

838**Spezialnähmaschine**

Serviceanleitung

D

Service Instructions

GB

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General safety instructions

The non-observance of the following safety instructions can cause bodily injuries or damages to the machine.

1. The machine must only be commissioned in full knowledge of the instruction book and operated by persons with appropriate training.
2. Before putting into service also read the safety rules and instructions of the motor supplier.
3. The machine must be used only for the purpose intended. Use of the machine without the safety devices is not permitted. Observe all the relevant safety regulations.
4. When gauge parts are exchanged (e.g. needle, presser foot, needle plate, feed dog and bobbin) when threading, when the workplace is left, and during service work, the machine must be disconnected from the mains by switching off the master switch or disconnecting the mains plug.
5. Daily servicing work must be carried out only by appropriately trained persons.
6. Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.
7. For service or repair work on pneumatic systems, disconnect the machine from the compressed air supply system (max. 7-10 bar). Before disconnecting, reduce the pressure of the maintenance unit. Exceptions to this are only adjustments and functions checks made by appropriately trained technicians.
8. Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.
9. Work on parts and systems under electric current is not permitted, except as specified in regulations DIN VDE 0105.
10. Conversion or changes to the machine must be authorized by us and made only in adherence to all safety regulations.
11. For repairs, only replacement parts approved by us must be used.
12. Commissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC directives.
13. The line cord should be equipped with a country-specific mains plug. This work must be carried out by appropriately trained technicians (see paragraph 8).



It is absolutely necessary to respect the safety instructions marked by these signs.

Danger of bodily injuries !

Please note also the general safety instructions.



Service Instructions for the Class 838

(Edition 06/2008)

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1. General

These service instructions describe the adjustments that can be made to the Class 838 special sewing machine.



CAUTION!

The operations described in these service instructions may only be carried out by qualified staff or other appropriately trained persons!



Caution: Risk of Injury!

Turn the main switch off for repair, conversion and maintenance work and separate the machine from the pneumatic supply line.

Any adjustment work and functional testing with the machine running should be conducted only under observance of all safety measures and with the greatest possible caution.

These service instructions describe the adjustment of the sewing machine in a logical order. Please observe that various setting positions are dependent on each other. Thus it is essential that the settings be conducted while keeping to the order described.

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For all adjustments of parts involved in the stitch formation, a new undamaged needle must be inserted.

This text does not specifically mention any machine covers or panels which must be removed or re-mounted in order to conduct inspections or adjustments.

Note

Some shafts on the special **838** machine are provided with flat eccentric surfaces. This significantly simplifies machine adjustments.

For all adjustments on flat surfaces, the first screw screwed in the direction of the eccentric surface.

1.1 Setting gauges

The retention pin required for adjusting the machine is included with all units. It is located with the machine accessories and can be attached so that it is easily accessible below the oil tray.

1.2 Adjusting the handwheel

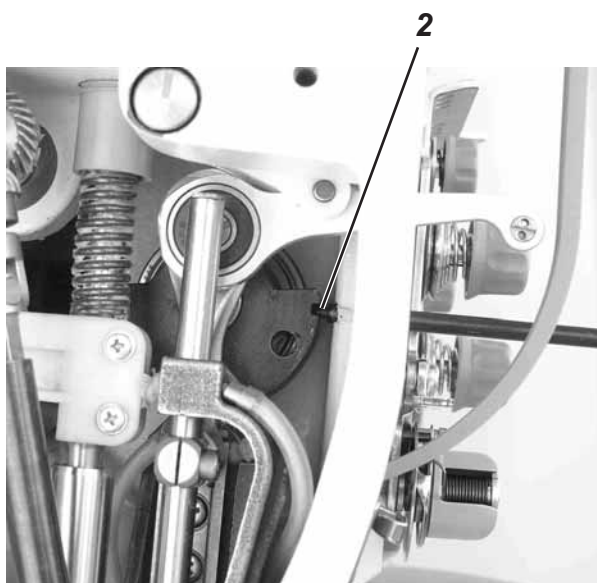
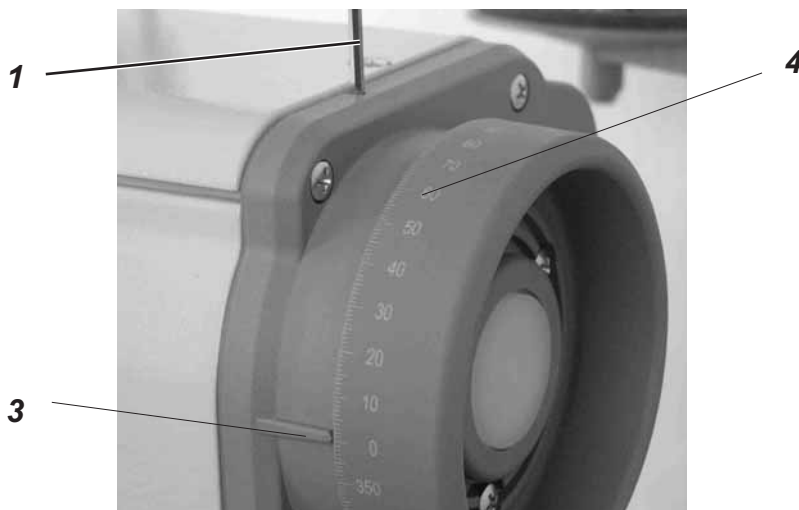
Rule:

The handwheel (4) is labelled with degree numbers.

Certain adjustments are made with these marked handwheel positions.

- Turn the handwheel until the degree value specified in the instructions is aligned with the pointer (3).
- Proceed with the adjustment described.

When the needle bar is at top dead centre, the pointer (3) should be aligned with “0” degrees.



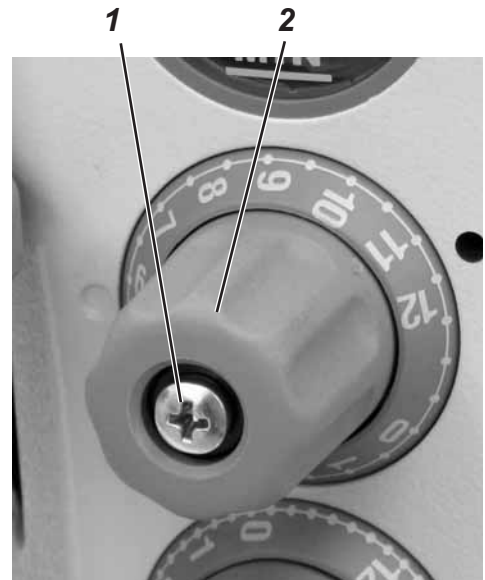
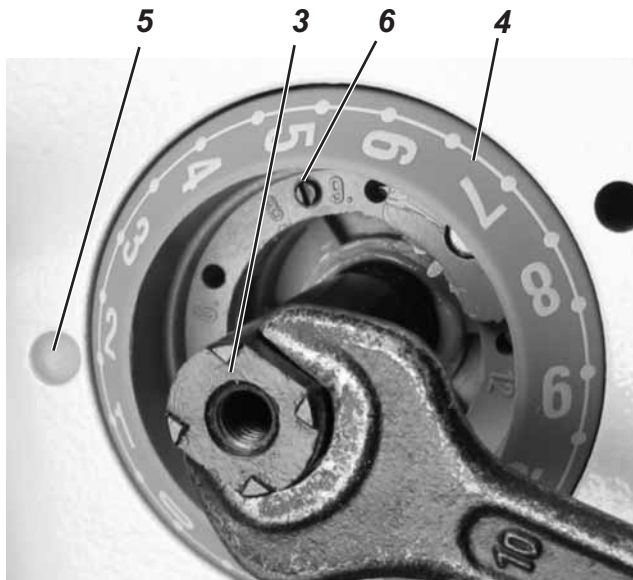
- Loosen the handwheel screws with a 3-mm hexagon socket wrench (1).
- Position the needle bar in the top dead centre position. Use the retention pin (3 mm diameter) to peg the position (2).
- Turn the handwheel so that the pointer (3) points to 0 degrees on the rotary scale.
- Tighten the first screw with the wrench (1). Turn the handwheel to 50° and tighten the second screw with the wrench (1).

2. Lower (bottom) feed

2.1 Base setting for stitch adjustment and stitch length limit

Rules:

1. When setting the stitch length at "0", the stitch regulator gear should have as little play (clearance) as possible when you press down on the bartacking lever.
2. The maximum stitch length is limited to **8 mm**.



- Loosen screw (1) and take off the settings dial (2).
- Turn the screw (3) as far as needed to the right using a 10-mm spanner wrench. Verify that the stitch regulator gear is without motion by pressing down on the bartacking lever. This fulfils rule 1.
- Set the scaling ring (4) with stitch length 0 to align with the circular mark (5).
- Limit the stitch length according to rule 2. For this, screw the retention pin (6) into the proper hole. The holes are marked with numbers which indicate the maximum stitch length.
- If a maximum stitch length of 7 mm is required, unscrew the screw (6) for 2.5 mm. Another end stop is available for this length.
- Put the settings dial (2) back on and tighten the screw (1).



Caution: Risk of Injury!

Turn the main switch off.

Only carry out this stitch adjustment when the machine is turned off.



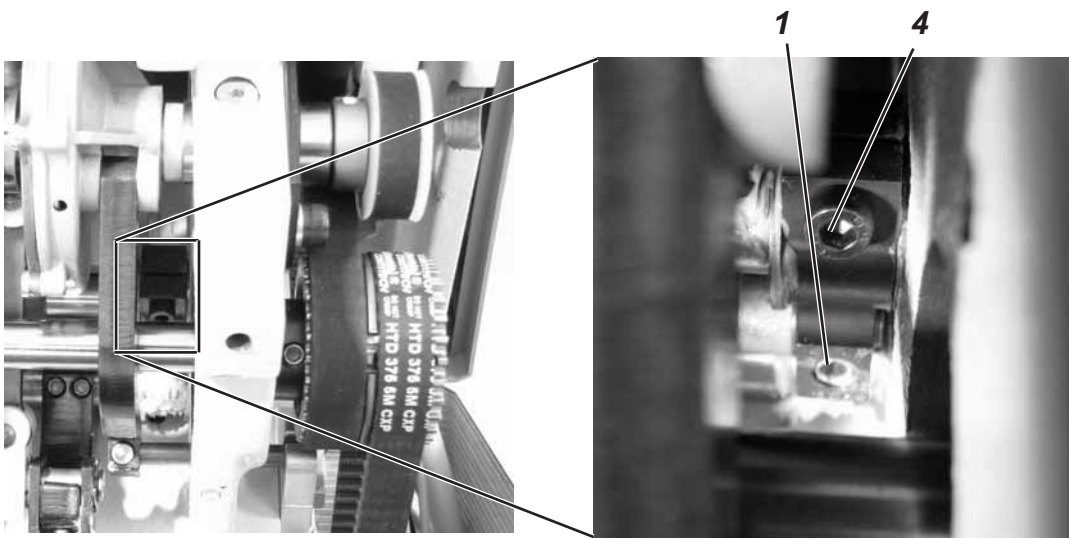
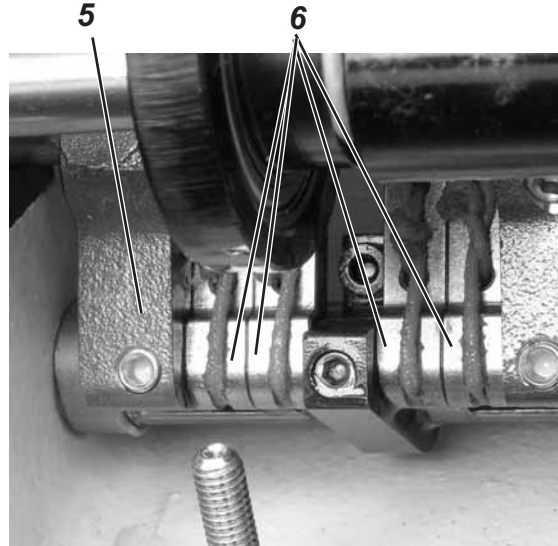
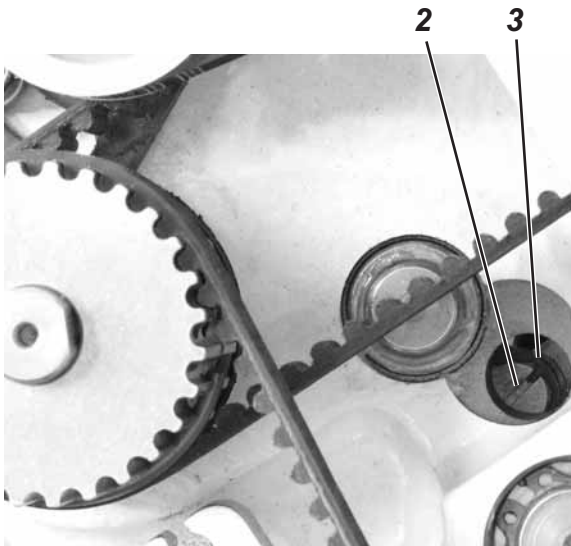
ATTENTION: Danger of breakage!

If the set stitch length is larger than allowed by the sewing equipment in use, then the needle will hit against the throat plate insert.

2.2 Stitch uniformity for forwards and reverse stitching

Rules:

1. When making a rough-scale adjustment to the stitch regulator gear, the machine should not feed when the stitch length is set to 0.
2. When making a fine-scale adjustment to the stitch regulator gear, the forwards and reverse stitch lengths should only deviate in value by a half stitch.

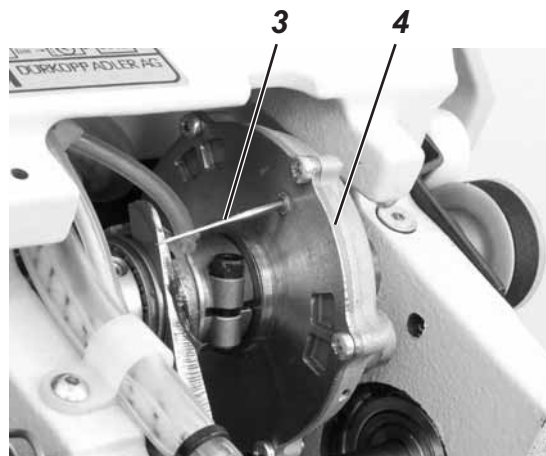
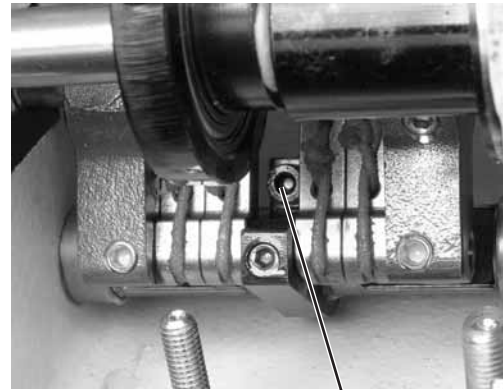
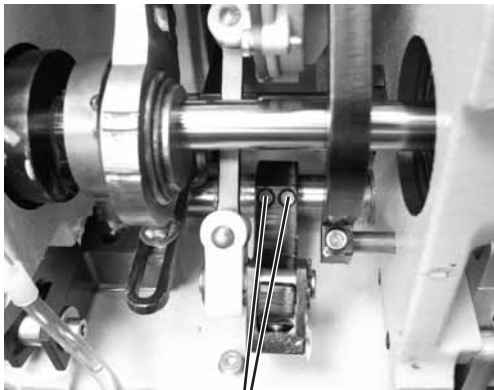


- Set the stitch length to “0”.
- Loosen screw (1) and turn the grooved (3) eccentric tappet (2) according to the illustration. Fasten with screw (1).
- Loosen screw (4) on the clamping lever. Turn the settings frame (5) so that the shackles (6) are parallel. Tighten screw (4). This then fulfils rule 1.
- The next step is to match up the forwards and reverse stitch lengths. Sew ten stitches forwards. Press the bartacking lever and then sew ten stitches backwards. Rotate the eccentric tappet (2) so that rule 2 is met.
- Clockwise = enlarge forward stitch, decrease reverse stitch.
- Counter-clockwise = decrease forward stitch, enlarge reverse stitch.

2.3 Adjusting the levers on the rear feed shaft

Rule:

When setting the stitch length "0", the feed clutch should be in the middle range of the work limit settings.



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- Set the stitch length to "0".
- Loosen screw (1).
- Set the lower feed dog in the middle between the dead centre points of its motion in the throat plate.
- Tighten screw (1).
- Loosen screws (2).
- Screw out the screw on the feed clutch (4). Push the needle (3) into this opening. Turn the clutch (4) with your hand until the needle (3) is **5 mm** into the hole. The rule is then fulfilled.
- Tighten screw (1).



Caution: Risk of Injury!

Turn the main switch off.
Only carry out this lever adjustment when the machine is turned off.



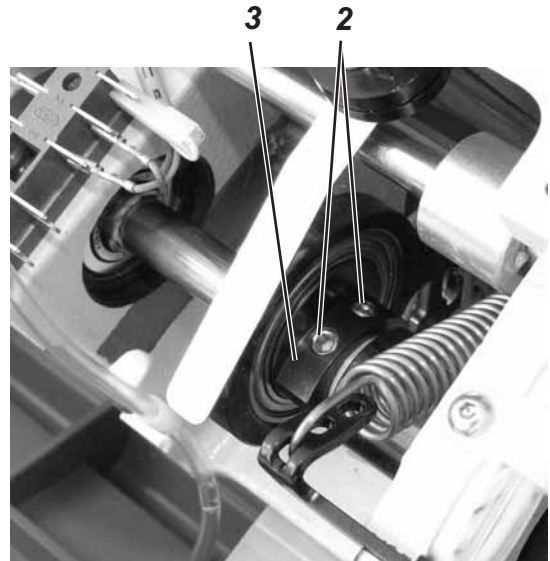
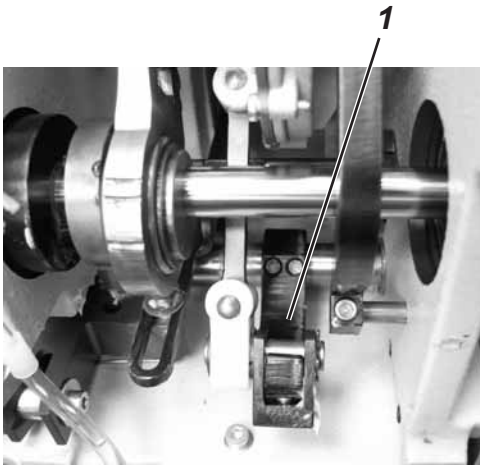
ATTENTION: Danger of breakage!

With large stitch lengths, it is possible that parts within the clutch will collide if the middle working range of the clutch is not maintained.

2.4 Position of the eccentric tappet for the feed movement

Rule:

When the handwheel pointer indicates 355 degrees, the feed lever (1) should not move when the bartacking lever is pressed down.



- Turn the handwheel so that the pointer indicates “355”.
- Loosen screws (2). To make the rough-scale adjustment, turn the eccentric tappet (3) so that it is approximately in the position shown in the illustration. Now make the fine-scale adjustment to the eccentric tappet. Continue until you have found the position where the feed lever (1) no longer moves when the bartacking lever is pressed down.
- Tighten screws at eccentric tappet (3).



Caution: Risk of Injury!

Turn the main switch off.

Only carry out this eccentric adjustment when the machine is turned off.



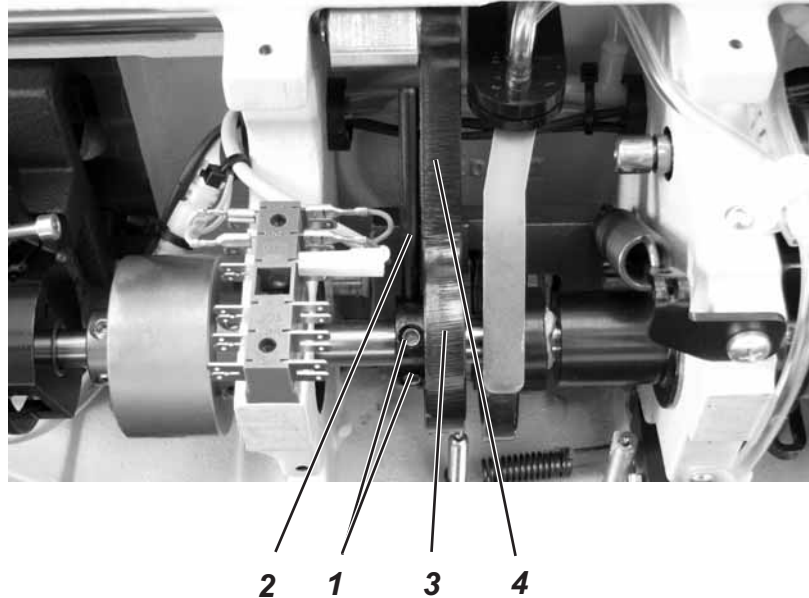
ATTENTION: Danger of breakage!

Imprecise settings can shorten the lifespan of the machine.

2.5 Position of the eccentric tappet and the feed dog stroke

Rule:

When the handwheel pointer indicates “239” on the scale, a settings pin inserted into the eccentric tappet should be flush with the ridge on the crankshaft (4).



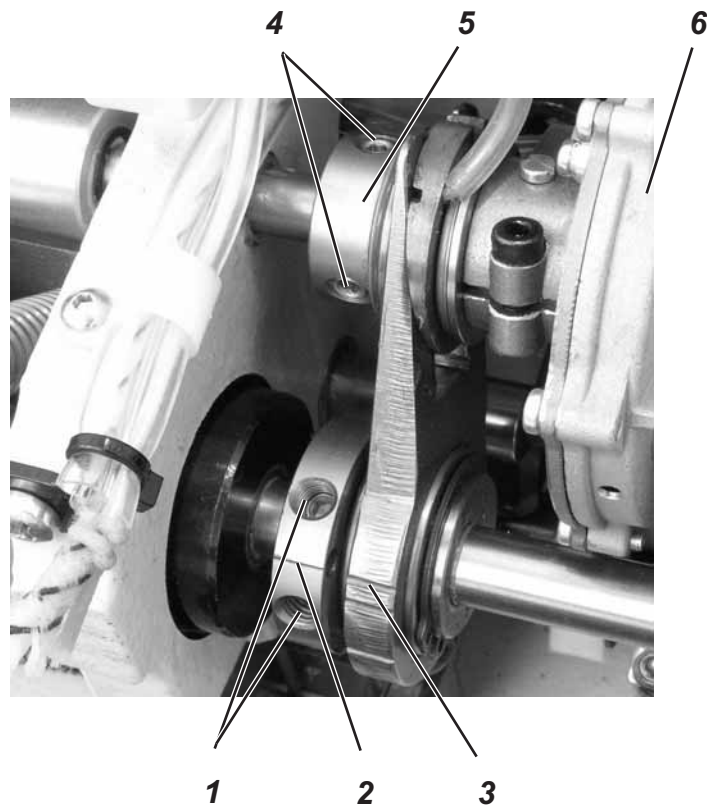
GB

- Turn the handwheel so that the pointer indicates “239”. Loosen screws (1).
- Insert a settings pin (2) into the eccentric tappet (3). Position it so that it is flush with the crankshaft ridge.
- Tighten screws (1).

2.6 Switching over the feed clutch

Rule:

The clutch should be switched over when it is motionless (i.e., when it is in the dead centre point of its pendulum motion).



- Loosen the screws (1) on the eccentric tappet (2).
- Turn the eccentric tappet so that the dash (2) is aligned with the other dash (3).
- Loosen the three screws (4). Loosen the adjusting nut (5).
- Tighten the adjusting nut (5) until you feel it strike (the tightening increases in jumps).
Push the clutch (6) to the right until the end stop is reached.
Tighten the screws (4).
- Verify the adjustment. Turn the eccentric tappet with your hand in the other direction. The resistance during the rotation of the eccentric tappet should increase significantly when the two dashes are lined up.



Caution: Risk of Injury!

Turn the main switch off.

Only carry out this adjustment when the machine is turned off.



ATTENTION: Danger of breakage!

Imprecise settings can shorten the lifespan of the machine.

2.7 Position of the eccentric tappet for the switch over of the feed clutch

Rule:

When the handwheel pointer indicates “305” on the scale, the dash (1) on the eccentric tappet should be lined up with the lower dash (2) on the V-shaped push rod.



3 1 2

- Loosen screws (3).
- Turn the handwheel to position “305”.
- Turn the eccentric tappet in the direction of arrow so that dash (1) is lined up with dash (2).
- Turn back the eccentric tappet about 2° and move axially on the shaft until the middle is between the limit settings.
- Align the two dashes (1) and (2) again. Tighten the screws (3).



Caution: Risk of Injury!

Turn the main switch off.

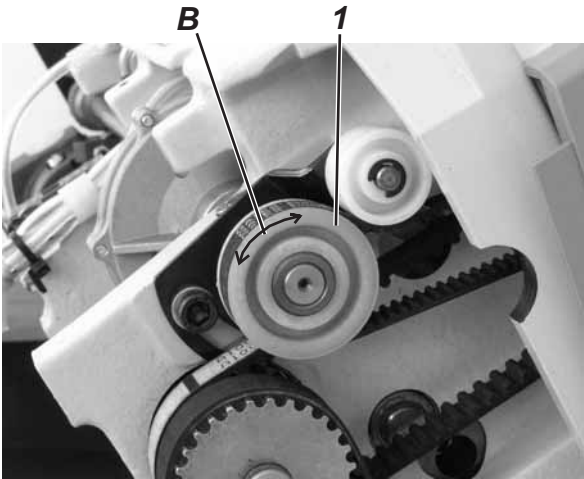
Only carry out this adjustment when the machine is turned off.

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2.8 Checking the switch over of the feed clutch

Rule:

The feed clutch should be switched over when it is motionless (i.e., when it is in the dead centre point of its pendulum motion). This can be detected from the rotational direction of the belt pulley (1) in front of and behind the dead centre point.



	1	2	3	4
A	270°	276°	88°	93°
B	0			0

- Set the maximum stitch length.
- Turn the handwheel (A) so that it is positioned at “270” degrees (refer to Table / A). Push the bartacking lever down. Check if the rotational direction (B) of the belt pulley (1) corresponds to the direction specified in the table. Do the same for “276” degrees.
- If the rotational directions do not correspond to those specified in the table, correct the necessary settings. If the clutch switches over too soon (on a smaller angle), tentatively loosen the adjusting nut (5) (see chapter 2.6) and repeat the check. Continue loosening until you locate the correct position for the nut. If the clutch switches over too late, tighten the controlling nut (5).



Caution: Risk of Injury!
Turn the main switch off.
Only carry out this adjustment when the machine is turned off.

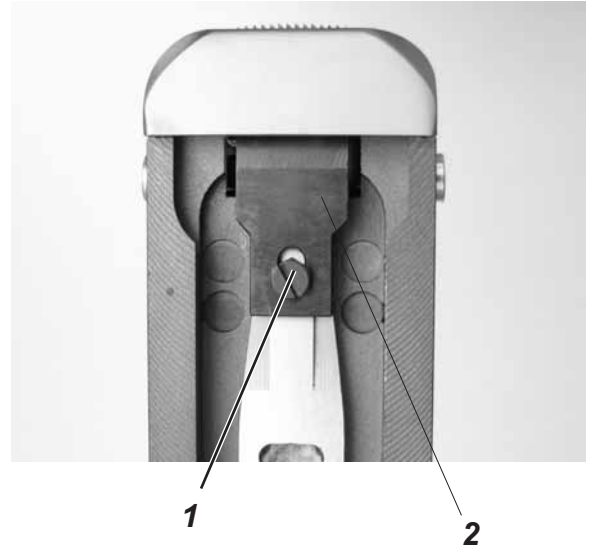
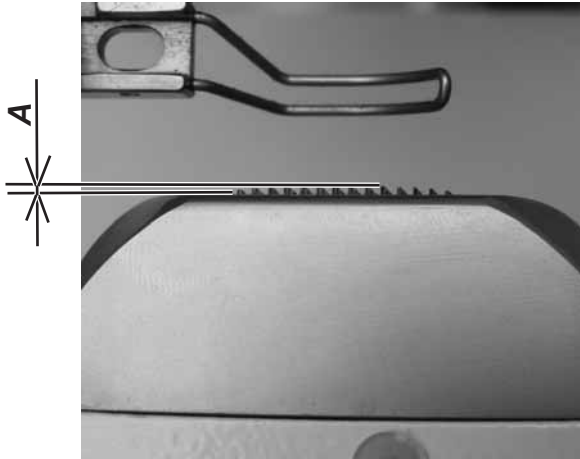


CAUTION!
Imprecise settings can shorten the lifespan of the machine.

2.9 Feed dog

Rules:

1. The height (A) that the feed dog (1) is above the throat plate must be appropriate for the thickness and toughness of the material.
2. In its highest position (A), the feed dog should be 1 mm over the throat plate insert.



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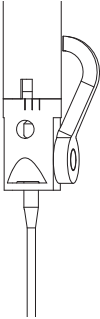
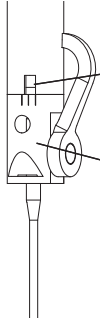
- Loosen screw 1.
- According to the above rule, lower or raise the feed dog. Then re-tighten screw (1).

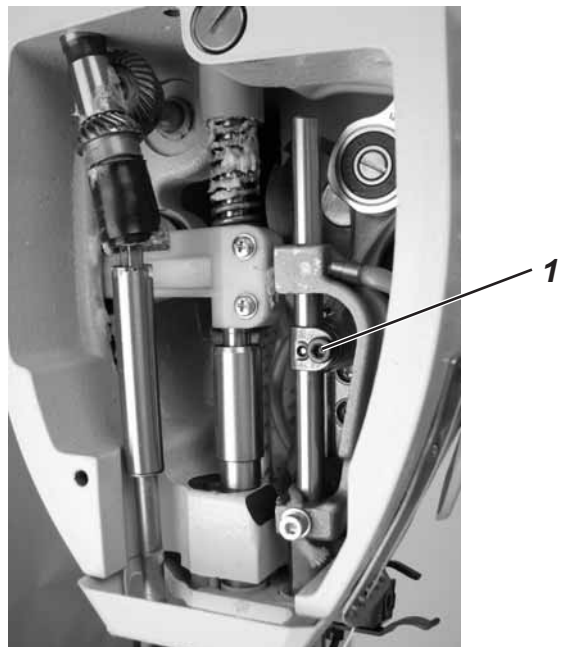
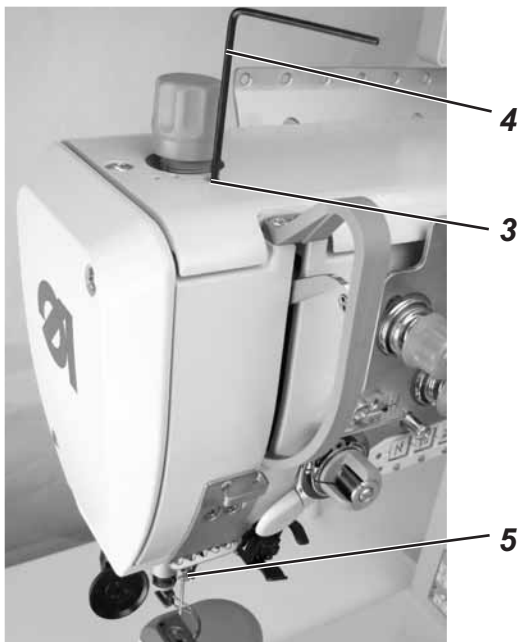
3. Top feed

3.1 Positioning the needle holder for single-needle sewing machines

Rule:

The needle holder positioning is carried out according to the following table and depends on the thickness of the needle.

Angularity of the needle holder		
Needle width, Nm	120 - 160	180 - 200



- Loosen screw (1). Turn the needle bar with the right grooved edge (2) on the needle-bar axis (in the sewing direction). Tighten screw (1).
- Move the needle bar into the top dead centre point. Use the 2.5 mm hexagon socket wrench (4) to loosen the needle-holder screw in the hole (3).
- Turn the needle holder (5) according to the rule above. Tighten the screw (1).

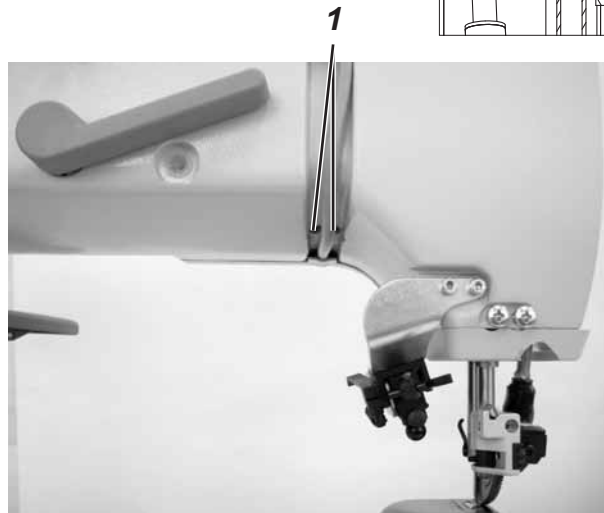
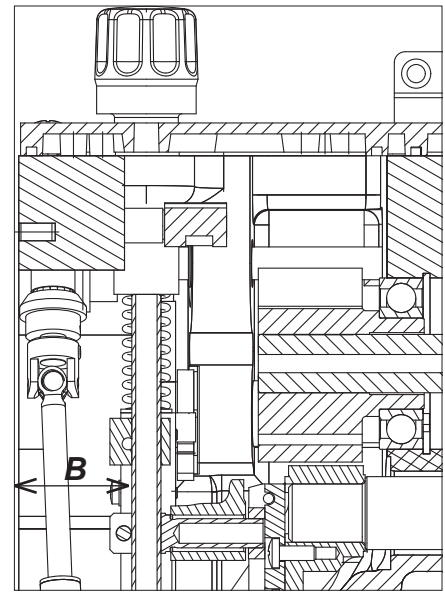
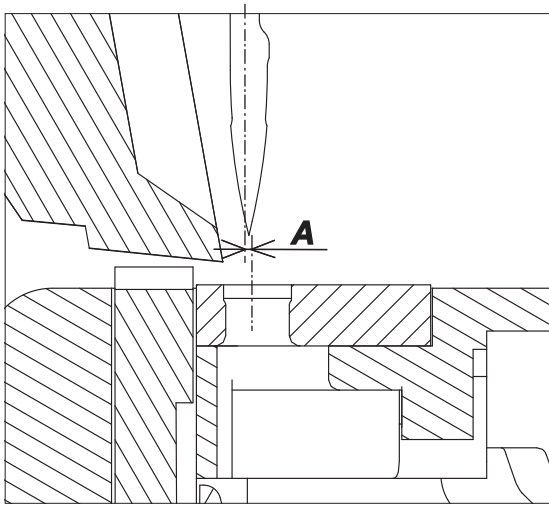
For your notes:



3.2 The needle feed

Rules:

1. The needle bar should be adjusted so that it is flush with the presser foot bar.
2. The post bed feed should be:
 - 2.1: for the single-needle machine, it should be set so that the axis of the needle is moved **(A) = 0.1mm** to the left to the middle of the stitch hole.
 - 2.2: for the double-needle machine, it should be set so the needle stands symmetric to the middle of the stitch hole.
3. The transport motion of the needle should be set as follows: at the maximum stitch length the needle leaves the throat plate very near the back edge of the stitch hole.



- Loosen screws (1) and adjust the needle bar to the dimension **(B) = 31mm** as show in the illustration. Rule 1 has been fulfilled.

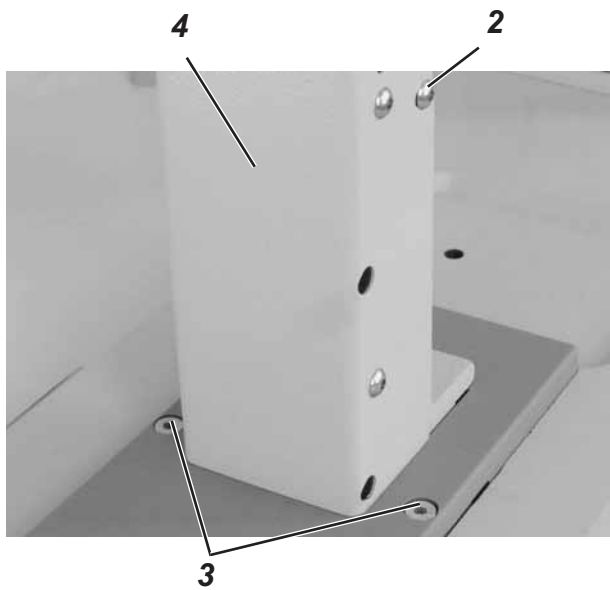


Abb. 1

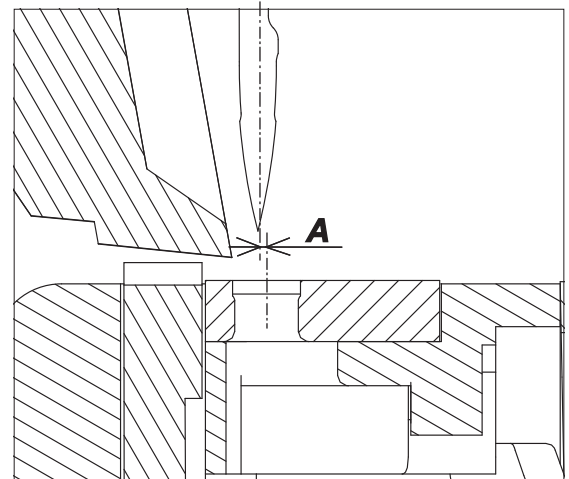
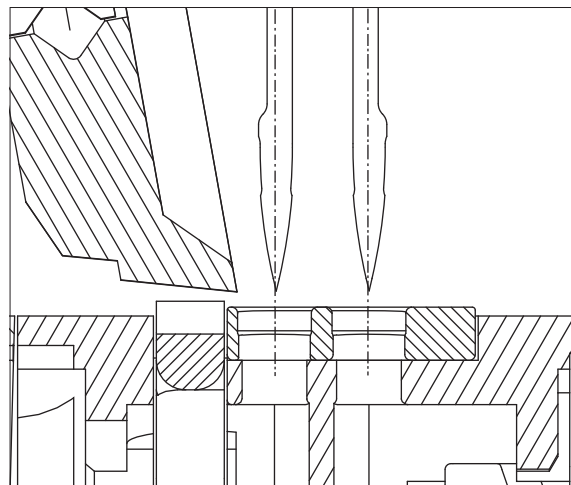


Abb. 2

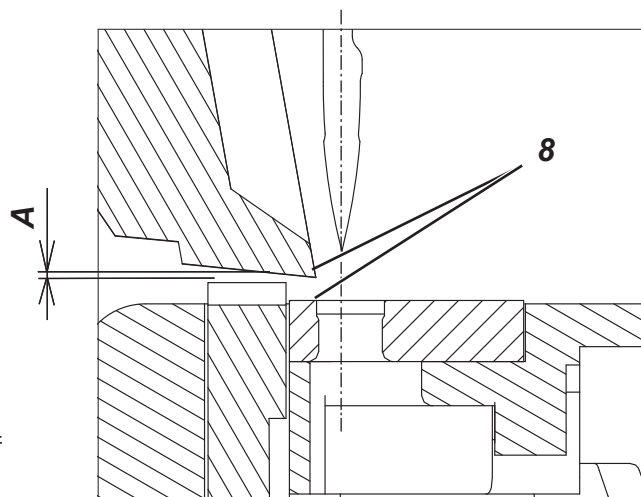
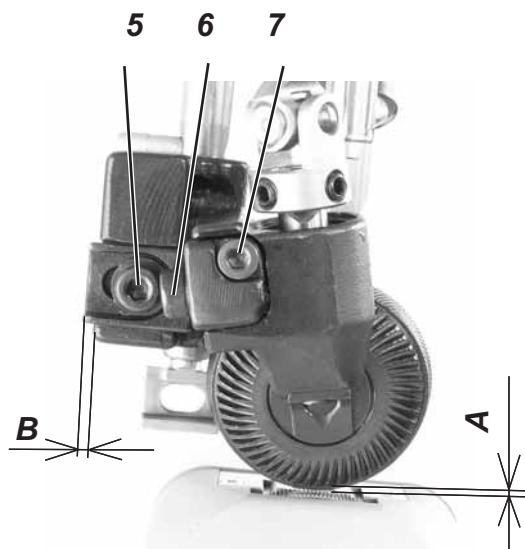
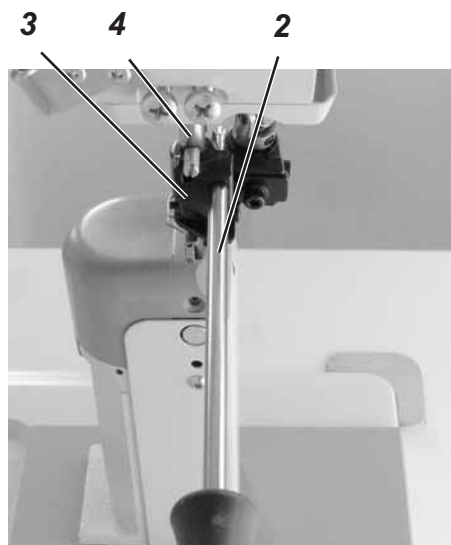
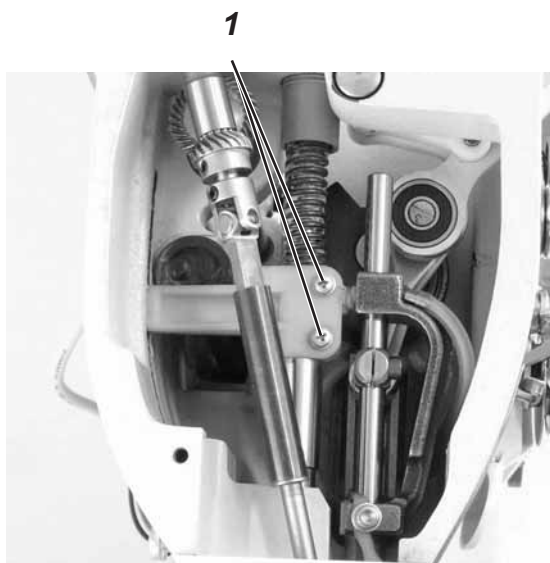


- Loosen screw (2) and the two screws (3). Move the post bed feed (4) so that either rule 2.1 is met (**A = 0.1 mm**) according to **Figure 1**, or rule 2.2 according to **Figure 2**.

3.3 Top roller

Rules:

1. The seating area on the top roller holder should be aligned at a right angle to the machine's longitudinal axis (centre-line).
A clearance of (A) = 0 mm should exist between the top roller and the throat plate.
2. The position of the top roller in the sewing direction should be adjusted as follows:
 - for single-needle machines: **(B) = 1.3 to 2.3 mm**
 - for double-needle machine: **(B) = 0 to 2.3 mm**
3. The lateral position of the top roller should be set so that the lower edge of the top roller is aligned with the left edge of the stitch hole (8).

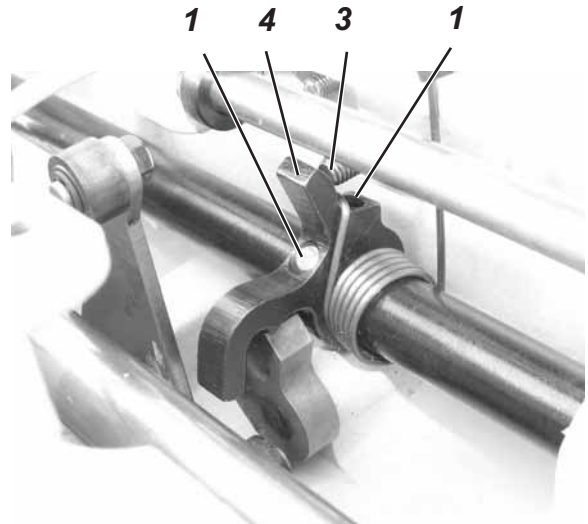
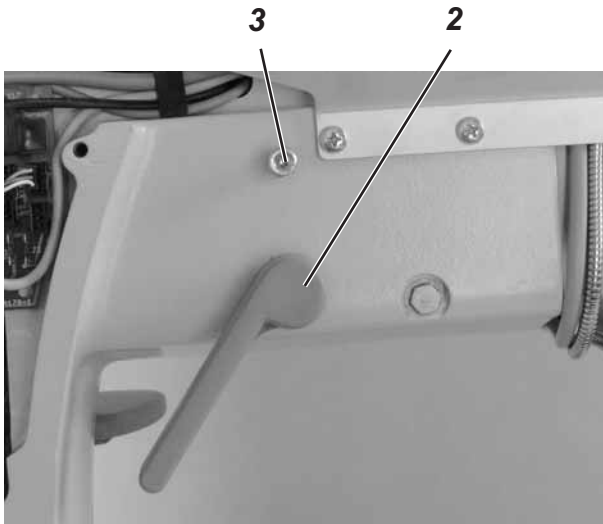


- Loosen screws (1). Push the presser foot bar perpendicularly, according to rule 1. Insert the cross-head screwdriver (2) (included with the accessories) into the hole on the top roller holder (3). Turn the presser foot bar (4) with top roller holder (3) until the screwdriver is at a right angle to the machine's longitudinal axis. Tighten the screws (1).
- Loosen screw (5). Move the top roller according to rule 2. Tighten screw (5).
- Loosen screw (6). Move the top roller by turning the screw (7), according to rule 3. Tighten screw (6).

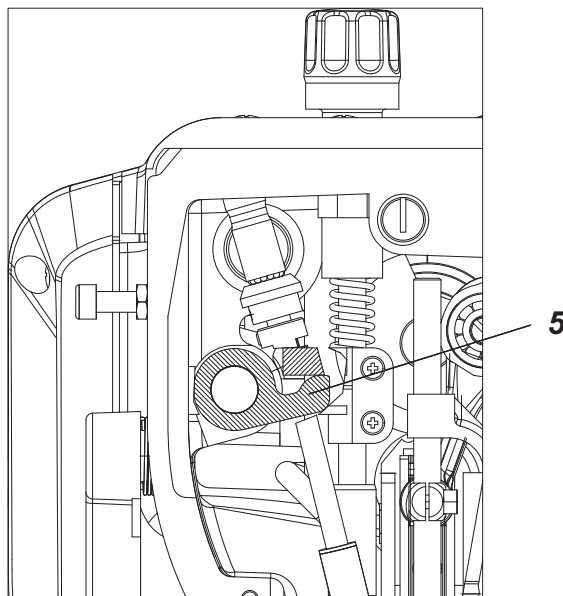
3.4 Lifting the top roller

Rules:

1. The top roller should have a 5.4 to 5.6 mm lift from the hand lever.
2. The top roller should have an 11.5 to 12.5 mm (automatic) lift with the pneumatic cylinder.



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Loosen screws (1). Move the hand lever (2) into the position shown. At the same time, screw in the screw (3) until it hits the lever (4). The lever (2) remains in the position shown.

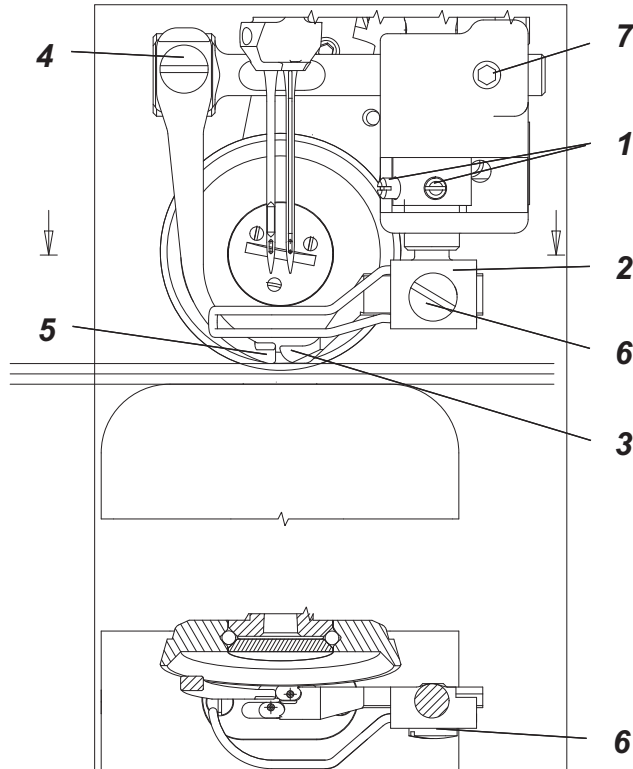
Position the spacer 5.6 mm below the top roller. Move the hand lever (5) to the end stop as shown in the illustration. Tighten the screws (1). Rule 1 has been fulfilled.

Using screw (3), set the ventilation (cylinder lift) for the pneumatic cylinder according to rule 2. The set value is also valid for the knee lever.

3.5 Press pad for the double-needle sewing machine

Rules:

1. The press pad should touch the material without any pressure.
2. The press pad should be positioned so that it is aligned in the sewing direction and laterally along the edge of the stitch holes.



- Put two layers of leather of approx. 1.5 mm thickness under the top roller. Adjust for a mid-level fabric pressure.
- Loosen screws (1) and move the holder (2) with the rear press pad (3) vertically until it rests gently on the leather. Tighten screws (1) gently. Loosen screw (4) and do the same for the front press pad (5). Remove the leather. Rule 1 has been fulfilled.
- Adjust the press pad according to rule 2: Adjust the rear press pad (3) in the sewing direction by means of screw (6) and laterally by turning the holder (2). Adjust the front press pad in the sewing direction and laterally by means of the screw (7).
- Tighten all screws.



Caution: Risk of Injury!

Turn the main switch off.

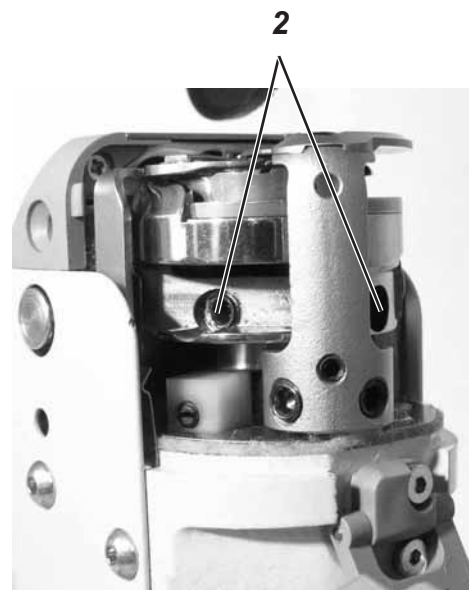
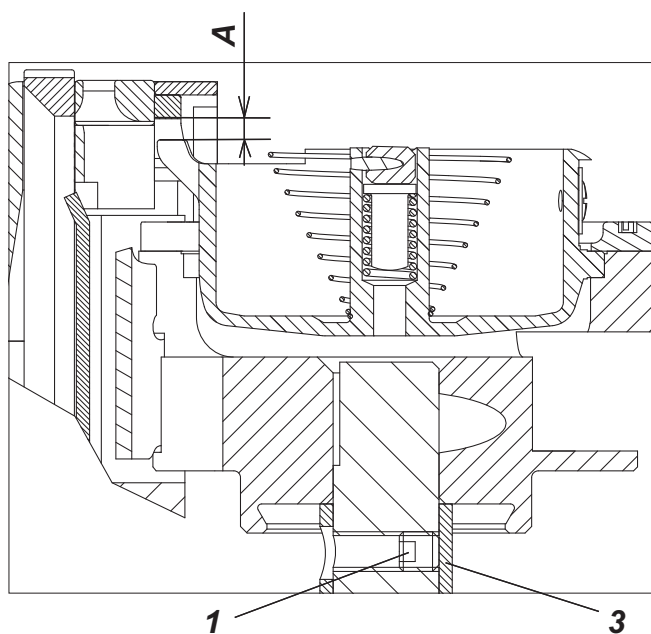
Perform adjustments only when the machine is turned off.

4. Adjusting the needle bar and the hook

4.1 Hook height

Rule:

The clearance distance **(A)** should be from **1.55 to 1.85 mm**.



GB

- Loosen screw (1).
- Loosen screws (2). Adjust the hook to the clearance **(A)**. Retighten screws (2).
- Push the ring (3) until it reaches the end stop on the hook bottom. Tighten screw (1). This means that the height adjustment is no longer required when replacing the hook.



Caution: Risk of Injury!

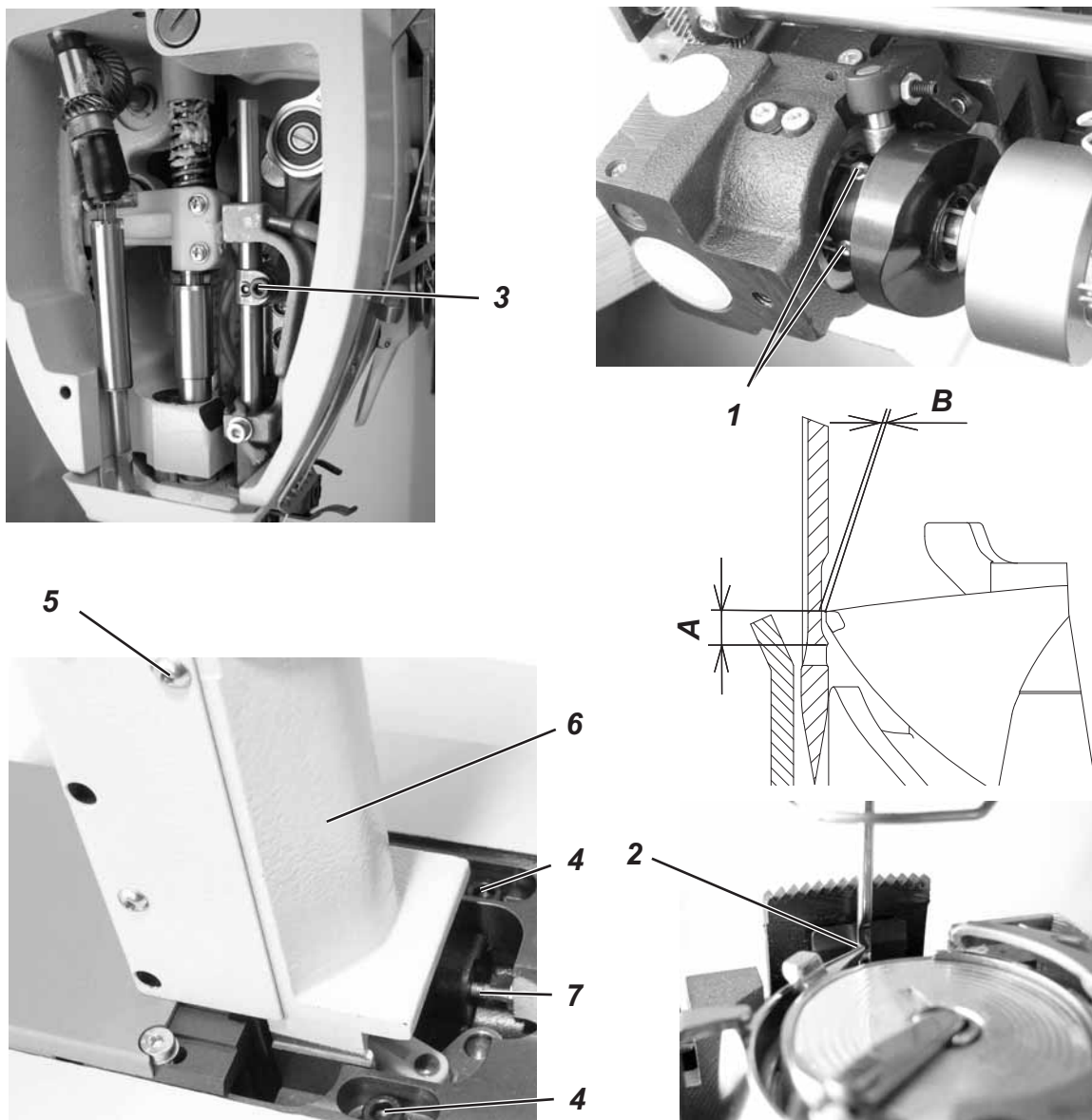
Turn the main switch off.

Adjust the hook only when the machine is turned off.

4.2 Needle bar height, play of needle to hook tip, loop stroke

Rule:

When the handwheel pointer indicates “205” degrees (2.5-mm loop stroke), the hook tip should stand at the needle axis at the stitch length 0. Length (A) = 1.5 mm, clearance gap (B) = 0.02 to 0.1 mm.

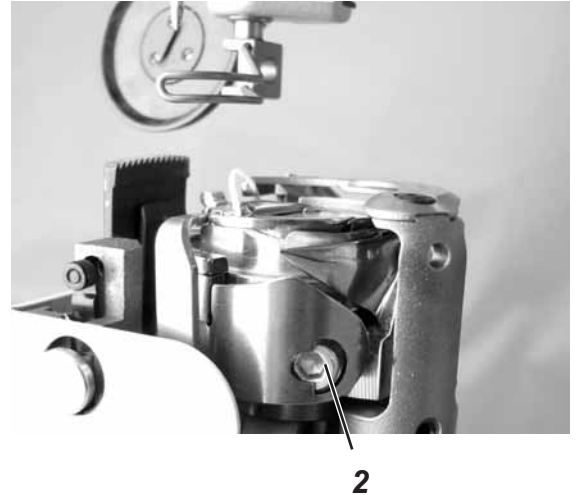
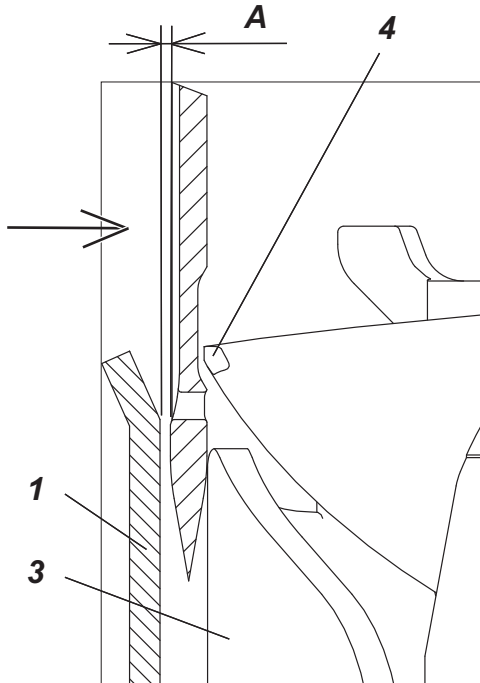


- Turn the handwheel in the loop stroke position (2.5 mm) with the indicator pointing to 205.
- Loosen screws (1). Turn the hook tip (2) on the needle axis.
- Loosen screw (3). Position the needle bar with the needle to the dimension (A). Tighten screw (3).
- Loosen two screws (4) and screw (5). Move the hook column (6) from the needle.
- Tighten screws (4) gently. With the help of screw (7), move the hook column (6) to the clearance distance (B). Tighten screws (4) and (5).
- Verify that the hook tip (2) is in the area of the needle axis. Tighten screws (1).

4.3 Protection for the hook tip and loop former

Rules:

1. The loop former (1) should be adjusted so that the clearance to the needle (**A**) is between **0.1** and 0.2 mm.
2. The guard plate (3) for the hook should prevent the needle from touching the hook tip (4).



GB

- Adjust the maximum stitch length according to the machine configuration.
- Remove the throat plate.
- Bend the loop former (1) to clearance (A) according to rule 1.
- Position the hook tip (4) to the needle. Use a 3-mm hexagon socket wrench to move the regulator screw (2) for the guard plate (3). Adjust it so that the needle does not touch the hook tip (4).
- Check: Put gentle pressure on the needle (refer to arrow) thus turning the hook.
- The adjustment is not incorrect if the guard plate (3) pushes on the needle slightly.



Caution: Risk of Injury!

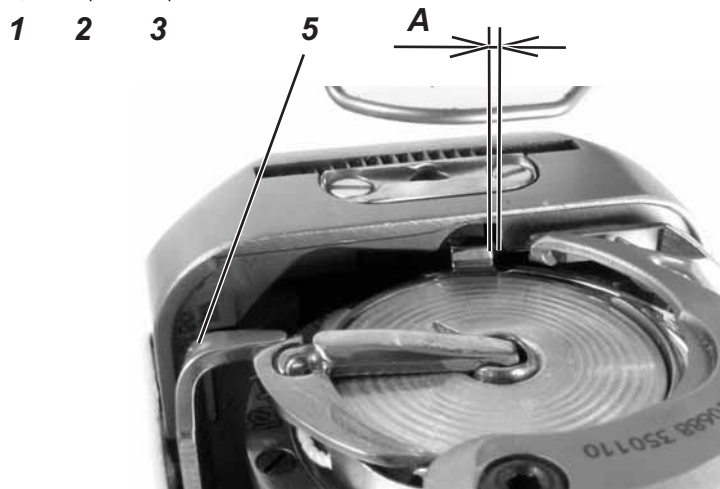
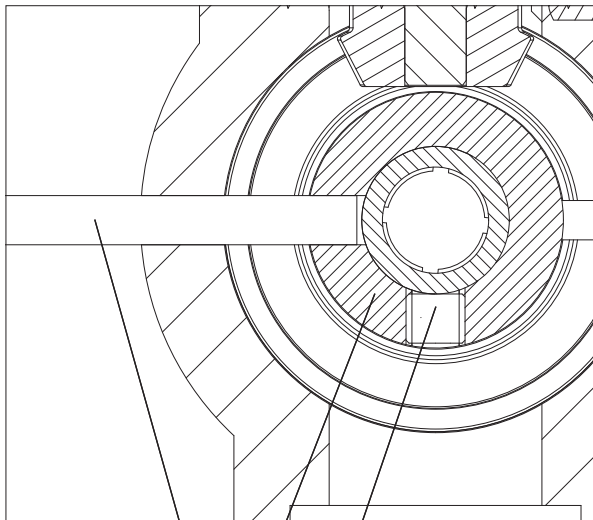
Turn the main switch off.

The hook protection and loop former should only be adjusted when the machine is turned off.

4.4 Bobbin housing lift

Rules:

1. When the retention pin (1) is inserted into the lifting cam, the handwheel indicator should point to:
 - From "305" to "315" for the right hook column
 - or
 - from "42" to "52" for the left hook column.
2. The clearance distance (A) at max. lift should be **0.8 mm**.

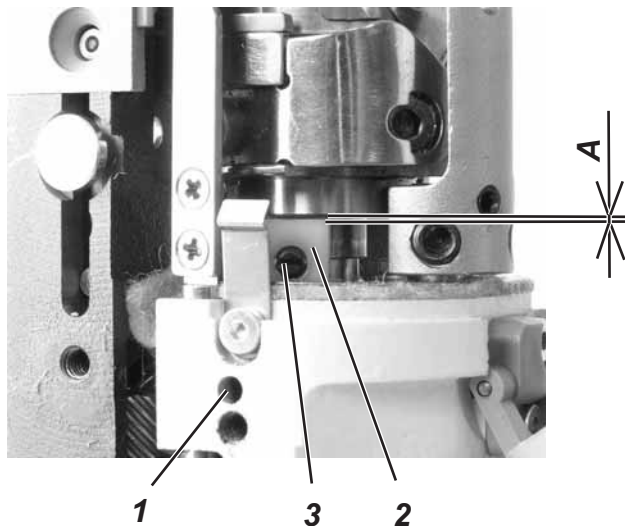


- Insert the retention pin (1) in the lifting cam (2). This is at the rear for the right hook column and at the front for the left hook column. Remove the lower plug. Loosen screw (3). Adjust the handwheel according to rule 1. Tighten screw (3).
- Turn the handwheel so the indicator points to 312. Remove the plug. Loosen screw (4). Turn the bobbin house lift (5) so that the available clearance distance (A) complies with rule 2. Tighten screw (4). Re-seal the openings.

4.5 Hook lubrication

Rules:

1. There should be a clearance (**A**) of **0.3 mm** between the lubricator (2) and the hook.
2. The lubricator's regulator screw (3) should project **0.5 mm** out of the lubricator.



- Loosen screw (1). Adjust the height of the lubricator (2) to the clearance distance (**A**), according to rule 1. Tighten screw (1).
- Screw in the screw (3), according to rule 2.
- Turn the screw (3) in deeper if you need to reduce the hook lubrication. You can screw it in a maximum of 0.5 mm under the level of the lubricator (2).



Caution: Risk of Injury!

Turn the main switch off.

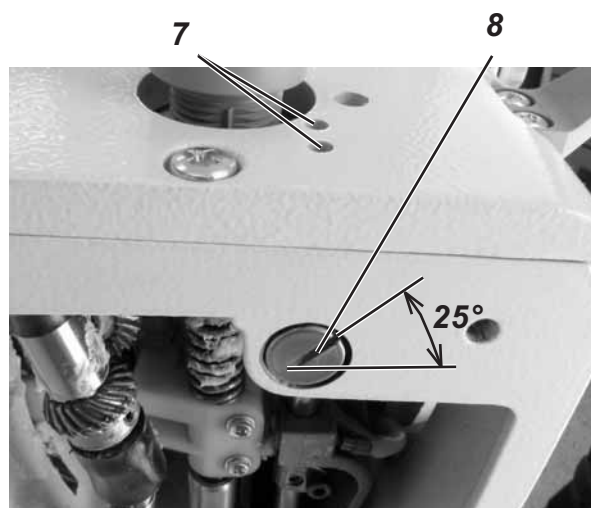
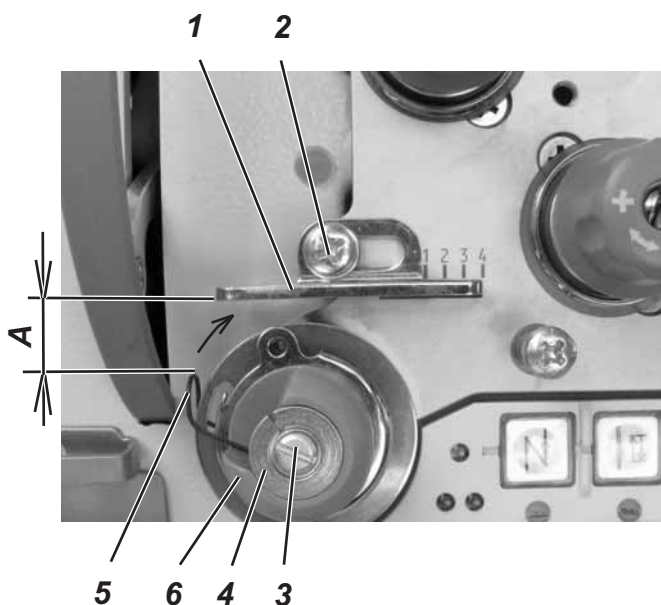
Adjust the lubrication only when the machine is turned off.

5. Adjusting the thread

5.1 Thread regulator, thread take-up lever, bolt for the thread lever mechanism

Rules:

1. The rightmost edge of the thread regulator (1) should align with the number 4 on the scale.
2. The thread take-up lever (5) should be adjusted so that the clearance distance (A) is **10 to 12 mm**. The range of movement for the take-up lever is about **30°**.
3. The slot position of the bolt (8) should form an angle of **25°** (refer to the illustration).

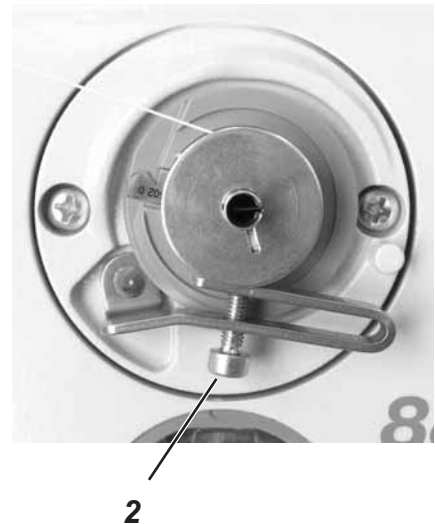
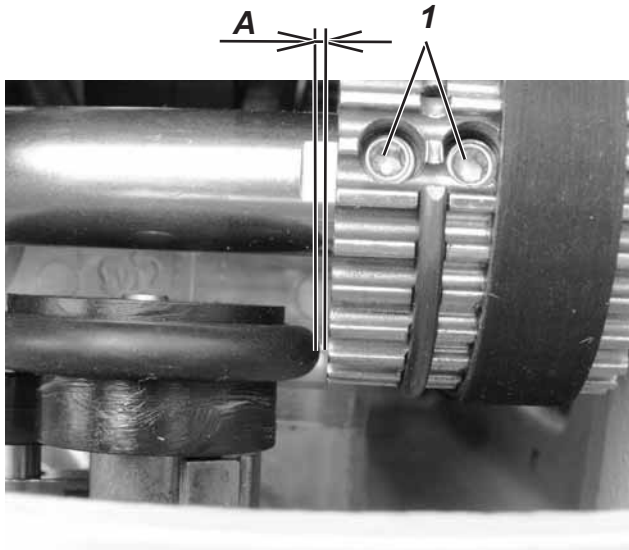


- Loosen screw (2). Push the thread regulator (1) to number 4, according to rule 1. Tighten screw (2).
- Loosen screw (3). Turn stop sleeve (4) in the direction of arrow, until the thread take-up lever (5) is separated from the body (6). Turn the stop sleeve (4) in the opposite direction as the arrow. Turn until the thread take-up lever touches the body (6). Turn both parts (4) and (6) together until the clearance distance (A) is reached. Hold the body (6) tight while turning the stop sleeve (4) for **30°** opposite the direction shown by the arrow. Hold (4) and (6) while tightening screw (3).
- Insert 3-mm hexagon socket wrench into hole (7) and loosen screws. Position the bolt (8) according to rule 3. Tighten screws (7).

5.2 Bobbin Winder

Rules:

1. When the bobbin winder is turned off, the distance **(A)** between the winder wheel and the belt pulley should be **0.8 mm**.
2. The bobbin winding operation should stop automatically when the bobbin is filled up to approx. 0.5 mm below the edge of the bobbin.



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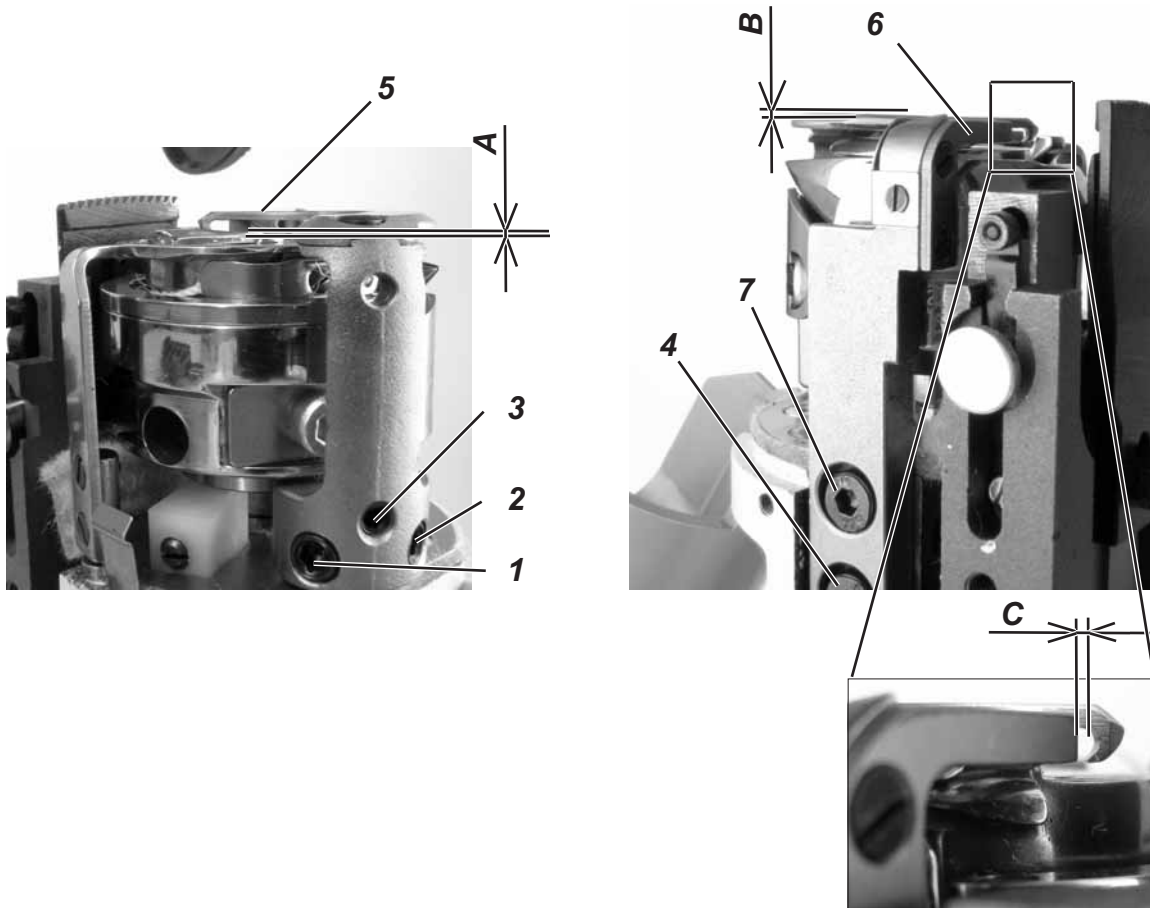
- Turn up the belt pulley using screws (1). Push the belt pulley to the right so that both screws (1) are accessible. Loosen screws (1). Adjust the clearance **(A)** according to rule 1. Tighten screws (1).
- You can determine the fill level of the bobbin winder by adjusting the screw (2). Screw in the screw (2) for 1 to 2 mm. Put a bobbin on the bobbin shaft and wind. Check the fill level as soon as the bobbin winder turns off. If necessary, change the position of the screw (2) until rule 2 is fulfilled.

6. Thread trimmer

6.1 Height of the thread trimming knife. Position of the counter-knife

Rules:

1. There should be a clearance **(A)** of **0.2 mm** between the thread-pulling knife (5) and the hook.
2. There should be a clearance **(B)** of **0.3 to 0.5 mm** between the counter-knife (6) and the thread-pulling knife (5).
3. At a clearance **(C)** of 1 to 2 mm, the knives should touch each other.

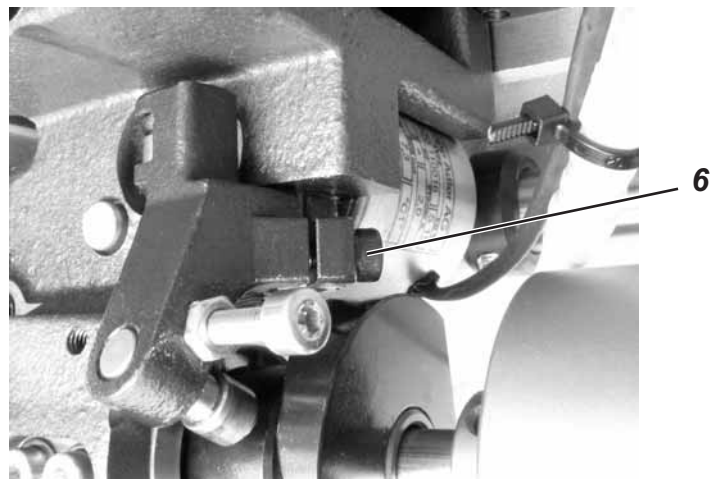
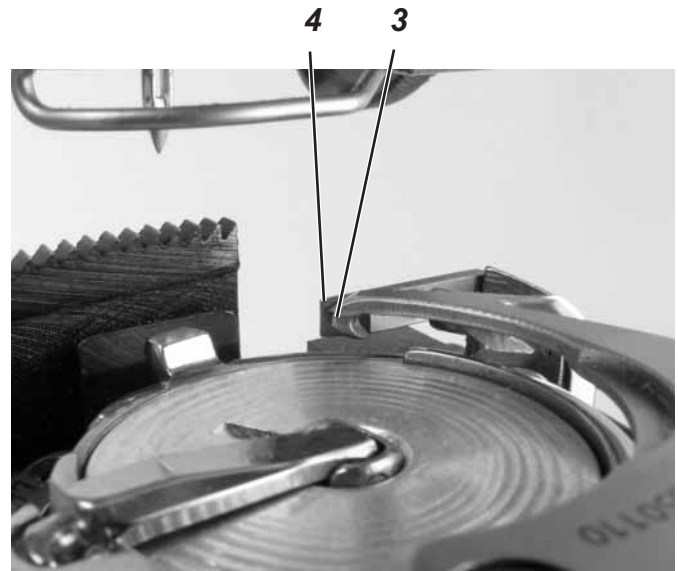
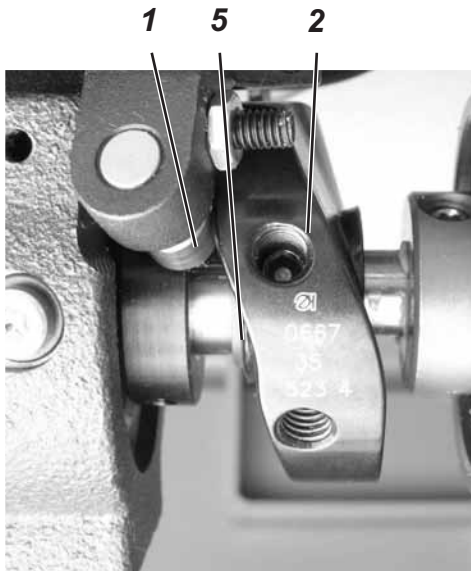


- Loosen screws (1), (2) and (3). Push the holder (4) down.
- Gently tighten screw (2) located on the surface of the shaft.
- Tighten screw (3) until the distance **(A) = 0.2 mm** is reached. Rule 1 is then fulfilled.
- Tighten screw (2) and then screw (1).
- Remove the post bed protective cover.
- Loosen screws (7) and (4). Adjust the distance **(B) = 0.3 to 0.5 mm**, according to rule 2.
- Gently tighten screw (4).
- Turn the handwheel so that the pointer indicates **270°**.
- Use your hand to turn the thread take-up knife (5) to the distance **(C) = 1 to 2 mm**. Then position the counter-knife so that the knives gently touch (without pressure).
- Tighten screws (7) and (4). Check that the knives touch each other with the distance **(C)**.

6.2 Starting position for the thread take-up knife

Rule:

When the roller (1) is at the highest point of the control cam (2), the end of the thread take-up knife (3) should overlap the blade of the counter-knife (4) by 0.5 to 1 mm.



- Check that the control cam (2) abuts on the circlip (5).
- Position the control cam according to the rule.
- Loosen screws (6).
- Adjust the thread take-up knife (3) according to the rule.
- Tighten screws (6).



Caution: Risk of Injury!

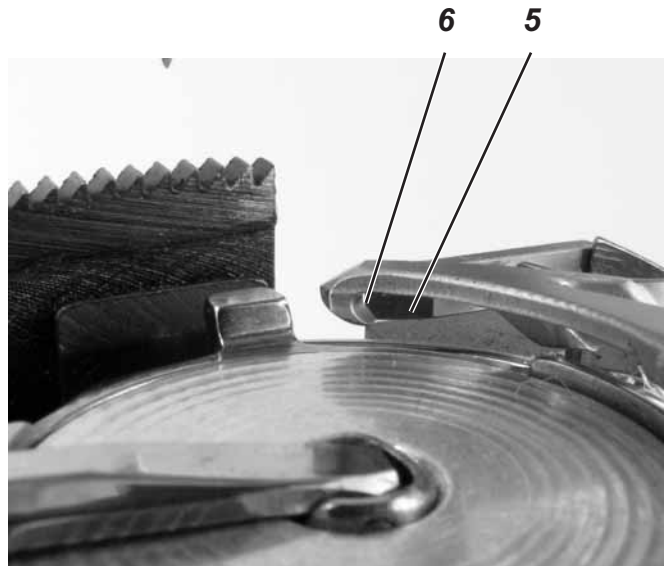
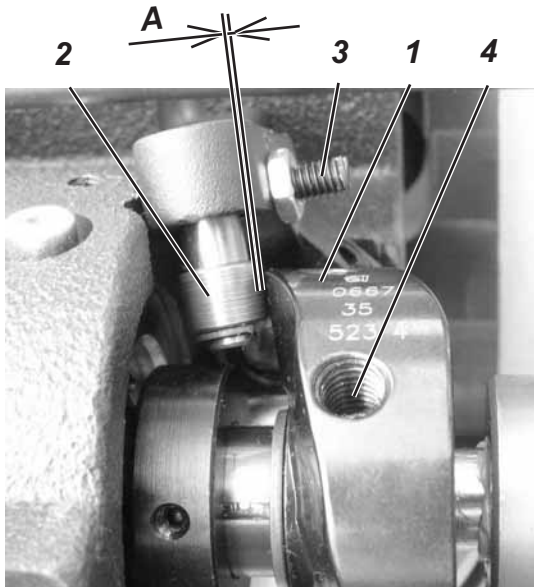
Turn the main switch off.

Only adjust the thread trimmer when the machine is turned off.

6.3 Control cam

Rules:

1. There should be a clearance distance (**A**) = **0.05 to 0.1 mm** between the highest point on the control cam (1) and the roller (2).
2. The threads should be separate when the pointer on the handwheel points from “40” to “45” on the scale.



- Loosen the locknut. Turn screw (3) until the distance (**A**) between the roller (2) and the highest point on the control cam (1) is equal to **0.05 to 0.1 mm**, according to rule 1.
- Loosen two screws (4). Turn the handwheel so that the pointer indicates “40” to “45” on the scale. Use your hand to adjust the thread take-up knife (5) so that the blade on the thread take-up knife overlaps the blade on the counter-knife.
- Push the control cam (1) to the left while simultaneously turning it in the machine’s rotational direction. Turn until the roller (2) comes up against it.
- Tighten screws (4).



Caution! Danger of injury!

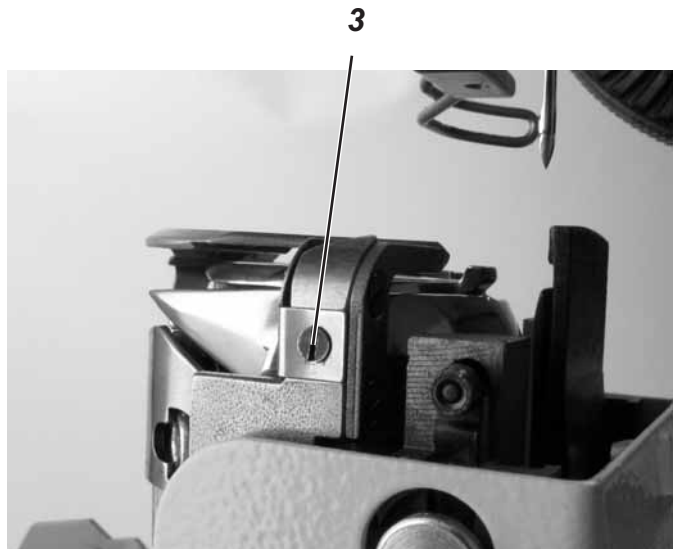
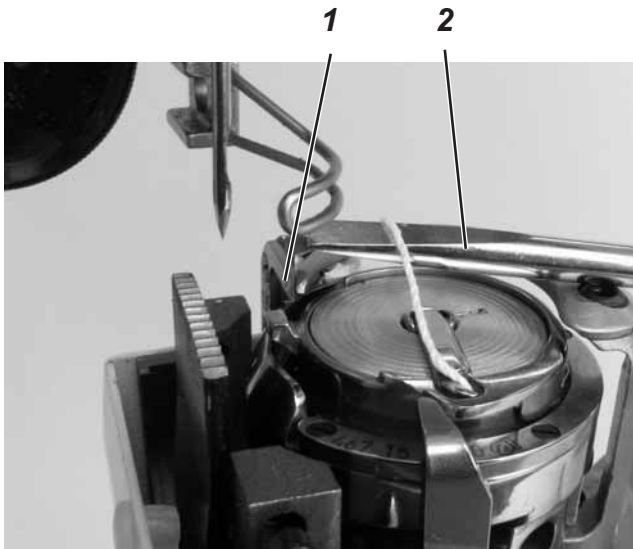
Turn the main switch off.

Only adjust the control cam when the machine is turned off.

6.4 Bobbin thread clamp

Rule:

The clamping force of the spring (1) should not be set higher than needed. It should just be able to pull out the lower thread from the hook.



GB

Sew and cut the threads.

Using a screwdriver (2), inspect the thread according the illustration. Check if the thread is being pulled out of the bobbin winder or from the clamping (1).

Using screw (3), control and adjust the spring pressure (1) until the rule is fulfilled.



Caution: Risk of Injury!

Turn the main switch off.

Only adjust the clamping spring when the machine is turned off.



CAUTION!

Sewing problems can result when the clamping spring is improperly adjusted.

7. Electronic control and machine drive – positioning drive

A detailed manual for the positioning drive is enclosed with the machine (also refer to **www.efka.net**).