b** Check the rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Replace the damaged rollers. See the following: • **"SHPF entrance idler and roller removal" on page 440** • **"SHPF diverter feed roller removal" on page 419** • **"SHPF top bin exit roller removal" on page 427** Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat the cables J4, J5, and J9 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the cable. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF top bin exit jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Top bin exit). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor and its actuator for misalignment and damage. Are the sensor and actuator properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the affected sensor or actuator. See **"Sensor (SHPF top bin exit) removal" on page 390**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Feed** **b** Touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the motor. See **"Motor (SHPF feed) removal" on page 348**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Exit** **b** Touch **Start**. Does the motor run?	Go to step 13.	Go to step 11.
Step 11 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (SHPF transport) removal" on page 349**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Rotate the SHPF knobs, and then check the following rollers for proper operation: • SHPF diverter feed roller • SHPF top bin exit roller • SHPF top bin transport roller Do the rollers properly turn?	Go to step 16.	Go to step 14.
Step 14 Check the ball bearings of the affected rollers for wear and damage. Are the ball bearings free of wear and damage?	Go to step 16.	Go to step 15.
Step 15 Replace the ball bearings. See **"SHPF—Transport section 3" on page 577**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Clear the SHPF diverter feed roller, SHPF top bin exit roller, and SHPF top bin transport roller of debris and dust. **b** Check the rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Replace the damaged rollers. See the following: • **"SHPF diverter feed roller removal" on page 419** • **"SHPF top bin exit roller removal" on page 427** • **"SHPF top bin transport roller removal" on page 431** Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the following components for misalignment, wear, and damage: • SHPF top bin exit belt • SHPF top bin exit roller gear • SHPF diverter feed roller gears • SHPF diverter feed roller belt • SHPF top bin transport roller belt • SHPF top bin transport roller gear Are the components properly installed and free of wear and damage?	Go to step 20.	Go to step 19.

Action	Yes	No
Step 19 Reinstall or replace the affected components. See **"SHPF entrance and diverter feed roller gears removal" on page 386**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Open the top jam access door, and then check the following rollers for wear and damage: • SHPF diverter feed idler roller • SHPF top bin exit idler roller • SHPF top bin transport idler roller Are the rollers free of wear and damage?	Go to step 22.	Go to step 21.
Step 21 Replace the damaged rollers. See **"SHPF top jam access door and SHPF diverter removal" on page 387**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the SHPF diverter and its spring for proper installation. Are the diverter and spring properly installed?	Go to step 24.	Go to step 23.
Step 23 Reinstall the diverter. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Check the following components for wear and damage: • SHPF diverter lever • SHPF diverter cam Are the components free of wear and damage?	Go to step 26.	Go to step 25.
Step 25 Replace the damaged components. See **"SHPF top jam access door and SHPF diverter removal" on page 387** and **"SHPF diverter cam removal" on page 384**. Does the problem remain?	Go to step 26.	The problem is solved.

Action	Yes	No
Step 26 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 28.	Go to step 27.
Step 27 Replace the cable. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher exit jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Paper eject). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the sensor. See **"Staple finisher tamper sensors removal" on page 231**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the staple finisher tamper cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tamper paper present actuator for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the actuator. See **"Staple finisher tamper racks removal" on page 307**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Transport** **b** Touch **Start**. Does the motor (staple finisher exit) run?	Go to step 12.	Go to step 10.
Step 10 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the motor. See **"Motor (staple finisher exit) removal" on page 245**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the following components for misalignment, wear, and damage: • Staple finisher exit belt • Staple finisher exit gear Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Replace the affected components. See **"Staple finisher exit roller drive belts and gears removal" on page 275**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the following components for misalignment, wear, and damage: • Staple finisher upper exit roller primary belt • Staple finisher upper exit rollers • Staple finisher upper exit roller secondary belt • Staple finisher upper exit roller secondary gear • Staple finisher upper exit roller primary gear Are the components properly installed and free of wear and damage?	Go to step 16.	Go to step 15.
Step 15 Replace the affected components. See **"Staple finisher upper exit roller belts and gear removal" on page 301** and **"Staple finisher upper exit roller removal" on page 300**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the following components for misalignment, wear, and damage: • Staple finisher lower exit roller • Staple finisher exit roller gear Are the components properly installed and free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Replace the affected components. See **"Staple finisher lower exit roller removal" on page 278** and **"Staple finisher exit roller gear removal" on page 278**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF compiler feed jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Receiving roller release). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (SHPF compiler feed roller release) removal" on page 382**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Feed** **b** Touch **Start**. Does the motor run?	Go to step 12.	Go to step 8.
Step 8 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the motor. See **"Motor (SHPF feed) removal" on page 348**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Exit** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 13.
Step 13 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the motor. See **"Motor (SHPF transport) removal" on page 349**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Receiving roller release** **b** Touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (SHPF compiler feed roller release) removal" on page 381**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 Rotate the two SHPF knobs, and then check the following rollers for proper operation: • SHPF diverter feed roller • SHPF compiler feed roller Do the rollers properly turn?	Go to step 21.	Go to step 19.
Step 19 Check the ball bearings of the affected rollers for wear and damage. Are the ball bearings free of wear and damage?	Go to step 21.	Go to step 20.
Step 20 Replace the ball bearings. See **"SHPF—Transport section 3" on page 577**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Clear the SHPF diverter feed roller and SHPF compiler feed roller of debris and dust. **b** Check the rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 23.	Go to step 22.
Step 22 Replace the damaged rollers. See **"SHPF diverter feed roller removal" on page 419** and **"SHPF compiler feed roller removal" on page 446**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the following components for misalignment, wear, and damage: • SHPF compiler feed idler roller • SHPF diverter roller gears • SHPF diverter feed roller belt • SHPF compiler feed roller belt • SHPF compiler feed roller gear Are the components properly installed and free of wear and damage?	Go to step 25.	Go to step 24.

Action	Yes	No
Step 24 Reinstall or replace the affected components. See **"SHPF compiler feed idler roller assembly removal" on page 433** and **"SHPF entrance and diverter feed roller gears removal" on page 386**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Open the top jam access door, and then check the following components for wear and damage: • SHPF diverter feed idler roller • SHPF top bin exit idler roller • SHPF top bin transport idler roller Are the components free of wear and damage?	Go to step 27.	Go to step 26.
Step 26 Replace the damaged rollers. See **"SHPF top jam access door and SHPF diverter removal" on page 387**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check the SHPF diverter and its spring for proper installation. Are the diverter and spring properly installed?	Go to step 29.	Go to step 28.
Step 28 Reinstall the diverter. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Check the following components for wear and damage: • SHPF diverter lever • SHPF diverter cam Are the components free of wear and damage?	Go to step 31.	Go to step 30.
Step 30 Replace the damaged components. See **"SHPF top jam access door and SHPF diverter removal" on page 387** and **"SHPF diverter cam removal" on page 384**. Does the problem remain?	Go to step 31.	The problem is solved.

Action	Yes	No
Step 31 Check the following components for wear and damage: • SHPF compiler feed idler rollers • SHPF compiler feed idler roller holder • SHPF compiler idler roller holder springs • SHPF Compiler feed roller release cam • SHPF Compiler feed roller release middle cam Are the components free of wear and damage?	Go to step 33.	Go to step 32.
Step 32 Replace the damaged components. See **"SHPF compiler feed idler roller assembly removal" on page 433** and **"SHPF compiler feed roller release cam removal" on page 429**. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 35.	Go to step 32.
Step 34 Replace the cable. Does the problem remain?	Go to step 35.	The problem is solved.
Step 35 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 36.	The problem is solved.
Step 36 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF booklet gate jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat the cable J5 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the J4, J5, and J10 cable harness. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat the sensor (SHPF booklet gate) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the sensor. See **"SHPF booklet maker upper pre-feed guide removal" on page 417**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the SHPF booklet gate sensor cable. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the following doors for misalignment and damage: • HPBF booklet gate jam access door • SHPF jam access door Are the doors properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the affected doors. See **"Booklet gate jam access door removal" on page 332** and **"SHPF jam access door removal" on page 334**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Feed** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 11.
Step 11 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (SHPF feed) removal" on page 348**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 15.	Go to step 14.
Step 14 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Exit** **b** Touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (SHPF transport) removal" on page 349**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Rotate the SHPF knobs, and then check the following rollers for proper operation: • SHPF booklet maker pre-feed roller • SHPF compiler feed roller Do the rollers properly turn?	Go to step 21.	Go to step 19.
Step 19 Check the ball bearings of the affected rollers for wear and damage. Are the ball bearings free of wear and damage?	Go to step 21.	Go to step 20.
Step 20 Replace the damaged ball bearings. See **"SHPF booklet maker pre-feed roller removal" on page 414** and **"SHPF compiler feed roller removal" on page 446**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Clear the SHPF booklet maker pre-feed roller and SHPF compiler feed roller of debris and dust. **b** Check the rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 23.	Go to step 22.

Action	Yes	No
Step 22 Replace the damaged rollers. See **"SHPF booklet maker pre-feed roller removal" on page 414** and **"SHPF compiler feed roller removal" on page 446**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the following components for misalignment, wear, and damage: • SHPF compiler feed roller belt • SHPF compiler feed roller gear • SHPF booklet maker pre-feed roller belt • SHPF booklet maker pre-feed roller gear Are the components properly installed and free of wear and damage?	Go to step 25.	Go to step 24.
Step 24 Reinstall or replace the affected components. See **"SHPF—Transport section 2" on page 573**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the SHPF diverter and its spring for proper installation. Are the diverter and spring properly installed?	Go to step 27.	Go to step 26.
Step 26 Reinstall the diverter. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check the following components for wear and damage: • SHPF diverter lever • SHPF diverter cam Are the components free of wear and damage?	Go to step 29.	Go to step 28.
Step 28 Replace the damaged components. See **"SHPF top jam access door and SHPF diverter removal" on page 387** and **"SHPF diverter cam removal" on page 384**. Does the problem remain?	Go to step 29.	The problem is solved.

Action	Yes	No
Step 29 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 31.	Go to step 30.
Step 30 Replace the cable. Does the problem remain?	Go to step 31.	The problem is solved.
Step 31 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 32.	The problem is solved.
Step 32 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

471–484 jams

471–484 paper jam messages

Error code	Description	Action
471.23	The SHPF diverter cam did not reach or clear the sensor (SHPF diverter cam).	See **"SHPF paper feed failure service check" on page 57**.
480.35	The booklet maker rear stapler unit failed.	See **"Booklet maker staple unit failure service check" on page 78**.
481.13	The staple finisher staple unit did not reach its home position.	See **"Staple finisher staple unit failure service check" on page 79**.
484.13	The staple finisher staple unit carriage did not reach its home position.	
484.13	The SHPF staple unit carriage did not reach its home position.	See **"SHPF staple unit failure service check" on page 82**.

Booklet maker staple unit failure service check

Action	Yes	No
Step 1 **a** Reseat the cable J4 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the booklet maker staple unit cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the booklet maker staple unit for misalignment and damage. Is the staple unit properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall or replace the staple unit. See **"Booklet maker staple unit removal" on page 503**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher staple unit failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Staple carriage home). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (staple finisher staple unit home) removal" on page 249**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the staple finisher exit section cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the staple unit holder for misalignment and damage. Is the staple unit holder properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the staple unit holder. See **"Staple finisher staple unit removal" on page 252**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the staple finisher aligners for misalignment and damage. **Note:** Make sure that they do not block the path of the staple unit. Are the staple finisher aligners properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the staple finisher aligner. See **"Staple finisher tamper racks removal" on page 307**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reseat the staple unit cable, and then check the staple unit for damage. Is the staple unit free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the staple unit. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Carriage** **b** Touch **Start**. Does the motor run?	Go to step 18.	Go to step 14.
Step 14 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the motor. See **"Motor (staple finisher staple unit carriage) removal" on page 255**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 18.	Go to step 17.

Action	Yes	No
Step 17 Replace the staple finisher staple unit carriage motor cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat the cables on the staple unit interface board. **b** Reseat the cable CN120 on the staple finisher controller board. **c** If applicable, reseat the junction connectors on the cables. **d** Make sure that the cables do not interfere with moving parts. **e** Check the cables for damage. Are the cables free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the damaged cables. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the staple finisher interface board for damage. Is the board free of damage?	Go to step 22.	Go to step 21.
Step 21 Replace the board. See **"Staple finisher interface board removal" on page 254**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the following components for wear and damage: • Staple unit carriage gears • Staple unit rail Are the components free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the damaged components. See **"Staple finisher staple unit carriage gears removal" on page 256** and **"Staple finisher staple unit rail removal" on page 284**. Does the problem remain?	Go to step 24.	The problem is solved.

Action	Yes	No
Step 24 **a** Reseat the staple finisher FFC and interface cable on the interface board and staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cables for damage. Are the cables free of damage?	Go to step 26.	Go to step 25.
Step 25 Replace the damaged cables. See **"Staple finisher interface cable removal" on page 237** and **"Staple finisher FFC removal" on page 259**. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF staple unit failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Stapler carriage** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF staple unit carriage) removal" on page 363**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF staple unit interface cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Stapler center) or sensor (Stapler home). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"SHPF paddle motor FRUs removal" on page 378**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the cable J11 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the following components for misalignment, wear, and damage: • SHPF staple unit carriage drive gear • SHPF staple unit carriage belt • SHPF staple unit knob • SHPF staple unit carriage rail • SHPF staple unit carriage drive belt Are the components properly installed and free of wear and damage?	Go to step 13.	Go to step 12.
Step 12 Replace the affected components. See **"SHPF staple unit drive belt and gear removal" on page 362**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

49y paper jams

491–493 paper jam messages

Error code	Description	Action
491.33	Paper did not reach the sensor (Booklet maker transport).	See **"Booklet maker feed jam service check" on page 85**.
491.35	Paper did not clear the sensor (Booklet maker transport).	See **"Booklet maker transport section paper jam service check" on page 90**.
492.33	Paper did not reach the sensor (Booklet maker tamper present).	See **"Booklet maker tamper paper jam service check" on page 95**.
493.33	Paper did not reach the sensor (Booklet maker fold exit).	See **"Bifold exit jam service check" on page 97**.
493.35	Paper did not clear the sensor (Booklet maker fold exit).	

Booklet maker feed jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Unplug the booklet maker interface cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the following doors for misalignment and damage: • HPBF booklet gate jam access door • SHPF jam access door Are the doors properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the affected doors. See **"Booklet gate jam access door removal" on page 332** and **"SHPF jam access door removal" on page 334**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat the sensor (SHPF booklet gate) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 8.	Go to step 5.

Action	Yes	No
Step 5 Reinstall or replace the sensor. See **"SHPF booklet maker upper pre-feed guide removal" on page 417**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the J4, J5, and J10 cable harness. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Feed** **b** Touch **Start**. Does the motor run?	Go to step 13.	Go to step 9.
Step 9 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the motor. See **"Motor (SHPF feed) removal" on page 348**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 13.	Go to step 12.
Step 12 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 **Note:** Remove the top inner cover and rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Exit** **b** Touch **Start**. Does the motor run?	Go to step 16.	Go to step 14.
Step 14 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the motor. See **"Motor (SHPF transport) removal" on page 349**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the following components for misalignment, wear, and damage: • SHPF compiler feed roller belt • SHPF compiler feed roller gear • SHPF booklet maker pre-feed roller belt • SHPF booklet maker pre-feed roller gear Are the components properly installed and free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the affected components. See **"SHPF—Transport section 2" on page 573**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat the cables J5 and J9 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. **d** Check the cables for damage. Are the cables free of damage?	Go to step 20.	Go to step 19.

Action	Yes	No
Step 19 Replace the J4, J5, and J10 cable harness. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Entrance). Does the sensor status change while toggling the sensor?	Go to step 25.	Go to step 21.
Step 21 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor and its actuator for misalignment and damage. Are the sensor and actuator properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the affected sensor or actuator. See **"Sensor (booklet maker transport) removal" on page 460**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 25.	Go to step 24.
Step 24 Replace the booklet maker transport sensor cable. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Transport** **c** Touch **Start**. Does the motor run?	Go to step 30.	Go to step 26.

Action	Yes	No
Step 26 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 28.	Go to step 27.
Step 27 Reinstall or replace the motor. See **"Motor (booklet maker transport) removal" on page 470**. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 30.	Go to step 29.
Step 29 Replace the booklet maker transport section cable. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Check the following components for misalignment, wear, and damage: • Booklet maker transport gear • Booklet maker transport belt Are the components properly installed and free of wear and damage?	Go to step 32.	Go to step 31.
Step 31 Reinstall or replace the affected components. See **"Booklet maker transport gear and belt removal" on page 473**. Does the problem remain?	Go to step 32.	The problem is solved.
Step 32 Check the following rollers for proper installation: • Booklet maker transport roller • Booklet maker transport idler rollers and their springs Are the rollers properly installed?	Go to step 34.	Go to step 33.
Step 33 Reinstall the rollers. Does the problem remain?	Go to step 34.	The problem is solved.

Action	Yes	No
Step 34 **a** Clear the booklet transport rollers and booklet transport idler rollers of debris and dust. **b** Check the rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 36.	Go to step 35.
Step 35 Replace the damaged rollers. See **"Booklet maker transport roller removal" on page 474** and **"Booklet maker transport idler rollers removal" on page 459**. Does the problem remain?	Go to step 36.	The problem is solved.
Step 36 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 38.	Go to step 37.
Step 37 Replace the cable. Does the problem remain?	Go to step 38.	The problem is solved.
Step 38 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 39.	The problem is solved.
Step 39 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Booklet maker transport section paper jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Unplug the booklet maker interface cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Entrance). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (booklet maker transport) removal" on page 460**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker transport sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Transport** **c** Touch **Start**. Does the motor run?	Go to step 12.	Go to step 8.
Step 8 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Reinstall or replace the motor. See **"Motor (booklet maker transport) removal" on page 470**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 12.	Go to step 11.
Step 11 Replace the booklet maker transport section cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the following components for misalignment, wear, and damage: • Booklet maker transport gear • Booklet maker transport belt Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected components. See **"Booklet maker transport gear and belt removal" on page 473**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the following rollers for proper installation: • Booklet maker transport roller • Booklet maker transport idler rollers and their springs Are the rollers properly installed?	Go to step 16.	Go to step 15.
Step 15 Reinstall the rollers. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Clear the booklet transport rollers and booklet transport idler rollers of debris and dust. **b** Check the rollers for wear and damage. Are the rollers free of wear and damage?	Go to step 18.	Go to step 17.

Action	Yes	No
Step 17 Replace the damaged rollers. See **"Booklet maker transport roller removal" on page 474** and **"Booklet maker transport idler rollers removal" on page 459**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the following components for misalignment, wear, and damage: • Booklet maker decurl guide • Booklet maker decurl lever Are the components properly installed and free of wear and damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the affected components. See **"Booklet maker decurl guide removal" on page 477** and **"Booklet maker decurl lever removal" on page 461**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Paddle** **b** Touch **Start**. Does the motor run?	Go to step 25.	Go to step 21.
Step 21 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the motor. See **"Motor (booklet maker paddle) removal" on page 468**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 25.	Go to step 24.

Action	Yes	No
Step 24 Replace the booklet maker J8 and J9 cable harness. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the booklet maker decurl gears for misalignment, wear, and damage. Are the gears properly installed and free of wear and damage?	Go to step 27.	Go to step 26.
Step 26 Reinstall or replace the gears. See **"Booklet maker decurl gears removal" on page 475**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Booklet decurl). Does the sensor status change while toggling the sensor?	Go to step 30.	Go to step 28.
Step 28 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 30.	Go to step 29.
Step 29 Reinstall or replace the sensor. See **"Sensor (booklet maker decurl) removal" on page 476**. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 **a** Reseat the cable J5 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 32.	Go to step 31.
Step 31 Replace the booklet maker transport section cable. Does the problem remain?	Go to step 32.	The problem is solved.

Action	Yes	No
Step 32 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 34.	Go to step 33.
Step 33 Replace the cable. Does the problem remain?	Go to step 34.	The problem is solved.
Step 34 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 35.	The problem is solved.
Step 35 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Booklet maker tamper paper jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Unplug the booklet maker interface cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Tamper paper present). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Booklet maker tamper tray removal" on page 521**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J7 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the cable J7 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the booklet maker J7 cable harness. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the cable. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Bifold exit jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Unplug the booklet maker interface cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Center fold roller** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (bifold roller) removal" on page 463**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the booklet maker J10 and J11 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the following gears for wear and damage: • Bifold roller drive gear • Bifold roller idler gear 1 • Bifold roller idler gear 2 • Bifold roller gears • Lower bifold roller gear Are the rollers free of wear and damage?	Go to step 9.	Go to step 8.
Step 8 Replace the damaged rollers. See the following: • **“Bifold roller gears removal” on page 464** • **“Bifold upper roller removal” on page 498** • **“Bifold lower roller removal” on page 501** • **“Bifold roller drive gears removal” on page 516** Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Fold exit). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 10.
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **“Sensor (booklet maker fold exit) removal” on page 508**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Replace the booklet maker fold exit sensor cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the trifold diverter for misalignment and damage. Is the diverter properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the diverter. See **"Trifold diverter removal" on page 507**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the following components for misalignment, wear, and damage: • Bifold knife • Bifold knife sliders Are the components properly installed and free of wear and damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the affected component. See **"Bifold knife removal" on page 515**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the right cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Center fold knife** **c** Touch **Start**. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 21.	Go to step 20.

Action	Yes	No
Step 20 Reinstall or replace the motor. See **"Motor (bifold knife) removal" on page 483**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the following gears for wear and damage: • Bifold knife primary drive gear • Bifold knife idler gear • Bifold knife secondary drive gears Are the components properly installed and free of wear and damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the damaged gears. See **"Bifold knife primary drive gears removal" on page 509** and **"Bifold knife secondary drive gears removal" on page 514**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Clear the bifold rollers of debris and dust. **b** Check the rollers for misalignment, wear, and damage. Are the rollers properly installed and free of wear and damage?	Go to step 25.	Go to step 24.
Step 24 Reinstall or replace the affected rollers. See **"Bifold upper roller removal" on page 498** and **"Bifold lower roller removal" on page 501**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Check if the bifold roller springs are properly engaged with their arms. **b** Check the springs for damage. Are the springs properly installed and free of damage?	Go to step 27.	Go to step 26.
Step 26 Reinstall or replace the affected springs. See **"Bifold roller springs removal" on page 472**. Does the problem remain?	Go to step 27.	The problem is solved.

Action	Yes	No
Step 27 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Center fold guide** **b** Touch **Start**. Does the motor run?	Go to step 30.	Go to step 28.
Step 28 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 30.	Go to step 29.
Step 29 Reinstall or replace the motor. See **"Motor (bifold guide) removal" on page 478**. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Check the bifold roller timing gear for misalignment, wear, and damage. Is the gear properly installed and free of wear and damage?	Go to step 32.	Go to step 31.
Step 31 Reinstall or replace the gear. See **"Bifold upper roller removal" on page 498**. Does the problem remain?	Go to step 32.	The problem is solved.
Step 32 **a** Reseat the cables J9 and J11 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 35.	Go to step 34.

Action	Yes	No
Step 34 Replace the cable. Does the problem remain?	Go to step 35.	The problem is solved.
Step 35 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 36.	The problem is solved.
Step 36 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Hardware errors

300–324 errors

300–324 error messages

Error code	Description	Action
303.63	The SHPF punch drive failed.	See **"Punch unit failure service check" on page 103**.
321.63	The staple finisher front tamper did not reach or clear its home position.	See **"Motor (staple finisher front tamper) failure service check" on page 104**.
321.63	The SHPF front tamper did not reach or clear its home position.	See **"Motor (SHPF front tamper) failure service check" on page 109**.
322.63	The staple finisher rear tamper did not reach or clear its home position.	See **"Motor (staple finisher rear tamper) failure service check" on page 107**.
322.63	The SHPF rear tamper did not reach or clear its home position.	See **"Motor (SHPF rear tamper) failure service check" on page 112**.
324.63	The SHPF paddle drive failed.	See **"Motor (SHPF paddle) failure service check" on page 114**.

Punch unit failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the SPHF rear cover. See **"SHPF rear cover removal" on page 331**. **b** Do a punch job and check if the motor (SHPF punch unit) runs. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 **a** Reseat the cable J7 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the punch unit cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the following components for misalignment and damage: • Motor (SHPF punch unit) • Sensor (hole punch box full, transmit) • Sensor (hole punch box full, receive) Are the components properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall or replace the affected components. See **"Punch unit removal" on page 357**, **"Sensor (hole punch box full) removal" on page 358**, and **"Sensor (hole punch box full) removal" on page 358**.	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Replace the cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (staple finisher front tamper) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat the cable CN102 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Tamper** **b** Touch **Start**. Does the motor run?	Go to step 8.	Go to step 4.
Step 4 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reinstall or replace the motor. See **"Motor (staple finisher tamper) removal" on page 230**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the staple finisher tamper cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the tamper gears for misalignment and damage. Are the gears properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the damaged gears. See **"Staple finisher tamper drive gears removal" on page 305**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Tamper home, front). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 11.
Step 11 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the sensor. See **"Staple finisher tamper sensors removal" on page 231**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 15.	Go to step 14.

Action	Yes	No
Step 14 Replace the staple finisher tamper cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the compiler assembly. See **"Staple finisher tamper and aligner assembly removal" on page 303**. **b** Check the parts for misalignment, wear, and damage. Are the components properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Replace the affected components. See **"Staple finisher—Compiler section 2" on page 543**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (staple finisher rear tamper) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat the cable CN102 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Tamper** **b** Touch **Start**. Does the motor run?	Go to step 8.	Go to step 4.
Step 4 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the motor. See **"Motor (staple finisher tamper) removal" on page 230**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the staple finisher tamper cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the tamper gears for misalignment and damage. Are the gears properly installed and free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the damaged gears. See **"Staple finisher tamper drive gears removal" on page 305**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Tamper home, rear). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 11.
Step 11 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the sensor. See **"Staple finisher tamper sensors removal" on page 231**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 15.	Go to step 14.
Step 14 Replace the staple finisher tamper cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the compiler assembly. See **"Staple finisher tamper and aligner assembly removal" on page 303**. **b** Check the parts for misalignment, wear, and damage. Are the components properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Replace the affected components. See **"Staple finisher—Compiler section 2" on page 543**. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (SHPF front tamper) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the top inner cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Tamper, front** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF front tamper) removal" on page 346**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Tamper home, front). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF front tamper home) removal " on page 347**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Remove the front tamper section, and then check the following components for misalignment, wear, and damage: • SHPF tamper gear • SHPF tamper drive gear • SHPF tamper drive belt • SHPF tamper belt Are the components properly installed and free of wear and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the affected components. See **"SHPF tamper belts and gears removal" on page 405**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the cables J4 and J5 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (SHPF rear tamper) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the top inner cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Tamper, rear** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF rear tamper) removal" on page 350**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF ejector cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Tamper home, rear). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 8.

Action	Yes	No
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF rear tamper home) removal" on page 351**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 12.	Go to step 11.
Step 11 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Remove the rear tamper section, and then check the following components for misalignment, wear, and damage: • SHPF tamper gear • SHPF tamper drive gear • SHPF tamper drive belt • SHPF tamper belt Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected components. See **"SHPF tamper belts and gears removal" on page 405**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the cables J9, J12, and J13 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (SHPF paddle) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the top inner cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Paddle** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF paddle) removal" on page 377**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Paddle home). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"SHPF paddle motor FRUs removal" on page 378**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Check the following components for misalignment, wear, and damage: • SHPF paddle drive gear • SHPF paddle drive belt Are the components properly installed and free of wear and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the affected components. See **"SHPF paddle drive gears removal" on page 377** and **"SHPF paddle motor FRUs removal" on page 378**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the SHPF paddle drive encoder for misalignment, wear, and damage. Is the encoder properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the encoder. See **"SHPF paddle drive gears removal" on page 377**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the cables J4 and J5 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the following components for wear and damage: • SHPF paddle cam • SHPF compiler guide lever Are the components free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Replace the damaged components. See **"SHPF paddle cam and compiler guide lever removal" on page 356**. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the cable. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

36y errors

36y error messages

Error code	Description	Action
364.50	The staple finisher upper exit roller did not reach or clear the sensor (staple finisher upper exit roller).	See **"Staple finisher upper exit roller failure service check" on page 118**.
364.63	The SHPF compiler eject drive failed.	See **"SHPF ejector failure service check" on page 121**.
366.63	The SHPF compiler pre-eject drive failed.	See **"SHPF pre-eject failure service check" on page 125**.
367.63	The booklet maker aligner did not reach or leave its home position.	See **"Motor (SHPF aligner) failure service check" on page 127**.

Staple finisher upper exit roller failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Upper exit roller). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (staple finisher upper exit roller) removal" on page 248**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the staple finisher exit section cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Exit roller lift** **b** Touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.

Action	Yes	No
Step 8 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the motor. See **"Motor (staple finisher upper exit) removal" on page 243**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the cable CN109 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the following components for misalignment, wear, and damage: • Staple finisher upper exit belt • Staple finisher upper exit gear • Staple finisher upper exit idler gear • Staple finisher upper exit actuator Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Replace the affected components. See **"Staple finisher upper exit actuator removal" on page 277** and **"Staple finisher exit roller drive belts and gears removal" on page 275**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Remove the upper exit roller assembly. See **"Staple finisher upper exit roller assembly removal" on page 297**. **b** Check the components for misalignment, wear, and damage. Are the components properly installed and free of wear and damage?	Go to step 16.	Go to step 15.

Action	Yes	No
Step 15 Reinstall or replace the affected component. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the staple finisher exit roller solenoid for misalignment and damage. Is the solenoid properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the solenoid. See **"Staple finisher exit roller solenoid removal" on page 276**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF ejector failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the upper left cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Compiler pre-eject** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF compiler pre-eject) removal" on page 393**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF ejector cable or SHPF ejector cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **Note:** Remove the upper left cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Compiler eject** **b** Touch **Start**. Does the motor run?	Go to step 12.	Go to step 8.

Action	Yes	No
Step 8 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the motor. See **"Motor (SHPF compiler eject) removal" on page 392**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 12.	Go to step 11.
Step 11 Replace the SHPF ejector cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Remove the upper left cover, and then check the components at the back of the cover for misalignment, wear, and damage: • SHPF elevator bin stack height sensor actuator arms • SHPF elevator bin front stack height sensor actuator • SHPF elevator bin rear stack height sensor actuator • SHPF elevator bin stack height finger holders • SHPF elevator bin stack height fingers • SHPF elevator bin stack height drive gear • SHPF elevator bin stack height sensor actuator arm gear Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected components. See the following: • **"SHPF elevator bin stack height sensor actuator arms and gears removal" on page 343** • **"SHPF elevator bin stack height sensor actuator removal" on page 342** • **"SHPF elevator bin stack height drive gear removal" on page 344** Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Check the following components for misalignment and damage: • SHPF pre-eject motor and eject motor encoders • SHPF compiler eject sensor actuators Are the components properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the affected components. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Compiler home) and sensor (Compiler position). Do the sensor statuses change while toggling the sensors?	Go to step 19.	Go to step 17.
Step 17 **a** Reseat the sensor (SHPF eject clamp home) and sensor (SHPF eject clamp position) cables, and then clear the sensors of debris and dust. **b** Check the sensors for misalignment and damage. Are the sensors properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the affected sensors. See **"SHPF compiler eject sensors removal" on page 394**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Reseat the sensor (SHPF compiler eject) and sensor (SHPF compiler pre-eject) cables, and then clear the sensors of debris and dust. **b** Check the sensors for misalignment and damage. Are the sensors properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Reinstall or replace the affected sensors. See **"SHPF compiler eject sensors removal" on page 394**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Check the following components for misalignment, wear, and damage: • SHPF compiler pre-eject drive gear • SHPF compiler pre-eject drive belt • SHPF compiler eject gear • SHPF compiler eject belt Are the components properly installed and free of wear and damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the affected components. See **"SHPF—Compiler section 1" on page 589**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Replace the SHPF ejector. See **"SHPF compiler assembly removal" on page 396**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 **a** Reseat the cables J12 and J13 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 27.	Go to step 26.
Step 26 Replace the cable. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 28.	The problem is solved.

Action	Yes	No
Step 28 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF pre-eject failure service check

Action	Yes	No
Step 1 **a** At the back of the printer, reseat the interface cable. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the upper left cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Compiler pre-eject** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF compiler pre-eject) removal" on page 393**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF ejector cable. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Pre-eject away). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"SHPF compiler eject sensors removal" on page 394**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the SHPF pre-eject motor encoder for misalignment and damage. Is the encoder properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the encoder. See **"SHPF—Compiler section 1" on page 589**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the following components for misalignment, wear, and damage: • SHPF compiler pre-eject drive gear • SHPF compiler pre-eject drive belt Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected components. See **"SHPF—Compiler section 1" on page 589**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 **a** Reseat the cables J12 and J13 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (SHPF aligner) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **Note:** Remove the top inner cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Trailing edge stopper** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF aligner) removal" on page 384**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Aligner position). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF aligner position) removal" on page 407**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the SHPF aligner belt for misalignment, wear, and damage. Is the belt properly installed and free of wear and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the belt. See **"SHPF—Transport section 1" on page 571**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the following components for misalignment, wear, and damage: • SHPF aligner shaft • SHPF front aligner holder • SHPF rear aligner holder Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected components. See **"SHPF aligner shaft removal" on page 411**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the cables J4 and J5 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 17.	Go to step 16.

Action	Yes	No
Step 16 Replace the cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

374–383 errors

374–383 error messages

Error code	Description	Action
374.63	The staple finisher bin did not reach or leave its home position.	See **"Motor (staple finisher elevator) failure service check" on page 130**.
374.63	The SHPF elevator drive failed.	See **"SHPF elevator bin failure service check" on page 134**.
379.63	The bin lever did not reach or clear the sensor (SHPF bin lever control).	See **"SHPF elevator bin stack height failure service check" on page 138**.
383.63	The staple finisher staple unit failed to staple or it did not leave its home position.	See **"Staple finisher staple unit failure service check" on page 79**.
383.63	The SHPF staple unit drive failed.	See **"SHPF staple unit failure service check" on page 82**.

Motor (staple finisher elevator) failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the bin and paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Elevator bin home). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (staple finisher elevator home) removal" on page 249**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the staple finisher exit section cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the cables CN108 and CN110 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. **d** Check the cables for damage. Are the cables free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the damaged cables. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Elevator** **b** Touch **Start**. Does the motor run?	Go to step 14.	Go to step 10.
Step 10 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the motor. See **"Motor (staple finisher elevator) removal" on page 242**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 14.	Go to step 13.
Step 13 Replace the staple finisher elevator section cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the following components for misalignment and damage: • Staple finisher elevator belts • Staple finisher elevator top rear gear • Staple finisher elevator bottom gears • Staple finisher elevator top front gear • Staple finisher idler gears • Staple finisher elevator drive gear Are the components properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the affected components. See **"Staple finisher elevator belts removal" on page 264** and **"Staple finisher elevator drive gears removal" on page 263**. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Check the staple finisher bin stack height actuator and its spring for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the actuator. See **"Staple finisher bin stack height actuator removal" on page 228**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the staple finisher bin stack height solenoid for misalignment and damage. Is the solenoid properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the solenoid. See **"Staple finisher bin stack height solenoid removal" on page 227**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Elevator bin stack height) or (Elevator bin level). Does the sensor status change while toggling the sensor?	Go to step 25.	Go to step 21.
Step 21 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 22.	Go to step 22.
Step 22 Reinstall or replace the sensor. See **"Staple finisher bin stack height assembly sensors removal" on page 226**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the sensor cable. Does the cable have continuity?	Go to step 25.	Go to step 24.

Action	Yes	No
Step 24 Replace the staple finisher bin stack height cable. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 27.	Go to step 26.
Step 26 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF elevator bin failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **Note:** Remove the rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Elevator** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF elevator) removal" on page 352**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the sensor (SHPF elevator position) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (SHPF elevator position) removal" on page 353**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the following components for misalignment, wear, and damage: • SHPF elevator motor encoder • SHPF elevator motor encoder belt Are the components properly installed and free of wear and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the affected components. See **"Motor (SHPF elevator) removal" on page 352**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the following components for misalignment, wear, and damage: • SHPF elevator belt • SHPF elevator gear • SHPF elevator bin clutch gear • SHPF elevator drive gear • SHPF elevator bin idler gear Are the components properly installed and free of wear and damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the affected components. See **"SHPF elevator belts removals" on page 370** and **"SHPF elevator drive assembly removal" on page 354**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the following components for misalignment, wear, and damage: • SHPF elevator belt springs • SHPF elevator bin front bracket • SHPF elevator bin rear bracket • SHPF elevator belt holders Are the components properly installed and free of wear and damage?	Go to step 15.	Go to step 14.

Action	Yes	No
Step 14 Reinstall or replace the affected components. See **"SHPF elevator belts removals" on page 370**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Rotate the elevator bin shaft and check for proper movement. **b** Check the shaft ball bearings for wear and damage. Are the shaft ball bearings properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the affected bearings. See **"SHPF—Elevator bin section 2" on page 585**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat the cables J9 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the cable. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF elevator bin stack height failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Remove the rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Elevator bin stack height** **b** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (SHPF elevator bin stack height) removal" on page 345**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF elevator bin stack height cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Main bin full). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.

Action	Yes	No
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor (SHPF elevator bin stack height actuator arm control). See **"SHPF upper left cover sensors removal" on page 341**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the following components for misalignment, wear, and damage: • SHPF elevator motor encoder • SHPF elevator motor encoder belt Are the components properly installed and free of wear and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the affected components. See **"Motor (SHPF elevator) removal" on page 352**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the following components for misalignment, wear, and damage: • SHPF elevator bin stack height sensor actuator arm • SHPF elevator bin front stack height sensor actuator • Sensor (SHPF elevator bin stack height, receive) • Sensor (SHPF elevator bin front stack height) • Sensor (SHPF elevator bin rear stack height) • Sensor (SHPF elevator bin stack height, transmit) • SHPF elevator bin rear stack height sensor actuator • SHPF elevator bin stack height finger • SHPF elevator bin stack height drive gear • SHPF elevator bin stack height sensor actuator arm gear Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Reinstall or replace the affected components. See the following: • **“SHPF elevator bin stack height sensor actuator arms and gears removal” on page 343** • **“SHPF elevator bin stack height sensor actuator removal” on page 342** • **“SHPF upper left cover sensors removal” on page 341** • **“SHPF elevator bin stack height sensor actuator removal” on page 342** • **“SHPF elevator bin stack height drive gear removal” on page 344** • **“SHPF elevator bin stack height sensor actuator arms and gears removal” on page 343** Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the cable J14 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **“SHPF controller board removal” on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

39y errors

39y error messages

Error code	Description	Action
390.73	The booklet maker tamper did not reach or leave its home position.	See **"Motor (booklet maker tamper) failure service check" on page 141**.
391.73	The booklet maker aligner did not reach or leave its home position.	See **"Motor (booklet maker aligner) failure service check" on page 143**.
392.73	The booklet maker bifold guide did not reach or leave its home position.	See **"Motor (bifold guide) failure service check" on page 146**.
393.73	The booklet maker paddle did not reach or leave its home position.	See **"Booklet maker paddle assembly failure service check" on page 149**.
394.73	The booklet maker trifold guide did not reach or leave its home position.	See **"Motor (trifold guide) failure service check" on page 152**.
395.73	The booklet maker bifold knife did not reach or leave its home position.	See **"Motor (bifold knife) failure service check" on page 154**.
396.73	The booklet maker staple unit failed.	See **"Booklet maker staple unit failure service check" on page 78**.
397.73	The booklet maker decurl drive failed.	See **"Booklet maker decurl assembly failure service check" on page 157**.

Motor (booklet maker tamper) failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the middle frame brace. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Tamper** **c** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the motor. See **"Motor (booklet maker tamper) removal" on page 484**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J7 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Tamper home). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (booklet maker tamper home) removal" on page 524**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the following components for misalignment, wear, and damage: • Booklet maker front tamper • Booklet maker tamper rack • Booklet maker tamper drive gear • Booklet maker rear tamper Are the components properly installed and free of wear and damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Reinstall or replace the affected components. See **"Booklet maker tamper tray removal" on page 521**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the cable J7 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (booklet maker aligner) failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Stopper home). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (booklet maker aligner home) removal" on page 487**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J10 and J11 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the middle frame brace. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Stopper** **c** Touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Reinstall or replace the motor. See **"Motor (booklet maker aligner) removal" on page 483**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Remove the booklet maker aligner assembly, and then check the following components for misalignment, wear, and damage: • Booklet maker aligner tension pulley • Booklet maker aligner belt • Booklet maker aligner tension spring • Booklet maker aligner gear • Booklet maker aligner drive gear • Booklet maker compiler stack front guide • Booklet maker compiler stack rear guide • Booklet maker aligner carriage Are the components properly installed and free of wear and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the affected components. See the following: • **"Booklet maker aligner gears removal" on page 493** • **"Booklet maker aligner belt removal" on page 492** • **"Booklet maker aligner jam access door removal" on page 452** • **"Booklet maker aligner solenoid removal" on page 494** Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the cable J10 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 15.	Go to step 14.

Action	Yes	No
Step 14 Replace the cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (bifold guide) failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Center fold guide** **c** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (bifold guide) removal" on page 478**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J8 and J9 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the bifold guide home sensor actuator for misalignment and damage. Is the sensor actuator properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor actuator. See **"Bifold roller drive gears removal" on page 516**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Center fold guide home). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 10.
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (bifold guide home) removal" on page 480**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Check if the colored teeth of the bifold roller timing gear and trifold knife front idler gear are aligned. **b** Check the gears for damage. Are the gears properly installed and free of damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Reinstall or replace the affected gears. See **"Bifold guide drive gears removal" on page 518**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the following gears for misalignment, wear, and damage: • Lower bifold roller gear • Bifold guide drive gear Are the gears properly installed and free of wear and damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the affected gears. See **"Bifold lower roller removal" on page 501** and **"Bifold guide drive gears removal" on page 518**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the bifold guide for misalignment and damage. Is the guide properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the guide. See **"Booklet maker—Fold section 2" on page 605**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Check if the bifold roller springs are properly engaged with their arms. **b** Check the springs for damage. Are the springs properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the affected springs. See **"Bifold roller springs removal" on page 472**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Clear the bifold rollers of debris and dust. **b** Check the rollers for misalignment, wear, and damage. Are the rollers properly installed and free of wear and damage?	Go to step 22.	Go to step 21.

Action	Yes	No
Step 21 Reinstall or replace the affected rollers. See **"Bifold upper roller removal" on page 498** and **"Bifold lower roller removal" on page 501**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Reseat the cable J9 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 25.	Go to step 24.
Step 24 Replace the cable. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Booklet maker paddle assembly failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Remove the middle frame brace. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Paddle** **c** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (booklet maker paddle) removal" on page 468**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J8 and J9 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the booklet maker paddle encoder for misalignment, wear, and damage. Is the encoder properly installed and free of wear and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the encoder. See **"Booklet maker paddle gears removal" on page 467**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Paddle home). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 10.

Action	Yes	No
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (booklet maker paddle home) removal" on page 469**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the following components for misalignment, wear, and damage: • Booklet maker paddle gear • Booklet maker paddle belt • Booklet maker paddle tensioner pulley Are the components properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected components. See **"Booklet maker paddle gears removal" on page 467** and **"Booklet maker paddle belt removal" on page 467**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Clear the booklet maker upper and lower paddles of debris and dust. **b** Check the paddles for misalignment, wear, and damage. Are the paddles properly installed and free of wear damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the affected paddles. See **"Booklet maker lower paddle removal" on page 454** and **"Booklet maker upper paddle removal" on page 497**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat the cable J9 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the cable. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (trifold guide) failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Trifold guide** **c** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the motor. See **"Motor (trifold guide) removal" on page 481**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J8 and J9 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the trifold gate actuator for misalignment and damage. Is the gate actuator properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the gate actuator. See **"Trifold gate actuator removal" on page 482**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the sensor (trifold guide home) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the sensor. See **"Sensor (trifold guide home) removal" on page 482**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the trifold diverter for misalignment and damage. Is the diverter properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the diverter. See **"Trifold diverter removal" on page 507**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 **a** Reseat the cables J8 and J9 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the cable. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (bifold knife) failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Center fold knife** **c** Touch **Start**. Does the motor run?	Go to step 7.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (bifold knife) removal" on page 483**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the booklet maker J10 and J11 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the following components for misalignment, wear, and damage: • Bifold knife • Bifold knife primary drive gear • Bifold knife idler gear • Bifold knife secondary drive gears Are the components properly installed and free of wear and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the affected components. See the following: • **"Bifold knife removal" on page 515** • **"Bifold knife primary drive gears removal" on page 509** • **"Bifold knife secondary drive gears removal" on page 514** Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Center fold knife home). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 10.
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (bifold knife home) removal" on page 512**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 14.	Go to step 13.
Step 13 Replace the booklet maker J7 cable harness. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the cable J7 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the cable. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Booklet maker decurl assembly failure service check

Action	Yes	No
Step 1 **a** Unplug the booklet maker interface cable from the SHPF. **b** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the booklet maker decurl guide for misalignment and damage. Is the decurl guide properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the decurl guide. See **"Booklet maker decurl guide removal" on page 477**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Booklet decurl). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Reinstall or replace the sensor. See **"Sensor (booklet maker decurl) removal" on page 476**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 9.	Go to step 8.
Step 8 Replace the booklet maker transport section cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Decurl** **c** Touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.
Step 10 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the motor. See **"Motor (booklet maker decurl) removal" on page 471**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the decurl gears for misalignment, wear, and damage. Are the gears properly installed and free of wear and damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected gears. See **"Booklet maker decurl gears removal" on page 475**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Check the decurl lever for misalignment, wear, and damage. Is the lever properly installed and free of wear and damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the affected lever. See **"Booklet maker decurl lever removal" on page 461**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat the cable J5 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the cable. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Symptoms

Staple finisher symptoms

Staple finisher symptoms

Symptom	Action
A persistent **Close door G** message appears.	See **"Staple finisher locks service check" on page 160**.
A persistent **Remove paper from standard output bin** message appears.	See **"Staple finisher bin stack height assembly failure service check" on page 162**.
Paper is not stapled.	See **"Staple finisher stapling failure service check" on page 166**.

Staple finisher locks service check

Action	Yes	No
Step 1 **a** Make sure that the staple finisher is properly installed. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat the staple finisher lock switch cable. **b** Check the staple finisher lock switch mechanism for misalignment and damage. Is the staple finisher lock switch properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the lock switch. See **"Staple finisher lock switch removal" on page 233**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat the cable CN106 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. **d** Check the cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Replace the staple finisher lock switch cable. See **"Staple finisher lock switch removal" on page 233**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the following components for misalignment and damage: • Staple finisher rear lock • Staple finisher front lock • Staple finisher release handle Are the components properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the affected components. See **"Staple finisher locks removal" on page 233**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher bin stack height assembly failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the staple finisher bin stack actuator for misalignment and damage. Is the stack height actuator properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the stack height actuator. See **"Staple finisher bin stack height actuator removal" on page 228**.	Go to step 4.	The problem is solved.
Step 4 Check the staple finisher bin stack solenoid for misalignment and damage. Is the solenoid properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the solenoid. See **"Staple finisher bin stack height solenoid removal" on page 227**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the tamper paper present actuator for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the actuator. See **"Staple finisher tamper racks removal" on page 307**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Elevator bin stack height) or sensor (Elevator bin level). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 9.

Action	Yes	No
Step 9 **a** Reseat the sensor cables, and then clear the sensor of debris and dust. **b** Check the sensors for misalignment and damage. Are the sensors properly installed and free of damage?	Go to step 13.	Go to step 10.
Step 10 Reinstall or replace the affected sensors. See **"Staple finisher bin stack height assembly sensors removal" on page 226**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 13.	Go to step 12.
Step 12 Replace the staple finisher bin stack height cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher sensor tests** **b** Find the sensor (Paper eject). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 14.
Step 14 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the sensor. See **"Staple finisher tamper sensors removal" on page 231**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 18.	Go to step 17.

Action	Yes	No
Step 17 Replace the staple finisher tamper cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat the cables CN102, CN103, and CN109 on the staple finisher controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. **d** Check the cables for damage. Are the cables free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the damaged cables. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Make sure that the staple finisher bin is level. **b** Check the bin for damage. Is the bin free of damage?	Go to step 22.	Go to step 21.
Step 21 Replace the bin. See **"Staple finisher bin removal" on page 224**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Transport** or **Exit roller lift** **b** Touch **Start**. Does the motor run?	Go to step 25.	Go to step 23.
Step 23 Reseat the motor cables, and then check the motors for misalignment and damage. Are the motors properly installed and free of damage?	Go to step 25.	Go to step 24.

Action	Yes	No
Step 24 Reinstall or replace the affected motors. See **"Motor (staple finisher exit) removal" on page 245** and **"Motor (staple finisher upper exit) removal" on page 243**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the following components for misalignment, wear, and damage: • Staple finisher upper exit belt • Staple finisher upper exit gear • Staple finisher upper exit idler gear • Staple finisher upper exit actuator • Staple finisher exit gear • Staple finisher exit gear Are the components properly installed and free of wear and damage?	Go to step 27.	Go to step 26.
Step 26 Replace the affected components. See **"Staple finisher upper exit actuator removal" on page 277** and **"Staple finisher exit roller drive belts and gears removal" on page 275**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check the staple finisher exit roller solenoid for misalignment and damage. Is the solenoid properly installed and free of damage?	Go to step 29.	Go to step 28.
Step 28 Replace the solenoid. See **"Staple finisher exit roller solenoid removal" on page 276**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 **a** Remove the upper exit roller assembly. See **"Staple finisher upper exit roller assembly removal" on page 297**. **b** Check the components for misalignment, wear, and damage. Are the components properly installed and free of wear and damage?	Go to step 31.	Go to step 30.

Action	Yes	No
Step 30 Reinstall or replace the affected component. Does the problem remain?	Go to step 31.	The problem is solved.
Step 31 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 33.	Go to step 32.
Step 32 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 34.	The problem is solved.
Step 34 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher stapling failure service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple finisher motor tests** > **Transport** **b** Touch **Start**. Does the motor (staple finisher aligner) run?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (staple finisher aligner) removal" on page 246**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the staple finisher aligner section cables. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the following components for misalignment, wear, and damage: • Staple finisher aligner drive belt • Staple finisher aligner drive gear • Staple finisher aligner secondary gear • Staple finisher aligner roller gears Are the components properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the affected components. See **"Staple finisher aligner belt and gears removal" on page 247** and **"Staple finisher aligner roller gears removal" on page 295**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clear the staple finisher front and rear aligner rollers of debris and dust. **b** Check the rollers for misalignment, wear, and damage. Are the components properly installed and free of damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Reinstall or replace the components. See **"Staple finisher aligner roller removal" on page 287**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat the staple unit and staple unit carriage motor cables on the staple unit interface board. **b** Reseat the cable CN120 on the staple finisher controller board. **c** If applicable, reseat the junction connectors on the cables. **d** Make sure that the cables do not interfere with moving parts. **e** Check the cables for damage. Are the cables free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the damaged cables. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the following components for misalignment, wear, and damage: • Staple finisher compiler feed roller belt • Staple finisher compiler feed roller gear Are the components properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the affected components. See **"Staple finisher compiler feed roller shaft assembly removal" on page 288**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the following components for misalignment and damage: • Staple finisher front tamper • Staple finisher front tamper holder • Staple finisher front tamper rack • Staple finisher front and rear aligners • Staple finisher middle aligner • Staple finisher rear tamper rack • Staple finisher tamper paper present sensor actuator • Staple finisher rear tamper Are the components properly installed and free of damage?	Go to step 17.	Go to step 16.

Action	Yes	No
Step 16 Replace the affected components. See **"Staple finisher tamper racks removal" on page 307**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat the staple unit cable, and then check the following components for misalignment and damage: • Staple unit holder • Staple unit Are the components properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the affected components. See **"Staple finisher staple unit removal" on page 252**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the following components for wear and damage: • Staple unit carriage gears • Staple unit rail Are the components free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the damaged components. See **"Staple finisher staple unit carriage gears removal" on page 256** and **"Staple finisher staple unit rail removal" on page 284**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the staple finisher interface board for damage. Is the board free of damage?	Go to step 23.	Go to step 22.
Step 22 Replace the board. See **"Staple finisher interface board removal" on page 254**. Does the problem remain?	Go to step 23.	The problem is solved.

Action	Yes	No
Step 23 **a** Reseat the interface cable on the staple finisher controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 25.	Go to step 24.
Step 24 Replace the cable. See **"Staple finisher interface cable removal" on page 237**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Reseat all the cables on the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the controller board. See **"Staple finisher controller board removal" on page 236**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF symptoms

SHPF symptoms

Symptom	Action
A persistent **Bin 2 full** message appears.	See **"SHPF elevator bin movement service check" on page 182**.
A persistent **Close door G** message appears.	See **"HPT door service check" on page 171**.
A persistent **Close door H** message appears.	See **"SHPF front door service check" on page 172**.
A persistent **Close door J** message appears.	See **"SHPF top door service check" on page 174**.
A persistent **Punch box missing** or **Punch box full** message appears.	See **"Hole punch box service check" on page 176**.
A persistent **Remove paper from bin 1** message appears.	See **"SHPF top bin full service check" on page 178**.
The staple unit is noisy.	See **"SHPF staple unit noise service check" on page 180**.

Symptom	Action
The elevator bin moves down to the full position without paper on the bin.	See **"SHPF elevator bin movement service check" on page 182**.
The elevator bin moves up to the stack limit switch, and the motor (SHPF elevator) does not stop.	See **"SHPF elevator bin movement service check" on page 182**.

HPT door service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Unplug the HPT cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (HTU door open). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (HPT door) removal" on page 315**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the cable. See **"HPT cable removal" on page 317**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Reseat the interface cable on the HPT, and then reseat the cable J6 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF front door service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 Check the following front door components for damage: • Hinges • Magnetic catch • Front door switch actuator Is the door free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the door. See **"SHPF front door removal" on page 328**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Front door open). Does the sensor status change while toggling the switch?	Go to step 9.	Go to step 5.
Step 5 **a** Reseat the switch cable, and then clear the switch of debris and dust. **b** Check the switch for misalignment and damage. Is the switch properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall or replace the switch. See **"SHPF front door switch removal" on page 327**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the continuity of the switch cable. Does the cable have continuity?	Go to step 9.	Go to step 8.
Step 8 Replace the SHPF front door switch cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the cable J3 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF top door service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the top jam access door components for misalignment, wear, and damage: • SHPF diverter feed idler rollers • SHPF top bin exit idler rollers • SHPF top bin transport idler rollers Are the components properly installed and free of wear and damage?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Reinstall or replace the affected components. See **"SHPF top jam access door and SHPF diverter removal" on page 387**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the following components for wear and damage: • SHPF diverter lever • SHPF diverter cam Are the components free of wear and damage?	Go to step 6.	Go to step 5.
Step 5 Replace the damaged components. See **"SHPF top jam access door and SHPF diverter removal" on page 387** and **"SHPF diverter cam removal" on page 384**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat the sensor (SHPF top door) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the sensor. See **"Sensor (SHPF top door) removal" on page 379**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 10.	Go to step 9.
Step 9 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the cables J4 and J5 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Hole punch box service check

Action	Yes	No
Step 1 **a** Reinstall the hole punch box. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Chad bin full). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 3.

Action	Yes	No
Step 3 **a** Remove the punch unit. See **"Punch unit removal" on page 357**. **b** Check the sensor (hole punch box full, transmit) and sensor (hole punch box full, receive) for misalignment and damage. **c** Reseat the sensor cables, and then clear the sensors of debris and dust. Are the sensors properly installed and free of damage?	Go to step 4.	Go to step 8.
Step 4 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 6.	Go to step 5.
Step 5 Replace the punch unit cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the following components for misalignment and damage: • Hole punch box full sensor actuator • Hole punch box full sensor holder Are the components properly installed and free of damage?	Go to step 9.	Go to step 7.
Step 7 Reinstall or replace the affected components. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reinstall or replace the affected sensors. See **"Sensor (hole punch box full) removal" on page 358**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the motor and sensor connectors on the punch unit. **b** If applicable, reseat the junction connectors on the cables. **c** Check the punch unit and its motor and sensors for damage. Is the punch unit free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the punch unit. See **"Punch unit removal" on page 357**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Reseat the cable J7 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF top bin full service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Top bin empty, Tx/Rx). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Check the sensor (SHPF top bin full, transmit) and sensor (SHPF top bin full, receive) for misalignment and damage. **b** Reseat the sensor cables, and then clear the sensors of debris and dust. Are the sensors properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the affected sensors. See **"Sensor (SHPF top bin full) removal" on page 356**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cables. Do the cables have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the cables J4, J5, and J9 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF staple unit noise service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **Note:** Make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Stapler home) and sensor (Stapler center). Do the sensor statuses change while toggling the sensors?	Go to step 7.	Go to step 3.
Step 3 **a** Check the sensor (SHPF staple unit carriage home) and sensor (SHPF staple unit carriage center) for misalignment and damage. **b** Reseat the sensor cables, and then clear the sensors of debris and dust. Are the sensors properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the affected sensors. See **"SHPF staple unit position sensors removal" on page 361**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cables. Do the cables have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the SHPF staple unit carriage sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple unit assembly. See **"SHPF staple unit assembly removal" on page 359**. **b** Rotate the knob, and then check the staple unit carriage for proper movement. Does the carriage properly move?	Go to step 9.	Go to step 8.
Step 8 Reinstall the staple unit assembly belts, gears, and rail. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the following components for damage: • SHPF staple unit carriage drive gear • SHPF staple unit carriage belt • SHPF staple unit carriage rail • SHPF staple unit carriage drive belt Are the components free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the damaged components. See **"SHPF staple unit drive belt and gear removal" on page 362**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat the cable J11 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF elevator bin movement service check

Action	Yes	No
Step 1 **a** Remove paper from the bin. **b** At the back of the printer, reseat the interface cable. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the elevator bin for misalignment and damage. Is the bin properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the bin. See **"SHPF elevator bin removal" on page 323**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the SHPF elevator bin stack limit switch and its actuator for misalignment and damage. Is the switch properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the switch. See **"SHPF elevator bin stack limit switch removal" on page 425** and **"SHPF elevator bin stack limit actuator removal" on page 422**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat the cables J10 and J14 on the SHPF controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. **d** Check the cables for damage. Are the cables free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the SHPF J4, J5, and J10 cable harness. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the upper left cover, and then check the components at the back of the cover for misalignment, wear, and damage: • SHPF elevator bin stack height sensor actuator arms • SHPF elevator bin front stack height sensor actuator • SHPF elevator bin rear stack height sensor actuator • SHPF elevator bin stack height finger holders • SHPF elevator bin stack height fingers • SHPF elevator bin stack height drive gear • SHPF elevator bin stack height sensor actuator arm gear Are the components properly installed and free of wear and damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Reinstall or replace the affected components. See the following: • **“SHPF elevator bin stack height sensor actuator arms and gears removal” on page 343** • **“SHPF elevator bin stack height sensor actuator removal” on page 342** • **“SHPF elevator bin stack height drive gear removal” on page 344** Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Elevator bin stack height, Rx/Tx), sensor (Elevator bin stack height, front), and sensor (Elevator bin stack height, rear). Do the sensor statuses change while toggling the sensors?	Go to step 14.	Go to step 11.
Step 11 **a** Check the upper left cover sensors for misalignment and damage. **b** Reseat the sensor cables, and then clear the sensors of debris and dust. Are the sensors properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the affected sensors. See **“SHPF upper left cover sensors removal” on page 341**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the SHPF elevator bin stack height cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **Note:** Remove the rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Elevator bin stack height** **b** Touch **Start**. Does the motor run?	Go to step 19.	Go to step 15.

Action	Yes	No
Step 15 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the motor. See **"Motor (SHPF elevator bin stack height) removal" on page 345**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 19.	Go to step 18.
Step 18 Replace the SHPF elevator bin stack height cable. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher sensor tests** **b** Find the sensor (Main bin full). Does the sensor status change while toggling the sensor?	Go to step 24.	Go to step 20.
Step 20 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the sensor (SHPF elevator bin full). See **"Sensor (SHPF elevator bin full) removal" on page 335**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the sensor cable for continuity. Does the cable have continuity?	Go to step 24.	Go to step 23.

Action	Yes	No
Step 23 Replace the SHPF elevator bin full sensor cable. See **"Sensor (SHPF elevator bin full) removal" on page 335**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 **Note:** Remove the rear cover, and then make sure that the SHPF front door switch is bypassed. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Staple hole punch finisher motor tests** > **Elevator** **b** Touch **Start**. Does the motor run?	Go to step 29.	Go to step 25.
Step 25 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 27.	Go to step 26.
Step 26 Reinstall or replace the motor. See **"Motor (SHPF elevator) removal" on page 352**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 29.	Go to step 28.
Step 28 Replace the SHPF J9 cable harness. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 **a** Reseat the sensor (SHPF elevator position) cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 31.	Go to step 30.
Step 30 Reinstall or replace the sensor. See **"Sensor (SHPF elevator position) removal" on page 353**. Does the problem remain?	Go to step 31.	The problem is solved.

Action	Yes	No
Step 31 Check the following components for misalignment and damage: • SHPF elevator drive gear • SHPF elevator bin idler gear • SHPF elevator motor encoder • SHPF elevator motor encoder belt Are the components properly installed and free of damage?	Go to step 33.	Go to step 32.
Step 32 Reinstall or replace the affected components. See **"SHPF elevator drive assembly removal" on page 354**. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 Check the following components for misalignment and damage: • SHPF elevator belts • SHPF elevator gears • SHPF elevator belt springs • SHPF elevator bin front bracket • SHPF elevator bin rear bracket • SHPF elevator belt holders Are the components properly installed and free of damage?	Go to step 35.	Go to step 34.
Step 34 Reinstall or replace the affected components. See **"SHPF elevator belts removals" on page 370**. Does the problem remain?	Go to step 35.	The problem is solved.
Step 35 **a** Reseat the interface cable on the SHPF controller board and printer controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 37.	Go to step 36.
Step 36 Replace the cable. Does the problem remain?	Go to step 37.	The problem is solved.

Action	Yes	No
Step 37 Reseat all the cables on the SHPF controller board, and then reset the printer. Does the problem remain?	Go to step 38.	The problem is solved.
Step 38 Replace the controller board. See **"SHPF controller board removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Booklet maker symptoms

Booklet maker symptoms

Symptom	Action
A persistent **`Open door H and remove paper from beneath area H10`** message appears.	See **"Booklet maker tamper paper jam service check" on page 95**.
A persistent **`Remove paper from bin 3`** message appears.	See **"HPBF bin service check" on page 188**.
The bifold edge is not centered.	See **"Bifold edge alignment service check" on page 190**.

HPBF bin service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments under the booklet maker aligner jam access cover. **b** Unplug the booklet maker interface cable from the SHPF. **c** Reseat the cable, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Bin empty). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.

Action	Yes	No
Step 3 **a** Reseat the sensor (HPBF bin empty, transmit) and sensor (HPBF bin empty, receive) cables, and then clear the sensors of debris and dust. **b** Check the sensors for misalignment and damage. Are the sensors properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the affected sensors. See **"HPBF lower left cover sensors removals" on page 339**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the sensor cable for continuity. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the HPBF bin empty sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the HPBF bin for misalignment and damage. Is the bin properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the bin. See **"HPBF lower left cover sensors removals" on page 339**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the cable J14 on the booklet maker controller board. **b** If applicable, reseat the junction connectors on the cable. **c** Make sure that the cable does not interfere with moving parts. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the interface cable on the booklet maker controller board and SHPF controller board. **b** Reseat the junction connector on the cable. **c** Check the cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reseat all the cables on the booklet maker controller board, and then reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the controller board. See **"Booklet maker controller board removal" on page 454**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Bifold edge alignment service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Stopper home). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 2.
Step 2 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the sensor. See **"Sensor (booklet maker aligner home) removal" on page 487**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the sensor cable for continuity. Does the cable have continuity?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Replace the booklet maker J10 and J11 cable harness. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Stopper** **c** Touch **Start**. Does the motor run?	Go to step 9.	Go to step 7.
Step 7 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (bifold knife) removal" on page 483**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Remove the booklet maker aligner assembly, and then check the following components for misalignment, wear, and damage: • Booklet maker aligner tensioner pulley • Booklet maker aligner belt • Booklet maker aligner tensioner spring • Booklet maker aligner gears • Booklet maker aligner drive gear Booklet maker aligner solenoid • Booklet maker aligner carriage Are the components properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the affected components. See the following: • **"Booklet maker aligner gears removal" on page 493** • **"Booklet maker aligner belt removal" on page 492** • **"Booklet maker aligner solenoid removal" on page 494** Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Remove the middle frame brace. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Tamper** **c** Touch **Start**. Does the motor run?	Go to step 16.	Go to step 12.
Step 12 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the motor. See **"Motor (booklet maker tamper) removal" on page 484**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 16.	Go to step 15.
Step 15 Replace the booklet maker J7 cable harness. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Tamper home). Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 17.
Step 17 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 19.	Go to step 18.

Action	Yes	No
Step 18 Reinstall or replace the sensor. See **"Sensor (booklet maker tamper home) removal" on page 524**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the following components for misalignment, wear, and damage: • Booklet maker front tamper • Booklet maker tamper rack • Booklet maker tamper drive gear • Booklet maker rear tamper Are the components properly installed and free of wear and damage?	Go to step 21.	Go to step 20.
Step 20 Reinstall or replace the affected components. See **"Booklet maker tamper tray removal" on page 521**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Check if the bifold roller springs are properly engaged with their arms. **b** Check the springs for damage. Are the springs properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the affected springs. See **"Bifold roller springs removal" on page 472**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Clear the bifold rollers of debris and dust. **b** Check the rollers for misalignment, wear, and damage. Are the rollers properly installed and free of wear and damage?	Go to step 25.	Go to step 24.
Step 24 Reinstall or replace the affected rollers. See **"Bifold upper roller removal" on page 498** and **"Bifold lower roller removal" on page 501**. Does the problem remain?	Go to step 25.	The problem is solved.

Action	Yes	No
Step 25 **a** Remove the front cover. **b** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Booklet maker motor tests** > **Center fold knife** **c** Touch **Start**. Does the motor run?	Go to step 28.	Go to step 26.
Step 26 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 28.	Go to step 27.
Step 27 Reinstall or replace the motor. See **"Motor (bifold knife) removal" on page 483**. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Hole punch booklet finisher sensor tests** **b** Find the sensor (Center fold knife home). Does the sensor status change while toggling the sensor?	Go to step 31.	Go to step 29.
Step 29 **a** Remove the bifold knife and tamper assembly. **b** Reseat the sensor cable, and then clear the sensor of debris and dust. **c** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 31.	Go to step 30.
Step 30 Reinstall or replace the sensor. See **"Sensor (bifold knife home) removal" on page 512**. Does the problem remain?	Go to step 31.	The problem is solved.

Action	Yes	No
Step 31 Check the following components for misalignment, wear, and damage: • Bifold knife • Bifold knife primary drive gear • Bifold knife idler gear • Bifold knife secondary drive gears Are the components properly installed and free of wear and damage?	Go to step 33.	Go to step 32.
Step 32 Reinstall or replace the affected components. See the following: • **“Bifold knife removal” on page 515** • **“Bifold knife primary drive gears removal” on page 509** • **“Bifold knife secondary drive gears removal” on page 514** Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 Check the bifold guide for misalignment and damage. Is the guide properly installed and free of damage?	Contact the next level of support.	Go to step 34.
Step 34 Reinstall or replace the guide. See **“Booklet maker—Fold section 2” on page 605**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Service menus

Understanding the printer control panel

Using the control panel

Use the		To
1	Display	• View the printer status and messages. • Set up and operate the printer.
2	Home button	Go to the home screen.
3	Sleep button	Enable Sleep mode or Hibernate mode. The following actions wake the printer from Sleep mode: • Touching the control panel home screen • Opening the scanner cover The following actions wake the printer from Hibernate mode: • Pressing the Sleep button until the printer wakes • Performing a power-on reset using the main power switch
4	Keypad	Enter numbers, letters, or symbols.
5	Start button	Start a job, depending on which mode is selected.
6	Clear all / Reset button	Reset the default settings of a function, such as copying, faxing, or scanning.
7	Stop or Cancel button	Stop all printer activity.
8	Indicator light	Check the status of the printer.

Understanding the colors of the Sleep button and indicator lights

The colors of the Sleep button and indicator lights on the printer control panel signify a certain printer status or condition.

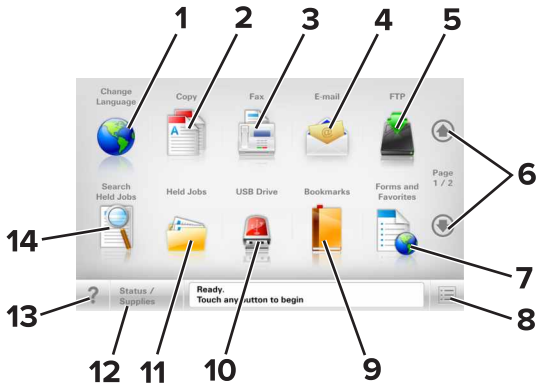
Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blinking green	The printer is warming up, processing data, or printing.
Solid green	The printer is on, but idle.
Blinking red	The printer requires user intervention.

Sleep button light	Printer status
Off	The printer is off, idle or in Ready state.
Solid amber	The printer is in Sleep mode.
Blinking amber	The printer is entering or waking from Hibernate mode.
Blinking amber for 0.1 second, then goes completely off for 1.9 seconds in a slow, pulsing pattern	The printer is in Hibernate mode.

Understanding the home screen

When the printer is turned on, the display shows a basic screen, referred to as the home screen. Touch the home screen buttons and icons to initiate an action such as copying, faxing, or scanning; to open the menu screen; or to respond to messages.

Note: Your home screen may vary depending on your home screen customization settings, administrative setup, and active embedded solutions.



Touch		To
1	Change Language	Launch the Change Language pop-up window that lets you change the primary language of the printer.
2	Copy	Access the Copy menus and make copies.
3	Fax	Access the Fax menus and send fax.
4	E-mail	Access the E-mail menus and send e-mails.
5	FTP	Access the File Transfer Protocol (FTP) menus and scan documents directly to an FTP server.
6	Arrows	Scroll up or down.

Touch		To
7	Forms and Favorites	Quickly find and print frequently used online forms.
8	Menu icon	Access the printer menus. **Note:** The menus are available only when the printer is in Ready state.
9	Bookmarks	Create, organize, and save a set of bookmarks (URL) into a tree view of folders and file links. **Note:** The tree view supports only bookmarks created from this function, and not from any other application.
10	USB Drive	View, select, print, scan, or e-mail photos and documents from a flash drive. **Note:** This icon appears only when you return to the home screen while a memory card or flash drive is connected to the printer.
11	Held Jobs	Display all current held jobs.
12	Status/Supplies	• Show a warning or error message whenever the printer requires intervention to continue processing. • Access the messages screen for more information on the message, and how to clear it.
13	Tips	Open a context-sensitive Help dialog.
14	Search Held Jobs	Search for one or more of the following items: • User name for held or confidential print jobs • Job names for held jobs, excluding confidential print jobs • Profile names • Bookmark container or print job names • USB container or print job names for supported file types

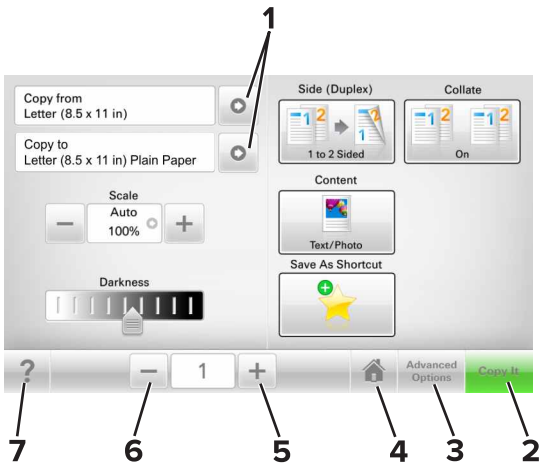
Features

Feature	Description
Menu trail line Example: Menus > Settings > Copy Settings > Number of Copies	A menu trail line is located at the top of each menu screen. This feature shows the path taken to arrive at the current menu. Touch any of the underlined words to return to that menu. Number of Copies is not underlined because it is the current screen. If you touch an underlined word on the “Number of Copies” screen before the number of copies is set and saved, then the selection is not saved, and it does not become the default setting.
Attendance message alert 	If an attendance message affects a function, then this icon appears and the red indicator light blinks.
Warning 	If an error condition occurs, then this icon appears.

Feature	Description
Status message bar	• Show the current printer status such as **Ready** or **Busy**. • Show printer conditions such as **Toner Low** or **Cartridge Low**. • Show intervention messages so the printer can continue processing.
Printer IP address Example: **123.123.123.123**	The IP address of your network printer is located at the upper left corner of the home screen and appears as four sets of numbers separated by periods. You can use the IP address when accessing the Embedded Web Server so you can view and remotely configure printer settings even when you are not physically near the printer.

Using the touch-screen buttons

Note: Your home screen, icons, and buttons may vary, depending on your home screen customization settings, administrative setup, and active embedded solutions.



	Touch	To
1	Arrows	View a list of options.
2	Copy It	Print a copy.
3	Advanced Options	Select a copy option.
4	Home	Go to the home screen.
5	Increase	Select a higher value.
6	Decrease	Select a lower value.
7	Tips	Open a context-sensitive Help dialog.

Other touch-screen buttons

Touch	To
Accept 	Save a setting.
Cancel 	• Cancel an action or a selection. • Exit a screen and return to the previous screen without saving changes.
Reset 	Reset values on the screen.

Menus list

Paper Menu

Default Source
Paper Size/Type
Configure MP
Substitute Size
Paper Texture
Paper Loading
Custom Types
Custom Names
Custom Scan Sizes
Custom Bin Names
Universal Setup
Bin Setup

Reports

Menu Settings Page
Device Statistics
Stapler Test
Network Setup Page
Network [x] Setup Page
Shortcut List
Fax Job Log
Fax Call Log
Copy Shortcuts
E-mail Shortcuts
Fax Shortcuts
FTP Shortcuts
Profiles List
Print Fonts
Print Directory
Print Demo
Asset Report
Event Log Summary

Network/Ports

Active NIC
Standard Network[1]
Standard USB
Parallel [x]
Serial [x]
SMTP Setup

Security

Edit Security Setups
Miscellaneous Security Settings
Confidential Print
Erase Temporary Data Files
Security Audit Log
Set Date and Time

[1] Depending on the printer setup, this menu appears as Standard Network or Network [x].

[2] This menu appears only when one or more DLEs are installed.

Paper Menu	Reports	Network/Ports	Security
Settings	**Help**	**Manage Shortcuts**	**Option Card Menu[2]**
General Settings	Print All Guides	Fax Shortcuts	A list of installed DLEs (Download Emulators) appears.
Copy Settings	Copy Guide	E-mail Shortcuts	
Fax Settings	E-mail Guide	FTP Shortcuts	
E-mail Settings	Fax Guide	Copy Shortcuts	
FTP Settings	FTP Guide	Profile Shortcuts	
Flash Drive Menu	Print Defects Guide		
Print Settings	Information Guide		
	Supplies Guide		

[1] Depending on the printer setup, this menu appears as Standard Network or Network [x].

[2] This menu appears only when one or more DLEs are installed.

Diagnostics menu

Entering the Diagnostics menu

The Diagnostics menu contains tests that are used to help isolate issues with the printer. To access some of these tests, avoid POST tests that run at POR. Some POST tests can generate errors that prevent a diagnostic test from running.

To access the Diagnostics menu without running the POST tests:

1. Press and hold the **3** and **6** buttons while turning on the printer.
2. Release the buttons when the splash screen appears.

To access the Diagnostics menu from the home screen, press *** * 3 6** on the control panel.

Event log

Print log (summary)

This setting lists a brief summary of the various printer events.

1. Enter the Diagnostics menu, and then navigate to:

   Event log > **Print log (summary)**
2. Touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Print log (extended)

This setting lists an extended version of the various printer events.

1. Enter the Diagnostics menu, and then navigate to:

   Event log > **Print log (extended)**

2. Touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Display log

This setting shows the panel text that appears when the event occurs.

Enter the Diagnostics menu, and then navigate to:

Event log > **Display log**

Mark log

This setting allows you to create a service, maintenance, or custom log entry. Each log entry is added in the printer event log.

1. Enter the Diagnostics menu, and then navigate to:

   Event log > **Mark log**

2. Select a log that you want to create, and then touch **Start**.

Reports

Device Settings

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

Reports > **Device Settings**

Installed Licenses

This setting lists all the installed licenses and their feature data.

Enter the Diagnostics menu, and then navigate to:

Reports > **Installed Licenses**

Advanced Print Quality Samples

This setting prints a list of the printer settings and sample pages to check print quality.

Enter the Diagnostics menu, and then navigate to:

Advanced Print Quality Samples > **Advanced Print Quality Test Pages**

Input tray quick print

This setting lets you print a single or continuous Quick Test page in either duplex or simplex mode.

1. Enter the Diagnostics menu, and then touch **Input tray quick print**.
2. Select where you want to print the pages from.
3. Select whether to print a single or continuous test page, and then touch **Start**.

Output bin quick feed

This setting lets you send a test page to the output bins.

1. Enter the Diagnostics menu, and then touch **Output bin quick feed**.
2. Select the output bin for the test page.

   Note: When Standard bin is selected, select either single or continuous test page.

Output device diagnostics

Sensor tests

1. Enter the Diagnostics menu, and then touch **Output device diagnostics**.
2. Select the output device of the sensor that you want to test.
3. Find, and then manually toggle the sensor.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Motor tests

1. Enter the Diagnostics menu, and then touch **Output device diagnostics**.
2. Select the output device of the motor that you want to test.
3. Select the motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Entering the Configuration mode

1. Turn off the printer.
2. Press and hold **2** and **6** while turning on the printer.
   Release the buttons when the splash screen appears.

Configuration menu

Reports

Menu Settings Page

This page lists the default value of each menu setting.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **Menu Settings Page**

Event Log

This report tracks the occurrence of various critical events in the printer.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **Event Log**

Event Log Summary

This report shows a summary of Event Log.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **Event Log Summary**

HealthCheck Statistics

This report provides information on the printer status.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **HealthCheck Statistics**

Device Operations

Quiet Mode

This setting reduces the printer noise when in printing mode.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Quiet Mode**
2. Select a setting.

Panel Menus

This setting enables the printer to show the control panel menus.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Panel Menus**
2. Select a setting.

Safe Mode

This setting enables the printer to continue offering as much functionality as possible, despite known issues.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Safe Mode**
2. Select a setting.

Exit Maintenance Menu

This setting exits the Configuration mode and restarts the printer.

Parts removal

Removal precautions

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—POTENTIAL INJURY: The device weighs 43–67 kg (95–148 lb) and requires two or more trained personnel to lift it safely. Make sure that your fingers are not under the device when you lift or set the device down.

CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Handling ESD-sensitive parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least-possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.
- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them into their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

Understanding the marked or colored screws

Some parts are secured by screws that are specially marked or colored.

- **Blue or green**—These screws may loosen due to vibrations and loads during use or transport.
- **Red**—These screws secure parts that are difficult to install, adjust, or align. Do not remove or loosen the parts with red screws unless the parts are defective.

  Note: In some cases, the part is secured by multiple screws but only one screw is marked in red. This part should not also be removed or loosened unnecessarily.

Ribbon cable connectors

Zero Insertion Force (ZIF) connectors

These connectors are used on the boards and cards that are installed in the printer.

To avoid damaging the connectors and their cables, observe the following:

- Do not insert the cables where the contacts are facing the locking actuator.
- Do not insert the cables diagonally into the ZIF socket.
- Avoid using a fingernail or sharp object to open the locking actuator.
- Avoid pressing against the cables when opening the locking actuator.

These are the types of the ZIF connectors that are used in this printer:

- Horizontal top contact connector
- Horizontal bottom contact connector
- Vertical mount contact connector
- Horizontal sliding connector

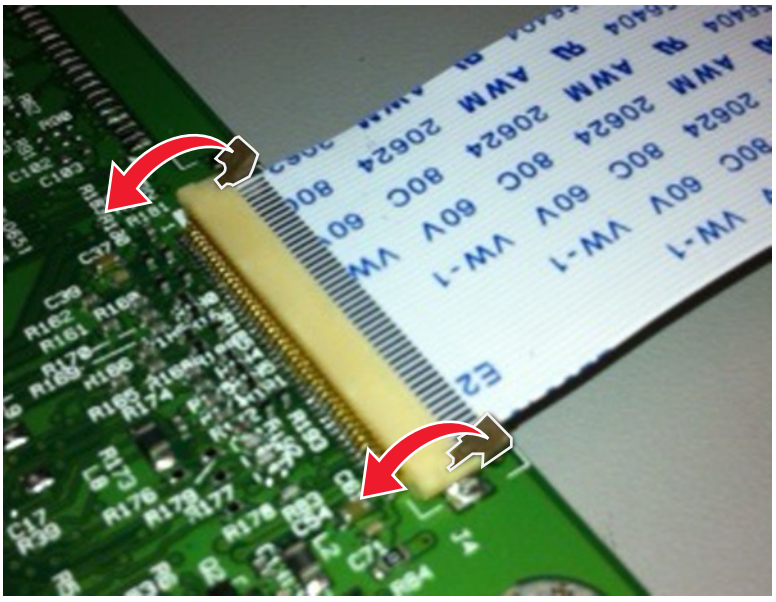
Horizontal top contact connector

This connector uses a back flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, lift or close the two tabs located on each end of the actuator. The two tabs should be moved simultaneously. Do not close the actuator from the center.

Removing the cable

1. Unlock the actuator.



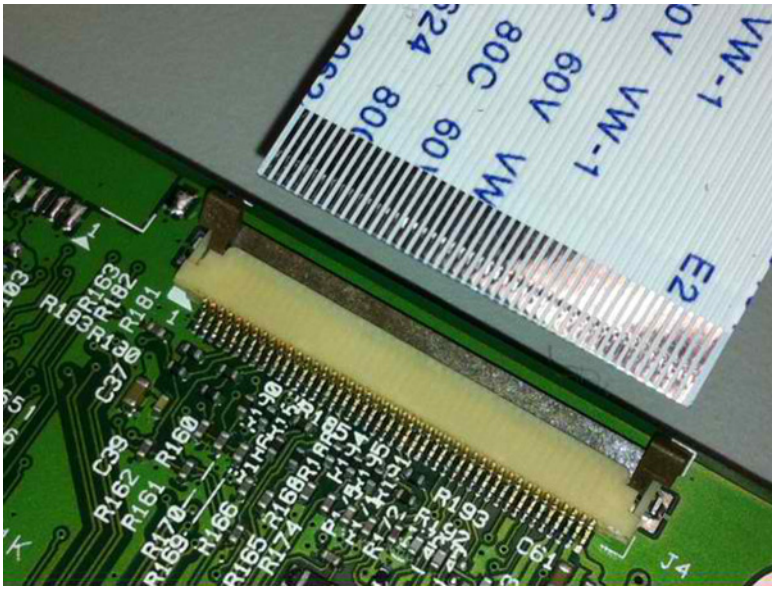
2. Remove the cable.

Inserting the cable

Make sure that the actuator is unlocked before installing the cable. The tabs are vertical when the actuator is locked.

1 Insert the cable on top of the actuator with the contacts facing up.

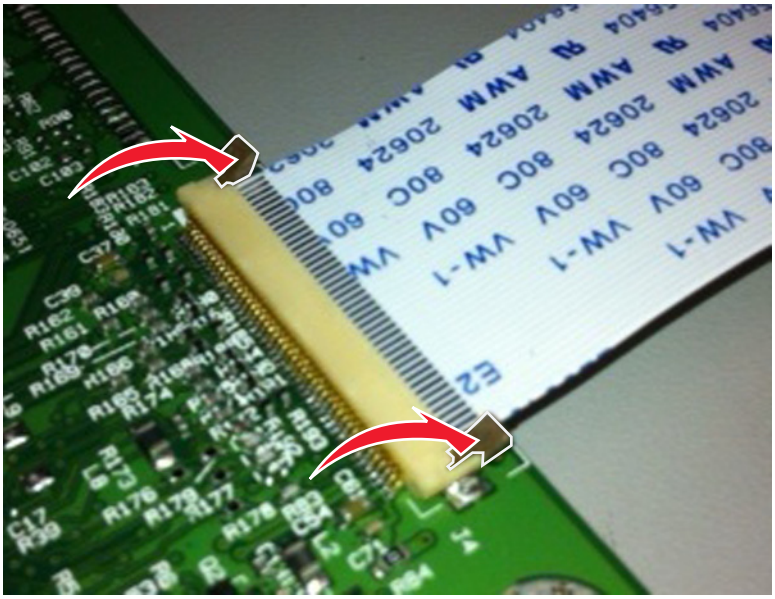
Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.



2 Rotate the locking actuator to the locked position.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.



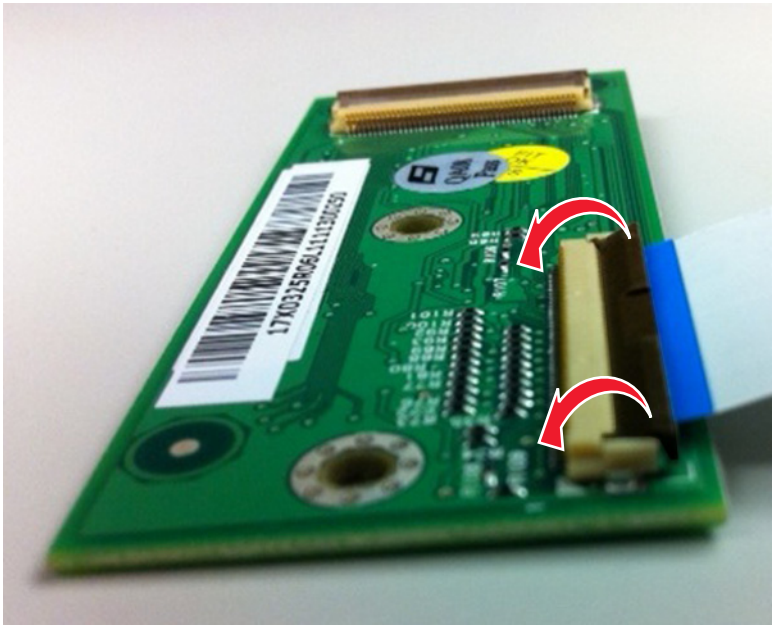
Horizontal bottom contact connector

This connector uses a flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator to avoid damaging the ribbon cable. Do not close the actuator from its ends.

Removing the cable

1 Unlock the actuator.



2 Remove the cable.

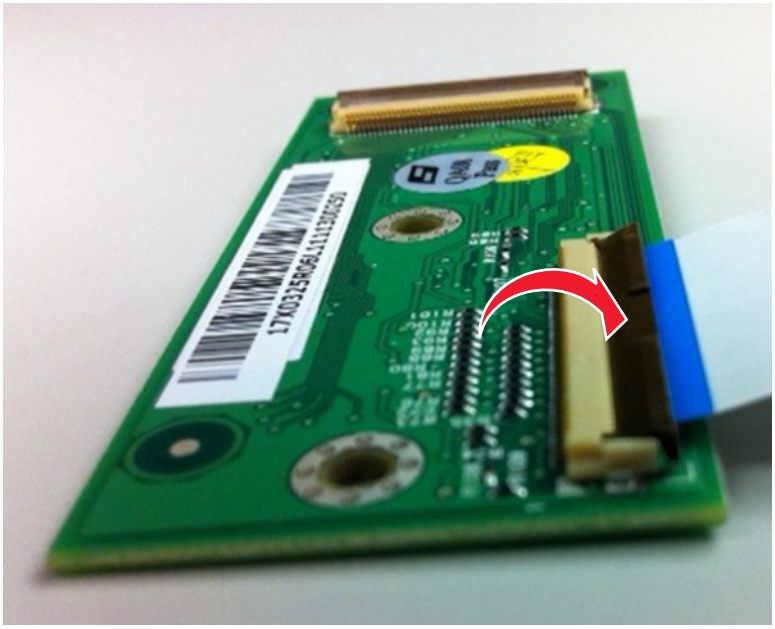
Inserting the cable

1 Make sure that the actuator is in the open position.

2 Insert the cable below the actuator with the contacts facing downward and away from the locking actuator.

Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.

3 Rotate the locking actuator to the locked position.



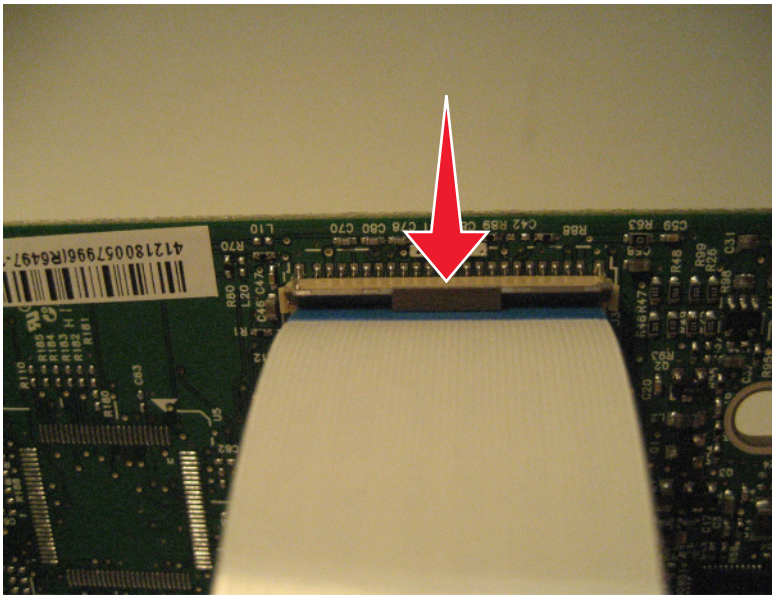
Vertical mount contact connector

This connector uses a back flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator to avoid damaging the ribbon cable. Do not close the actuator from its ends.

Removing the cable

1 Rotate the locking actuator from the center of the actuator to the unlocked position.



2 Remove the cable.

Inserting the cable

1 Make sure that the locking actuator is in the open position.

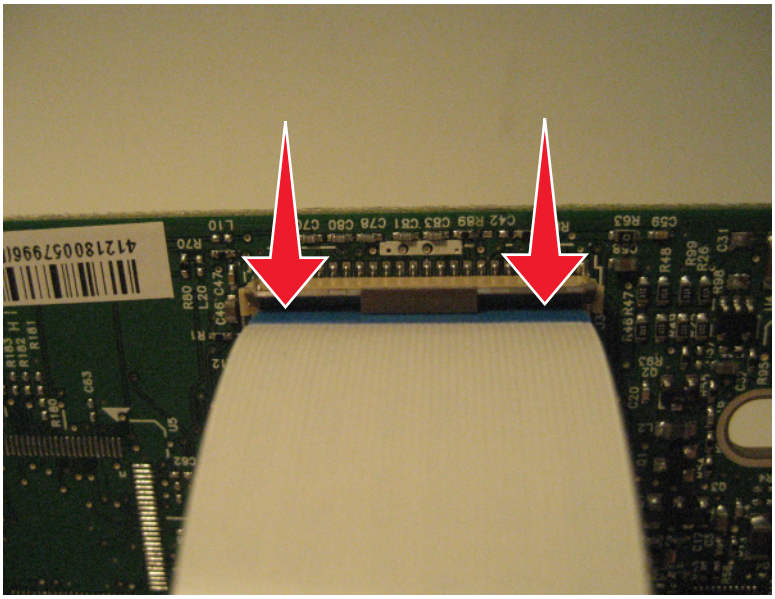
2 Insert the cable on top of the actuator with the contacts facing away from the locking actuator.

Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.

3 Rotate the locking actuator to the locked position.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.



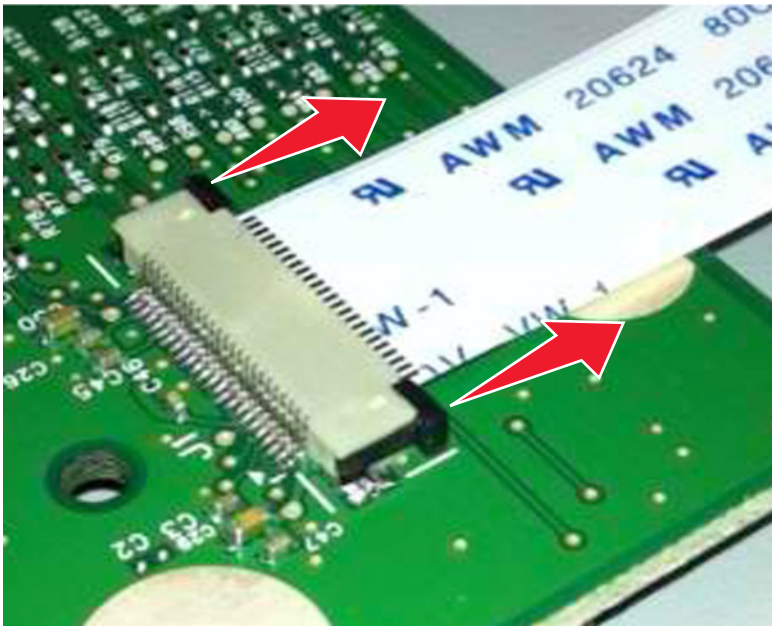
Horizontal sliding contact connector

This connector uses a slide locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently push or pull the two tabs located on each end of the actuator. Do not close the actuator from the center of the actuator. Do not use a screwdriver to open or close the actuator to avoid damage to the cable or connector.

Removing the cable

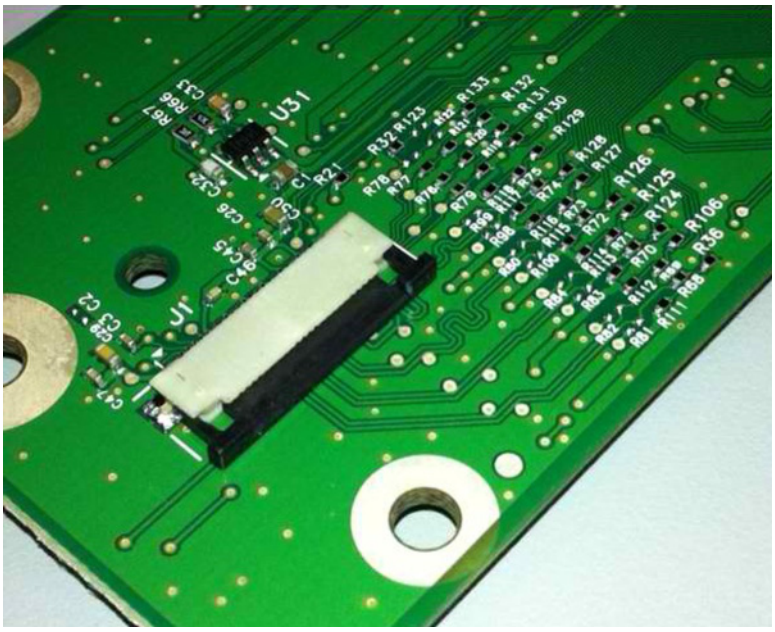
1 Slide the tabs away from the connector.



2 Remove the cable.

Inserting the cable

1. Make sure that the locking actuator is in the open position. If you are opening the connector, then pull back the end tabs using equal force to avoid breaking the connector.

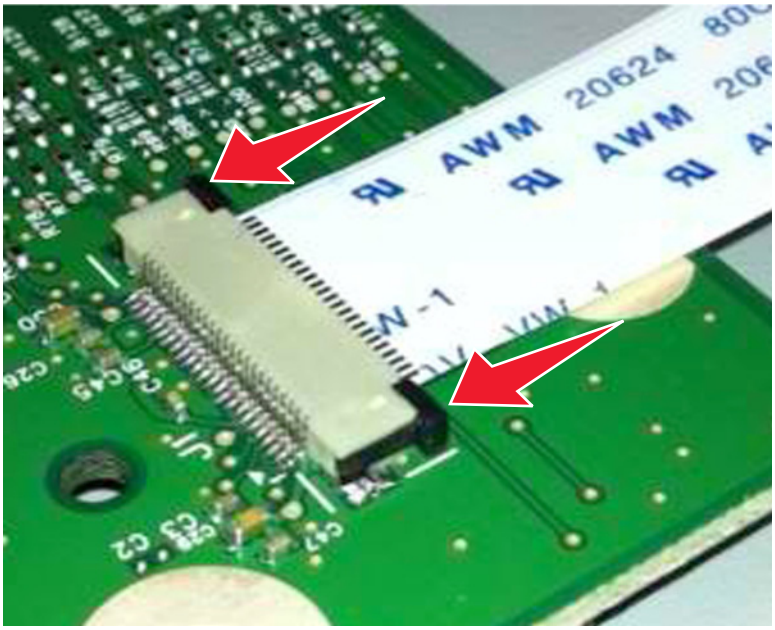


2. Insert the cable on top of the actuator with the contacts facing away from the locking actuator.

3. Slide the locking actuator toward the connector to lock the cable.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.

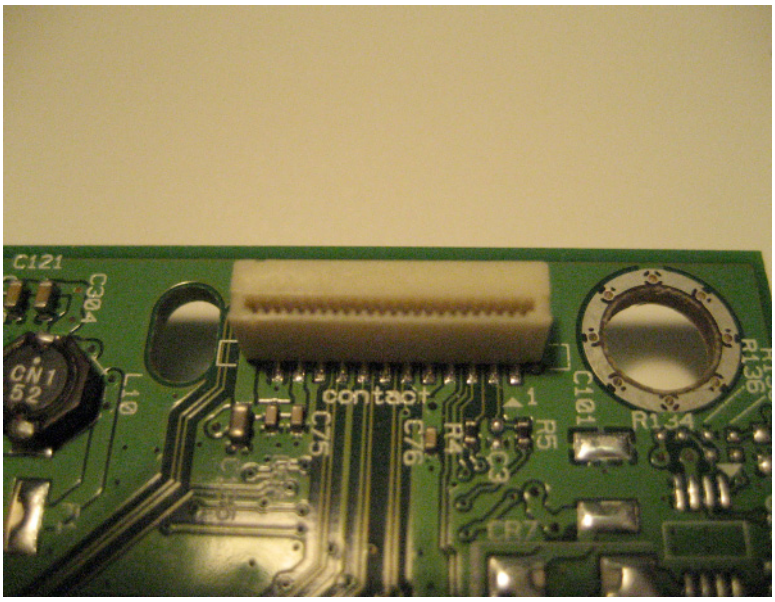


Low Insertion Force (LIF) connector

Warning—Potential Damage: When installing a cable into an LIF connector, avoid bending the edges of the cables and damaging the contacts on the cables.

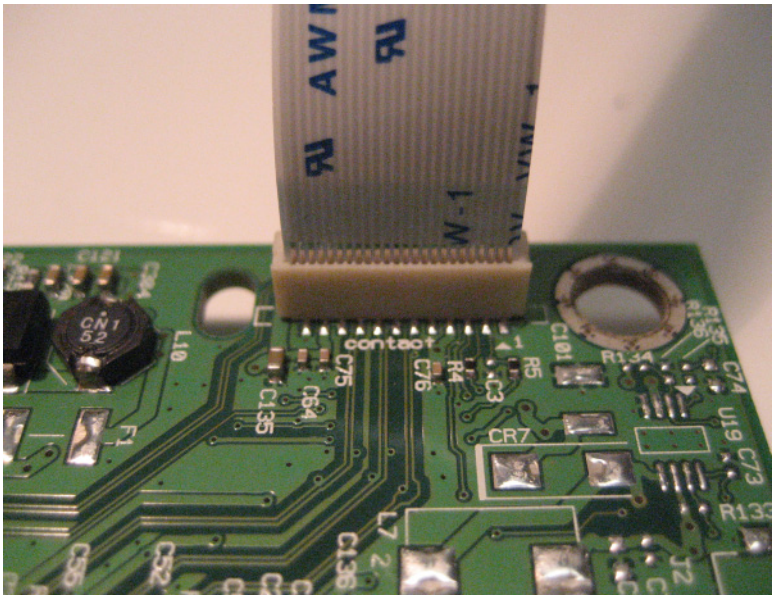
Inserting the cable

1 Make sure that the contacts of the controller board and connectors are on the same side.



2 Insert the cable.

Note: Make sure that the cable is installed straight into the connector to avoid intermittent failures.

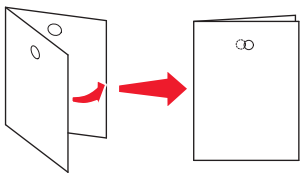


Adjustments

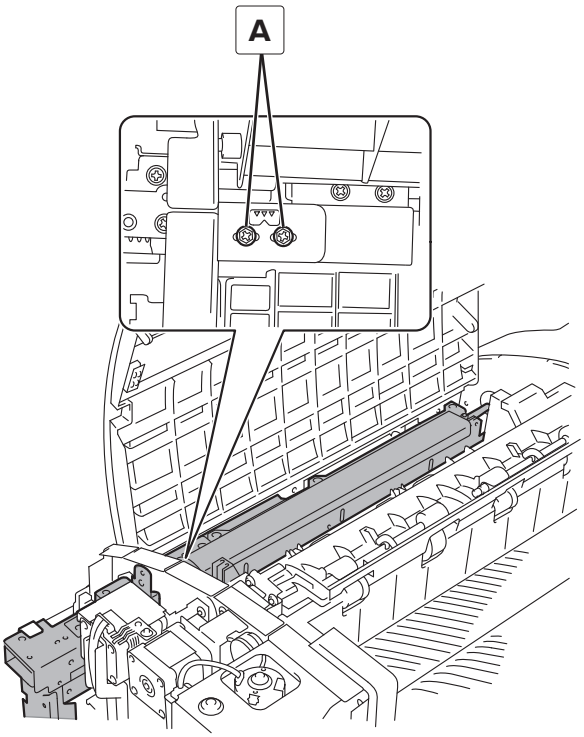
Punch holes deviation adjustment

Perform this procedure when the deviation between the holes is more than 2 mm.

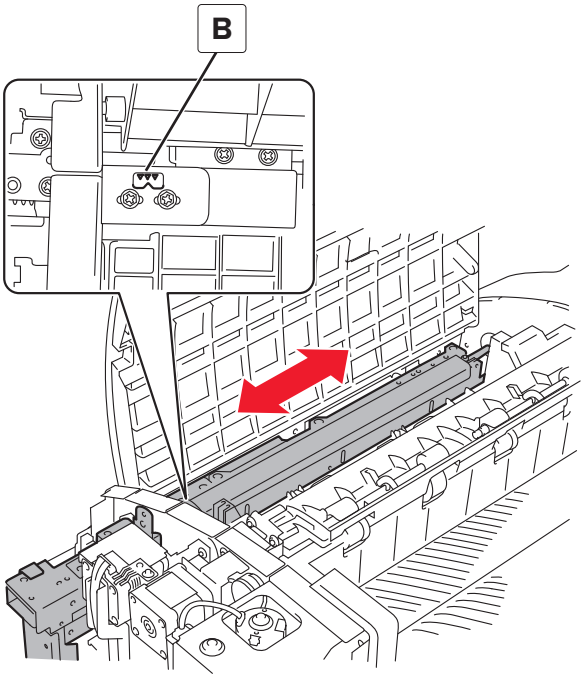
1. Perform a punch job.
2. Fold the paper, and then measure the deviation between the holes. If the deviation is more than 2 mm, then proceed with the rest of the steps.



3 Open the SHPF top cover, and then loosen the two screws (A).



4 Using the marks (B) on the frame, move the punch unit to adjust its position.



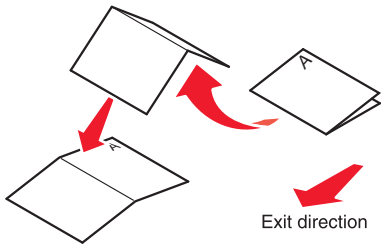
Bifold skew adjustment

Perform this procedure when:

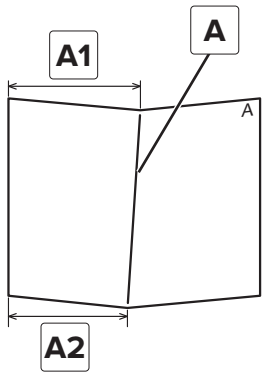
- Reinstalling the booklet maker aligner assembly.
- The fold skew exceeds the tolerance of +/- 1 mm.

1 Perform a bifold print job.

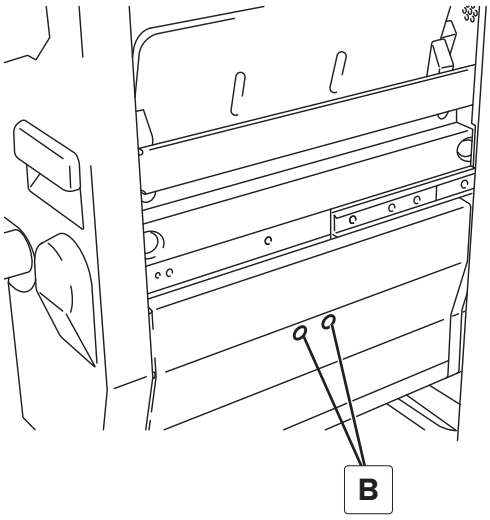
2 Unfold the paper with the ridge facing up.



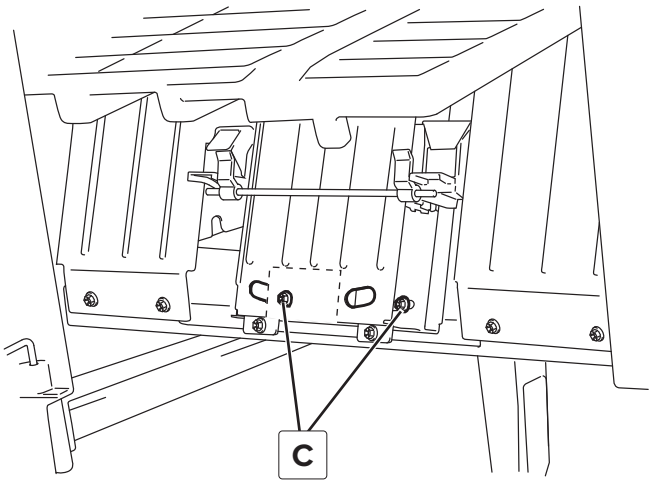
3 Confirm the skew (A) by measuring the length of edges A1 and A2. If A1–A2 exceeds +/- 1 mm, then proceed with the rest of the steps.



4 Pull out the booklet maker from the finisher, and then loosen the two screws (B).

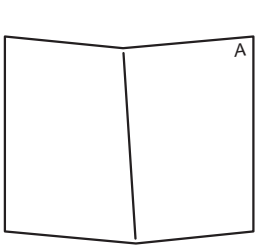


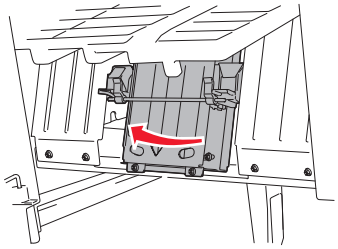
5 Lift the aligner jam access door, and then loosen the two screws (C).



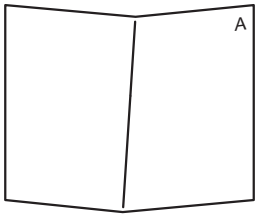
6 Rotate the aligner assembly depending on the direction of the skew.

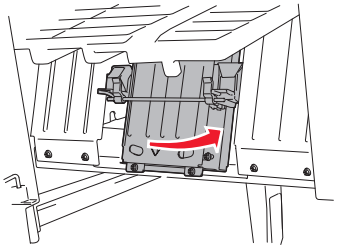
- Rotate the aligner assembly to the rear.





- Rotate the aligner assembly to the front.





Removal procedures

When replacing printer parts, consider the following:

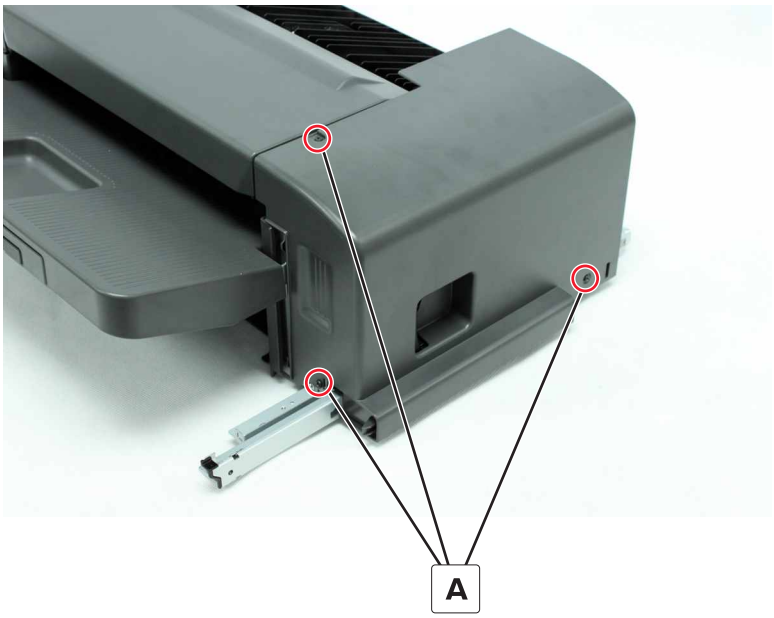
- Some removal procedures require removing cable ties. Replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging units, developer units, photoconductor units, and trays before removing other printer parts.
- Place the imaging or photoconductor unit on a clean, smooth, and flat surface. Do not expose the photoconductor drum to light.
- Disconnect all external cables from the printer to prevent possible damage during service.

- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held by several screws, start all screws before the final tightening.

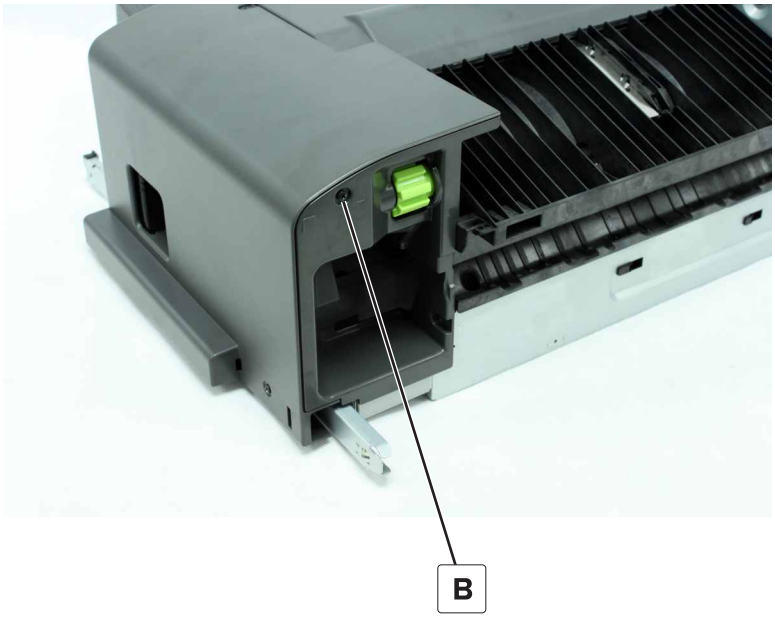
Staple finisher removals

Staple finisher front cover removal

1 Remove the three screws (A).



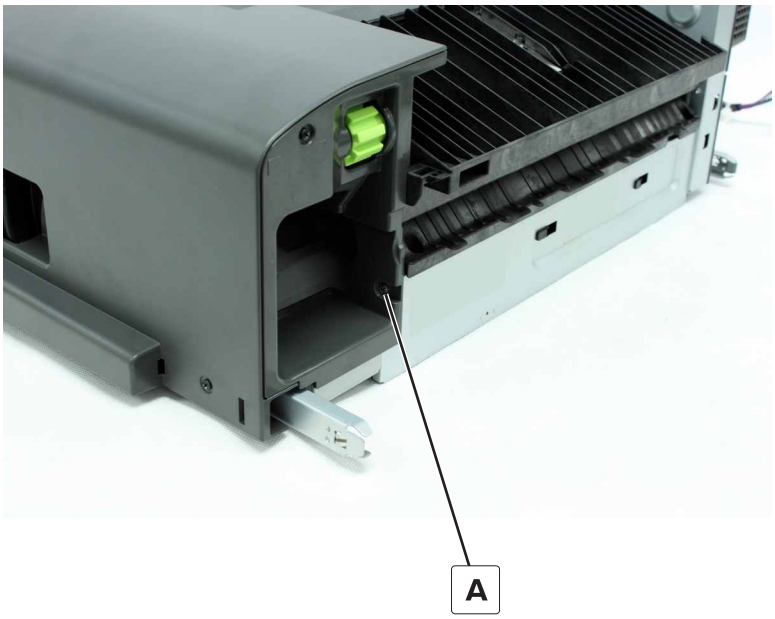
2 Remove the screw (B), and then remove the cover.



Staple finisher right cover removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the screw (A), and then remove the cover.

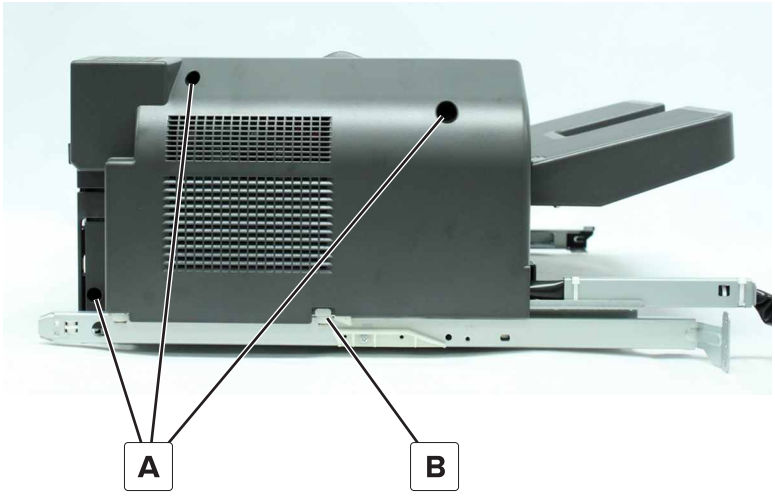


Staple finisher rear cover removal

1 Remove the three screws (A).

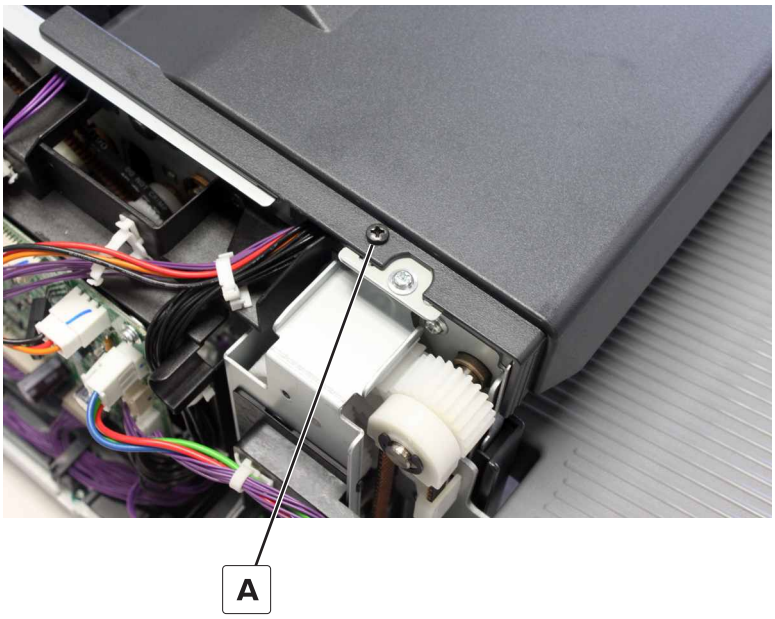
2 Remove the cover.

Installation note: Position the metal tab (B) over the cover.

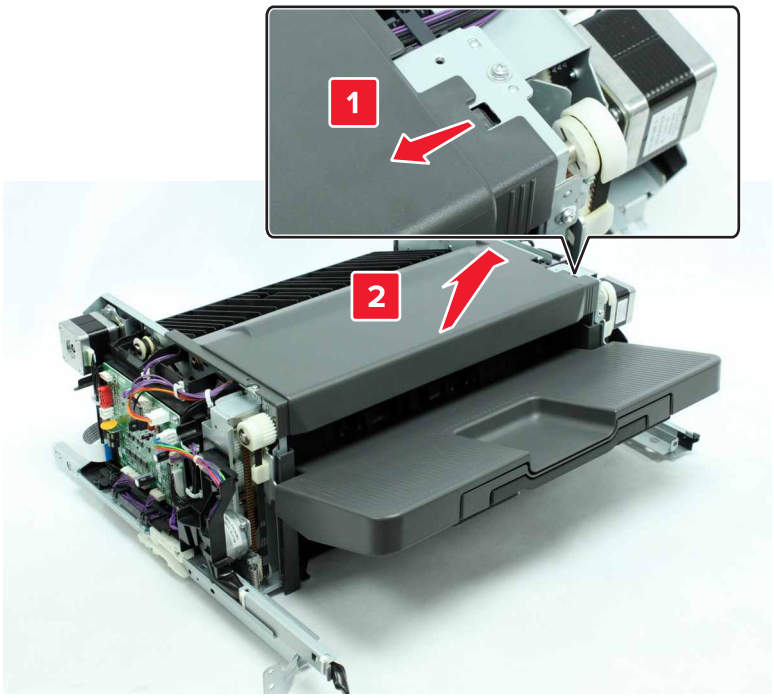


Staple finisher top cover removal

1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
3. Remove the screw (A).

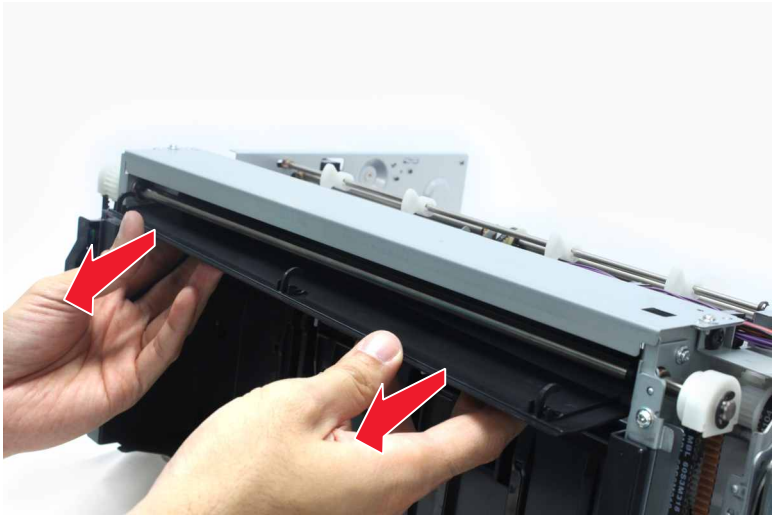


4. Slide, and then remove the cover.



Staple finisher exit guide removal

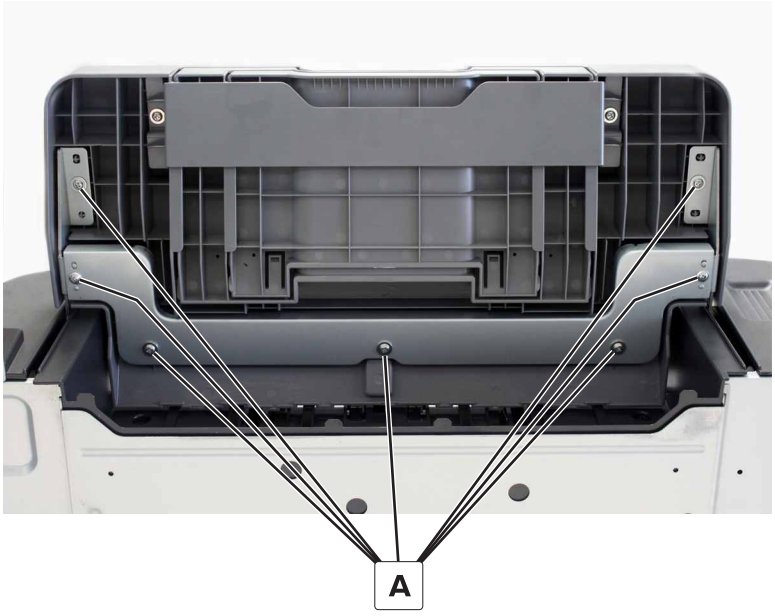
1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.
3. Remove the top cover. See **"Staple finisher top cover removal" on page 223**.
4. Remove the guide.



Installation note: Position the static brushes outside the guide.

Staple finisher bin removal

1. Remove the seven screws (A).

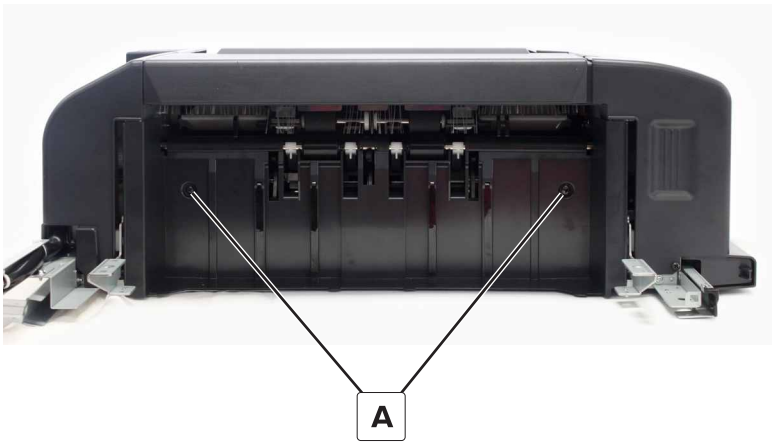


2. Remove the bin.

Staple finisher left inner cover removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

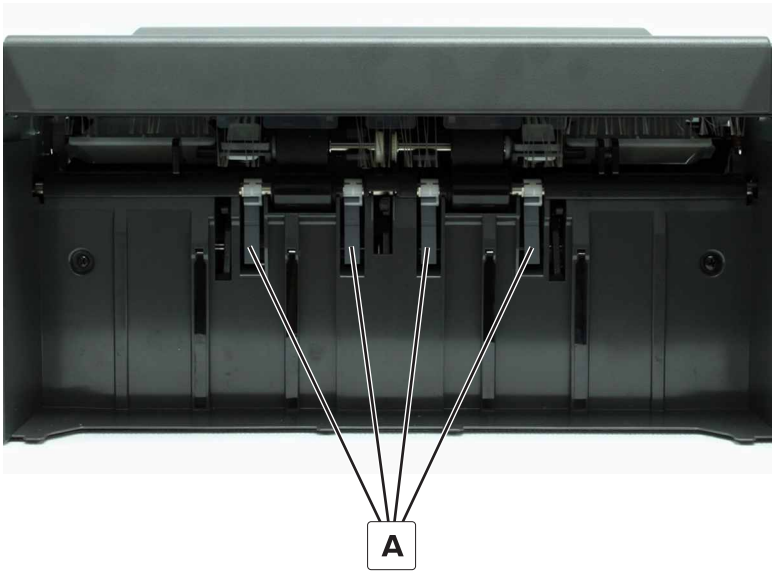
2 Remove the two screws (A), and then remove the cover.



Staple finisher lower exit roller paddles removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the four paddles (A).



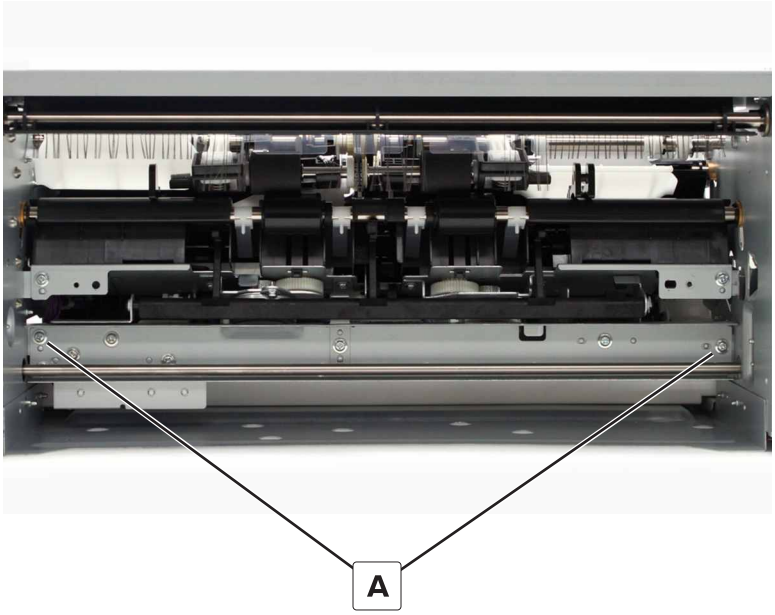
Staple finisher bin stack height assembly removal

Note: This part is not a FRU. Perform these steps to access the FRUs attached to this part.

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.

3 Remove the two screws (A).



4 Swing out, and then set aside the assembly.

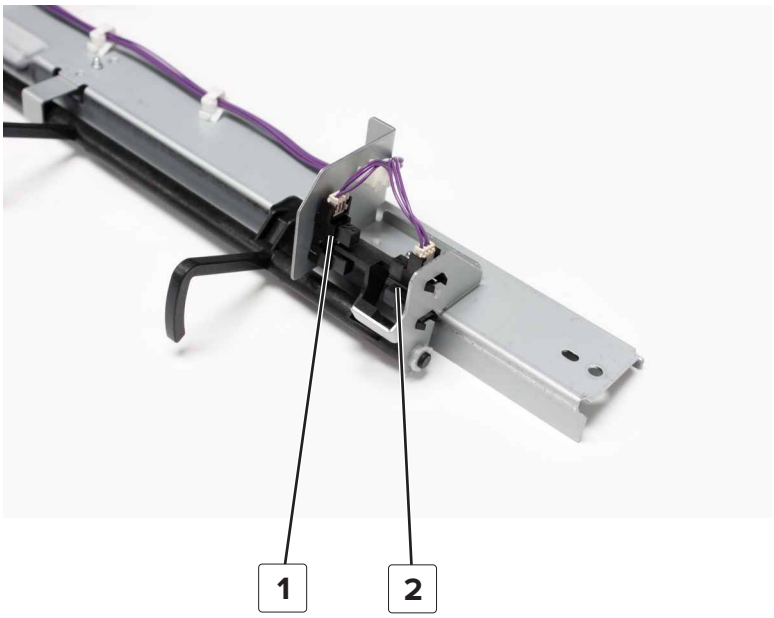
Staple finisher bin stack height assembly sensors removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.

3 Remove the bin stack height assembly. See **"Staple finisher bin stack height assembly removal" on page 225**.

4 Disconnect the cable, and then remove the sensor.



#	Part
1	Sensor (staple finisher bin level)
2	Sensor (staple finisher bin stack height)

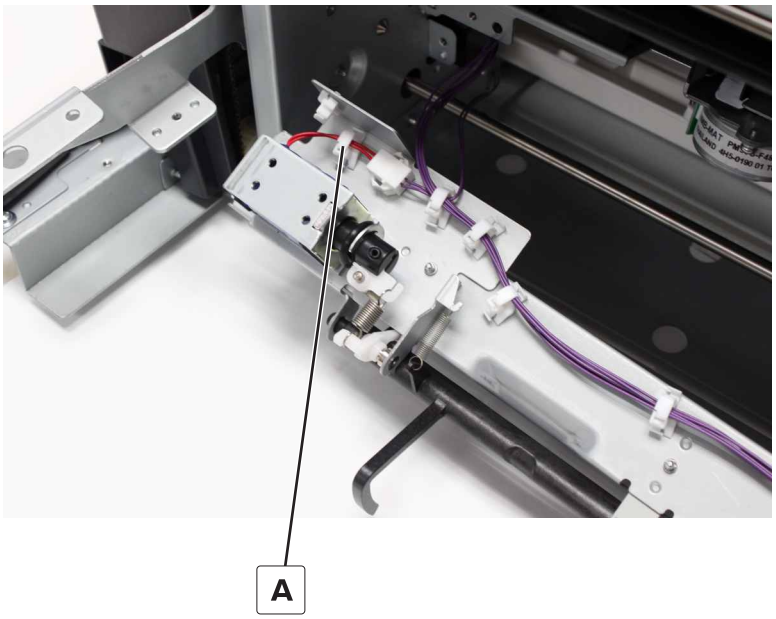
Staple finisher bin stack height solenoid removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

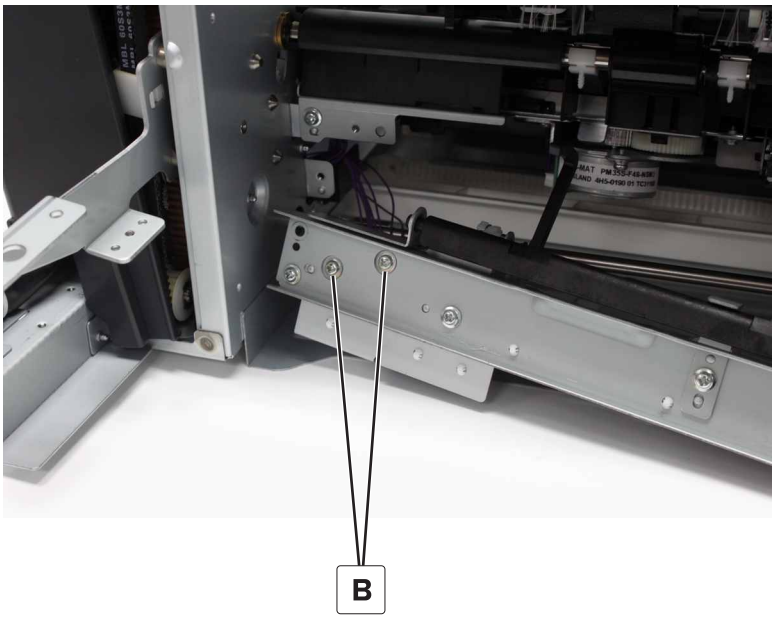
2 Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.

3 Remove the bin stack height assembly. See **"Staple finisher bin stack height assembly removal" on page 225**.

4 Disconnect the cable (A).



5 Remove the two screws (B), and then remove the solenoid.



Staple finisher bin stack height actuator removal

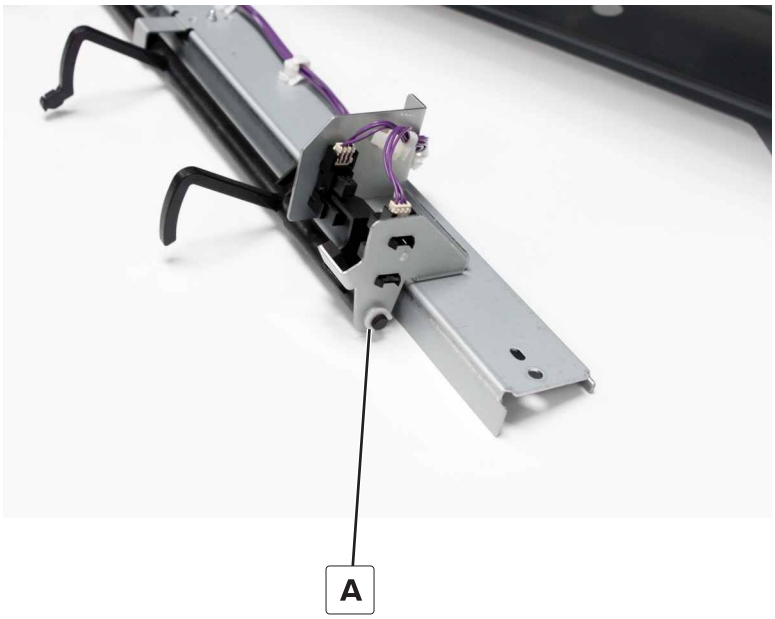
1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.

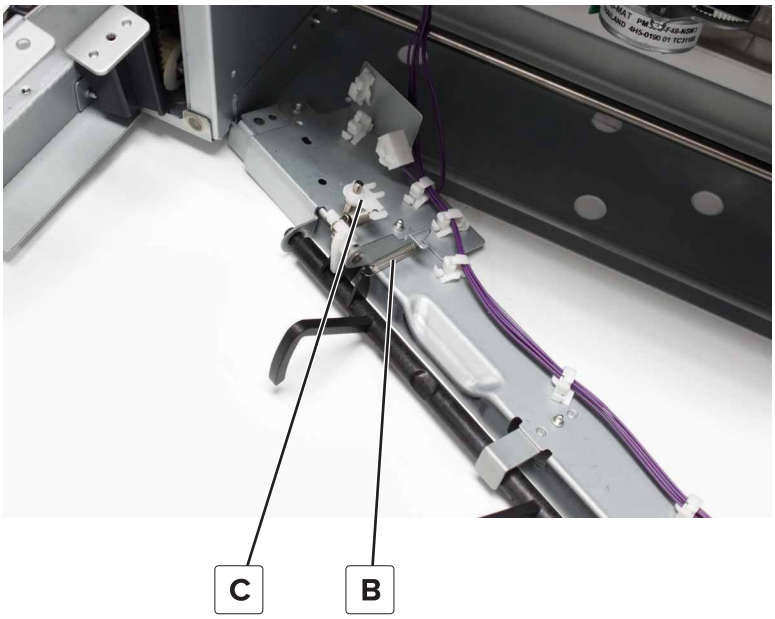
3 Remove the bin stack height assembly. See **"Staple finisher bin stack height assembly removal" on page 225**.

4 Remove the bin stack height solenoid. See **"Staple finisher bin stack height solenoid removal" on page 227**.

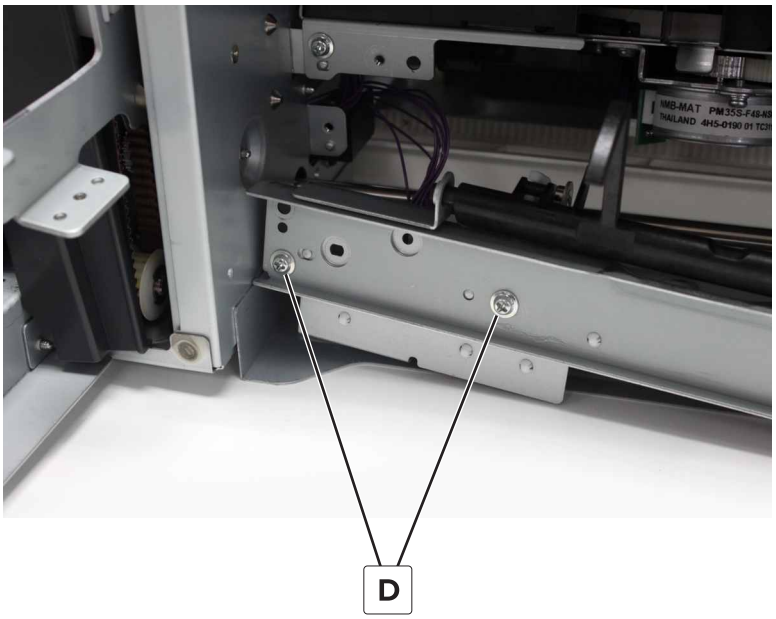
5 Remove the clip (A).



6 Remove the spring (B) and the solenoid link (C).



7 Remove the two screws (D).



8 Remove the bracket to release the link from the actuator, and then remove the actuator.

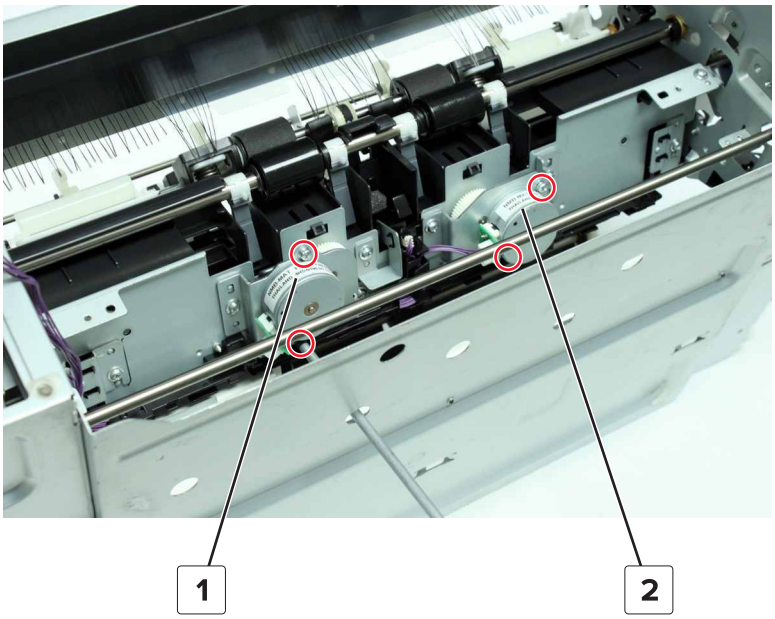
Motor (staple finisher tamper) removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.

3 From the motor, disconnect the cable, and then remove the two screws.

Note: Access the screws through the holes on the bottom frame.



#	Part
1	Motor (staple finisher rear tamper)
2	Motor (staple finisher front tamper)

4 Remove the motor.

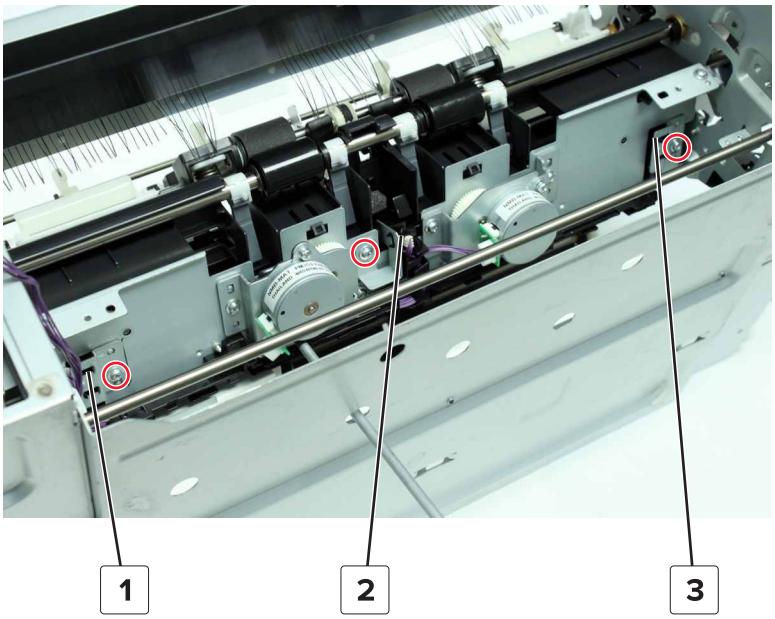
Staple finisher tamper sensors removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.

3 From the sensor, remove the screw, and then remove the sensor bracket.

Note: Access the screws through the holes on the bottom frame.



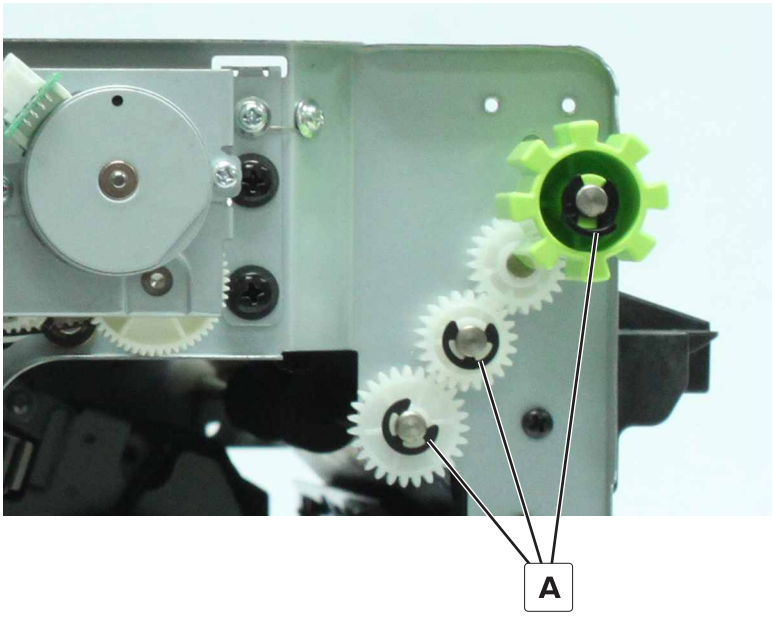
#	Part
1	Sensor (staple finisher rear tamper home)
2	Sensor (staple finisher tamper paper present)
3	Sensor (staple finisher front tamper home)

4 Disconnect the cable from the sensor, and then remove the sensor from the bracket.

Staple finisher transport jam removal gears removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

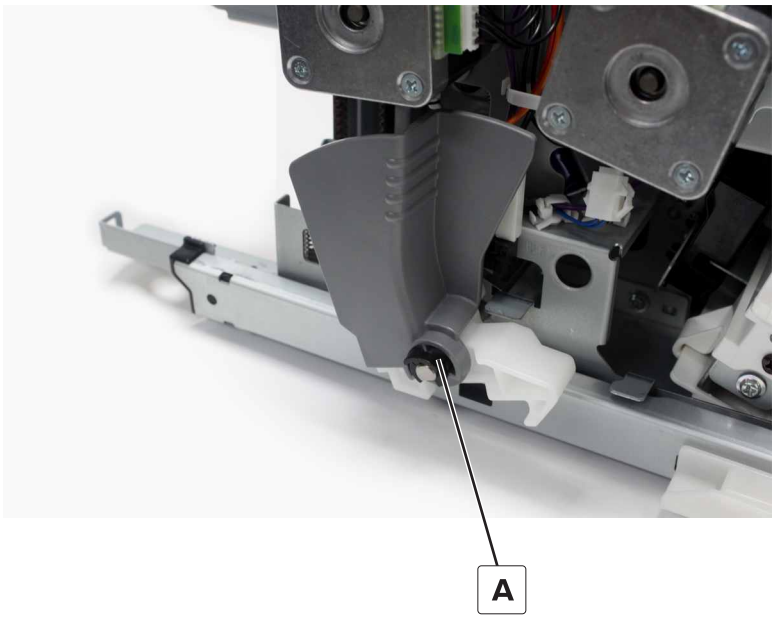
2 Remove the three clips (A), and then remove the knob and three gears.



Staple finisher lock switch removal

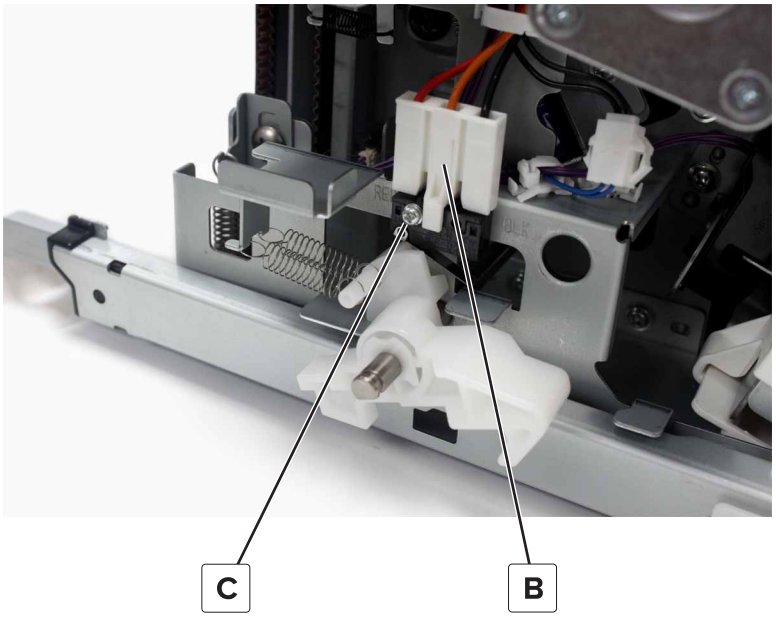
1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the clip (A), and then remove the handle.



3 Disconnect the cable (B).

4 Remove the screw (C), and then remove the switch.

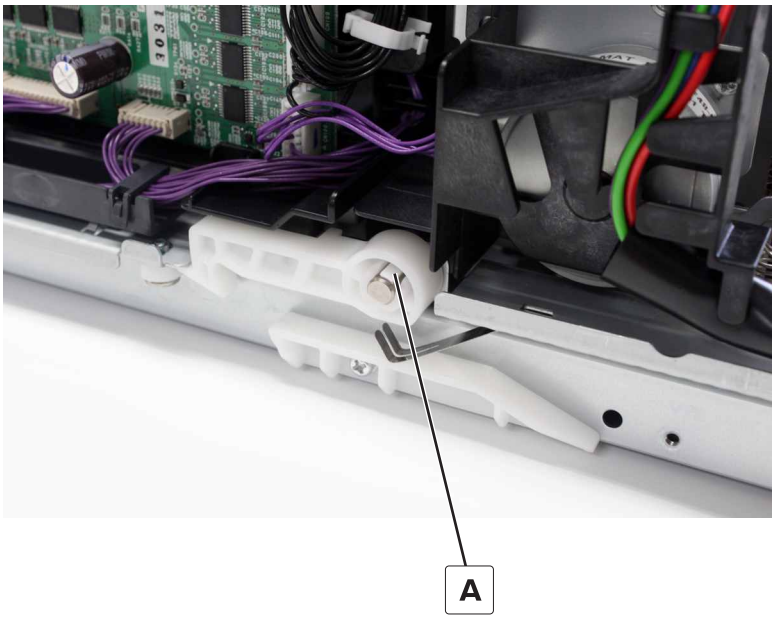


Staple finisher locks removal

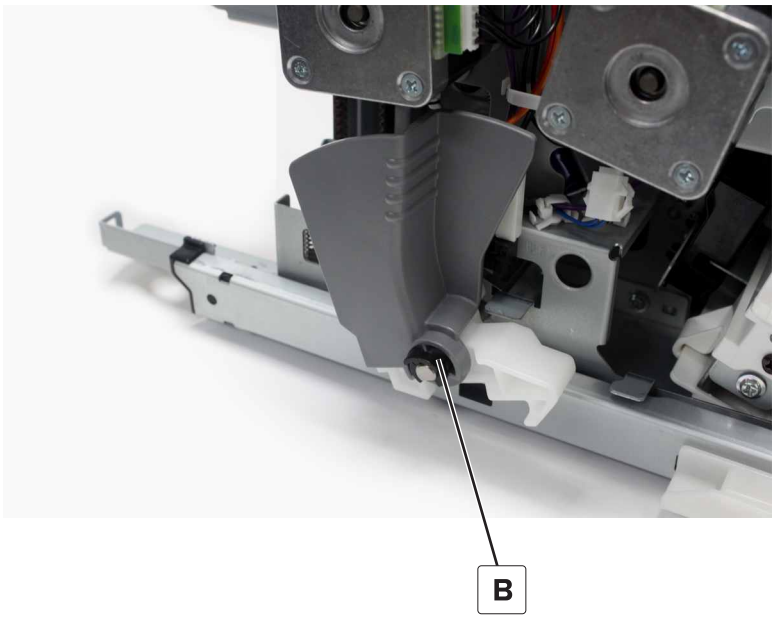
1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

3 Pry the latch (A), and then remove the rear lock.

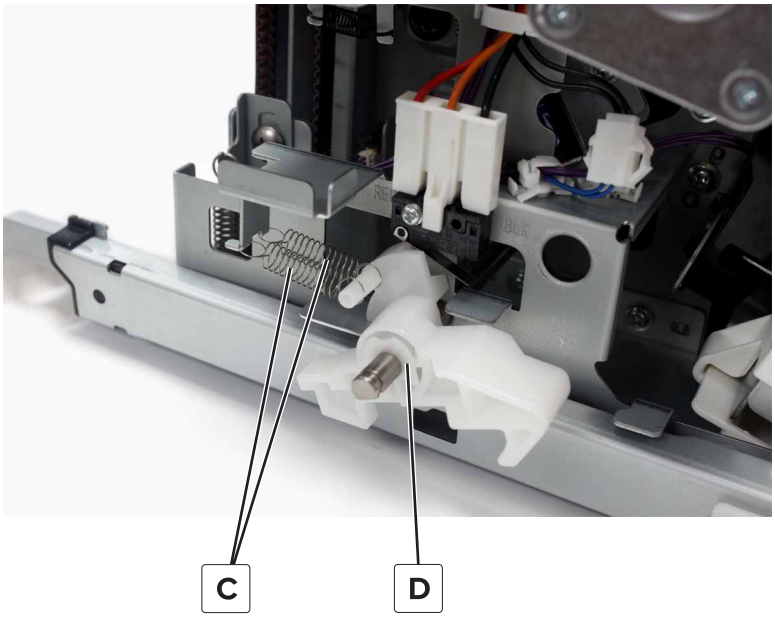


4 Remove the clip (B), and then remove the handle.



5 Remove the two springs (C).

6 Remove the clip (D), and then remove the front lock.



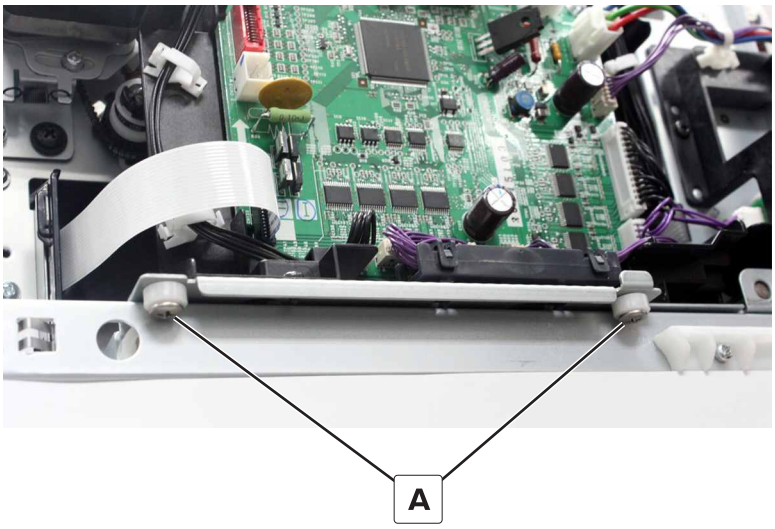
Staple finisher guide rails removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

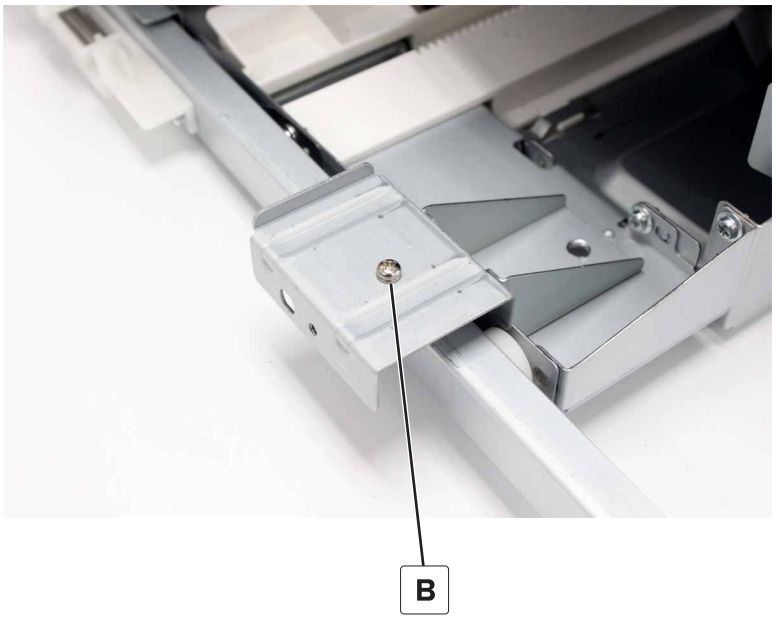
2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the rear lock. See **“Staple finisher locks removal” on page 233**.

4 Remove the two screws (A), remove the two wheels, and then remove the rear guide rail.



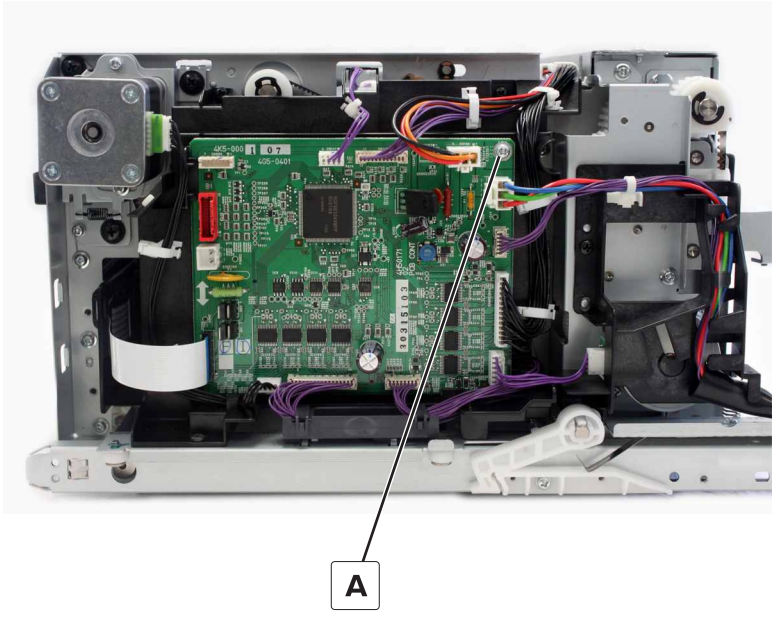
5 Remove the screw (B), and then remove the front guide rail.



Staple finisher controller board removal

1 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

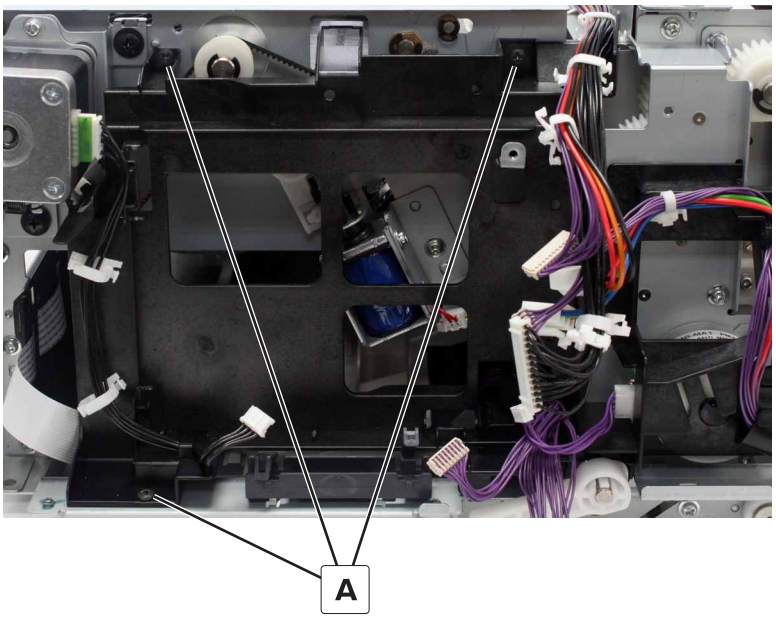
2 Disconnect all the cables from the board, and then remove the screw (A).



3 Remove the board.

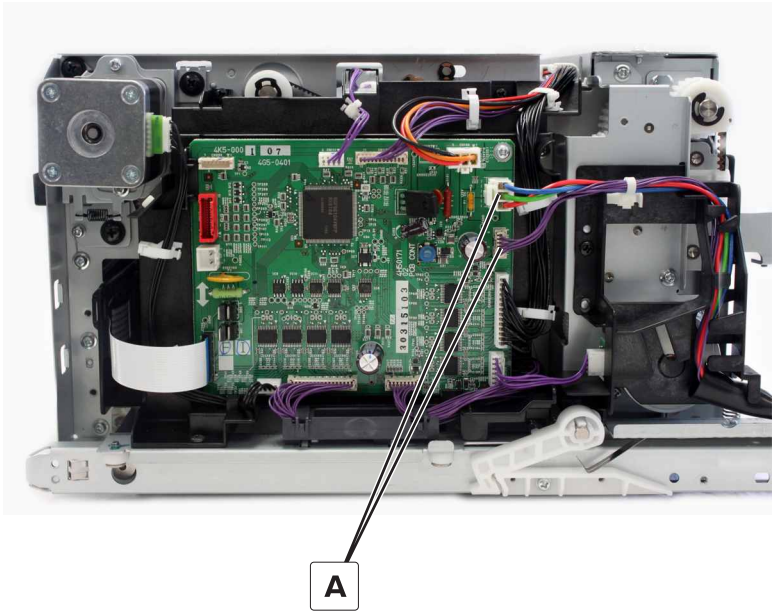
Staple finisher controller board holder removal

1. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.
2. Remove the controller board. See **"Staple finisher controller board removal" on page 236**.
3. Remove all the cable holders from the controller board holder.
4. Remove the three screws (A), and then remove the controller board holder.

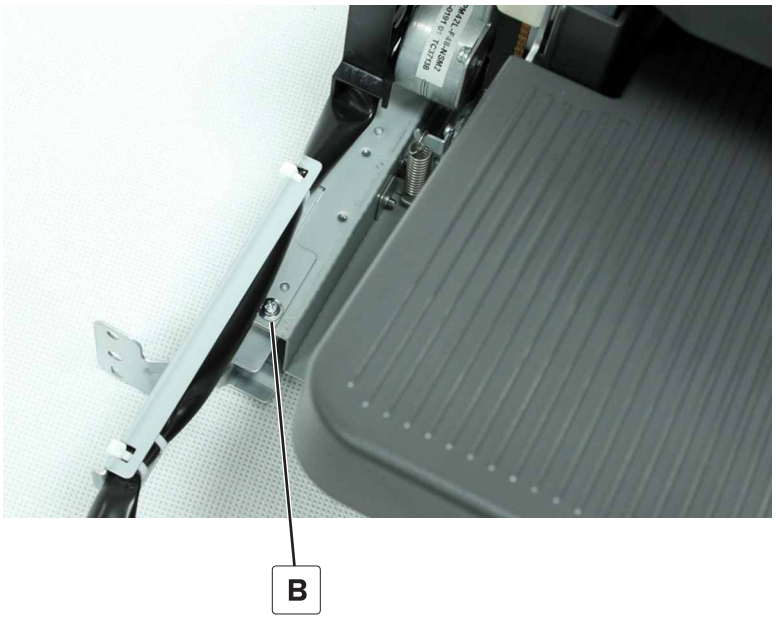


Staple finisher interface cable removal

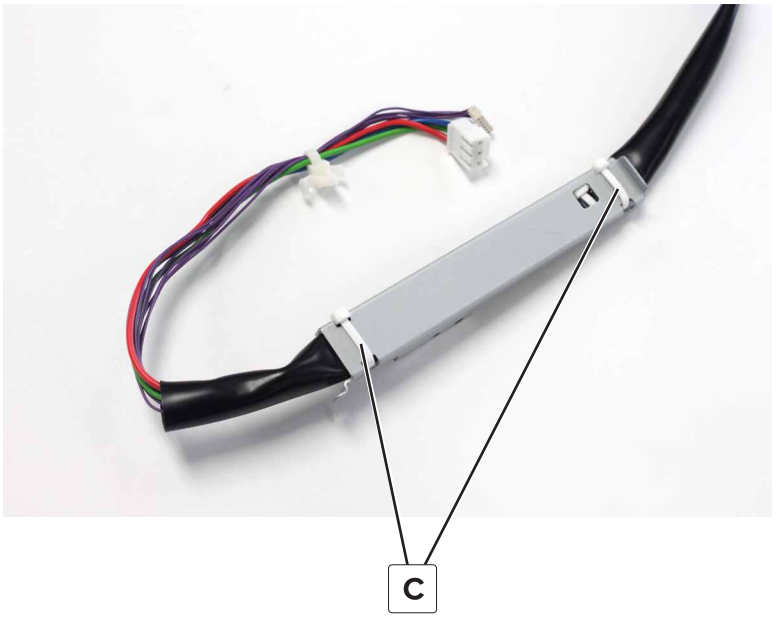
1. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.
2. Disconnect the two cables (A).



3 Remove the screw (B), and then remove the cable bracket.



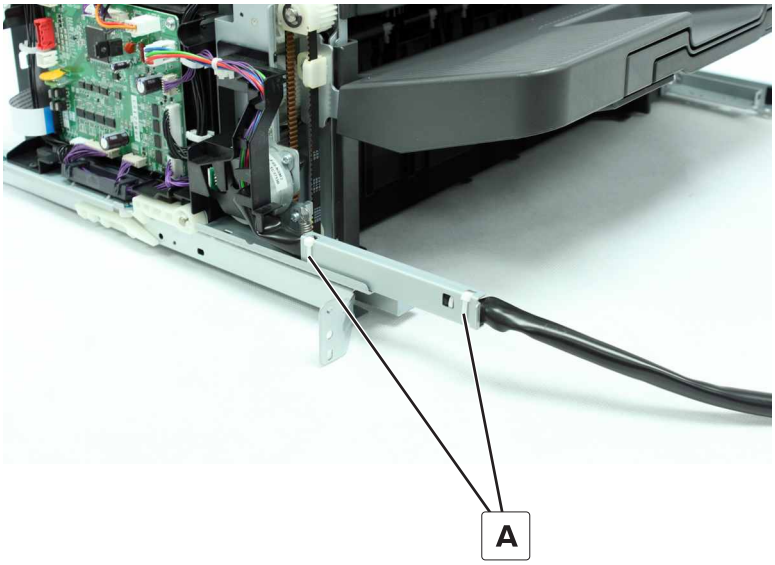
4 Cut the two zip ties (C), and then remove the cable.



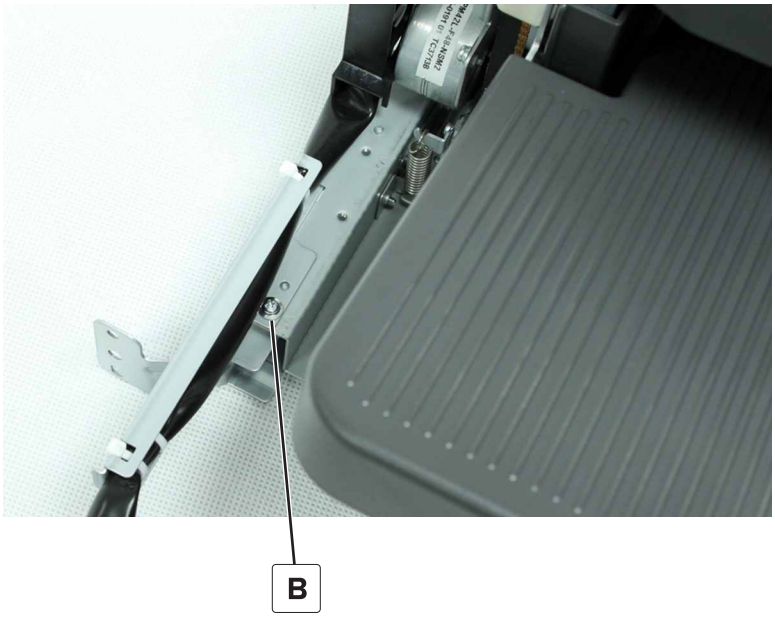
Installation notes:

a Plug the two cables into the controller board, and then pass them through the cable guide.

b Mount the cable bracket on the finisher, and then secure the cable with two zip ties (A).



c Install the screw (B).

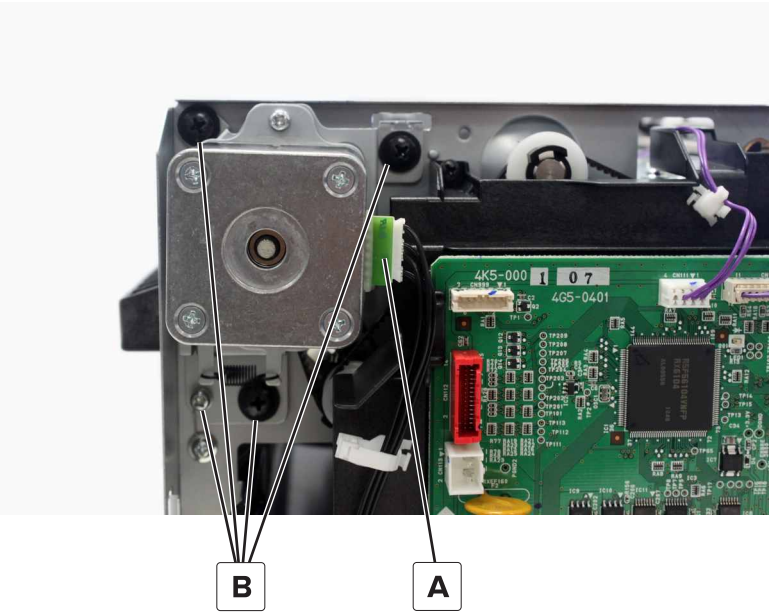


Motor (staple finisher transport) removal

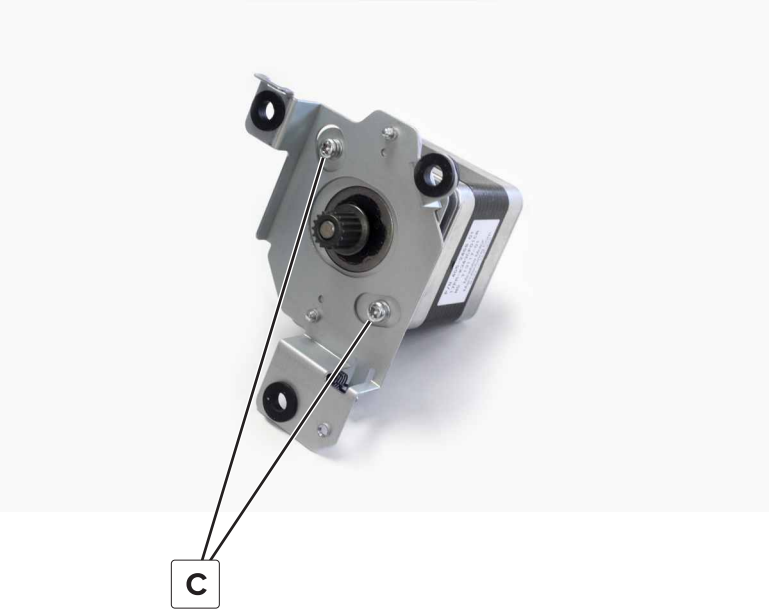
1 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

2 Disconnect the cable (A).

3 Remove the four screws (B), and then remove the bracket.

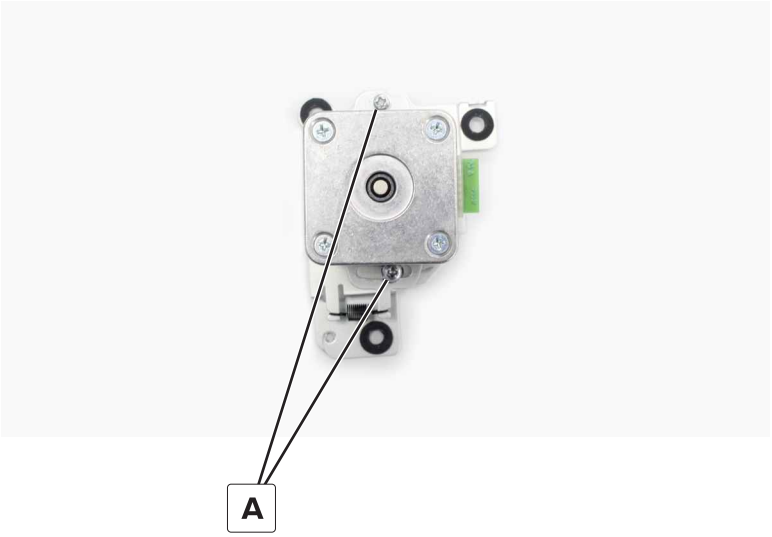


4 Remove the two screws (C), and then remove the motor.



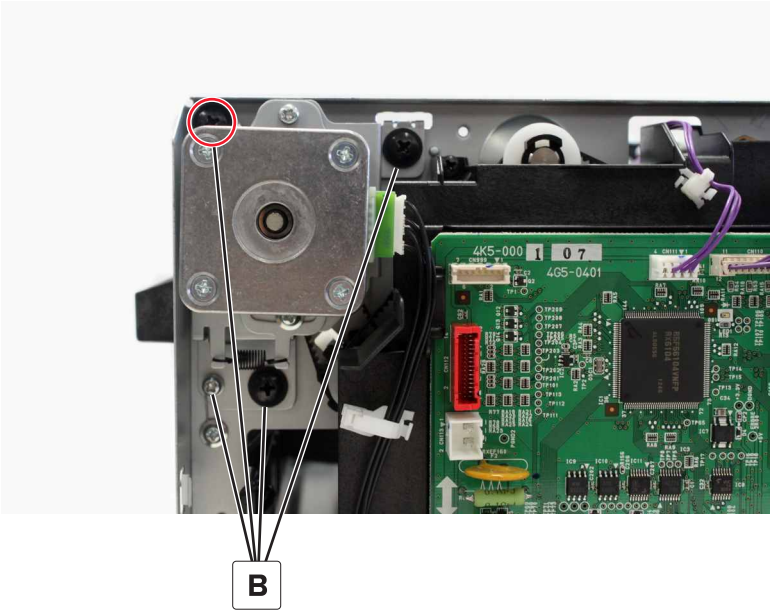
Installation notes:

a Install the motor on the bracket. Do not tighten the two screws (A).

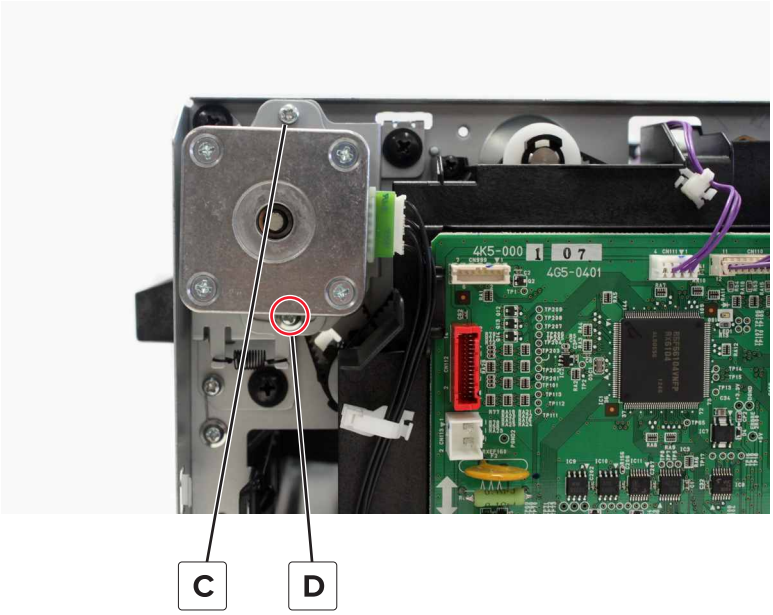


b Install the bracket on the frame, and then tighten the four screws (B).

Note: Position the ground wire on top of the bracket.



c Tighten the top screw (C), and then tighten the bottom screw (D).

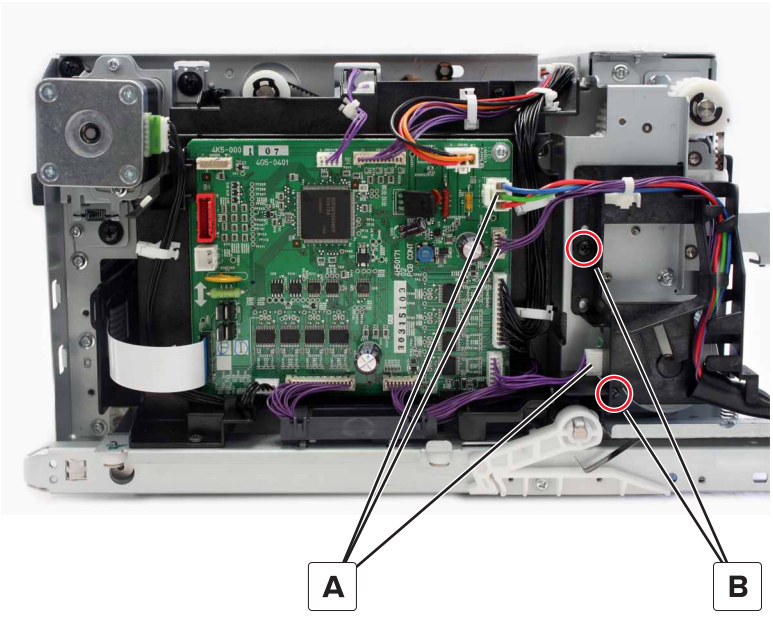


Motor (staple finisher elevator) removal

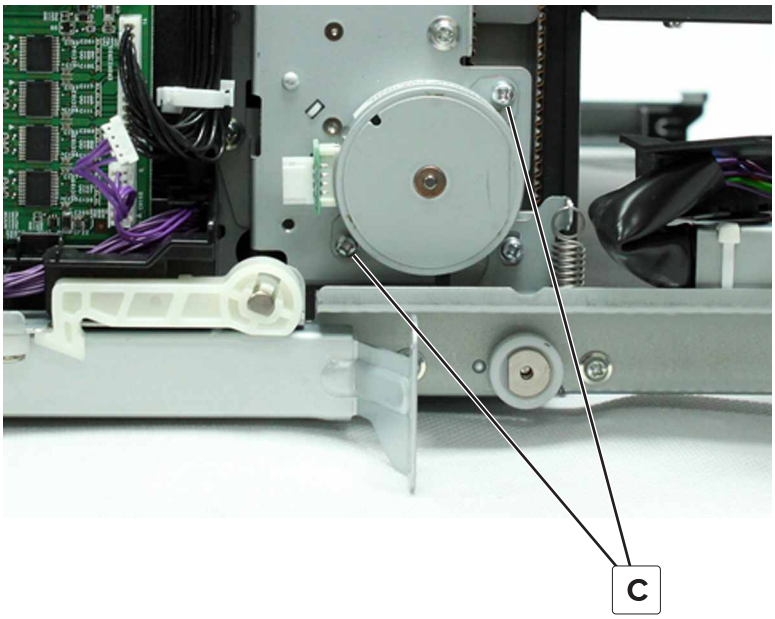
1 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

2 Disconnect the three cables (A).

3 Remove the two screws (B), and then remove the cable holder.



4 Remove the two screws (C), and then remove the motor.

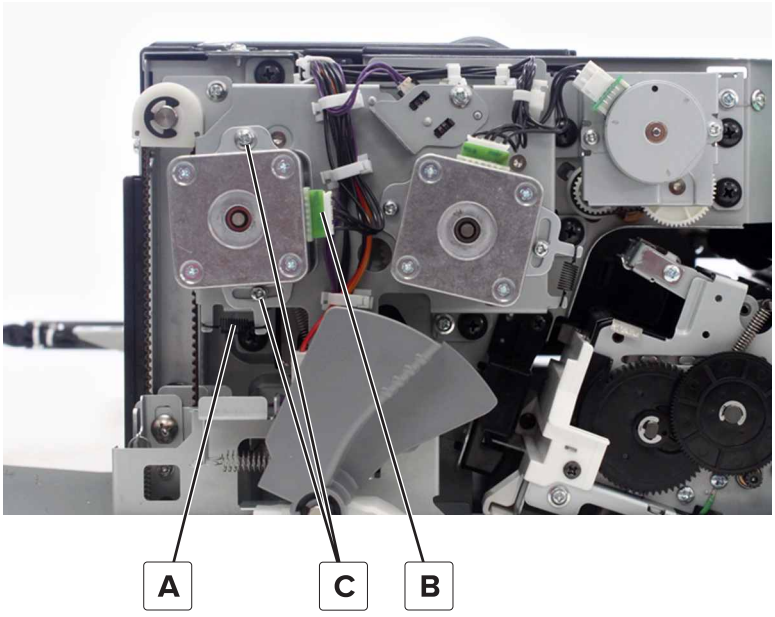


Motor (staple finisher upper exit) removal

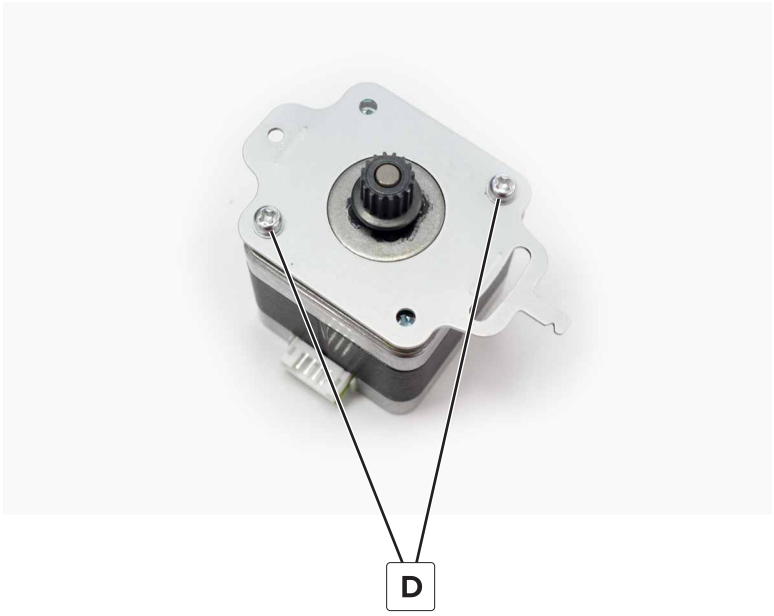
1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the spring (A), and then disconnect the cable (B).

3 Remove the two screws (C), and then remove the motor.



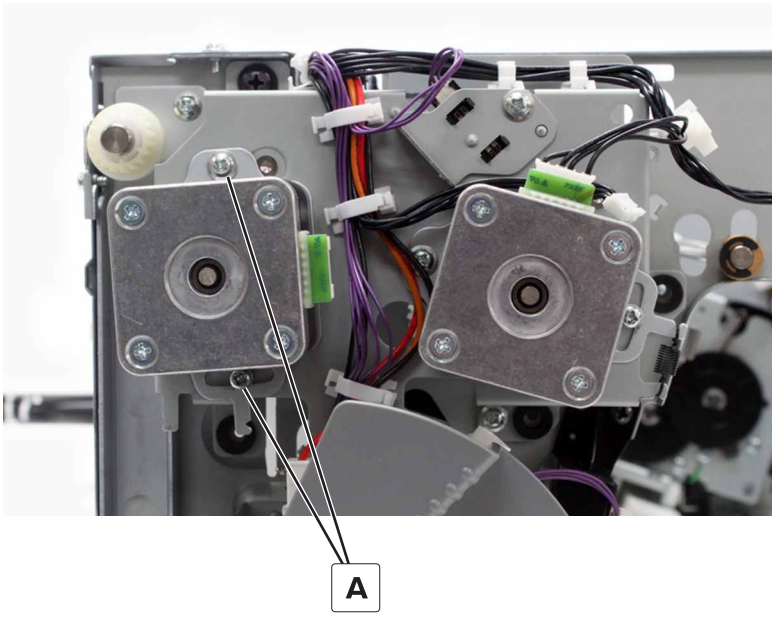
4 Remove the two screws (D), and then remove the motor.



Installation notes:

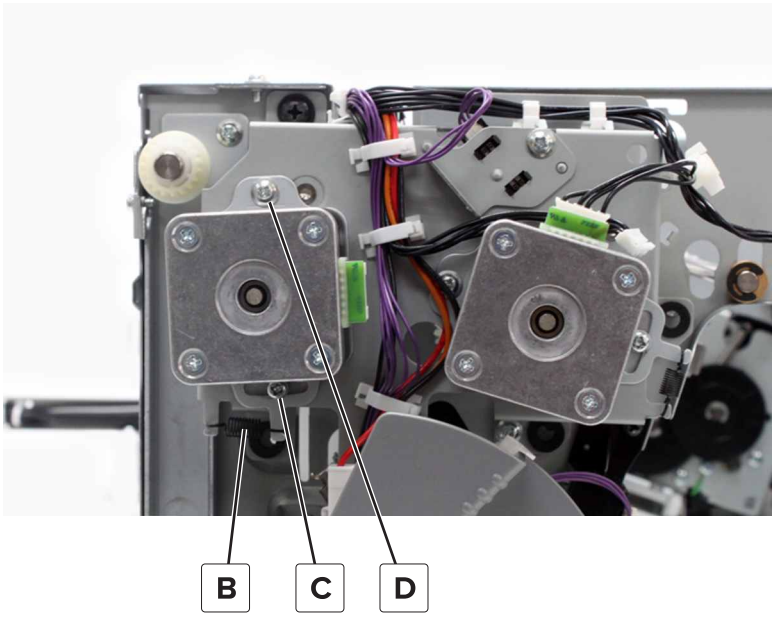
a Install the motor on the plate.

b Install the motor on the frame, and then install the two screws (A). Do not tighten the screws.



c Install the spring (B).

d Tighten the screw (C) near the spring, and then tighten the top screw (D).



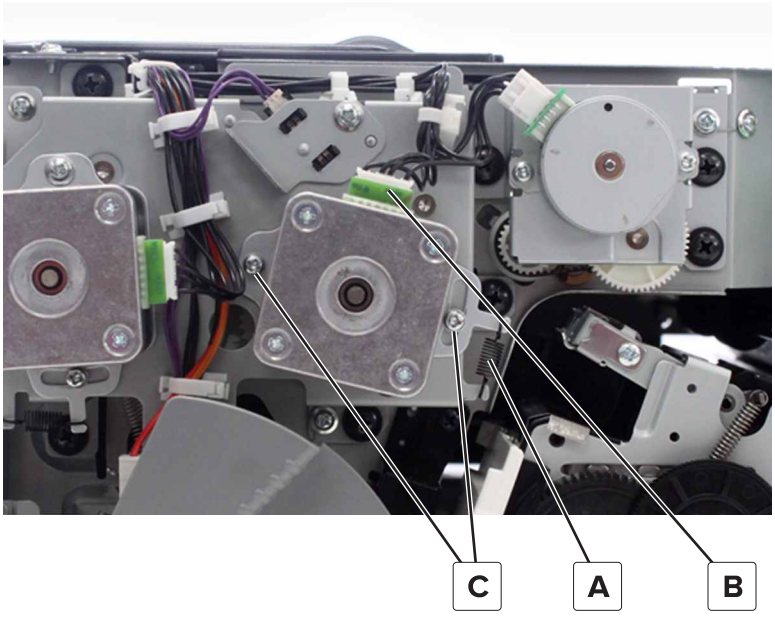
e Connect the motor cable.

Motor (staple finisher exit) removal

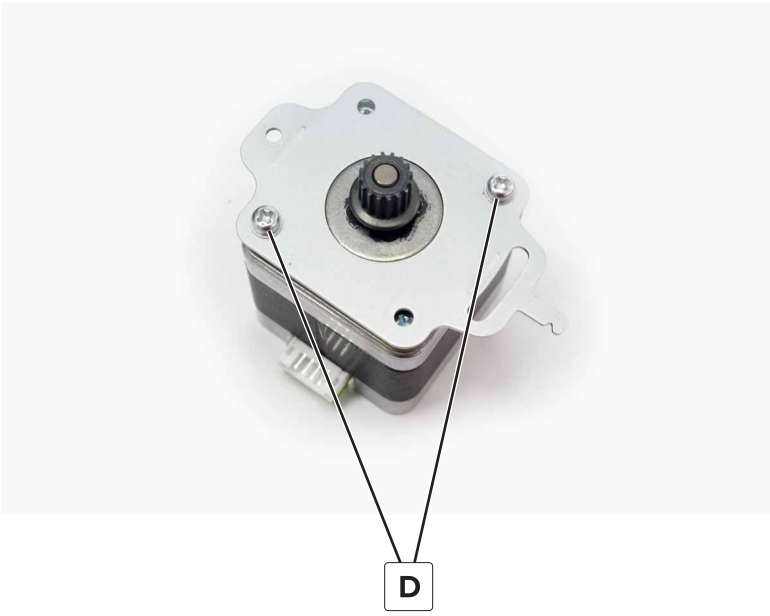
1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the spring (A), and disconnect the cable (B).

3 Remove the two screws (C), and then remove the motor.



4 Remove the two screws (D), and then remove the motor.



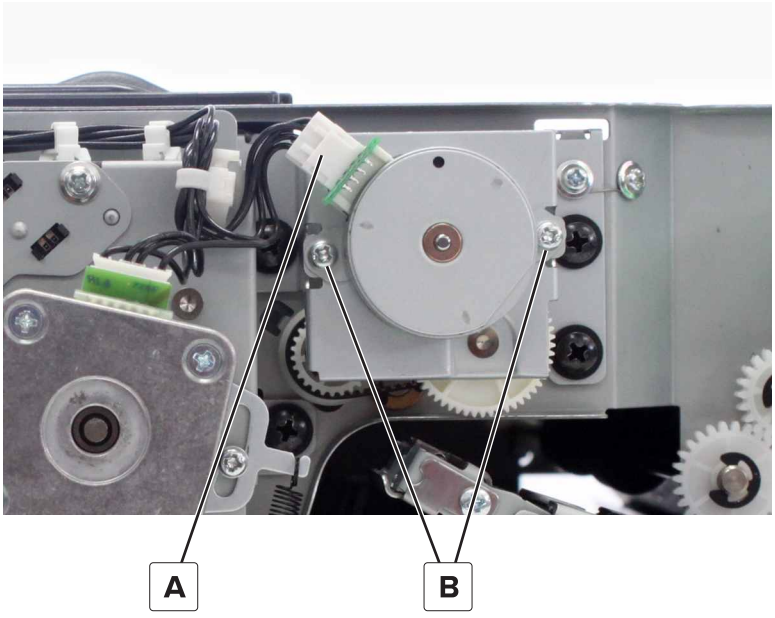
Installation note: See the installation note in **"Motor (staple finisher upper exit) removal" on page 243**.

Motor (staple finisher aligner) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

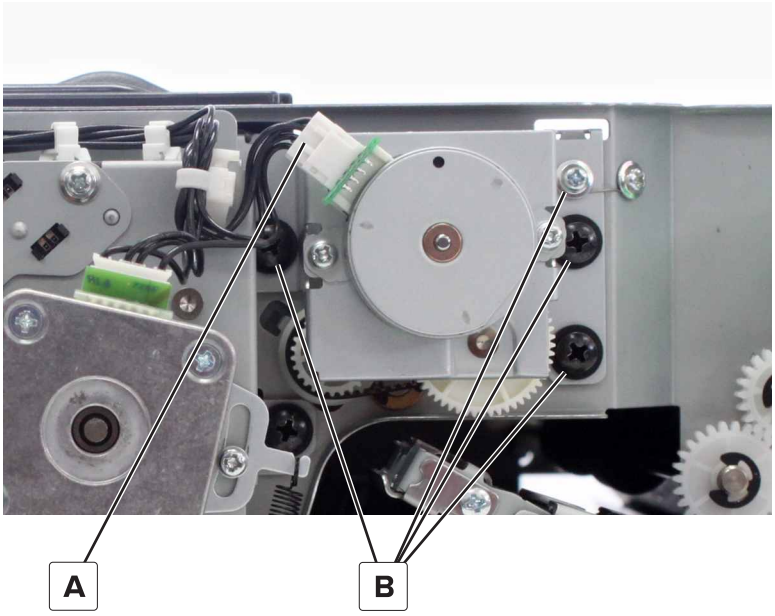
2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor.

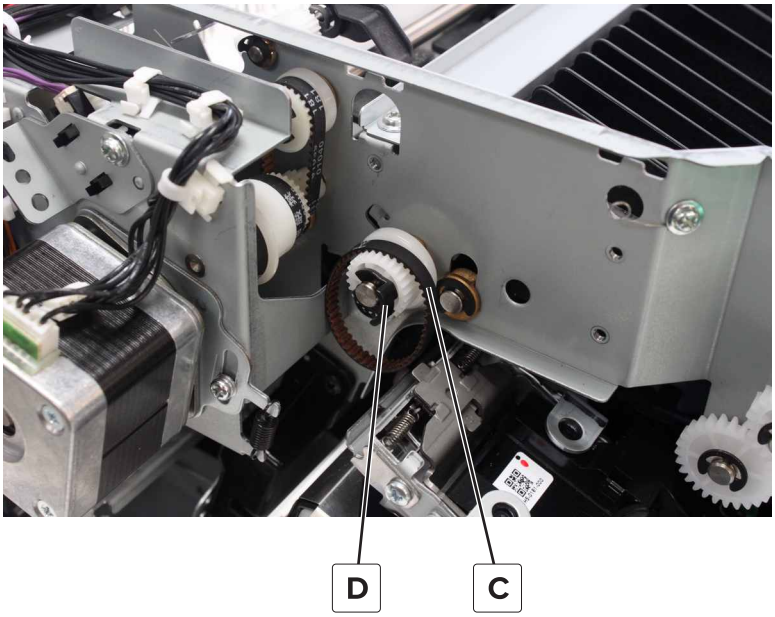


Staple finisher aligner belt and gears removal

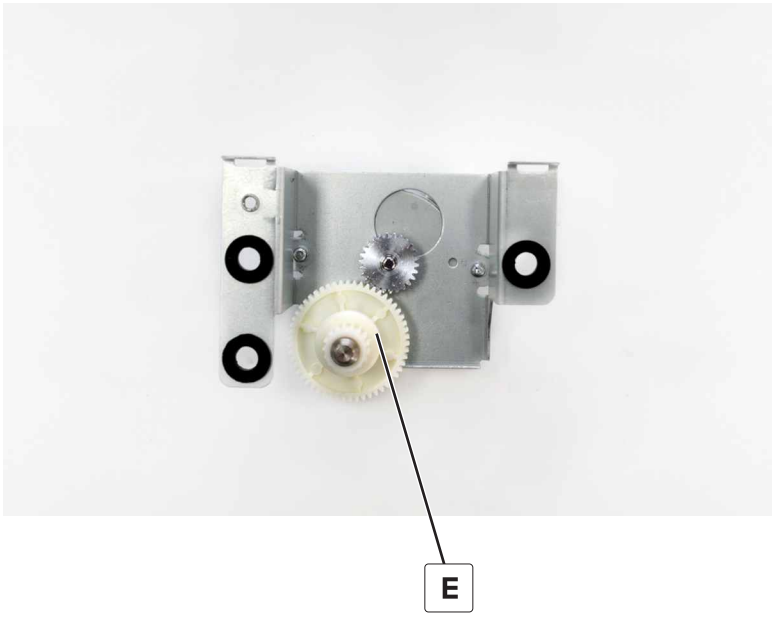
1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Disconnect the cable (A).
3. Remove the four screws (B), and then remove the motor bracket.



4. Remove the belt (C).
5. Remove the clip (D), and then remove the gear.



6 Remove the gear (E).

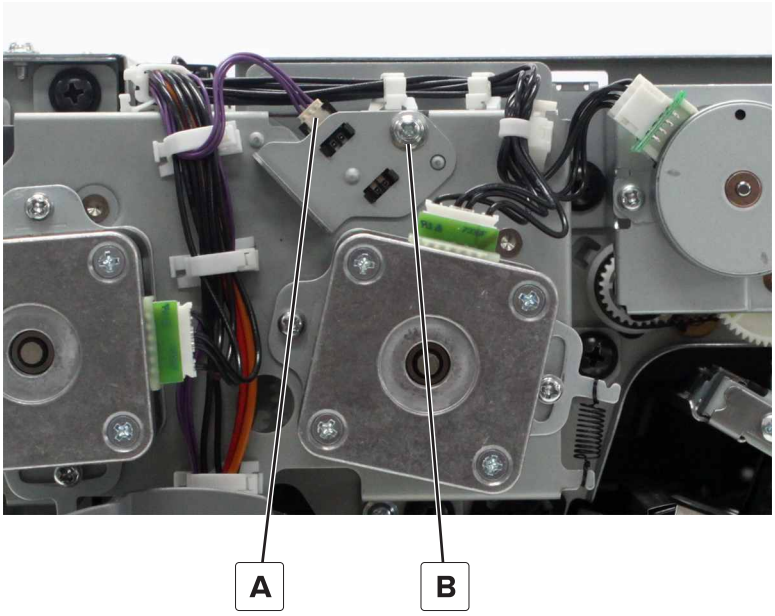


Sensor (staple finisher upper exit roller) removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Disconnect the cable (A).

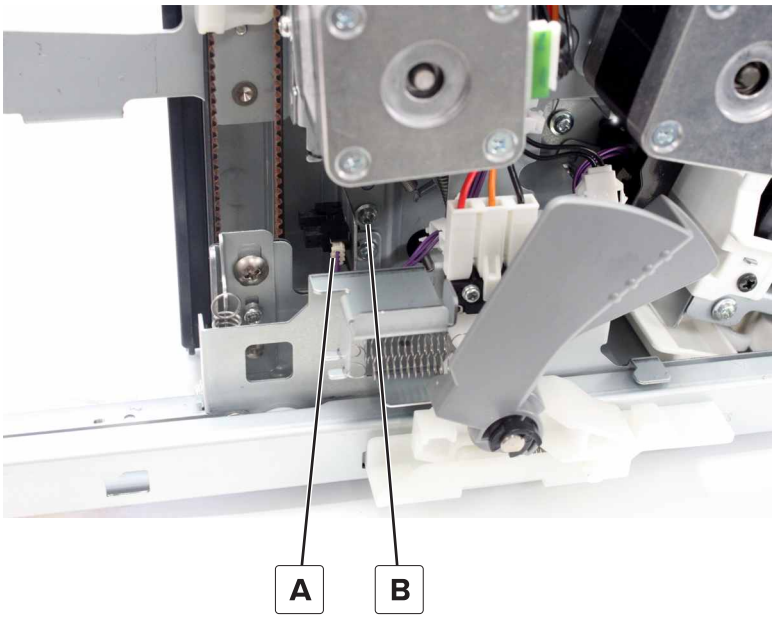
3 Remove the screw (B), and then remove the sensor bracket.



4 Remove the sensor from the bracket.

Sensor (staple finisher elevator home) removal

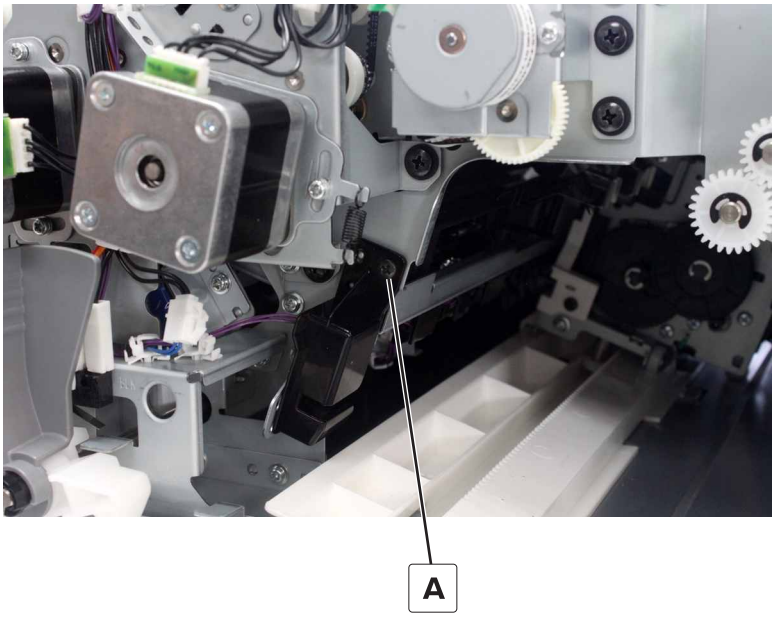
1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Disconnect the cable (A).
3. Remove the screw (B), and then remove the sensor bracket.



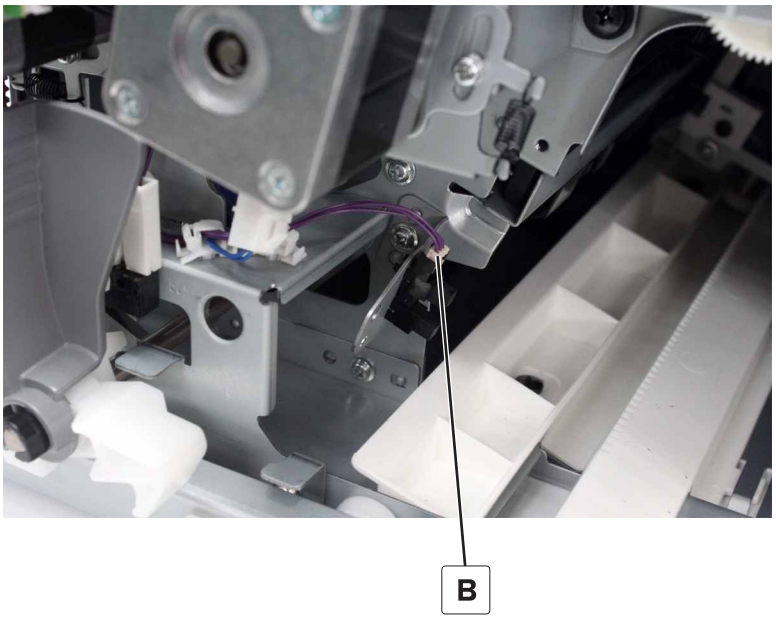
4. Remove the sensor from the bracket.

Sensor (staple finisher staple unit home) removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the screw (A), and then remove the sensor cover.



3 Disconnect the cable (B), and then remove the sensor.



Sensor (staple finisher paper feed) removal

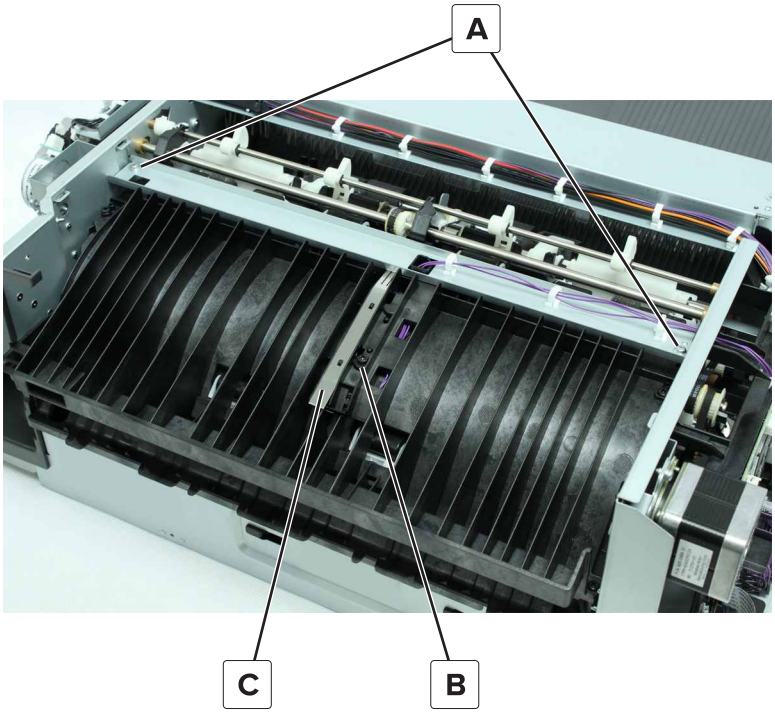
1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

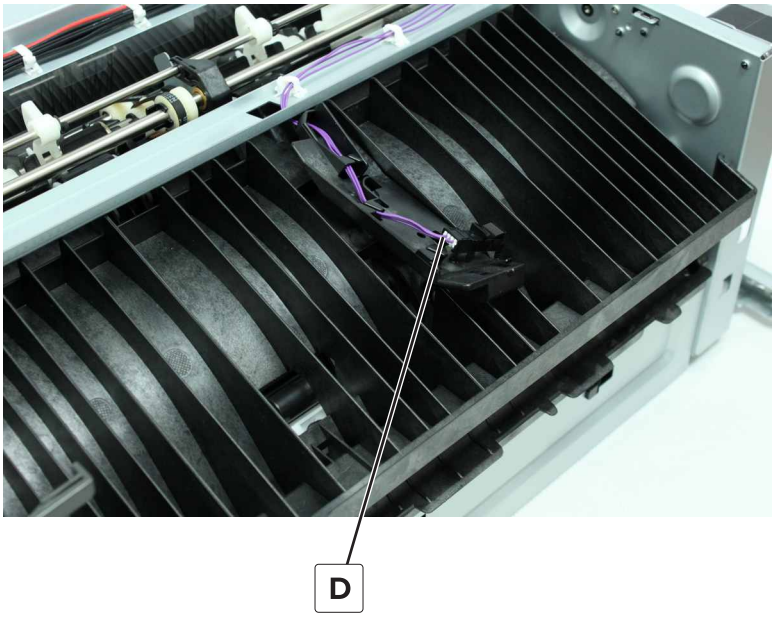
4 Remove the two screws (A), and then dislodge the bracket.

5 Remove the screw (B), and then remove the ground (C).



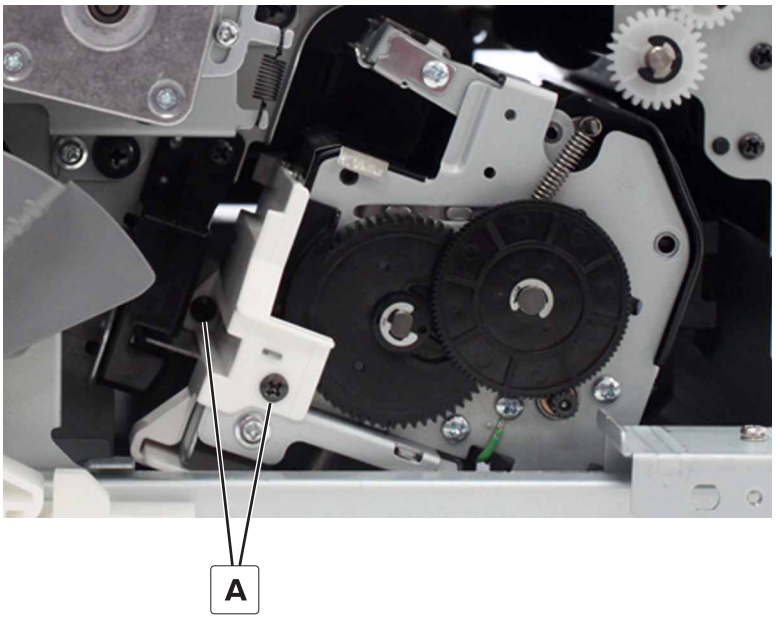
6 Flip the sensor holder, and then remove the sensor.

7 Disconnect the cable (D), and then remove the sensor.

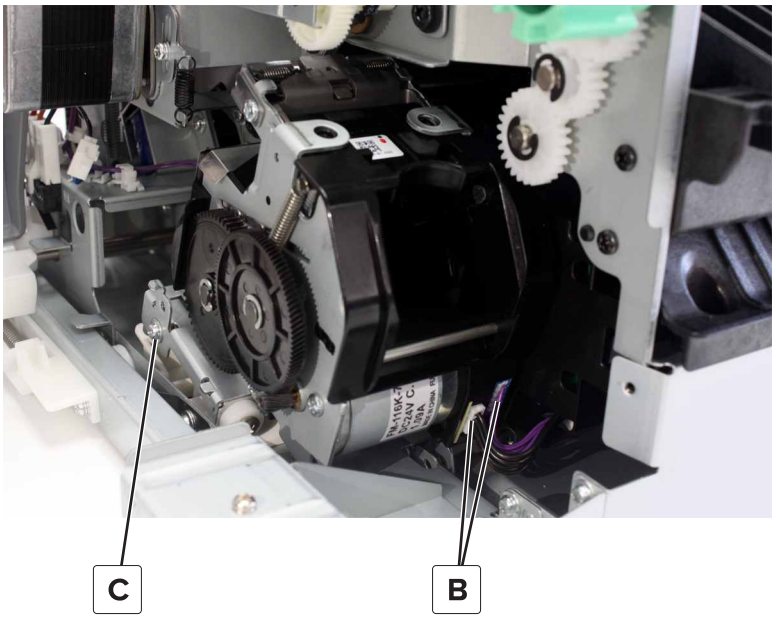


Staple finisher staple unit removal

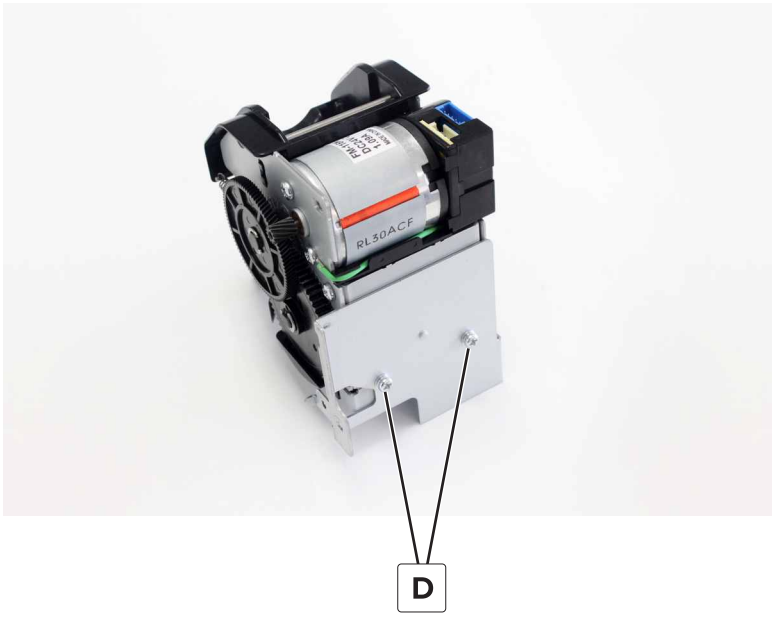
1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the two screws (A), and then remove the holder.



3. Disconnect the two cables (B).
4. Remove the screw (C), and then remove the staple unit.



5 Remove the two screws (D), and then remove the plate.

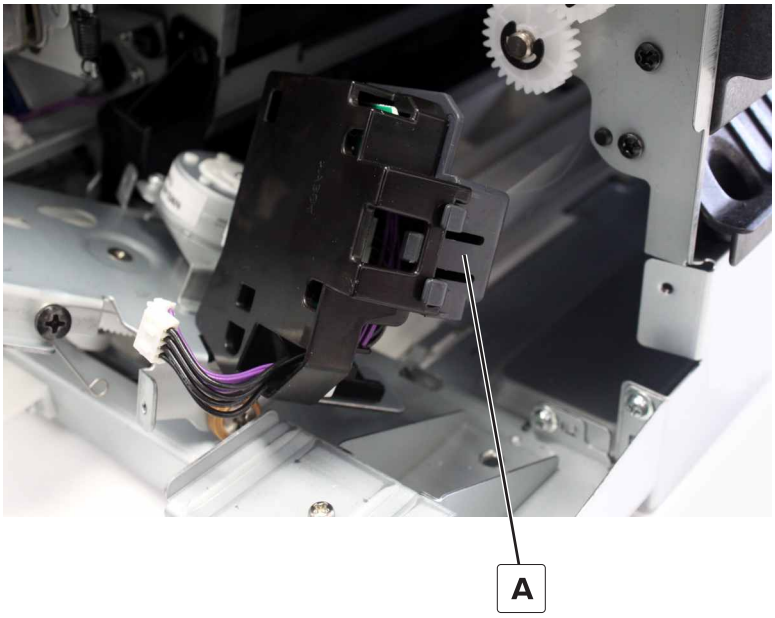


Staple finisher staple unit carriage assembly removal

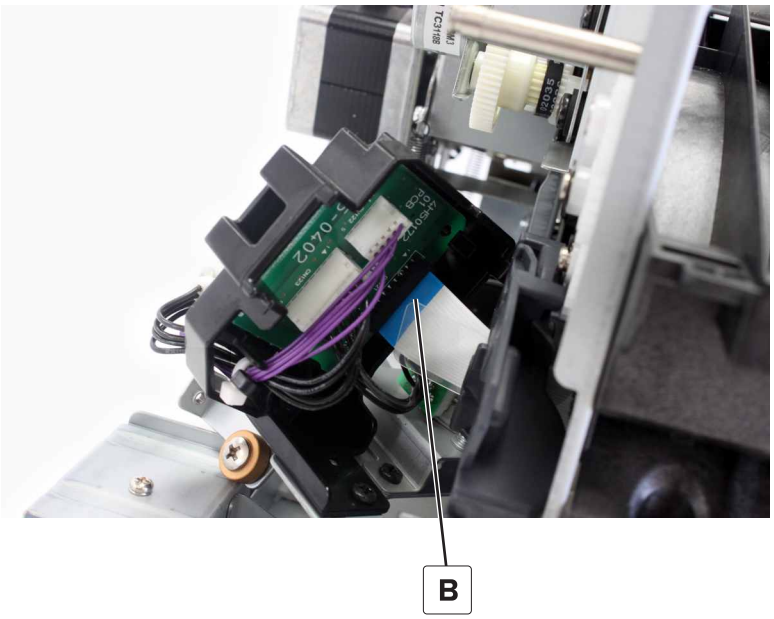
1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the staple unit. See **"Staple finisher staple unit removal" on page 252**.

3 Unlatch, and then remove the interface board cover (A).



4 Disconnect the cable (B), and then remove the assembly.



Staple finisher interface board removal

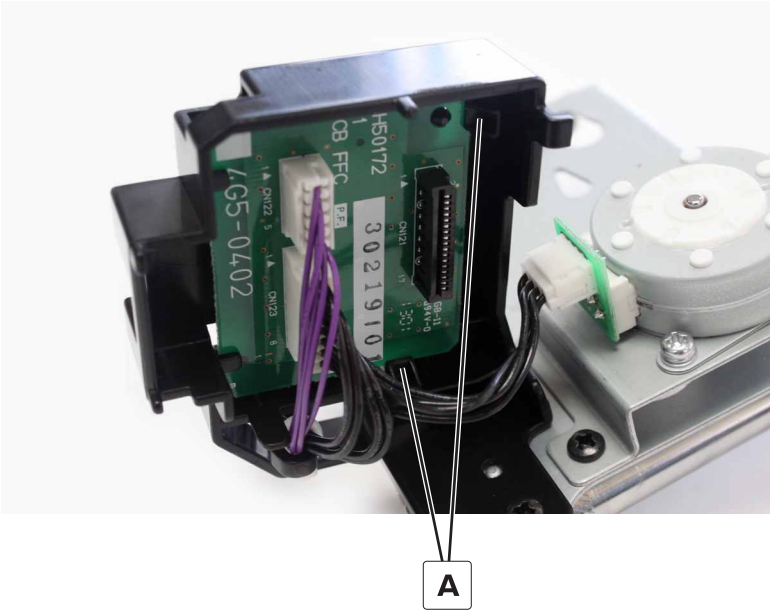
1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the staple unit. See **"Staple finisher staple unit removal" on page 252**.

3 Remove the staple unit carriage assembly. See **"Staple finisher staple unit carriage assembly removal" on page 253**.

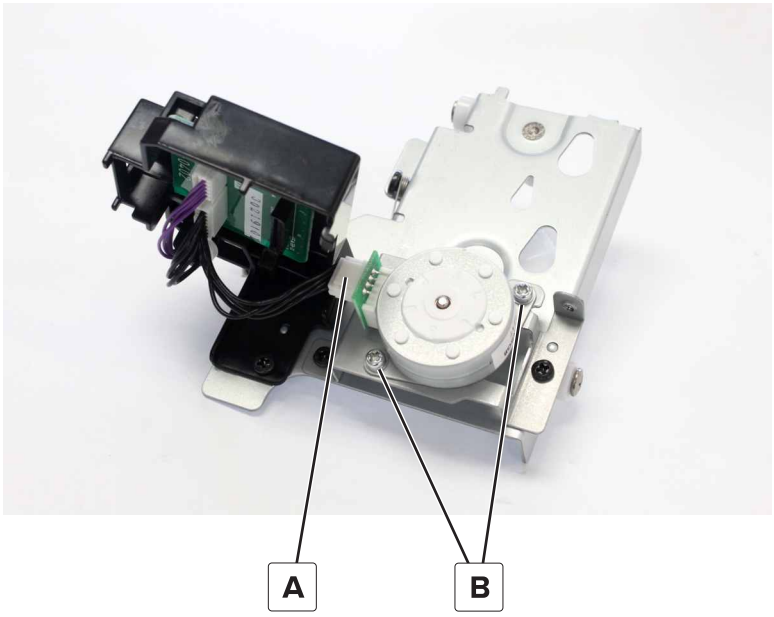
4 Disconnect all cables from the board.

5 Release the two latches (A), and then remove the board.



Motor (staple finisher staple unit carriage) removal

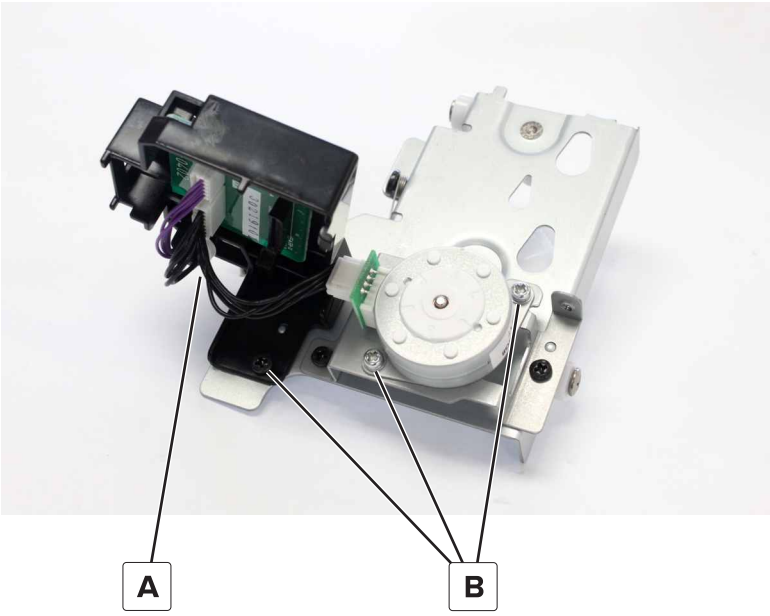
1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the staple unit. See **"Staple finisher staple unit removal" on page 252**.
3. Remove the staple unit carriage assembly. See **"Staple finisher staple unit carriage assembly removal" on page 253**.
4. Disconnect the cable (A).
5. Remove the two screws (B), and then remove the motor.



Staple finisher staple unit carriage removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the staple unit. See **"Staple finisher staple unit removal" on page 252**.
3. Remove the staple unit carriage assembly. See **"Staple finisher staple unit carriage assembly removal" on page 253**.
4. Disconnect the cable (A).

5 Remove the three screws (B), and then remove the card holder and motor.



6 The carriage remains.

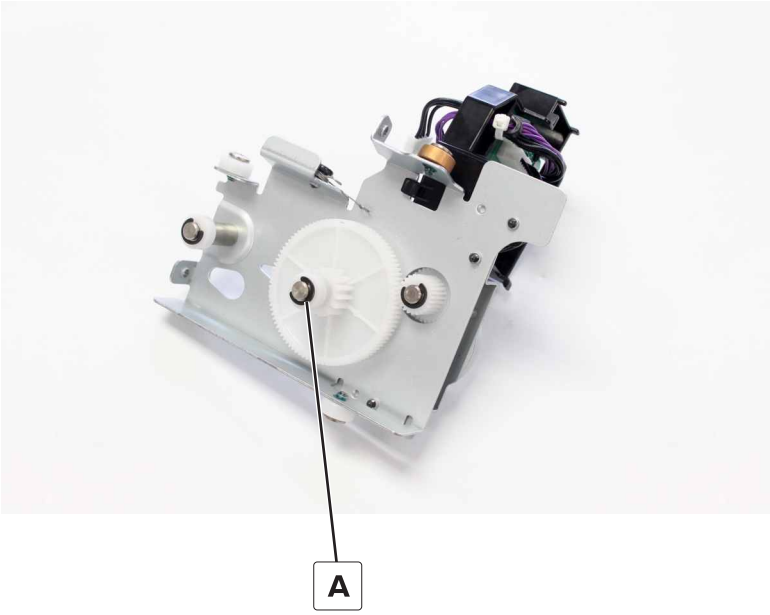
Staple finisher staple unit carriage gears removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the staple unit. See **"Staple finisher staple unit removal" on page 252**.

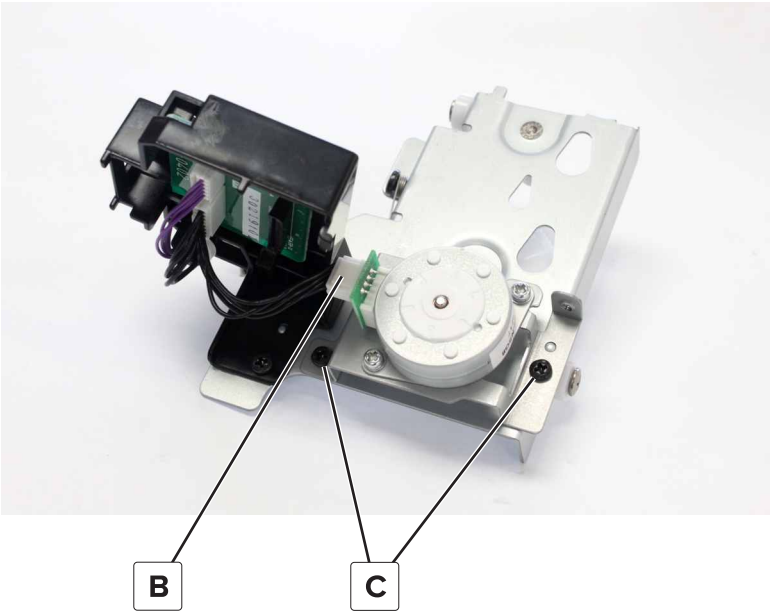
3 Remove the staple unit carriage assembly. See **"Staple finisher staple unit carriage assembly removal" on page 253**.

4 Remove the clip (A), and then remove the wheel and gear.

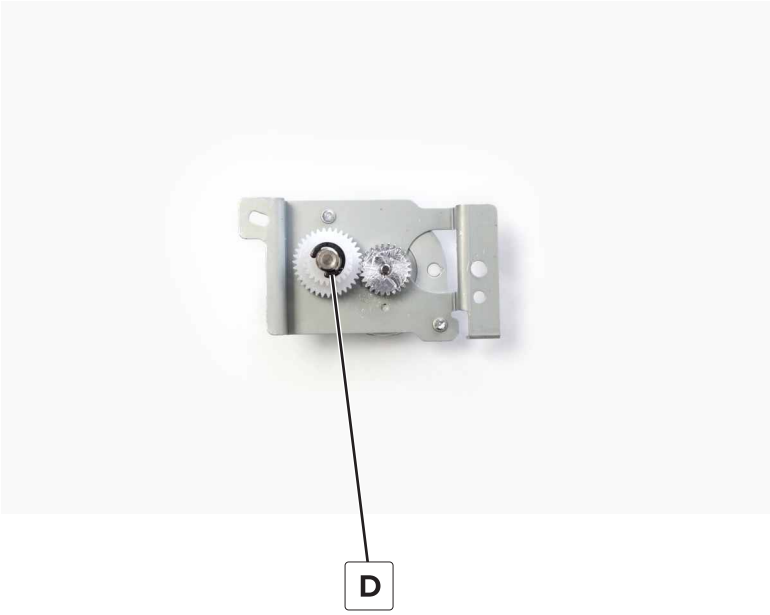


5 Disconnect the cable (B).

6 Remove the two screws (C), and then remove the motor bracket.



7 Remove the clip (D), and then remove the gear.



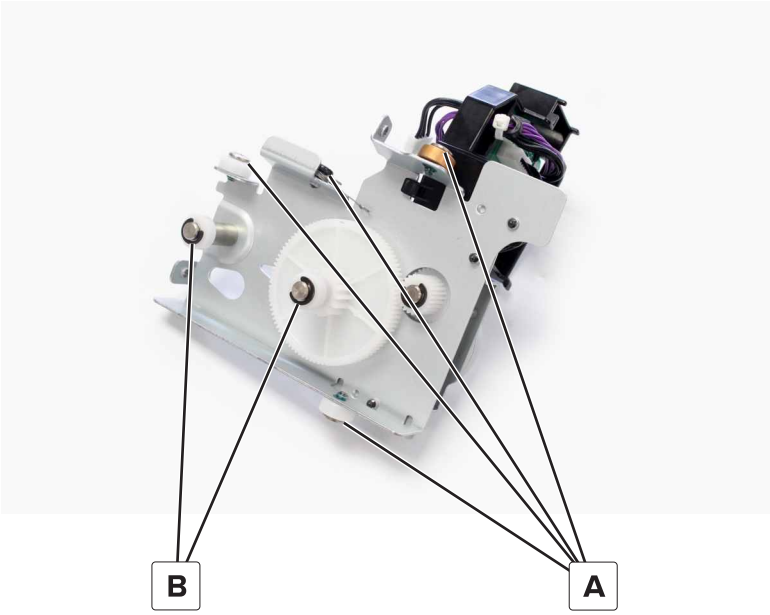
Staple finisher staple unit carriage wheel removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the staple unit. See **“Staple finisher staple unit removal” on page 252**.

3 Remove the staple unit carriage assembly. See **“Staple finisher staple unit carriage assembly removal” on page 253**.

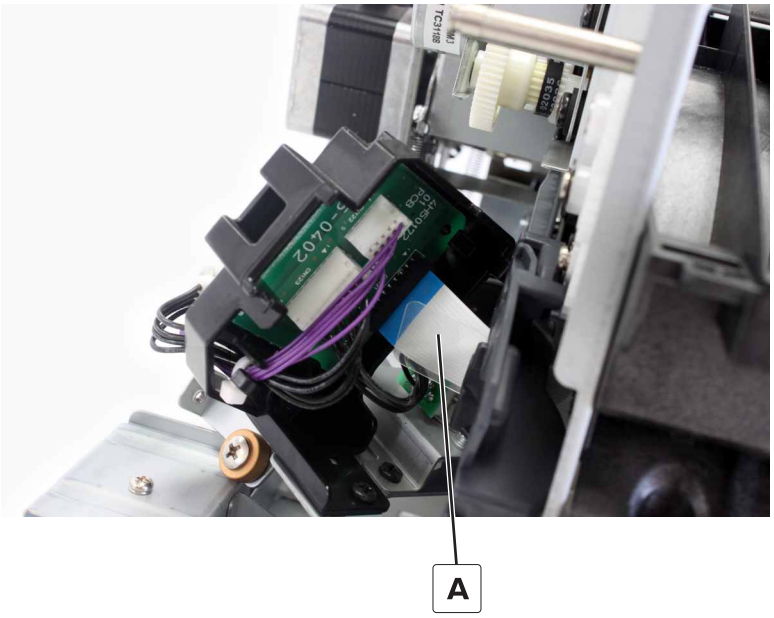
4 Remove the four screws (A) and the two clips (B).

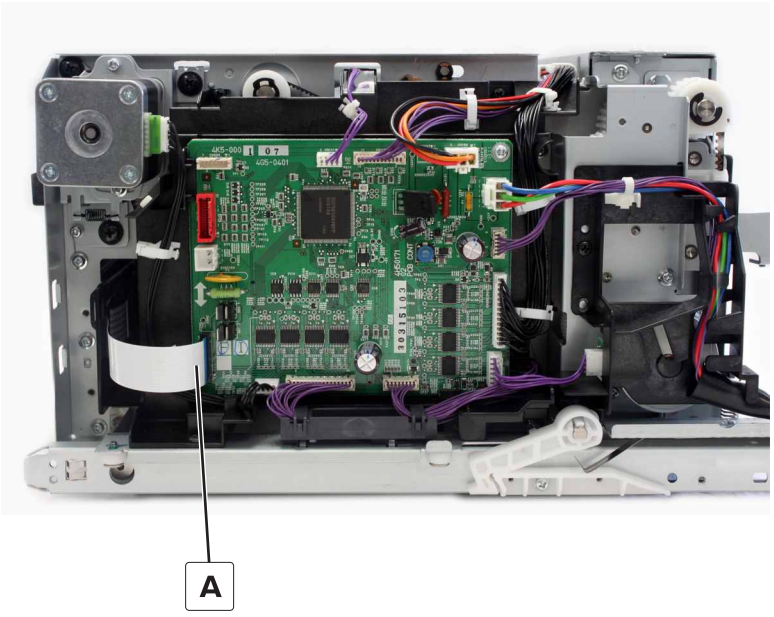


5 Remove the five wheels and spring.

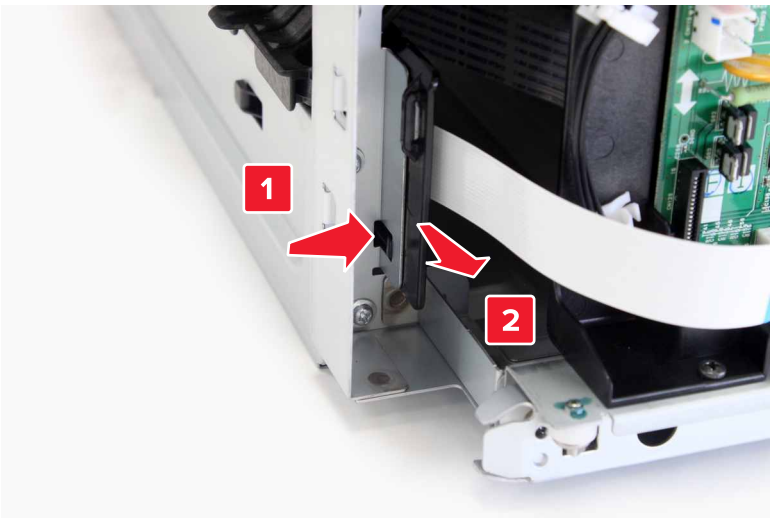
Staple finisher FFC removal

1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
3. Remove the staple unit. See **“Staple finisher staple unit removal” on page 252**.
4. Disconnect the cable (A) from the staple unit carriage and from the controller board.





5 Press the latch, and then remove the cable holder.



6 Remove the cable from the holder.

Installation notes:

a Place the cable on a flat surface, with the contacts facing down.

b Place the plastic film over the cable, and then position the tab under the cable. Align the edge of the film with the blue end.

c Bend the cable along the dashed line.

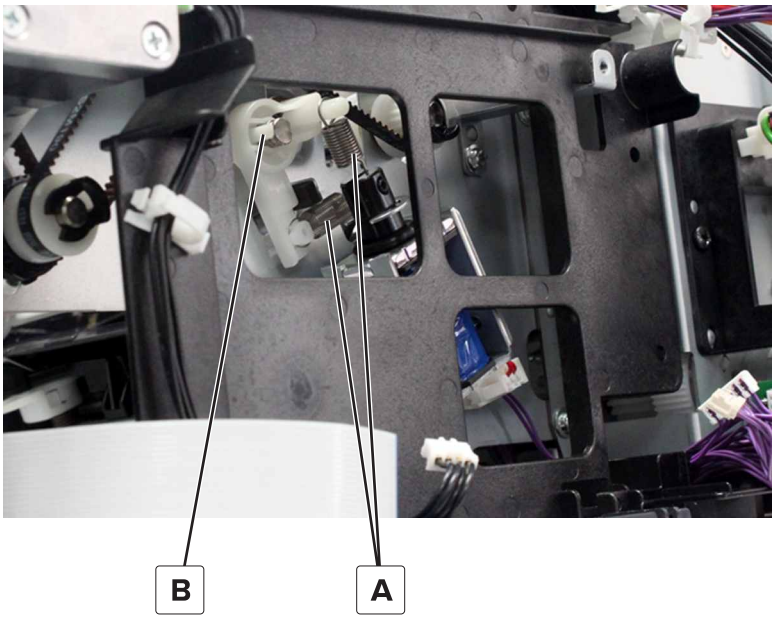
d Install the bent end on the cable holder. Thread the two clips through the film.

e Thread the cable and the film through the rest of the clips.

Staple finisher stack lever actuator removal

1. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
2. Remove the controller board. See **“Staple finisher controller board removal” on page 236**.
3. Disconnect the two springs (A).

4 Unlatch and then remove the actuator (B).



Staple finisher stack clamp solenoid removal

1 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

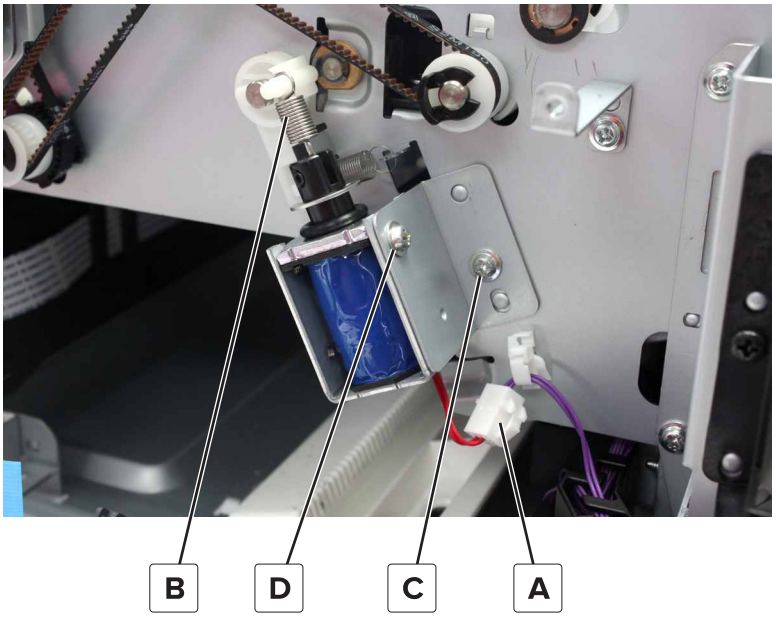
2 Remove the controller board. See **"Staple finisher controller board removal" on page 236**.

3 Remove the controller board holder. See **"Staple finisher controller board holder removal" on page 237**.

4 Disconnect the cable (A) and spring (B).

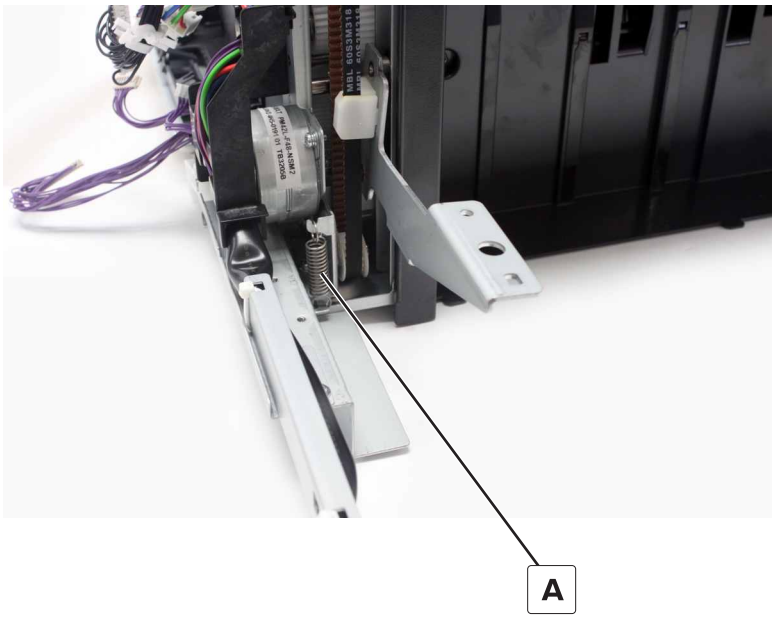
5 Remove the screw (C), and then remove the bracket.

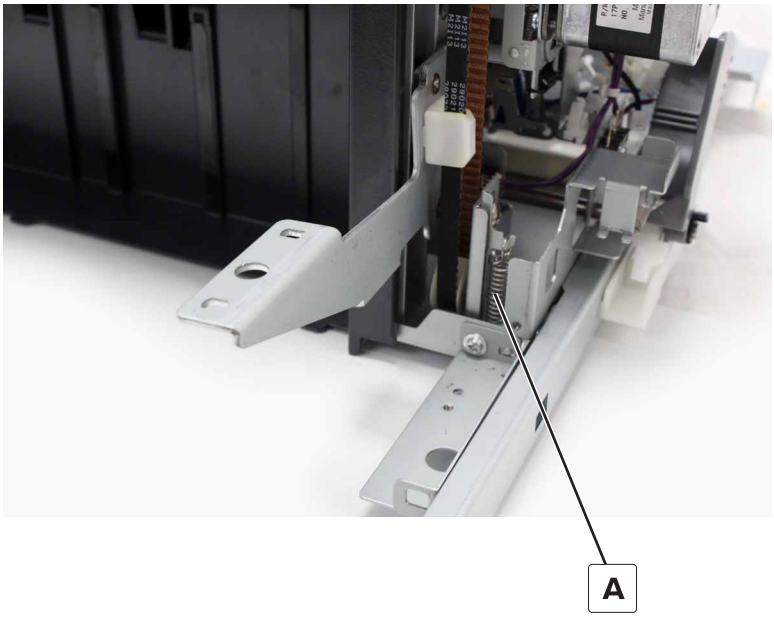
6 Remove the screw (D), and then remove the solenoid.



Staple finisher elevator springs removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.
3. Remove the bin. See **"Staple finisher bin removal" on page 224**.
4. Remove the two springs (A).





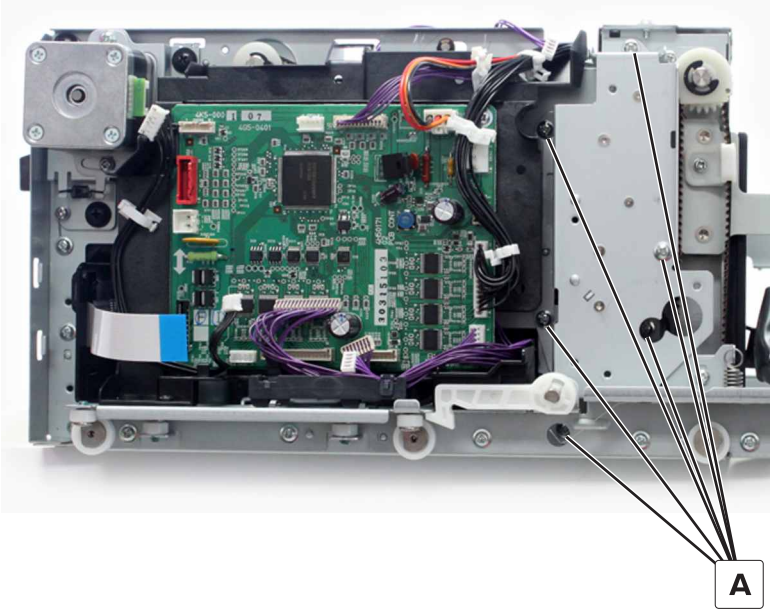
Staple finisher elevator drive gears removal

1. Remove the bin. See **"Staple finisher bin removal" on page 224**.
2. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

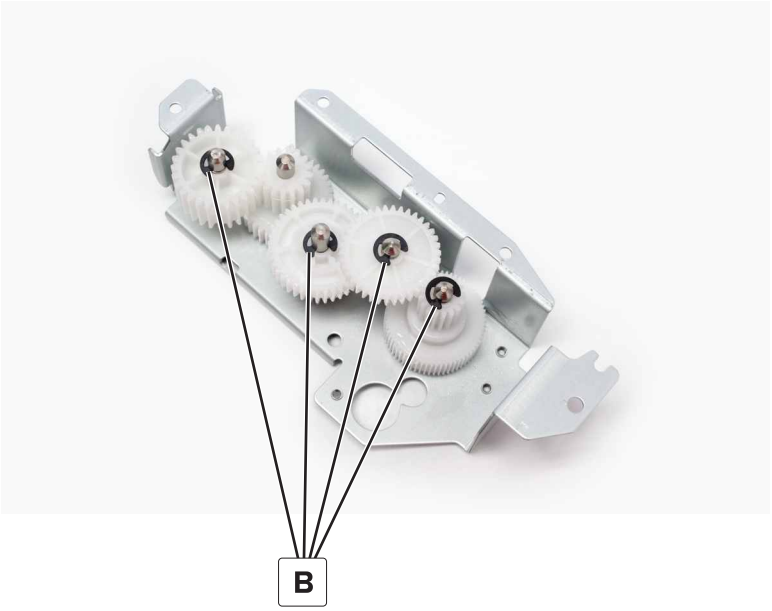
3 Remove the rear guide rail. See **"Staple finisher guide rails removal" on page 235**.

4 Remove the motor (staple finisher elevator). See **"Motor (staple finisher elevator) removal" on page 242**.

5 Remove the six screws (A), and then remove the bracket.



6 Remove the four clips (B), and then remove all the gears from the bracket.



Staple finisher elevator belts removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

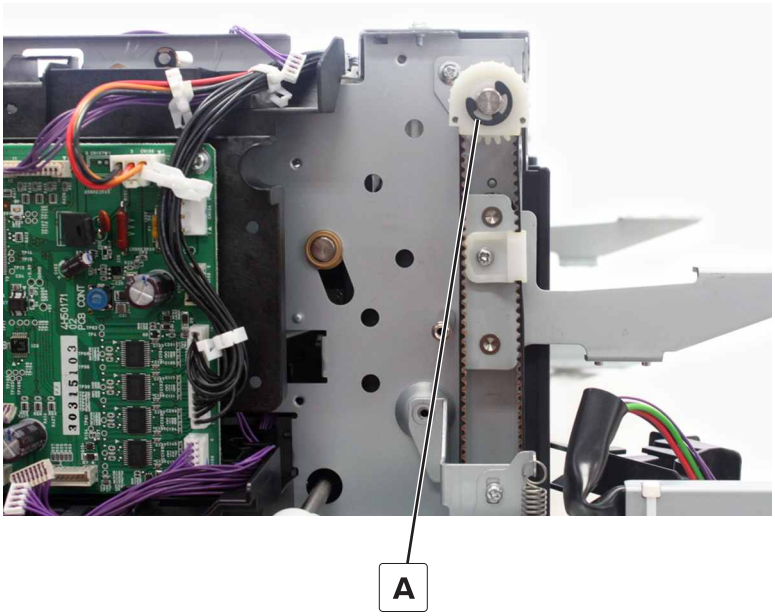
3 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

4 Remove the rear guide rail. See **"Staple finisher guide rails removal" on page 235**.

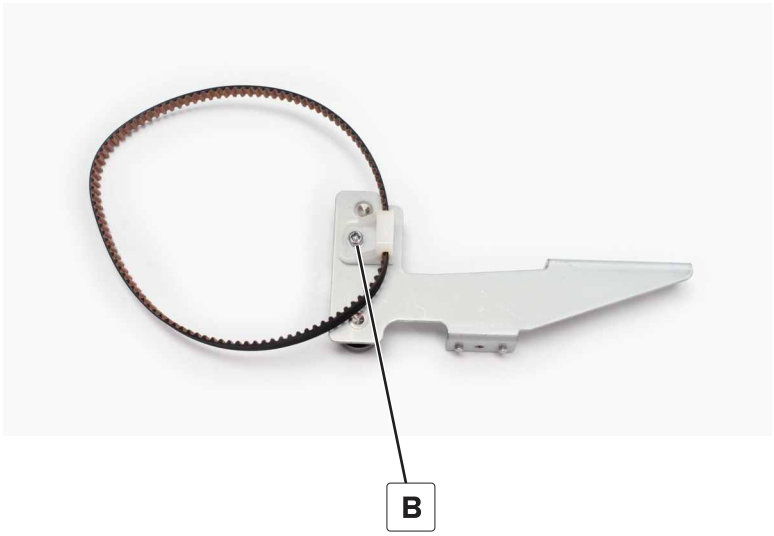
5 Remove the motor (staple finisher elevator). See **"Motor (staple finisher elevator) removal" on page 242**.

6 Remove the elevator drive gears bracket. See **"Staple finisher elevator drive gears removal" on page 263**.

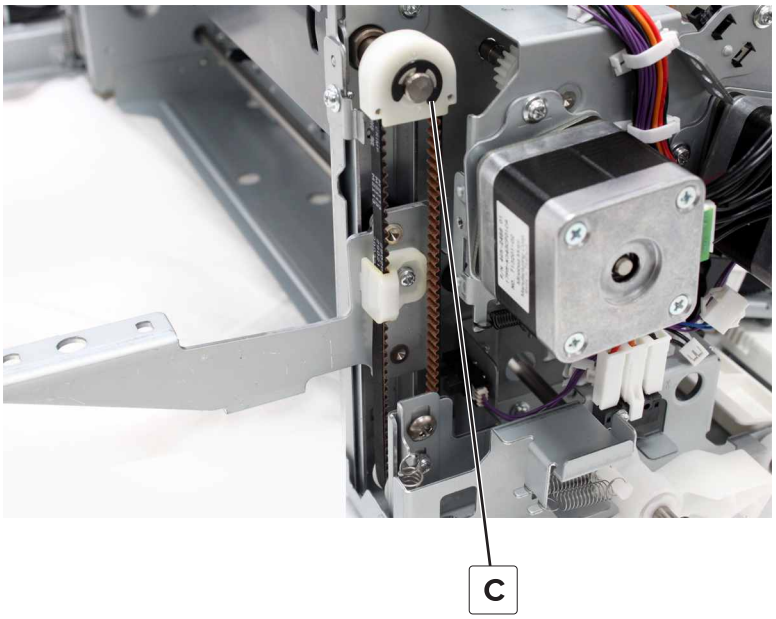
7 Remove the clip (A), remove the rear belt cover, and then remove the belt.



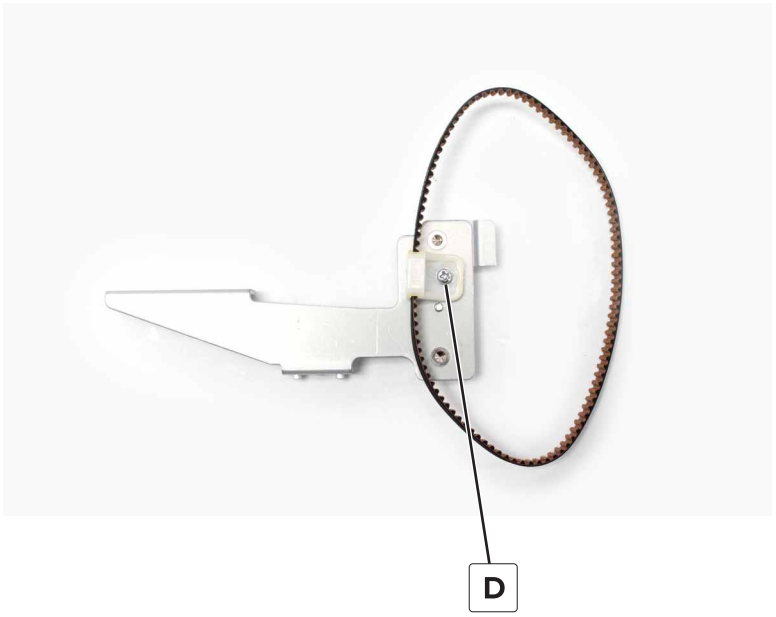
8 Remove the screw (B), and then remove the belt from the bracket.



9 Remove the clip (C), remove the front belt cover, and then remove the belt.



10 Remove the screw (D), and then remove the belt from the bracket.



Installation note: To ensure that the front and rear brackets are level, place them at their lowest position before installing the belts on the gears.

Staple finisher elevator gears removal

1 Remove the bin. See **"Staple finisher bin removal" on page 224**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

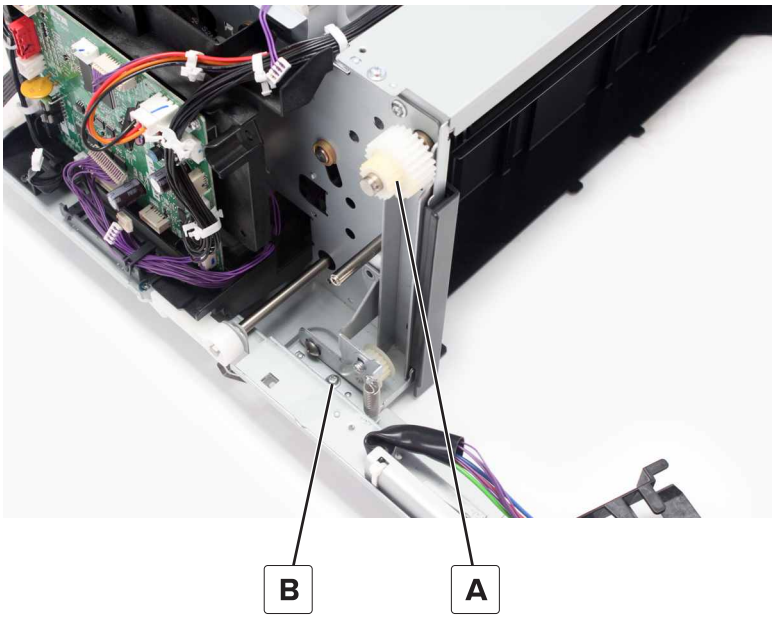
3 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

4 Remove the elevator drive gears. See **"Staple finisher elevator drive gears removal" on page 263**.

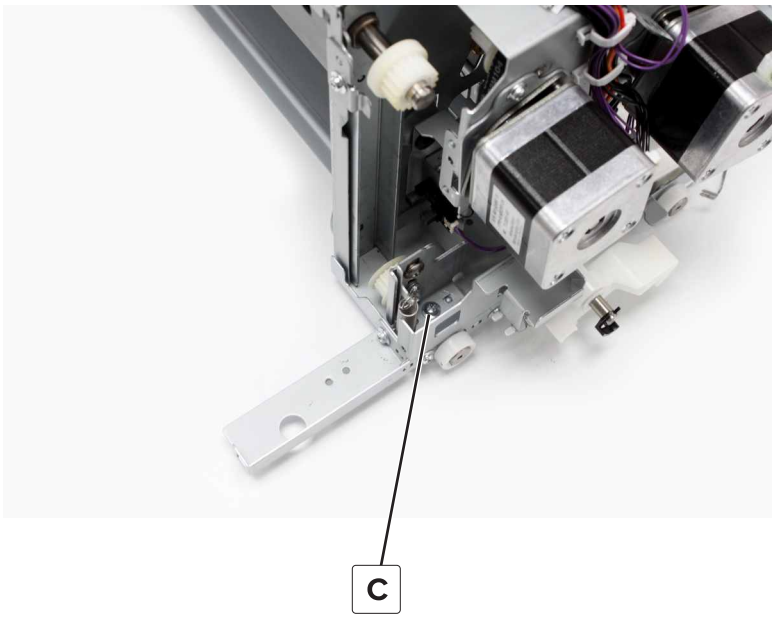
5 Remove the elevator belts. See **"Staple finisher elevator belts removal" on page 264**.

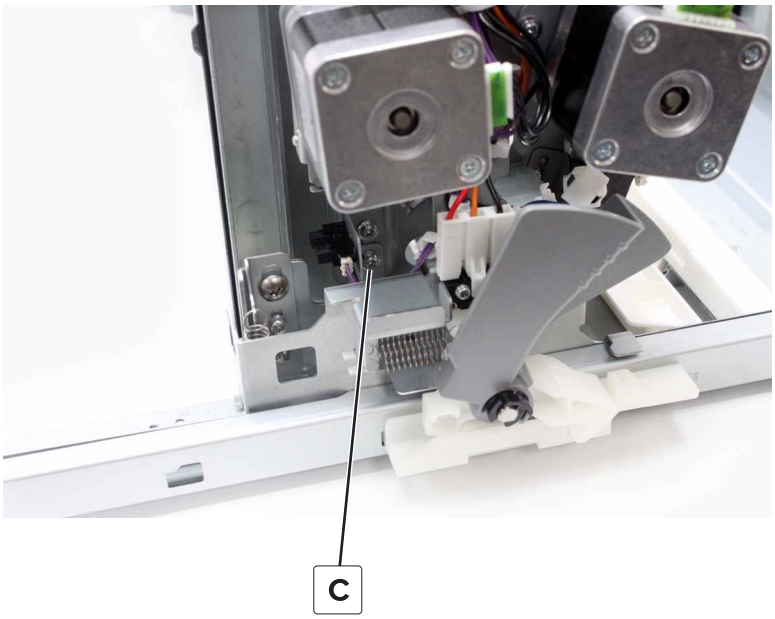
6 Remove the gear (A).

7 Remove the screw (B), and then remove the gear bracket.



8 Remove the two screws (C), and then remove the gear bracket.



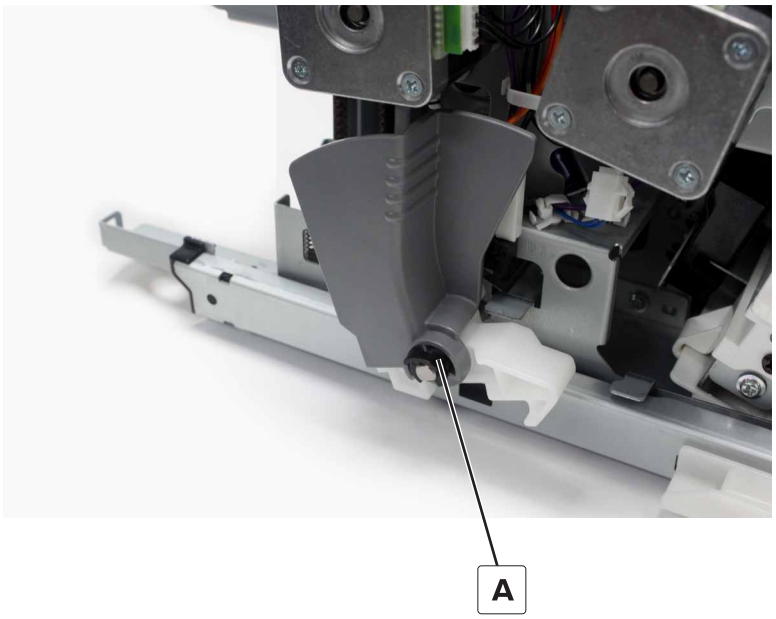


9 Remove the clip (D), and then remove the gear. Also remove the gear from the other bracket.

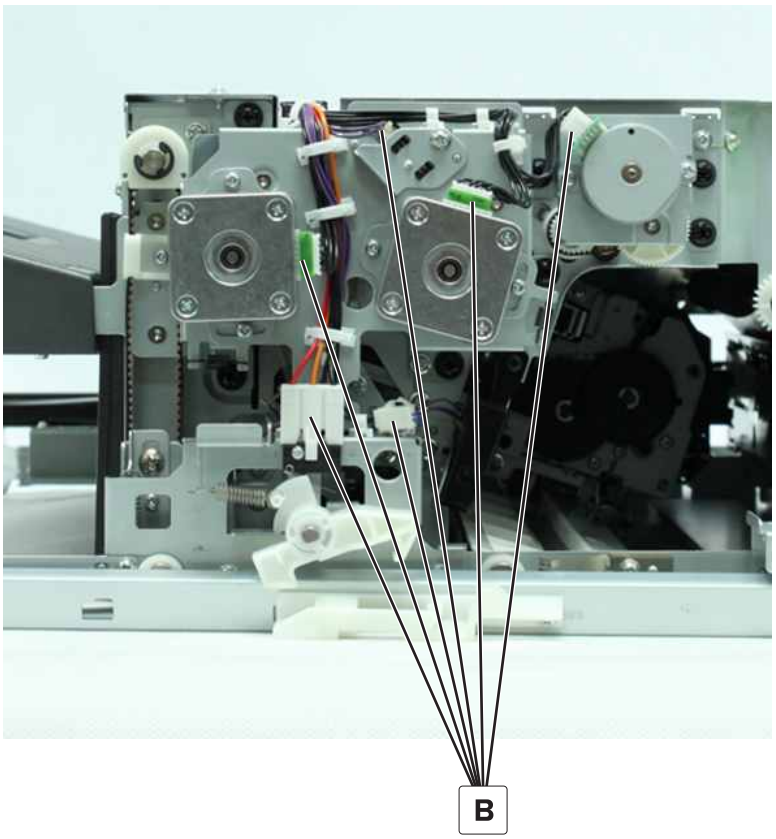
Exit motor bracket removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

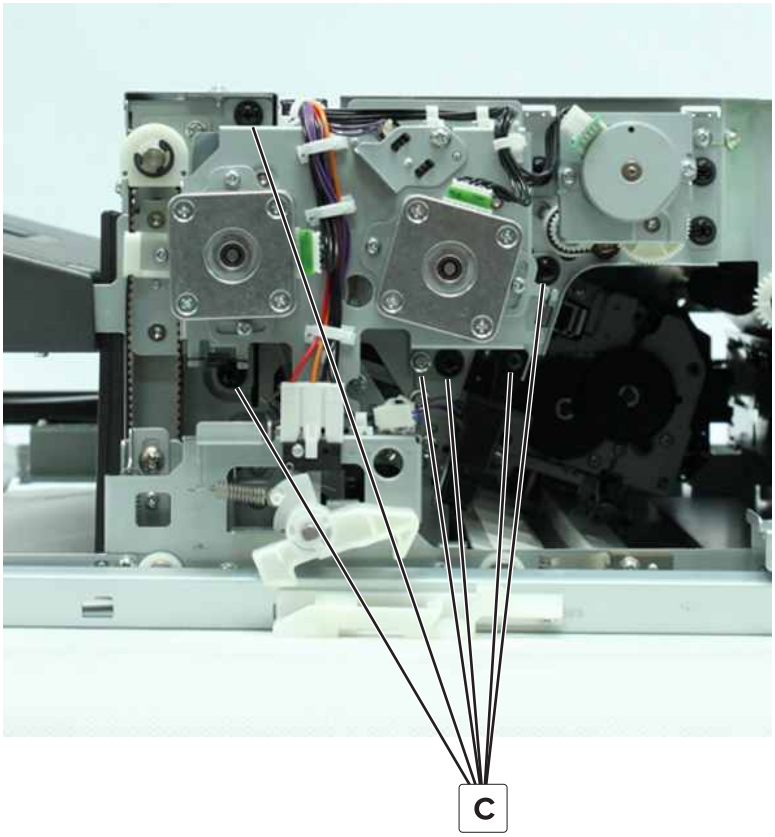
2 Remove the clip (A), and then remove the handle.



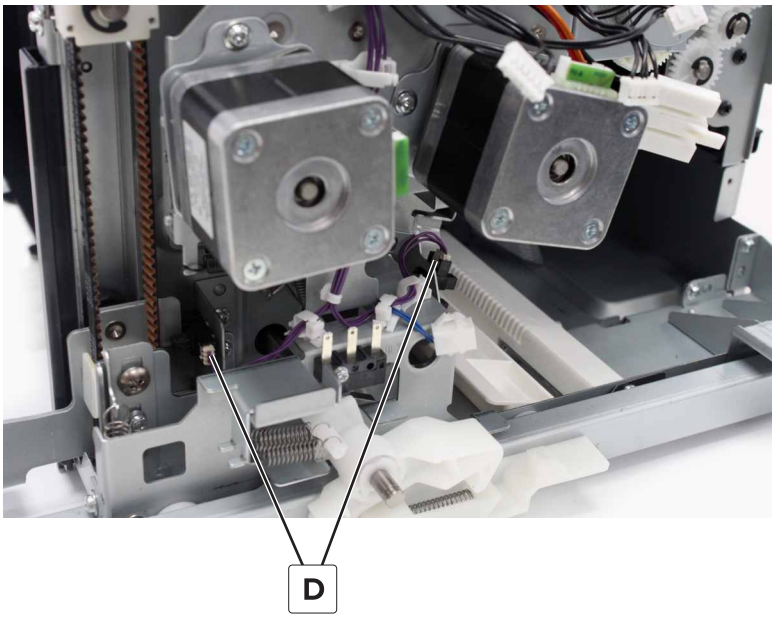
3 Disconnect the six cables (B).



4 Remove the six screws (C).



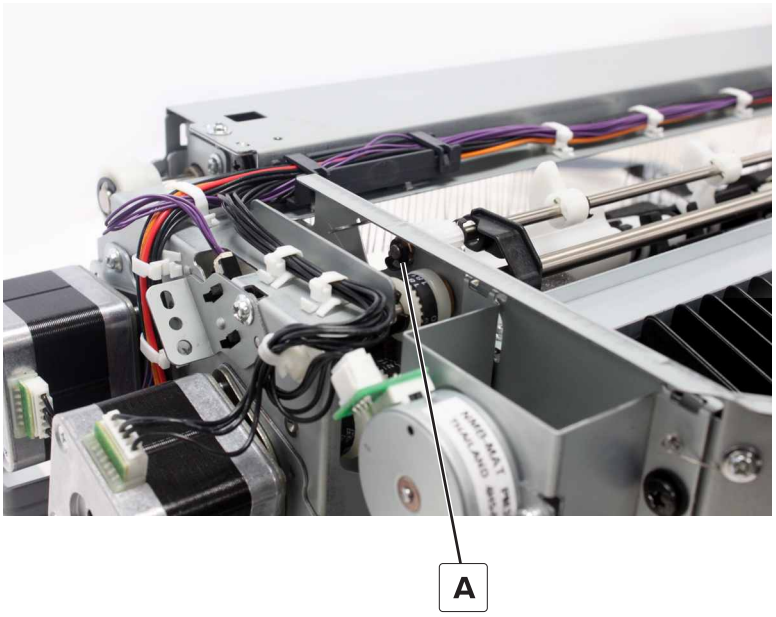
5 Remove the staple unit carriage home sensor cover, and then disconnect the two cables (D).

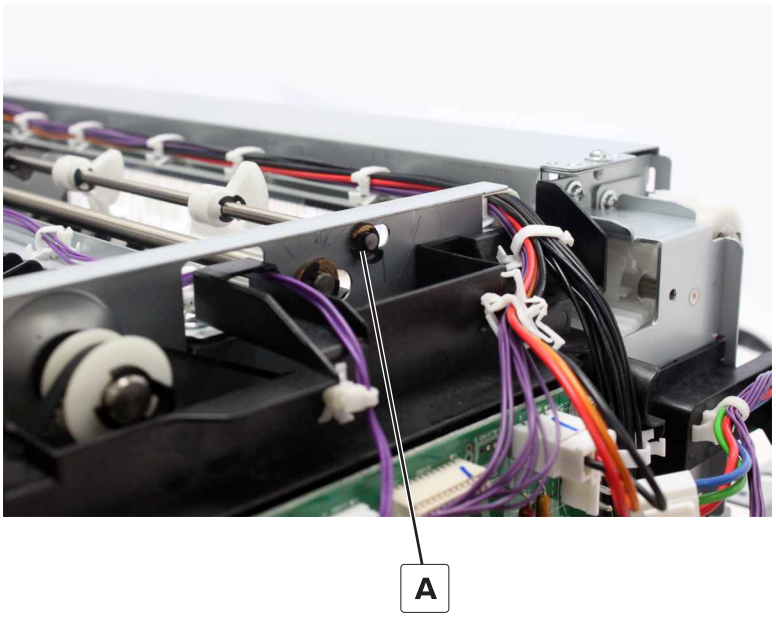


6 Remove all the cables from the bracket, and then remove the bracket.

Staple finisher exit guide lift cam removal

1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
3. Remove the top cover. See **“Staple finisher top cover removal” on page 223**.
4. Remove the two clips (A), and then remove the bushings.

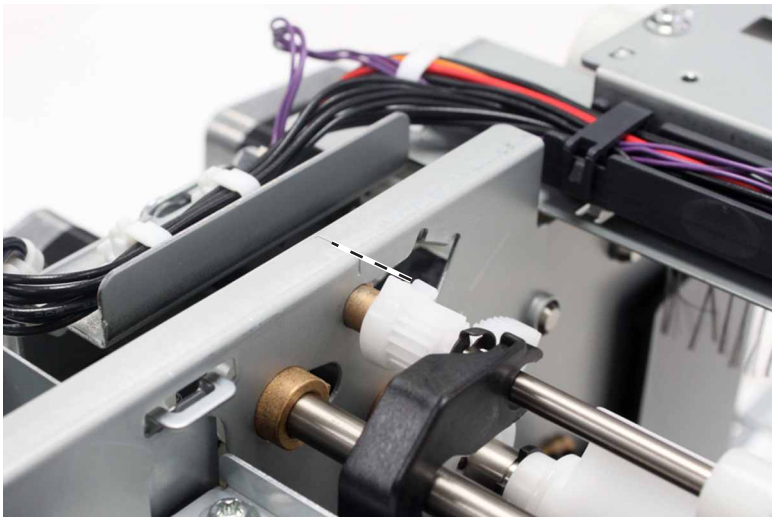




5. Remove the shaft.

Installation notes:

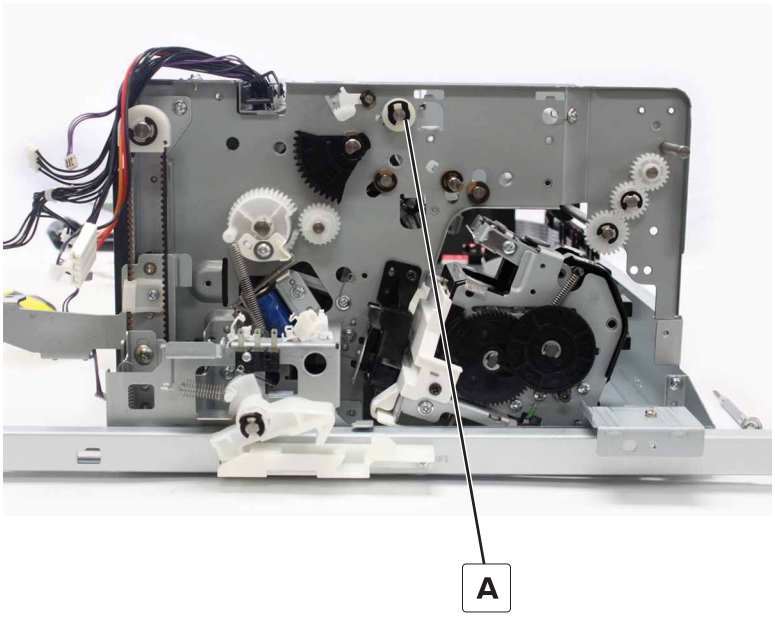
- Place the upper exit roller assembly in the lowermost position.
- Align the pointer on the gear with the notch on the frame.



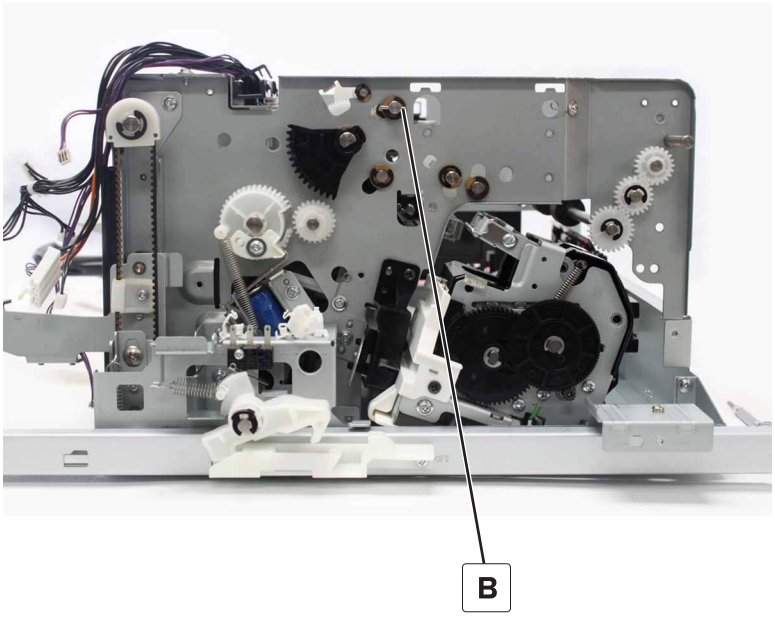
Staple finisher upper exit roller drive gears removal

1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
3. Remove the top cover. See **“Staple finisher top cover removal” on page 223**.
4. Remove the controller board. See **“Staple finisher controller board removal” on page 236**.
5. Remove the controller board holder. See **“Staple finisher controller board holder removal” on page 237**.
6. Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.

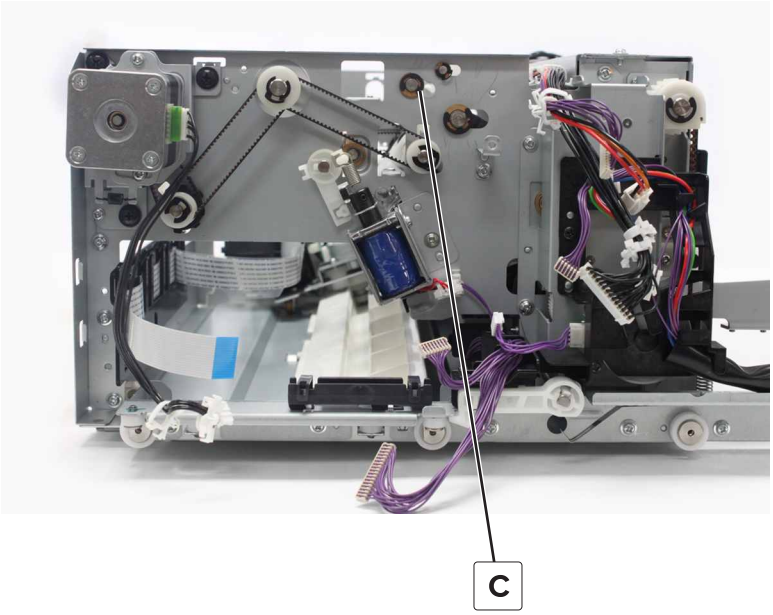
7 Remove the clip (A), and then remove the washer and gear.



8 Remove the pin (B), and then remove the clip and bushing.

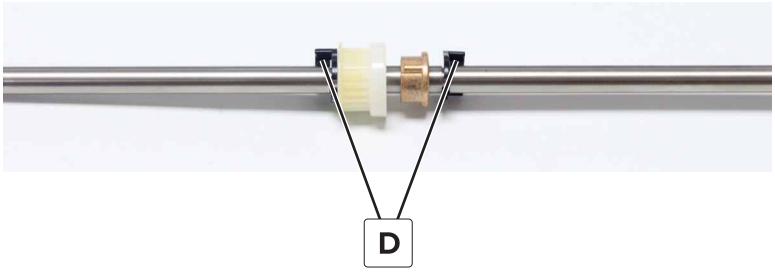


9 Remove the clip (C), and then remove the bushing.



10 Remove the shaft.

11 Remove the two clips (D), and then remove the gear and bushing.



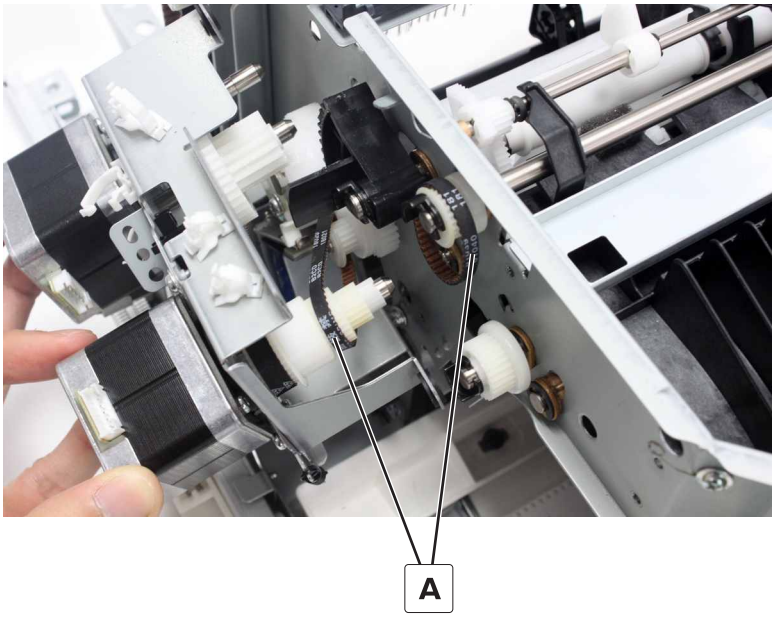
12 Remove the plate (E).

Staple finisher exit roller drive belts and gears removal

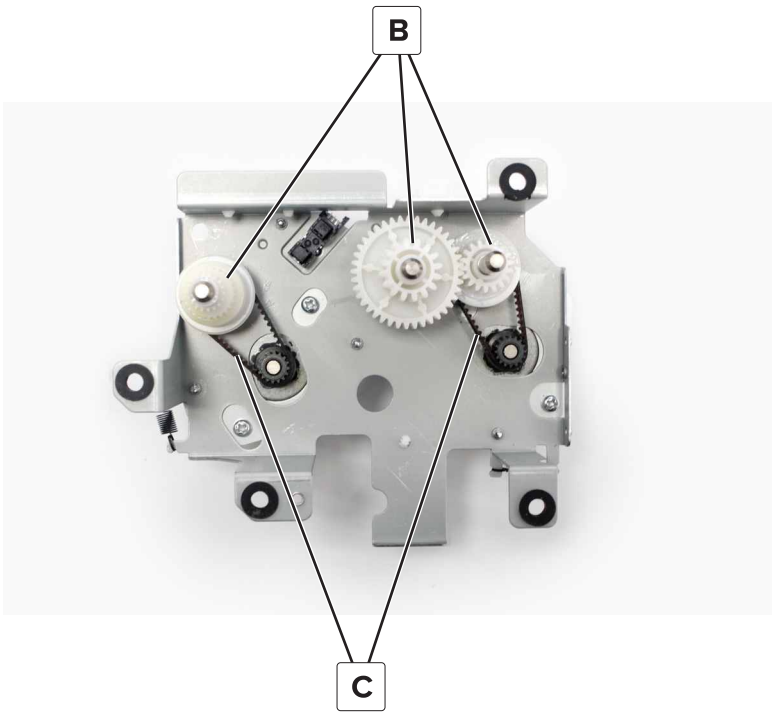
1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

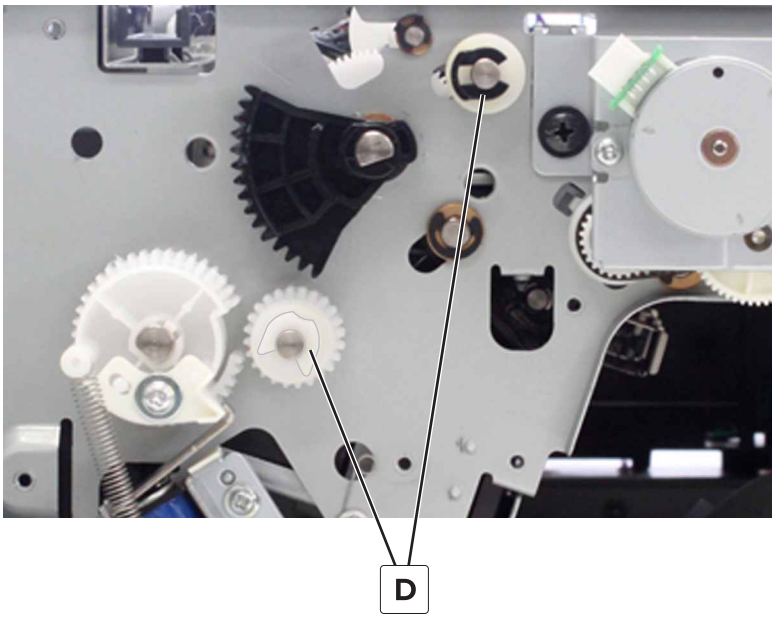
3 Remove the two belts (A).



4 Remove the three gears (B), and two belts (C).



5 Remove the two clips (D), and then remove the gears.



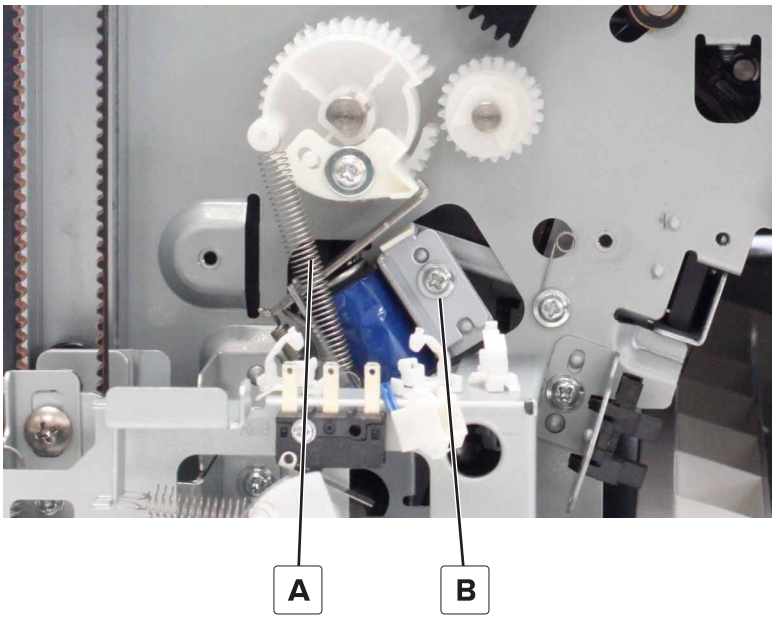
Staple finisher exit roller solenoid removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

3 Disconnect the spring (A).

4 Remove the screw (B), and then remove the solenoid.

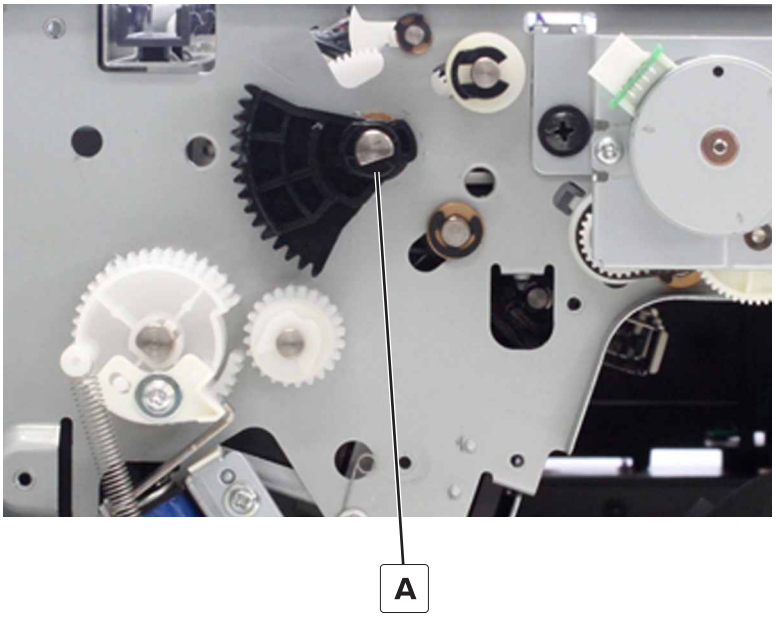


Staple finisher upper exit actuator removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

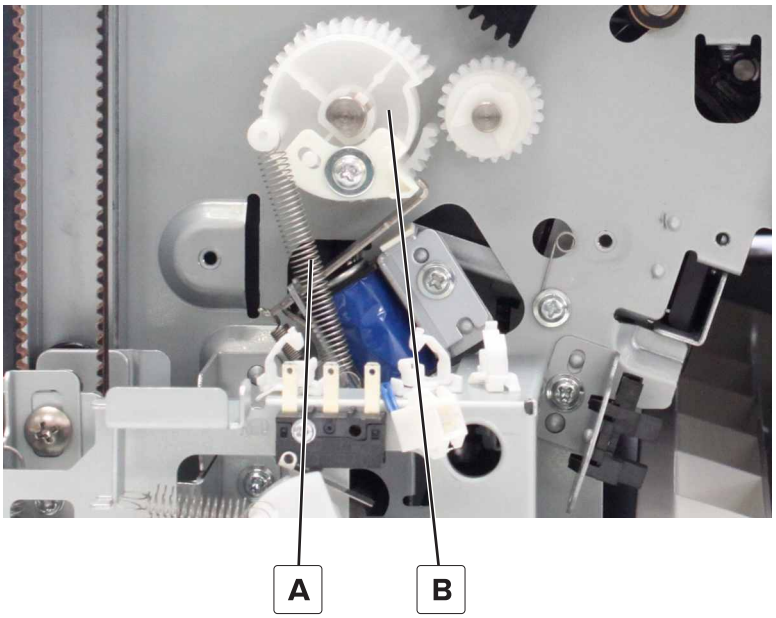
2 Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.

3 Remove the clip (A), and then remove the actuator.



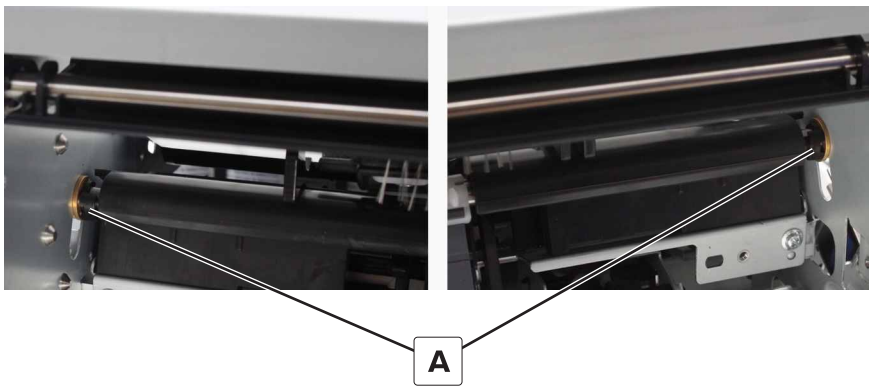
Staple finisher exit roller gear removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.
3. Disconnect the spring (A).
4. Unlatch and then remove the gear (B).



Staple finisher lower exit roller removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the bin. See **"Staple finisher bin removal" on page 224**.
3. Remove the left inner cover. See **"Staple finisher left inner cover removal" on page 225**.
4. Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.
5. Remove the exit roller gear. See **"Staple finisher exit roller gear removal" on page 278**.
6. Remove the two clips (A), and then release the bushings.



7 Lower the actuator, and then remove the roller.

8 Remove the lower exit roller paddles. See **"Staple finisher lower exit roller paddles removal" on page 225**.

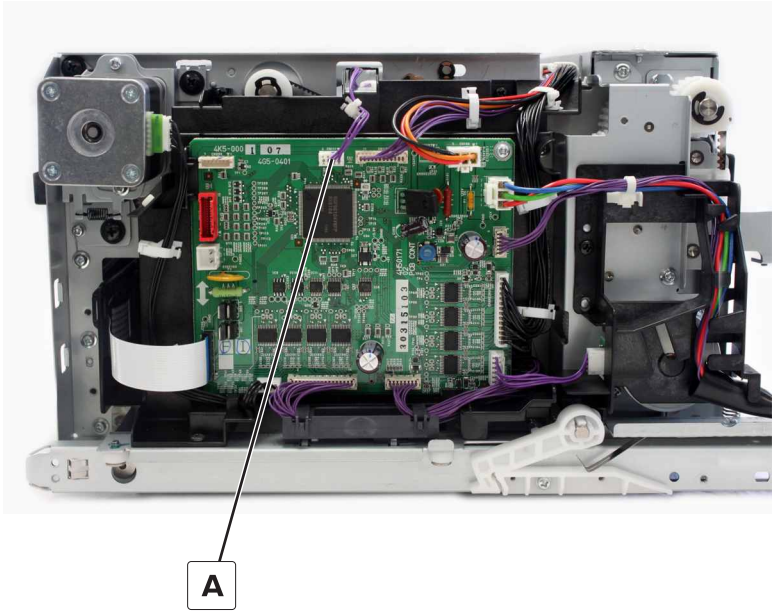
Staple finisher upper guide removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

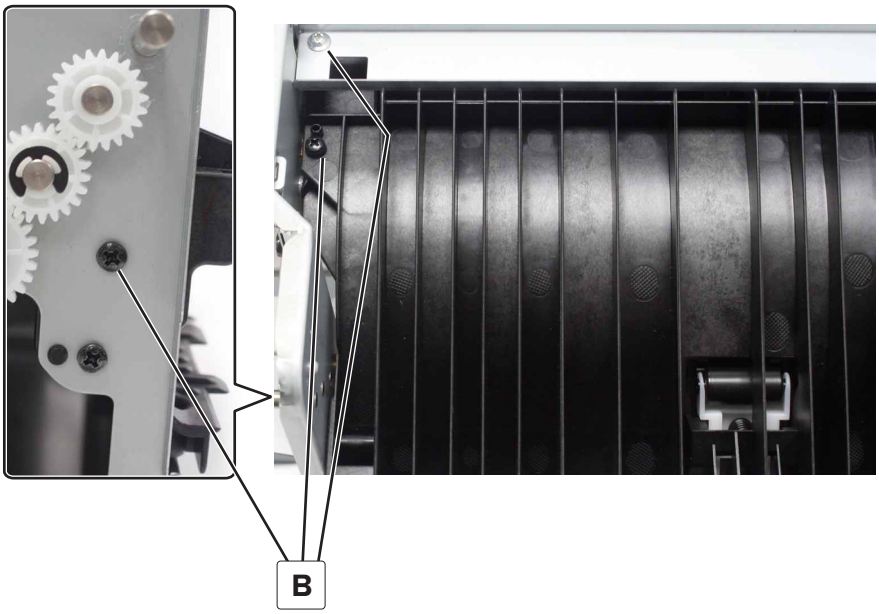
2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

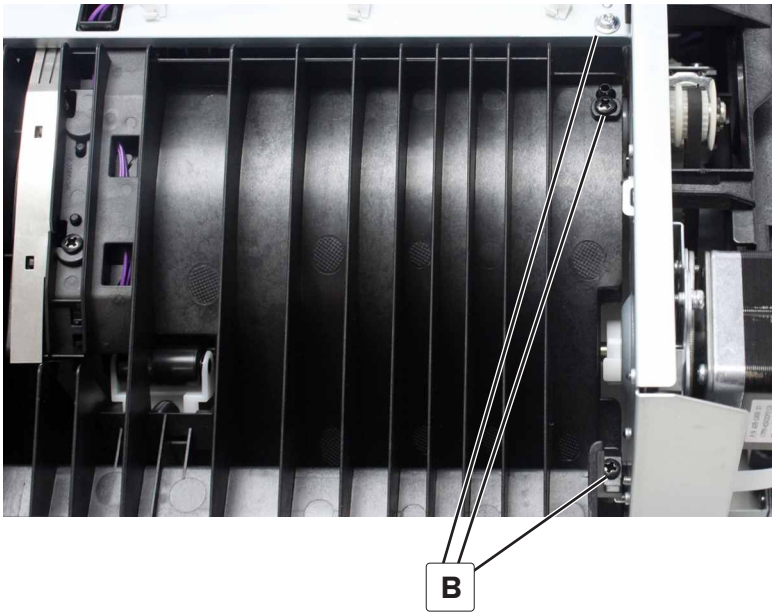
3 Remove the top cover. See **"Staple finisher top cover removal" on page 223**.

4 Disconnect, and then remove the cable (A) from the holders.



5 Remove the six screws (B).

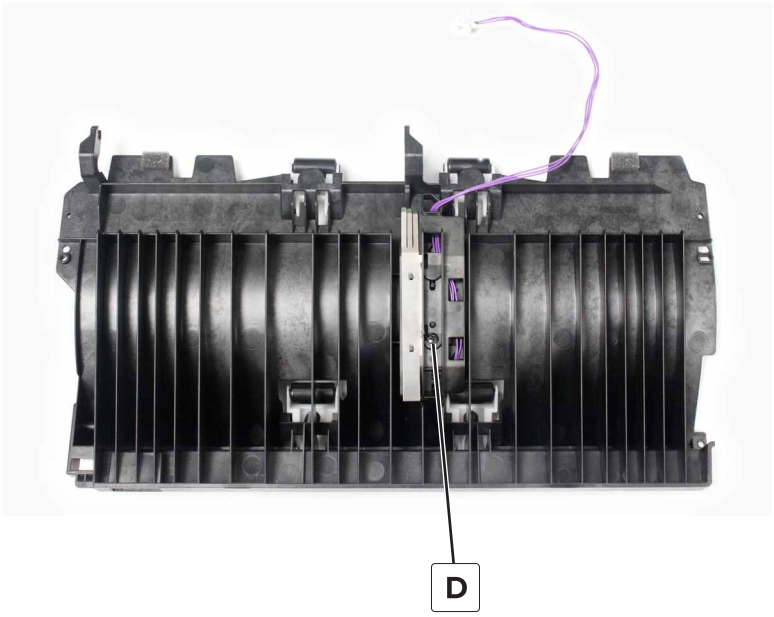




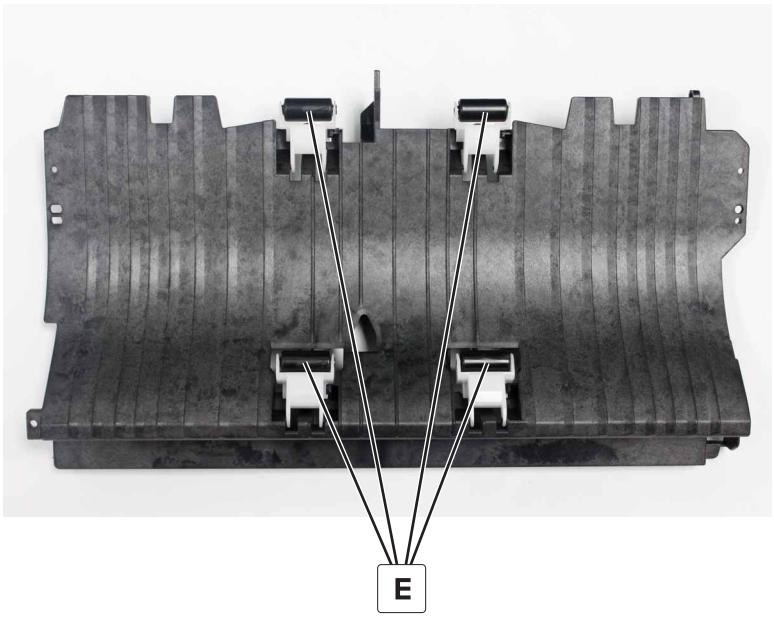
6 Remove the clip (C), and then slide the bushing.

7 Remove the guide from the finisher.

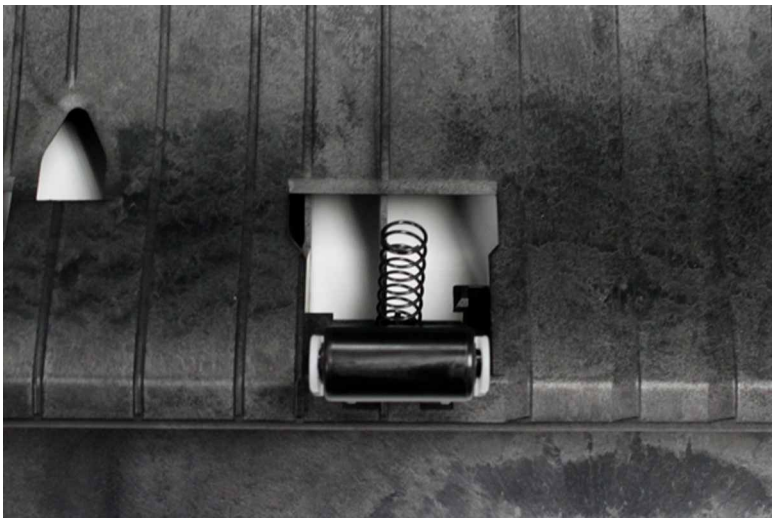
8 Remove the screw (D), and then remove the sensor holder.



9 Pry, and then remove the four rollers (E).

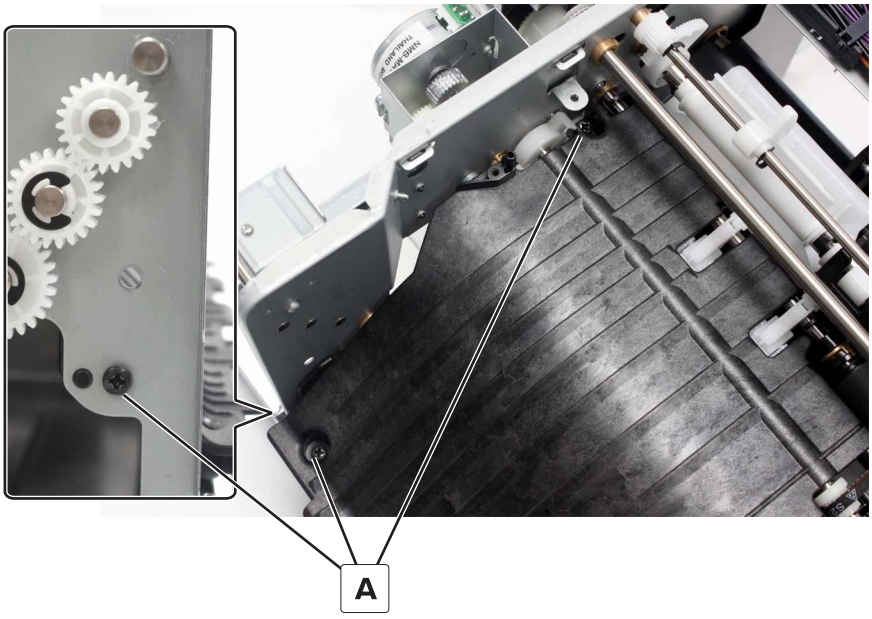


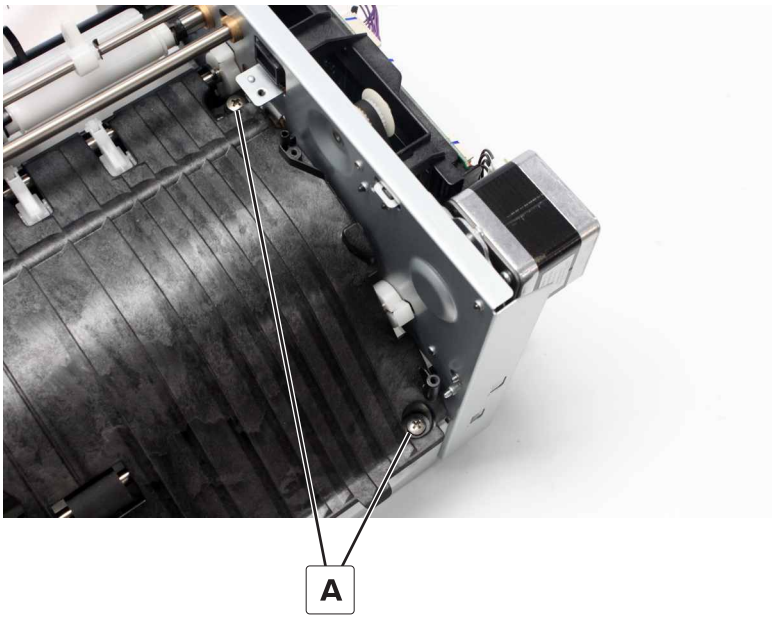
Installation note: The springs are color-coded according to their location.



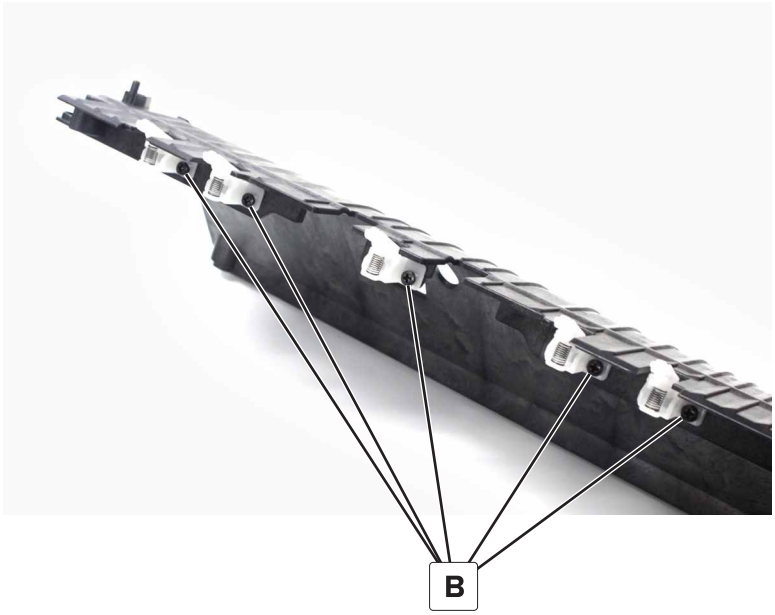
Staple finisher lower guide removal

1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
3. Remove the top cover. See **“Staple finisher top cover removal” on page 223**.
4. Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.
5. Remove the five screws (A), and then remove the guide.





6 Remove the five screws (B), and then remove the idler rollers.



Staple finisher staple unit rail removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

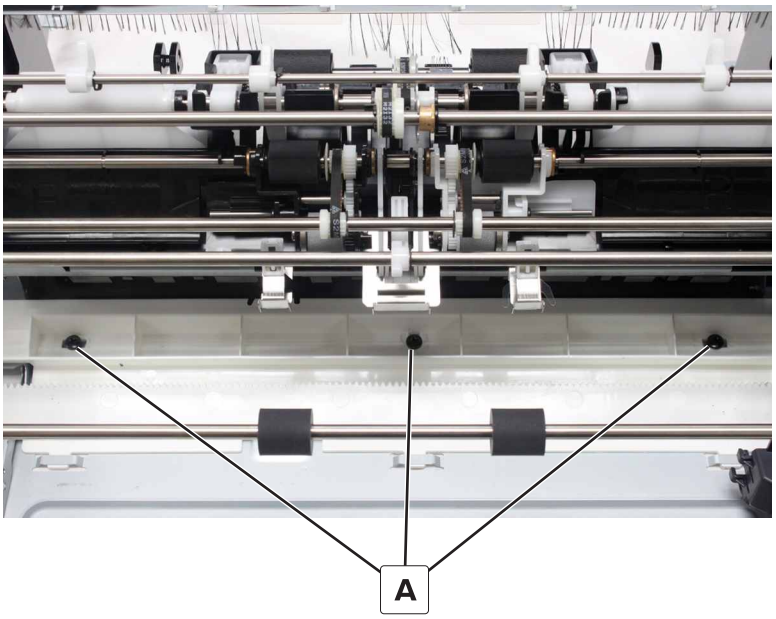
4 Remove the staple unit. See **“Staple finisher staple unit removal” on page 252**.

5 Remove the staple unit carriage assembly. See **“Staple finisher staple unit carriage assembly removal” on page 253**.

6 Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.

7 Remove the lower guide. See **"Staple finisher lower guide removal" on page 283**.

8 Remove the three screws (A), and then remove the rail.



Staple finisher compiler feed roller guide removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

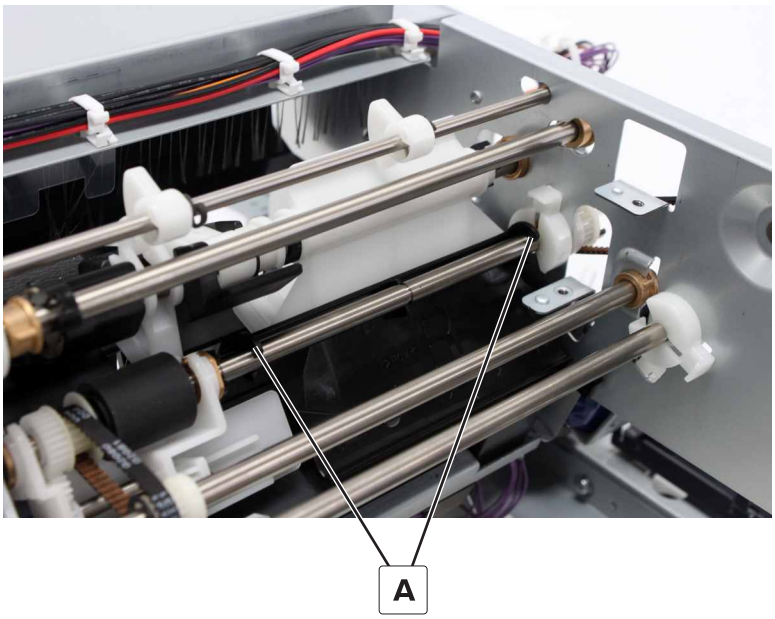
2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

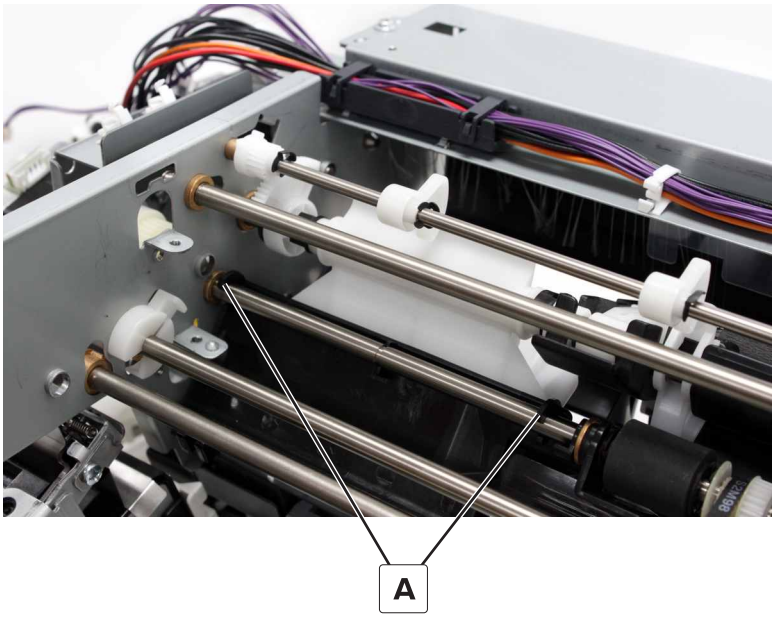
3 Remove the top cover. See **"Staple finisher top cover removal" on page 223**.

4 Remove the upper guide. See **"Staple finisher upper guide removal" on page 279**.

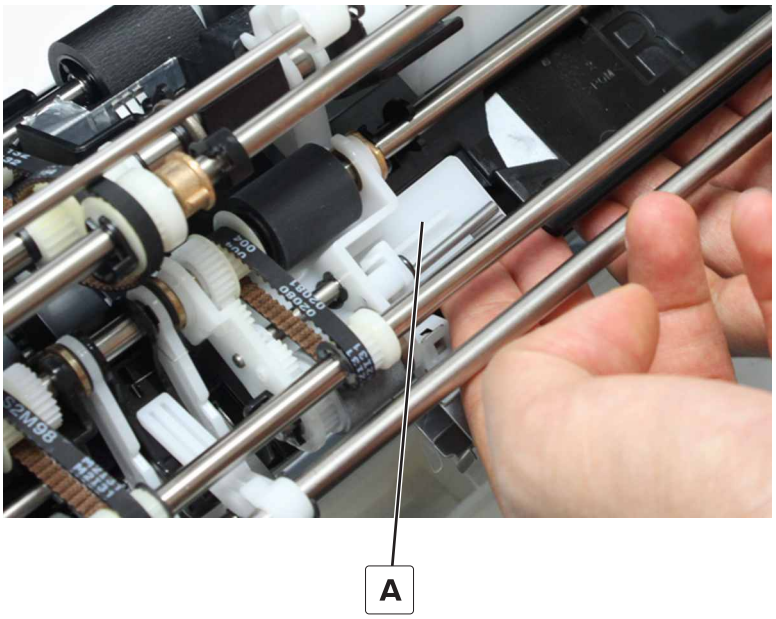
5 Remove the lower guide. See **"Staple finisher lower guide removal" on page 283**.

6 Release the four latches (A), and then remove the guides.



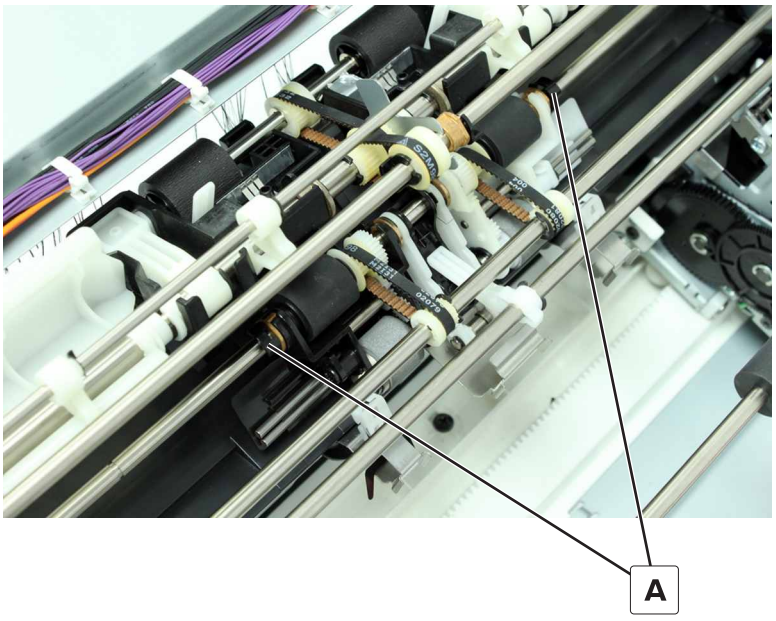


Installation note: Position the guides under the flaps (A).

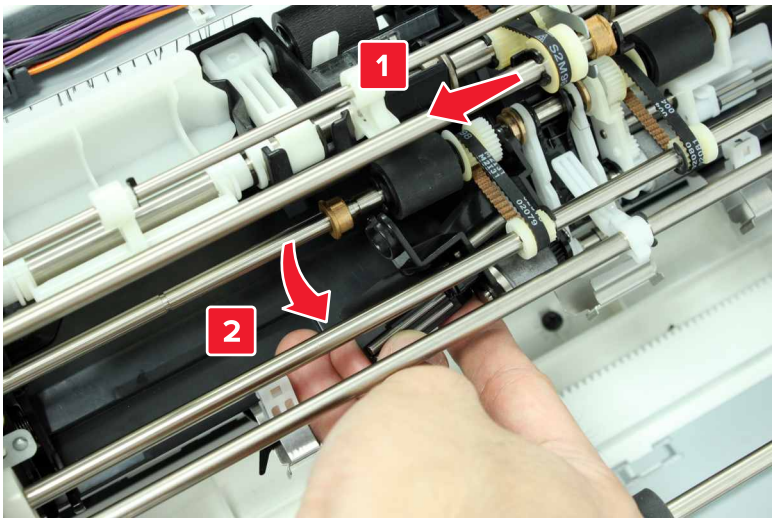


Staple finisher aligner roller removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.
3. Remove the top cover. See **"Staple finisher top cover removal" on page 223**.
4. Remove the upper guide. See **"Staple finisher upper guide removal" on page 279**.
5. Remove the lower guide. See **"Staple finisher lower guide removal" on page 283**.
6. Remove tamper feed roller guide. See **"Staple finisher compiler feed roller guide removal" on page 285**.
7. Remove the two clips (A), and then slide the bushings.



8 Slide, and then swing out to remove the roller.



9 Remove the other roller.

Staple finisher compiler feed roller shaft assembly removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

4 Remove the controller board. See **“Staple finisher controller board removal” on page 236**.

5 Remove the controller board holder. See **“Staple finisher controller board holder removal” on page 237**.

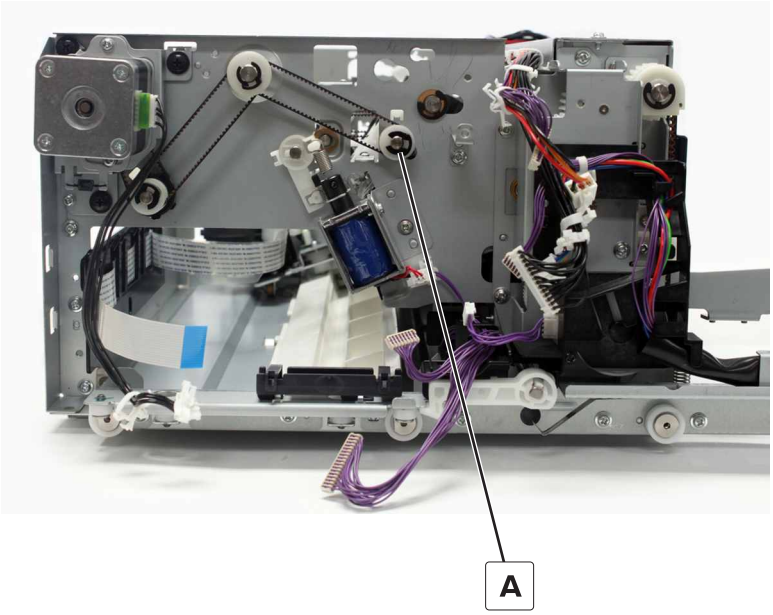
6 Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.

7 Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.

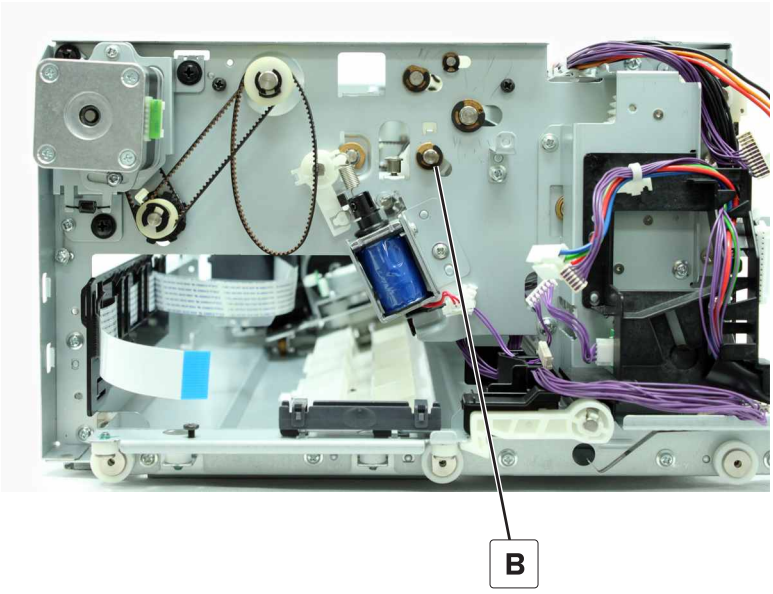
8 Remove the lower guide. See **“Staple finisher lower guide removal” on page 283**.

9 Remove the compiler feed roller guide. See **“Staple finisher compiler feed roller guide removal” on page 285**.

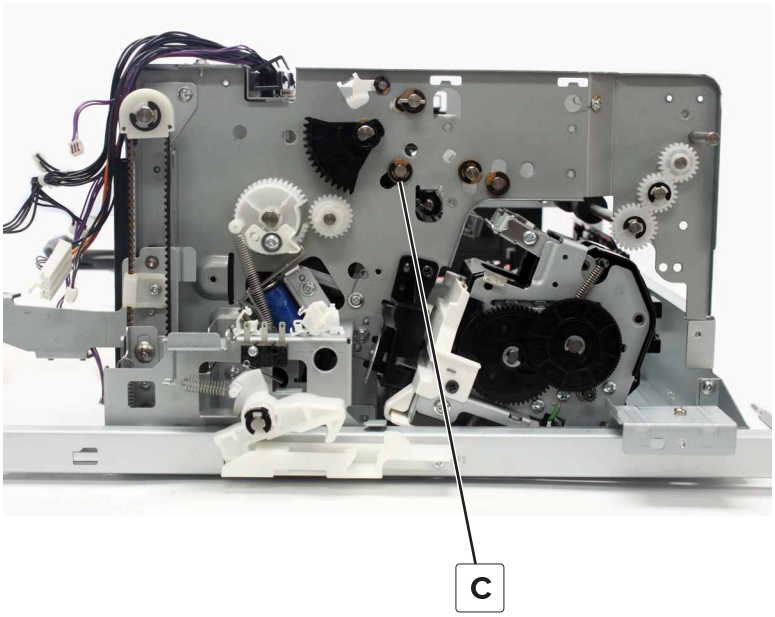
10 Remove the clip (A), and then remove the washer and gear.



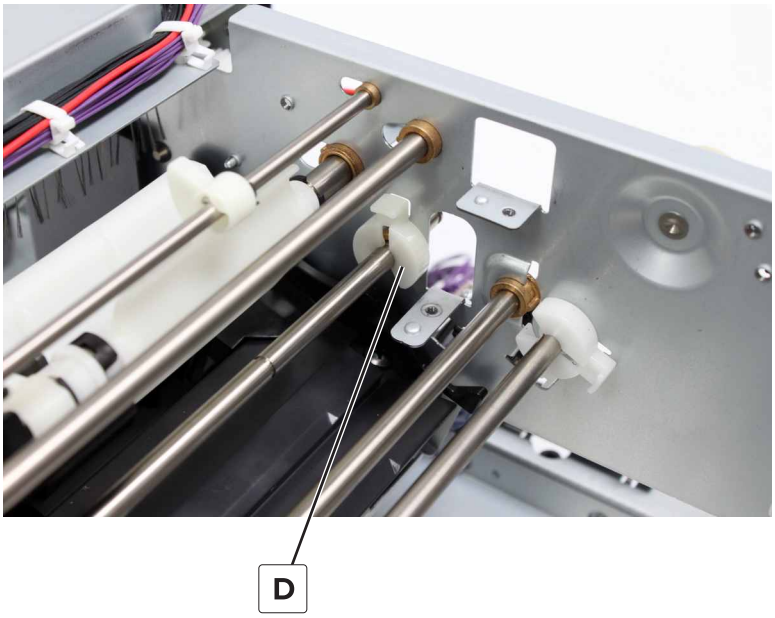
11 Remove the clip (B), and then remove the bushing.



12 Remove the clip (C), and then remove the bushing.



13 Remove the clip (D), and then remove the assembly.



Staple finisher compiler feed rollers and gears removal

1. Remove the front cover. See **"Staple finisher front cover removal" on page 221**.
2. Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.
3. Remove the top cover. See **"Staple finisher top cover removal" on page 223**.
4. Remove the controller board. See **"Staple finisher controller board removal" on page 236**.
5. Remove the controller board holder. See **"Staple finisher controller board holder removal" on page 237**.

6 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

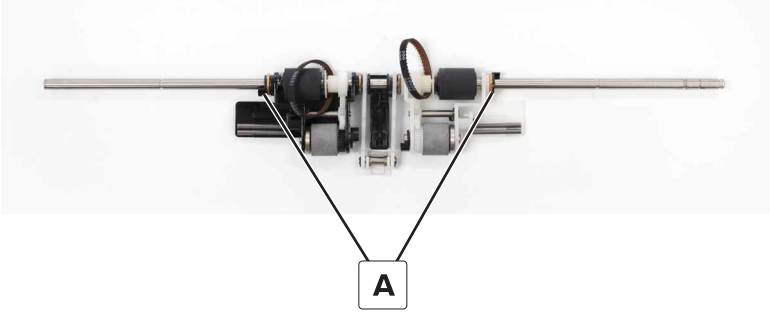
7 Remove the upper guide. See **"Staple finisher upper guide removal" on page 279**.

8 Remove the lower guide. See **"Staple finisher lower guide removal" on page 283**.

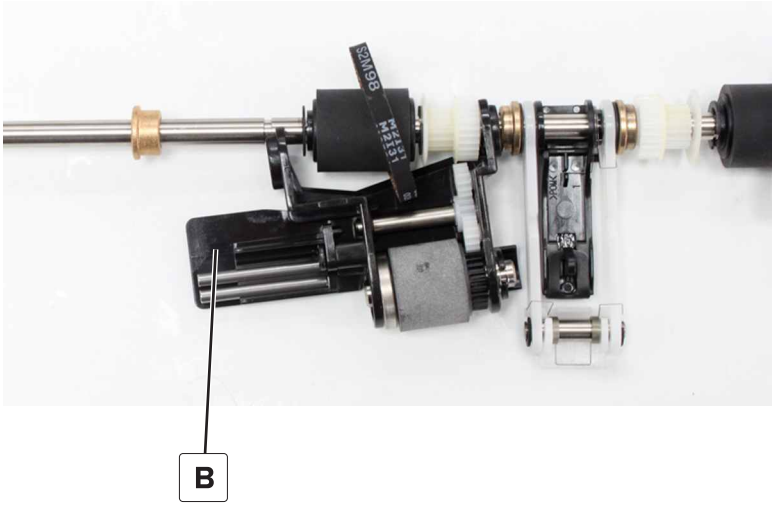
9 Remove compiler feed roller guide. See **"Staple finisher compiler feed roller guide removal" on page 285**.

10 Remove compiler feed roller shaft assembly. See **"Staple finisher compiler feed roller shaft assembly removal" on page 288**.

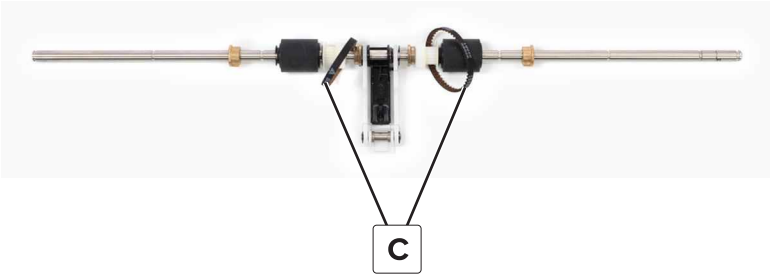
11 Remove the two clips (A), and then slide the bushings.



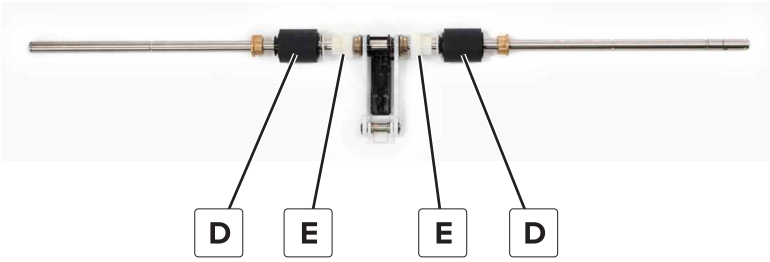
12 Remove the roller (B). Also remove the other roller.



13 Remove the two compiler feed roller belts (C).



14 Remove the two compiler feed rollers (D) and the two gears (E).



Staple finisher stack lever removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

3 Remove the top cover. See **"Staple finisher top cover removal" on page 223**.

4 Remove the controller board. See **"Staple finisher controller board removal" on page 236**.

5 Remove the motor (staple finisher aligner). See **"Motor (staple finisher aligner) removal" on page 246**.

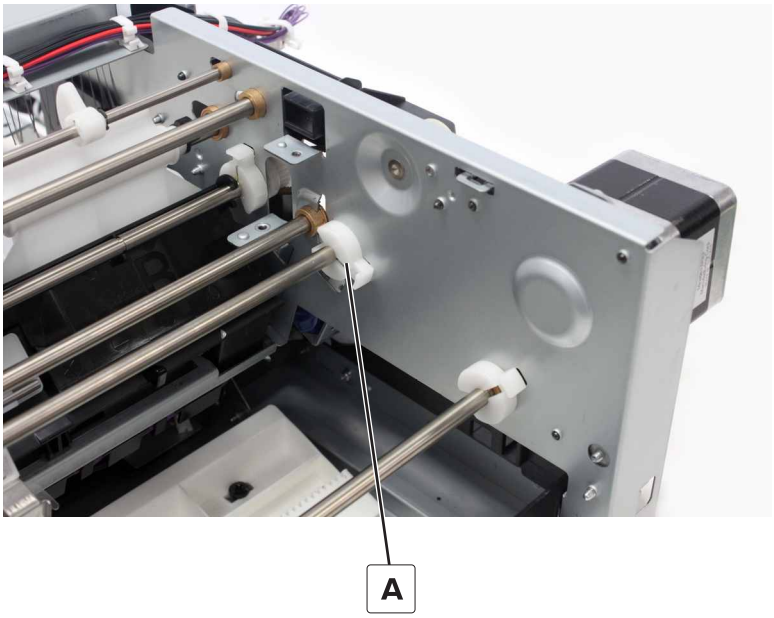
6 Remove the aligner gears. See **"Staple finisher aligner belt and gears removal" on page 247**.

7 Remove the stack lever actuator. See **"Staple finisher stack lever actuator removal" on page 261**.

8 Remove the upper guide. See **"Staple finisher upper guide removal" on page 279**.

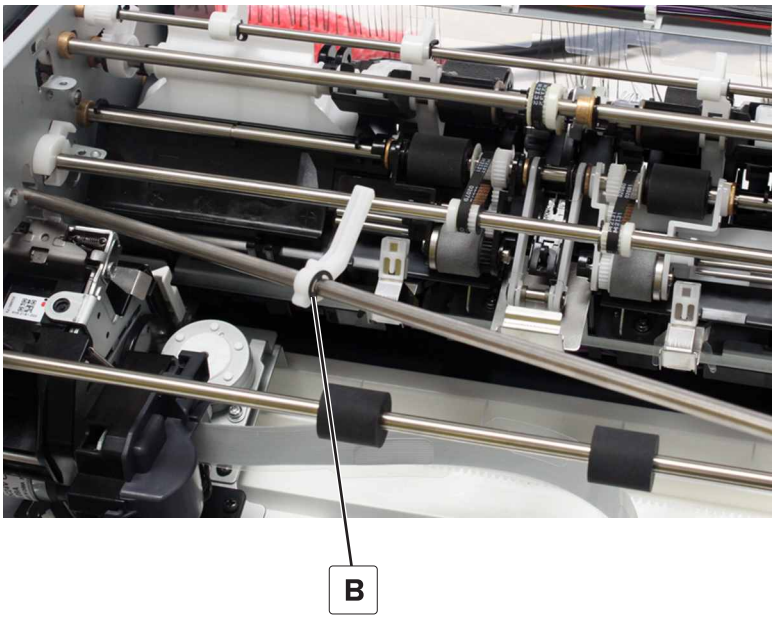
9 Remove the lower guide. See **"Staple finisher lower guide removal" on page 283**.

10 Remove the clip (A).

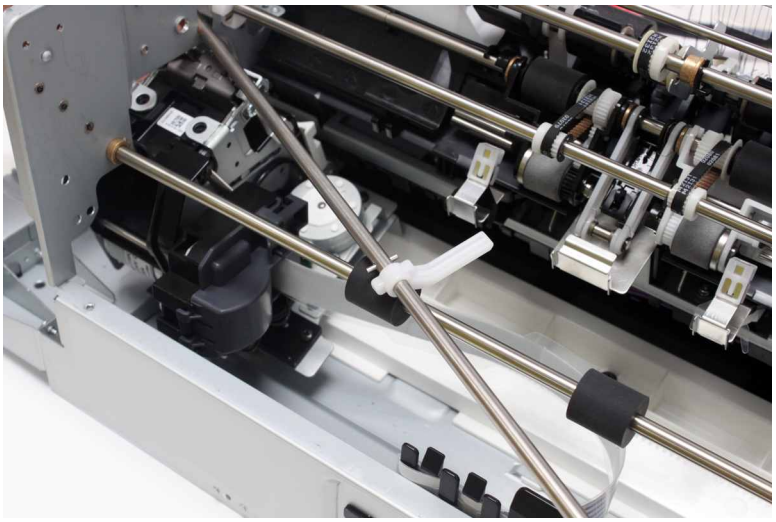


11 Dislodge the shaft from the frame.

12 Remove the clip (B), and then slide the lever.



13 Remove the lever, and then remove the pin.



Staple finisher transport roller removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

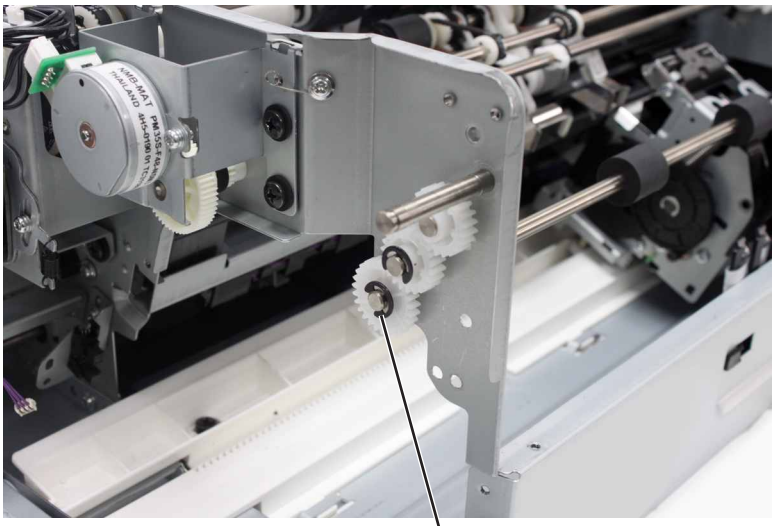
3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

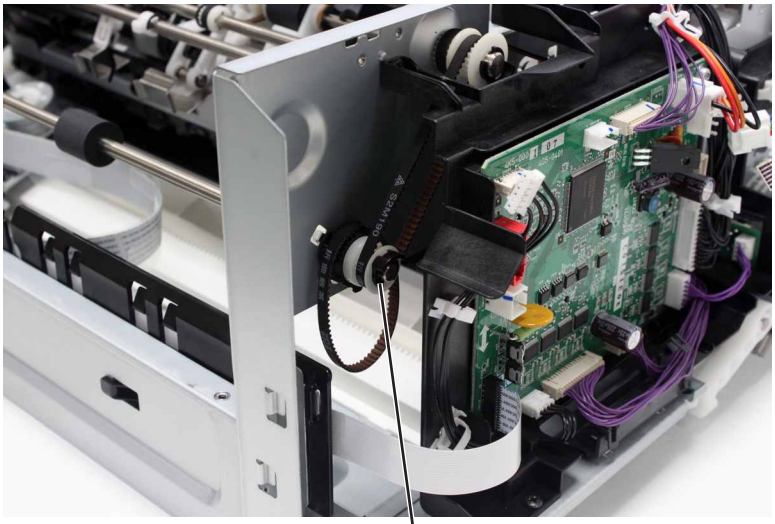
4 Remove the motor (staple finisher transport). See **“Motor (staple finisher transport) removal” on page 239**.

5 Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.

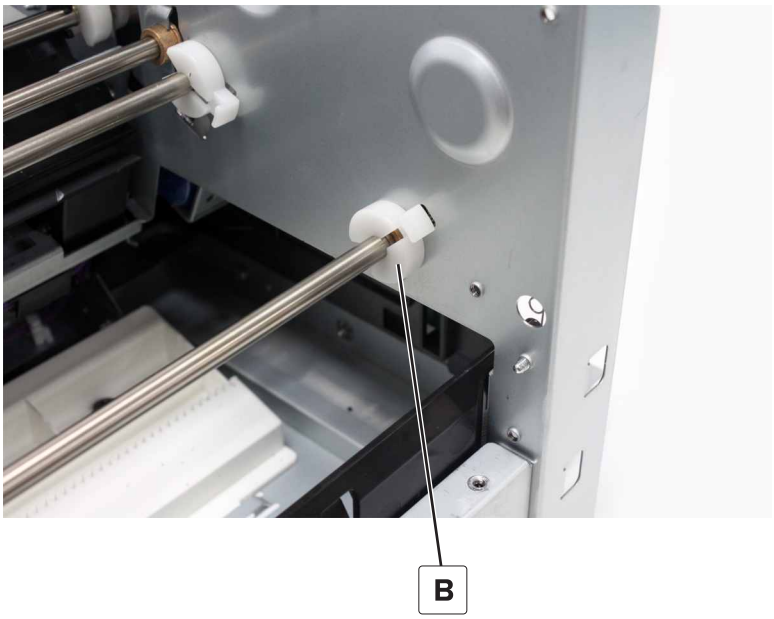
6 Remove the lower guide. See **“Staple finisher lower guide removal” on page 283**.

7 Remove the two clips (A), and then remove the gears and bushings.





8 Remove the clip (B), and then remove the shaft.



Staple finisher aligner roller gears removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

4 Remove the controller board. See **“Staple finisher controller board removal” on page 236**.

5 Remove the motor (staple finisher aligner). See **“Motor (staple finisher aligner) removal” on page 246**.

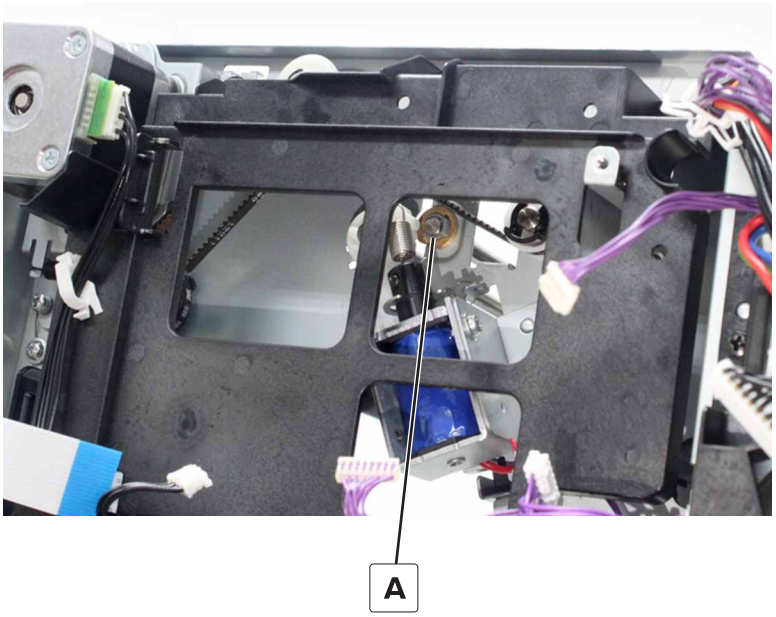
6 Remove the aligner gears. See **“Staple finisher aligner belt and gears removal” on page 247**.

7 Remove the stack lever actuator. See **“Staple finisher stack lever actuator removal” on page 261**.

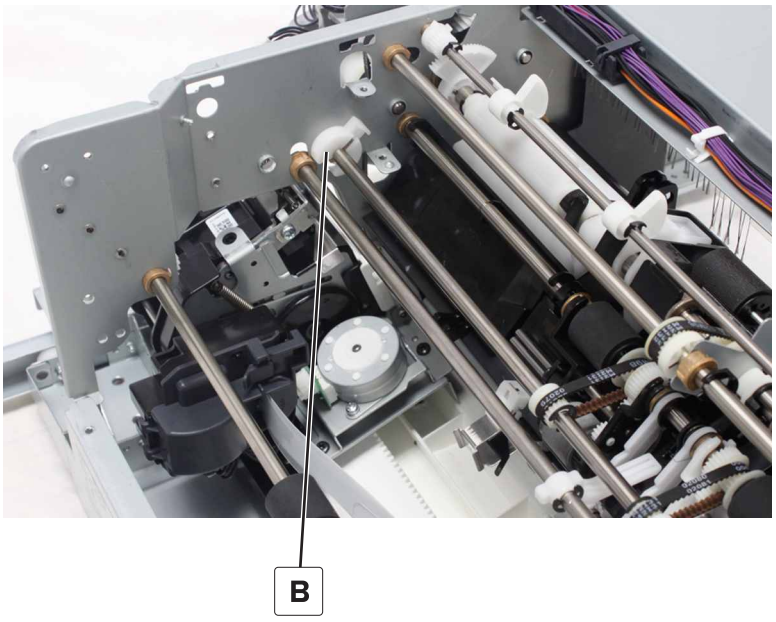
8 Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.

9 Remove the lower guide. See **“Staple finisher lower guide removal” on page 283**.

10 Remove the clip (A).



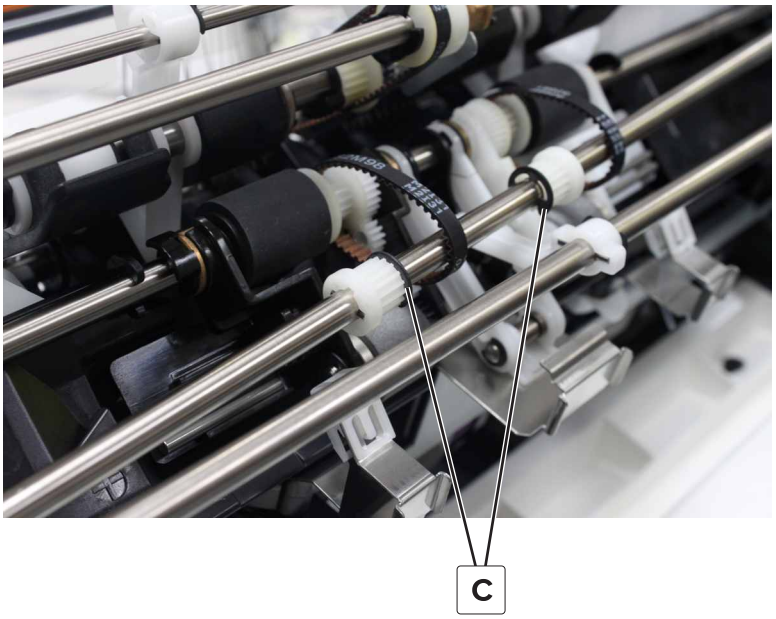
11 Remove the clip (B).



12 Dislodge the shaft from the frame.

13 Rotate the shaft until the pins behind the gears are horizontal.

14 Remove the two clips (C), and then remove the gears.



Staple finisher upper exit roller assembly removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

4 Remove the controller board. See **“Staple finisher controller board removal” on page 236**.

5 Remove the controller board holder. See **“Staple finisher controller board holder removal” on page 237**.

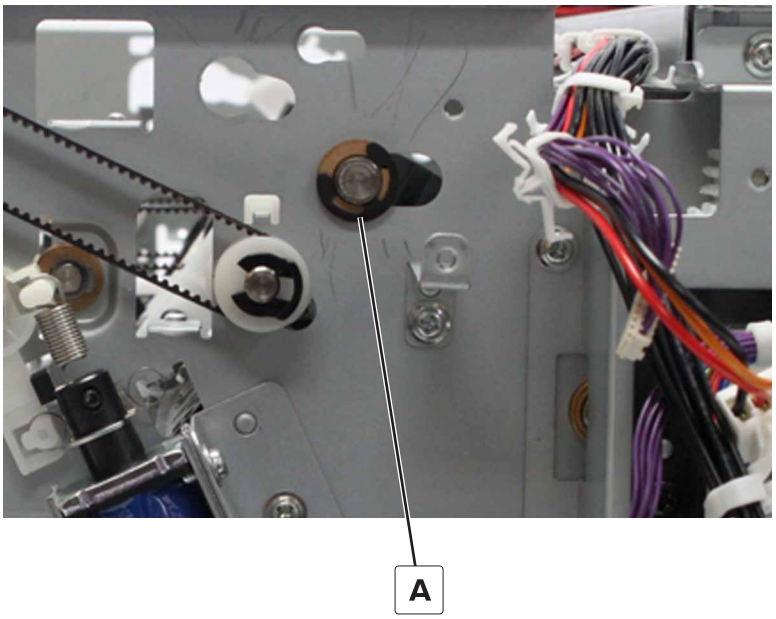
6 Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.

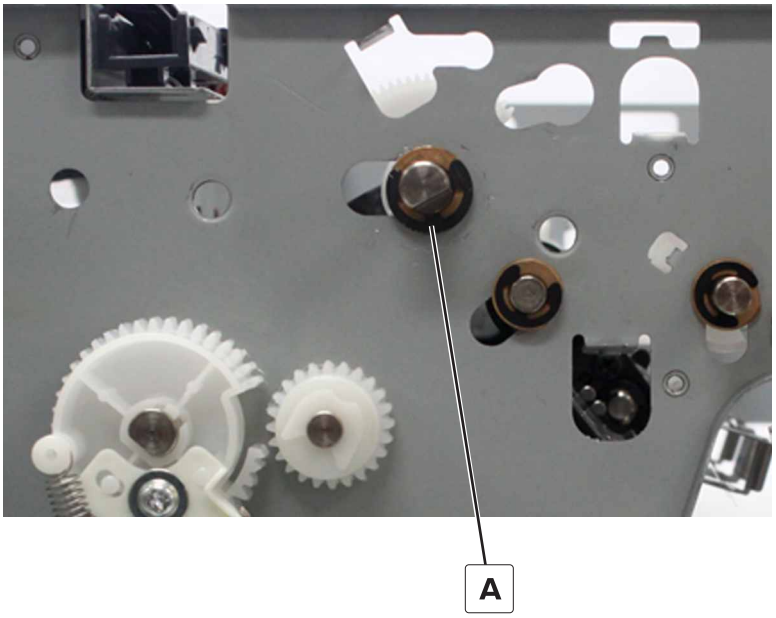
7 Remove the exit guide lift cam. See **“Staple finisher exit guide lift cam removal” on page 271**.

8 Remove the upper exit roller drive gear shaft. See **“Staple finisher upper exit roller drive gears removal” on page 272**.

9 Remove the upper exit actuator. See **“Staple finisher upper exit actuator removal” on page 277**.

10 Remove the two clips (A), and then remove the bushings.





11 Remove the assembly.

Staple finisher eject guide removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

3 Remove the top cover. See **"Staple finisher top cover removal" on page 223**.

4 Remove the controller board. See **"Staple finisher controller board removal" on page 236**.

5 Remove the controller board holder. See **"Staple finisher controller board holder removal" on page 237**.

6 Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.

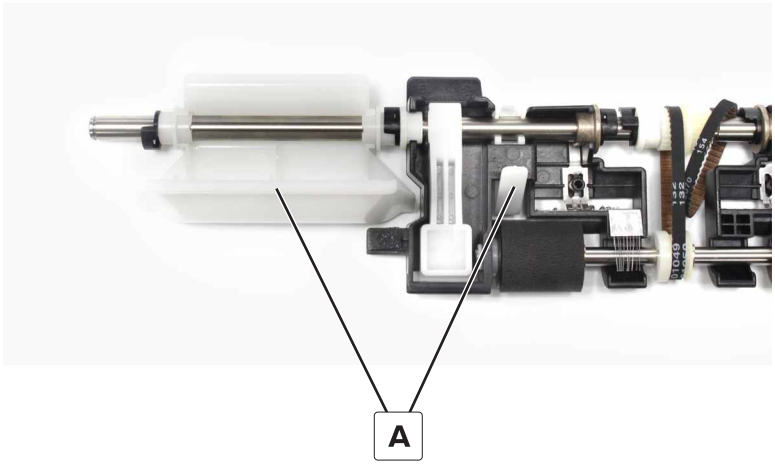
7 Remove the exit guide lift cam. See **“Staple finisher exit guide lift cam removal” on page 271**.

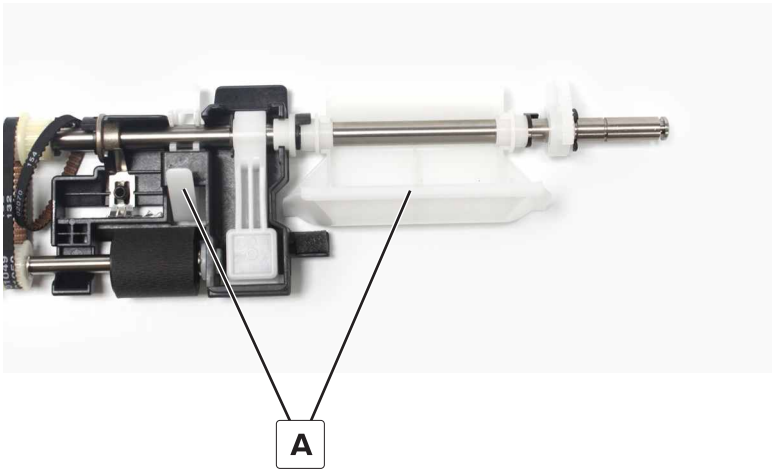
8 Remove the upper exit roller drive gear shaft. See **“Staple finisher upper exit roller drive gears removal” on page 272**.

9 Remove the upper exit actuator. See **“Staple finisher upper exit actuator removal” on page 277**.

10 Remove the upper exit roller assembly. See **“Staple finisher upper exit roller assembly removal” on page 297**.

11 Remove the four guides (A).





Staple finisher eject cam removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

4 Remove the controller board. See **“Staple finisher controller board removal” on page 236**.

5 Remove the controller board holder. See **“Staple finisher controller board holder removal” on page 237**.

6 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

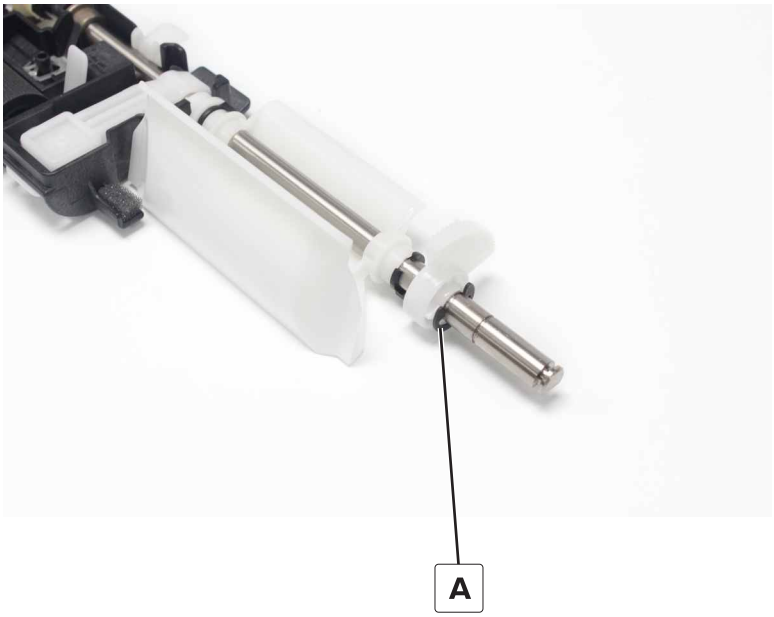
7 Remove the exit guide lift cam. See **"Staple finisher exit guide lift cam removal" on page 271**.

8 Remove the upper exit roller drive gear shaft. See **"Staple finisher upper exit roller drive gears removal" on page 272**.

9 Remove the upper exit actuator. See **"Staple finisher upper exit actuator removal" on page 277**.

10 Remove the upper exit roller assembly. See **"Staple finisher upper exit roller assembly removal" on page 297**.

11 Remove the clip (A), and then remove the cam.



Staple finisher upper exit roller removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

3 Remove the top cover. See **"Staple finisher top cover removal" on page 223**.

4 Remove the controller board. See **"Staple finisher controller board removal" on page 236**.

5 Remove the controller board holder. See **"Staple finisher controller board holder removal" on page 237**.

6 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

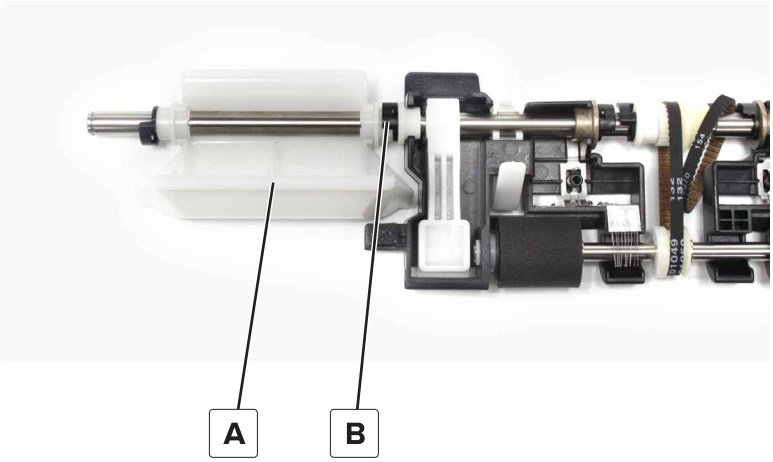
7 Remove the exit guide lift cam. See **"Staple finisher exit guide lift cam removal" on page 271**.

8 Remove the upper exit roller drive gear shaft. See **"Staple finisher upper exit roller drive gears removal" on page 272**.

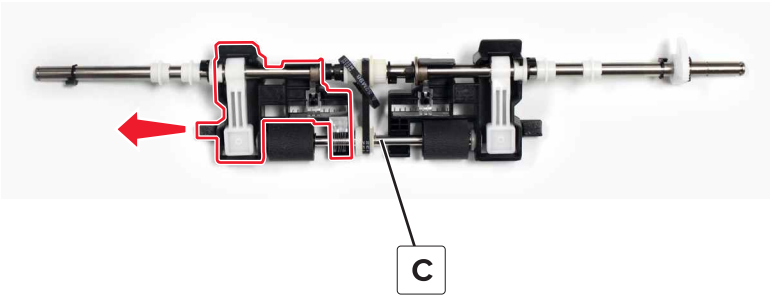
9 Remove the upper exit actuator. See **"Staple finisher upper exit actuator removal" on page 277**.

10 Remove the upper exit roller assembly. See **"Staple finisher upper exit roller assembly removal" on page 297**.

11 Remove the guide (A), and then remove the clip (B).



12 Move the guide to release the bushing, and then remove the roller (C).



Staple finisher upper exit roller belts and gear removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 221**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 222**.

3 Remove the top cover. See **"Staple finisher top cover removal" on page 223**.

4 Remove the controller board. See **"Staple finisher controller board removal" on page 236**.

5 Remove the controller board holder. See **"Staple finisher controller board holder removal" on page 237**.

6 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

7 Remove the exit guide lift cam. See **"Staple finisher exit guide lift cam removal" on page 271**.

8 Remove the upper exit roller drive gear shaft. See **"Staple finisher upper exit roller drive gears removal" on page 272**.

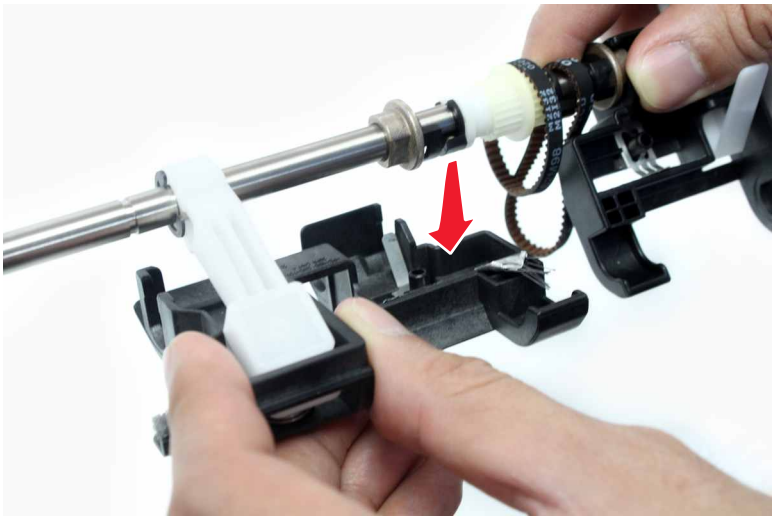
9 Remove the upper exit actuator. See **"Staple finisher upper exit actuator removal" on page 277**.

10 Remove the upper exit roller assembly. See **"Staple finisher upper exit roller assembly removal" on page 297**.

11 Remove the upper exit roller. See **"Staple finisher upper exit roller removal" on page 300**.

12 Remove all the clips and bushings from the left side of the shaft.

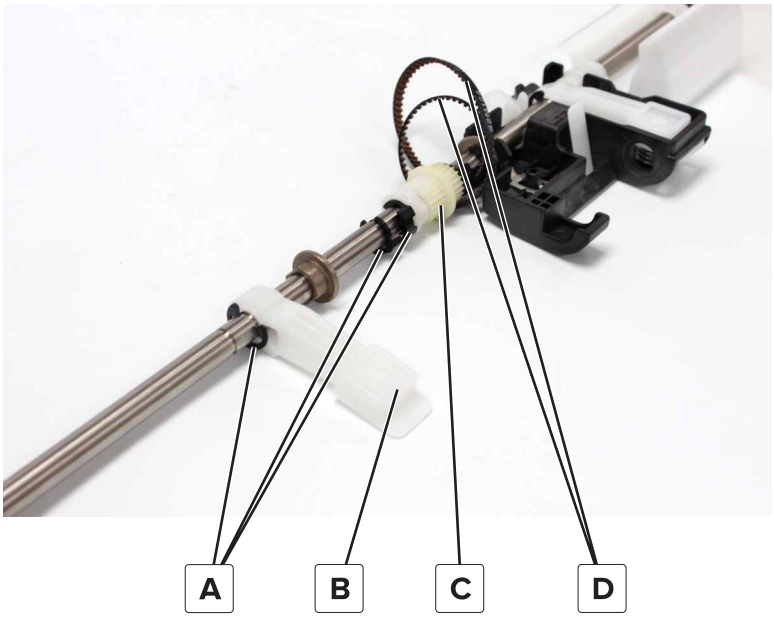
13 Separate the shaft.



Note: Take note of the original position of the ground and the two concentric springs.

14 Remove the three clips (A), and then remove the lever (B).

15 Remove the bushings, and then remove the gear (C) and two belts (D).



Staple finisher tamper and aligner assembly removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

4 Remove the bin. See **“Staple finisher bin removal” on page 224**.

5 Remove the left inner cover. See **“Staple finisher left inner cover removal” on page 225**.

6 Remove the bin stack height assembly. See **“Staple finisher bin stack height assembly removal” on page 225**.

7 Remove the controller board. See **“Staple finisher controller board removal” on page 236**.

8 Remove the controller board holder. See **“Staple finisher controller board holder removal” on page 237**.

9 Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.

10 Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.

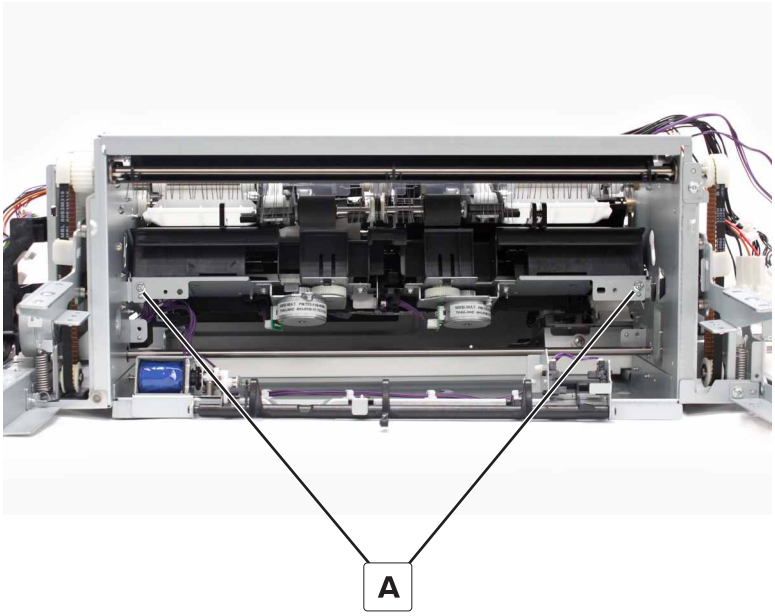
11 Remove the exit guide lift cam. See **“Staple finisher exit guide lift cam removal” on page 271**.

12 Remove the upper exit roller drive gear shaft. See **“Staple finisher upper exit roller drive gears removal” on page 272**.

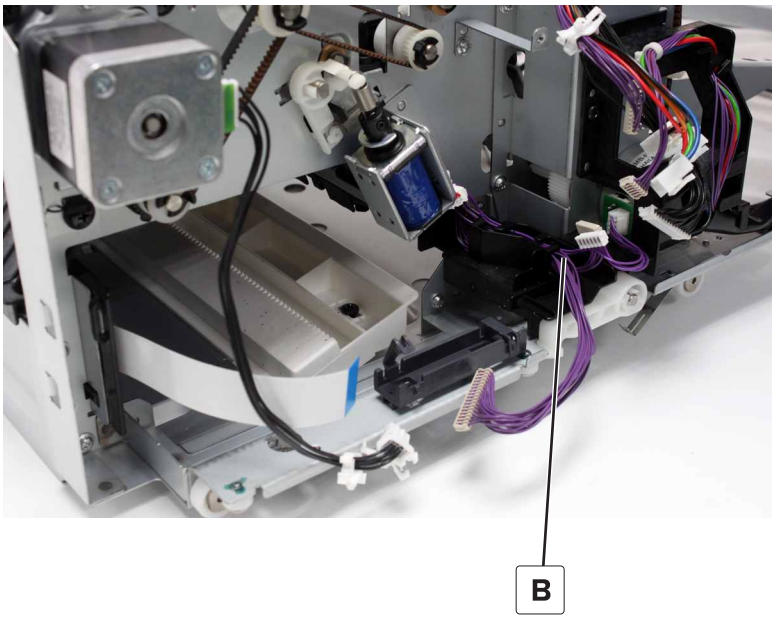
13 Remove the upper exit actuator. See **“Staple finisher upper exit actuator removal” on page 277**.

14 Remove the upper exit roller assembly. See **“Staple finisher upper exit roller assembly removal” on page 297**.

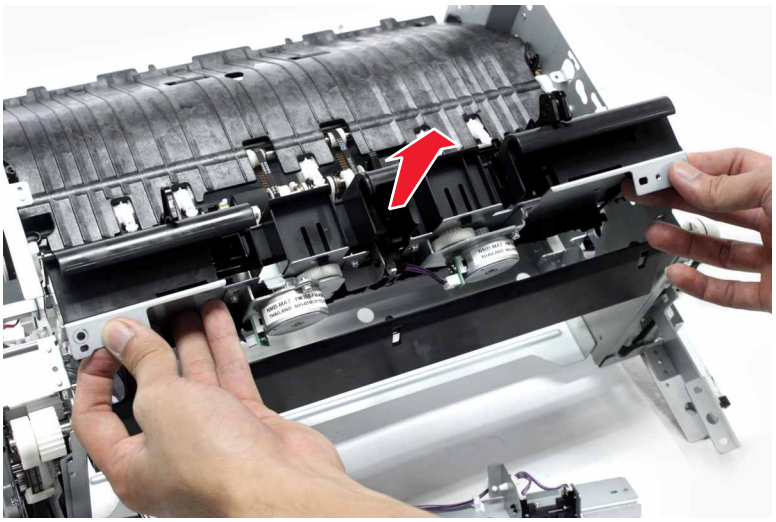
15 Remove the two screws (A).



16 Remove the cables (B) from the holder.



17 From the top, remove the aligner.



Staple finisher tamper drive gears removal

1 Remove the front cover. See **“Staple finisher front cover removal” on page 221**.

2 Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.

3 Remove the top cover. See **“Staple finisher top cover removal” on page 223**.

4 Remove the bin. See **“Staple finisher bin removal” on page 224**.

5 Remove the left inner cover. See **“Staple finisher left inner cover removal” on page 225**.

6 Remove the bin stack height assembly. See **“Staple finisher bin stack height assembly removal” on page 225**.

7 Remove the controller board. See **"Staple finisher controller board removal" on page 236**.

8 Remove the controller board holder. See **"Staple finisher controller board holder removal" on page 237**.

9 Remove the exit motor bracket. See **"Exit motor bracket removal" on page 269**.

10 Remove the upper guide assembly. See **"Staple finisher upper guide removal" on page 279**.

11 Remove the exit guide lift cam. See **"Staple finisher exit guide lift cam removal" on page 271**.

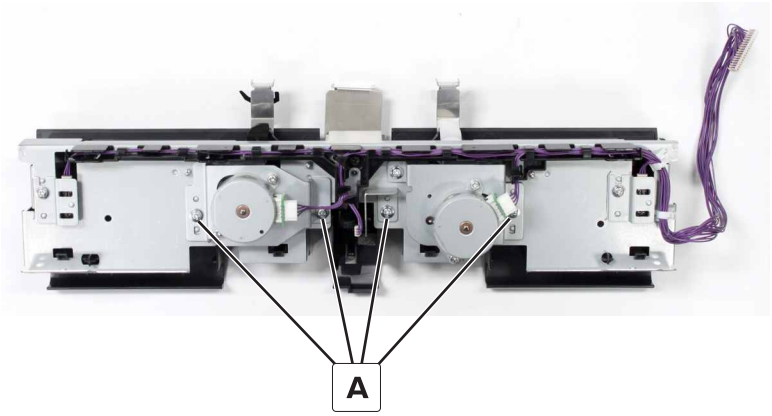
12 Remove the upper exit roller drive gear shaft. See **"Staple finisher upper exit roller drive gears removal" on page 272**.

13 Remove the upper exit actuator. See **"Staple finisher upper exit actuator removal" on page 277**.

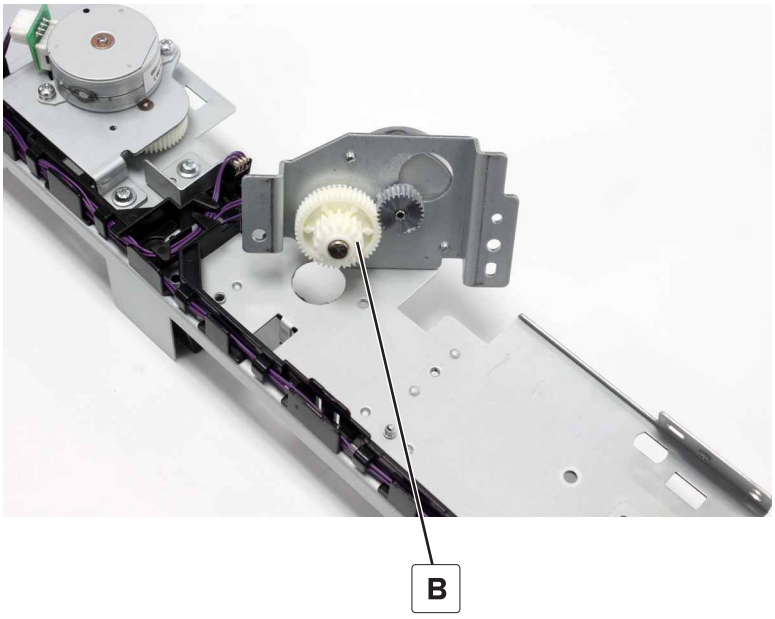
14 Remove the upper exit roller assembly. See **"Staple finisher upper exit roller assembly removal" on page 297**.

15 Remove the tamper and aligner assembly. See **"Staple finisher tamper and aligner assembly removal" on page 303**.

16 Remove the four screws (A), and then remove the motor brackets.



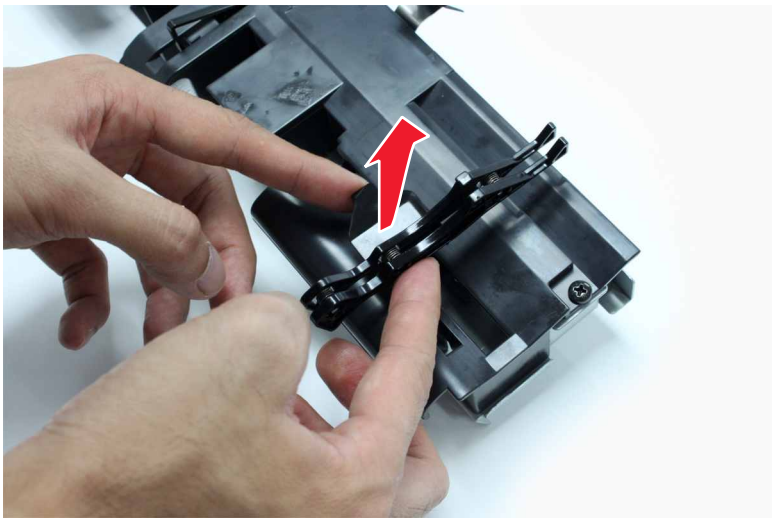
17 Remove the two gears (B).



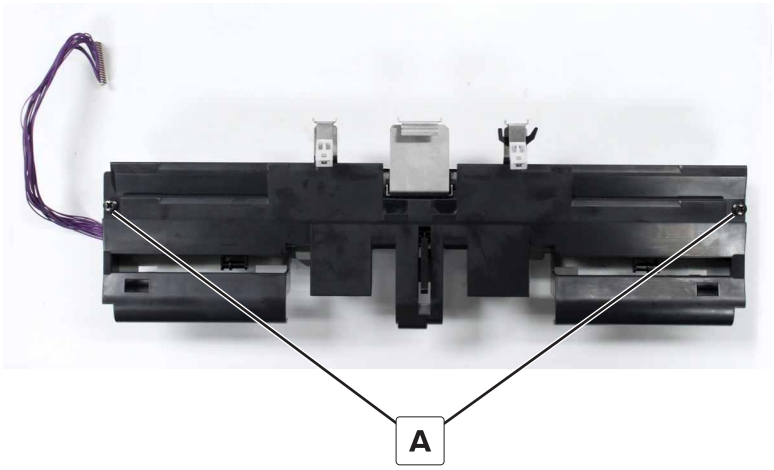
Staple finisher tamper racks removal

1. Remove the front cover. See **“Staple finisher front cover removal” on page 221**.
2. Remove the rear cover. See **“Staple finisher rear cover removal” on page 222**.
3. Remove the top cover. See **“Staple finisher top cover removal” on page 223**.
4. Remove the bin. See **“Staple finisher bin removal” on page 224**.
5. Remove the left inner cover. See **“Staple finisher left inner cover removal” on page 225**.
6. Remove the bin stack height assembly. See **“Staple finisher bin stack height assembly removal” on page 225**.
7. Remove the controller board. See **“Staple finisher controller board removal” on page 236**.
8. Remove the controller board holder. See **“Staple finisher controller board holder removal” on page 237**.
9. Remove the exit motor bracket. See **“Exit motor bracket removal” on page 269**.
10. Remove the upper guide. See **“Staple finisher upper guide removal” on page 279**.
11. Remove the exit guide lift cam. See **“Staple finisher exit guide lift cam removal” on page 271**.
12. Remove the upper exit roller drive gear shaft. See **“Staple finisher upper exit roller drive gears removal” on page 272**.
13. Remove the upper exit actuator. See **“Staple finisher upper exit actuator removal” on page 277**.
14. Remove the upper exit roller assembly. See **“Staple finisher upper exit roller assembly removal” on page 297**.
15. Remove the tamper and aligner assembly. See **“Staple finisher tamper and aligner assembly removal” on page 303**.

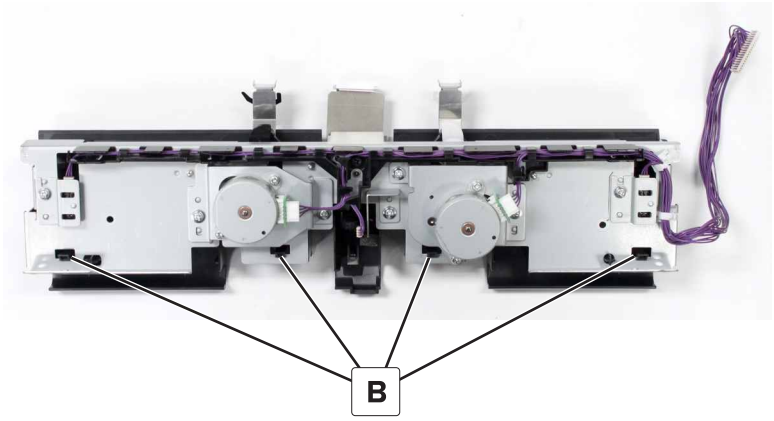
16 Pry both sides to remove the tamper. Repeat this step to remove the other tamper.



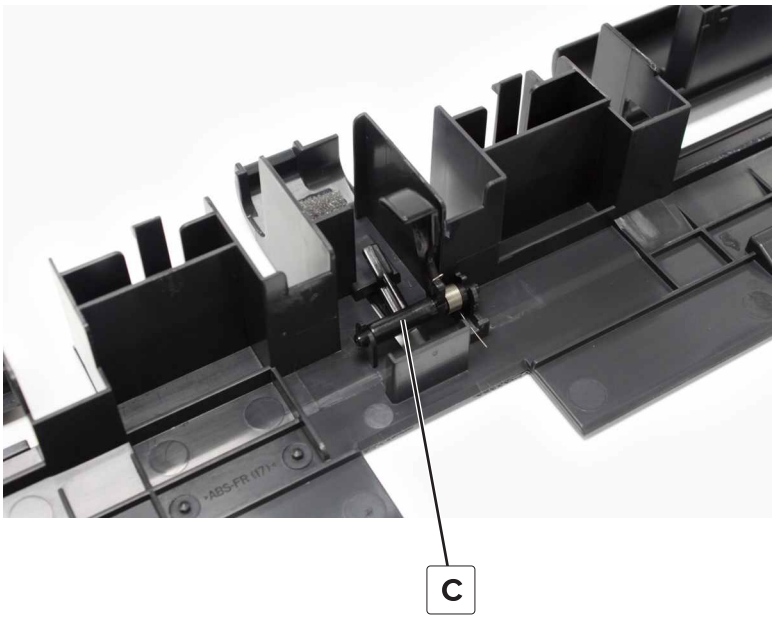
17 Remove the two screws (A).



18 Release the four latches (B), and then remove the tamper tray.



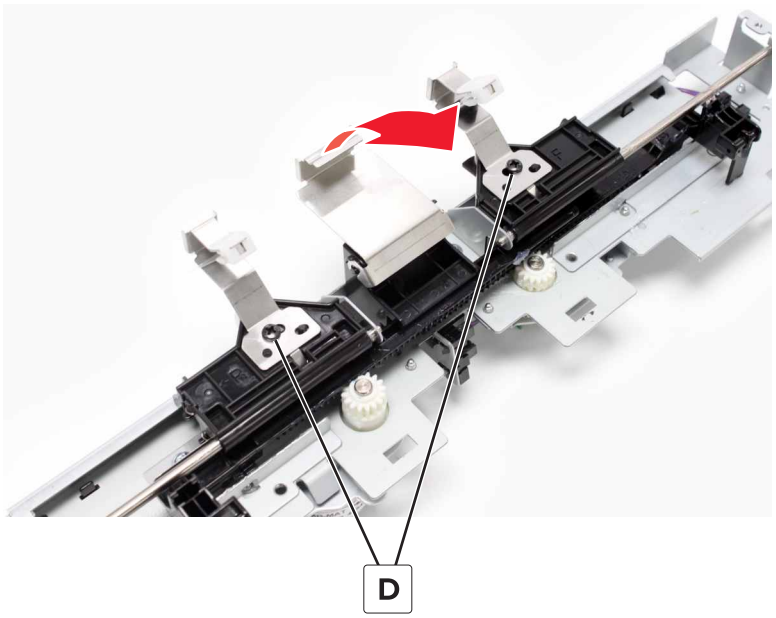
19 From under the tray, remove the tamper paper present sensor actuator (C).



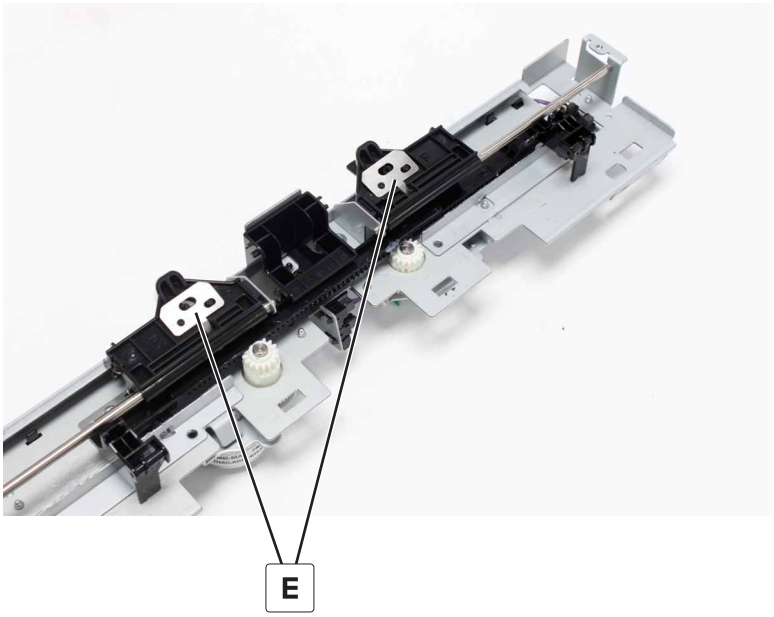
20 Remove the two screws (D), and then remove the front and rear aligners.

Note: The rear aligner has a clear plastic film, while the front aligner has a black plastic film.

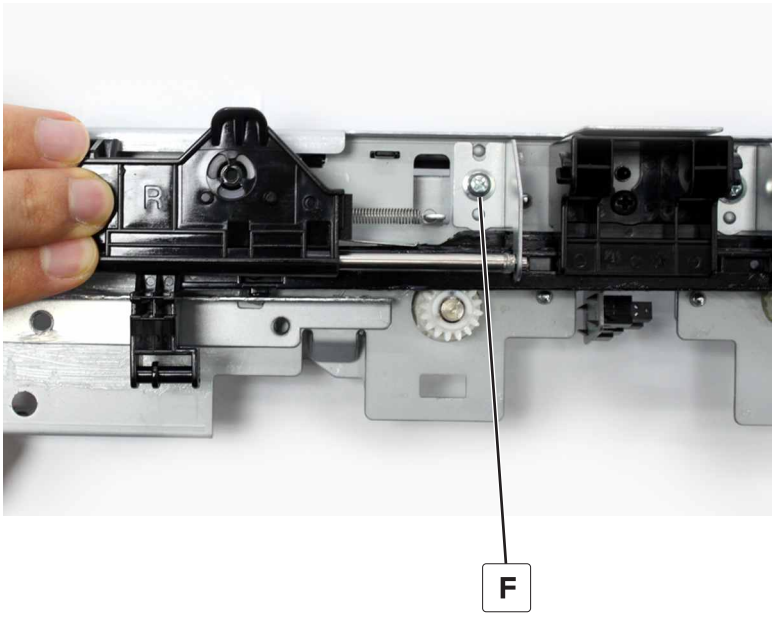
21 Swing, and then remove the middle aligner.



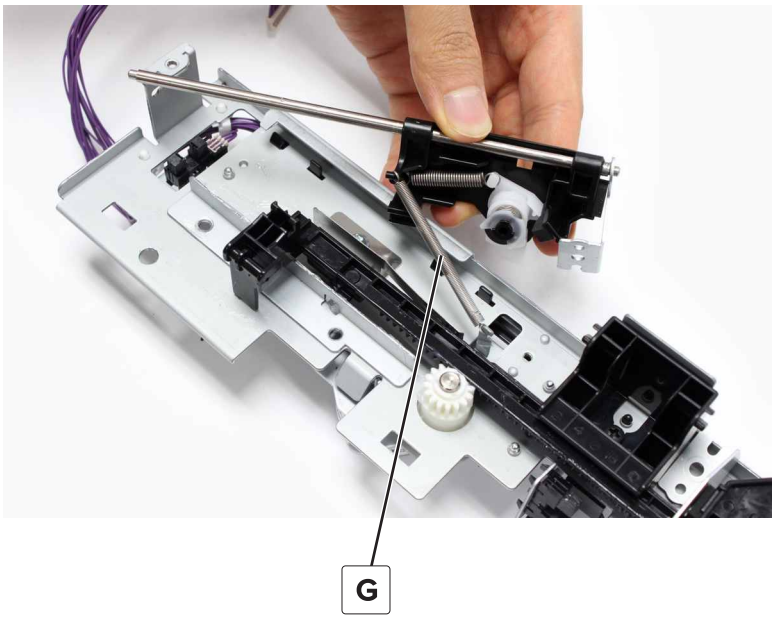
22 Remove the two ground plates (E) from under the front and rear aligners.



23 Slide the carriage, remove the screw (F), and then remove the bracket.

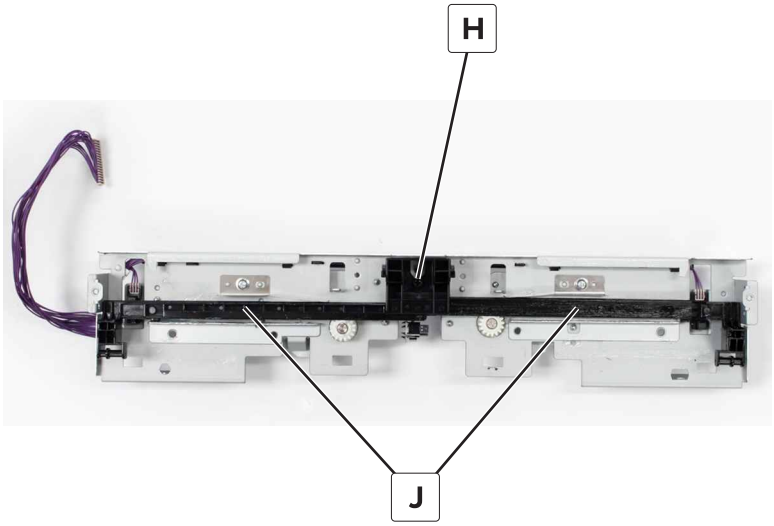


24 Disconnect the spring (G) from the assembly, and then remove the carriage. Repeat the previous step and this step to remove the other carriage.



25 Move the tamper racks to the outermost position.

26 Remove the screw (H), remove the bracket, and then remove the two racks (J).



Installation notes:

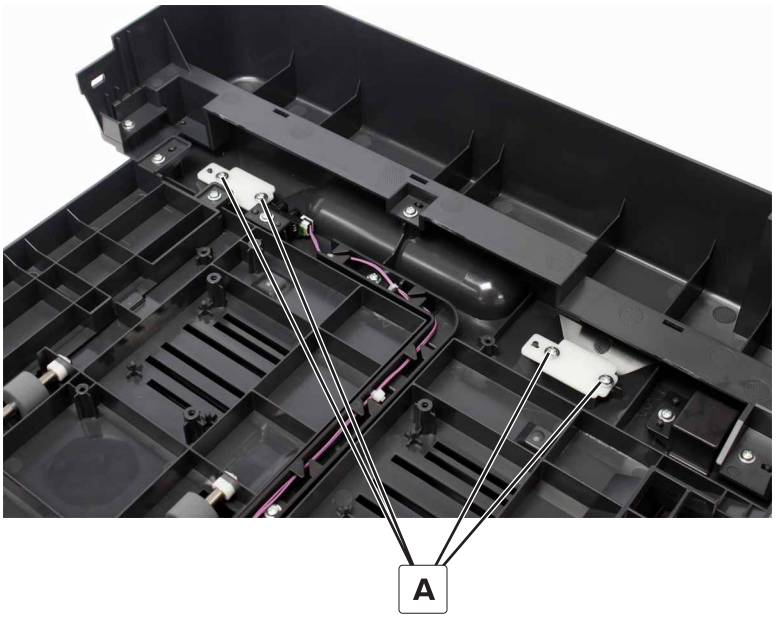
a Install the front rack at the outermost position.

b Install the rear rack at the outermost position.

Horizontal paper transport removals

HPT door locks removal

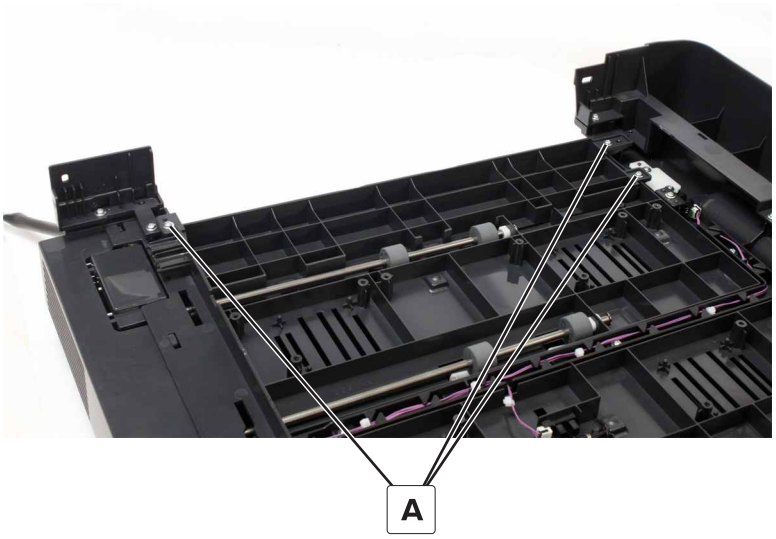
1 Remove the four screws (A).



2 Remove the locks.

HPT inner paper guide removal

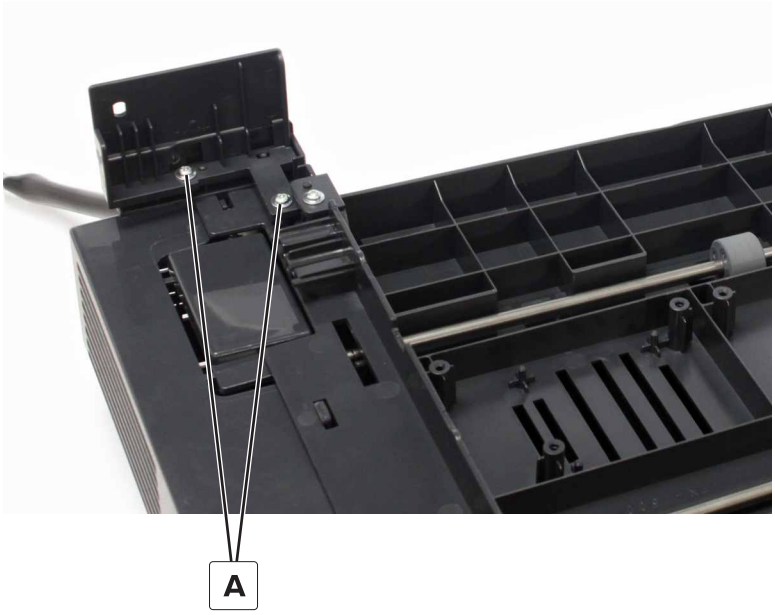
1 Remove the three screws (A).



2 Remove the guide.

HPT holding bracket removal

1 Remove the two screws (A).

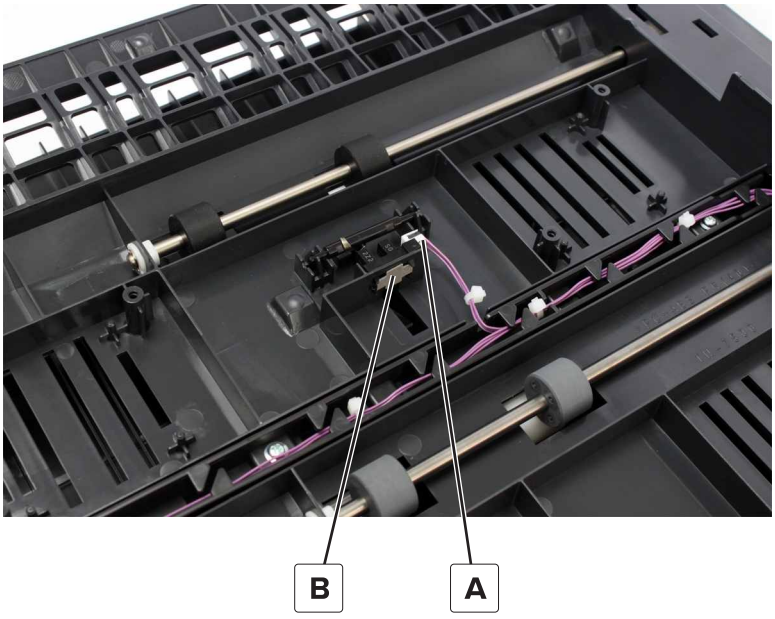


2 Remove the bracket.

Sensor (HPT feed) removal

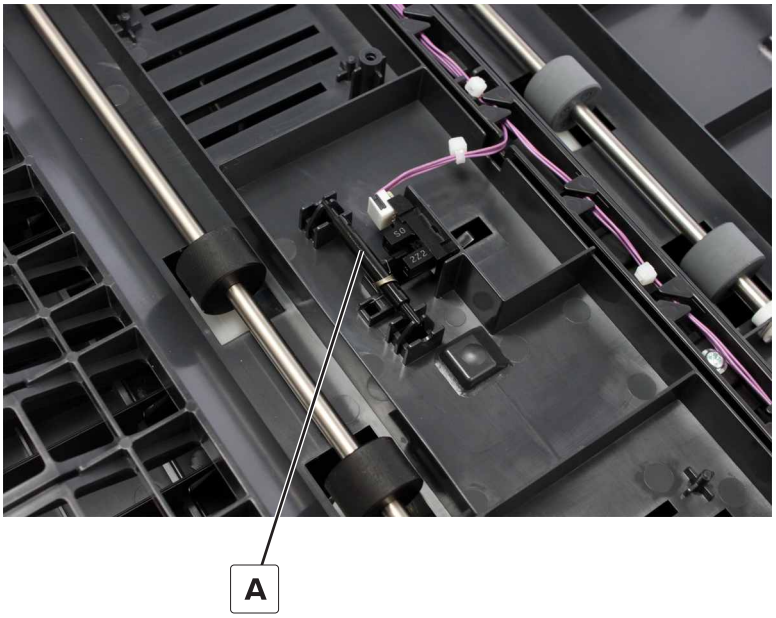
1 Disconnect the cable (A).

2 Remove the adhesive (B), and then remove the sensor.



HPT feed sensor actuator removal

1 Pry the actuator (A).

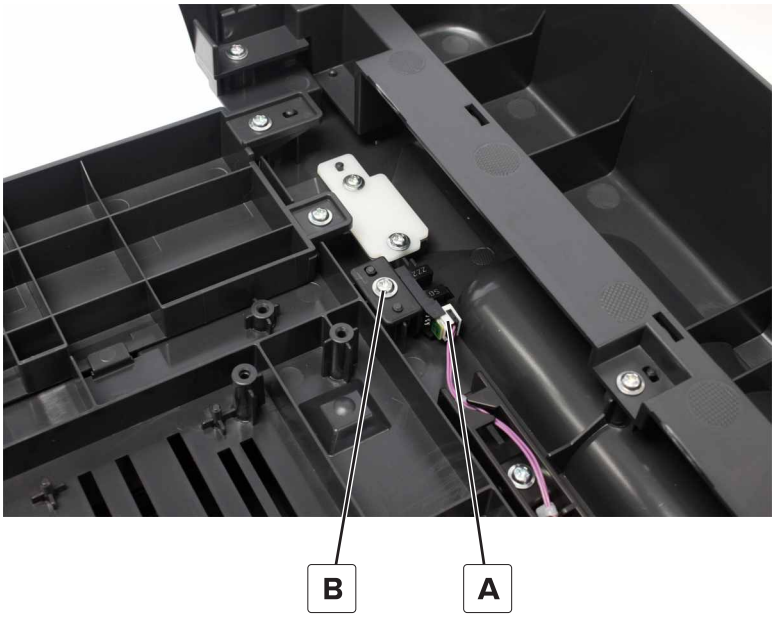


2 Remove the actuator.

Sensor (HPT door) removal

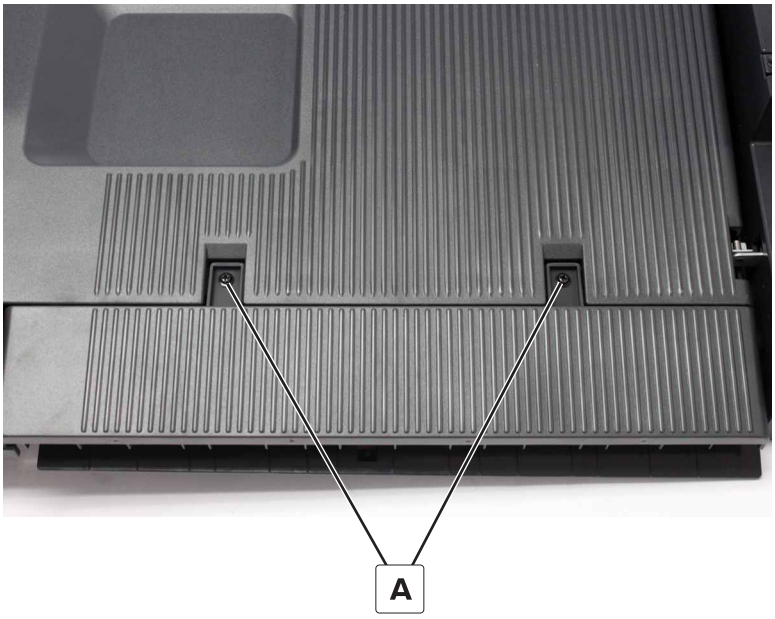
1 Disconnect the cable (A).

2 Remove the screw (B), and then remove the sensor.



HPT right top cover removal

1 Remove the two screws (A).

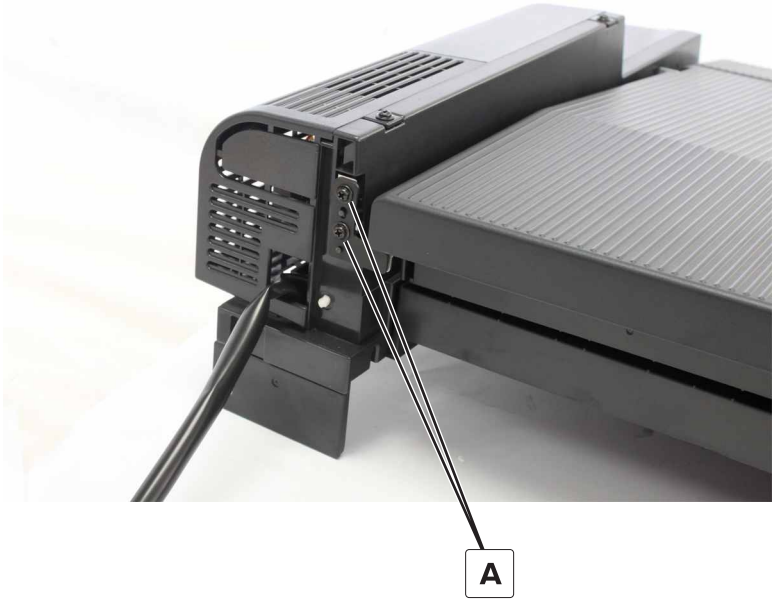


2 Remove the cover.

HPT door removal

1 Remove the right top cover. See **“HPT right top cover removal” on page 316**.

2 Remove the two screws (A), and then remove the hinge.

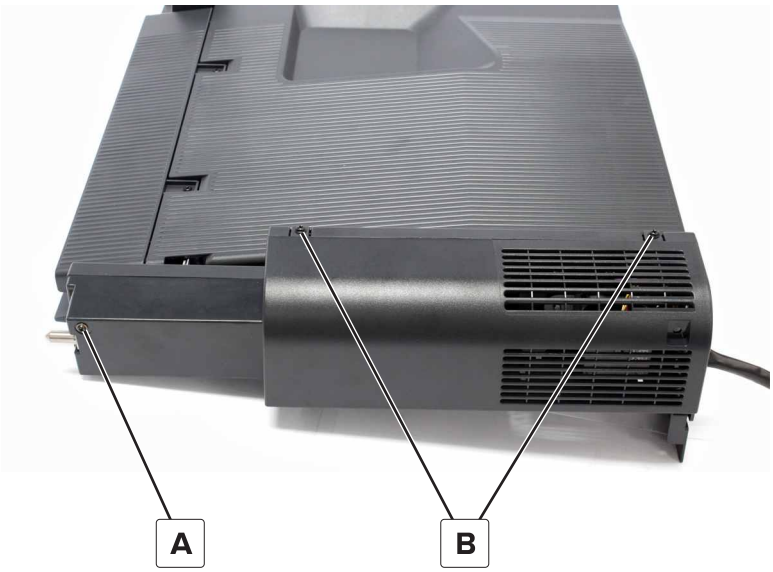


3 Remove the cover.

HPT rear cover removal

1 Remove the metal screw (A).

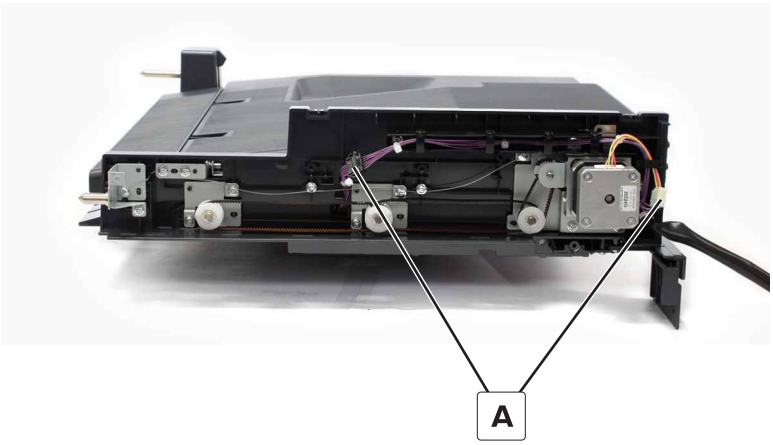
2 Remove the two plastic screws (B), and then remove the cover.



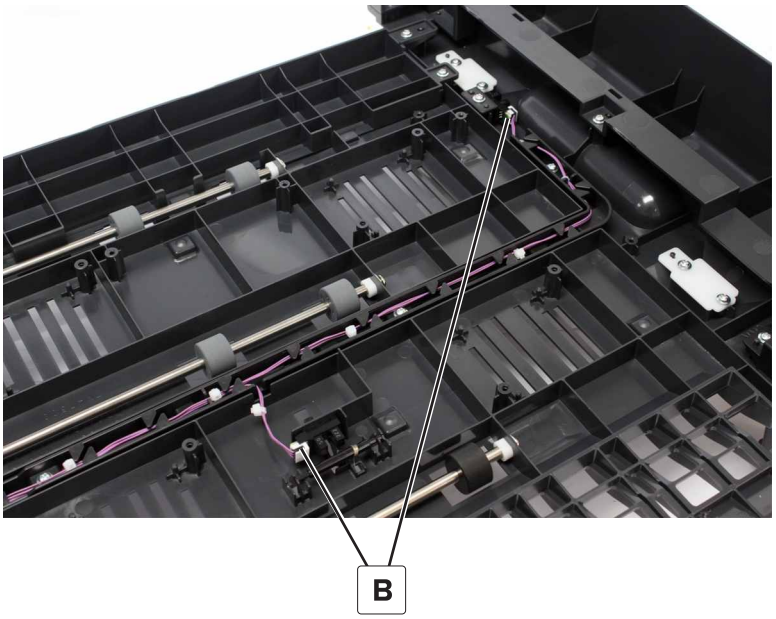
HPT cable removal

1 Remove the rear cover. See **“HPT rear cover removal” on page 317**.

2 Disconnect the cable from both ends (A), and then remove the cable.

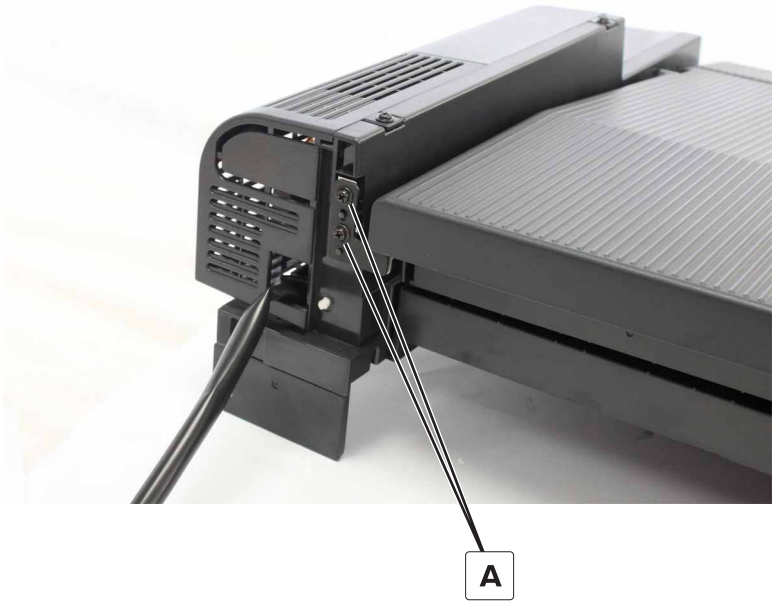


3 Disconnect the cable from the two sensors (B), and then remove the cable.



HPT door hinges removal

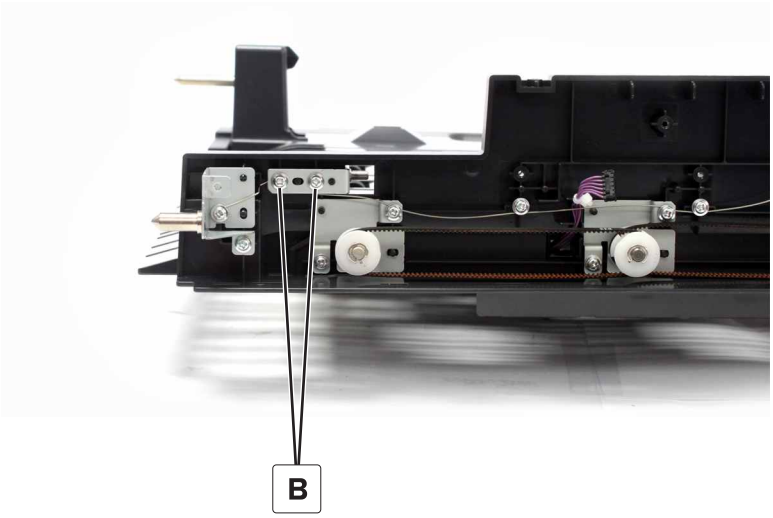
1 Remove the two screws (A).



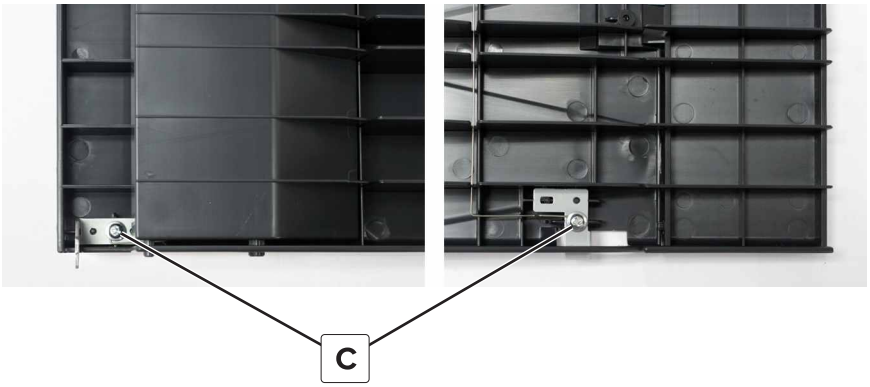
2 Remove the hinge, and then remove the door.

3 Remove the rear cover. See **“HPT rear cover removal” on page 317**.

4 Remove the two screws (B), and then remove the hinge.



5 From under the door, remove the two screws (C), and then remove the two hinges.

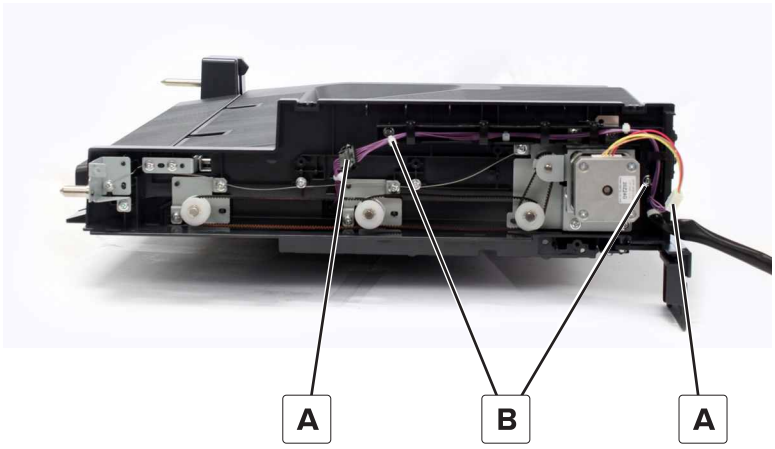


Motor (HPT transport) removal

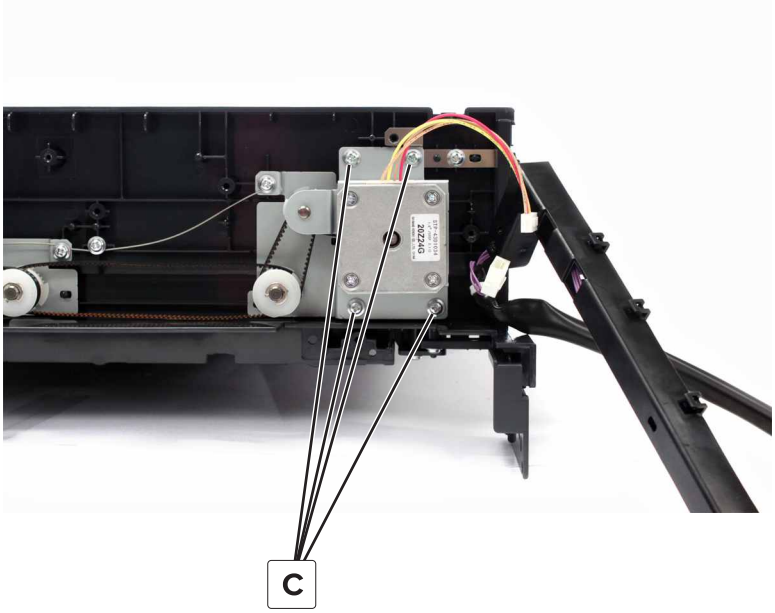
1 Remove the rear cover. See **“HPT rear cover removal” on page 317**.

2 Disconnect the cable from both ends (A).

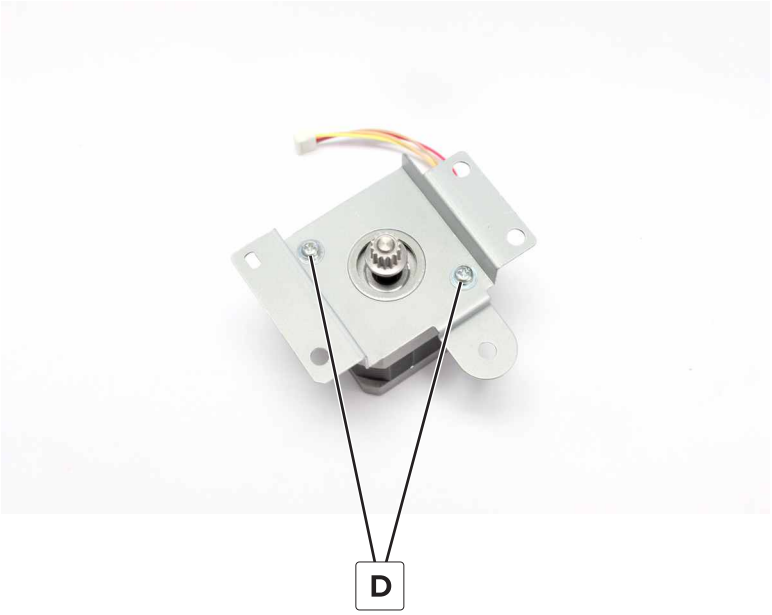
3 Remove the two screws (B), and then set aside the cable guide.



4 Remove the four screws (C), and then remove the motor bracket.



5 Remove the two screws (D), and then remove the motor.

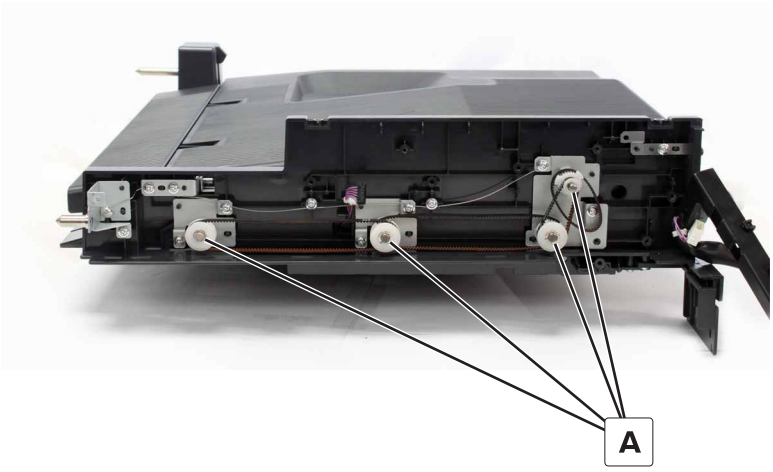


HPT belts and gears removal

1 Remove the rear cover. See **"HPT rear cover removal" on page 317**.

2 Remove the motor (HPT transport). See **"Motor (HPT transport) removal" on page 319**.

3 Remove the four clips (A), and then remove the four washers.



4 Remove the four gears and belts.

HPT transport rollers removal

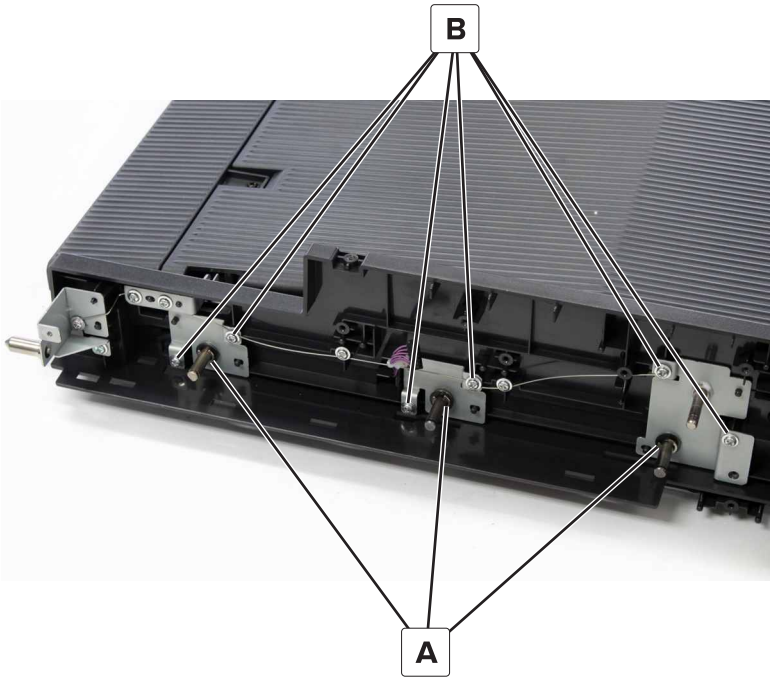
1 Remove the rear cover. See **"HPT rear cover removal" on page 317**.

2 Remove the motor (HPT transport). See **"Motor (HPT transport) removal" on page 319**.

3 Remove the HPT belts and gears. See **"HPT belts and gears removal" on page 321**.

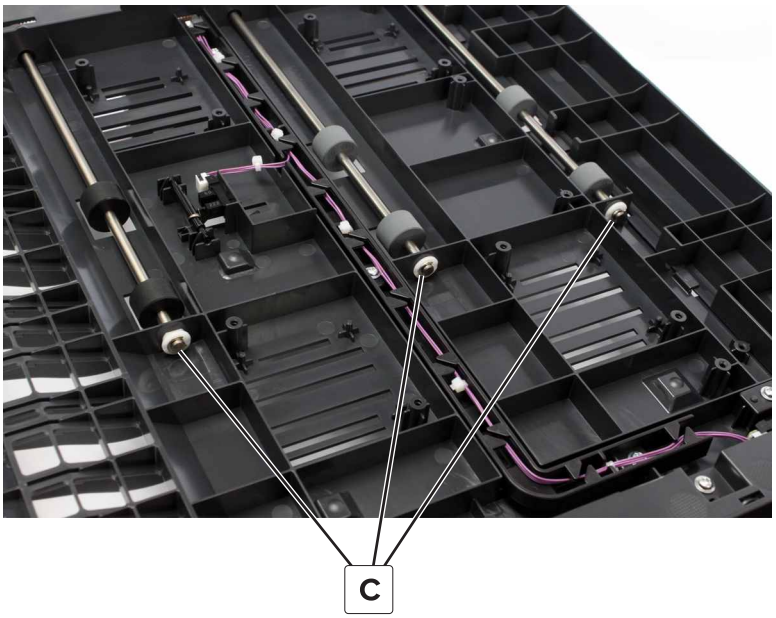
4 Remove the three clips (A).

5 Remove the six screws (B), and then remove the plates.



Installation note: Position the ground wire over the plates before installing the screws.

6 Remove the three clips (C), and then remove the bushings.



7 Remove the rollers.

Staple, hole punch finisher removals

SHPF top bin extender removal

1 Lift the extender.

2 Remove the extender.

SHPF elevator bin removal

Note: Perform steps 1 to 3 to lower the position of the bin. The bin cannot be removed when it is at the highest position.

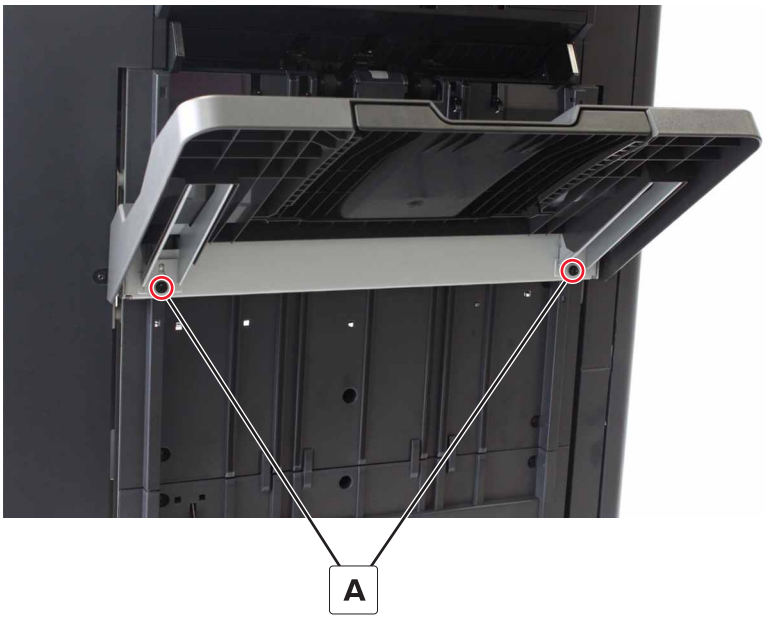
1 Turn on the printer.

2 Lift and hold the tamper to activate the elevator bin stack limit switch, open door J, and then close the door.

Note: The bin moves down after closing door J.

3 When the bin reaches the middle, turn off the printer to stop the bin.

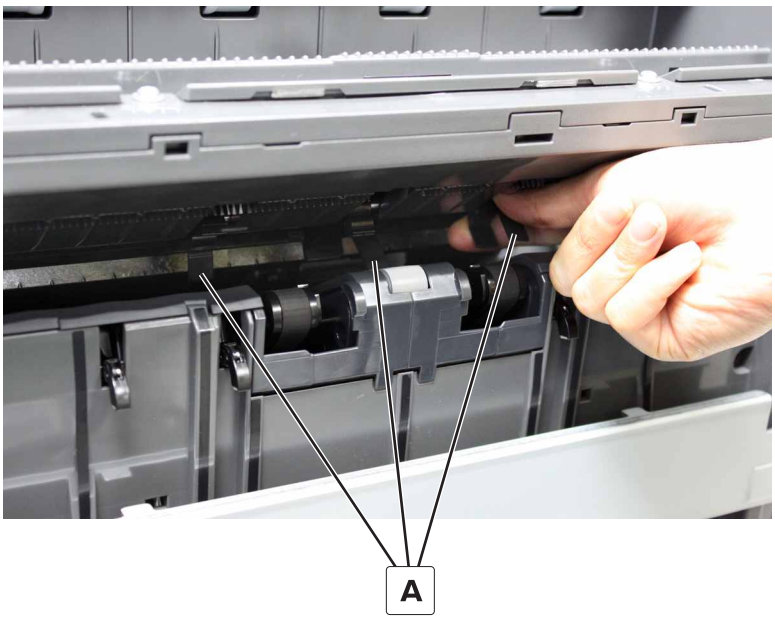
4 Remove the two screws (A).



5 Remove the bin.

SHPF paddles removal

1 Pull the three paddles (A).



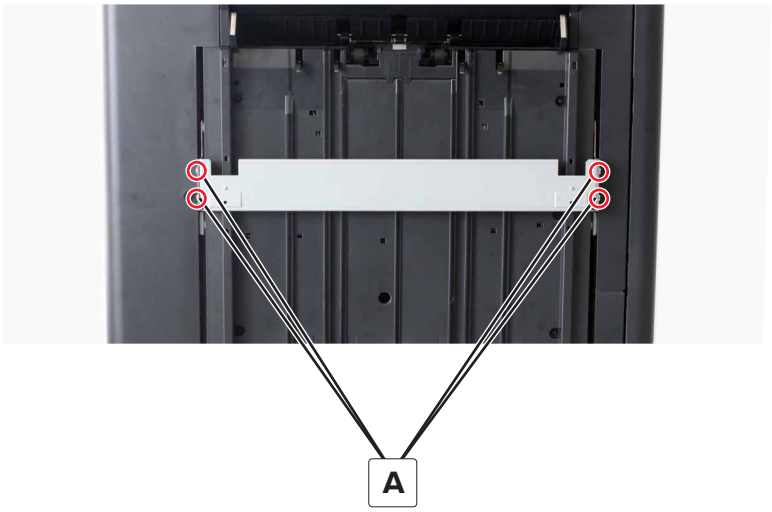
2 Remove the paddles.

SHPF elevator bin bracket removal

Note: This part is not a FRU.

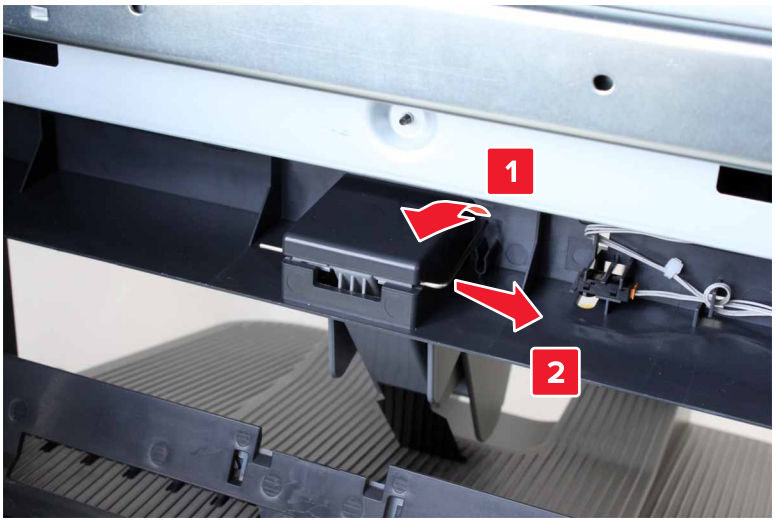
1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the four screws (A), and then remove the bracket.



HPBF bin bail removal

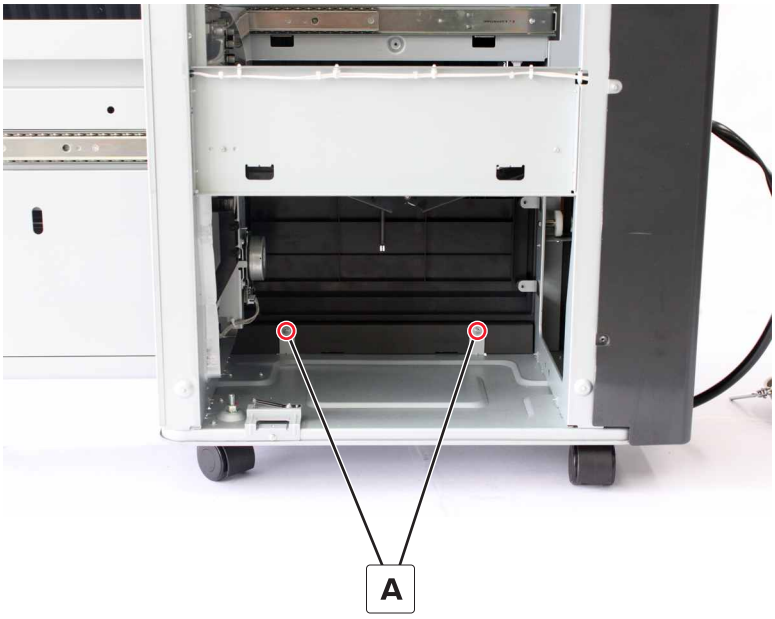
1 Unlatch, and then remove the lock.



2 Remove the bail.

SHPF lower cover removal

1 Remove the two screws (A).



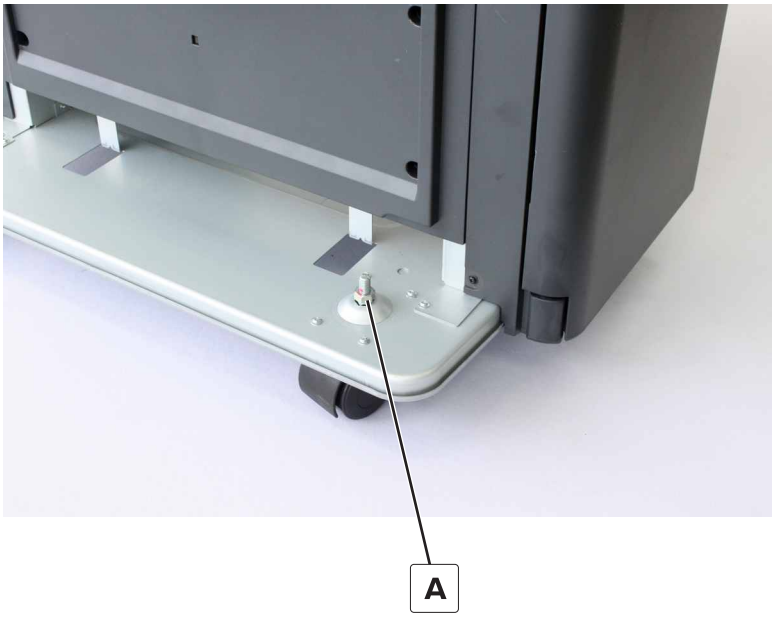
2 Remove the cover.

SHPF caster wheel removal

1 Remove the lower cover. See **"SHPF lower cover removal" on page 326**.

2 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

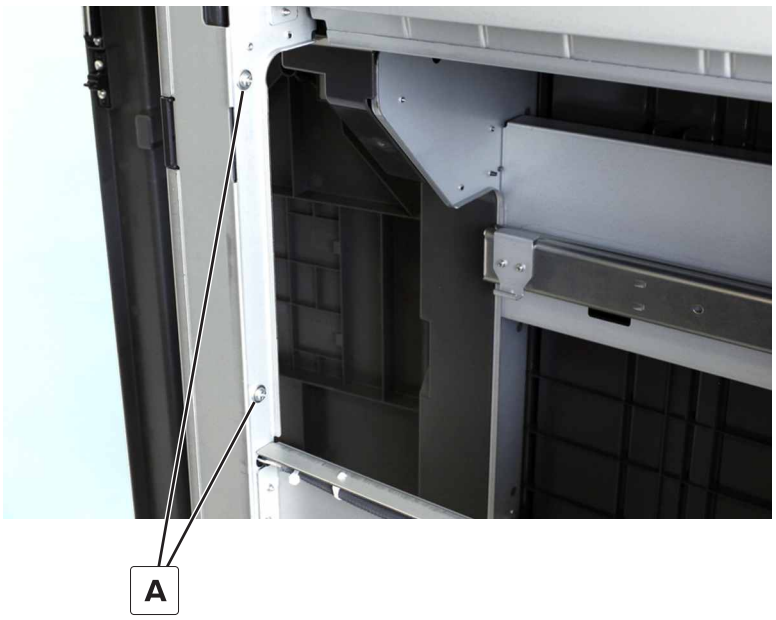
3 Remove the nut, and then remove the wheel.



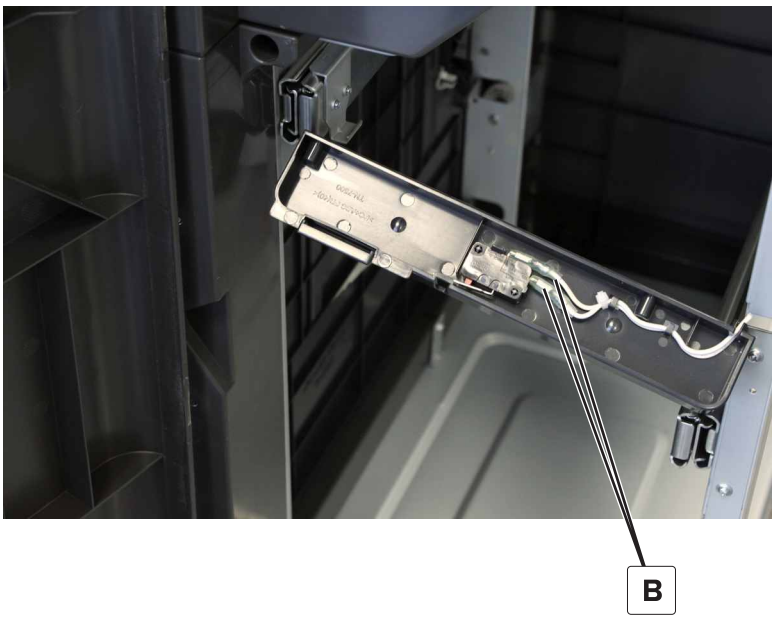
SHPF front door switch removal

1 Open the front door.

2 Remove the two screws (A), and then remove the cover.

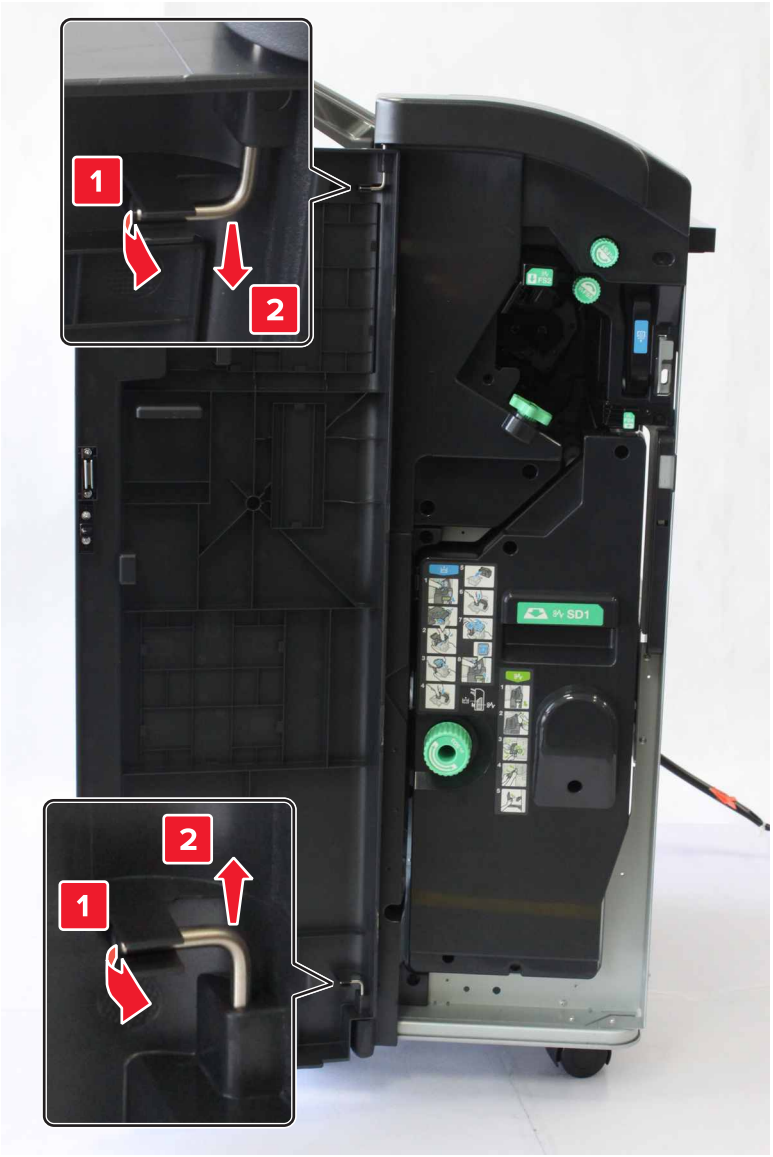


3 Disconnect the two cables (B), and then remove the switch from the cover.



SHPF front door removal

1 Unlatch and then remove the two locks.



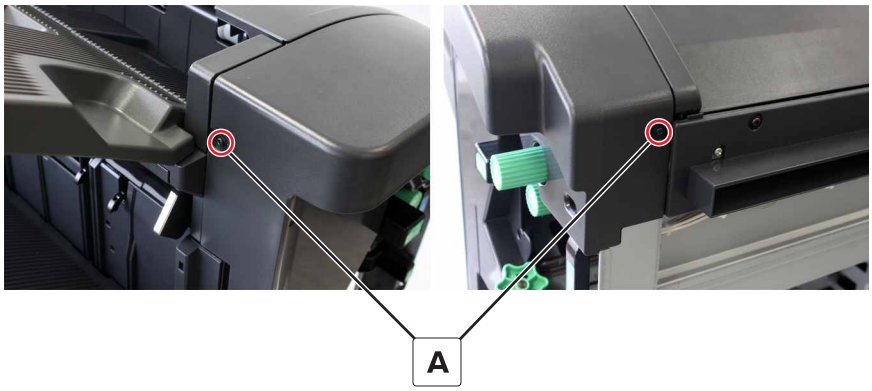
2 Remove the door.

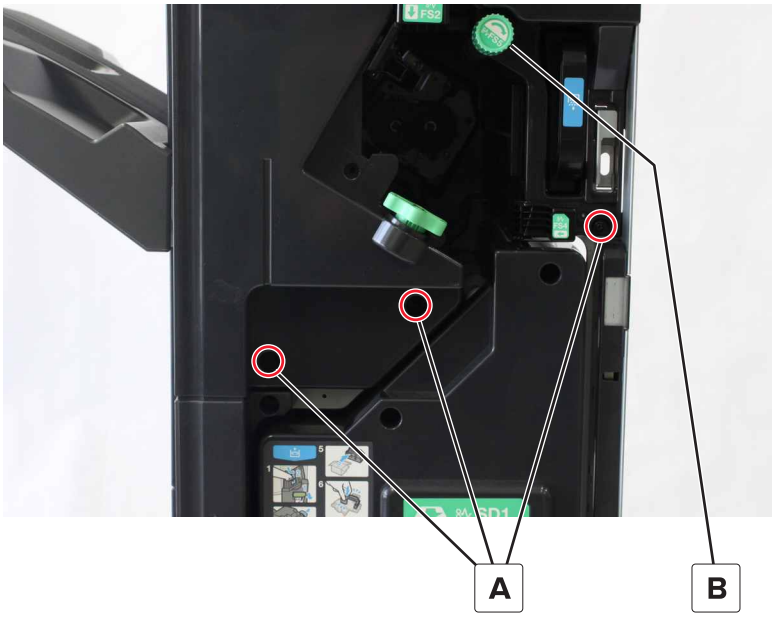
SHPF top inner cover removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the five screws (A).

3 Unlatch and then remove the knob (B).





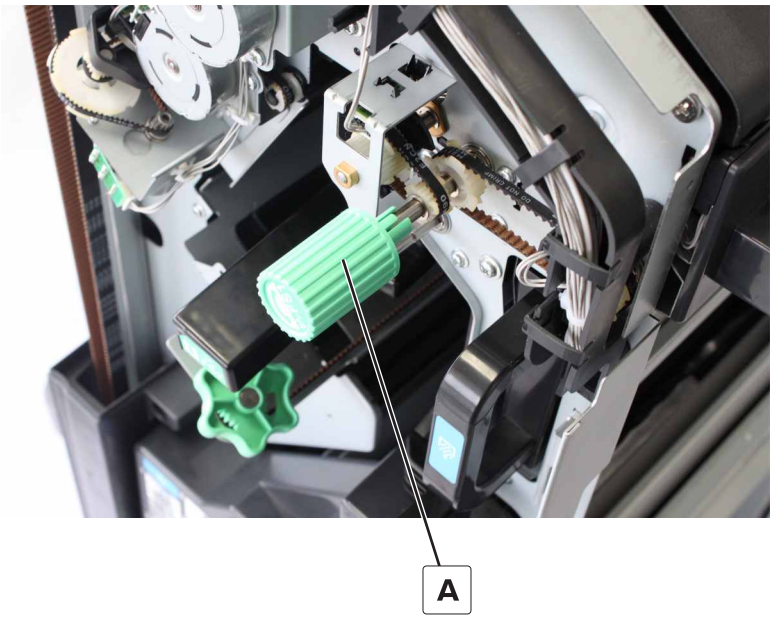
4 Remove the cover.

SHPF diverter feed roller knob removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Unlatch and then remove the knob (A).

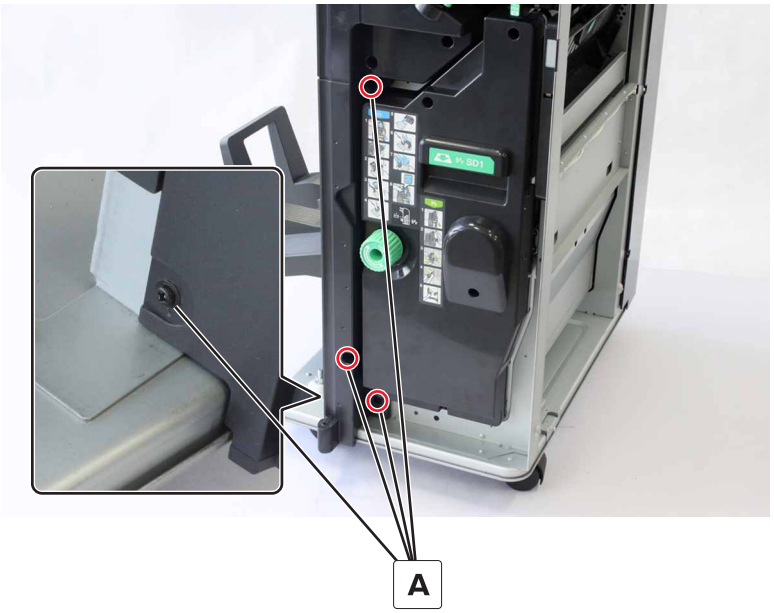


SHPF post cover removal

1 Remove the lower cover. See **"SHPF lower cover removal" on page 326**.

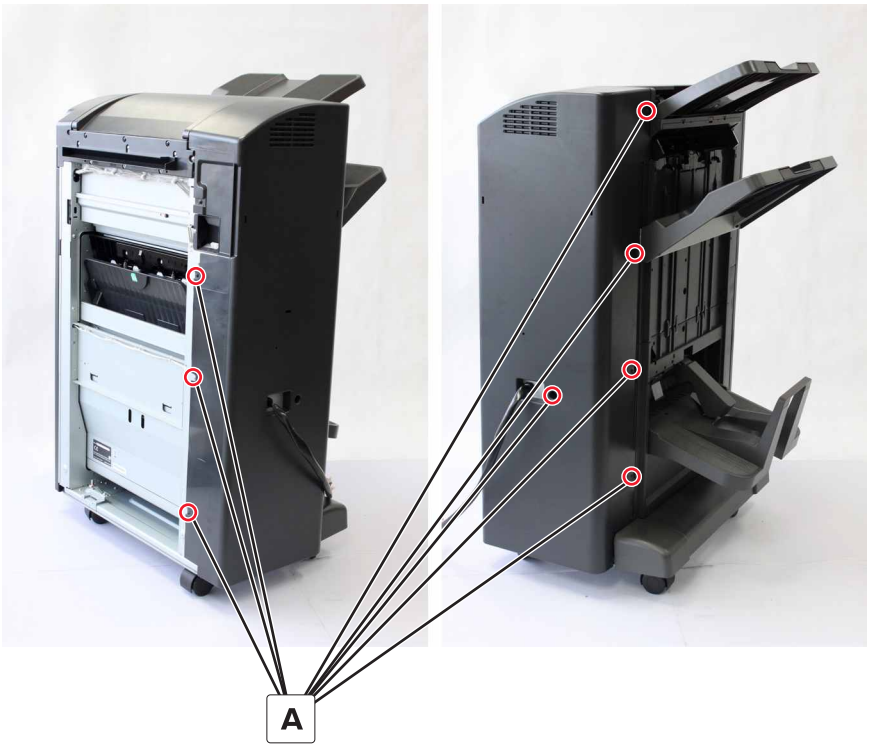
2 Remove the front door. See **"SHPF front door removal" on page 328**.

3 Remove the four screws, and then remove the cover.



SHPF rear cover removal

1 Remove the eight screws.



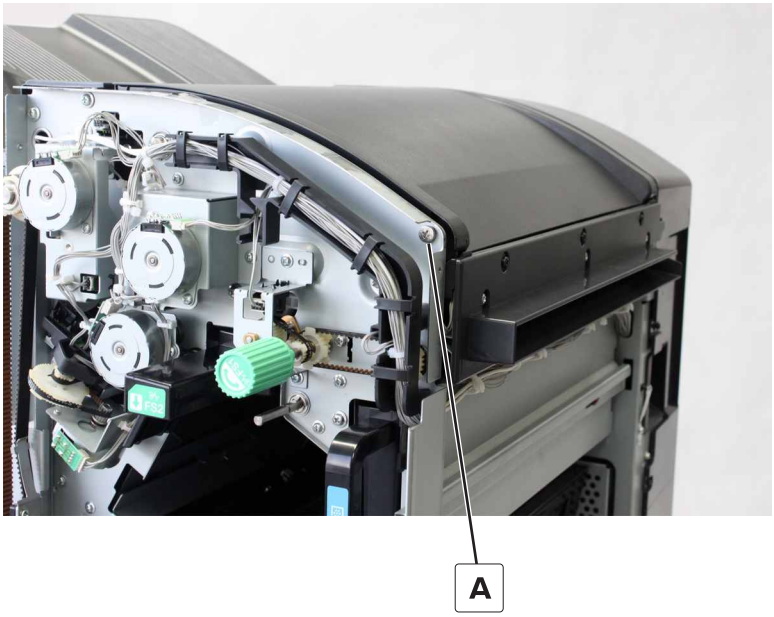
2 Remove the cover.

SHPF top door removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the screw (A), and then remove the door.



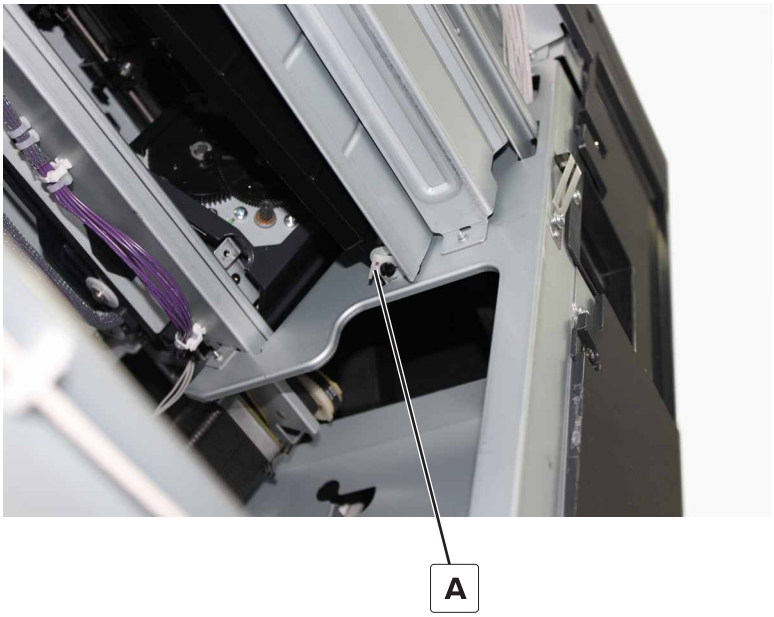
Booklet gate jam access door removal

1 Open the front door.

2 Turn the staple carriage knob to move the carriage to the rear.

3 Release the jam access door from the magnetic catch.

4 From the bottom right, remove the clip (A) from the door tab.



5 Remove the door.

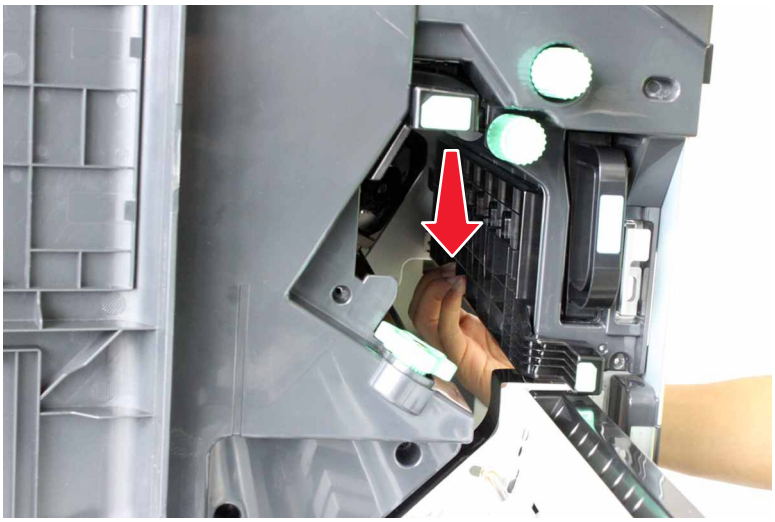
Installation notes:

a Install the bottom door tab on the bottom frame hole.

b Push the top part of the jam access door to the frame. Align the top door tab with the top frame hole.

c Close the door. Align the pin on the door with the hole on the frame.

d Reach in from the right side, and then pull down the door. The door tabs should set into the holes.

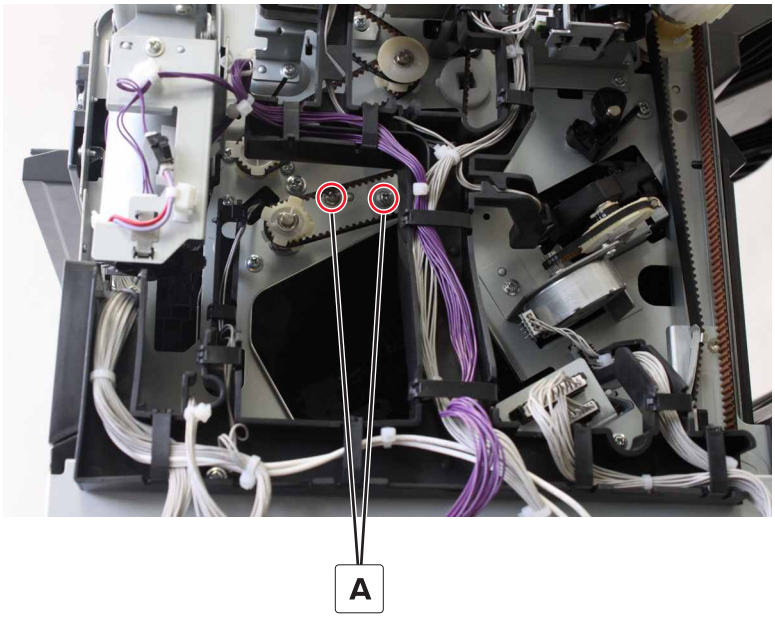


e Install the clip.

SHPF jam access door removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Remove the two screws (A).

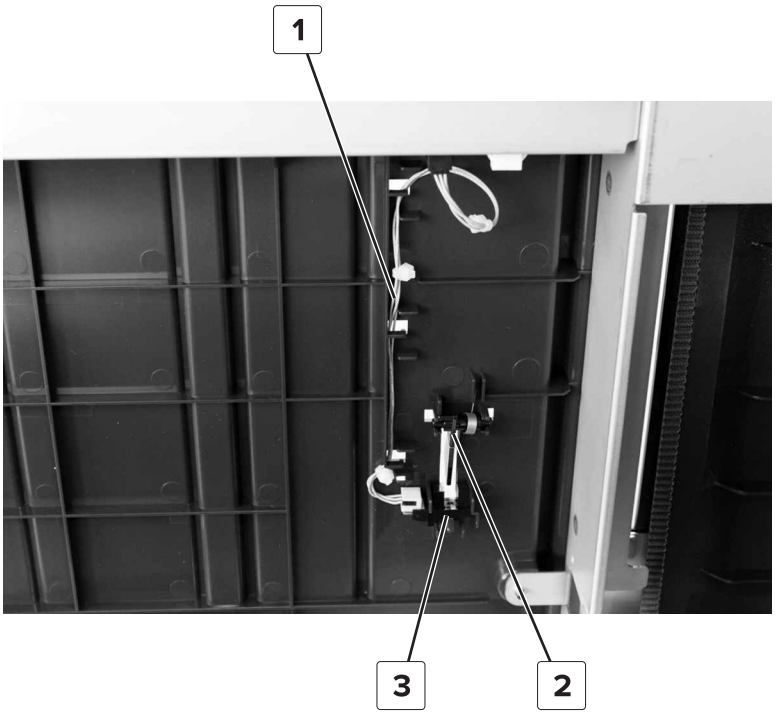


3 Open the front door.

4 Release the jam access door from the magnetic catch, and then remove the door.

Sensor (SHPF elevator bin full) removal

1 From behind the lower left cover, select the FRU.



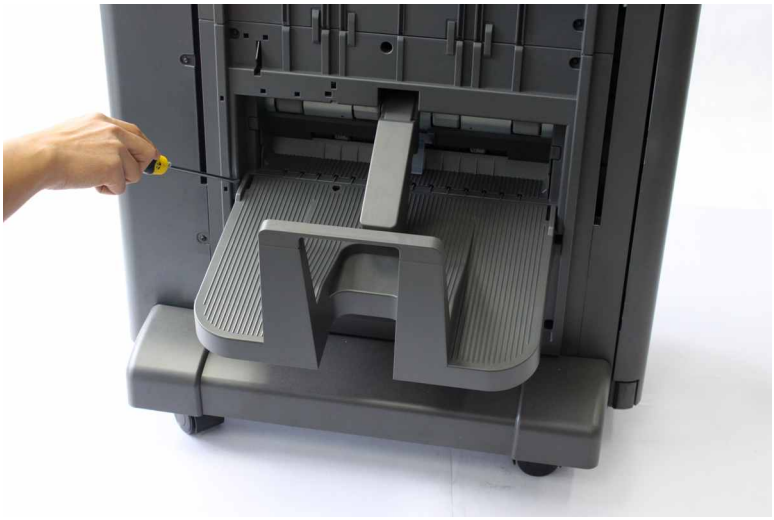
#	Part
1	SHPF elevator bin full sensor cable
2	SHPF elevator bin full sensor actuator
3	Sensor (SHPF elevator bin full)

2 Remove the FRU.

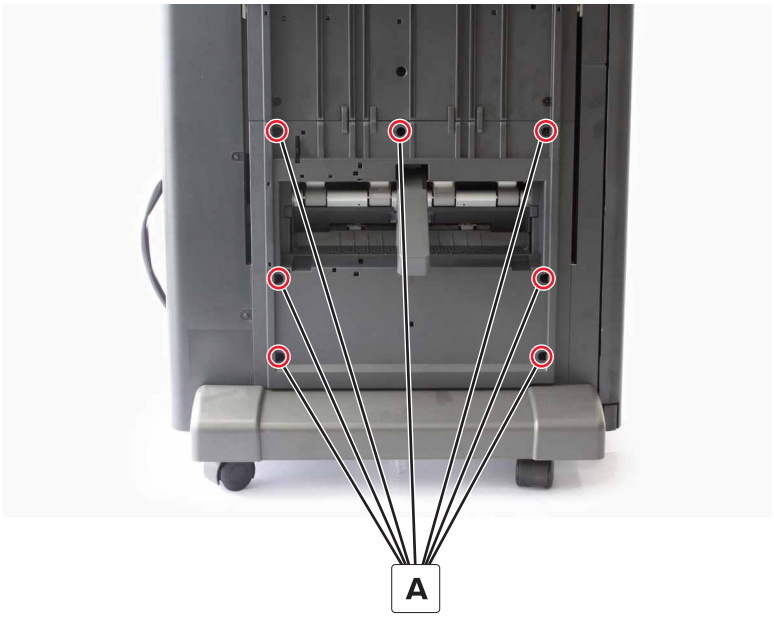
Lower left cover removals

HPBF lower left cover removal

1 Pry one side, and then remove the HPBF bin.

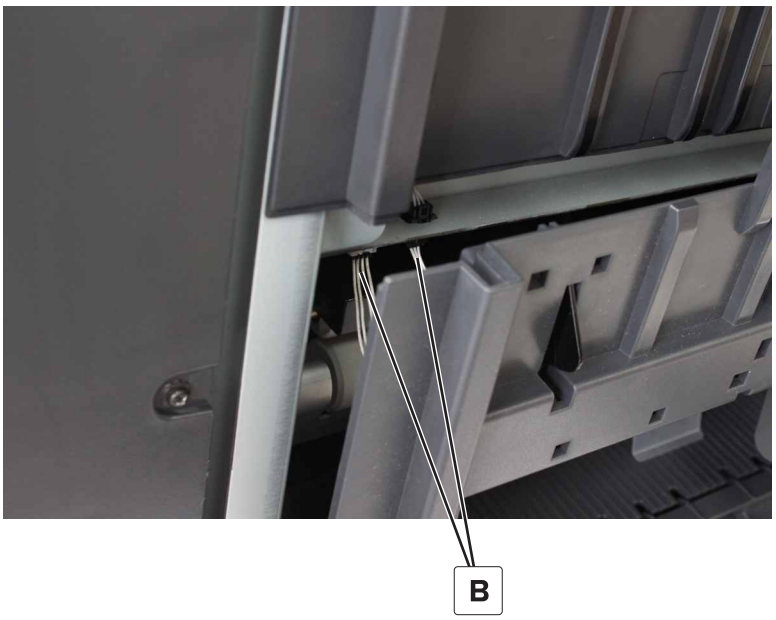


2 Remove the seven screws (A).



3 Swing out the cover.

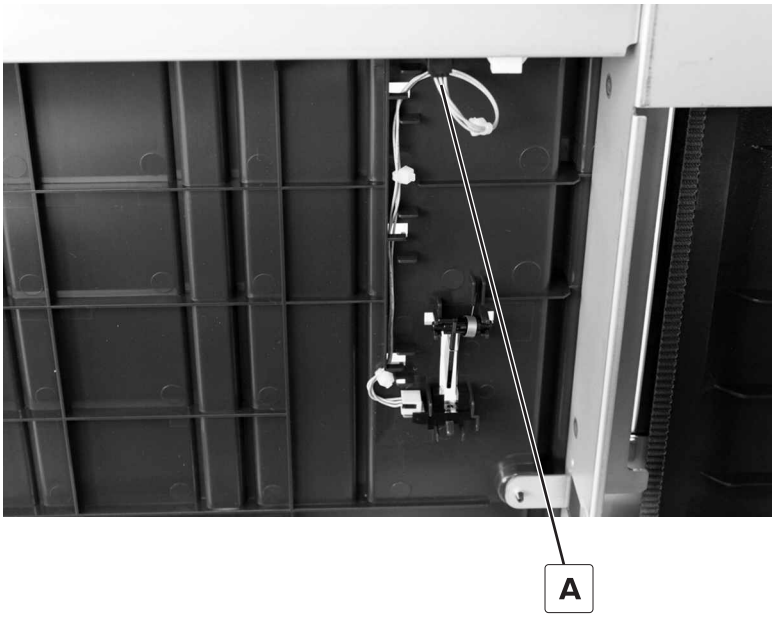
4 Disconnect the two cables (B), and then remove the cover.



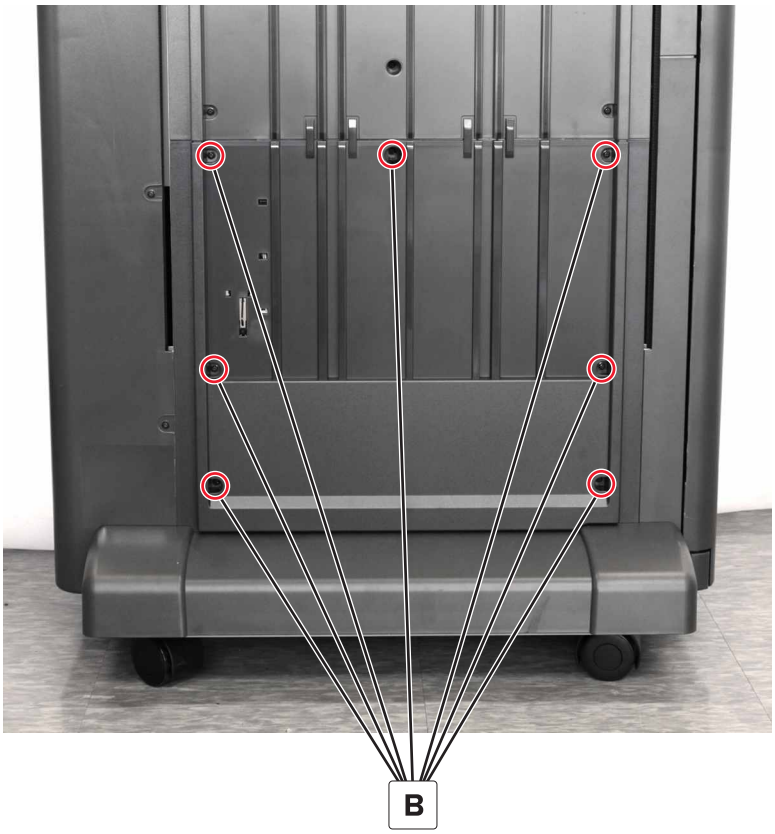
5 Remove the HPBF bin bail. See **"HPBF bin bail removal" on page 325**.

SHPF lower left cover removal

1 From behind the lower left cover, disconnect the cable (A).



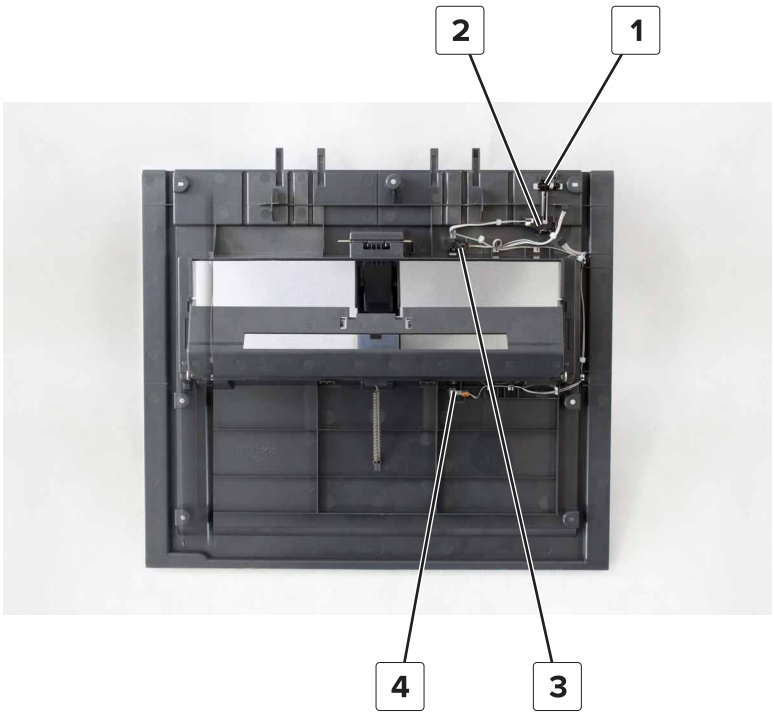
2 Remove the seven screws (B), and then remove the cover.



HPBF lower left cover sensors removals

1 Remove the HPBF lower left cover. See **"Lower left cover removals" on page 336**.

2 Remove the FRU.



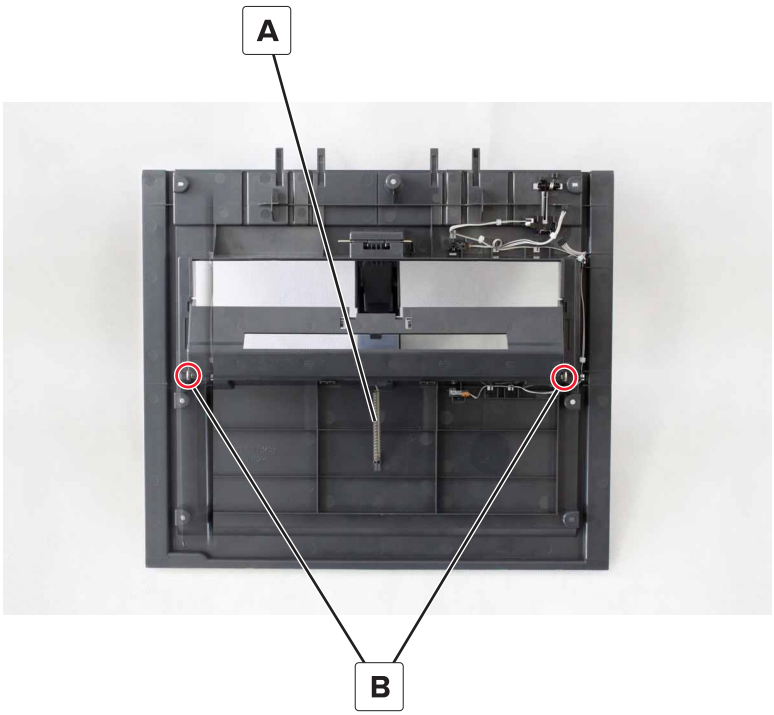
#	Part
1	HPBF elevator bin full sensor actuator
2	Sensor (HPBF elevator bin full)
3	Sensor (HPBF bin empty, receive)
4	Sensor (HPBF bin empty, transmit)

HPBF exit roller cover removal

1 Remove the HPBF lower left cover. See **"Lower left cover removals" on page 336**.

2 Disconnect the spring (A).

3 Remove the two screws (B), and then remove the cover.



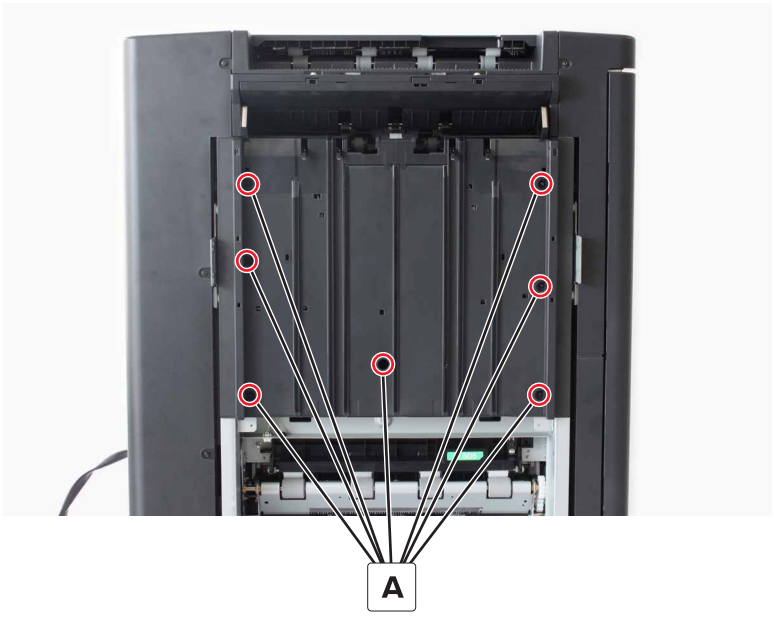
SHPF upper left cover removal

1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

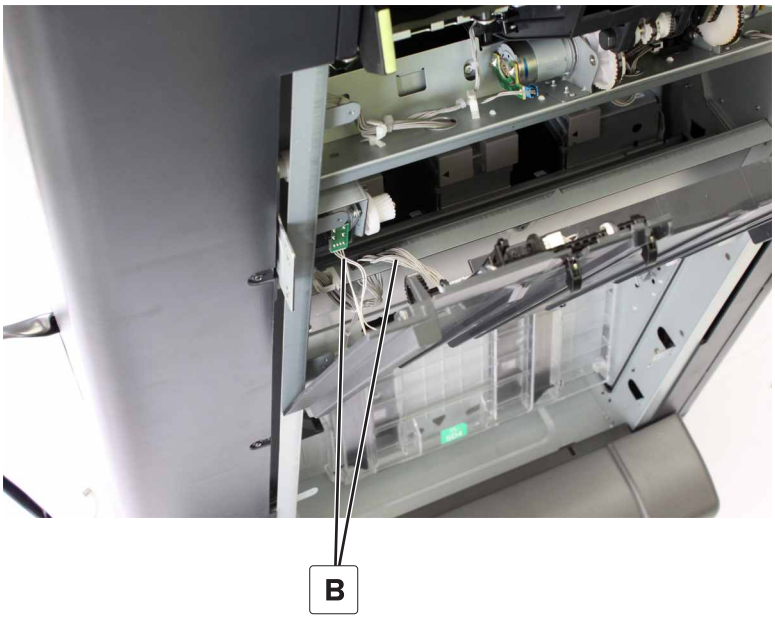
3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the seven screws (A).



5 Swing out the cover.

6 Disconnect the two cables (B), and then remove the cover.



SHPF upper left cover sensors removal

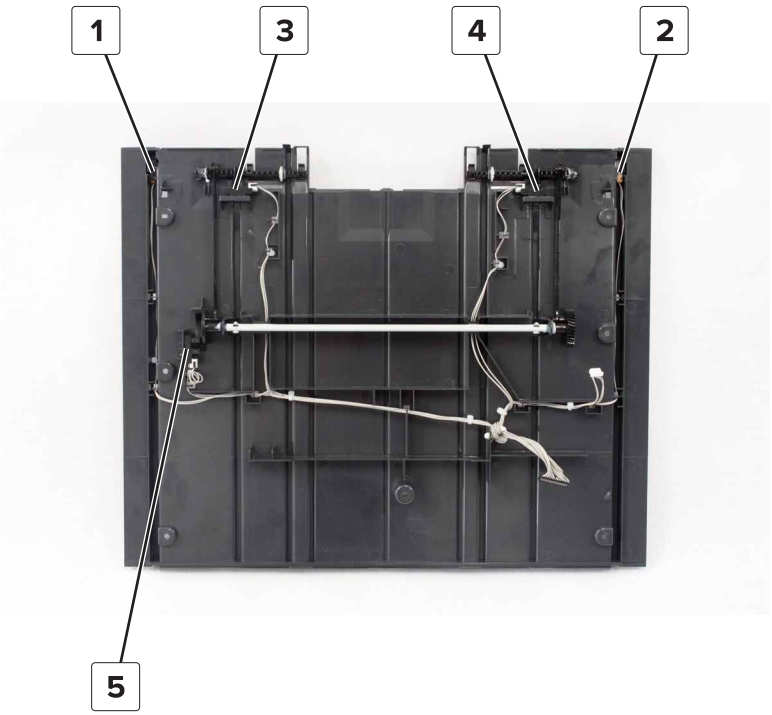
1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the HBPF lower left cover or the SHPF lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the appropriate sensor.



#	Part
1	Sensor (SHPF elevator bin stack height, receive)
2	Sensor (SHPF elevator bin stack height, transmit)
3	Sensor (SHPF elevator bin front stack height)
4	Sensor (SHPF elevator bin rear stack height)
5	Sensor (SHPF bin lever control)

SHPF elevator bin stack height sensor actuator removal

Note: Shown is the removal of the front actuator. The same instructions apply when removing the rear actuator.

1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

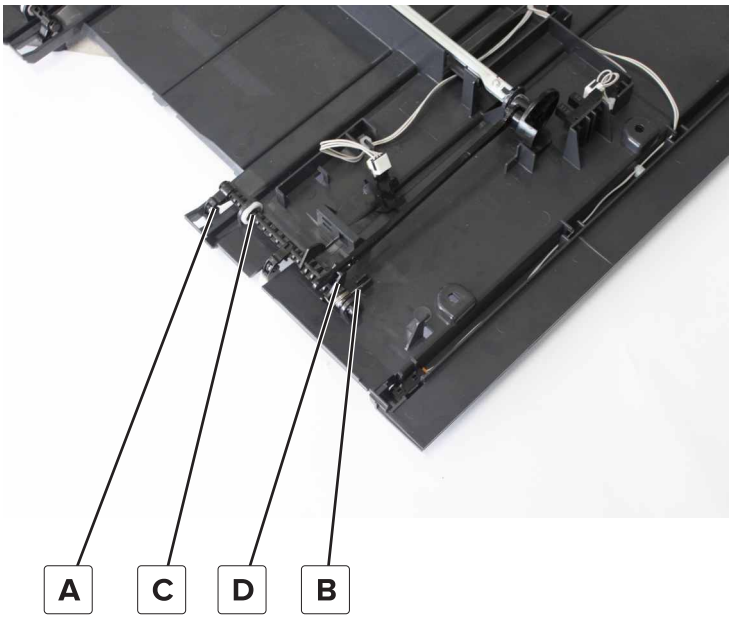
5 Remove the sensor (SHPF elevator bin front stack height) or sensor (SHPF elevator bin rear stack height). See **"SHPF upper left cover sensors removal" on page 341**.

6 Remove the finger (A).

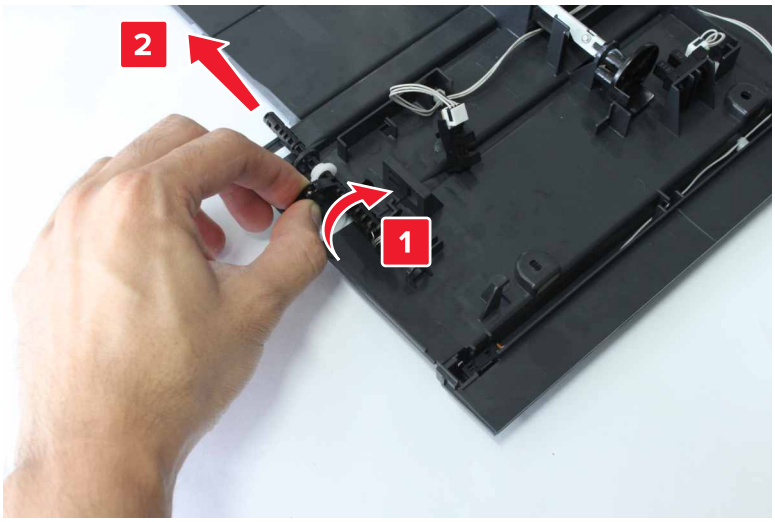
7 Release the spring (B) from the holder.

8 Remove the clip (C), and then slide the bushing.

9 Disconnect the link (D).



10 Rotate, and then remove the lever.



SHPF elevator bin stack height sensor actuator arms and gears removal

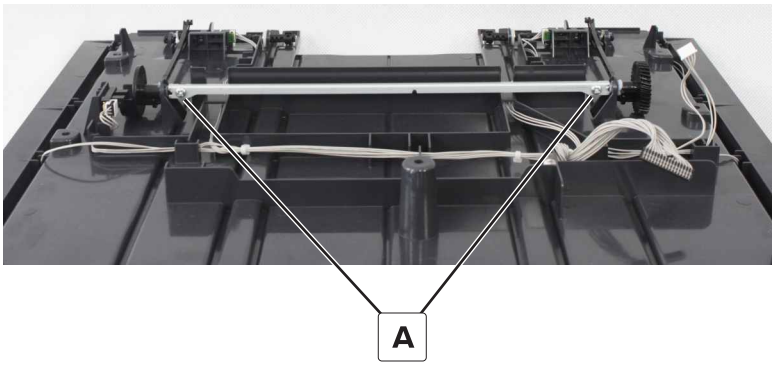
1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

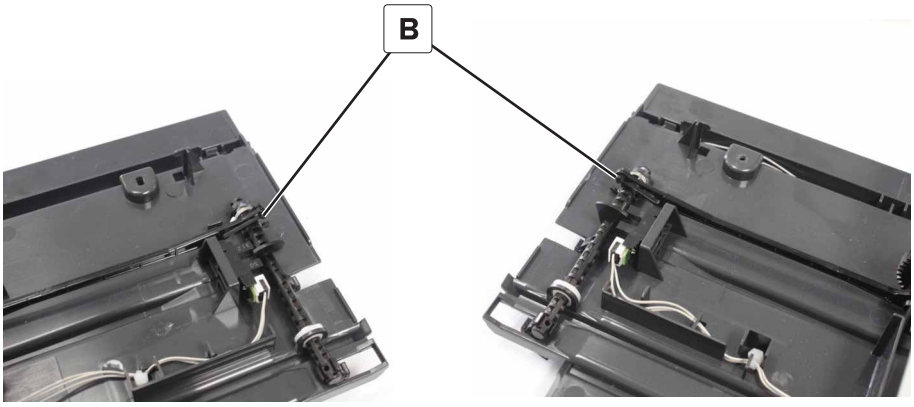
3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

5 Remove the two screws (A), and then remove the shaft.



6 Disconnect the two links (B), and then remove the actuator arms and gears.



SHPF elevator bin stack height drive gear removal

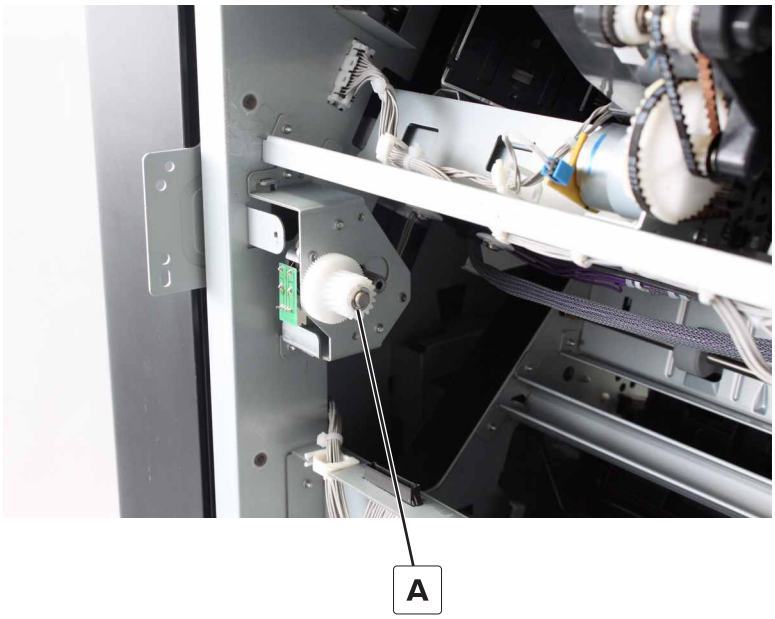
1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

5 Remove the clip (A), and then remove the gear.



Motor (SHPF elevator bin stack height) removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

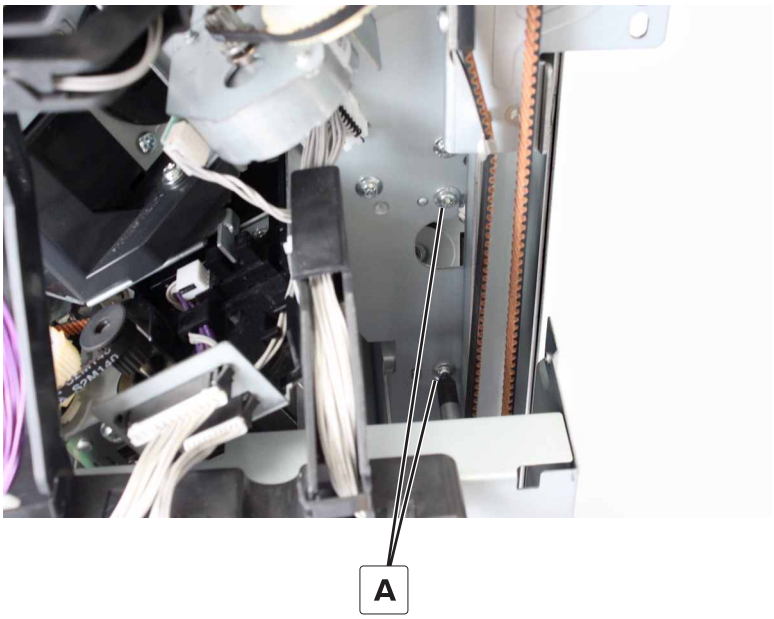
2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the HBPF lower left cover or the SHPF lower left cover. See **“Lower left cover removals” on page 336**.

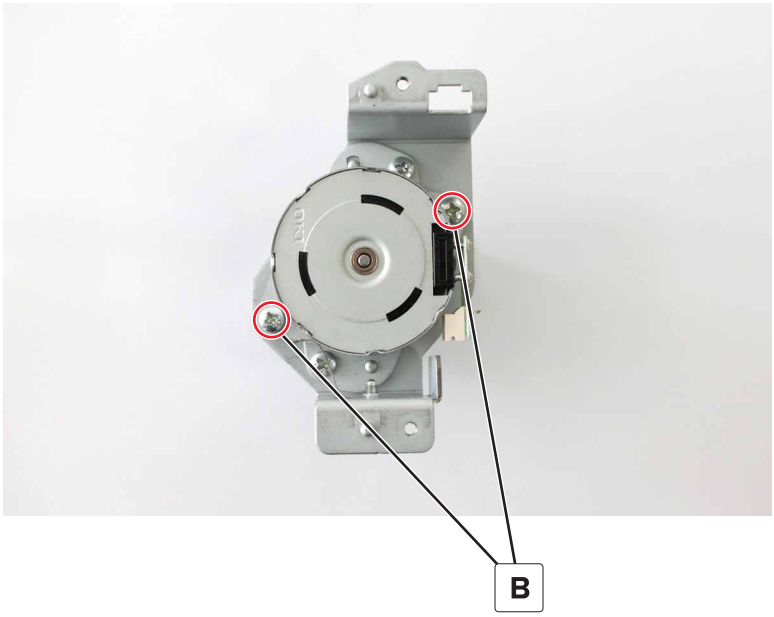
4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

6 Remove the two screws (A), and then remove the motor bracket.



7 Remove the two screws (B), and then remove the motor.



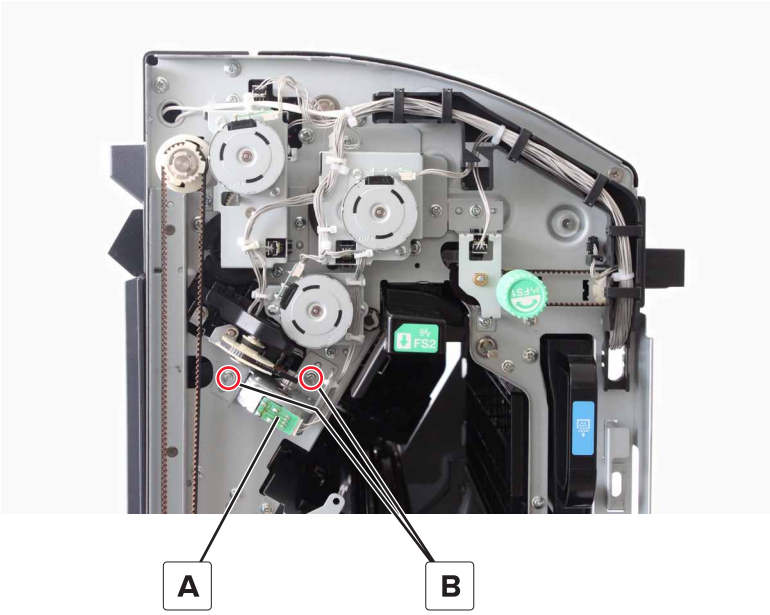
Motor (SHPF front tamper) removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

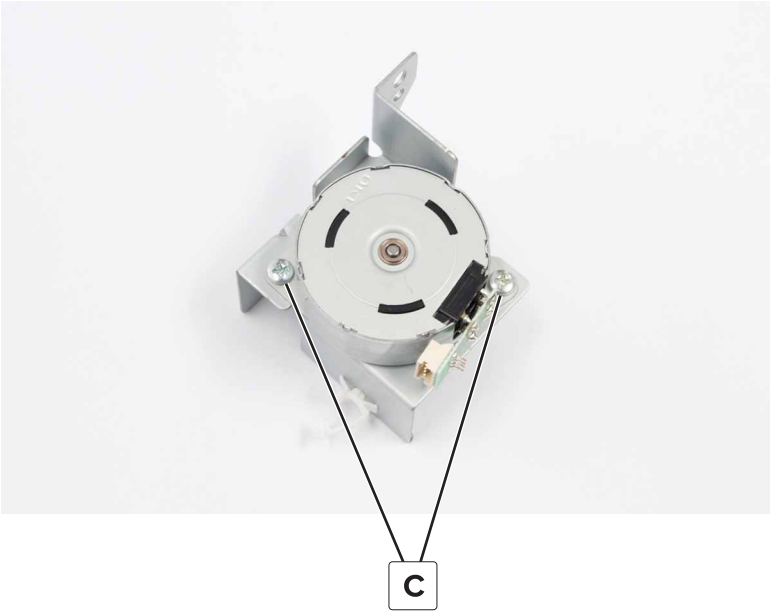
2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Disconnect the cable (A).

4 Remove the two screws (B), and then remove the motor bracket.



5 Remove the two screws (C), and then remove the motor.

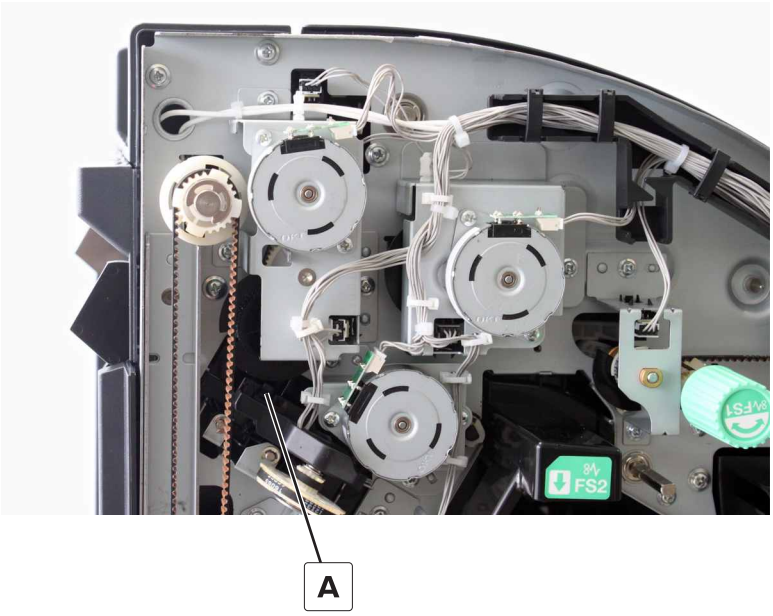


Sensor (SHPF front tamper home) removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Release the latch (A), and then remove the sensor.



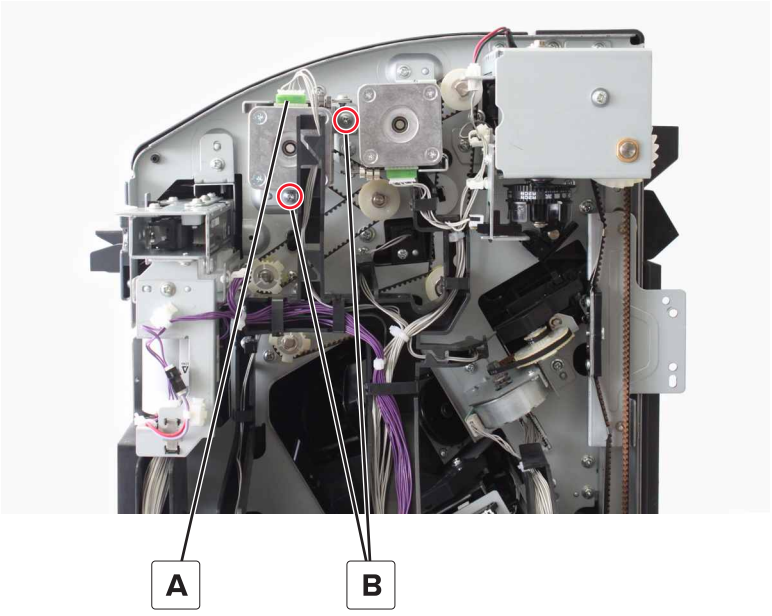
4 Disconnect the cable from the sensor.

Motor (SHPF feed) removal

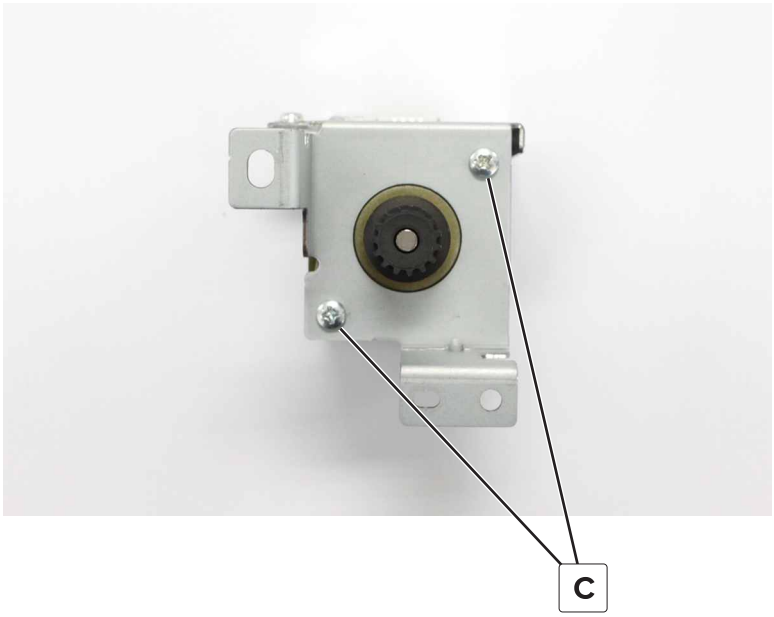
1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor bracket.



4 Remove the two screws (C), and then remove the motor.

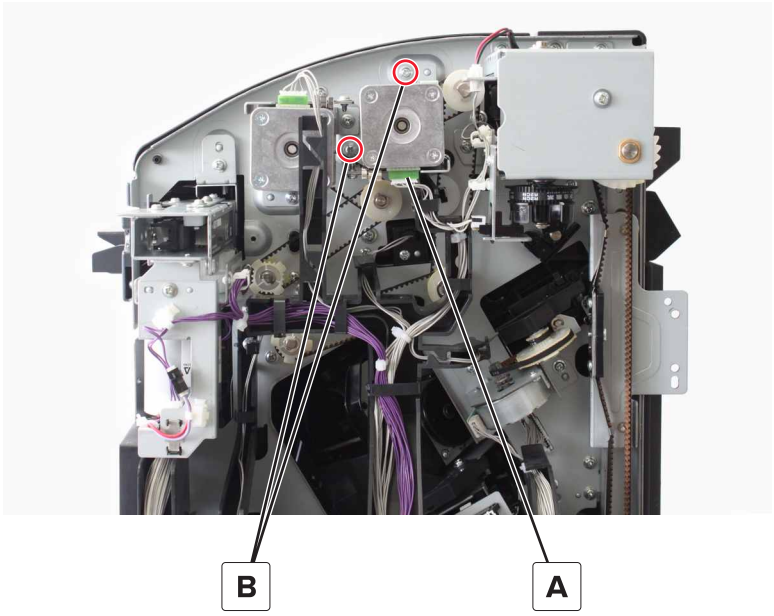


Motor (SHPF transport) removal

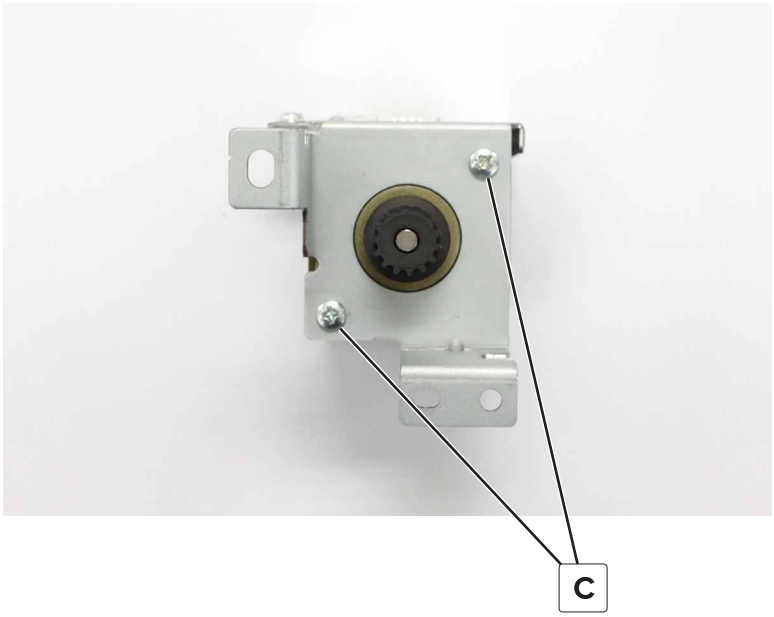
1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor bracket.



4 Remove the two screws (C), and then remove the motor.

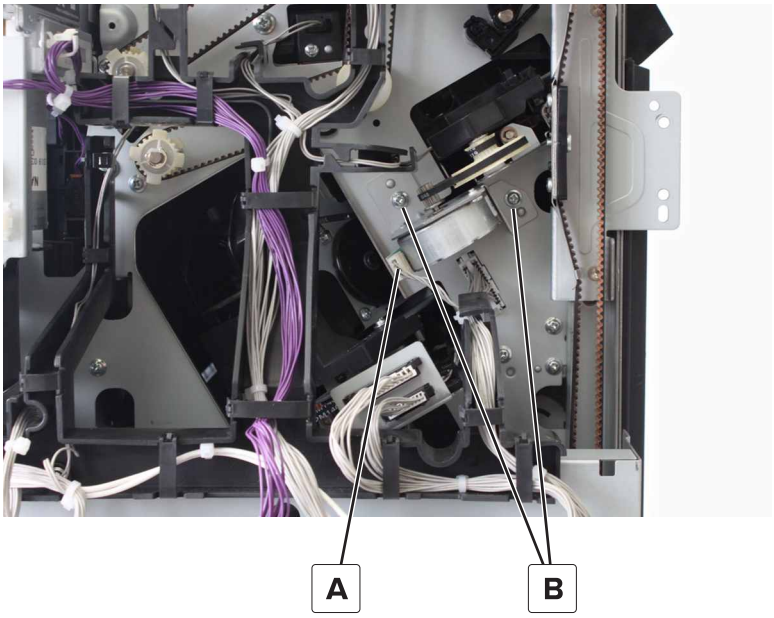


Motor (SHPF rear tamper) removal

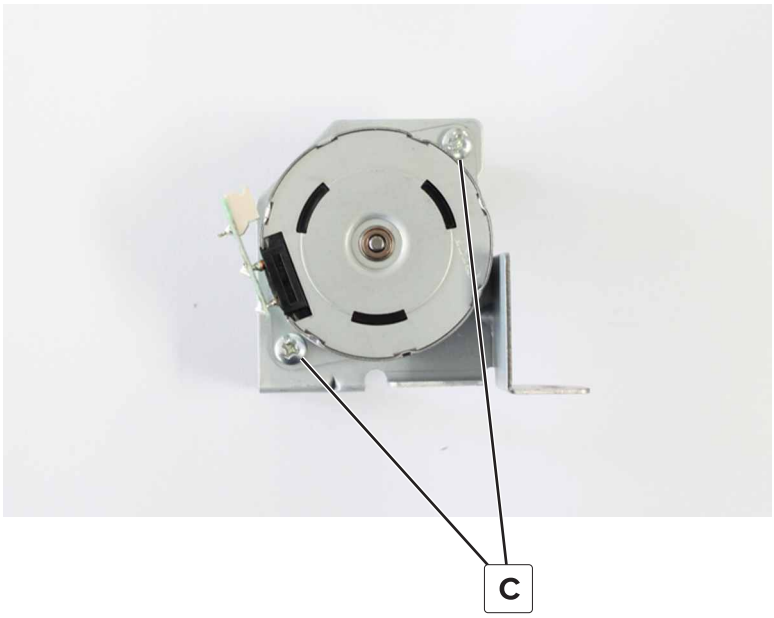
1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor bracket.



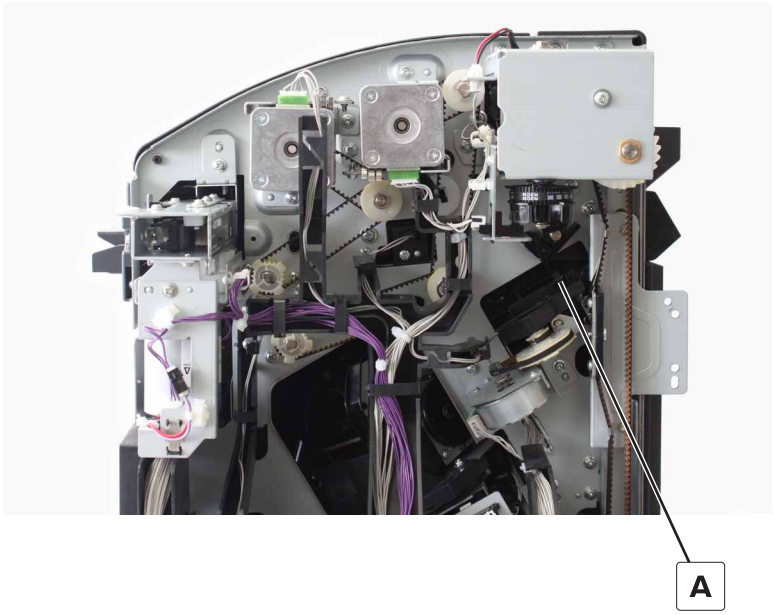
4 Remove the two screws (C), and then remove the motor.



Sensor (SHPF rear tamper home) removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Release the latch (A), and then remove the sensor.

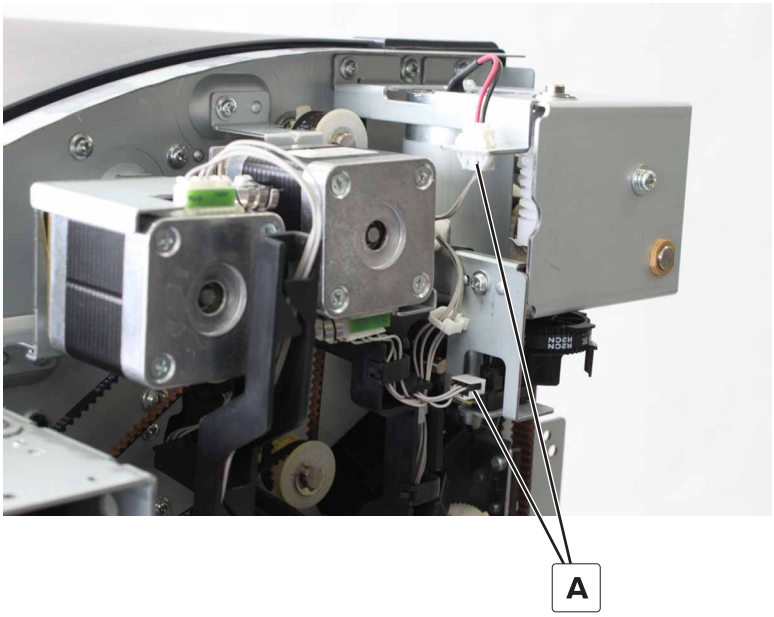


3 Disconnect the cable from the sensor.

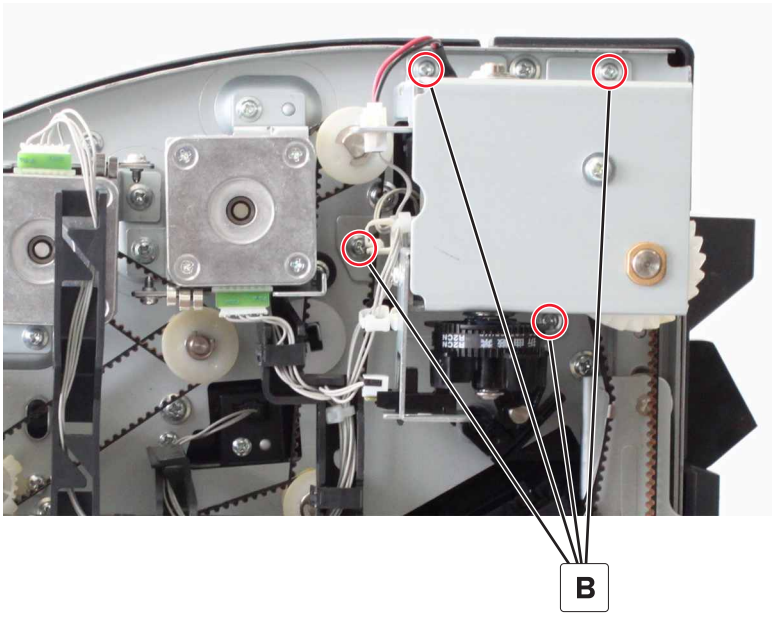
Motor (SHPF elevator) removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

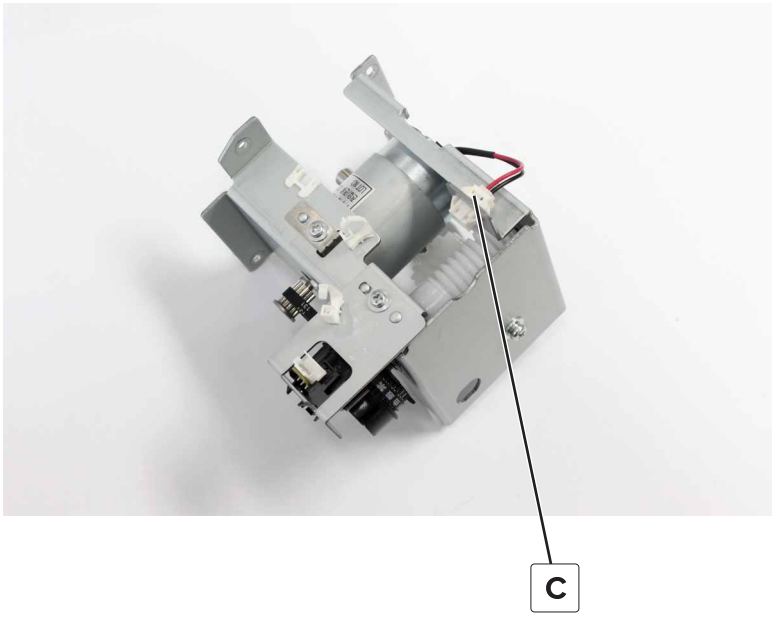
2 Disconnect the two cables (A).



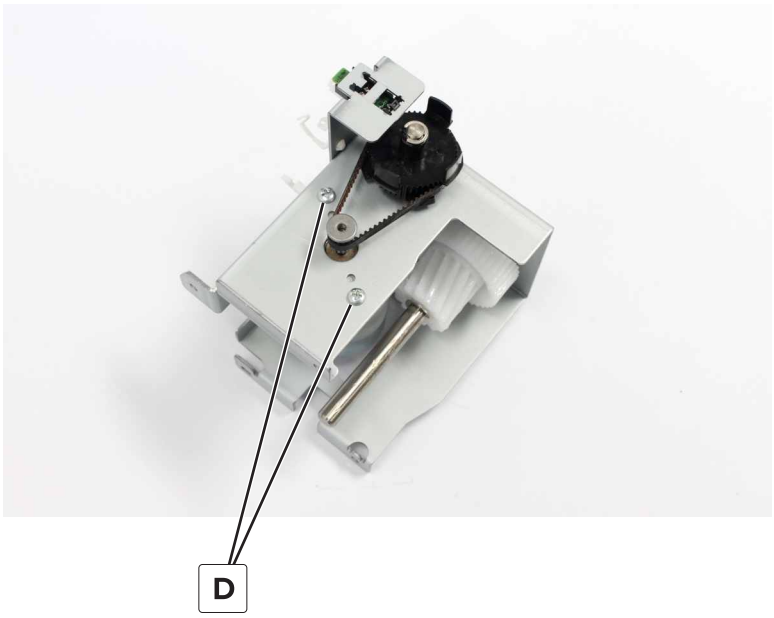
3 Remove the four screws (B), and then remove the motor bracket.



4 Disconnect the cable (C).



5 Remove the two screws (D), and then remove the motor.

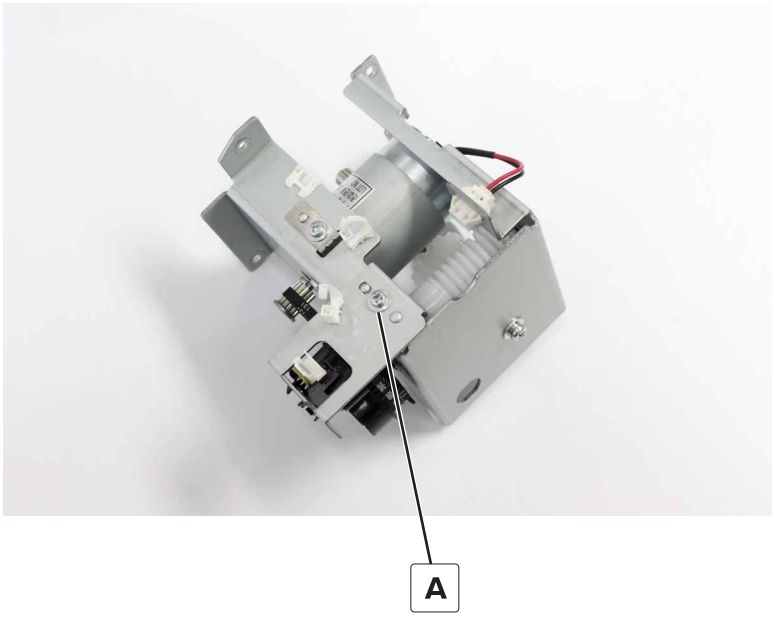


Sensor (SHPF elevator position) removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Remove the elevator motor bracket. See **"Motor (SHPF elevator) removal" on page 352**.

3 Remove the screw (A), and then remove the sensor bracket.



4 Remove the sensor from the bracket.

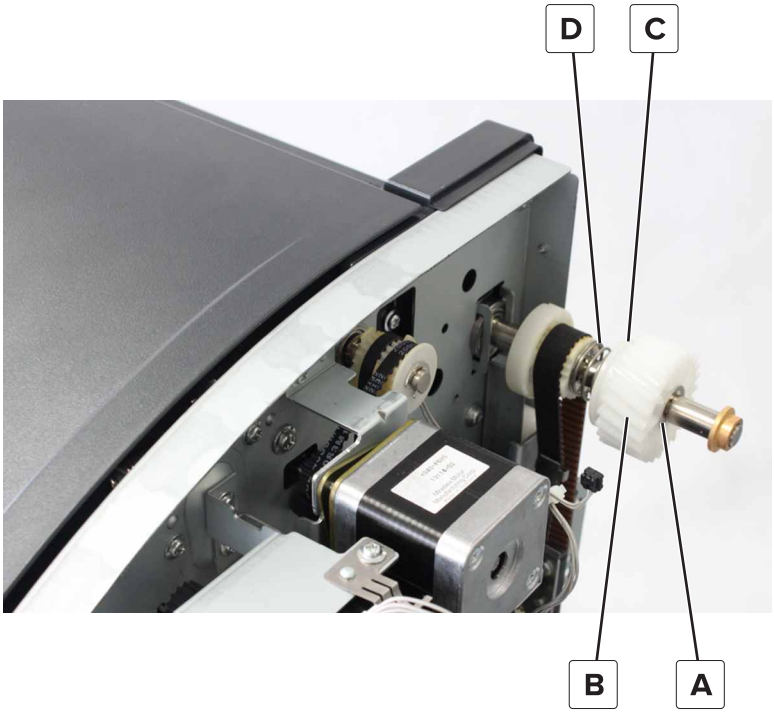
SHPF elevator drive assembly removal

1 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

2 Remove the motor (SHPF elevator). See **“Motor (SHPF elevator) removal” on page 352**.

3 Remove the sensor (SHPF elevator position). See **“Sensor (SHPF elevator position) removal” on page 353**.

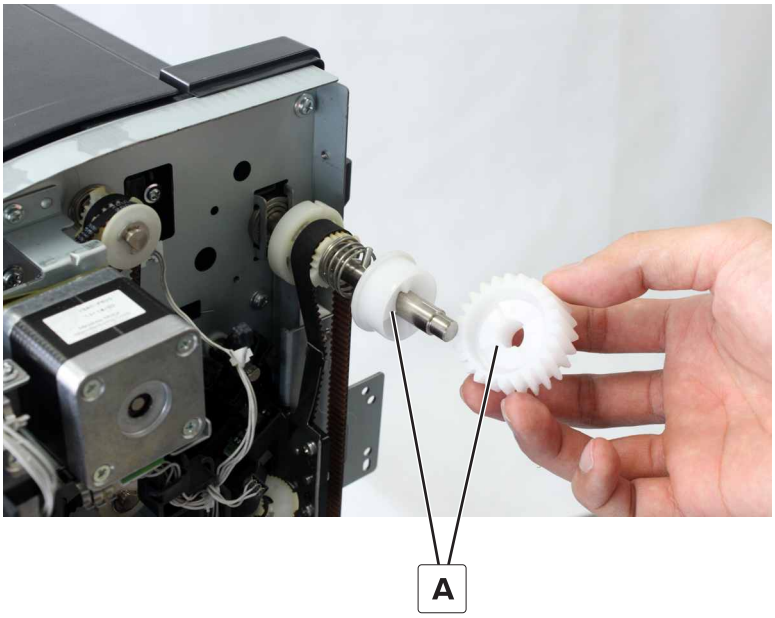
4 Remove the clip (A), gear (B), ratchet (C), and spring (D).



Installation notes:

a Install the spring, and then install the pin.

b Install the gears with the teeth (A) facing each other.

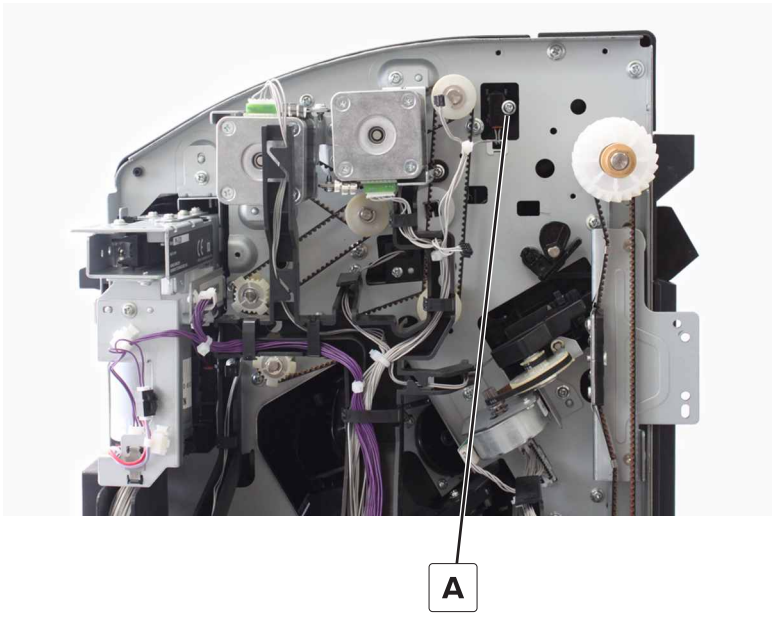


Sensor (SHPF top bin full) removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Remove the elevator motor bracket. See **"Motor (SHPF elevator) removal" on page 352**.

3 Remove the screw (A).

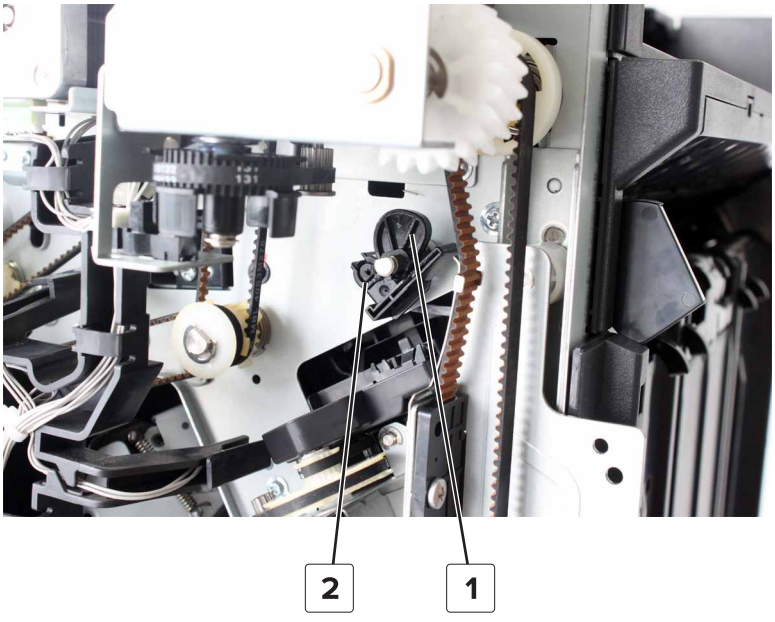


4 Remove the sensor, and then disconnect the cable.

SHPF paddle cam and compiler guide lever removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Remove the FRU.



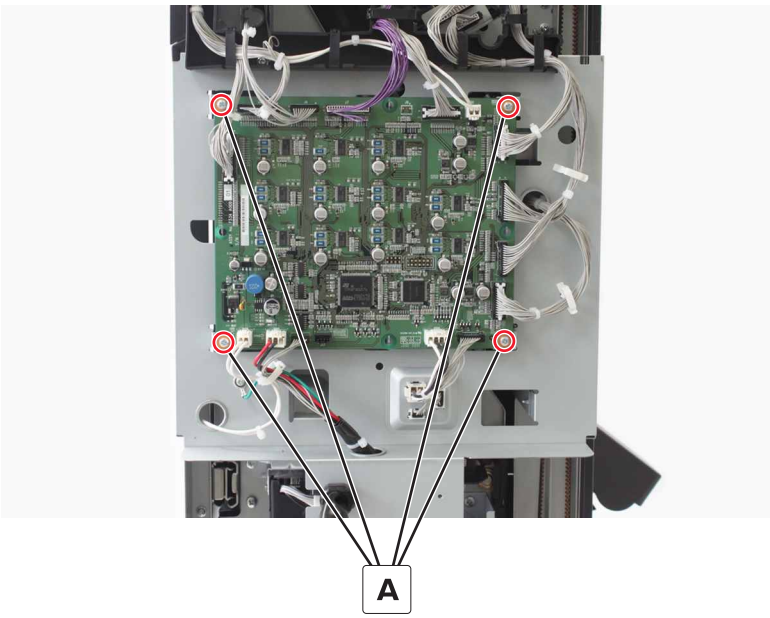
#	Part
1	SHPF paddle cam
2	SHPF compiler guide lever

SHPF controller board removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Disconnect all the cables from the board.

3 Remove the four screws (A), and then remove the board.

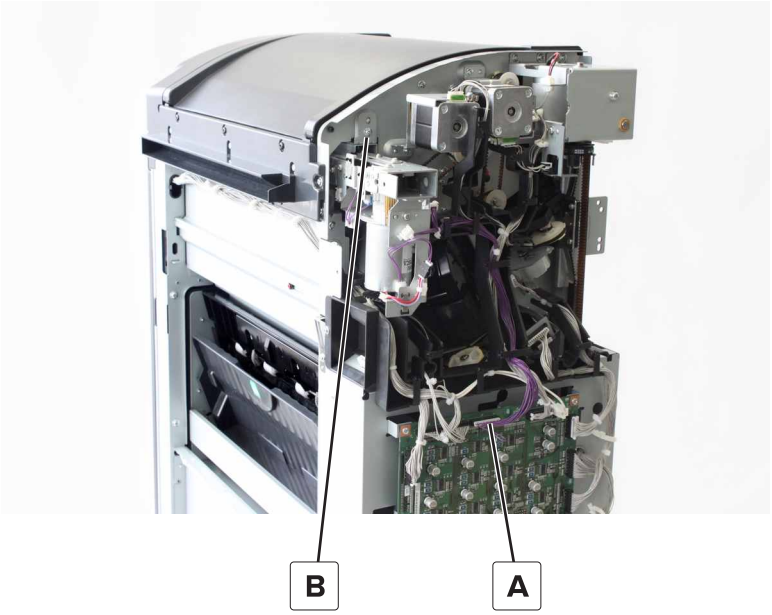


Punch unit removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Disconnect the cable (A) from the controller board.

3 Remove the screw (B), and then pull out the punch unit.

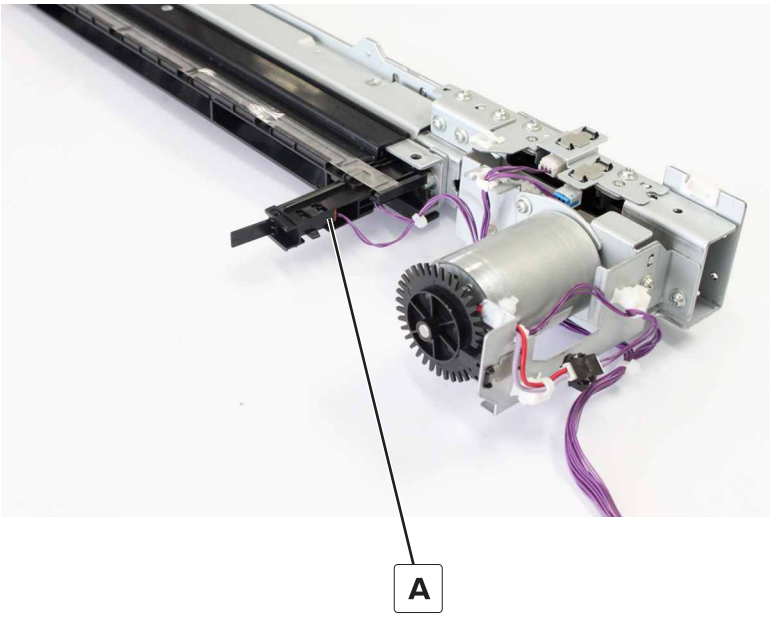


Sensor (hole punch box full) removal

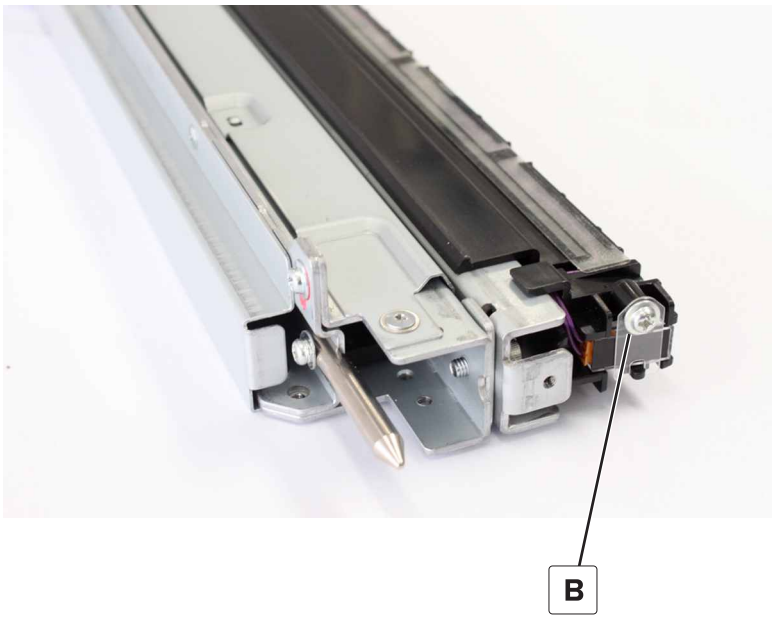
1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

2 Remove the punch unit. See **"Punch unit removal" on page 357**.

3 Disconnect the cable (A), and then remove the sensor.



4 Remove the screw (B), remove the plastic sheet, and then remove the sensor.



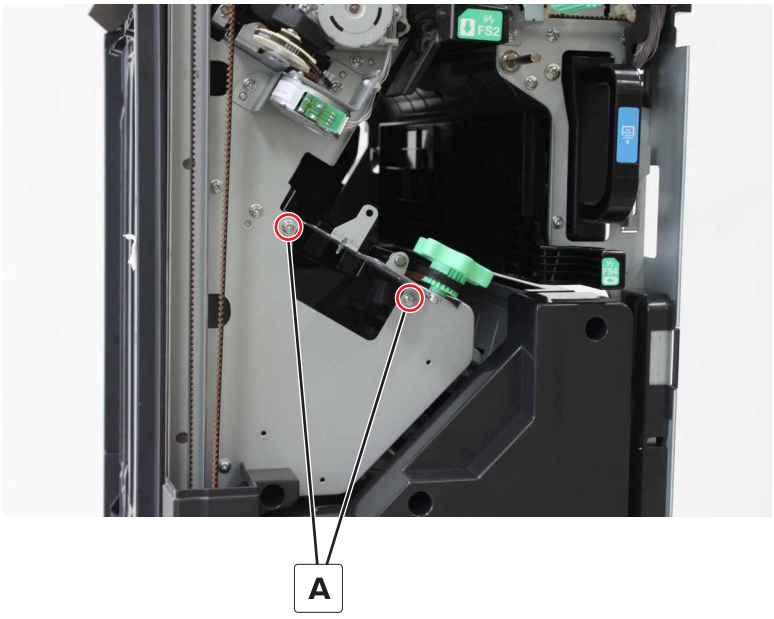
5 Disconnect the sensor from the cable.

SHPF staple unit assembly removal

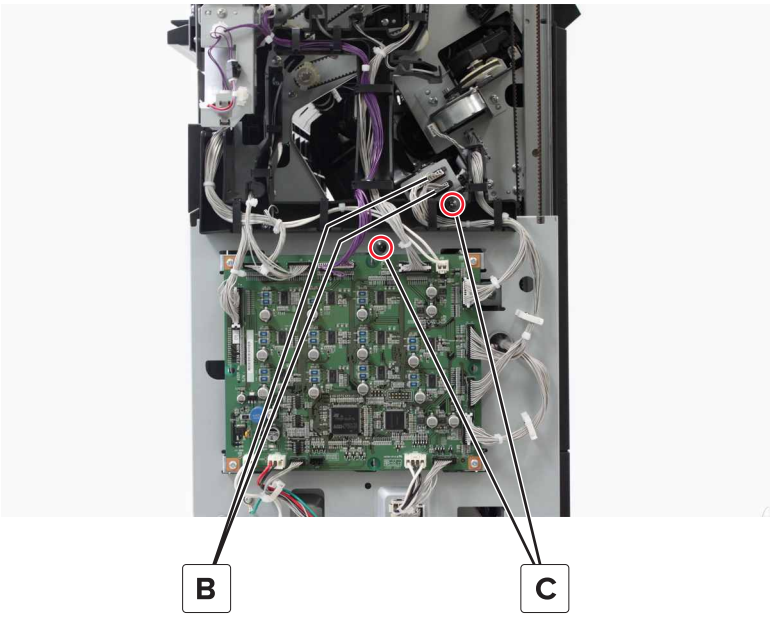
1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

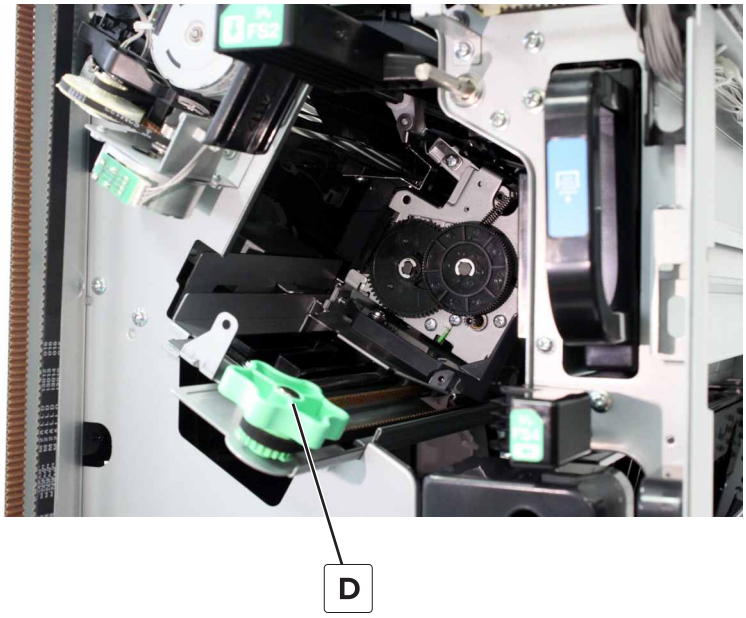
3 Remove the two screws (A).



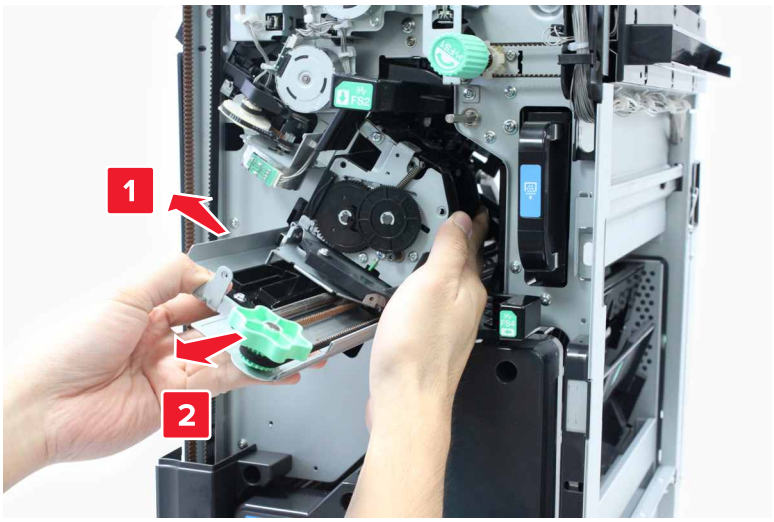
4 Disconnect the two cables (B), and then remove the two screws (C).



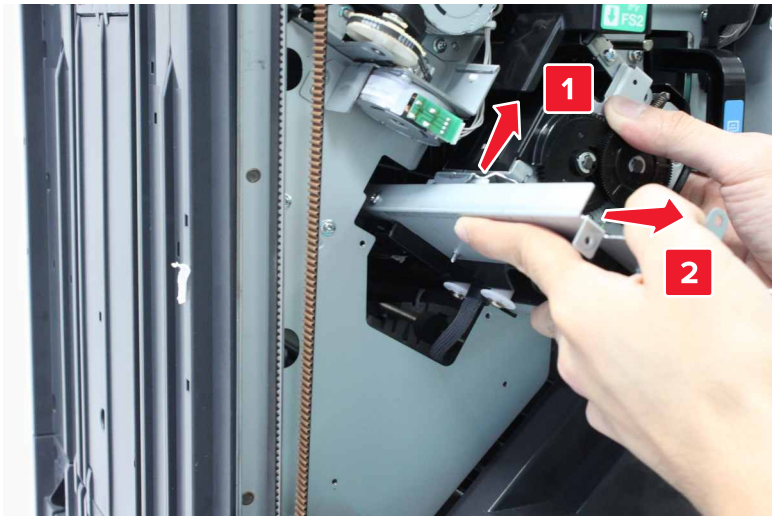
5 Turn the knob (D) to move the staple unit under the front aligner.



6 Push the assembly to the left, and then partially pull it out.



7 Lift the assembly until the cables on the bottom clear the finisher frame, and then remove the assembly.



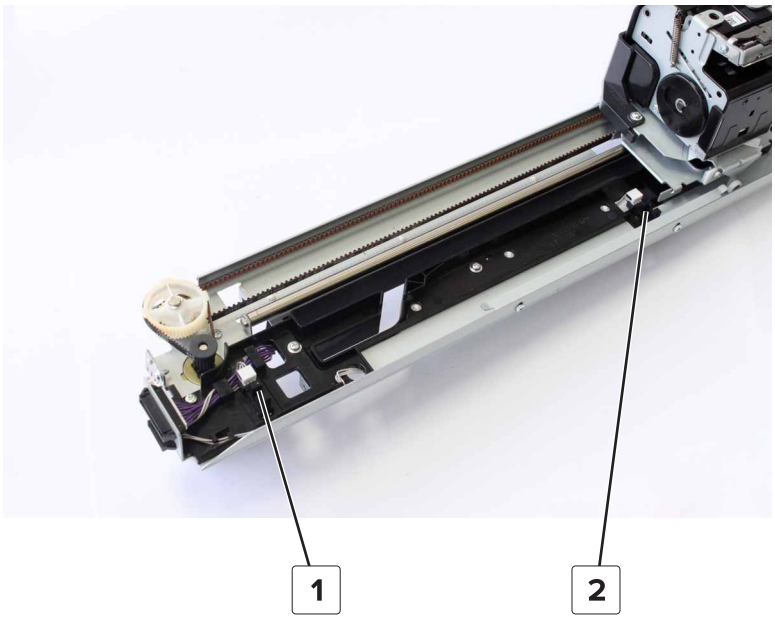
SHPF staple unit position sensors removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the staple unit assembly. See **"SHPF staple unit assembly removal" on page 359**.

4 Remove the appropriate sensor.



#	Part
1	Sensor (SHPF staple unit carriage home)
2	Sensor (SHPF staple unit carriage center)

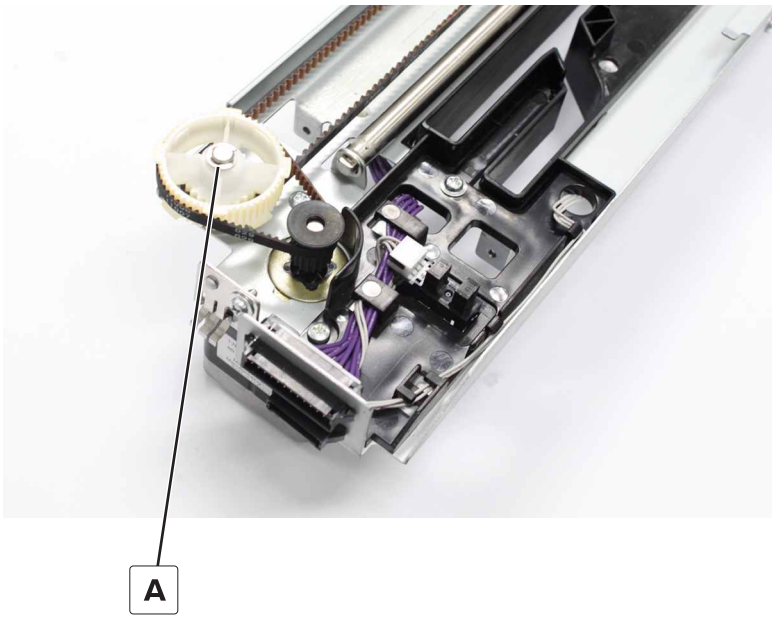
SHPF staple unit drive belt and gear removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

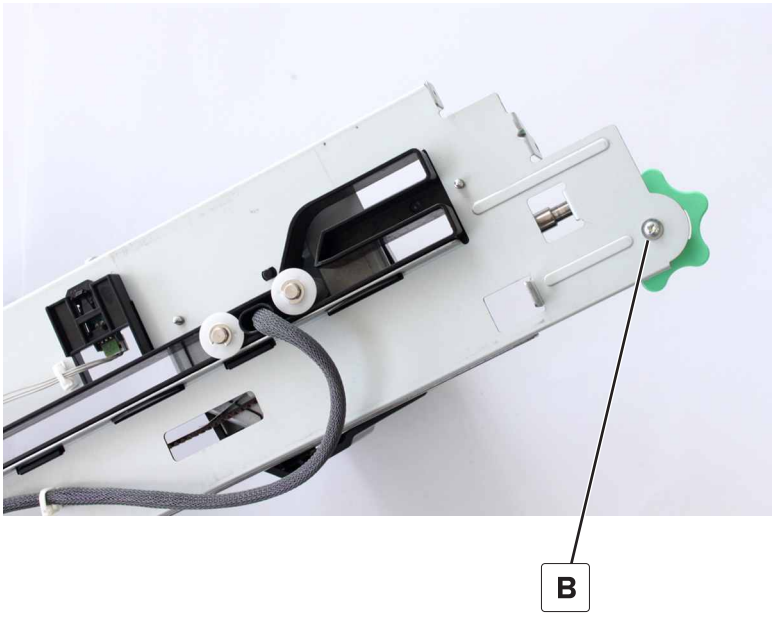
3 Remove the staple unit assembly. See **"SHPF staple unit assembly removal" on page 359**.

4 Remove the clip (A).



5 Remove the gear and belt.

6 Remove the screw (B), and then remove the knob.



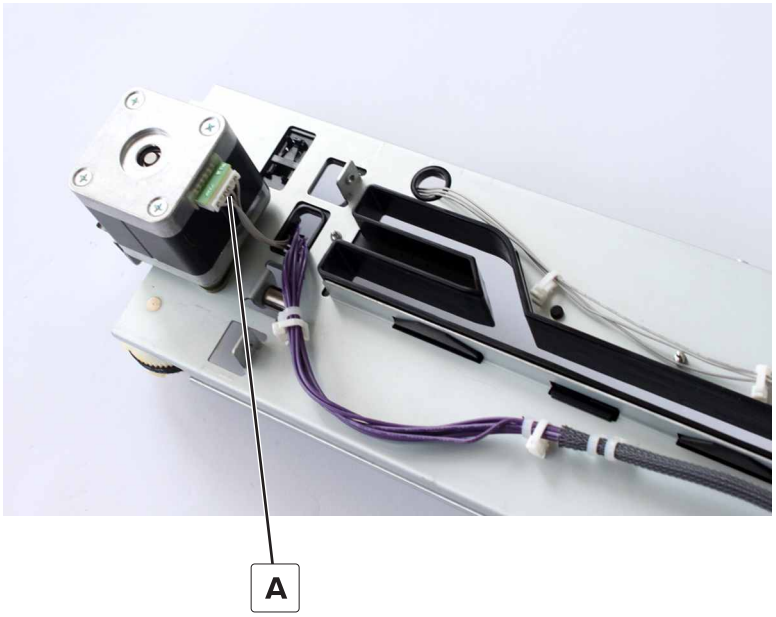
Motor (SHPF staple unit carriage) removal

1 Remove the front door. See **“SHPF front door removal” on page 328**.

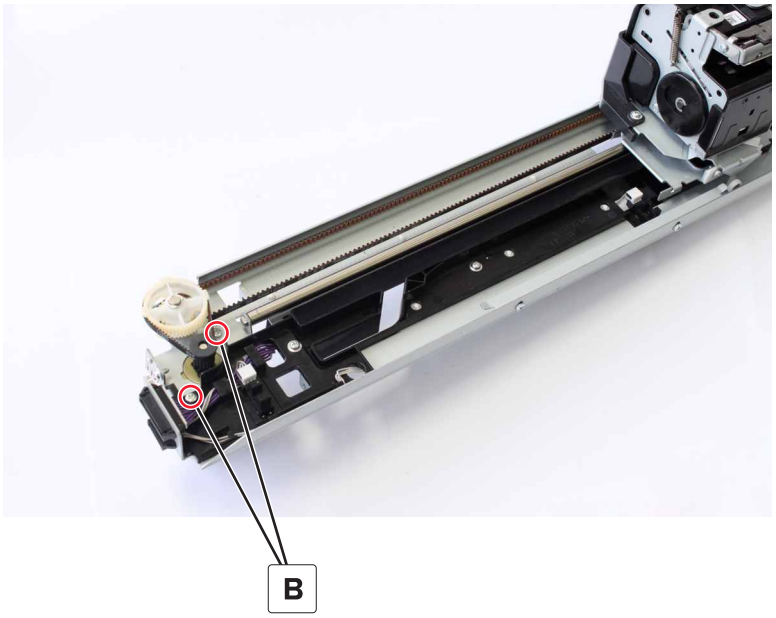
2 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

3 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

4 Disconnect the cable (A).



5 From under the motor, remove the two screws (B), and then remove the motor.



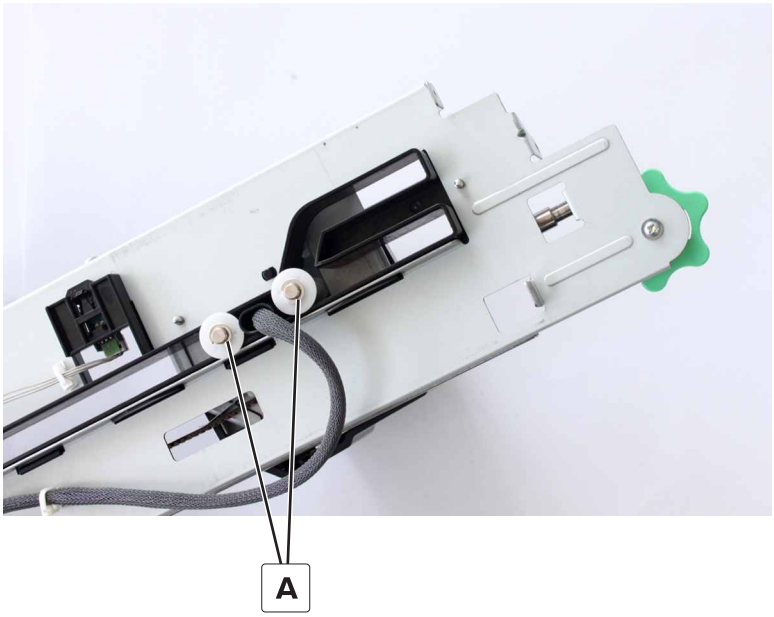
SHPF staple unit removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

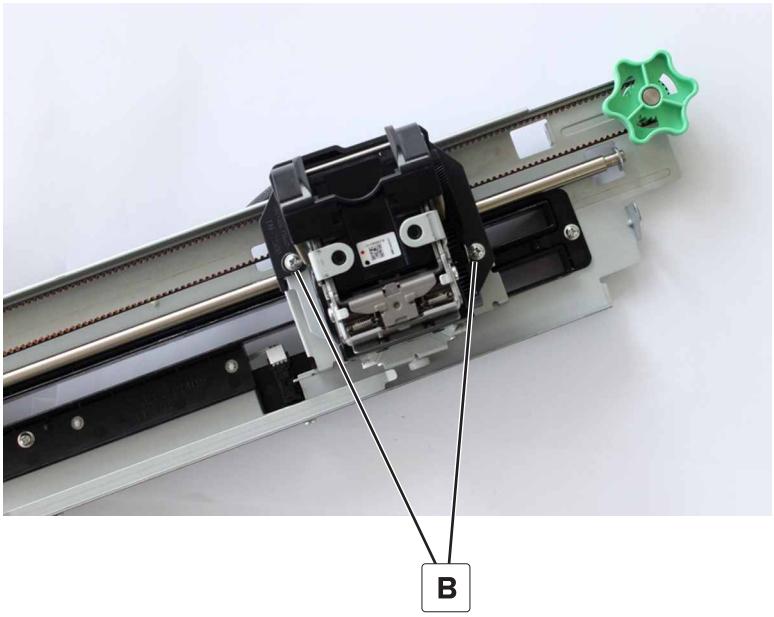
2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the staple unit assembly. See **"SHPF staple unit assembly removal" on page 359**.

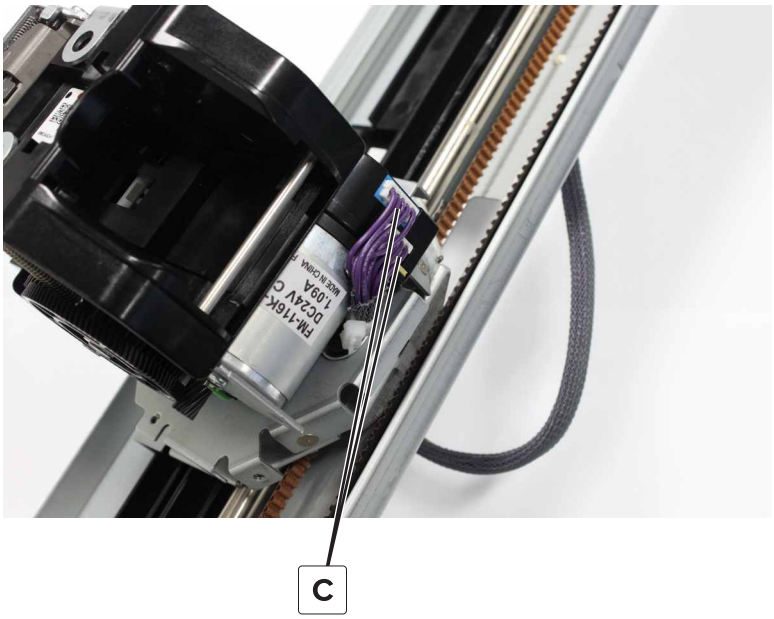
4 From under the assembly, remove the two clips (A), and then remove the two bushings.



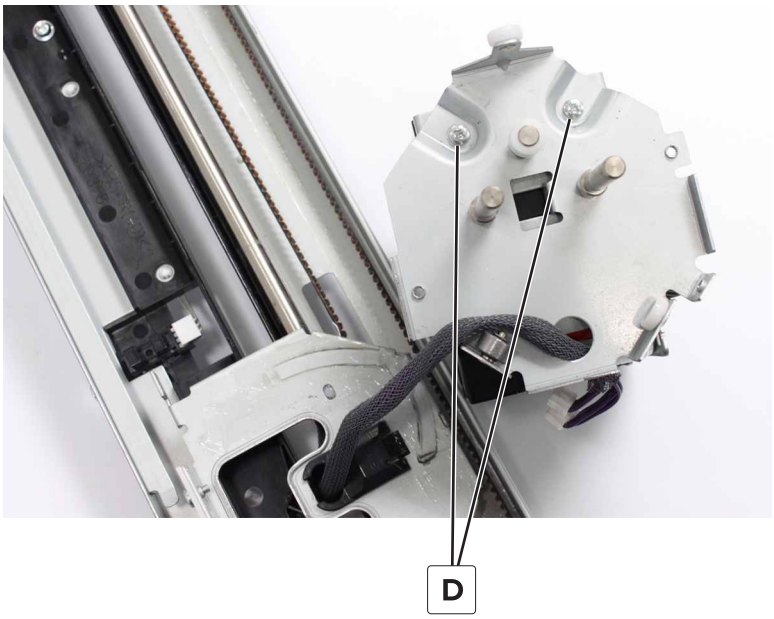
5 From the top, remove the two screws (B), and then remove the cover.



6 Disconnect the two cables (C), and then remove the carriage.



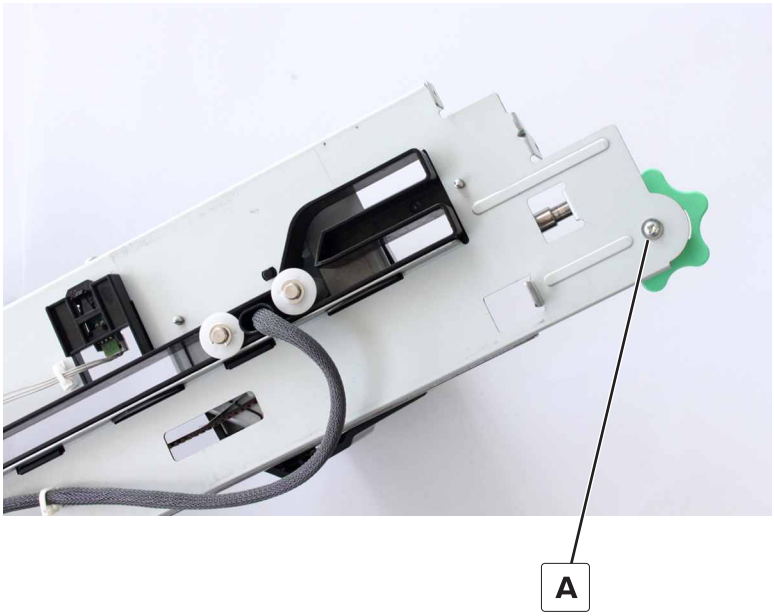
7 Remove the two screws (D).



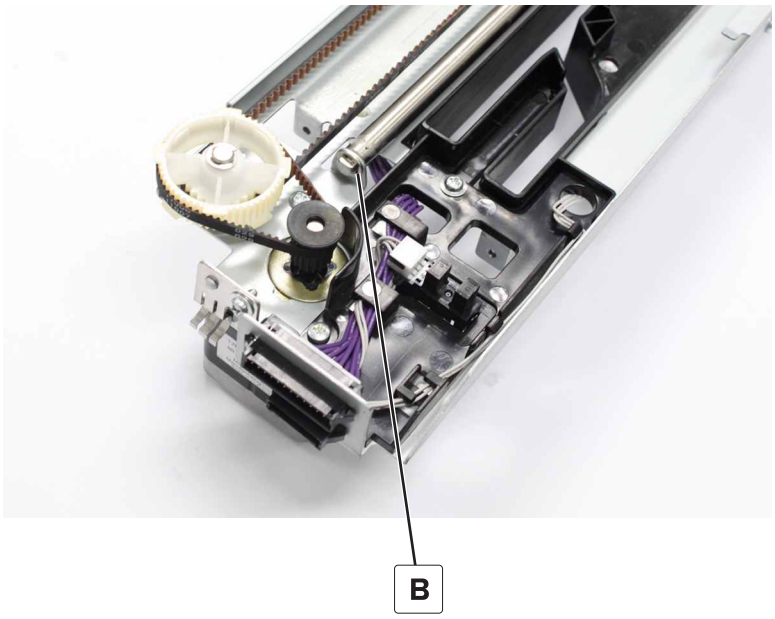
8 Rotate, and then remove the staple unit.

SHPF staple unit carriage removal

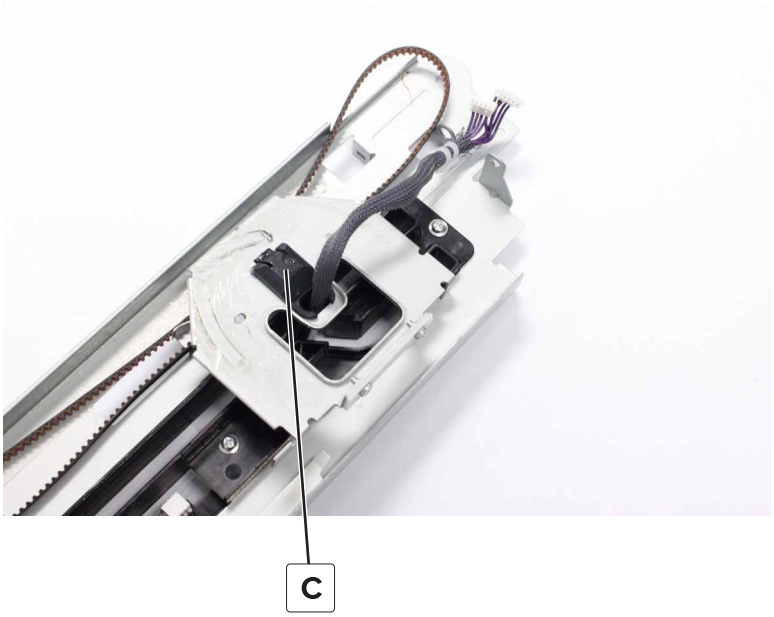
1. Remove the front door. See **“SHPF front door removal” on page 328**.
2. Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.
3. Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.
4. Remove the staple unit. See **“SHPF staple unit removal” on page 364**.
5. Remove the screw (A), and then remove the knob.



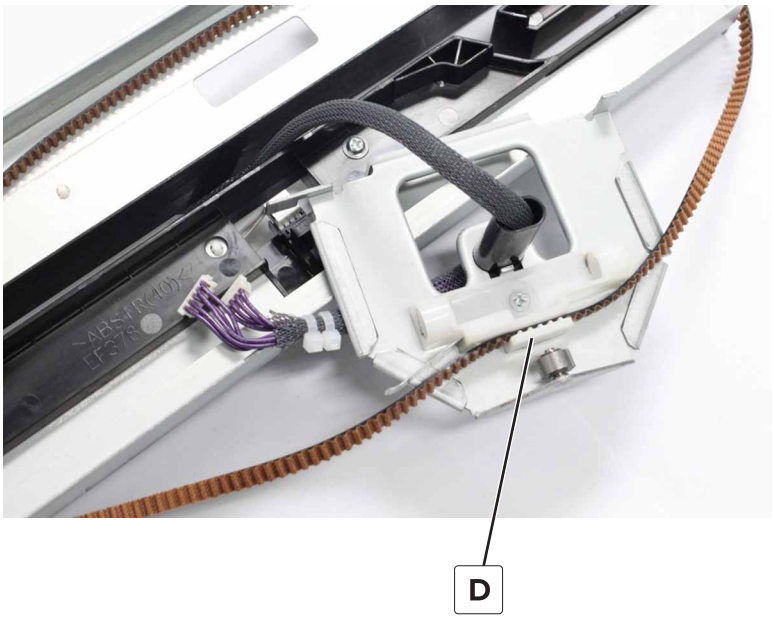
6. Remove the clip (B), and then remove the shaft.



7 Unlatch and then remove the cable holder (C).



8 Flip the carriage, and then remove the belt from the holder (D).



9 Remove the carriage.

SHPF elevator bottom rear gear removal

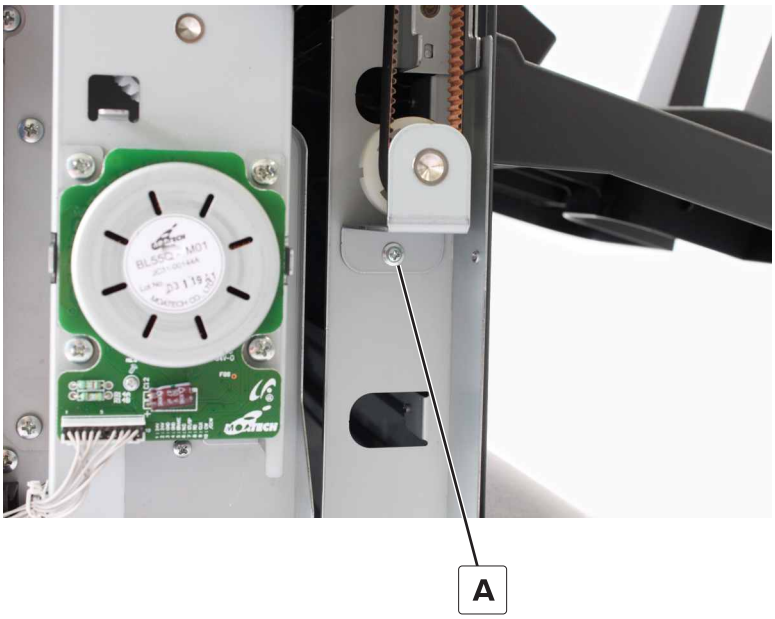
1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

4 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

5 Remove the screw (A), and then remove the bracket.



6 Remove the gear from the bracket.

SHPF elevator bottom front gear removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

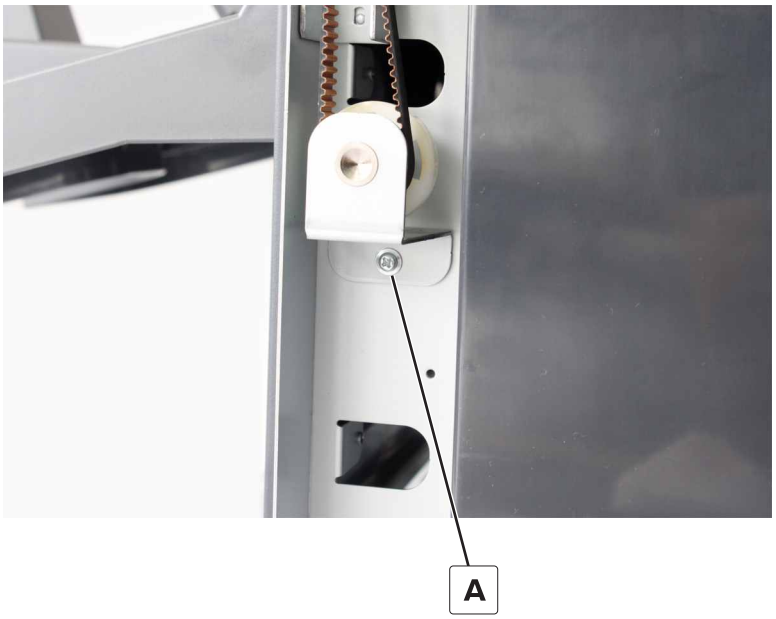
3 Remove the front door. See **“SHPF front door removal” on page 328**.

4 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

5 Remove the post cover. See **“SHPF post cover removal” on page 330**.

6 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

7 Remove the screw (A), and then remove the bracket.



8 Remove the gear from the bracket.

SHPF elevator belts removals

Elevator rear belt removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

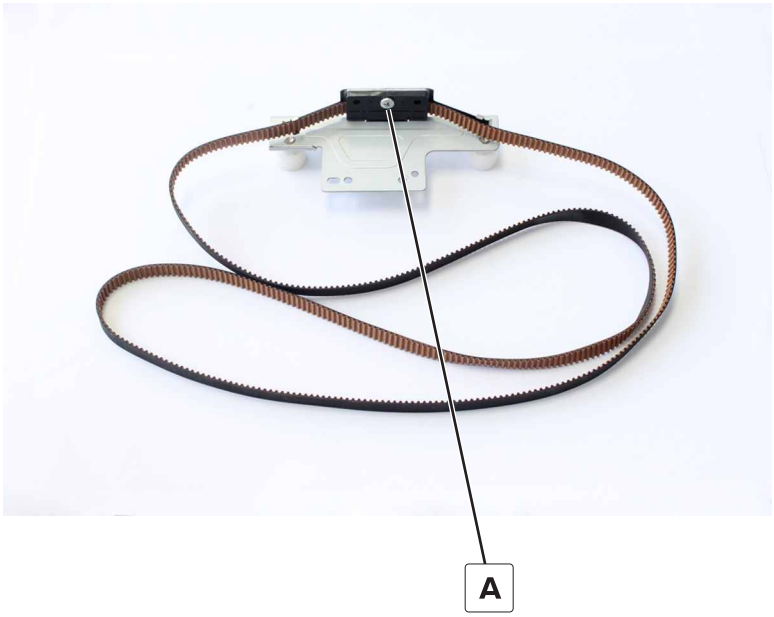
4 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

5 Remove the elevator drive assembly. See **“SHPF elevator drive assembly removal” on page 354**.

6 Remove the elevator bottom rear gear. See **“SHPF elevator bottom rear gear removal” on page 368**.

7 Remove the belt.

8 Remove the screw (A), and then remove the belt from the holder.



Elevator front belt removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower cover. See **“SHPF lower cover removal” on page 326**.

4 Remove the front door. See **“SHPF front door removal” on page 328**.

5 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

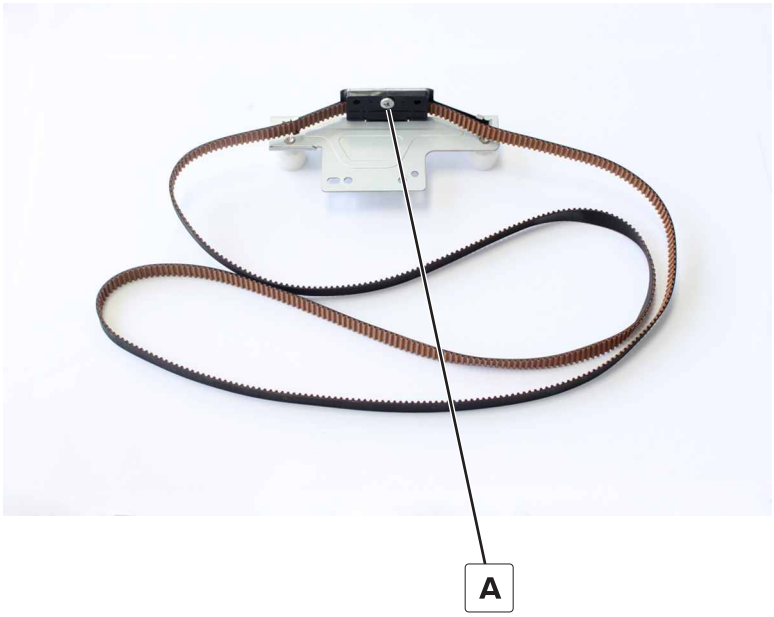
6 Remove the post cover. See **“SHPF post cover removal” on page 330**.

7 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

8 Remove the elevator bottom front gear. See **“SHPF elevator bottom front gear removal” on page 369**.

9 Remove the belt.

10 Remove the screw (A), and then remove the belt from the holder.



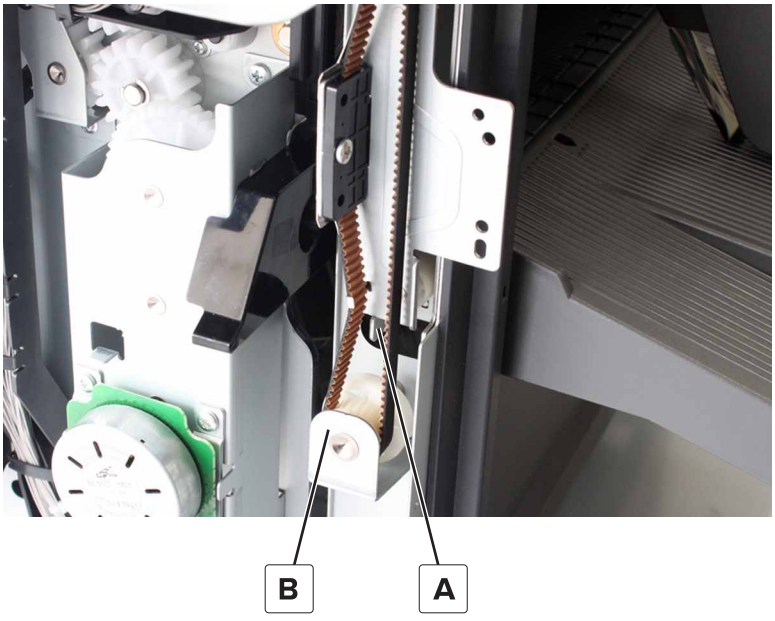
Installation notes:

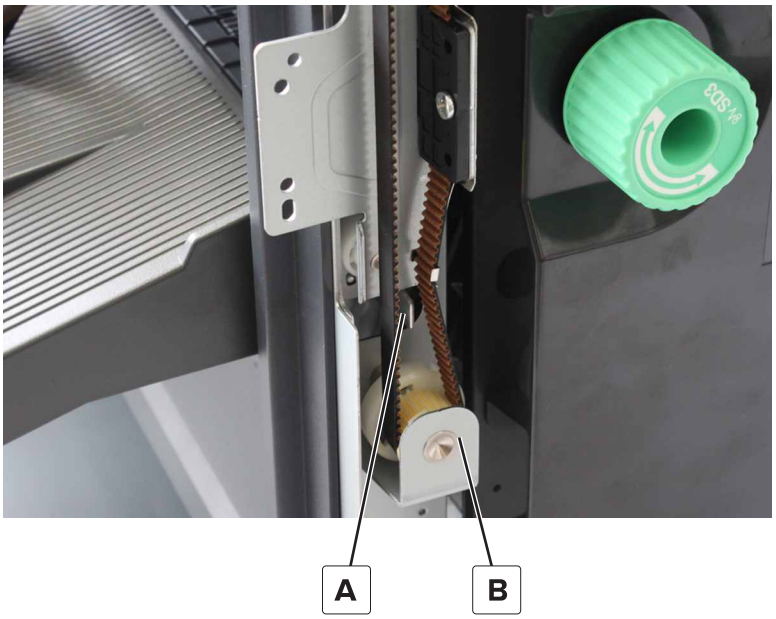
a Make sure that the motor (SHPF elevator) is not yet installed.

b Install the belts on the elevator bottom gears.

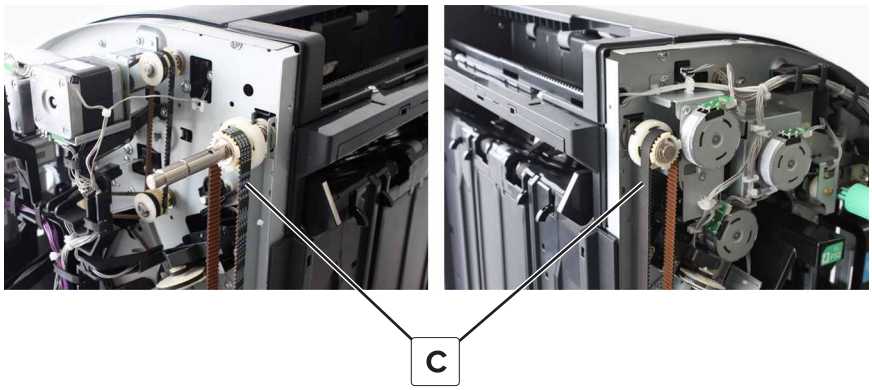
c Set both elevator plates on the stoppers (A).

d Mount the bottom elevator gear brackets (B) on the finisher frame. Do not tighten the bracket screws.



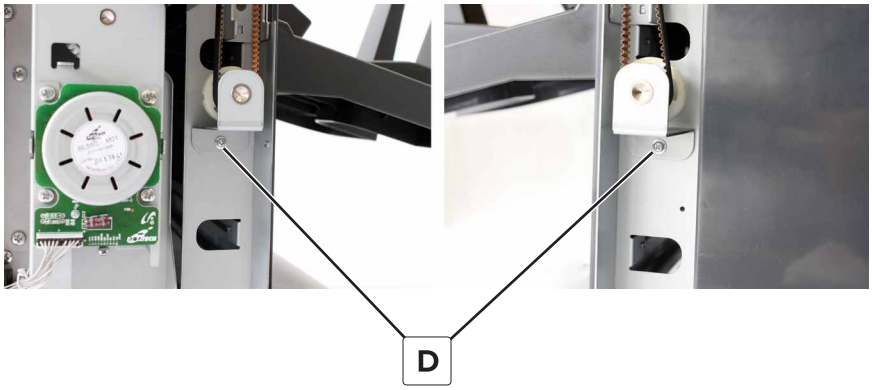


e Install the belts (C) on the elevator top gears.



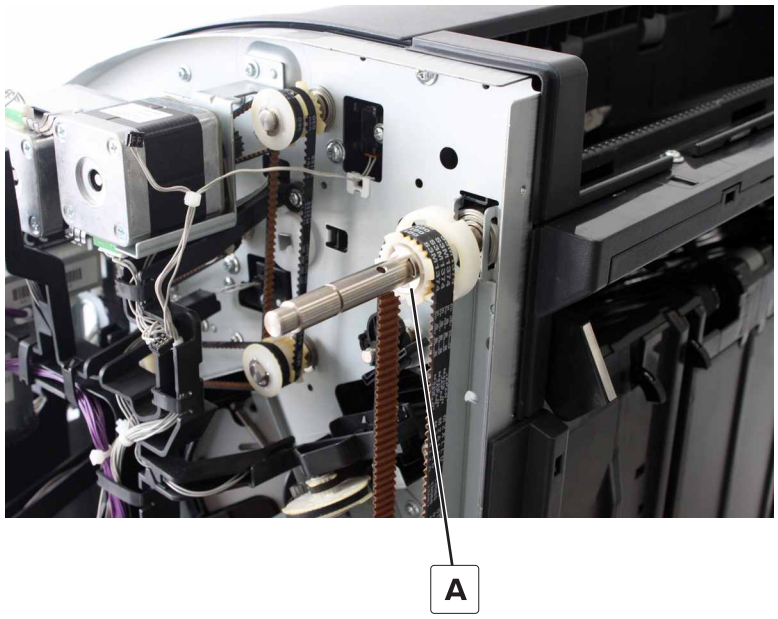
f Verify if both elevator plates are aligned.

g Tighten the two screws (D) on the brackets, and then install the motor (SHPF elevator).



SHPF elevator top rear gear removal

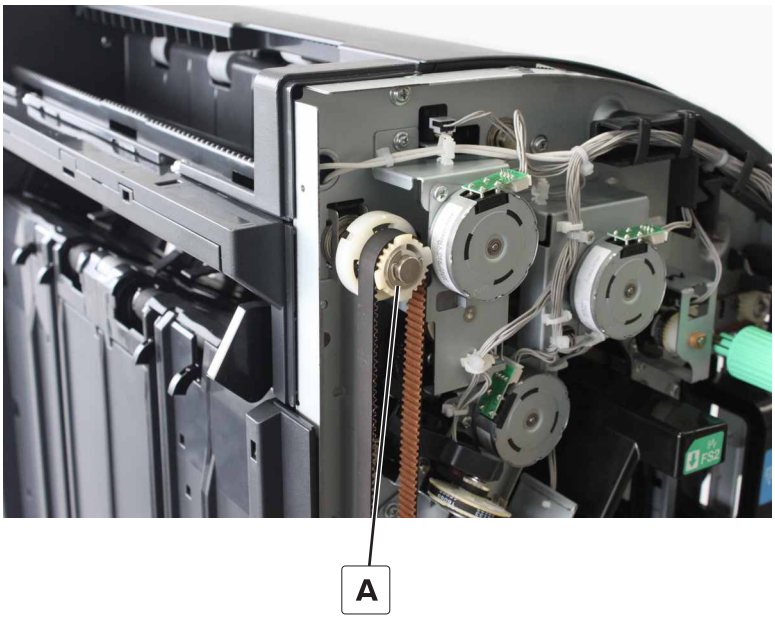
1. Remove the rear cover. See **“SHPF rear cover removal” on page 331**.
2. Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.
3. Remove the elevator drive assembly. See **“SHPF elevator drive assembly removal” on page 354**.
4. Remove the elevator bottom rear gear. See **“SHPF elevator bottom rear gear removal” on page 368**.
5. Remove the clip (A), and then remove the gear.



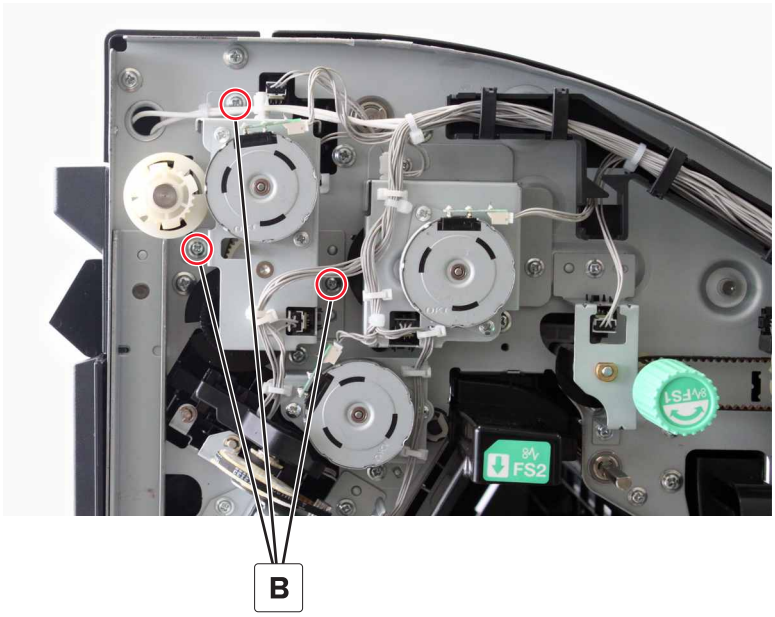
SHPF elevator top front gear removal

1. Remove the front door. See **“SHPF front door removal” on page 328**.
2. Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.
3. Remove the lower cover. See **“SHPF lower cover removal” on page 326**.
4. Remove the post cover. See **“SHPF post cover removal” on page 330**.
5. Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.
6. Remove the elevator bottom front gear. See **“SHPF elevator bottom front gear removal” on page 369**.

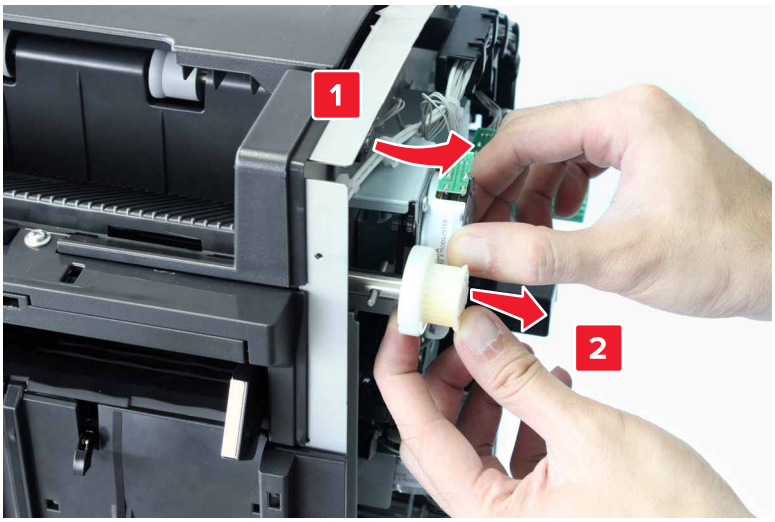
7 Remove the clip (A).



8 Loosen the three screws (B).



9 Dislodge the motor bracket from the finisher, and then remove the gear.



10 Remove the pin from the shaft.

SHPF paddle motor bracket removal

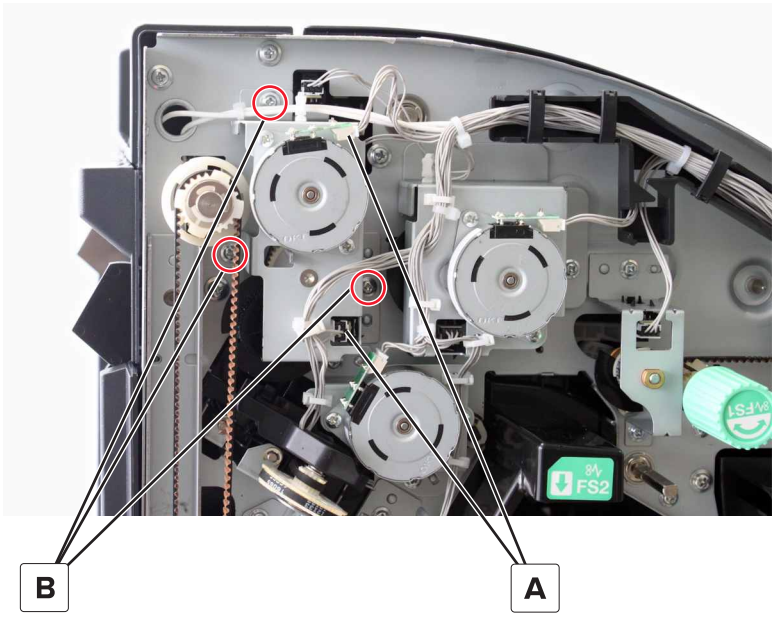
Note: This part is not a FRU.

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Disconnect the two cables (A).

4 Remove the three screws (B), and then remove the motor bracket.



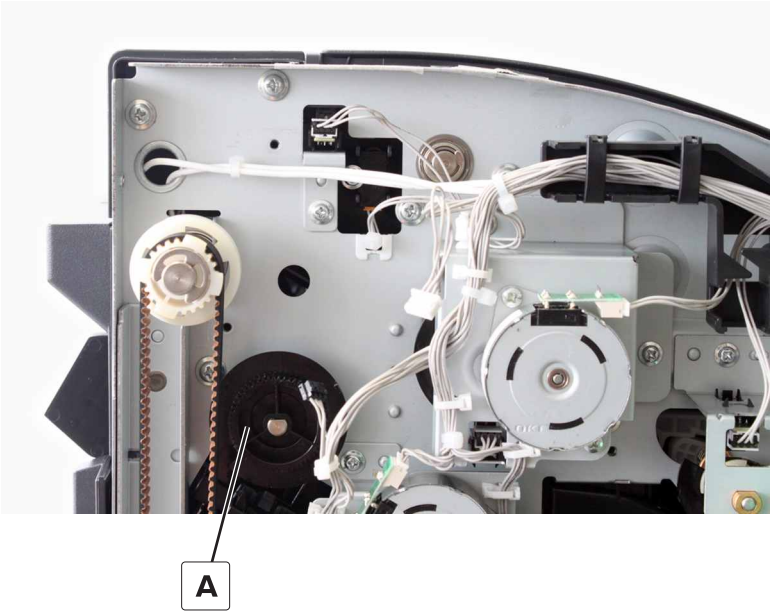
Motor (SHPF paddle) removal

1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Remove the paddle motor bracket. See **"SHPF paddle motor bracket removal" on page 376**.
4. Remove the two screws (A), and then remove the motor.

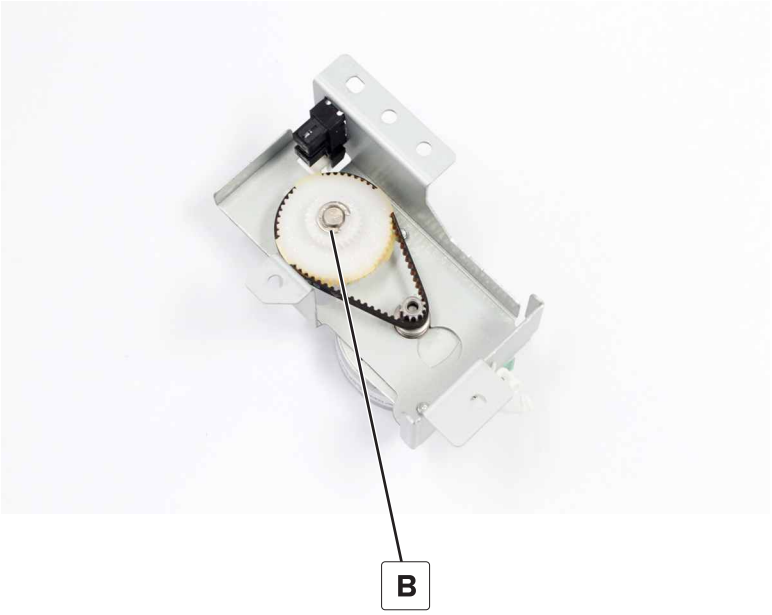
SHPF paddle drive gears removal

1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Remove the paddle motor bracket. See **"SHPF paddle motor bracket removal" on page 376**.

4 Remove the encoder (A).



5 Remove the clip (B), and then remove the gear.



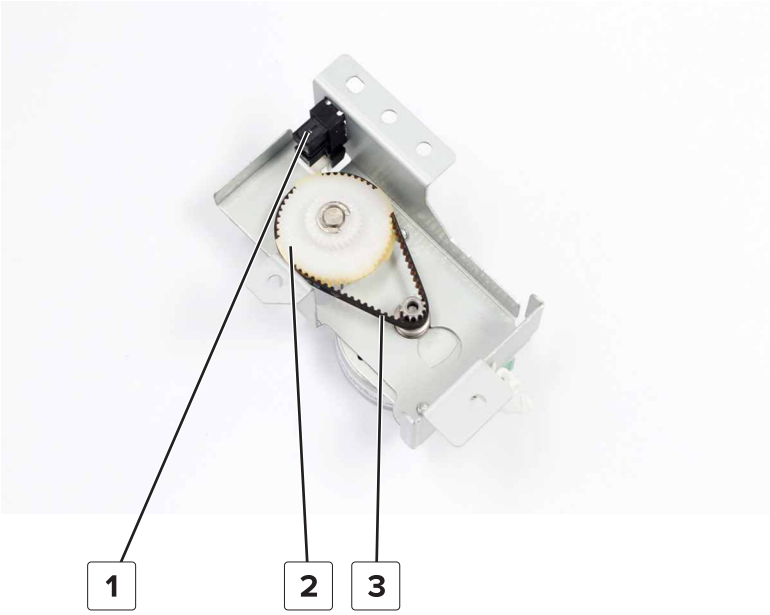
SHPF paddle motor FRUs removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the paddle motor bracket. See **"SHPF paddle motor bracket removal" on page 376**.

4 Remove the appropriate FRU.



#	Part
1	Sensor (SHPF paddle home)
2	SHPF paddle drive gear
3	SHPF paddle drive belt

Sensor (SHPF top door) removal

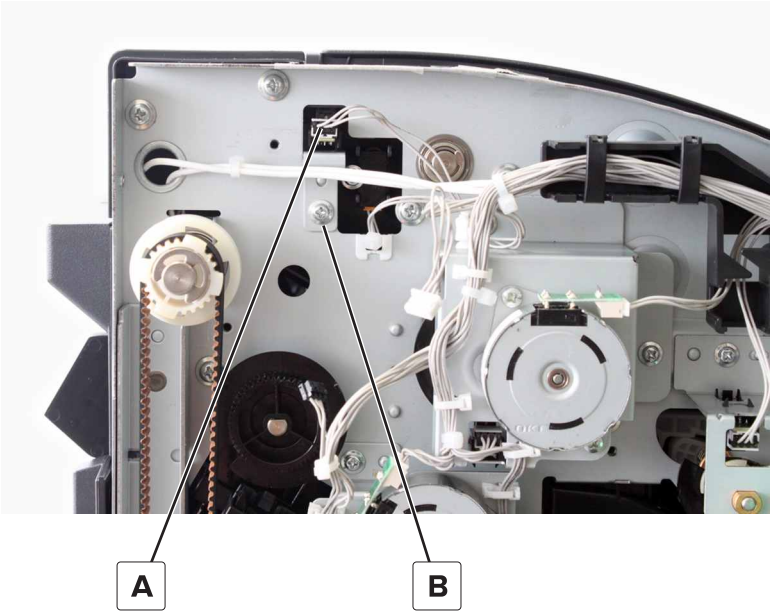
1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the paddle motor bracket. See **"SHPF paddle motor bracket removal" on page 376**.

4 Disconnect the cable (A).

5 Remove the screw (B), and then remove the sensor bracket.



6 Disconnect the cable, and then remove the sensor from the bracket.

Sensor (SHPF top bin full, receive) removal

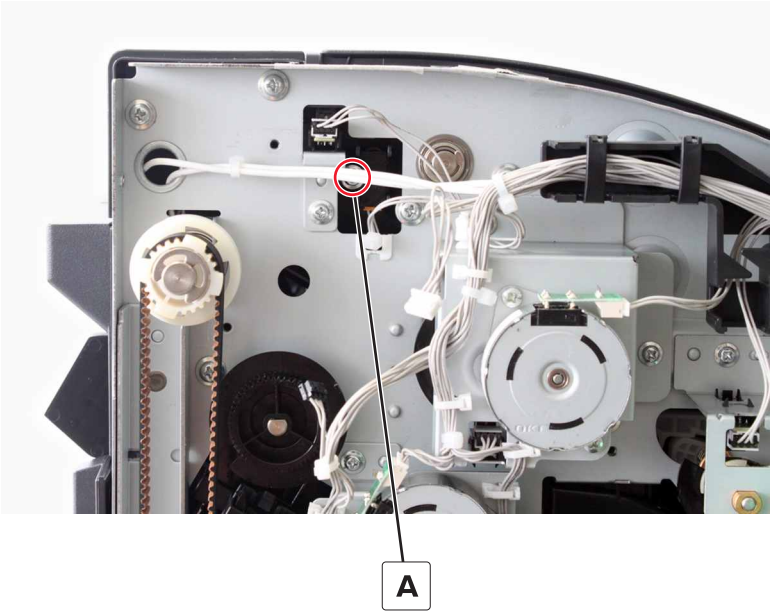
1 Remove the front door. See **“SHPF front door removal” on page 328**.

2 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

3 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

4 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

5 Remove the screw (A).



6 Remove the sensor, and then disconnect the cable.

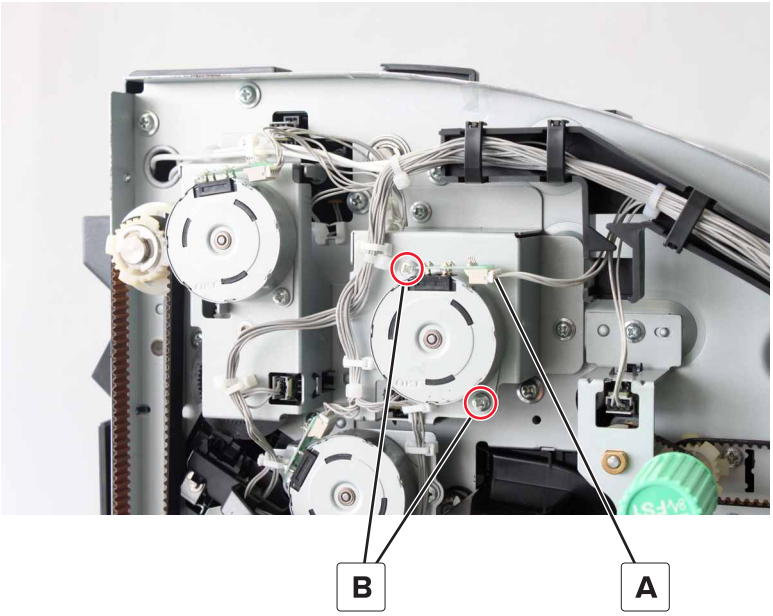
Motor (SHPF compiler feed roller release) removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

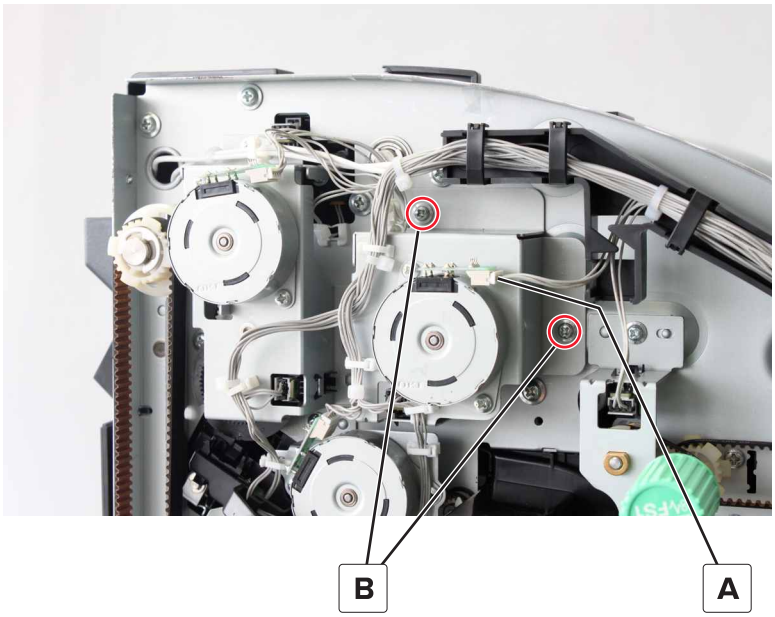
3 Disconnect the cable (A).

4 Remove the two screws (B), and then remove the motor.



SHPF compiler feed roller release motor bracket removal

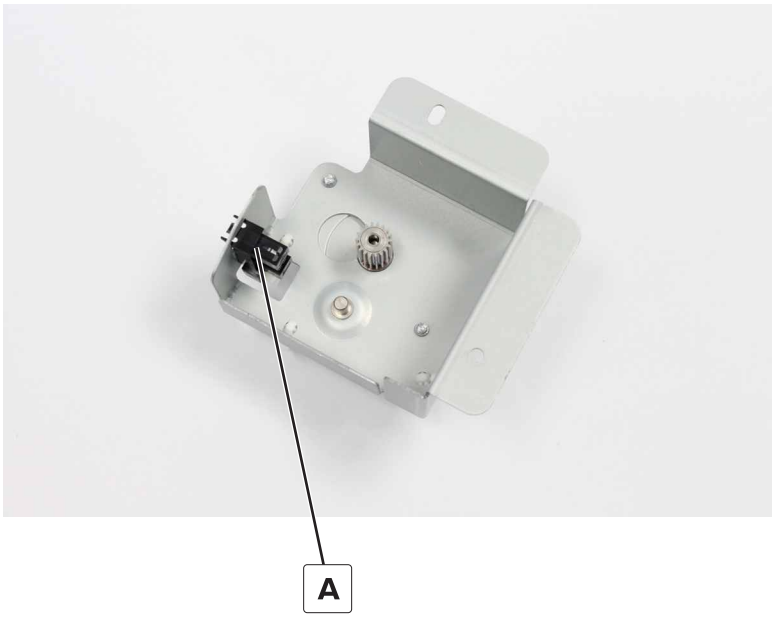
1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Disconnect the two cables (A).
4. Remove the two screws (B), and then remove the motor bracket.



Sensor (SHPF compiler feed roller release) removal

1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Remove the compiler feed roller release motor bracket. See **"SHPF compiler feed roller release motor bracket removal" on page 382**.

4 Remove the sensor (A).



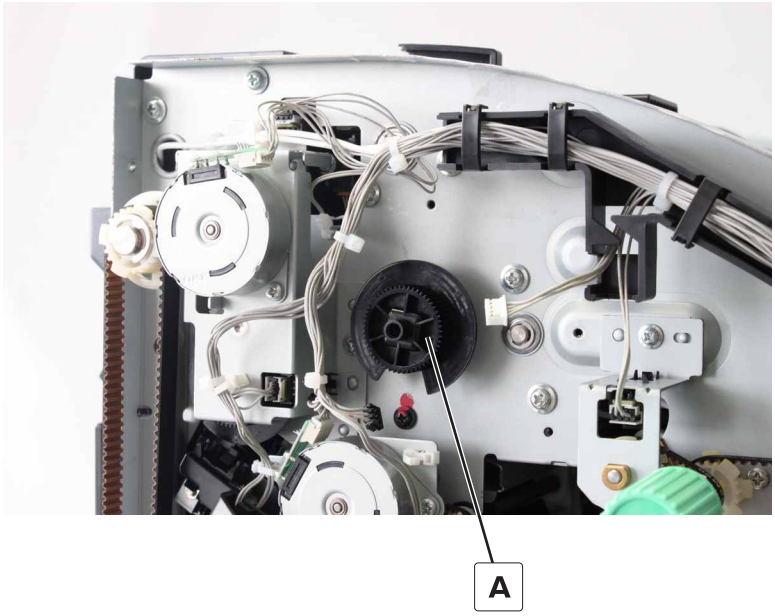
SHPF compiler feed roller release encoder removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

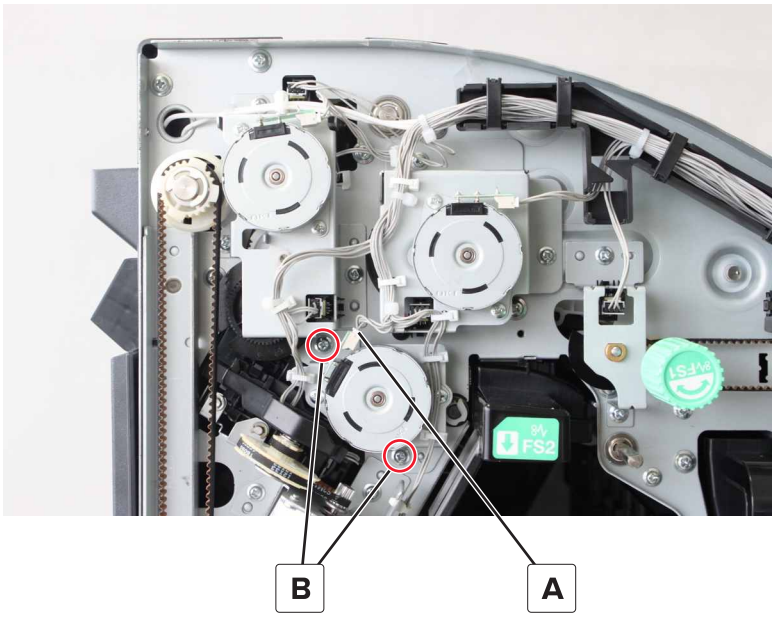
3 Remove the compiler feed roller release motor bracket. See **"SHPF compiler feed roller release motor bracket removal" on page 382**.

4 Remove the encoder (A).



Motor (SHPF aligner) removal

1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Disconnect the cable (A).
4. Remove the two screws (B), and then remove the motor bracket.

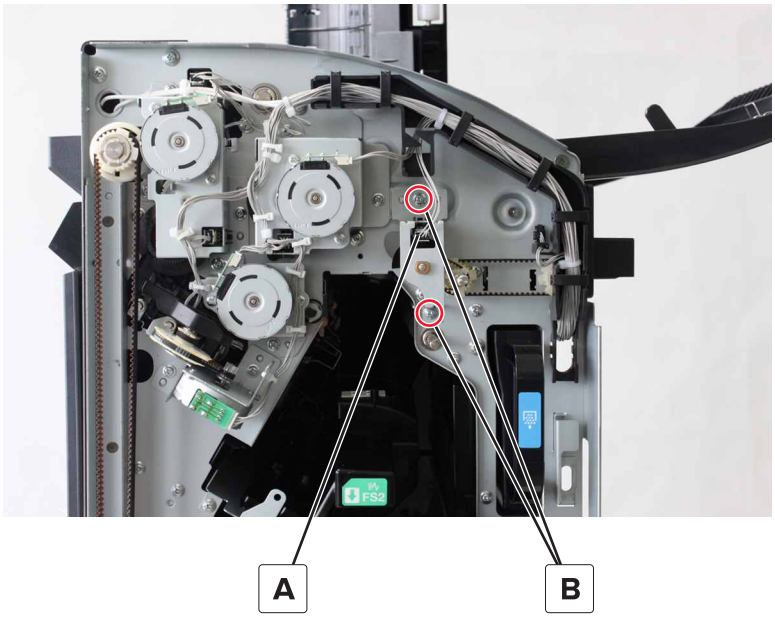


5. Remove the motor from the bracket.

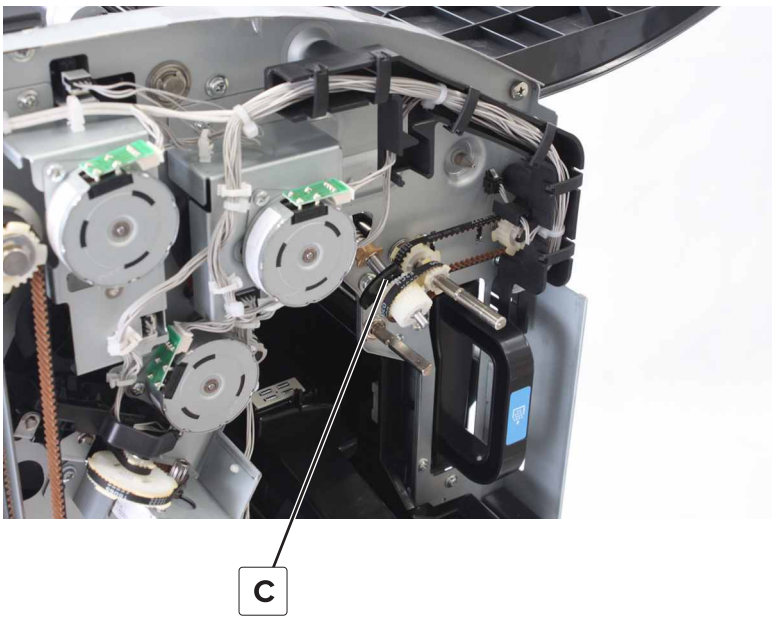
SHPF diverter cam removal

1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Remove the diverter feed roller knob. See **"SHPF diverter feed roller knob removal" on page 329**.
4. Open the top door and top jam access door.
5. Disconnect the cable (A).

6 Remove the two screws (B), and then remove the bracket.



7 Remove the cam assembly (C).



Sensor (SHPF diverter cam) removal

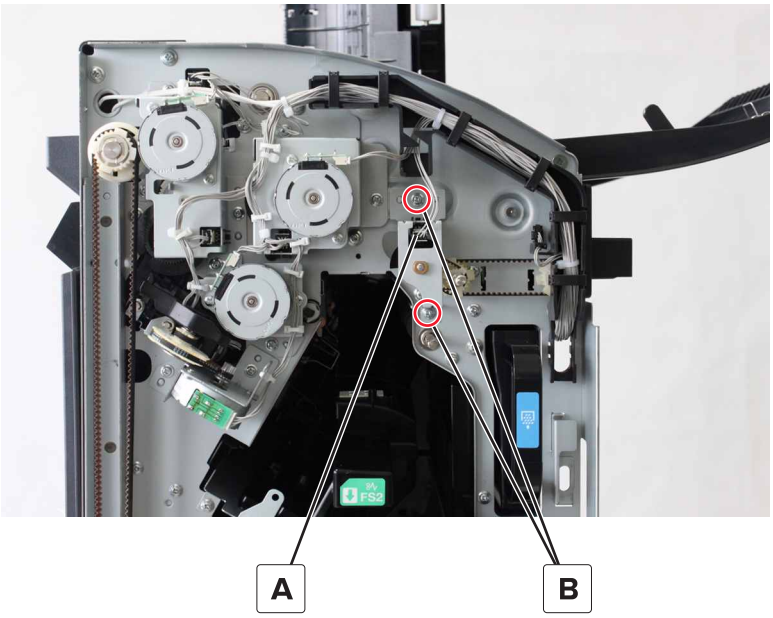
1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

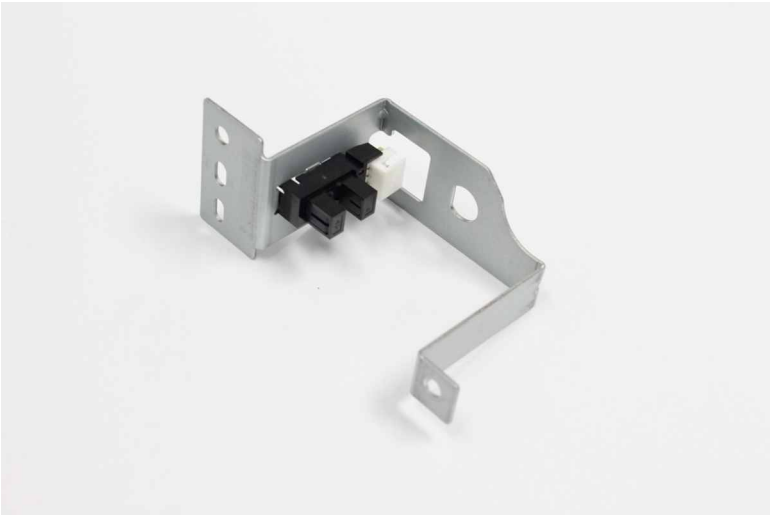
3 Remove the diverter feed roller knob. See **"SHPF diverter feed roller knob removal" on page 329**.

4 Disconnect the cable (A).

5 Remove the two screws (B), and then remove the bracket.



6 Remove the sensor from the bracket.



SHPF entrance and diverter feed roller gears removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

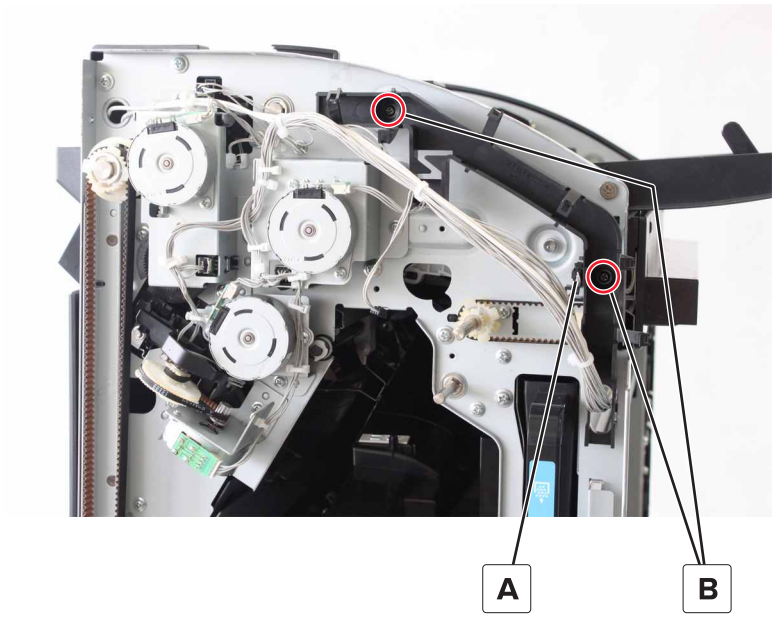
2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the diverter feed roller knob. See **"SHPF diverter feed roller knob removal" on page 329**.

4 Remove the diverter cam. See **"SHPF diverter cam removal" on page 384**.

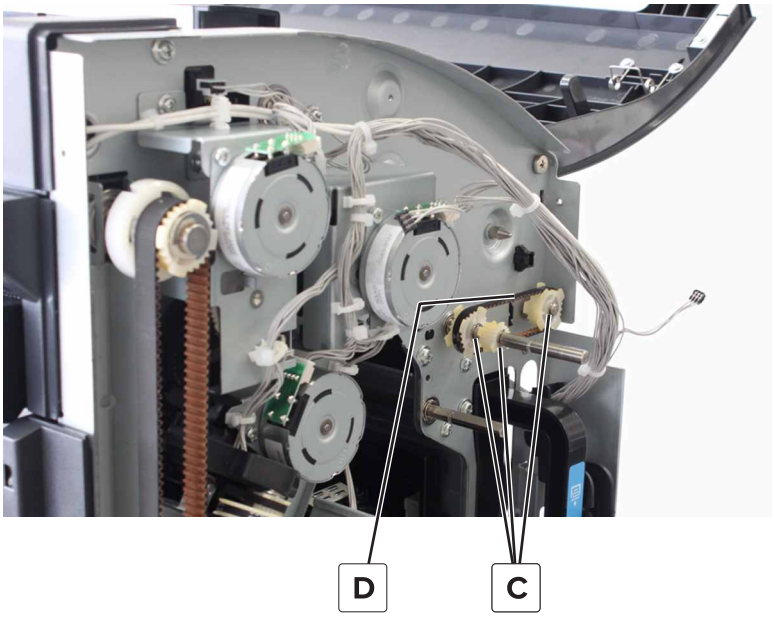
5 Disconnect the cable (A).

6 Remove the two screws (B), and then set aside the cable holder.



7 Remove the three clips (C), and then remove the gears.

8 Remove the belt (D).



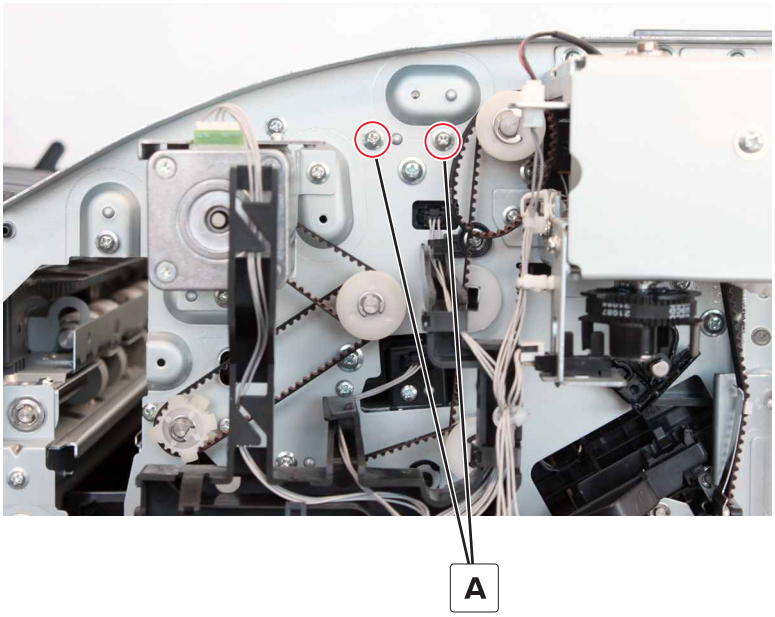
SHPF top jam access door and SHPF diverter removal

1 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

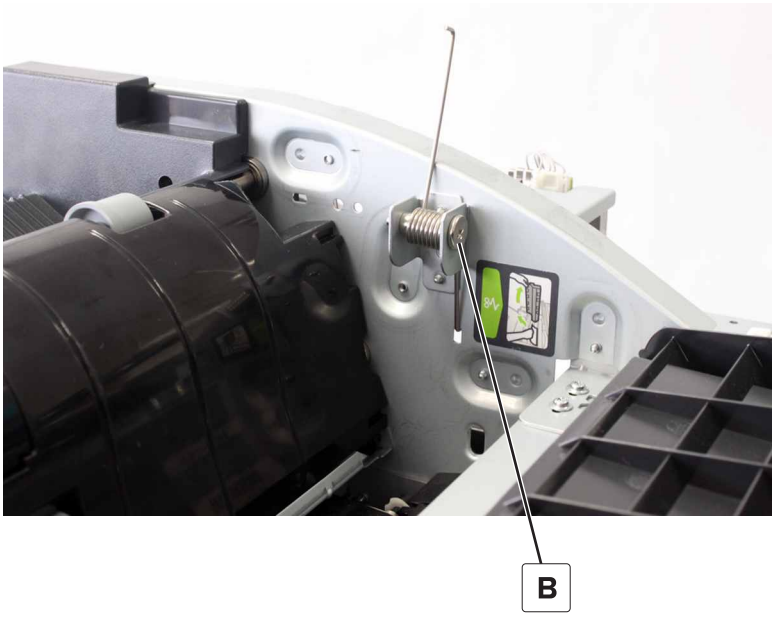
2 Remove the transport motor bracket. See **"Motor (SHPF transport) removal" on page 349**.

3 Open the top door.

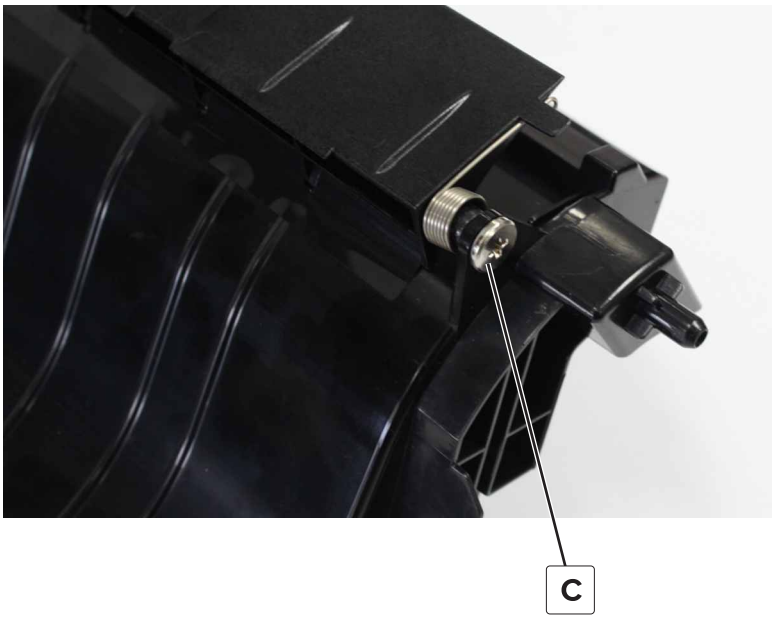
4 Remove the two screws (A), and then remove the door.



5 Remove the screw (B), and then remove the spring.

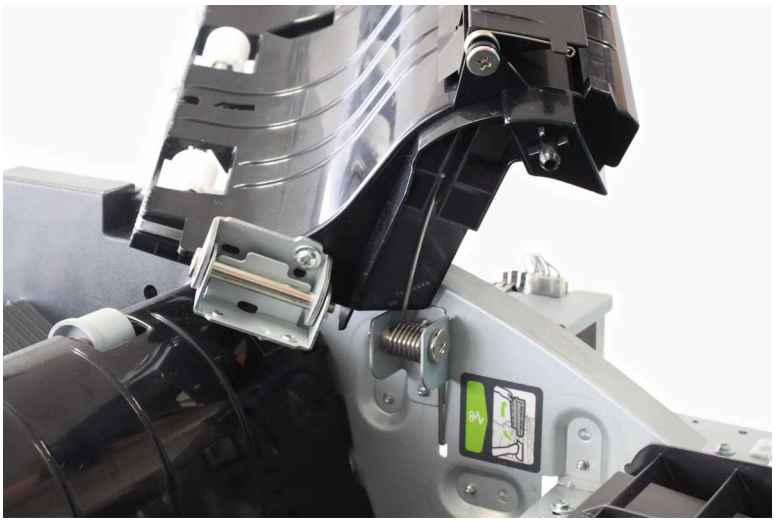


6 From the door, remove the screw (C), and then remove the spring.



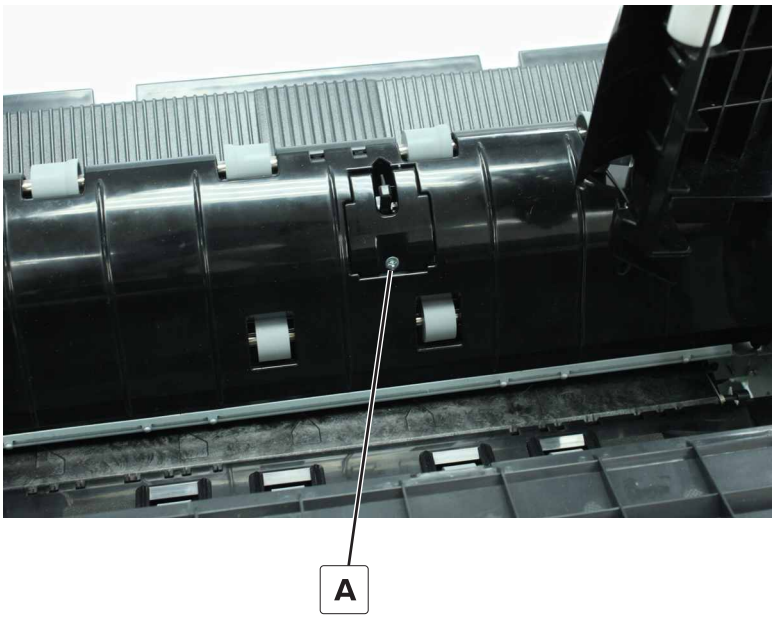
7 Remove the lever (D), and then remove the diverter.

Installation note: Position the spring in the slot before installing the hinge on the finisher frame.

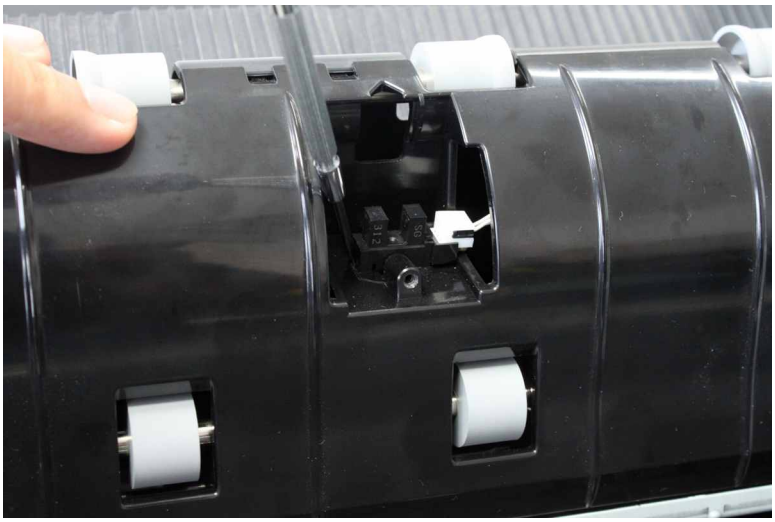


Sensor (SHPF top bin exit) removal

1. Open the top door and top jam access door.
2. Remove the screw (A), and then remove the sensor cover.



3 Pry the sensor, and then disconnect the cable.



SHPF top bin exit paper guide removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

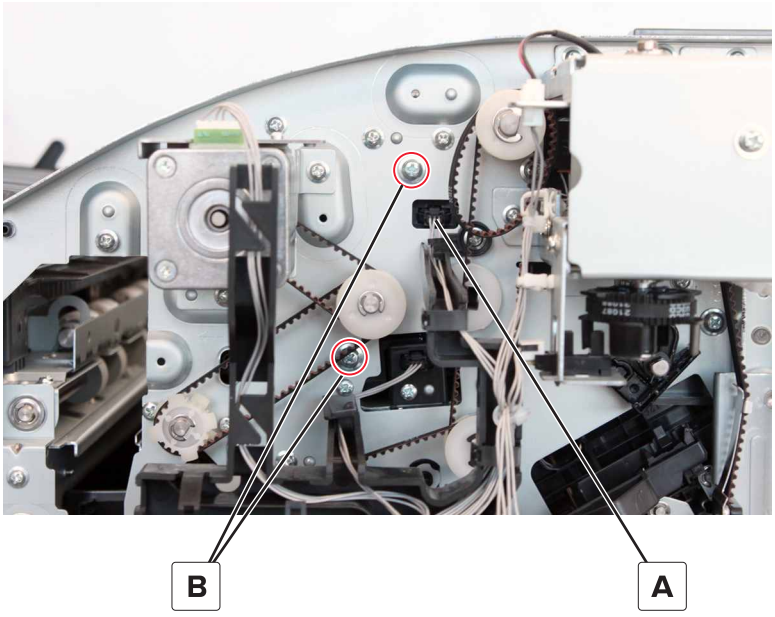
3 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

4 Remove the sensor (SHPF top bin exit). See **"Sensor (SHPF top bin exit) removal" on page 390**.

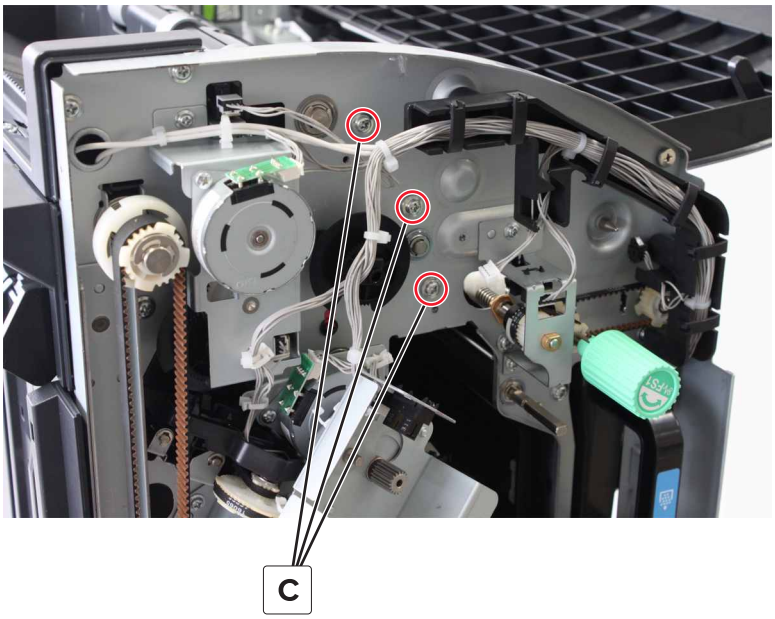
5 Remove the compiler feed roller release motor bracket. See **"SHPF compiler feed roller release motor bracket removal" on page 382**.

6 Remove the transport motor bracket. See **"Motor (SHPF transport) removal" on page 349**.

7 Disconnect the cable (A), and then remove the two screws (B).



8 Remove the three screws (C), and then remove the guide.



Installation note: Position the edge of the guide over the bin.

Motor (SHPF compiler eject) removal

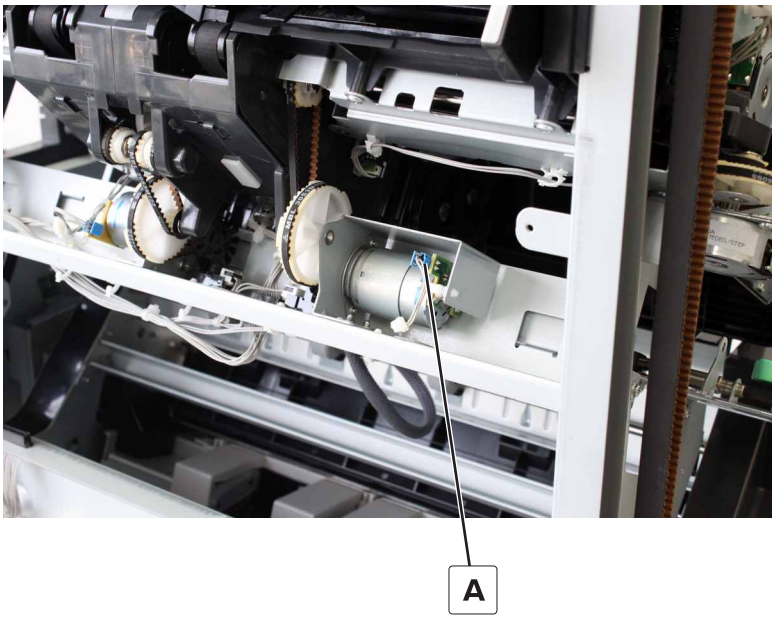
1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

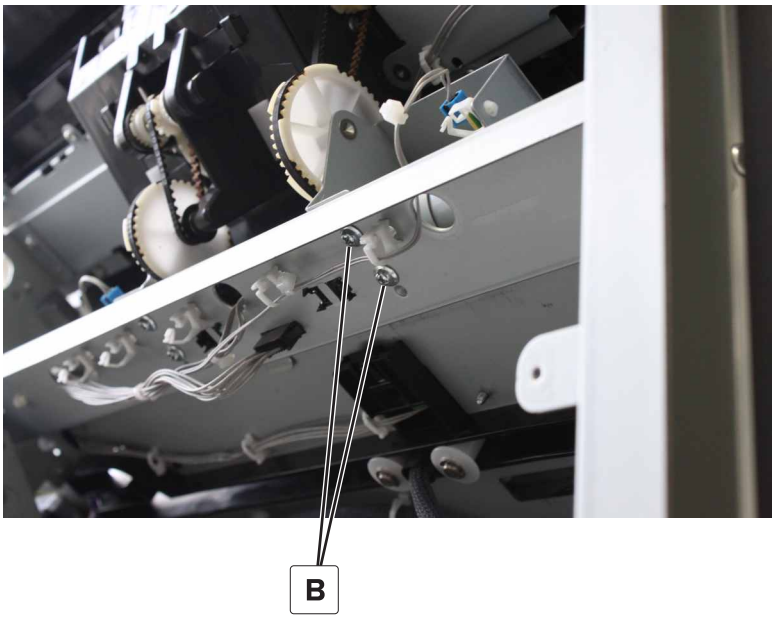
3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

5 Disconnect the cable (A).



6 Remove the two screws (B), and then remove the motor.



Motor (SHPF compiler pre-eject) removal

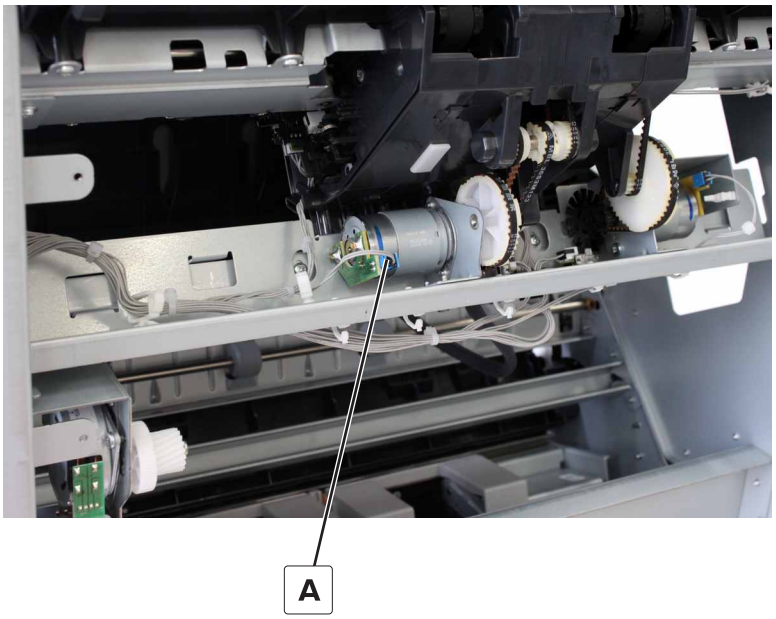
1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

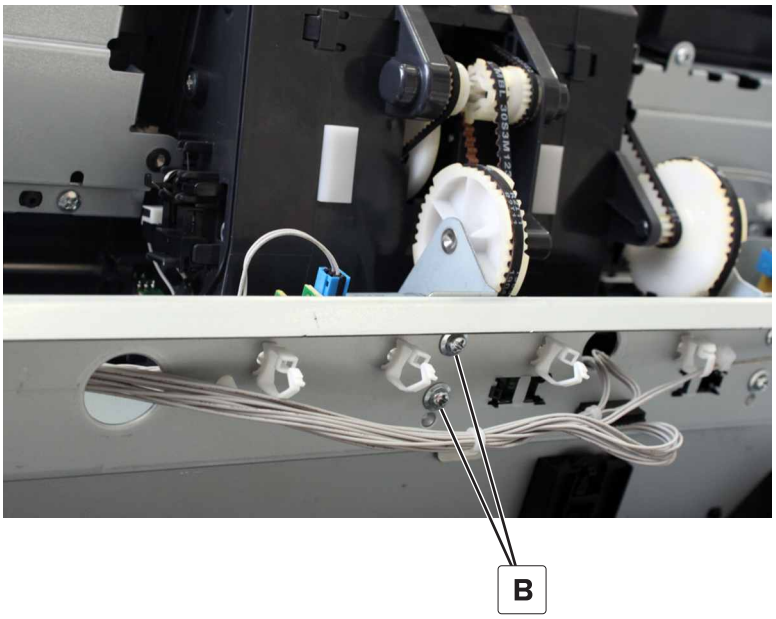
3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

5 Disconnect the cable (A).



6 Remove the two screws (B), and then remove the motor.



SHPF compiler eject sensors removal

1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

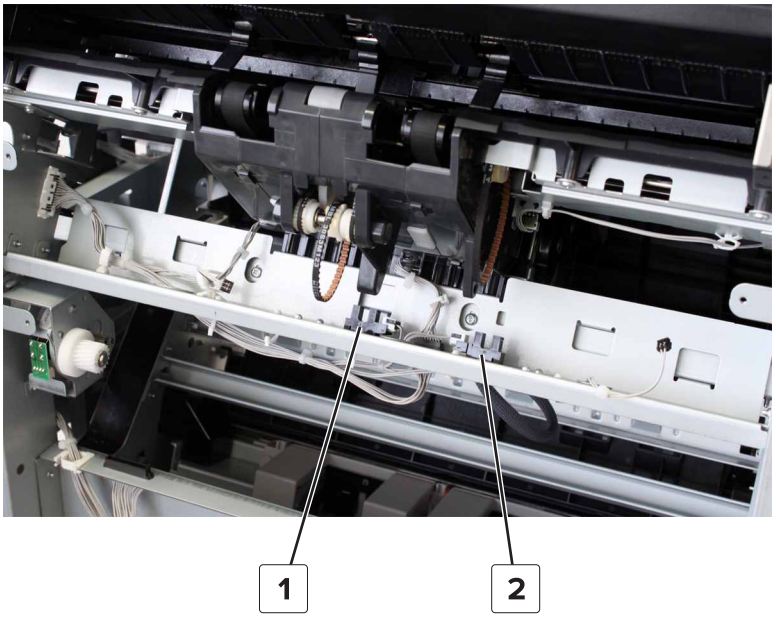
2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

5 Remove the motor (SHPF compiler eject) or motor (SHPF compiler pre-eject). See **"Motor (SHPF compiler eject) removal" on page 392** or **"Motor (SHPF compiler pre-eject) removal" on page 393**.

6 Remove the sensor.



#	Part
1	Sensor (SHPF compiler pre-eject)
2	Sensor (SHPF compiler eject)

Sensor (SHPF eject clamp position) removal

1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

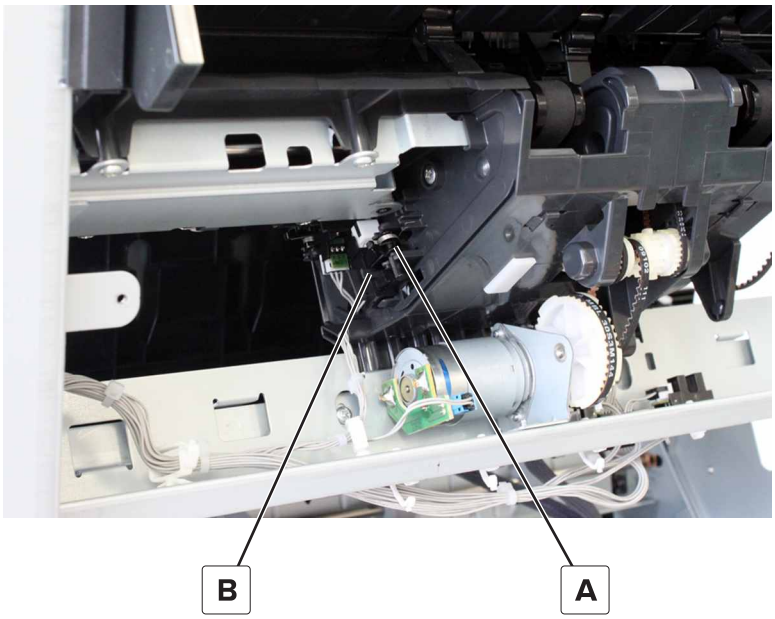
2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

3 Remove the HBPF lower left cover or the SHPF lower left cover. See **"Lower left cover removals" on page 336**.

4 Remove the upper left cover. See **"SHPF upper left cover removal" on page 340**.

5 Remove the actuator (A).

6 Release the latch (B), and then remove the sensor.



7 Disconnect the cable from the sensor.

SHPF compiler assembly removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the HBPF lower left cover or the SHPF lower left cover. See **“Lower left cover removals” on page 336**.

3 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

4 Remove the front door. See **“SHPF front door removal” on page 328**.

5 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

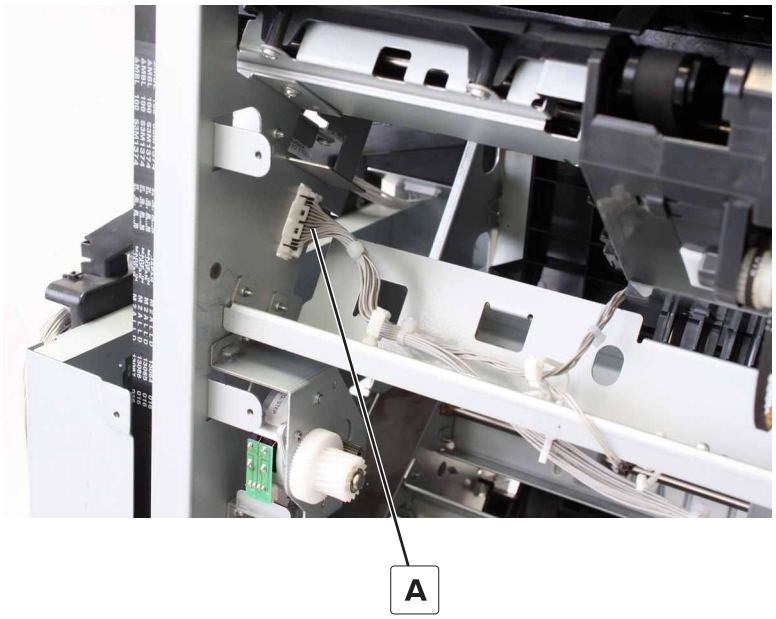
6 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

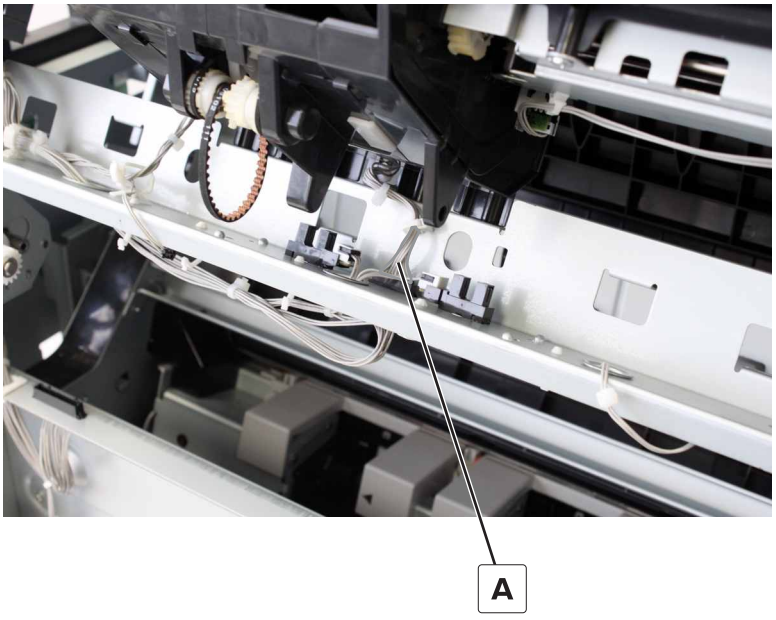
7 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

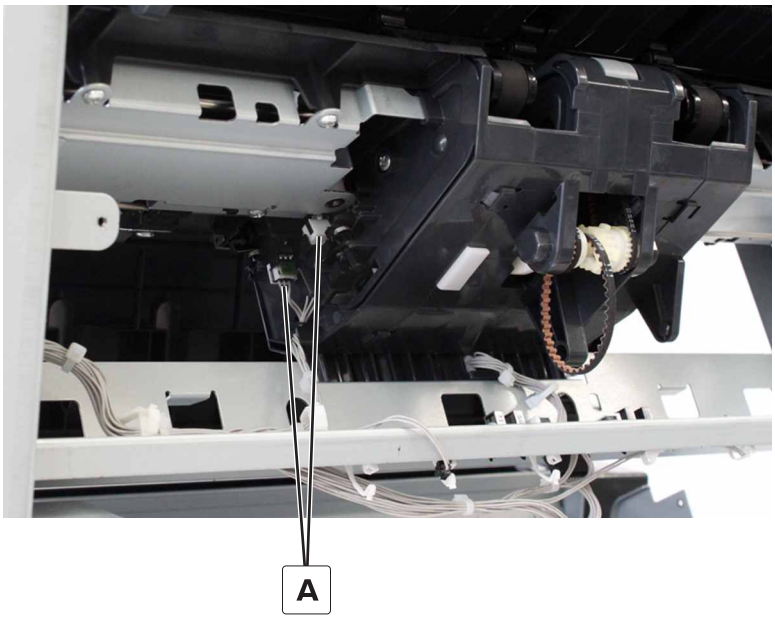
8 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

9 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

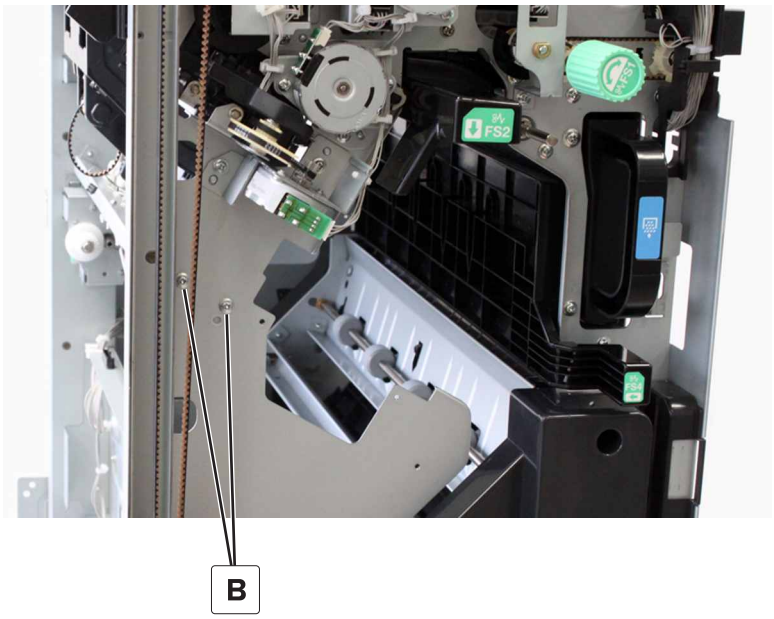
10 Disconnect the four cables (A).



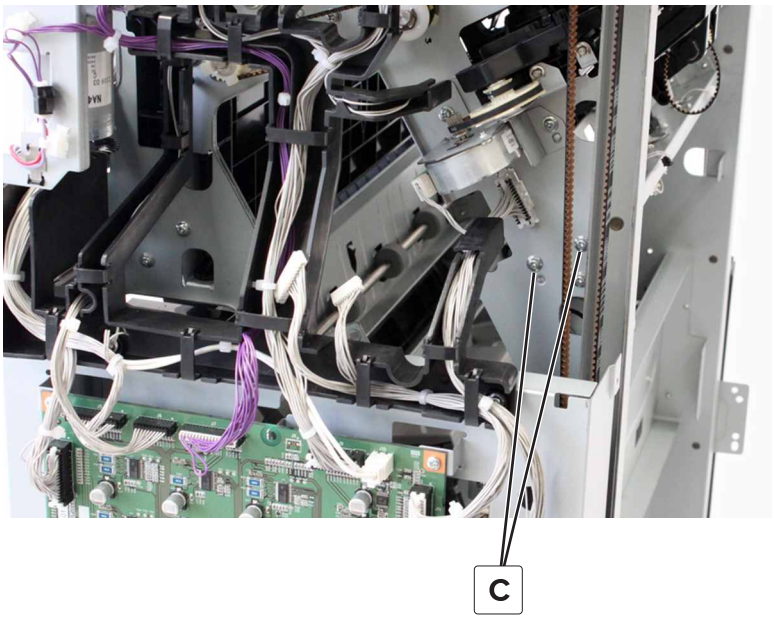




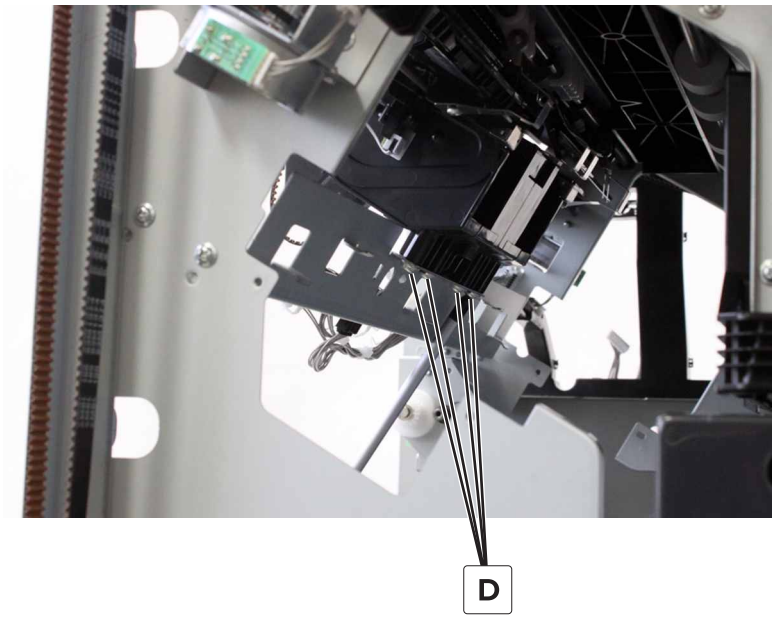
11 Remove the two screws (B).



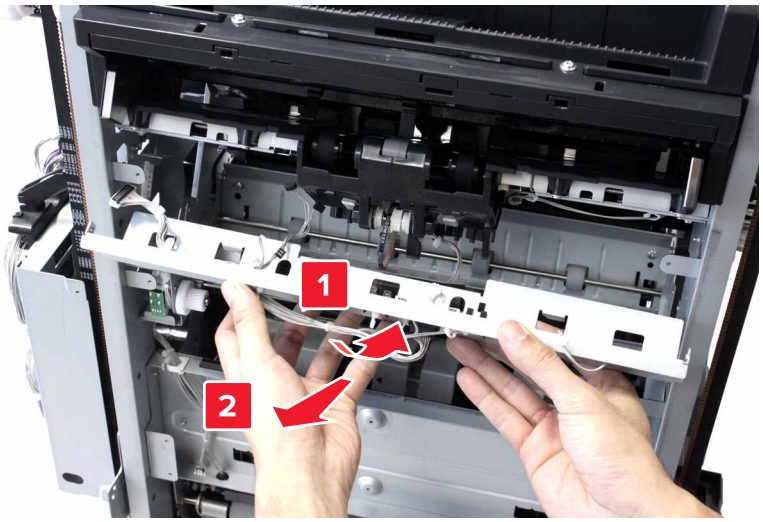
12 Remove the two screws (C).



13 From under the compiler assembly, remove the four screws (D).



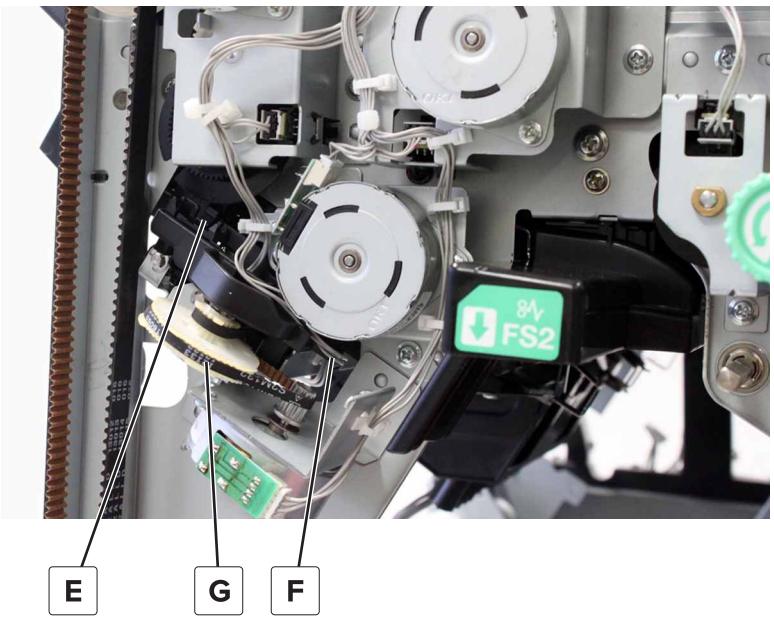
14 Remove the bracket.



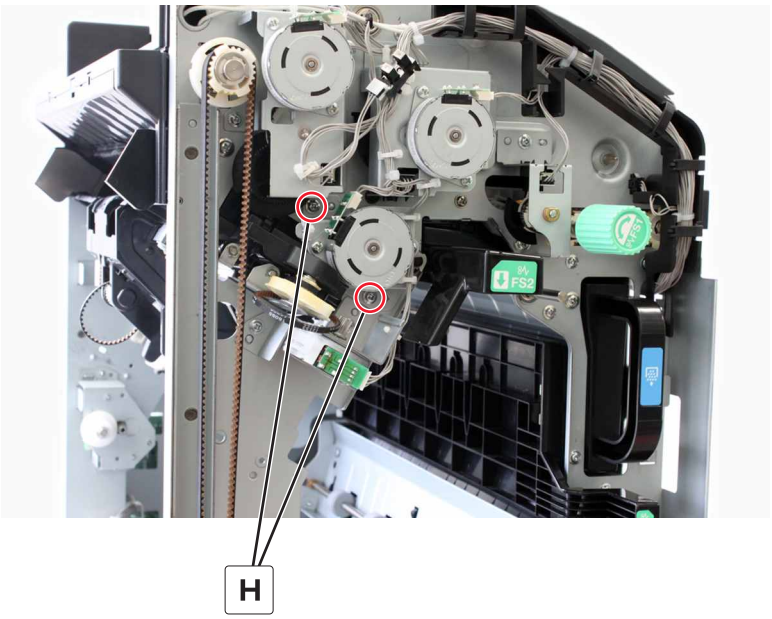
15 Release the latch (E), and then remove the sensor.

16 Disconnect the cable (F).

17 Release the belt (G) from the motor.

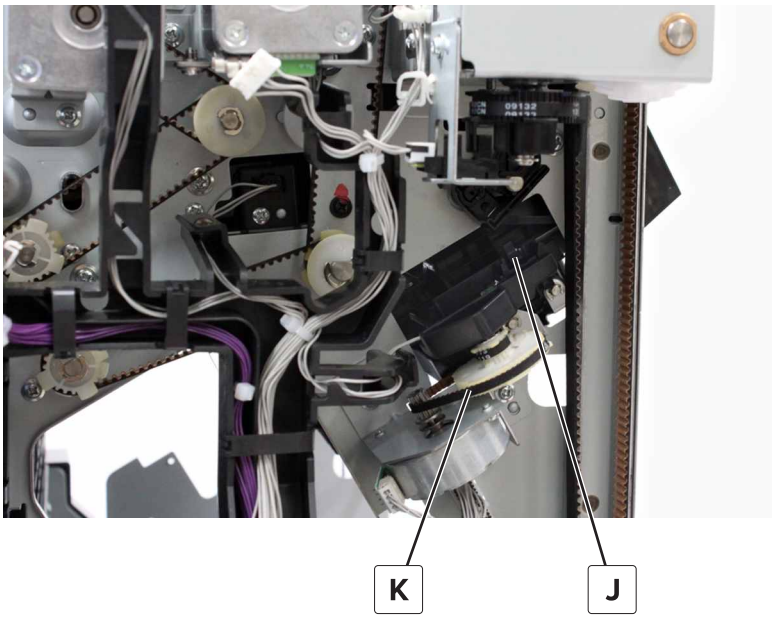


18 Remove the two screws (H), and then set aside the motor bracket.

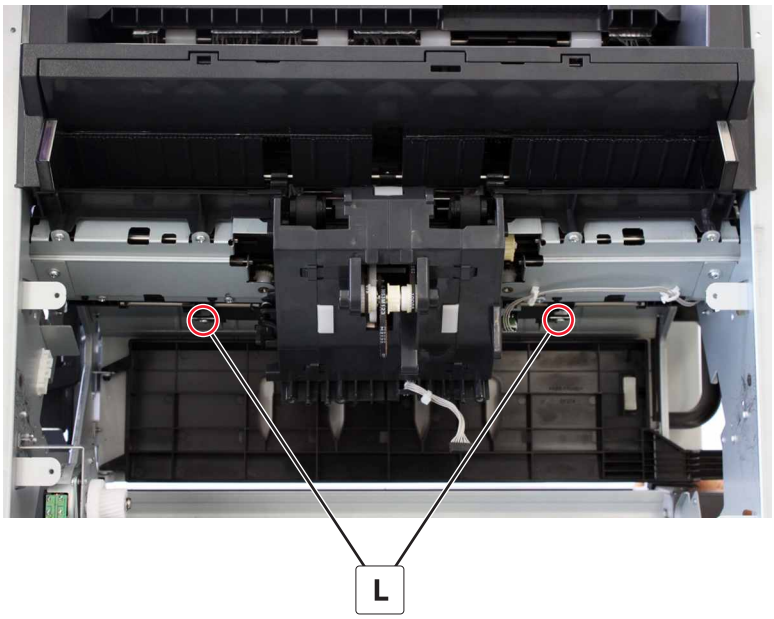


19 Release the latch (J), and then remove the sensor.

20 Release the belt (K) from the motor.

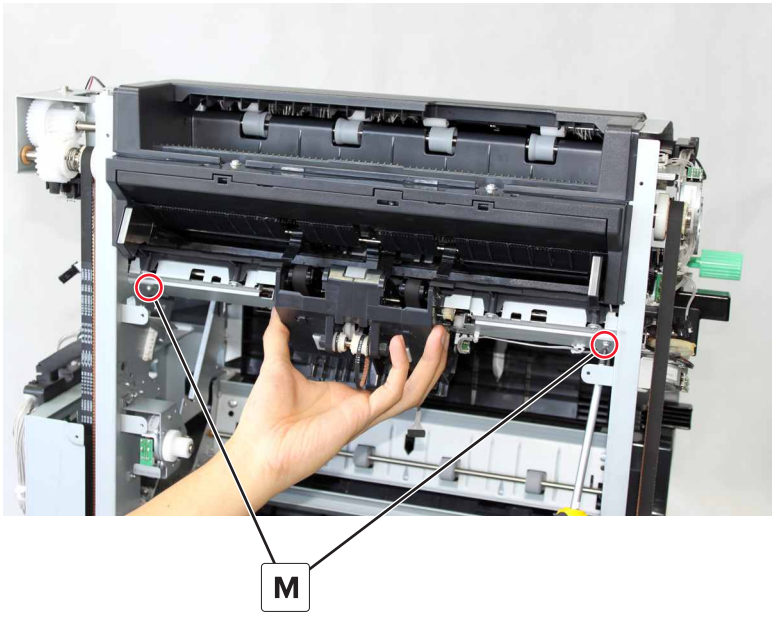


21 Remove the two screws (L).

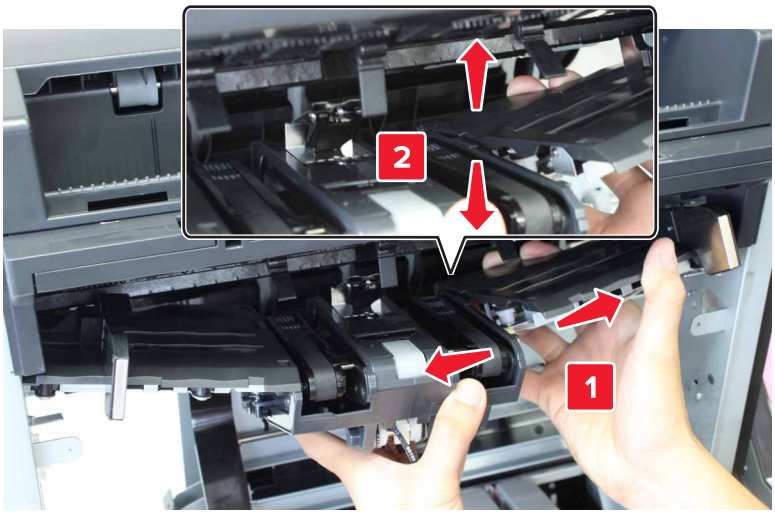


22 Remove the two screws (M).

Note: Hold the middle when removing the screws to prevent the assembly from sagging.



23 Release the outer latches, and then release the inner latches.



24 Remove the assembly.

SHPF tampers removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

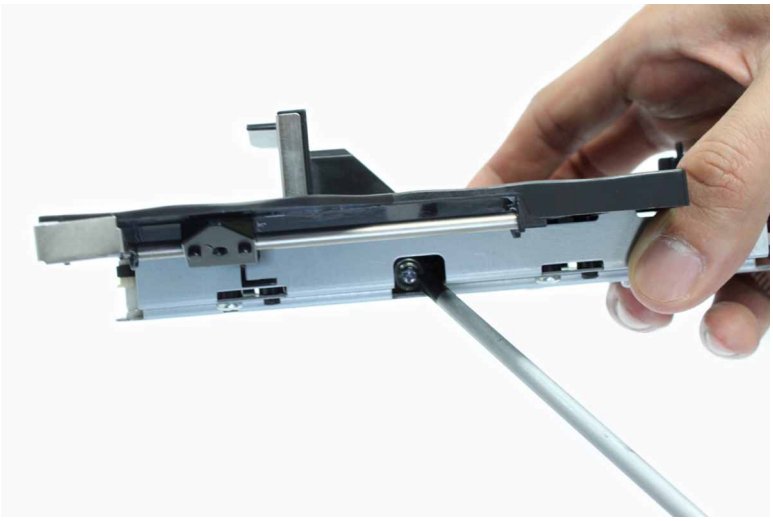
8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

9 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

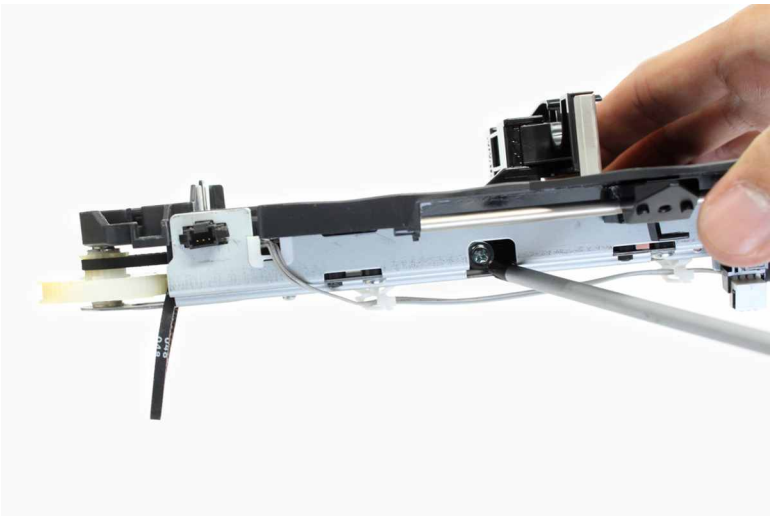
10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

12 Remove the screw, and then remove the front tamper.



13 Remove the screw, and then remove the rear tamper.



SHPF tamper trays removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

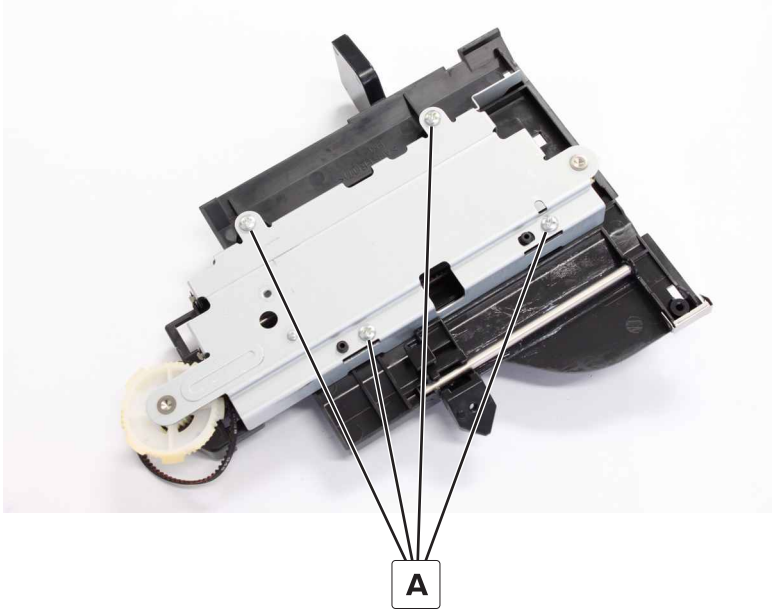
8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

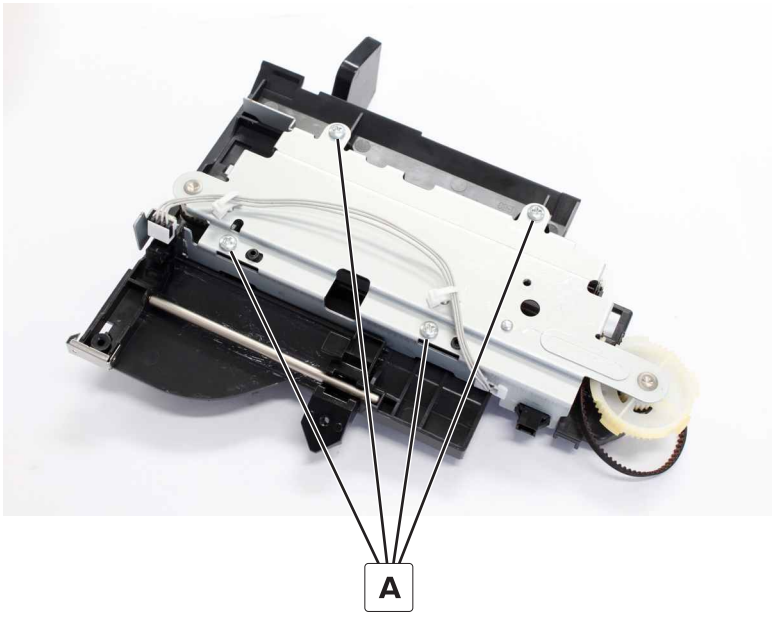
9 Remove the motor (SHPF compiler pre-eject). See **"Motor (SHPF compiler pre-eject) removal" on page 393**.

10 Remove the staple unit assembly. See **"SHPF staple unit assembly removal" on page 359**.

11 Remove the compiler assembly. See **"SHPF compiler assembly removal" on page 396**.

12 Remove the eight screws (A), and then remove the trays.





SHPF tamper belts and gears removal

1 Remove the elevator bin. See **"SHPF elevator bin removal" on page 323**.

2 Remove the elevator bin bracket. See **"SHPF elevator bin bracket removal" on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

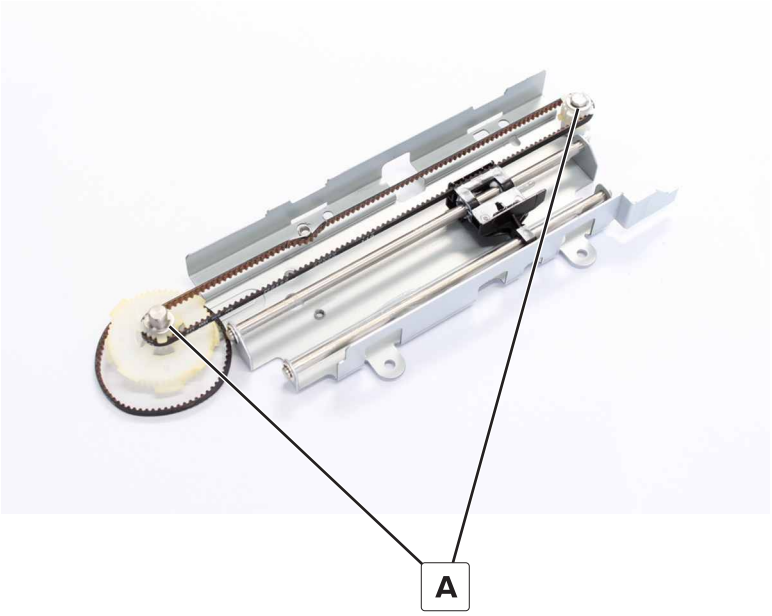
9 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

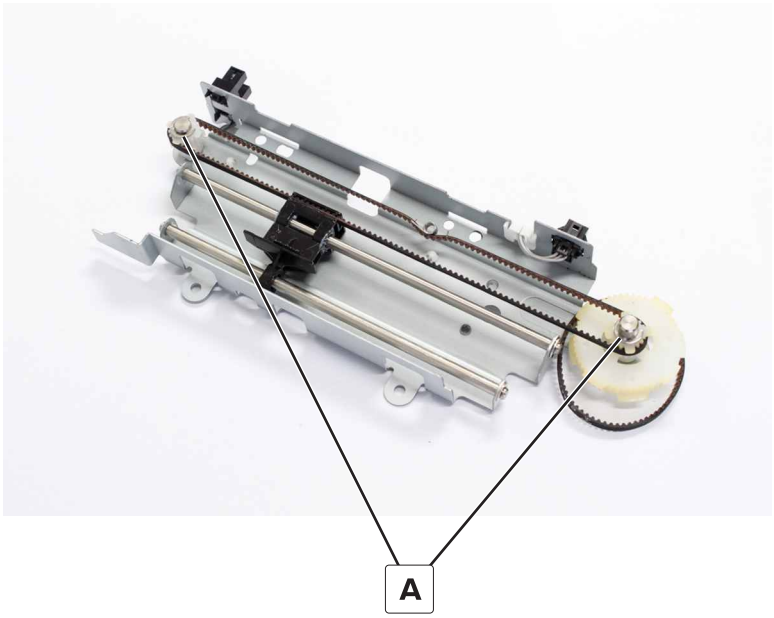
10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

12 Remove the tamper trays. See **“SHPF tamper trays removal” on page 404**.

13 Remove the four clips (A), and then remove the gears.





14 Remove the four belts.

Sensor (SHPF aligner position) removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

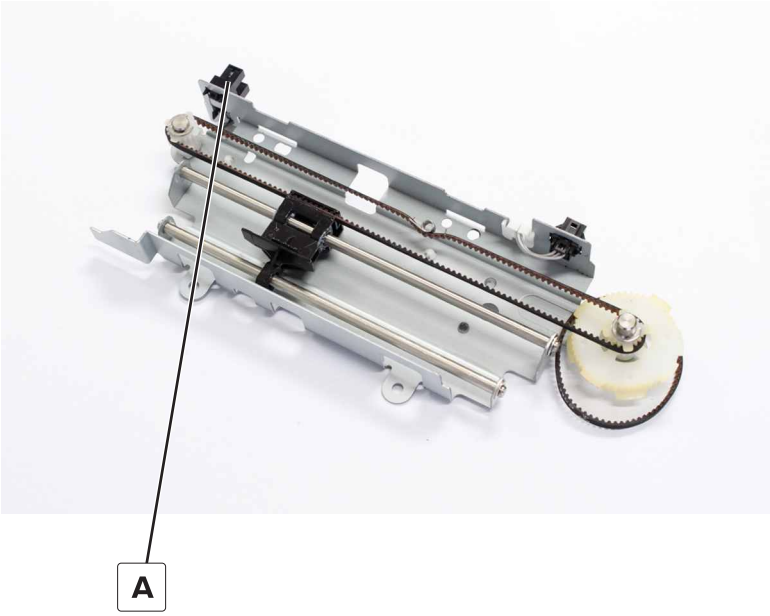
9 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

12 Remove the front tamper tray. See **“SHPF tamper trays removal” on page 404**.

13 Remove the sensor (A).



SHPF middle aligner removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

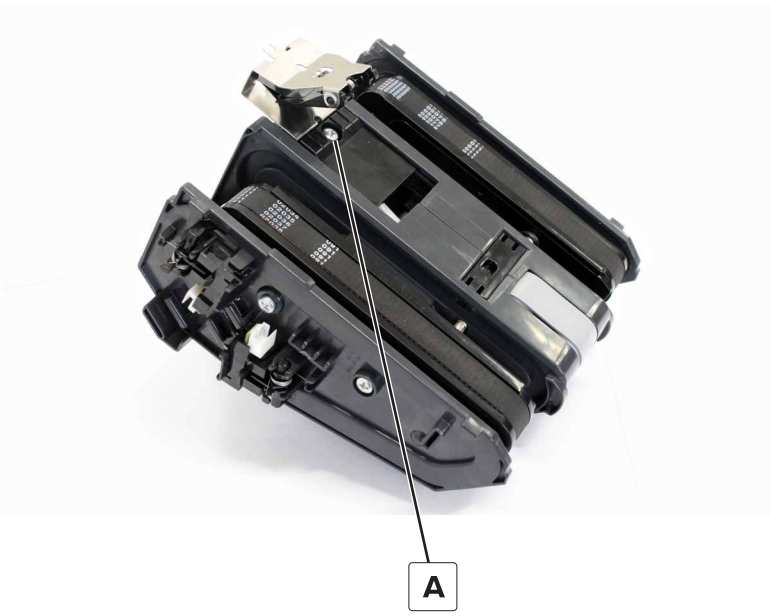
8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

9 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

12 Remove the screw (A), and then remove the aligner.



Sensor (SHPF eject clamp home) removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

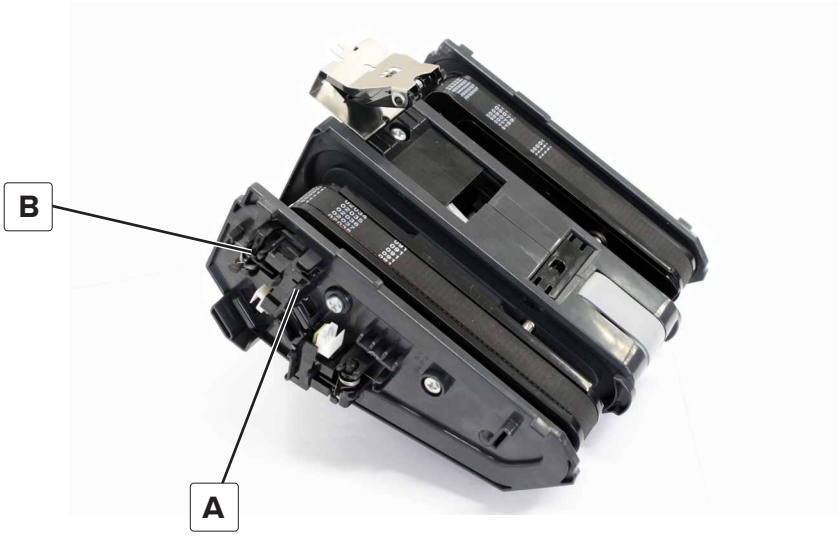
9 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

12 Release the latch (A), and then remove the sensor.

13 Remove the actuator (B).



SHPF compiler eject gear removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

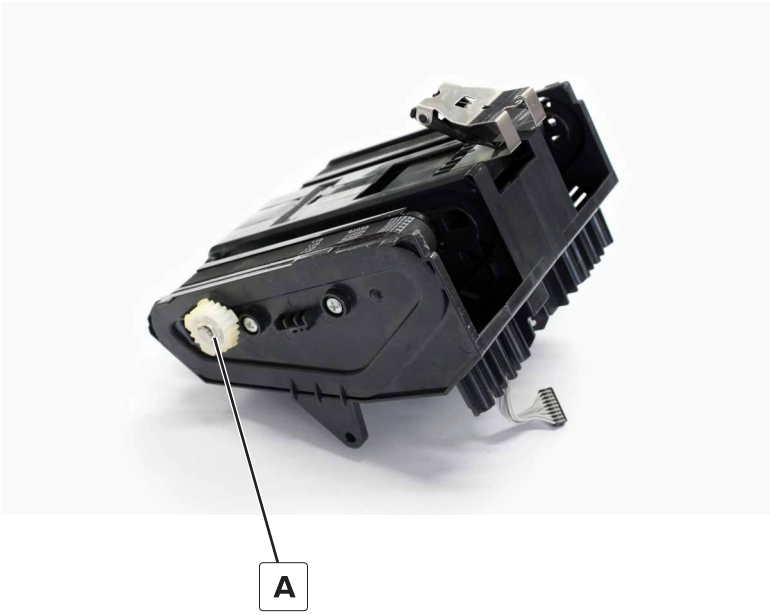
8 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

9 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

12 Remove the clip (A), and then remove the gear.



SHPF aligner shaft removal

1 Remove the elevator bin. See **“SHPF elevator bin removal” on page 323**.

2 Remove the elevator bin bracket. See **“SHPF elevator bin bracket removal” on page 325**.

3 Remove the lower left cover. See **“Lower left cover removals” on page 336**.

4 Remove the upper left cover. See **“SHPF upper left cover removal” on page 340**.

5 Remove the front door. See **“SHPF front door removal” on page 328**.

6 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

7 Remove the aligner motor bracket. See **“Motor (SHPF aligner) removal” on page 384**.

8 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

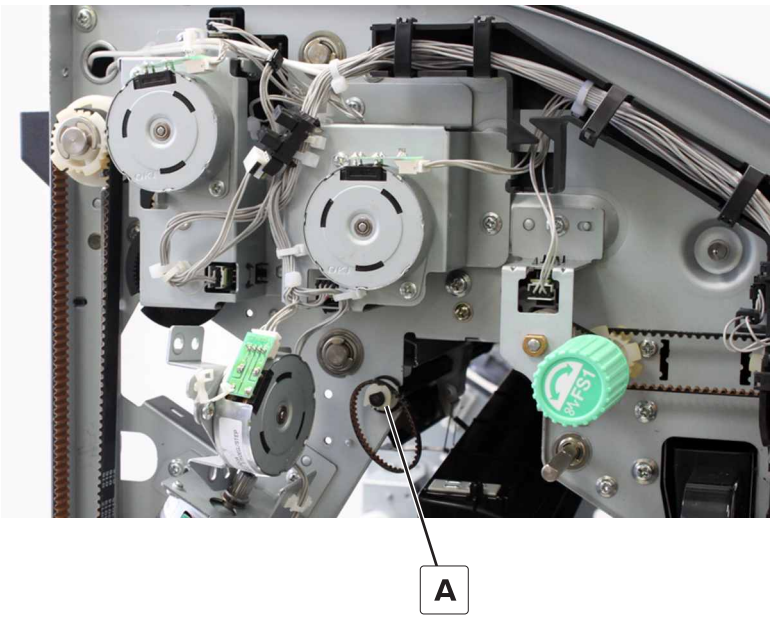
9 Remove the motor (SHPF compiler eject). See **“Motor (SHPF compiler eject) removal” on page 392**.

10 Remove the motor (SHPF compiler pre-eject). See **“Motor (SHPF compiler pre-eject) removal” on page 393**.

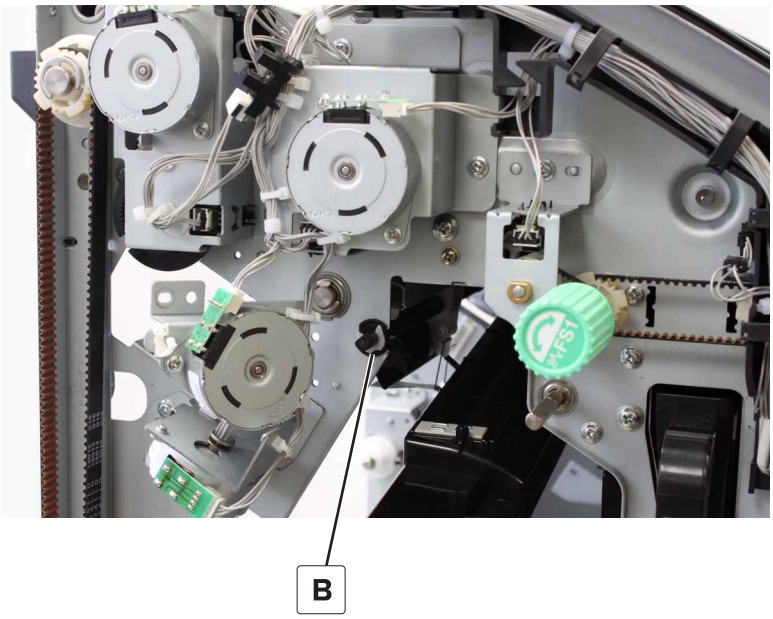
11 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

12 Remove the compiler assembly. See **“SHPF compiler assembly removal” on page 396**.

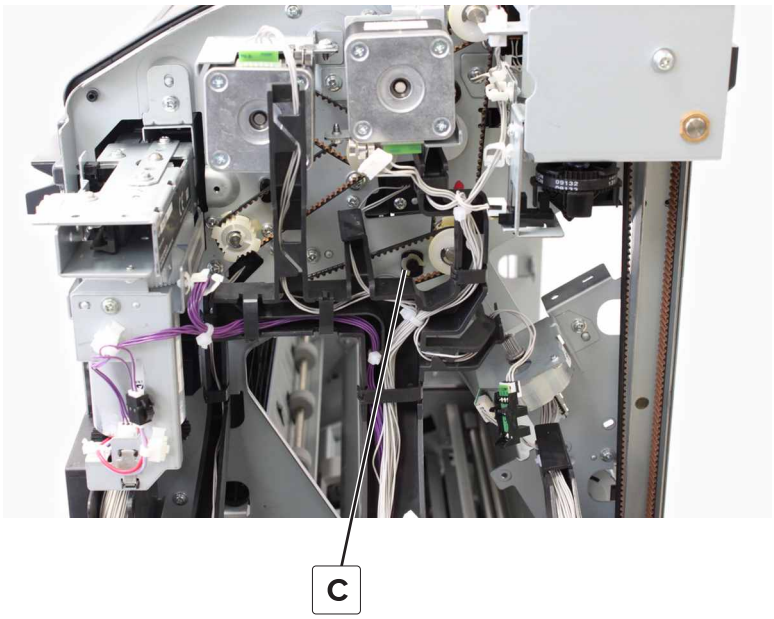
13 Remove the clip (A), and then remove the gear.



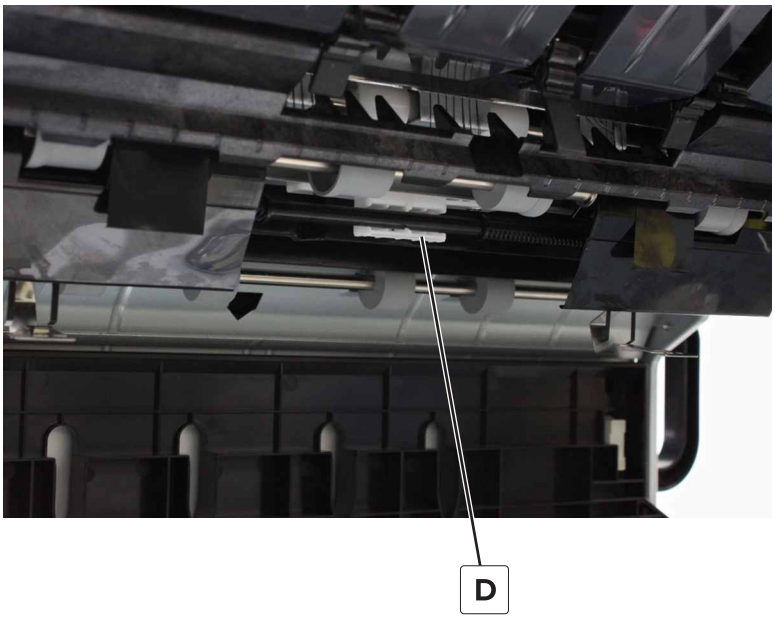
14 Remove the clip (B), and then remove the bushing.



15 Remove the clip (C), and then remove the gear.



16 Release the shaft from the holder (D), and then remove the shaft.



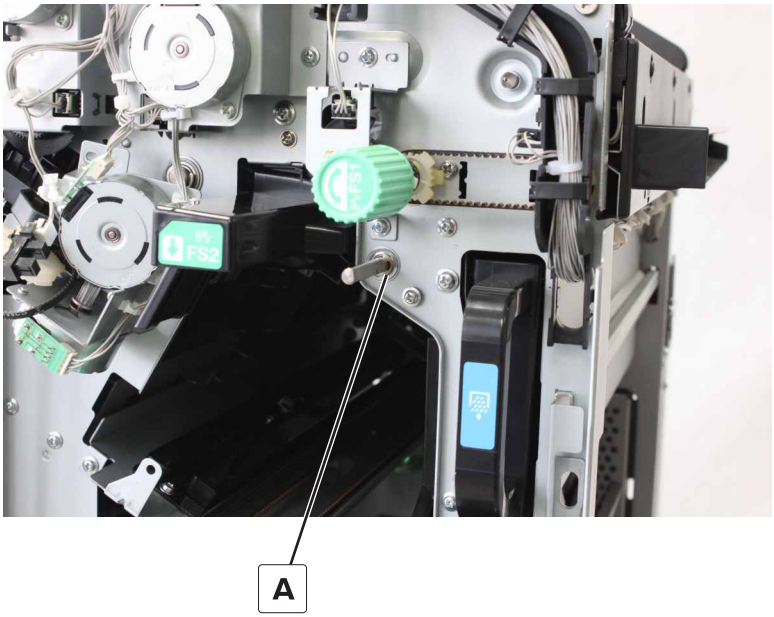
Installation notes:

a Position both aligners at the middle.

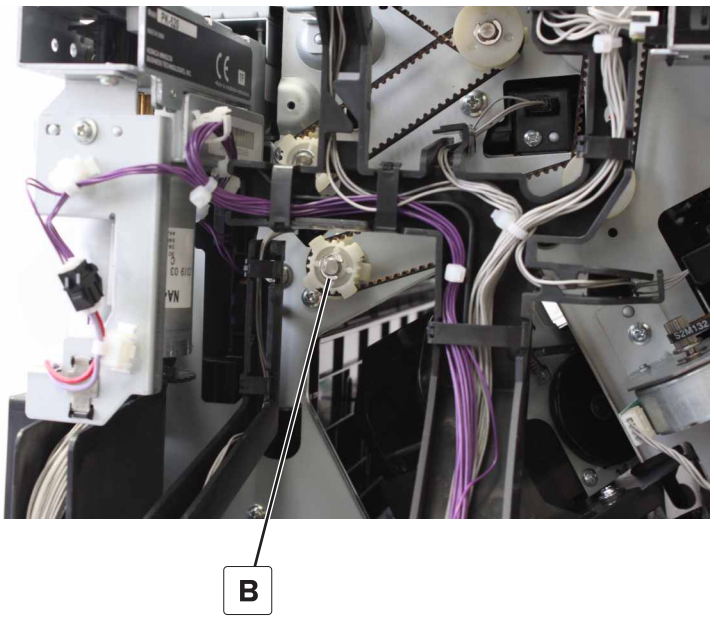
b Install the shaft, with the metal portion of the aligners hanging down.

SHPF booklet maker pre-feed roller removal

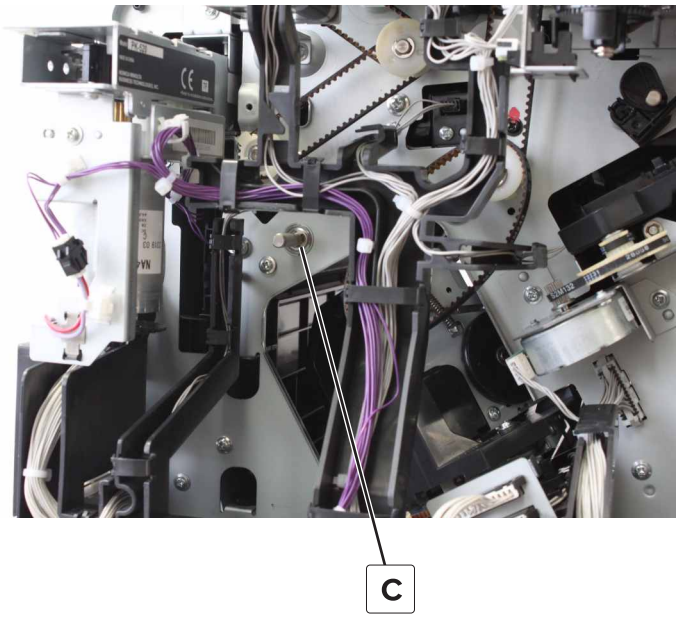
1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Remove the rear cover. See **"SHPF rear cover removal" on page 331**.
4. Remove the clip (A), and then remove the ball bearing.



5 Remove the clip (B), and then remove the gear.



6 Remove the clip (C), and then remove the ball bearing.



7 Remove the roller.

SHPF booklet maker lower pre-feed guide removal

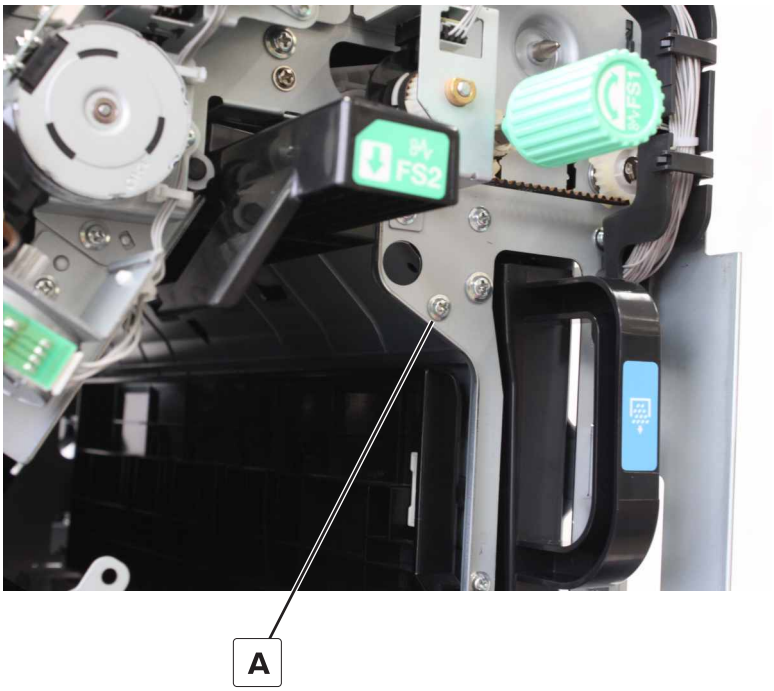
1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

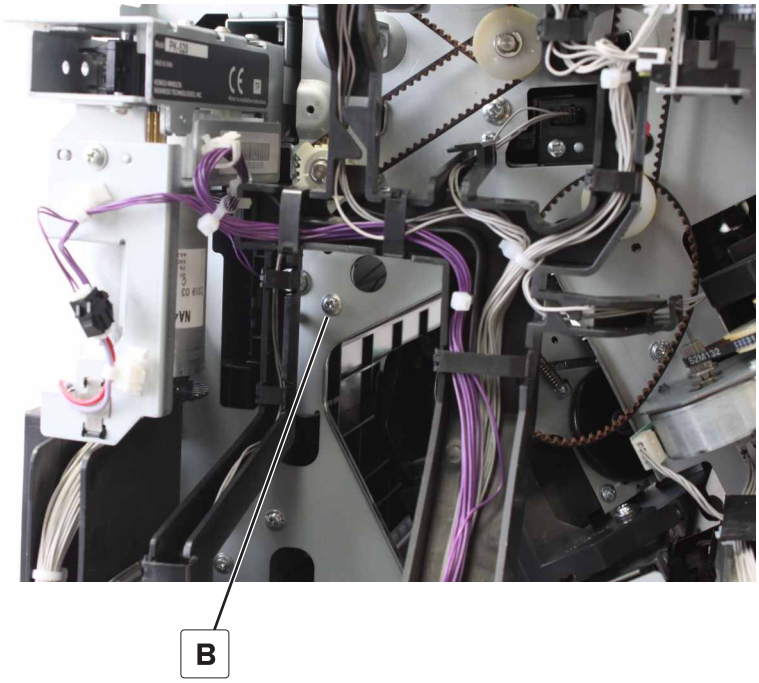
3 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

4 Remove the booklet maker pre-feed roller. See **"SHPF booklet maker pre-feed roller removal" on page 414**.

5 Remove the screw (A).

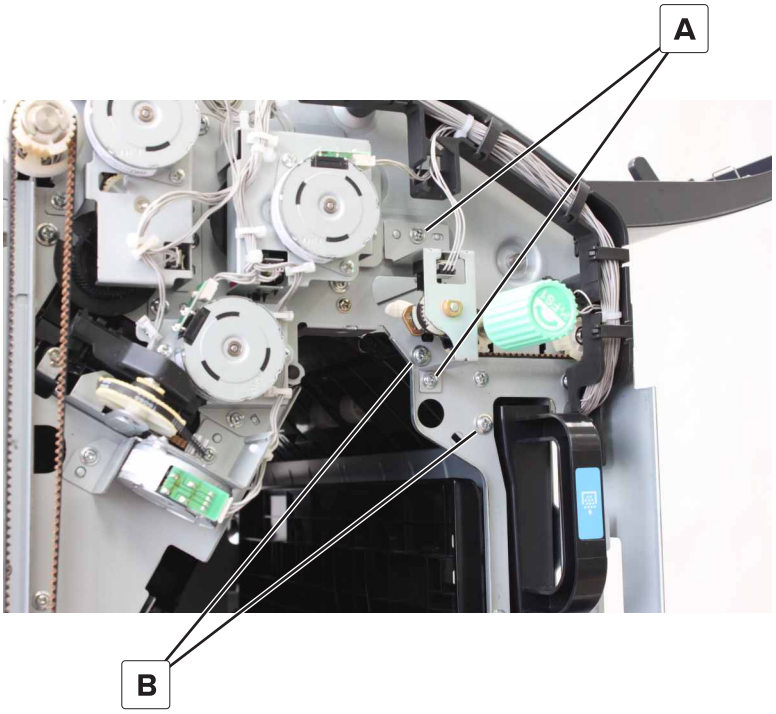


6 Remove the screw (B), and then remove the guide.

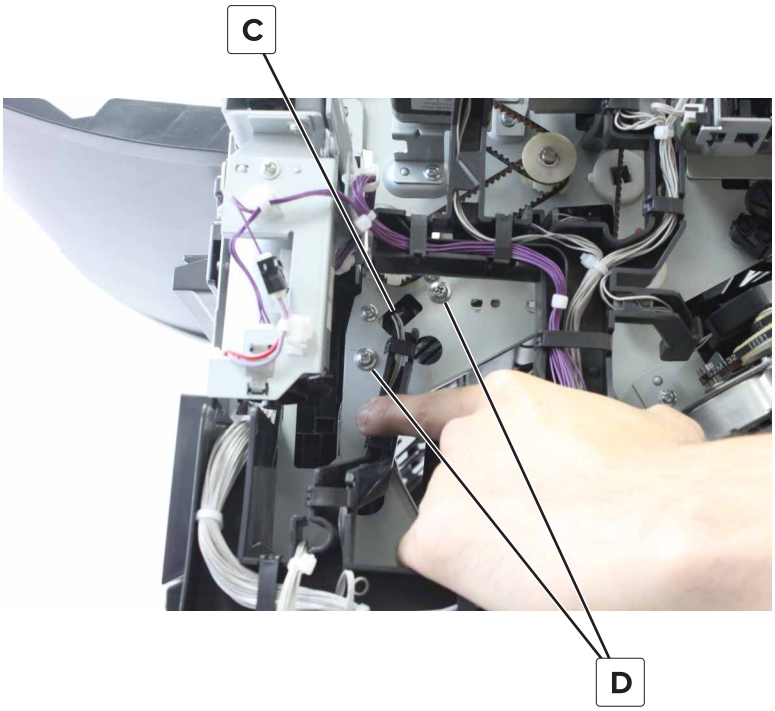


SHPF booklet maker upper pre-feed guide removal

1. Remove the front door. See **"SHPF front door removal" on page 328**.
2. Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.
3. Remove the rear cover. See **"SHPF rear cover removal" on page 331**.
4. Remove the SHPF jam access door. See **"SHPF jam access door removal" on page 334**.
5. Remove the booklet maker pre-feed roller. See **"SHPF booklet maker pre-feed roller removal" on page 414**.
6. Remove the booklet maker lower pre-feed guide. See **"SHPF booklet maker lower pre-feed guide removal" on page 415**.
7. Remove the two screws (A), and then set aside the bracket.
8. Remove the two screws (B).

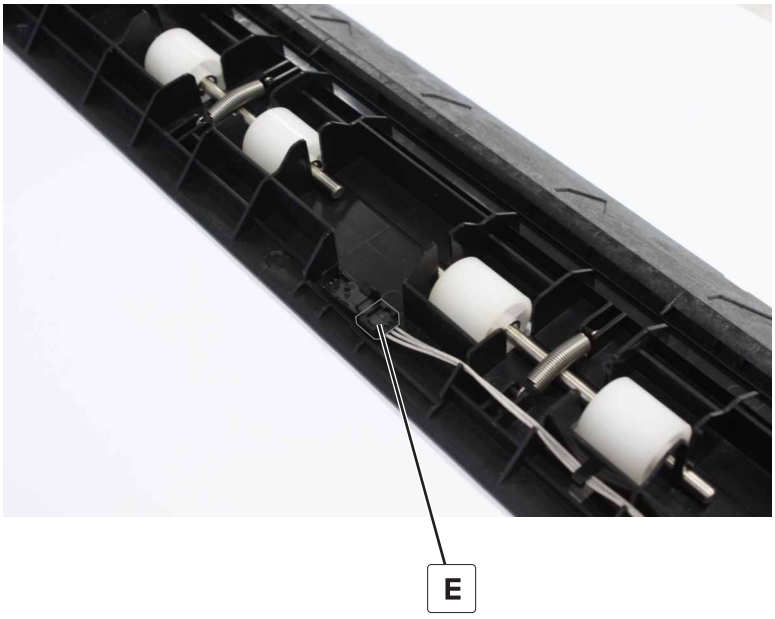


9 Disconnect the cable (C), and then remove the two screws (D).



10 Remove the assembly.

11 Disconnect the cable (E), and then remove the sensor (SHPF booklet gate).



SHPF diverter feed guide removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

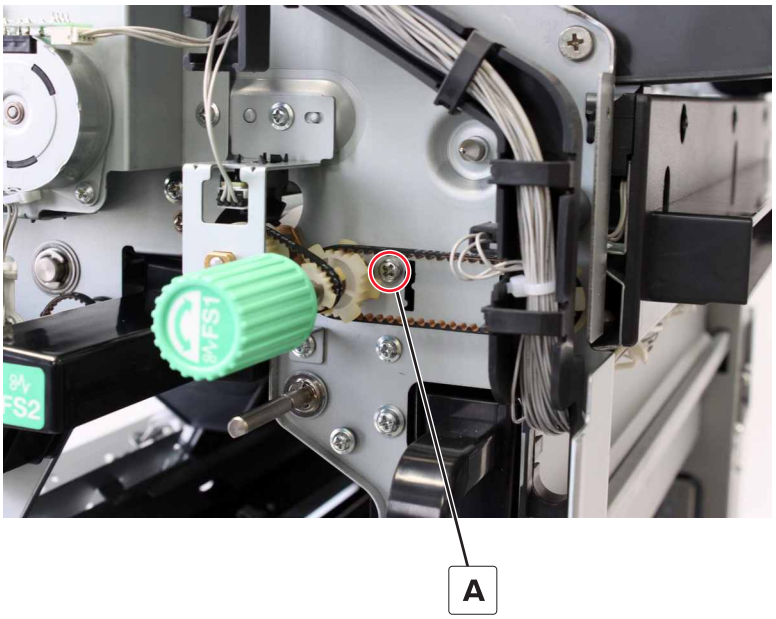
2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

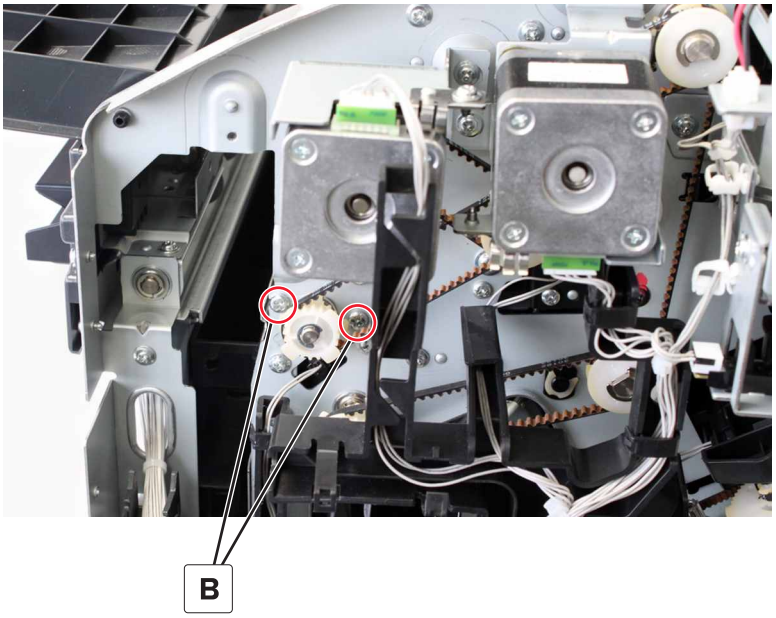
4 Remove the punch unit. See **"Punch unit removal" on page 357**.

5 Open the top door and top jam access door.

6 Remove the screw (A).



7 Remove the two screws (B), and then remove the guide.



SHPF diverter feed roller removal

1 Remove the front door. See **"SHPF front door removal" on page 328**.

2 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

3 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

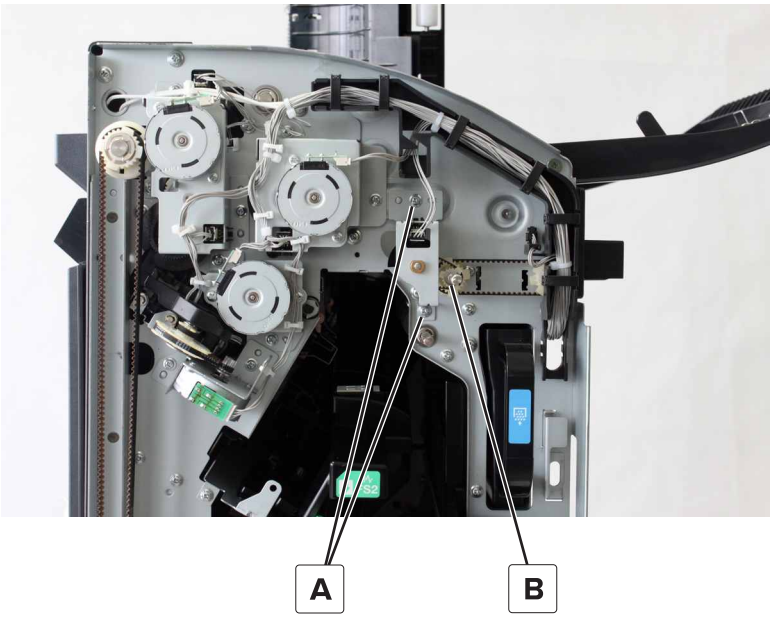
4 Remove the punch unit. See **"Punch unit removal" on page 357**.

5 Remove the diverter feed roller knob. See **"SHPF diverter feed roller knob removal" on page 329**.

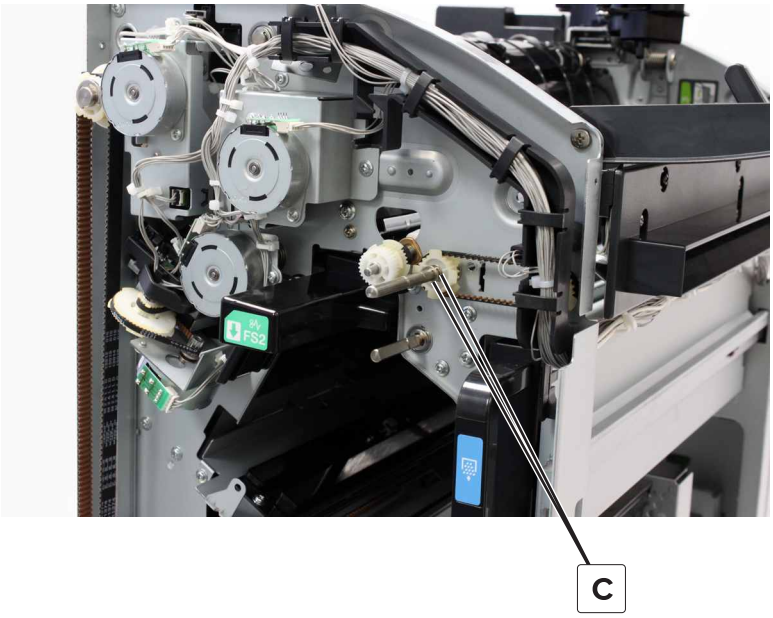
6 Remove the diverter feed guide. See **"SHPF diverter feed guide removal" on page 418**.

7 Remove the two screws (A), and then set aside the bracket.

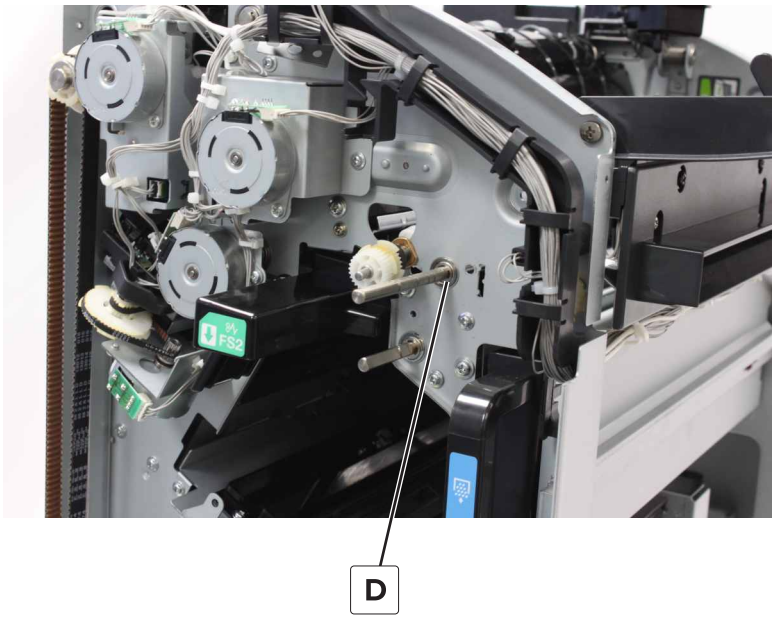
8 Remove the clip (B), and then remove the gear.



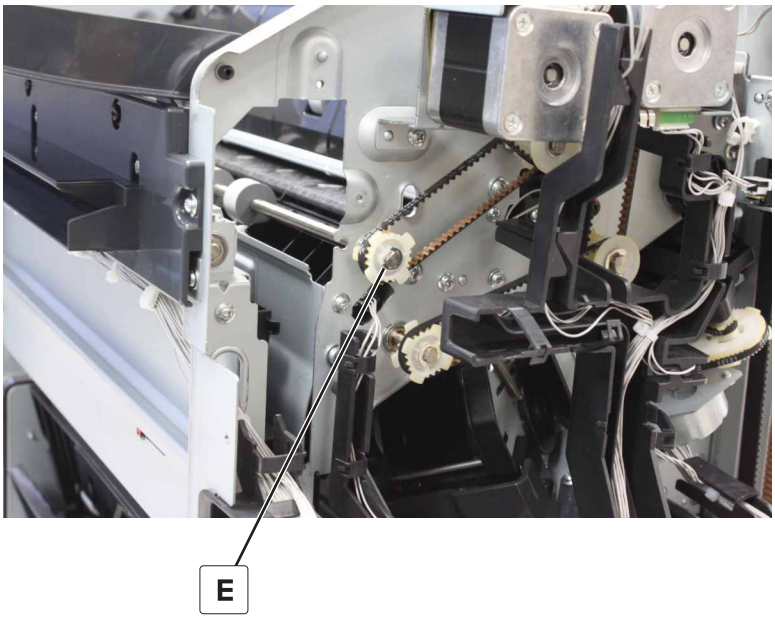
9 Remove the two clips (C), and then remove the gear.



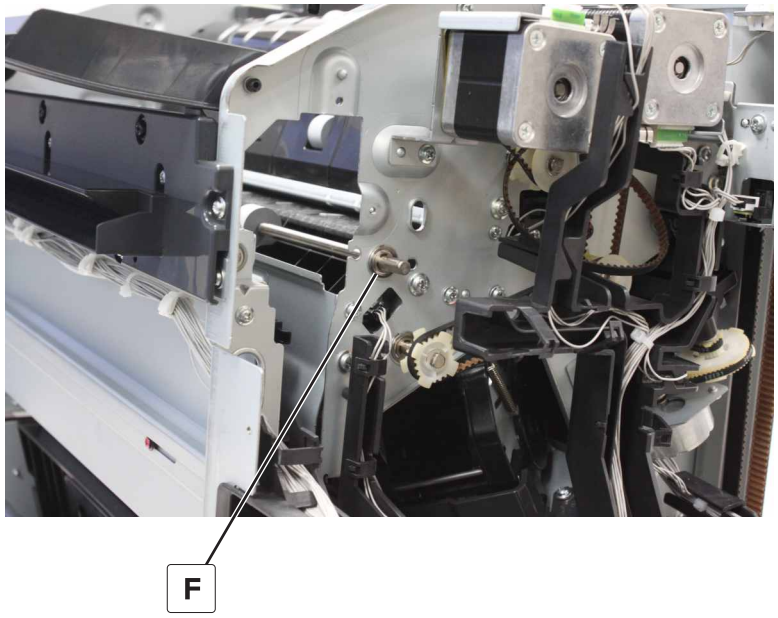
10 Remove the clip (D), and then remove the ball bearing.



11 Remove the clip (E), and then remove the gear.



12 Remove the clip (F), and then remove the ball bearing.



13 Remove the roller.

SHPF elevator bin stack limit actuator removal

1 Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

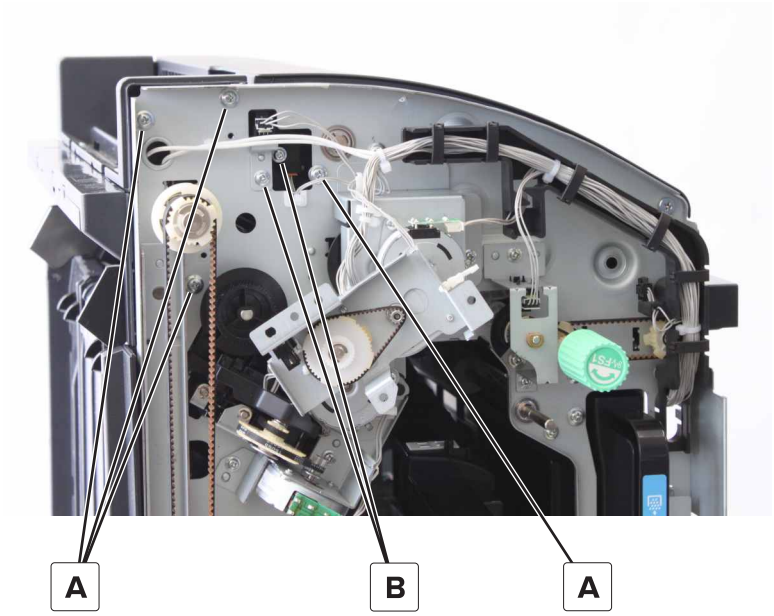
4 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

5 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

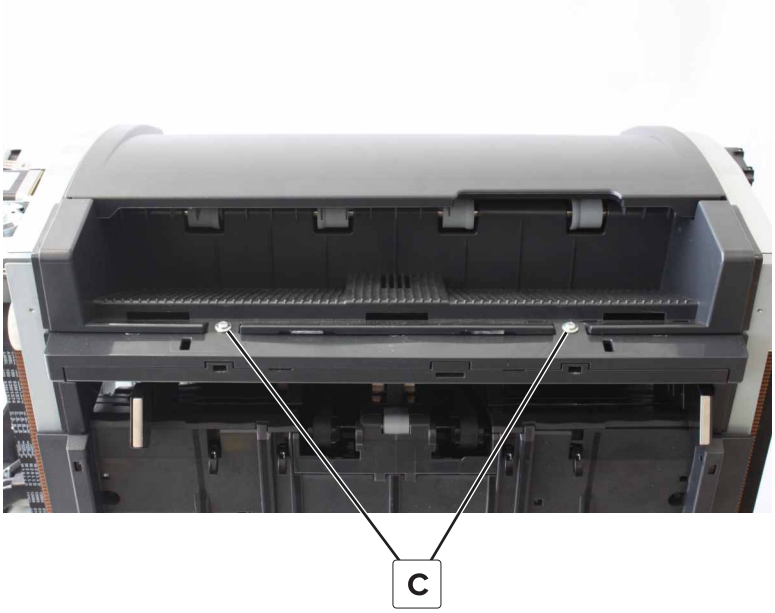
6 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

7 Remove the four screws (A).

8 Remove the two screws (B), and then set aside the two sensors.

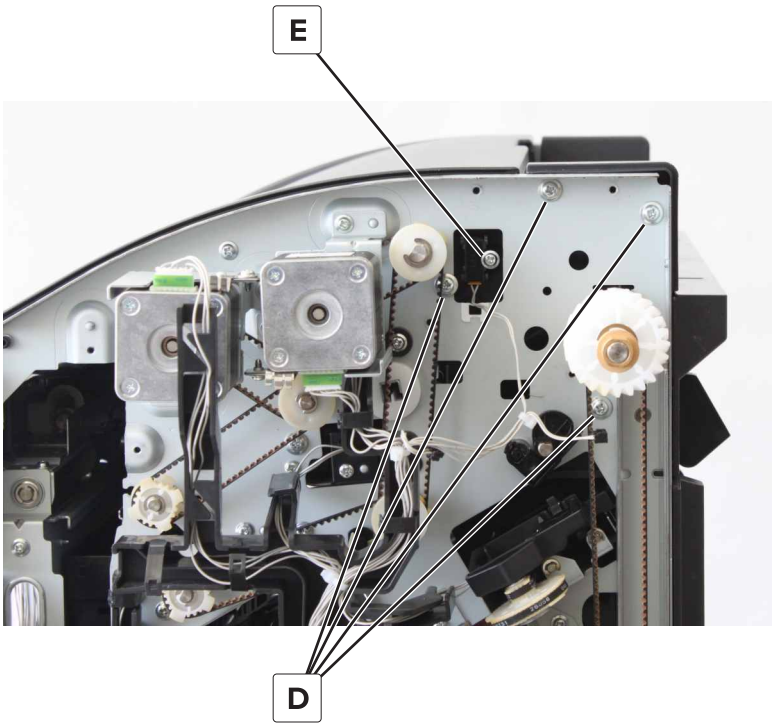


9 Remove the two screws (C).

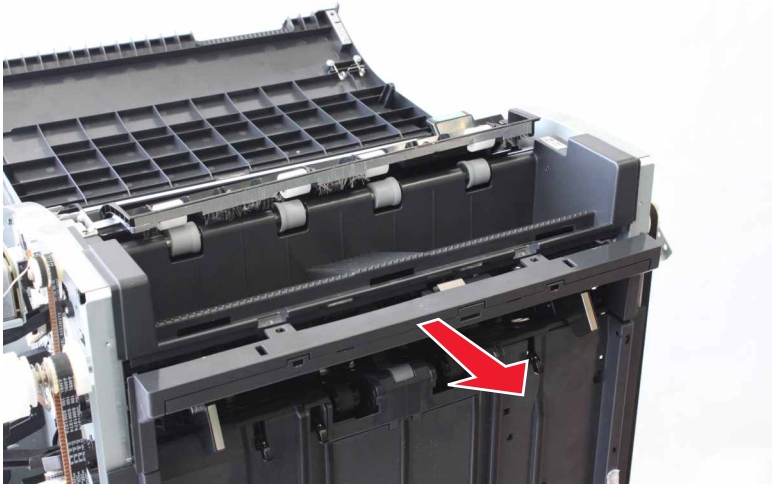


10 Remove the four screws (D).

11 Remove the screw (E), and then set aside the sensor.

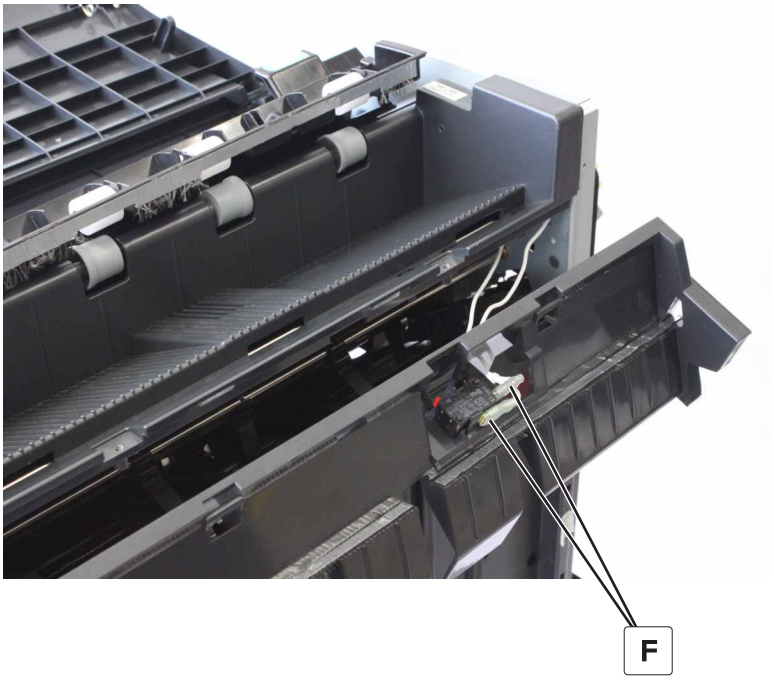


12 Pull the guide.



13 Pry, and then remove the cover.

14 Disconnect the two cables (F), and then remove the guide.



SHPF elevator bin stack limit switch removal

1 Remove the top bin extender. See **"SHPF top bin extender removal" on page 323**.

2 Remove the front door. See **"SHPF front door removal" on page 328**.

3 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

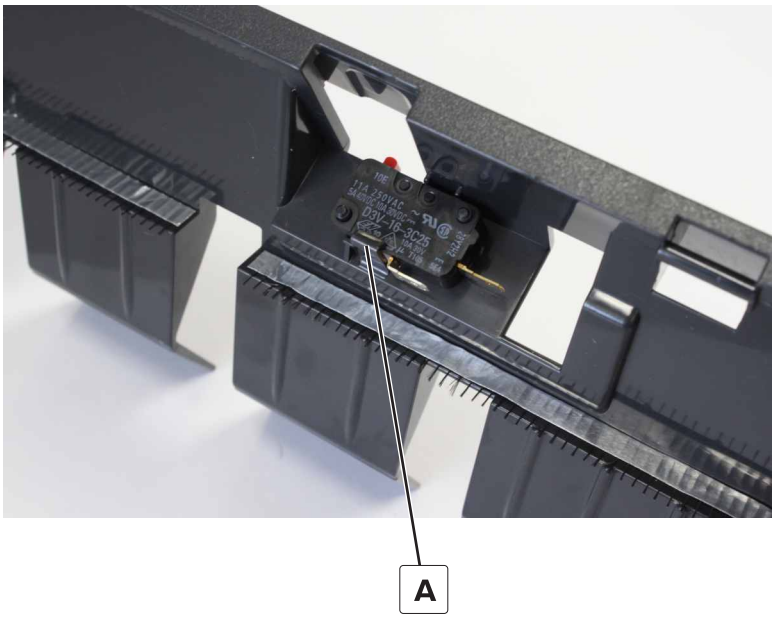
4 Remove the paddle motor bracket. See **"SHPF paddle motor bracket removal" on page 376**.

5 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

6 Remove the elevator motor bracket. See **"Motor (SHPF elevator) removal" on page 352**.

7 Remove the elevator bin stack limit actuator. See **“SHPF elevator bin stack limit actuator removal” on page 422**.

8 Release the latch (A), and then remove the sensor.



SHPF top bin removal

1 Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

4 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

5 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

6 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

7 Set aside the elevator bin stack limit actuator. See **“SHPF elevator bin stack limit actuator removal” on page 422**.

8 Remove the bin.

SHPF top bin exit roller removal

1 Remove the bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

4 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

5 Remove the sensor (SHPF top bin exit). See **“Sensor (SHPF top bin exit) removal” on page 390**.

6 Remove the top bin exit paper guide. See **“Motor (SHPF elevator) removal” on page 352**.

7 Remove the transport motor bracket. See **“Motor (SHPF transport) removal” on page 349**.

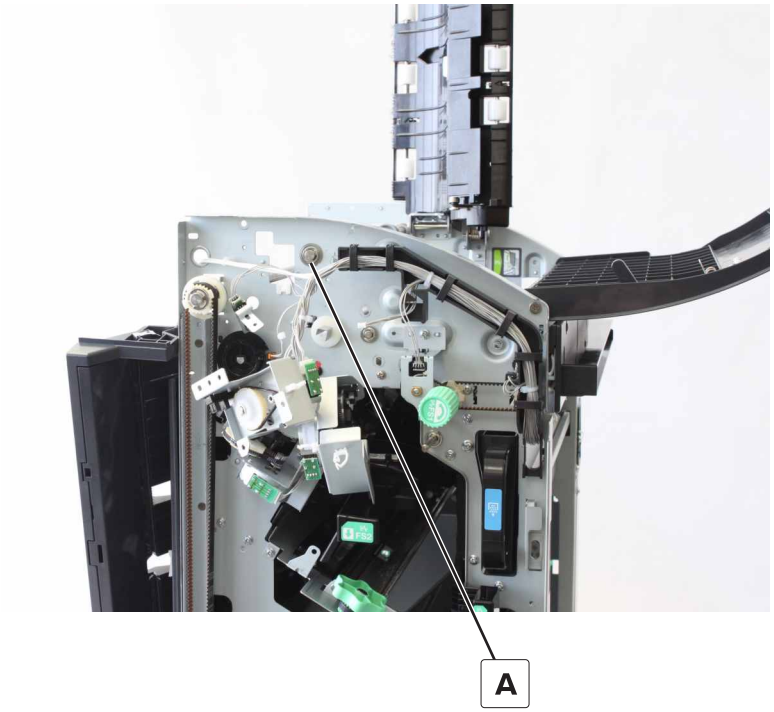
8 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

9 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

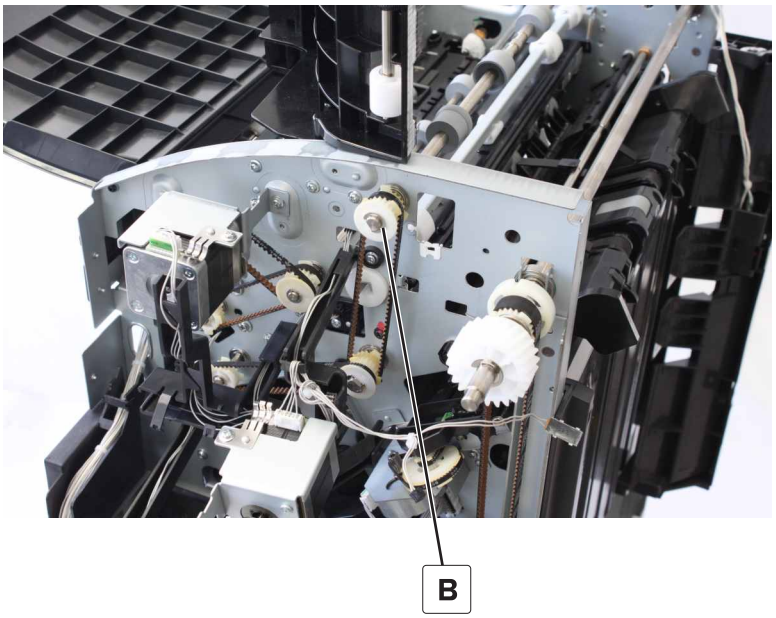
10 Set aside the elevator bin stack limit actuator. See **“SHPF elevator bin stack limit actuator removal” on page 422**.

11 Remove the top bin. See **“SHPF top bin removal” on page 426**.

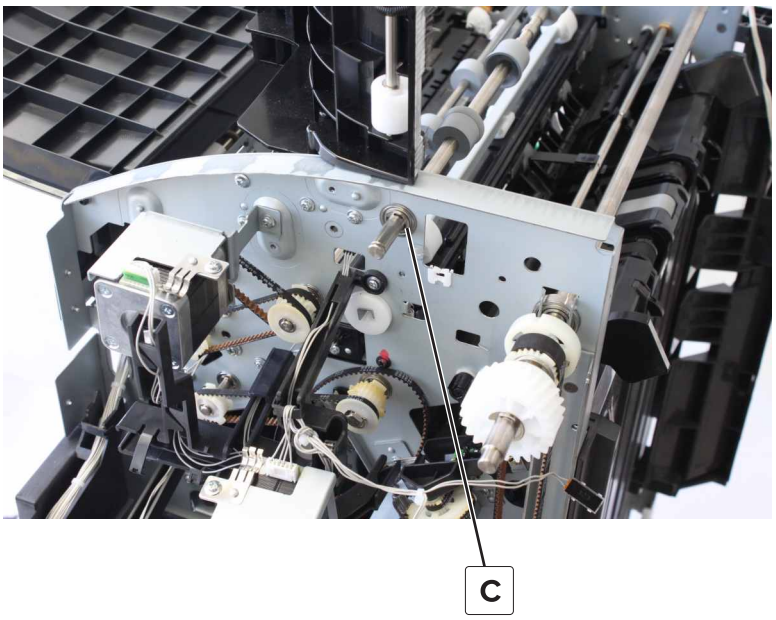
12 Remove the clip (A), and then remove the ball bearing.



13 Remove the clip (B), and then remove the washer and gear.



14 Remove the clip (C), and then remove the ball bearing.



15 Remove the roller.

SHPF compiler feed roller release cam removal

1 Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

4 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

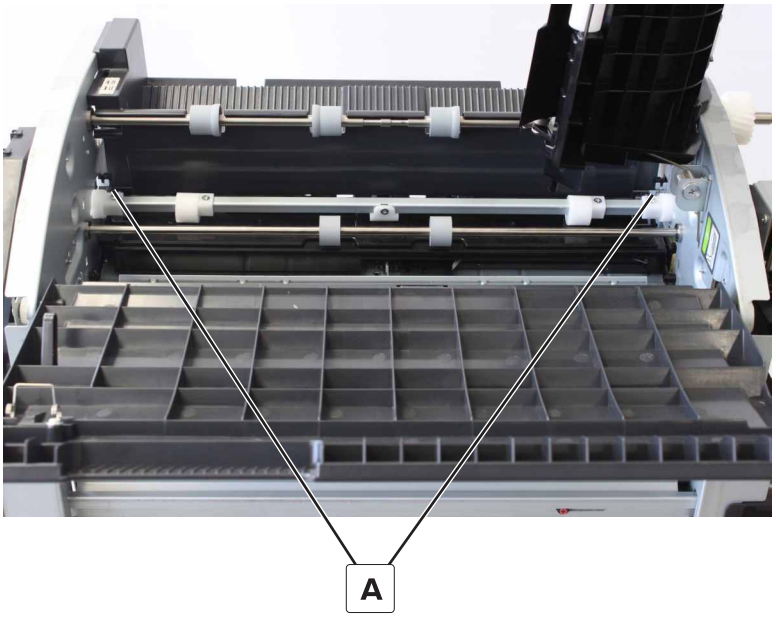
5 Remove the sensor (SHPF top bin exit). See **“Sensor (SHPF top bin exit) removal” on page 390**.

6 Remove the top bin exit paper guide. See **“SHPF top bin exit paper guide removal” on page 391**.

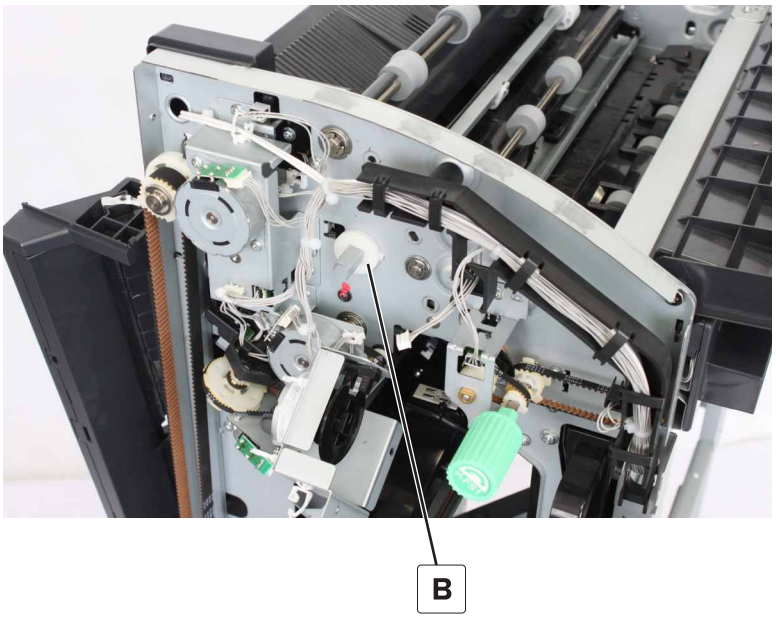
7 Remove the transport motor bracket. See **“Motor (SHPF transport) removal” on page 349**.

8 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

9 Remove the two screws (A).

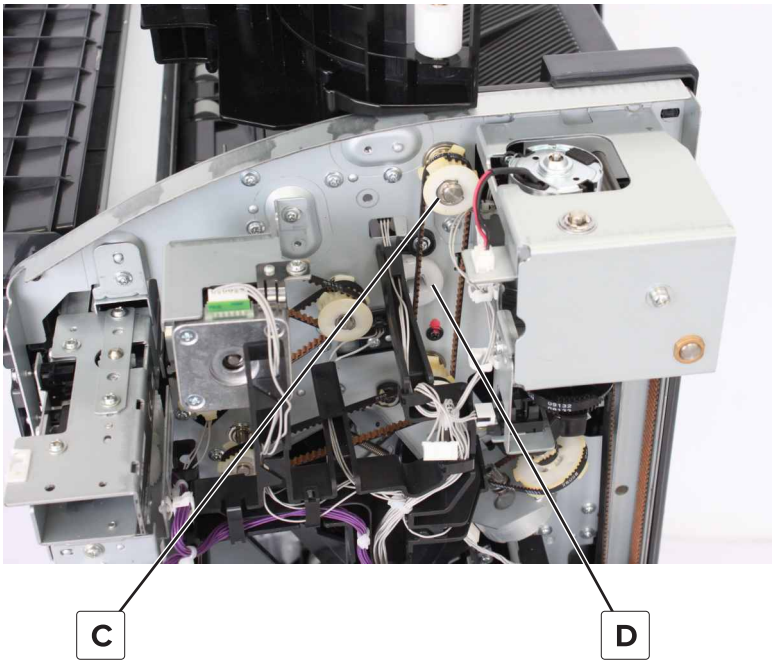


10 Remove the bushing (B).



11 Remove the clip (C), and then remove the washer, gear, and belt.

12 Remove the bushing (D), and then remove the cam.



SHPF top bin transport roller removal

1 Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

4 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

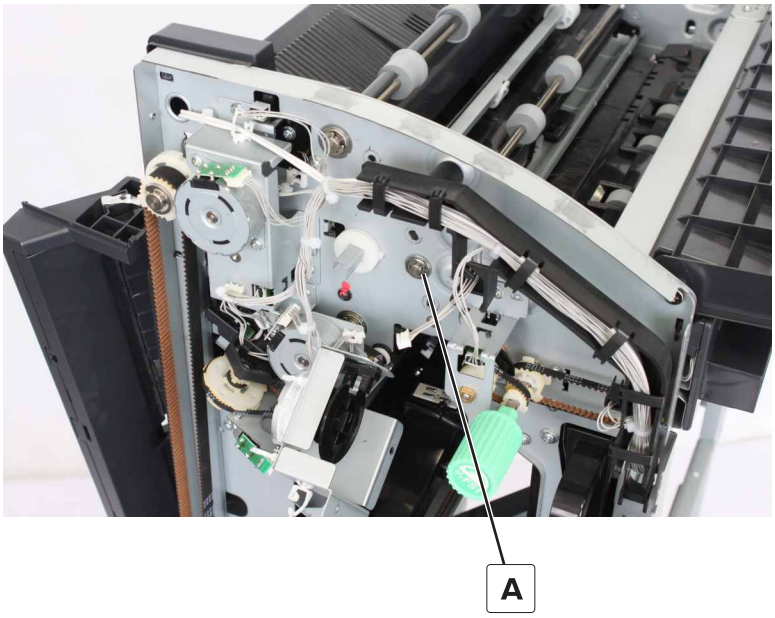
5 Remove the sensor (SHPF top bin exit). See **“Sensor (SHPF top bin exit) removal” on page 390**.

6 Remove the top bin exit paper guide. See **“SHPF top bin exit paper guide removal” on page 391**.

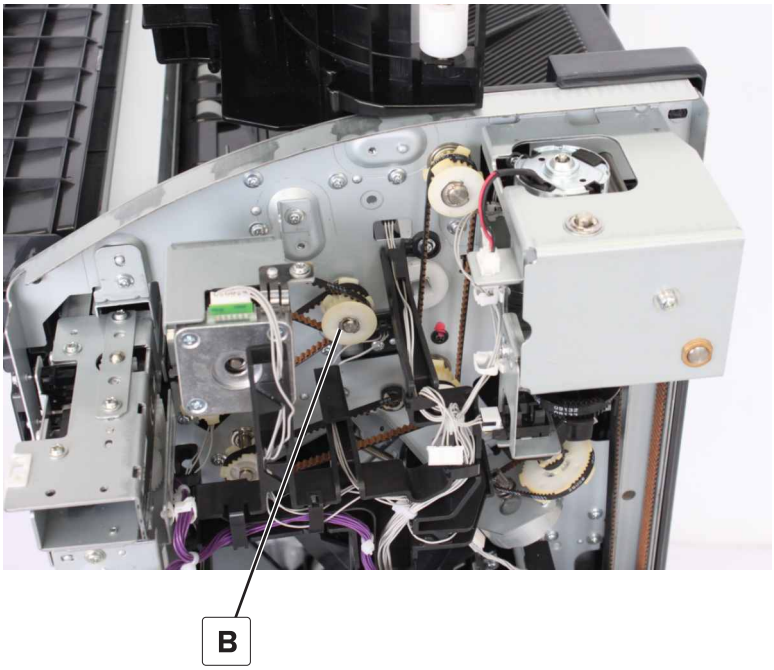
7 Remove the transport motor bracket. See **“Motor (SHPF transport) removal” on page 349**.

8 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

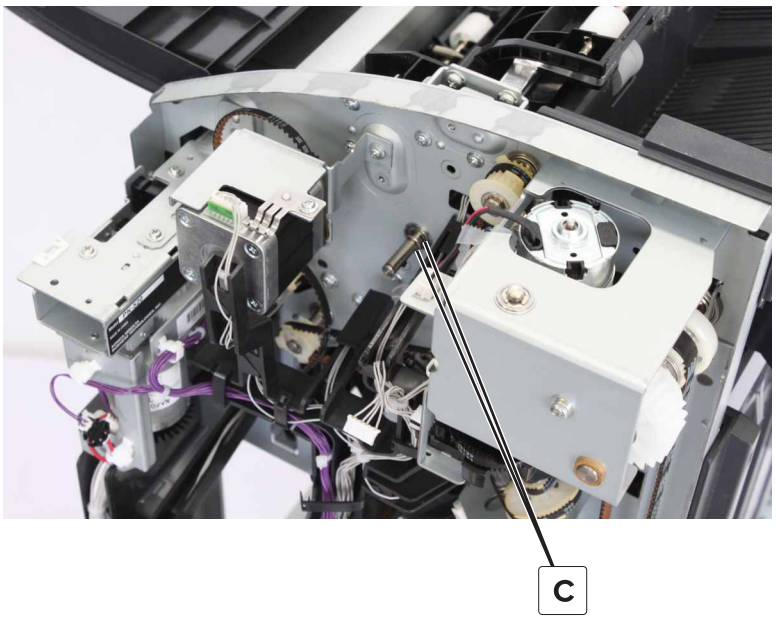
9 Remove the clip (A), and then remove the ball bearing.



10 Remove the clip (B), and then remove the washer, gear, and belt.



11 Remove the two clips (C), and then remove the ball bearing.



12 Remove the roller.

SHPF compiler feed idler roller assembly removal

1 Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

4 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

5 Remove the sensor (SHPF top bin exit). See **“Sensor (SHPF top bin exit) removal” on page 390**.

6 Remove the top bin exit paper guide. See **“SHPF top bin exit paper guide removal” on page 391**.

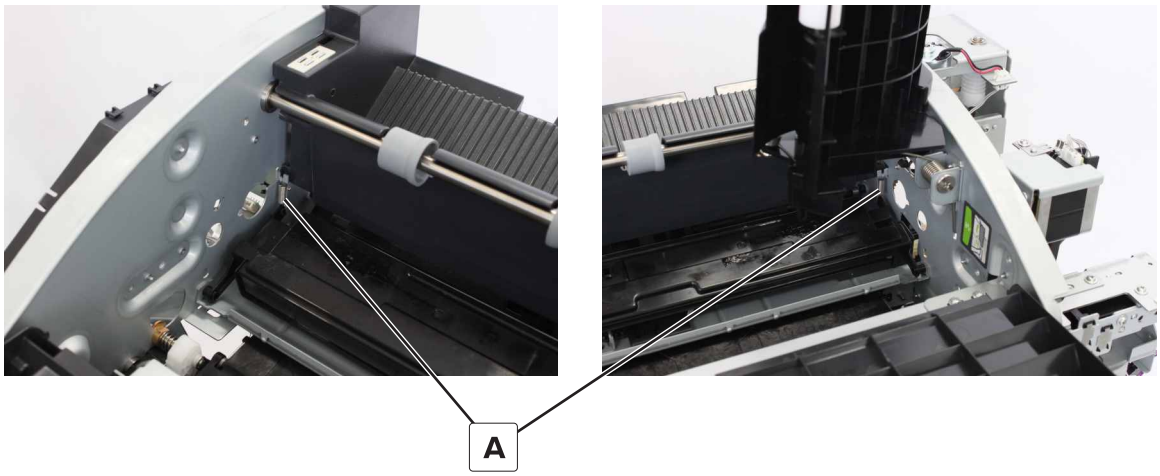
7 Remove the transport motor bracket. See **“Motor (SHPF transport) removal” on page 349**.

8 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

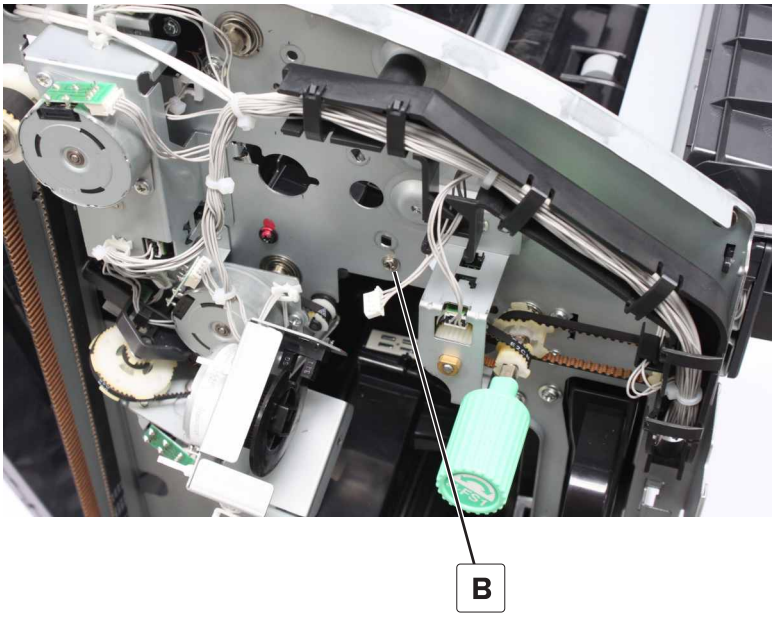
9 Remove the exit roller cam. See **“SHPF compiler feed roller release cam removal” on page 429**.

10 Remove the top bin transport roller. See **“SHPF top bin transport roller removal” on page 431**.

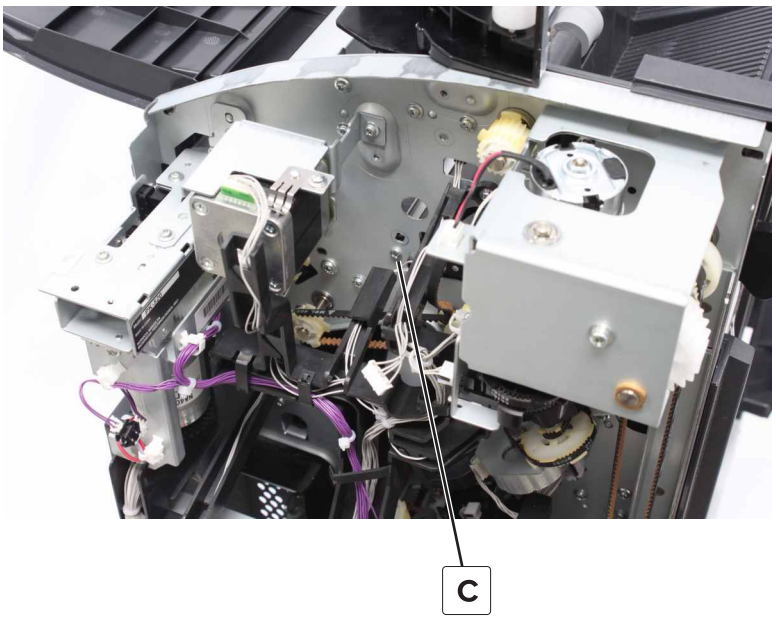
11 Remove the two springs (A).



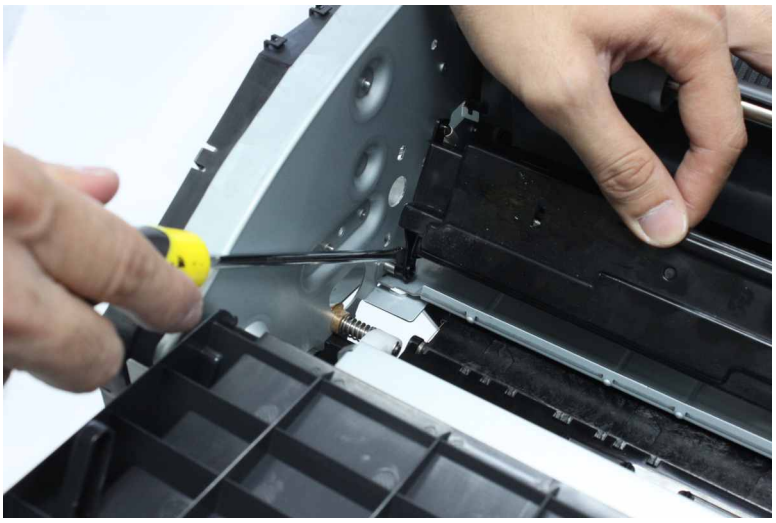
12 Remove the screw (B).



13 Remove the screw (C).



14 Pry the hinge, and then remove the assembly.



Sensor (SHPF compiler feed) removal

1 Remove the top bin extender. See **"SHPF top bin extender removal" on page 323**.

2 Remove the front door. See **"SHPF front door removal" on page 328**.

3 Remove the top inner cover. See **"SHPF top inner cover removal" on page 328**.

4 Remove the rear cover. See **"SHPF rear cover removal" on page 331**.

5 Remove the sensor (SHPF top bin exit). See **"Sensor (SHPF top bin exit) removal" on page 390**.

6 Remove the top bin exit paper guide. See **"SHPF top bin exit paper guide removal" on page 391**.

7 Remove the transport motor bracket. See **"Motor (SHPF transport) removal" on page 349**.

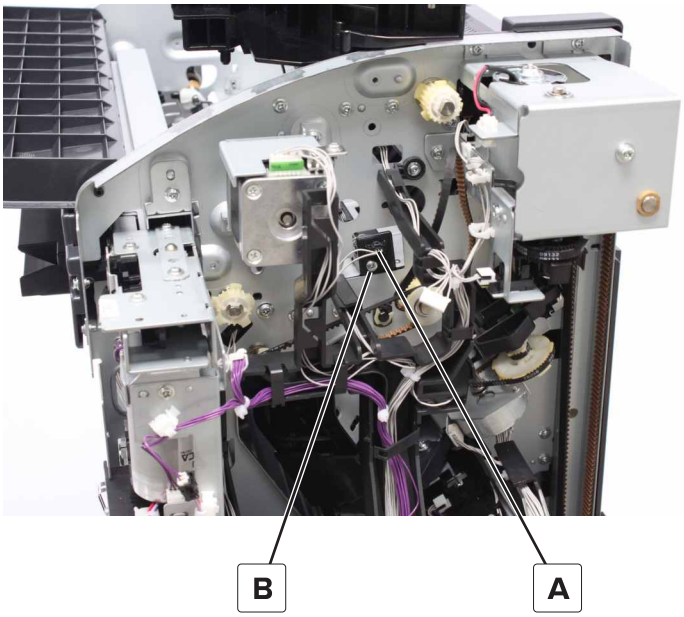
8 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

9 Remove the exit roller cam. See **“SHPF compiler feed roller release cam removal” on page 429**.

10 Remove the top bin transport roller. See **“SHPF top bin transport roller removal” on page 431**.

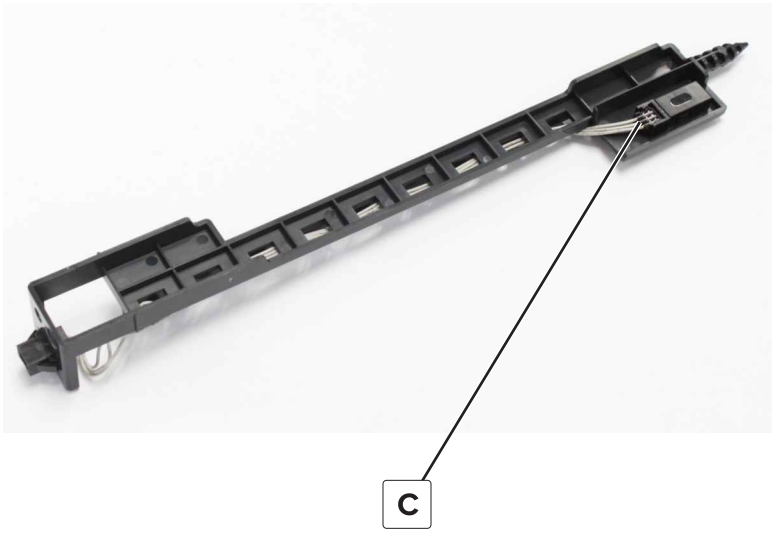
11 Remove the compiler feed idler roller assembly. See **“SHPF compiler feed idler roller assembly removal” on page 433**.

12 Disconnect the cable (A), and then remove the screw (B).



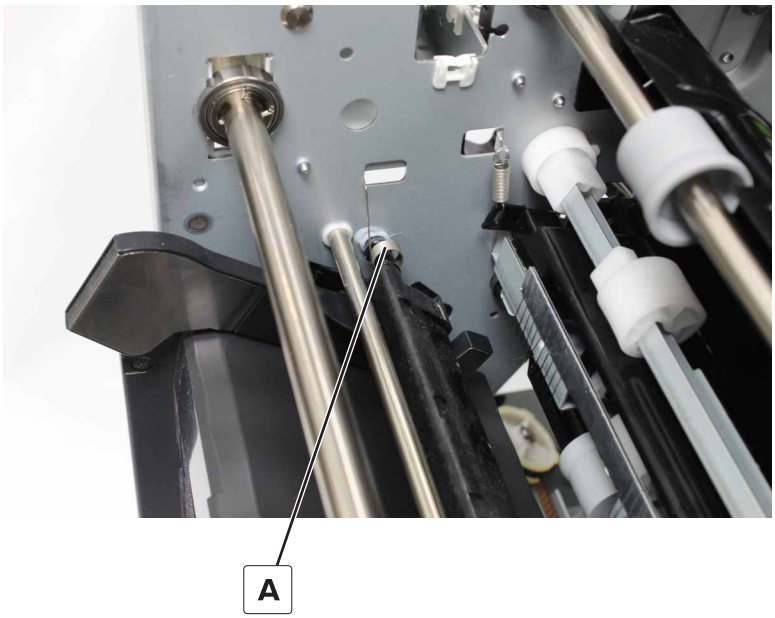
13 Remove the sensor holder.

14 Disconnect the cable (C), and then remove the sensor.

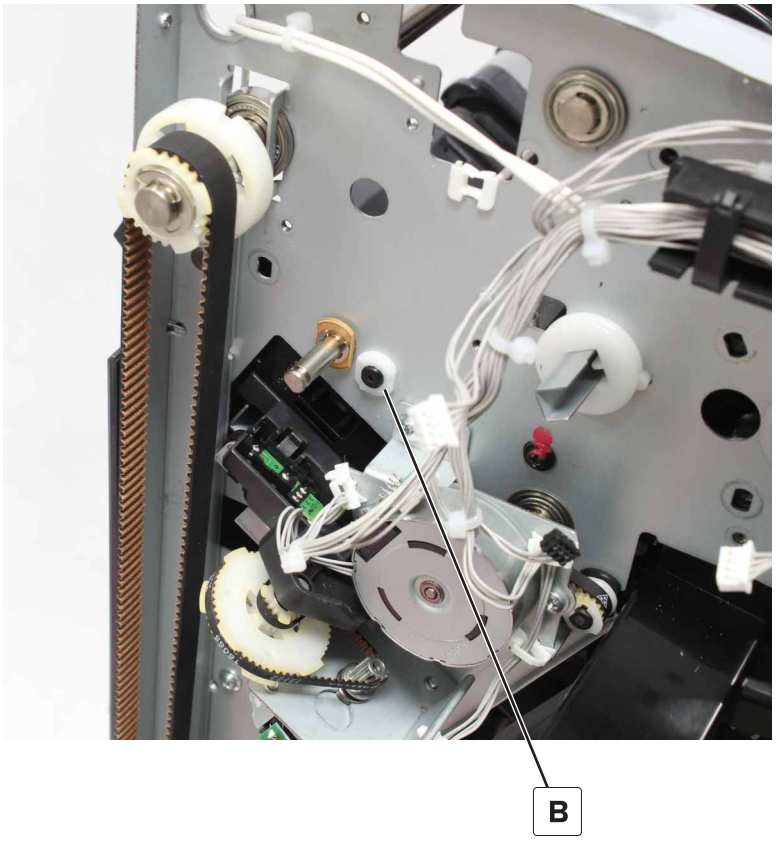


SHPF compiler guide removal

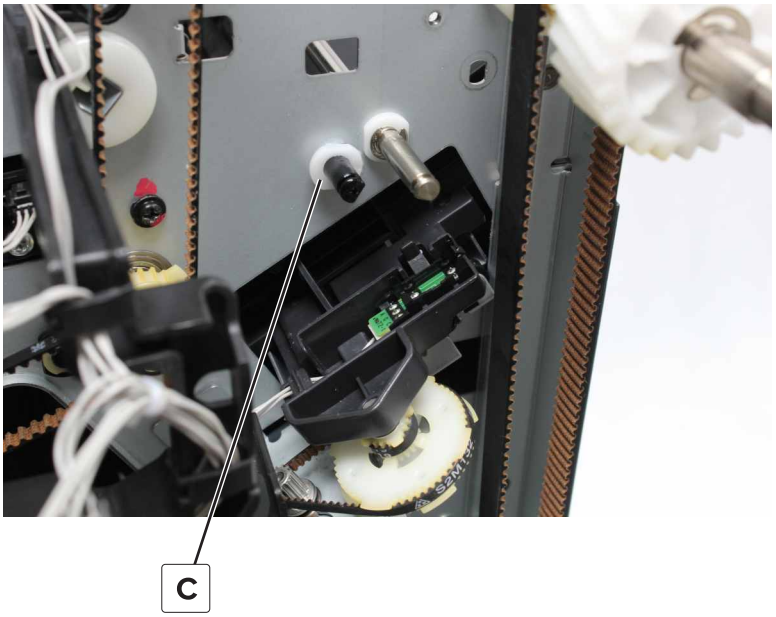
1. Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.
2. Remove the front door. See **“SHPF front door removal” on page 328**.
3. Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.
4. Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.
5. Remove the paddle drive gear. See **“SHPF paddle drive gears removal” on page 377**.
6. Remove the rear cover. See **“SHPF rear cover removal” on page 331**.
7. Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.
8. Remove the paddle cam and compiler guide lever. See **“SHPF paddle cam and compiler guide lever removal” on page 356**.
9. Remove the top bin. See **“SHPF top bin removal” on page 426**.
10. Disconnect the spring (A) from the frame.



11 Remove the clip (B), and then remove the bushing.



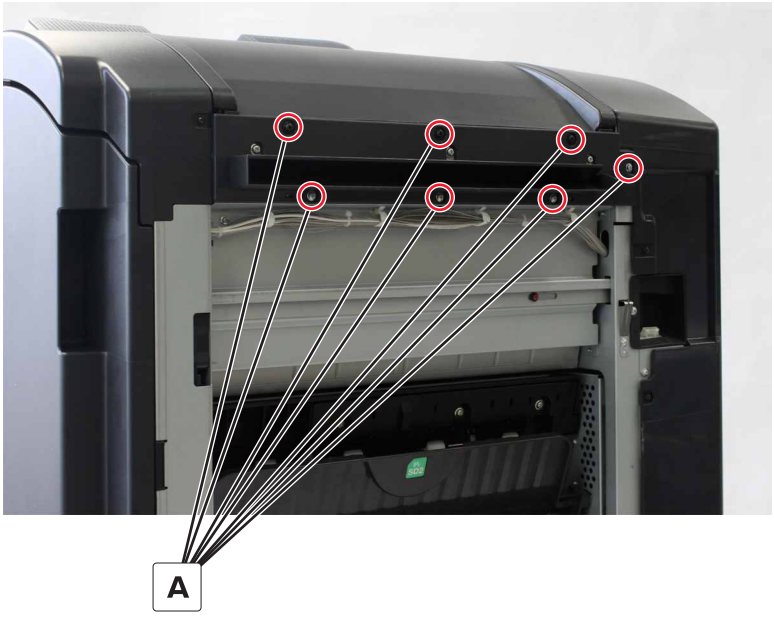
12 Remove the bushing (C).



13 Remove the guide.

SHPF entrance guide removal

1 Remove the seven screws (A).



2 Remove the guide.

Sensor (SHPF entrance) removal

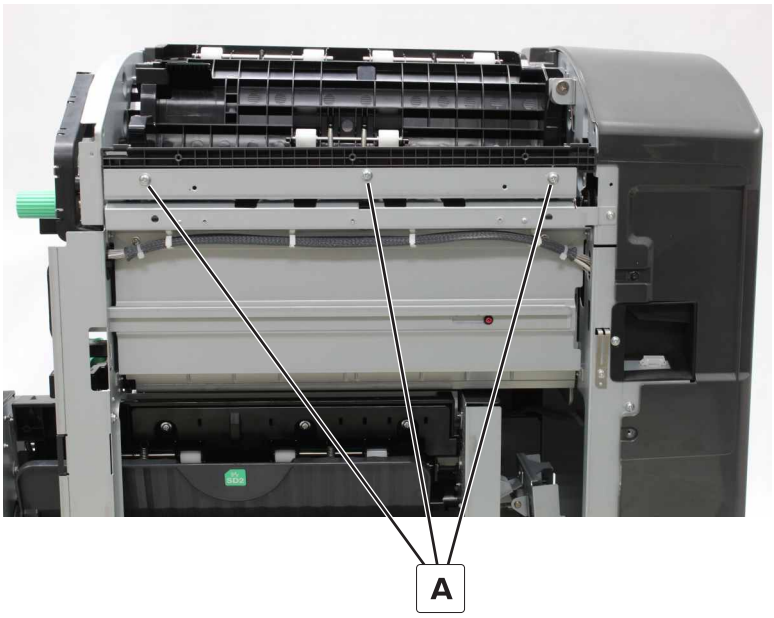
1 Remove the front door. See **“SHPF front door removal” on page 328**.

2 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

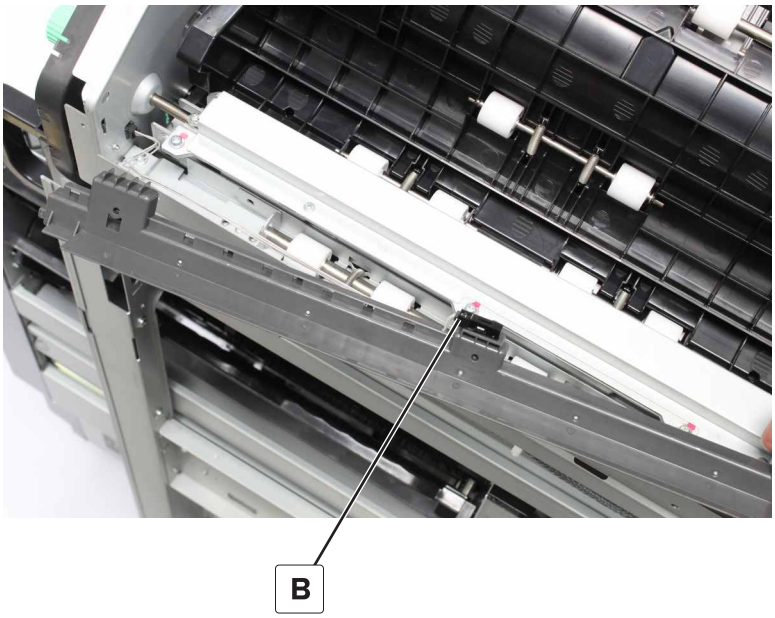
3 Remove the top door. See **“SHPF top door removal” on page 331**.

4 Remove the entrance guide. See **“SHPF entrance guide removal” on page 439**.

5 Remove the three screws (A), and then remove the sensor holder.



6 Disconnect the cable (B), and then remove the sensor.



SHPF entrance idler and roller removal

1 Remove the front door. See **“SHPF front door removal” on page 328**.

2 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

3 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

4 Remove the top door. See **“SHPF top door removal” on page 331**.

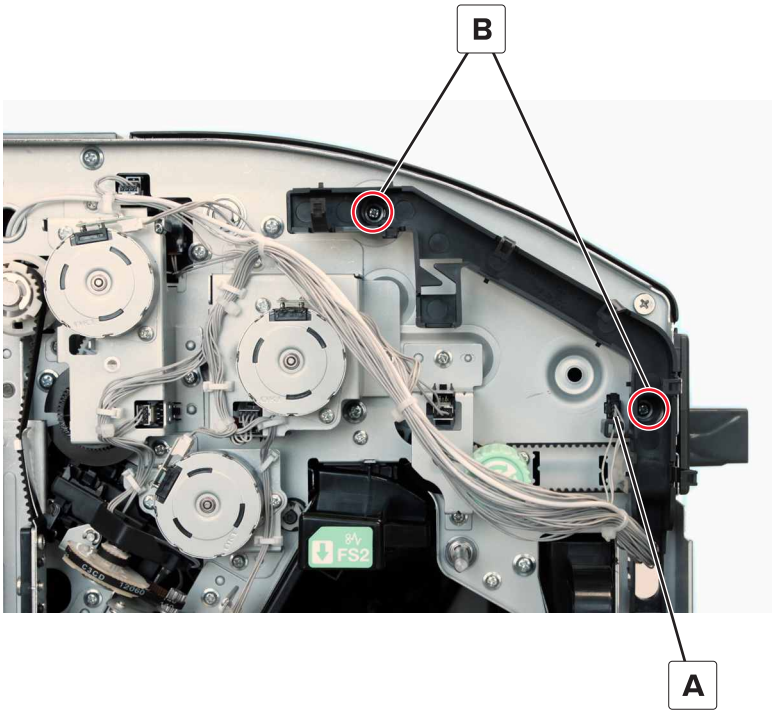
5 Remove the punch unit. See **“Punch unit removal” on page 357**.

6 Remove the entrance guide. See **“SHPF entrance guide removal” on page 439**.

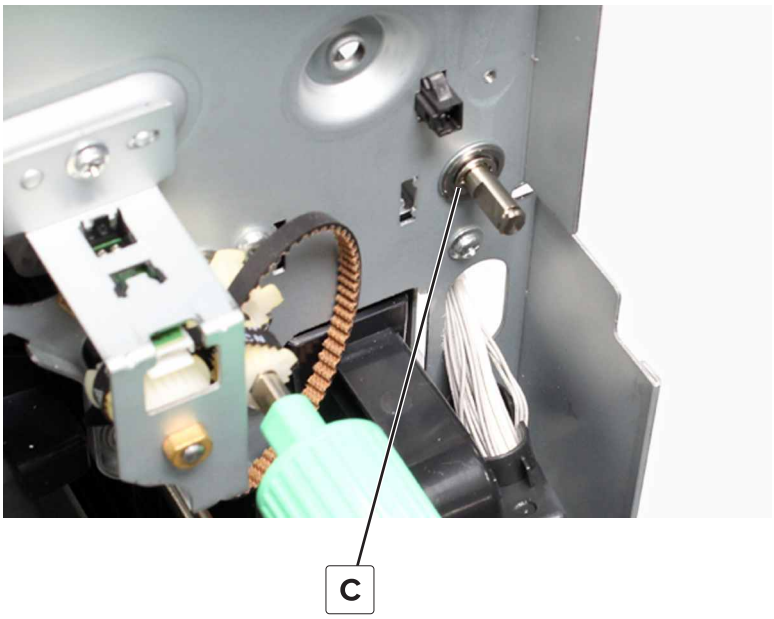
7 Remove the entrance sensor holder. See **“Sensor (SHPF entrance) removal” on page 439**.

8 Disconnect the cable (A).

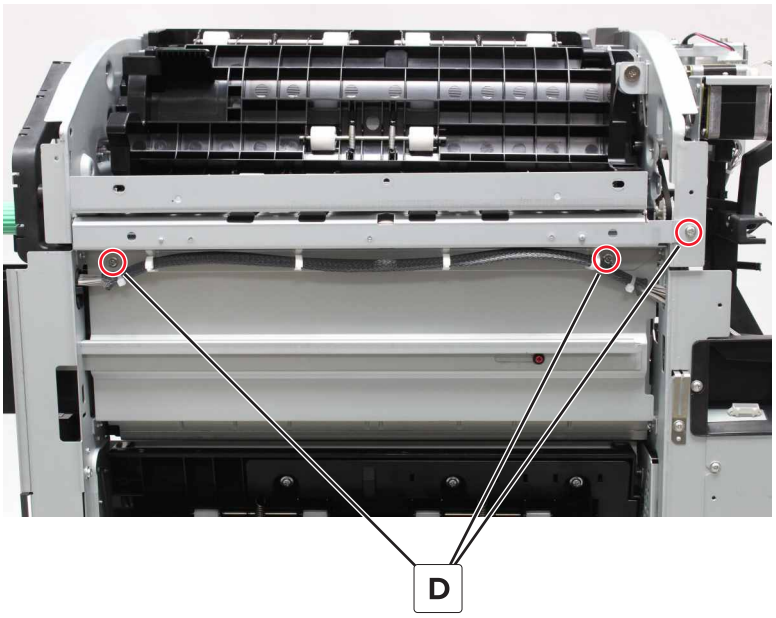
9 Remove the two screws (B), and then set aside the cable holder.



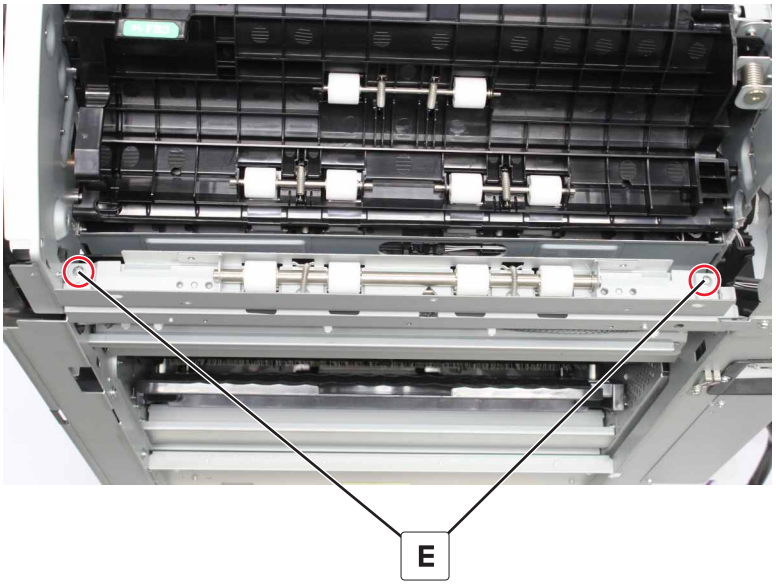
10 Remove the clip (C), and then remove the ball bearing.



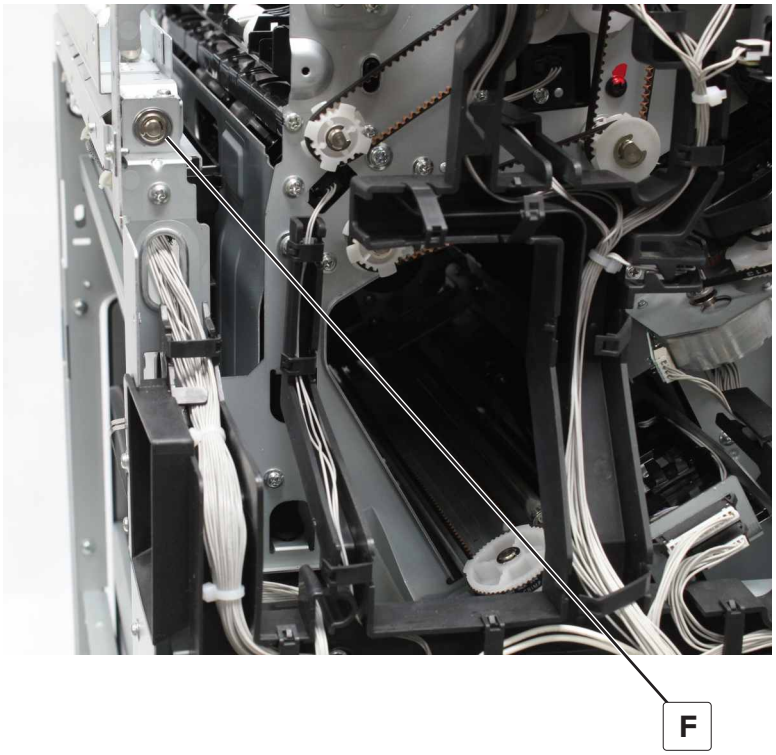
11 Remove the three screws (D).



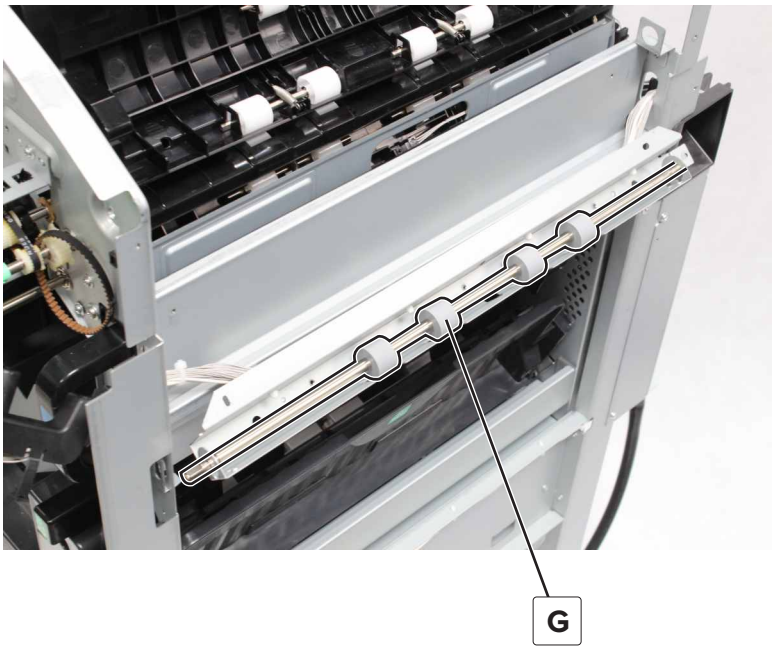
12 Remove the two screws (E), and then remove the idler bracket.



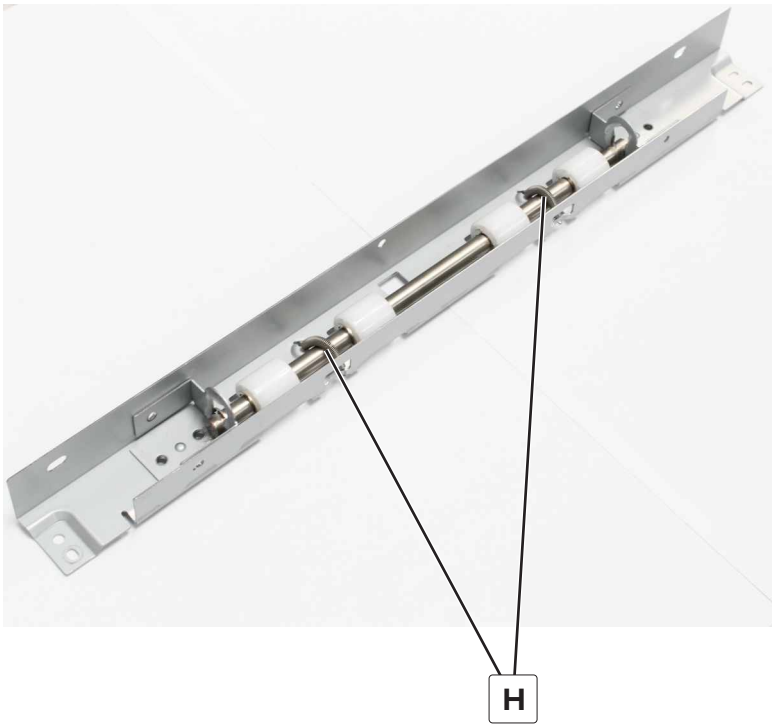
13 Remove the clip (F) and then remove the ball bearing.



14 Remove the roller (G)



15 Remove the two springs (H), and then remove the idler.



SHPF compiler bails removal

1 Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.

2 Remove the front door. See **“SHPF front door removal” on page 328**.

3 Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.

4 Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.

5 Remove the trailing edge stopper motor. See **“Motor (SHPF aligner) removal” on page 384**.

6 Remove the rear cover. See **“SHPF rear cover removal” on page 331**.

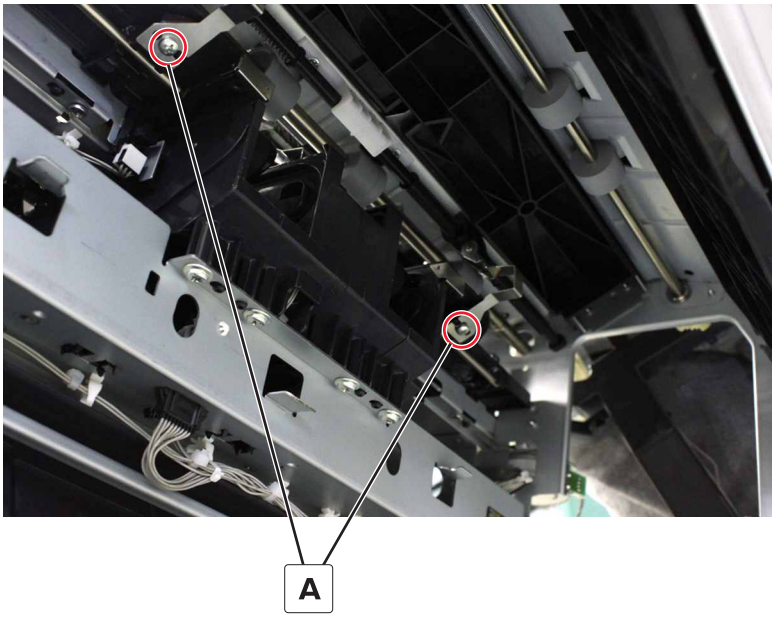
7 Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.

8 Remove the elevator bin stack limit actuator. See **“SHPF elevator bin stack limit actuator removal” on page 422**.

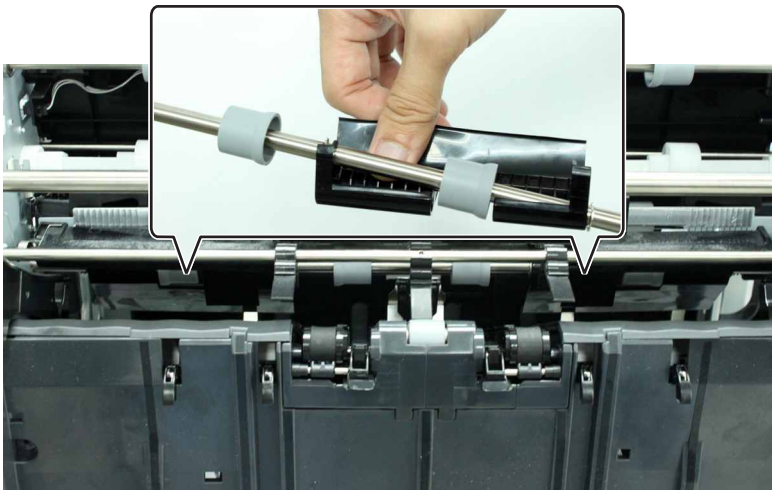
9 Remove the top bin. See **“SHPF top bin removal” on page 426**.

10 Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.

11 Remove the two screws (A) from the aligners.



12 Remove the two guides.

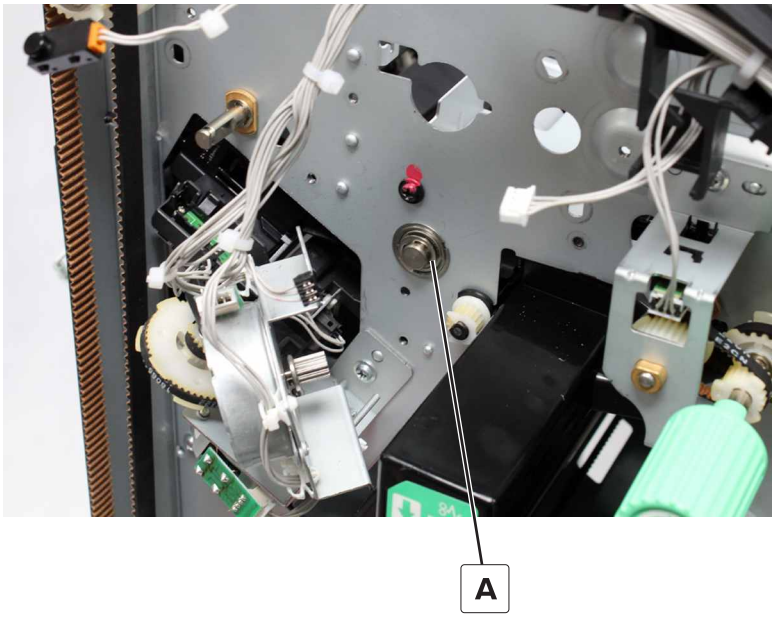


Installation note: Position the tabs of both bails over the metal frame.

SHPF compiler feed roller removal

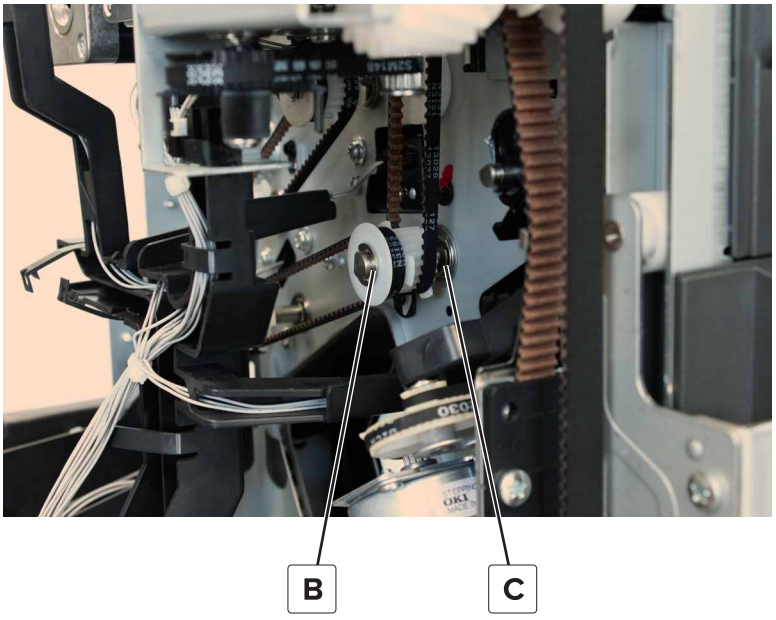
1. Remove the top bin extender. See **“SHPF top bin extender removal” on page 323**.
2. Remove the front door. See **“SHPF front door removal” on page 328**.
3. Remove the top inner cover. See **“SHPF top inner cover removal” on page 328**.
4. Remove the paddle motor bracket. See **“SHPF paddle motor bracket removal” on page 376**.
5. Remove the aligner motor bracket. See **“Motor (SHPF aligner) removal” on page 384**.
6. Remove the rear cover. See **“SHPF rear cover removal” on page 331**.
7. Remove the elevator motor bracket. See **“Motor (SHPF elevator) removal” on page 352**.
8. Remove the elevator bin stack limit actuator. See **“SHPF elevator bin stack limit actuator removal” on page 422**.
9. Remove the top bin. See **“SHPF top bin removal” on page 426**.
10. Remove the staple unit assembly. See **“SHPF staple unit assembly removal” on page 359**.
11. Remove the compiler bails. See **“SHPF compiler bails removal” on page 444**.

12 Remove the clip (A), and then remove the ball bearing.



13 Remove the clip (B), and then remove the washer, belt, and gear.

14 Remove the clip (C), and then remove the ball bearing.



15 Remove the roller.

Booklet maker removals

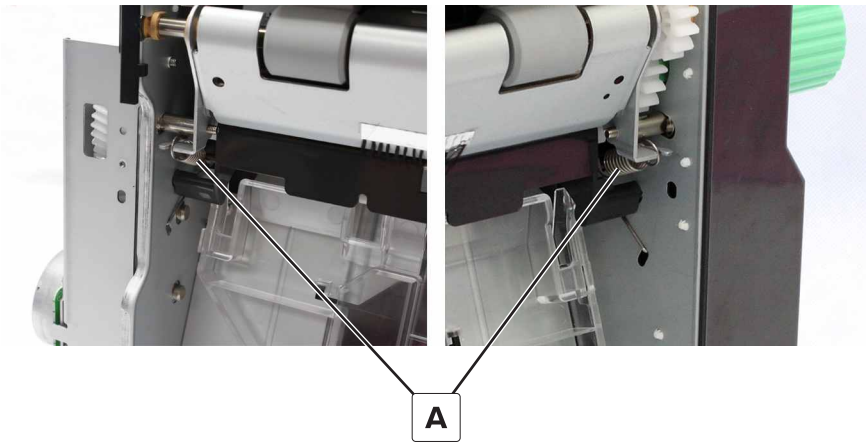
Trifold jam knob removal

1 Remove the screw (A).

2 Remove the knob.

Booklet maker exit roller springs removal

1 Disconnect the two springs (A) from the frame.

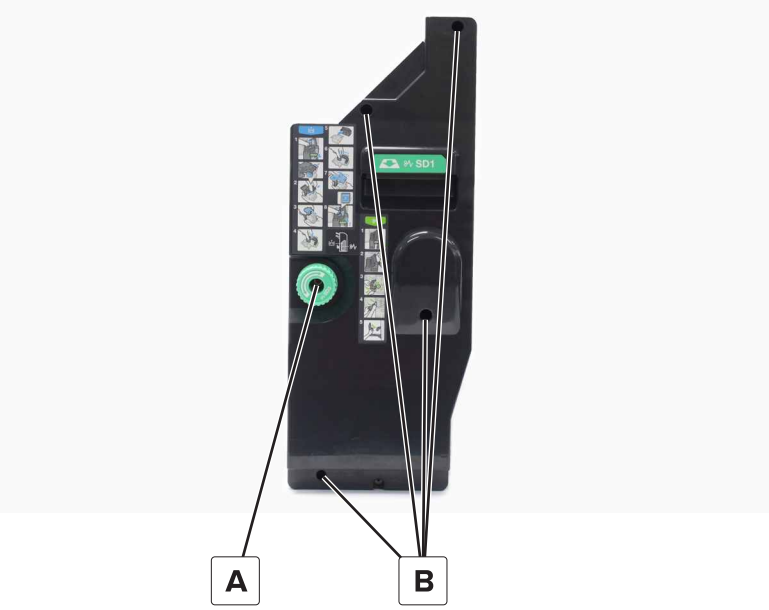


2 Remove the springs.

Booklet maker front cover removal

1 Remove the screw (A), and then remove the knob.

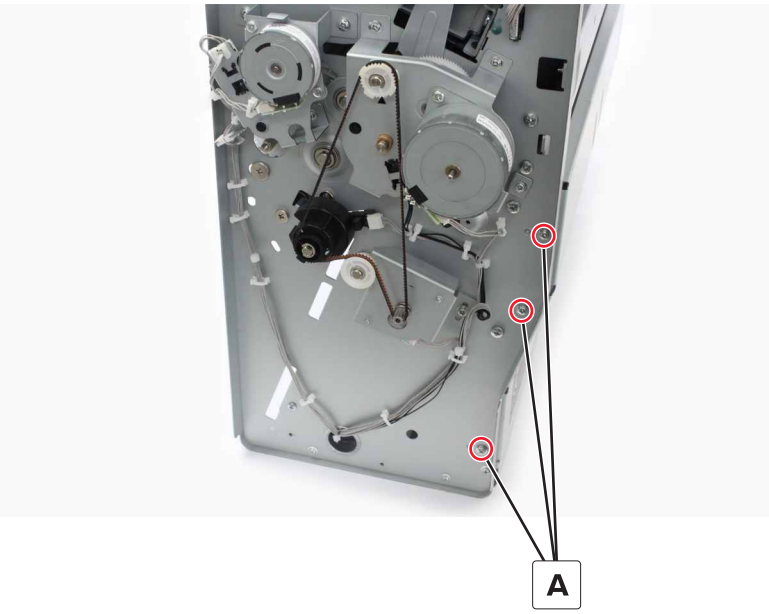
2 Remove the four screws (B), and then remove the cover.



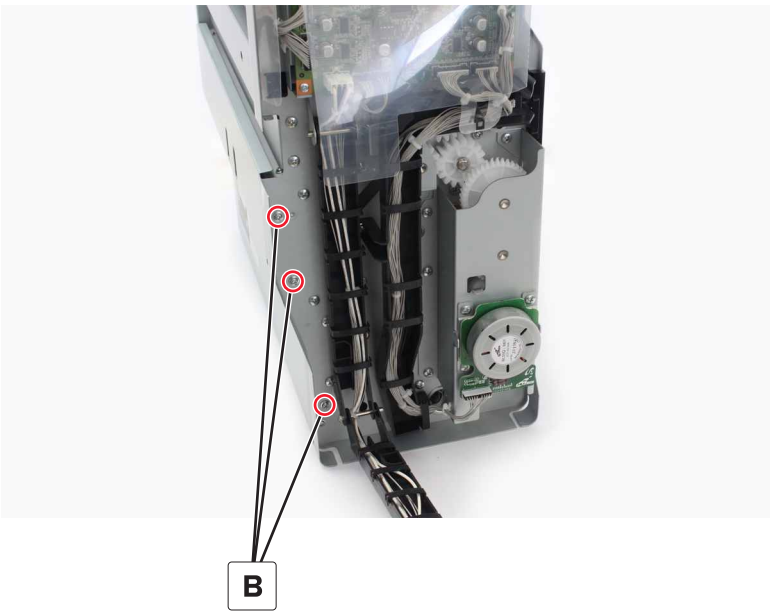
Booklet maker right cover removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the three screws (A).



3 Remove the three screws (B), and then remove the cover.

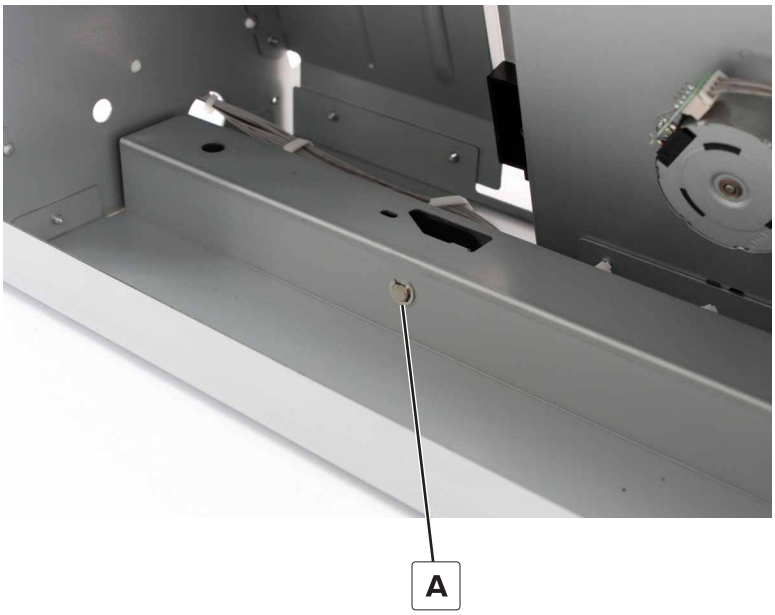


Booklet maker support removal

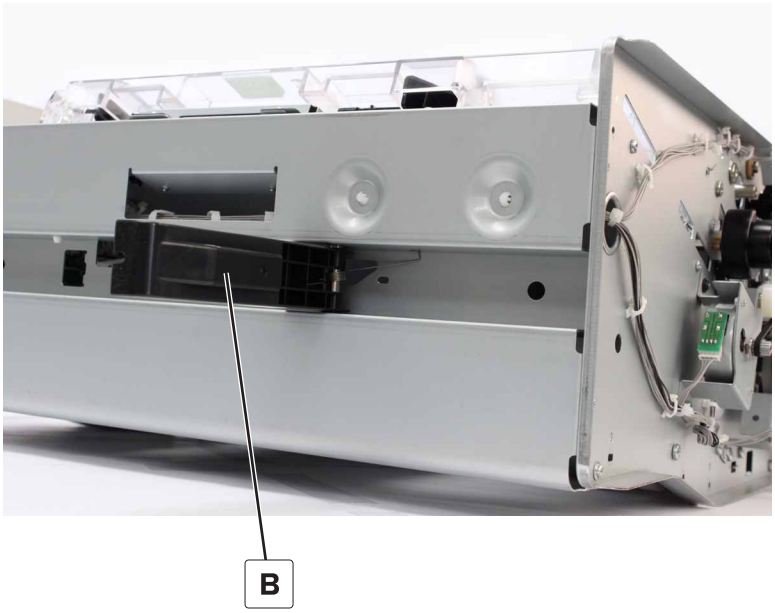
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

3 Remove the clip (A), and then remove the shaft.

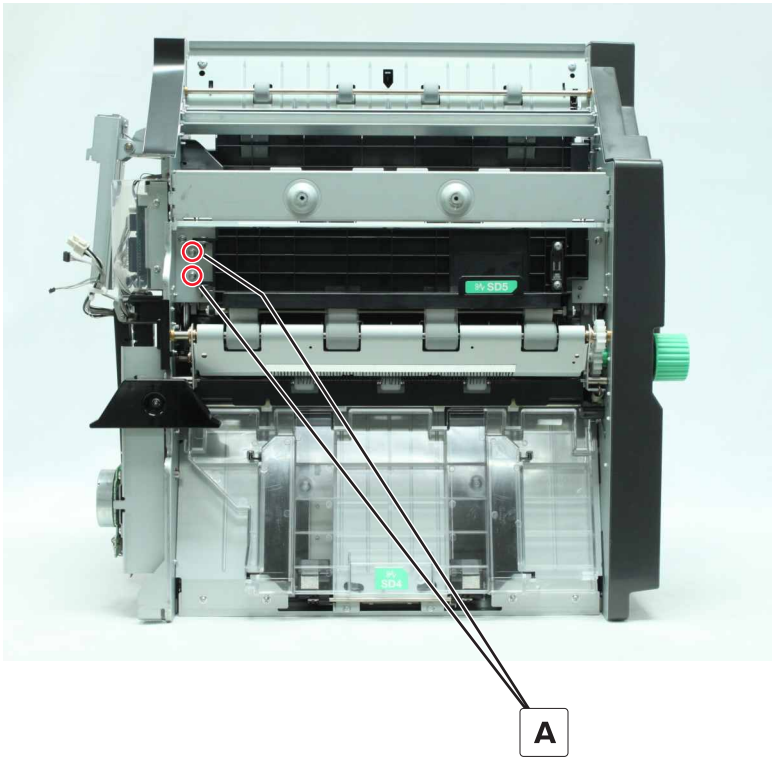


4 Remove the support (B).

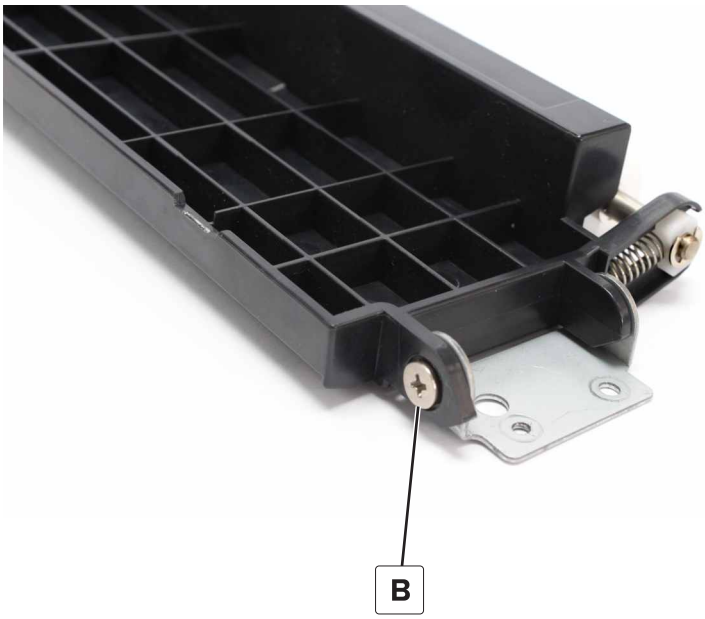


Bifold exit jam access door removal

1 Remove the two screws (A), and then remove the door.

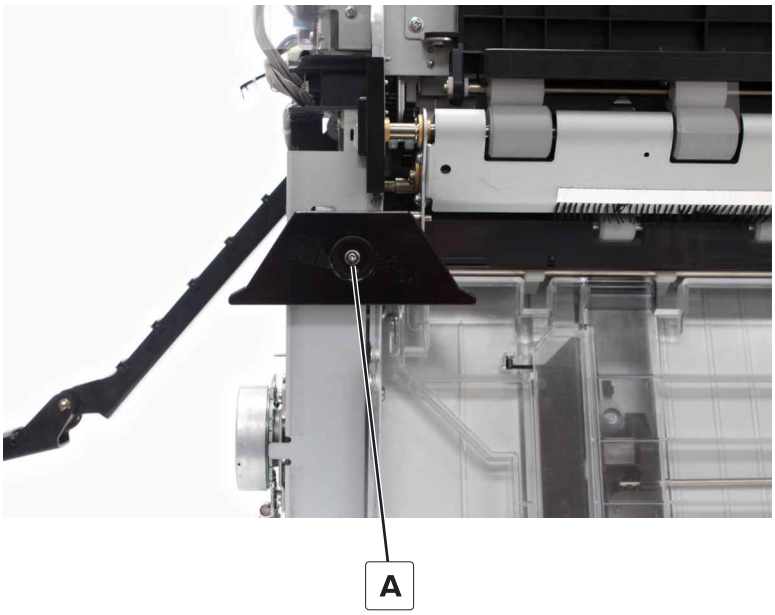


2 Remove the screw (B), and then remove the hinge.

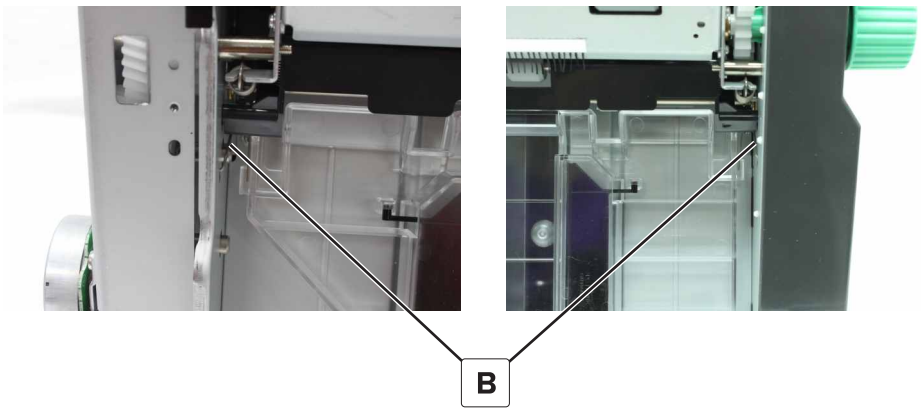


Booklet maker aligner jam access door removal

1 Remove the screw (A), and then remove the cover.

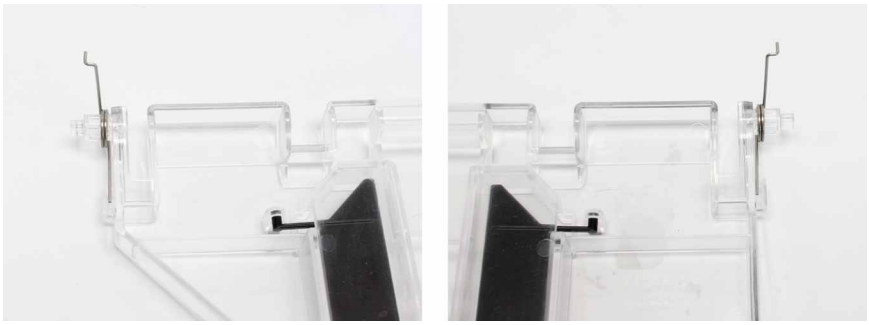


2 Release the two springs (B) from the frame.



3 Pry the rear hinge, and then remove the door.

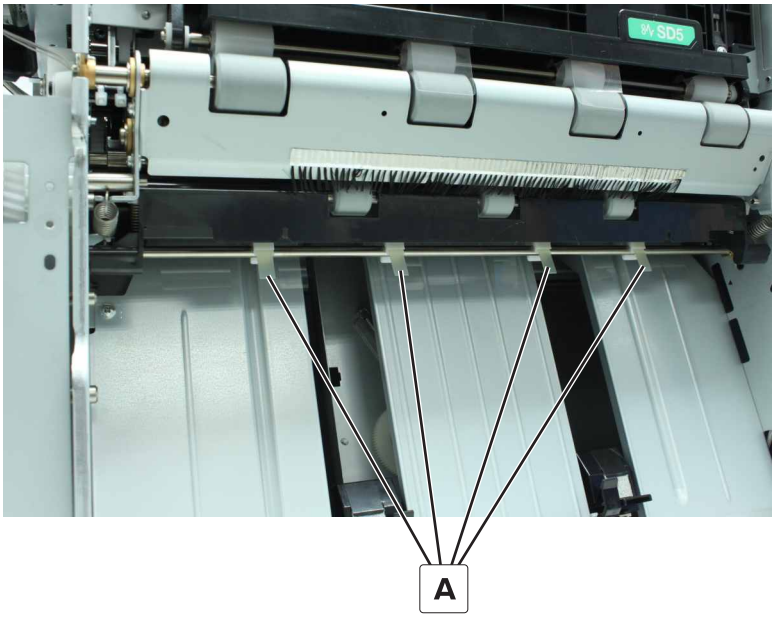
Installation note: Take note of the spring assignments.



Booklet maker lower paddle removal

1 Remove the aligner jam access door. See **"Booklet maker aligner jam access door removal" on page 452**.

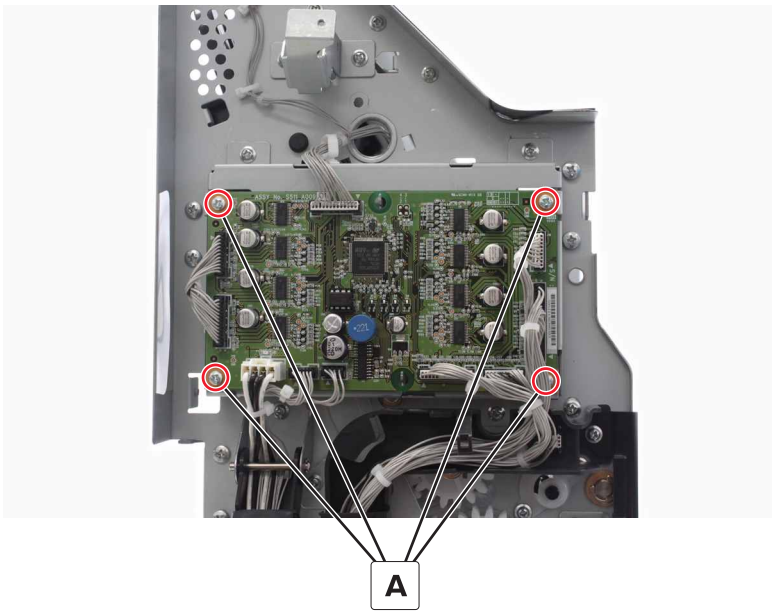
2 Remove the four paddles (A).



Booklet maker controller board removal

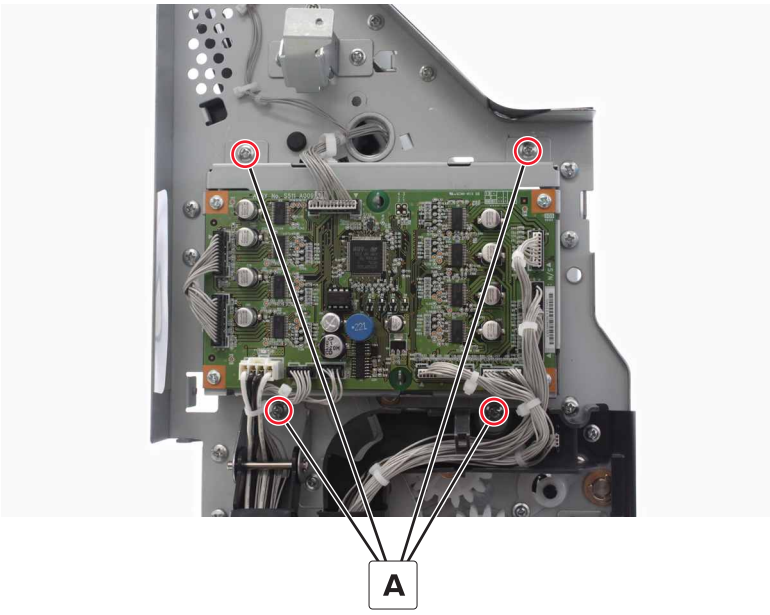
1 Disconnect all the cables from the board.

2 Remove the four screws (A), and then remove the board.



Booklet maker controller board holder removal

1 Remove the four screws.



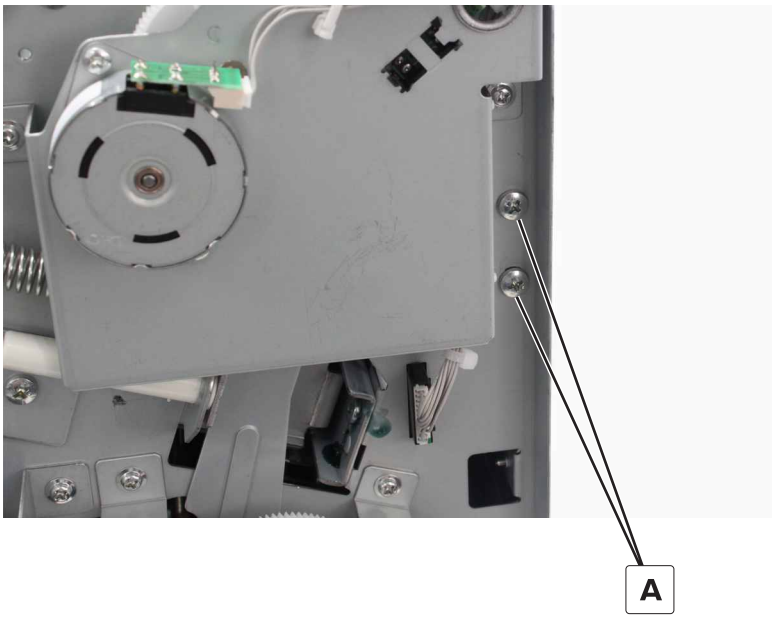
2 Remove the holder.

Top frame brace removal

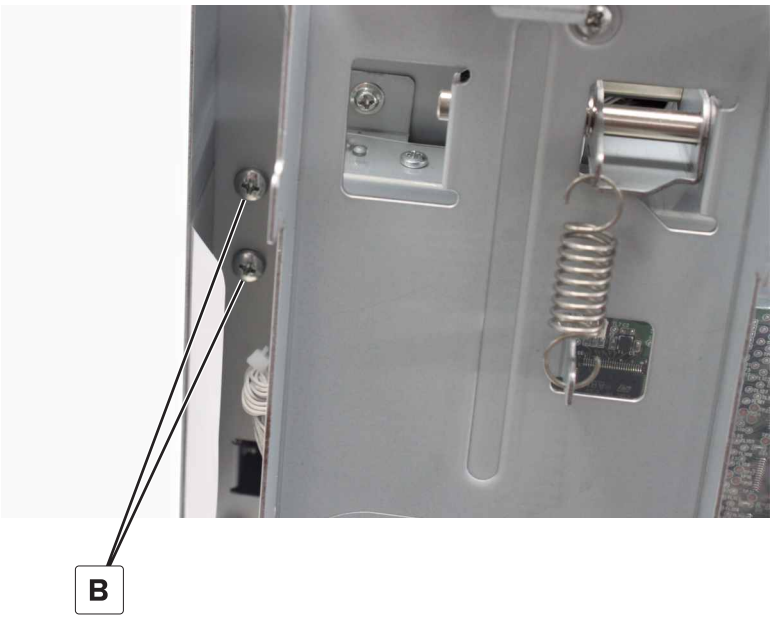
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

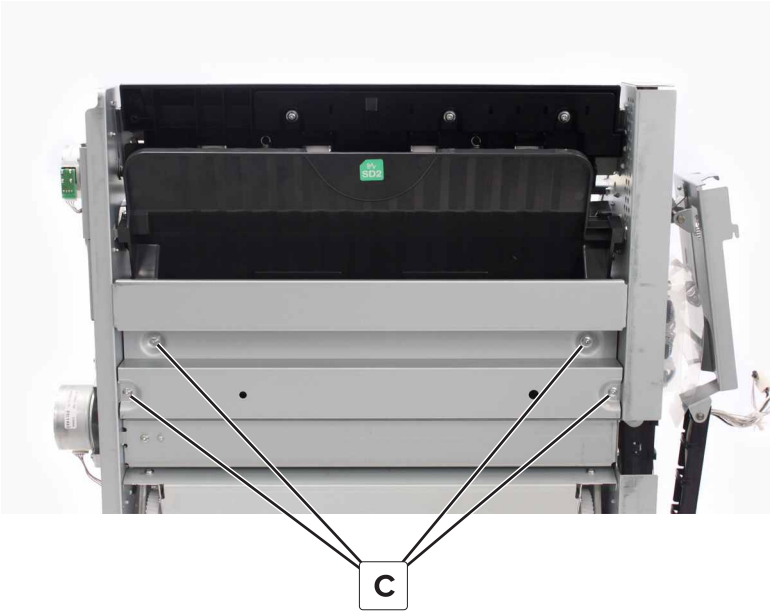
3 Remove the two screws (A).



4 Remove the two screws (B).



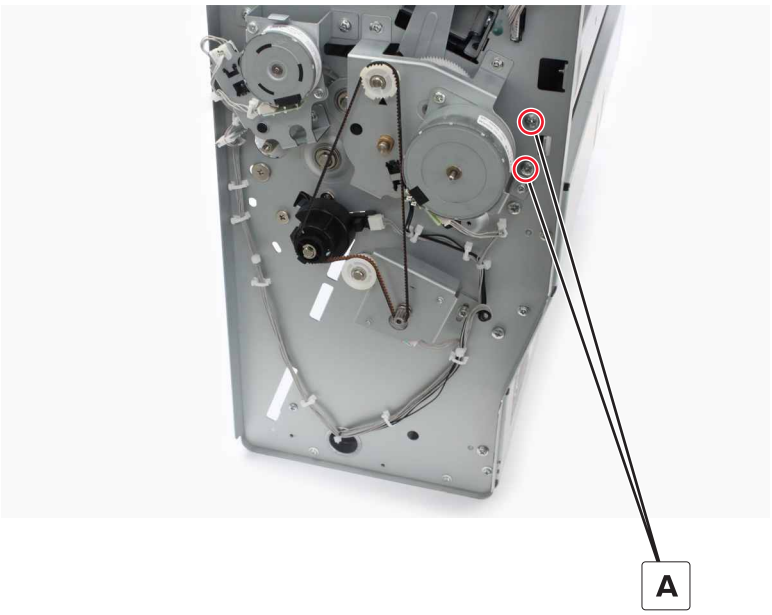
5 Remove the four screws (C), and then remove the brace.



Middle frame brace removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the two screws (A).



3 Remove the two screws (B), and then remove the brace.

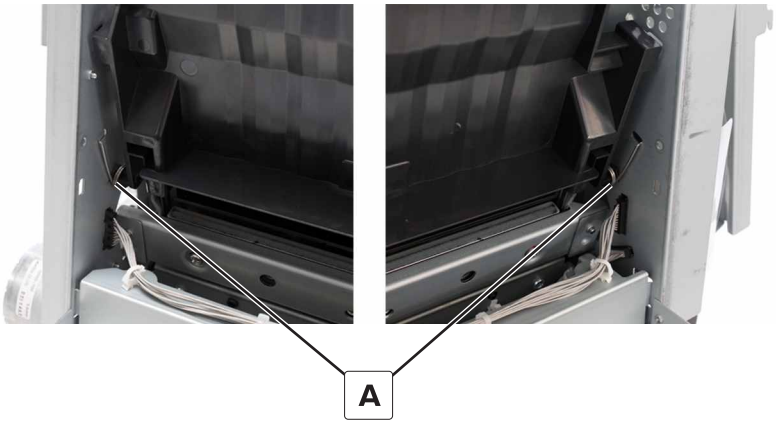
Booklet maker jam access door removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

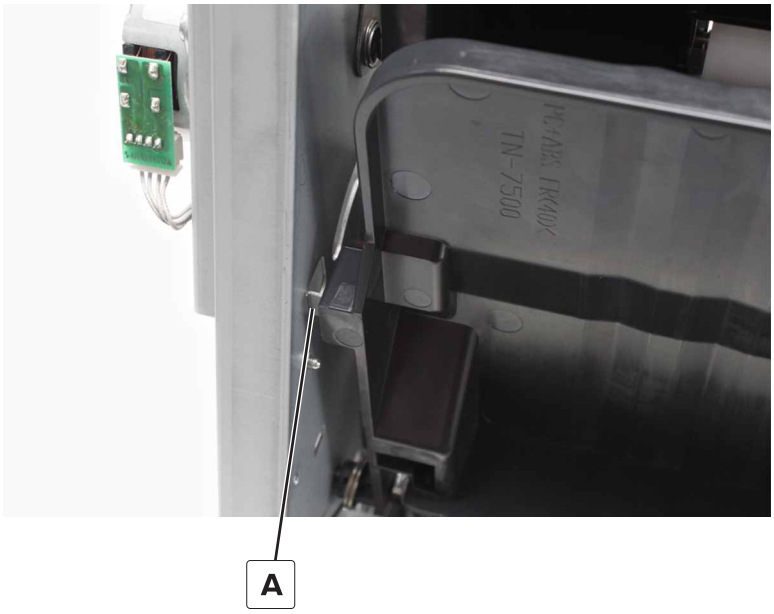
3 Remove the top frame brace. See **“Top frame brace removal” on page 455**.

4 Disconnect the two springs (A) from the frame.



5 Pry the front hinge, and then remove the jam access door.

Installation note: Position the tab (A) behind the door, and then check for proper movement of the door.



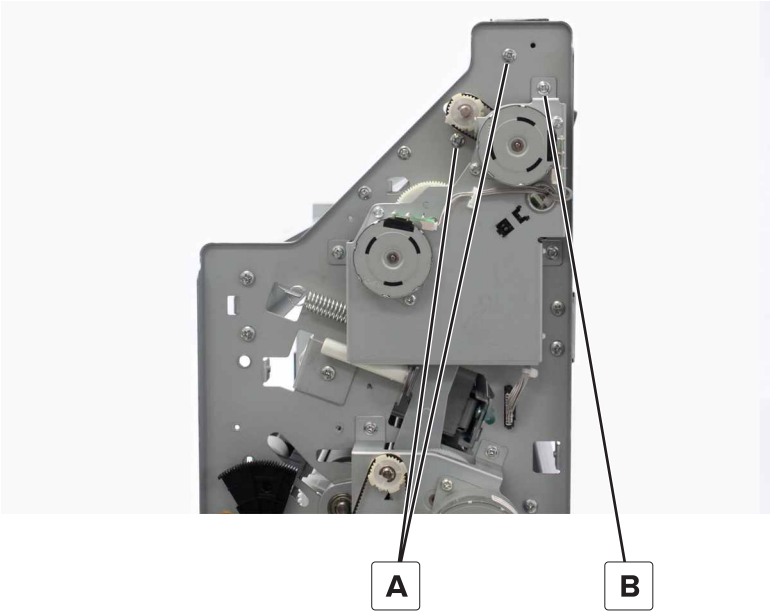
Booklet maker transport paper guide assembly removal

Note: This part is not a FRU.

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

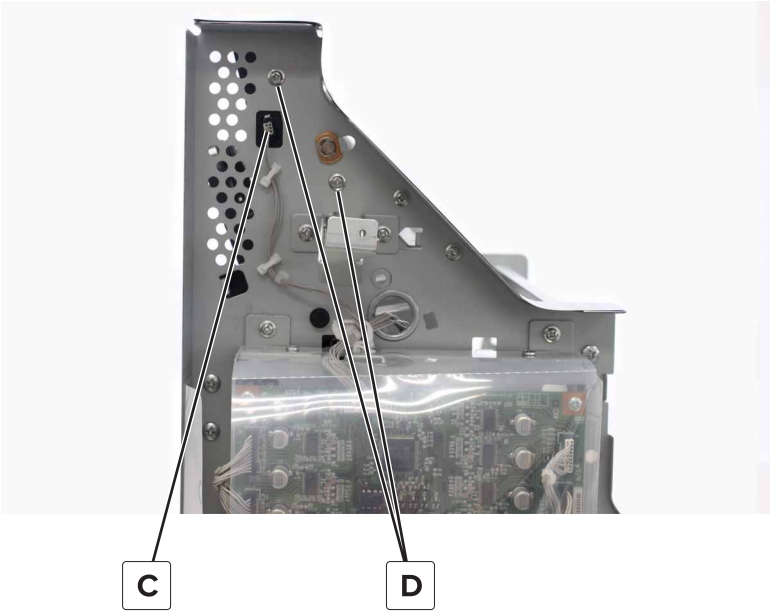
2 Remove the two screws (A).

3 Loosen the screw (B).



4 Disconnect the cable (C).

5 Remove the two screws (D), and then remove the assembly.

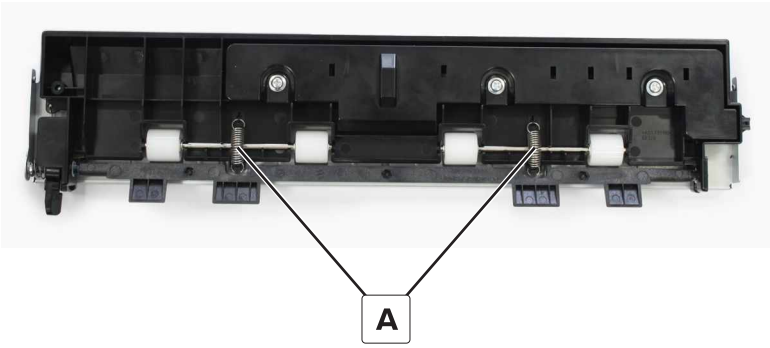


Booklet maker transport idler rollers removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the transport paper guide assembly. See **“Booklet maker transport paper guide assembly removal” on page 458**.

3 Remove the two springs (A), and then remove the rollers.

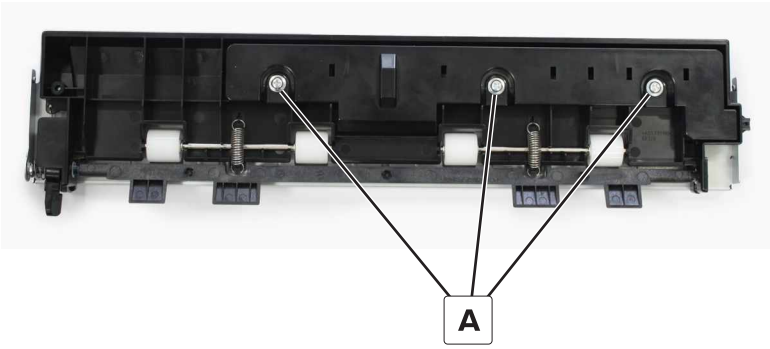


Sensor (booklet maker transport) removal

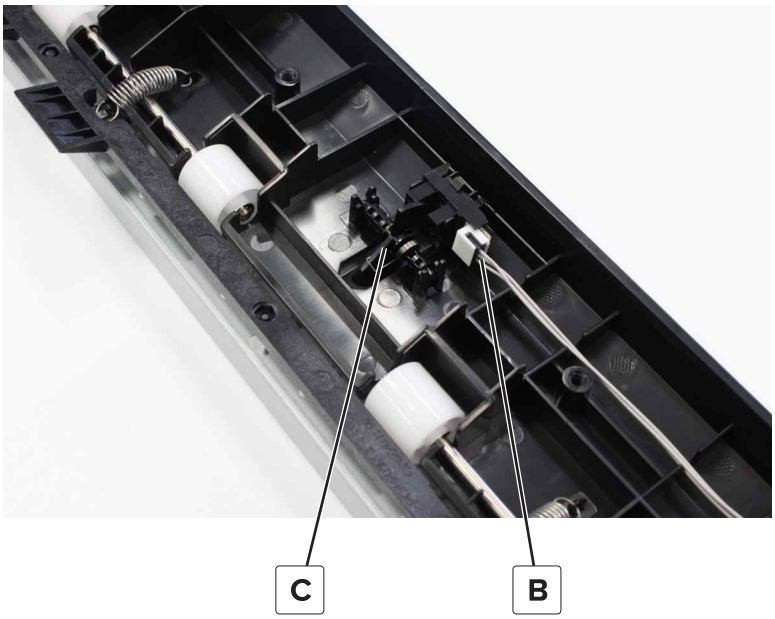
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the transport paper guide assembly. See **“Booklet maker transport paper guide assembly removal” on page 458**.

3 Remove the three screws (A), and then remove the cover.



4 Disconnect the cable (B), and then remove the sensor or actuator (C).

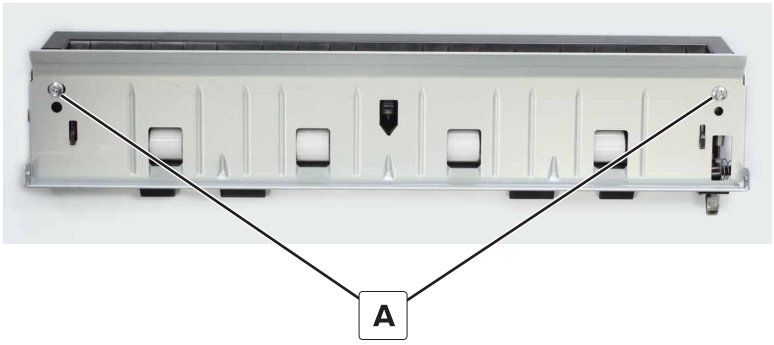


Booklet maker decurl lever removal

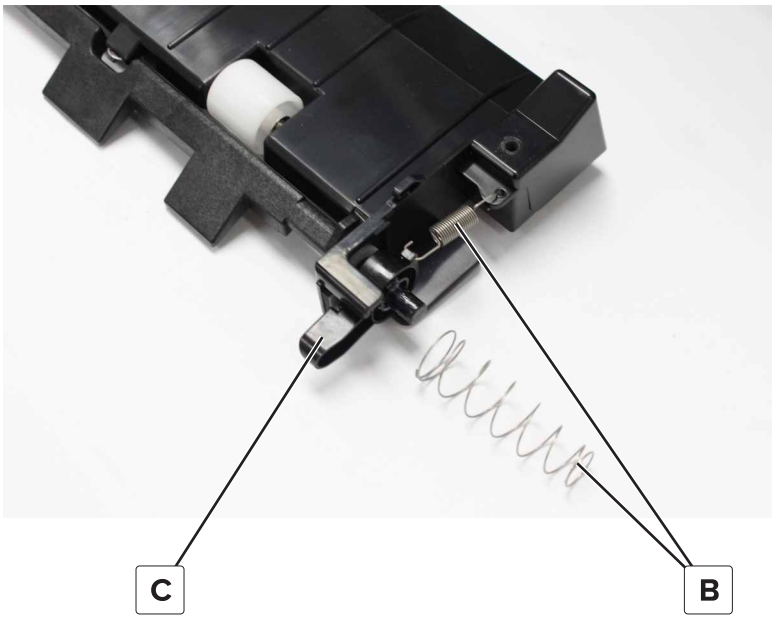
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the transport paper guide assembly. See **“Booklet maker transport paper guide assembly removal” on page 458**.

3 Remove the two screws (A), and then remove the plate.



4 Remove the two springs (B), and then remove the lever (C).



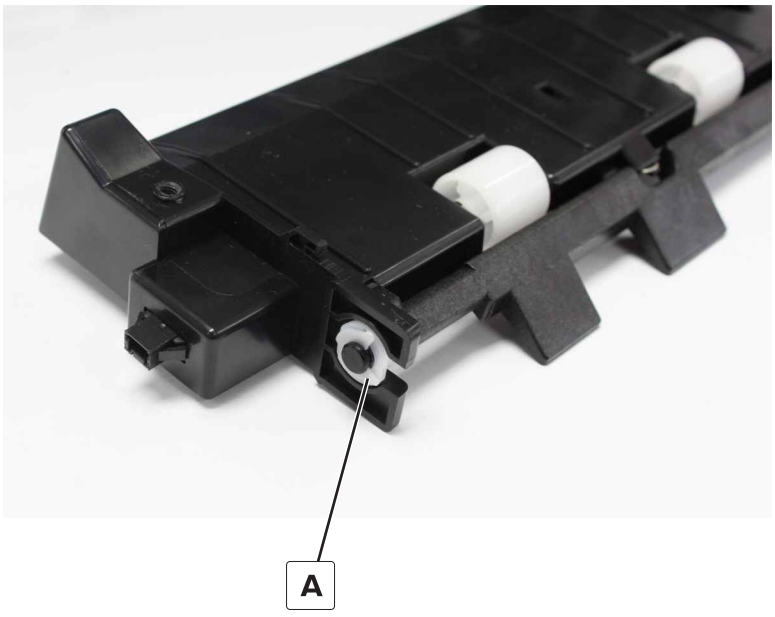
Booklet maker transport paper guide lever removal

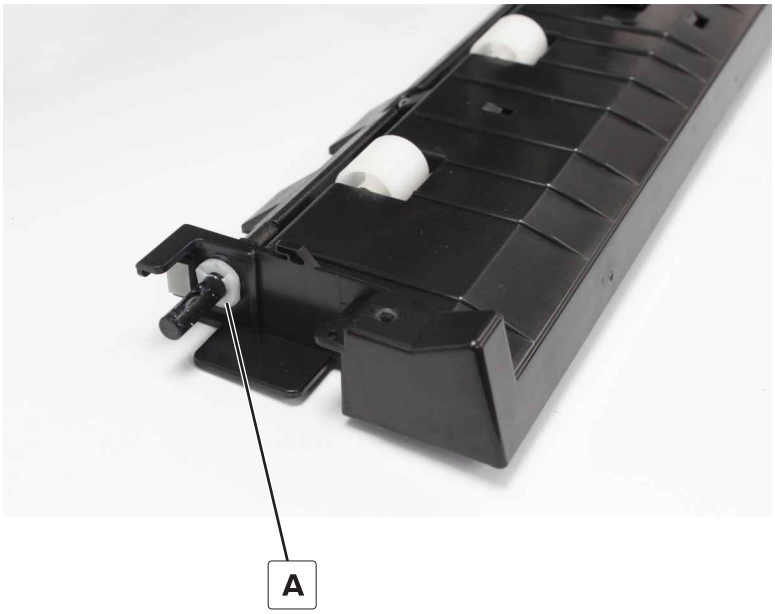
1 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

2 Remove the transport paper guide assembly. See **"Booklet maker transport paper guide assembly removal" on page 458**.

3 Remove the decurl lever. See **"Booklet maker decurl lever removal" on page 461**.

4 Remove the two clips (A), and then remove the bushings.



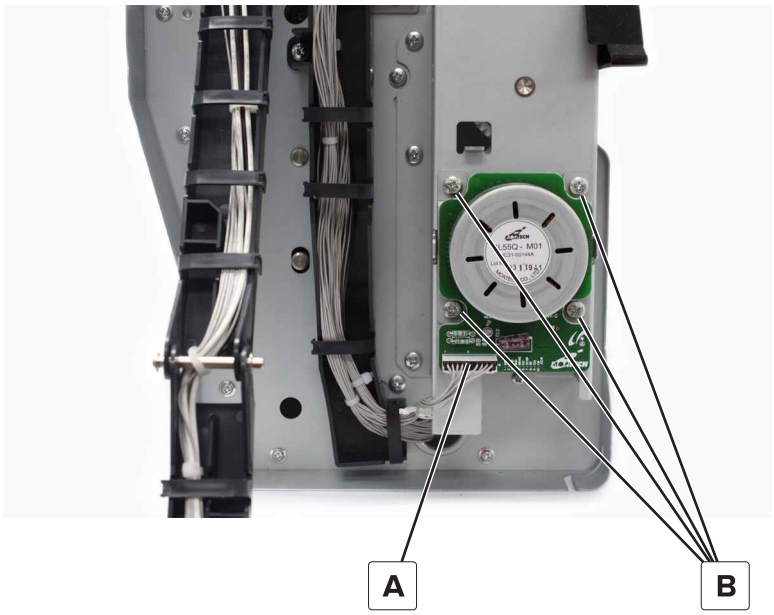


5 Remove the lever.

Motor (bifold roller) removal

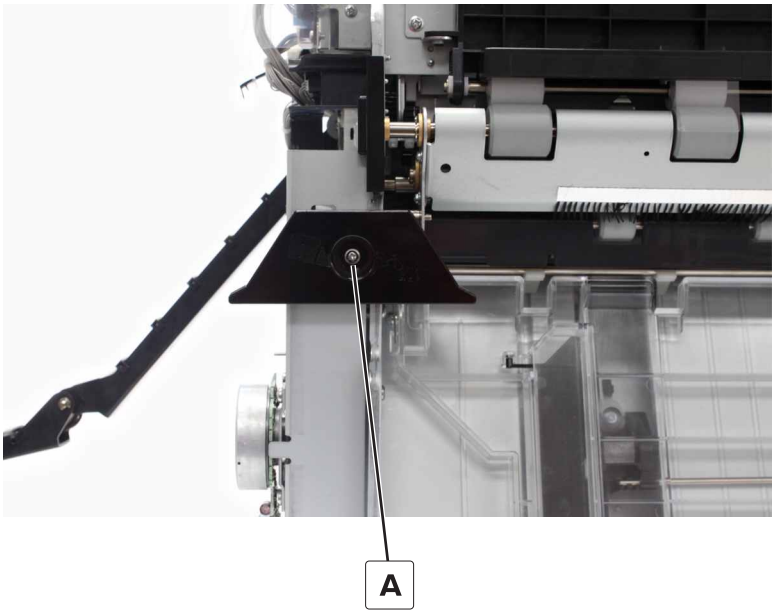
1 Disconnect the cable (A).

2 Remove the four screws (B), and then remove the motor.

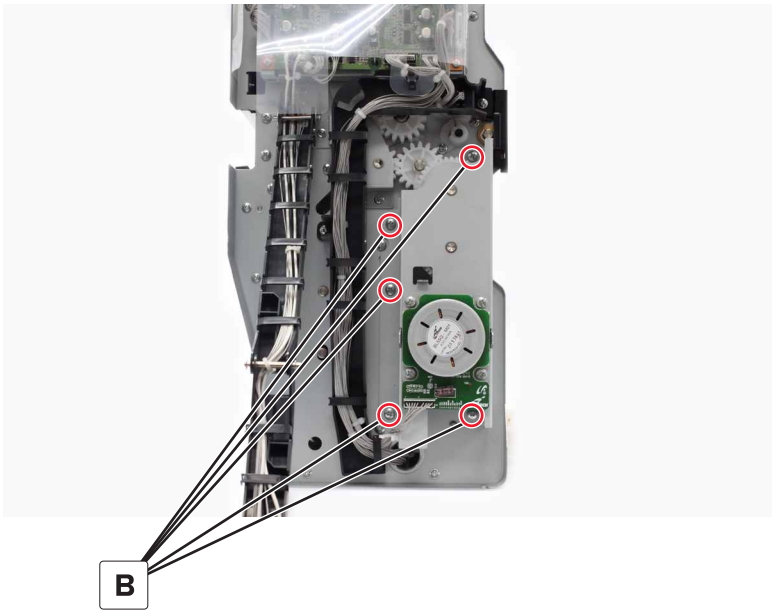


Bifold roller gears removal

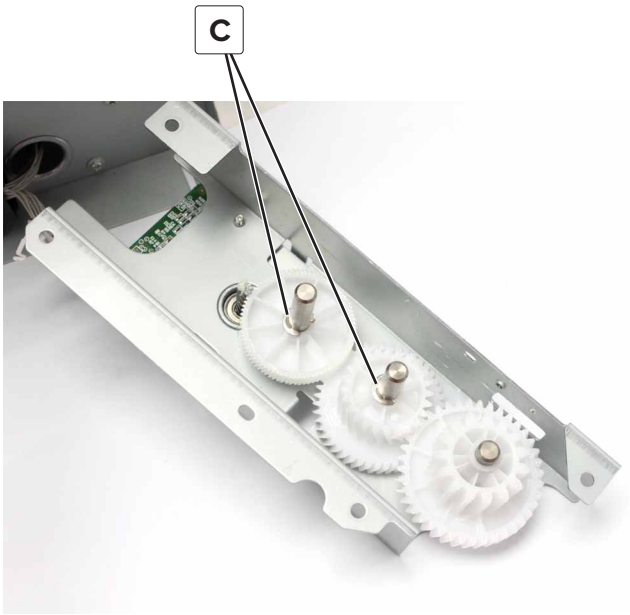
1 Remove the screw (A), and then remove the cover.



2 Remove the five screws (B), and then remove the bracket.



3 Remove the two clips (C), and then remove the three gears.



Trifold rollers removal

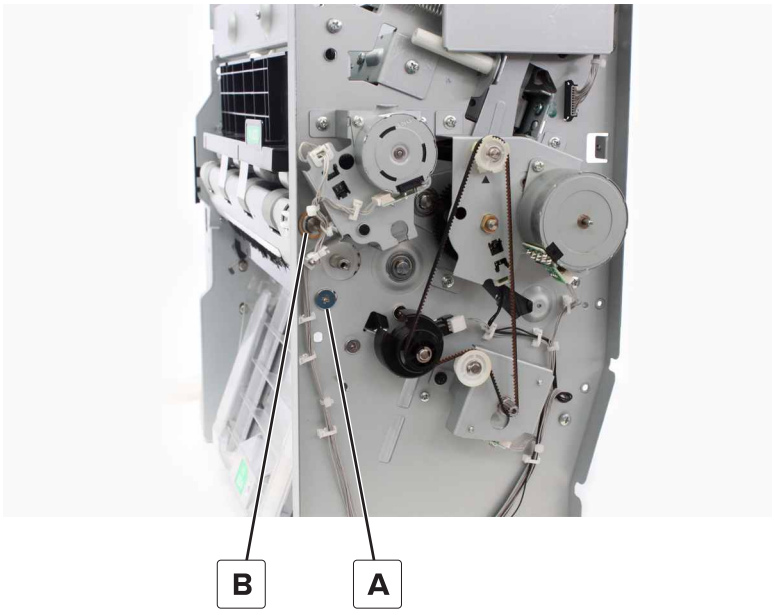
1 Remove the exit roller springs. See **“Booklet maker exit roller springs removal” on page 448**.

2 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

3 Remove the bifold roller gears bracket. See **“Bifold roller gears removal” on page 464**.

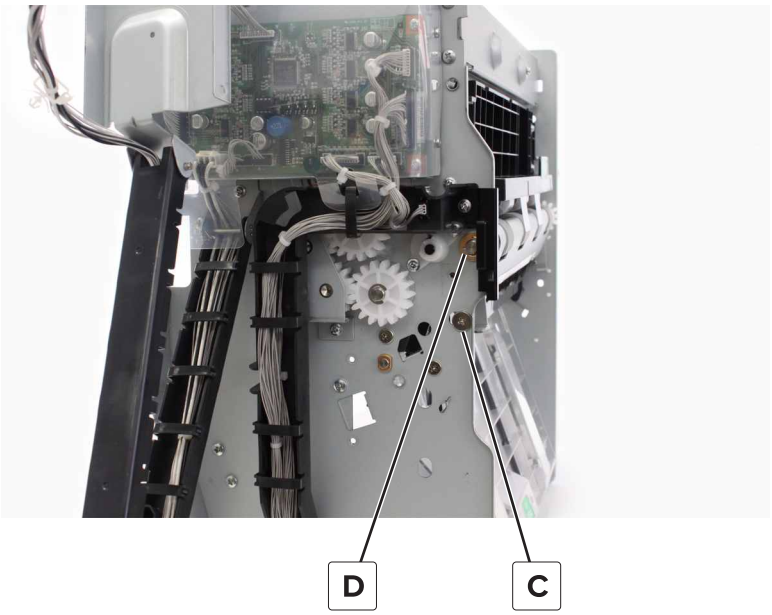
4 Remove the screw (A).

5 Remove the clip (B), and then remove the bushing.



6 Remove the screw (C).

7 Remove the clip (D), and then remove the bushing.



8 Remove the rollers.

Trifold gears removal

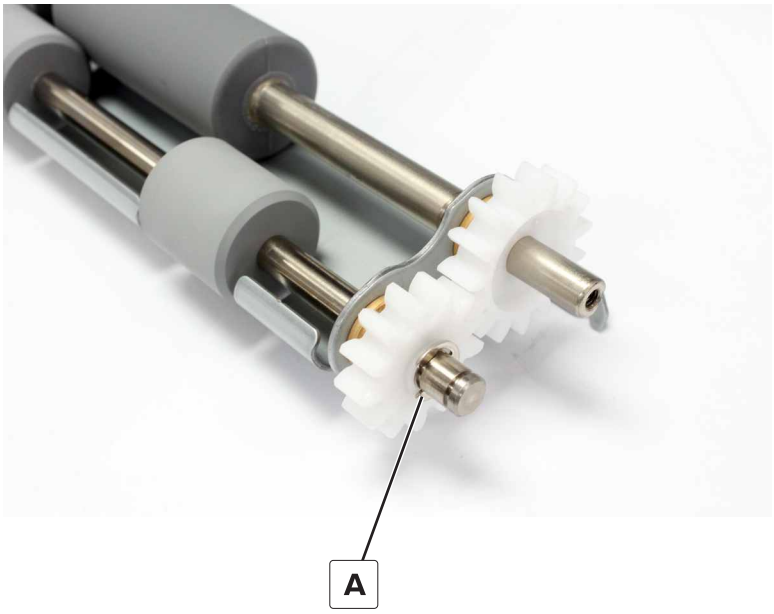
1 Remove the exit roller springs. See **"Booklet maker exit roller springs removal" on page 448**.

2 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

3 Remove the bifold roller gears bracket. See **"Bifold roller gears removal" on page 464**.

4 Remove the trifold rollers. See **"Trifold rollers removal" on page 465**.

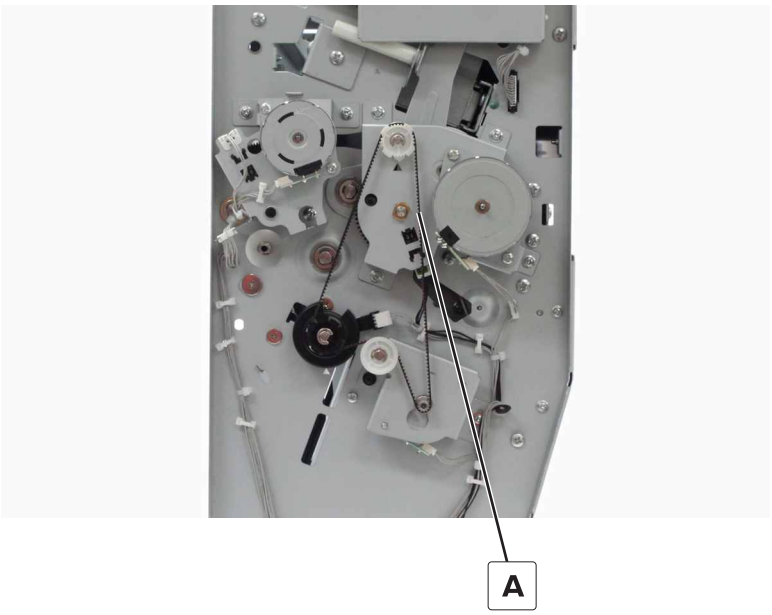
5 Remove the clip (A), and then remove the two gears.



Booklet maker paddle belt removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the belt (A).

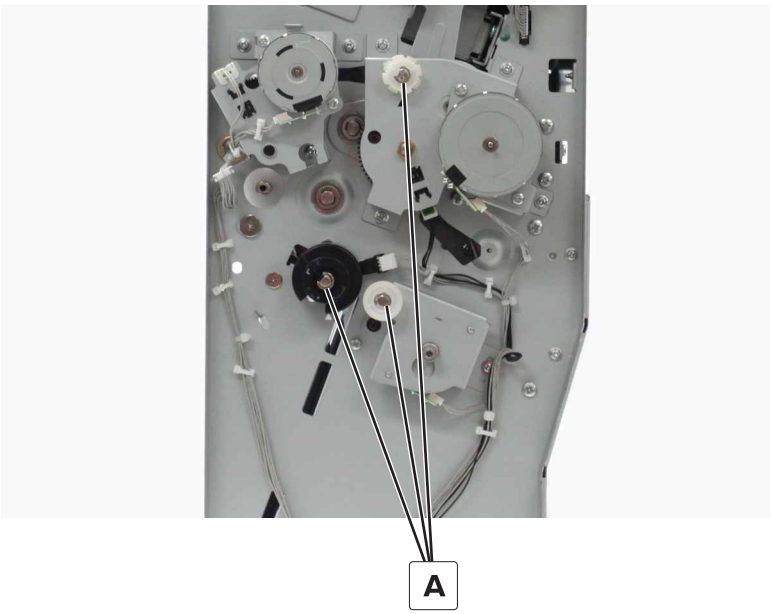


Booklet maker paddle gears removal

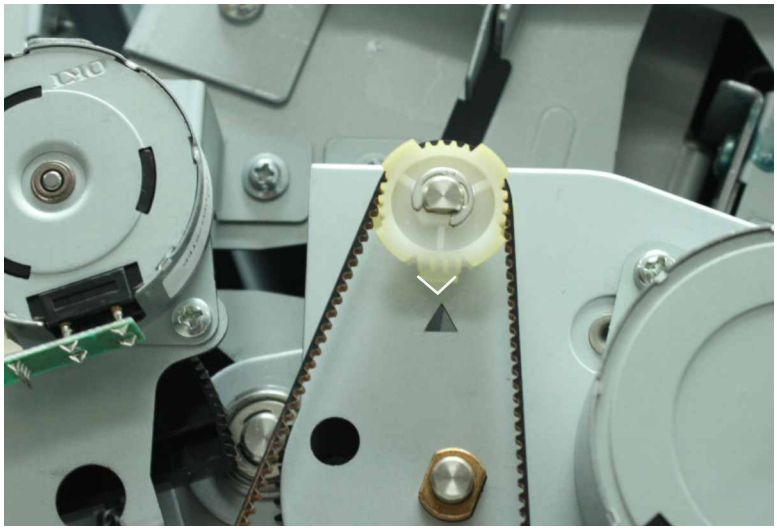
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

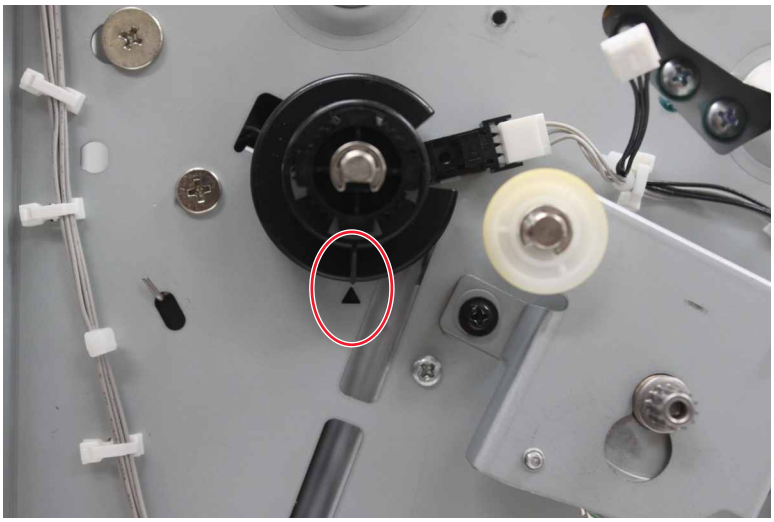
2 Remove the paddle belt. See **“Booklet maker paddle belt removal” on page 467**.

3 Remove the three clips (A), and then remove the gears.



Installation note: Align the pointers on the gears with the triangles on the frame.

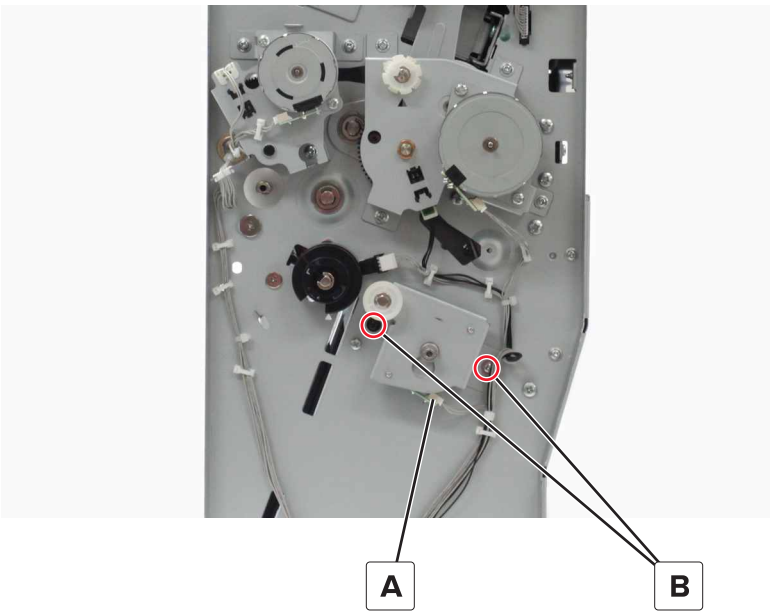




Motor (booklet maker paddle) removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the paddle belt. See **“Booklet maker paddle belt removal” on page 467**.
3. Disconnect the cable (A).

4 Remove the two screws (B), and then remove the motor bracket.



5 Remove the two screws (C), and then remove the motor.

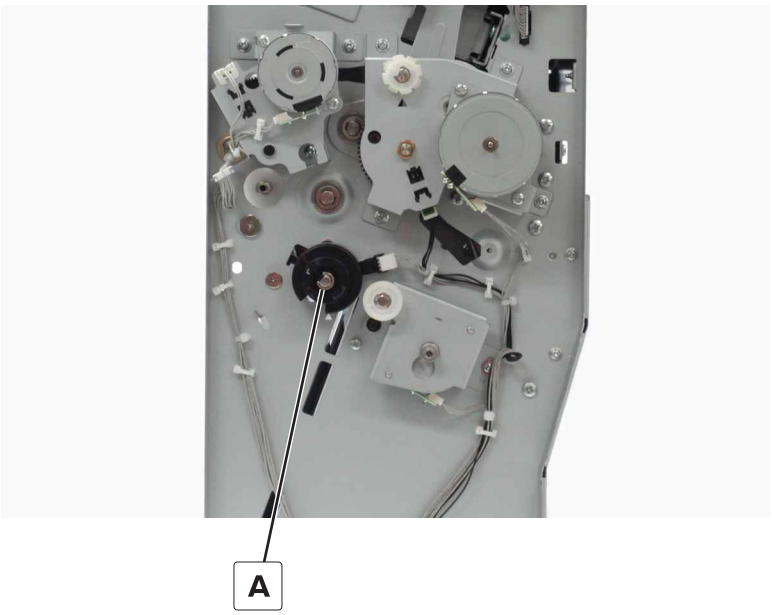
Installation note: Rotate the bracket counterclockwise to tighten the belt before installing all the screws.

Sensor (booklet maker paddle home) removal

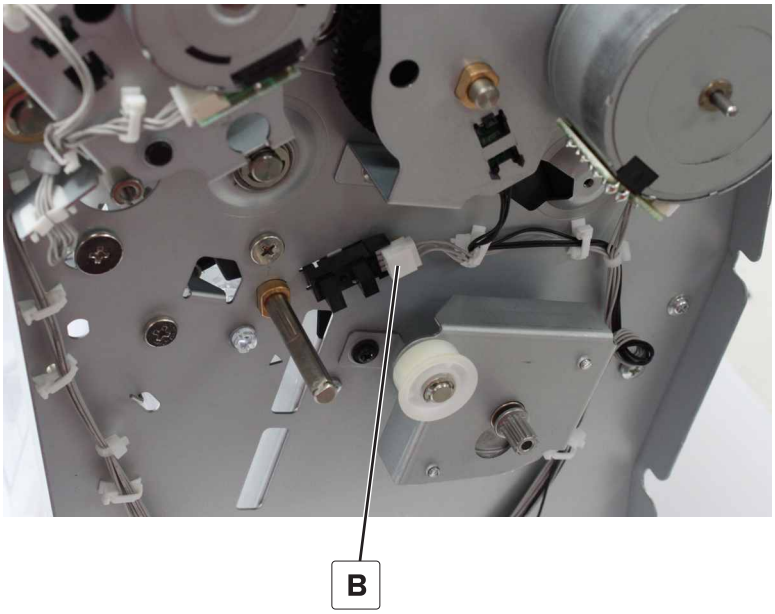
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the paddle belt. See **“Booklet maker paddle belt removal” on page 467**.

3 Remove the clip (A), and then remove the encoder.



4 Disconnect the cable (B), and then remove the sensor.

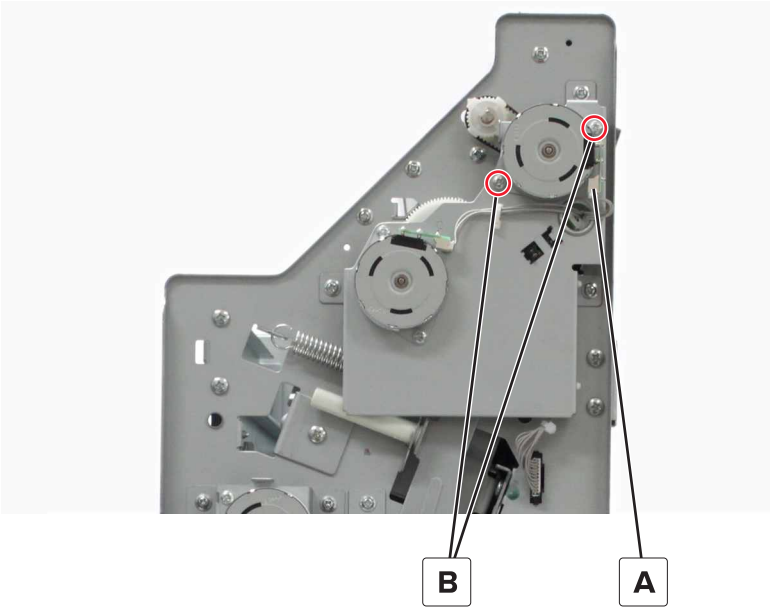


Motor (booklet maker transport) removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor.

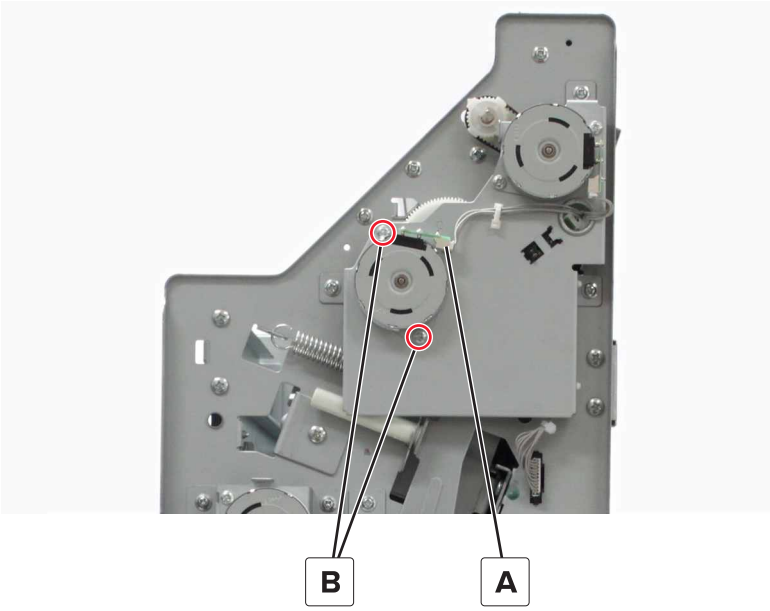


Motor (booklet maker decurl) removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

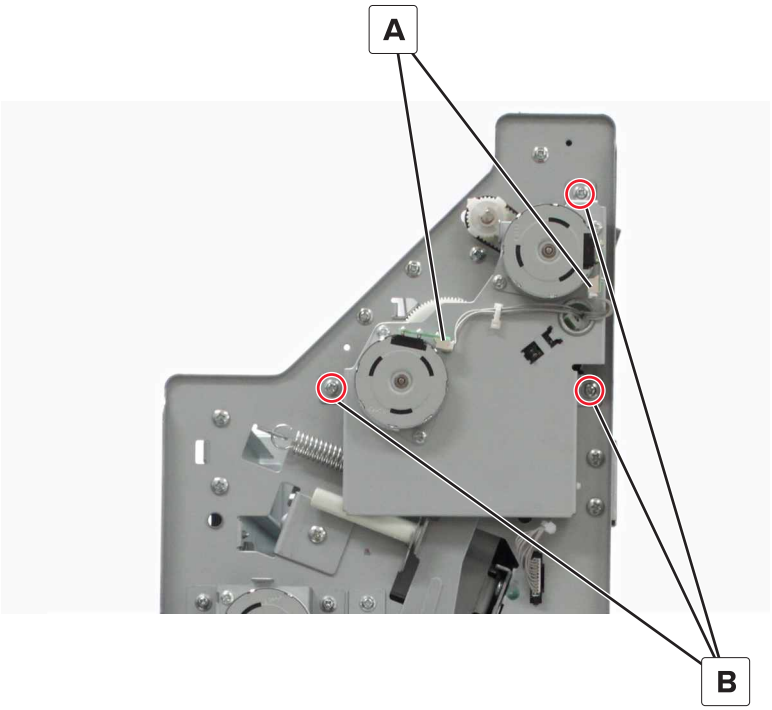
2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor.



Transport and decurl motor bracket removal

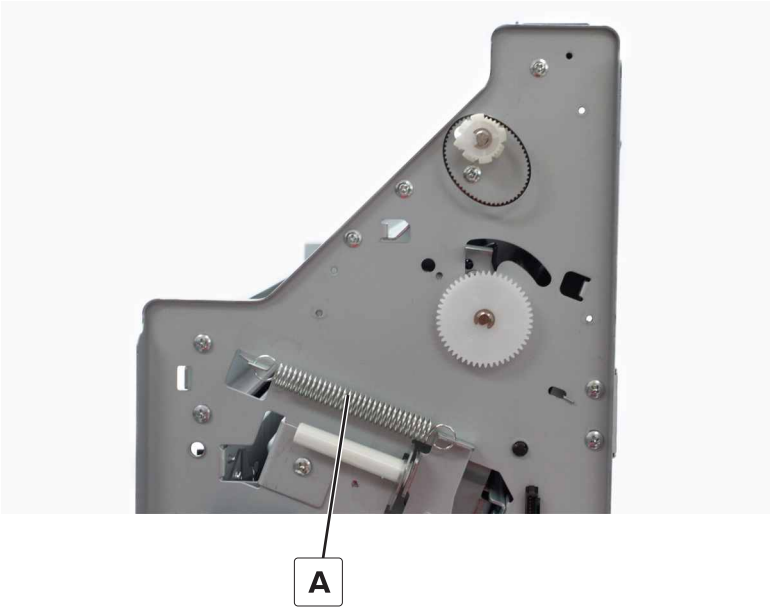
1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Disconnect the two cables (A).
3. Remove the three screws (B), and then remove the bracket.



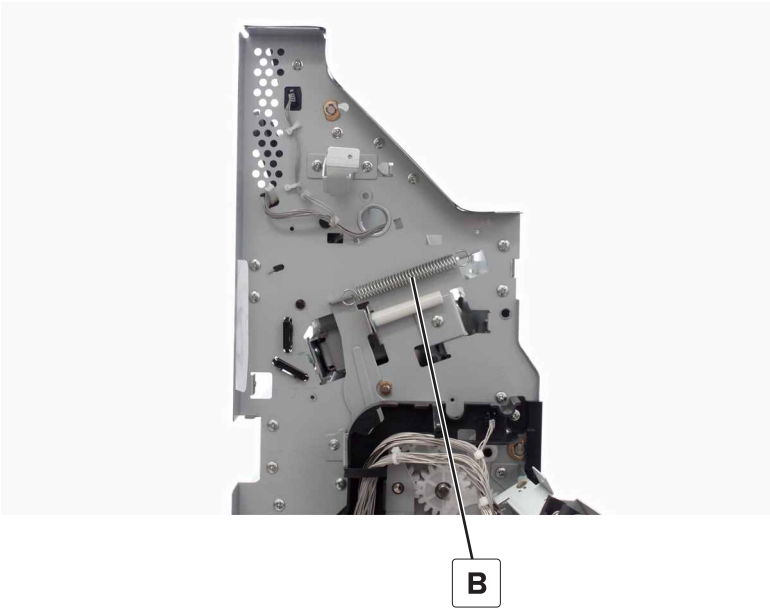
Bifold roller springs removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the booklet maker controller board holder. See **“Booklet maker controller board holder removal” on page 455**.
3. Remove the transport and decurl motor bracket removal. See **“Transport and decurl motor bracket removal” on page 472**.

4 Remove the spring (A).



5 Remove the spring (B).



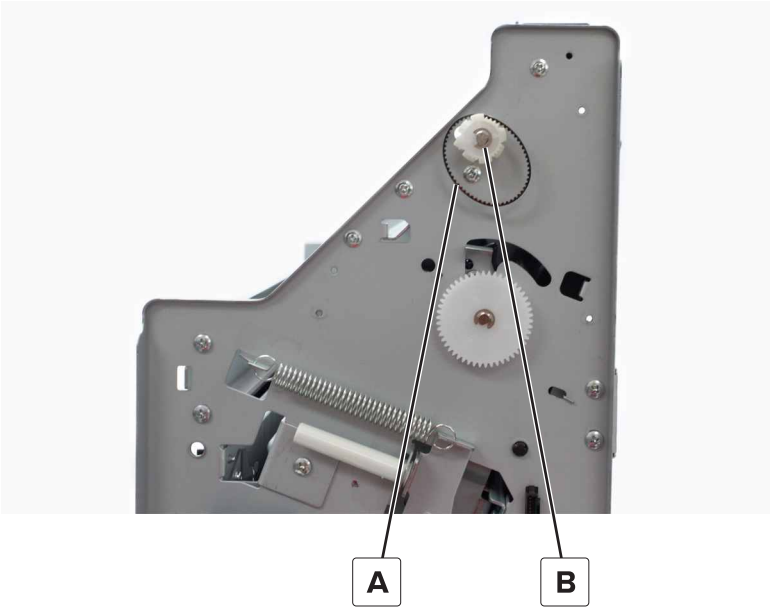
Booklet maker transport gear and belt removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the transport and decurl motor bracket removal. See **“Transport and decurl motor bracket removal” on page 472**.

3 Remove the belt (A).

4 Remove the clip (B), and then remove the gear.



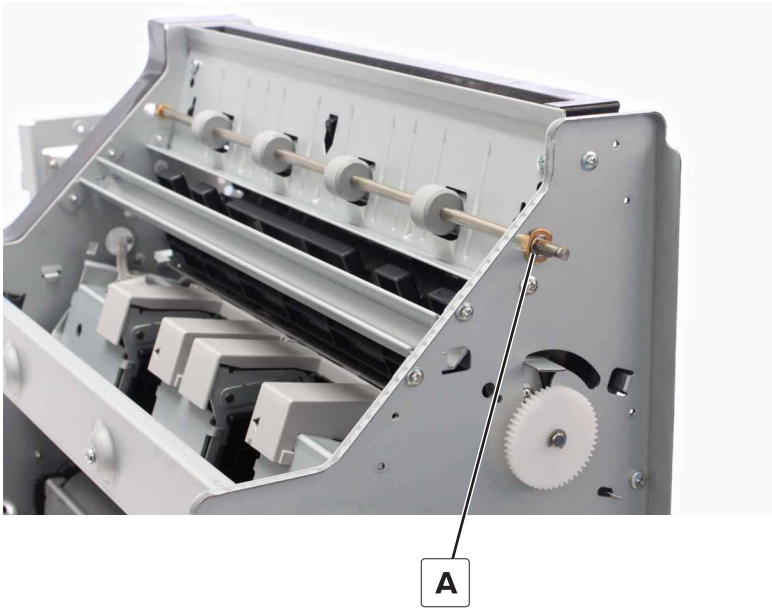
Booklet maker transport roller removal

1 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

2 Remove the transport and decurl motor bracket. See **"Transport and decurl motor bracket removal" on page 472**.

3 Remove the transport gear and belt. See **"Booklet maker transport gear and belt removal" on page 473**.

4 Remove the clip (A), and then remove the bushing.



5 Remove the clip (B), and then remove the bushing.

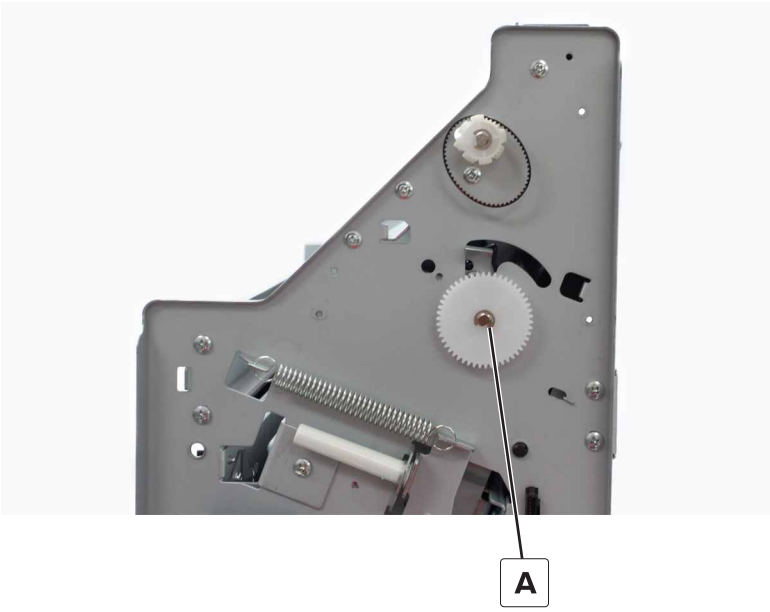
6 Remove the roller.

Booklet maker decurl gears removal

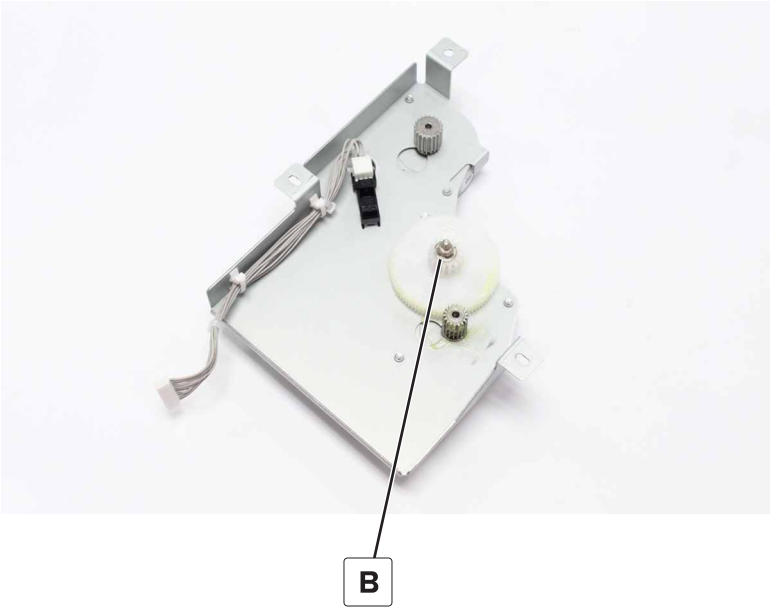
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the transport and decurl motor bracket removal. See **“Transport and decurl motor bracket removal” on page 472**.

3 Remove the clip (A), and then remove the gear.



4 Remove the clip (B), and then remove the gear.

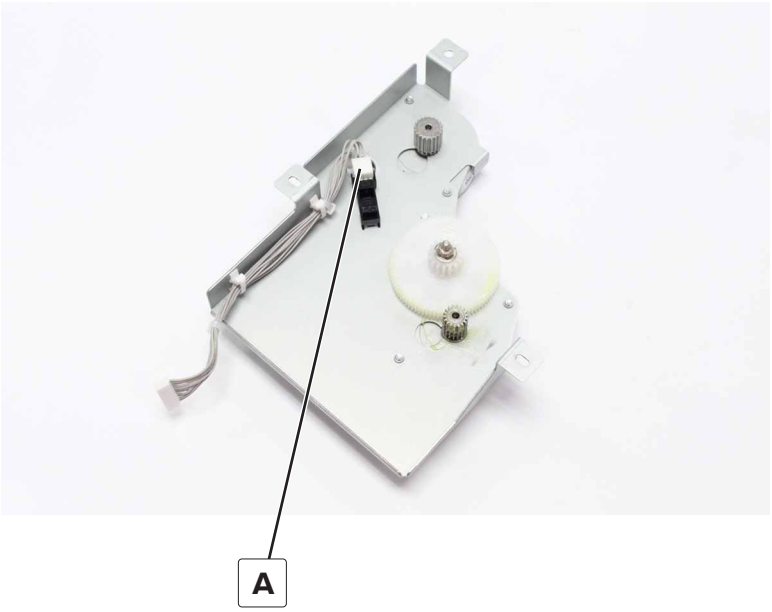


Sensor (booklet maker decurl) removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

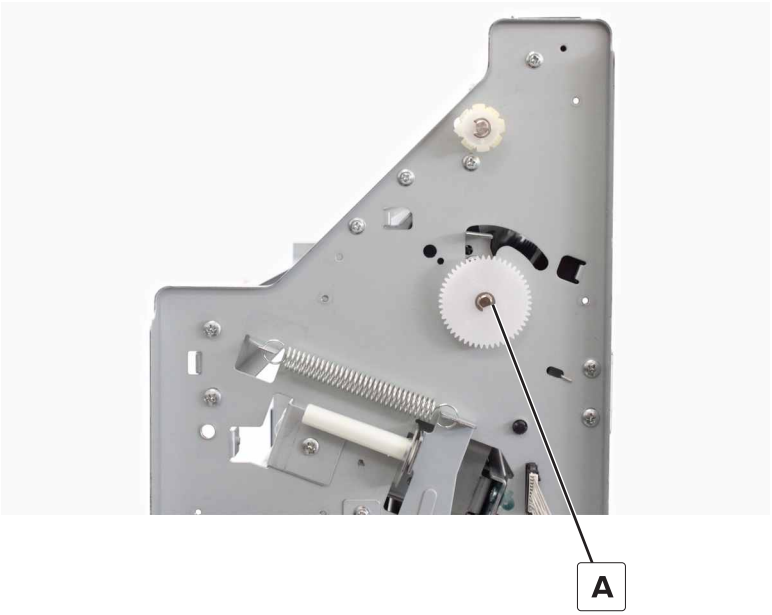
2 Remove the transport and decurl motor bracket removal. See **“Transport and decurl motor bracket removal” on page 472**.

3 Disconnect the cable (A), and then remove the sensor.

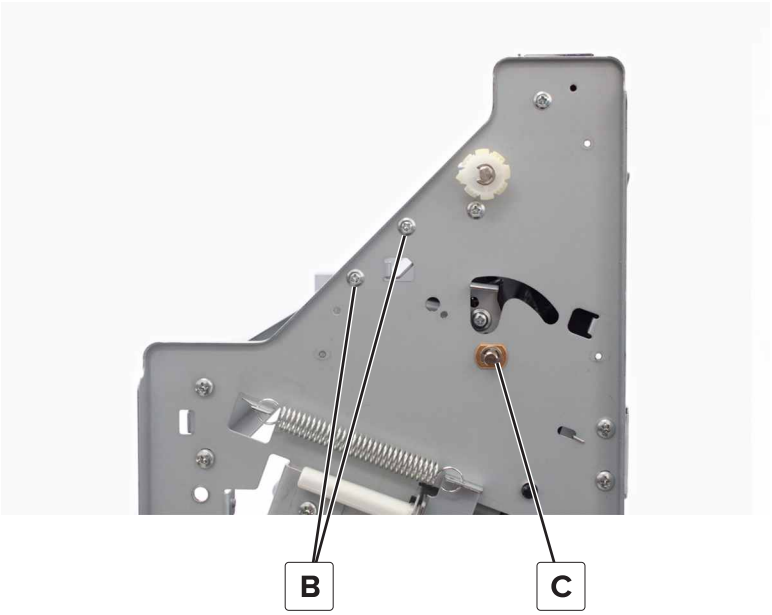


Booklet maker decurl guide removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the transport and decurl motor bracket. See **“Transport and decurl motor bracket removal” on page 472**.
3. Remove the clip (A), and then remove the gear.

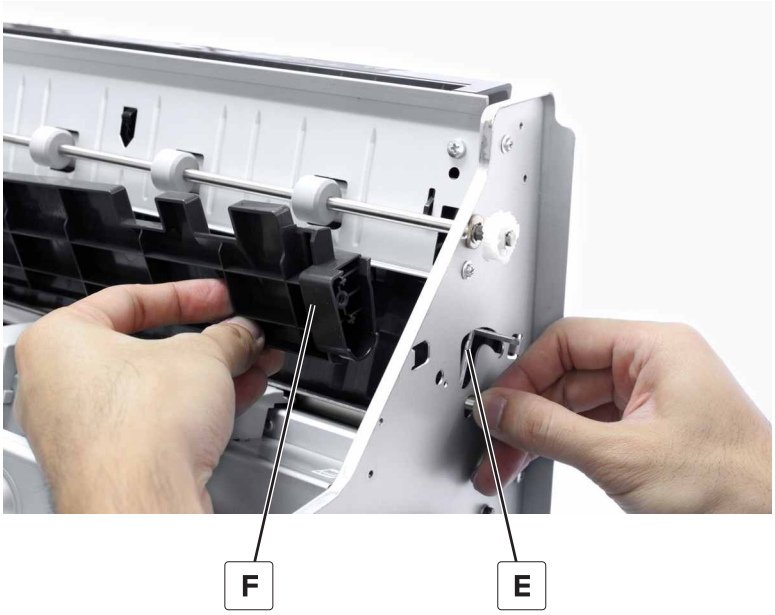


4. Remove the two screws (B).
5. Remove the clip (C), and then remove the bushing.



6 Remove the two screws (D), and then remove the brace.

7 Separate the shaft and plate (E), and then remove the guide (F).

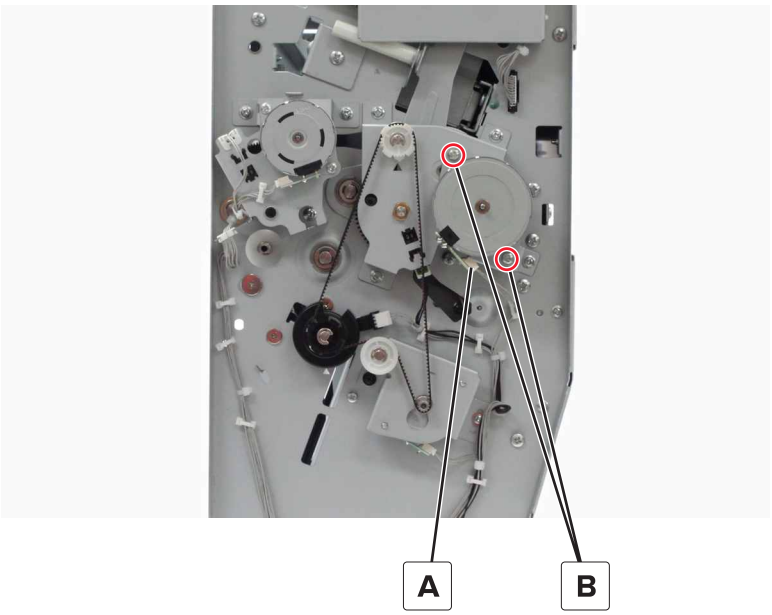


Motor (bifold guide) removal

1 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

2 Disconnect the cable (A).

3 Remove the two screws (B), and then remove the motor.



Bifold guide motor bracket removal

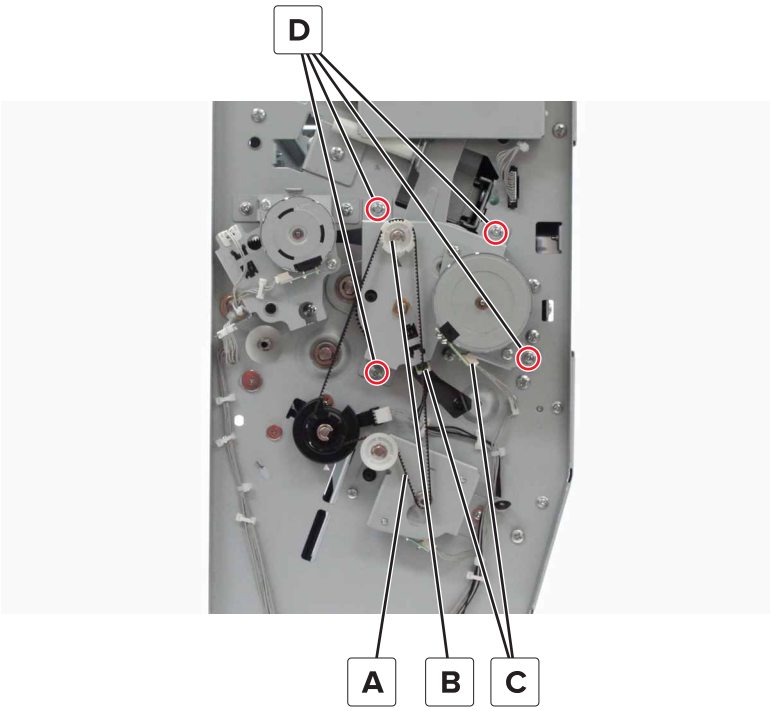
1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the belt (A).

3 Remove the clip (B), and then remove the gear.

4 Disconnect the two cables (C).

5 Remove the four screws (D), and then remove the bracket.

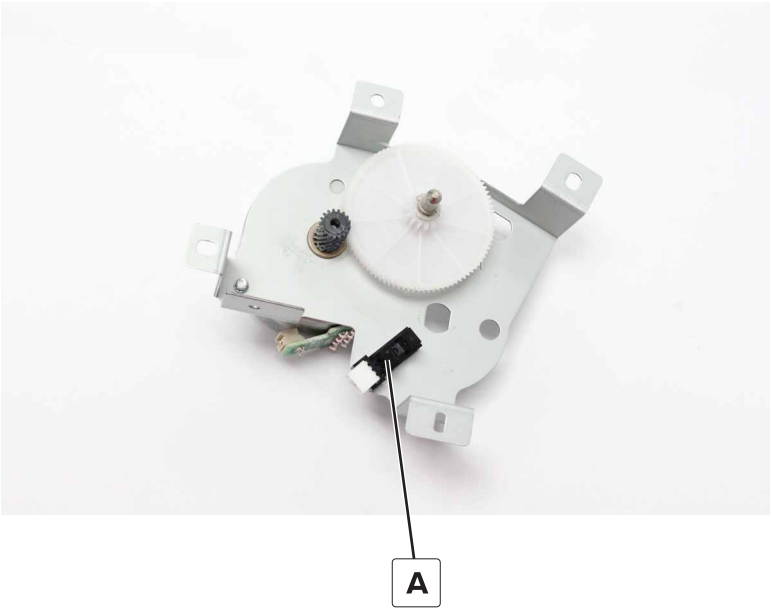


Sensor (bifold guide home) removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

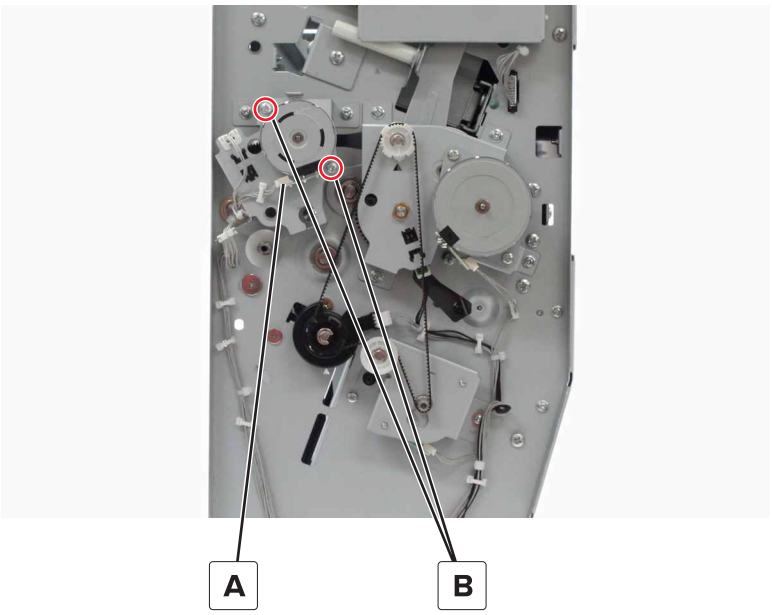
2 Remove the bifold guide motor bracket. See **“Bifold guide motor bracket removal” on page 479**.

3 Remove the sensor (A).



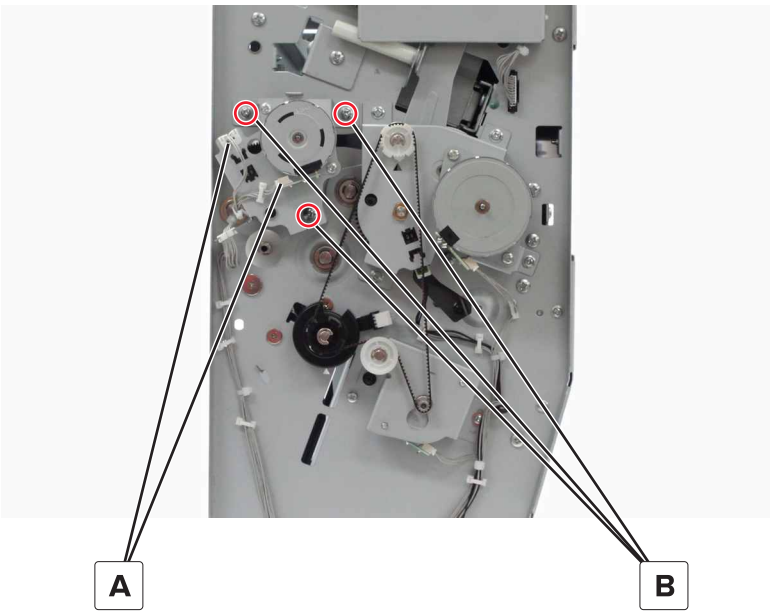
Motor (trifold guide) removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Disconnect the cable (A).
3. Remove the two screws (B), and then remove the motor.



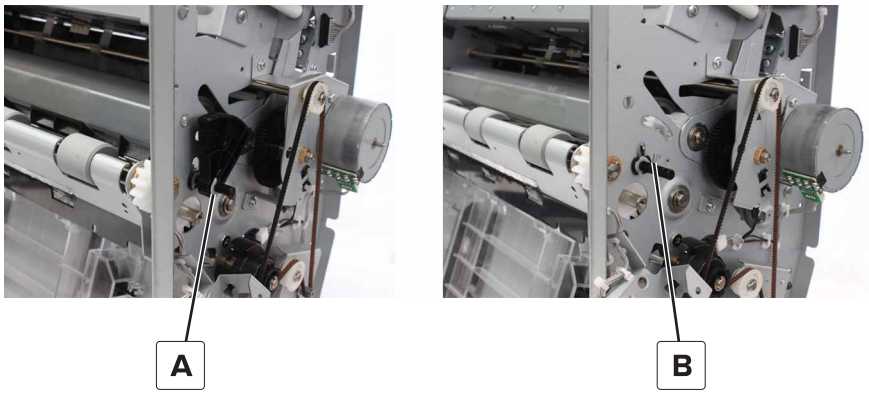
Trifold guide motor bracket removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Disconnect the two cables (A).
3. Remove the three screws (B), and then remove the bracket.



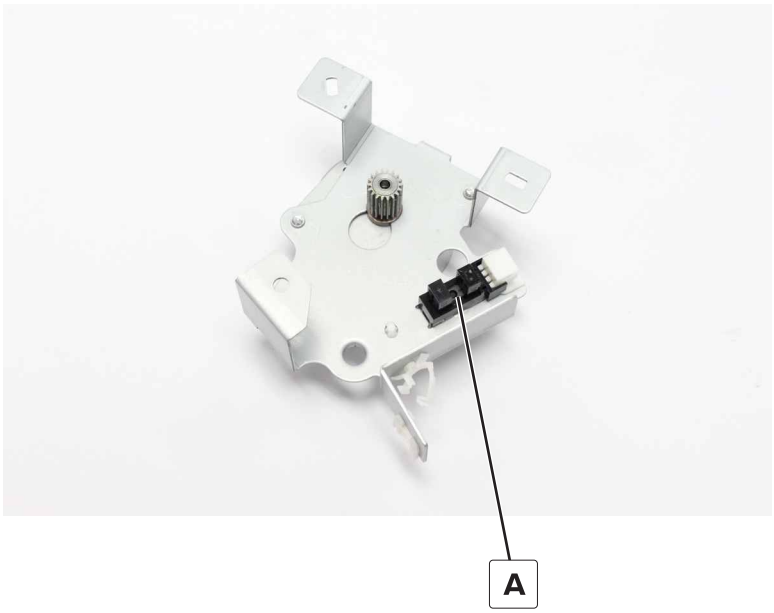
Trifold gate actuator removal

1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the trifold guide motor bracket. See **"Trifold guide motor bracket removal" on page 481**.
3. Remove the clip (A), and then remove the actuator.
4. Remove the pin (B).



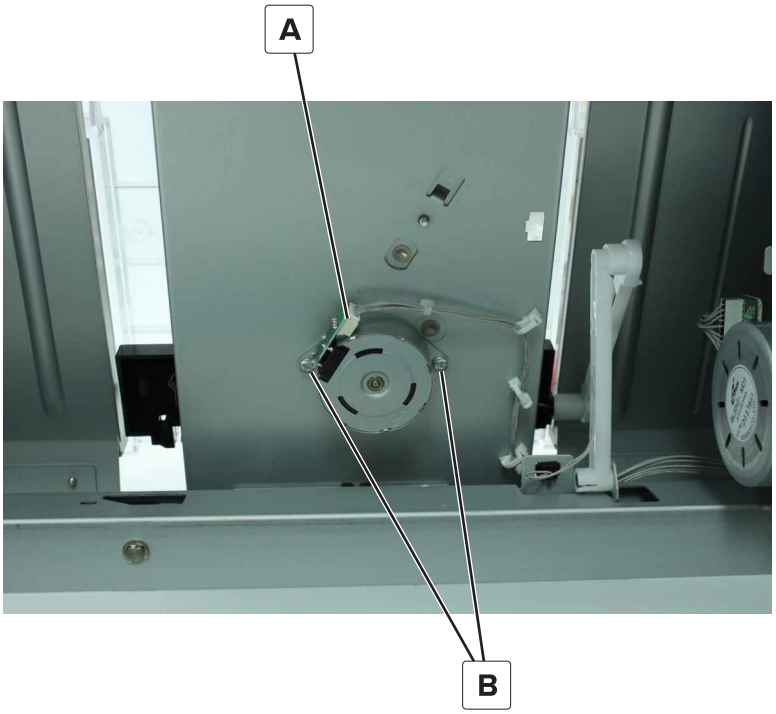
Sensor (trifold guide home) removal

1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the trifold guide motor bracket. See **"Trifold guide motor bracket removal" on page 481**.
3. Remove the sensor (A).



Motor (booklet maker aligner) removal

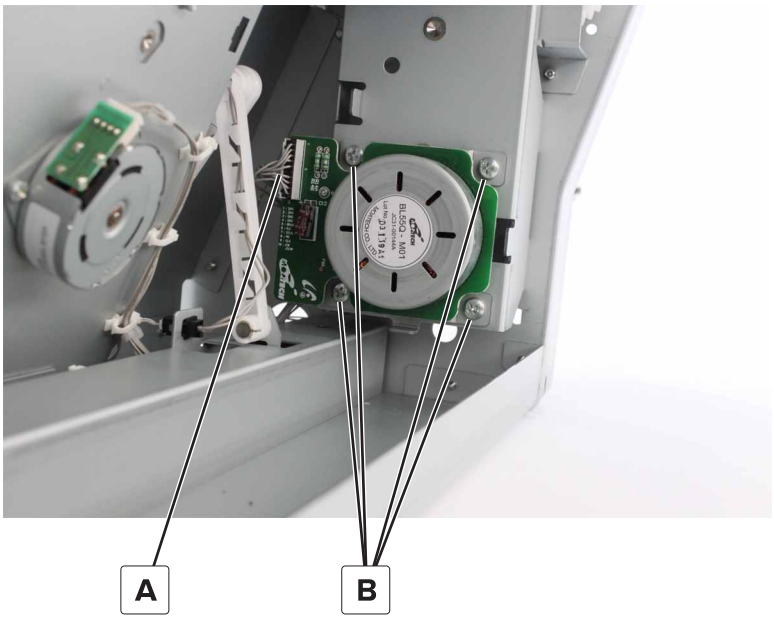
1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Disconnect the cable (A).
4. Remove the two screws (B), and then remove the motor.



Motor (bifold knife) removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Disconnect the cable (A).

4 Remove the four screws (B), and then remove the motor.



Motor (booklet maker tamper) removal

1 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

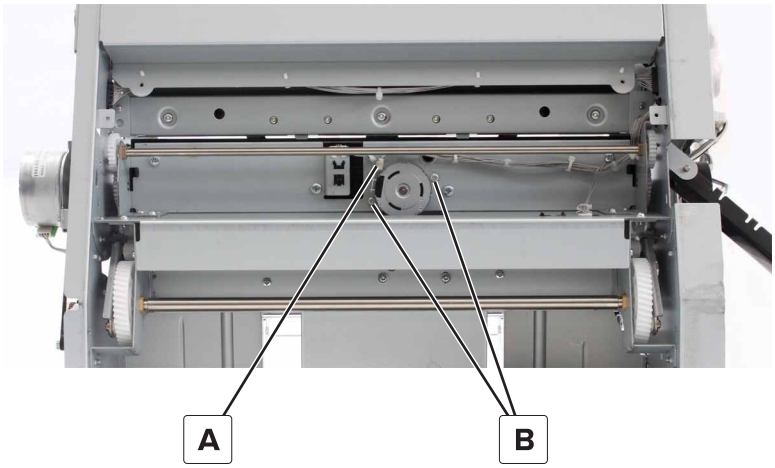
2 Remove the right cover. See **"Booklet maker right cover removal" on page 449**.

3 Remove the top frame brace. See **"Top frame brace removal" on page 455**.

4 Remove the middle frame brace. See **"Middle frame brace removal" on page 457**.

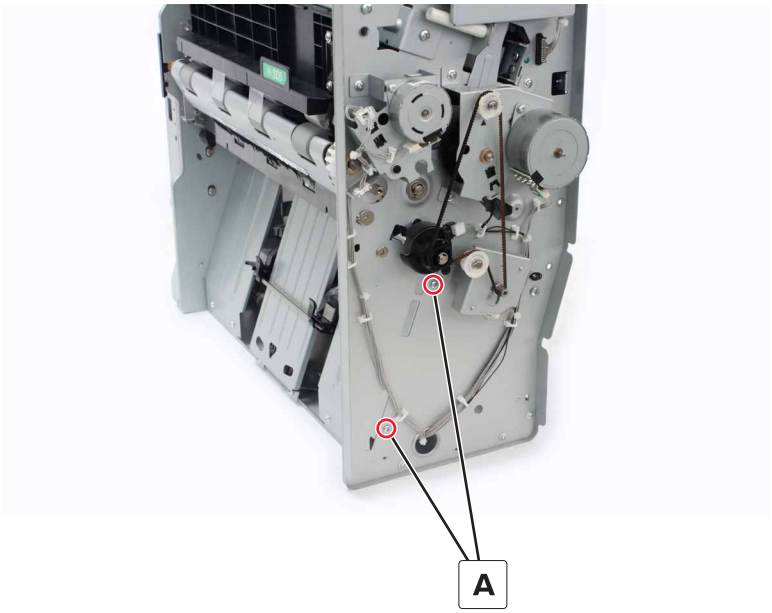
5 Disconnect the cable (A).

6 Remove the two screws (B), and then remove the motor.

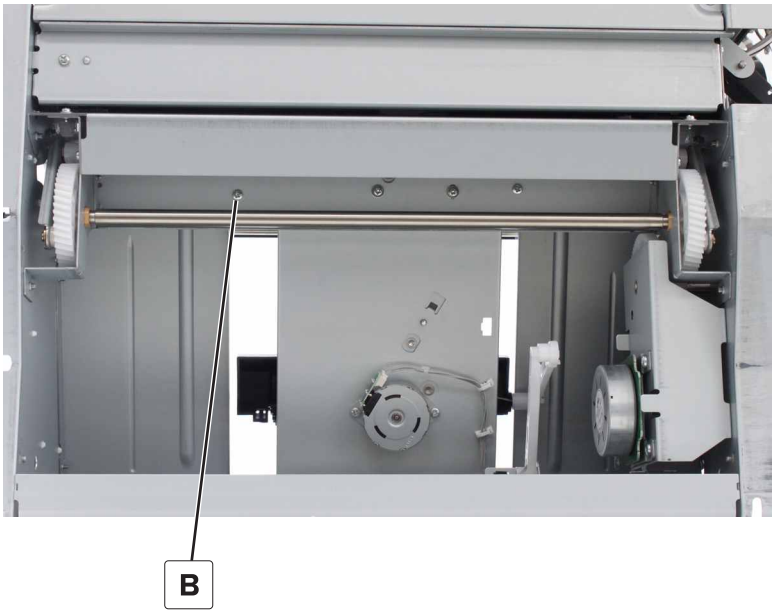


Booklet maker aligner front paper guide removal

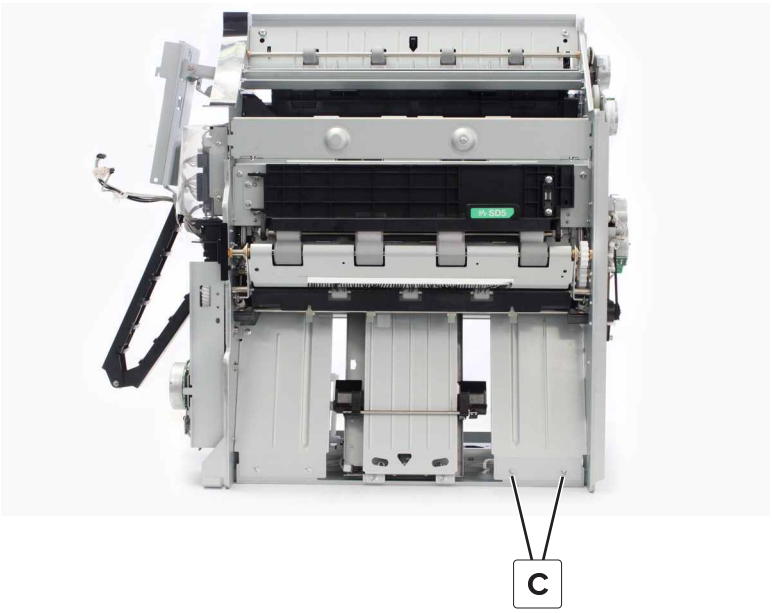
1. Remove the aligner jam access cover. See **"Booklet maker aligner jam access door removal" on page 452**.
2. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
3. Remove the right cover. See **"Booklet maker right cover removal" on page 449**.
4. Remove the two screws (A).



5. Remove the screw (B).



6 Remove the two screws (C), and then remove the guide.



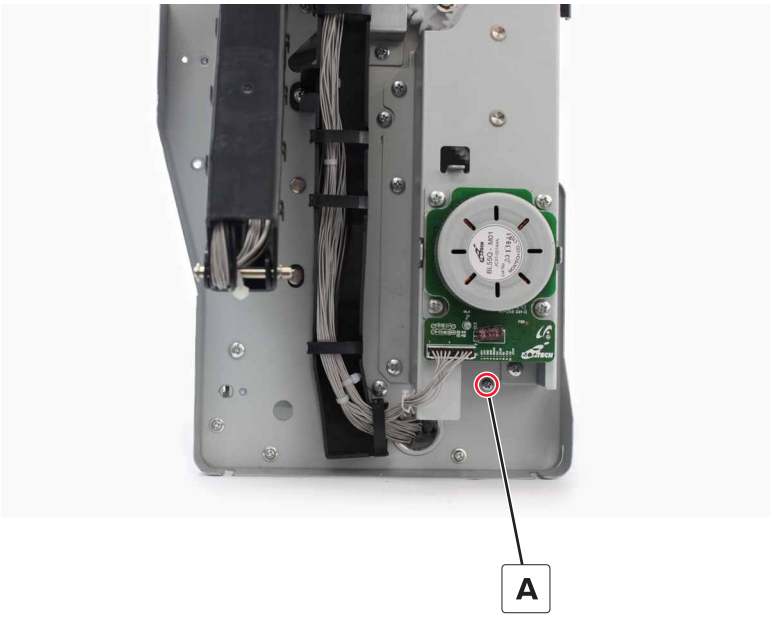
Booklet maker aligner rear paper guide removal

1 Remove the aligner jam access cover. See **"Booklet maker aligner jam access door removal" on page 452**.

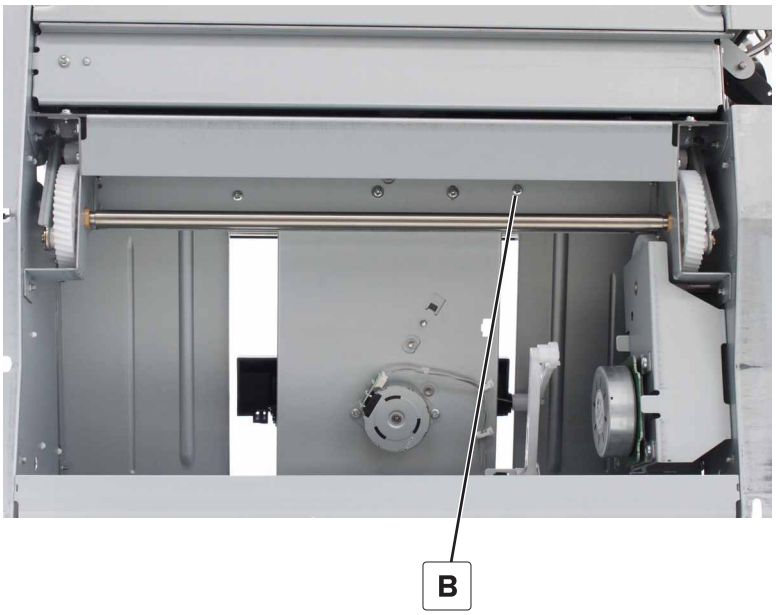
2 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

3 Remove the right cover. See **"Booklet maker right cover removal" on page 449**.

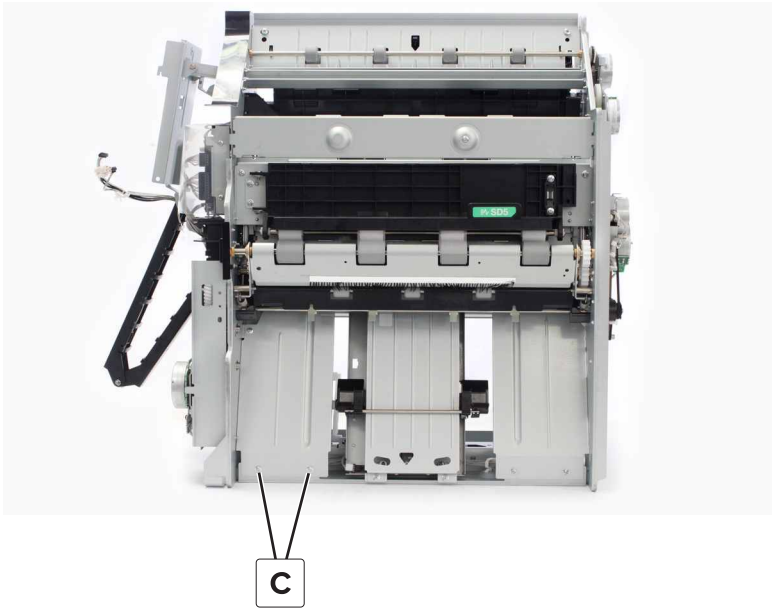
4 Remove the screw (A).



5 Remove the screw (B).



6 Remove the two screws (C), and then remove the guide.



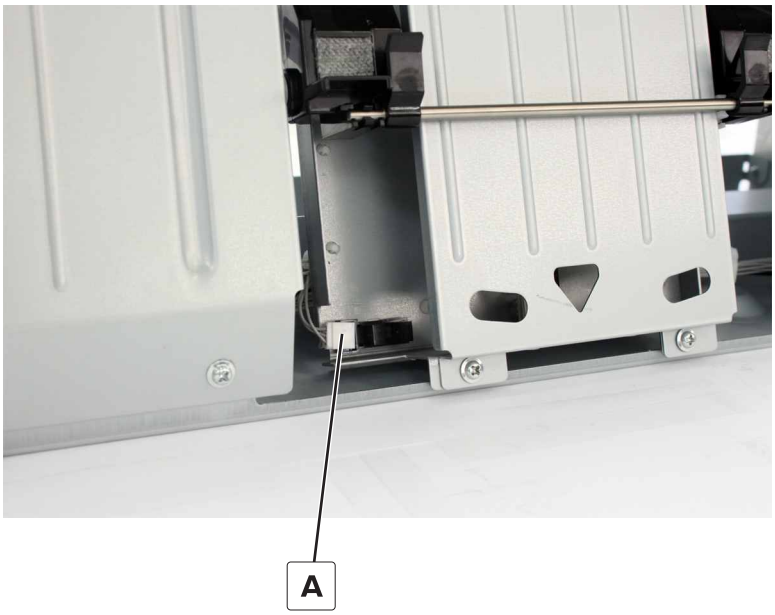
Sensor (booklet maker aligner home) removal

1 Remove the aligner jam access cover. See **"Booklet maker aligner jam access door removal" on page 452**.

2 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

3 Remove the right cover. See **"Booklet maker right cover removal" on page 449**.

4 Disconnect the cable (A), and then remove the sensor.



Booklet maker aligner assembly removal

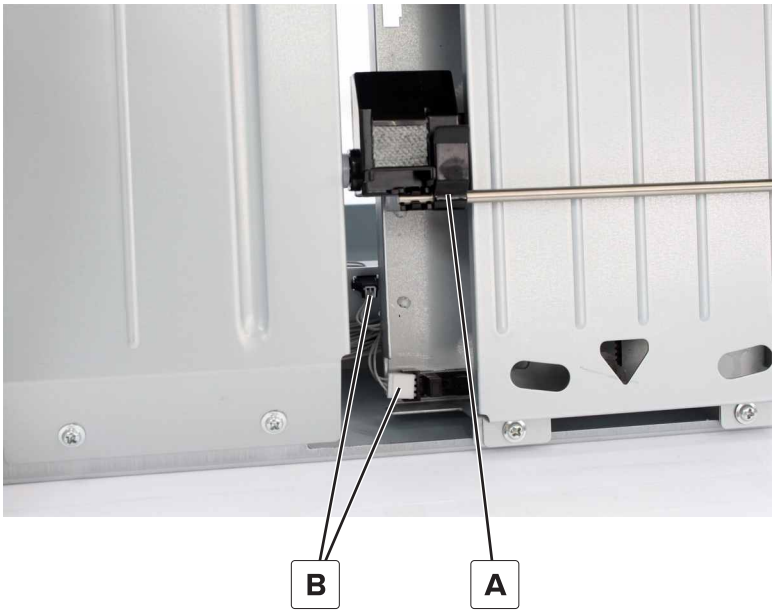
1 Remove the aligner jam access cover. See **"Booklet maker aligner jam access door removal" on page 452**.

2 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

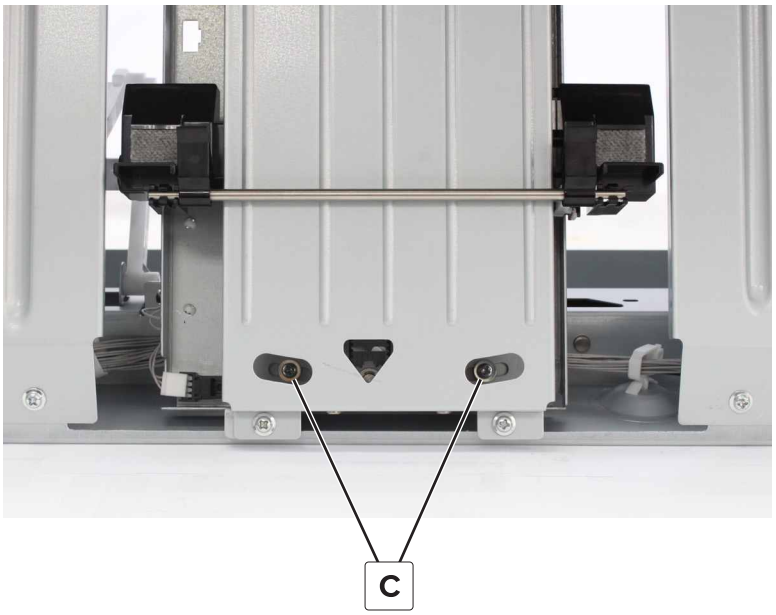
3 Remove the right cover. See **"Booklet maker right cover removal" on page 449**.

4 Slide the aligner (A) to the middle.

5 Disconnect the two cables (B).

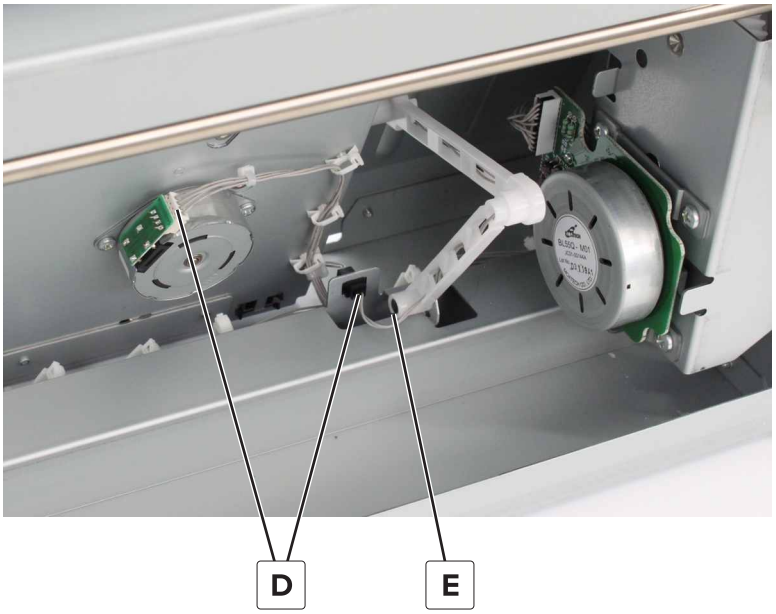


6 Remove the two screws (C).



7 Disconnect the two cables (D).

8 Release the latch (E), and then disconnect the link.



9 Remove the assembly.

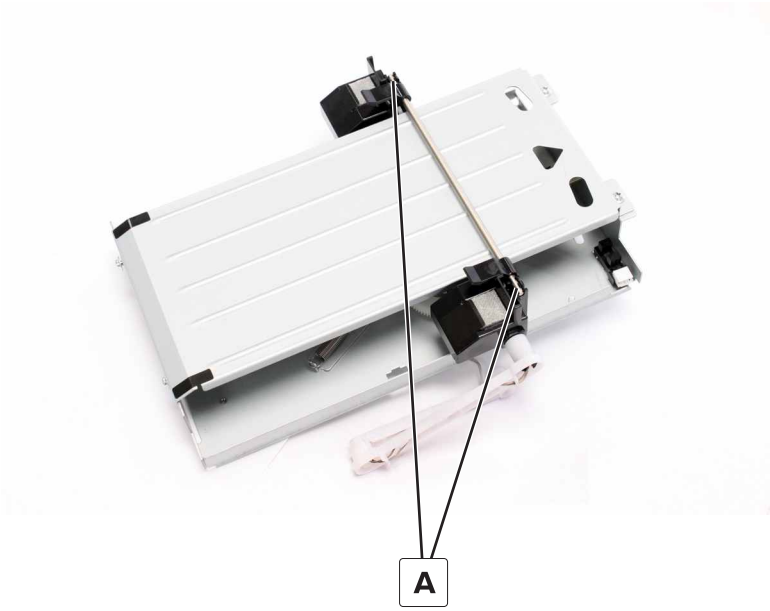
Installation notes:

a Before installing, slide the aligner to the middle to prevent it from snagging the frame.

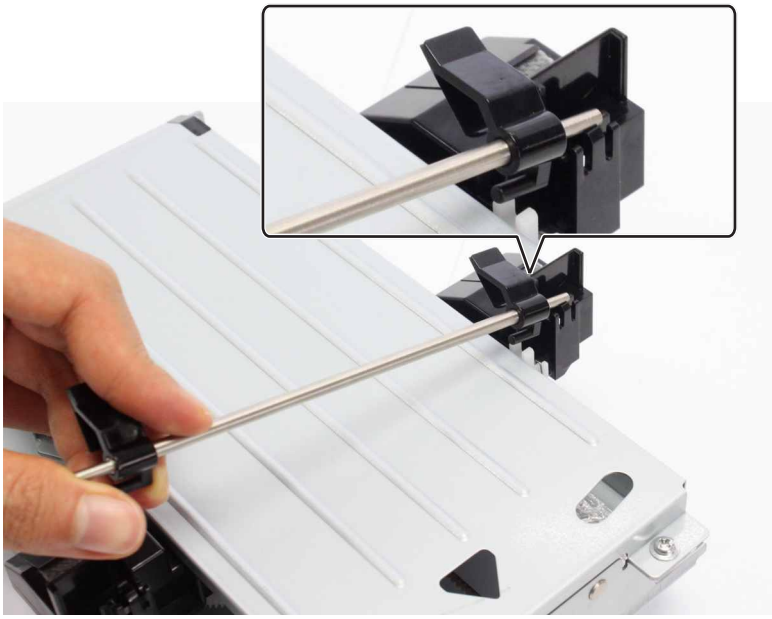
b Perform the adjustment procedure. See **"Bifold skew adjustment" on page 219**.

Booklet maker aligner removal

1. Remove the aligner jam access cover. See **"Booklet maker aligner jam access door removal" on page 452**.
2. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
3. Remove the right cover. See **"Booklet maker right cover removal" on page 449**.
4. Remove the aligner assembly. See **"Booklet maker aligner assembly removal" on page 488**.
5. Release the aligner from the two latches (A).

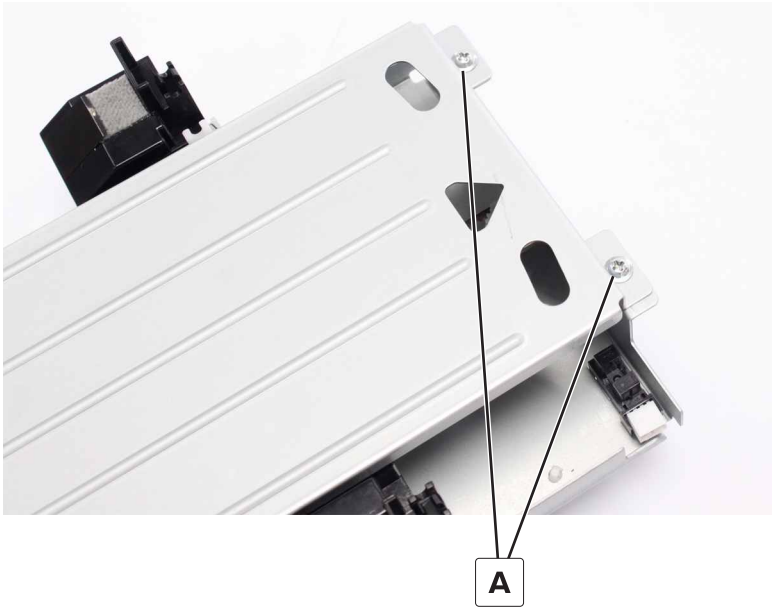


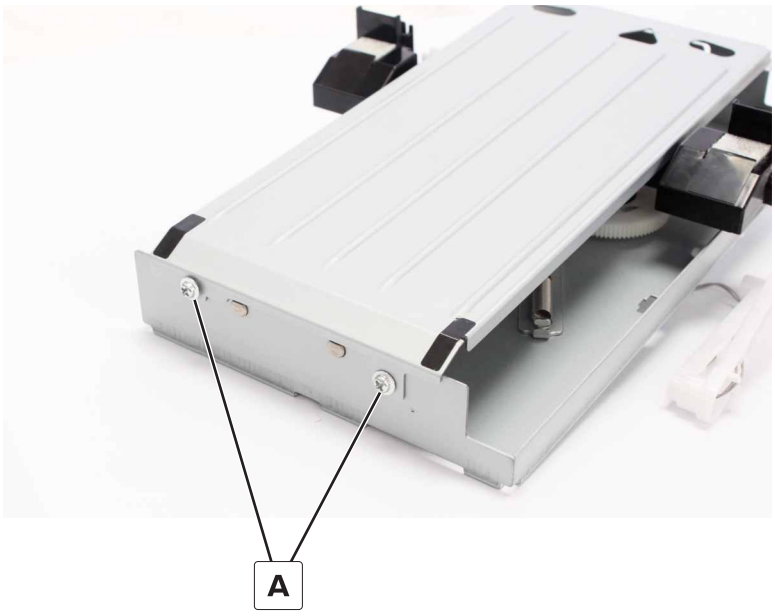
Installation note: Align the holder with the link.



Booklet maker aligner middle paper guide removal

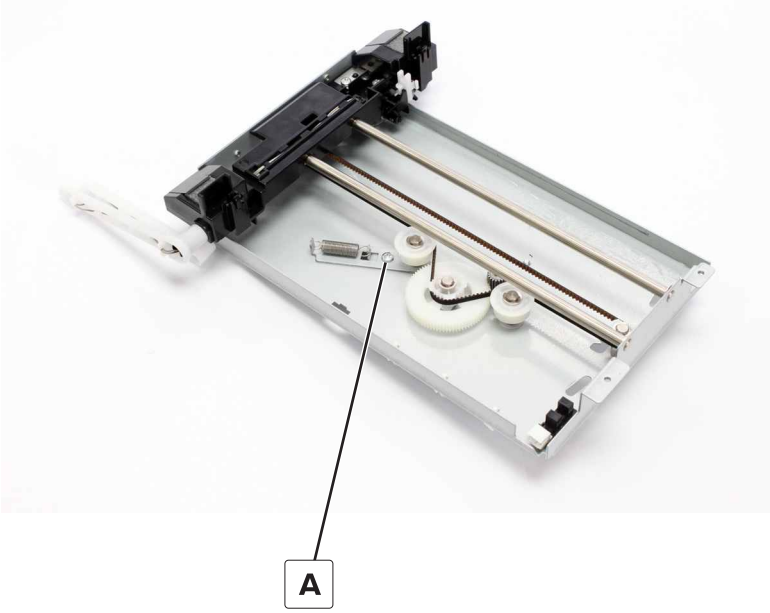
1. Remove the aligner jam access cover. See **“Booklet maker aligner jam access door removal” on page 452**.
2. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
3. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
4. Remove the aligner assembly. See **“Booklet maker aligner assembly removal” on page 488**.
5. Remove the aligner. See **“Booklet maker aligner removal” on page 490**.
6. Remove the four screws (A), and then remove the guide.



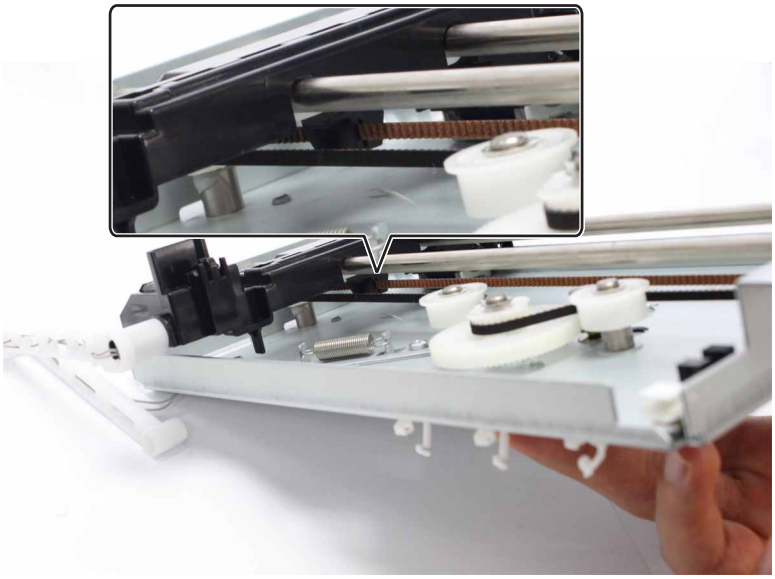


Booklet maker aligner belt removal

1. Remove the aligner jam access cover. See **"Booklet maker aligner jam access door removal" on page 452**.
2. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
3. Remove the right cover. See **"Booklet maker right cover removal" on page 449**.
4. Remove the aligner assembly. See **"Booklet maker aligner assembly removal" on page 488**.
5. Remove the aligner. See **"Booklet maker aligner removal" on page 490**.
6. Remove the aligner middle paper guide. See **"Booklet maker aligner middle paper guide removal" on page 491**.
7. Loosen the screw (A), and then remove the belt.

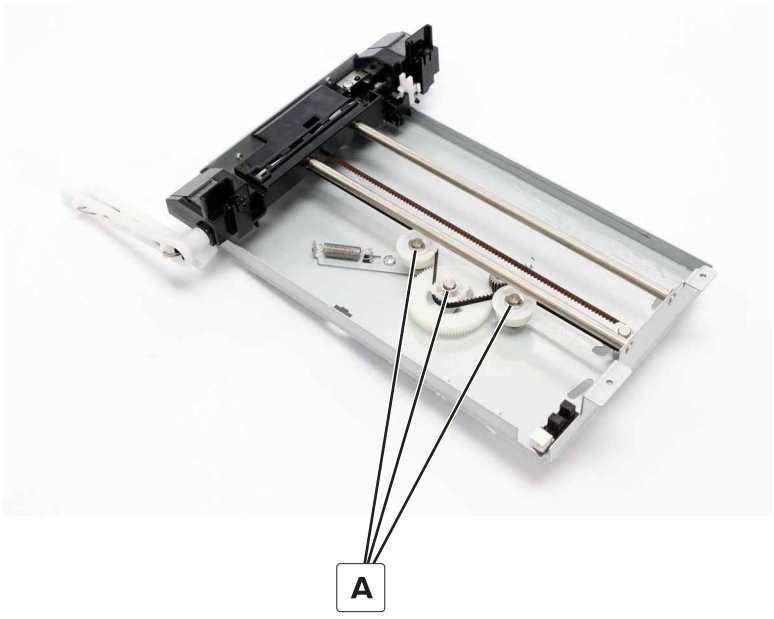


Installation note: Install the belt through the holder under the aligner carriage.



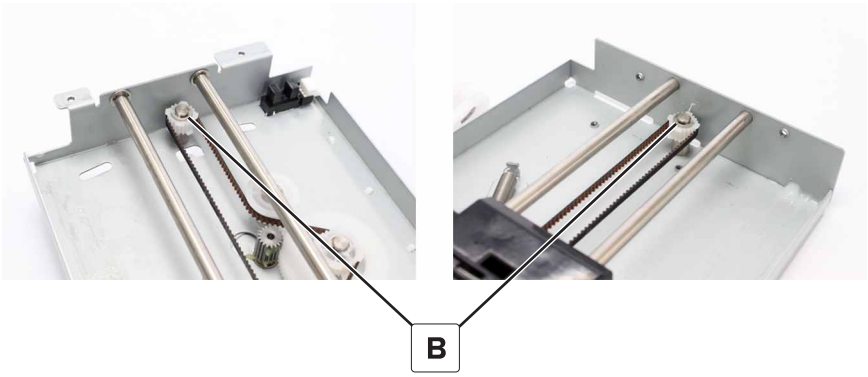
Booklet maker aligner gears removal

1. Remove the aligner jam access cover. See **“Booklet maker aligner jam access door removal” on page 452**.
2. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
3. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
4. Remove the aligner assembly. See **“Booklet maker aligner assembly removal” on page 488**.
5. Remove the aligner. See **“Booklet maker aligner removal” on page 490**.
6. Remove the aligner paper guide, middle. See **“Booklet maker aligner middle paper guide removal” on page 491**.
7. Remove the three clips (A), and then remove the gear and the two wheels.



Parts removal

8 Remove the two clips (B), and then remove the two gears.



Booklet maker aligner solenoid removal

1 Remove the aligner jam access cover. See **“Booklet maker aligner jam access door removal” on page 452**.

2 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

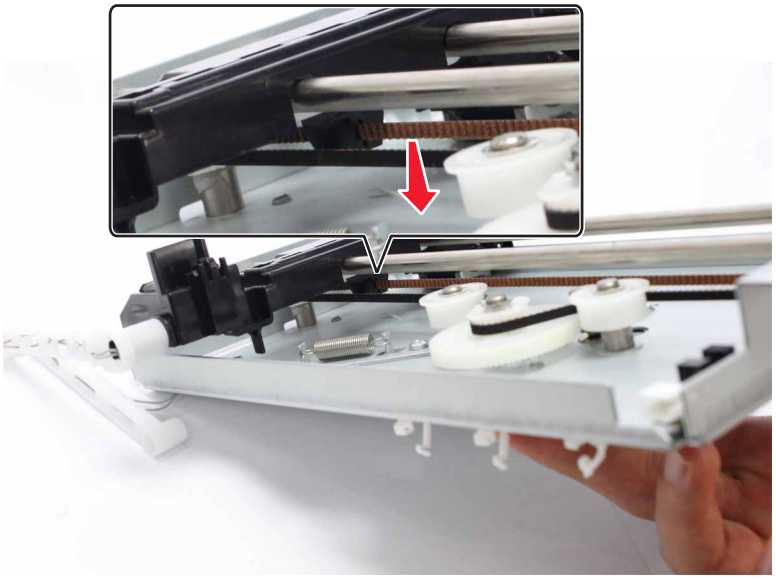
3 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

4 Remove the aligner assembly. See **“Booklet maker aligner assembly removal” on page 488**.

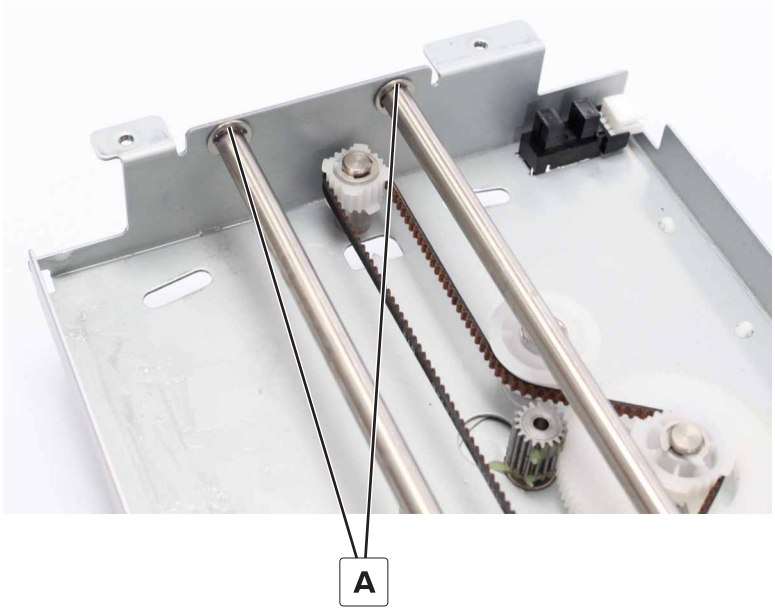
5 Remove the aligner. See **“Booklet maker aligner removal” on page 490**.

6 Remove the aligner paper guide, middle. See **“Booklet maker aligner middle paper guide removal” on page 491**.

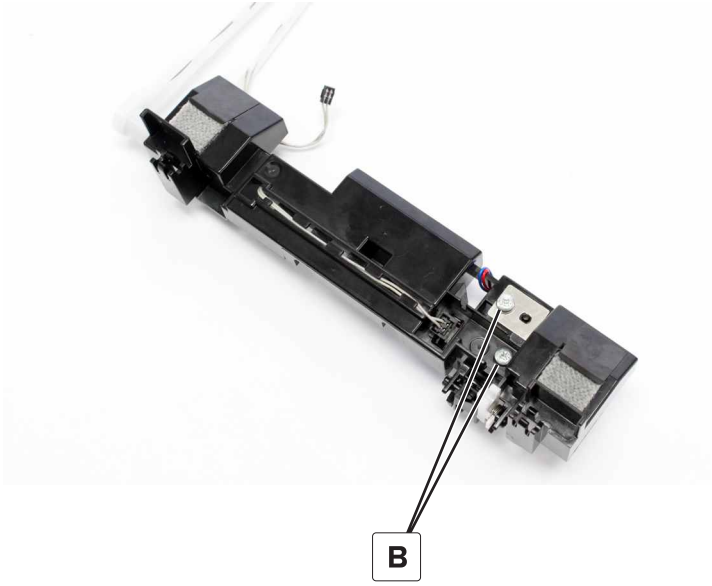
7 Release the belt from the holder.



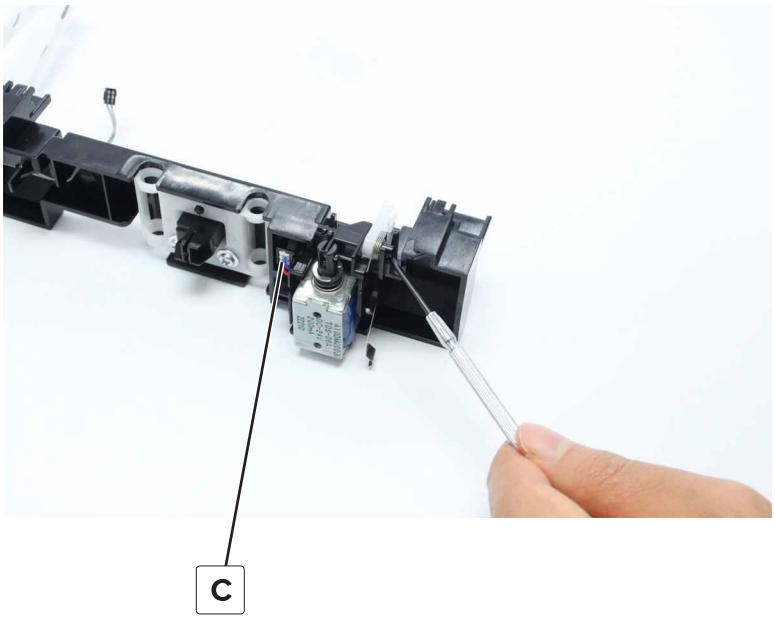
8 Remove the two clips (A), and then remove the two shafts.



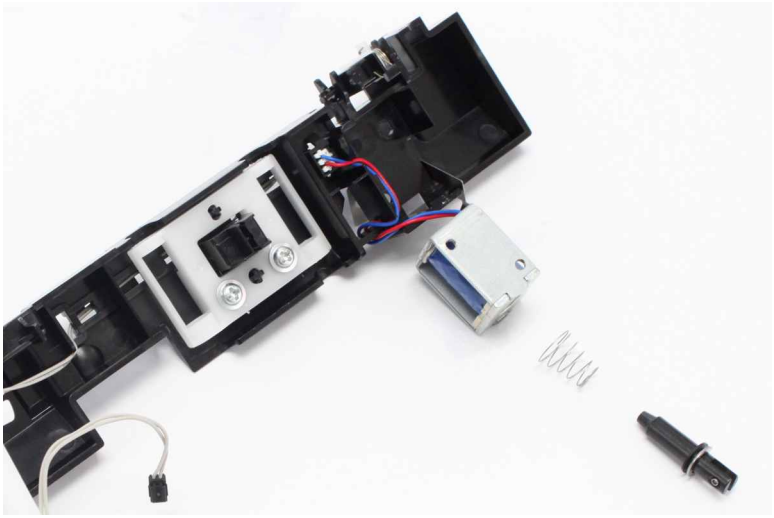
9 Remove the two screws (B).



10 Disconnect the cable (C). Pry the link, and then remove the solenoid.

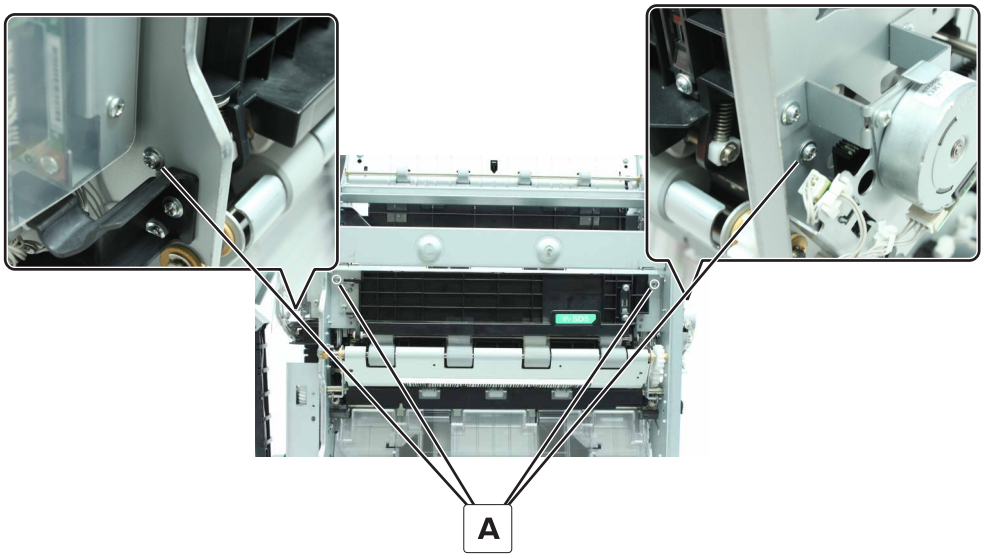


Installation note: Take note of the spring position and cable routing.



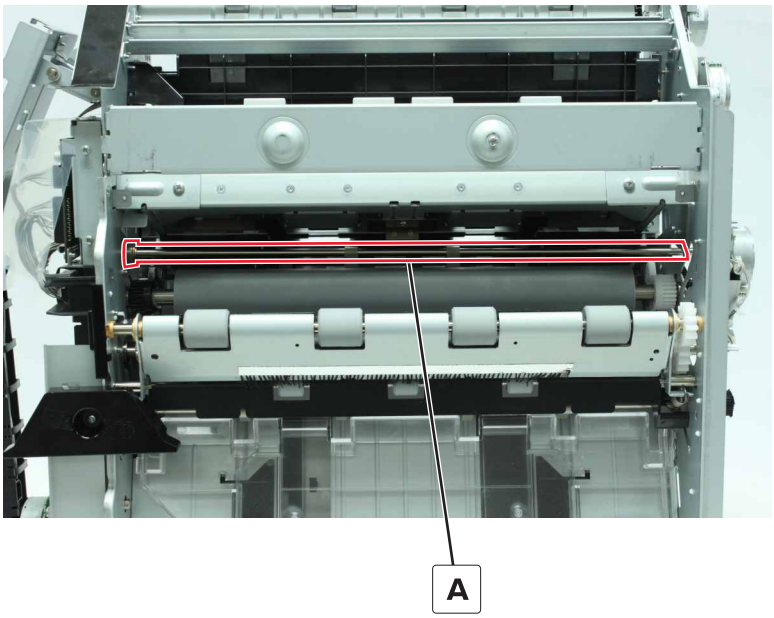
Trifold knife assembly removal

1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the four screws (A), and then remove the assembly.



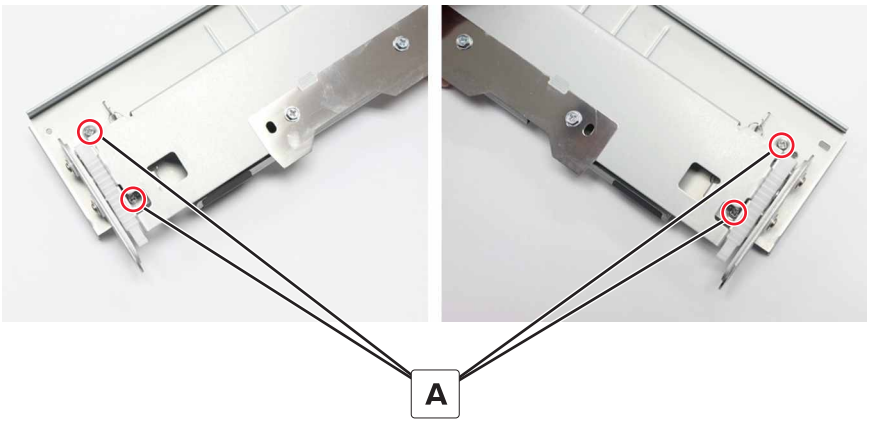
Booklet maker upper paddle removal

1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the bifold guide motor bracket. See **"Bifold guide motor bracket removal" on page 479**.
3. Remove the trifold knife assembly. See **"Trifold knife assembly removal" on page 497**.
4. Remove the shaft (A).



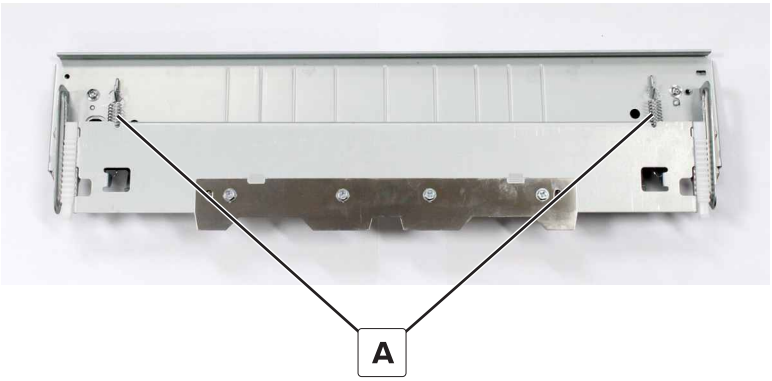
Trifold knife removal

1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the trifold knife assembly. See **"Trifold knife assembly removal" on page 497**.
3. Remove the four screws (A), and then remove the knife.



Trifold knife springs removal

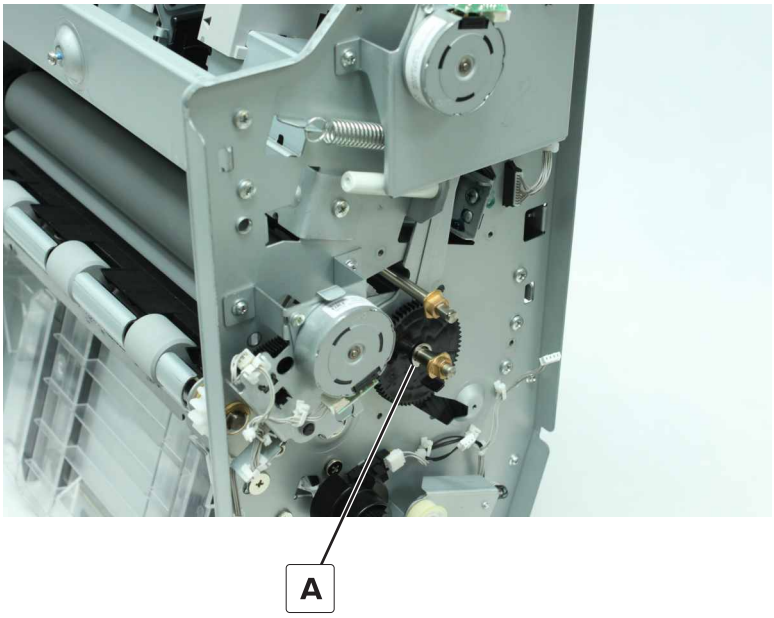
1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the trifold knife assembly. See **"Trifold knife assembly removal" on page 497**.
3. Remove the trifold knife. See **"Trifold knife removal" on page 498**.
4. Remove the two springs (A).



Bifold upper roller removal

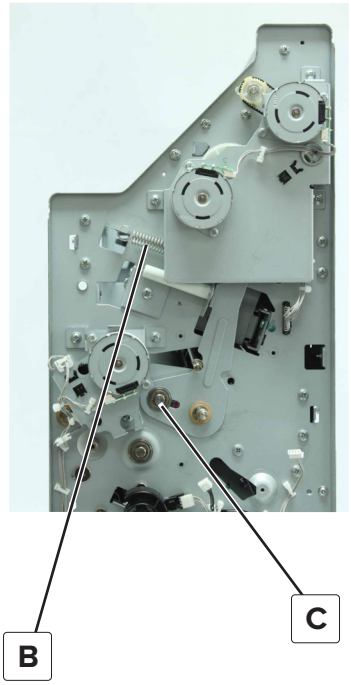
1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the bifold guide motor bracket. See **"Bifold guide motor bracket removal" on page 479**.
3. Remove the trifold knife assembly. See **"Trifold knife assembly removal" on page 497**.

4 Remove the clip (A), and then remove the gear.



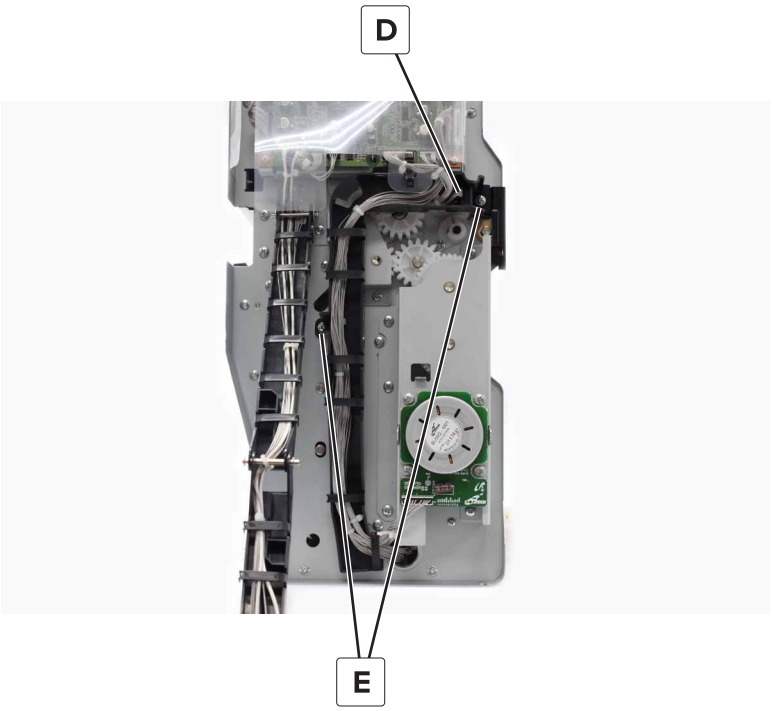
5 Disconnect the spring (B).

6 Remove the clip (C), and then remove the ball bearing.



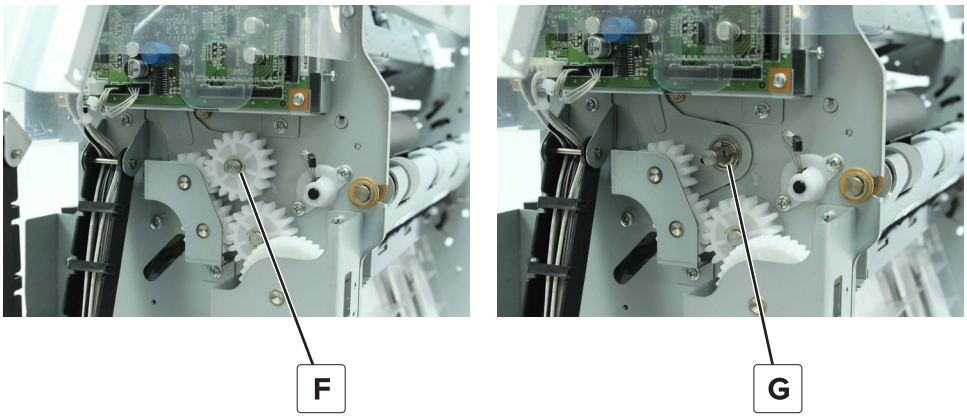
7 Disconnect the cable (D).

8 Remove the two screws (E), and then set aside the cable holder.

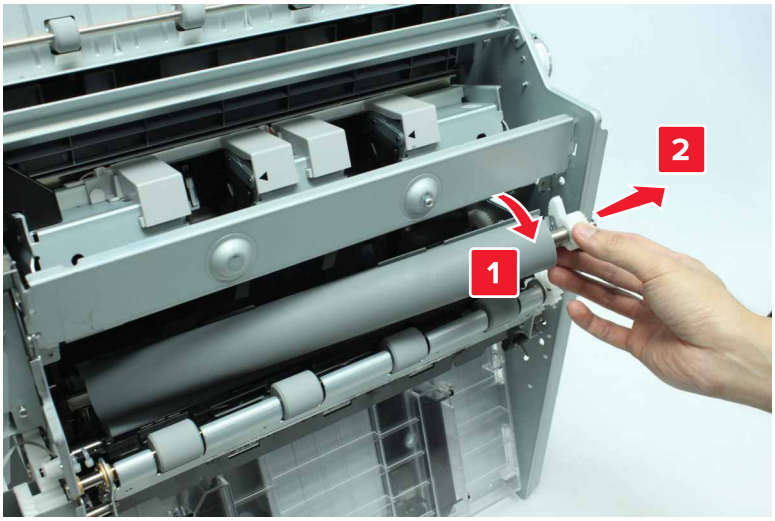


9 Remove the clip (F), and then remove the gear.

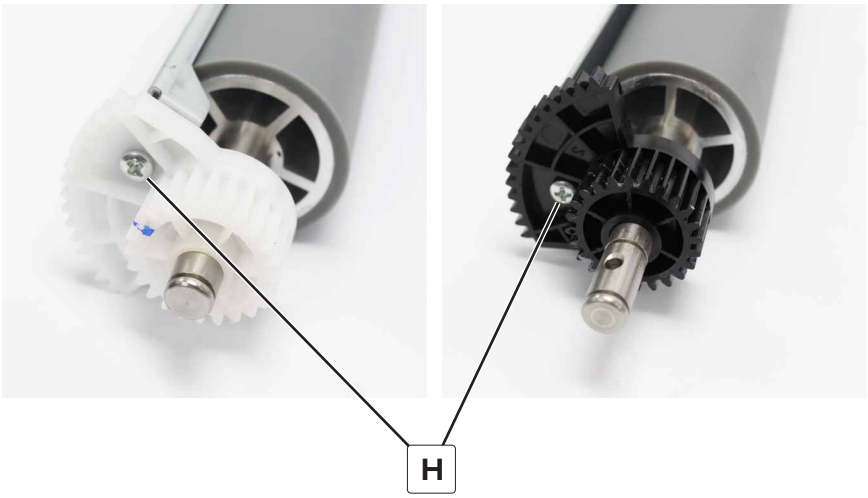
10 Remove the clip (G), and then remove the ball bearing.



11 Remove the roller.



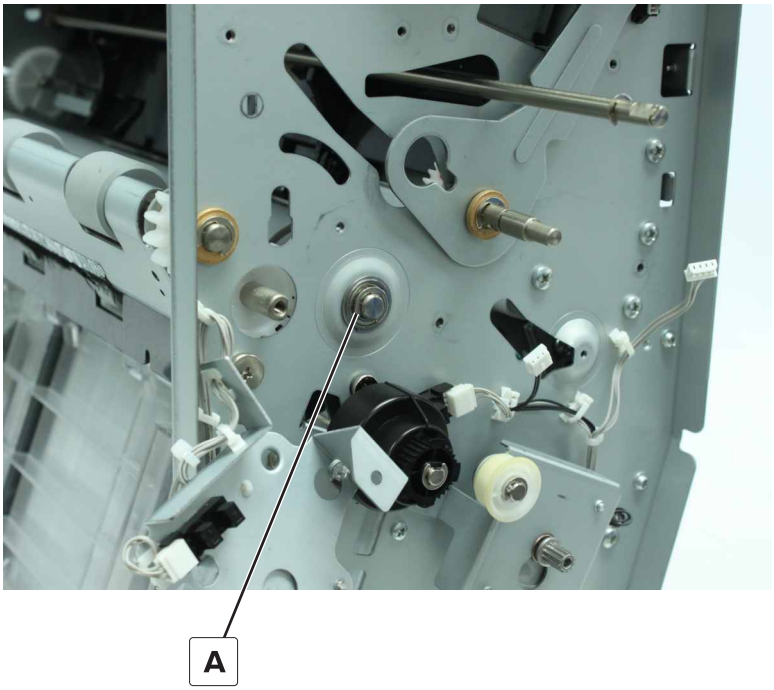
12 Remove the two screws (H), and then remove the gears.



Bifold lower roller removal

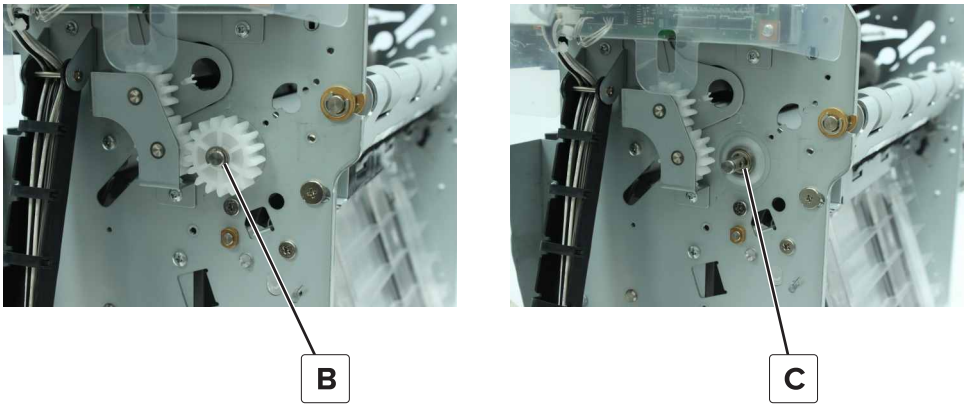
1. Remove the front cover. See **"Booklet maker front cover removal" on page 449**.
2. Remove the bifold guide motor bracket. See **"Bifold guide motor bracket removal" on page 479**.
3. Remove the trifold guide motor bracket. See **"Trifold guide motor bracket removal" on page 481**.
4. Remove the trifold knife assembly. See **"Trifold knife assembly removal" on page 497**.
5. Remove the trifold gate actuator. See **"Trifold gate actuator removal" on page 482**.
6. Remove the trifold diverter See **"Trifold diverter removal" on page 507**.
7. Remove the bifold upper roller. See **"Bifold upper roller removal" on page 498**.

8 Remove the clip (A), and then remove the ball bearing.

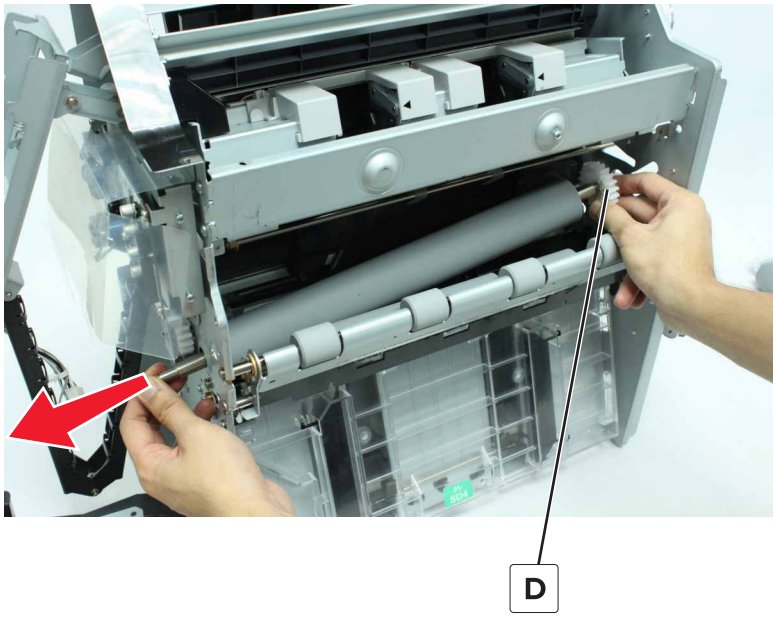


9 Remove the clip (B), and then remove the gear.

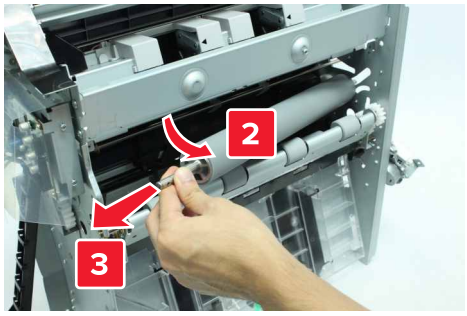
10 Remove the clip (C), and then remove the ball bearing.



11 Move the roller to the rear, and then remove the gear (D) and pin from the shaft.



12 Move the roller to the front. Swing out, and then remove the roller.



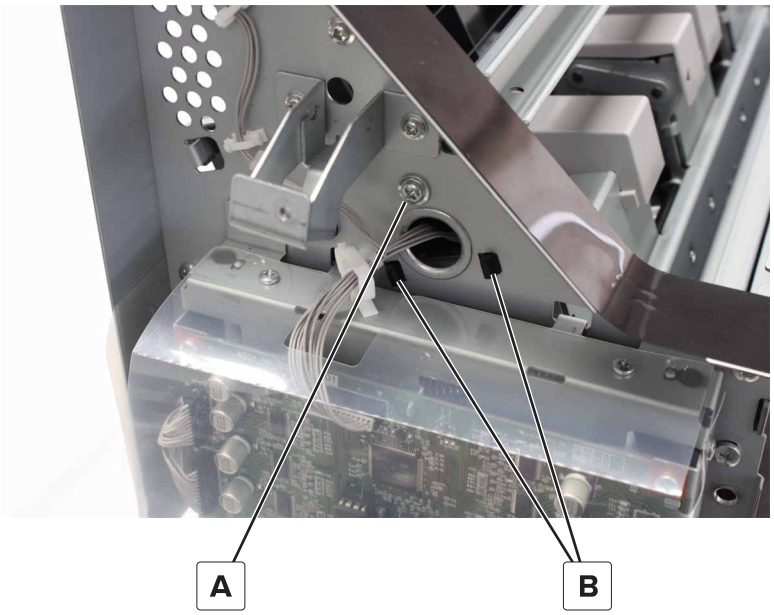
Booklet maker staple unit removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

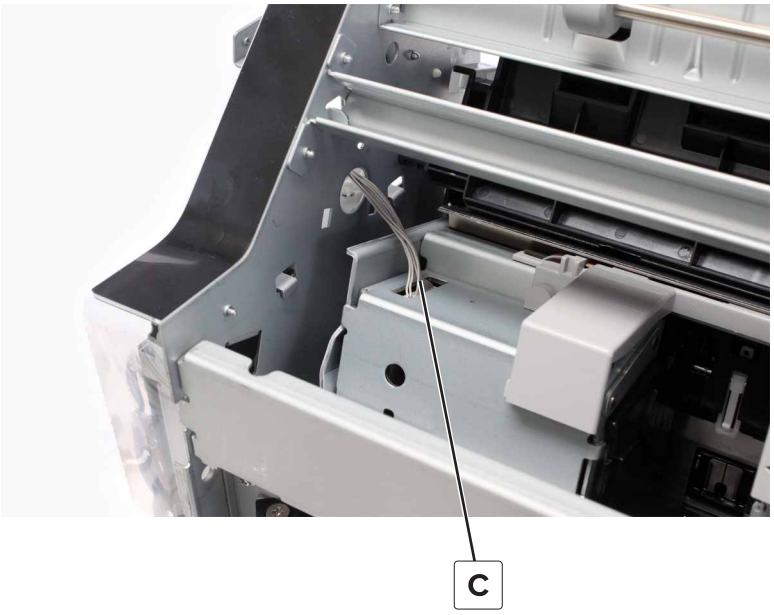
2 Remove the trifold knife assembly. See **“Trifold knife assembly removal” on page 497**.

3 Remove the screw (A).

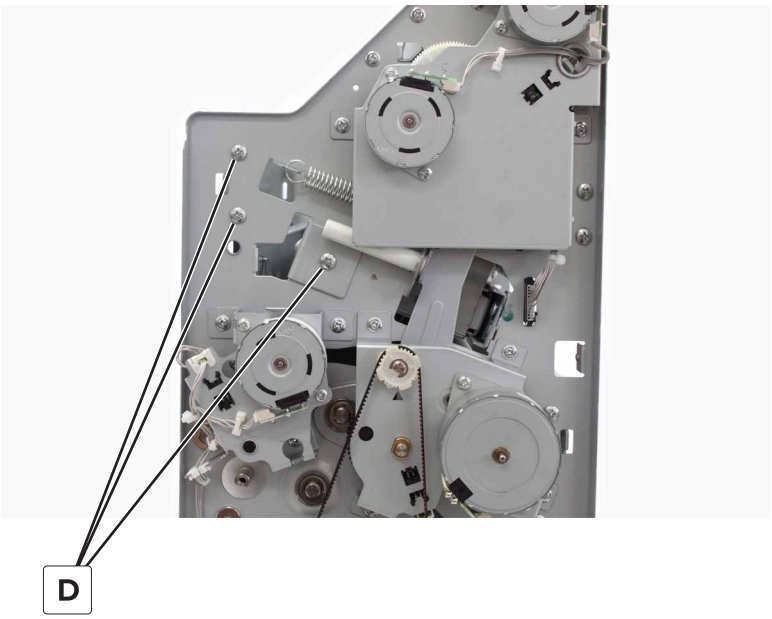
4 Release the two latches (B), and then remove the cable cover.



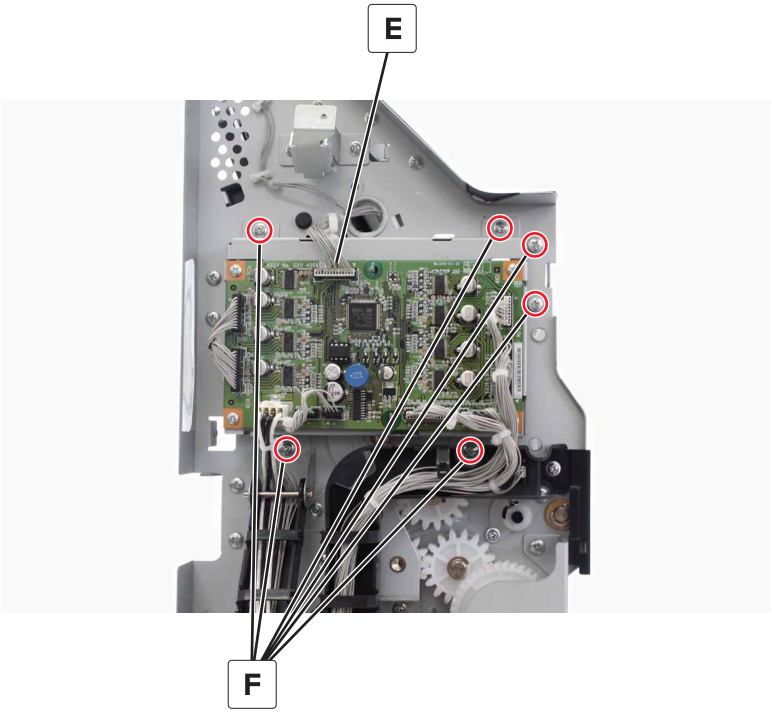
5 Disconnect the cable (C).



6 Remove the three screws (D).

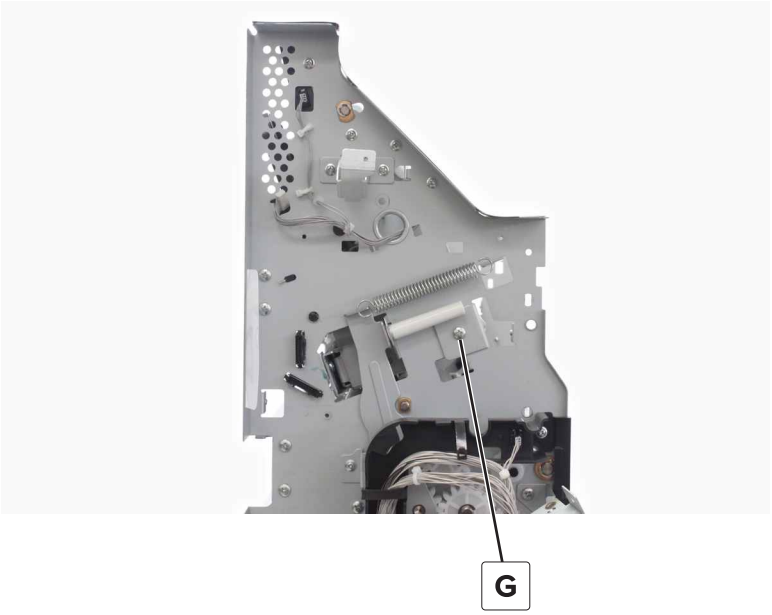


7 Disconnect the cable (E), and then remove the six screws (F).



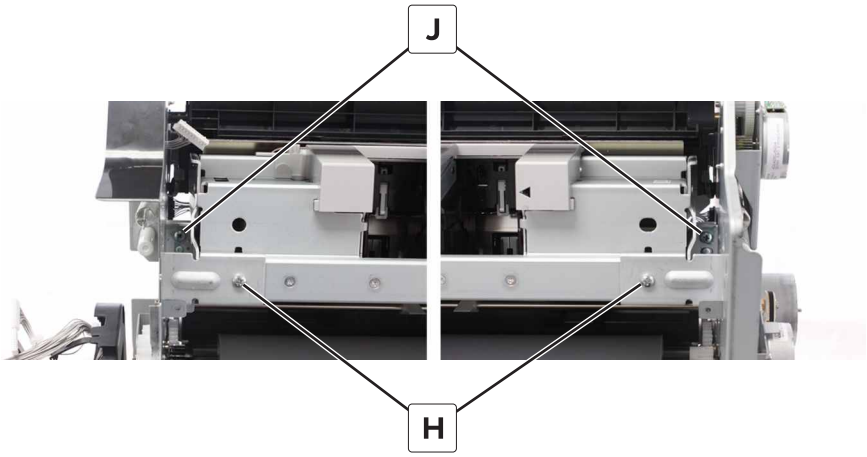
8 Remove the controller board holder and frame brace.

9 Remove the screw (G).

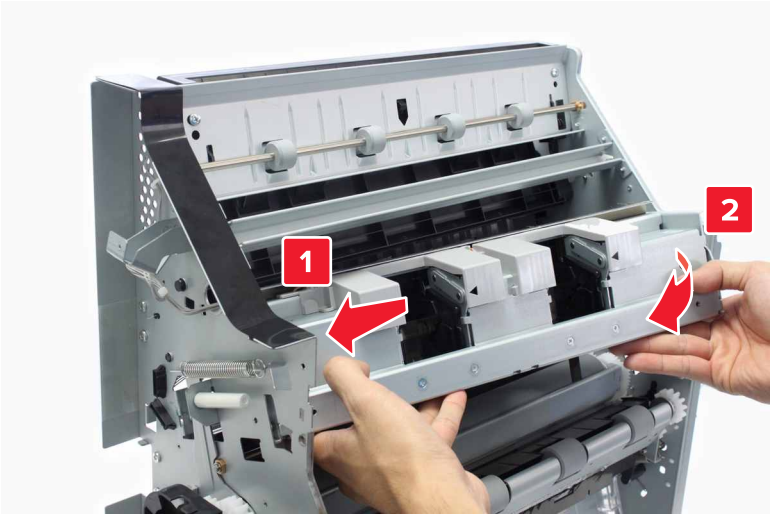


10 Remove the two screws (H), and then remove the brackets.

11 Remove the two screws (J).



12 Remove the staple unit.



Trifold diverter removal

1 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

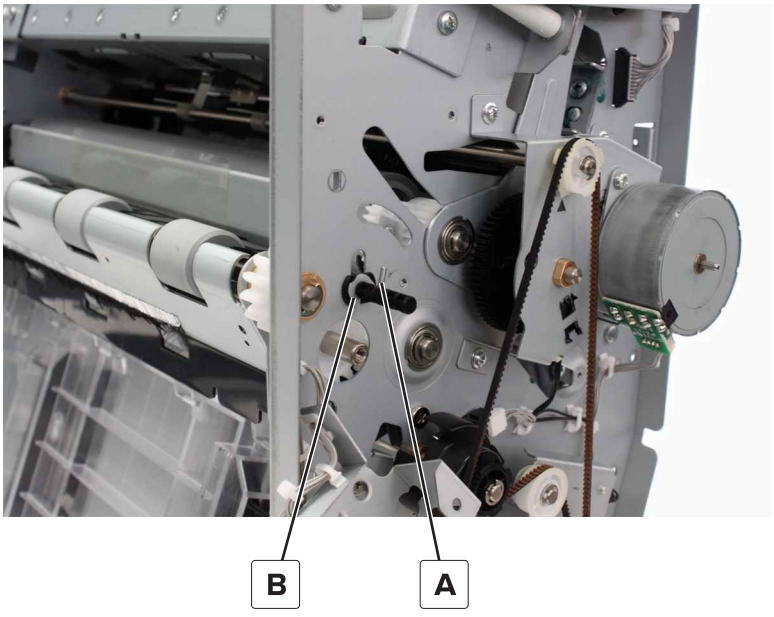
2 Remove the trifold guide motor bracket. See **"Trifold guide motor bracket removal" on page 481**.

3 Remove the trifold gate actuator. See **"Trifold gate actuator removal" on page 482**.

4 Remove the trifold knife assembly. See **"Trifold knife assembly removal" on page 497**.

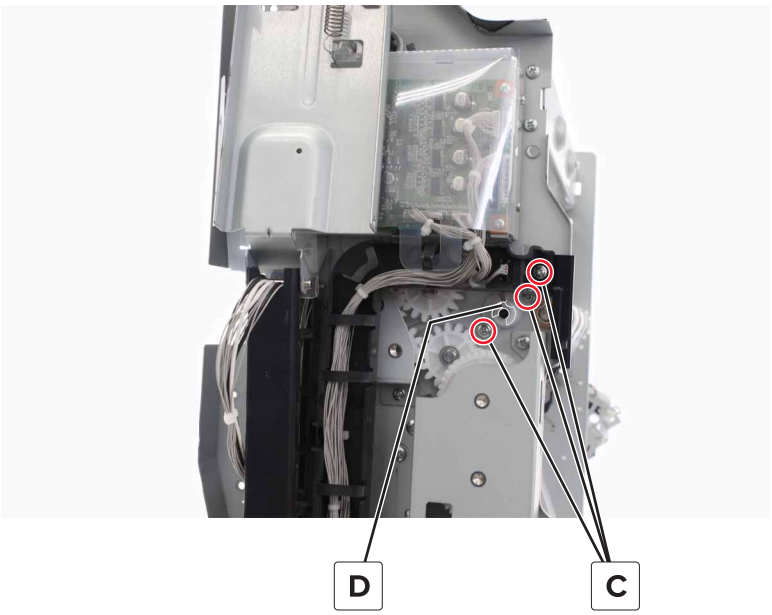
5 Remove the pin (A).

6 Remove the clip (B), and then remove the bushing.

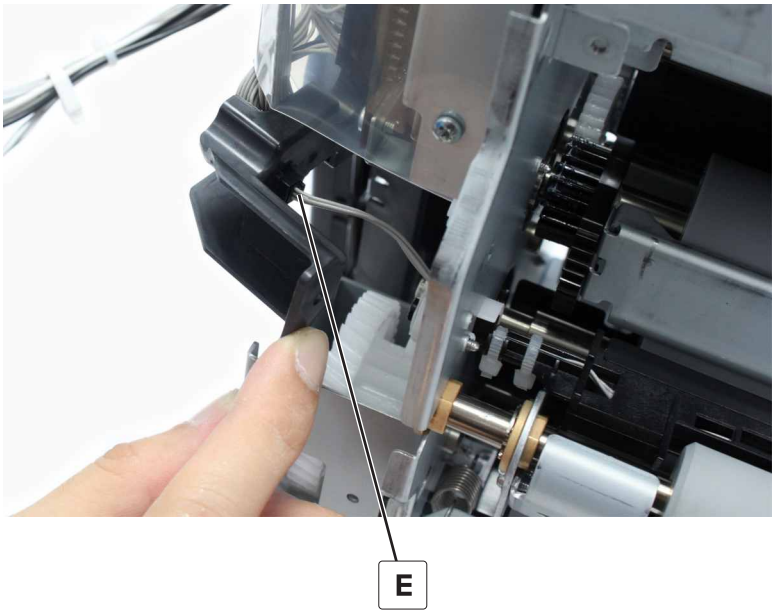


7 Remove the three screws (C).

8 Remove the clip (D).



9 Disconnect the cable (E), and then remove the diverter.



Sensor (booklet maker fold exit) removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

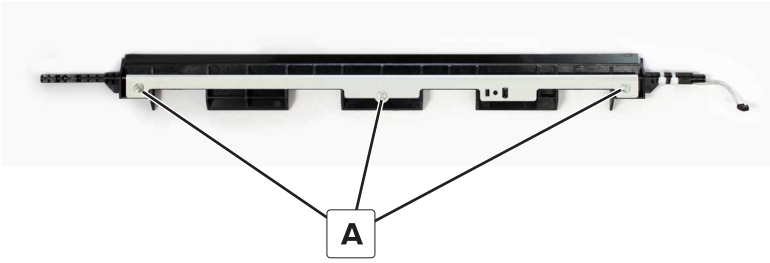
2 Remove the trifold guide motor bracket. See **“Trifold guide motor bracket removal” on page 481**.

3 Remove the trifold gate actuator. See **“Trifold gate actuator removal” on page 482**.

4 Remove the trifold knife assembly. See **“Trifold knife assembly removal” on page 497**.

5 Remove the trifold diverter. See **“Trifold diverter removal” on page 507**.

6 Remove the three screws (A).



7 Disconnect the cable (B), and then remove the sensor.

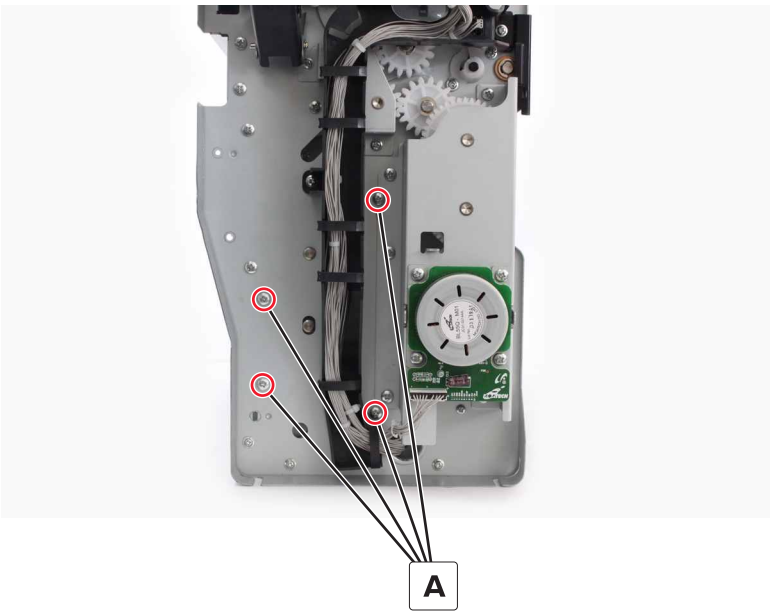
Bifold knife primary drive gears removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

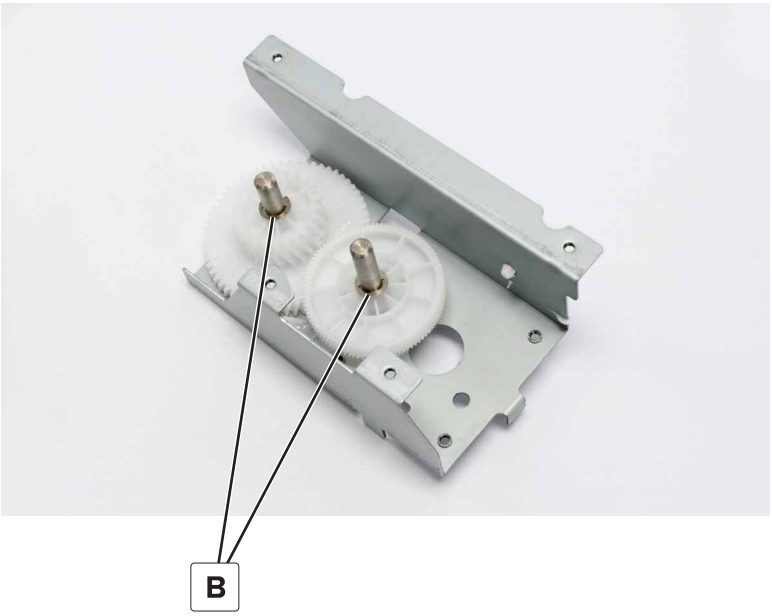
2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

3 Remove the motor (bifold knife). See **“Motor (bifold knife) removal” on page 483**.

4 Remove the four screws (A), and then remove the bracket.



5 Remove the two clips (B), and then remove the gears.



Bifold knife and tamper assembly removal

Note: This part is not a FRU.

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

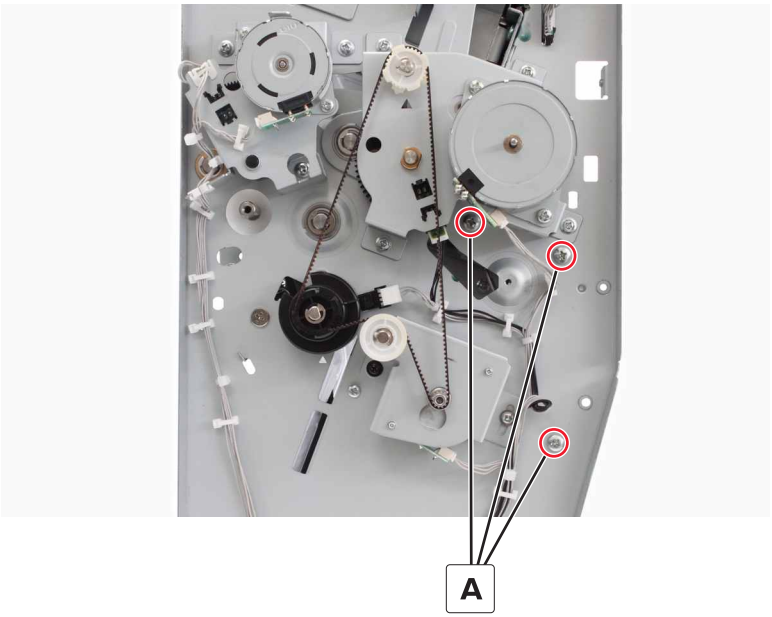
2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

3 Remove the top frame brace. See **“Top frame brace removal” on page 455**.

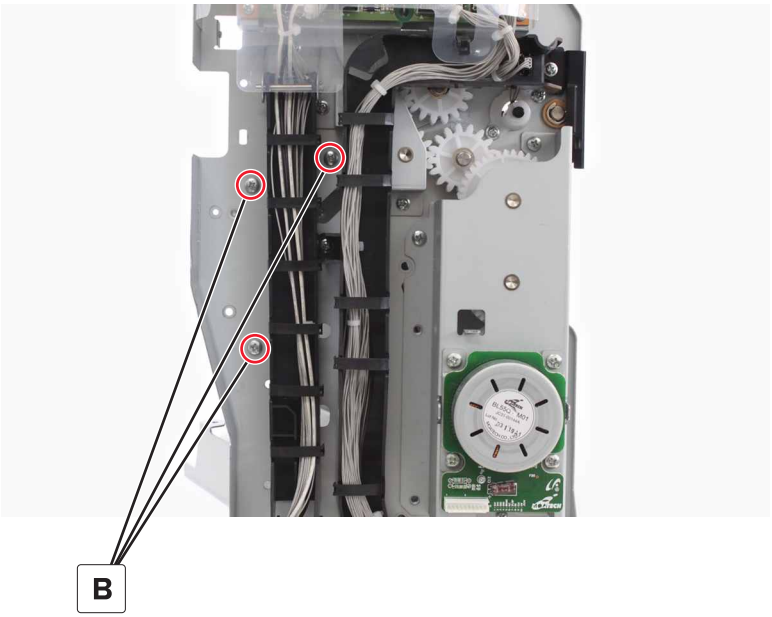
4 Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.

5 Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.

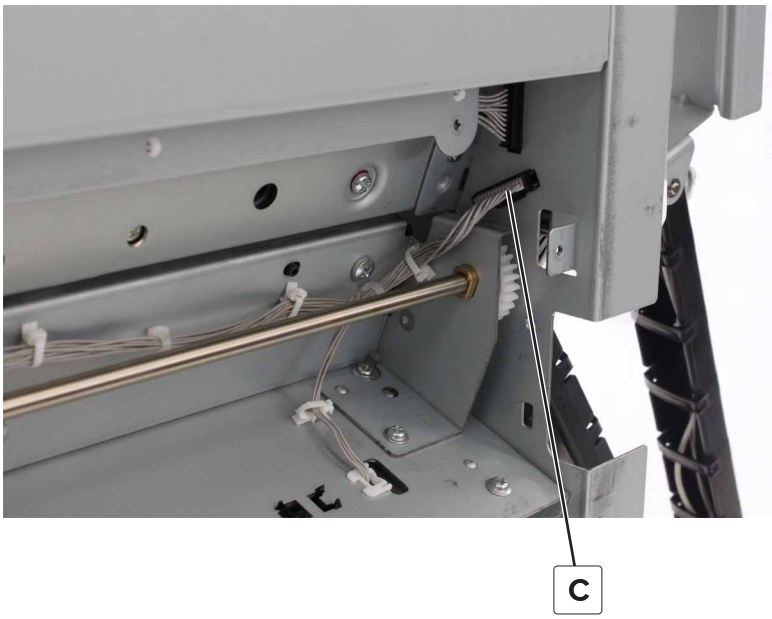
6 Remove the three screws (A).



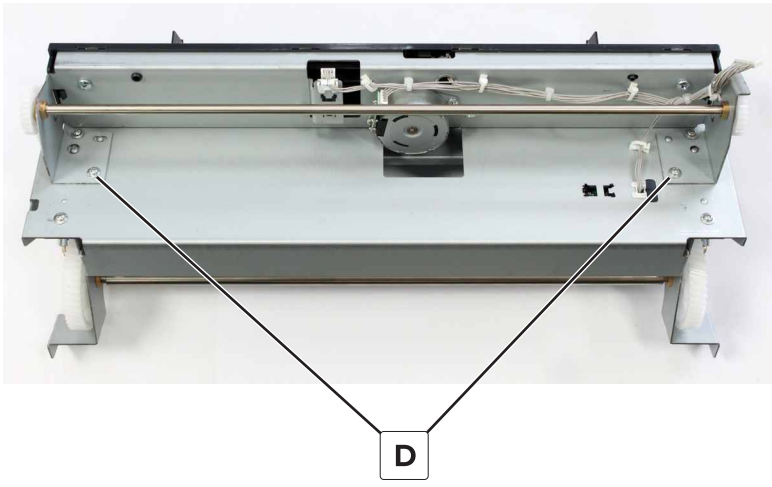
7 Remove the three screws (B).



8 Disconnect the cable (C), and then remove the assembly.



9 Remove the two screws (D), and then separate the bifold knife assembly and tamper assembly.



Sensor (bifold knife home) removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

3 Remove the top frame brace. See **“Top frame brace removal” on page 455**.

4 Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.

5 Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.

6 Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.

7 Disconnect the cable (A), and then remove the sensor.

Bifold knife plates removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

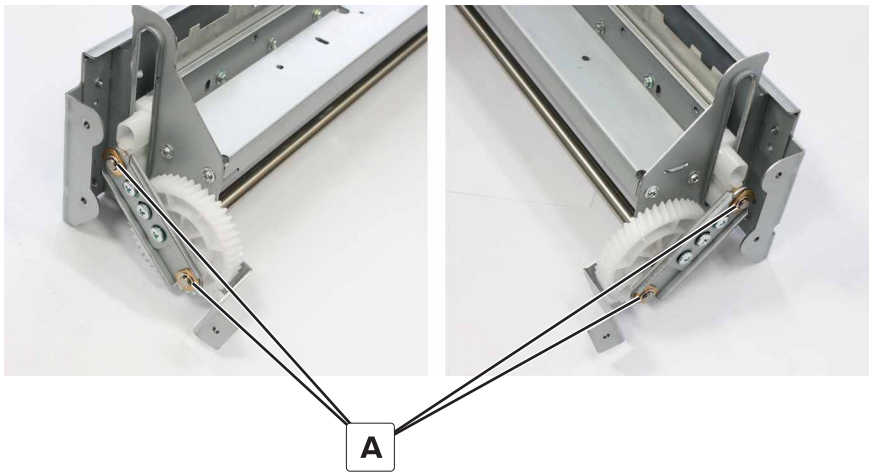
3 Remove the top frame brace. See **“Top frame brace removal” on page 455**.

4 Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.

5 Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.

6 Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.

7 Remove the four clips (A), and then remove the four bushings.



8 Remove the plates.

Bifold knife secondary drive gears removal

1 Remove the front cover. See **"Booklet maker front cover removal" on page 449**.

2 Remove the right cover. See **"Booklet maker right cover removal" on page 449**.

3 Remove the top frame brace. See **"Top frame brace removal" on page 455**.

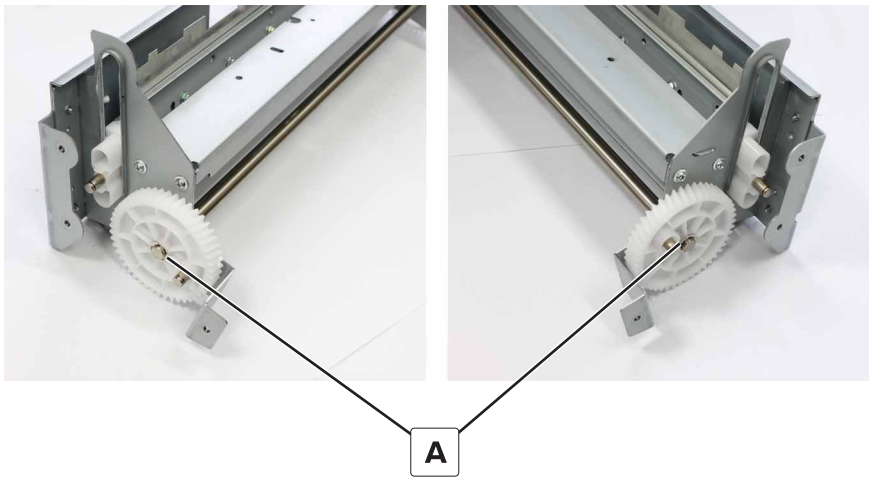
4 Remove the middle frame brace. See **"Middle frame brace removal" on page 457**.

5 Remove the bifold knife primary drive gears bracket. See **"Bifold knife primary drive gears removal" on page 509**.

6 Remove the bifold knife and tamper assembly. See **"Bifold knife and tamper assembly removal" on page 510**.

7 Remove the bifold knife plates. See **"Bifold knife plates removal" on page 513**.

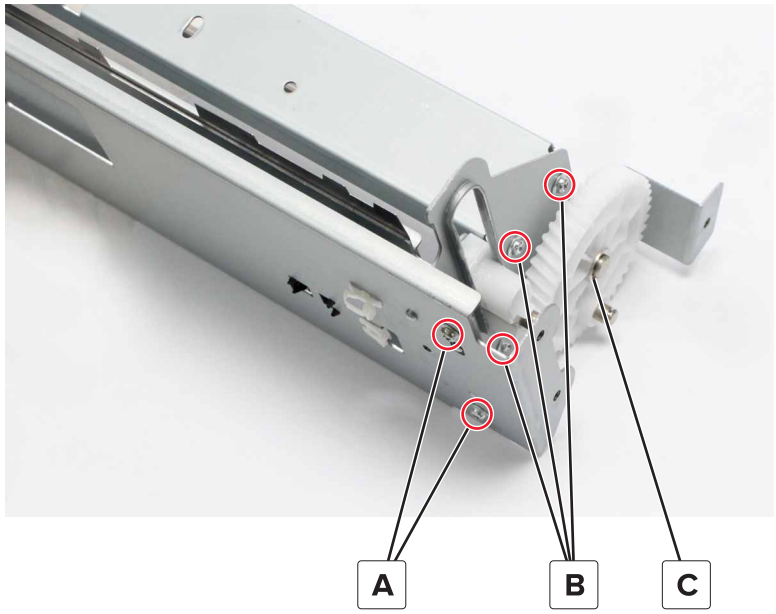
8 Remove the two clips (A), and then remove the gears.



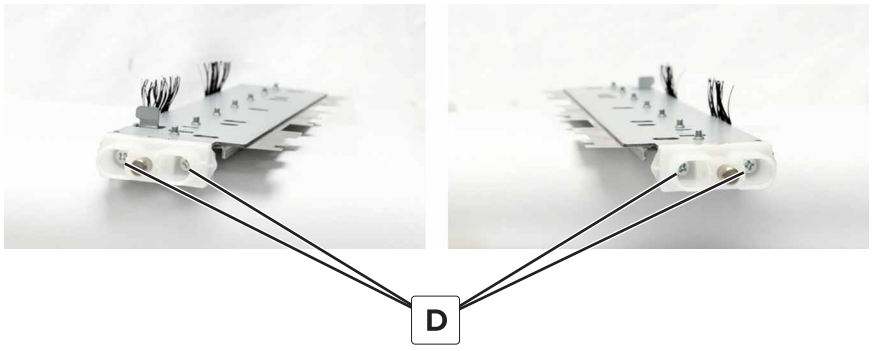
Installation note: Align the protruding shafts on each gear with each other.

Bifold knife removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Remove the top frame brace. See **“Top frame brace removal” on page 455**.
4. Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.
5. Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.
6. Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.
7. Remove the bifold knife plates. See **“Bifold knife plates removal” on page 513**.
8. Remove the two screws (A).
9. Remove the three screws (B).
10. Remove the clip (C), and then remove the gear.



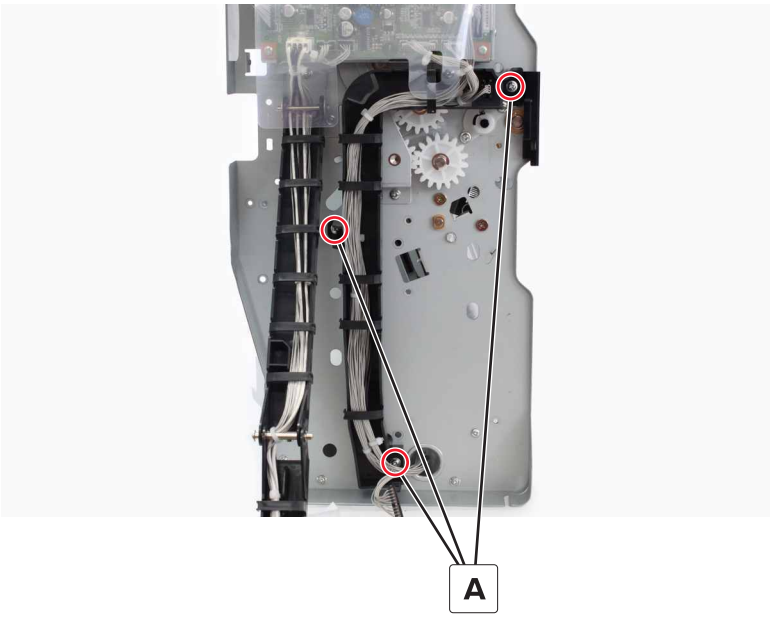
11. Remove the knife from the assembly.
12. Remove the four screws (D), and then remove the bushings.



Parts removal

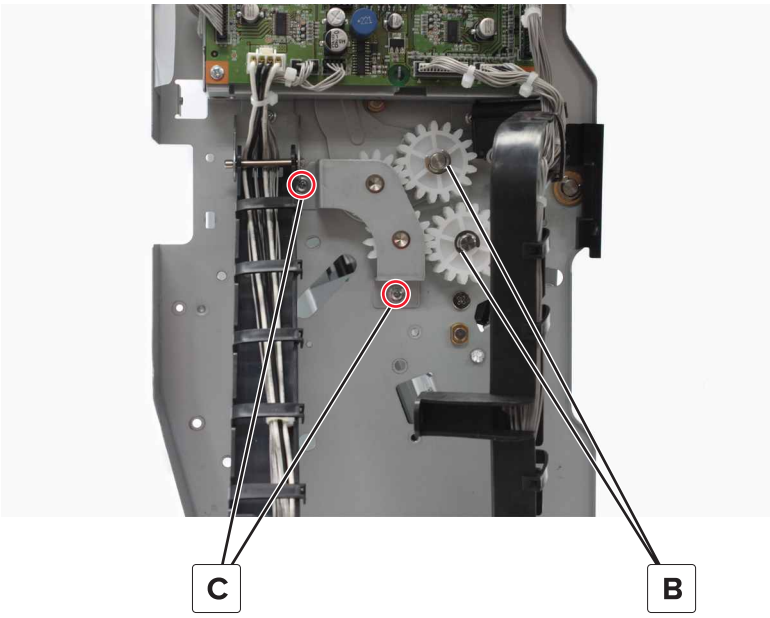
Bifold roller drive gears removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Remove the top frame brace. See **“Top frame brace removal” on page 455**.
4. Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.
5. Remove the bifold roller gears bracket. See **“Bifold roller gears removal” on page 464**.
6. Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.
7. Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.
8. Remove the three screws (A), and then set aside the cable holder.

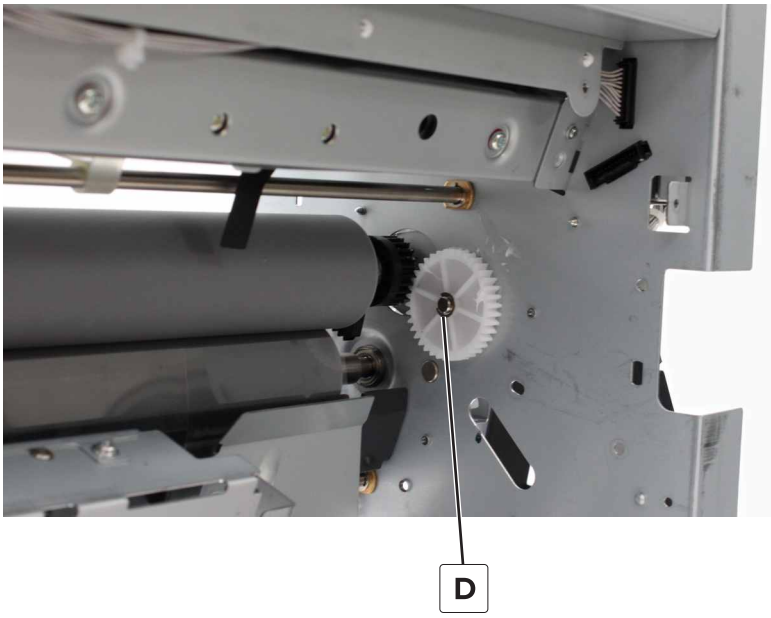


9. Remove the two clips (B), and then remove the gears.

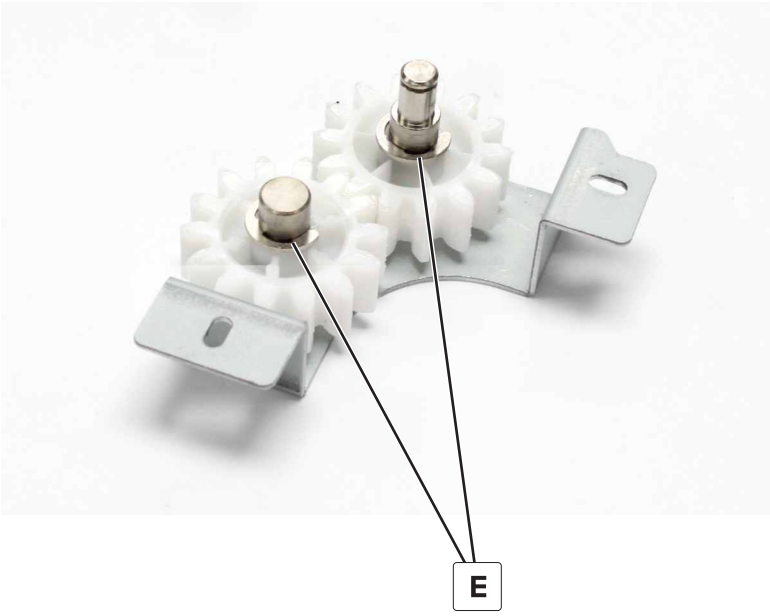
10 Remove the two screws (C), and then remove the gear bracket.



11 Remove the clip (D), and then remove the gear.



12 Remove the two clips (E), and then remove the gears.



Installation note: Align the holes on the frame and arm, and then install the gear bracket.

Bifold guide drive gears removal

1 Remove the front cover. See **“Booklet maker front cover removal” on page 449**.

2 Remove the right cover. See **“Booklet maker right cover removal” on page 449**.

3 Remove the top frame brace. See **“Top frame brace removal” on page 455**.

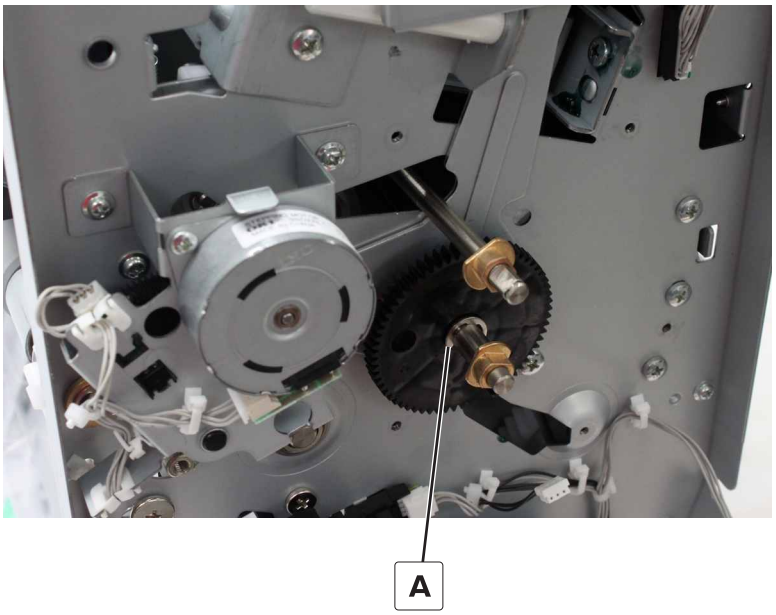
4 Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.

5 Remove the bifold guide motor bracket. See **“Bifold guide motor bracket removal” on page 479**.

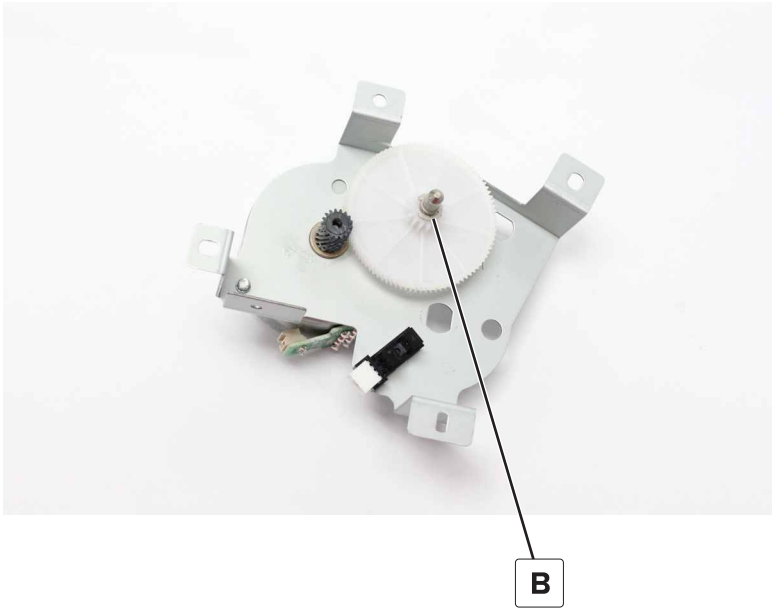
6 Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.

7 Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.

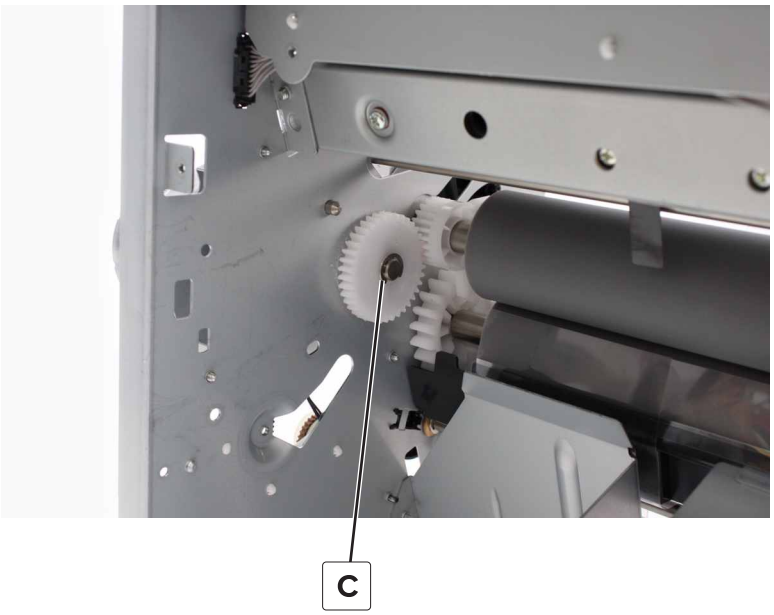
8 Remove the clip (A), and then remove the gear.



9 Remove the clip (B), and then remove the gear.

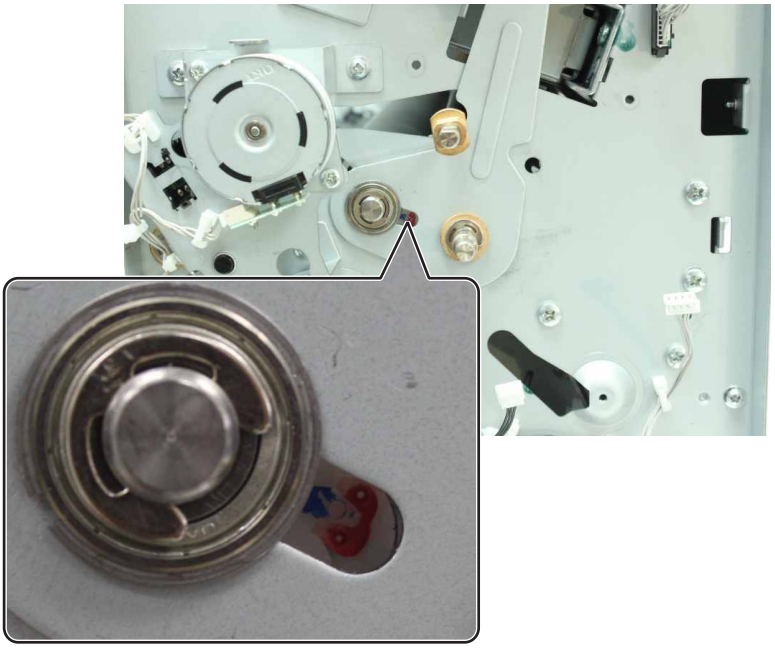


10 Remove the clip (C), and then remove the gear.

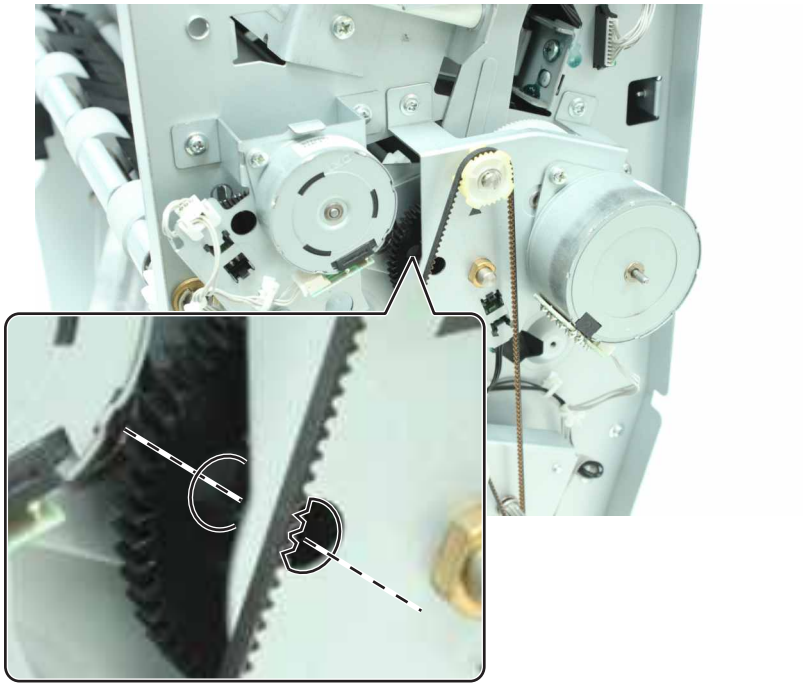


Installation notes:

a Show the marks on the inner gears through the hole, and then align the colors.



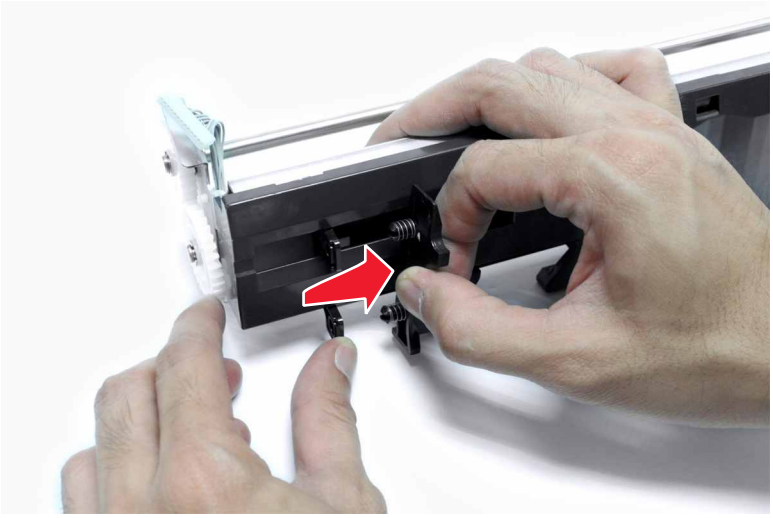
b Align the hole on the gear with the hole on the motor bracket.



Booklet maker tamper tray removal

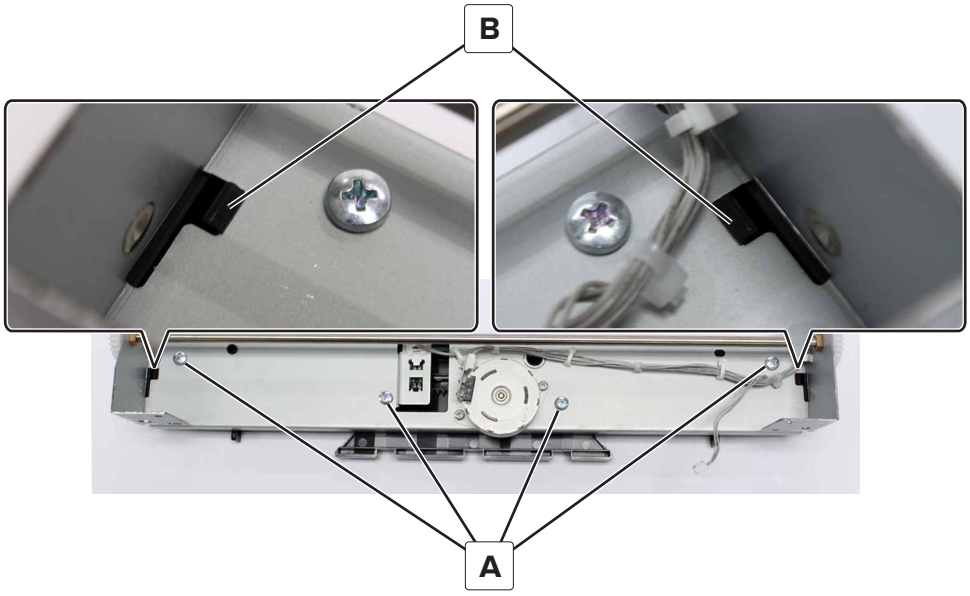
1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Remove the top frame brace. See **“Top frame brace removal” on page 455**.
4. Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.
5. Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.
6. Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.

7 Remove the front and rear tamper plates.



8 Remove the four screws (A).

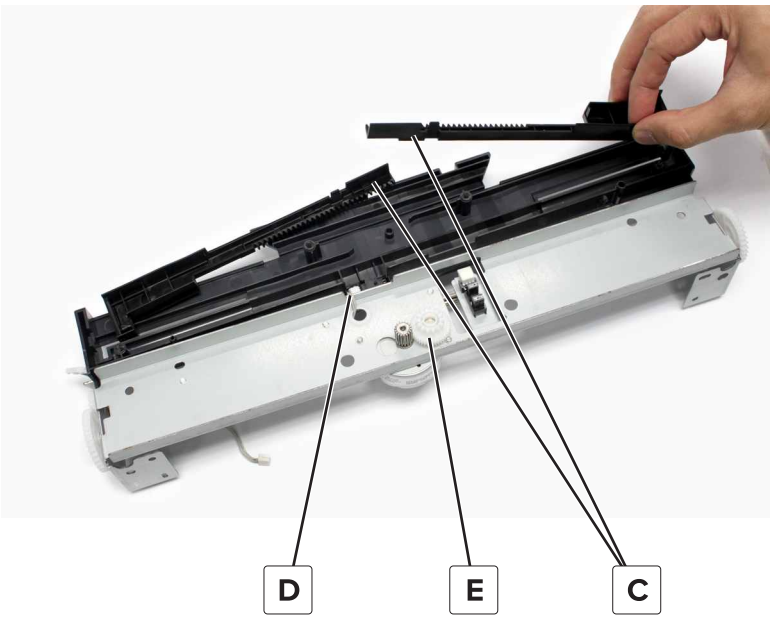
9 Release the two latches (B), and then separate the tamper tray.



10 Remove the two tamper racks (C).

11 Remove the sensor (booklet maker tamper paper present) (D).

12 Remove the gear (E).

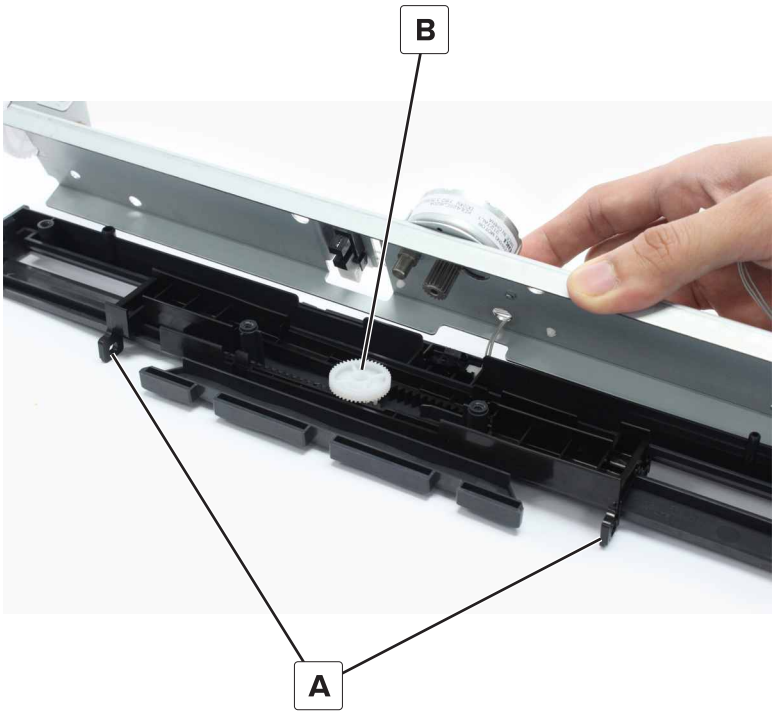


Installation notes:

a Install the sensor (booklet maker tamper paper present).

b Place the tamper racks (A) at the innermost position.

c Install the gear (B) on the tamper tray.

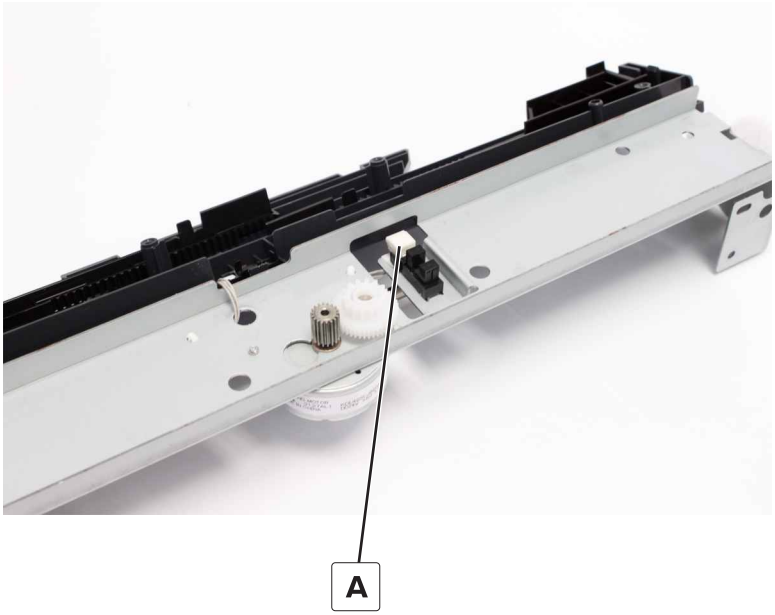


d Install the tamper tray on the metal bracket.

e Test if the tampers are synchronized, and then install the screws.

Sensor (booklet maker tamper home) removal

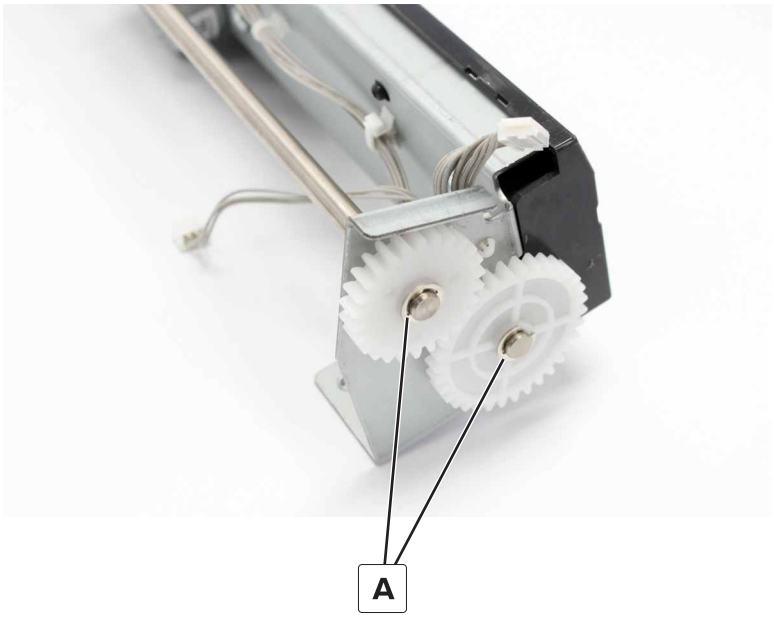
1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Remove the top frame brace. See **“Top frame brace removal” on page 455**.
4. Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.
5. Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.
6. Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.
7. Remove the tamper tray. See **“Booklet maker tamper tray removal” on page 521**.
8. Disconnect the cable (A), and then remove the sensor.



Bifold guide idler gears removal

1. Remove the front cover. See **“Booklet maker front cover removal” on page 449**.
2. Remove the right cover. See **“Booklet maker right cover removal” on page 449**.
3. Remove the top frame brace. See **“Top frame brace removal” on page 455**.
4. Remove the middle frame brace. See **“Middle frame brace removal” on page 457**.
5. Remove the bifold knife primary drive gears bracket. See **“Bifold knife primary drive gears removal” on page 509**.
6. Remove the bifold knife and tamper assembly. See **“Bifold knife and tamper assembly removal” on page 510**.

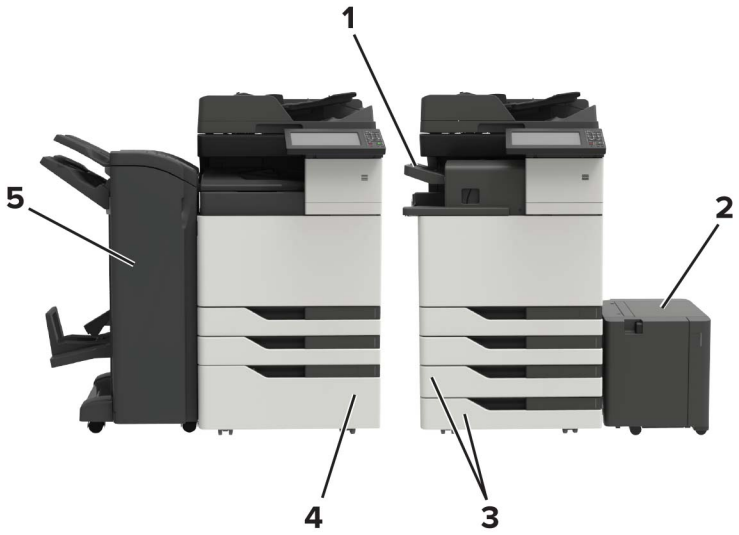
7 Remove the two clips (A), and then remove the two gears. Repeat this step for the gears on the other side.



Component locations

Exterior locations

Configured model



#	Part
1	Staple finisher **Notes:** • The staple finisher is not supported if another finisher is installed. • The staple finisher is not supported by CX924 printers.
2	3000-sheet tray **Note:** The 3000-sheet tray is supported only if the optional 2 x 500- or 2500-sheet tray is installed.
3	2 x 500-sheet tray
4	2500-sheet tray
5	Finisher • Staple, hole punch finisher • Hole punch, booklet finisher

Maintenance

Inspection guide

Use this guide in identifying the parts that must be inspected, cleaned, or replaced based on the page count.

If any unsafe conditions exist, then find out how serious the hazard is and if you can continue before you correct the hazard.

Check for the following while you are servicing the finishers:

- Damaged, missing, or altered parts
- Possible safety exposure from any non-Lexmark attachments

Clean the following parts with a damp cloth on every 300K page count:

- Rollers and idler rollers
- Paddles
- Bifold rollers

Lubrication specification

Lubricate only when the parts are replaced or if necessary, not on a scheduled basis. The use of lubricants other than those specified in this service manual may cause premature failure. Some unauthorized lubricants may chemically attack polycarbonate parts. Use Grease P/N 99A0394 Nyogel 744.

Parts catalog

Legend

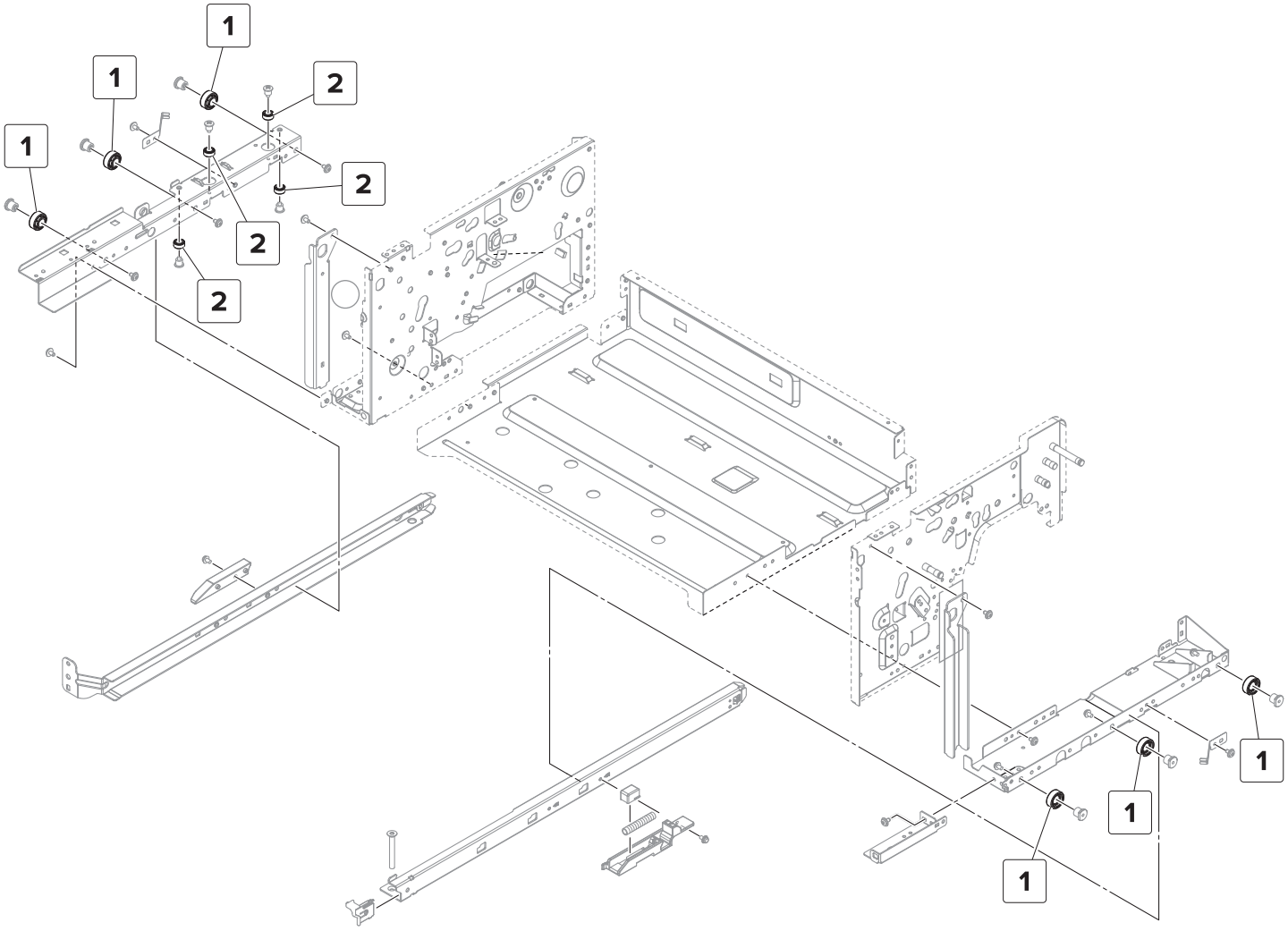
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration
- **P/N**—Identifies the part number of a FRU
- **Units/mach**—Refers to the number of units in a printer
- **Units/opt**—Refers to the number of units in an option
- **Units/FRU**—Refers to the number of units in a FRU
- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

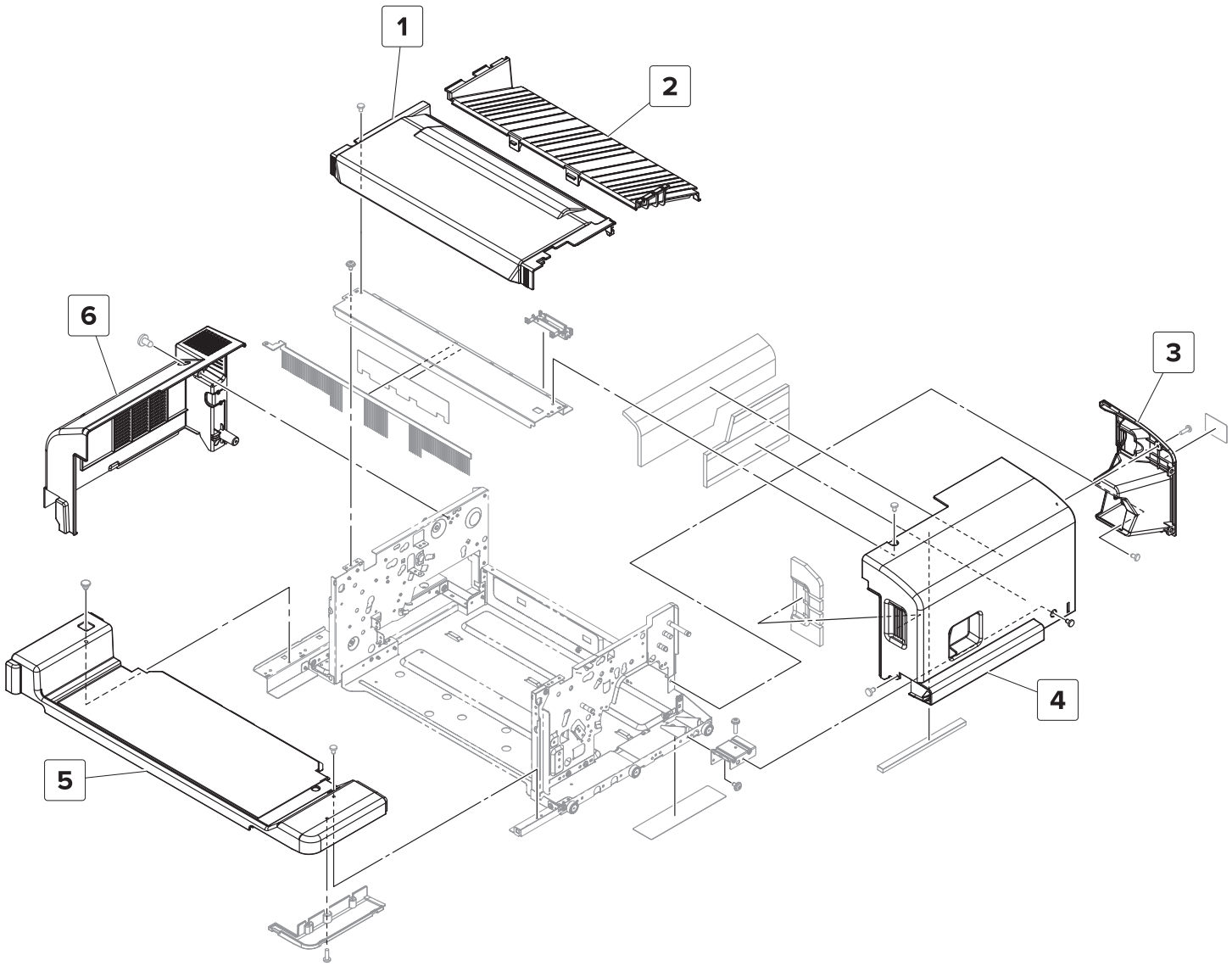
Assembly 1: Staple finisher—Frame



Assembly 1: Staple finisher—Frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9810	6	1	Staple finisher side guide wheel	--
2	40X9334	4	1	Staple finisher bottom guide wheel	--

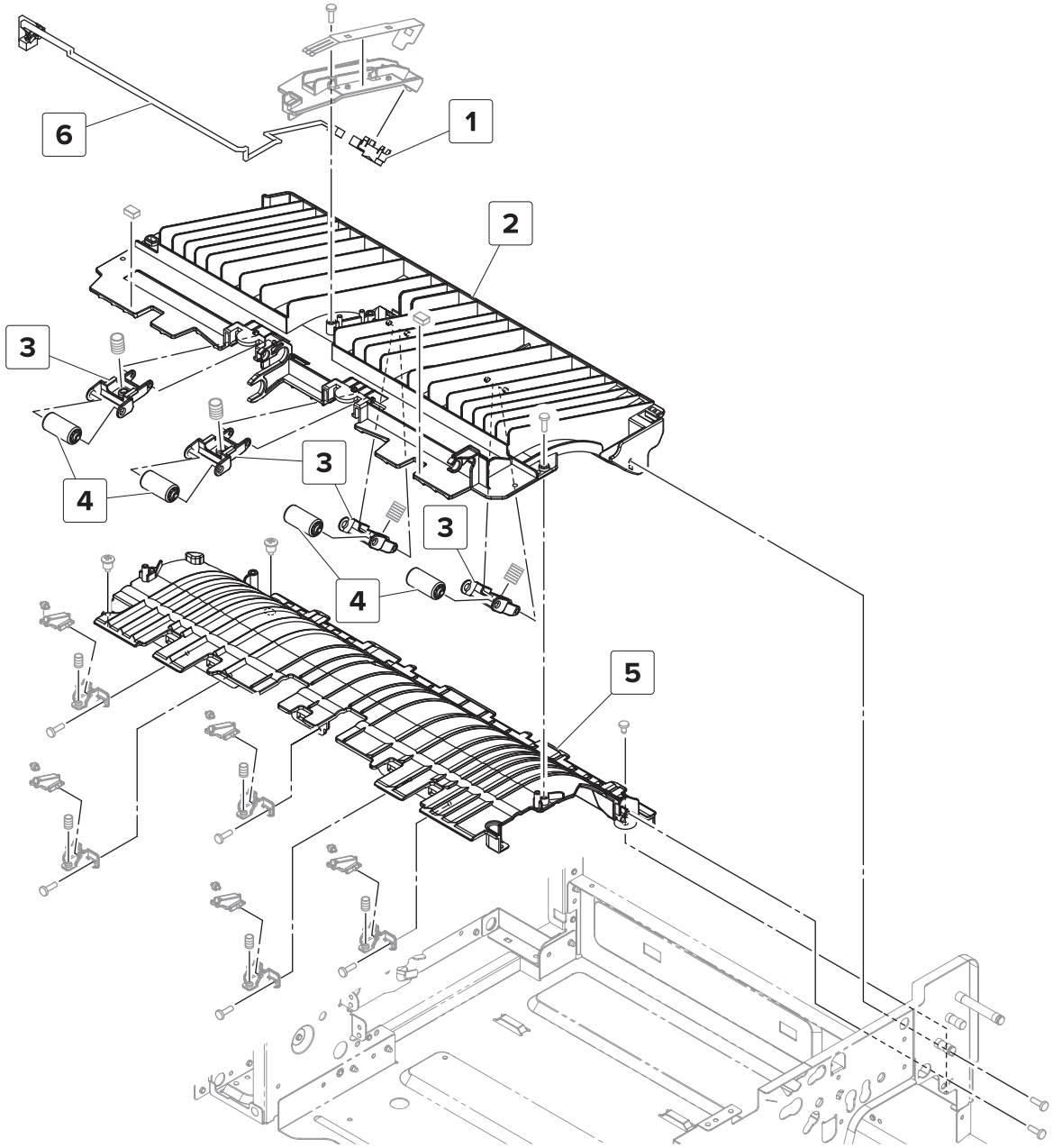
Assembly 2: Staple finisher—Covers



Assembly 2: Staple finisher—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9337	1	1	Staple finisher top cover	**“Staple finisher top cover removal” on page 223**
2	40X9395	1	1	Staple finisher upper guide cover	--
3	40X9336	1	1	Staple finisher right cover	**“Staple finisher right cover removal” on page 222**
4	40X9335	1	1	Staple finisher front cover	**“Staple finisher front cover removal” on page 221**
5	40X9811	1	1	Staple finisher rail cover	--
6	40X9338	1	1	Staple finisher rear cover	**“Staple finisher rear cover removal” on page 222**

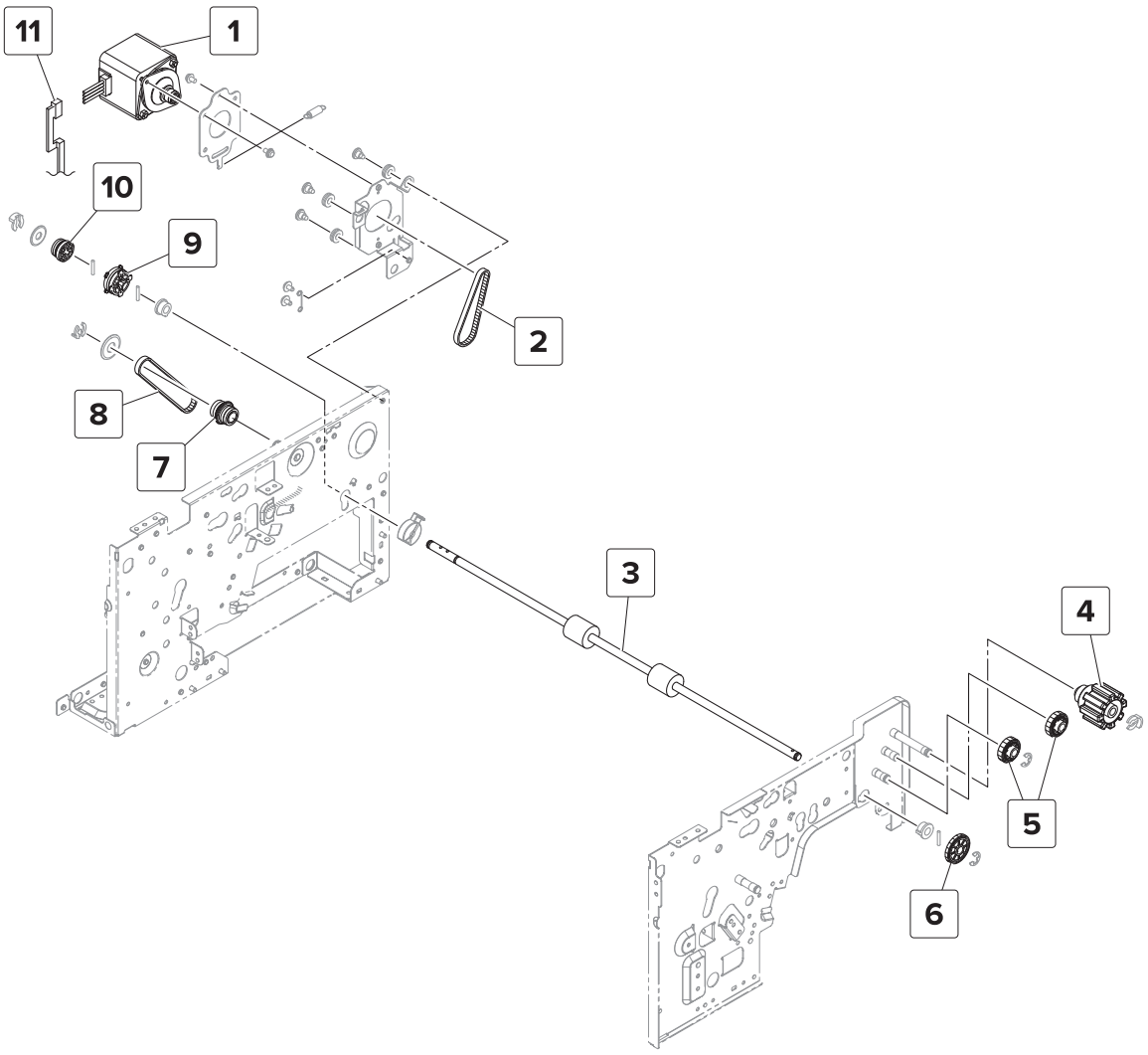
Assembly 3: Staple finisher—Transport section 1



Assembly 3: Staple finisher—Transport section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9347	1	1	Sensor (staple finisher paper feed)	**“Sensor (staple finisher paper feed) removal” on page 250**
2	40X9350	1	1	Staple finisher upper guide	**“Staple finisher upper guide removal” on page 279**
3	40X9898	4	1	Staple finisher paper feed idler holder	**“Staple finisher upper guide removal” on page 279**
4	40X9349	4	1	Staple finisher paper feed idler roller	**“Staple finisher upper guide removal” on page 279**
5	40X9351	1	1	Staple finisher lower guide	**“Staple finisher lower guide removal” on page 283**
6	40X9348	1	1	Staple finisher paper feed sensor cable	--

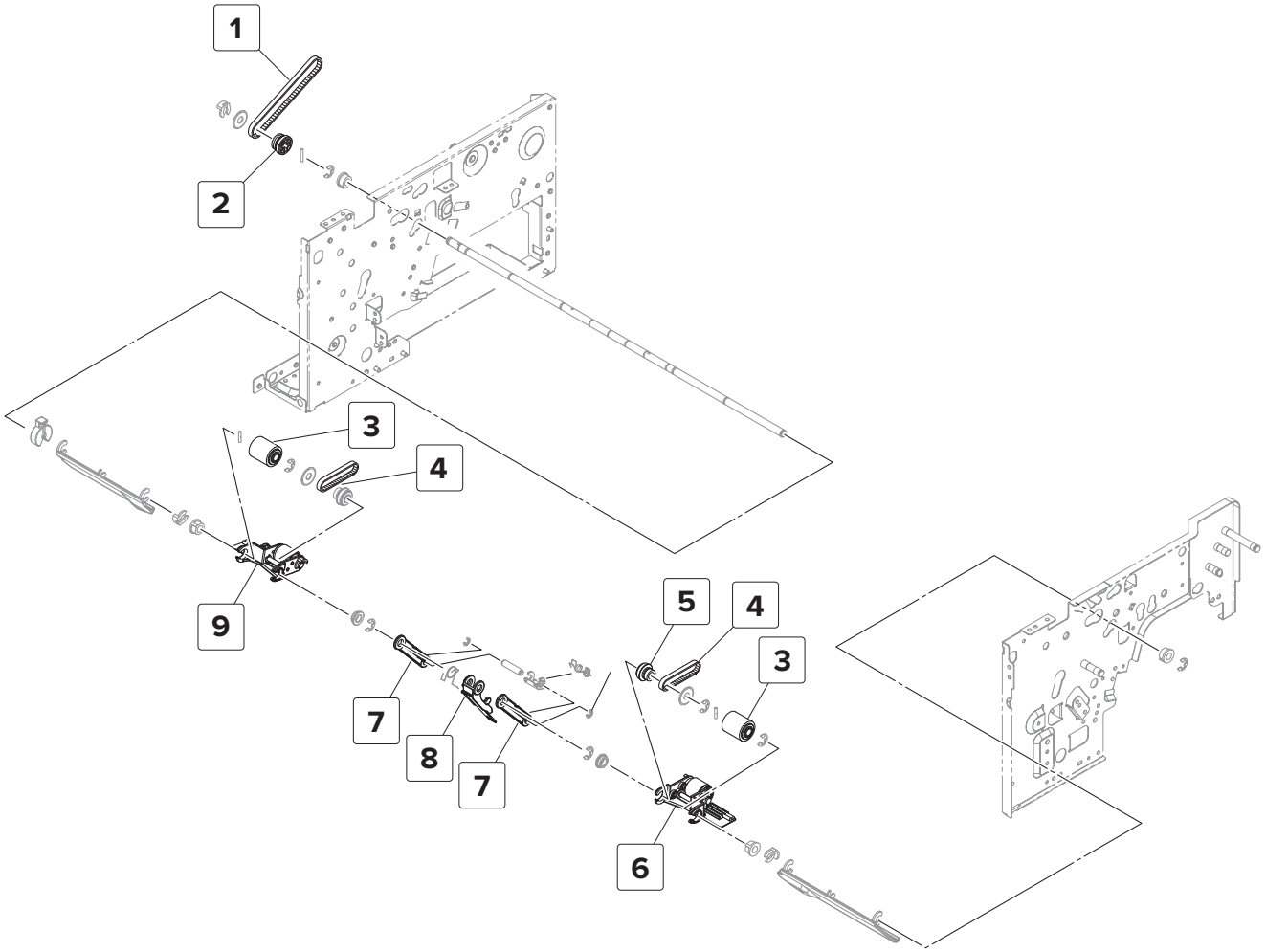
Assembly 4: Staple finisher—Transport section 2



Assembly 4: Staple finisher—Transport section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9366	1	1	Motor (staple finisher transport)	“Motor (staple finisher transport) removal” on page 239
2	40X9369	1	1	Staple finisher transport motor belt	--
3	40X9365	1	1	Staple finisher transport roller	“Staple finisher transport roller removal” on page 293
4	40X9817	1	1	Staple finisher jam removal knob	“Staple finisher transport jam removal gears removal” on page 232
5	40X9816	2	1	Staple finisher jam removal gear 1	“Staple finisher transport jam removal gears removal” on page 232
6	40X9371	1	1	Staple finisher jam removal gear 2	“Staple finisher transport jam removal gears removal” on page 232
7	40X9904	1	1	Staple finisher tamper feed roller secondary gear	--
8	40X9364	1	1	Staple finisher tamper feed roller primary belt	--
9	40X9370	1	1	Staple finisher tamper feed roller primary gear	--
10	40X9820	1	1	Staple finisher transport motor gear	--
11	40X9367	1	1	Staple finisher transport motor cable	--

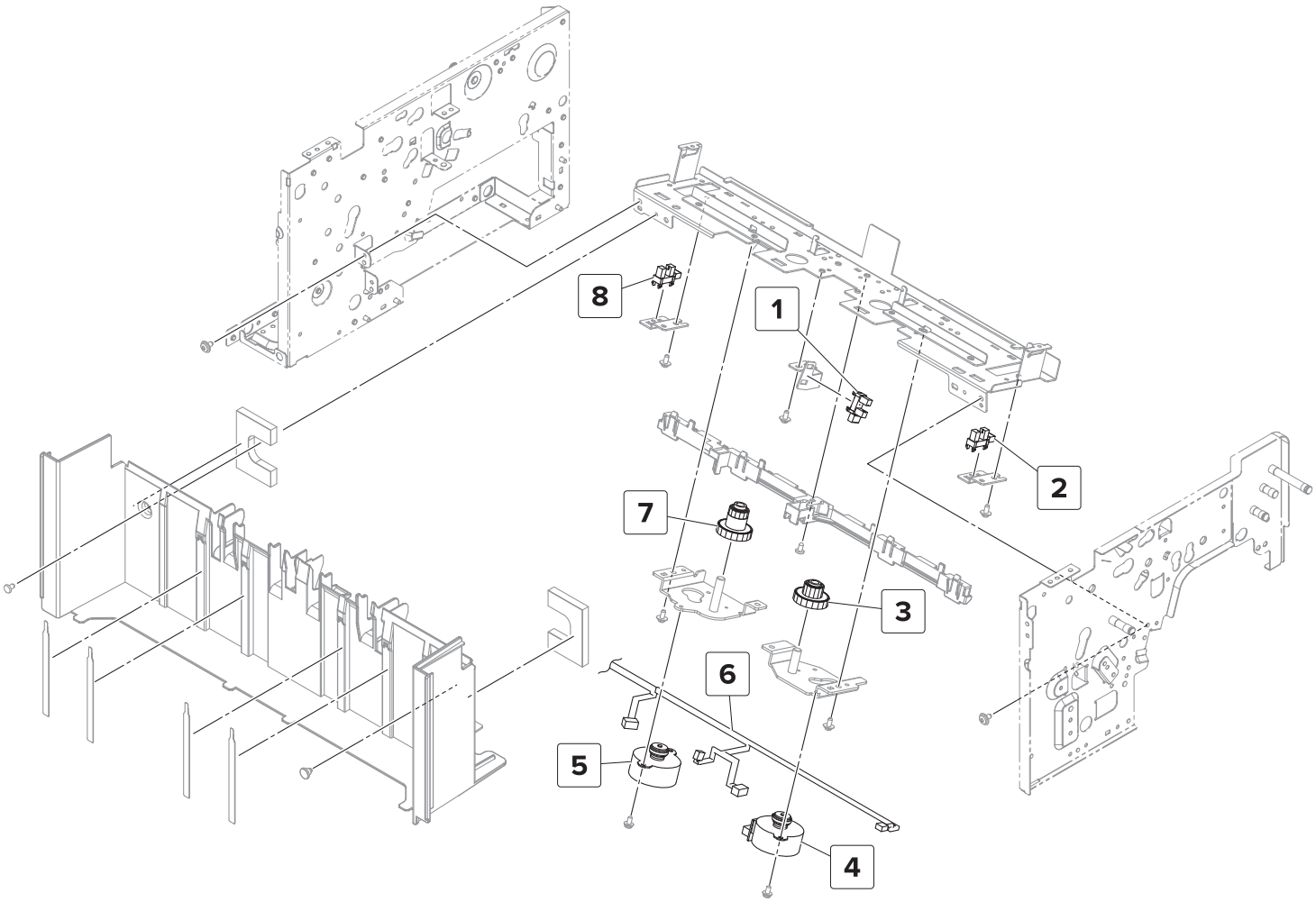
Assembly 5: Staple finisher—Compiler feed roller assembly



Assembly 5: Staple finisher—Compiler feed roller assembly

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9364	1	1	Staple finisher compiler feed roller belt	“Staple finisher compiler feed roller shaft assembly removal” on page 288
2	40X9820	1	1	Staple finisher compiler feed roller gear	“Staple finisher compiler feed roller shaft assembly removal” on page 288
3	40X9359	2	1	Staple finisher compiler feed roller	“Staple finisher compiler feed rollers and gears removal” on page 290
4	40X9360	2	1	Staple finisher aligner roller belt	“Staple finisher compiler feed rollers and gears removal” on page 290
5	40X9409	1	1	Gear, 16/26T	--
6	40X9910	1	1	Staple finisher front aligner roller	“Staple finisher aligner roller removal” on page 287
7	40X9362	2	1	Staple finisher stack clamp holder	--
8	40X9815	1	1	Staple finisher stack clamp	--
9	40X9911	1	1	Staple finisher rear aligner roller	“Staple finisher aligner roller removal” on page 287

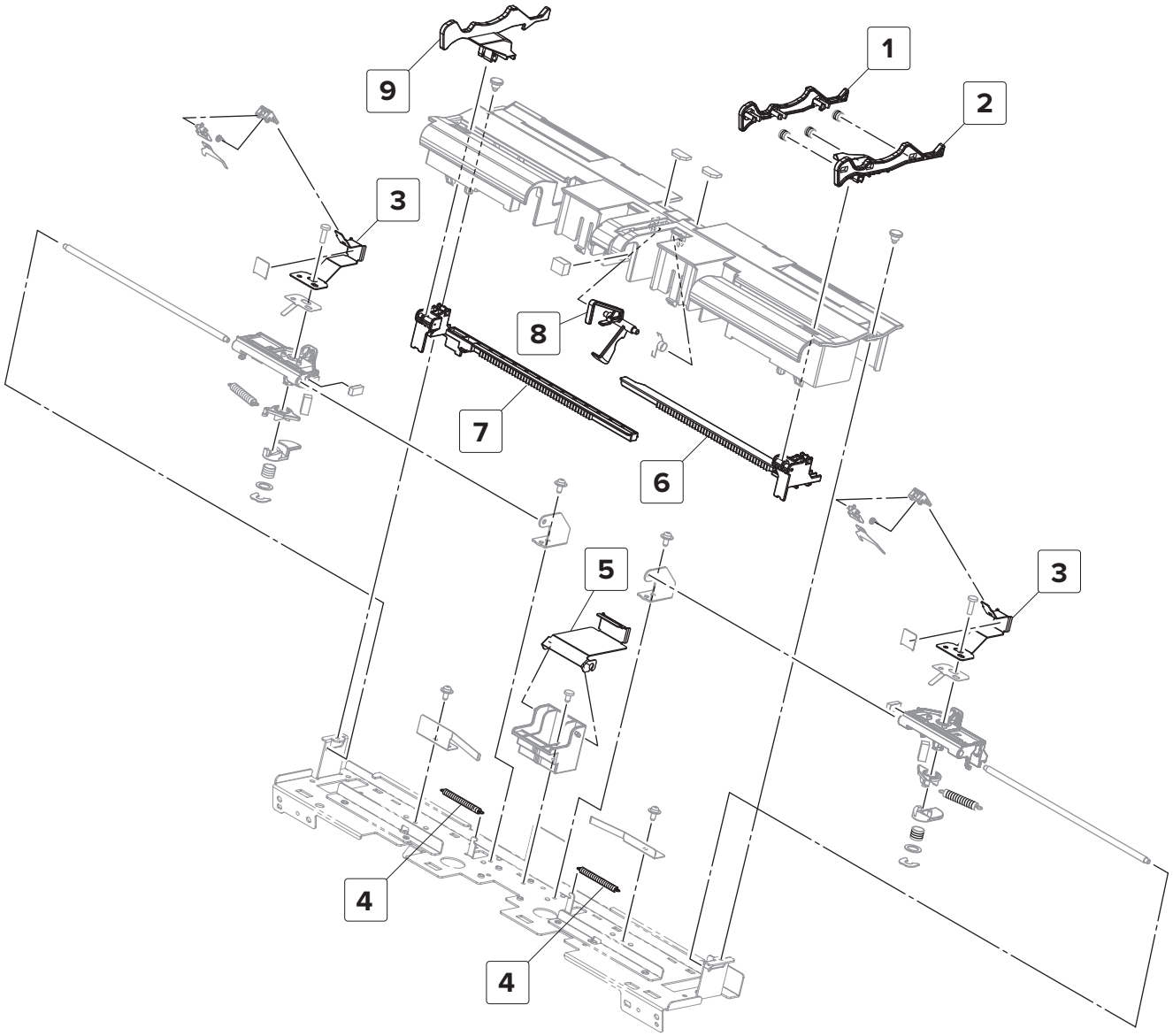
Assembly 6: Staple finisher—Compiler section 1



Assembly 6: Staple finisher—Compiler section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9343	1	1	Sensor (staple finisher tamper paper present)	“Staple finisher tamper sensors removal” on page 231
2	40X9343	1	1	Sensor (staple finisher front tamper home)	“Staple finisher tamper sensors removal” on page 231
3	40X9397	1	1	Staple finisher front tamper gear	“Staple finisher tamper drive gears removal” on page 305
4	40X9380	1	1	Motor (staple finisher front tamper)	“Motor (staple finisher tamper) removal” on page 230
5	40X9380	1	1	Motor (staple finisher rear tamper)	“Motor (staple finisher tamper) removal” on page 230
6	40X9396	1	1	Staple finisher tamper cable	--
7	40X9826	1	1	Staple finisher rear tamper gear	“Staple finisher tamper drive gears removal” on page 305
8	40X9343	1	1	Sensor (staple finisher rear tamper home)	“Staple finisher tamper sensors removal” on page 231

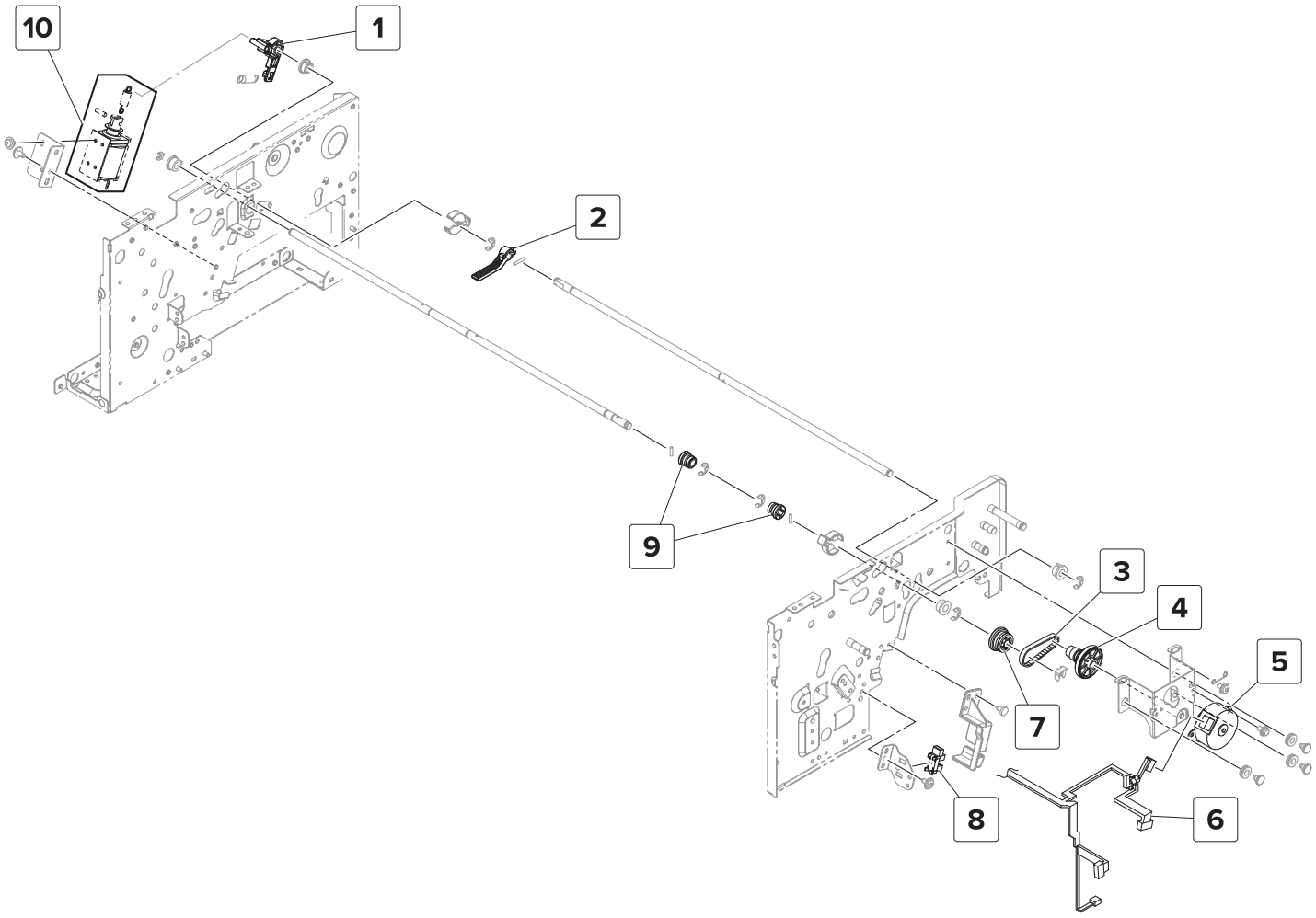
Assembly 7: Staple finisher—Compiler section 2



Assembly 7: Staple finisher—Compiler section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9398	1	1	Staple finisher front tamper	"Staple finisher tamper racks removal" on page 307
2	40X9176	1	1	Staple finisher front tamper holder	"Staple finisher tamper racks removal" on page 307
3	40X9642	2	1	Staple finisher front and rear aligners	"Staple finisher tamper racks removal" on page 307
4	40X9404	2	1	Staple finisher aligner spring	--
5	40X9643	1	1	Staple finisher middle aligner	"Staple finisher tamper racks removal" on page 307
6	40X9827	1	1	Staple finisher front tamper rack	"Staple finisher tamper racks removal" on page 307
7	40X9828	1	1	Staple finisher rear tamper rack	"Staple finisher tamper racks removal" on page 307
8	40X9401	1	1	Staple finisher tamper paper present sensor actuator	"Staple finisher tamper racks removal" on page 307
9	40X9437	1	1	Staple finisher rear tamper	"Staple finisher tamper racks removal" on page 307

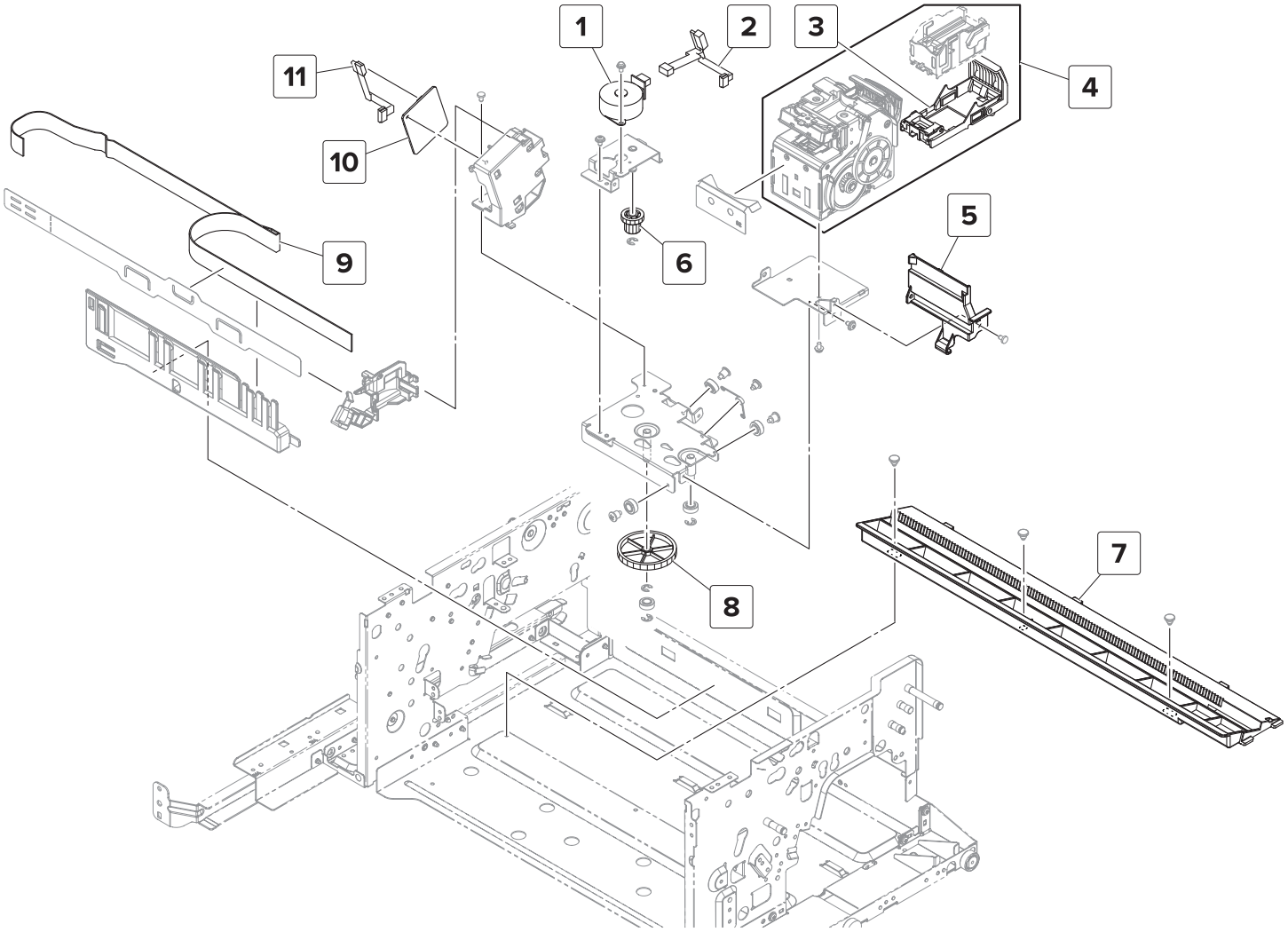
Assembly 8: Staple finisher—Aligner section



Assembly 8: Staple finisher—Aligner section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9385	1	1	Staple finisher stack lever actuator	“Staple finisher stack lever actuator removal” on page 261
2	40X9384	1	1	Staple finisher stack lever	“Staple finisher stack lever removal” on page 292
3	40X9360	1	1	Staple finisher aligner drive belt	“Staple finisher aligner belt and gears removal” on page 247
4	40X9825	1	1	Staple finisher aligner drive gear	“Staple finisher aligner belt and gears removal” on page 247
5	40X9380	1	1	Motor (staple finisher aligner)	“Motor (staple finisher aligner) removal” on page 246
6	40X9383	1	1	Staple finisher aligner section cables	--
7	40X9382	1	1	Staple finisher aligner secondary gear	“Staple finisher aligner belt and gears removal” on page 247
8	40X9343	1	1	Sensor (staple finisher staple unit carriage home)	“Sensor (staple finisher staple unit home) removal” on page 249
9	40X9386	2	1	Staple finisher aligner roller gear	“Staple finisher aligner roller gears removal” on page 295
10	40X9379	1	1	Staple finisher stack clamp solenoid	“Staple finisher stack clamp solenoid removal” on page 262

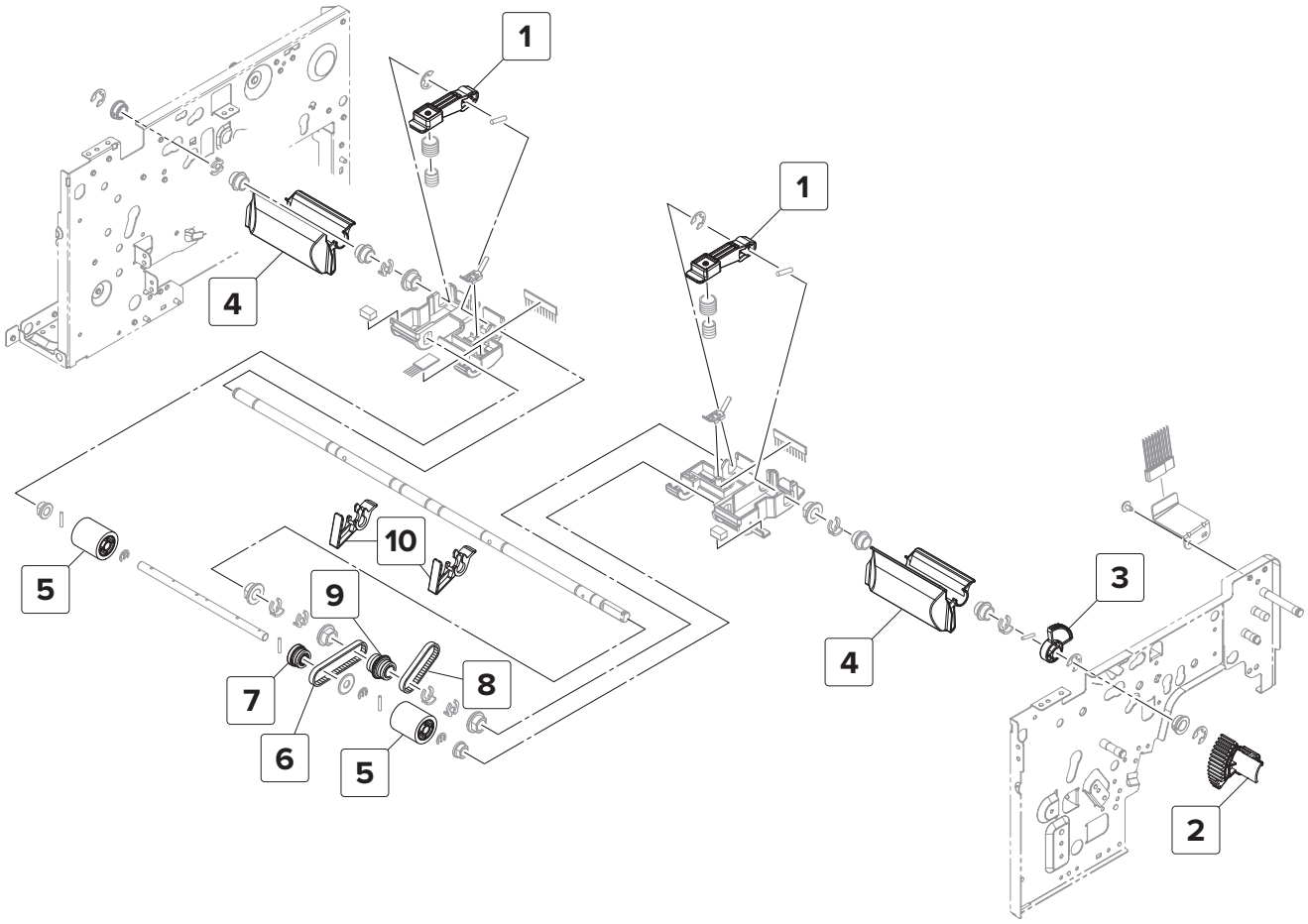
Assembly 9: Staple finisher—Staple section



Assembly 9: Staple finisher—Staple section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9407	1	1	Motor (staple finisher staple unit carriage)	“Motor (staple finisher staple unit carriage) removal” on page 255
2	40X9829	1	1	Staple finisher staple unit cable	--
3	41X1968	1	1	Staple cartridge holder	--
4	40X9411	1	1	Staple finisher staple unit	“Staple finisher staple unit removal” on page 252
5	40X8969	1	1	Staple finisher staple unit holder	“Staple finisher staple unit removal” on page 252
6	40X9608	1	1	Staple finisher staple unit carriage drive gear	“Staple finisher staple unit carriage gears removal” on page 256
7	40X9406	1	1	Staple finisher staple unit rail	“Staple finisher staple unit rail removal” on page 284
8	40X9363	1	1	Staple finisher staple unit carriage gear	“Staple finisher staple unit carriage gears removal” on page 256
9	40X9405	1	1	Staple finisher FFC	“Staple finisher FFC removal” on page 259
10	40X9410	1	1	Staple finisher interface board	“Staple finisher interface board removal” on page 254
11	40X9408	1	1	Staple finisher staple unit carriage motor cable	--

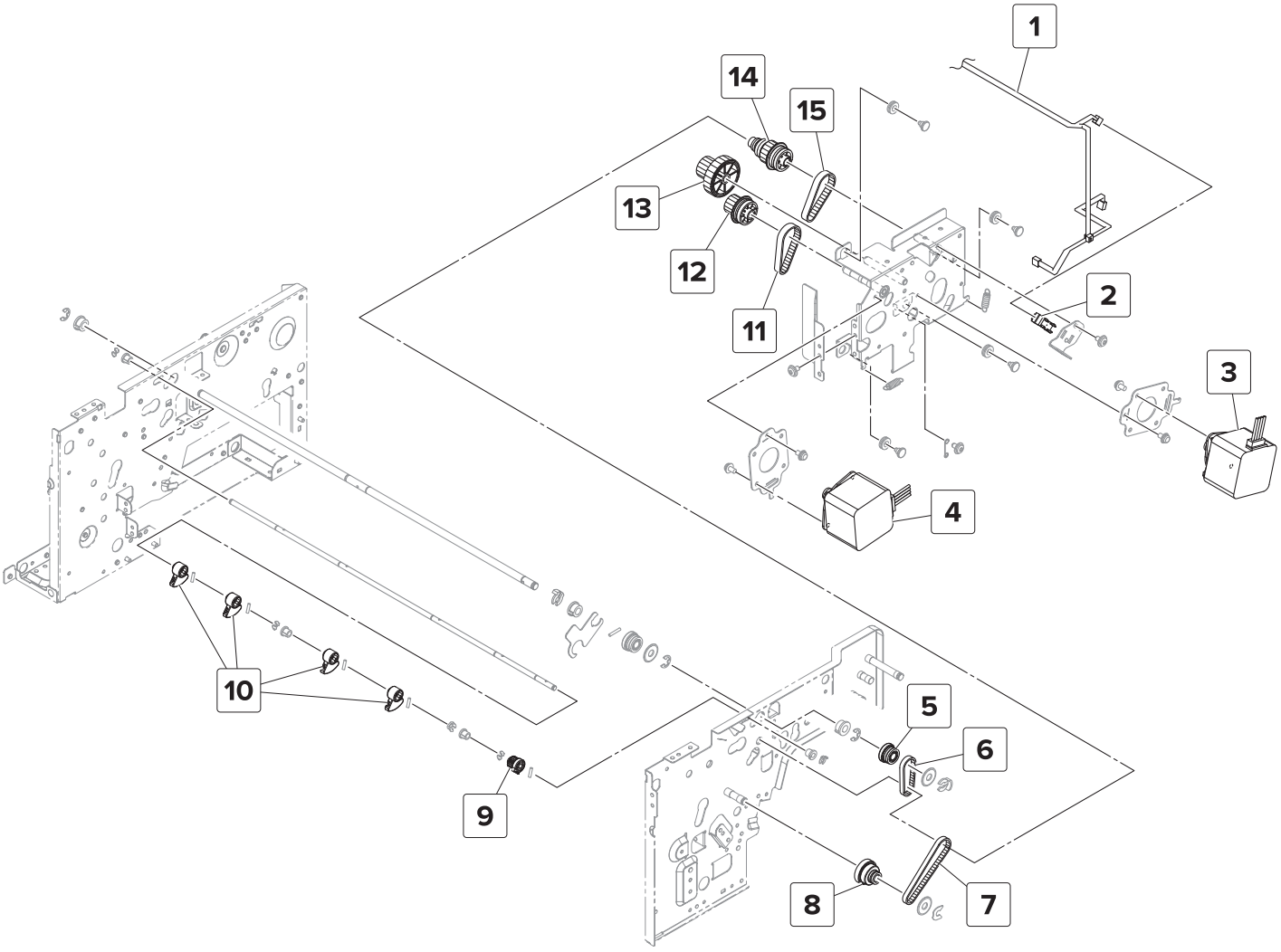
Assembly 10: Staple finisher—Exit section 1



Assembly 10: Staple finisher—Exit section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9548	2	1	Staple finisher upper exit roller holder	“Staple finisher upper exit roller belts and gear removal” on page 301
2	40X9357	1	1	Staple finisher upper exit actuator	“Staple finisher upper exit actuator removal” on page 277
3	40X9356	1	1	Staple finisher eject cam	“Staple finisher eject cam removal” on page 299
4	40X9355	2	1	Staple finisher upper exit roller guide	--
5	40X9291	2	1	Staple finisher upper exit roller	“Staple finisher upper exit roller removal” on page 300
6	40X9813	1	1	Staple finisher upper exit roller secondary belt	“Staple finisher upper exit roller belts and gear removal” on page 301
7	40X9820	1	1	Staple finisher upper exit roller secondary gear	“Staple finisher upper exit roller removal” on page 300
8	40X9360	1	1	Staple finisher upper exit roller primary belt	“Staple finisher upper exit roller belts and gear removal” on page 301
9	40X9904	1	1	Staple finisher upper exit roller primary gear	“Staple finisher upper exit roller belts and gear removal” on page 301
10	40X9814	2	1	Staple finisher eject guide	“Staple finisher eject guide removal” on page 298

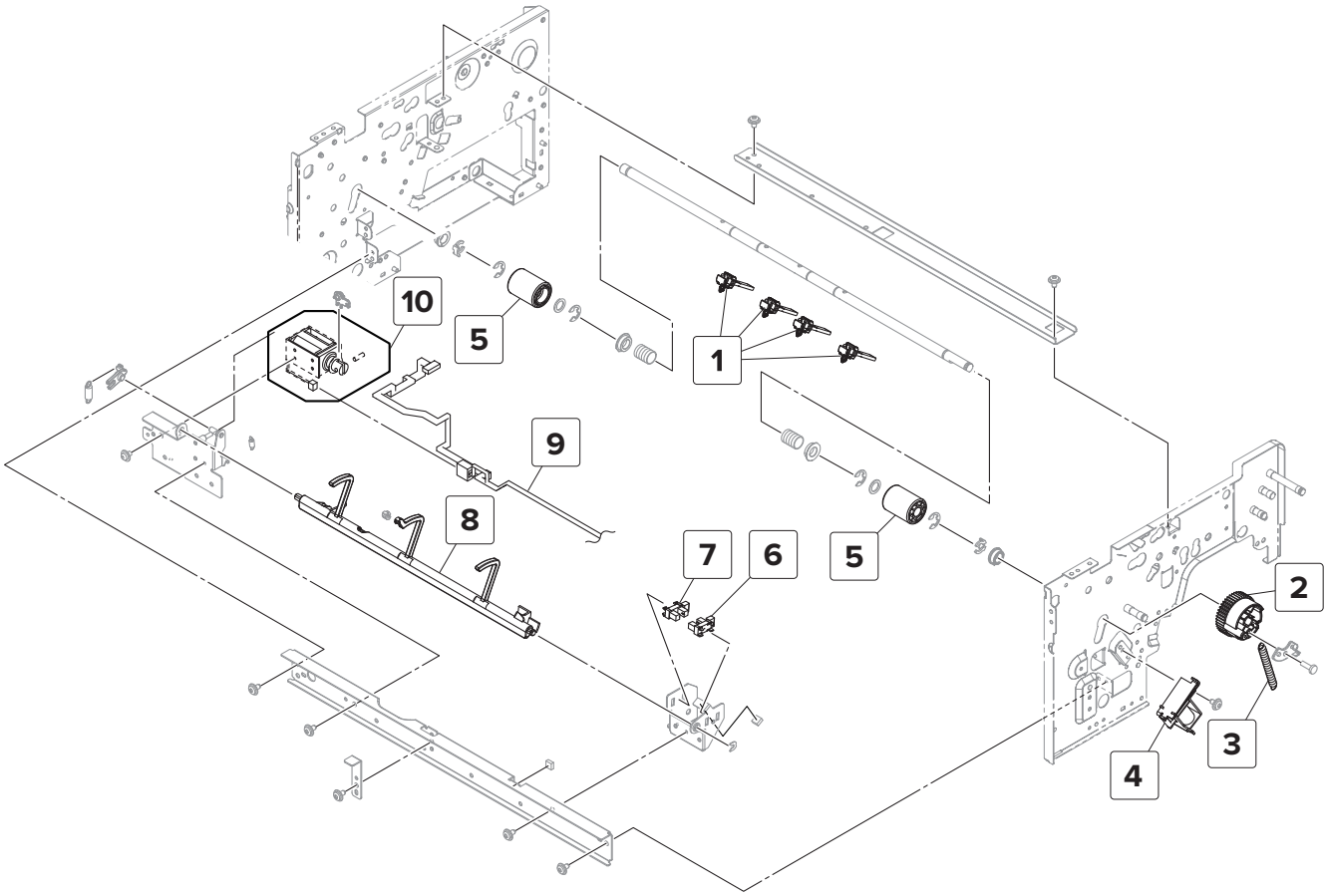
Assembly 11: Staple finisher—Exit section 2



Assembly 11: Staple finisher—Exit section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9374	1	1	Staple finisher exit section cable	--
2	40X9343	1	1	Sensor (staple finisher upper exit roller)	“Sensor (staple finisher upper exit roller) removal” on page 248
3	40X9366	1	1	Motor (staple finisher exit)	“Motor (staple finisher exit) removal” on page 245
4	40X9366	1	1	Motor (staple finisher upper exit)	“Motor (staple finisher upper exit) removal” on page 243
5	40X9820	1	1	Staple finisher upper exit roller drive gear	“Staple finisher upper exit roller drive gears removal” on page 272
6	40X9822	1	1	Staple finisher upper exit roller drive belt	--
7	40X9369	1	1	Staple finisher exit roller drive belt	--
8	40X9821	1	1	Staple finisher exit roller drive gear	“Staple finisher exit roller drive belts and gears removal” on page 275
9	40X9824	1	1	Staple finisher exit guide lift cam gear	“Staple finisher exit guide lift cam removal” on page 271
10	40X9377	4	1	Staple finisher exit guide lift cam	“Staple finisher exit guide lift cam removal” on page 271
11	40X9376	2	1	Staple finisher upper exit belt	“Staple finisher exit roller drive belts and gears removal” on page 275
12	40X9819	1	1	Staple finisher upper exit gear	“Staple finisher exit roller drive belts and gears removal” on page 275
13	40X9818	1	1	Staple finisher upper exit idler gear	“Staple finisher exit roller drive belts and gears removal” on page 275
14	40X9375	1	1	Staple finisher exit gear	“Staple finisher exit roller drive belts and gears removal” on page 275
15	40X9376	2	1	Staple finisher exit belt	“Staple finisher exit roller drive belts and gears removal” on page 275

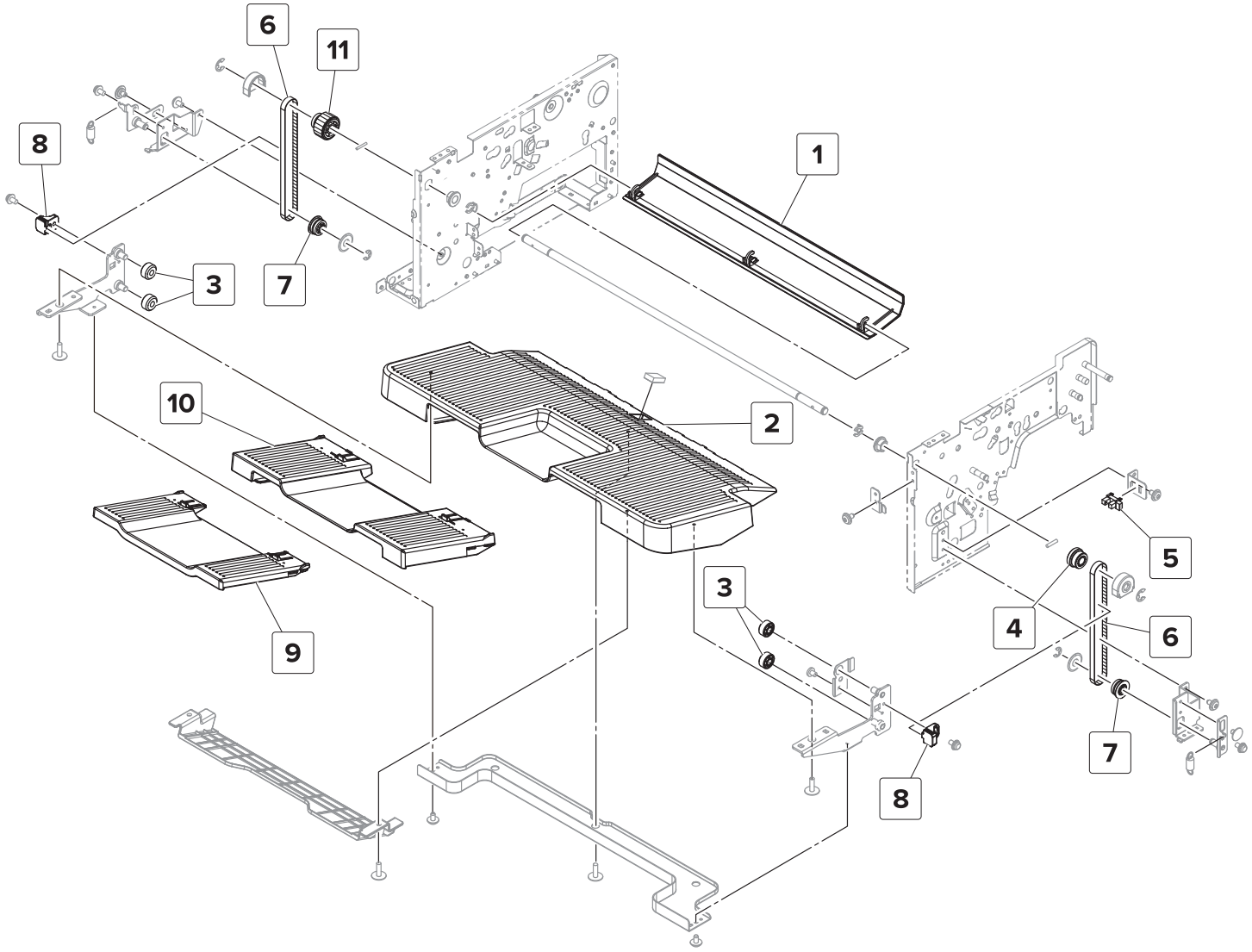
Assembly 12: Staple finisher—Exit section 3



Assembly 12: Staple finisher—Exit section 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9394	4	1	Staple finisher lower exit roller paddle	“Staple finisher lower exit roller paddles removal” on page 225
2	40X9388	1	1	Staple finisher exit roller gear	“Staple finisher exit roller gear removal” on page 278
3	40X9914	1	1	Staple finisher tension spring	--
4	40X9387	1	1	Staple finisher exit roller solenoid	“Staple finisher exit roller solenoid removal” on page 276
5	40X9393	2	1	Staple finisher lower exit roller	“Staple finisher lower exit roller removal” on page 278
6	40X9343	1	1	Sensor (staple finisher bin stack height)	“Staple finisher bin stack height assembly sensors removal” on page 226
7	40X9343	1	1	Sensor (staple finisher bin level)	“Staple finisher bin stack height assembly sensors removal” on page 226
8	40X9390	1	1	Staple finisher bin stack height actuator	“Staple finisher bin stack height actuator removal” on page 228
9	40X9392	1	1	Staple finisher bin stack height cable	--
10	40X9391	1	1	Staple finisher bin stack height solenoid	“Staple finisher bin stack height solenoid removal” on page 227

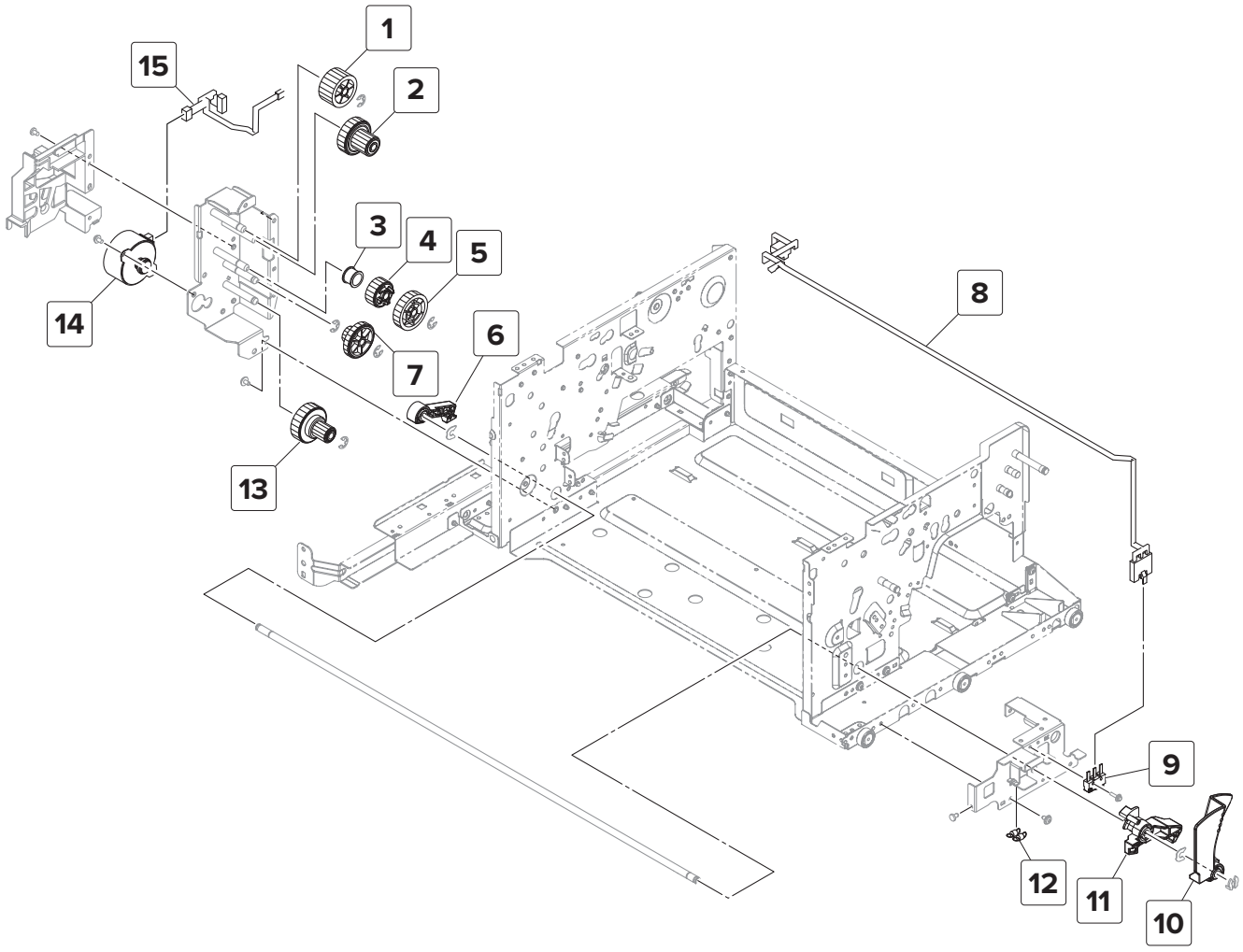
Assembly 13: Staple finisher—Bin section 1



Assembly 13: Staple finisher—Bin section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9346	1	1	Staple finisher exit guide	“Staple finisher exit guide removal” on page 224
2	40X9340	1	1	Staple finisher bin	“Staple finisher bin removal” on page 224
3	40X9345	4	1	Staple finisher elevator wheel	--
4	40X9903	1	1	Staple finisher elevator top front gear	“Staple finisher elevator drive gears removal” on page 263
5	40X9343	1	1	Sensor (staple finisher elevator home)	“Sensor (staple finisher elevator home) removal” on page 249
6	40X9341	2	1	Staple finisher elevator belt	“Staple finisher elevator belts removal” on page 264
7	40X9812	2	1	Staple finisher elevator bottom gear	“Staple finisher elevator drive gears removal” on page 263
8	40X9909	2	1	Staple finisher belt holder	“Staple finisher elevator belts removal” on page 264
9	40X9640	1	1	Staple finisher bin extender 1	--
10	40X9645	1	1	Staple finisher bin extender 2	--
11	40X9342	1	1	Staple finisher elevator top rear gear	“Staple finisher elevator drive gears removal” on page 263

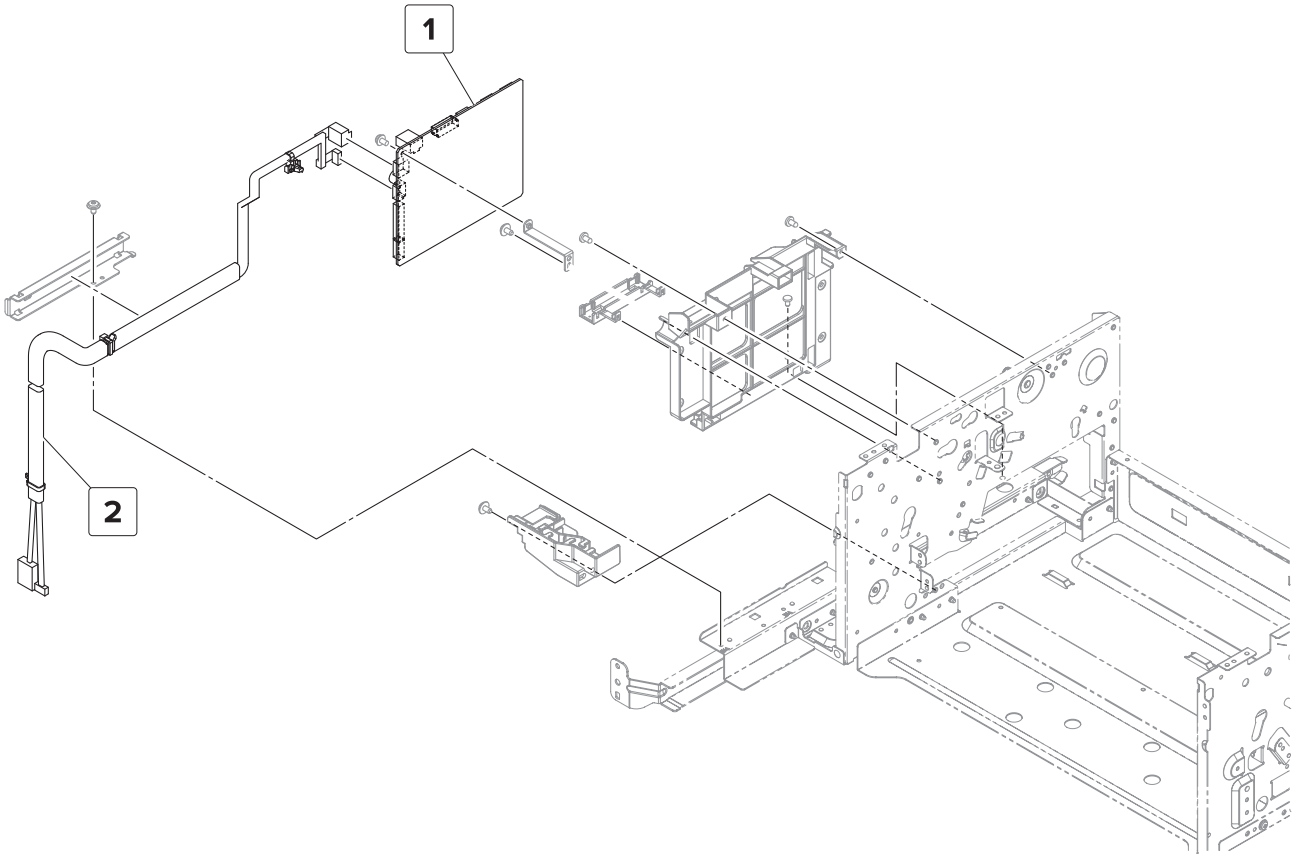
Assembly 14: Staple finisher—Bin section 2



Assembly 14: Staple finisher—Bin section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9418	1	1	Staple finisher elevator idler gear 5	“Staple finisher elevator drive gears removal” on page 263
2	40X9831	1	1	Staple finisher elevator idler gear 4	“Staple finisher elevator drive gears removal” on page 263
3	40X9832	1	1	Staple finisher spring	--
4	40X9833	1	1	Staple finisher elevator idler gear 3	“Staple finisher elevator drive gears removal” on page 263
5	40X9834	1	1	Staple finisher elevator idler gear 2	“Staple finisher elevator drive gears removal” on page 263
6	40X9419	1	1	Staple finisher rear lock	“Staple finisher locks removal” on page 233
7	40X9835	1	1	Staple finisher elevator idler gear 1	“Staple finisher elevator drive gears removal” on page 263
8	40X9830	1	1	Staple finisher lock switch cable	--
9	40X9840	1	1	Staple finisher lock switch	“Staple finisher lock switch removal” on page 233
10	40X9839	1	1	Staple finisher release handle	--
11	40X9838	1	1	Staple finisher front lock	--
12	40X9837	1	1	Staple finisher tension spring	--
13	40X9836	1	1	Staple finisher elevator drive gear	“Staple finisher elevator drive gears removal” on page 263
14	40X9416	1	1	Motor (staple finisher elevator)	“Motor (staple finisher elevator) removal” on page 242
15	40X9417	1	1	Staple finisher elevator section cable	--

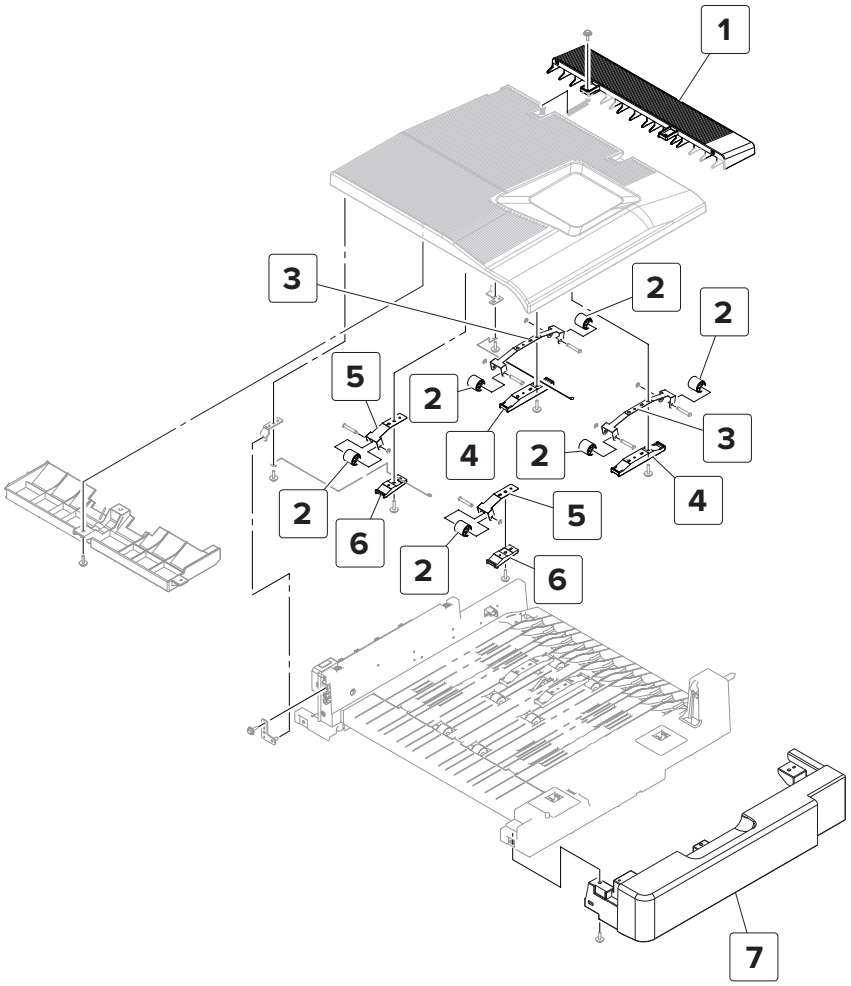
Assembly 15: Staple finisher—Electronics



Assembly 15: Staple finisher—Electronics

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9421	1	1	Staple finisher controller board	“Staple finisher controller board removal” on page 236
2	40X9422	1	1	Staple finisher interface cable	“Staple finisher interface cable removal” on page 237

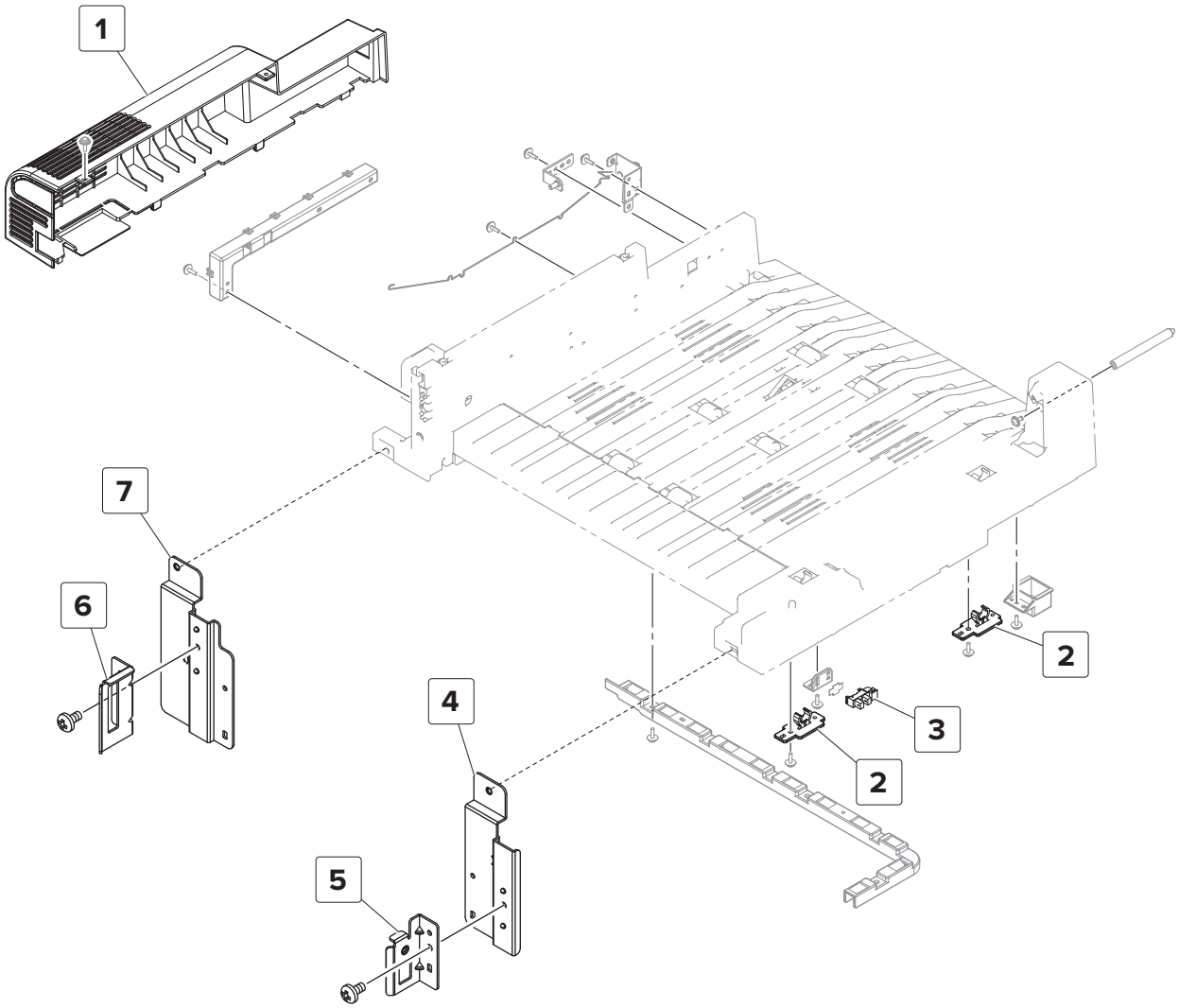
Assembly 16: Horizontal paper transport—Covers 1



Assembly 16: Horizontal paper transport—Covers 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9314	1	1	HPT right top cover	"HPT right top cover removal" on page 316
2	40X9462	6	1	HPT transport idler roller	--
3	40X9333	2	1	HPT transport idler holder 1	--
4	40X8996	2	1	HPT transport idler holder bracket 1	--
5	40X9428	2	1	HPT transport idler holder 2	--
6	40X9206	2	1	HPT transport idler holder bracket 2	--
7	40X9315	1	1	HPT front cover	--
NS	40X9329	1	1	HPT guide	--

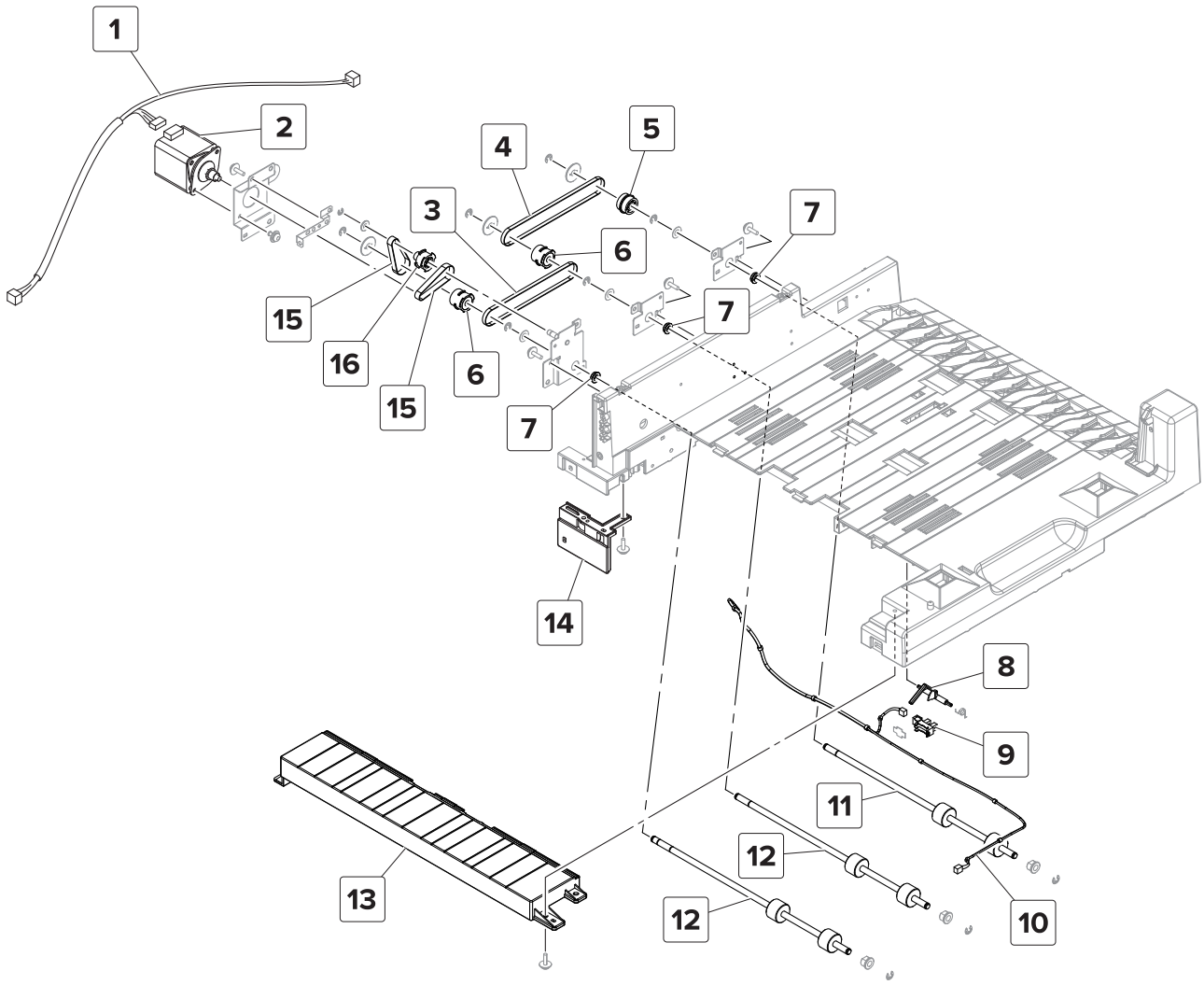
Assembly 17: Horizontal paper transport—Covers 2



Assembly 17: Horizontal paper transport—Covers 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9321	1	1	HPT rear cover	“HPT rear cover removal” on page 317
2	40X9322	2	1	HPT door locks	“HPT door locks removal” on page 313
3	40X9313	1	1	Sensor (HPT door)	“Sensor (HPT door) removal” on page 315
4	41X0972	1	1	Front HPT mounting plate	--
5	41X0971	1	1	Front finisher mounting plate	--
6	41X0969	1	1	Rear finisher mounting plate	--
7	41X0970	1	1	Rear HPT mounting plate	--

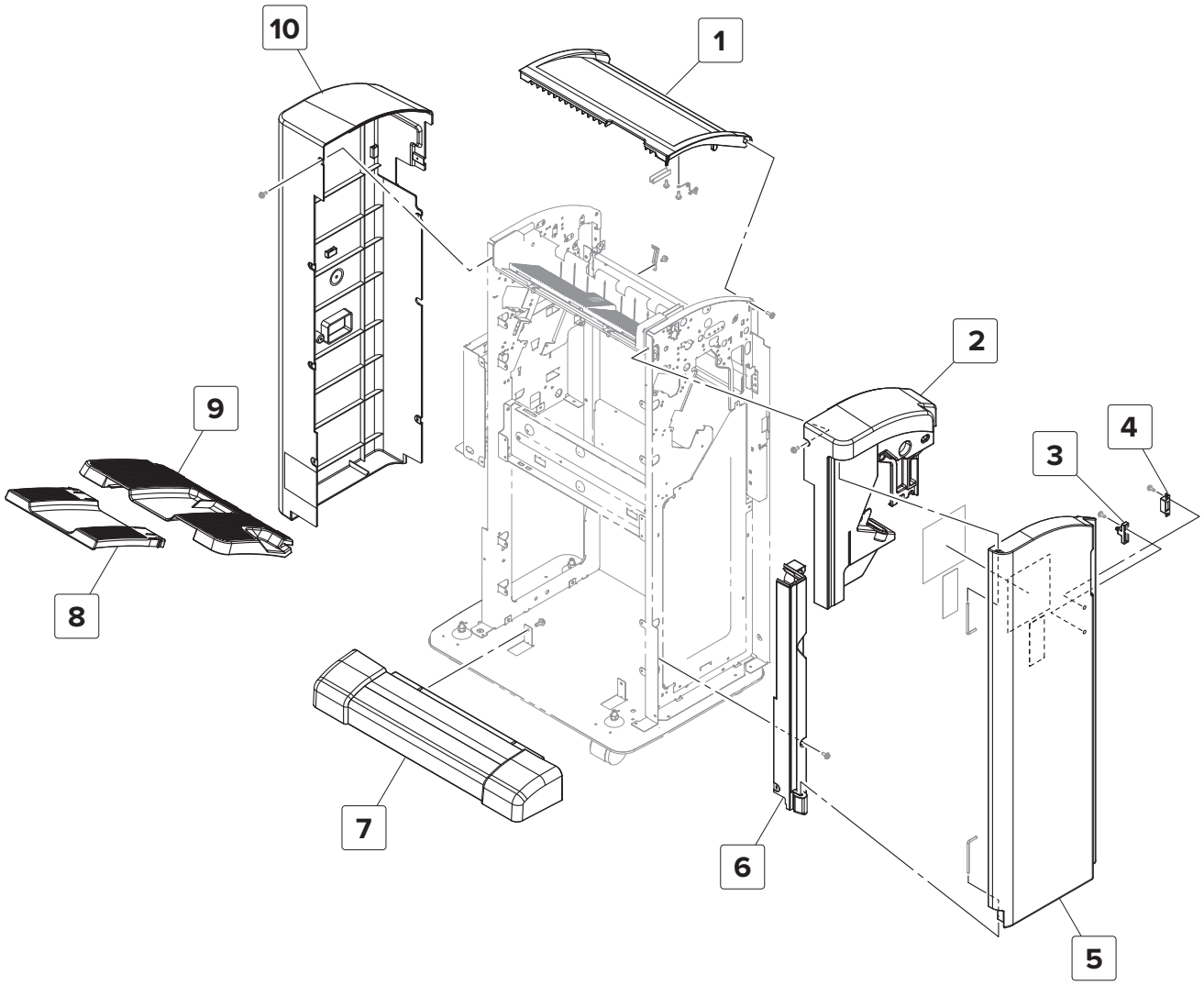
Assembly 18: Horizontal paper transport—Drive section



Assembly 18: Horizontal paper transport—Drive section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9920	1	1	HPT transport motor cable	“Motor (HPT transport) removal” on page 319
2	40X9323	1	1	Motor (HPT transport)	“Motor (HPT transport) removal” on page 319
3	40X9841	1	1	HPT transport roller belt 2	“HPT belts and gears removal” on page 321
4	40X9842	1	1	HPT transport roller belt 1	“HPT belts and gears removal” on page 321
5	40X9175	1	1	HPT transport roller 1 gear	“HPT belts and gears removal” on page 321
6	40X9480	2	1	HPT transport roller 2 gear	“HPT belts and gears removal” on page 321
7	40X9368	3	1	HPT transport roller ball bearing	“HPT transport rollers removal” on page 321
8	40X9326	1	1	HPT paper feed sensor actuator	“HPT feed sensor actuator removal” on page 315
9	40X9313	1	1	Sensor (HPT feed)	“Sensor (HPT feed) removal” on page 314
10	40X9919	1	1	HPT cable	“HPT cable removal” on page 317
11	40X9325	1	1	HPT transport roller 1	“HPT transport rollers removal” on page 321
12	40X9921	2	1	HPT transport roller 2	“HPT transport rollers removal” on page 321
13	40X9330	1	1	HPT inner paper guide	“HPT inner paper guide removal” on page 313
14	40X9332	1	1	HPT holding bracket	“HPT holding bracket removal” on page 314
15	40X9324	2	1	HPT transport motor belt	“HPT belts and gears removal” on page 321
16	40X9327	1	1	HPT transport motor gear	“HPT belts and gears removal” on page 321

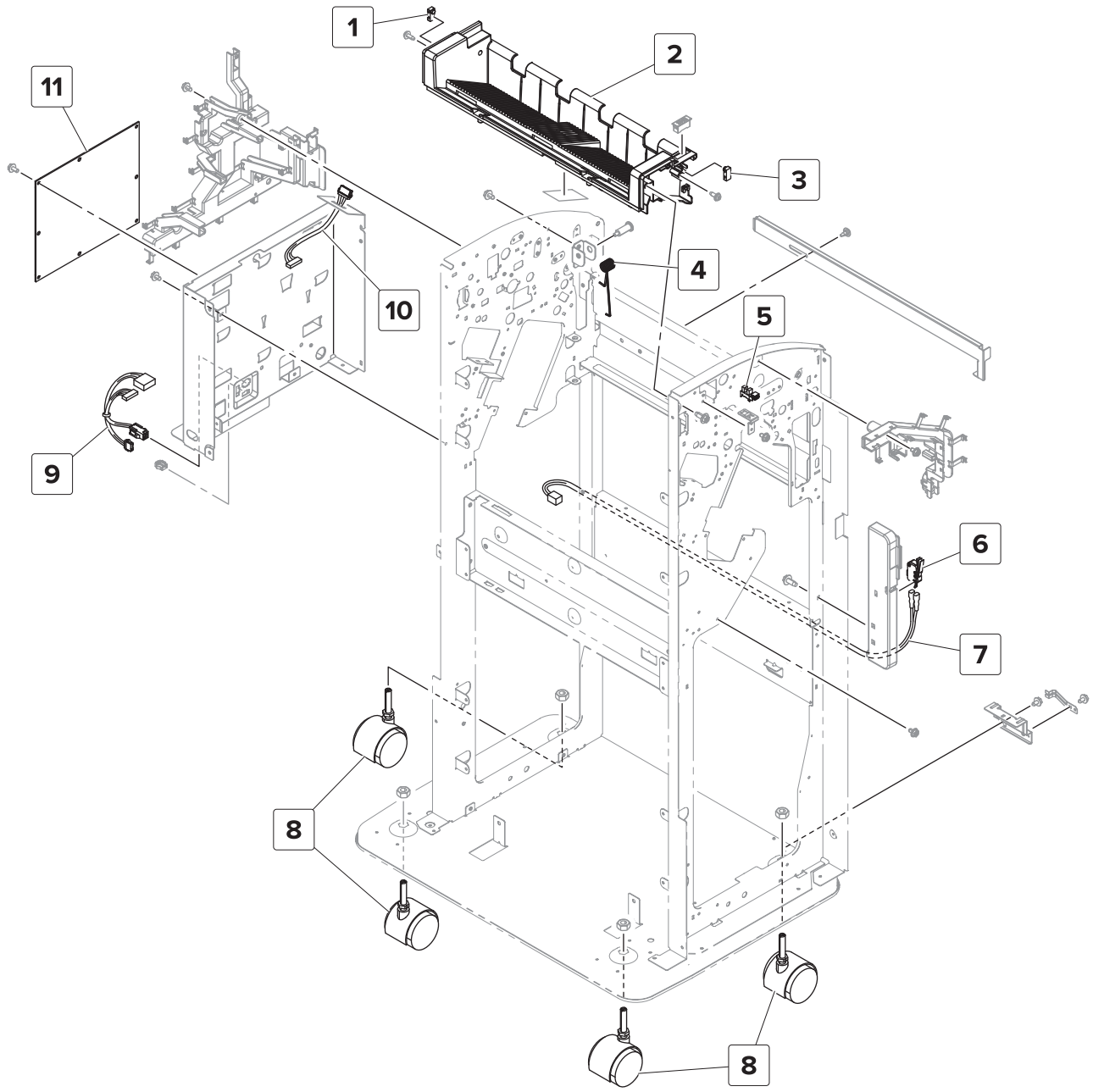
Assembly 19: SHPF—Covers



Assembly 19: SHPF—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9510	1	1	SHPF top door	“SHPF top door removal” on page 331
2	40X9513	1	1	SHPF top inner cover	“SHPF top inner cover removal” on page 328
3	40X8876	1	1	SHPF front door sensor actuator	--
4	40X9456	1	1	SHPF magnetic catch lock	--
5	40X9512	1	1	SHPF front door	“SHPF front door removal” on page 328
6	40X9514	1	1	SHPF post cover	“SHPF post cover removal” on page 330
7	40X9515	1	1	SHPF lower cover	“SHPF lower cover removal” on page 326
8	40X9517	1	1	SHPF top bin extender	“SHPF elevator bin removal” on page 323
9	40X9310	1	1	SHPF top bin	“SHPF elevator bin removal” on page 323
10	40X9511	1	1	SHPF rear cover	“SHPF rear cover removal” on page 331

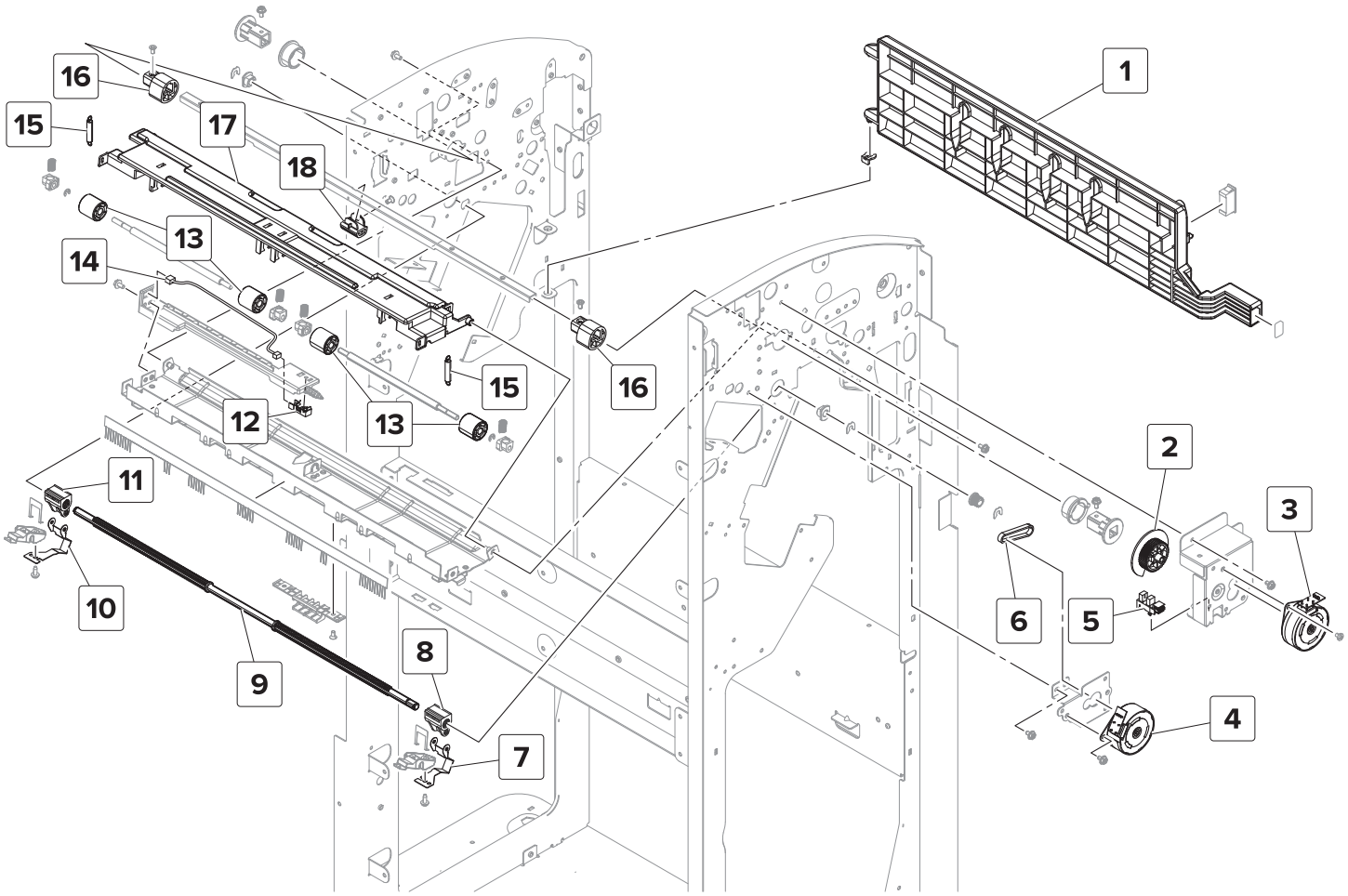
Assembly 20: SHPF—Frame



Assembly 20: SHPF—Frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9540	1	1	Sensor (SHPF top bin full, transmit)	“Sensor (SHPF top bin full) removal” on page 356
2	40X9518	1	1	SHPF top bin holder	“SHPF top bin removal” on page 426
3	40X9538	1	1	Sensor (SHPF top bin full, receive)	“Sensor (SHPF top bin full, receive) removal” on page 380
4	40X9873	1	1	SHPF top jam access door spring	“SHPF top jam access door and SHPF diverter removal” on page 387
5	40X8869	1	1	Sensor (SHPF top door)	“Sensor (SHPF top door) removal” on page 379
6	40X9527	1	1	SHPF front door switch	“SHPF front door switch removal” on page 327
7	40X9555	1	1	SHPF front door switch cable	--
8	40X9519	4	1	SHPF caster wheel	“SHPF caster wheel removal” on page 326
9	40X9556	1	1	Booklet maker interface extension cable	--
10	40X9554	1	1	HPT interface extension cable	--
11	40X9528	1	1	SHPF controller board	“SHPF controller board removal” on page 357

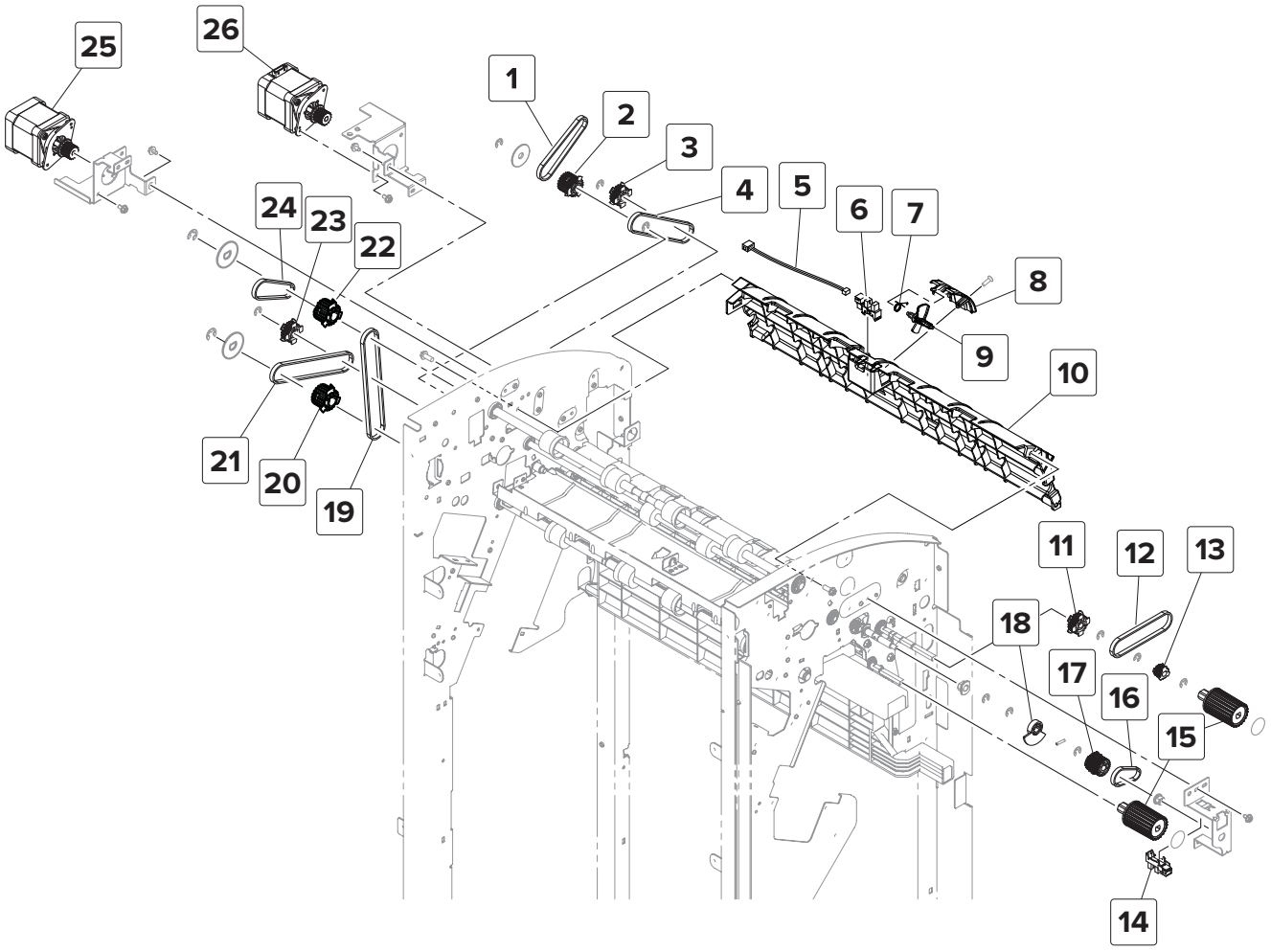
Assembly 21: SHPF—Transport section 1



Assembly 21: SHPF—Transport section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9319	1	1	HPBF booklet gate jam access door	“Booklet gate jam access door removal” on page 332
2	40X9559	1	1	SHPF compiler feed roller release cam encoder	“SHPF compiler feed roller release encoder removal” on page 383
3	40X9531	1	1	Motor (SHPF compiler feed roller release)	“Motor (SHPF compiler feed roller release) removal” on page 381
4	40X9530	1	1	Motor (SHPF aligner)	“Motor (SHPF aligner) removal” on page 384
5	40X8869	1	1	Sensor (SHPF compiler feed roller release)	“Sensor (SHPF compiler feed roller release) removal” on page 382
6	40X9558	1	1	SHPF aligner belt	--
7	40X9846	1	1	SHPF front aligner	“SHPF aligner shaft removal” on page 411
8	40X9915	1	1	SHPF front aligner holder	“SHPF aligner shaft removal” on page 411
9	40X9843	1	1	SHPF aligner shaft	“SHPF aligner shaft removal” on page 411
10	40X9845	1	1	SHPF rear aligner	“SHPF aligner shaft removal” on page 411
11	40X9844	1	1	SHPF rear aligner holder	“SHPF aligner shaft removal” on page 411
12	40X8968	1	1	Sensor (SHPF compiler feed)	“Sensor (SHPF compiler feed) removal” on page 435
13	40X9563	4	1	SHPF compiler feed idler roller	“SHPF compiler feed idler roller assembly removal” on page 433
14	40X9560	1	1	SHPF compiler feed sensor cable	--
15	40X8927	2	1	SHPF compiler idler roller holder spring	“SHPF compiler feed idler roller assembly removal” on page 433
16	40X8867	2	1	SHPF compiler feed roller release cam	“SHPF compiler feed roller release cam removal” on page 429
17	40X9847	1	1	SHPF compiler idler roller holder	“SHPF compiler feed idler roller assembly removal” on page 433
18	40X9561	1	1	SHPF compiler feed roller release middle cam	“SHPF compiler feed roller release cam removal” on page 429

Assembly 22: SHPF—Transport section 2

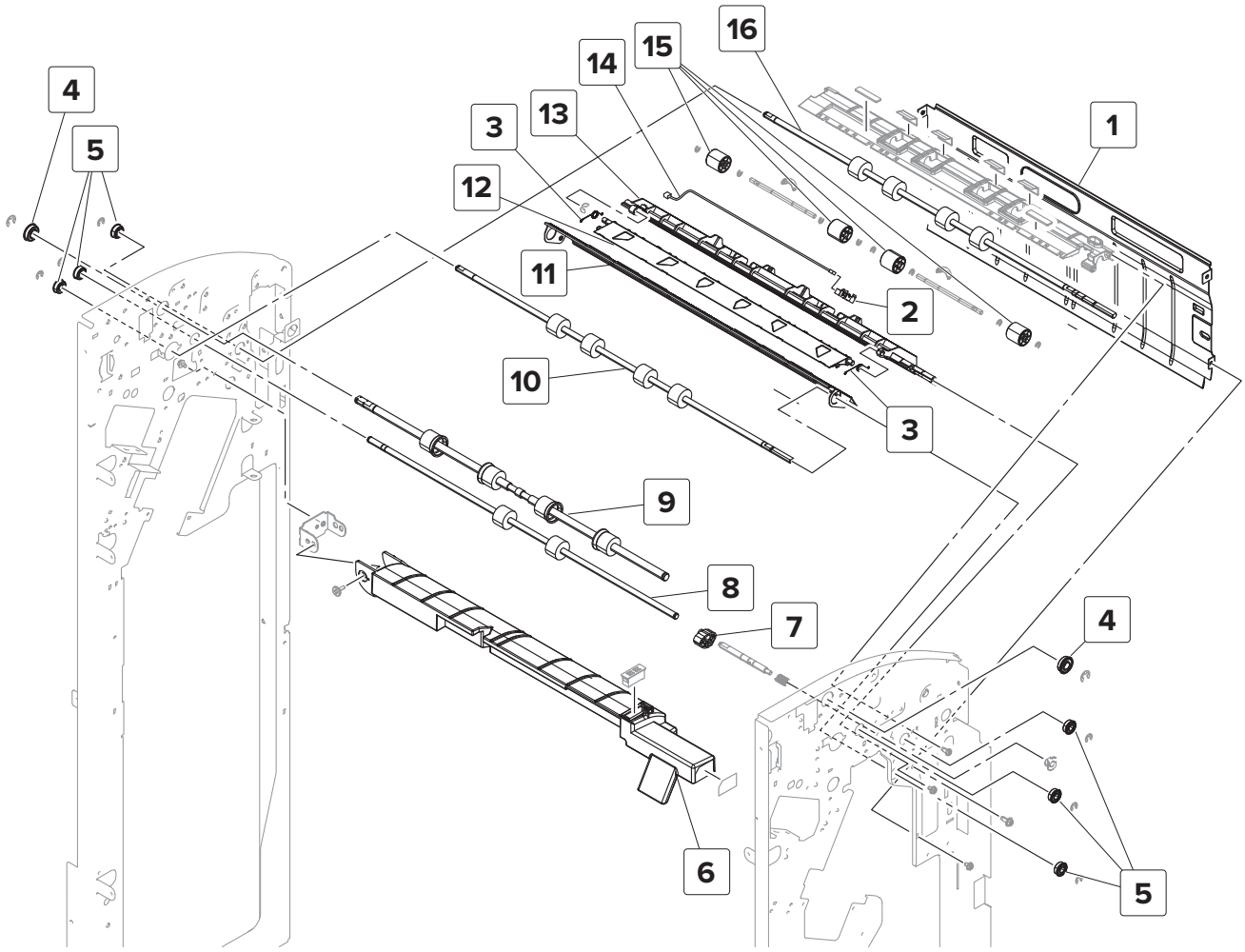


Assembly 22: SHPF—Transport section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9565	1	1	SHPF top bin transport roller belt	--
2	41X2214	1	1	SHPF top bin transport roller gear	--
3	40X9574	1	1	SHPF diverter feed roller gear	"SHPF entrance and diverter feed roller gears removal" on page 386
4	40X9566	1	1	SHPF diverter feed roller belt	--
5	40X9570	1	1	SHPF top bin exit sensor cable	--
6	40X8869	1	1	Sensor (SHPF top bin exit)	"Sensor (SHPF top bin exit) removal" on page 390
7	40X9448	1	1	SHPF torsion coil spring	--
8	40X9400	1	1	SHPF top bin exit sensor cover	"Sensor (SHPF top bin exit) removal" on page 390
9	40X9571	1	1	SHPF top bin exit sensor actuator	"Sensor (SHPF top bin exit) removal" on page 390
10	40X9426	1	1	SHPF top bin exit paper guide	"SHPF top bin exit paper guide removal" on page 391
11	40X9574	1	1	SHPF diverter feed roller gear	--
12	40X9221	1	1	SHPF entrance roller belt	"SHPF entrance and diverter feed roller gears removal" on page 386
13	40X9224	1	1	SHPF diverter cam drive gear	"SHPF entrance and diverter feed roller gears removal" on page 386
14	40X8869	1	1	Sensor (SHPF diverter cam)	"Sensor (SHPF diverter cam) removal" on page 385
15	40X9399	2	1	SHPF jam removal knob	"SHPF diverter feed roller knob removal" on page 329
16	40X9558	1	1	SHPF diverter cam belt	"SHPF diverter cam removal" on page 384
17	40X9270	1	1	SHPF diverter cam gear	"SHPF diverter cam removal" on page 384
18	40X8943	1	1	SHPF diverter cam sensor encoder	"SHPF diverter cam removal" on page 384
19	40X9569	1	1	SHPF compiler feed roller belt	--
20	40X9572	1	1	SHPF compiler feed roller gear	--
21	40X9568	1	1	SHPF booklet maker pre-feed roller belt	--

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
22	40X9572	1	1	SHPF top bin exit roller gear	--
23	40X9574	1	1	SHPF booklet maker pre-feed roller gear	--
24	40X9567	1	1	SHPF top bin exit belt	--
25	40X9533	1	1	Motor (SHPF transport)	**"Motor (SHPF transport) removal" on page 349**
26	40X9533	1	1	Motor (SHPF feed)	**"Motor (SHPF feed) removal" on page 348**

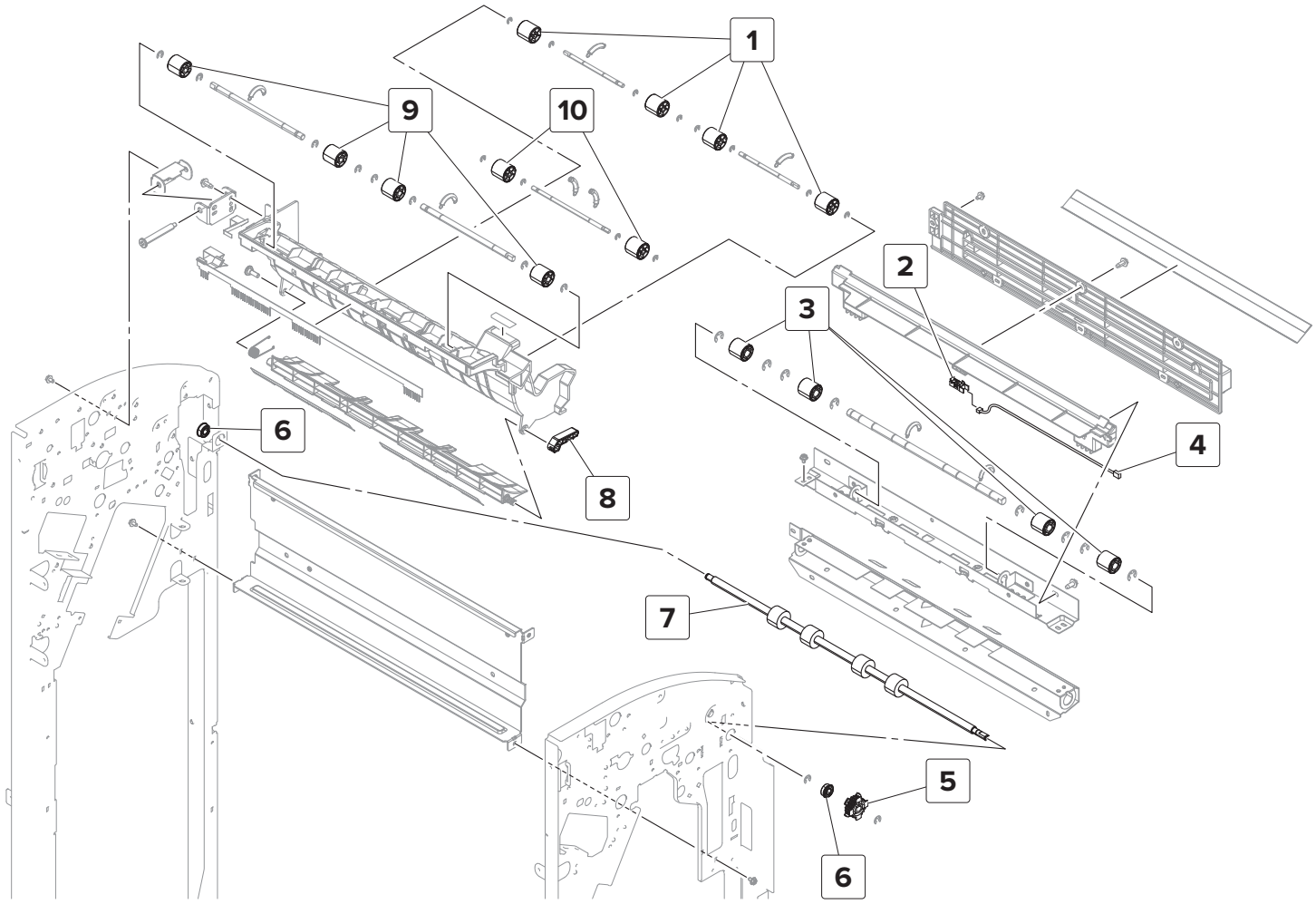
Assembly 23: SHPF—Transport section 3



Assembly 23: SHPF—Transport section 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9577	1	1	SHPF booklet maker feed guide	--
2	40X8968	1	1	Sensor (SHPF booklet gate)	"SHPF booklet maker upper pre-feed guide removal" on page 417
3	40X9415	1	1	SHPF torsion coil spring	--
4	40X9440	2	1	Ball bearing	--
5	40X9589	6	1	Ball bearing	--
6	40X9580	1	1	SHPF jam access door	"SHPF jam access door removal" on page 334
7	40X9587	1	1	SHPF diverter cam	"SHPF diverter cam removal" on page 384
8	41X2171	1	1	SHPF top bin transport roller	"SHPF top bin transport roller removal" on page 431
9	40X9585	1	1	SHPF top bin exit roller	"SHPF top bin exit roller removal" on page 427
10	40X9584	1	1	SHPF booklet maker pre-feed roller	"SHPF booklet maker pre-feed roller removal" on page 414
11	40X9578	1	1	SHPF booklet maker lower pre-feed guide	"SHPF booklet maker lower pre-feed guide removal" on page 415
12	40X9490	1	1	SHPF booklet maker movable guide	"SHPF booklet maker upper pre-feed guide removal" on page 417
13	40X8883	1	1	SHPF booklet maker upper pre-feed guide	"SHPF booklet maker upper pre-feed guide removal" on page 417
14	40X9579	1	1	SHPF booklet gate sensor cable	"SHPF booklet maker upper pre-feed guide removal" on page 417
15	40X9353	4	1	SHPF booklet maker pre-feed idler roller	"SHPF entrance idler and roller removal" on page 440
16	40X9582	1	1	SHPF diverter feed roller	"SHPF diverter feed roller removal" on page 419

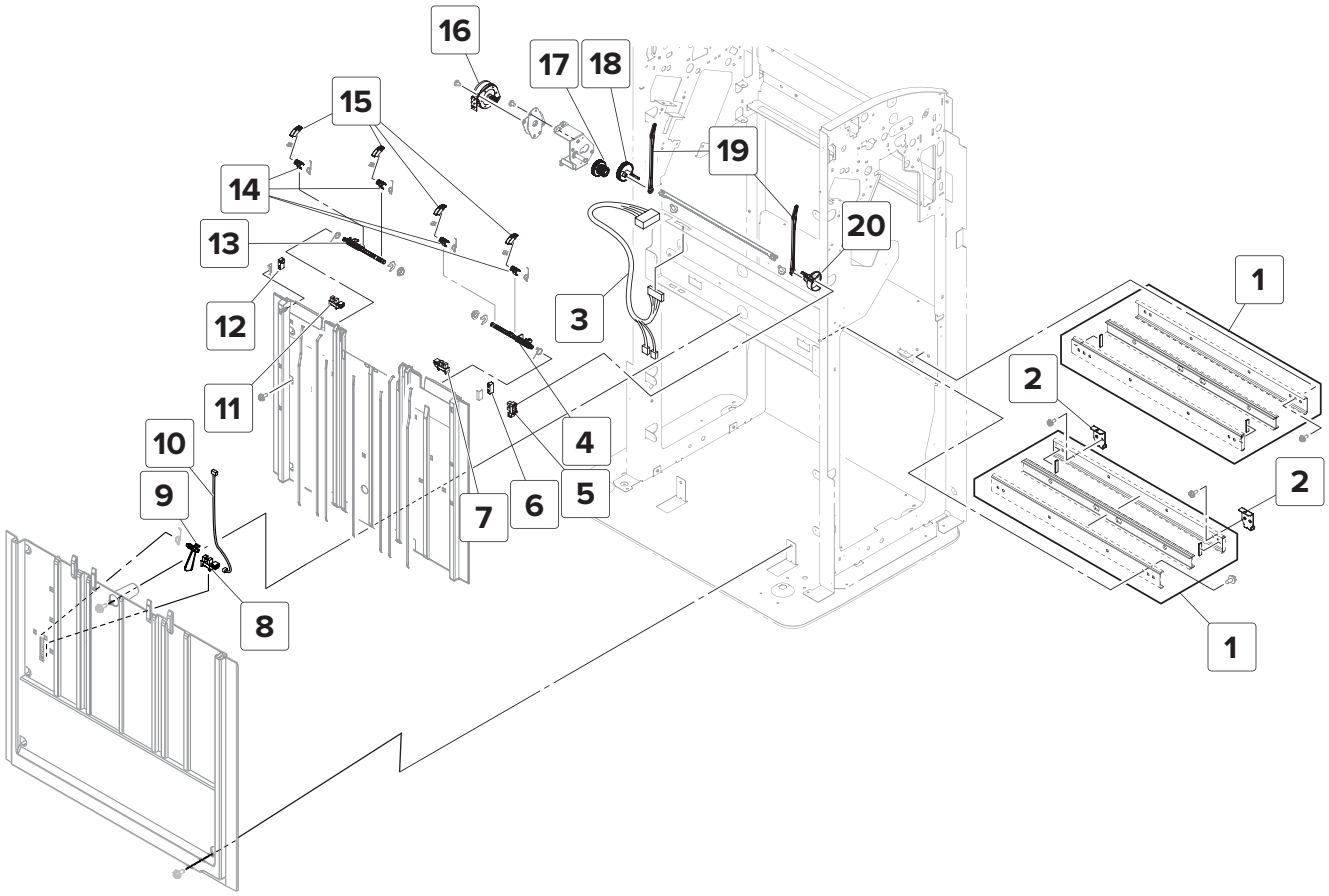
Assembly 24: SHPF—Transport section 4



Assembly 24: SHPF—Transport section 4

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9353	4	1	SHPF diverter feed idler roller	“SHPF top jam access door and SHPF diverter removal” on page 387
2	40X8968	1	1	Sensor (SHPF entrance)	“Sensor (SHPF entrance) removal” on page 439
3	40X9593	4	1	SHPF entrance idler roller	“SHPF entrance idler and roller removal” on page 440
4	40X9590	1	1	SHPF entrance sensor cable	“Sensor (SHPF entrance) removal” on page 439
5	40X9574	1	1	SHPF entrance roller gear	“SHPF entrance idler and roller removal” on page 440
6	40X9589	2	1	Ball bearing	“SHPF entrance idler and roller removal” on page 440
7	40X9588	1	1	SHPF entrance roller	“SHPF entrance idler and roller removal” on page 440
8	40X9465	1	1	SHPF diverter lever	“SHPF top jam access door and SHPF diverter removal” on page 387
9	40X9331	4	1	SHPF top bin exit idler roller	“SHPF top jam access door and SHPF diverter removal” on page 387
10	40X9353	2	1	SHPF top bin transport idler roller	“SHPF top jam access door and SHPF diverter removal” on page 387

Assembly 25: SHPF—Elevator bin section 1

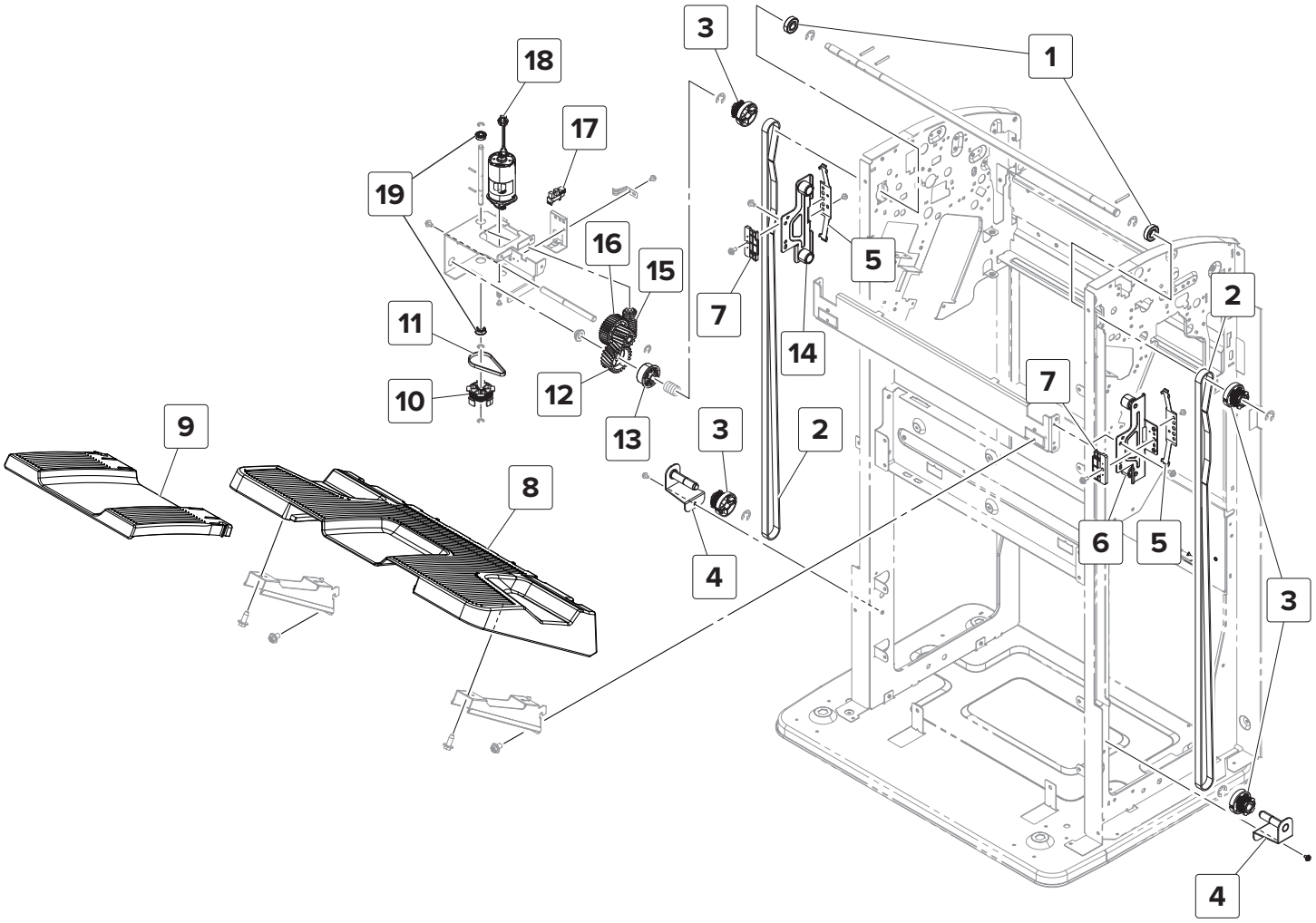


Assembly 25: SHPF—Elevator bin section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9521	1	1	Booklet maker rail	--
2	40X8881	2	1	Booklet maker mount	--
3	40X9597	1	1	SHPF elevator bin stack height cable	--
4	40X9043	1	1	SHPF elevator bin front stack height sensor actuator	“SHPF elevator bin stack height sensor actuator removal” on page 342
5	40X8869	1	1	Sensor (SHPF elevator bin stack height actuator arm control)	“SHPF upper left cover sensors removal” on page 341
6	40X9538	1	1	Sensor (SHPF elevator bin stack height, receive)	“SHPF upper left cover sensors removal” on page 341
7	40X8869	1	1	Sensor (SHPF elevator bin front stack height)	“SHPF upper left cover sensors removal” on page 341
8	40X8869	1	1	Sensor (SHPF elevator bin full)	“Sensor (SHPF elevator bin full) removal” on page 335
9	40X9506	1	1	SHPF elevator bin full sensor actuator	“Sensor (SHPF elevator bin full) removal” on page 335
10	40X9877	1	1	SHPF elevator bin full sensor cable	“Sensor (SHPF elevator bin full) removal” on page 335
11	40X8869	1	1	Sensor (SHPF elevator bin rear stack height)	“SHPF upper left cover sensors removal” on page 341
12	40X9540	1	1	Sensor (SHPF elevator bin stack height, transmit)	“SHPF upper left cover sensors removal” on page 341
13	40X9477	1	1	SHPF elevator bin rear stack height sensor actuator	“SHPF elevator bin stack height sensor actuator removal” on page 342
14	40X9498	4	1	SHPF elevator bin stack height finger holder	--
15	40X9021	4	1	SHPF elevator bin stack height finger	“SHPF elevator bin stack height sensor actuator removal” on page 342
16	40X9532	1	1	Motor (SHPF elevator bin stack height)	“Motor (SHPF elevator bin stack height) removal” on page 345
17	40X9596	1	1	SHPF elevator bin stack height drive gear	“SHPF elevator bin stack height drive gear removal” on page 344
18	40X9594	1	1	SHPF elevator bin stack height sensor actuator arm gear	“SHPF elevator bin stack height sensor actuator arms and gears removal” on page 343

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
19	40X8954	2	1	SHPF elevator bin stack height sensor actuator arm	**“SHPF elevator bin stack height sensor actuator arms and gears removal” on page 343**
20	40X9464	1	1	SHPF actuator	--

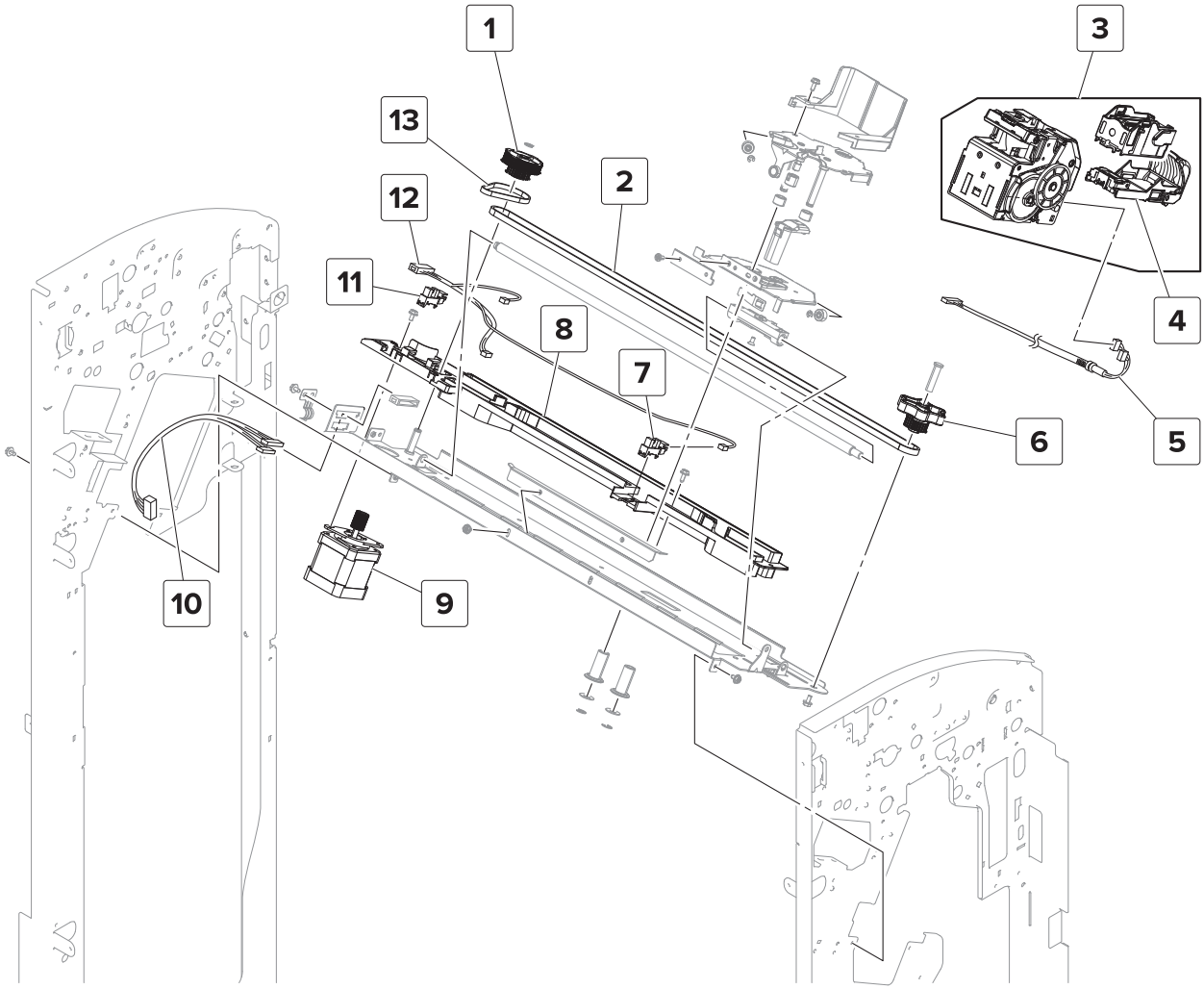
Assembly 26: SHPF—Elevator bin section 2



Assembly 26: SHPF—Elevator bin section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9575	2	1	Ball bearing	--
2	40X9603	2	1	SHPF elevator belt	“SHPF elevator belts removals” on page 370
3	40X9607	4	1	SHPF elevator gear	--
4	40X9311	2	1	SHPF elevator gear bracket	--
5	40X9427	2	1	SHPF elevator belt spring	“SHPF elevator belts removals” on page 370
6	40X9605	1	1	SHPF elevator bin front bracket	“SHPF elevator belts removals” on page 370
7	40X8991	2	1	SHPF elevator belt holder	“SHPF elevator belts removals” on page 370
8	40X9609	1	1	SHPF elevator bin	“SHPF elevator bin removal” on page 323
9	40X9517	1	1	SHPF elevator bin extender	“SHPF elevator bin removal” on page 323
10	40X9168	1	1	SHPF elevator motor encoder	--
11	40X9601	1	1	SHPF elevator motor encoder belt	--
12	40X9849	1	1	SHPF elevator bin clutch gear	“SHPF elevator drive assembly removal” on page 354
13	40X9631	1	1	SHPF elevator bin clutch bushing	“SHPF elevator drive assembly removal” on page 354
14	40X9604	1	1	SHPF elevator bin rear bracket	“SHPF elevator belts removals” on page 370
15	40X9636	1	1	SHPF elevator drive gear	“SHPF elevator drive assembly removal” on page 354
16	40X9187	1	1	SHPF elevator bin idler gear	“SHPF elevator drive assembly removal” on page 354
17	40X8869	1	1	Sensor (SHPF elevator position)	“Sensor (SHPF elevator position) removal” on page 353
18	40X9534	1	1	Motor (SHPF elevator)	“Motor (SHPF elevator) removal” on page 352
19	40X9589	2	1	Ball bearing	--

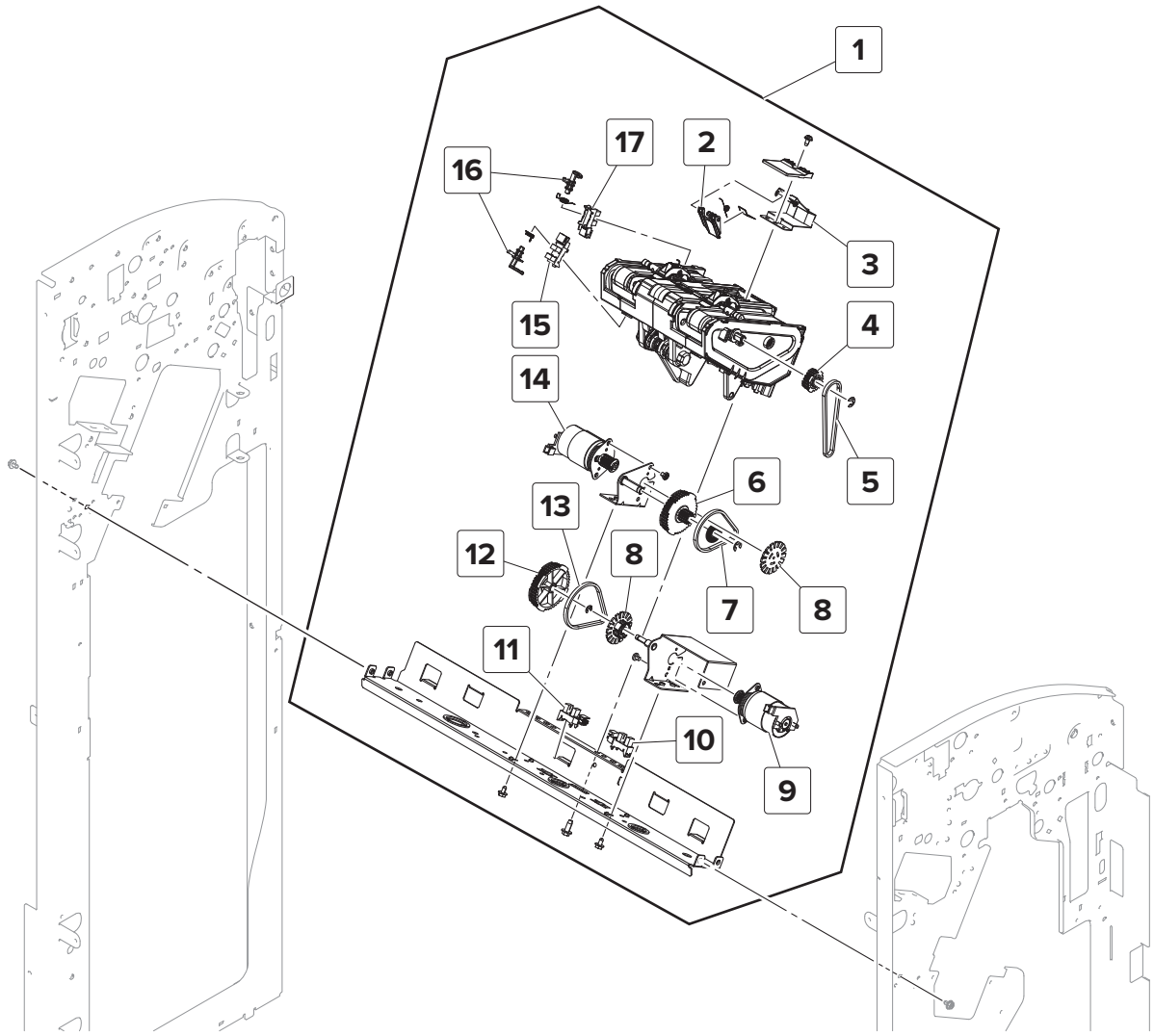
Assembly 27: SHPF—Staple unit assembly



Assembly 27: SHPF—Staple unit assembly

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9520	1	1	SHPF staple unit carriage drive gear	"SHPF staple unit drive belt and gear removal" on page 362
2	40X9611	1	1	SHPF staple unit carriage belt	--
3	40X9610	1	1	SHPF staple unit	"SHPF staple unit removal" on page 364
4	40X9413	1	1	SHPF staple cartridge	--
5	40X9851	1	1	SHPF staple unit cable	--
6	40X8975	1	1	SHPF staple unit knob	"SHPF staple unit drive belt and gear removal" on page 362
7	40X8869	1	1	Sensor (SHPF staple unit carriage center)	"SHPF staple unit position sensors removal" on page 361
8	40X9616	1	1	SHPF staple unit carriage rail	--
9	40X9535	1	1	Motor (SHPF staple unit carriage)	"Motor (SHPF staple unit carriage) removal" on page 363
10	40X9614	1	1	SHPF staple unit interface cable	--
11	40X8869	1	1	Sensor (SHPF staple unit carriage home)	"SHPF staple unit position sensors removal" on page 361
12	40X9850	1	1	SHPF staple unit carriage sensor cable	--
13	40X9612	1	1	SHPF staple unit carriage drive belt	"SHPF staple unit drive belt and gear removal" on page 362

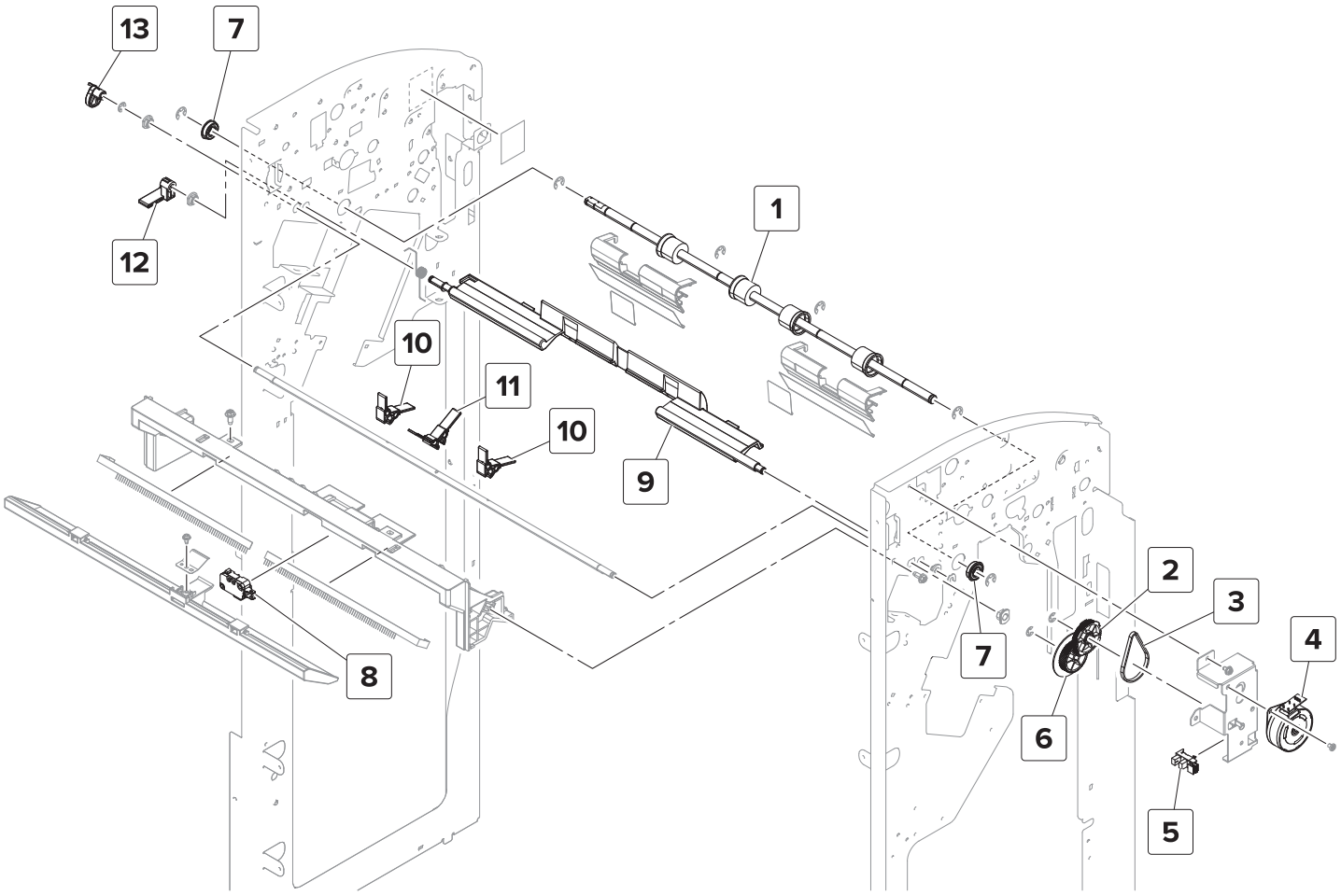
Assembly 28: SHPF—Compiler section 1



Assembly 28: SHPF—Compiler section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X2182	1	1	SHPF ejector	“SHPF compiler assembly removal” on page 396
2	40X9496	1	1	SHPF compiler stack clamp	--
3	40X9622	1	1	SHPF middle aligner	“SHPF middle aligner removal” on page 408
4	40X9625	1	1	SHPF compiler eject gear	“SHPF compiler eject gear removal” on page 410
5	40X9617	1	1	SHPF compiler eject belt	--
6	40X9621	1	1	SHPF compiler pre-eject drive gear	--
7	40X9618	1	1	SHPF compiler pre-eject drive belt	--
8	41X2002	1	1	SHPF pre-eject motor and eject motor encode	--
9	41X2001	1	1	Motor (SHPF compiler eject)	“Motor (SHPF compiler eject) removal” on page 392
10	40X8869	1	1	Sensor (SHPF compiler eject)	“SHPF compiler eject sensors removal” on page 394
11	40X8869	1	1	Sensor (SHPF compiler pre-eject)	“SHPF compiler eject sensors removal” on page 394
12	40X9624	1	1	SHPF compiler eject drive gear	--
13	40X9620	1	1	SHPF compiler eject drive belt	--
14	41X2000	1	1	Motor (SHPF compiler pre-eject)	“Motor (SHPF compiler pre-eject) removal” on page 393
15	40X8869	1	1	Sensor (SHPF eject clamp position)	“Sensor (SHPF eject clamp position) removal” on page 395
16	40X9623	2	1	SHPF compiler eject sensor actuators	--
17	40X8869	1	1	Sensor (SHPF eject clamp home)	--

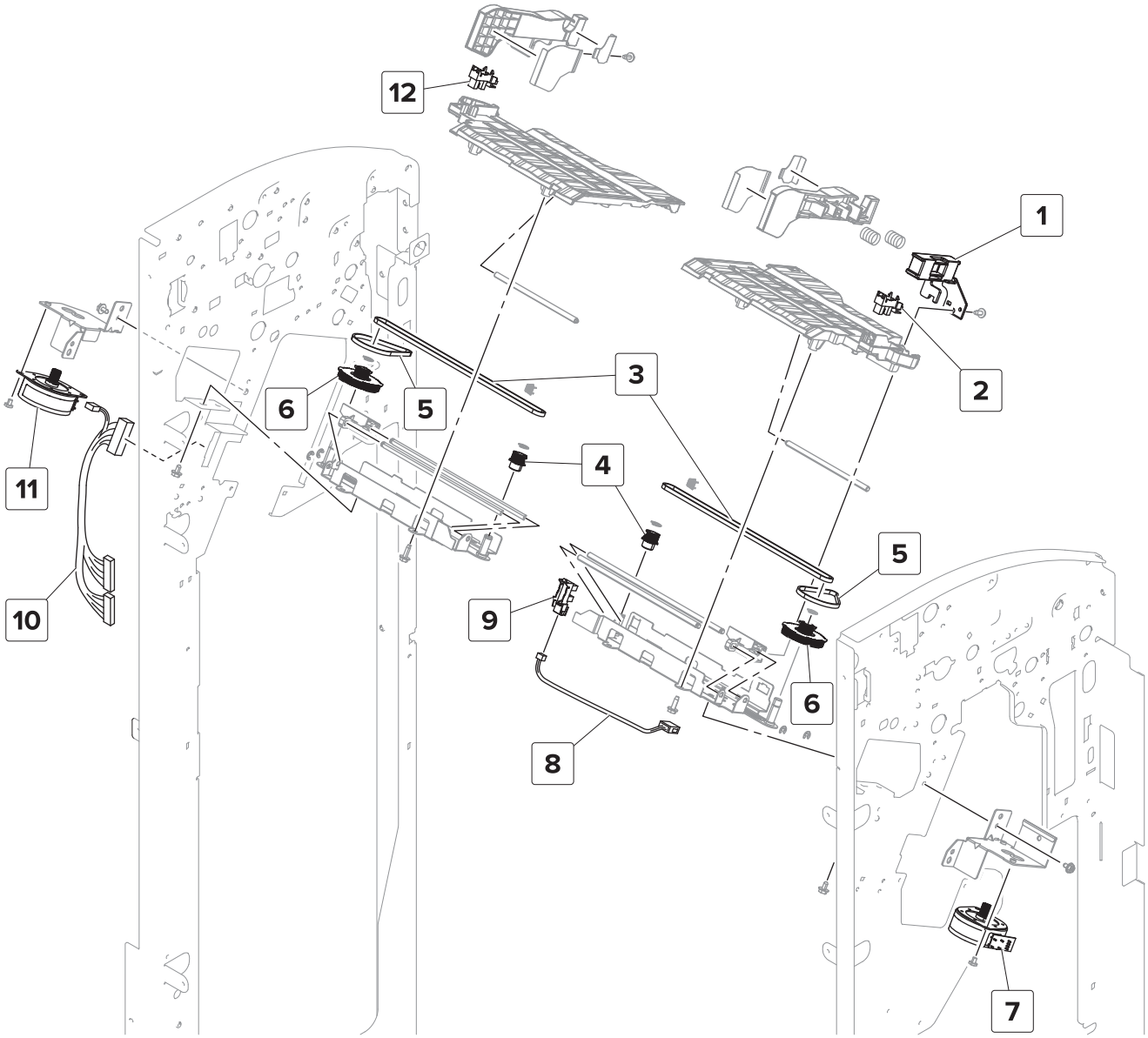
Assembly 29: SHPF—Compiler section 2



Assembly 29: SHPF—Compiler section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9637	1	1	SHPF compiler feed roller	“SHPF compiler feed roller removal” on page 446
2	40X9634	1	1	SHPF paddle drive gear	“SHPF paddle drive gears removal” on page 377
3	40X9629	1	1	SHPF paddle drive belt	“SHPF paddle motor FRUs removal” on page 378
4	40X9530	1	1	Motor (SHPF paddle)	“Motor (SHPF paddle) removal” on page 377
5	40X8869	1	1	Sensor (SHPF paddle home)	“SHPF paddle motor FRUs removal” on page 378
6	40X9853	1	1	SHPF paddle drive encoder	“SHPF paddle drive gears removal” on page 377
7	40X9440	2	1	Ball bearing	--
8	40X9543	1	1	SHPF elevator bin stack limit switch	“SHPF elevator bin stack limit switch removal” on page 425
9	40X9633	1	1	SHPF compiler guide	“SHPF compiler guide removal” on page 437
10	40X9632	2	1	SHPF paddles	“SHPF paddles removal” on page 324
11	40X9852	1	1	SHPF middle paddle	“SHPF paddles removal” on page 324
12	41X2185	1	1	SHPF compiler guide lever	“SHPF paddle cam and compiler guide lever removal” on page 356
13	40X9627	1	1	SHPF paddle cam	“SHPF paddle cam and compiler guide lever removal” on page 356

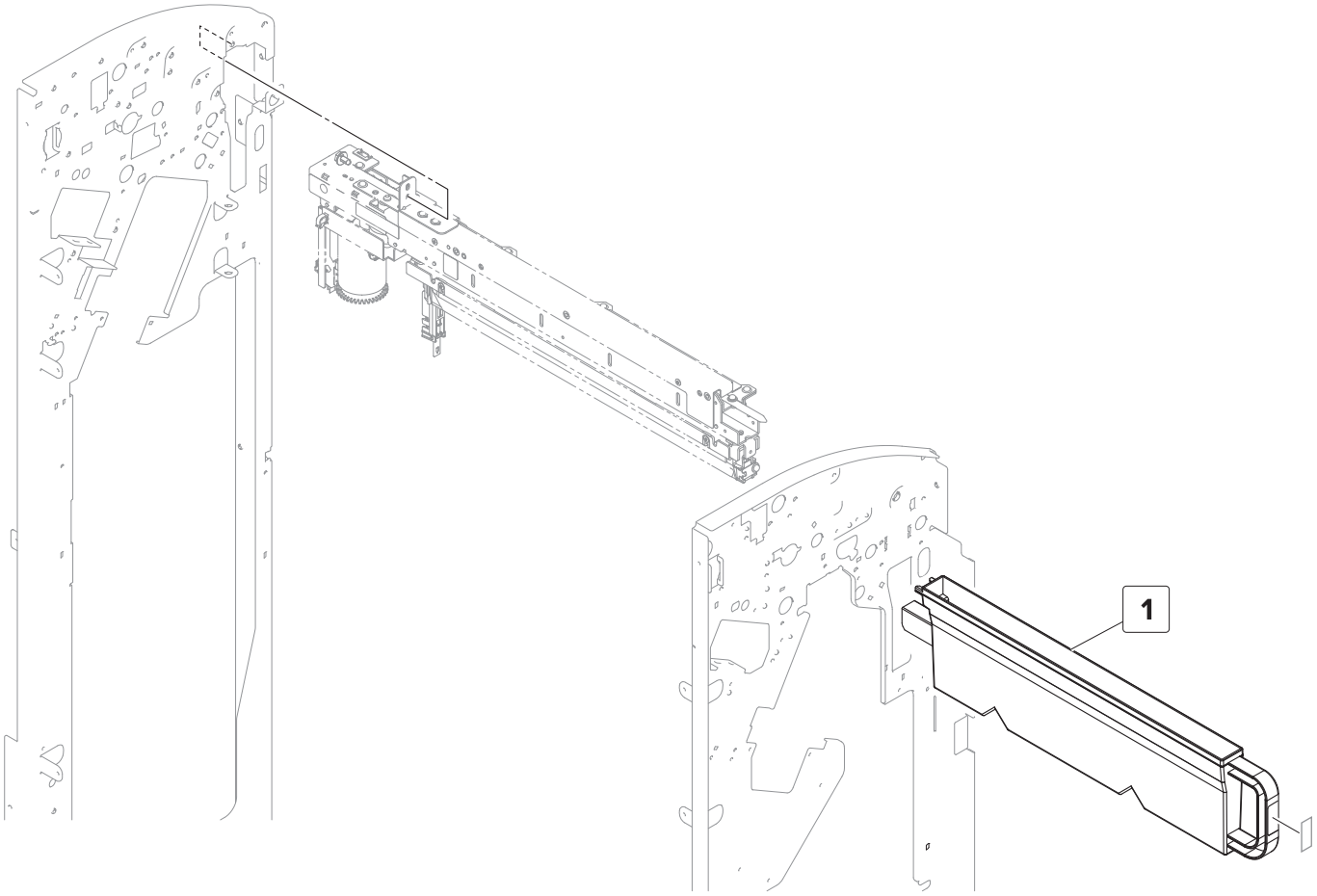
Assembly 30: SHPF—Compiler section 3



Assembly 30: SHPF—Compiler section 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9195	1	1	SHPF front tamper holder	--
2	40X8869	1	1	Sensor (SHPF front tamper home)	**“Sensor (SHPF front tamper home) removal ” on page 347**
3	40X9641	2	1	SHPF tamper belt	**“SHPF tamper belts and gears removal” on page 405**
4	40X9595	2	1	SHPF tamper gear	**“SHPF tamper belts and gears removal” on page 405**
5	40X9344	2	1	SHPF tamper drive belt	**“SHPF tamper belts and gears removal” on page 405**
6	40X9485	2	1	SHPF tamper drive gear	**“SHPF tamper belts and gears removal” on page 405**
7	40X9530	1	1	Motor (SHPF front tamper)	**“Motor (SHPF front tamper) removal” on page 346**
8	40X9717	1	1	SHPF aligner position sensor cable	--
9	40X8869	1	1	Sensor (SHPF aligner position)	**“Sensor (SHPF aligner position) removal” on page 407**
10	40X9638	1	1	SHPF ejector cable	--
11	40X9530	1	1	Motor (SHPF rear tamper)	**“Motor (SHPF rear tamper) removal” on page 350**
12	40X8869	1	1	Sensor (SHPF rear tamper home)	**“Sensor (SHPF rear tamper home) removal” on page 351**

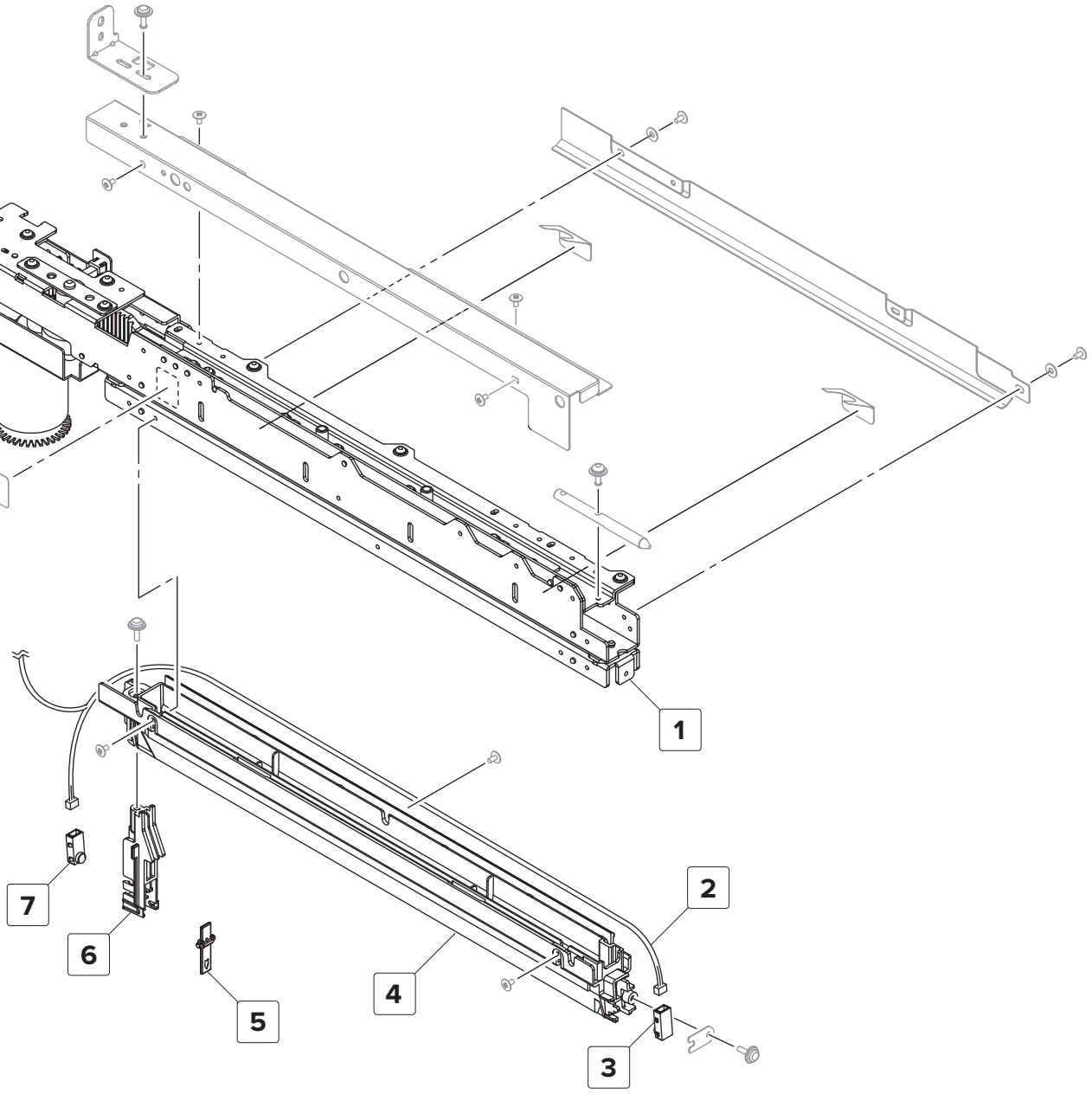
Assembly 31: SHPF—Punch unit 1



Assembly 31: SHPF—Punch unit 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9550	1	1	Hole punch box	--

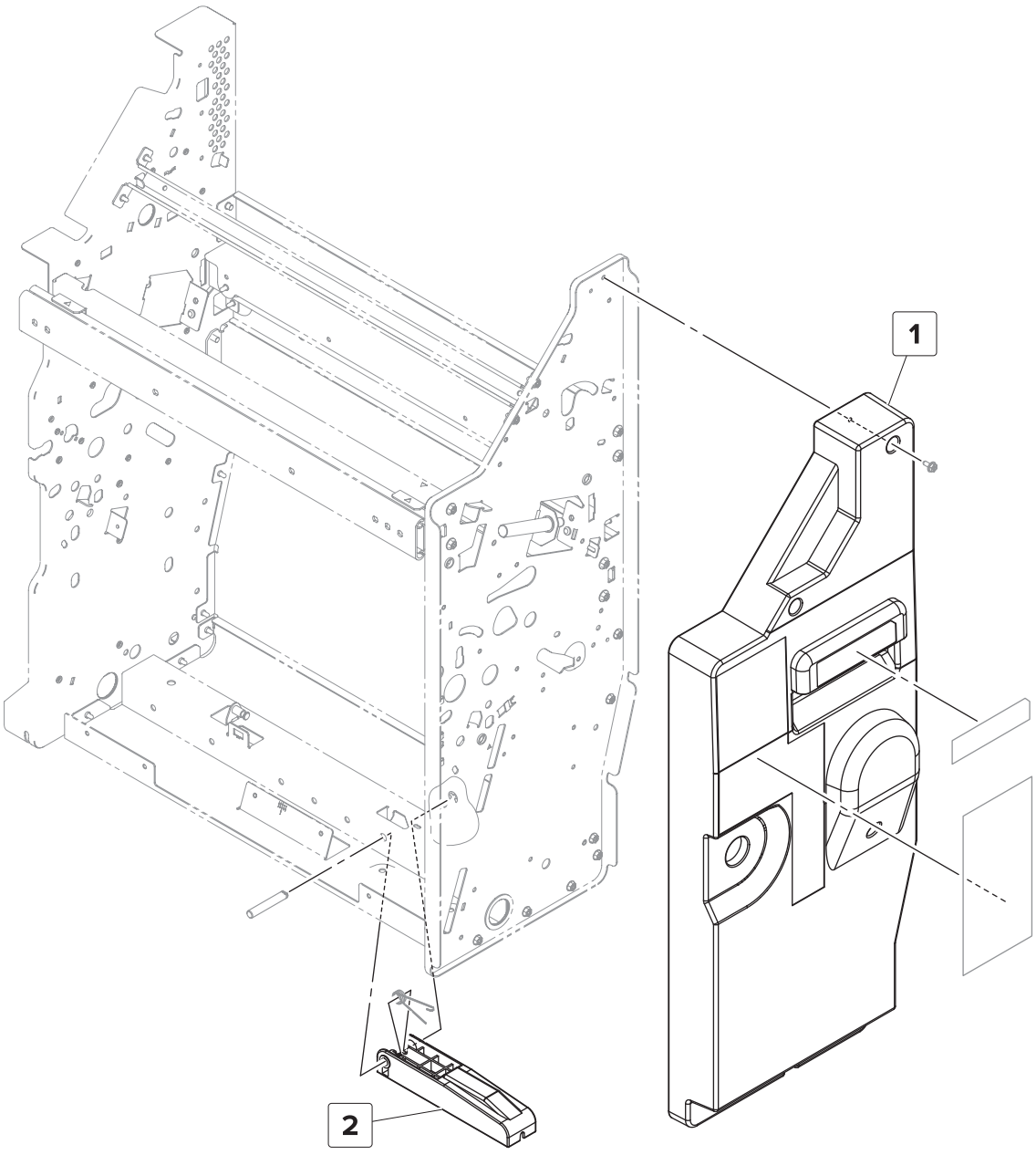
Assembly 32: SHPF—Punch unit 2



Assembly 32: SHPF—Punch unit 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0968	1	1	Punch unit—2/4 holes	--
1	41X0967	1	1	Punch unit—2/3 holes	--
1	40X9986	1	1	Punch unit—Sweden	**"Punch unit removal" on page 357**
2	40X9549	1	1	Punch unit cable	--
3	40X9547	1	1	Sensor (hole punch box full, transmit)	**"Sensor (hole punch box full) removal" on page 358**
4	40X9918	1	1	SHPF duct guide	--
5	40X9546	1	1	Hole punch box full sensor actuator	--
6	40X9545	1	1	Hole punch box full sensor holder	--
7	40X9928	1	1	Sensor (hole punch box full, receive)	**"Sensor (hole punch box full) removal" on page 358**

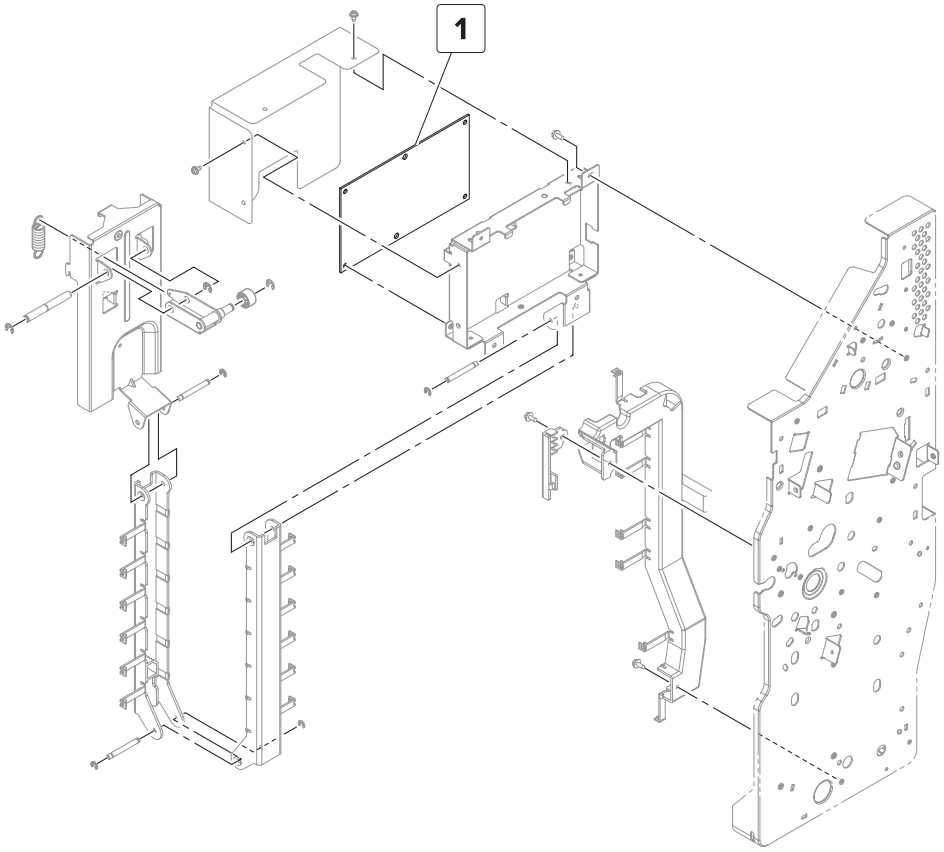
Assembly 33: Booklet maker—Covers



Assembly 33: Booklet maker—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9423	1	1	Booklet maker front cover	“Booklet maker front cover removal” on page 449
2	40X9424	1	1	Booklet maker support	“Booklet maker support removal” on page 450

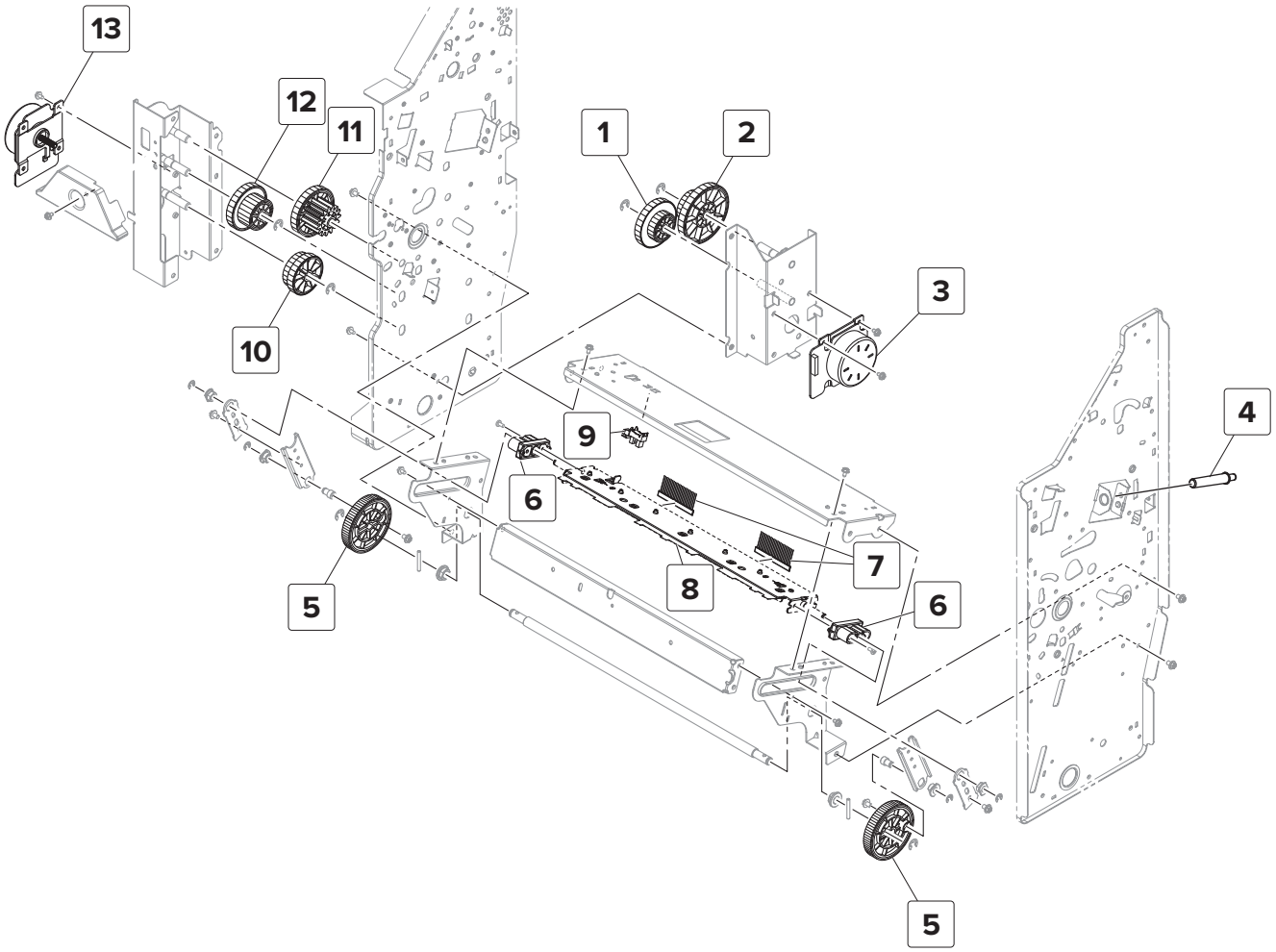
Assembly 34: Booklet maker—Electronics



Assembly 34: Booklet maker—Electronics

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9429	1	1	Booklet maker controller board	**“Booklet maker controller board removal” on page 454**

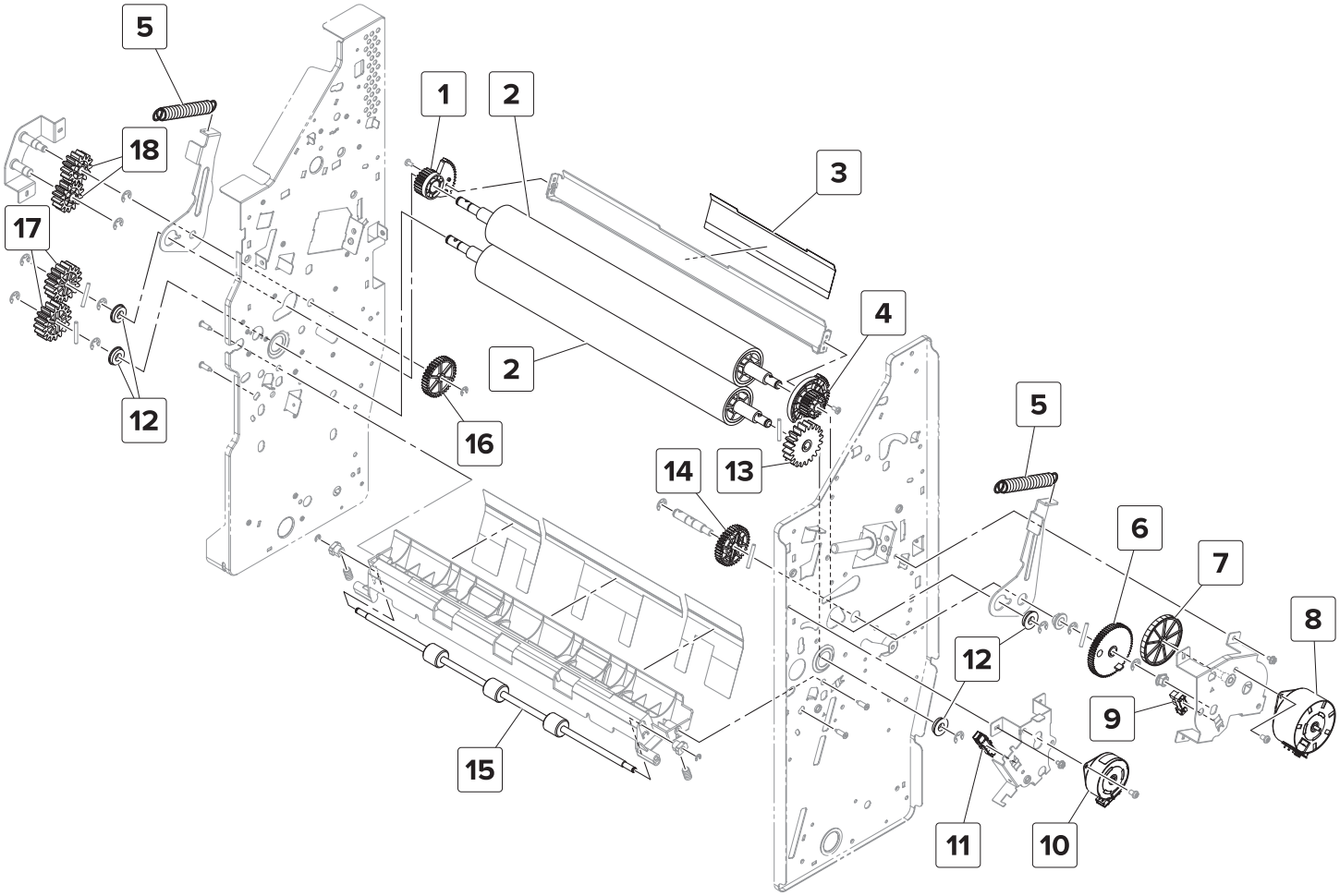
Assembly 35: Booklet maker—Fold section 1



Assembly 35: Booklet maker—Fold section 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9433	1	1	Bifold knife primary drive gear	“Bifold knife primary drive gears removal” on page 509
2	40X9856	1	1	Bifold knife idler gear	“Bifold knife primary drive gears removal” on page 509
3	40X9432	1	1	Motor (bifold knife)	“Motor (bifold knife) removal” on page 483
4	40X9425	1	1	Retracting shaft	--
5	40X9436	2	1	Bifold knife secondary drive gears	“Bifold knife secondary drive gears removal” on page 514
6	40X9431	2	1	Bifold knife slider	“Bifold knife removal” on page 515
7	40X9430	2	1	Bifold knife static brush	“Bifold knife removal” on page 515
8	40X9913	1	1	Bifold knife	“Bifold knife removal” on page 515
9	40X8869	1	1	Sensor (bifold knife home)	“Sensor (bifold knife home) removal” on page 512
10	40X9858	1	1	Bifold roller drive gear	“Bifold roller gears removal” on page 464
11	40X9857	1	1	Bifold roller idler gear 2	“Bifold roller gears removal” on page 464
12	40X9435	1	1	Bifold roller idler gear 1	“Bifold roller gears removal” on page 464
13	40X9432	1	1	Motor (bifold roller)	“Motor (bifold roller) removal” on page 463

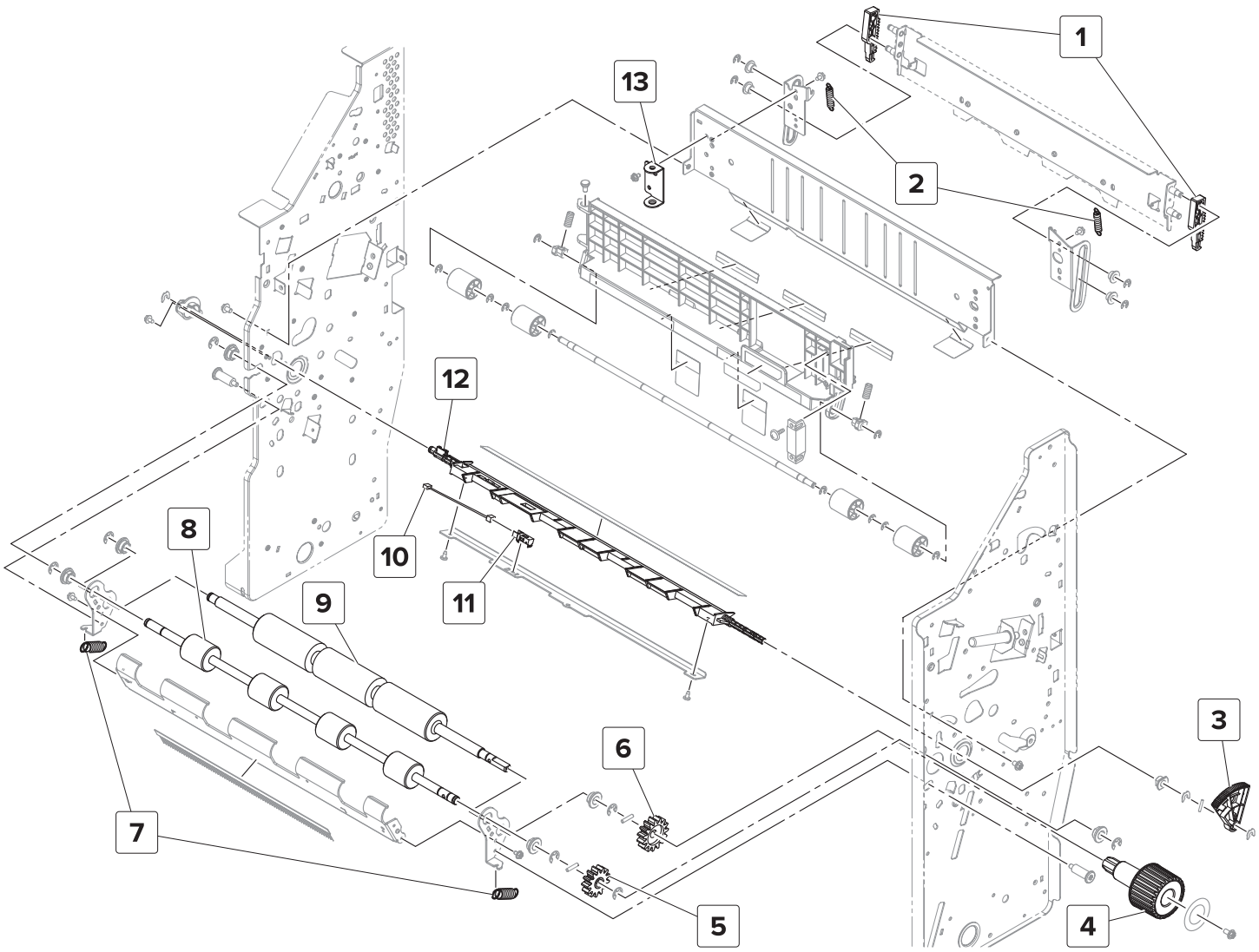
Assembly 36: Booklet maker—Fold section 2



Assembly 36: Booklet maker—Fold section 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9442	1	1	Trifold knife actuator	“Bifold upper roller removal” on page 498
2	40X9449	2	1	Bifold rollers	“Bifold upper roller removal” on page 498 “Bifold lower roller removal” on page 501
3	40X9414	1	1	Bifold guide	--
4	40X9861	1	1	Bifold roller timing gear	“Bifold upper roller removal” on page 498
5	40X9439	2	1	Bifold roller springs	“Bifold roller springs removal” on page 472
6	40X9862	1	1	Bifold guide home sensor actuator	“Bifold roller drive gears removal” on page 516
7	40X9863	1	1	Bifold guide drive gear	“Bifold guide drive gears removal” on page 518
8	40X9447	1	1	Motor (bifold guide)	“Bifold guide drive gears removal” on page 518
9	40X8869	1	1	Sensor (bifold guide home)	“Sensor (bifold guide home) removal” on page 480
10	40X9446	1	1	Motor (trifold guide)	“Motor (trifold guide) removal” on page 481
11	40X8869	1	1	Sensor (trifold guide home)	“Sensor (trifold guide home) removal” on page 482
12	40X9440	4	1	Bifold roller ball bearing	“Bifold upper roller removal” on page 498
13	40X9443	1	1	Lower bifold roller gear	“Bifold lower roller removal” on page 501
14	40X9444	1	1	Trifold knife front idler gear	“Bifold roller drive gears removal” on page 516
15	40X9352	1	1	Trifold exit roller	--
16	40X9441	1	1	Trifold knife rear idler gear 2	“Bifold roller drive gears removal” on page 516
17	40X9859	2	1	Bifold roller gear	“Bifold roller drive gears removal” on page 516
18	40X9860	2	1	Trifold knife rear idler gear 1	“Bifold roller drive gears removal” on page 516

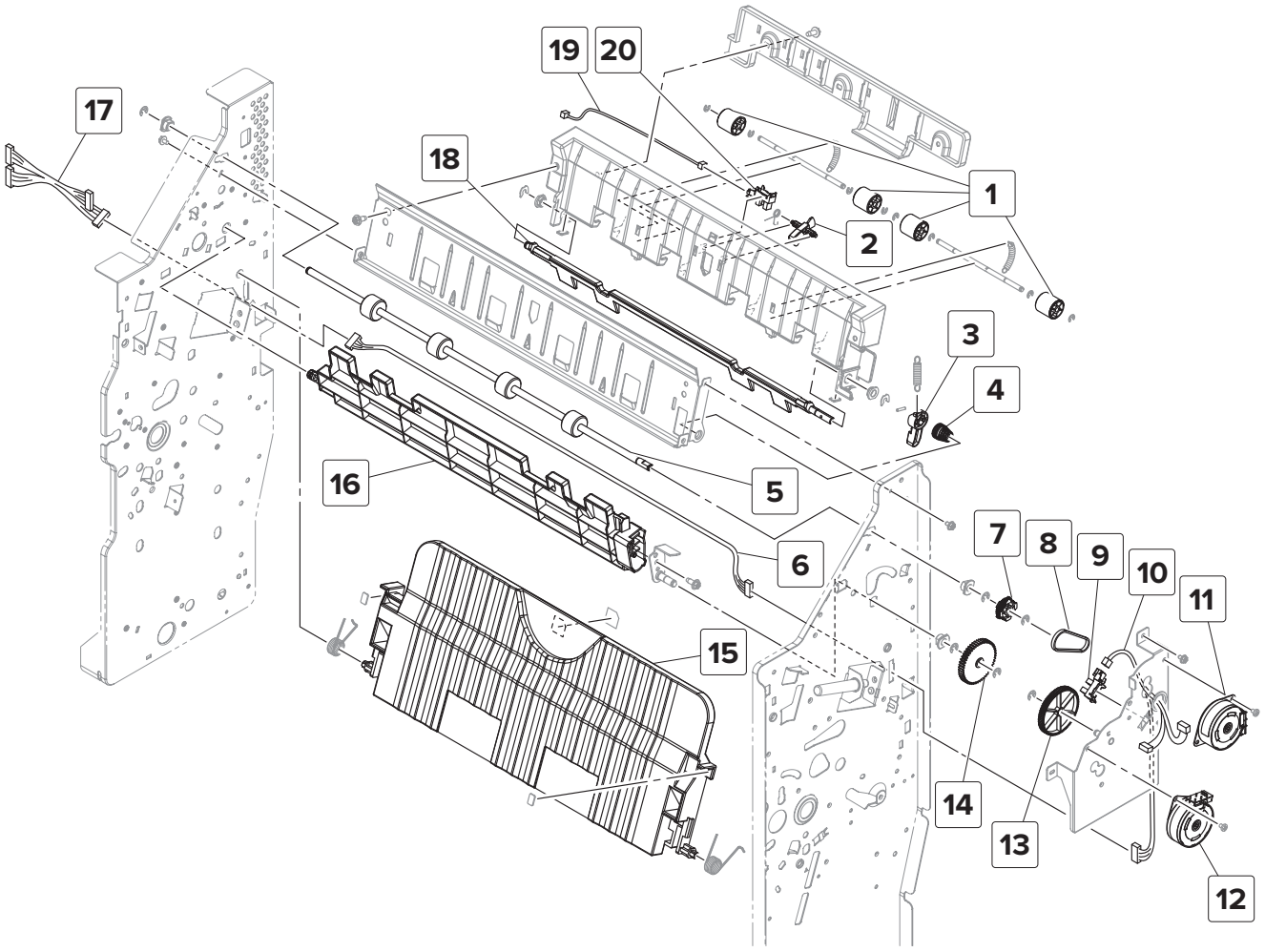
Assembly 37: Booklet maker—Fold section 3



Assembly 37: Booklet maker—Fold section 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9562	2	1	Trifold knife slider	--
2	40X9459	2	1	Trifold knife springs	**“Trifold knife springs removal” on page 498**
3	40X9458	1	1	Trifold gate actuator	**“Trifold gate actuator removal” on page 482**
4	41X2030	1	1	Trifold jam knob	**“Trifold jam knob removal” on page 448**
5	40X9865	1	1	Bifold exit roller gear	**“Trifold gears removal” on page 466**
6	40X9453	1	1	Trifold roller gear	**“Trifold gears removal” on page 466**
7	41X2091	2	1	Booklet maker exit roller springs	**“Booklet maker exit roller springs removal” on page 448**
8	40X9864	1	1	Bifold exit roller	**“Trifold rollers removal” on page 465**
9	41X2031	1	1	Trifold roller	**“Trifold rollers removal” on page 465**
10	40X9219	1	1	Booklet maker fold exit sensor cable	--
11	40X8968	1	1	Sensor (booklet maker fold exit)	**“Sensor (booklet maker fold exit) removal” on page 508**
12	40X9524	1	1	Trifold diverter	**“Trifold diverter removal” on page 507**
13	40X9457	1	1	Bifold jam access door hinge	**“Trifold knife removal” on page 498**

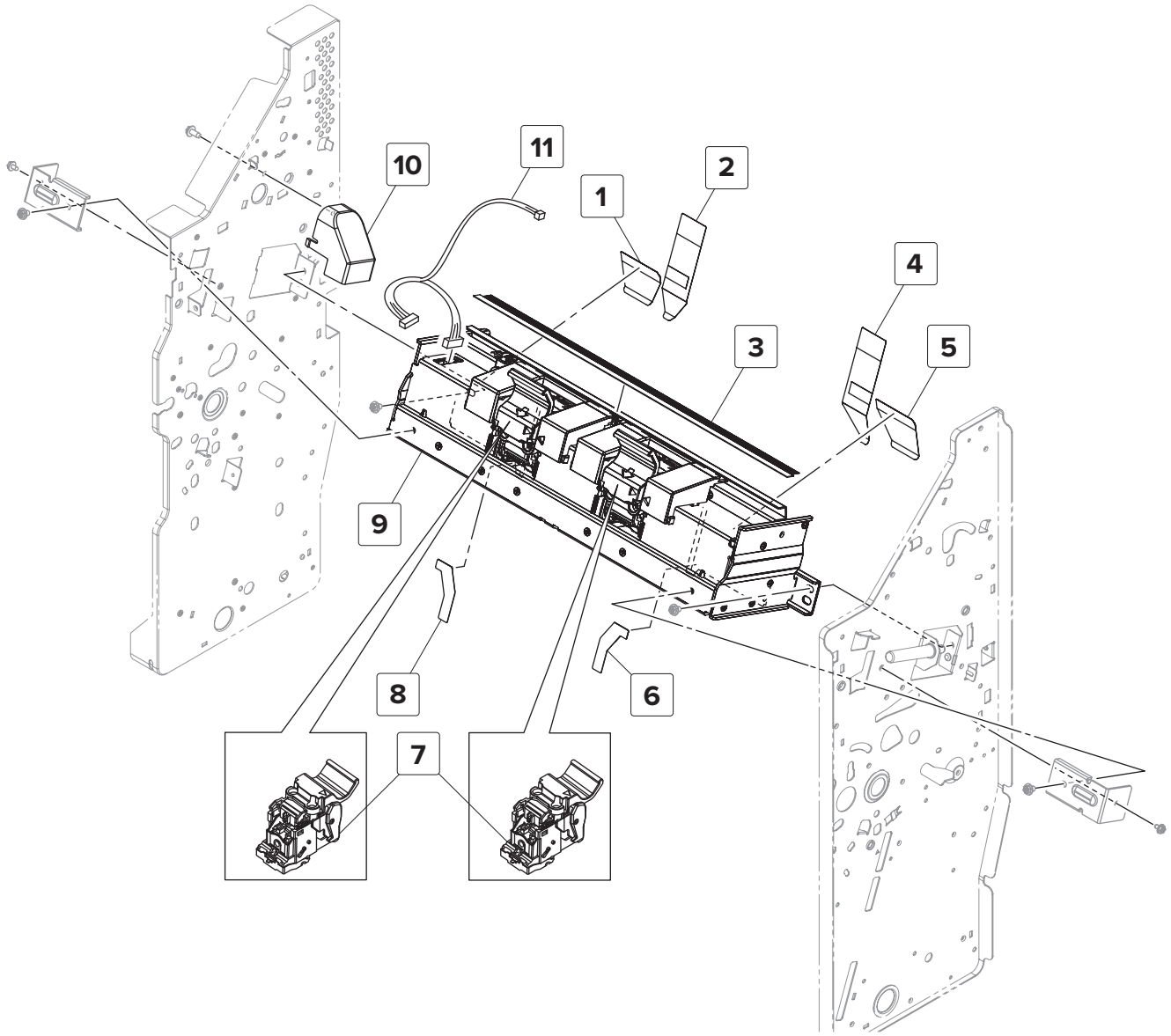
Assembly 38: Booklet maker—Transport section



Assembly 38: Booklet maker—Transport section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9353	4	1	Booklet maker transport idler roller	"Booklet maker transport idler rollers removal" on page 459
2	40X9463	1	1	Booklet maker transport sensor actuator	"Sensor (booklet maker transport) removal" on page 460
3	40X9600	1	1	Booklet maker decurl lever	"Booklet maker decurl lever removal" on page 461
4	40X9445	1	1	Booklet maker pressure spring	--
5	40X9461	1	1	Booklet maker transport roller	"Booklet maker transport roller removal" on page 474
6	40X9867	1	1	Booklet maker transport section extension cable	--
7	40X9469	1	1	Booklet maker transport gear	"Booklet maker transport gear and belt removal" on page 473
8	40X9467	1	1	Booklet maker transport belt	"Booklet maker transport gear and belt removal" on page 473
9	40X8869	1	1	Sensor (booklet maker decurl)	"Sensor (booklet maker decurl) removal" on page 476
10	40X9474	1	1	Booklet maker transport section cable	--
11	40X9470	1	1	Motor (booklet maker transport)	"Motor (booklet maker transport) removal" on page 470
12	40X9446	1	1	Motor (booklet maker decurl)	"Motor (booklet maker decurl) removal" on page 471
13	40X9468	1	1	Booklet maker decurl gears	"Booklet maker decurl gears removal" on page 475
14	40X9866	1	1	Booklet maker decurl gears	"Booklet maker decurl gears removal" on page 475
15	40X9438	1	1	Booklet maker jam access door	"Booklet maker jam access door removal" on page 457
16	40X9473	1	1	Booklet maker decurl guide	"Booklet maker decurl guide removal" on page 477
17	40X9868	1	1	Transport and compiler section cable	--
18	40X9296	1	1	Booklet maker transport paper guide lever	"Booklet maker transport paper guide lever removal" on page 462
19	40X9869	1	1	Booklet maker transport sensor cable	--
20	40X8869	2	1	Sensor (booklet maker transport)	"Sensor (booklet maker transport) removal" on page 460

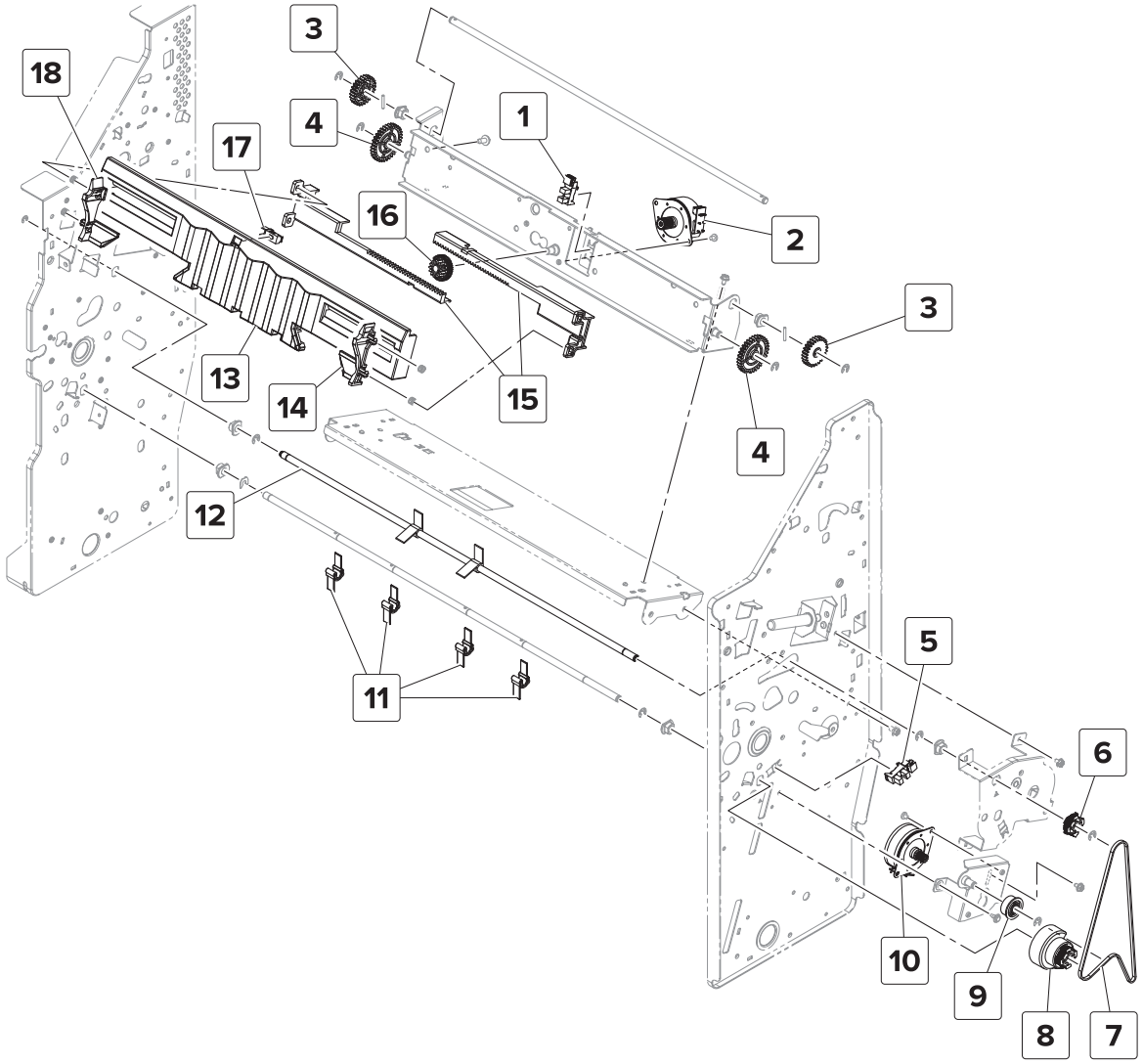
Assembly 39: Booklet maker—Staple section



Assembly 39: Booklet maker—Staple section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9307	1	1	Plastic film	--
2	40X9526	1	1	Plastic film	--
3	40X9460	1	1	Static brush	--
4	40X9466	1	1	Plastic film	--
5	40X9450	1	1	Plastic film	--
6	40X8976	1	1	Plastic film	--
7	40X9476	2	1	Booklet maker staple cartridge	--
8	40X9303	1	1	Plastic film	--
9	40X9478	1	1	Booklet maker staple unit	**“Booklet maker staple unit removal” on page 503**
10	40X9907	1	1	Booklet maker cover	--
11	40X9870	1	1	Booklet maker staple unit cable	--

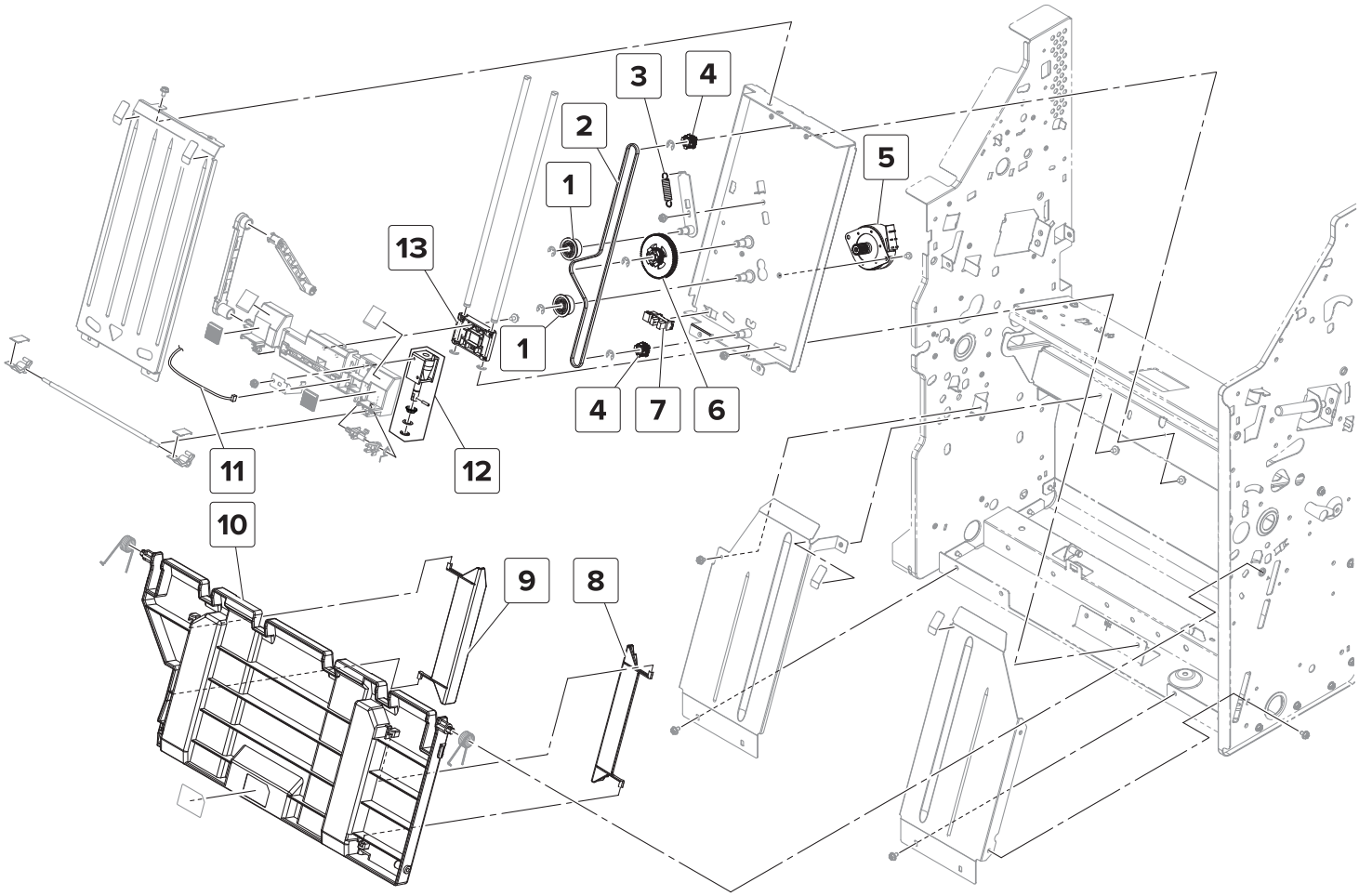
Assembly 40: Booklet maker—Compiler section



Assembly 40: Booklet maker—Compiler section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8869	1	1	Sensor (booklet maker tamper home)	“Sensor (booklet maker tamper home) removal” on page 524
2	40X9446	1	1	Motor (booklet maker tamper)	“Motor (booklet maker tamper) removal” on page 484
3	40X9581	2	1	Bifold guide idler gear 2	“Bifold guide idler gears removal” on page 524
4	40X9583	2	1	Bifold guide idler gear 1	“Bifold guide idler gears removal” on page 524
5	40X8869	1	1	Sensor (booklet maker paddle home)	“Sensor (booklet maker paddle home) removal” on page 469
6	40X9469	1	1	Booklet maker paddle gear	“Booklet maker paddle gears removal” on page 467
7	40X9479	1	1	Booklet maker paddle belt	“Booklet maker paddle belt removal” on page 467
8	40X9871	1	1	Booklet maker paddle encoder	“Booklet maker paddle gears removal” on page 467
9	40X9493	1	1	Booklet maker paddle tensioner pulley	“Booklet maker paddle gears removal” on page 467
10	40X9481	1	1	Motor (booklet maker paddle)	“Motor (booklet maker paddle) removal” on page 468
11	40X9483	4	1	Booklet maker lower paddle	“Booklet maker lower paddle removal” on page 454
12	40X9482	1	1	Booklet maker upper paddle	“Booklet maker upper paddle removal” on page 497
13	40X9487	1	1	Booklet maker tamper tray	“Booklet maker tamper tray removal” on page 521
14	40X9876	1	1	Booklet maker front tamper	“Booklet maker tamper tray removal” on page 521
15	40X8965	2	1	Booklet maker tamper rack	“Booklet maker tamper tray removal” on page 521
16	40X9016	1	1	Booklet maker tamper drive gear	“Booklet maker tamper tray removal” on page 521
17	40X8968	1	1	Sensor (booklet maker tamper paper present)	“Booklet maker tamper tray removal” on page 521
18	40X9492	1	1	Booklet maker rear tamper	“Booklet maker tamper tray removal” on page 521

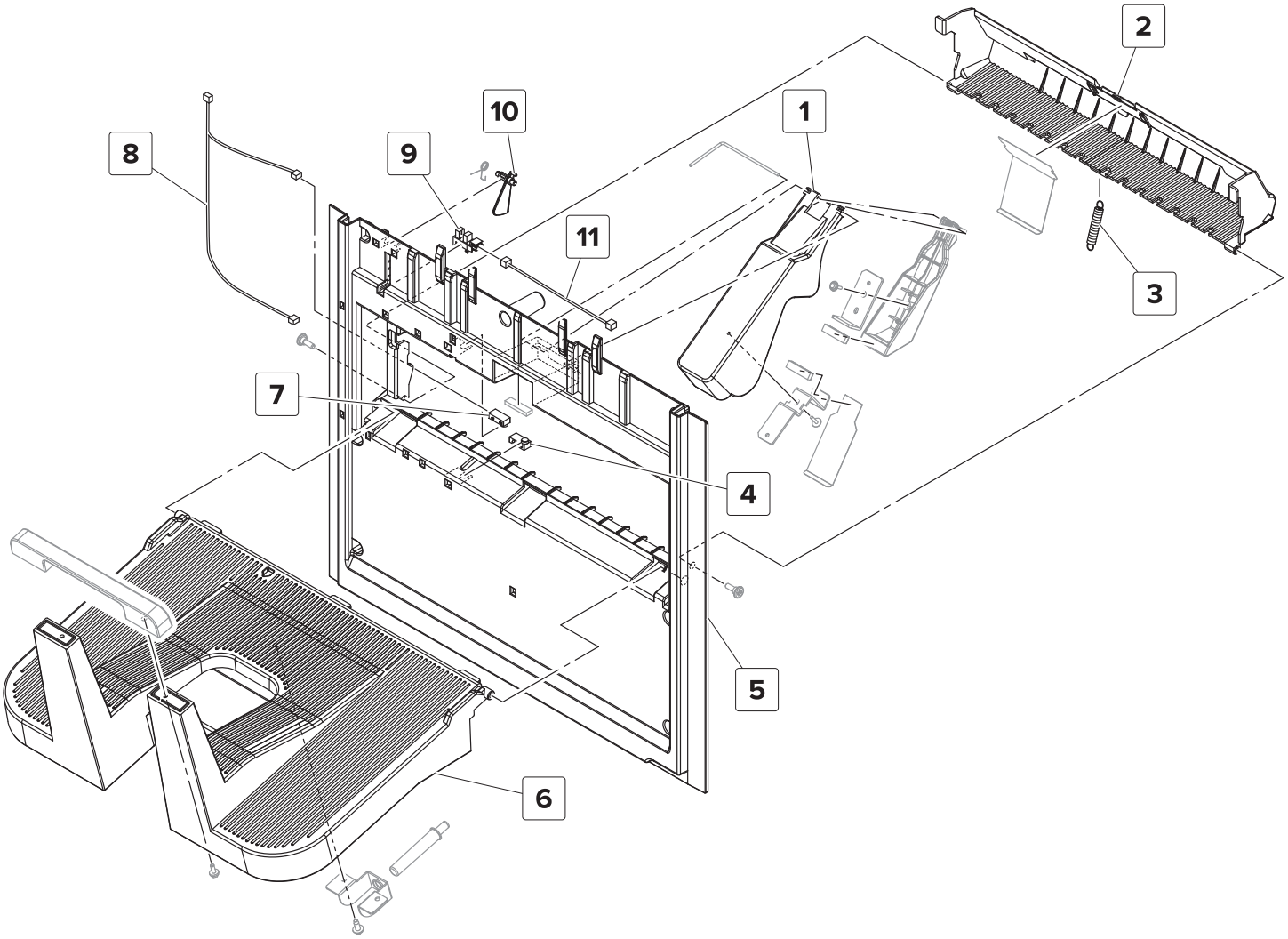
Assembly 41: Booklet maker—Aligner assembly



Assembly 41: Booklet maker—Aligner assembly

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9493	2	1	Booklet maker aligner tensioner pulley	"Booklet maker aligner gears removal" on page 493
2	40X9494	1	1	Booklet maker aligner belt	"Booklet maker aligner belt removal" on page 492
3	40X9495	1	1	Booklet maker aligner tensioner spring	--
4	40X9874	2	1	Booklet maker aligner gear	"Booklet maker aligner gears removal" on page 493
5	40X9446	1	1	Motor (booklet maker aligner)	"Motor (booklet maker aligner) removal" on page 483
6	40X9875	1	1	Booklet maker aligner drive gear	"Booklet maker aligner gears removal" on page 493
7	40X8869	1	1	Sensor (booklet maker aligner home)	"Sensor (booklet maker aligner home) removal" on page 487
8	40X8964	1	1	Booklet maker compiler stack front guide	"Booklet maker aligner jam access door removal" on page 452
9	40X9489	1	1	Booklet maker compiler stack rear guide	"Booklet maker aligner jam access door removal" on page 452
10	40X9854	1	1	Booklet maker aligner jam access door	"Booklet maker aligner jam access door removal" on page 452
11	40X9916	1	1	Booklet maker aligner solenoid cable	"Booklet maker aligner solenoid removal" on page 494
12	40X9497	1	1	Booklet maker aligner solenoid	"Booklet maker aligner solenoid removal" on page 494
13	40X8993	1	1	Booklet maker aligner carriage	"Booklet maker aligner solenoid removal" on page 494

Assembly 42: Booklet maker—Exit section



Assembly 42: Booklet maker—Exit section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9501	1	1	HPBF bin bail	“HPBF bin bail removal” on page 325
2	40X9502	1	1	HPBF exit roller cover	“HPBF exit roller cover removal” on page 339
3	40X9503	1	1	HPBF exit roller cover spring	“HPBF exit roller cover removal” on page 339
4	40X9538	1	1	Sensor (HPBF bin empty, transmit)	“HPBF lower left cover sensors removals” on page 339
5	40X9508	1	1	HPBF lower left cover	“Lower left cover removals” on page 336
6	40X9499	1	1	HPBF bin	“Lower left cover removals” on page 336
7	40X9540	1	1	Sensor (HPBF bin empty, receive)	“HPBF lower left cover sensors removals” on page 339
8	40X9504	1	1	HPBF bin empty sensor cable	--
9	40X8869	1	1	Sensor (SHPF elevator bin full)	“HPBF lower left cover sensors removals” on page 339
10	40X9506	1	1	HPBF elevator bin full sensor actuator	“HPBF lower left cover sensors removals” on page 339
11	40X9877	1	1	HPBF elevator bin full sensor cable	--

Assembly 43: SHPF and booklet maker—Wiring

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
NS	40X9208	1	1	SHPF interface cable	--
NS	40X8874	1	1	SHPF J4, J5, and J10 cable harness	--
NS	40X9006	1	1	SHPF J9 cable harness	--
NS	40X9412	1	1	SHPF ejector cable harness	--
NS	40X8918	1	1	SHPF upper left cover cable harness	--
NS	40X9509	1	1	Booklet maker J8 and J9 cable harness	--
NS	40X9878	1	1	Booklet maker interface cable	--
NS	40X8986	1	1	Booklet maker J7 cable harness	--
NS	40X9032	1	1	Booklet maker J10 and J11 cable harness	--

Options and features

Media handling options

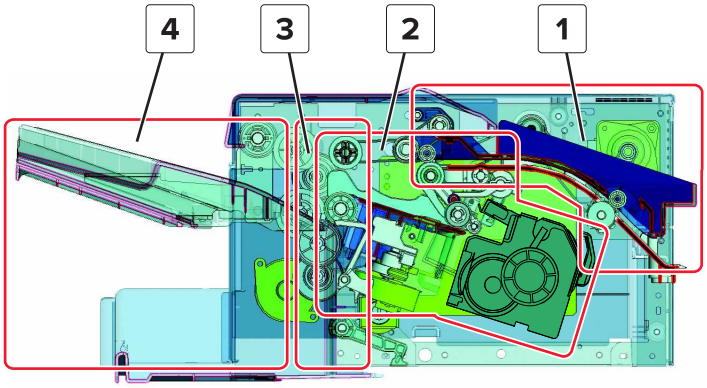
Some options may not be available for all models.

1	Standard 2 x 500-sheet tray
2	Optional 2 x 500-sheet tray
3	Optional 2500-sheet tray
4	Optional 3000-sheet tray
5	Multipurpose feeder
6	Staple finisher
7	Staple, hole punch finisher
8	Hole punch booklet finisher

Theory of operation

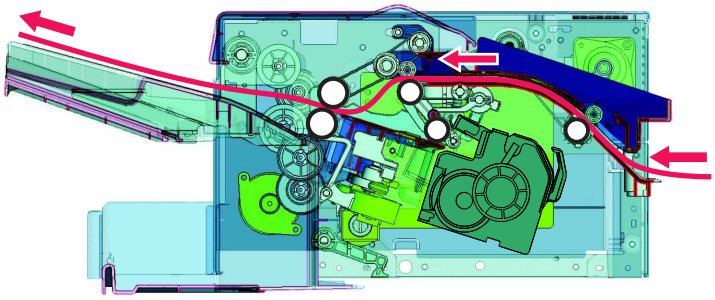
Staple finisher operation

Staple finisher sections

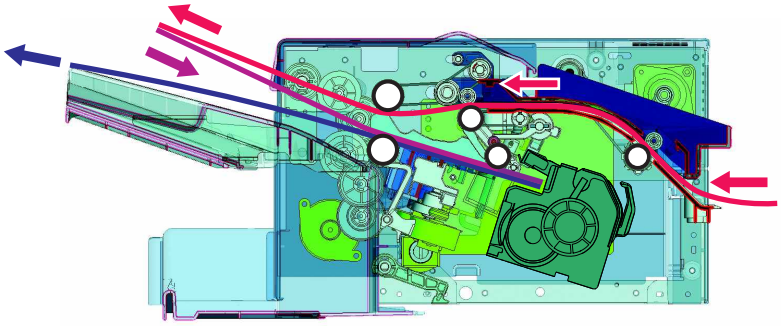


#	Part
1	Feed section
2	Compiler section
3	Exit section
4	Elevator bin section

Standard print job paper path

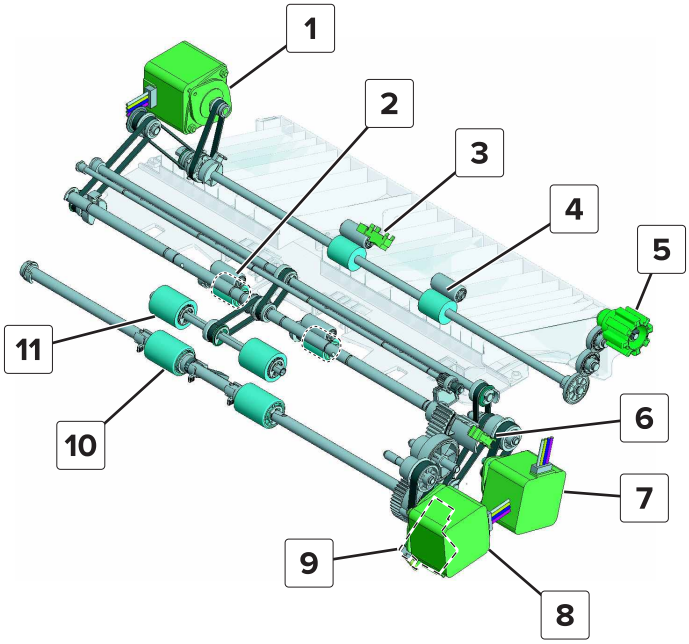


Offset or staple job paper path



Staple finisher feed and exit section

Staple finisher feed and exit section parts



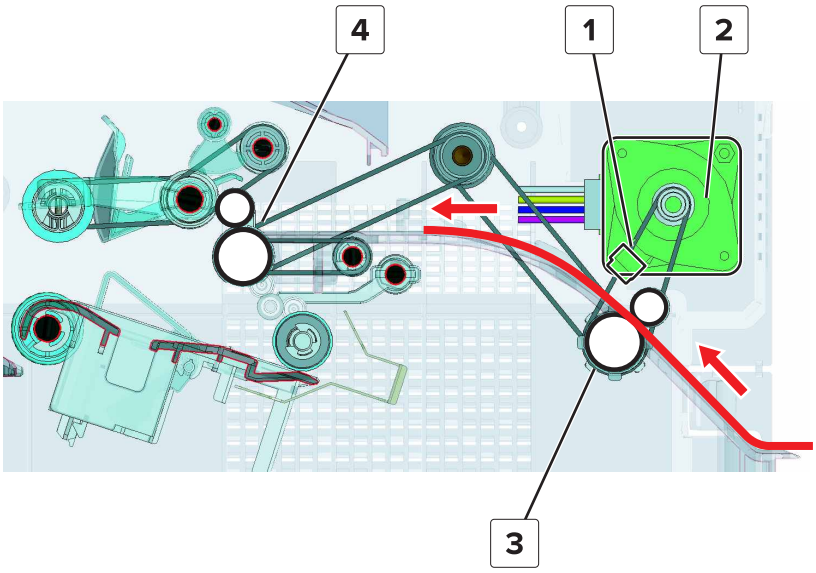
#	Part
1	Motor (staple finisher transport)
2	Compiler feed roller
3	Sensor (staple finisher paper feed)
4	Transport roller
5	Jam removal knob
6	Sensor (staple finisher upper exit roller)

#	Part
7	Motor (staple finisher exit)
8	Motor (staple finisher upper exit)
9	Upper exit roller solenoid
10	Lower exit roller
11	Upper exit roller

Feed section paper path

The staple finisher is installed on the printer standard bin and receives paper from the printer exit roller. The motor (staple finisher transport) drives the transport roller and the compiler feed roller. The transport roller feeds the paper from the printer exit roller to the compiler feed roller. The sensor (staple finisher paper feed), positioned above the transport roller, detects the leading and trailing edges of the paper. If no finishing is required, then the paper is transported to the exit section. If finishing is required, then the paper is transported to the compiler section.

Note: By turning the jam removal knob, the transport and compiler feed rollers can be manually rotated to clear jams.

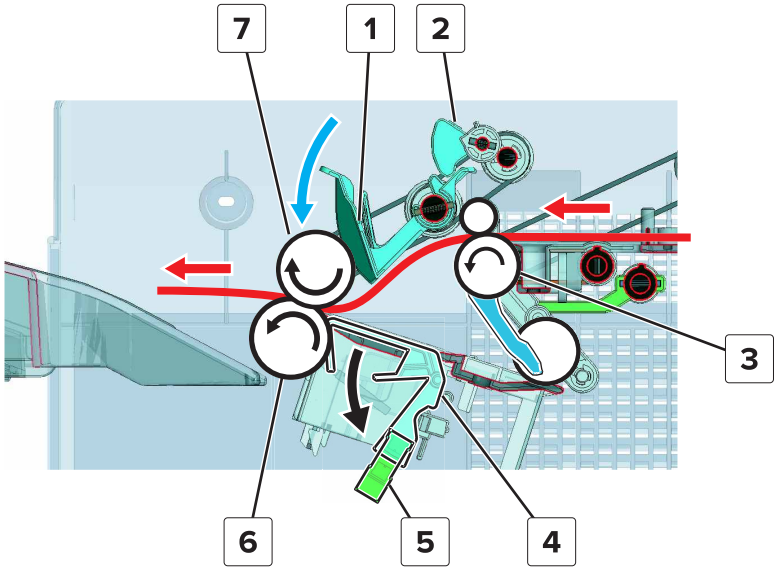


#	Part
1	Sensor (staple finisher paper feed)
2	Motor (staple finisher transport)
3	Transport roller
4	Compiler feed roller

Exit section paper path for standard print jobs

The motor (staple finisher upper exit) rotates the exit guide lift cams causing the cams to release the eject guides. The guides swing down due to their weight, and then divert the paper between the upper and lower exit rollers. The motor (staple finisher upper exit) lowers the upper exit roller to come into contact with the paper. The upper exit roller solenoid connects the lower exit roller to the motor (staple finisher exit). The motor drives the upper and lower exit rollers to feed the paper to the bin.

The paper passing through the exit rollers lowers the tamper paper present sensor actuator. As the trailing edge passes through the roller, the actuator returns to its original position, signaling that the paper is in the bin. The upper exit roller returns to its home position.

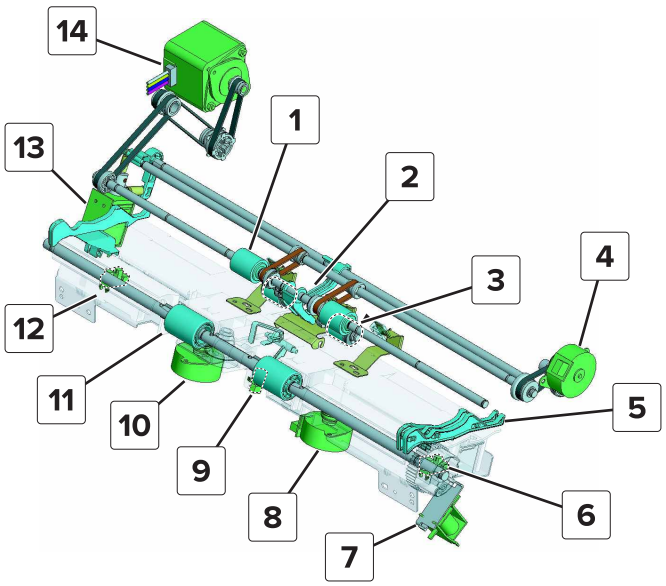


#	Part
1	Eject guides
2	Exit guide lift cams
3	Compiler feed roller
4	Tamper paper present sensor actuator
5	Sensor (staple finisher tamper paper present)
6	Lower exit roller
7	Upper exit roller

Staple finisher compiler section

Staple finisher compiler section parts

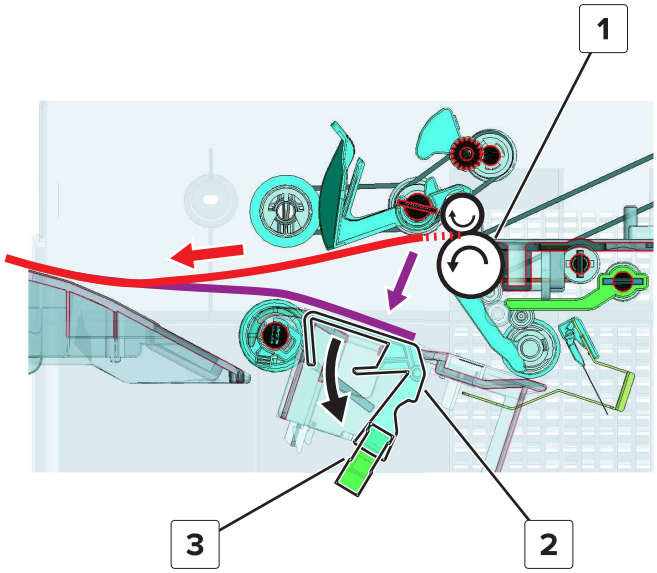
At the compiler section, the sheets of paper are aligned for offset and staple jobs. The sheets are individually fed and aligned in the compiler assembly, and then fed out to the exit section.



#	Part
1	Compiler feed roller
2	Stack lever
3	Aligner roller
4	Motor (staple finisher aligner)
5	Front tamper
6	Sensor (staple finisher front tamper home)
7	Exit roller solenoid
8	Motor (staple finisher front tamper)
9	Sensor (staple finisher tamper paper present)
10	Motor (staple finisher rear tamper)
11	Lower exit roller
12	Sensor (staple finisher rear tamper home)
13	Stack lever solenoid
14	Motor (staple finisher transport)

Compiler section paper feed

After receiving the paper from the feed section, the compiler feed roller pushes the paper between the raised upper exit roller and lower exit roller. The paper falls due to its weight, and the trailing edge lands on the compiler assembly. The paper toggles the sensor (staple finisher tamper paper present).

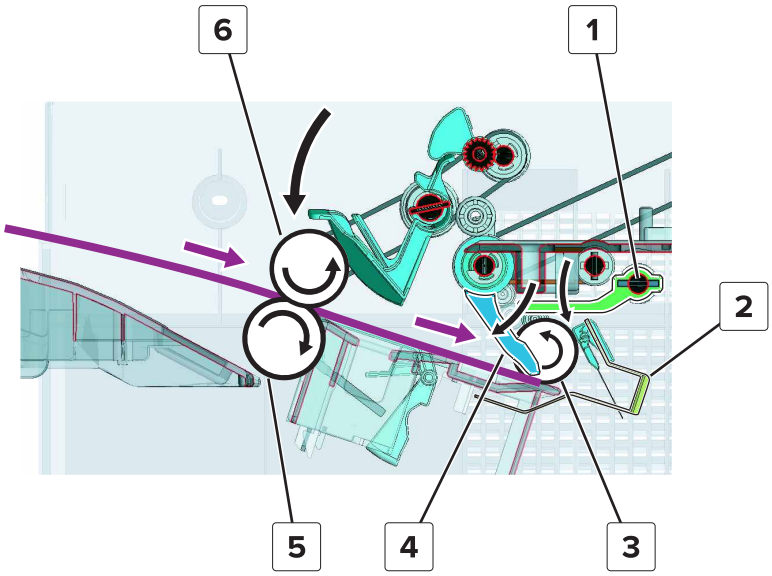


#	Part
1	Compiler feed roller
2	Tamper paper present sensor actuator
3	Sensor (staple finisher tamper paper present)

Compiler section paper alignment

The motor (staple finisher upper exit) lowers the upper exit roller to come into contact with the paper. The motor (staple finisher exit) drives the upper exit roller to feed the paper to the aligner roller. The upper exit roller returns to the home position and stops rotating to release the paper.

The motor (staple finisher aligner) drives the aligner roller. The roller pushes the paper to the aligners to align the short edge.



#	Part
1	Stack lever
2	Aligners
3	Aligner roller
4	Stack clamp
5	Lower exit roller
6	Upper exit roller

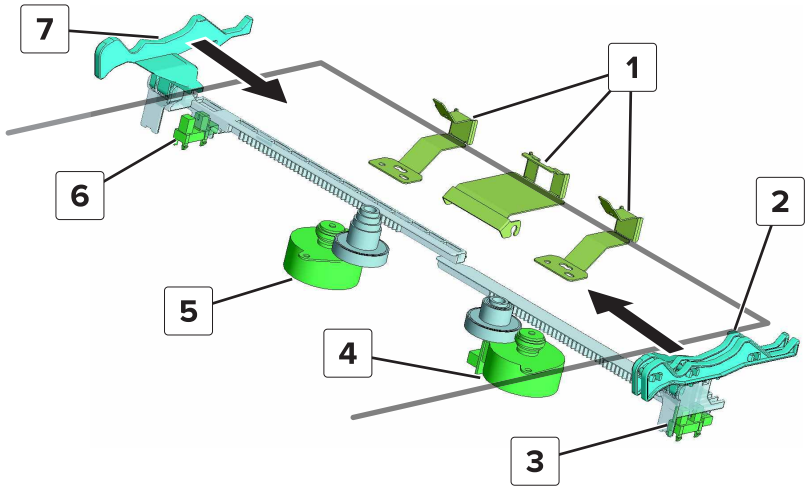
The front and rear tamper motors control their respective tampers. The long edges are aligned when the tampers move and come into contact with the paper.

- For staple jobs, both tampers move to align the paper at the middle.
- For offset jobs, the paper is aligned to the rear or front of the compiler section.

After the paper is aligned, the stack lever solenoid lowers the stack lever. The lever presses the stack clamp, and the clamp holds the edge of the paper in place.

The second sheet of paper is transported over the first sheet. The stack clamp moves up, and then the upper exit roller feeds both sheets to the aligner roller. The upper exit roller returns to the home position to release the paper. The alignment process for the short and long edges repeats.

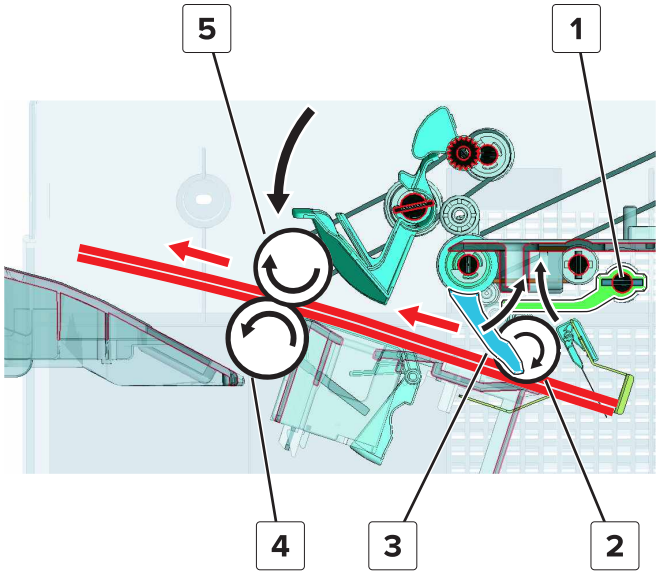
Note: Subsequent sheets of paper are fed and aligned in the same manner.



#	Part
1	Aligners
2	Front tamper
3	Sensor (staple finisher front tamper home)
4	Motor (staple finisher front tamper)
5	Motor (staple finisher rear tamper)
6	Sensor (staple finisher rear tamper home)
7	Rear tamper

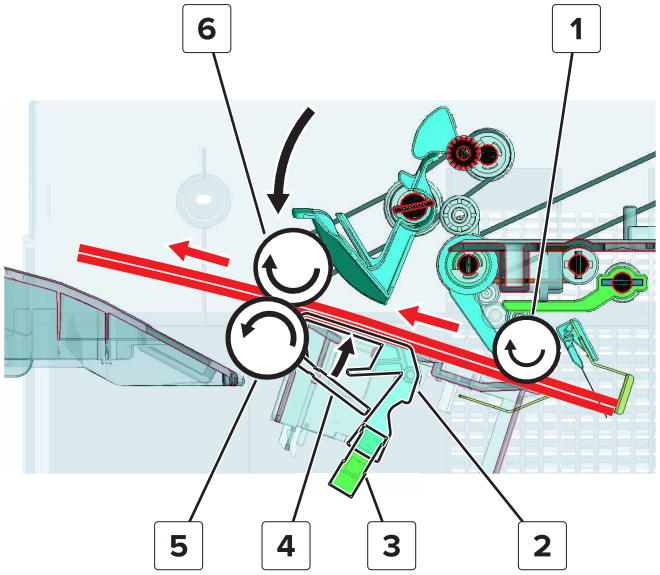
Compiler section exit

After all the sheets of paper are aligned, the upper exit roller moves down, and with the lower exit roller, holds the stack in place. If it is a staple job, then the stack is stapled. The stack clamp moves up to release the edge of the stack. The aligner roller and both exit rollers feed the stack to the bin.



#	Part
1	Stack lever
2	Aligner roller
3	Stack clamp
4	Lower exit roller
5	Upper exit roller

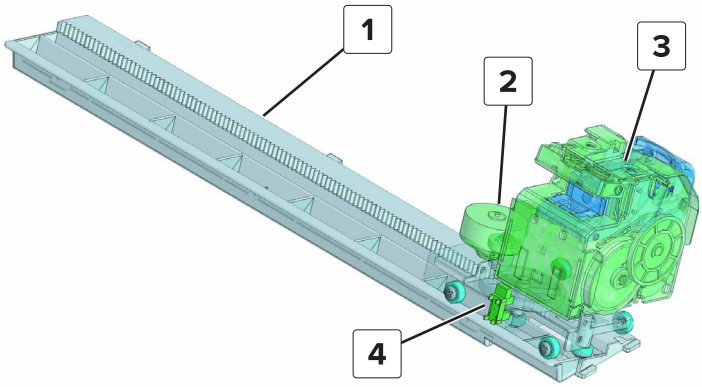
After the trailing edge of the stack passes the exit rollers, the lower exit roller paddles push the edge to feed the stack to the bin. The lower exit roller continues to rotate to return to the home position. The tamper paper present sensor actuator returns to its original position, signaling that the stack is on the bin.



#	Part
1	Aligner roller
2	Tamper paper present sensor actuator
3	Sensor (staple finisher tamper paper present)
4	Lower exit roller paddles
5	Lower exit roller
6	Upper exit roller

Staple unit operation

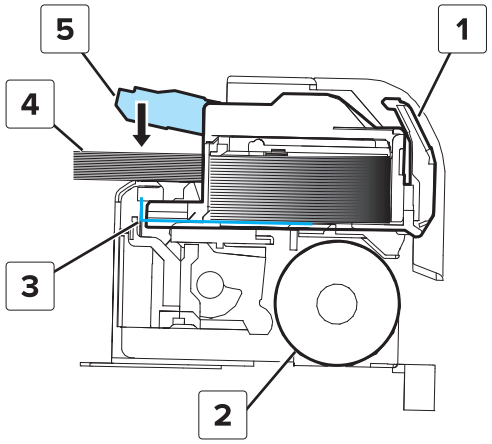
The motor (staple finisher staple unit carriage) controls the movement of the staple unit. The staple unit moves depending on the number of staples required. The sensor (staple finisher staple unit home) detects the staple unit home position at the front of the finisher.



#	Part
1	Rail
2	Motor (staple finisher staple unit carriage)

#	Part
3	Staple unit
4	Sensor (staple finisher staple unit home)

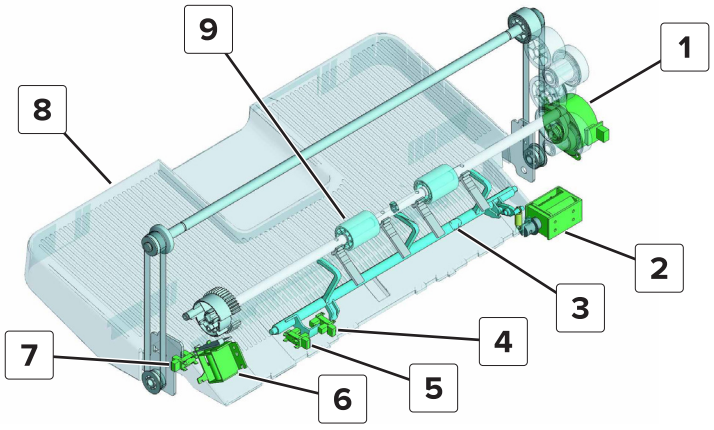
The motor (staple unit) controls the stapling. The paper stack is positioned under the staple arm, which clamps the stack to hold it in place during stapling. If the number of sheets in the stack exceeds the limit, then the stack is fed to the bin without being stapled.



#	Part
1	Staple cartridge
2	Motor (staple unit)
3	Staple
4	Paper stack
5	Staple arm

Staple finisher bin section

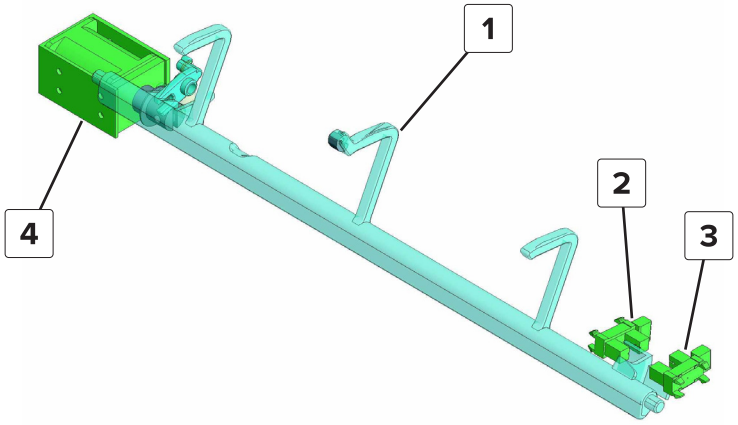
The bin height depends on the amount of paper on the bin. The motor (staple finisher elevator) controls the bin movement.



#	Part
1	Motor (staple finisher elevator)
2	Bin stack height solenoid
3	Bin stack height actuator
4	Sensor (staple finisher bin level)
5	Sensor (staple finisher bin stack height)
6	Exit roller solenoid
7	Sensor (staple finisher elevator home)
8	Bin
9	Lower exit roller

Bin stack height detection

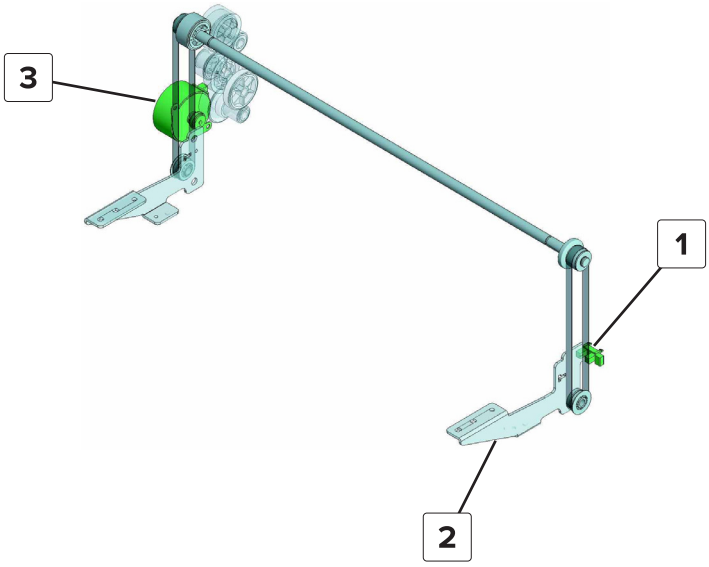
The bin stack height solenoid lowers the bin stack height actuator to come into contact with the paper on the bin. At the end of the actuator, the sensor (staple finisher bin level) and sensor (staple finisher bin stack height) are installed at different heights. The combination of results from the sensors determines the height of the bin.



#	Part
1	Bin stack height actuator
2	Sensor (staple finisher bin level)
3	Sensor (staple finisher bin stack height)
4	Bin stack height solenoid

Bin level full detection

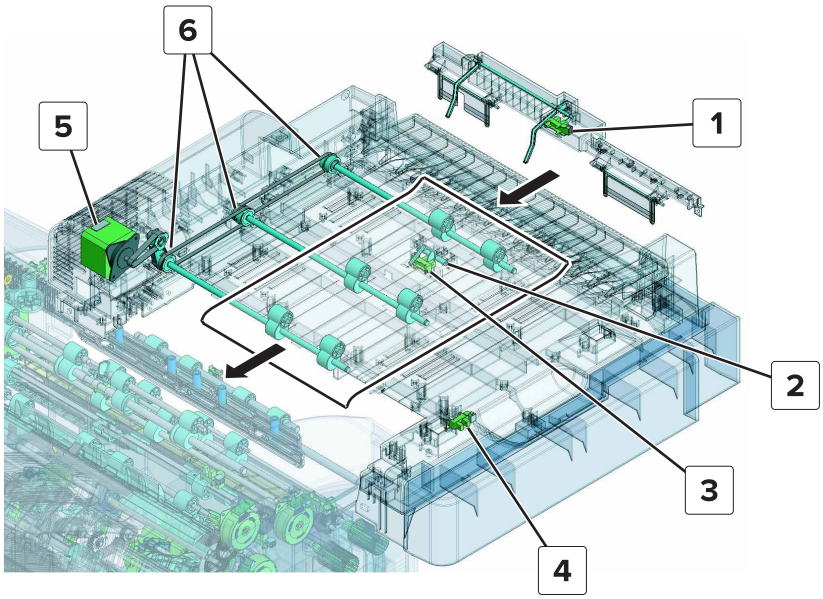
When the sensor (staple finisher elevator home) detects the elevator bracket, the printer determines that the bin is full.



#	Part
1	Sensor (staple finisher elevator home)
2	Elevator bracket
3	Motor (staple finisher elevator)

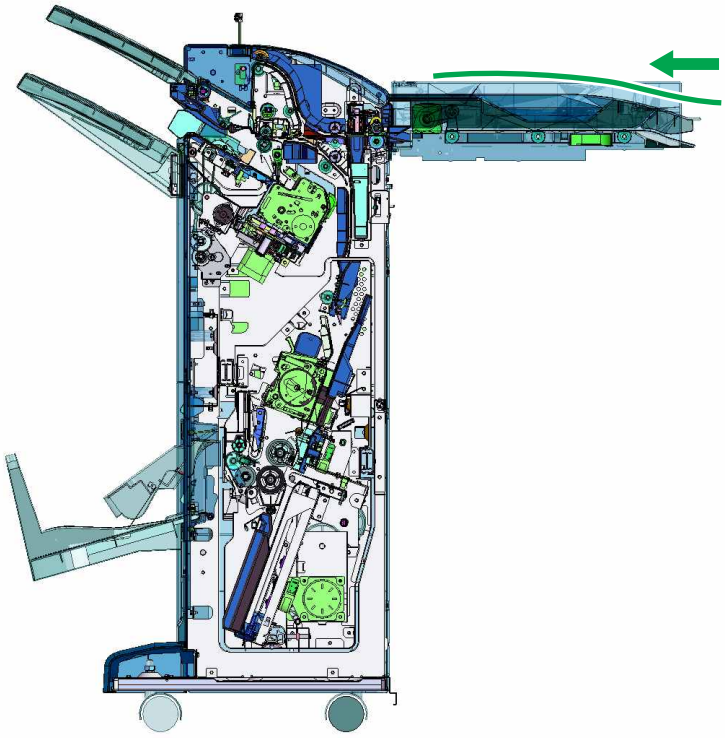
Horizontal paper transport (HPT) operation

The HPT is installed on the printer standard bin and feeds the paper from the printer exit roller to the SHPF entrance roller. The motor (HPT transport) drives the three transport rollers, and the sensor (HPT feed) detects the paper as it passes through the rollers.



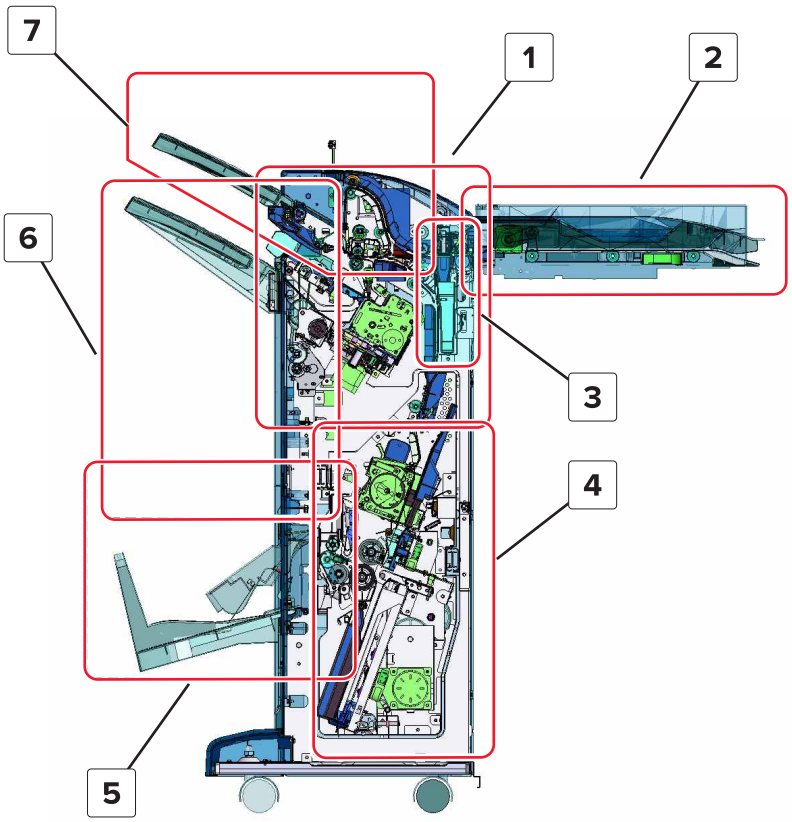
#	Part
1	Sensor (HPT bin full)
2	HPT feed sensor actuator
3	Sensor (HPT feed)
4	Sensor (HPT door)
5	Motor (HPT transport)
6	HPT transport rollers

For print jobs that do not require finishing, the paper is fed on top of the HPT. The sensor (HPT bin full) detects if the bin is full.



Staple, hole punch finisher (SHPF) operation

SHPF sections



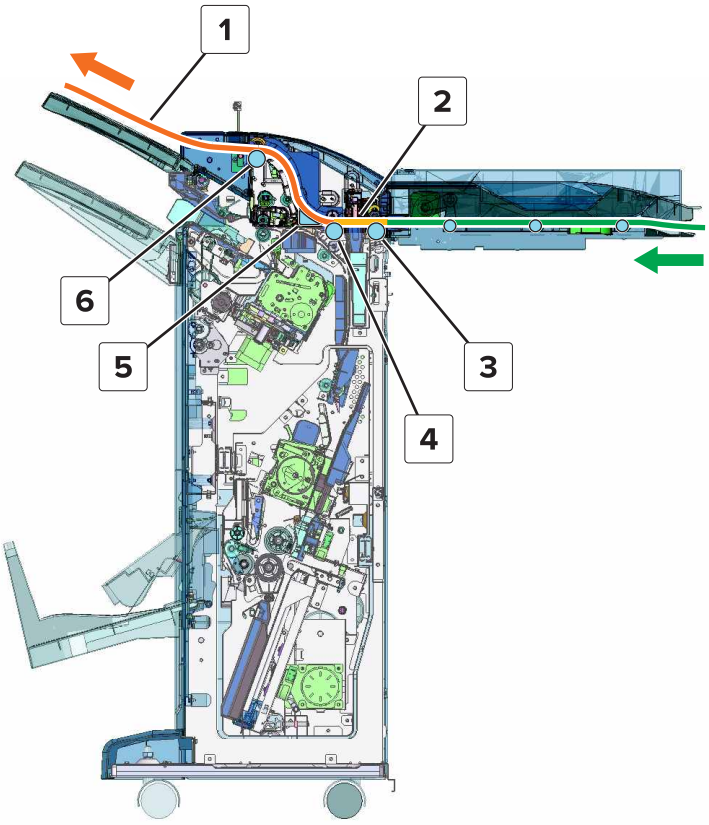
#	Part
1	Compiler section
2	Horizontal paper transport
3	Punch unit
4	Booklet maker
5	Booklet maker exit section
6	Elevator bin exit section
7	Top bin exit section

SHPF top bin exit and elevator bin exit sections

The motor (SHPF feed) drives the entrance roller, diverter, and top bin transport roller. The motor (SHPF transport) drives the top bin exit roller and compiler feed roller.

The entrance roller feeds the paper from the horizontal paper transport into the finisher. The punch unit is located between the entrance roller and diverter feed roller. If punching is required, the trailing edge of the paper is punched.

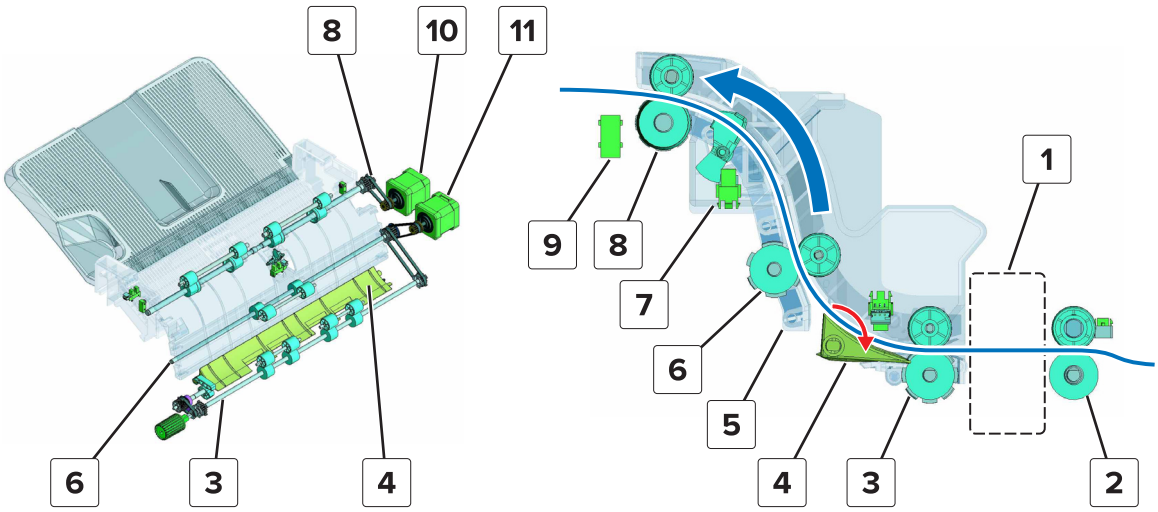
Top bin exit section paper path



#	Part
1	Paper path
2	Punch unit
3	Entrance roller
4	Diverter feed roller
5	Diverter
6	Top bin exit roller

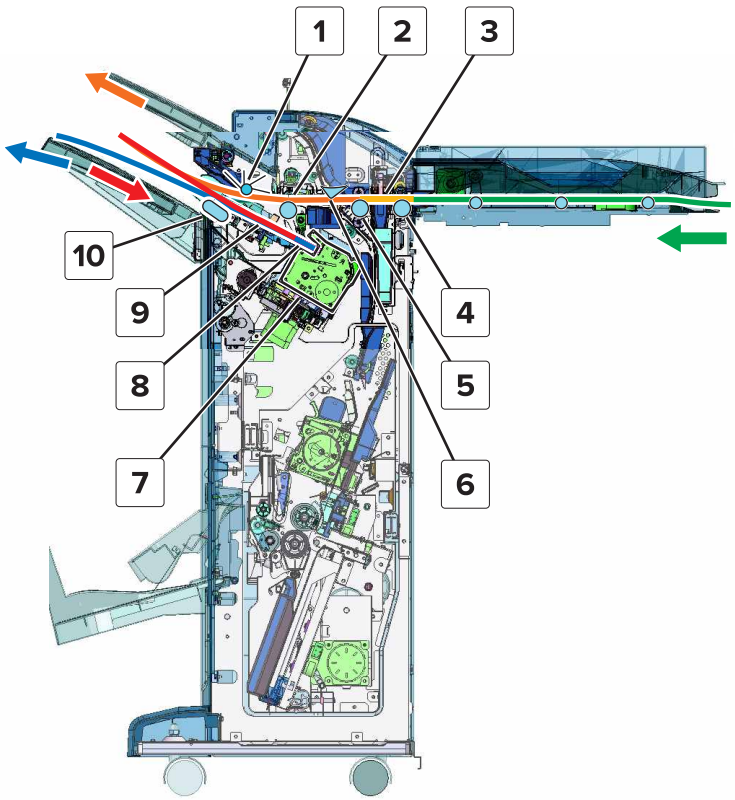
Top bin exit section paper feed

The diverter feed roller pushes the paper to the diverter. The diverter moves down to guide the paper through the top bin exit paper guide. The sensor (SHPF top bin exit) detects the paper as it passes through the paper path, and the sensor (SHPF top bin full) determines if the bin is full.



#	Part
1	Punch unit
2	Entrance roller
3	Diverter feed roller
4	Diverter
5	Top bin exit paper guide
6	Top bin transport roller
7	Sensor (SHPF top bin exit)
8	Top bin exit roller
9	Sensor (SHPF top bin full, transmit and receive)
10	Motor (SHPF transport)
11	Motor (SHPF feed)

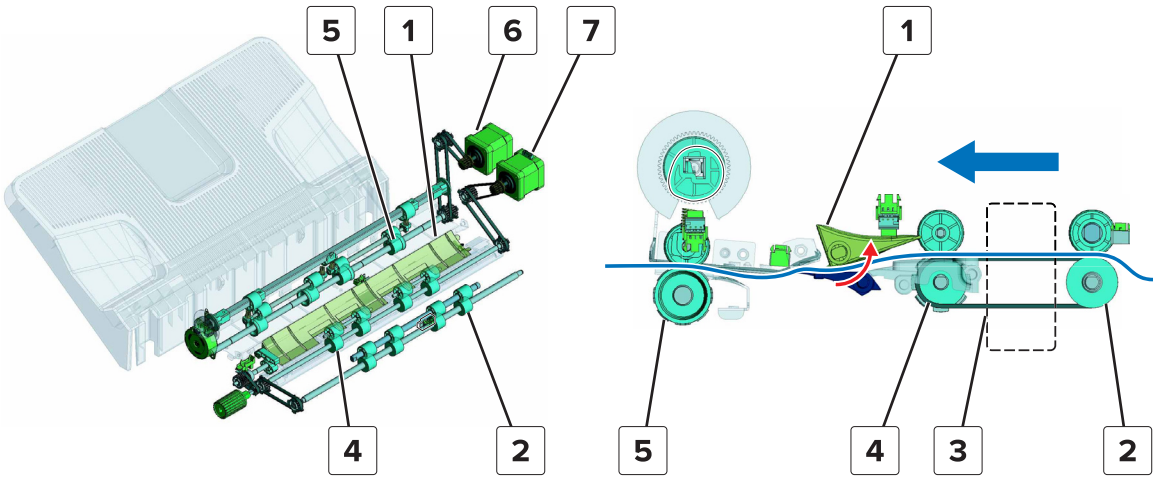
Elevator bin exit section paper path



#	Part
1	Paddles
2	Compiler feed roller
3	Punch unit
4	Entrance roller
5	Diverter feed roller
6	Diverter
7	Staple unit
8	Stapling operation
9	Tamper section
10	Aligner roller

Elevator bin exit section paper feed

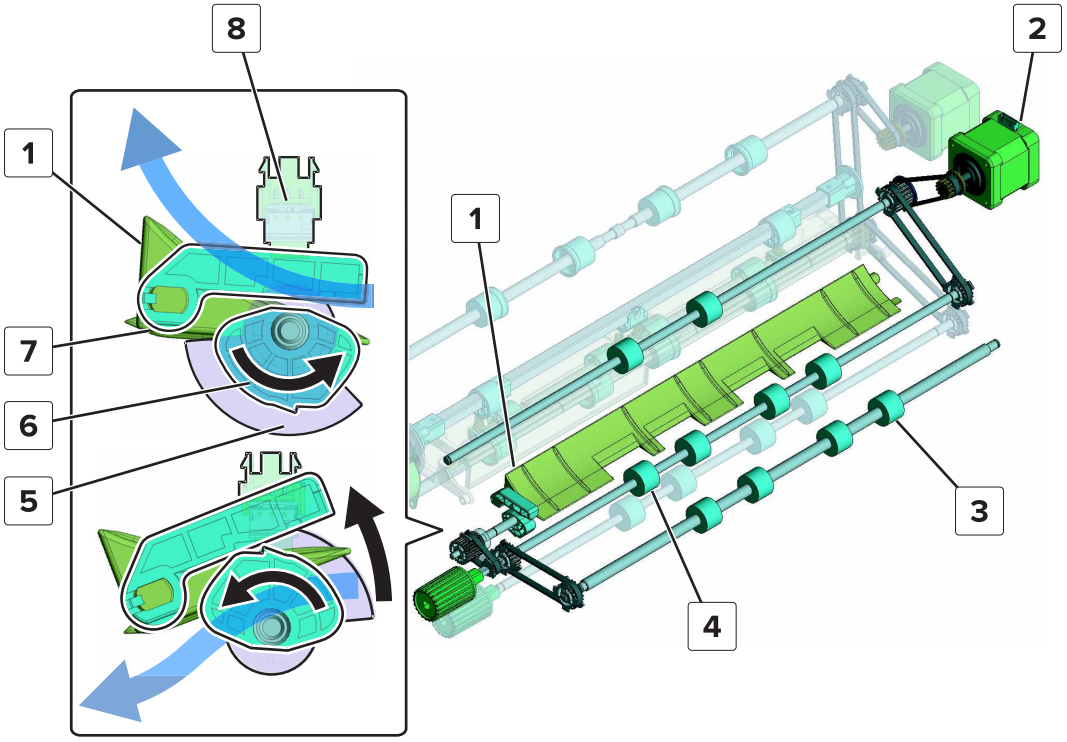
The diverter swings up to guide the paper to the compiler feed roller. The motor (SHPF transport) drives the diverter feed roller to feed the paper over the compiler section and to the elevator bin.



#	Part
1	Diverter
2	Entrance roller
3	Punch unit
4	Diverter feed roller
5	Compiler feed roller
6	Motor (SHPF transport)
7	Motor (SHPF feed)

Diverter operation

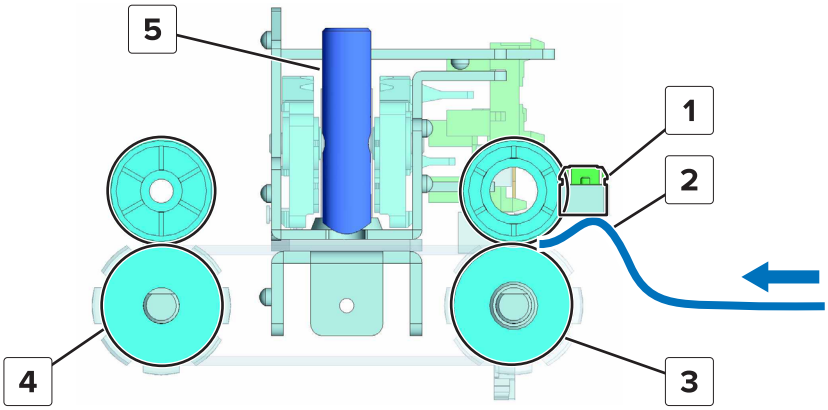
The position of the diverter determines whether to feed the paper to the top bin or to the elevator bin. The motor (SHPF feed) controls the diverter, and the sensor (SHPF diverter) detects the diverter position.



#	Part
1	Diverter
2	Motor (SHPF feed)
3	Entrance roller
4	Diverter feed roller
5	Compiler feed roller
6	Diverter cam
7	Diverter lever
8	Sensor (SHPF diverter)

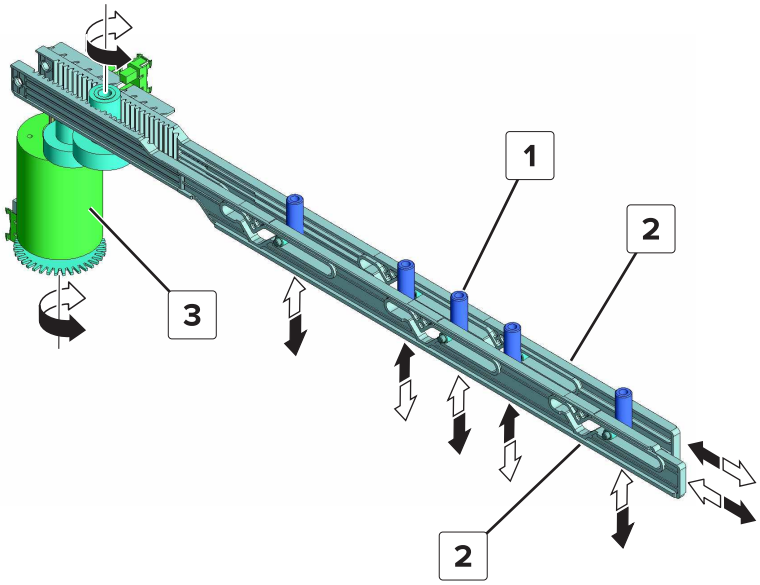
SHPF punch unit operation

Skew correction is applied to the paper when it reaches the entrance rollers. The paper is fed to the punch unit, and then the trailing edge is punched.



#	Part
1	Sensor (SHPF entrance)
2	Skew correction
3	Entrance roller
4	Diverter feed roller
5	Puncher

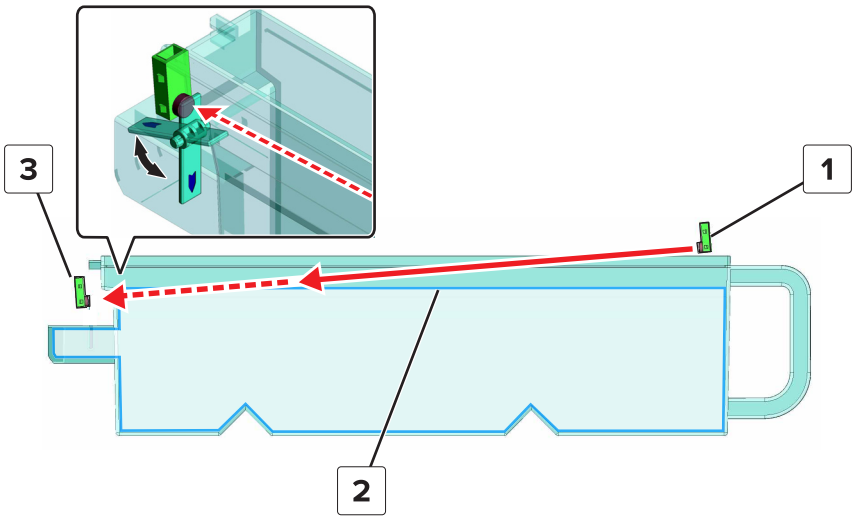
The motor (punch drive) moves the punch unit frames in opposite directions. The motion causes the slots on the frames to move the punchers up and down.



#	Part
1	Puncher
2	Punch unit frames
3	Motor (punch drive)

The chad accumulate in the hole punch box below the punch unit. When the light from the sensor (SHPF hole punch box full, transmit) is blocked, the printer determines that the box is full.

The sensor (SHPF hole punch box full, receive) also detects if the box is inserted in the finisher. When the box is out of the finisher, the actuator lowers, blocking the light.

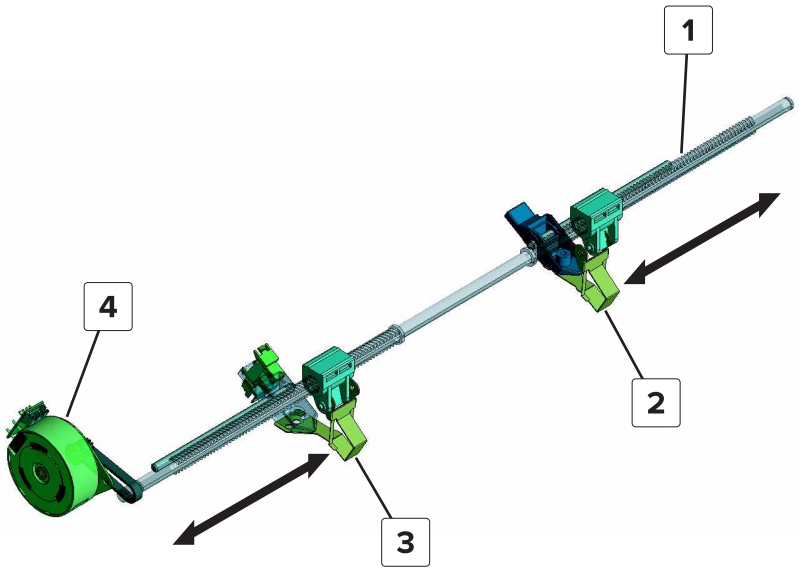


#	Part
1	Sensor (SHPF hole punch box full, transmit)
2	Hole punch box capacity
3	Sensor (SHPF hole punch box full, receive)

SHPF compiler section operation

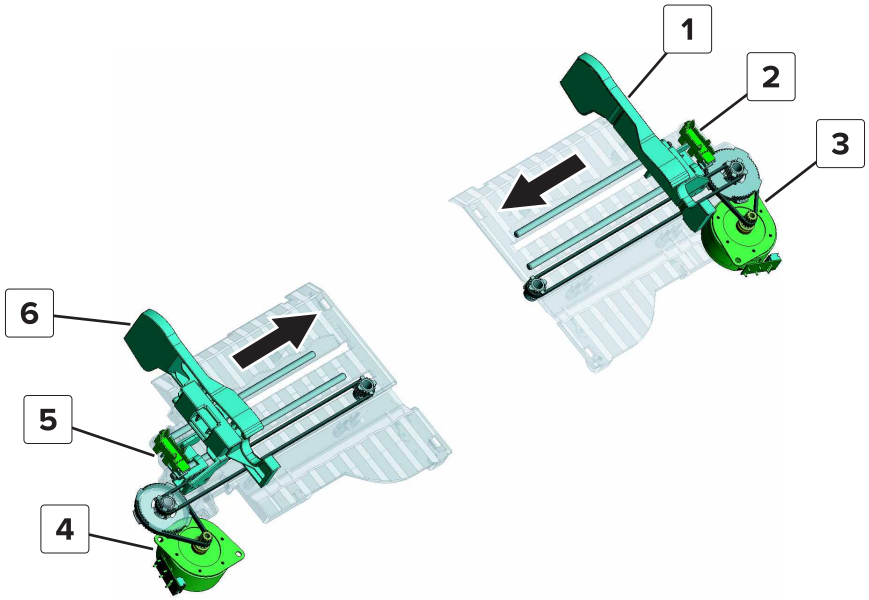
SHPF compiler section feed

While the paper is transported to the finisher, the motor (SHPF aligner) rotates the aligner shaft. The rotation adjusts the position of the front and rear aligners according to the paper width.



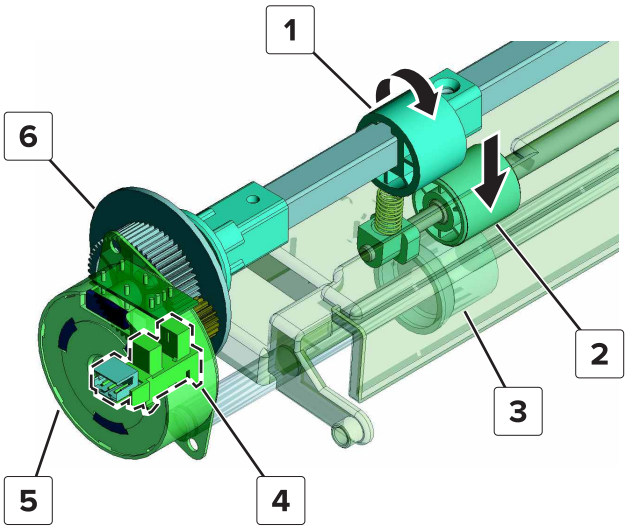
#	Part
1	Aligner shaft
2	Rear aligner
3	Front aligner
4	Motor (SHPF aligner)

The tamper motors move the front and rear tampers to the middle.



#	Part
1	Rear tamper
2	Sensor (SHPF rear tamper home)
3	Motor (SHPF rear tamper)
4	Motor (SHPF front tamper)
5	Sensor (SHPF front tamper home)
6	Front tamper

The motor (SHPF compiler feed roller release) drives the compiler feed roller release cams. The rotation of the cam controls the up and down movement of the compiler feed idler rollers. The sensor (SHPF compiler feed roller release) determines the position of the cams.



#	Part
1	Exit roller cam
2	Exit idler assembly
3	Compiler feed roller
4	Sensor (SHPF compiler feed roller release)
5	Motor (SHPF compiler feed roller release)
6	Compiler feed roller release cam encoder

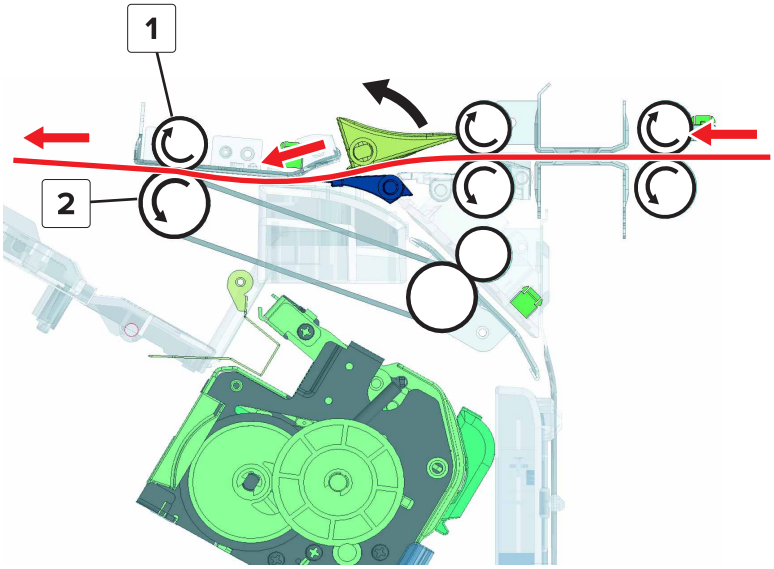
SHPF compiler section paper feed

The manner in which paper is fed to the compiler assembly depends on the paper type.

- **Non-plain paper**—All sheets are individually fed to the compiler assembly.
- **Plain paper**—The first two sheets of the stack are simultaneously fed to the compiler assembly. The succeeding sheets are individually fed.

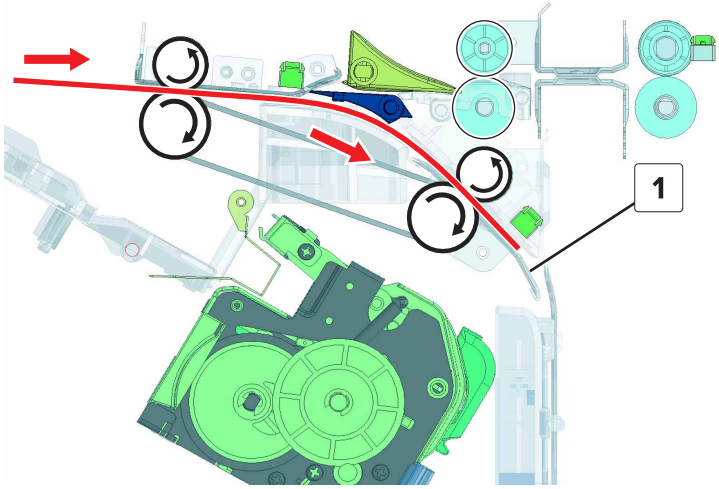
The following sequence explains the process of feeding and aligning plain paper in the compiler assembly.

The first sheet is fed between the compiler feed roller and idler rollers.



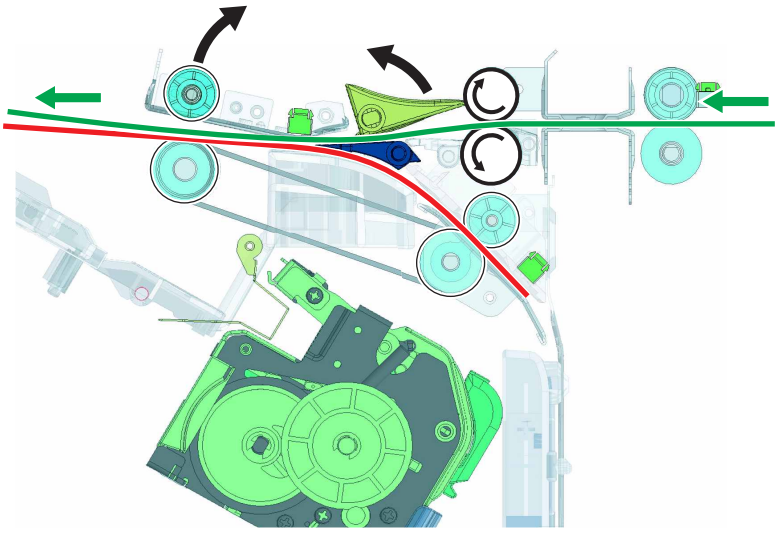
#	Part
1	Compiler feed idler rollers
2	Compiler feed roller

The compiler feed roller rotates in reverse, and then feeds the paper to the pre-feed guide.

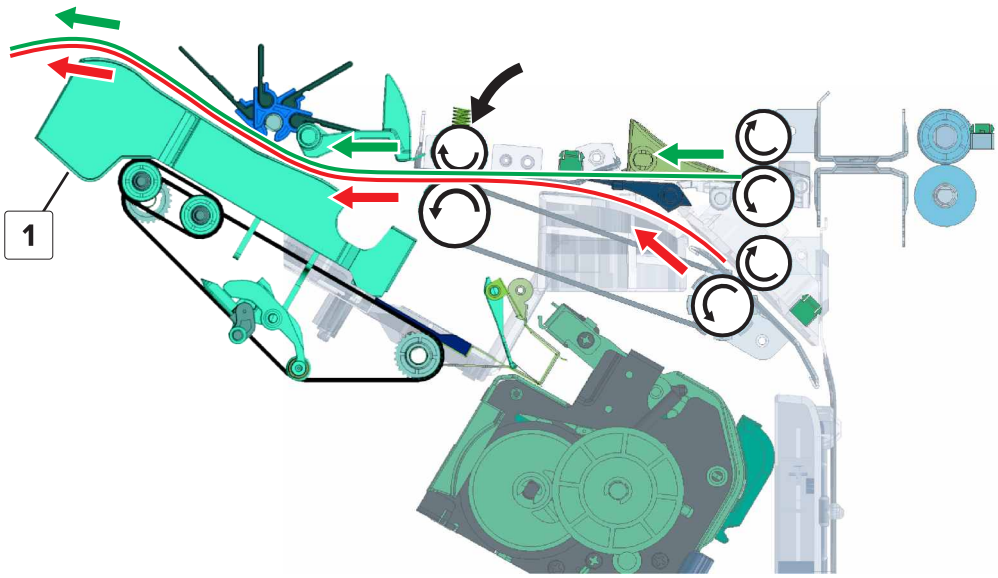


#	Part
1	Pre-feed guide

The idler rollers and diverter raise, and then the second sheet is transported over the first sheet.

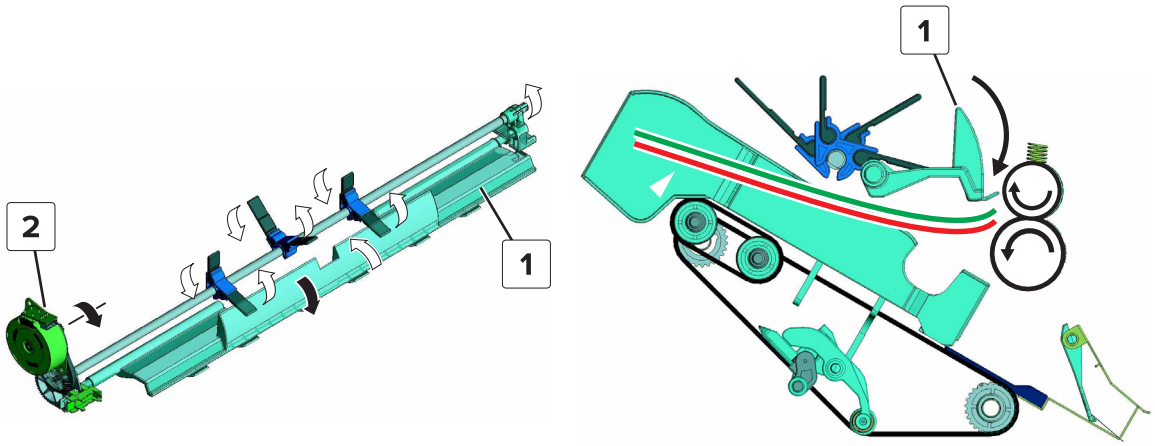


The idler rollers lower, and then the two sheets are fed over the tamper plates. Before the trailing edge passes the compiler feed roller, the tamper plates return to their home position.



#	Part
1	Tamper plate

After the trailing edge passes the compiler feed roller, the compiler guide moves down to push down the paper to the compiler assembly. The rotation of the motor (SHPF paddle) and paddle cam control the position of the guide.

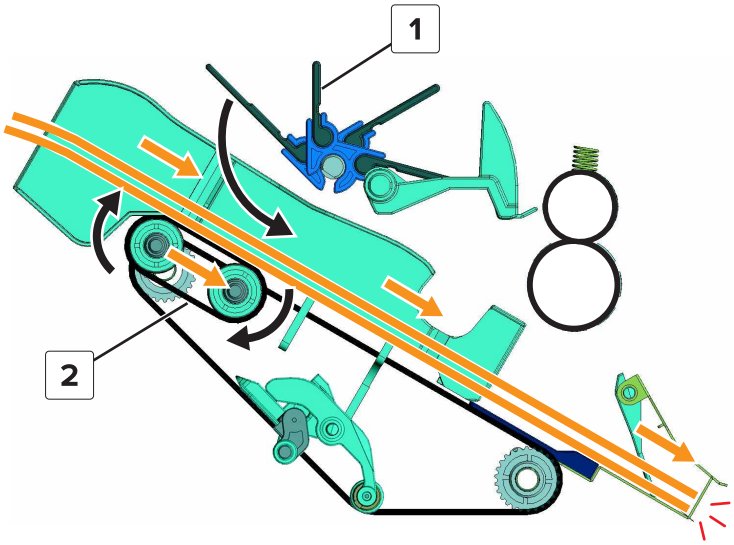


#	Part
1	Compiler guide
2	Motor (SHPF paddle)

SHPF compiler section paper alignment

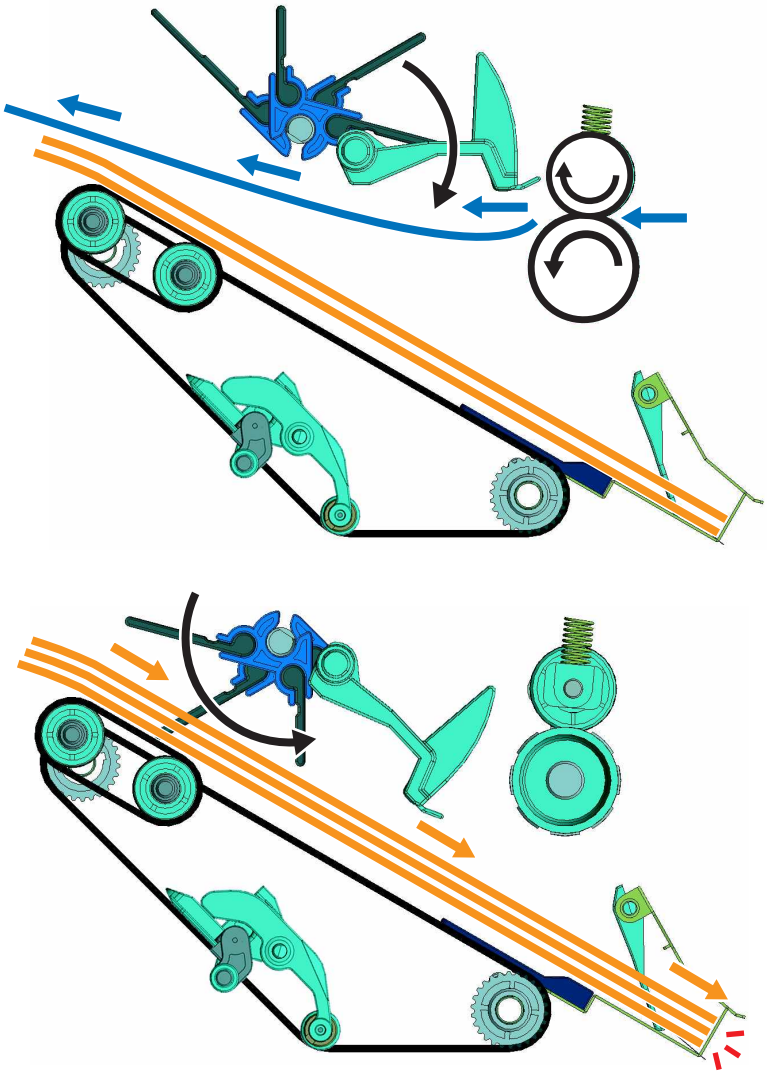
The aligner paddles and aligner roller rotate to push the paper to the aligners. The motor (SHPF paddle) and motor (SHPF compiler pre-eject) drive the aligner paddles and aligner roller respectively.

Both tamper plates move to align the paper stack in the middle. If in offset mode, then the stack is aligned either to the front side or rear side. Depending on the paper width and on which side to align the stack, one tamper moves and then stops at a preset position. The other tamper pushes the stack to the stationary tamper.



#	Part
1	Paddle
2	Aligner roller

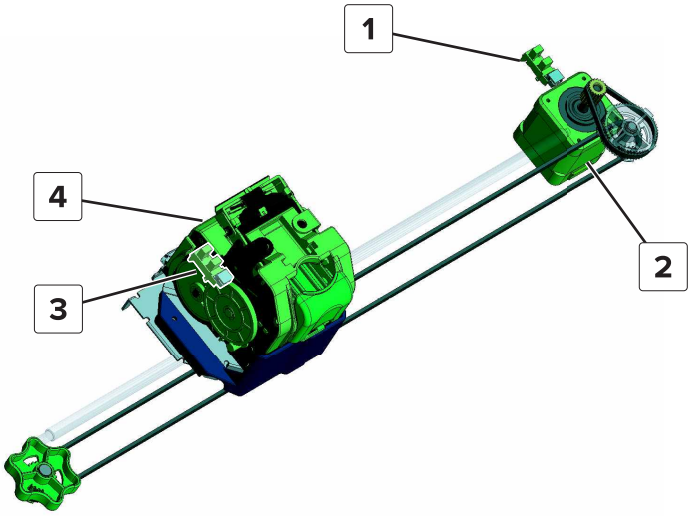
The third sheet is fed over the stack, and then the aligner paddles push the third sheet to the aligners. Succeeding sheets are individually fed and aligned in the same manner as the third sheet.



For staple jobs, the trailing edge of the stack is stapled. For two-point staple jobs, the motor (SHPF aligner) drives the aligner shaft to prevent the front and rear aligners from interfering with the staple unit.

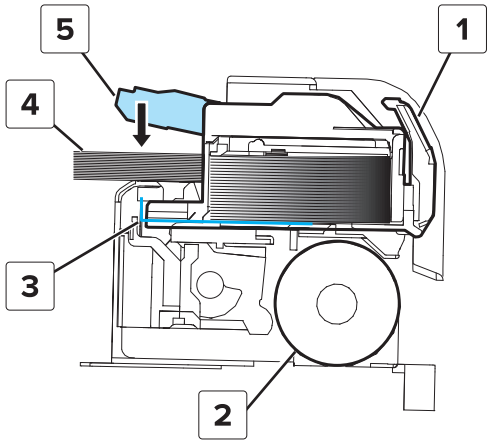
SHPF stapling operation

The motor (SHPF staple unit carriage) controls the movement of the staple unit carriage. The sensors determine the location of the carriage along the rail. The carriage moves according to the number of staples required.



#	Part
1	Sensor (SHPF staple unit carriage home)
2	Motor (SHPF staple unit carriage)
3	Sensor (SHPF staple unit carriage center)
4	Staple unit

The motor (staple unit) controls the stapling. The sheets are positioned under the clincher staple arm, which clamps the sheets to hold them in place during stapling. If the number of sheets to be stapled exceeds the limit, then the stack is fed to the bin without being stapled.

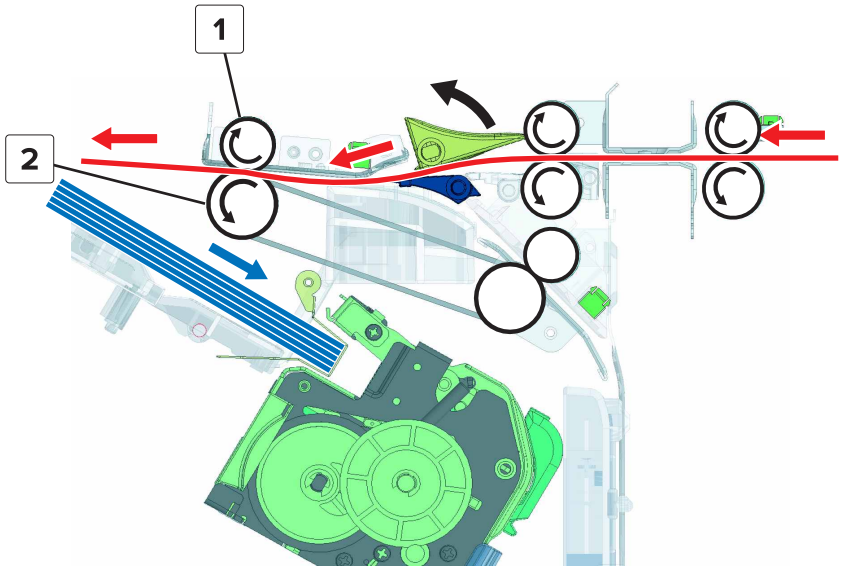


#	Part
1	Staple cartridge
2	Motor (staple unit)
3	Staple
4	Paper stack
5	Staple arm

SHPF stapling operation for multiple staple jobs

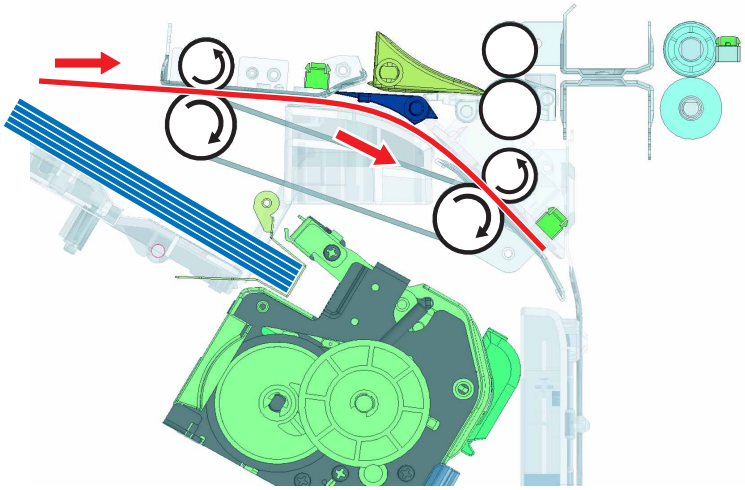
To enable the finisher to handle multiple staple jobs, the first two sheets of each paper stack are simultaneously fed to the compiler assembly. The following example demonstrates two staple jobs.

After the last sheet of the first stack is fed to the compiler assembly, the first sheet of the second stack is fed between the compiler feed roller and idler rollers.

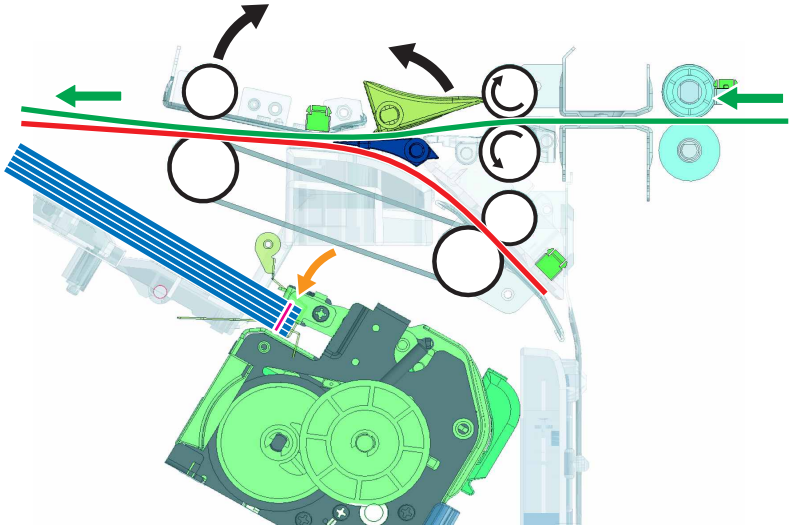


#	Part
1	Compiler feed idler rollers
2	Compiler feed roller

While the first stack is being aligned, the compiler feed roller rotates in reverse and then feeds the paper to the pre-feed guide.

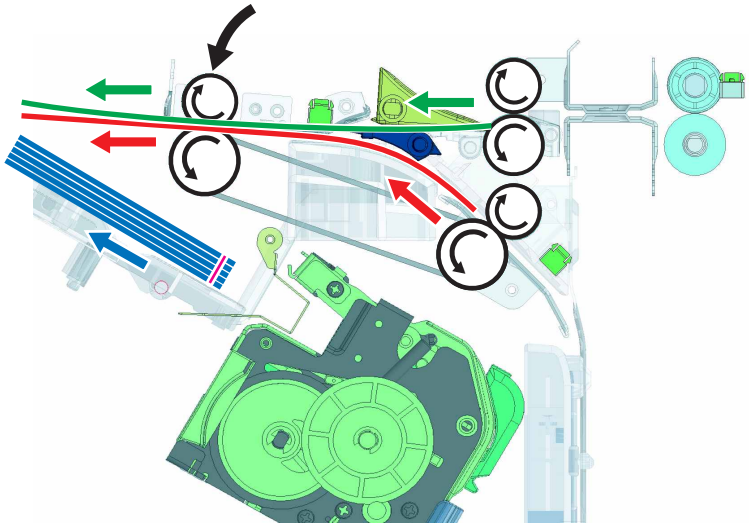


The idler rollers raise, and while the first stack is being stapled, the second sheet is positioned over the first sheet.



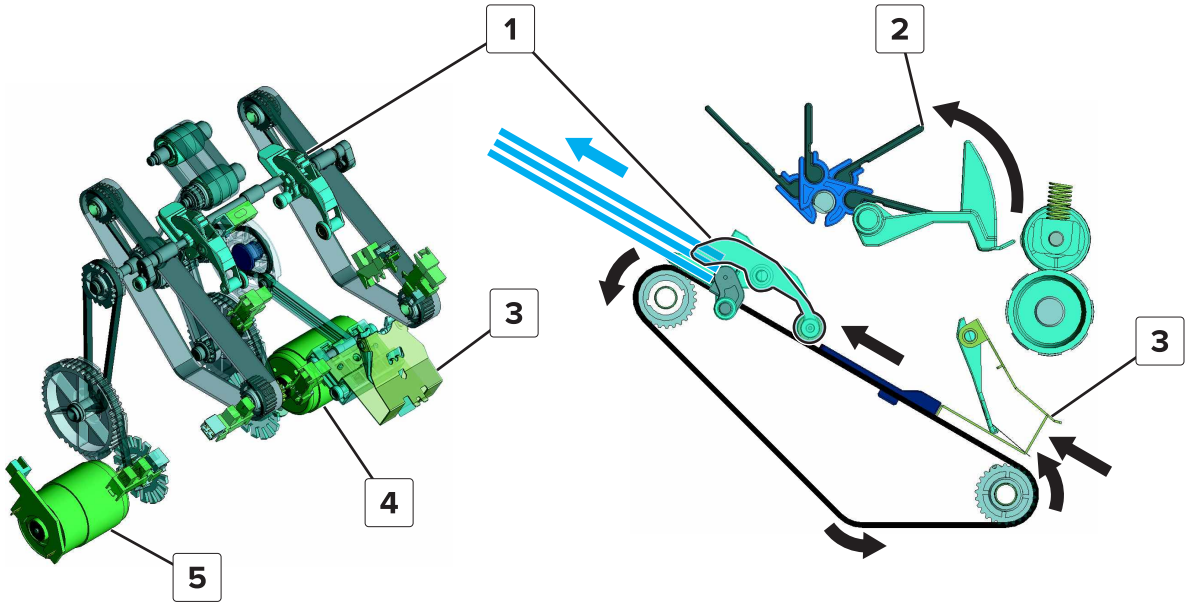
The idler rollers lower, and then the two sheets are fed to the compiler assembly. At the same time, the first stack is fed to the elevator bin. Unlike the first and second sheets, the succeeding sheets of the second stack are individually fed to the compiler assembly.

The succeeding jobs are done in the same manner as the first and second stacks.



SHPF compiler section exit

After alignment or stapling, the motor (SHPF compiler pre-eject) controls the middle aligner to push the stack to the eject clamp. The motor (SHPF compiler eject) controls the eject clamp to push the stack to the elevator bin.



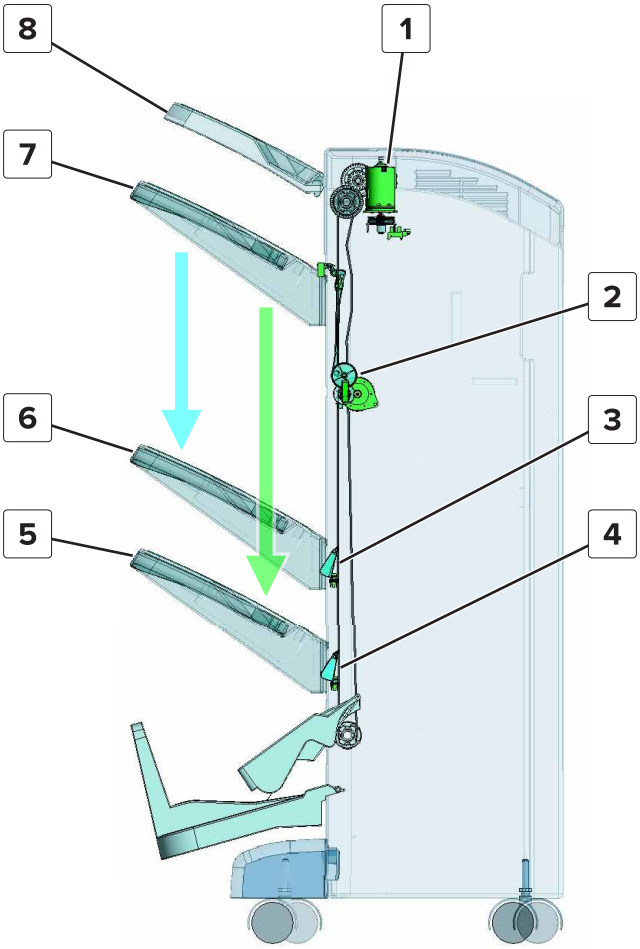
#	Part
1	Eject clamp
2	SHPF paddles
3	SHPF middle aligner
4	Motor (SHPF compiler eject)
5	Motor (SHPF compiler pre-eject)

Elevator bin section operation

Elevator bin configurations

The location of the elevator bin full position and sensor (SHPF elevator bin full) would vary depending on the presence of a booklet maker.

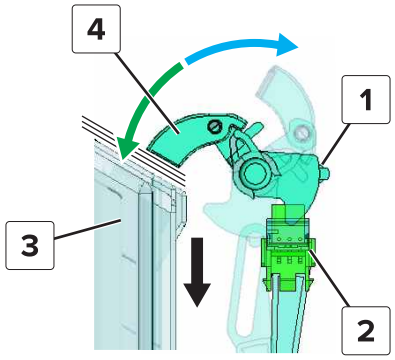
The height of the elevator bin depends on the amount of paper on the bin. The motor (SHPF elevator) controls the bin height.



#	Part
1	Motor (SHPF elevator)
2	Motor (SHPF elevator bin stack height)
3	Sensor (SHPF elevator bin full) (booklet maker installed)
4	Sensor (SHPF elevator bin full) (booklet maker not installed)
5	Elevator bin full position (booklet maker not installed)
6	Elevator bin full position (booklet maker installed)
7	Elevator bin home position
8	Top bin

Elevator bin stack height detection

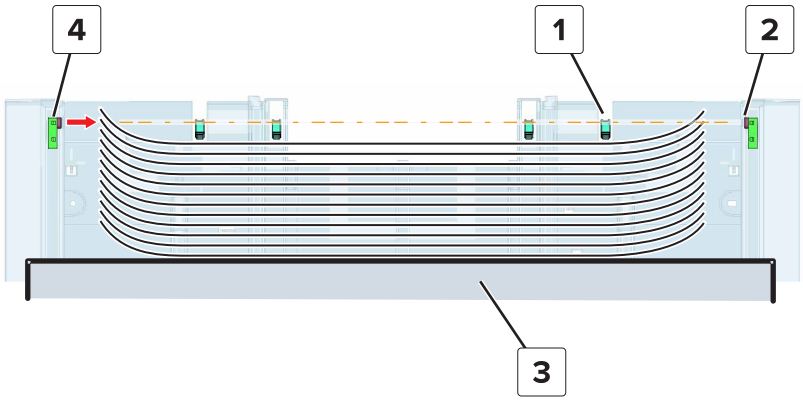
Each time paper is fed out to the bin, the motor (SHPF elevator bin stack height) lowers the elevator bin stack height fingers to come into contact with the edge of the stack. If the fingers are unable to lower and the sensors (SHPF elevator bin stack height, front and rear) are blocked, then the bin lowers until the two sensors are unblocked.



#	Part
1	Elevator bin stack height sensor actuator
2	Sensor (SHPF elevator bin stack height)
3	Elevator bin
	Elevator bin stack height finger

When stapled sheets are fed to the bin, the height of the edge of the stack can be higher than the height detected by the paper detection levers. If the stack blocks the light between the sensors (SHPF elevator bin stack height), then the bin lowers.

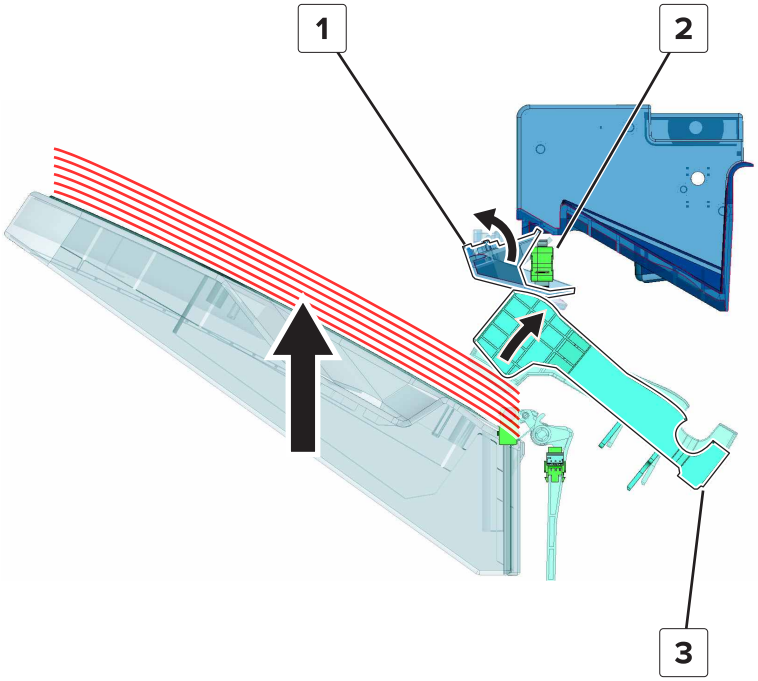
As the bin continues to move down due to the paper stack, the bin triggers the sensor (SHPF elevator bin full), and then the bin stops moving.



#	Part
1	Elevator bin stack height fingers
2	Sensor (SHPF elevator bin stack height, transmit)
3	Sensor (SHPF elevator bin stack height, receive)
4	Elevator bin

If the elevator bin is moving up, and the paper stack touches the tamper plates, then the sensor (SHPF elevator bin stack limit) is triggered. This action causes the elevator bin to stop moving up.

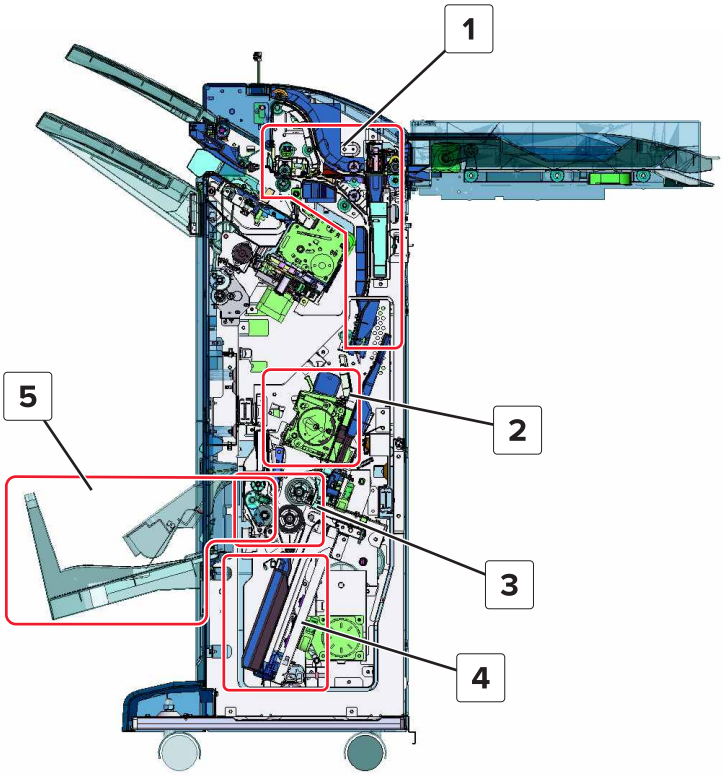
Note: If the width of the paper stack is less than the distance between the tamper plates, then the stack triggers the sensor (SHPF elevator bin stack limit). This action also causes the bin to stop moving up.



#	Part
1	SHPF elevator bin stack limit actuator
2	Sensor (SHPF elevator bin stack limit)
3	SHPF tamper plate

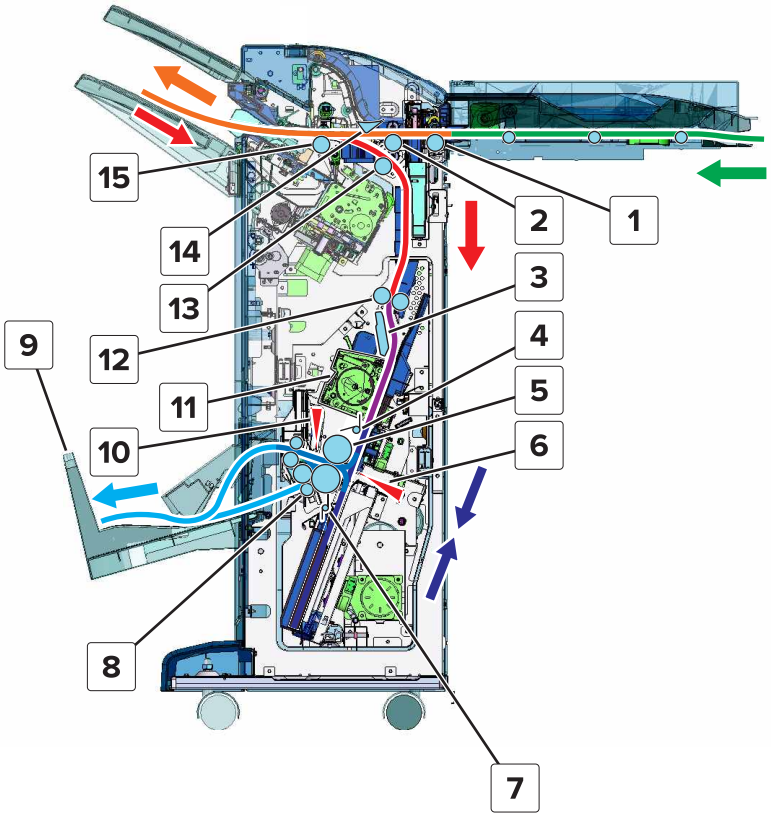
Booklet maker operation

Booklet maker sections



#	Part
1	Feed section
2	Staple unit
3	Bifold and trifold sections
4	Compiler section
5	Exit section

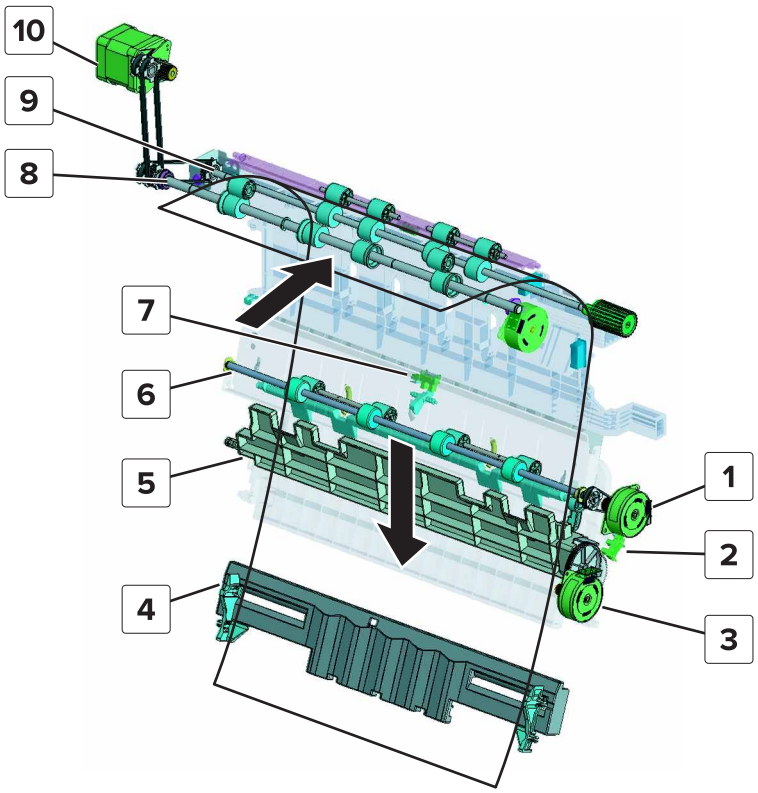
Booklet maker paper path



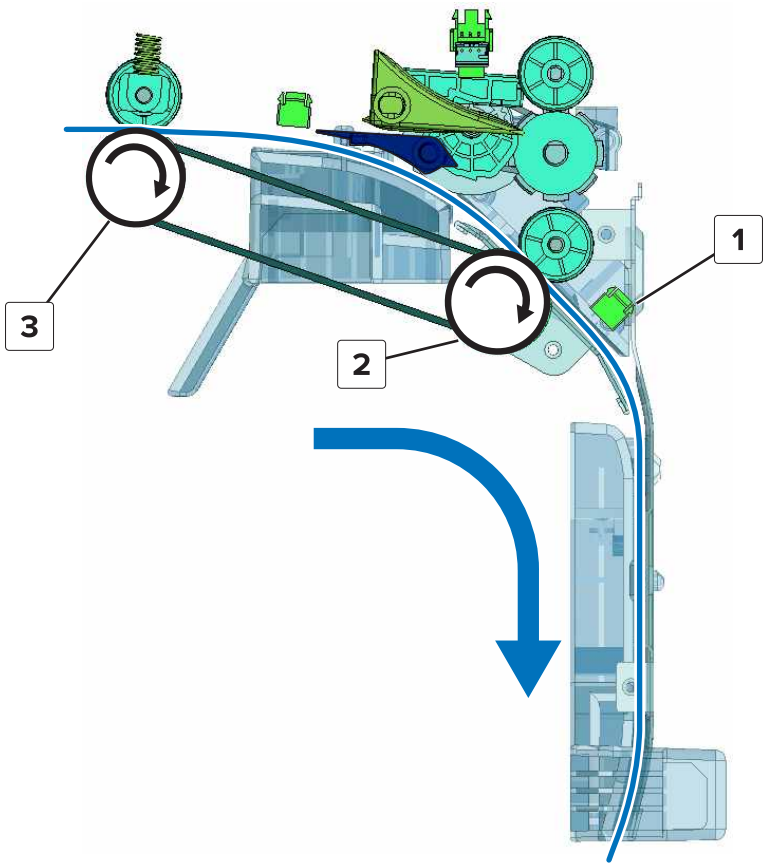
#	Part
1	SHPF entrance roller
2	SHPF diverter feed roller
3	Decurl guide
4	Booklet maker upper paddle
5	Bifold top roller
6	Bifold knife
7	Booklet maker lower paddle
8	Trifold roller
9	Hole punch, booklet finisher (HPBF) bin
10	Trifold knife
11	Booklet maker staple unit
12	Booklet maker transport roller
13	SHPF booklet maker pre-feed roller
14	SHPF diverter
15	SHPF compiler feed roller

Booklet maker paper feed

The motor (SHPF transport) drives the compiler feed roller and pre-feed roller. The rollers transport the paper from the top of the SHPF to the booklet maker transport roller.

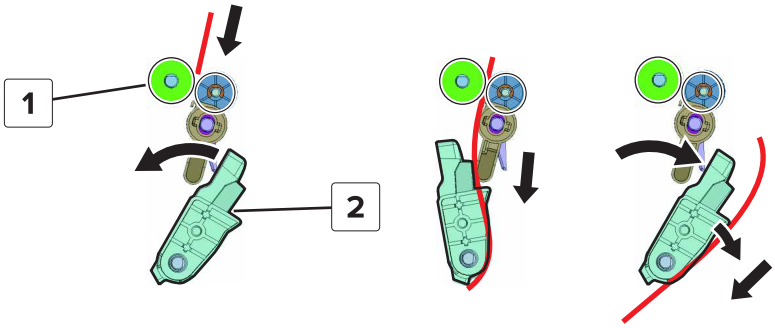


#	Part
1	Motor (booklet maker transport)
2	Sensor (booklet maker decurl)
3	Motor (booklet maker decurl)
4	Booklet maker tamper
5	Booklet maker decurl guide
6	Booklet maker transport roller
7	Sensor (booklet maker transport)
8	SHPF compiler feed roller
9	SHPF booklet maker pre-feed roller
10	Motor (SHPF transport)



#	Part
1	Sensor (SHPF booklet gate)
2	SHPF booklet maker pre-feed roller
3	SHPF compiler feed roller

At the booklet maker, the motor (booklet maker transport) drives the transport roller to feed the paper to the decurl guide. The motor (booklet maker decurl) controls the decurl guide. The guide moves back and forth to straighten the paper and prevent jams.



#	Part
1	Booklet maker transport roller
2	Booklet maker decurl guide

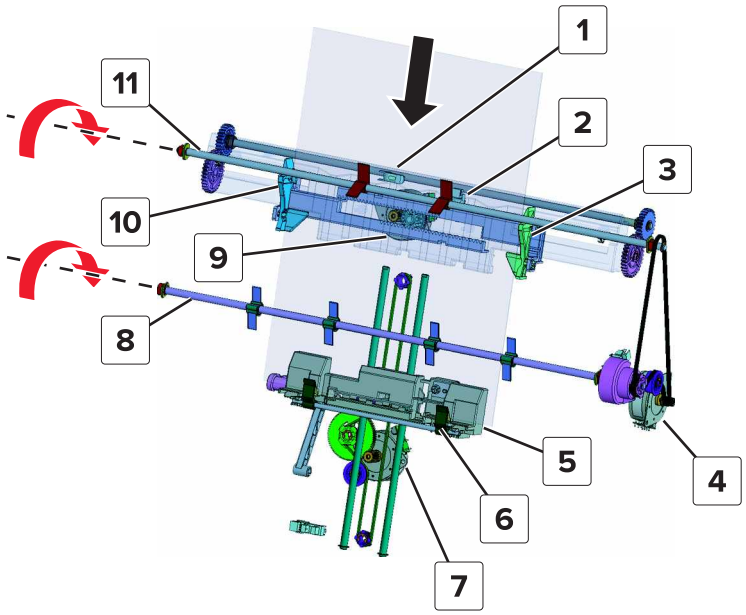
Booklet maker compiler section paper feed and alignment

When the sensor (SHPF booklet gate) detects the leading edge of the paper, the motor (booklet maker tamper) moves the tampers to a width that is slightly wider than the paper. The motor (booklet maker aligner) moves the aligner to a preset position depending on the paper length.

The motor (booklet maker paddle) rotates the upper and lower paddles. The paddles push down the paper to align the short edge on the aligner. After the trailing edge of the paper passes the sensor (booklet maker transport), the tampers move back and forth to align the long edge of the paper.

The paddles stop rotating after the trailing edge of the paper passes the sensor (SHPF booklet gate). The tampers return to the home position after the alignment is completed. Succeeding sheets are individually fed and are aligned in the same manner.

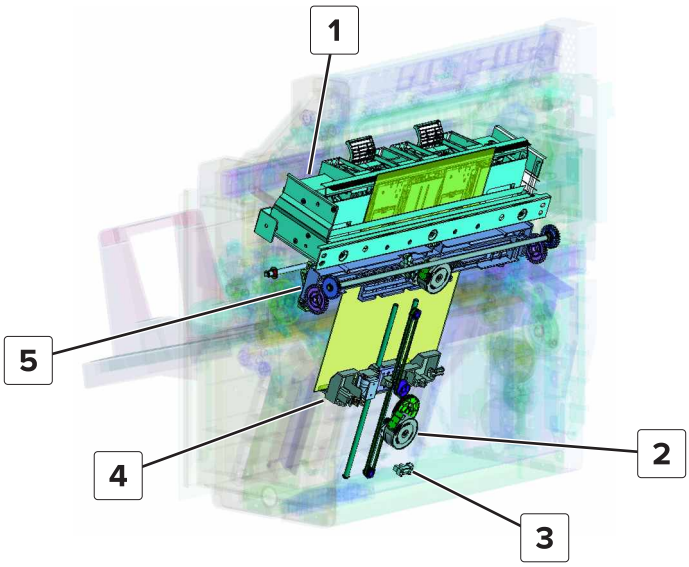
After all of the sheets are aligned, the aligner solenoid retracts the stack clamp to hold the paper stack in place for folding. The aligner moves to a preset position depending on the number of folds needed.



#	Part
1	Sensor (booklet maker tamper paper present)
2	Sensor (booklet maker tamper home)
3	Front tamper plate
4	Motor (booklet maker paddle)
5	Aligner
6	Stack clamp
7	Motor (booklet maker aligner)
8	Lower paddle
9	Motor (booklet maker tamper)
10	Rear tamper plate
11	Upper paddle

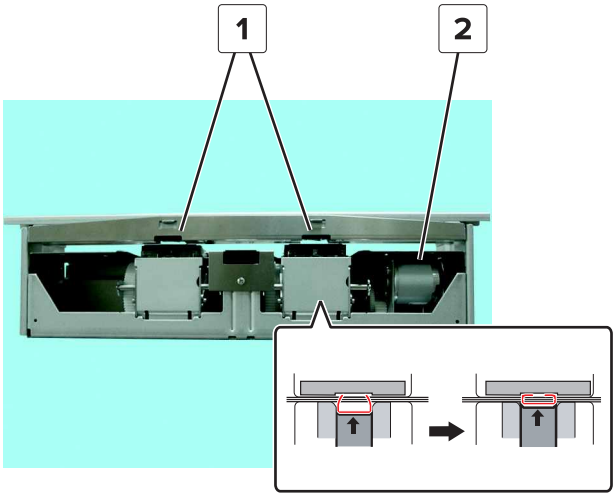
Booklet maker staple unit operation

For booklet jobs, the aligner moves the paper stack to the staple unit before folding.



#	Part
1	Staple unit
2	Motor (booklet maker aligner)
3	Sensor (booklet maker aligner home)
4	Aligner
5	Tamper assembly

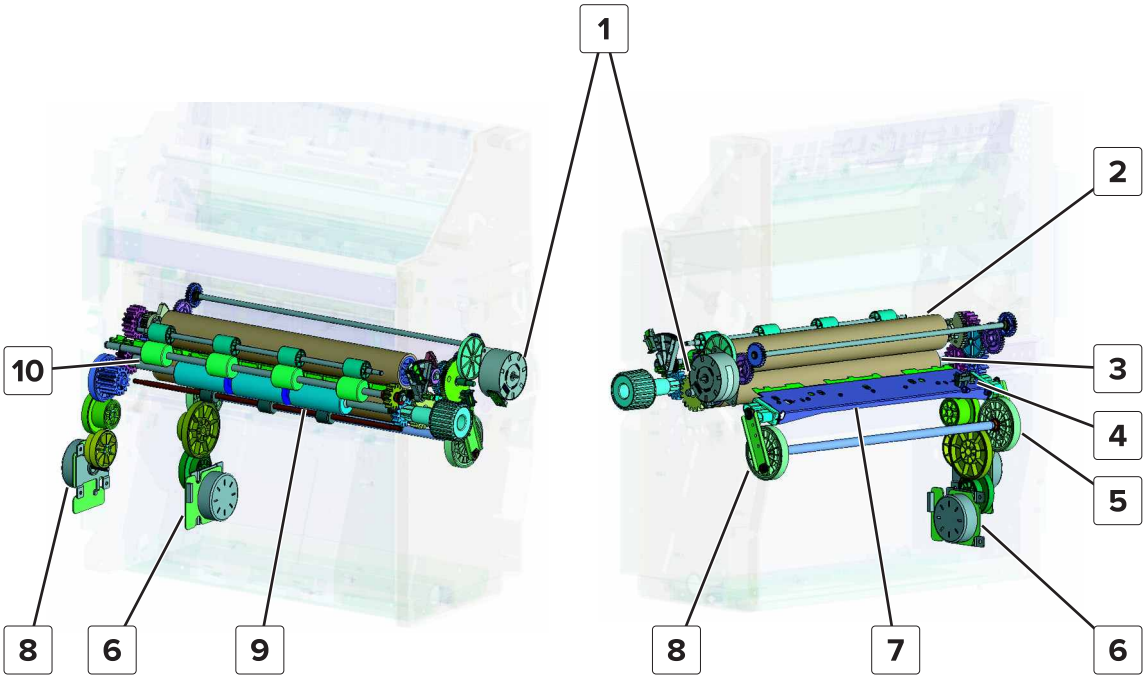
The motor (booklet maker staple unit) controls the stapling process. The paper stack is held between the paper press and clincher for stapling. The stack is then fed to the bifold section.



#	Part
1	Clincher
2	Motor (booklet maker staple unit)

Bifold and trifold sections

Bifold section parts

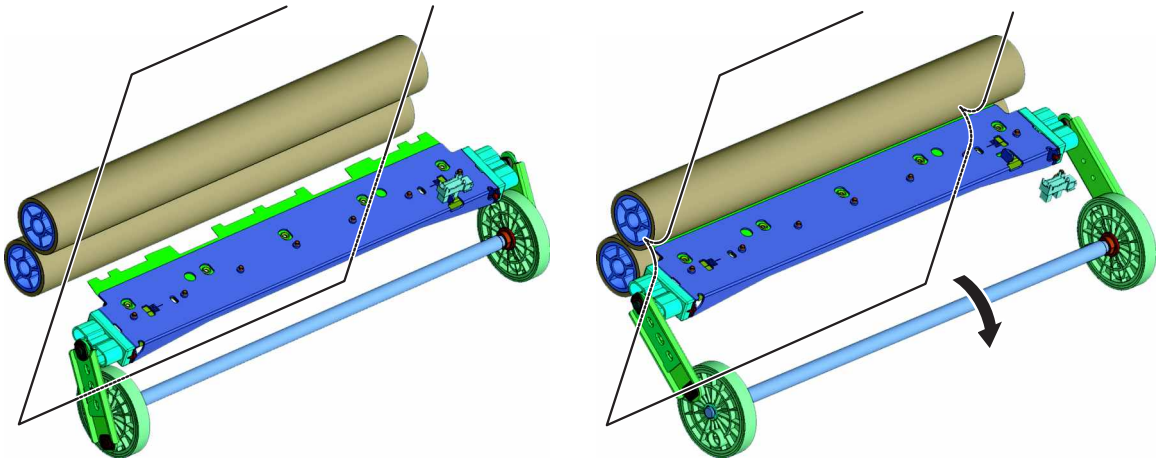


#	Part
1	Motor (bifold guide)
2	Bifold top roller
3	Bifold bottom roller
4	Sensor (bifold knife home)
5	Bifold knife secondary drive gears
6	Motor (bifold knife)
7	Bifold knife
8	Motor (bifold roller)
9	Trifold roller
10	Booklet maker exit roller

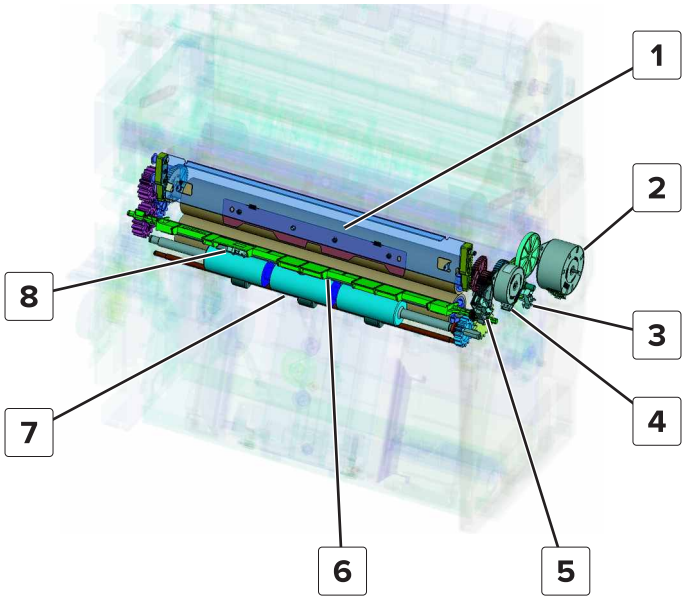
Bifolding

The bifold knife is connected to the motor (bifold knife) by the primary and secondary drive gears. The knife pushes the middle of the paper between the bifold rollers. The motor (bifold roller) drives the rollers to feed and fold the paper between the rollers.

The sensor (bifold knife home) detects the home position of the knife. The motor (bifold knife) stops after the sensor detects that the knife has returned to the home position.



Trifold section parts



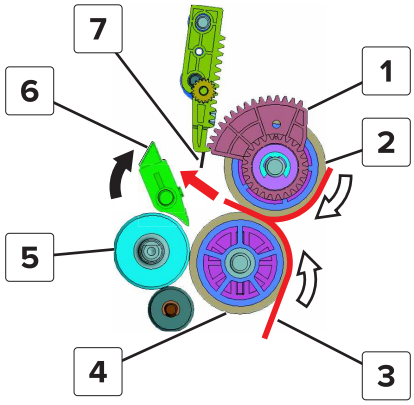
#	Part
1	Trifold knife
2	Motor (bifold guide)
3	Sensor (bifold guide home)
4	Motor (trifold guide)
5	Sensor (trifold guide home)

#	Part
6	Trifold diverter
7	Trifold roller
8	Sensor (booklet maker fold exit)

Trifolding

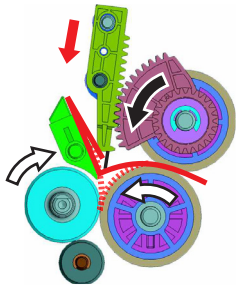
The first fold is done between the bifold rollers. The process of the first fold is the same with the bifold process, but the fold is done at a different position. The paper is fed to the trifold rollers for the second fold.

The motor (bifold guide) drives the trifold diverter. The bifold rollers feed the paper so that the folded edge is between the trifold diverter and trifold knife.

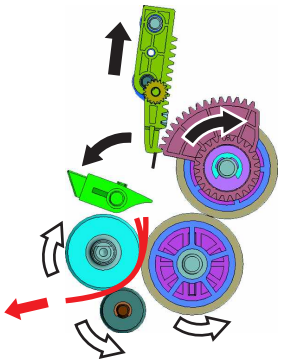


#	Part
1	Trifold knife actuator
2	Bifold top roller
3	Paper
4	Bifold bottom roller
5	Trifold roller
6	Trifold diverter
7	Trifold knife

The motor (trifold guide) moves down the trifold knife actuators to move down the trifold knife. The knife pushes the paper between the trifold roller and bifold lower roller.

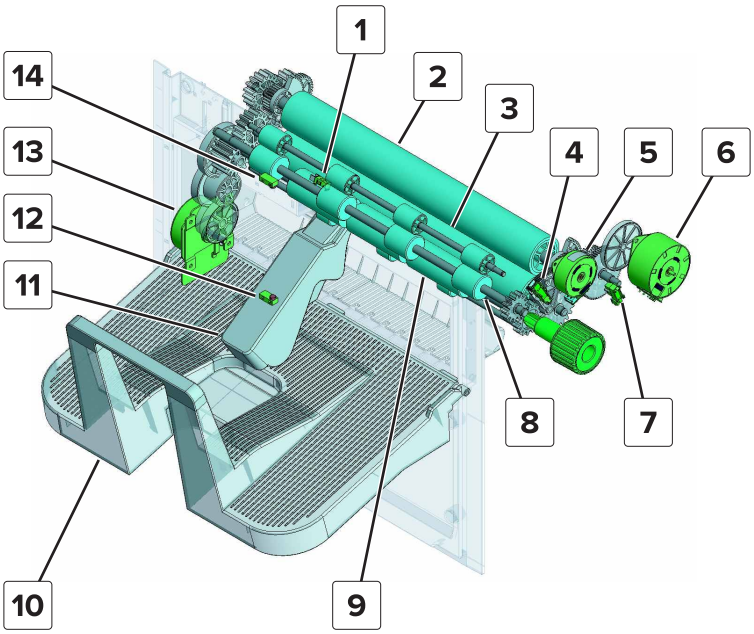


The paper is fed to the trifold roller for the second fold, and then the trifold diverter returns to the home position.



Booklet maker exit section

Booklet maker exit section parts



#	Part
1	Sensor (booklet maker fold exit)
2	Bifold top roller
3	Bifold bottom roller
4	Sensor (trifold guide home)
5	Motor (trifold guide)
6	Motor (bifold guide)
7	Sensor (bifold guide home)
8	Exit roller
9	Trifold roller

#	Part
10	HPBF bin
11	HPBF bin bail
12	Sensor (HPBF bin empty, transmit)
13	Motor (bifold roller)
14	Sensor (HPBF bin empty, receive)

Booklet maker exit section paper path

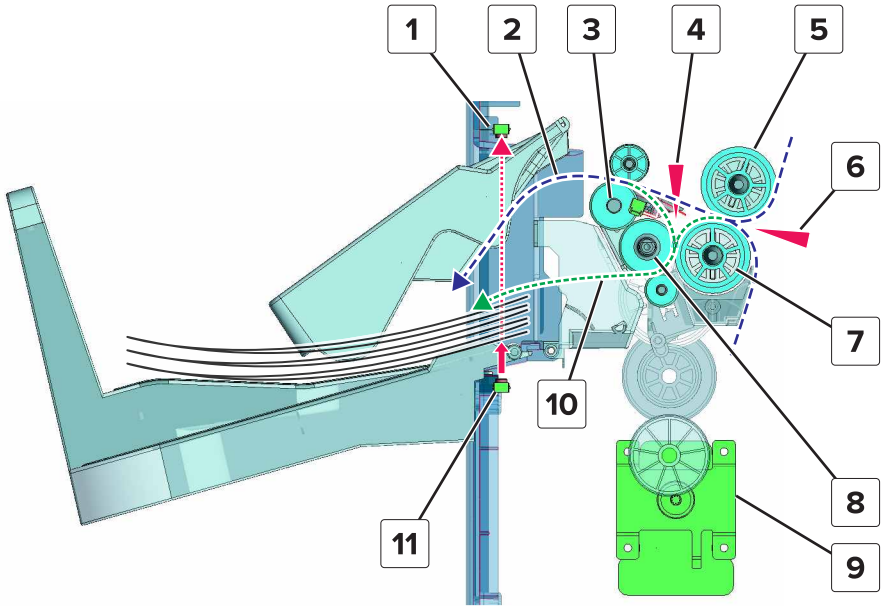
The paper is fed out to the HPBF bin. Depending on the number of folds, the paper passes either through the bifold exit or trifold exit.

#	Part
1	Bifold exit (upper slit)
2	Trifold exit (lower slit)

For bifold jobs, the motor (bifold roller) drives the bifold rollers and exit roller to feed the paper to the bin.

For trifold jobs, the motor (bifold roller) drives the bifold rollers and trifold roller to feed the paper to the bin.

If light from the sensor (HPBF bin empty, transmit) is blocked, then paper is present on the bin. When the preset number of booklets have been fed to the bin and the sensor is still blocked, then the printer determines that the bin is full.



#	Part
1	Sensor (HPBF bin empty, receive)
2	Bifold job
3	Booklet maker exit roller
4	Trifold knife
5	Bifold top roller
6	Bifold knife
7	Bifold bottom roller
8	Trifold roller
9	Motor (bifold roller)
10	Trifold job
11	Sensor (HPBF bin empty, transmit)

Acronyms

Acronyms

ASIC	Application-specific integrated circuit
BLDC	Brushless DC motor
BOR	Black only retract
C	Cyan
CCD	Charge coupled device
CCP	Carbonless copy paper
CRC	Cyclic redundancy check
CSU	Customer setup
CTLS	Capacitance toner level sensing
DIMM	Dual inline memory module
DRAM	Dynamic random access memory
EDO	Enhanced data out
EP	Electrophotography
EPROM	Erasable programmable read-only memory
ESD	Electrostatic discharge
FFC	Flat flexible cable
FRU	Field replaceable unit
GB	Gigabyte
HCF	High-capacity feeder
HCIT	High-capacity input tray
HCOF	High-capacity output finisher
HVPS	High voltage power supply
ITU	Image transfer unit
K	Black
LCD	Liquid crystal display
LDAP	Lightweight directory access protocol
LED	Light-emitting diode
LVPS	Low voltage power supply
M	Magenta
MB	Megabyte
MFP	Multi-function product
MPF	Multipurpose feeder

MROM	Masked read-only memory
MS	Microswitch
NVM	Nonvolatile memory
NVRAM	Nonvolatile random access memory
OEM	Original equipment manufacturer
OPT	Optical sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-on reset
POST	Power-on self test
PSD	Position sensing device
PWM	Pulse width modulation
RIP	Raster imaging processor
ROM	Read-only memory
SDRAM	Synchronous dual random access memory
SIMM	Single inline memory module
SRAM	Static random access memory
TPS	Toner patch sensing
UPR	Used parts return
V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum transport belt
Y	Yellow

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Part name index

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Sensor (staple finisher upper exit roller)
Sensor (Staple finisher elevator home)
Sensor (staple finisher paper feed)
Staple finisher lock switch
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CN 111 (4 pin)
CN 110 (12 pin)
CN 106 (3 pin)
CN 112 (15 pin)
CN 119 (2 pin)
CN 120 (17 pin)
Staple Finisher
CN 104 (3 pin)
CN 105 (6 pin)
CN 109 (14 pin)
CN 108 (6 pin)
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Motor (staple finisher upper exit)
Motor (staple finisher aligner)
Staple finisher exit roller solenoid
Motor (staple finisher elevator)
Staple finisher stack clamp solenoid
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CN 102 (17 pin)
CN 103 (8 pin)
CN 121 (17 pin)
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CN 122 (17 pin)
CN 123 (17 pin)
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Motor (staple finisher front tamper)
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Sensor (staple finisher bin stack height)
Staple finisher bin stack height solenoid

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Sensor (SHPF compiler feed roller release)
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Sensor (SHPF eject clamp position)
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Sensor (SHPF elevator bin rear stack height)
Sensor (SHPF elevator bin front stack height)
Sensor (SHPF elevator bin stack height actuator arm control)
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Sensor (HPBF bin empty, receive)
Sensor (HPBF bin empty, transmit)

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Sensor (booklet maker paddle home)
Motor (booklet maker paddle)
Sensor (bifold guide home)
Motor (bifold guide)