



D867

Additional Instructions

Neat seam beginning (NSB)

IMPORTANT
READ CAREFULLY BEFORE USE
KEEP FOR FUTURE REFERENCE

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1 General information

The kit is used to create a neat seam beginning.


Components of the kit

Check whether the scope of delivery for kit 0867 594324 is correct prior to installation.

Part number	Quantity	Description
0867 354314	1	NSB assembly, consisting of: <ul style="list-style-type: none"> • 0867 350363, stop block • 9790 201000, WI-E coupling (4 pieces) • 0867 350423, block • 0867 350470, plate • 9700 234002, double cylinder D12x10 (2 pieces) • 9330 000087, washer A4,3 (5 pieces) • 9202 002067, screw M4x8 (5 pieces) • 0867 350440, stop • 9202 100328, countersunk screw M4x8 (3 pieces) • 0867 350410, counter blade • 0867 350330, thread-pulling knife • 0867 350400, clamping spring • 9204 431657, screw M4x8 (2 pieces) • 0867 350313, holder • 0867 354300, carrier plate • 9712 867001, valve block • 9731 004024, hose PUR, green (0.095 m) • 9731 004034, hose PUR, yellow (0.115 m) • 9731 004014, hose PUR, red (0.06 m) • 9731 004044, hose PUR, blue (0.07 m) • 9202 001727, screw M3x30 (5 pieces) • 9202 100338, countersunk screw M4x10 (2 pieces) • 0867 350290, retaining bracket • 9790 060101, WI-E coupling
0579 140074	1	Container
0742 002096	2	Clip
0999 240392	1	WI-E coupling
0999 240402	1	T-R coupling
9202 002897	2	Screw M6x16
9790 610460	1	Plug-in connection WI-E DA6/4
9330200110	2	Washer A6.4
9731 005004	0.5 m	Hose PUR, gray
9731 006004	1.5 m	Hose PUR, gray
9732 010033	1	Hose ARMORVIN
9790 201001	1	WI-E coupling R1/8" D4
9840 120001	6	Nail clamp
9840 120026	1	Mounting clip

Part number	Quantity	Description
9840 123003	6	Steel needle
9874 867019	1	Cable
9081 200810	1	Pin wrench


Important

The use of the NSB requires that the new sewing equipment **4867 E21206** or **4867 E21209** has been installed ( *Parts List*). The new sewing equipment is comprised of

- Feed dog (needle hole size 2.2x3.2; saw-tooth cut)
- Throat plate with left and right throat plate slide
- Presser foot
- Walking foot (non-toothed)

2 Assembling the neat seam beginning (NSB)

When the needle exits the sewing material after the first stitch, the thread-pulling knife pulls the initial thread into the clamp. This ensures secure sewing.

Following the 2nd stitch, the remaining thread is cut off and removed by the suction device.



Important

The NSB will not be active until the completion of the 2nd stitch after the machine was switched on.

The NSB is not active if the needle tip remains below the throat plate level during sewing.

2.1 Presettings outside of the machine (optional)

The kit has been preset at the factory and does usually NOT have to be adjusted.

Do not check or adjust the presettings outside of the machine UNLESS the NSB is without function.



Order





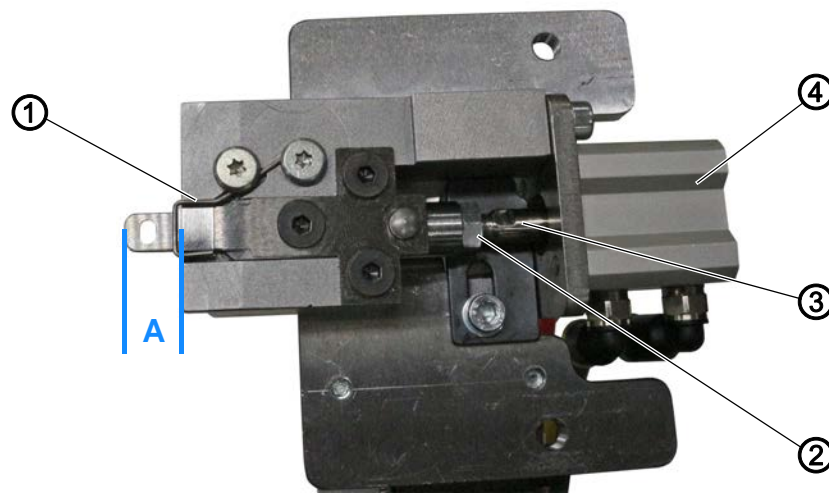
1. Complete the presettings outside of the machine.
2. Check/adjust the cutting pressure ( p. 7).
3. Check/adjust the clamping spring pressure ( p. 8).
4. Assemble the NSB ( p. 9).
5. Activate the NSB ( p. 15).

Fig. 1: Presettings outside of the machine (1)



(1) - Clamping spring
(2) - Nut

(3) - Piston rod
(4) - Cylinder

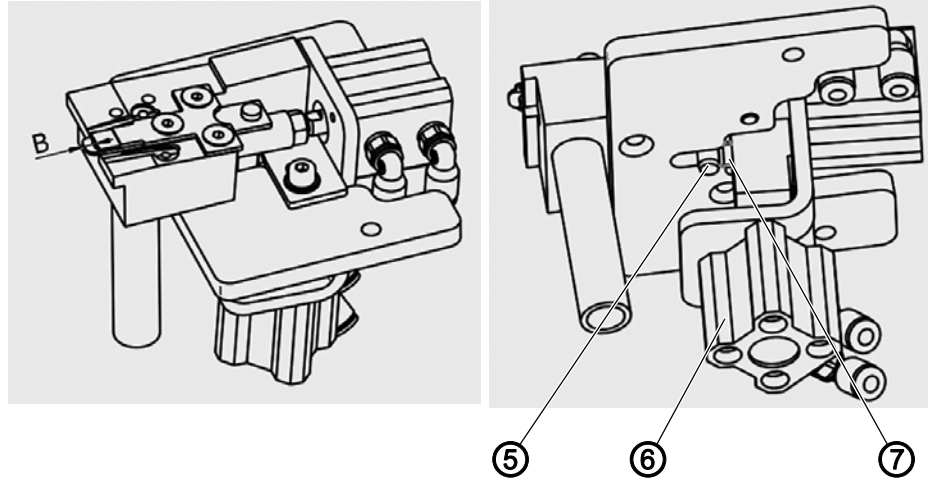


To complete the presettings outside of the machine:

1. Remove the clamping spring (1).
2. Loosen the nut (2).
3. Extend cylinder (4).

4. Turn the piston rod (3).
- ↳ Measurement **A** must be **8.8 mm** with the cylinder fully extended (4).
5. Tighten the nut (2).

Fig. 2: Presettings outside of the machine (2)



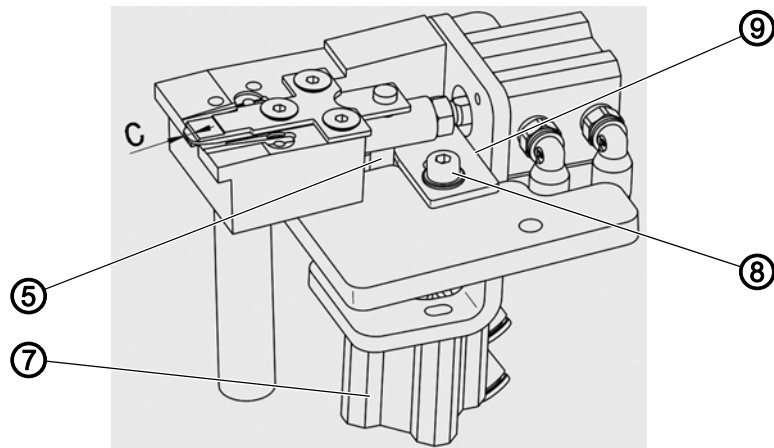
- (5) - Pin
- (6) - Cylinder

- (7) - Threaded pin



6. Extend cylinder (6).
7. Retract cylinder (4).
8. Press the pin (5) against the threaded pin (7).
9. Turn the threaded pin (7).
- ↳ Measurement **B** must be **2.8 mm** when the pin (5) abuts on the threaded pin (7).

Fig. 3: Presettings outside of the machine (3)



- (5) - Pin
- (6) - Cylinder

- (8) - Screw
- (9) - Plate



10. Retract cylinder (6).
11. Loosen the screw (8).

12. Shift the plate (9).
- ↳ Measurement **C** must be **1.3 mm** when the pin (5) abuts on the plate (9).
13. Tighten the screw (8).
14. Place the clamping spring (1).

2.2 Checking and adjusting the cutting pressure

NOTICE

Property damage may occur!

Risk of knife breakage if pressure is adjusted too high.

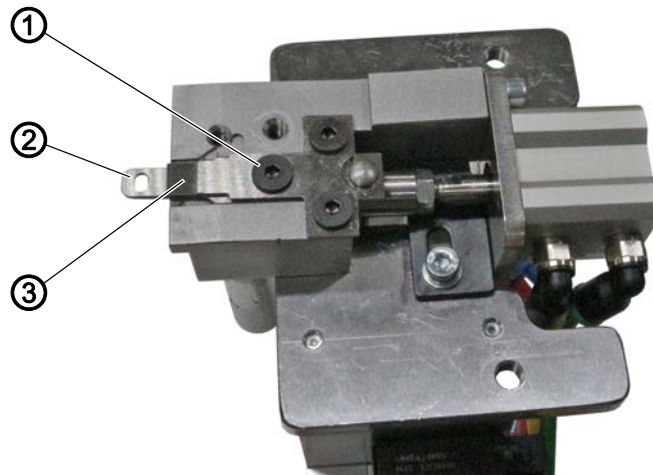
Do not adjust the cutting pressure too high.



Order

1. Complete the presettings outside of the machine (📖 p. 5).
- 2. Check/adjust the cutting pressure.**
3. Check/adjust the clamping spring pressure (📖 p. 8).
4. Assemble the NSB (📖 p. 9).
5. Activate the NSB (📖 p. 15).

Fig. 4: Checking and adjusting the cutting pressure



(1) - Screw

(2) - Thread-pulling knife

(3) - Counter blade



Proper setting

Screw (1) is adjusted such that the thread-pulling knife (2) moves smoothly and the counter blade (3) cuts the loose thread cleanly.



To check and adjust the cutting pressure:

1. Screw in screw (1) in such a way that the screw head abuts on the counter blade (3).

2. Turn the screw (1).
 - Increase the cutting pressure: Turn screw (1) clockwise
 - Reduce the cutting pressure: Turn screw (1) counterclockwise
3. Carry out a cutting test.
4. Readjust the cutting pressure if necessary.

2.3 Checking and adjusting the clamping spring pressure

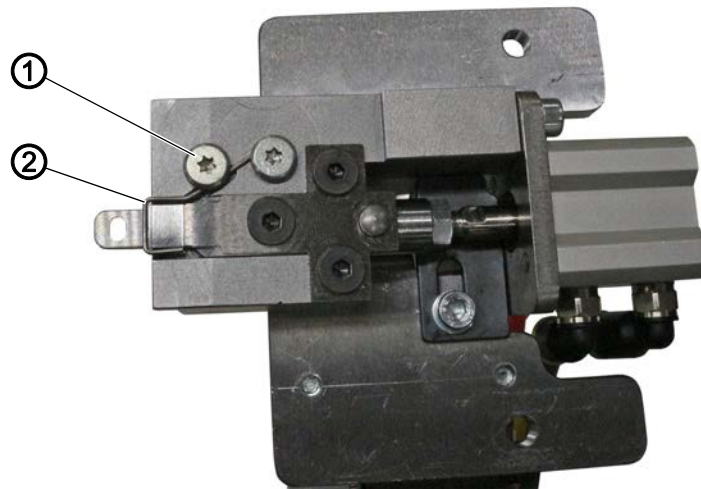
The clamping spring clamps the needle thread after the 1st short stitch and prior to cutting.



Order

1. Complete the presettings outside of the machine (📖 p. 5).
2. Check/adjust the cutting pressure (📖 p. 7).
- 3. Check/adjust the clamping spring pressure.**
4. Assemble the NSB (📖 p. 9).
5. Activate the NSB (📖 p. 15).

Fig. 5: Checking and adjusting the clamping spring pressure



(1) - Screw

(2) - Clamping spring







To adjust the clamping spring pressure:

1. Adjust screw (1) such that the needle thread is securely clamped by the clamping spring (2).
The clamping spring pressure depends on the needle thread thickness. Make sure that the needle thread can be effortlessly pulled out of the clamped position.
2. Turn the screw (1).
 - Increase the clamping spring pressure:
Turn screw (1) clockwise
 - Reduce the clamping spring pressure:
Turn screw (1) counterclockwise

2.4 Assembling the NSB into the machine



Order

1. Complete the presets outside of the machine ( p. 5).
2. Check/adjust the cutting pressure ( p. 7).
3. Check/adjust the clamping spring pressure ( p. 8).
- 4. Assemble the NSB.**
5. Activate the NSB ( p. 15).



To assemble the NSB into the machine:



Important




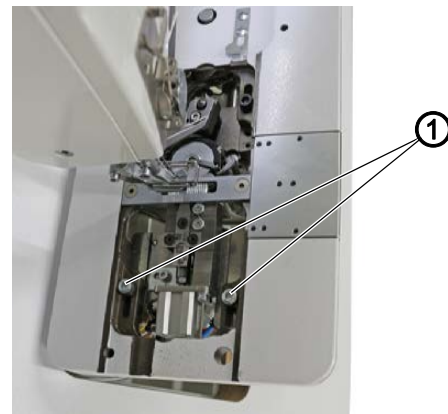
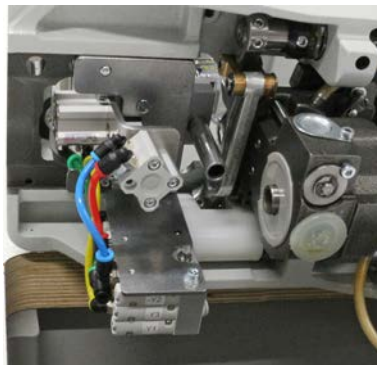
- Adjust the stitch length to 0.1
 - Do NOT switch off the machine
 - Lock the sewing feet in place
 - Press the Service Stop key
1. Remove the throat plate slide.
 2. Disassemble the throat plate ( *Service Instructions*).
 3. Disassemble the feed dog ( *Service Instructions*).
 4. Disassemble the short thread trimmer knife ( *Service Instructions*).
 5. Tilt the machine head.

Fig. 6: Assembling the NSB into the machine (1)

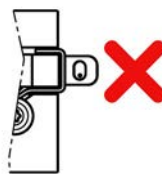
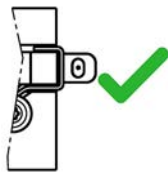


(1) - Screws



6. Insert the NSB from the bottom.
7. Tighten the NSB (1) using the screws.
8. Erect the machine head.

Fig. 7: Assembling the NSB into the machine (2)



(1) - Screws

(2) - Thread-pulling knife



9. Manually turn the needle to top dead center.
10. Extend the thread-pulling knife (2) by hand without pressure as far as it will go.
11. Lower the needle by turning the handwheel
 - ↳ The needle must be positioned in the center of the needle hole of the thread-pulling knife (2).
12. Loosen the screws (1).
Make sure the thread-pulling knife (2) remains fully extended.
13. Move the entire NSB unit such that the needle is positioned precisely in the center of the needle hole of the thread-pulling knife (2) (see figure above).
14. Tighten the screws (1).
When doing so, make sure that you do not move the NSB unit.
15. Raise the needle by turning the handwheel.
16. Slide the thread-pulling knife (2) all the way back.

Fig. 8: Assembling the NSB into the machine (3)



(3) - Feed dog

(4) - Short thread trimmer knife

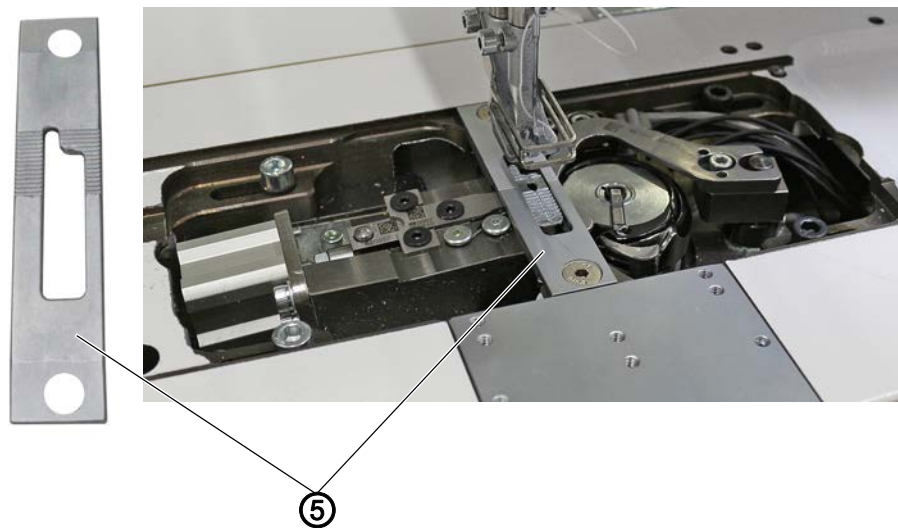


17. Assemble the short thread trimmer knife (4).

18. Assemble the new feed dog (3).

⚠ The needle must pierce exactly in the center of the needle holes of feed dog (3) and thread-pulling knife (2).

Fig. 9: Assembling the NSB into the machine (4)



(5) - Throat plate



19. Assemble the throat plate (5).

20. Tilt the machine head.

Fig. 10: Assembling the NSB into the machine (5)



- (6) - Compressed air maintenance unit (8) - Air hose
(7) - Connection hose



21. Assemble the compressed air maintenance unit (6) to the stand (if not yet present).
22. Connect the air hose (8).
23. Connect the connection hose (7) to the compressed air supply.

Fig. 11: Assembling the NSB into the machine (6)

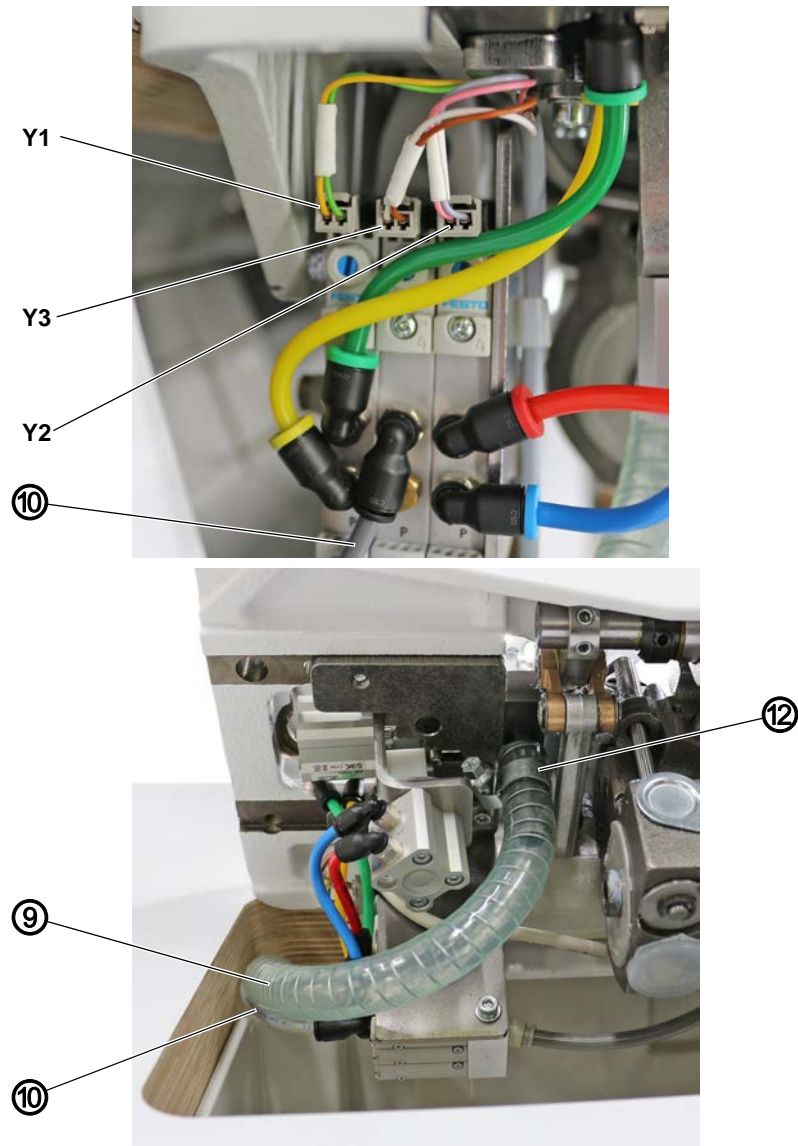


- (9) - Suction hose (11) - Suction container
(10) - Pneumatic hose



24. Assemble the suction container (11) under the tabletop.
25. Assemble the suction hose (9) to the suction container (11) using the clip.
26. Connect the pneumatic hose (10) to the suction container (11).
27. Lay the suction hose (9) and the pneumatic hose (10) through the slot in the oil pan under the machine.

Fig. 12: Assembling the NSB into the machine (7)



(9) - Suction hose
(10) - Pneumatic hose

(12) - Clip



28. Connect cables and hoses to the NSB.

- Assemble the suction hose (9) using the clip (12)
- Insert the pneumatic hose (10) of the suction container (11)
- Connect valve connectors **Y1**, **Y2** and **Y3** to the valve blocks
 Y1: yellow/green (cylinder of thread-pulling knife)
 Y2: gray/pink (cylinder for clamping position)
 Y3: brown/white (suction)

29. Erect the machine head.

Fig. 13: Assembling the NSB into the machine (8)



(13) - Throat plate slide



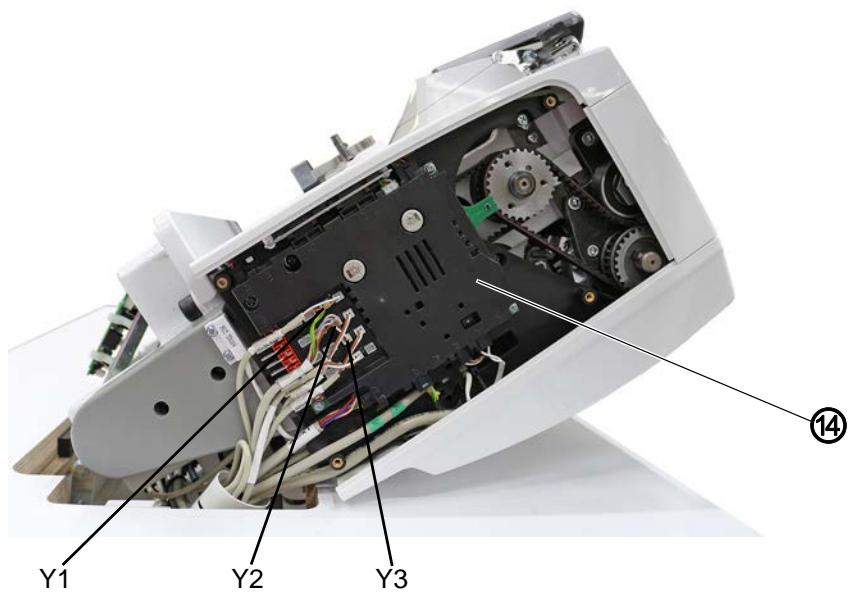
30. Insert throat plate slide (13).



Important

The left throat plate slide must be replaced with throat plate slide (13) in order to prevent collisions.

Fig. 14: Assembling the NSB into the machine (9)



(14) - PCB



31. Tilt the machine head.

32. Lay valve connectors Y1, Y2 and Y3 under the machine to PCB A2.

33. Connect valve connectors at PCB A2 (14).





- Y1: yellow/green slot **X25**
- Y2: gray/pink slot **X26**
- Y3: brown/white slot **X27**

2.5 Activating the NSB in the software

The NSB must be activated by setting the corresponding parameters on the control panel.









Order

1. Complete the presets outside of the machine ( p. 5).
2. Check/adjust the cutting pressure ( p. 7).
3. Check/adjust the clamping spring pressure ( p. 8).
4. Assemble the NSB ( p. 9).
5. **Activate the NSB.**



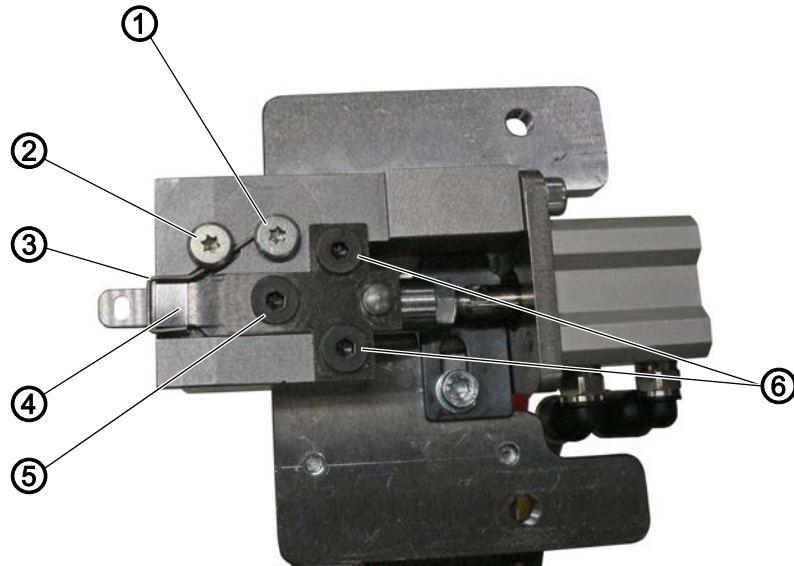
To activate the NSB in the software:

1. Log in as a technician.
User: technician
Password: 25483
2. Open the menu  *Navigation* >  *Settings* >  *Machine Configuration* >  *Needle Thread Clamp*
and press the  **neat seam beginning** button.
3. Set the parameter *t 01 30* to **On**.
4. Press the  button to exit the menu.

3 Changing the knives

To change the knives, you will need a size 10 Torx screwdriver for the clamping spring and a 2.5 mm hexagon socket screwdriver for the knife screws.

Fig. 15: Changing the knives (1)



- | | |
|-----------------------|-----------------------|
| (1) - Screw | (4) - Counter blade |
| (2) - Adjusting wheel | (5) - Adjusting wheel |
| (3) - Clamping spring | (6) - Screws |



To change the knives:


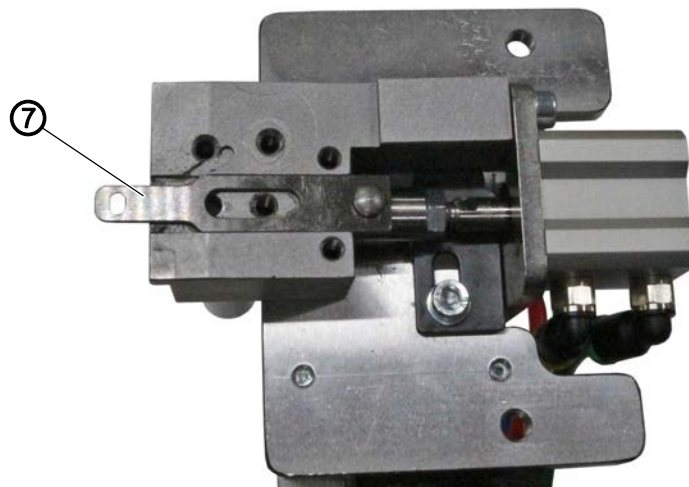
1. Disassemble the throat plate ( *Service Instructions*).
2. Loosen screw (1) and adjusting wheel (2).
3. Remove the clamping spring (3).
4. Loosen adjusting wheel (5) and screws (6).
5. Remove the counter blade (4).

Fig. 16: Changing the knives (2)



- (7) - Thread-pulling knife



6. Disassemble the thread-pulling knife (7).
7. Place the new thread-pulling knife.



Important



Make sure to place the thread-pulling knife with the correct orientation:
The slanted surface is found on the underside.

8. Place the new counter blade.



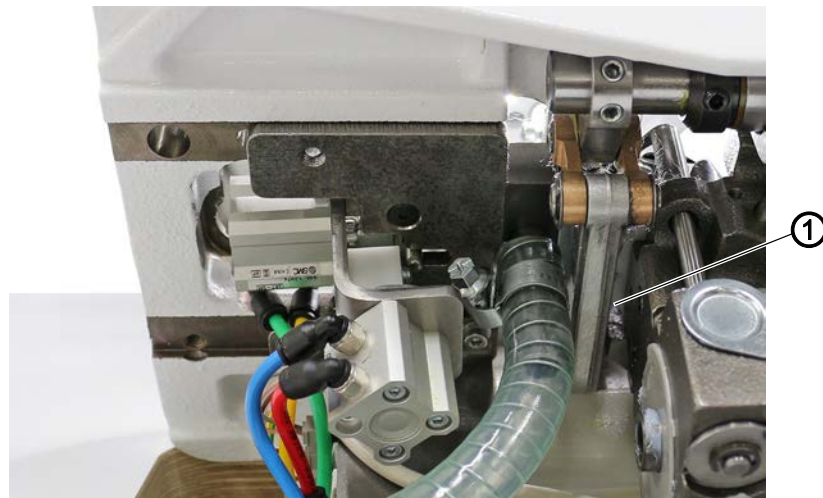
Important

Make sure to place the counter blade with the correct orientation:
The countersunk screws can be inserted properly into the holes.

9. Tighten the screws (6).
10. Screw in screw (5) and adjust the cutting pressure ( p. 7).
11. Place and align the clamping spring (3).
12. Tighten the screw (1).
13. Screw in screw (2) and adjust the clamping spring pressure ( p. 8).

4 Maintenance

Fig. 17: Maintenance (1)



(1) - Suction container



To perform maintenance on the NSB:

1. Empty the suction container (1).

Fig. 18: Maintenance (3)



(2) - NSB unit



2. Open the left throat plate slide.
3. Use a compressed air gun to clean the NSB unit (2) every day.



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