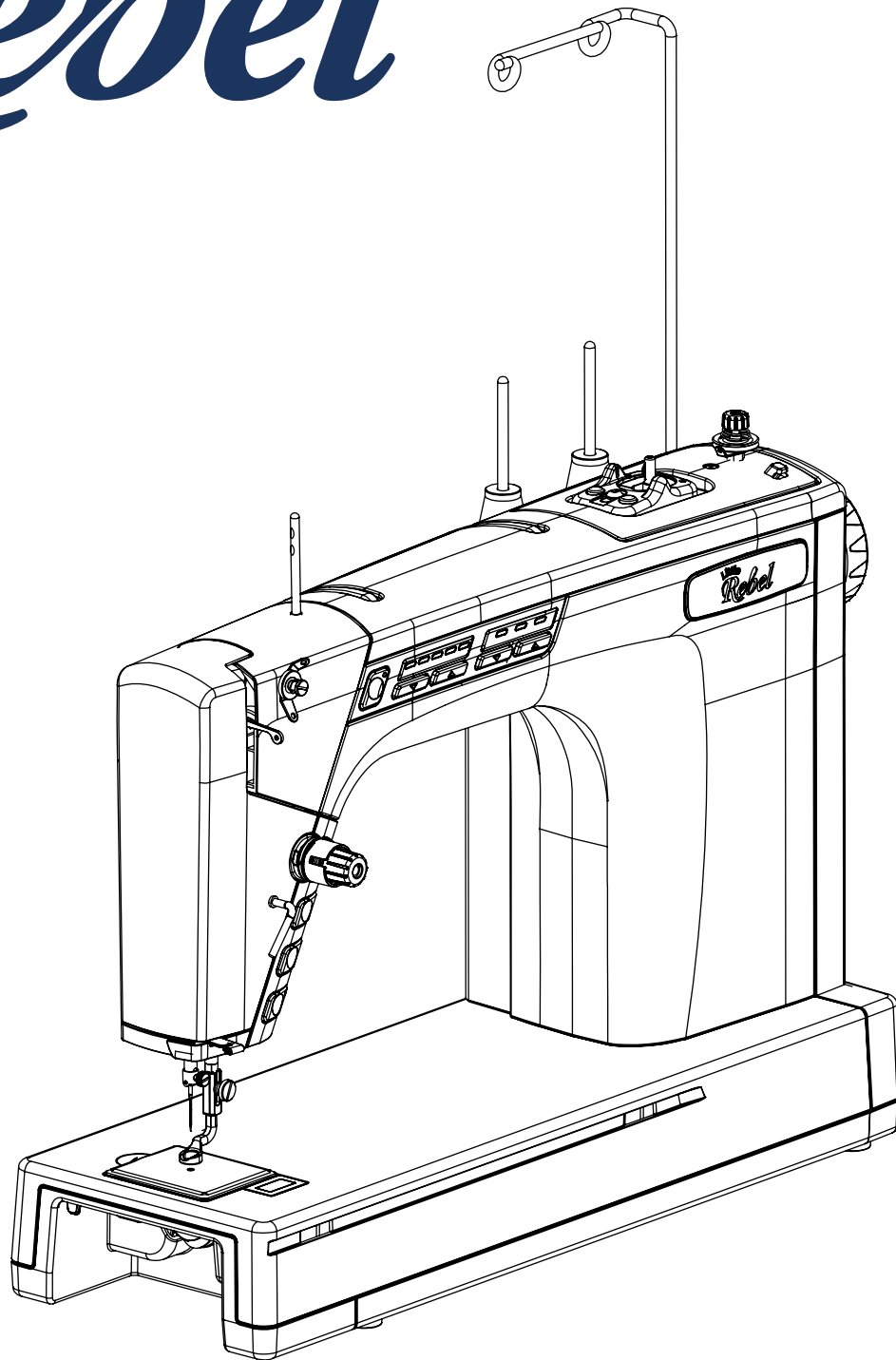


Little *Rebel*

Exploded Views



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Revision 1.3

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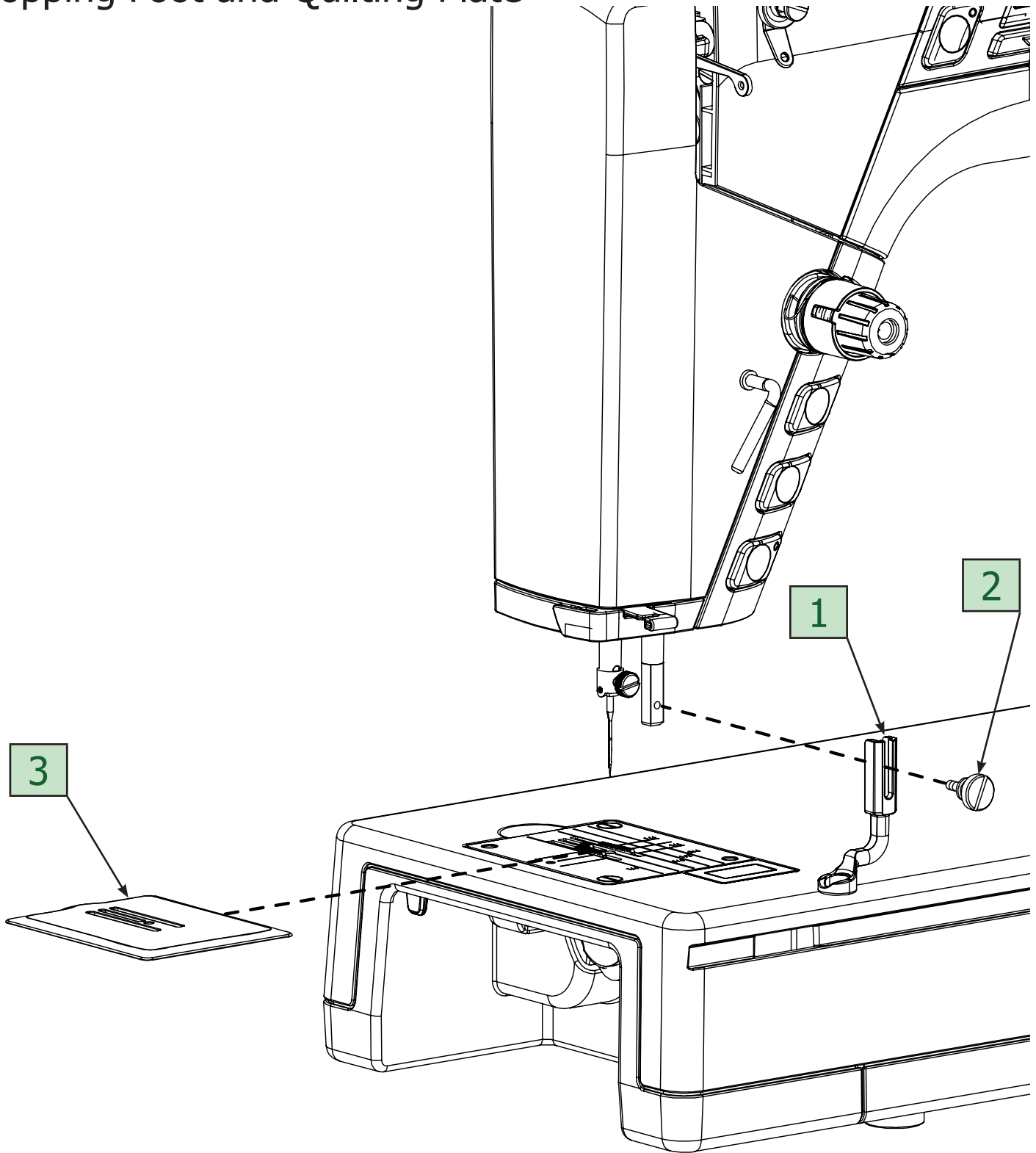
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Appendix

Torque Specifications Table46

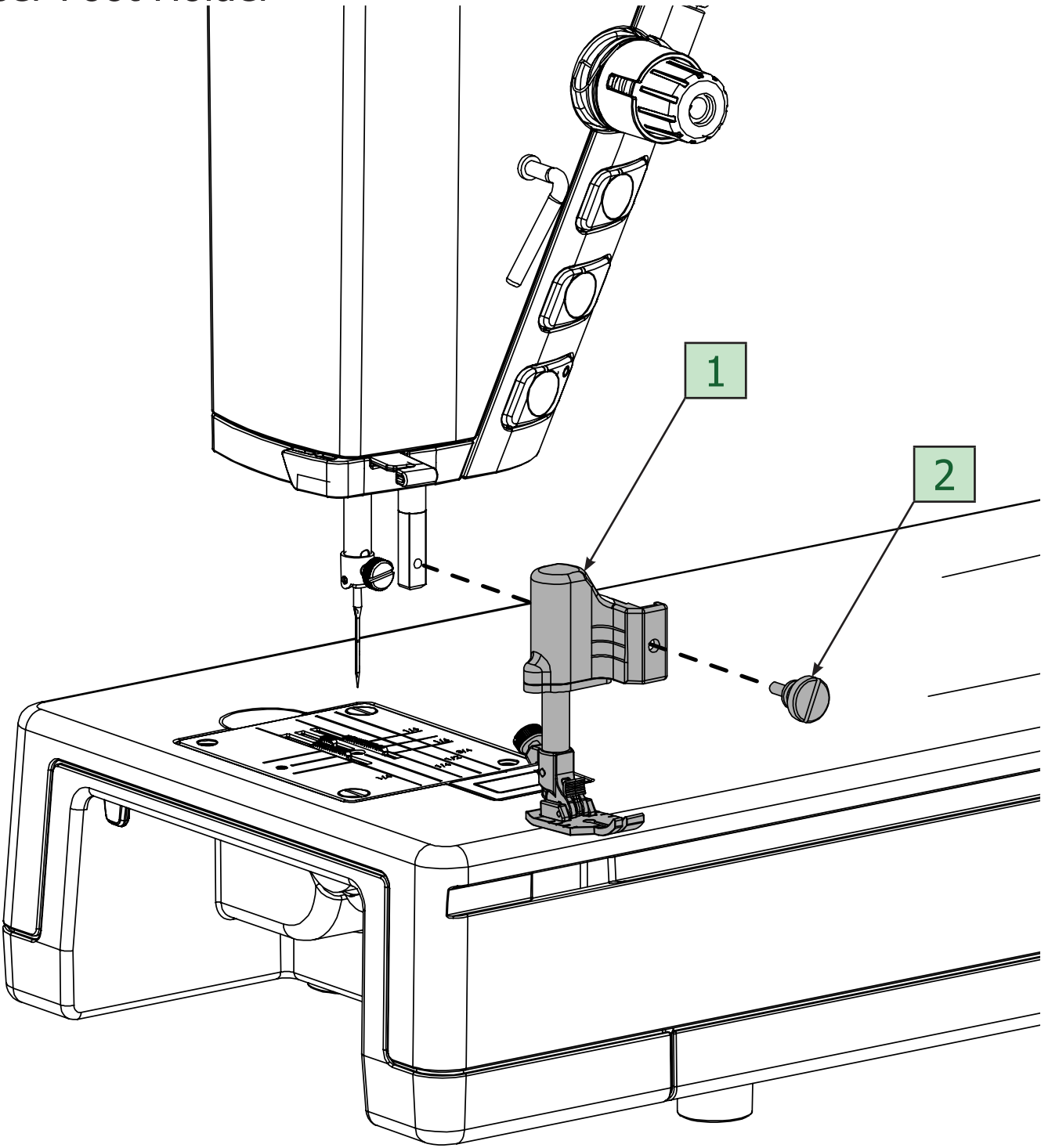
Peripherals

Hopping Foot and Quilting Plate



Item	QTY	Part #	Description (EN)	Serviceability
1	1	04-10057	Standard Hopping Foot	CU
2	1	03-17660	Slotted Thumb Screw M3 X 8mm	CU
3	1	04-17682	Quilting Plate	CU
-	1	04-18028	Sit Down Quilting Foot (not shown)	CU

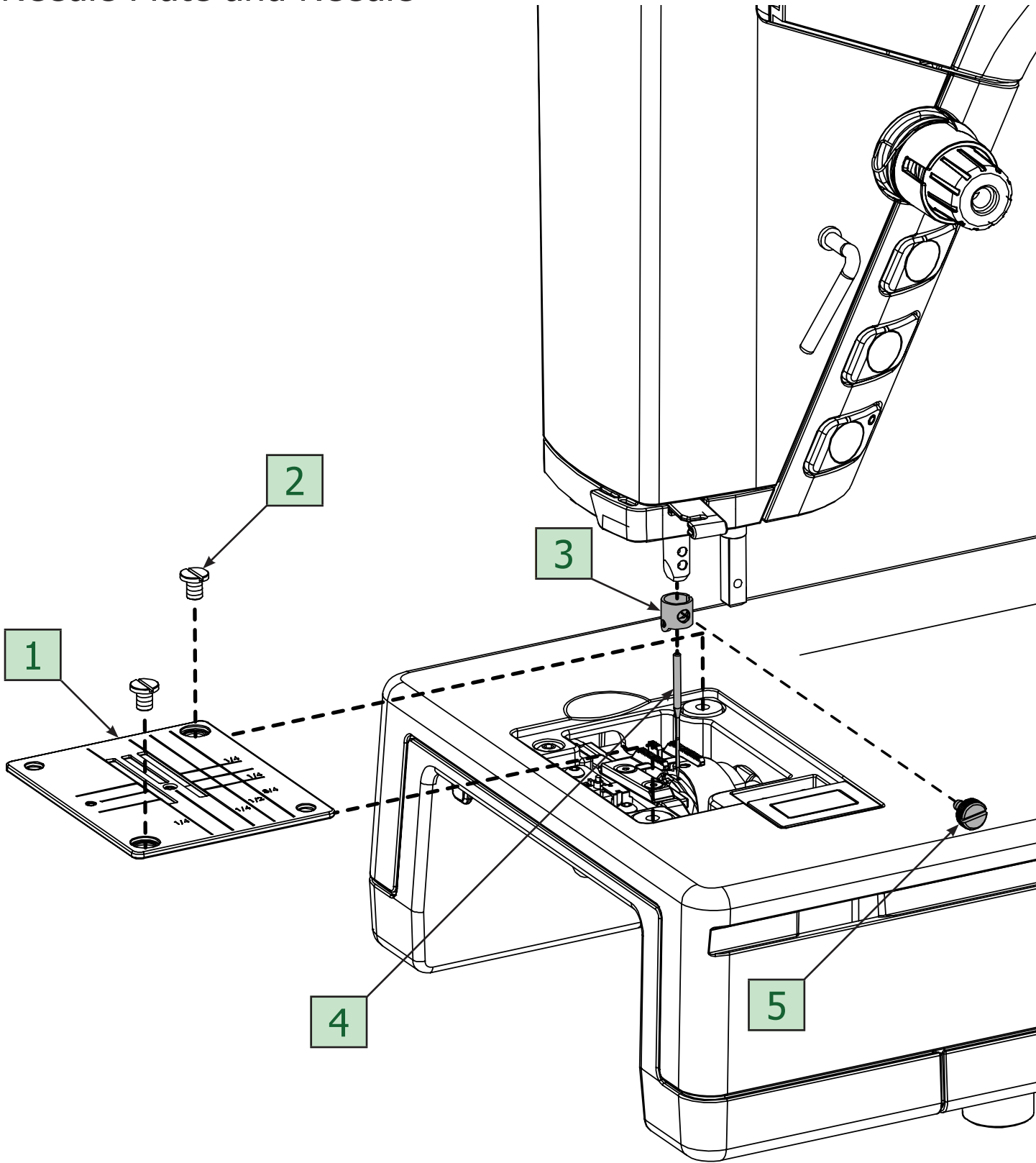
Presser Foot Holder



Item	QTY	Part #	Description	Serviceability
1	1	09-17661	Presser Foot Holder	CU
2	1	03-17660	Slotted Thumb Screw M3 X 8mm	CU

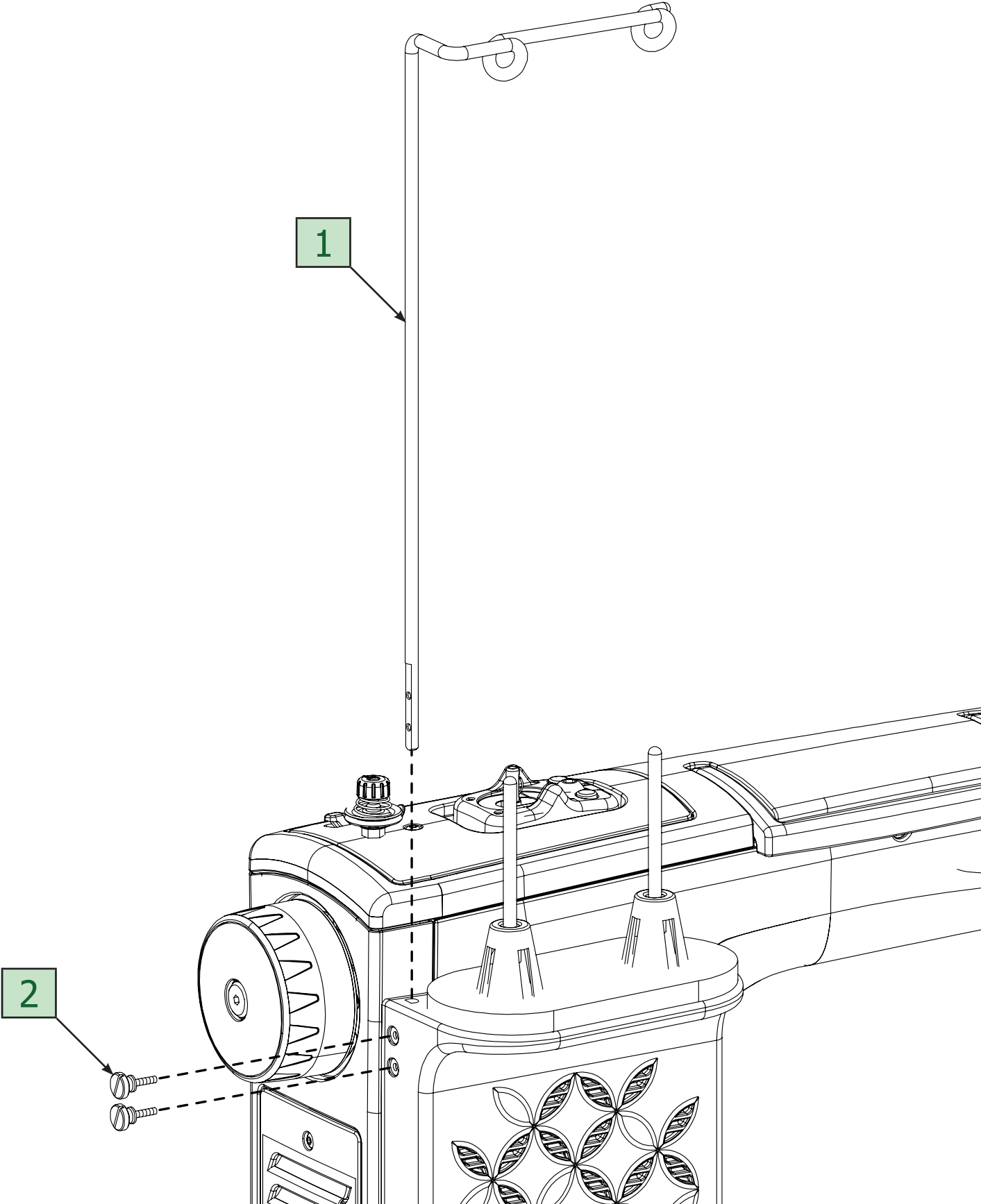
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Needle Plate and Needle



Item	QTY	Part #	Description	Serviceability
1	1	04-17430	Needle Plate SM13	CU
2	2	03-10005	Needle Plate Screw	CU
3	1	04-10039	Needle Bar Thread Guide	CU
4	1	08-14933	MR Needle Size 16	CU
5	1	03-15109	Slotted Thumb Screw M3 X 4mm	Cu

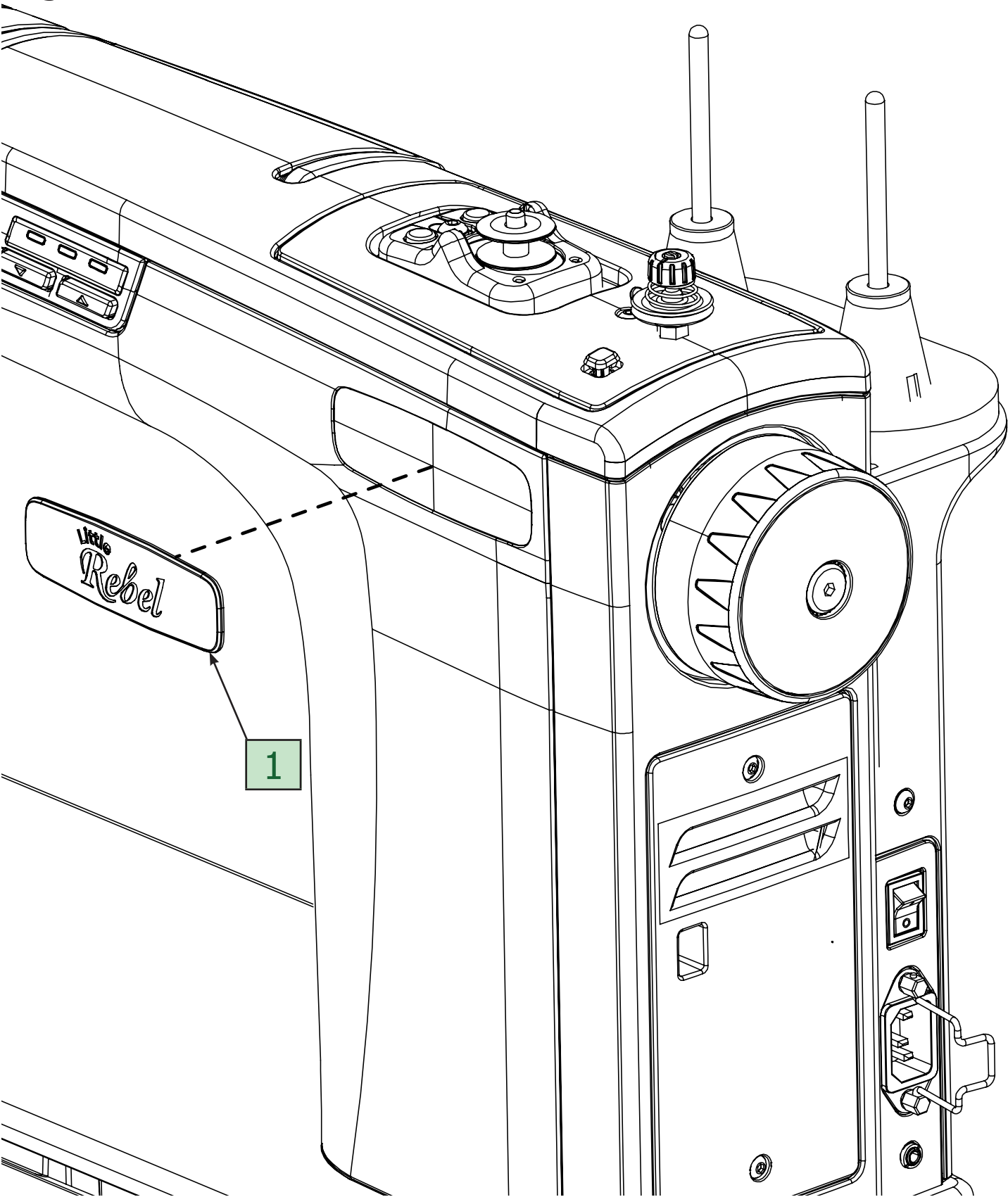
Thread Mast



Item	QTY	Part #	Description	Serviceability
1	1	04-17686	Thread Mast	CU
2	2	03-17681	Slotted Thumb Screw M3 X 12mm	CU

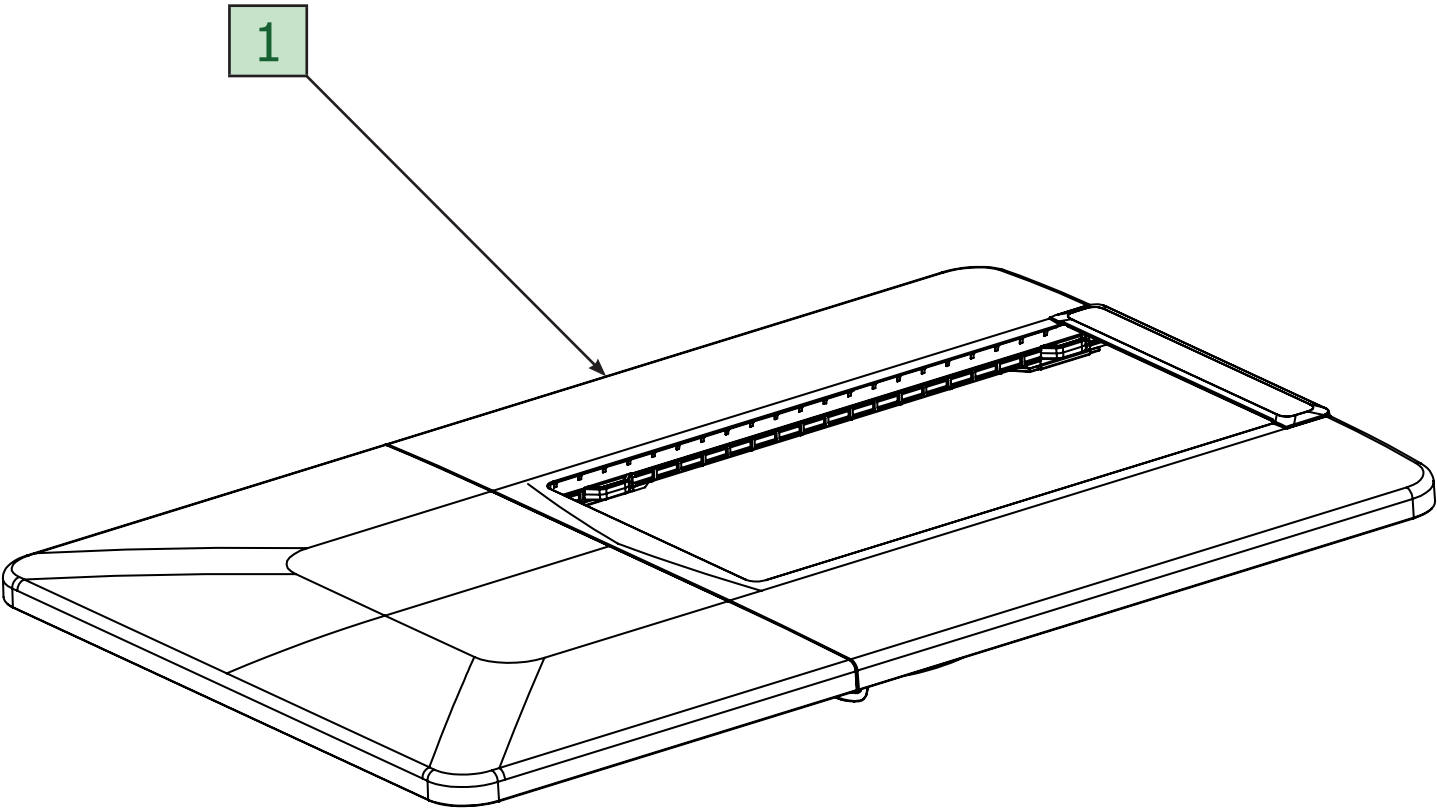
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Logo Plate



Item	QTY	Part #	Description	Serviceability
1	1	05-17683	Logo Plate	CU

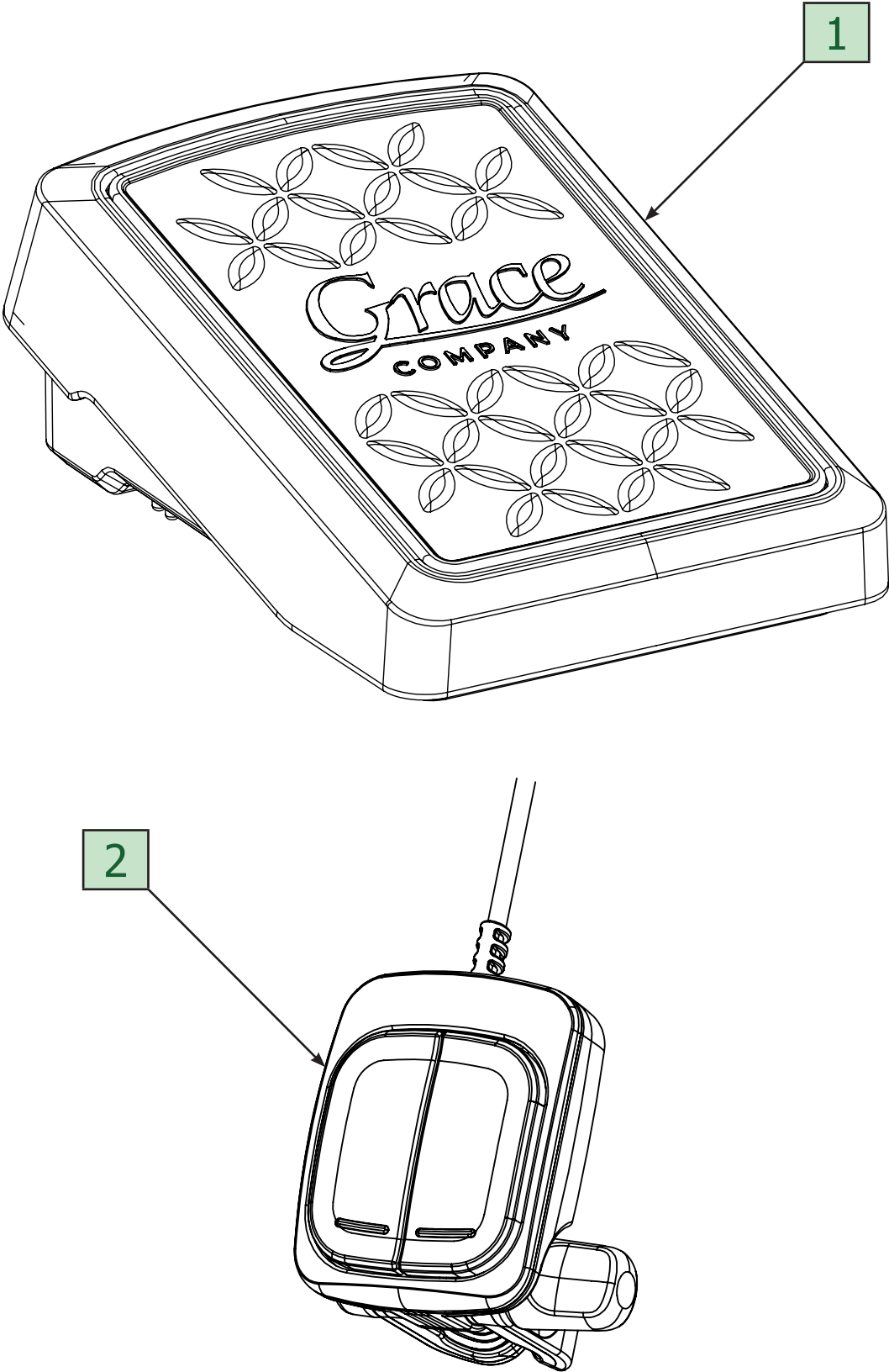
Extension Table



Item	QTY	Part #	Description	Serviceability
1	1	09-17926	Extension Table	CU

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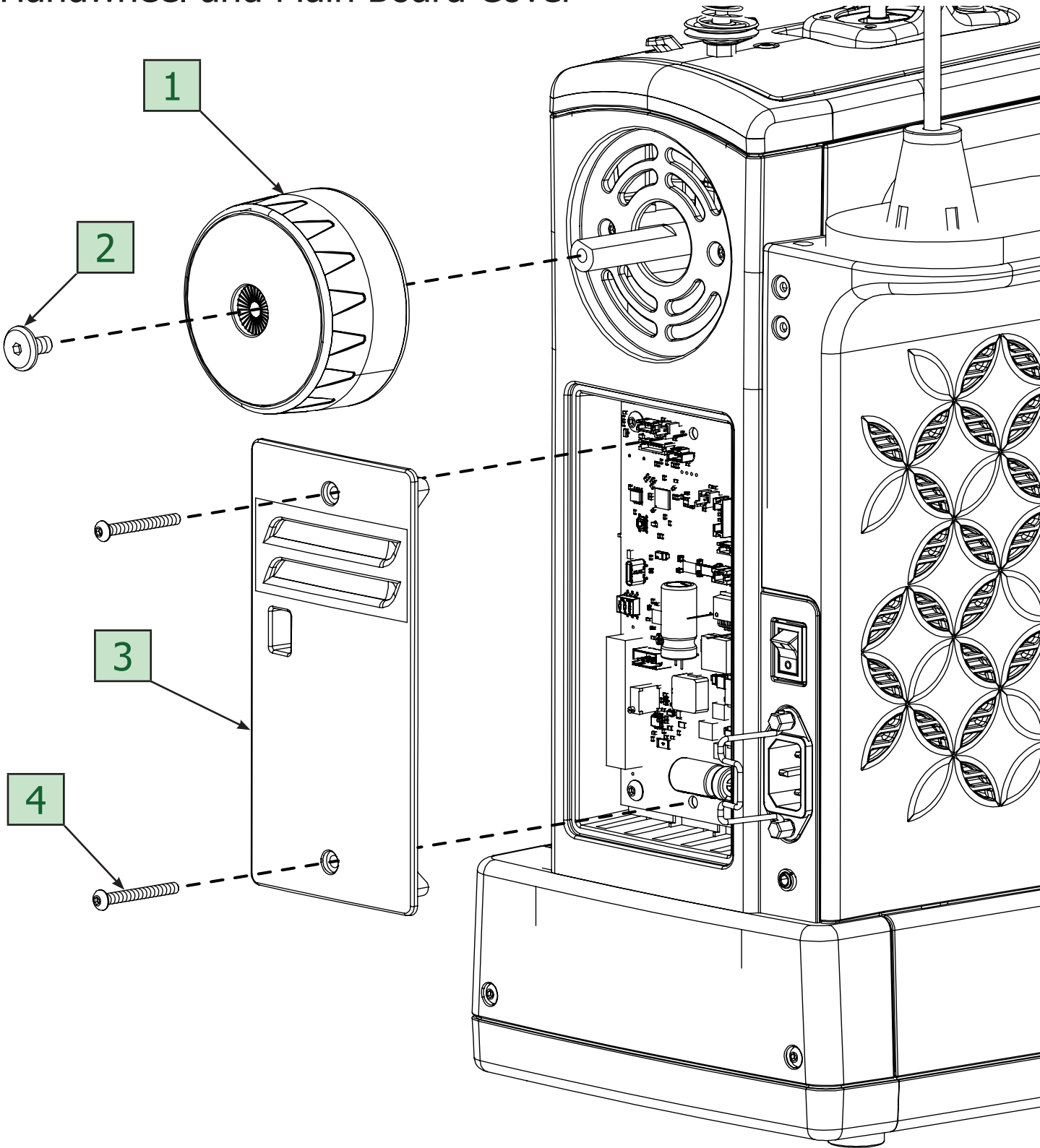
Foot Pedal and Stitch Controller



Item	QTY	Part #	Description	Serviceability
1	1	09-17957	Foot Pedal	CU
2	1	09-17978	Stitch Controller	CU

Plastic Covers

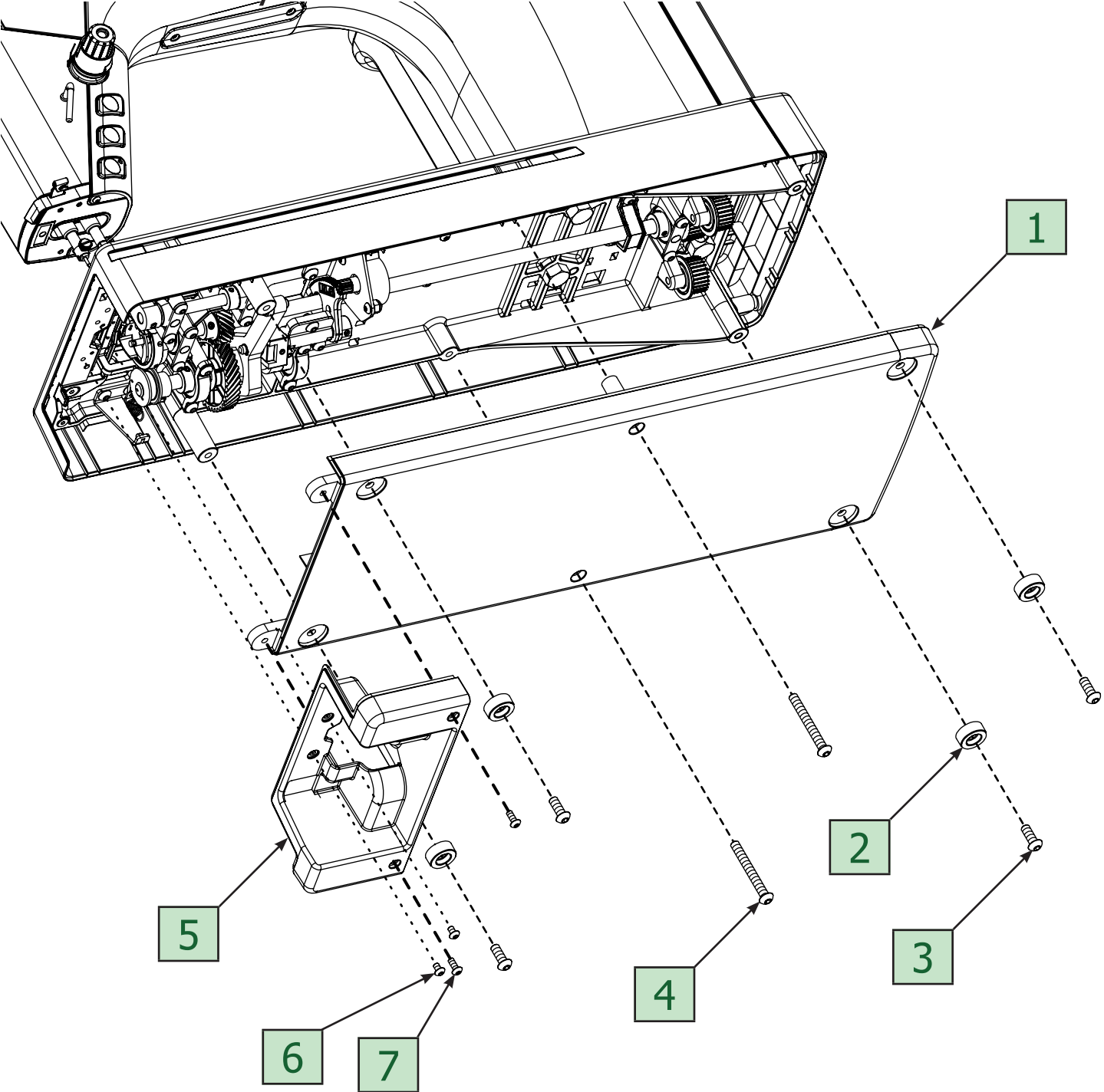
Handwheel and Main Board Cover



Item	QTY	Part #	Description	Serviceability
1	1	05-16247	Handwheel	CU
2	1	03-10027	Connector Bolt M6 X 12mm	CU
3	1	05-17658	Main Board Cover	CU
4	2	03-14738	SBHCS M4 X 35mm	CU

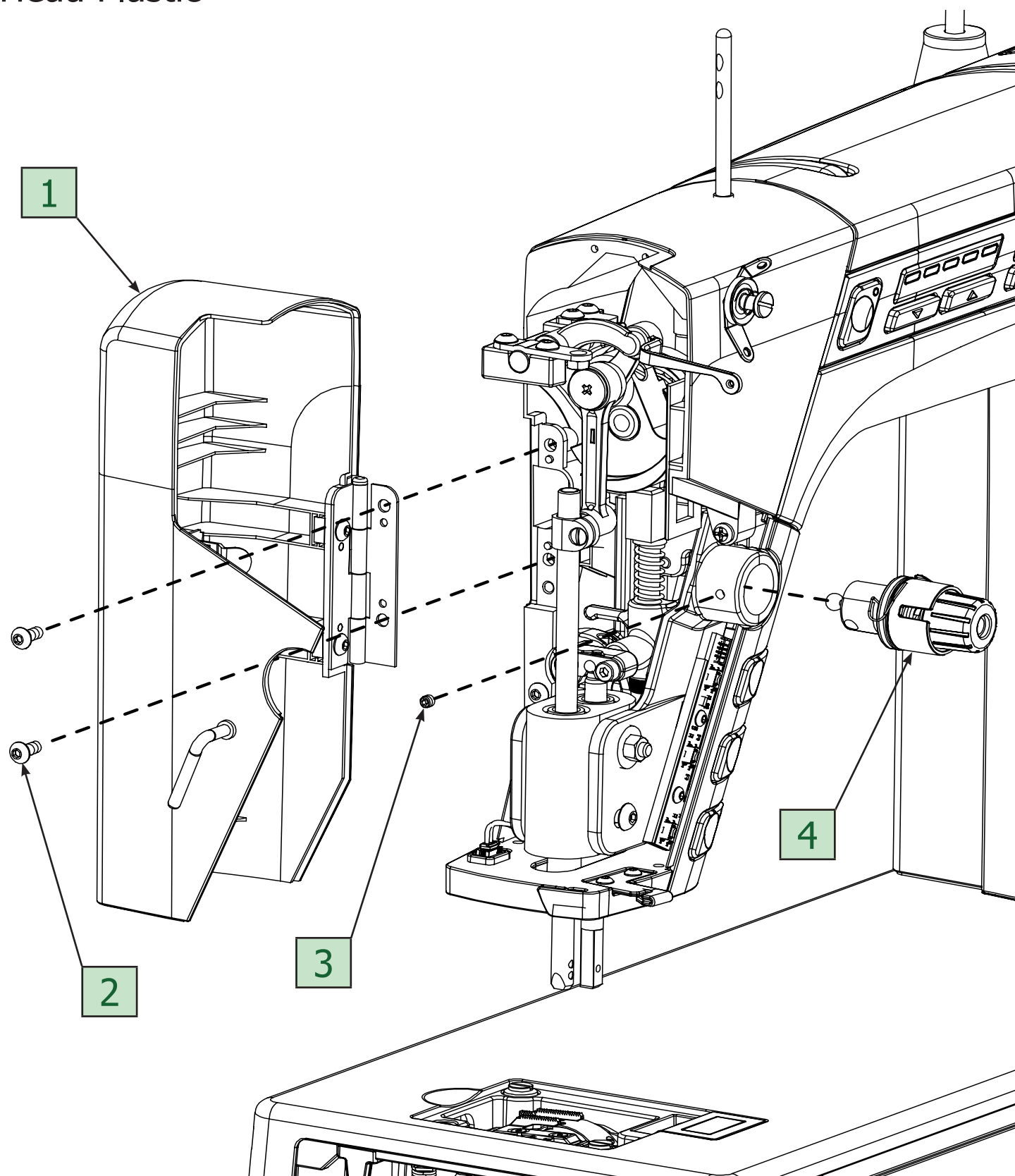
Bottom Plastic

Hook Assembly Plastic



Item	QTY	Part #	Description	Serviceability
1	1	05-17654	Bottom Plastic	CU
2	1	05-17655	Rubber Foot	CU
3	4	03-10974	SBHCS M6 X 16mm	CU
4	2	03-16523	SBHCS M6 X 50mm	CU
5	1	05-17657	Hook Assembly Plastic	CU
6	2	03-10968	SBHCS M4 X 6mm	CU
7	2	03-10012	SBHCS M4 X 10mm	CU

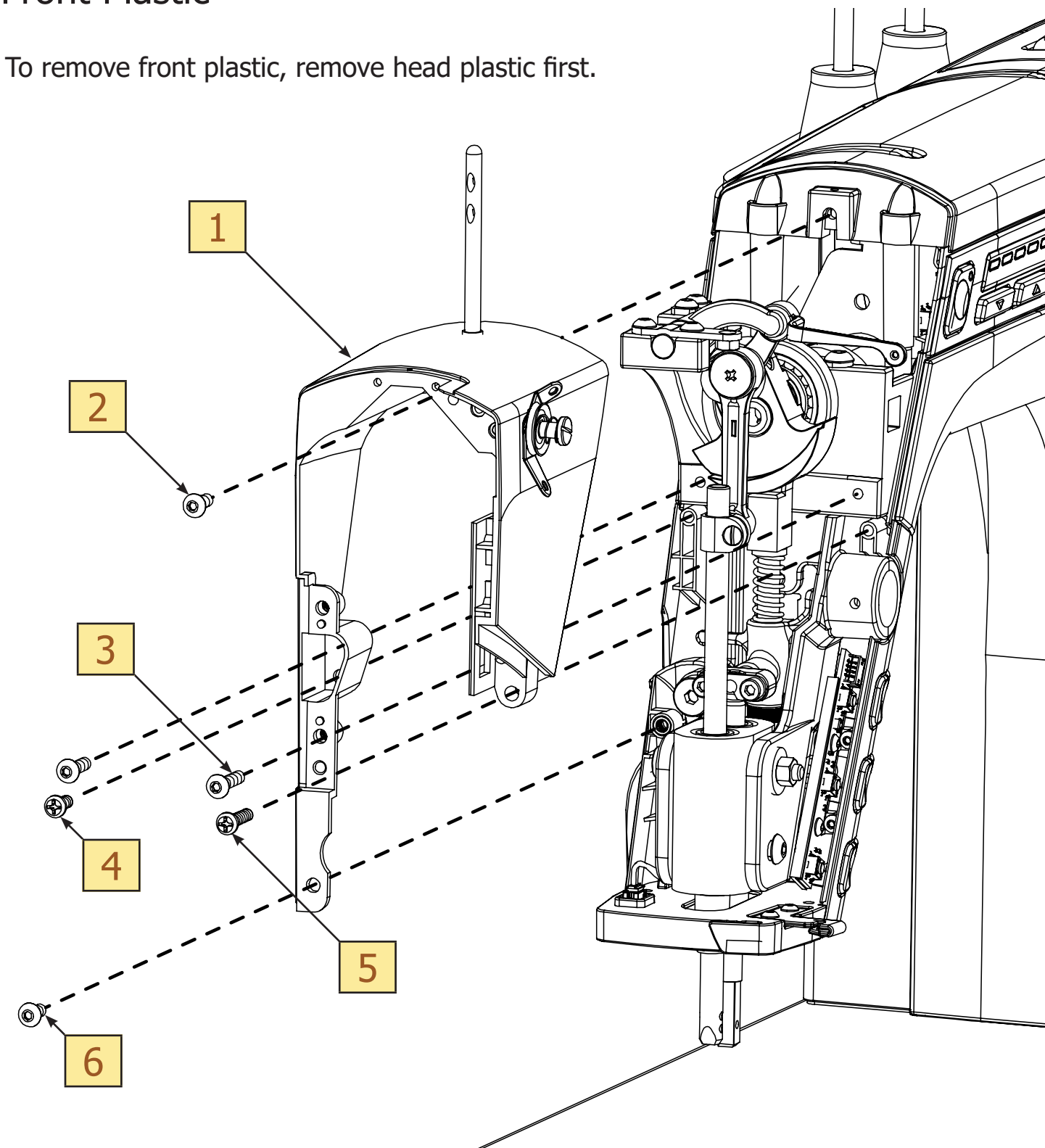
Head Plastic



Item	QTY	Part #	Description	Serviceability
1	1	09-17649	Head Plastic Assembly	CU
2	2	03-10012	SBHCS M4 X 10mm	CU
3	1	03-10016	Socket CSS M4 X 4mm (Cup Point Set Screw)	CU
4	1	09-17646	Thread Tensioner Assembly SM13	CU

Front Plastic

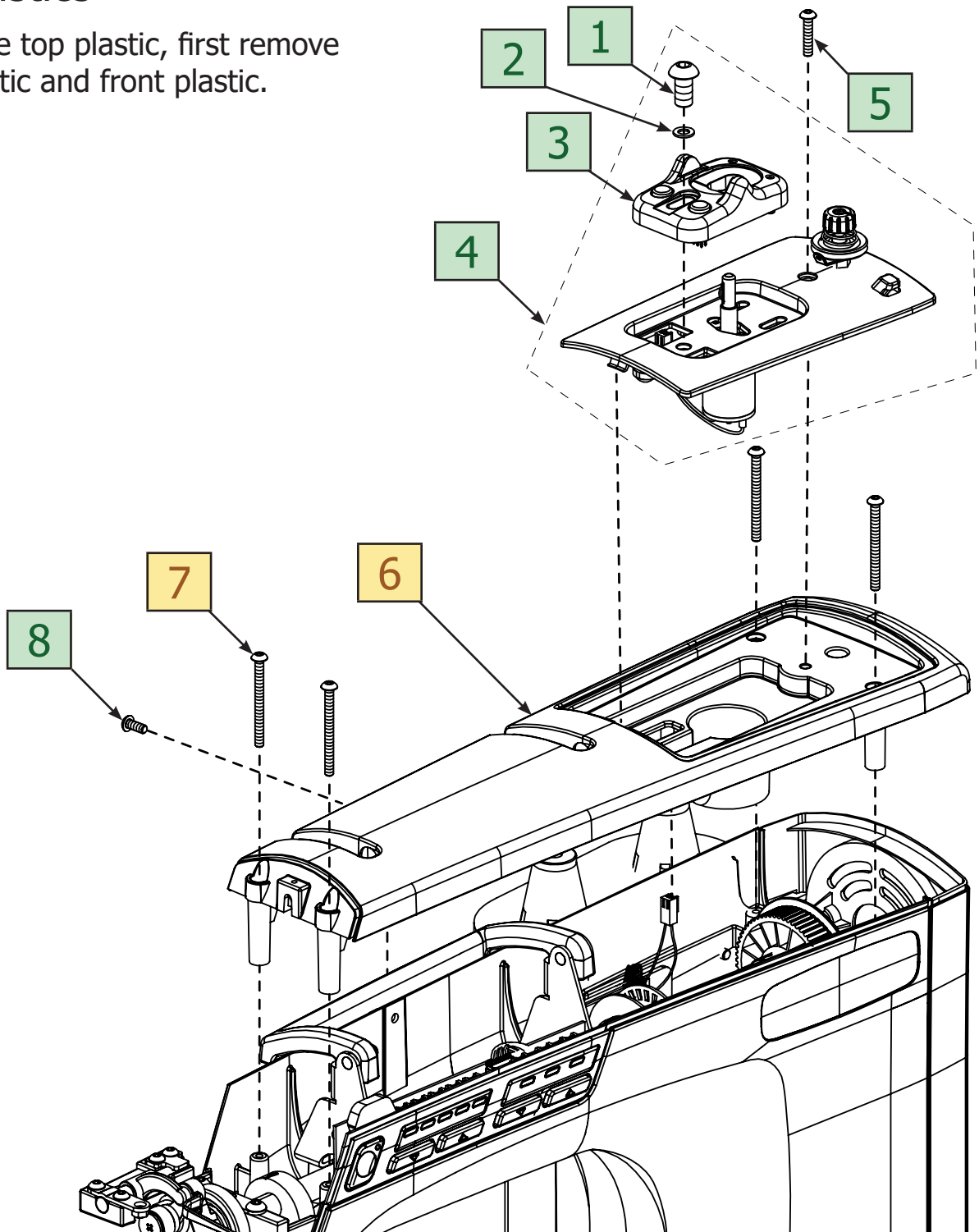
To remove front plastic, remove head plastic first.



Item	QTY	Part #	Description	Serviceability
1	1	09-17638	Front Plastic Assembly	DE
2	1	03-14247	SBHCS M4 X 12mm	DE
3	2	03-11661	SBHCS M4 X 20mm	DE
4	1	03-17644	Phillips PHTFS M4 X 12mm (Pan Head Thread Forming Screw)	DE
5	1	03-17645	Phillips PHTFS M4 X 20mm (Pan Head Thread Forming Screw)	DE
6	1	03-10012	SBHCS M4 X 10mm	DE

Top Plastics

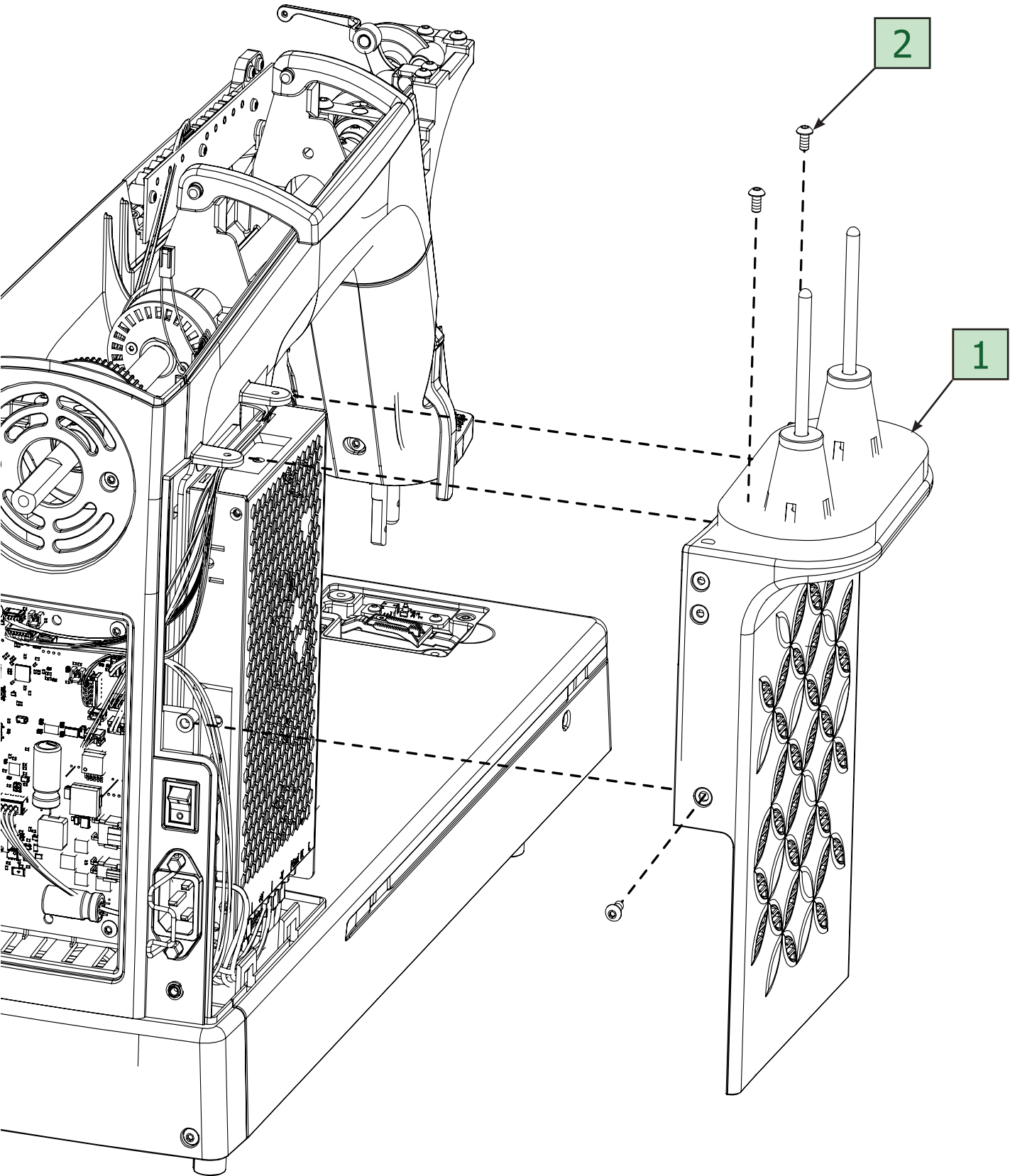
To remove top plastic, first remove head plastic and front plastic.



Item	QTY	Part #	Description	Serviceability
1	1	03-11983	SBHCS M5 20mm	CU
2	1	03-16349	Washer 5.45 ID X 9.8 OD X 0.9mm T	CU
3	1	09-16448	Bobbin Winder Top Assembly	CU
4	1	09-17633	Bobbin Winder Assembly (SM13)	CU
5	1	03-11661	SBHCS M4 X 20mm	CU
6	1	05-17631	Top Plastic	DE
7	1	03-14824	SBHCS M4 X 45mm	DE
8	1	03-10012	SBHCS M4 X 10mm	CU

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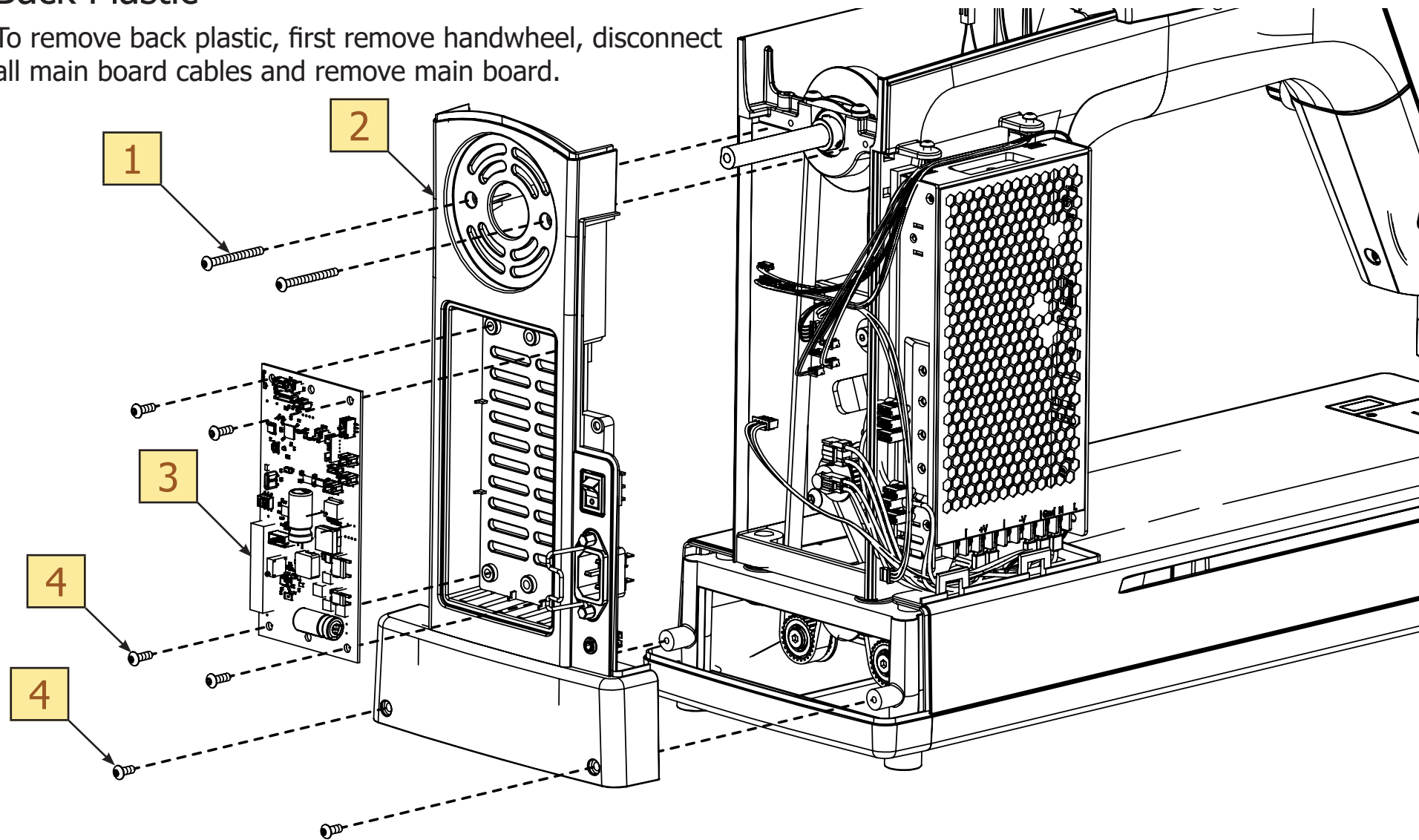
Power Supply Cover



Item	QTY	Part #	Description	Serviceability
1	1	09-17628	Power Supply Cover Assembly SM13	CU
2	3	04-10012	SBHCS M4 X 10mm	CU

Back Plastic

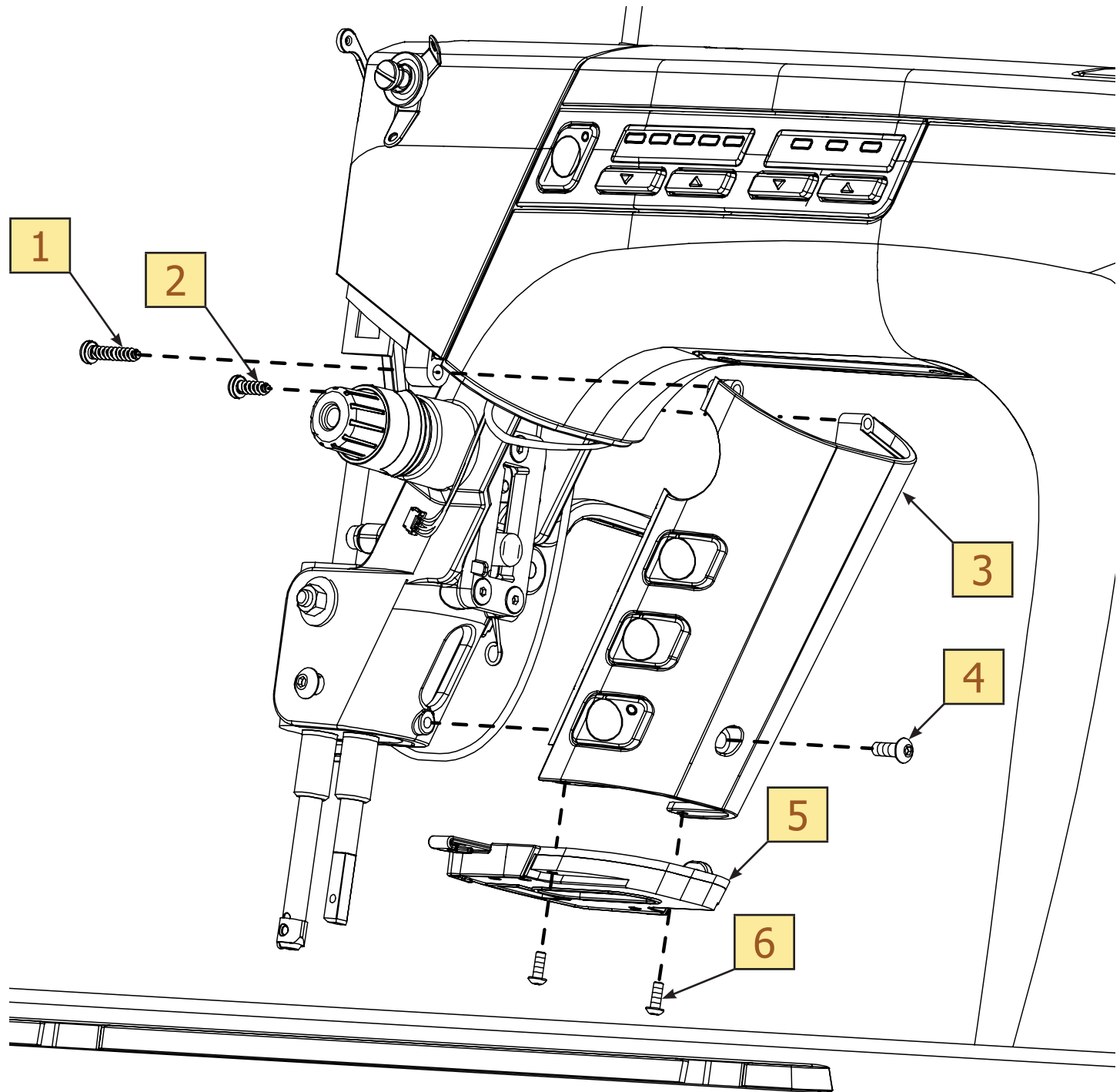
To remove back plastic, first remove handwheel, disconnect all main board cables and remove main board.



Item	QTY	Part #	Description	Serviceability
1	2	03-14893	SBHCS M4 X 40mm	DE
2	1	09-17621	Back Plastic Assembly	DE
3	4	02-16721	Main Board	DE
4	6	03-14247	SBHCS M4 X 12mm	DE

Throat Plastic

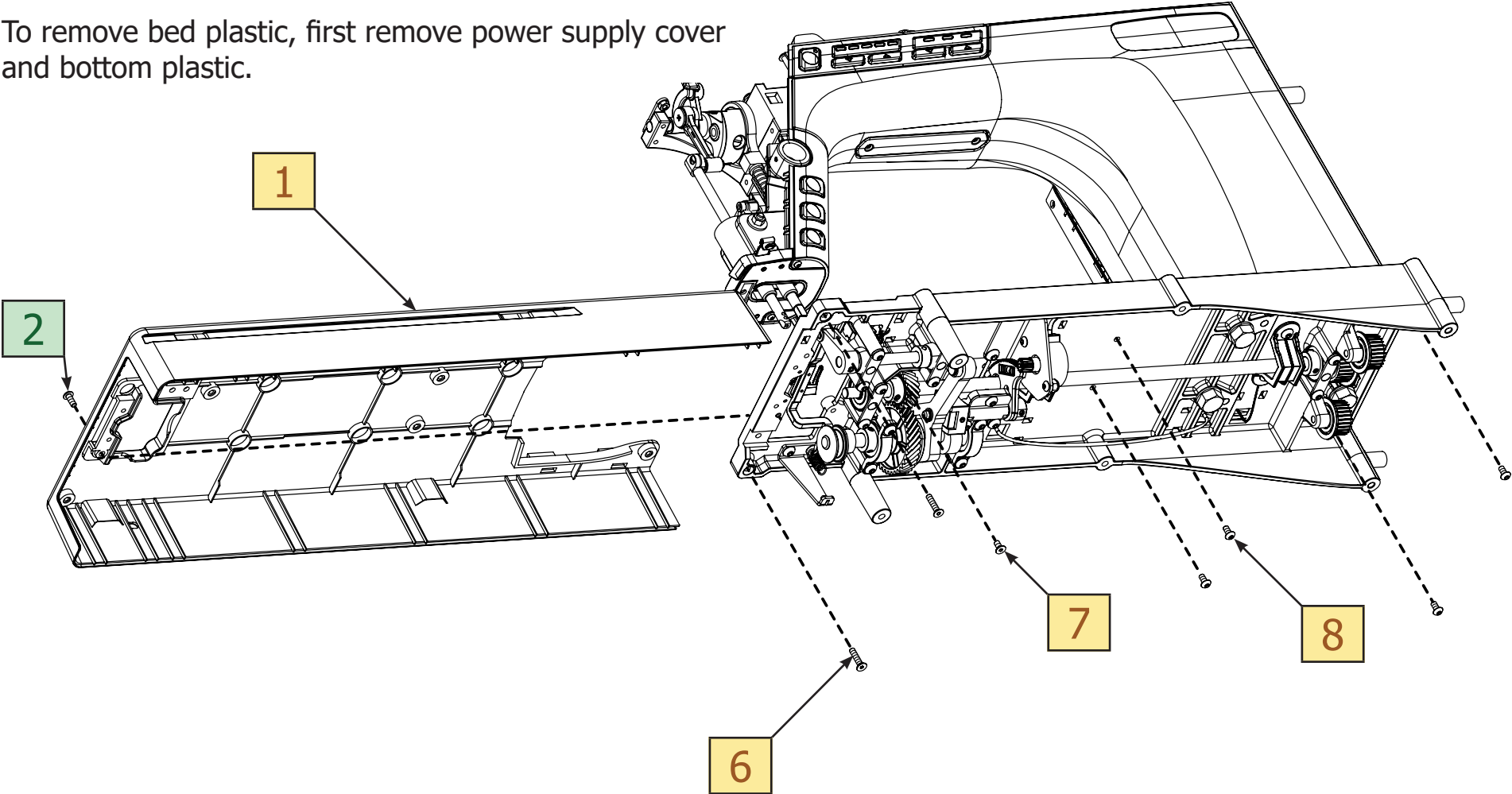
To remove throat plastic and needle light assembly, first remove head plastic.



Item	QTY	Part #	Description	Serviceability
1	1	03-17645	Phillips PHTFS M4 X 20mm (Pan Head Thread Forming Screw)	DE
2	1	03-17644	Phillips PHTFS M4 X 12mm (Pan Head Thread Forming Screw)	DE
3	1	09-17589	Throat Plastic Assembly	DE
4	1	03-14247	SBHCS M4 X 12mm	DE
5	1	09-17599	Needle Light Assembly	DE
6	2	03-14003	SBHCS M3 X 8mm	DE

Bed Plastic

To remove bed plastic, first remove power supply cover and bottom plastic.



Little

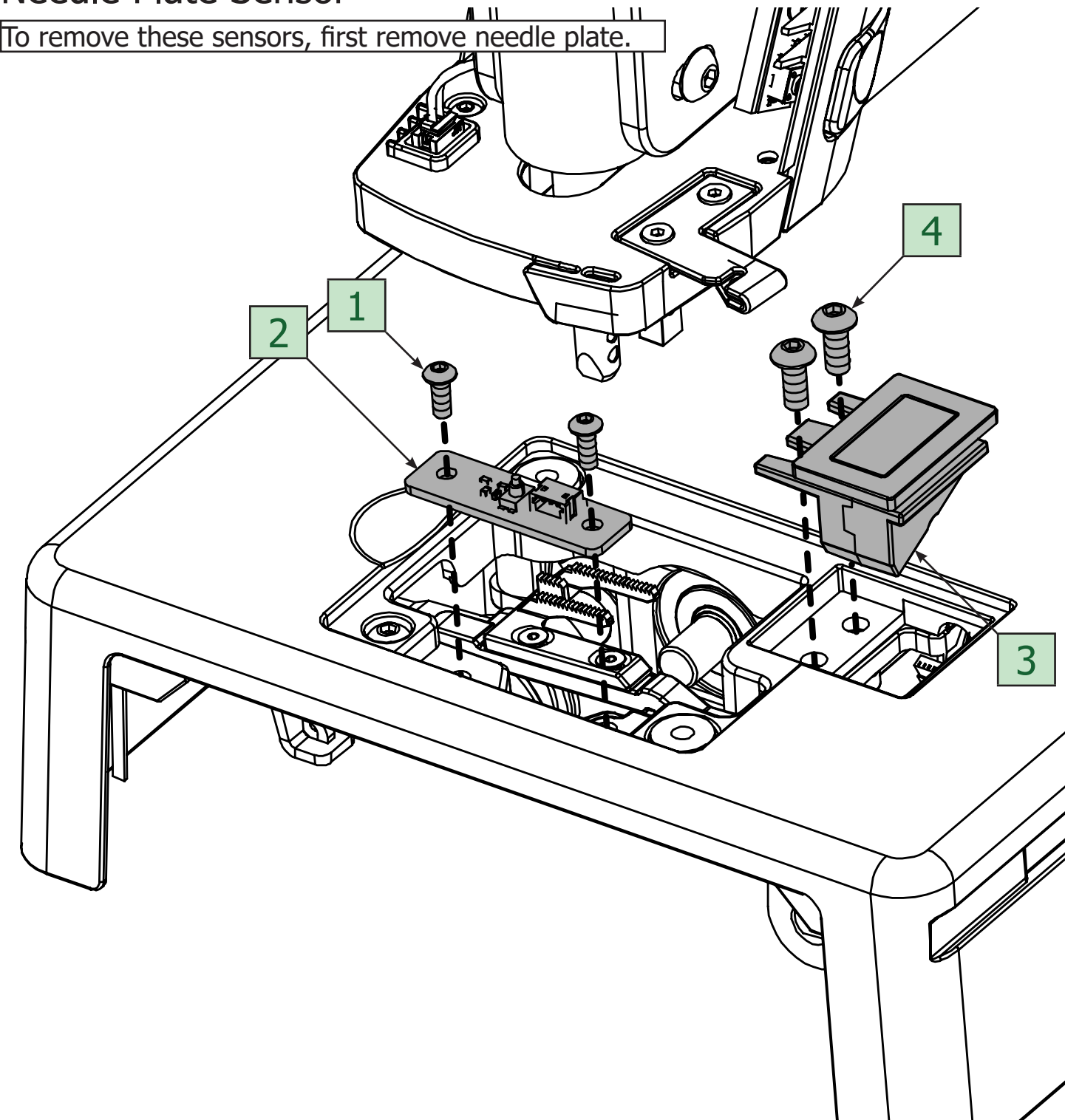
Item	QTY	Part #	Description	Serviceability
1	1	05-17610	Bed Plastic	DE
2	1	03-10012	SBHCS M4 X 10mm	CU
6	2	03-17614	Socket FHS M4 X 18mm (Flat Head Screw)	DE
7	1	03-12712	Socket FHS M4 X 8mm (Flat Head Screw)	DE
8	4	03-10175	SBHCS M4 X 8mm	DE

Electronics

Fabric Sensor

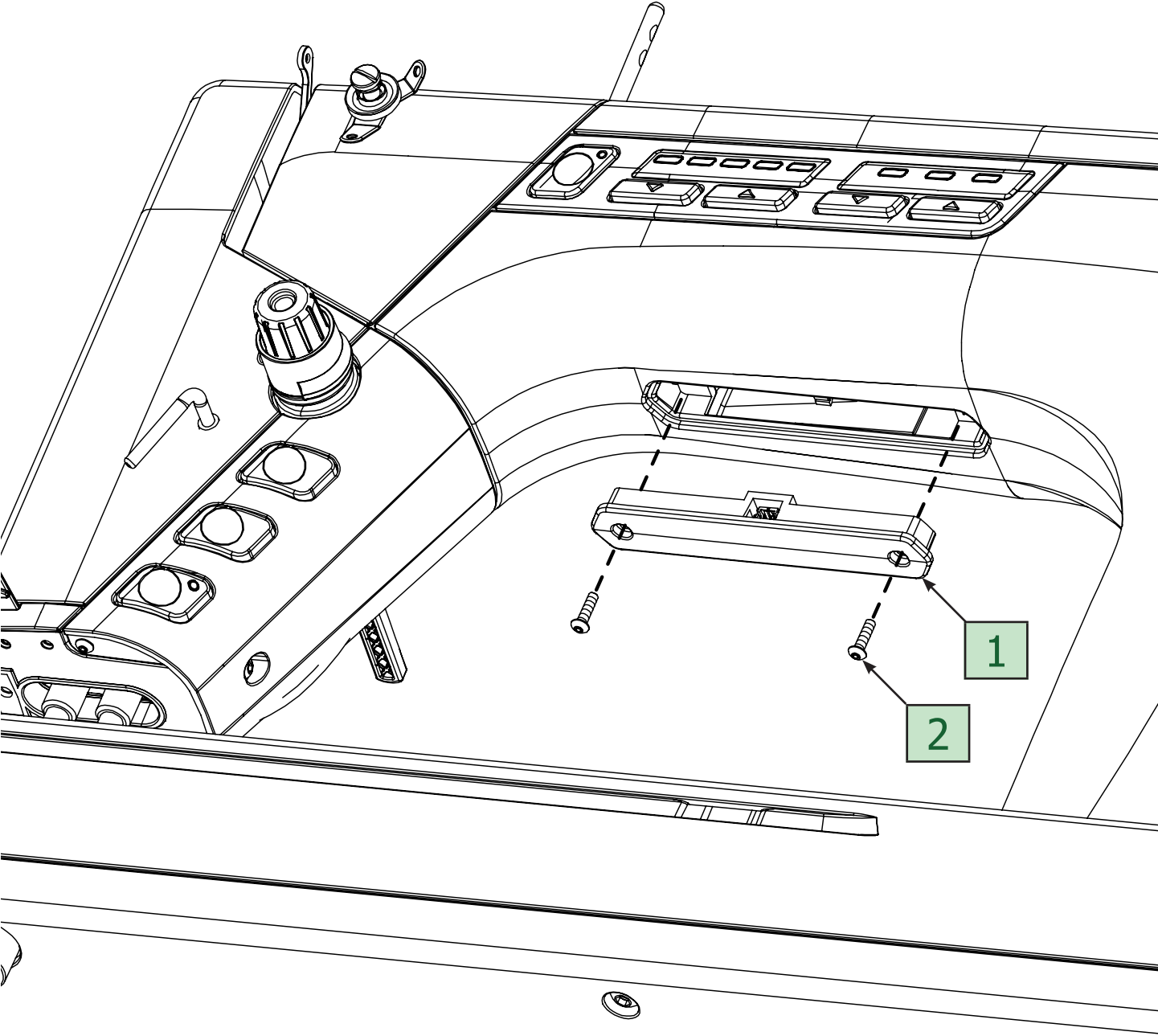
Needle Plate Sensor

To remove these sensors, first remove needle plate.



Item	QTY	Part #	Description	Serviceability
1	2	03-14003	SBHCS M3 X 8mm	CU
2	1	02-17613	Needle Plate Sensor Board	CU
3	1	09-18464	Fabric Sensor Assembly v2	CU
4	2	03-10012	SBHCS M4 X 10mm	CU

Throat Lights

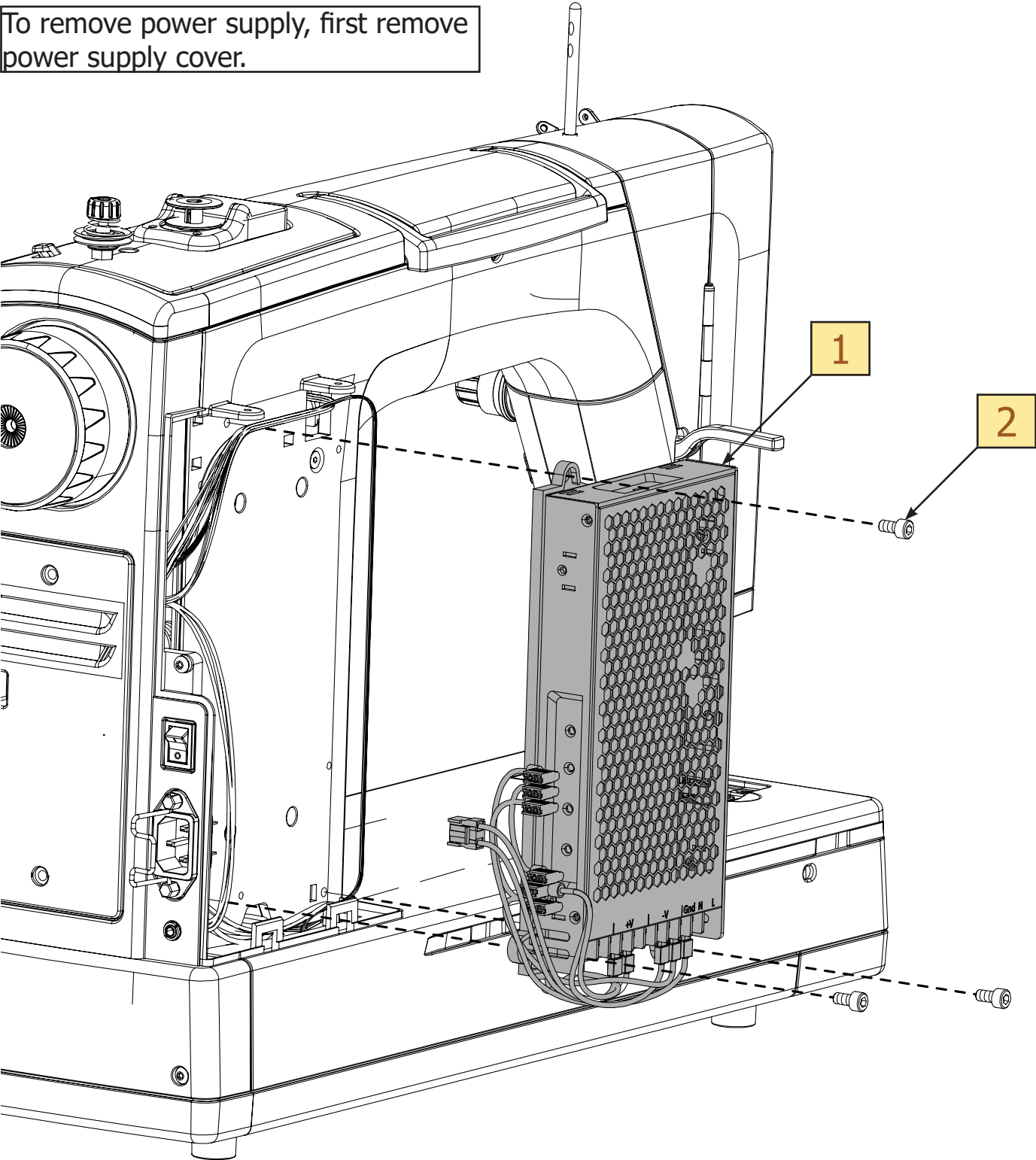


Item	QTY	Part #	Description	Serviceability
1	1	09-17584	Throat Light Assembly	CU
2	2	03-11192	SBHCS M3 X 12mm	CU

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Power Supply

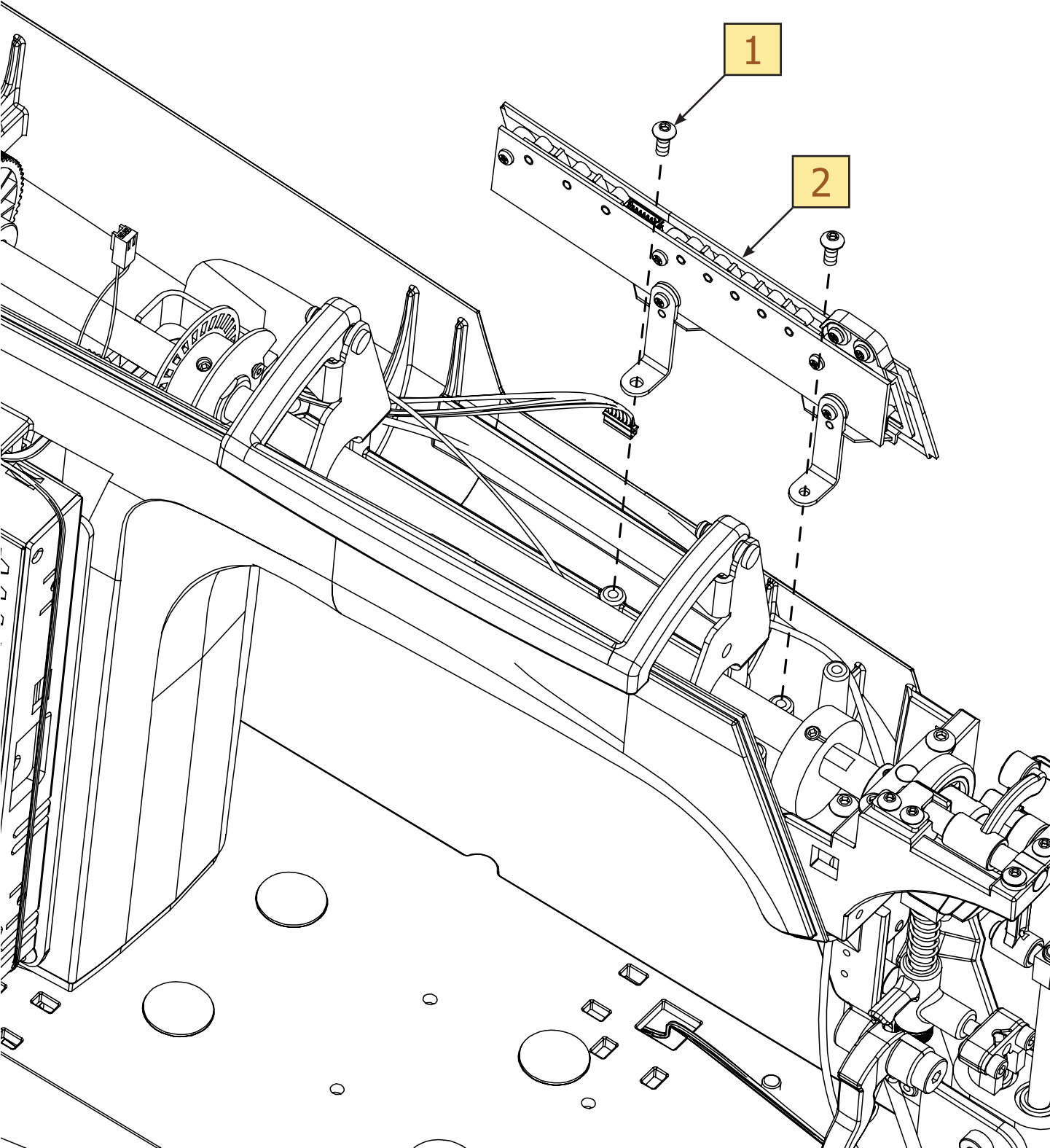
To remove power supply, first remove power supply cover.



Item	QTY	Part #	Description	Serviceability
1	1	09-17532	Power Supply Assembly SM13	DE
2	3	03-15031	SHCS M5 X 10mm	DE

Upper Buttons

To remove upper button assembly, first remove head plastic, front plastic, and top plastic.

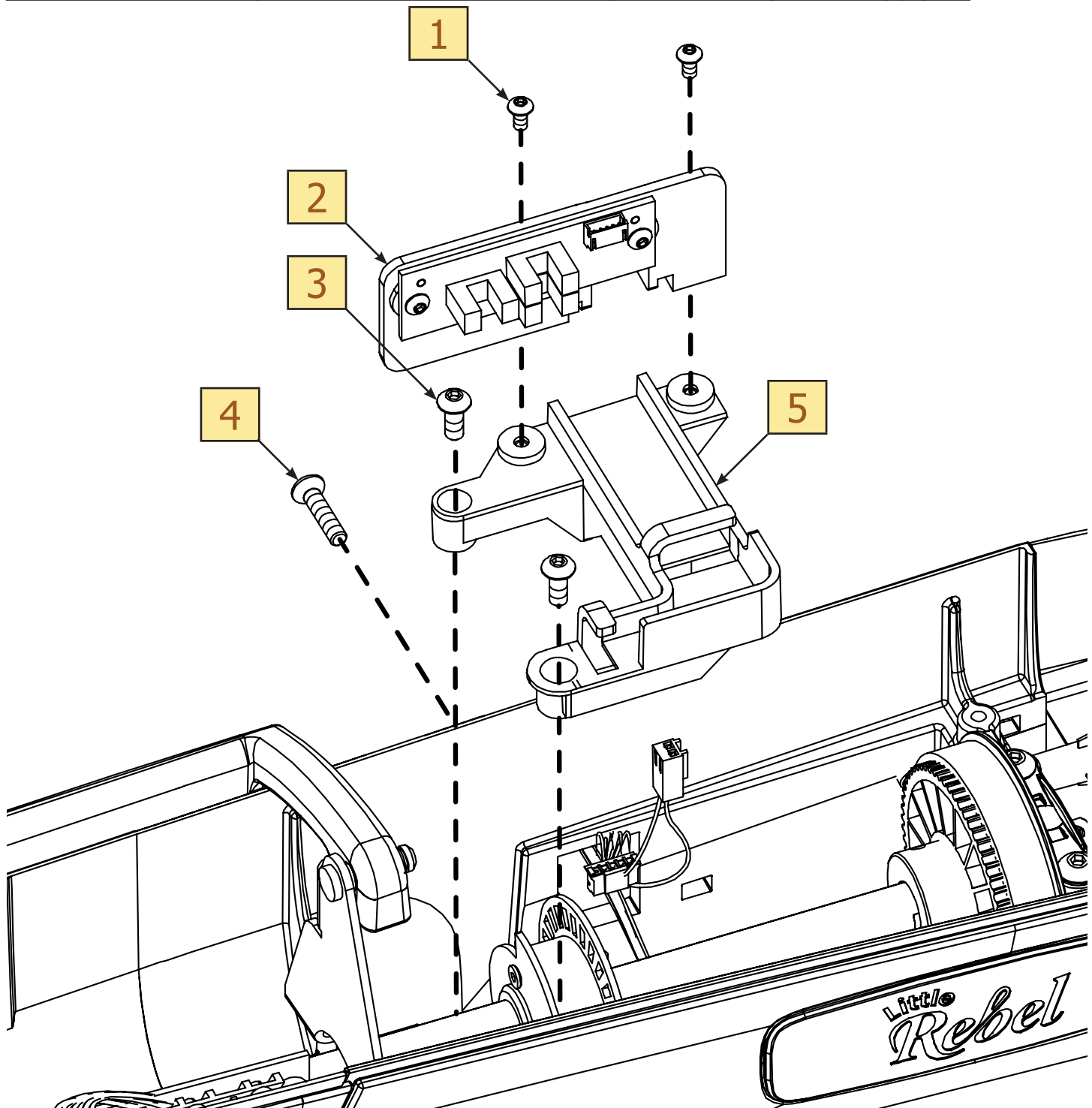


Item	QTY	Part #	Description	Serviceability
1	1	09-17566	Upper Buttons Assembly	DE
2	2	03-10012	SBHCS M4 X 10mm	DE

Speed Sensor Board and Cable Tray

To remove speed sensor board, first remove head plastic, front plastic, and top plastic.

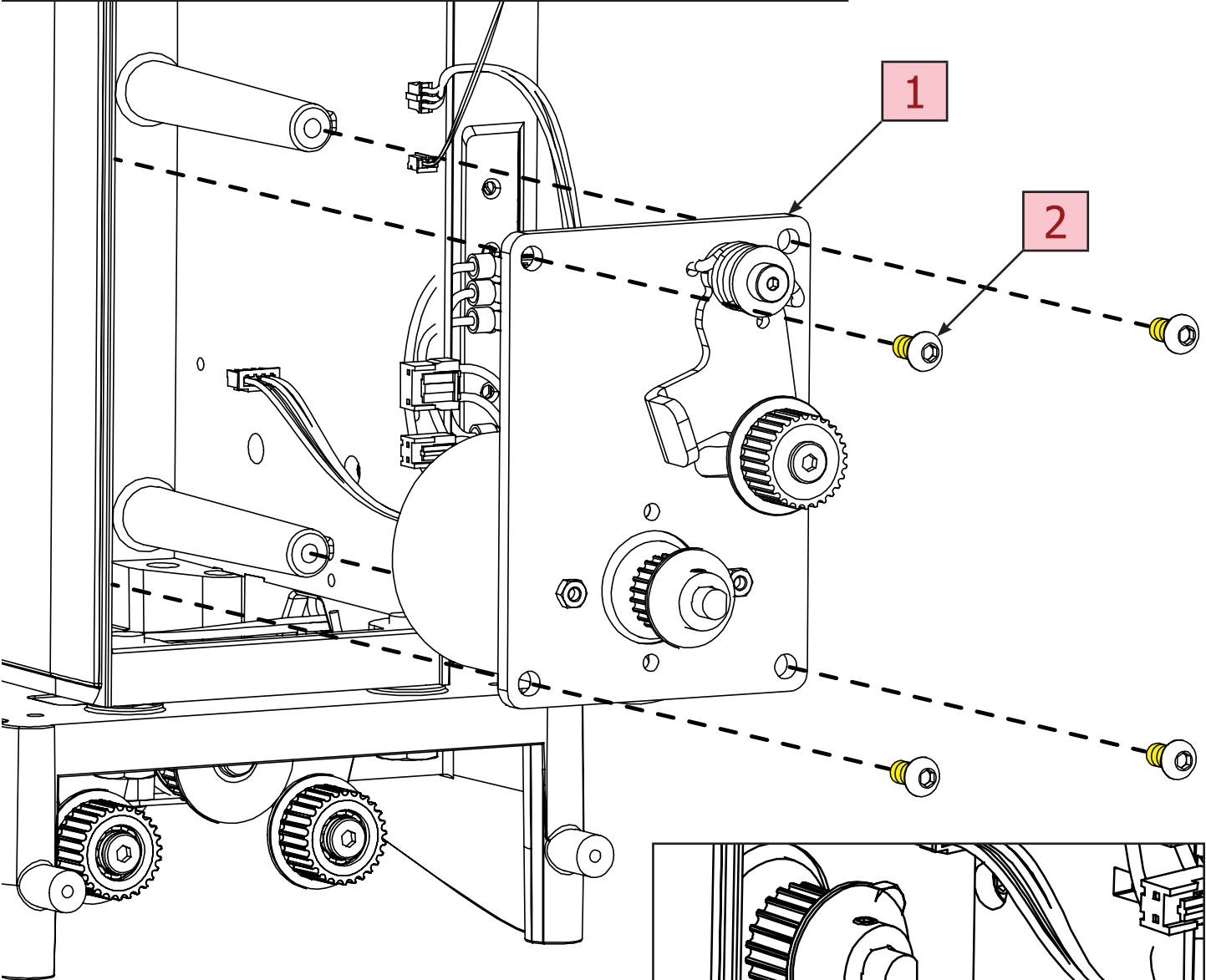
To remove cable tray, first remove all above components and power supply.



Item	QTY	Part #	Description	Serviceability
1	2	03-10177	SBHCS M3 X 6mm	DE
2	1	09-17543	Speed Sensor Board Assembly	DE
3	2	03-10012	SBHCS M4 X 10mm	DE
4	1	03-17614	Socket FHS M4 X 18mm (Flat Head Screw)	DE
5	1	05-17529	Upper Cable Tray	DE

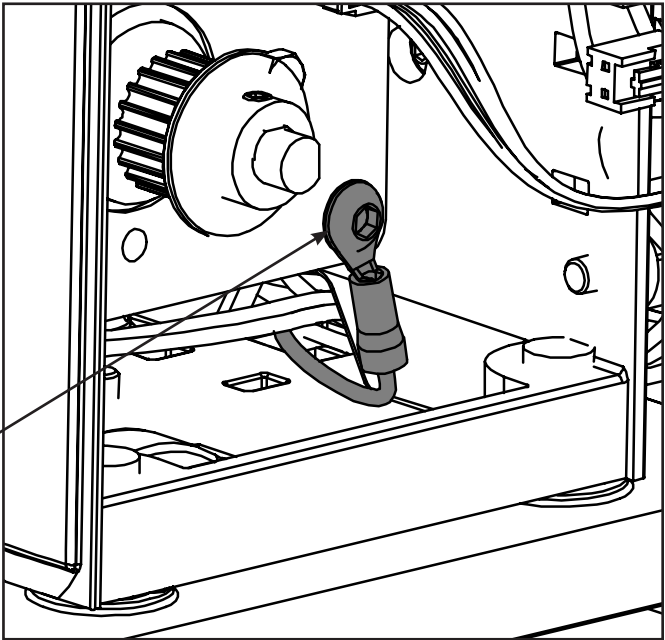
Motor Plate Assembly

To remove motor plate assembly, first remove handwheel, back plastic, and belt.



Note: Attach the ground cable to the motor plate.

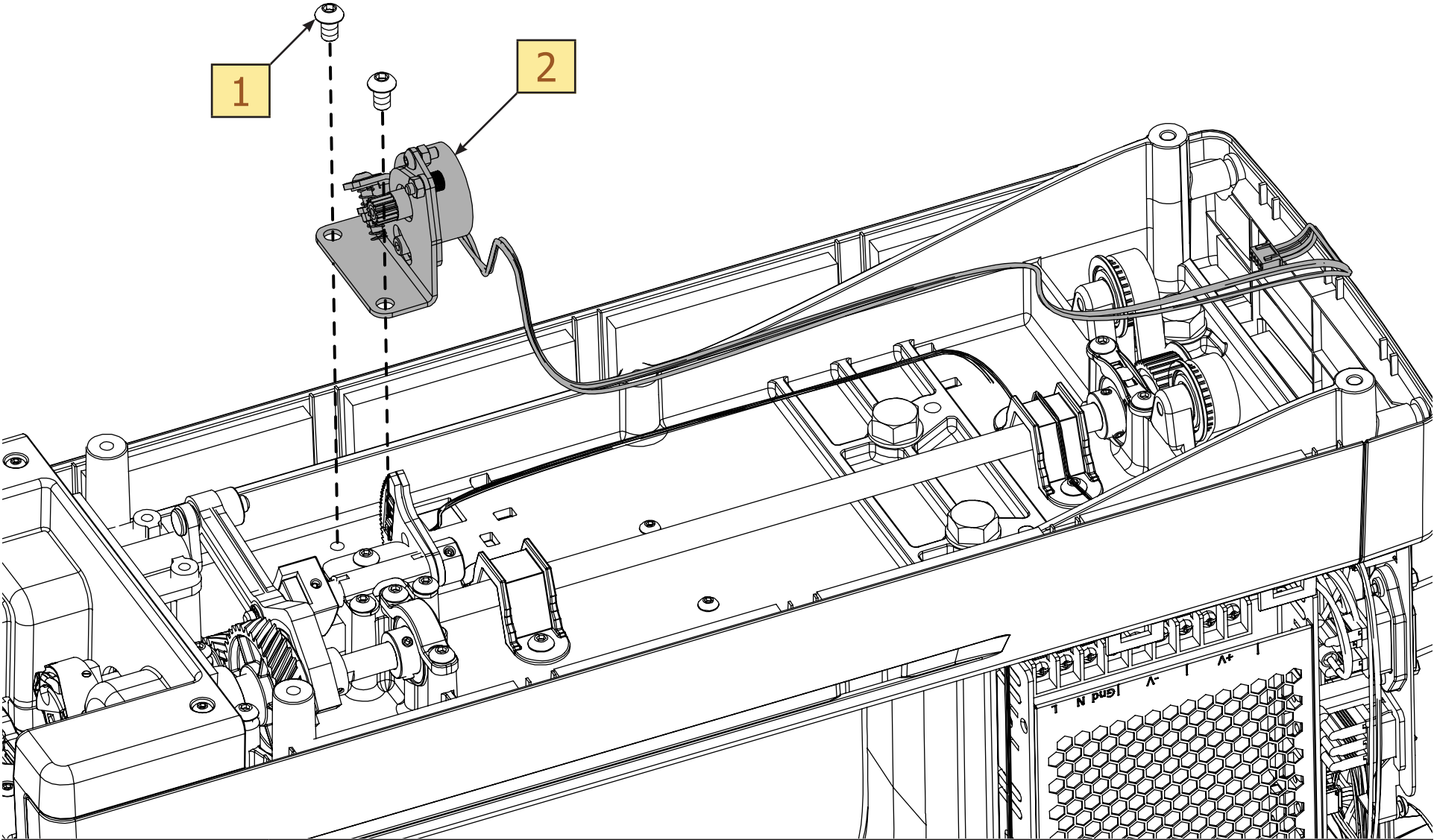
Note: Add blue loctite to screws.



Item	QTY	Part #	Description	Serviceability
1	1	09-17536	Motor Plate Assembly SM13	DE
2	4	03-10974	SBHCS M6 X 16mm	DE

Stepper Motor

To remove stepper motor, first remove bottom plastic, power supply cover, and main board cover.



Item	QTY	Part #	Description	Serviceability
1	2	03-10124	SBHCS M6 X 10mm	DE
2	1	09-17508	Stepper Motor Assembly	DE

Main Board (see Back Plastic on pg. 17)

Needle Light Board (see Throat Plastic on pg. 18)

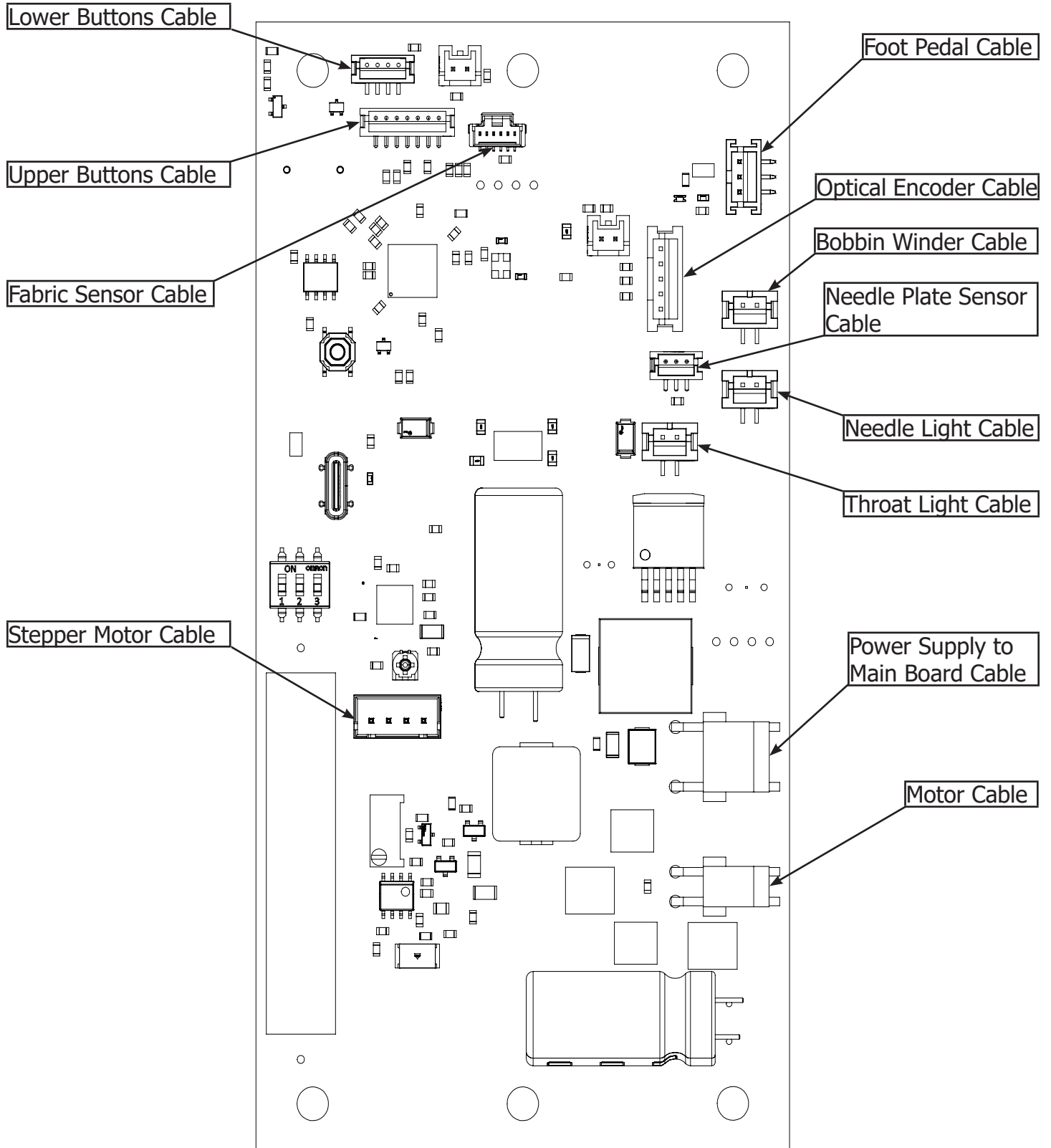
Lower Buttons (see Throat Plastic on pg. 18)

Bobbin Winder (see Top Plastic on pg. 15)

Foot Pedal Board (see Back Plastic on pg. 17)

Cables

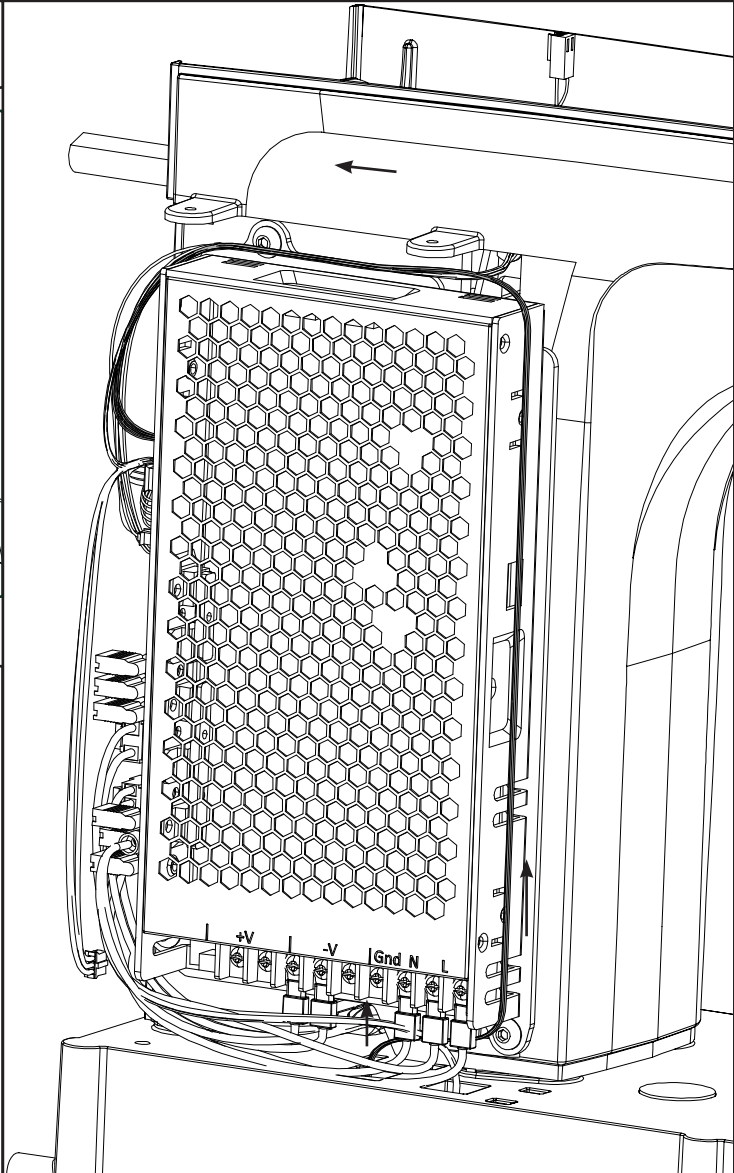
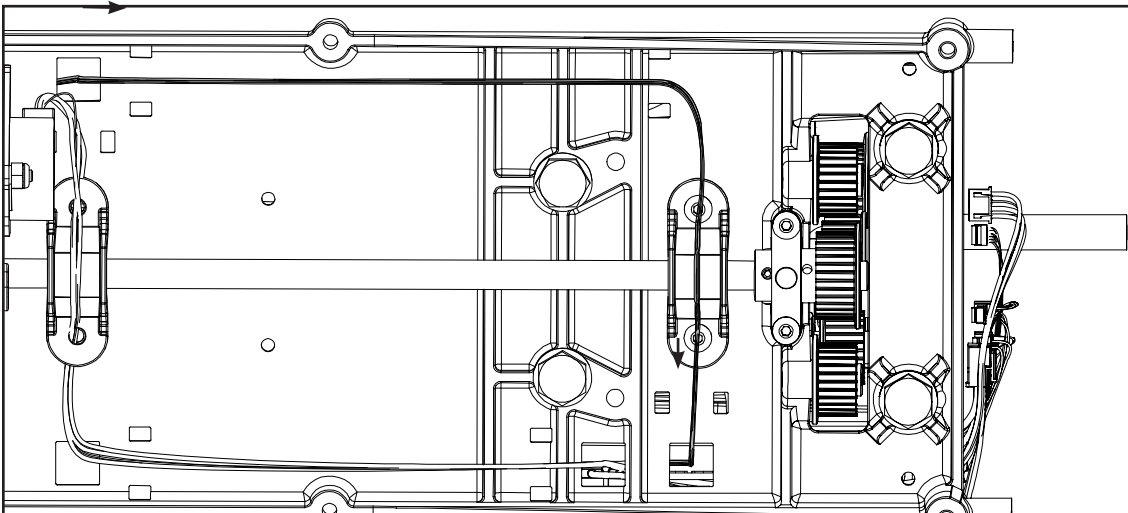
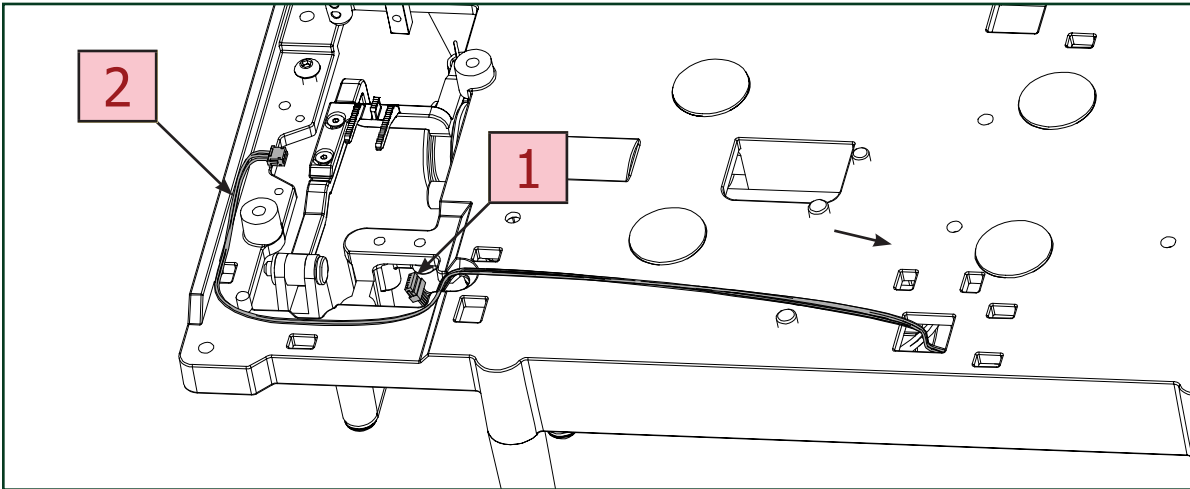
Main Board Diagram SM13



Fabric Sensor Cable

Needle Plate Sensor Cable

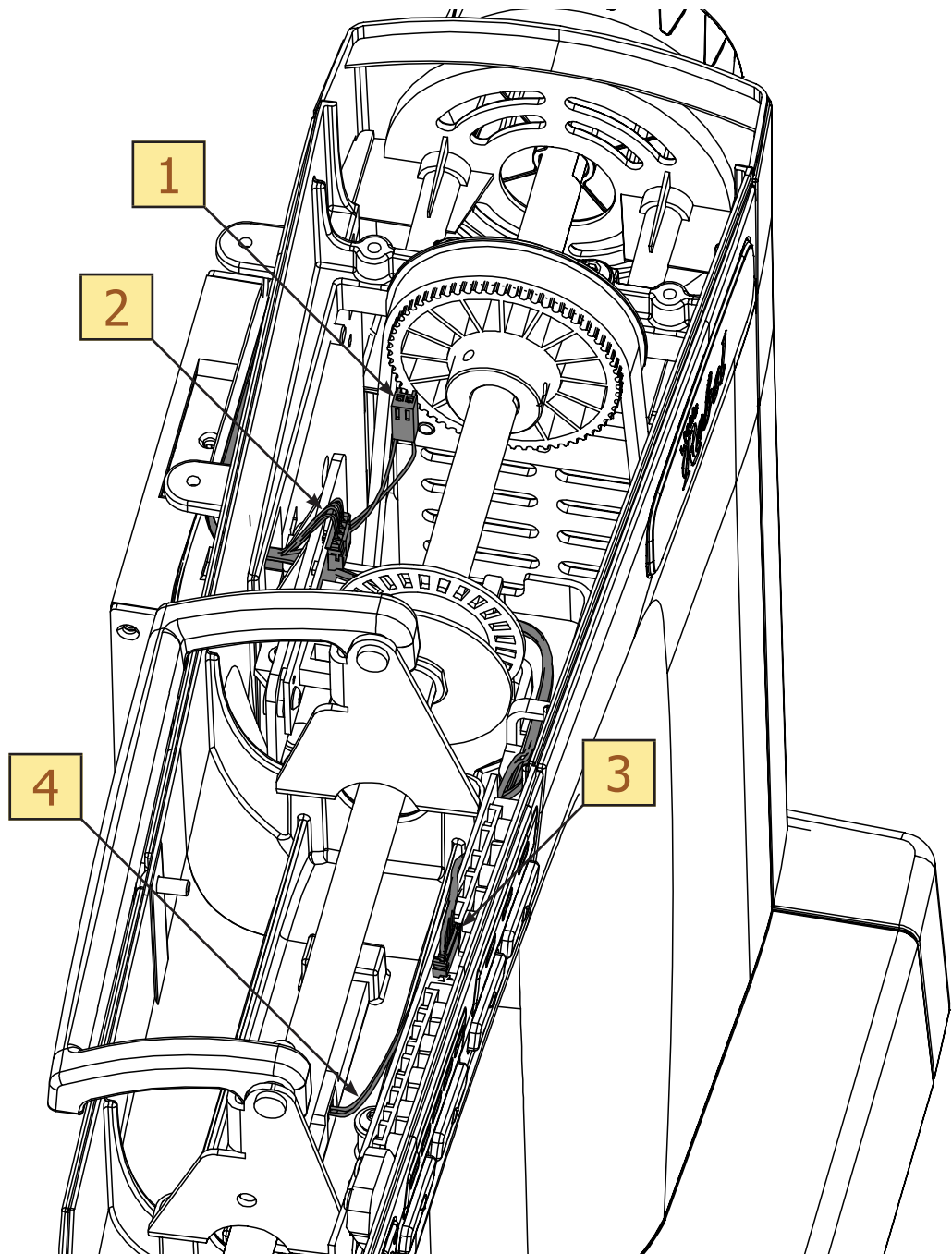
To remove these cables, first remove bottom plastic, hook assembly plastic, bed plastic, power supply cover, and main board cover.



Item	QTY	Part #	Description	Serviceability
1	1	02-17525	Fabric Sensor Cable	DI
2	1	02-17526	Needle Plate Sensor Cable	DI

Bobbin Winder Cable
Optical Encoder Cable
Upper Buttons Cable
Throat Lights Cable

To remove cables, first remove head plastic, front plastic, top plastic, power supply cover, and main board cover.

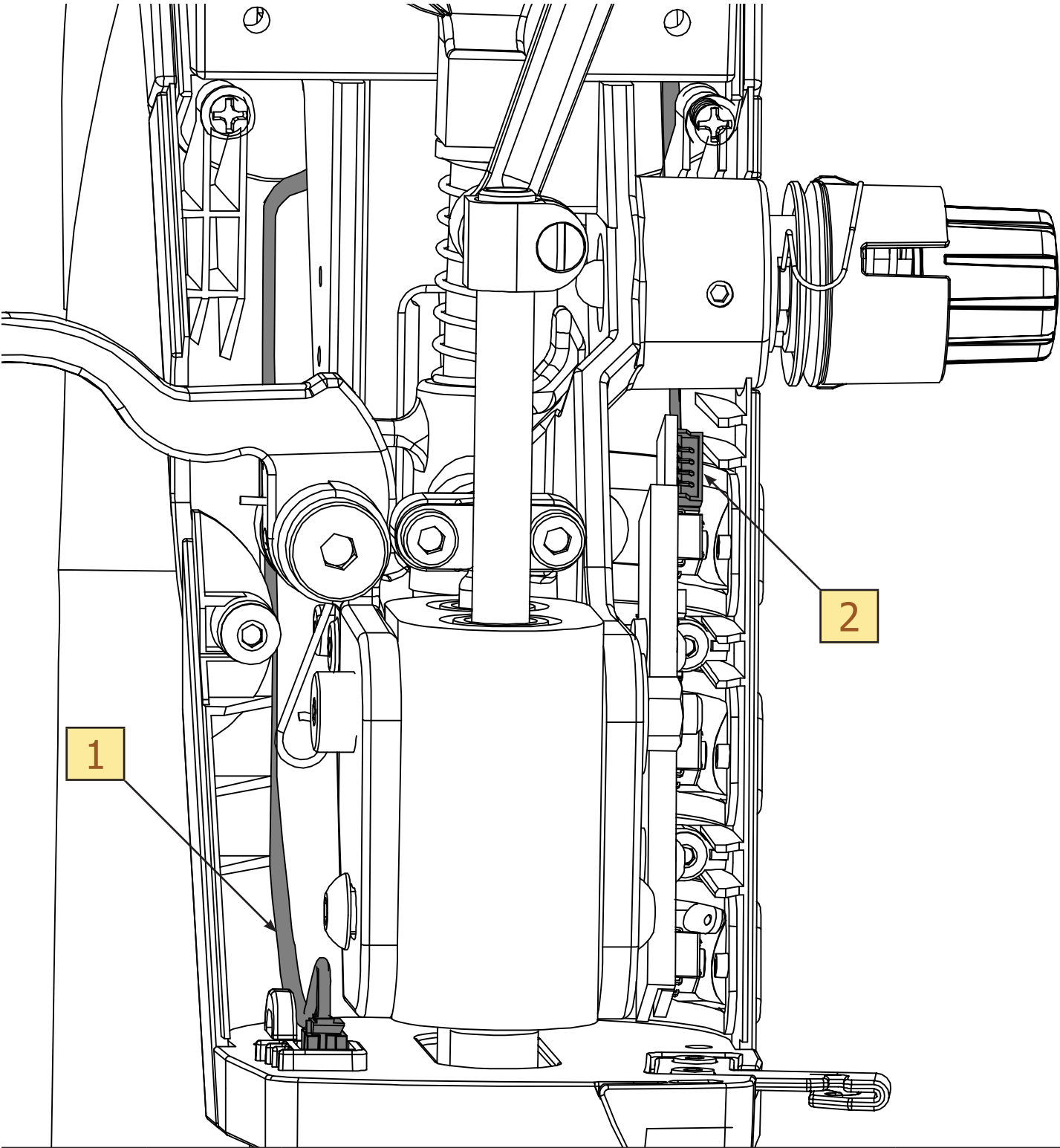


Item	QTY	Part #	Description	Serviceability
1	1	02-17625	Bobbin Winder Cable	DE
2	1	02-17547	Optical Encoder Cable	DE
3	1	02-17581	Upper Buttons Cable	DE
4	1	02-17580	Throat Light Cable	DE

Needle Light Cable

Lower Buttons Cable

To remove cables, first remove head plastic, front plastic, throat plastic, top plastic, power supply cover, and main board cover.



Item	QTY	Part #	Description	Serviceability
1	1	02-17625	Needle Light Cable	DE
2	1	02-17547	Lower Buttons Cable	DE

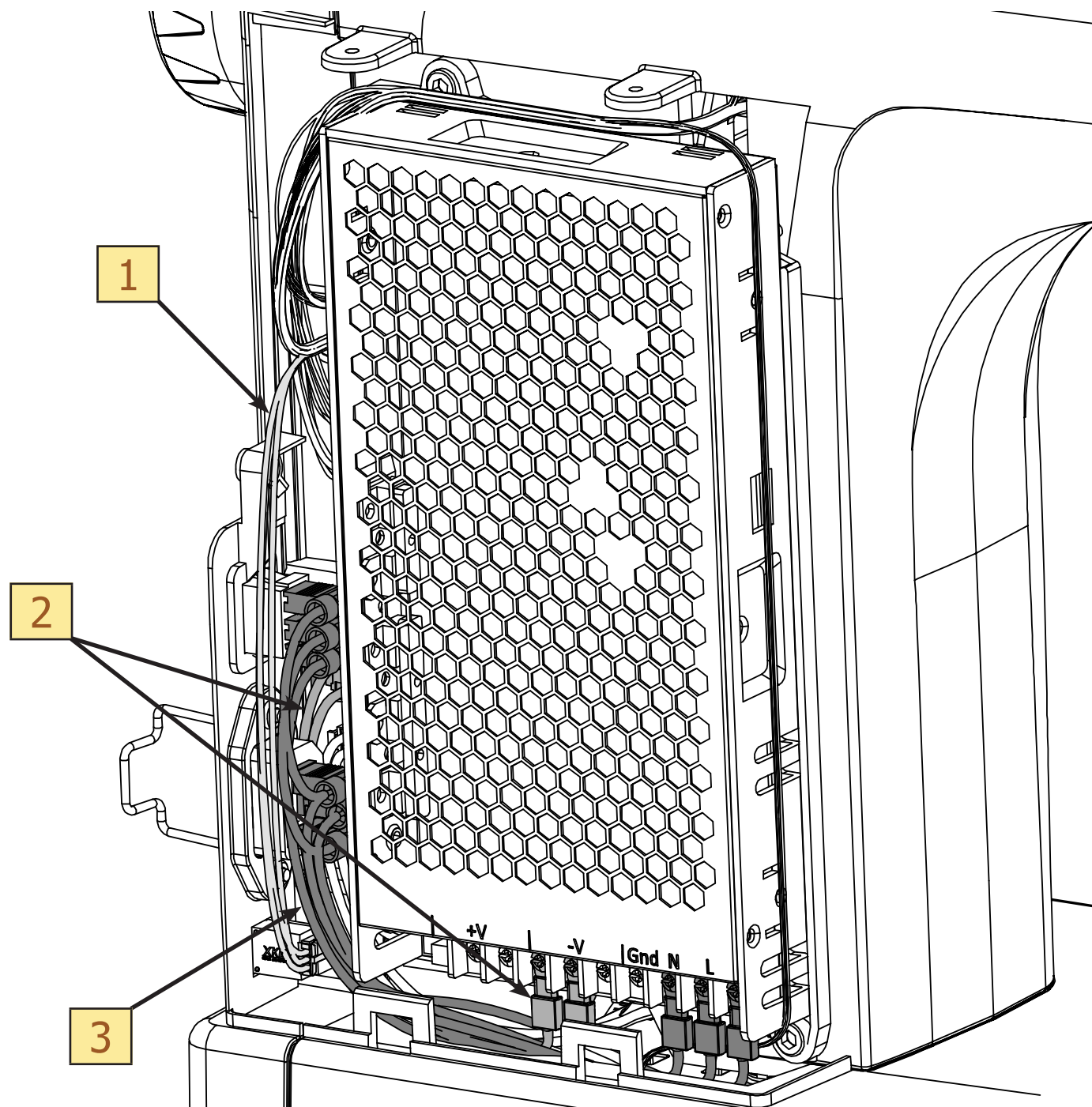
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Power Cord to Power Supply Cable

Power Supply to Main Board Cable

Foot Pedal Board Cable

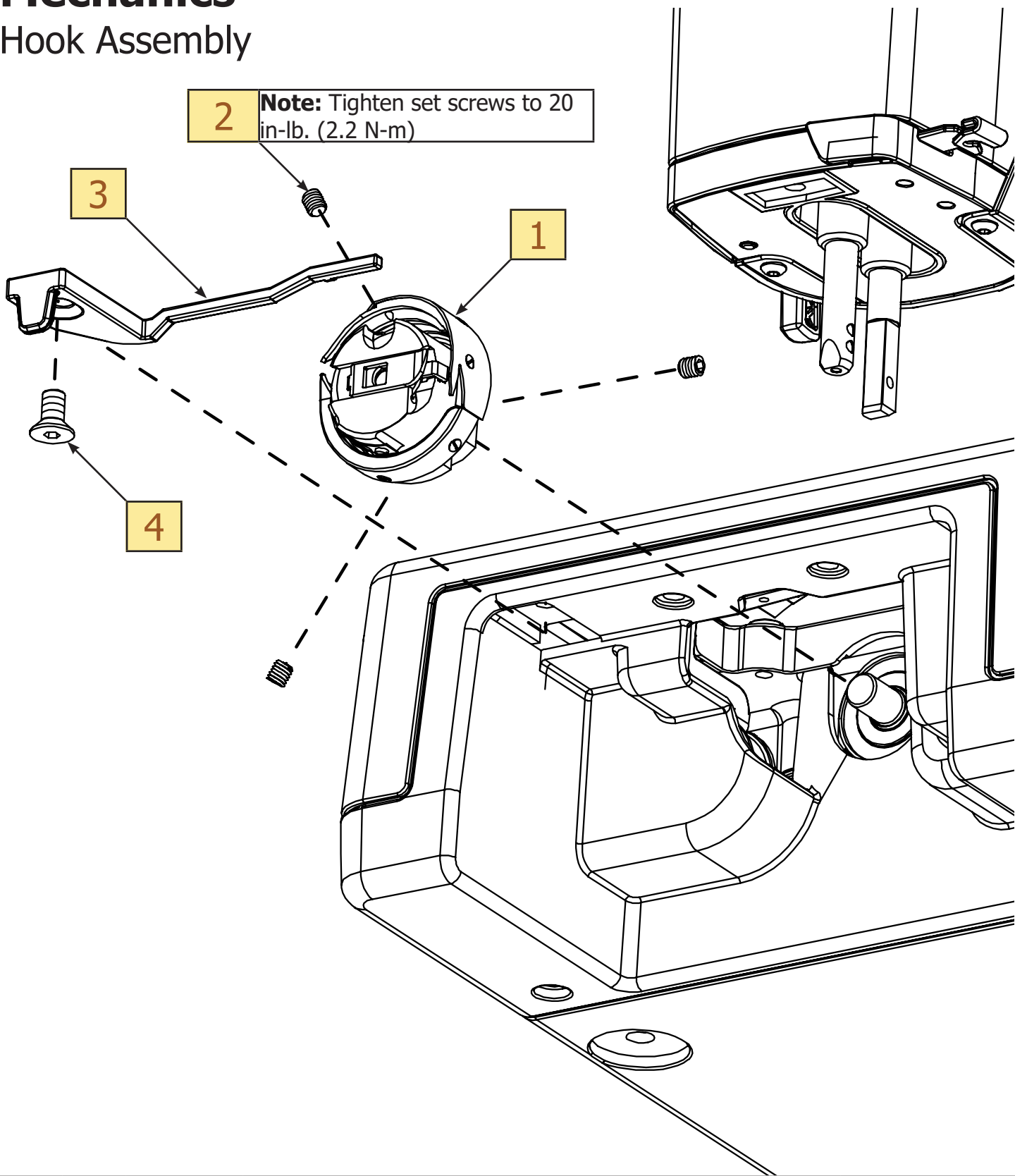
To remove cables, first remove power supply cover and main board cover.



Item	QTY	Part #	Description	Serviceability
1	1	02-17535	Power Supply to Main Board Cable	DE
2	1	02-17535	Power Supply to Main Board Cable	DE
3	1	02-17534	Power Cord to Power Supply Cable	DE

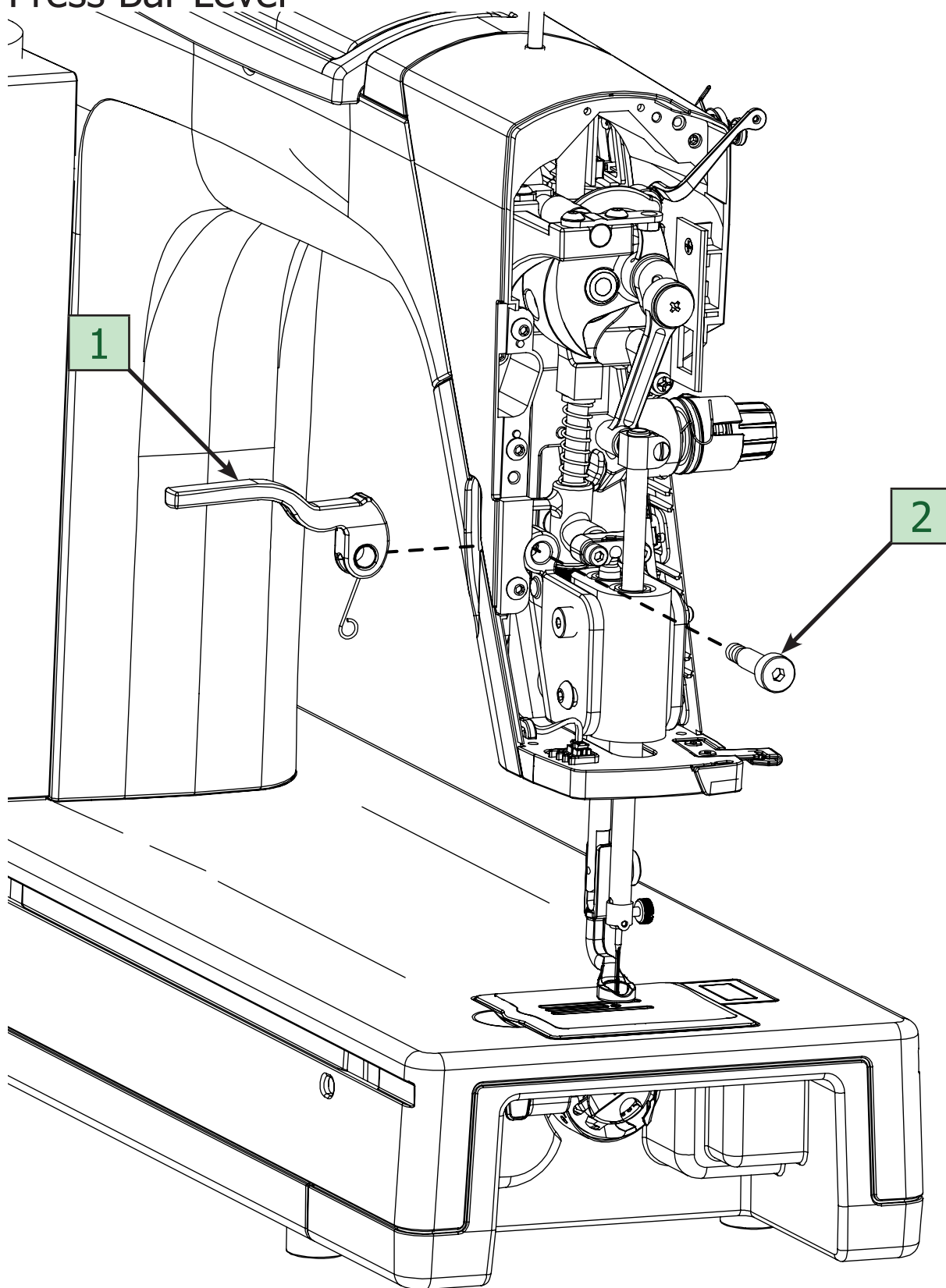
Mechanics

Hook Assembly



Item	QTY	Part #	Description	Serviceability
1	1	09-13574	Hook Assembly	DE
2	3	03-10077	Hook Assembly Set Screw	DE
3	1	04-17659	Hook Holder SM13	DE
4	1	03-11740	Socket FHS M5 X 10mm (Flat Head Screw	DE

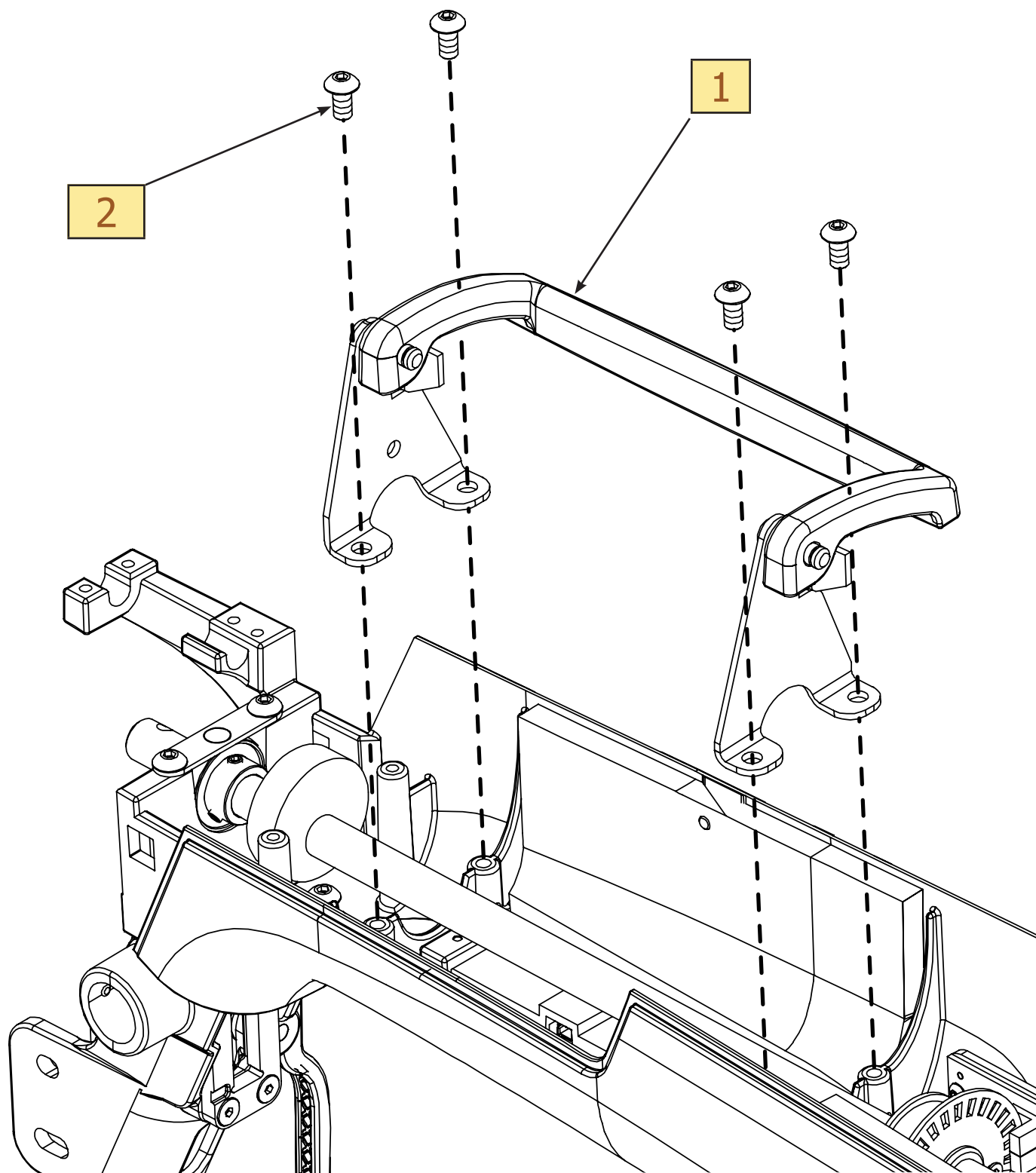
Press Bar Lever



Item	QTY	Part #	Description	Serviceability
1	1	05-18433	Press Bar Lever	CU
2	1	03-17047	Shoulder Bolt 8 X 20mm, M6	CU

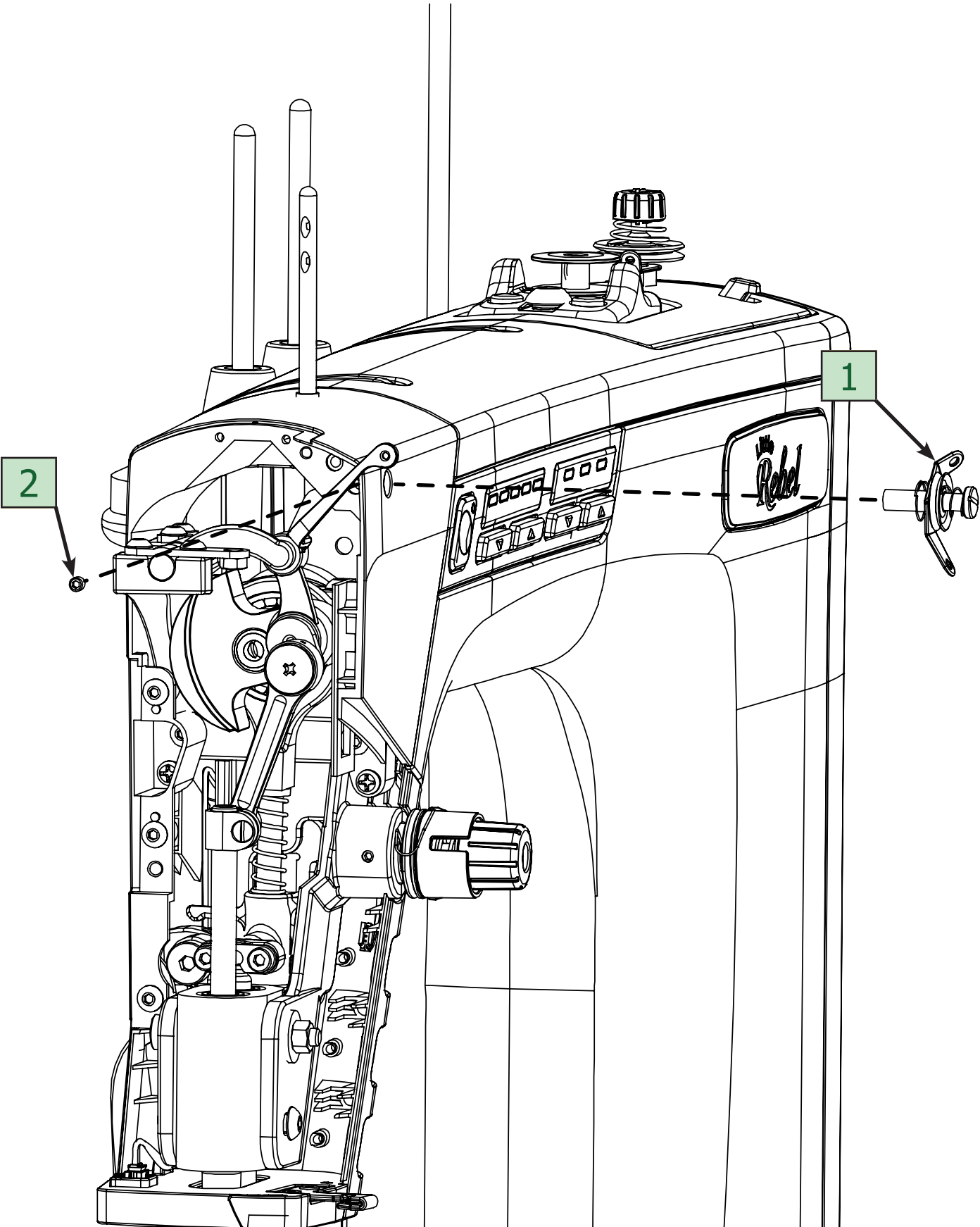
Carry Handle

To remove carry handle, first remove head plastic, front plastic, and top plastic.



Item	QTY	Part #	Description	Serviceability
1	1	09-17562	Carry Handle Assembly	DE
2	4	03-10073	SBHCS M5 X 10mm	DE

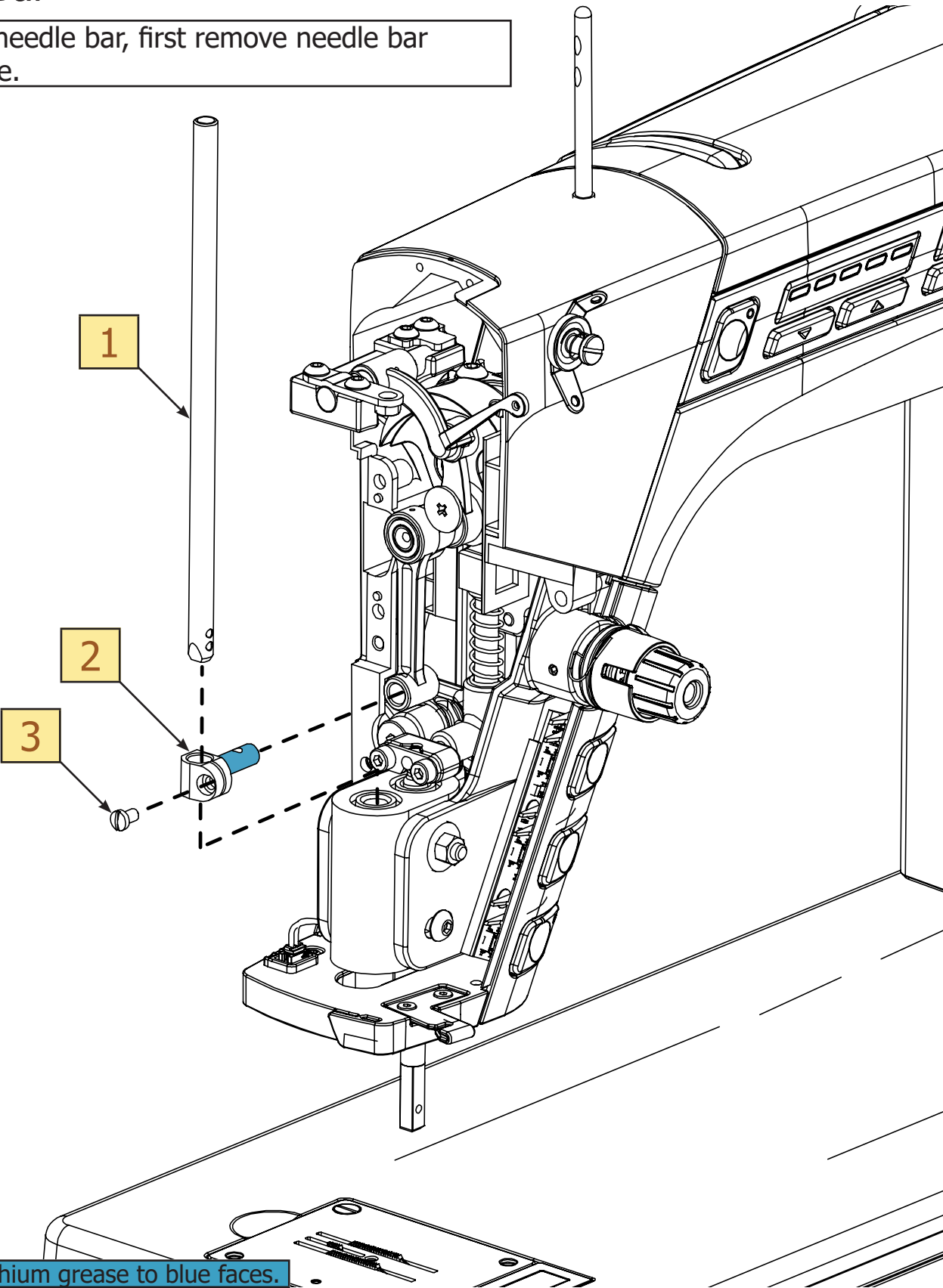
Little Thread Tensioner



Item	QTY	Part #	Description	Serviceability
1	1	08-10015	Little Thread Tension Assembly	CU
2	1	03-10016	Socket CSS M4 X 4mm	CU

Needle Bar

To remove needle bar, first remove needle bar thread guide.

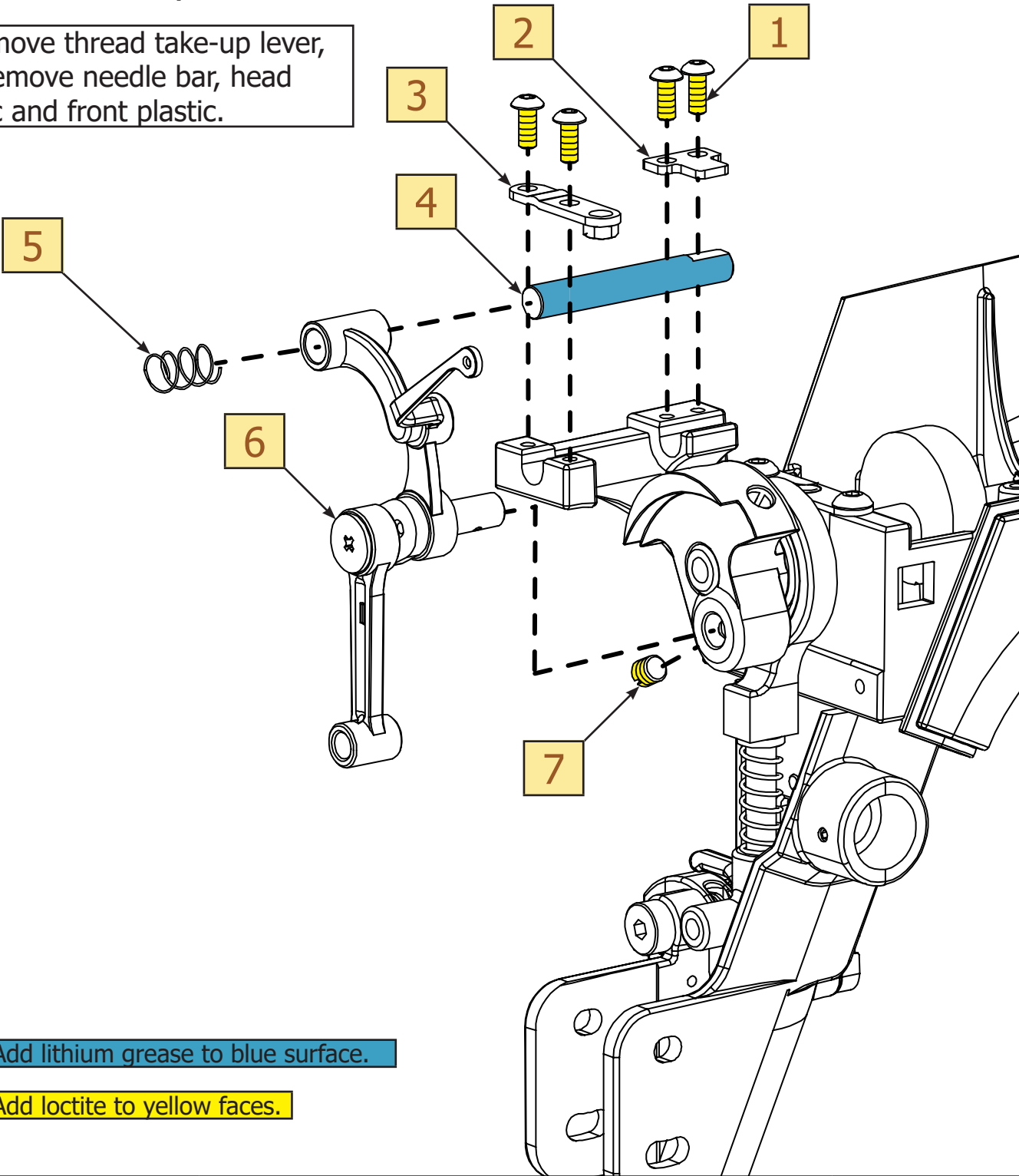


Note: Add lithium grease to blue faces.

Item	QTY	Part #	Description	Serviceability
1	1	04-17503	Needle Bar 170mm	DE
2	1	04-10054	Needle Rod Holder	DE
3	1	03-10055	Slotted Fillister Head Screw M3.56 X 6mm	DE

Thread Take-up Lever

To remove thread take-up lever, first remove needle bar, head plastic and front plastic.



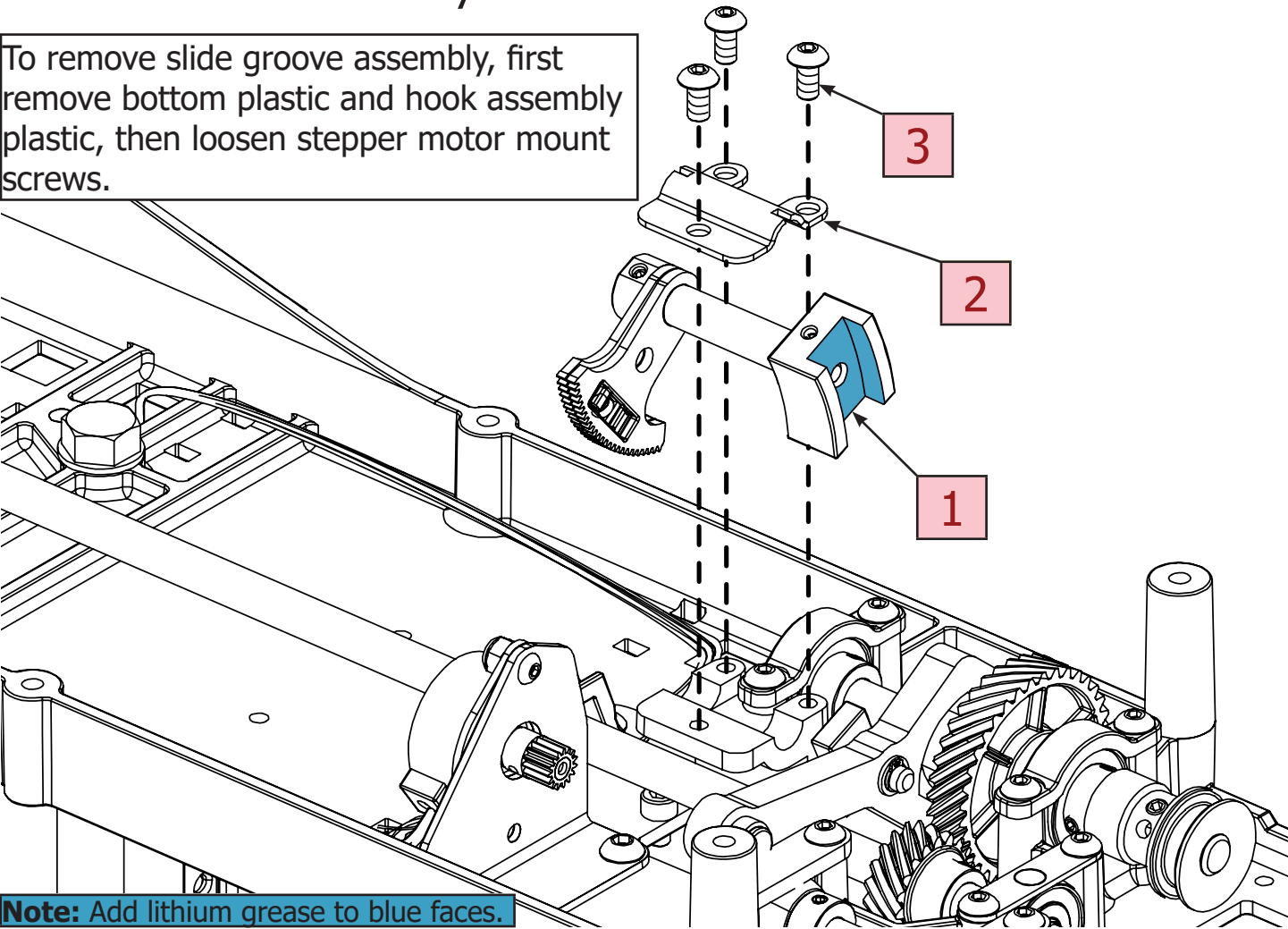
Note: Add lithium grease to blue surface.

Note: Add loctite to yellow faces.

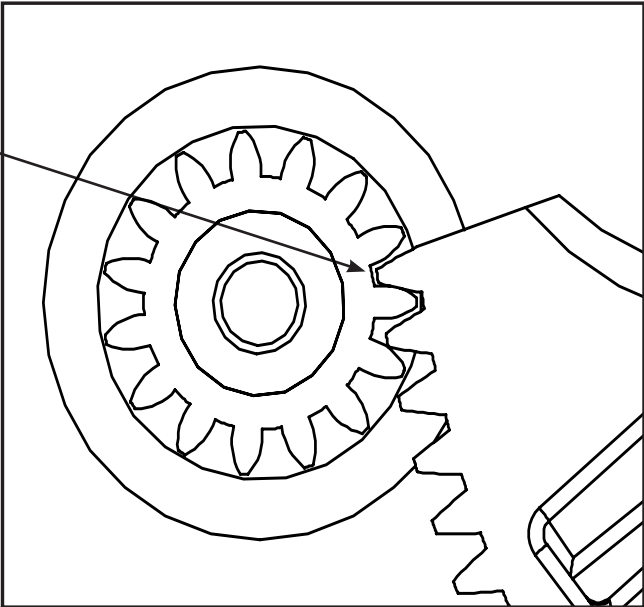
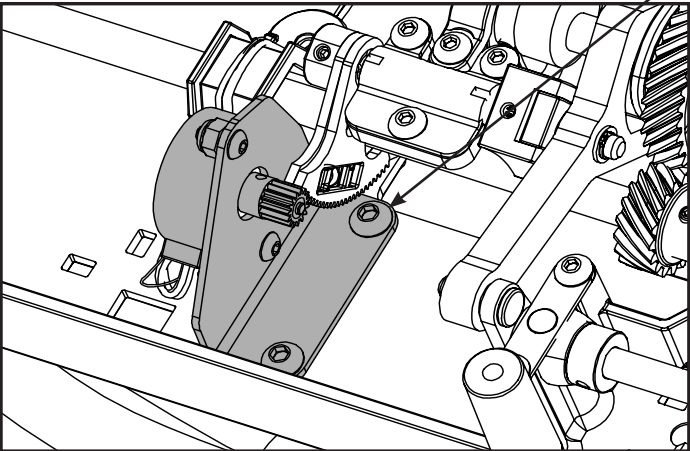
Item	QTY	Part #	Description	Serviceability
1	4	03-10012	SBHCS M4 X 10mm	DE
2	1	04-11713	Thread Take-up Lever Clamp Right	DE
3	1	04-12131	Front Take-up Lever Clamp	DE
4	1	04-11523	Thread Take-up Crank Pin	DE
5	1	03-11463	Thread Take-up Lever Spring	DE
6	1	08-10044	Thread Take-up Lever Assembly	DE
7	1	03-10025	Slotted FSS 4-40 x .25 in (6mm) (Flat Set Screw)	DE

Slide Groove Assembly

To remove slide groove assembly, first remove bottom plastic and hook assembly plastic, then loosen stepper motor mount screws.



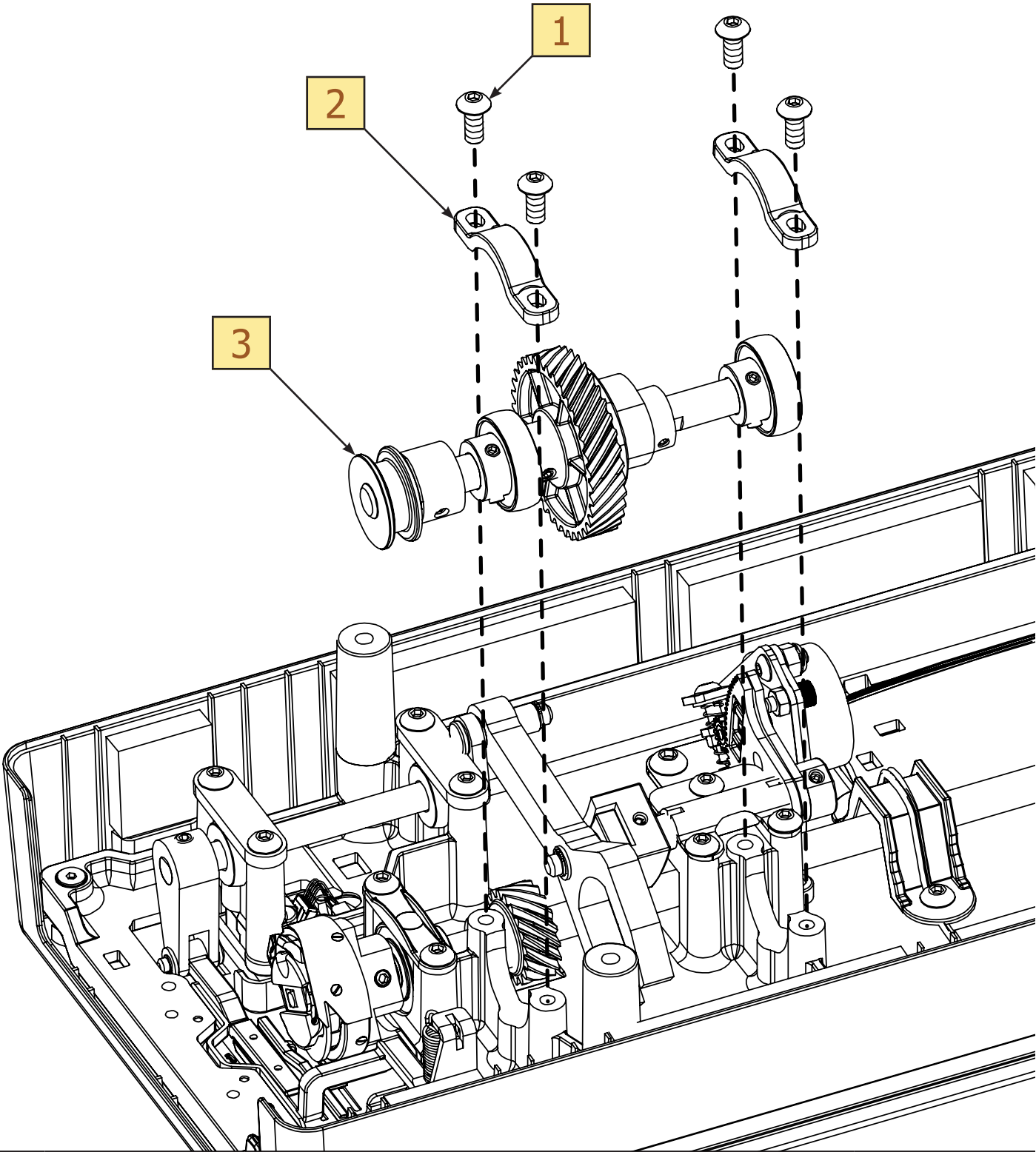
Note: Upon reassembly, allow for a small gap between the gears. Then tighten stepper motor mount screws.



Item	QTY	Part #	Description	Serviceability
1	1	09-17519	Slide Groove Assembly	DI
2	1	04-17413	Slide Groove Bushing Clamp	DI
3	3	03-10073	SBHCS M5 X 10mm	DI

Raising Feed Dog Shaft

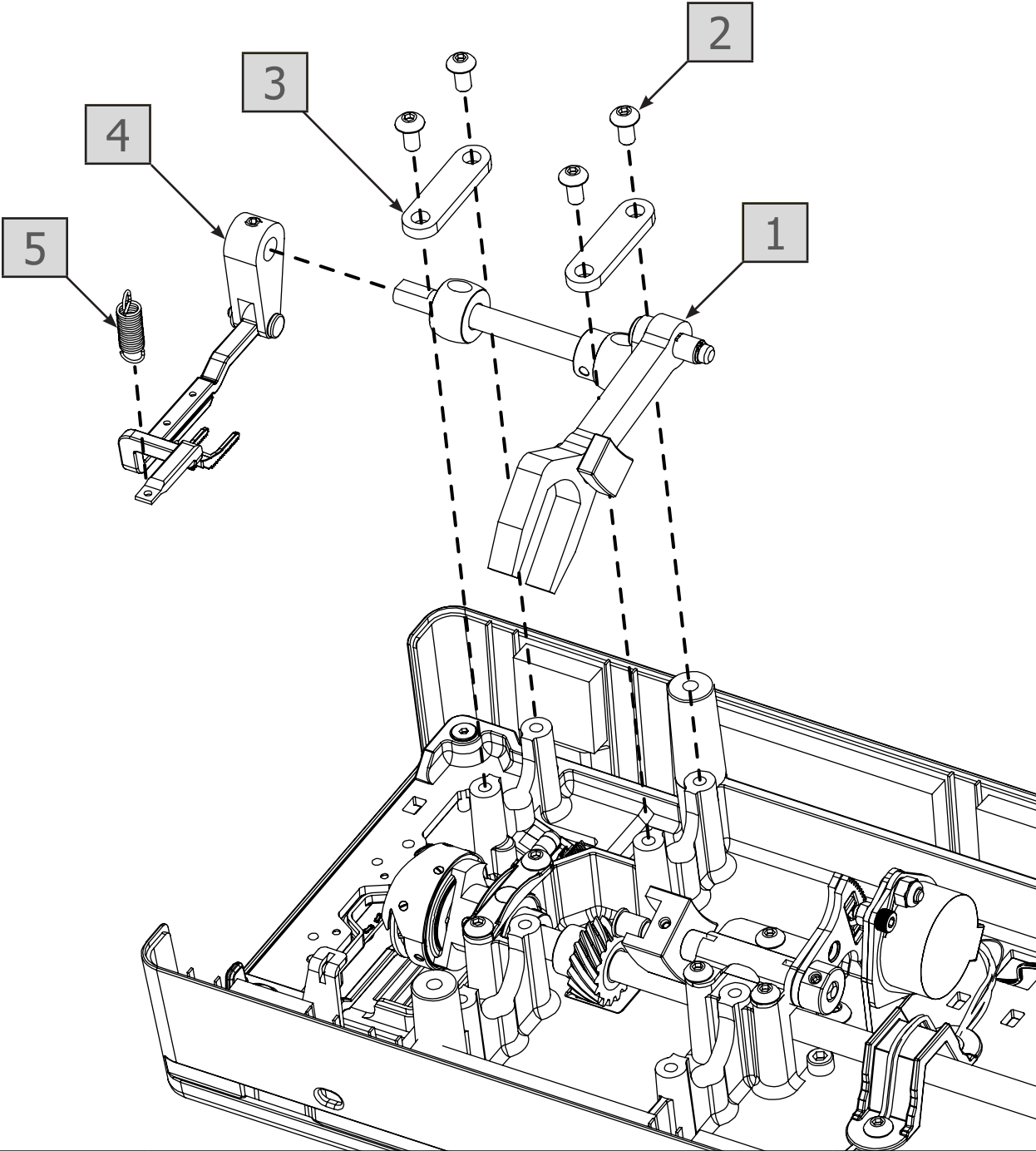
To remove raising feed dog shaft, first remove bottom plastic and hook assembly plastic.



Item	QTY	Part #	Description	Serviceability
1	4	03-10073	SBHCS M5 X 12mm	DE
2	2	03-17412	Plastic Bearing Clamp	DE
3	1	04-17818	Raising Feed Dog Shaft Assembly	DE

Advancing Feed Dog Shaft Feed Bar Assembly

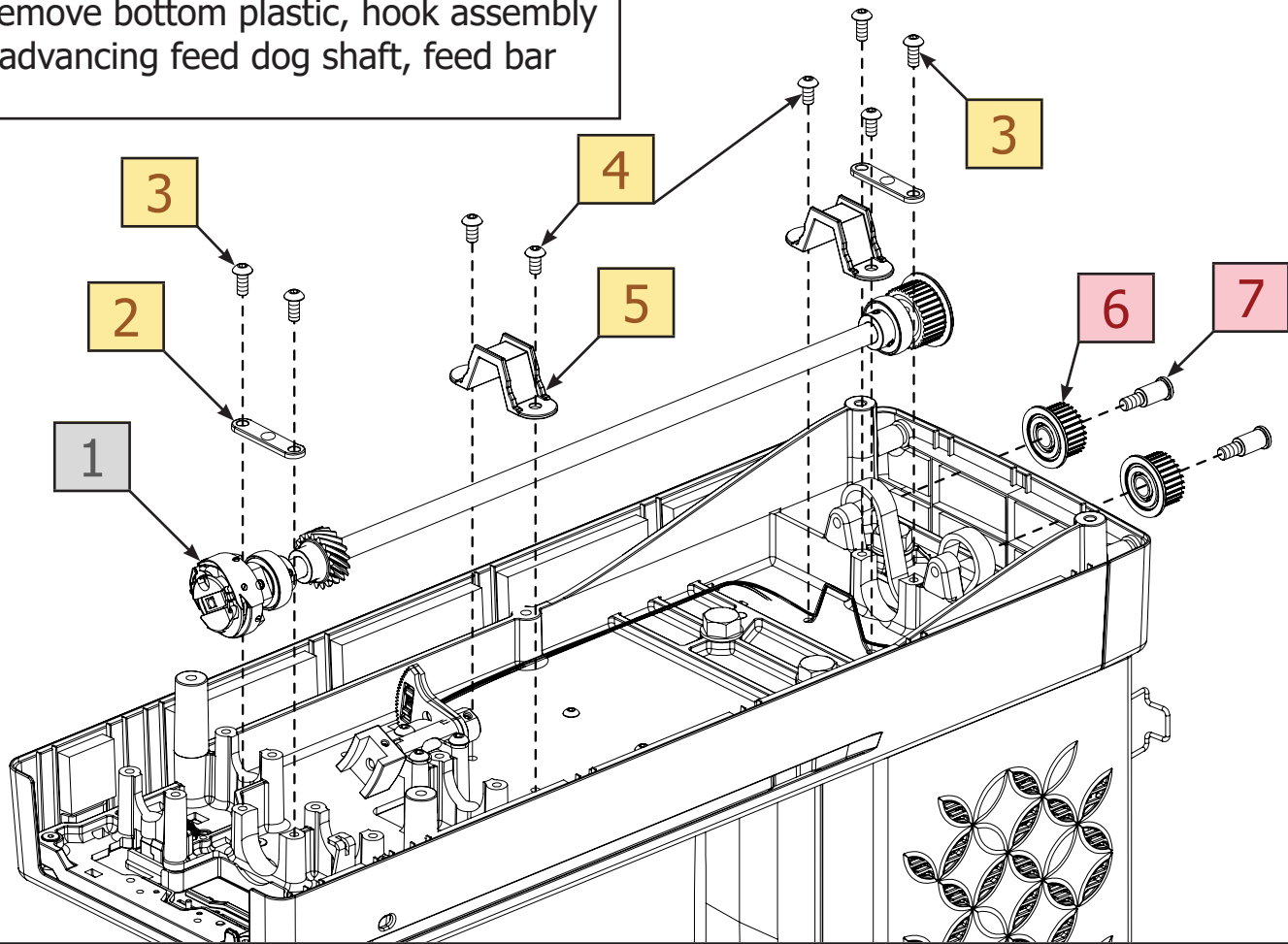
To remove feed bar and advancing feed dog shaft, first remove bottom plastic, hook assembly plastic, and raising feed dog shaft.



Item	QTY	Part #	Description	Serviceability
1	1	09-17522	Advancing Feed Dog Shaft Assembly	GR
2	2	03-10073	SBHCS M5 X 10mm	GR
3	2	05-17414	8mm Shaft Bushing Clamp	GR
4	1	09-18037	Feed Bar Assembly	GR
5	1	03-17389	Feed Dog Spring	GR

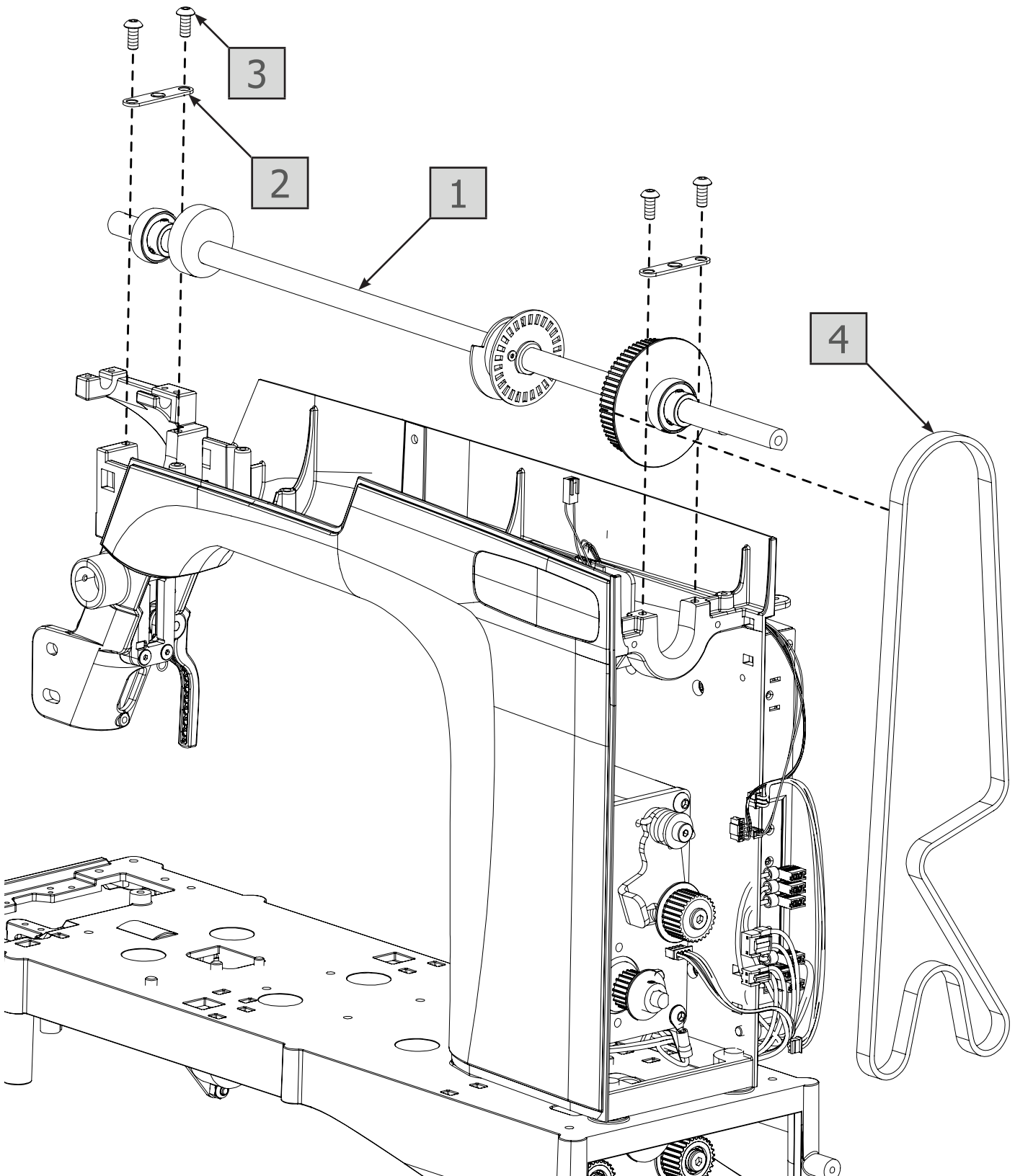
42 Bottom Shaft Assembly
Idler Pulleys

To remove bottom shaft, first remove bottom plastic, hook assembly plastic, raising feed dog shaft, advancing feed dog shaft, feed bar assembly, and stepper motor.



Item	QTY	Part #	Description	Serviceability
1	1	09-17511	Bottom Shaft Assembly SM13	GR
2	2	04-10067	12mm Bearing Clamp 1.5mm T	DE
3	4	03-11387	SBHCS M5 X 12mm	DE
4	4	03-10073	SBHCS M5 X 10mm	DE
5	2	05-17527	Wire Routing Bracket	DE
6	2	04-14173	HTD Idler Pulley	DI
7	2	03-15728	Idler Pulley Axle M6 X 10mm	DI

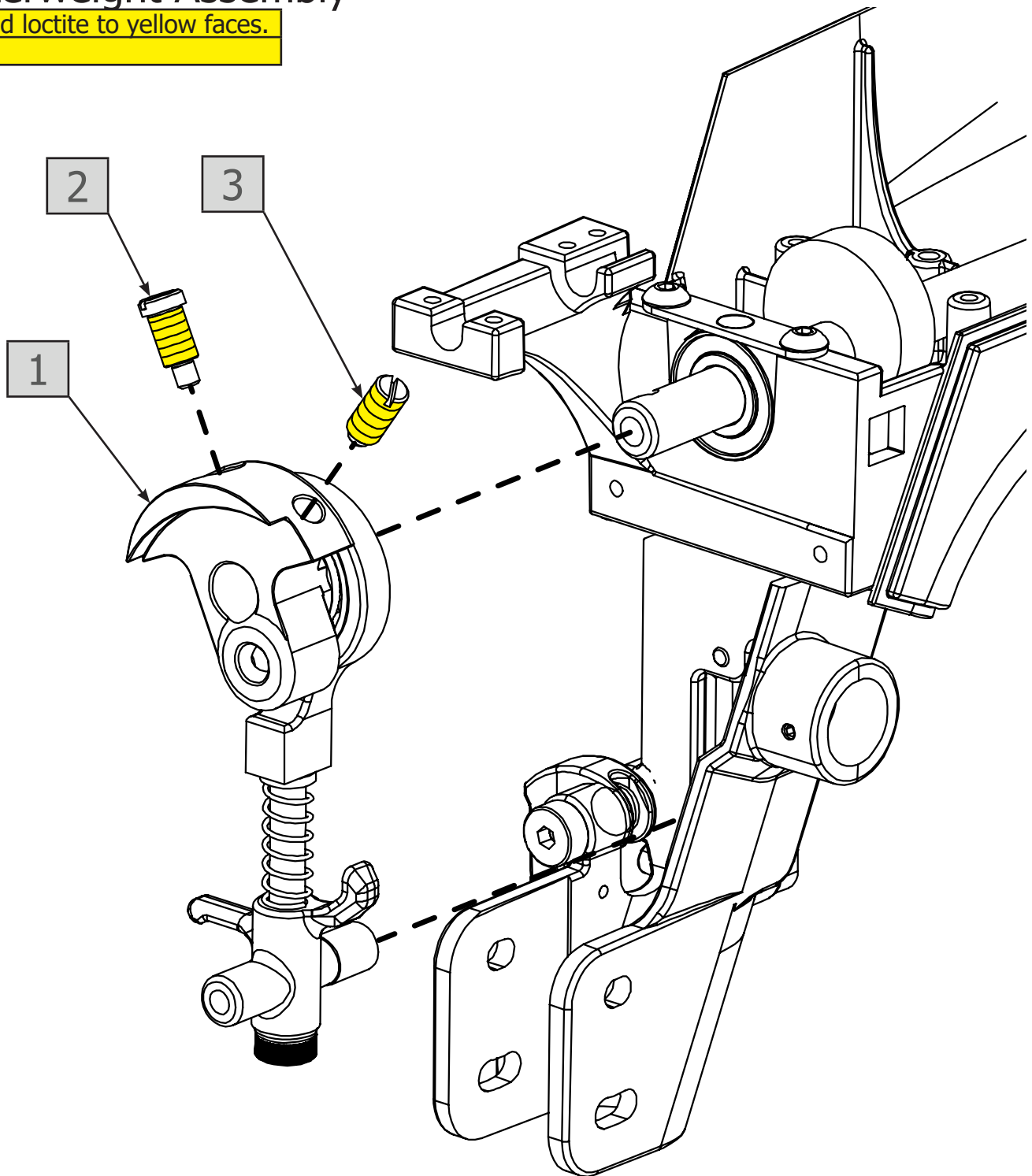
Top Shaft



Item	QTY	Part #	Description	Serviceability
1	1	09-17550	Top Shaft Assembly SM13	GR
2	2	04-17416	12mm Bearing Clamp 1.5mm T	GR
3	4	03-11387	SBHCS M5 X 12mm	GR
4	1	08-11145	HTD 3M Timing Belt 801mm	GR

Counterweight Assembly

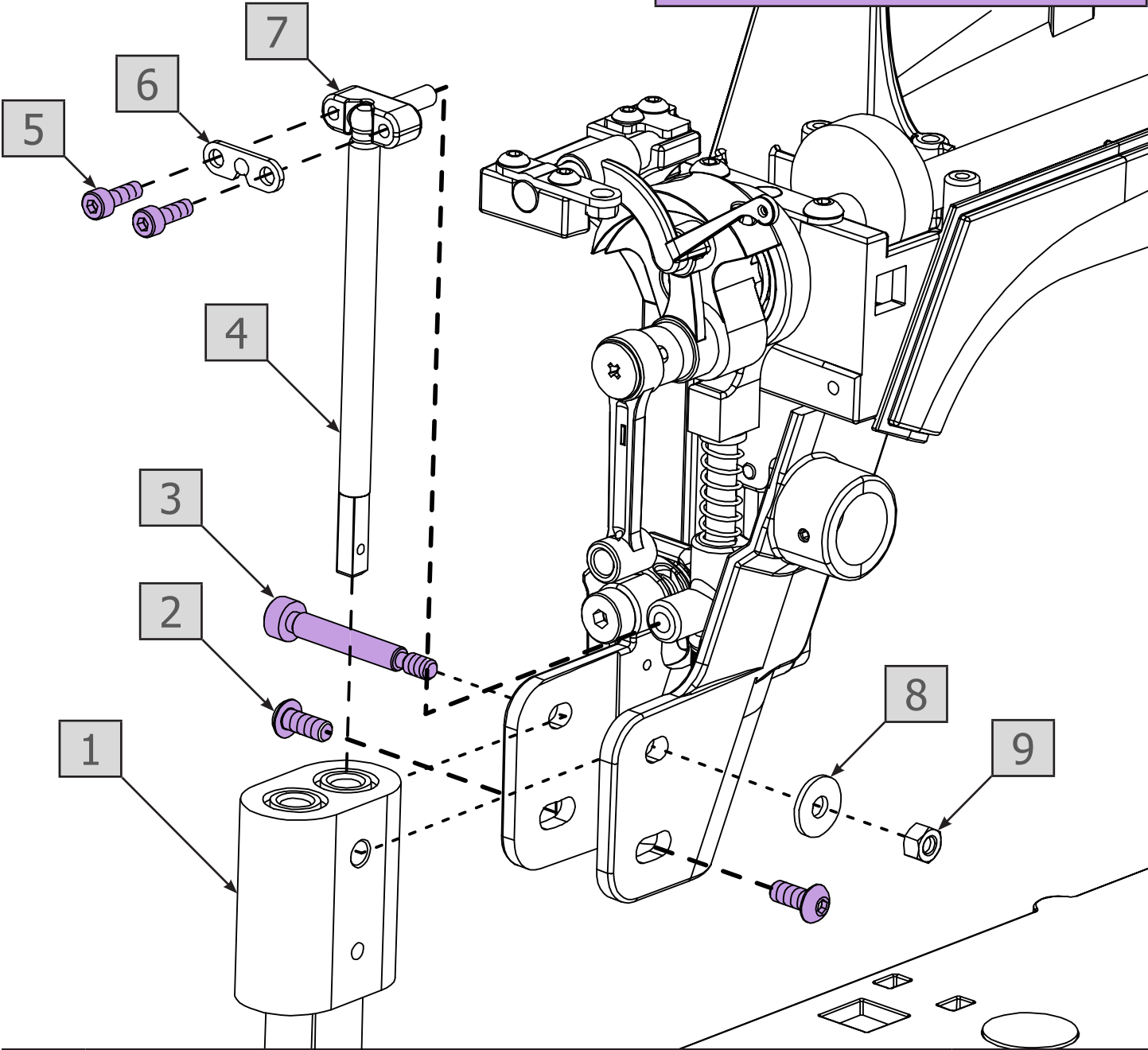
Note: Add loctite to yellow faces.



Item	QTY	Part #	Description	Serviceability
1	1	09-17556	Counterweight Assembly SM13	GR
2	1	03-10023	Crank Screw (orientation)	GR
3	1	03-10024	Crank Screw (securing)	GR

Bushing Block
Press Bar

Note: Do not tighten purple hardware yet.



Item	QTY	Part #	Description	Serviceability
1	1	09-17558	Bushing Block Assembly SM13	GR
2	2	03-11387	SBHCS M5 X 12mm	GR
3	1	03-17559	Shoulder Bolt 6 X 34mm, M5	GR
4	1	04-17427	Press Bar SM13	GR
5	2	03-10455	SHCS M4 X 12mm	GR
6	1	04-17374	Press Bar Yoke Clamp	GR
7	1	04-17817	Press Bar Yoke v2 SM16	GR
8	1	03-15017	Washer M5, Regular	GR
9	1	03-15885	Hex Nut M5	GR

Appendix

Torque Specifications Table

Screw Size	Torque Spec [Nm]	Torque Spec [in lb]	Torque Spec [ft lb]
M3	1.35	12.0	1.0
M4	3.10	27.6	2.3
M5	6.15	54.0	4.5
M6	10.5	92.4	7.7
M8	26.0		19.0
M10	51.0		37.0
M12	89.0		65.0