

Additional Instructions

Conversion from 1-needle
to 2-needle machine

IMPORTANT
READ CAREFULLY BEFORE USE
KEEP FOR FUTURE REFERENCE

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1 General information


Components of the kit

Check whether the scope of delivery for kit 0195 590044 is correct prior to installation.

Part number	Quantity	Description
0077 110220	2	Support
0077 110230	2	Centering piece
0195 110054	1	Tensioning plate
0216 000046	1	Screw
0270 000256	2	Threaded pin
0702 000020	1	Threaded pin
0791 001091	1	Reel stand
0791 001101	1	Thread guide
0791 580100	2	Centering taper
0911 000668	1	Threaded pin
0913 000660	1	Holding arm
0913 000661	1	Guide rod
0933 000327	1	Hook support
0933 100068	1	Thread divider
9203 100002	1	Flat-head screw
9205 101848	1	Threaded pin
9330 000067	1	Washer
H667 110390	4	Thread cover
0999 240408	1	Y-plug-in connection
0791 195700 EN	1	Additional Instructions



Important

The selected sewing equipment must be ordered separately and match the needle distance ( *Parts List*).

2 Conversion from 1-needle to 2-needle machine

WARNING



Risk of injury from sharp parts!

Puncture possible.

Switch off the machine before you convert the machine.

WARNING



Risk of injury from moving parts!

Crushing possible.

Switch off the machine before you convert the machine.

2.1 Disassembling the sewing equipment

Fig. 1: Disassembling the sewing equipment



- (1) - Presser foot
- (2) - Walking foot
- (3) - Feed dog

- (4) - Throat plate
- (5) - Needle



Information

If installed in the machine, the thread trimmer must be removed first.

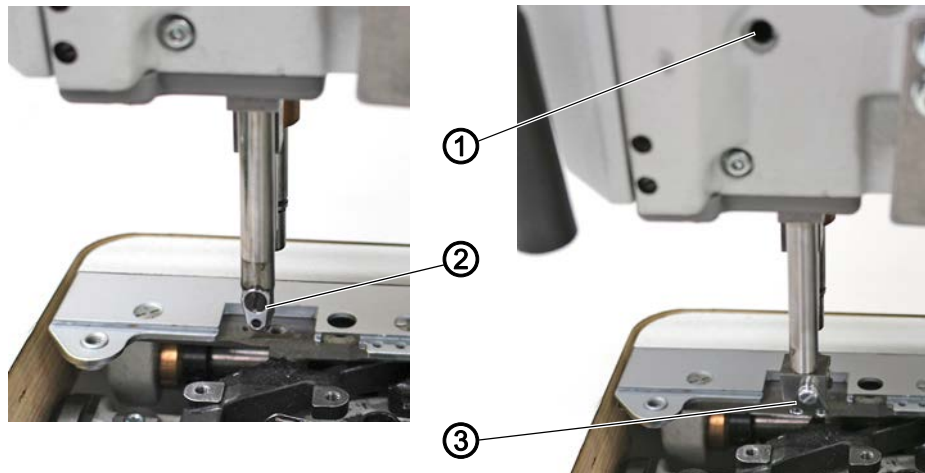


To disassemble the sewing equipment:

1. Open the throat plate slides on the left and the right.
2. Switch on the machine.
3. Lift the sewing feet.
4. Disassemble presser foot (1) and walking foot (2).
5. Remove the needle (5).
6. Disassemble the throat plate (4).
7. Disassemble the feed dog (3).

2.2 Replacing the needle holder

Fig. 2: Replacing the needle holder



- (1) - Screw
(2) - Needle holder 1-needle

- (3) - Needle holder 2-needle



To replace the needle holder:

1. Loosen the needle holder 1-needle (2) from the needle bar.
2. Screw the needle holder 2-needle (3) into the needle bar.
3. Adjust the needle holder (3).

To adjust the needle holder (3):

1. Insert the needles.
2. Assemble the throat plate.
3. Loosen the screw (1) in the hole.
4. Adjust the needle holder such that the needles barely plunge into the needle holes on the throat plate.

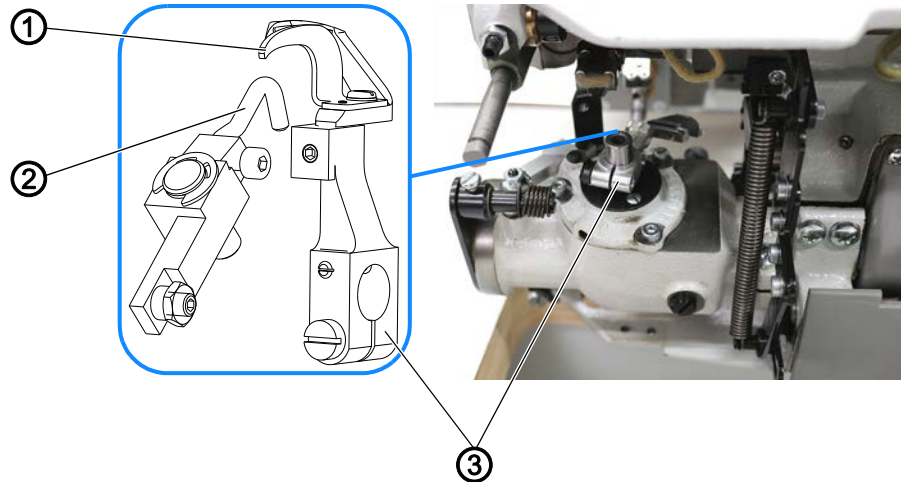


Information

Since the needle bar will have to be adjusted later on, do not yet tighten the screw (1).

2.3 Disassembling hook and needle guard

Fig. 3: Disassembling hook and needle guard



(1) - Hook
(2) - Needle guard

(3) - Hook support

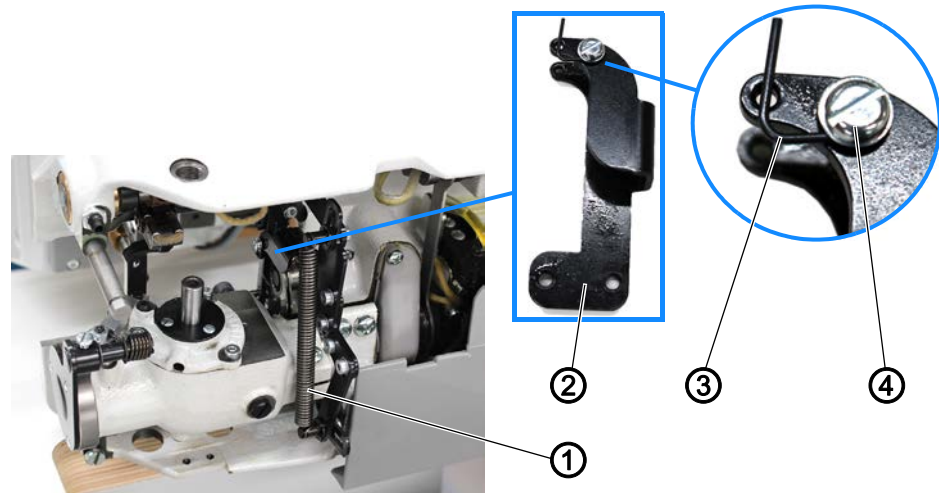


To disassemble hook and needle guard:

1. Tilt the machine head.
2. Loosen the screws on the hook support (3).
3. Disassemble the hook support (3) with the hook (1).
4. Disassemble the needle guard (2).

2.4 Assembling the thread divider

Fig. 4: Assembling the thread divider



(1) - Spring
(2) - Thread guide

(3) - Thread divider
(4) - Screw



To assemble the thread divider:

1. Disassemble the spring (1).
2. Disassemble the thread guide (2).
3. Loosen the screw (4).
4. Attach the thread divider (3) to the thread guide (2) using the screw (4).



Important

The thread divider (3) must be positioned in such a way that it is centered above the hole. There should be a small gap between the thread divider (3) and the surface of the thread guide (2).

5. Assemble the thread guide (2).
If seated too tightly, the thread guide (2) can be relieved using the second threaded pin on the opposite side of the thread guide (2).
6. Assemble the spring (1).

2.5 Adjusting the ellipsis width



Information


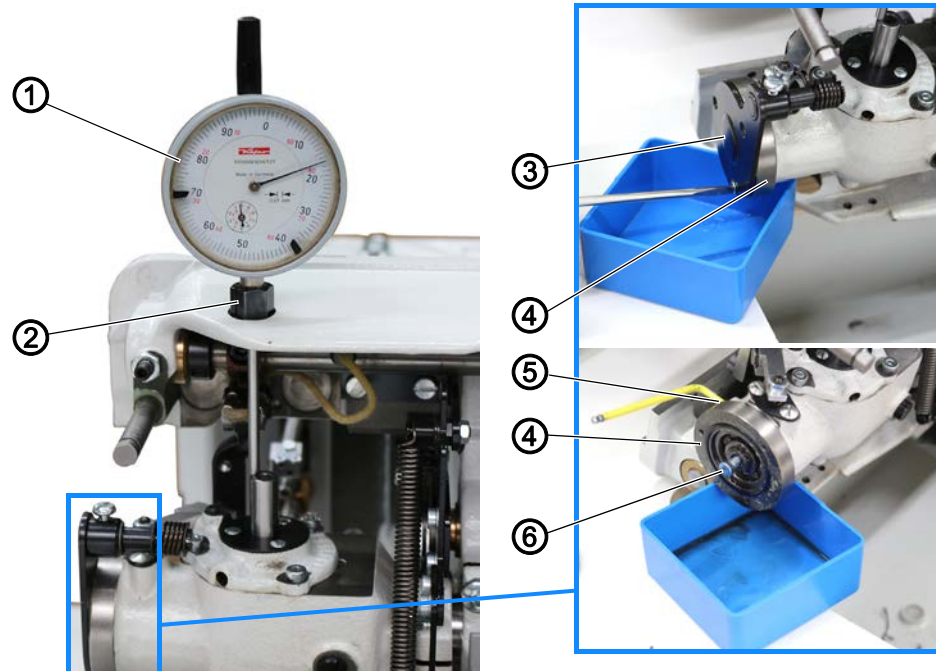
For a detailed description on how to adjust the ellipsis width, refer to the  *Service Instructions*.

Fig. 5: Adjusting the ellipsis width



- | | |
|-----------------------|--------------------|
| (1) - Dial gage | (4) - Rocker bolt |
| (2) - Clamping sleeve | (5) - Threaded pin |
| (3) - Cover | (6) - Screw |



To adjust the ellipsis width:

1. Screw in the clamping sleeve (2).
2. Insert the dial gage (1) into the clamping sleeve.
3. Set the dial gage (1) to the value **0**.
4. Place a plastic container under the rocker bolt (4).
Oil may escape while you adjust the ellipsis width.
5. Unscrew the cover (3) from the rocker bolt (4).
Catch any escaping oil using the plastic container.
6. Screw the screw (6) into the face of the rocker bolt (4).
7. Loosen the threaded pin (5).



Important

The ellipsis width must be set to **2.6**. You shift the position of the rocker bolt by screwing the screw (6) in or out: The ellipsis width is increased or reduced.

8. Adjust the ellipsis width on the dial gage (1).

9. Tighten the threaded pin (5).
10. Unscrew the screw (6) from the rocker bolt (4).
11. Attach the cover (3) to the rocker bolt (4).
12. Unscrew the dial gage (1) from the clamping sleeve (2).
13. Unscrew the clamping sleeve (2).

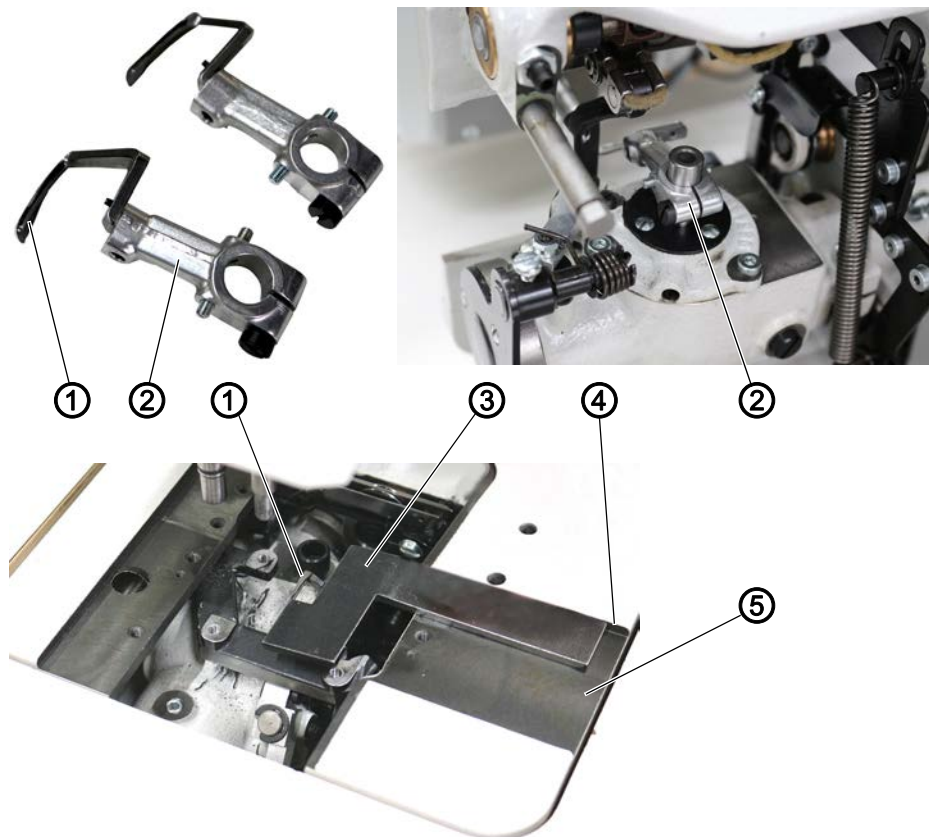


Order

Check the oil level afterwards.

2.6 Assembling the hooks

Fig. 6: Assembling the hooks



- | | |
|--------------------|-------------------------|
| (1) - Hook | (4) - Edge |
| (2) - Hook support | (5) - front cover plate |
| (3) - Gage | |



To assemble the hooks:

1. Attach the hook (1) to the hook support (2).
2. Assemble the bottom hook support.
3. Erect the machine head.
4. Disassemble the front cover plate (5).
5. Position the gage (3) at the edge (4).
6. Align the bottom hook with the gage (3).

7. Tilt the machine head.
8. Disassemble the rear hook support.
9. Assemble the front hook support.
10. Erect the machine head.
11. Align the top hook with the gage (3).
12. Tilt the machine head.
13. In order to be able to adjust the hooks later (📖 p. 12), slightly loosen the screws on the hook support.

2.7 Aligning the needle bar

Fig. 7: Aligning the needle bar (1)



(1) - Needle holder
(2) - Needles

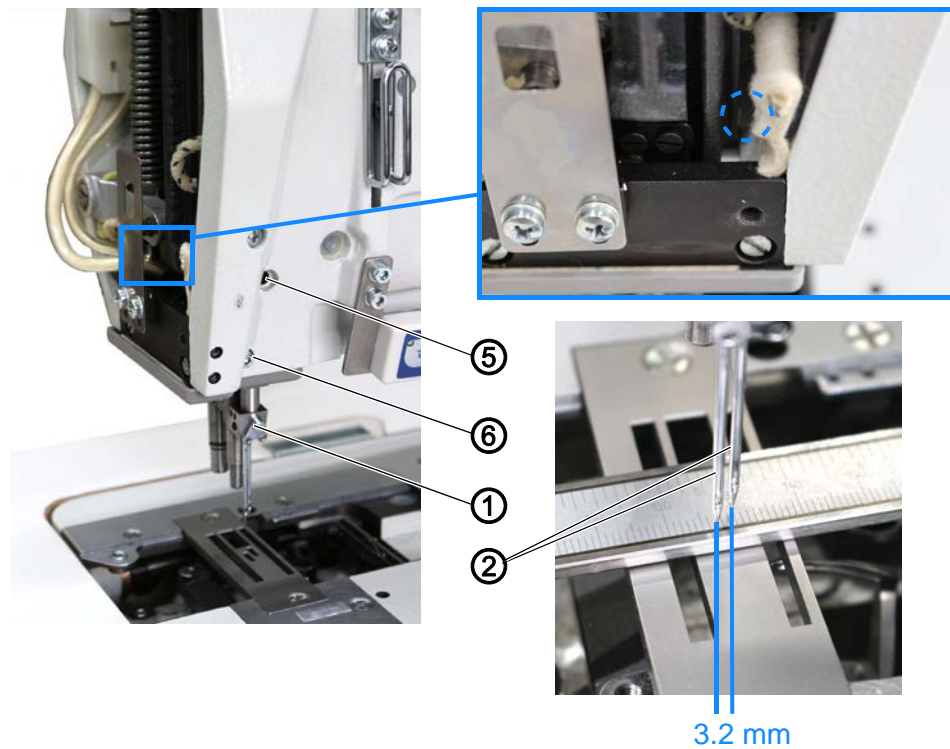
(3) - Throat plate
(4) - front cover plate



To align the needle bar:

1. Assemble the front cover plate (4).
 2. Assemble the new throat plate (3).
 3. Attach the needles (2) in the needle holder (1).
 4. Lower the needles (2) by turning the handwheel until the needle tips are positioned just above the throat plate (3).
 5. Align the needles (2) with the holes in the throat plate (3).
- 🔧 The distance between both needles (2) is 3.2 mm.
The needles (2) plunge into the center of the holes on the throat plate (3).

Fig. 8: Aligning the needle bar (2)



(1) - Needle holder
(2) - Needles

(5) - Screw
(6) - Screw



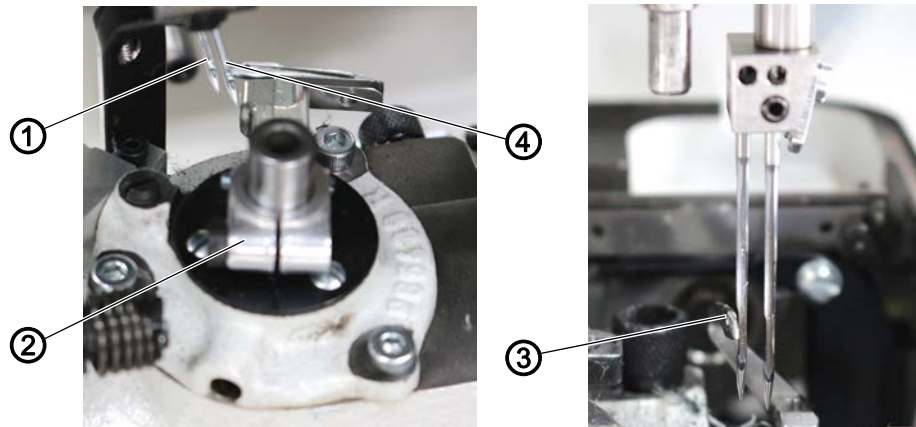
Information

Old machines may require that you adjust the needle bar towards the rear. You can do so by using additional washers.

6. If present, disassemble the sewing light on the side.
 7. Disassemble the head cover.
 8. Loosen the screw (6).
 9. Place the included washers onto the screw (6) from the inside.
 10. Tighten the screw (6).
-
11. Use a precision ruler to check if the needles (2) are at the specified distance from one another.
 12. Tighten the screw (5).

2.8 Adjusting the hooks

Fig. 9: Adjusting the hooks



(1) - left needle
(2) - Hook support

(3) - Hook
(4) - right needle

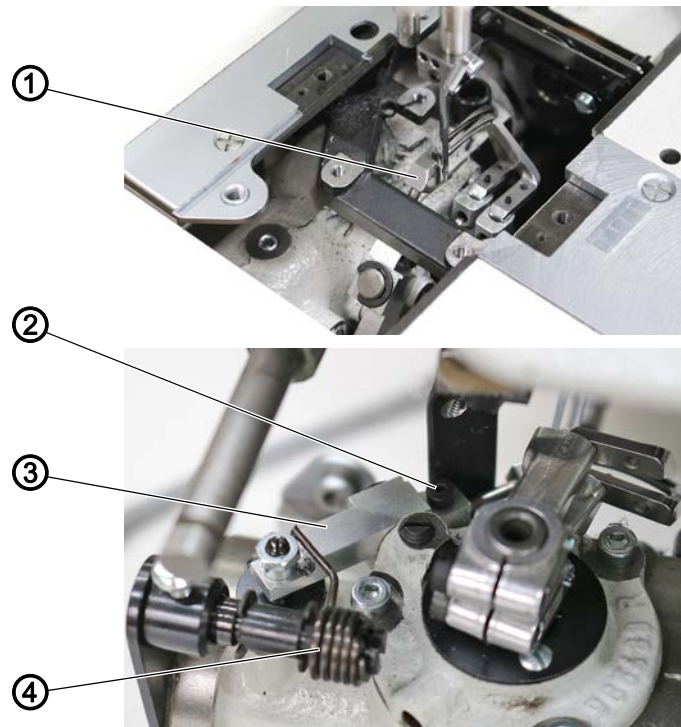


To adjust the hooks:

1. Disassemble the throat plate.
2. Lock the machine in place at position **E**.
3. Tilt the machine head.
4. Position the bottom hook support (2) on the shaft such that the hook (3) is behind the right needle (4).
5. Slightly tighten the screws on the hook support (2).
6. Erect the machine head.
7. Check the distance between hook tip and needle.
8. Tilt the machine head.
9. Tighten the screws on the hook support.
10. Check the symmetry of the hook (positions **E** and **F**) (Service Instructions).
11. Lock the machine in place at position **E**.
12. Place the front hook support onto the rear hook support and position it such that the hook is behind the left needle (1).
13. Slightly tighten the screws on the hook support.
14. Check the distance between hook tip and needle.
- ↳ The distance between hook tip and needle is 0.1 mm.
15. Tilt the machine head.
16. Tighten the screws on the hook support all the way.

2.9 Assembling the needle guard

Fig. 10: Assembling the needle guard



(1) - Needle guard
(2) - Screw

(3) - Needle guard mounting plate
(4) - Spring

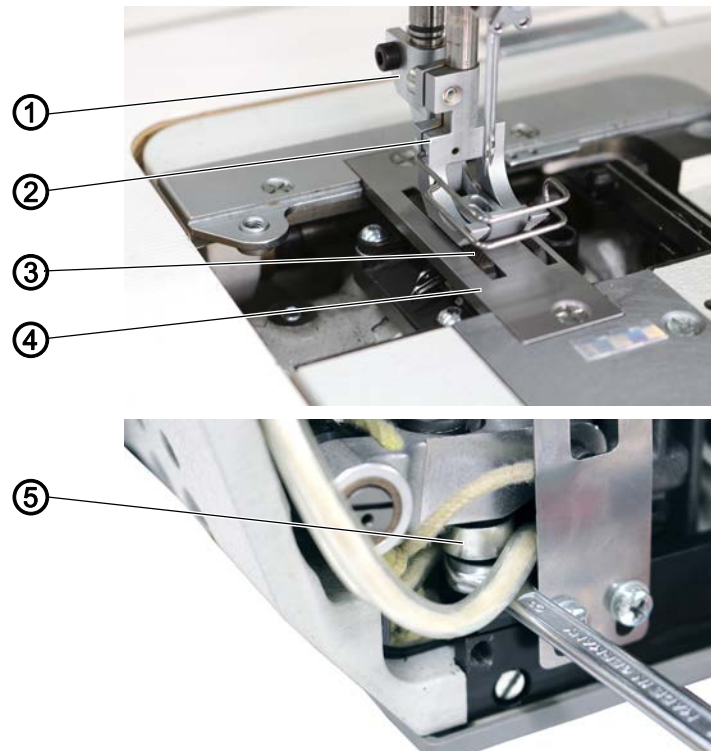


To assemble the needle guard:

1. Erect the machine head.
2. Insert the needle guard (1) from above.
The needle guard must be attached behind the needles with the grooves facing the needles.
3. Tilt the machine head.
4. Use the screw (2) to tighten the needle guard in the needle guard mounting plate (3).
5. Assemble the spring (4).
6. Erect the machine head.
7. Check if the needle guard swivels properly and the needles are pushed away evenly.

2.10 Assembling the sewing equipment

Fig. 11: Assembling the sewing equipment (1)



(1) - Presser foot
(2) - Walking foot
(3) - Feed dog

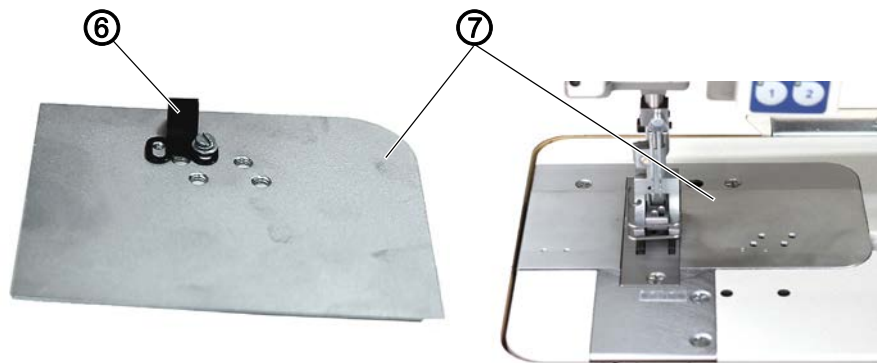
(4) - Throat plate
(5) - Intercept buffer



To assemble the sewing equipment:

1. Insert the feed dog (3) and align it correctly (*Service Instructions*).
2. Assemble the throat plate (4).
3. Tighten the feed dog.
4. Check the height of the feed dog and adjust it if necessary (*Service Instructions*).
5. Switch on the machine.
6. Lift the sewing feet.
7. Assemble the walking foot (2).
8. Assemble the presser foot (1).
9. Lower the sewing feet.
10. Check if the needles move in the center of the walking foot.
11. Check if there is enough clearance between sewing feet and throat plate.
If necessary, adjust the intercept buffer (3) (*Service Instructions*).
12. Perform a sewing test to check the stitch length.
13. Assemble the head cover.
14. If present, assemble the sewing light on the side.

Fig. 12: Assembling the sewing equipment (2)



(6) - Spring

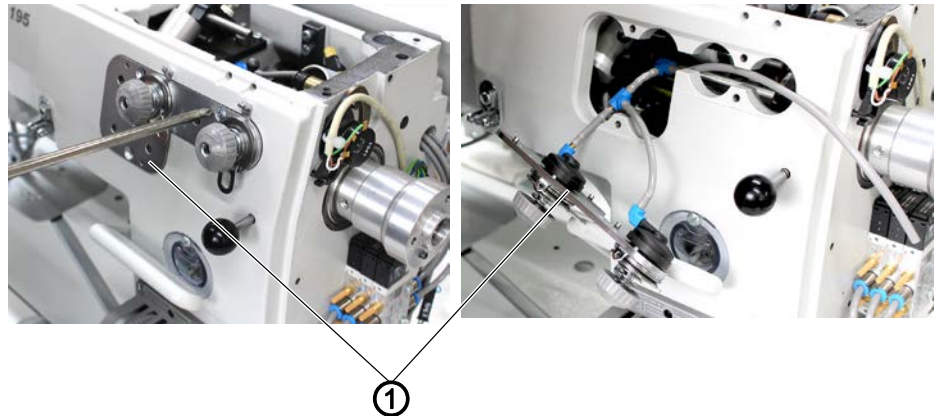
(7) - Throat plate slide



15. Unscrew the spring (6) on the underside of the old throat plate slide (7).
16. Tighten the spring (6) on the underside of the new throat plate slide (7).
17. Assemble the left and the right throat plate slide.

2.11 Replacing the thread tension

Fig. 13: Replacing the thread tension (1)



(1) - Tensioning plate



Information

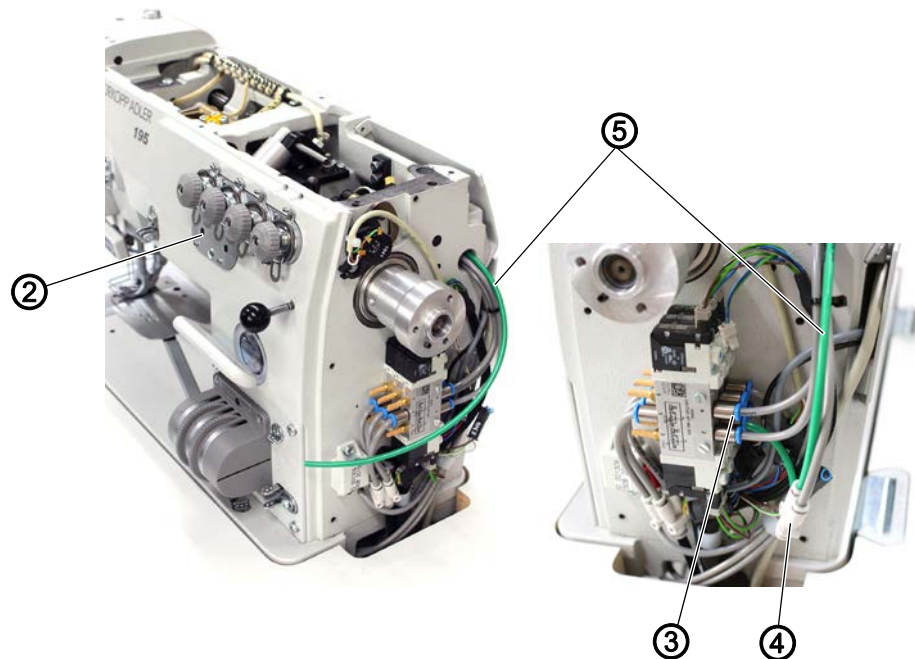
If the machine is equipped with a direct sewing motor, the valve rail is located below the toothed belt cover. In this case, the handwheel and the toothed belt cover need to be removed as well.



To replace the thread tension:

1. Disassemble the arm cover.
2. Disassemble the tensioning plate (1) with the tensioner elements.

Fig. 14: Replacing the thread tension (2)



(2) - Tensioning plate
(3) - Valve

(4) - Y-connection
(5) - Cable



3. Disconnect the hose of the old tensioning plate (1) from valve 4 (3).
4. Assemble the new tensioning plate (2) with the tensioner elements.
5. Lay the cable (5) inside the machine.
6. Tighten the tensioning plate (2).
7. Connect the cable (5) with the Y-connection (4) to the valve 4 (3).
8. Switch on the machine.
9. Check if the sewing feet are able to lift with the help of the tensioner elements and if the tension opens.
10. Assemble the covers.

2.12 Assembling the reel stand

Fig. 15: Assembling the reel stand



(1) - Thread guide

(2) - Reel stand

(3) - Thread guide

(4) - Thread reel holder



To assemble the reel stand:

1. Slide the thread reel holders (4) and the thread guide (3) onto the reel stand (2).
2. Align and tighten the thread reel holders (4).
3. Position and tighten the thread guide (3) above the thread reel holders (4).
4. Position the thread guides (1) on the reel stand (2).
5. Tighten the thread guides (1).



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