PFAFF® Industrial

571
574

ADJUSTMENT MANUAL

591

This adjustment manual applies to machines from the serial number **7 278 349** and adjustment manual **0435/0**02 onwards.

296-12-19 399/002
Adjustment Manual engl. 03.19

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13 Adjustment

Observe and comply with all instructions in the operating manual's **chapter 1 Safety**! In particular make sure that all safety covers are installed again correctly after making adjustments, see **chapter 1.06 Operating manual** hazard information!

Unless otherwise stated, the machine must be disconnected from the electric supplies before all adjustment work!
Risk of injury due to accidental machine start-up!

Notes on adjustment

All adjustments in this manual are based on a fully assembled machine and may only be carried out by technical staff trained for this purpose. Machine covers, which have to be removed and replaced to carry out checks and adjustments, are not mentioned in the text. The order of the following chapters corresponds to the most logical work sequence for machines that have to be completed adjusted. Both the preceding and following chapters must be observed if only specific individual work steps are carried out. Screws and nuts indicated in brackets () are fastenings for machine parts, which must be loosened before any adjustment and tightened again afterwards.

13.01 Tools, gauges and other accessories

- 1 set of screwdrivers with blade widths from 2 to 10 mm
- 1 set of wrenches with jaw widths from 7 to 13 mm
- 1 set of Allen keys from 1.5 to 6 mm
- 1 metal ruler (order no. 08-880 218-00)
- Needle rise gauge (order no. 61-111 600-01
- Screw clamp (order no. 61-111 600-35))

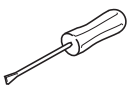
13.02 Abbreviations

TDC = top dead centre
BDC = bottom dead centre

13.03 Explanation of symbols

Activities to be performed or important information in this adjustment manual are emphasised by symbols. The symbols used have the following meaning:

Note, information



Maintenance, repairs, adjustment, service work
(only to be carried out by technical staff)

13.04 Adjusting the basic machine

13.04.01 Needle position in sewing direction (on the PFAFF 571 and 591)

Rule
The needle should be at the centre of the stitch hole looking in the sewing direction with minimum stitch length regulation.

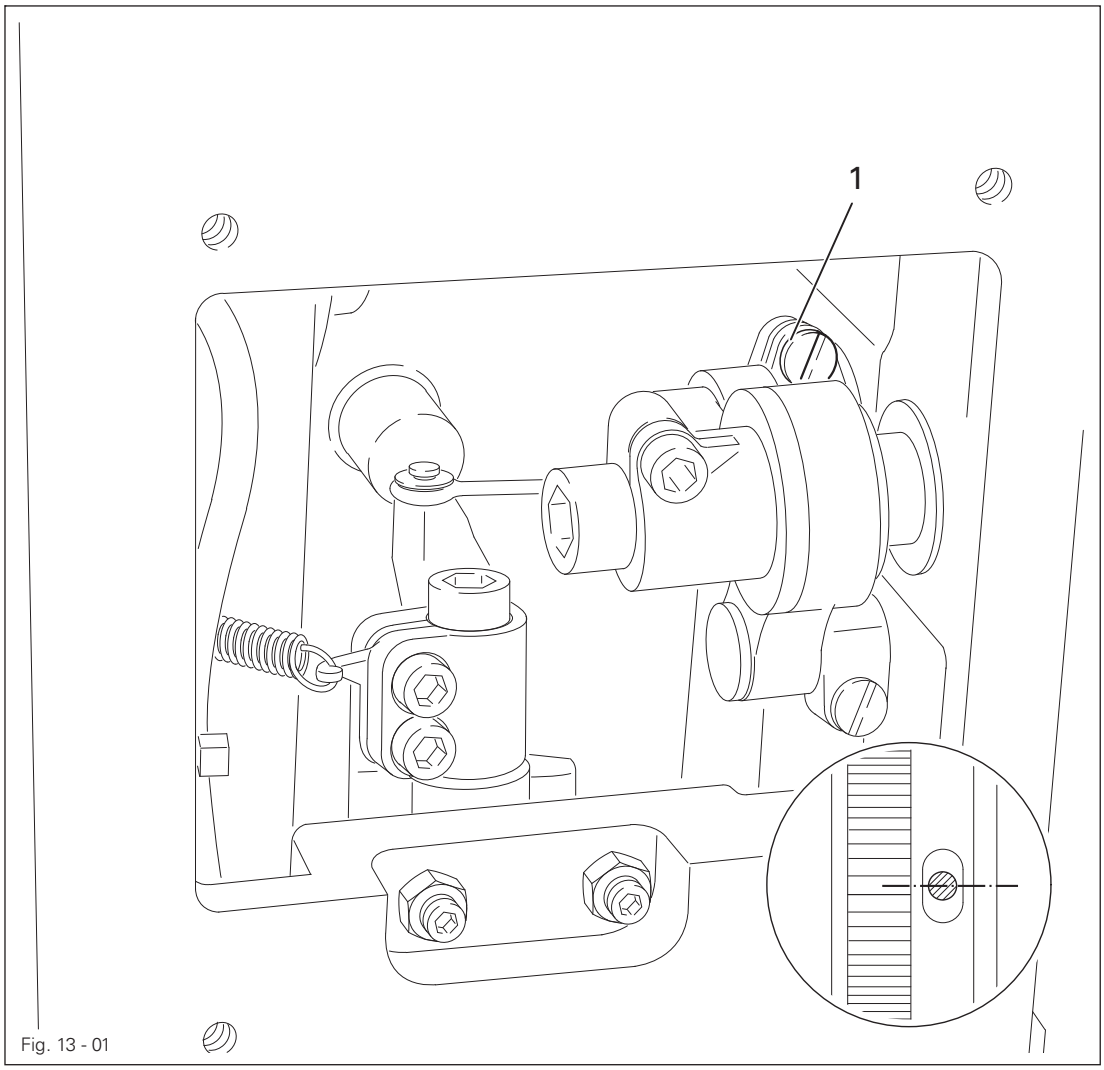
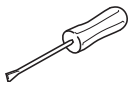


Fig. 13 - 01



- Set the minimum stitch length.
- Adjust the needle bar (screw **1**) according to the **rule**.

13.04.02 Needle position in sewing direction (on the PFAFF 574)

Rule
The needles should be at the centre of the stitch hole looking in the sewing direction.

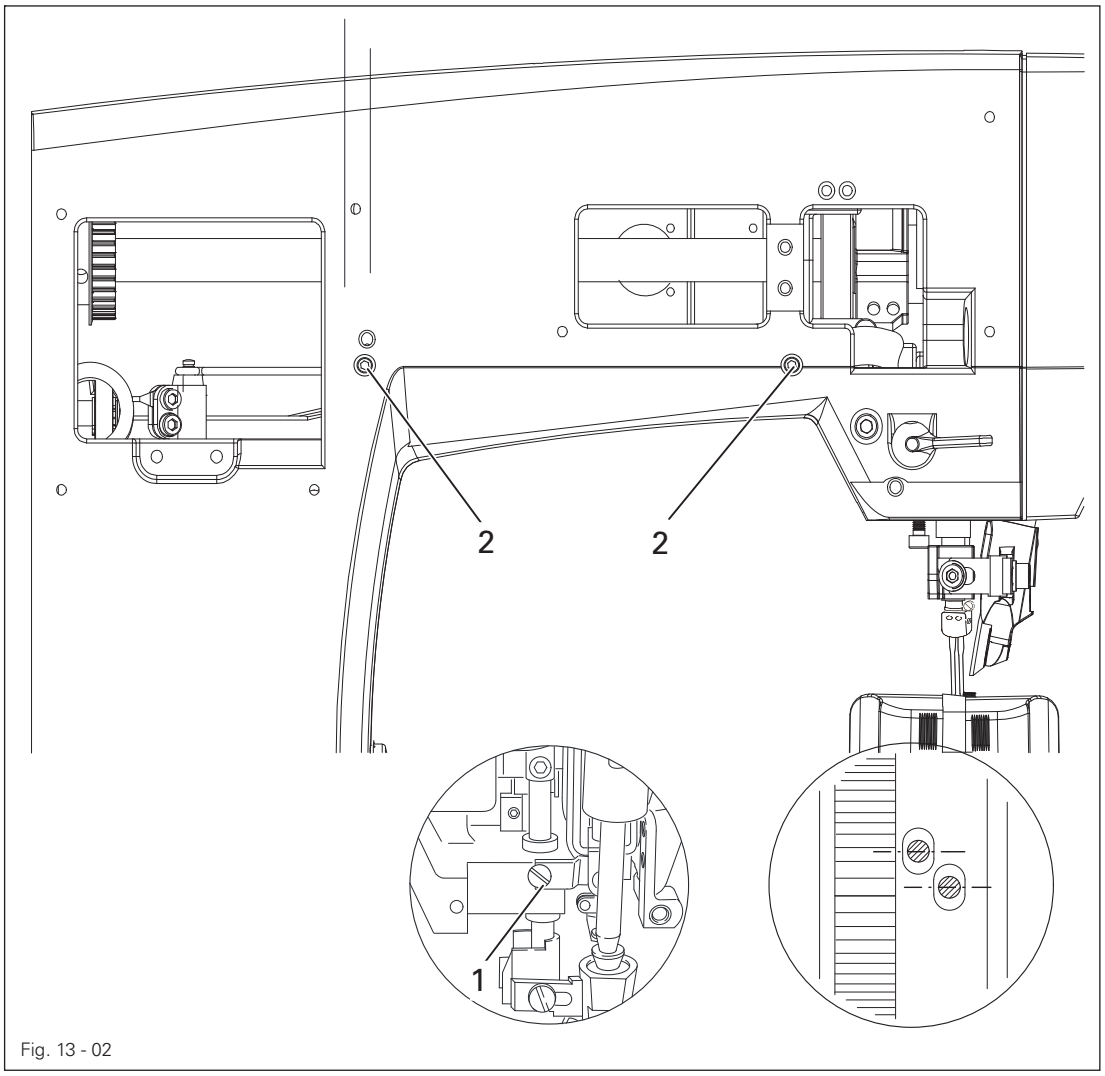
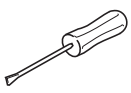


Fig. 13 - 02



- Adjust the needle bar frame (screws **1** and **2**) according to the **rule**.

13.04.03 Needle height (pre-calibrating)

Rule
For TDC there should be a clearance of approx. 21 mm or 25 mm between needle bar and needle plate.

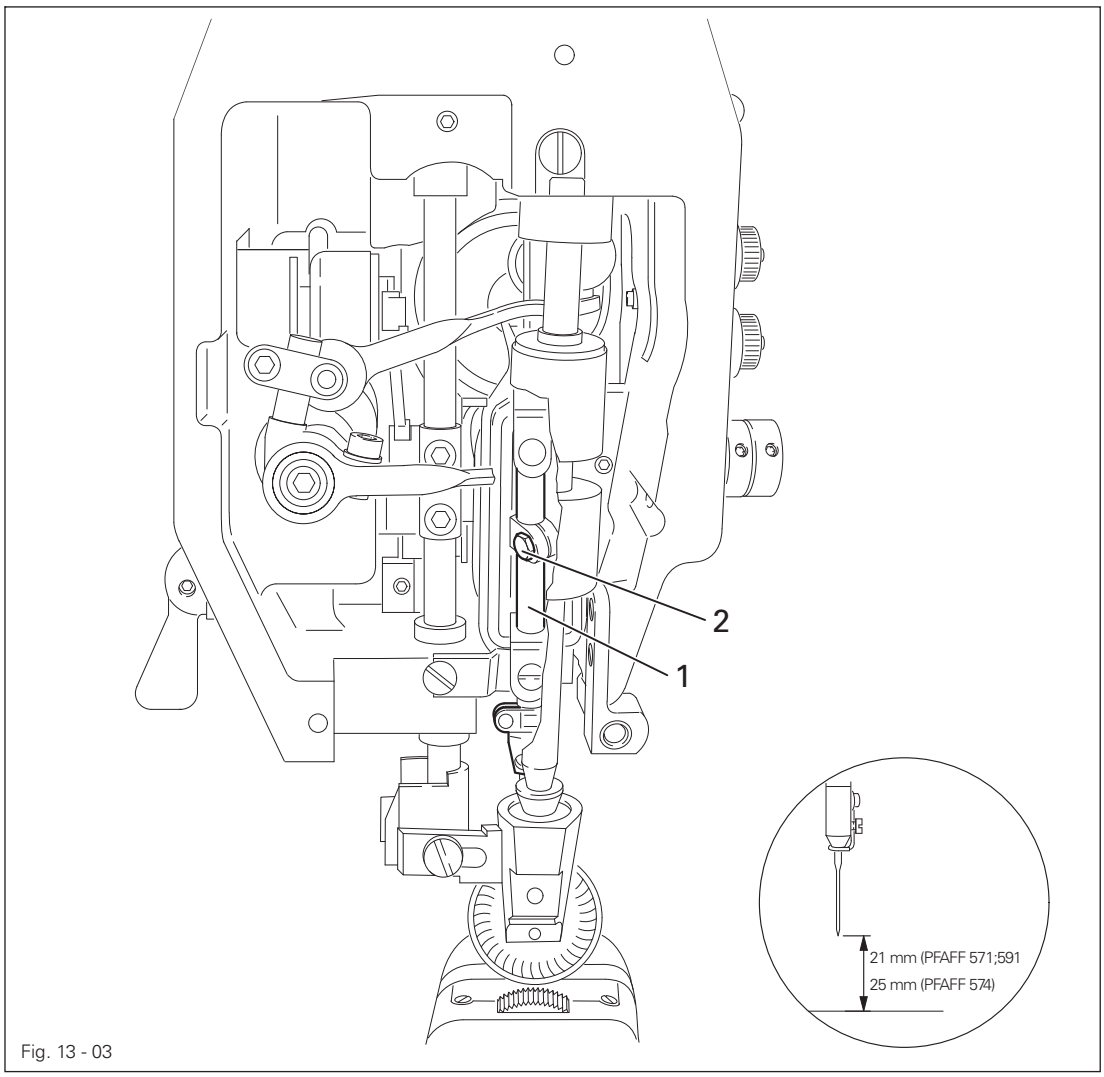
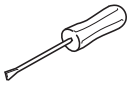


Fig. 13 - 03



● Adjust the needle bar **1** (screw **2**) without twisting according to the **rule**.

13.04.04 Hook-to-needle clearance, needle bar rise, needle height and needle guard

(on the PFAFF 571)

Rule
With the needle rise positioned **2.0 mm** after BDC of the needle bar and with stitch length regulation "**0**"

1. the hook point should be at the needle midpoint, and should be at a distance of **0.05** to **0.1 mm** to the needle,
2. the upper edge of the eye of the needle should be **0.8** to **1.0 mm** under the tip of the hook.
3. the needle guard **5** should lightly touch the needle.

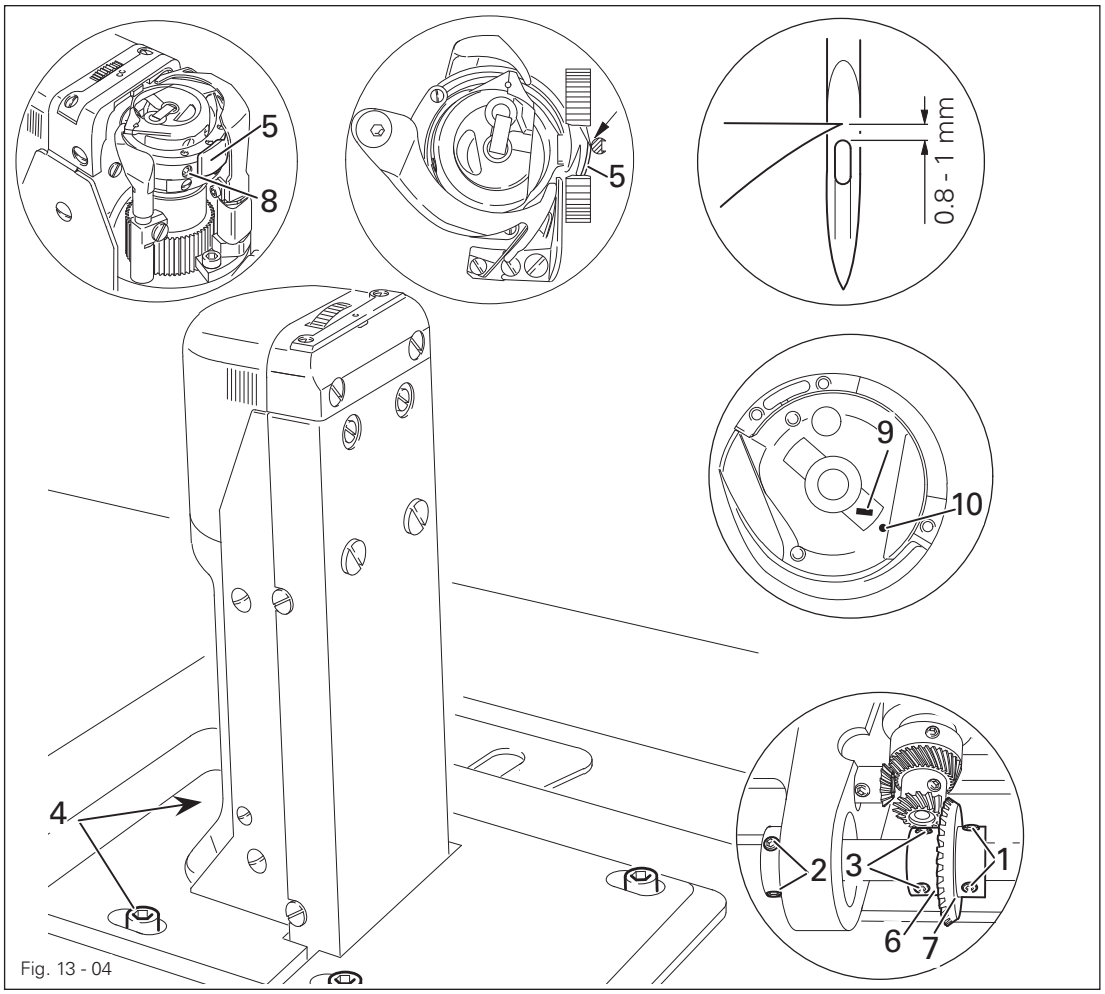


Fig. 13 - 04

- Set the stitch length to "**0**".
- Loosen all of the screws **1**, **2**, **3** and **4**.
- Adjust the needle bar positioned **2.0 mm** after BDC.
- Set the hook point on the middle of the needle and take care that the needle is not squeezed by the needle guard **5**.
- Adjust the needle height according to **rule 2**.
- Adjust the hook post according to **rule 1** and tighten the screws **4** and **2**.
- Tighten the screws **1** allowing for bevel gear wheel movement.
- Adjust the retaining collar **6** up against the bevel gear **7** and tighten the screws **3**.
- Adjust the needle guard **5** (screw **8**) according to **rule 3**.

When changing a hook take care that the markings **9** and **10** are on one side.

13.04.05 Hook-to-needle clearance, needle bar rise, needle height and needle guard

(on the PFAFF 574)

Rule

On both hooks with the needle rise positioned **2.4 mm** after BDC of the needle bar,

1. the hook point should be at the needle midpoint, and should be at a distance of **0.05** to **0.1 mm** to the needle,
2. the upper edge of the eye of the needle should be **0.8** to **1.0 mm** under the tip of the hook.
3. the needle guard **9** should lightly touch the needle.

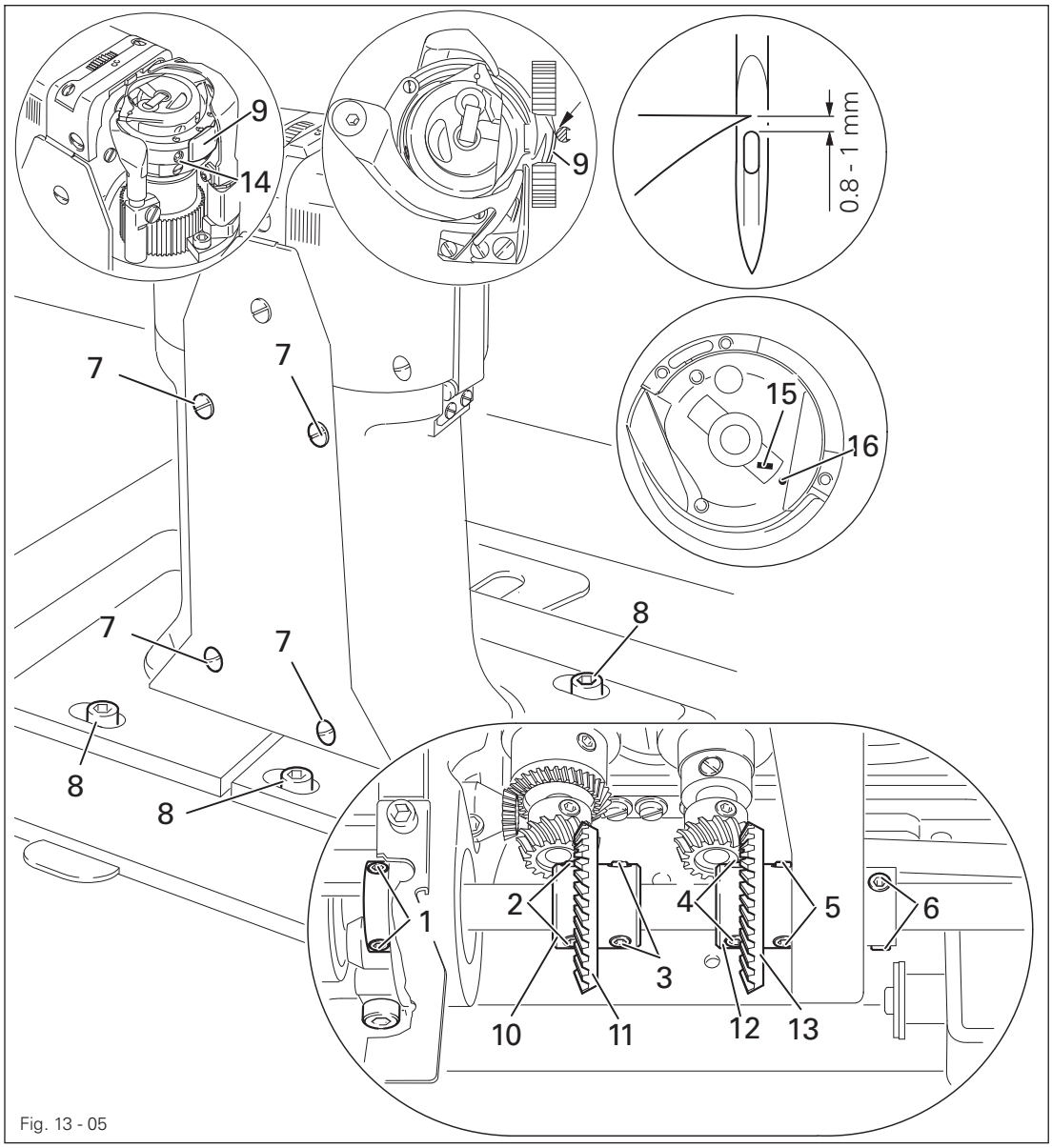


Fig. 13 - 05

- Loosen the screws **1**, **2**, **3**, **4**, **5**, **6** and **7**.
- Slightly loosen the screws **8**.
- Adjust the needle bar positioned **2.4 mm** after BDC.
- Set both hook points on the middle of the needle and take care that the needles are not squeezed by the needle guard **9**.
- Adjust the needle height according to **rule 2**.

- Adjust both hook posts according to **rule 1** and tighten the screws **8**.
- Tighten the screws **1** and **6**.
- Tighten the screws **3** and **5** allowing for bevel gear wheel movement.
- Adjust the retaining collar **10** up against the bevel gear **11** and tighten the screws **2**.
- Adjust the retaining collar **12** up against the bevel gear **13** and tighten the screws **4**.
- Tighten the screws **7** on both sides of the post.
- Adjust the needle guard **9** (screw **14**) on both hooks according to **rule 3**.

When changing a hook take care that the markings **15** and **16** are on one side.

13.04.06 Hook-to-needle clearance, needle bar rise, needle height and needle guard

(on the PFAFF 591)

Rule

With the needle rise positioned **2.0 mm** after BDC of the needle bar and with stitch length regulation "**0**"

1. the hook point should be at the needle midpoint, and should be at a distance of **0.05** to **0.1 mm** to the needle,
2. the upper edge of the eye of the needle should be **0.8** to **1.0 mm** under the tip of the hook.
3. the needle guard **6** should lightly touch the needle.

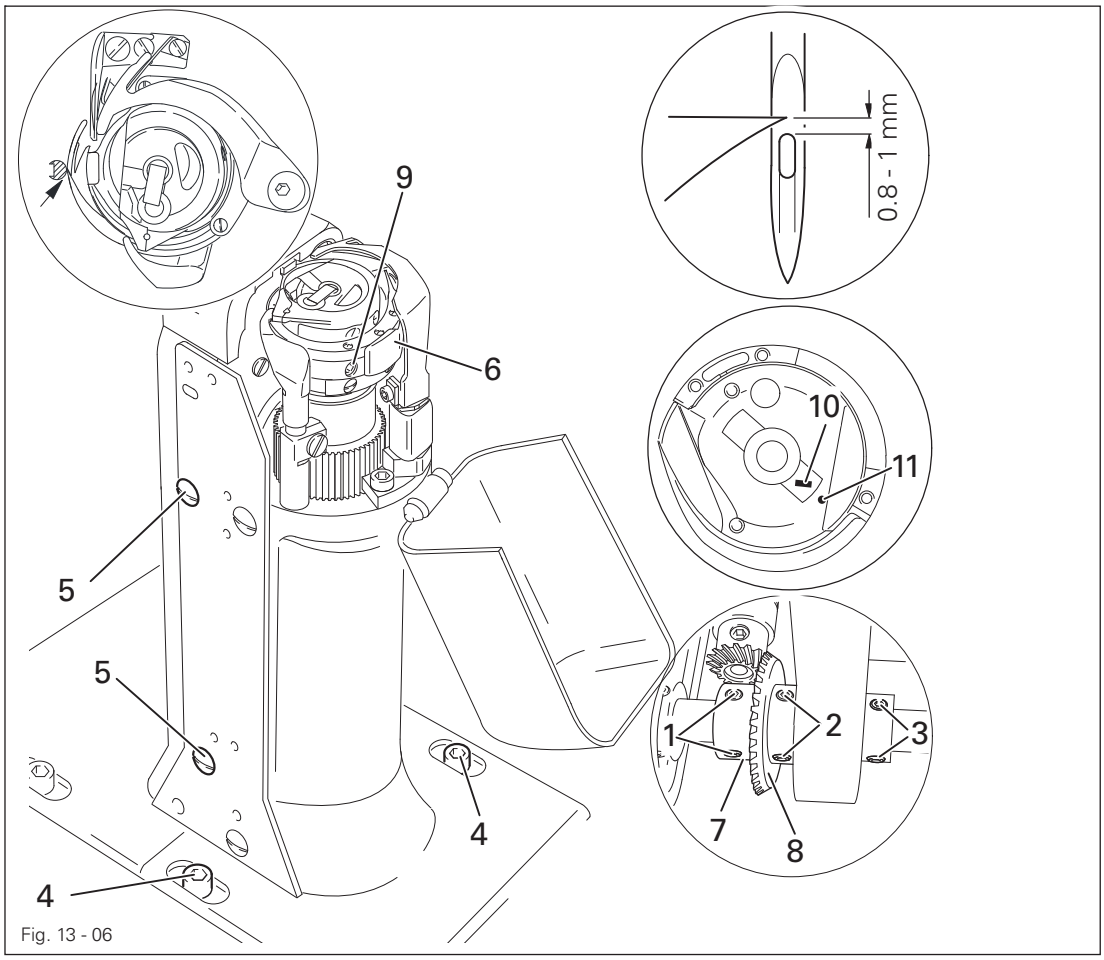


Fig. 13 - 06

- Set the stitch length to "**0**".
- Loosen the screws **1**, **2**, **3**, **4** and **5**.
- Adjust the needle bar positioned **2.0 mm** after BDC.
- Set the hook point on the middle of the needle and take care that the needle is not squeezed by the needle guard **6**.
- Adjust the needle height according to **rule 2**.
- Adjust the hook post according to **rule 1** and tighten the screws **4** and **3**.
- Tighten the screws **2** allowing for bevel gear wheel movement.
- Adjust the retaining collar **7** up against the bevel gear **8** and tighten the screws **1**.
- The screws **5** remain loosened for further adjustments.
- Adjust the needle guard **6** (screw **9**) according to **rule 3**.

When changing a hook take care that the markings **10** and **11** are on one side.

13.04.07 Needle position crossways to sewing direction (on the PFAFF 571)

Rule
The needle should be at the centre of the stitch hole when entering and exiting the needle plate with maximum stitch length regulation.

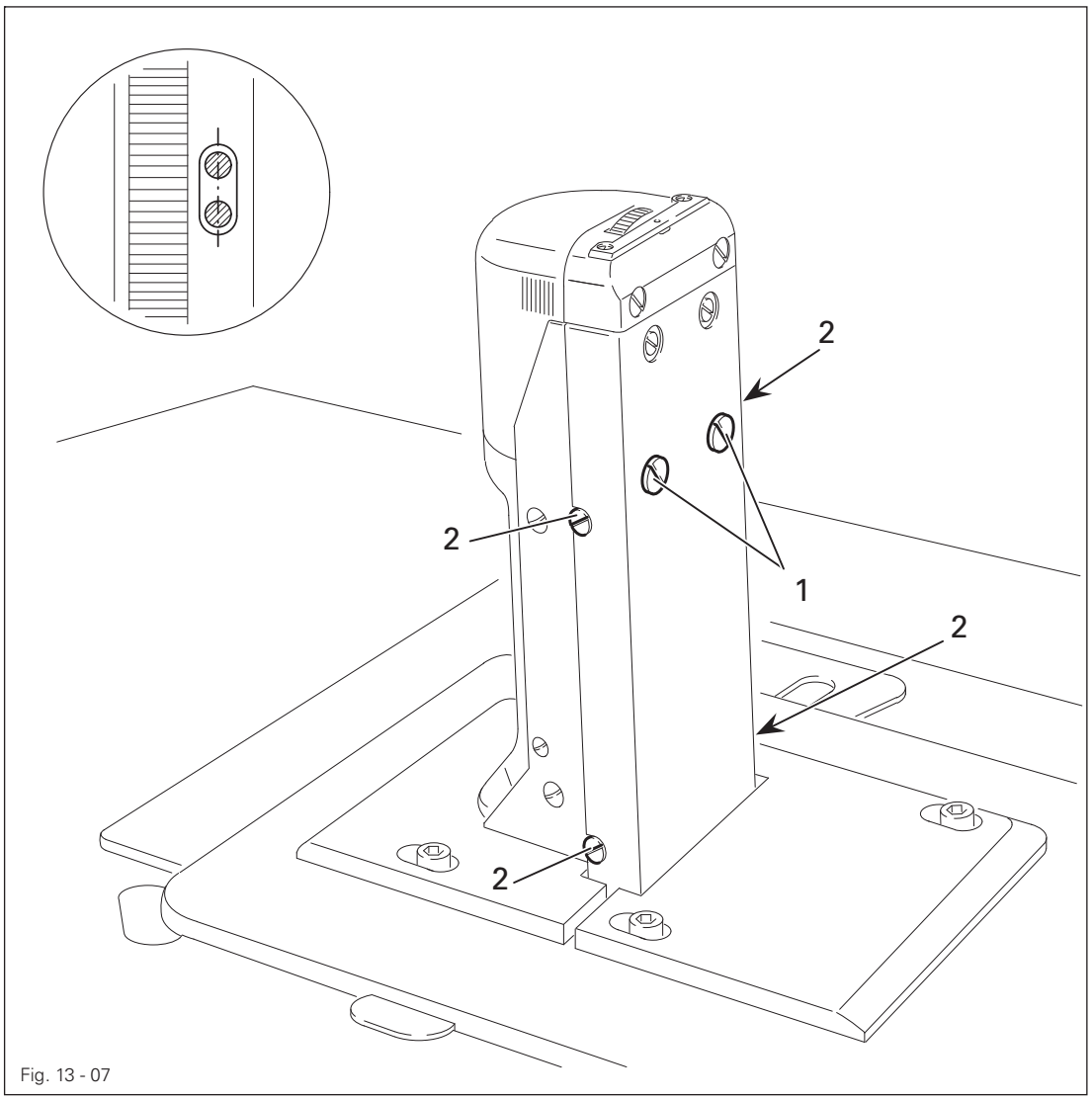
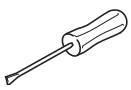


Fig. 13 - 07



● Adjust the screws **1** (screws **2**, on both sides of the post) according to the **rule**.

13.04.08 Needle position crossways to sewing direction (on the PFAFF 574)

Rule
The needles should pierce the middle of their stitch holes looking crossways to the sewing direction.

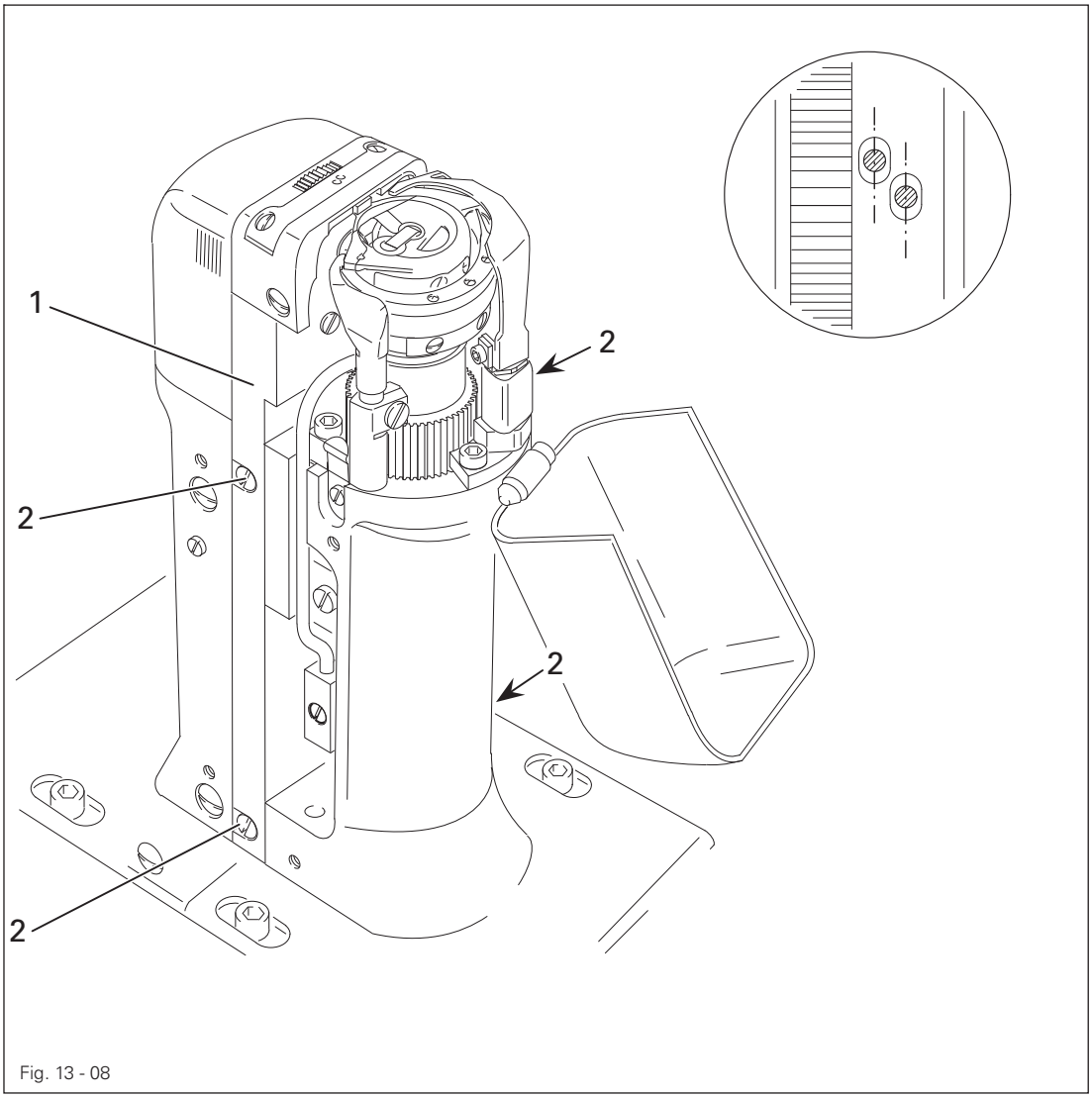
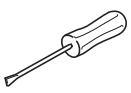


Fig. 13 - 08



● Adjust the mounting plate **1** (screws **2**, on both sides of the post) according to the **rule**.

13.04.09 Needle position crossways to sewing direction (on the PFAFF 591)

Rule
The needle should pierce the middle of the stitch hole looking crossways to the sewing direction.

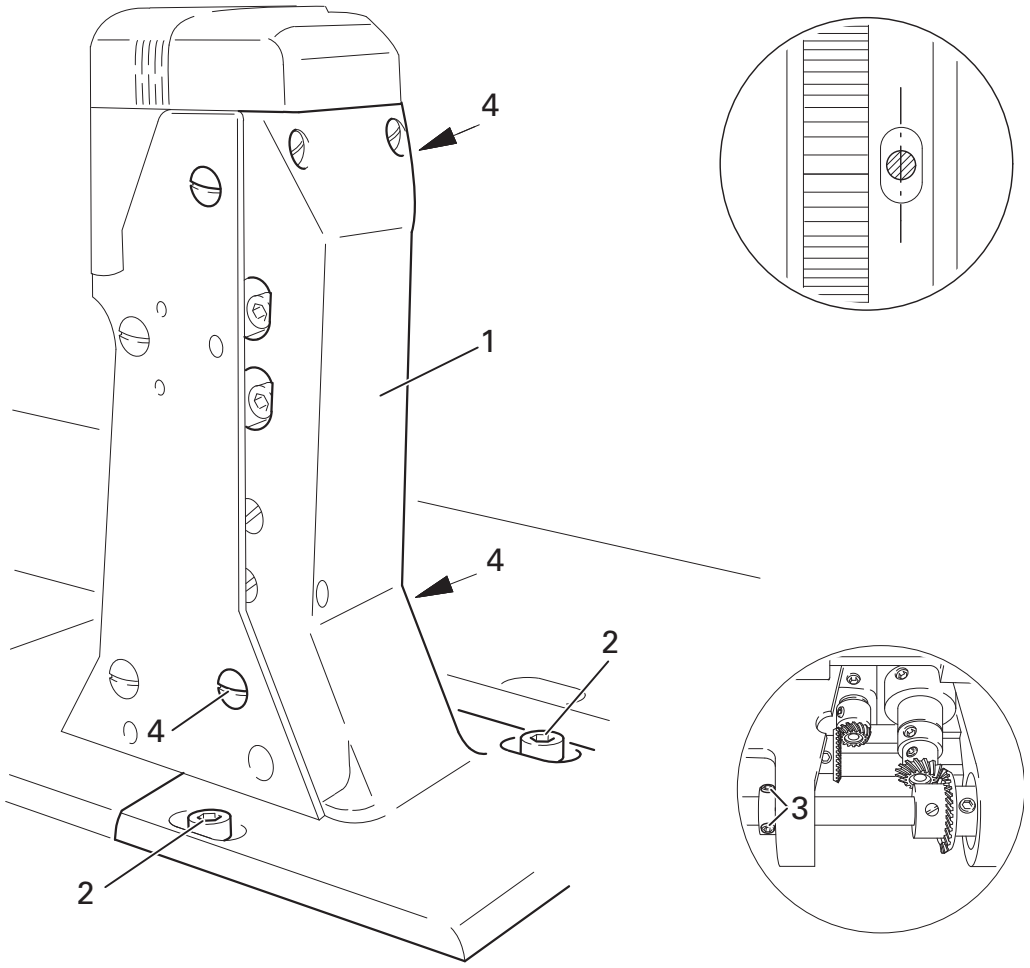


Fig. 13 - 09

● Adjust the feed wheel post **1** (screws **2**, **3** and **4**) according to the **rule**.

13.04.10 Bobbin case opener height and bobbin case opener travel

Rule

1. The upper edges of the bobbin case opener **1** and bobbin case base **3** should be at the same level.
2. When the bobbin case opener 1 has deflected the bobbin case to its furthest point, the catch of the bobbin case should be approx. **0.3 - 0.5 mm** from the back edge of the needle plate recess.

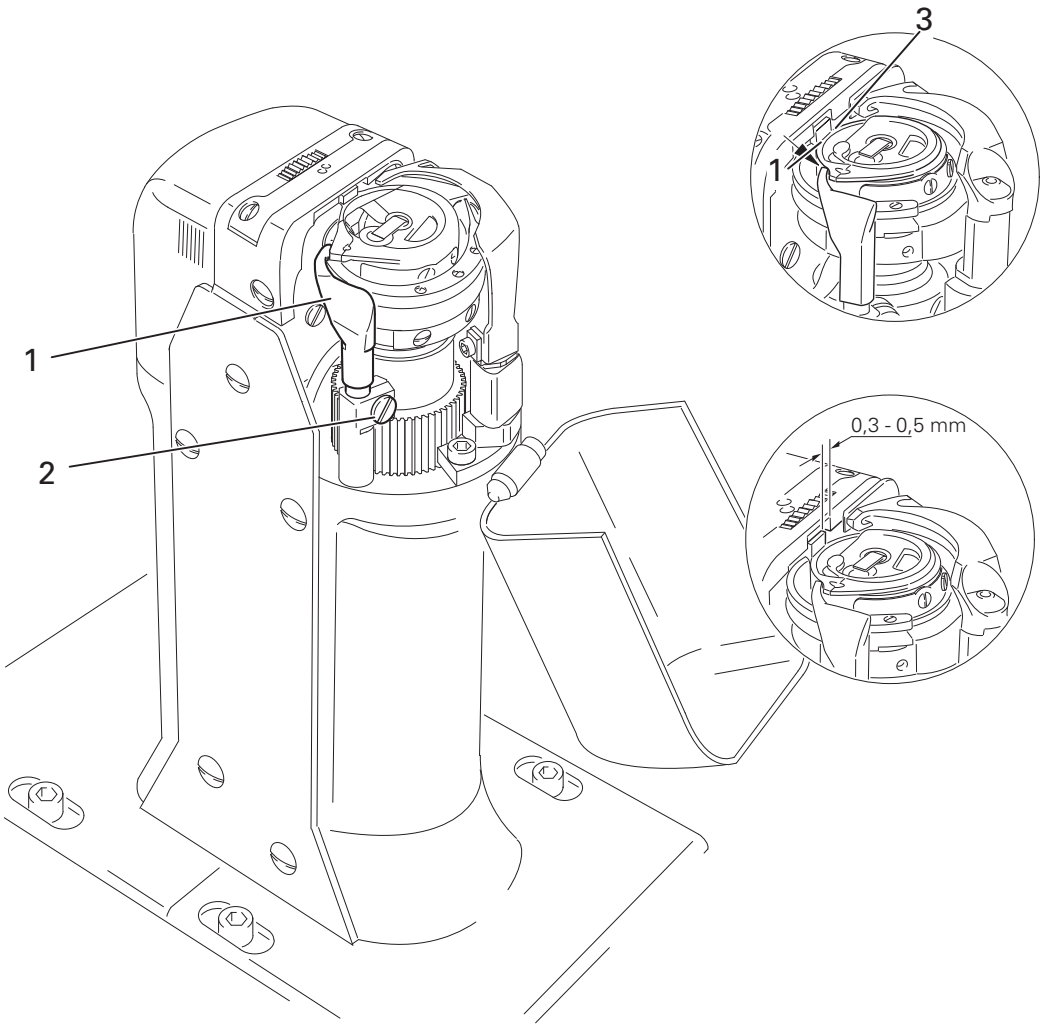
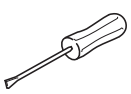


Fig. 13 - 10



- Adjust the bobbin case opener **1** (screw **2**) according to **rule 1**.
- Turn the handwheel until the bobbin case opener has deflected the bobbin case to its furthest point.
- Turn the bobbin case opener **1** (screw **2**) according to **rule 2**.

The settings should be repeated on the right post on the PFAFF **574**.

The setting may differ from **rule 2** depending on the thread thickness.

13.04.11 Feed wheel height (on the PFAFF 571)

Rule

1. The feed wheel **4** to which pressure is applied should protrude out of the needle plate by the tooth height (approx. **0.8 mm**).
2. The feed wheel **4** to which no pressure is applied should have approx. **0.3 mm** height clearance.

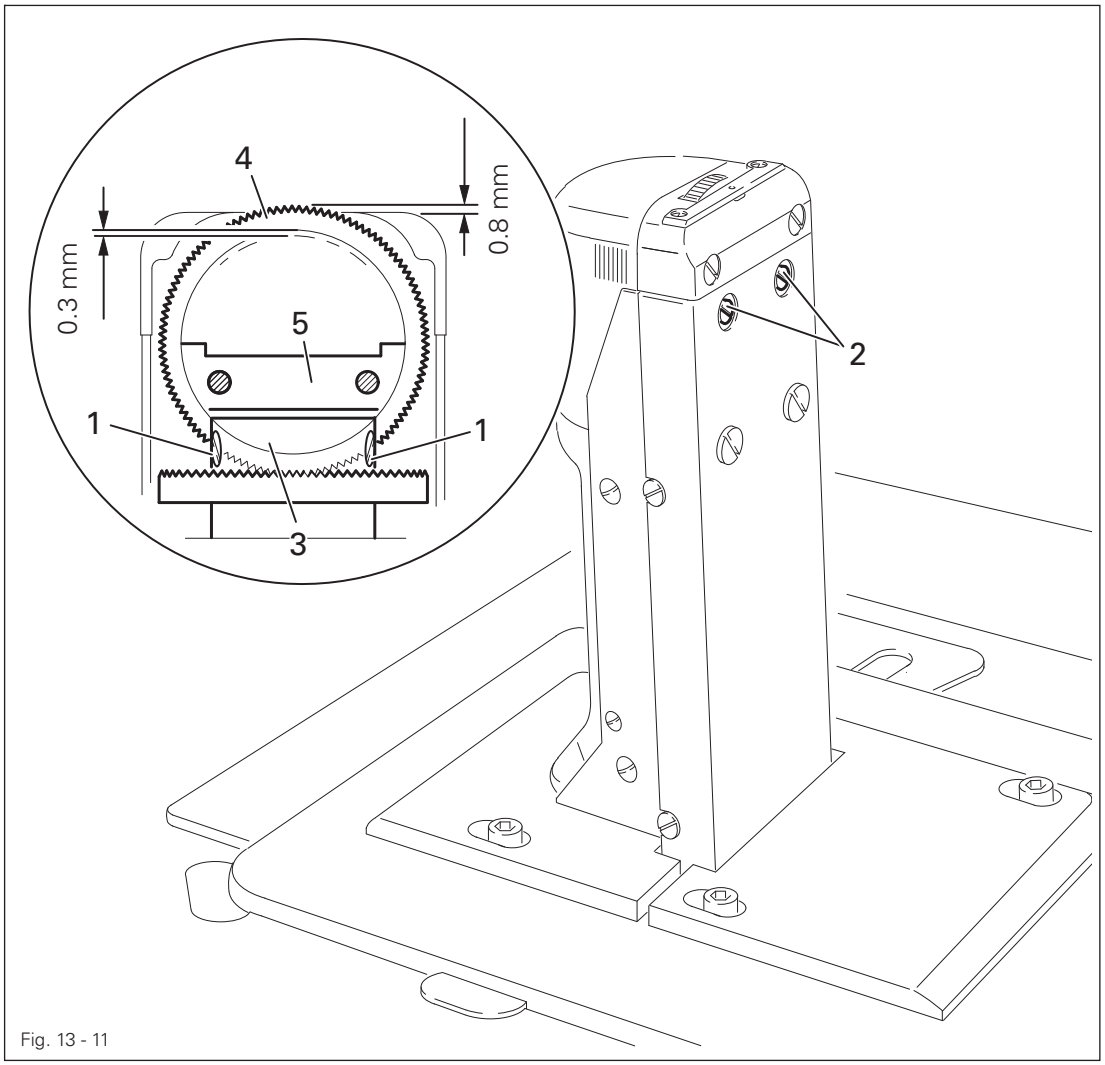
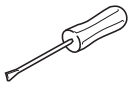


Fig. 13 - 11



- Swivel out the roller presser.
- Loosen the screws **1** and **2**.
- Adjust the drive wheel **3** according to **rule 1**; take care that the toothing of the drive wheel **3** and feed wheel **4** interlock properly.
- Tighten the screws **1**.
- Adjust the guide **5** according to **rule 2** and tighten the screws **2**.

13.04.12 Feed wheel height (on the PFAFF 574)

Rule

1. When pressure is applied to the feed wheel **4,** it should protrude from the needle plate by the tooth height **(approx. 0.8 mm)**.
2. The feed wheel **4** to which no pressure is applied should have approx. **0.3 mm** height clearance.

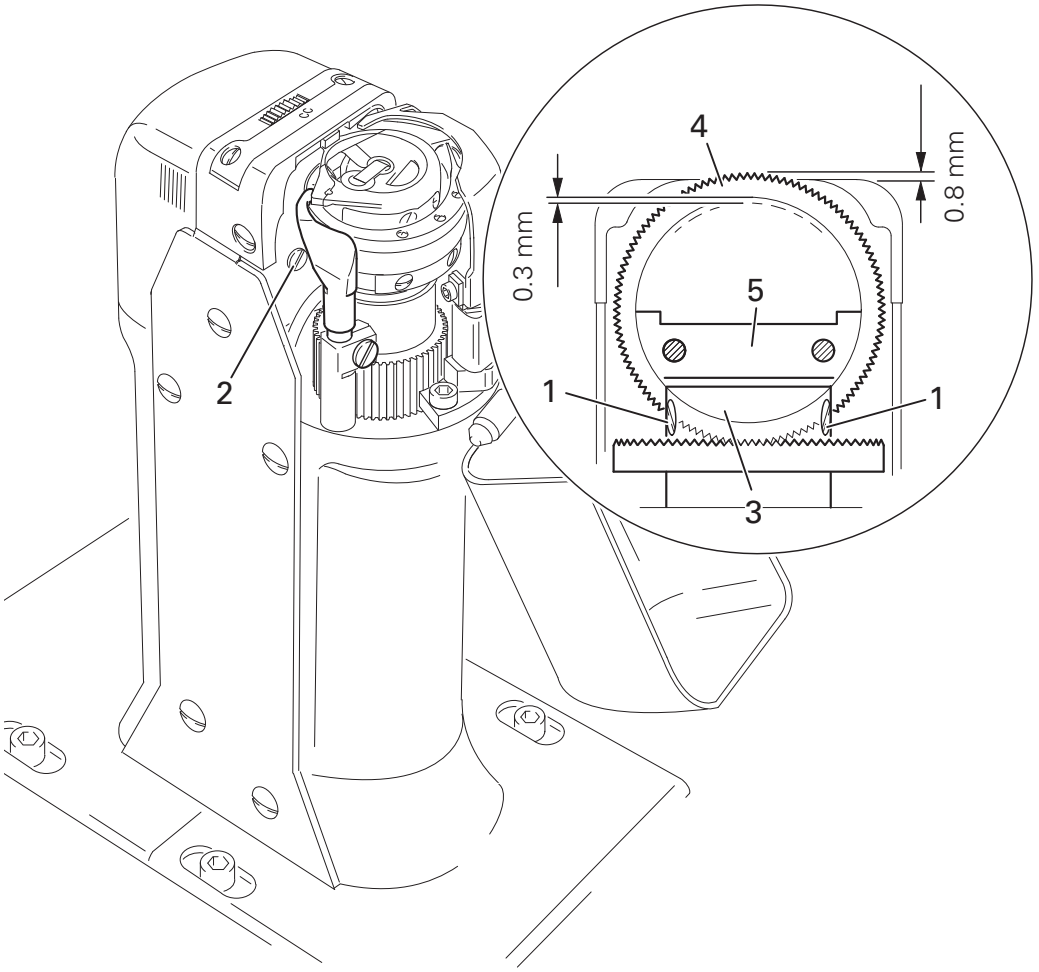
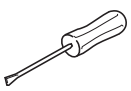


Fig. 13 - 12



- Swivel out the roller presser.
- Loosen the screws **1** and **2** (two screws each).
- Adjust the drive wheel **3** according to **rule 1**; take care that the toothing of the drive wheel **3** and feed wheel **4** interlock properly.
- Tighten the screws **1**.
- Adjust the guide **5** according to **rule 2** and tighten the screws **2**.

13.04.13 Feed wheel height (on the PFAFF 591)

Rule
The feed wheel should protrude out of the needle plate by the tooth height (approx. **0.8 mm**).

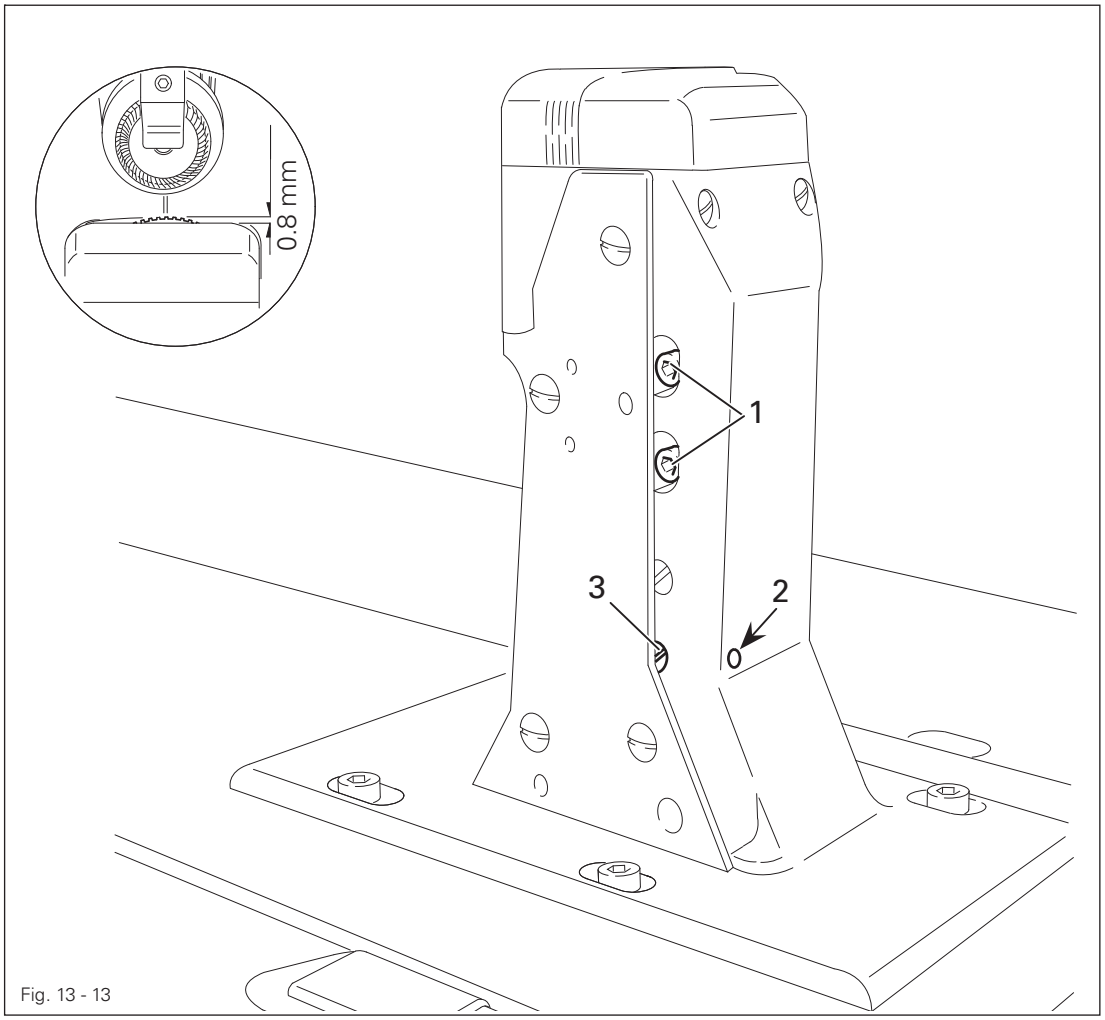
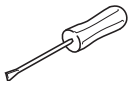


Fig. 13 - 13



- Swivel out the roller presser.
- Loosen the screws **1**.
- Turn the eccentric **3** (retaining screw can be accessed through the hole **2**) according to the **rule**.
- Tighten the screws **1**.

13.04.14 Reverse-feed lever eccentric

Rule
If the needle (at the maximum stitch length setting) is **3 mm** above the needle plate from the top dead centre position, the crank **3** should have reached its front turning point position.

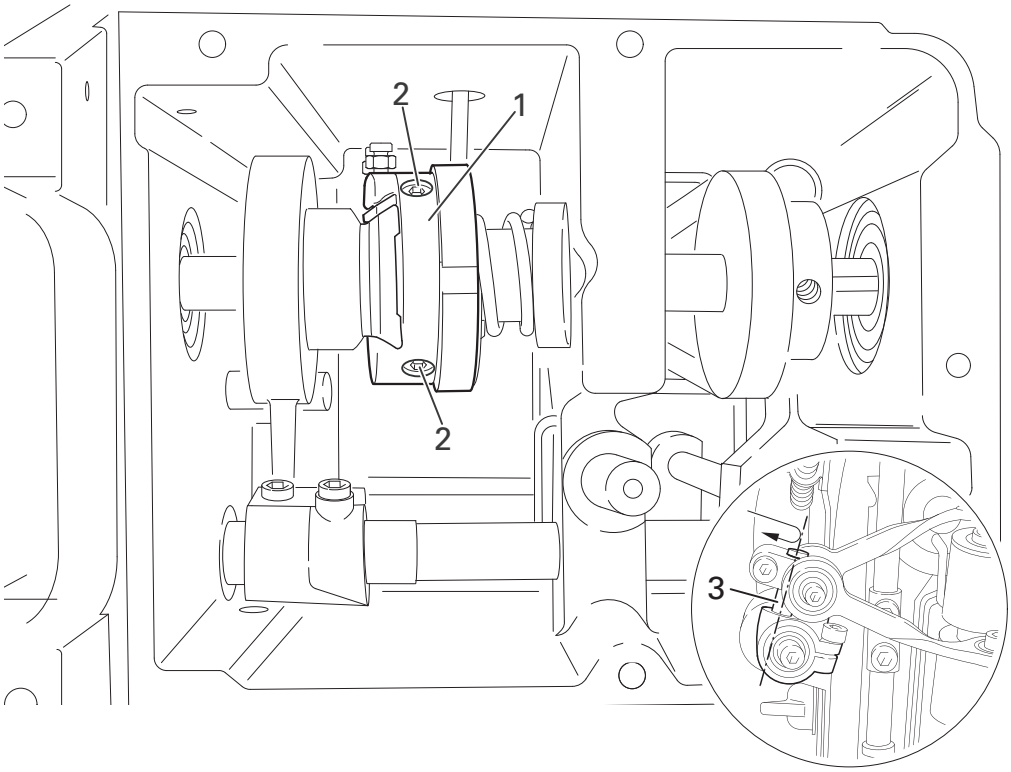
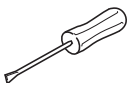


Fig. 13 - 14



- Set the maximum stitch length.
- Turn the reverse-feed lever **1** (screws **2**) according to the **rule**.

13.04.15 Stitch length scale dial

Rule
The marking line should be on the scale dial **1** opposite the lower edge **3** of the belt guard recess if the reverse-feed lever is engaged and in stitch length setting "**0**".

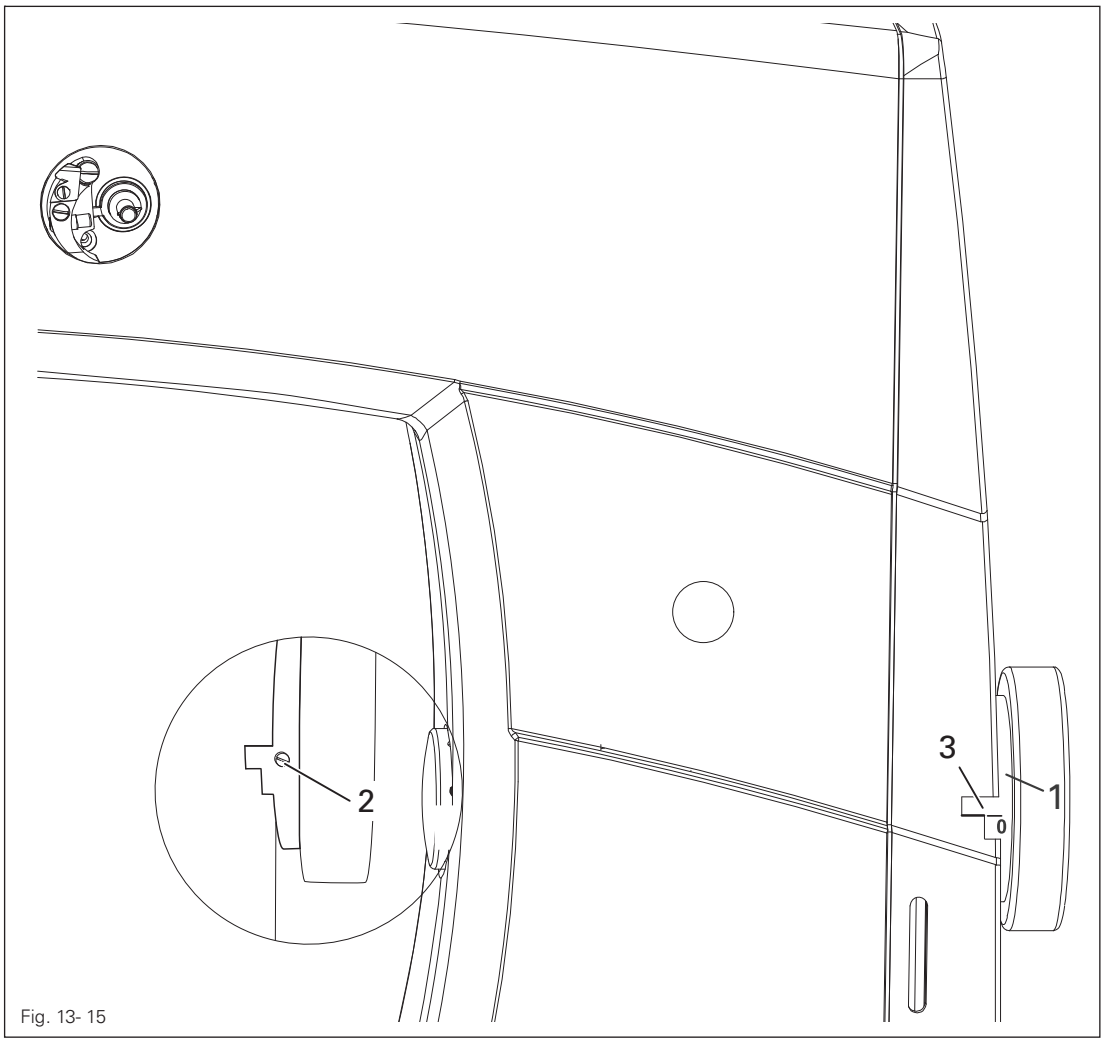


Fig. 13- 15

- Set the stitch length to "**0**".
- Turn the scale dial **1** (screws **2**) according to the **rule**.

13.04.16 Shaft crank for feed wheel drive

Rule
The connecting rod **3** or the connecting rods **3** and **4** on the PFAFF **571** and **591** should be able to move freely when turning the handwheel with maximum stitch length regulation.

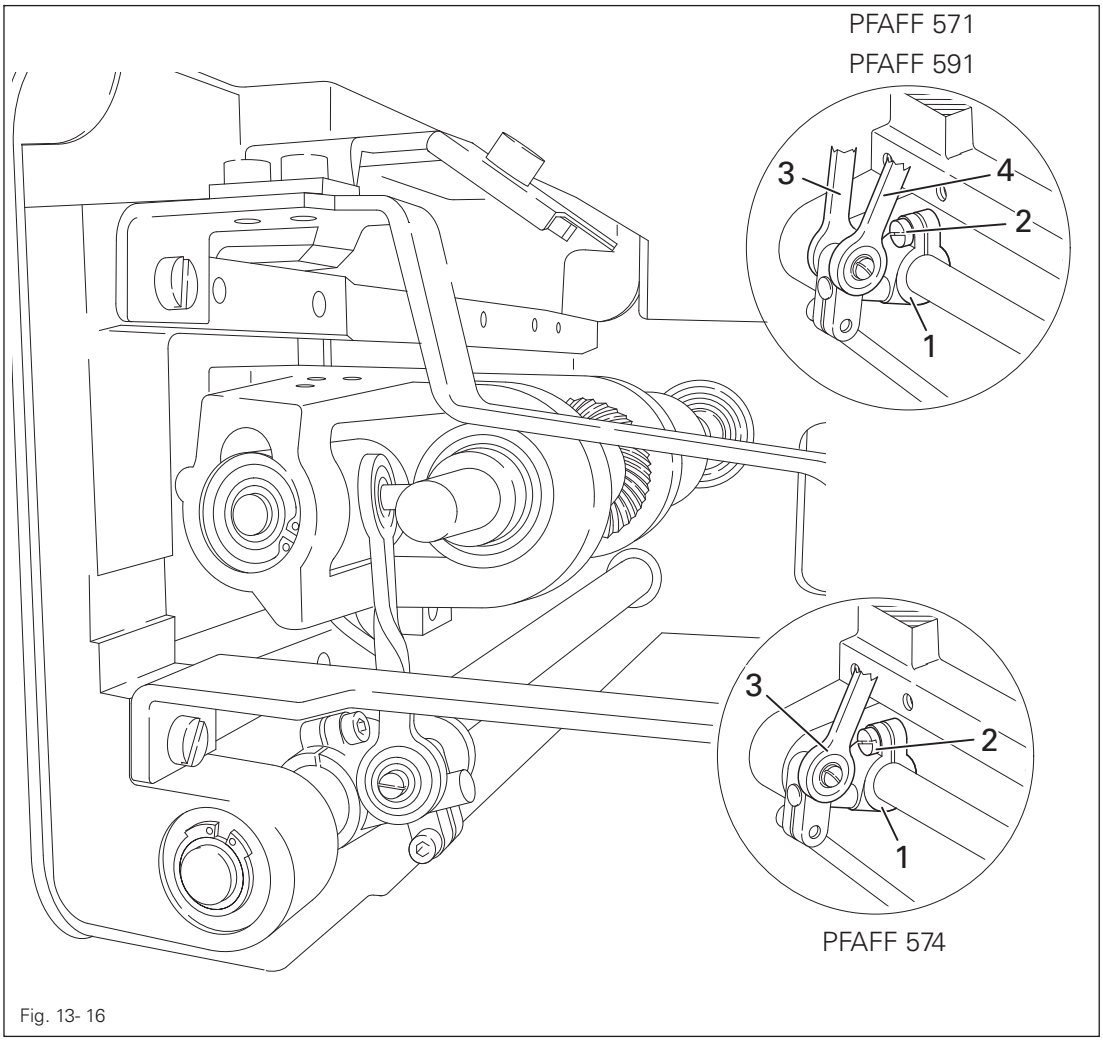
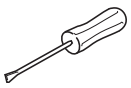


Fig. 13- 16



- Set the maximum stitch length.
- Turn or adjust the shaft crank **1** (screw **2**) according to the **rule**.

13.04.17 Shaft crank for roller presser drive

Rule
The connecting rods **3** and **4** should be able to move freely in their left and right turning point position with maximum stitch length regulation.

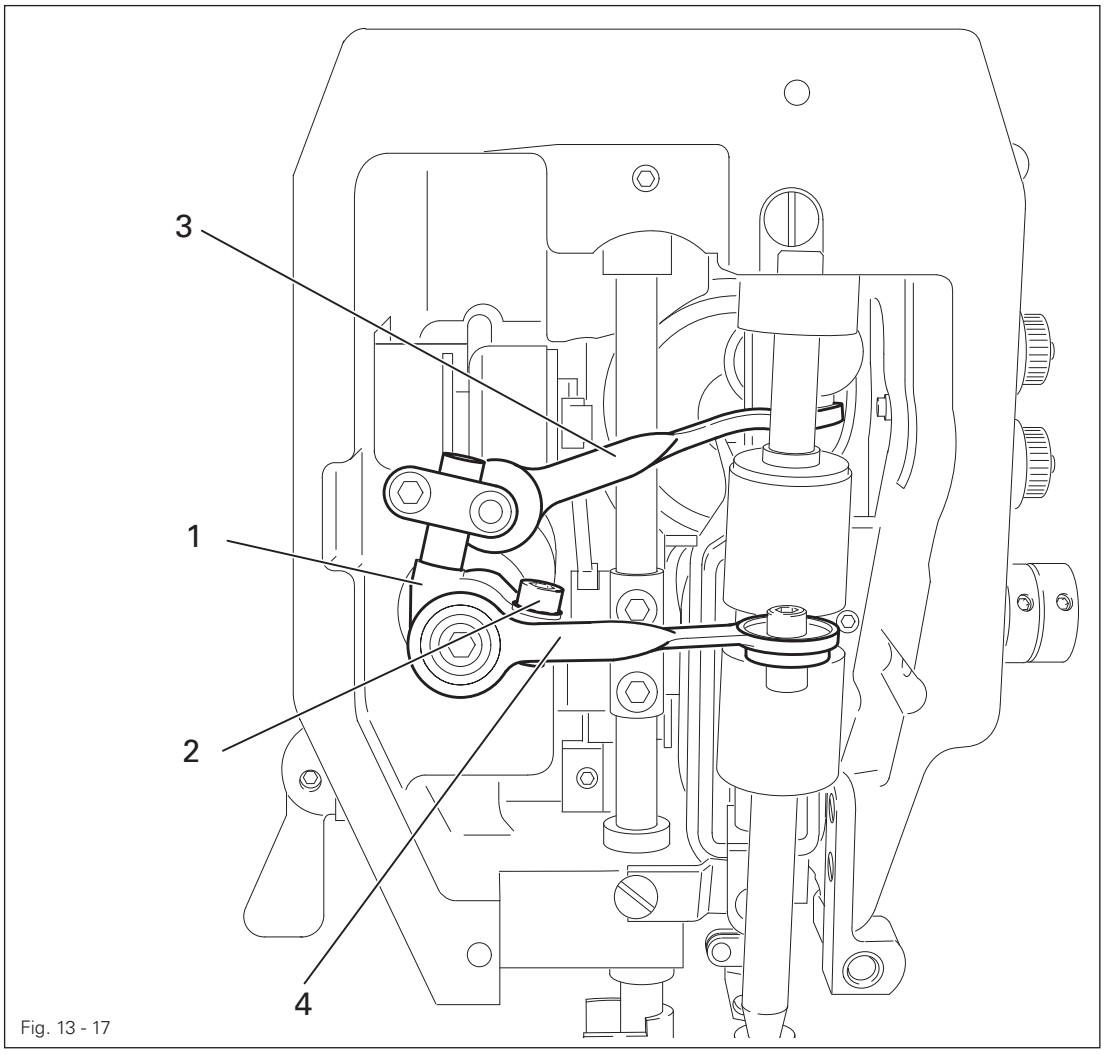
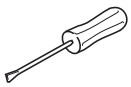


Fig. 13 - 17



- Set the maximum stitch length.
- Turn the clamp crank **1** (screw **2**) according to the **rule**.

13.04.18 Clearance between roller presser and feed wheel

Rule
When the hand lever is raised, the clearance between roller presser and feed wheel should be **7 mm**

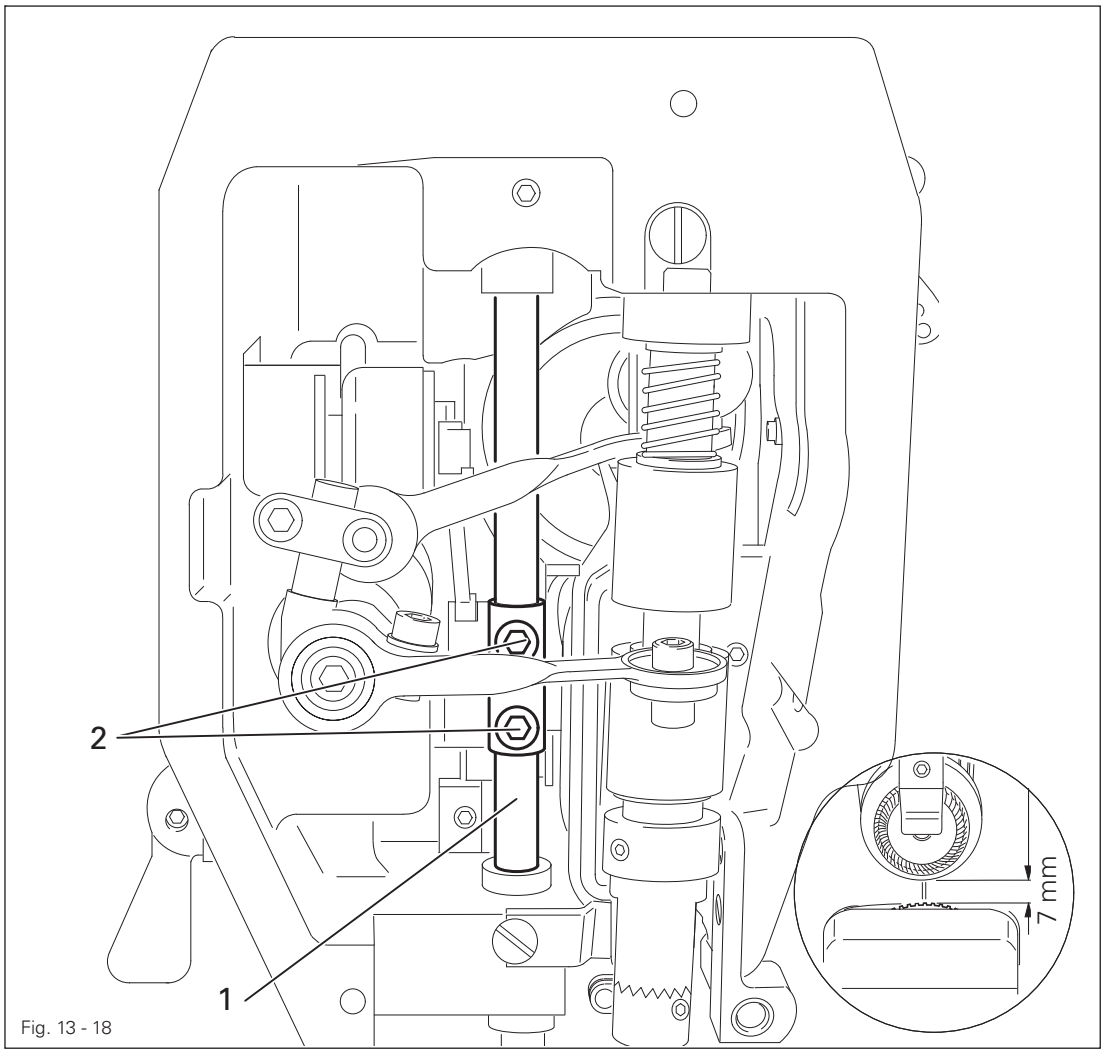
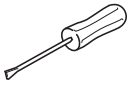


Fig. 13 - 18



- Raise the hand lever.
- Adjust the presser bar **1** (screws **2**) according to the **rule**. Take care that the roller presser is parallel to the feed wheel.

13.04.19 Roller presser

Rule

If the roller presser **1** is fitted to the feed wheel **5**, it should

1. be parallel to the feed wheel **5** looking in the sewing direction,
2. be positioned at the centre of the needle (the left needle on the PFAFF **574**) looking in the sewing direction,
3. be positioned as close as possible to the needle (the left needle on the PFAFF **574**) looking crossways to the sewing direction.

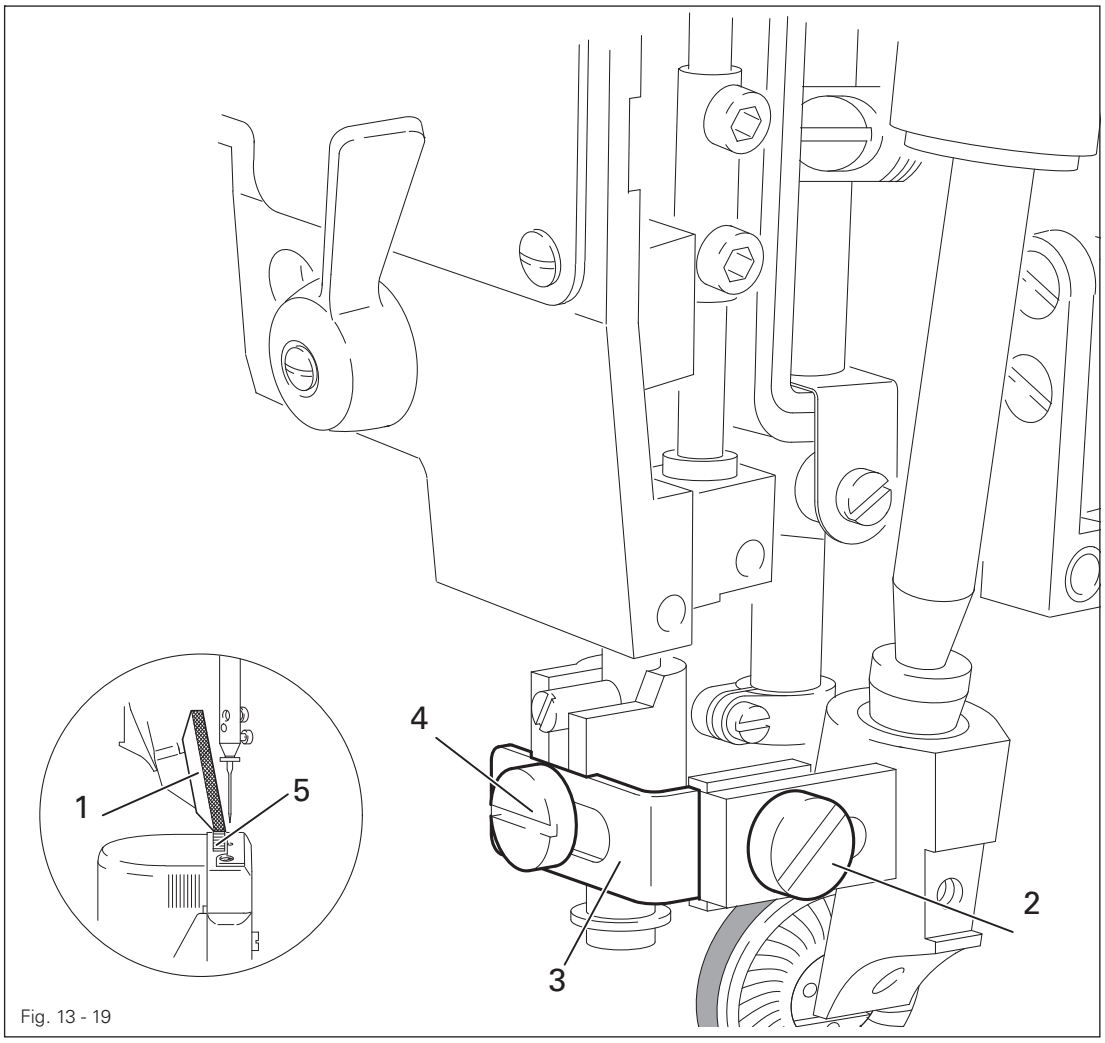


Fig. 13 - 19

- Raise the roller presser **1**.
- Always observe rule **1** with the following adjustments.
- Adjust the roller presser **1** (screw **2**) according to rule **2**.
- Rest the roller presser **1** on the feed wheel **5**.
- Adjust the roller presser bracket **3** (screw **4**) according to rule **3**.

The roller presser **1** should be adjusted slightly towards the operator when sewing very tight curves.

13.04.20 Stitch length to stitch length scale

Rule
With a stitch length setting of "**3**" and after **11** punctures in a strip of leather, the overall length from the first to the last puncture should be **30 mm**.

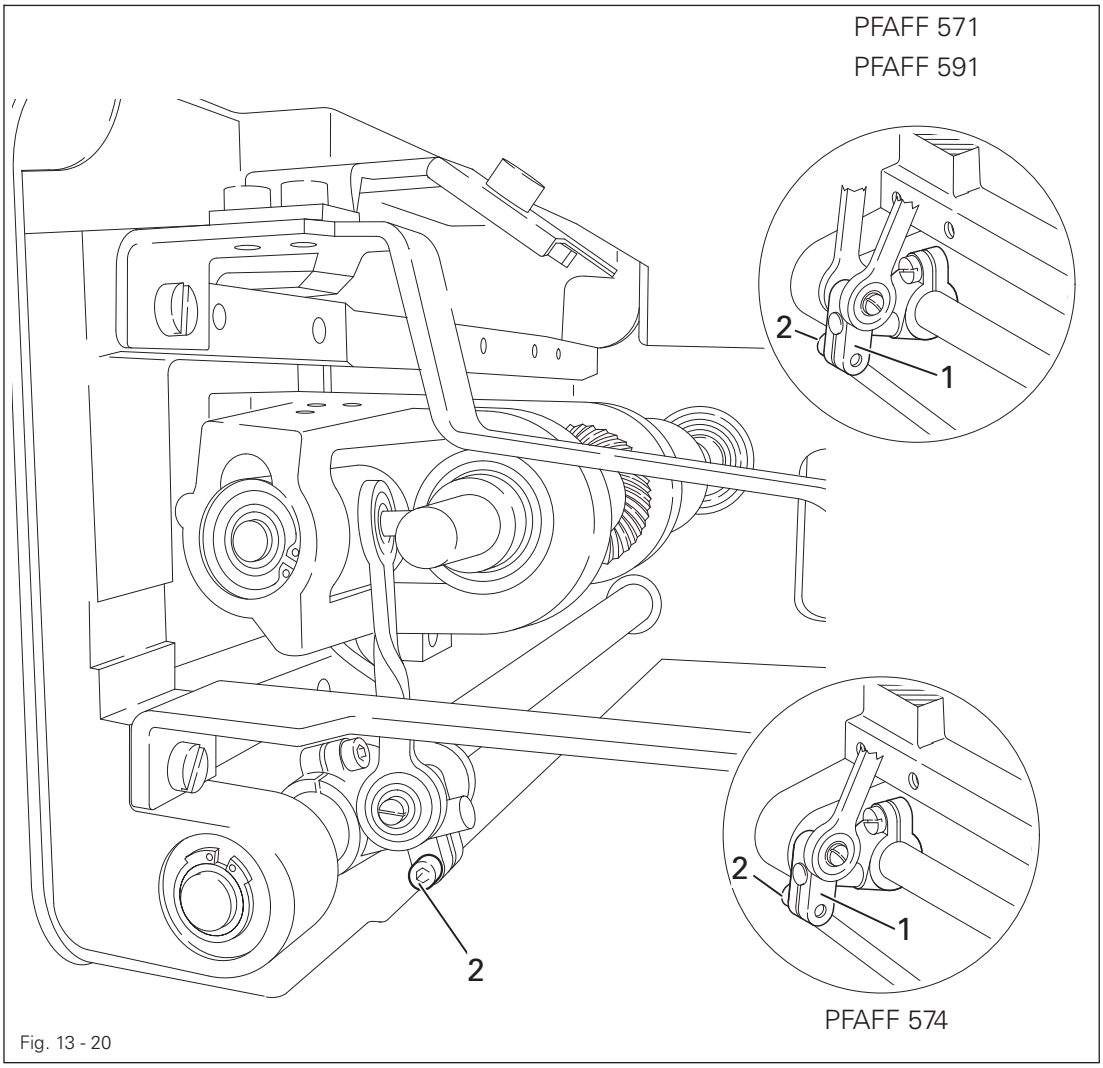


Fig. 13 - 20

- Set the stitch length to "**3**".
- Make puncture by turning the handwheel **11** and measure the overall length.
- Adjust the clamping piece **1** (screw **2**) according to the **rule**.

The clamping piece **1** must not be positioned diagonally to the rock shaft!

13.04.21 Synchronisation of roller presser and feed wheel

Rule
After approx. **30** stitches in a strip of leather, the overall length from the first to the last puncture should be the same length on the lower and upper leather layer.

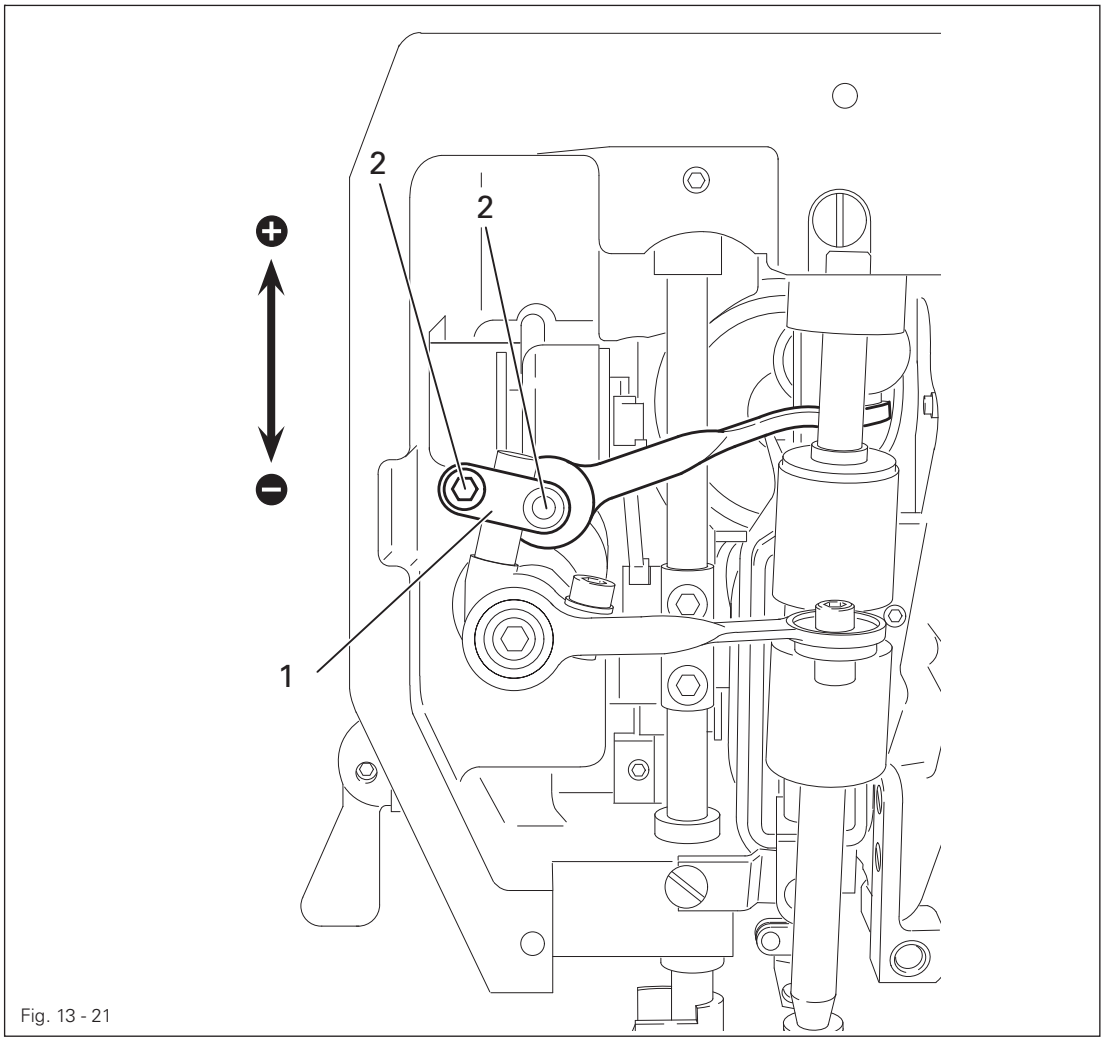


Fig. 13 - 21

- Set the stitch length to "**3**".
- Make approx. **30** stitches by turning the handwheel.
- Compare the total sewn length of the lower and upper leather layer.
- Adjust the clamping piece **1** (screw **2**) according to the **rule**.

The clamping piece **1** must not be positioned diagonally to the rock shaft!

13.04.22 Press pad (only on the PFAFF 574)

Rule

The press pad **1** should

1. be as close as possible to the needle looking in the sewing direction and
2. be positioned at the centre of the needle looking crossways to the sewing direction.
3. The clearance between the press pad **1** and the sewing material should be **0.2 - 0.3 mm** when the roller presser is lowered.

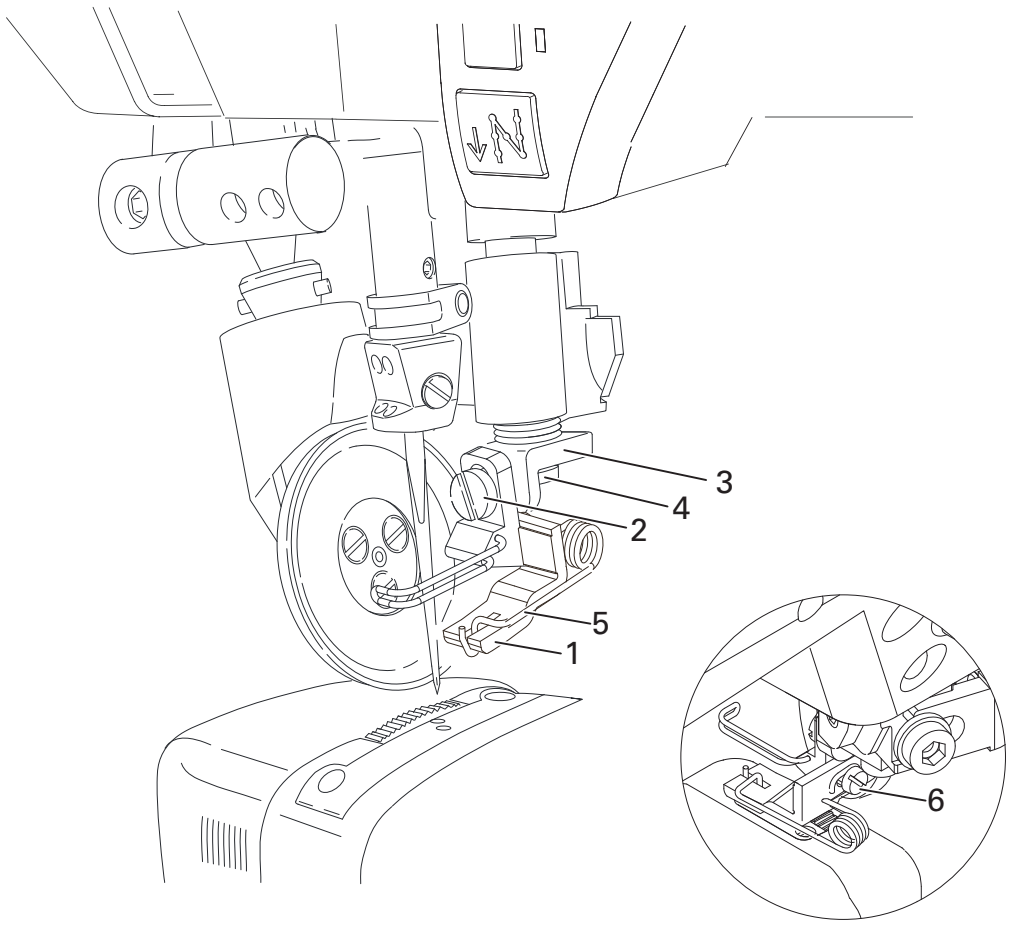
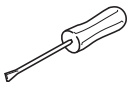


Fig. 13 - 22



- Adjust the press pad **1** (screw **2**) according to **rule 3**.
- Adjust the carrier **3** (screw **4**) according to **rule 1**.
- Adjust the press pad **1** (screws **6**) according to **rule 2**.

The press pads **1** can be adjusted as required according to **rule 2**.

13.04.23 Knee lever

Rule

1. Before the roller-presser raises up, the knee lever should have a little bit of clearance.
2. The lever for the roller presser should lower automatically when the knee lever is activated until you feel it stop.
3. The knee lever bar **5** should be positioned at an angle of approx. **75°** to the base plate.

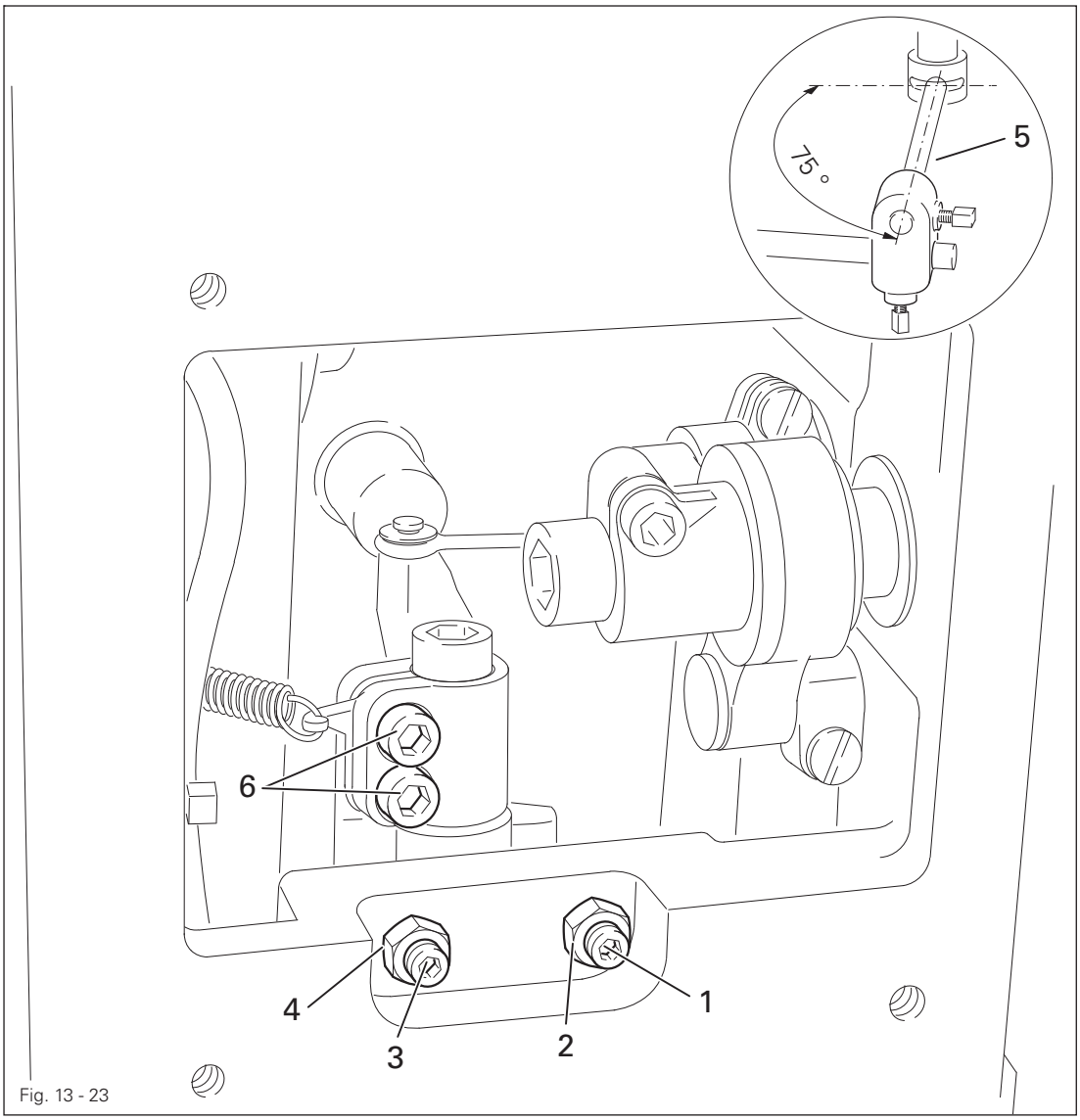
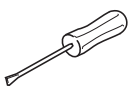


Fig. 13 - 23



- Turn the screw **1** (nut **2**) according to **rule 1**.
- Turn the screw **3** (nut **4**) according to **rule 2**.
- Adjust the bar **5** (screws **6**) according to **rule 3**.

13.04.24 Release needle thread tension

Rule

1. When the hand lever is raised, the tension discs 3 should be pushed apart by at least 0.5 mm.
2. The tension must be fully activated when fitting the roller presser.

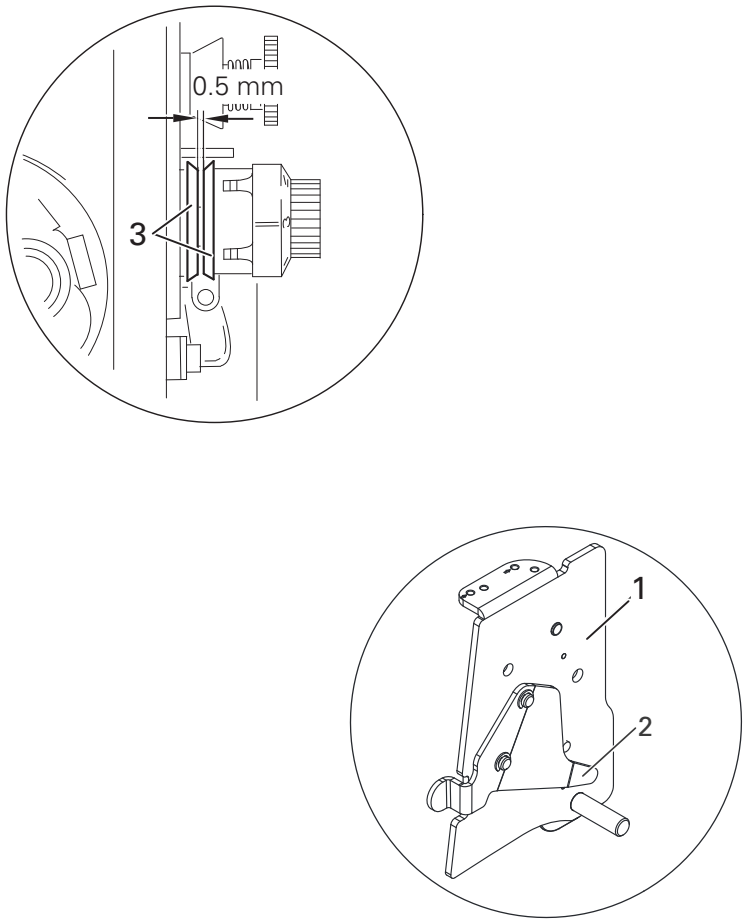
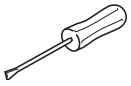


Fig. 13 - 24



- Unscrew the tension mounting plate **1** and align the pressure plate **2** according to the **rule**.

13.04.25 Thread check spring (on the PFAFF 571 and 591)

Rule

1. The movement of the thread check spring 3 should be finished when the needle point punctures the material (spring deflection approx. **7 mm**).
2. The thread check spring **3** should lift slightly off the support **1** when forming the maximum thread loop while passing the thread around the hook.

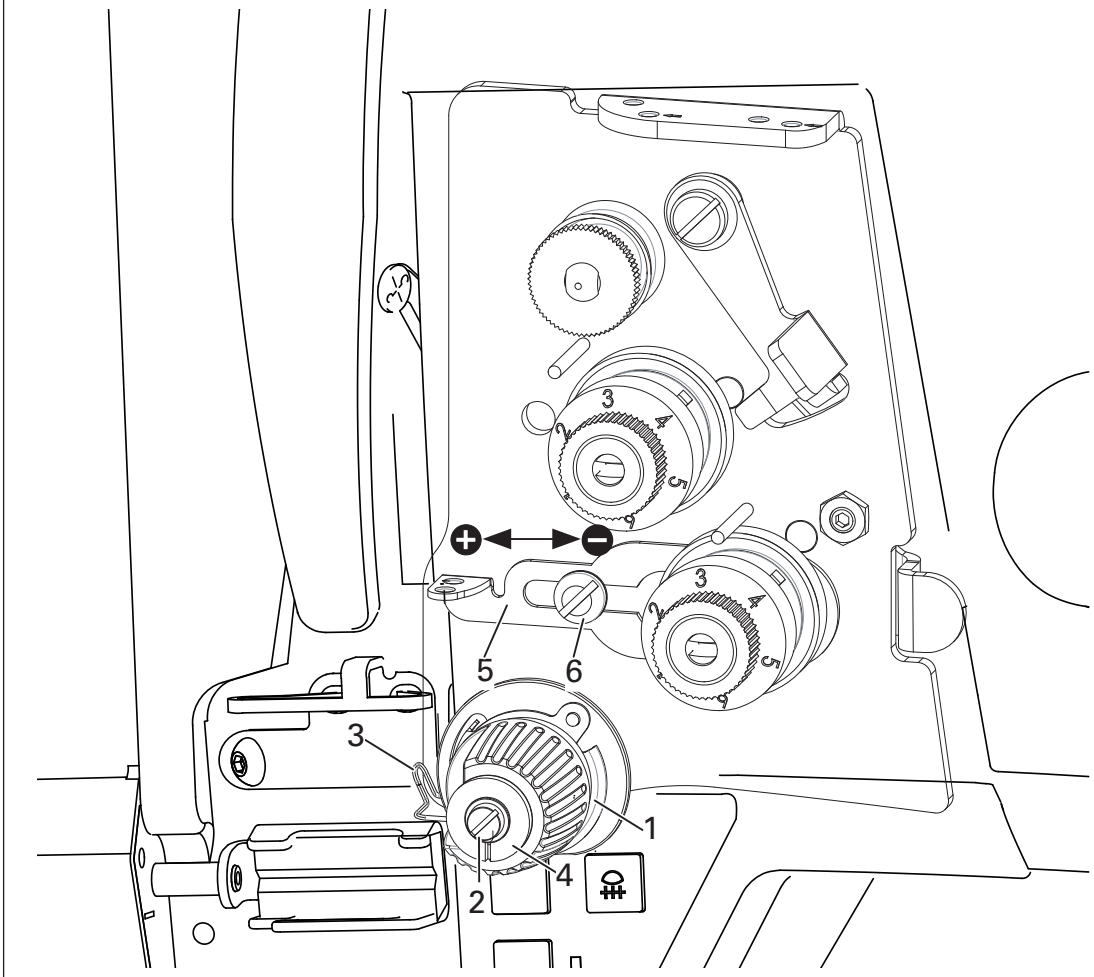


Fig. 13 - 25

- Adjust the support **1** (screw **2**) according to **rule 1**.
- Turn the screw **4** (screw **2**) to set the spring tension.
- Adjust the slack thread regulator **5** (screw **6**) according to **rule 2**.

It may be necessary to deviate from the specified spring deflection or spring tension for reasons relating to the sewing technology. Adjust the slack thread regulator **5** (screw **6**) by "+" (= more thread) or "-" (= less thread).

13.04.26 Thread check spring (on the PFAFF 574)

Rule

1. The movement of the thread check spring 3 should be finished when the needle points puncture the material (spring deflection approx. 7 mm).
2. The thread check spring **3** should lift slightly off the support **1** when forming the maximum thread loops while passing the thread around the hook.

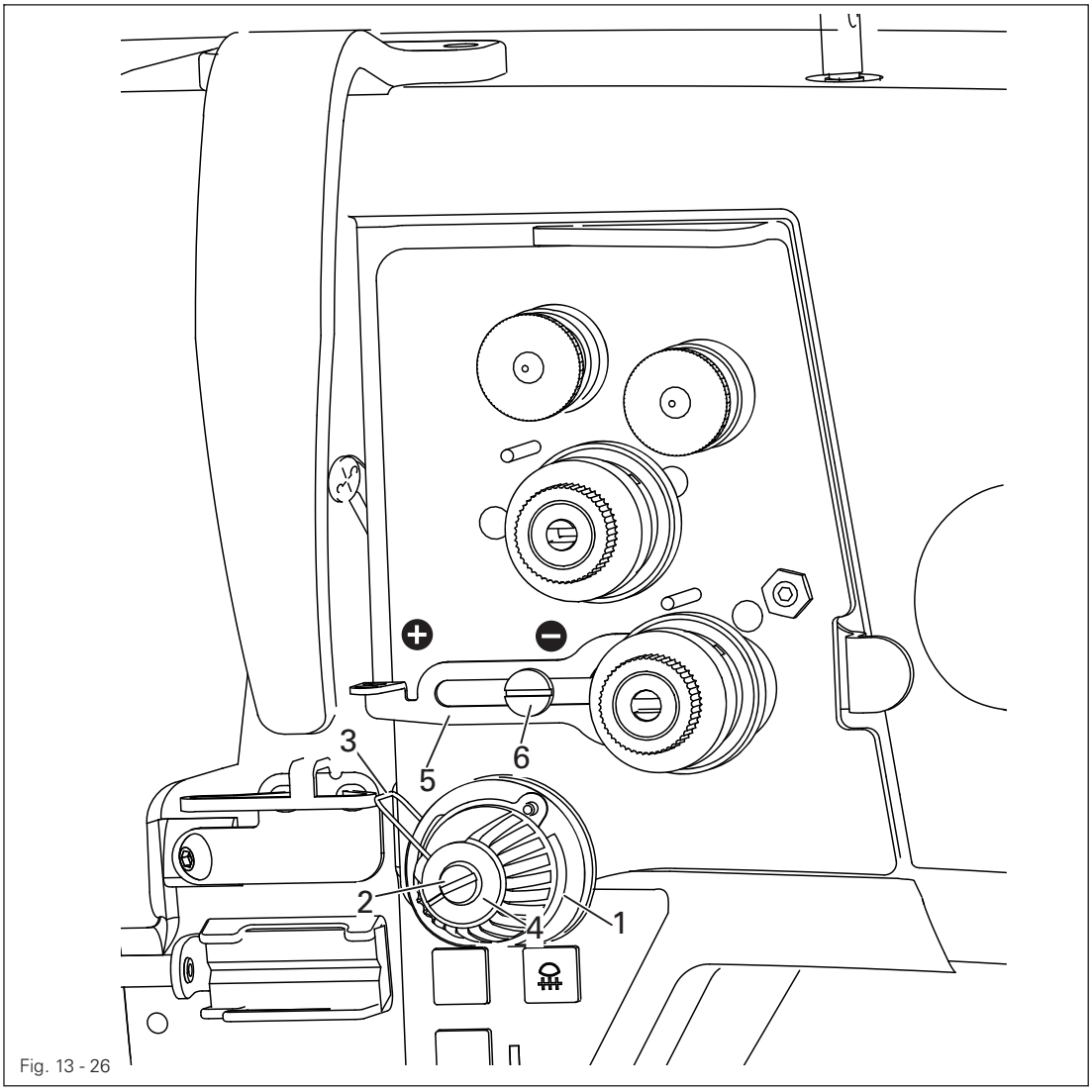
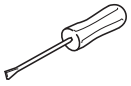


Fig. 13 - 26



- Adjust the support **1** (screw **2**) according to **rule 1**.
- Turn the sleeve **4** (screw **2**) to set the spring tension of the thread check spring **3**.
- Adjust the slack thread regulator **5** (screw **6**) according to **rule 2**.

It may be necessary to deviate from the specified spring deflection or spring tension for reasons relating to the sewing technology. Adjust the slack thread regulator **5** (screw **6**) by "+" (= more thread) or "-" (= less thread).

13.04.27 Bobbin winder

Rule

1. When the bobbin winder is switched on, the bobbin winder spindle should be moved easily; when the bobbin winder is switched off, the friction wheel 5 must not touch the drive wheel 1.
2. The bobbin winder should switch off automatically when the fill amount is still around **1 mm** from the edge of the bobbin.

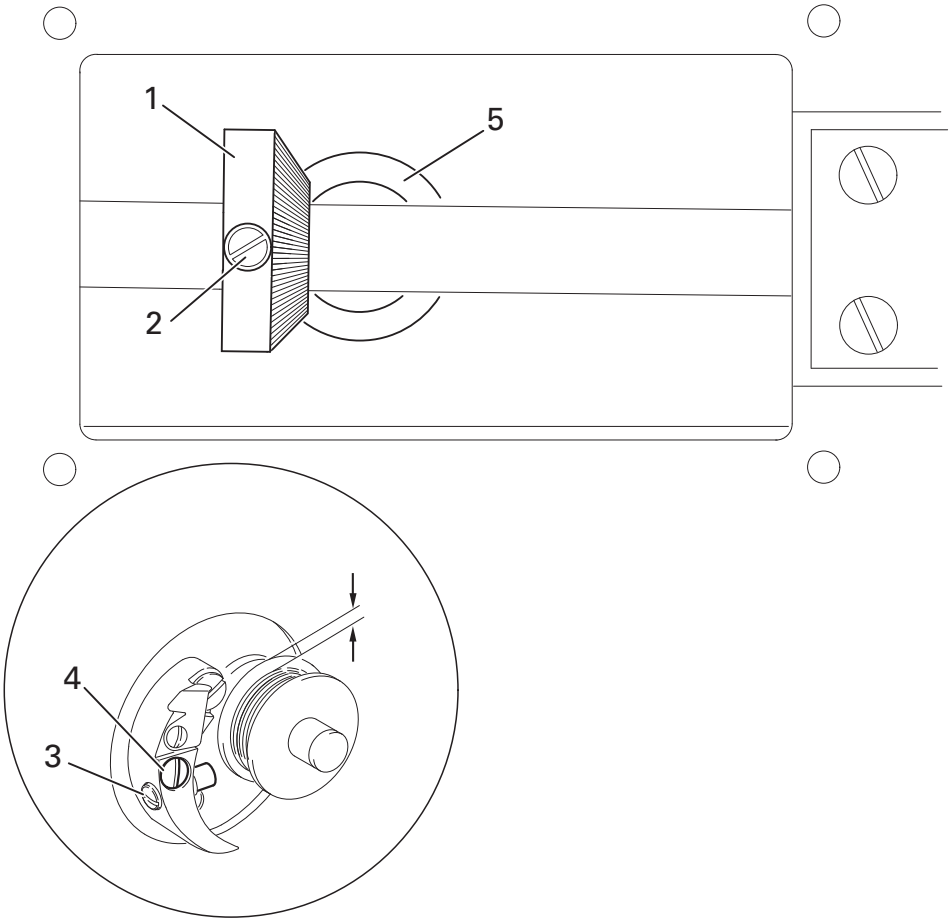


Fig. 13 - 27

- Adjust the drive wheel **1** (screws **2**) according to **rule 1**.
- Adjust the bolt **3** (screw **4**) according to **rule 2**.

13.04.28 Roller presser pressure

Rule
The material should be transported properly even at top sewing speed. No pressure marks should appear on the material.

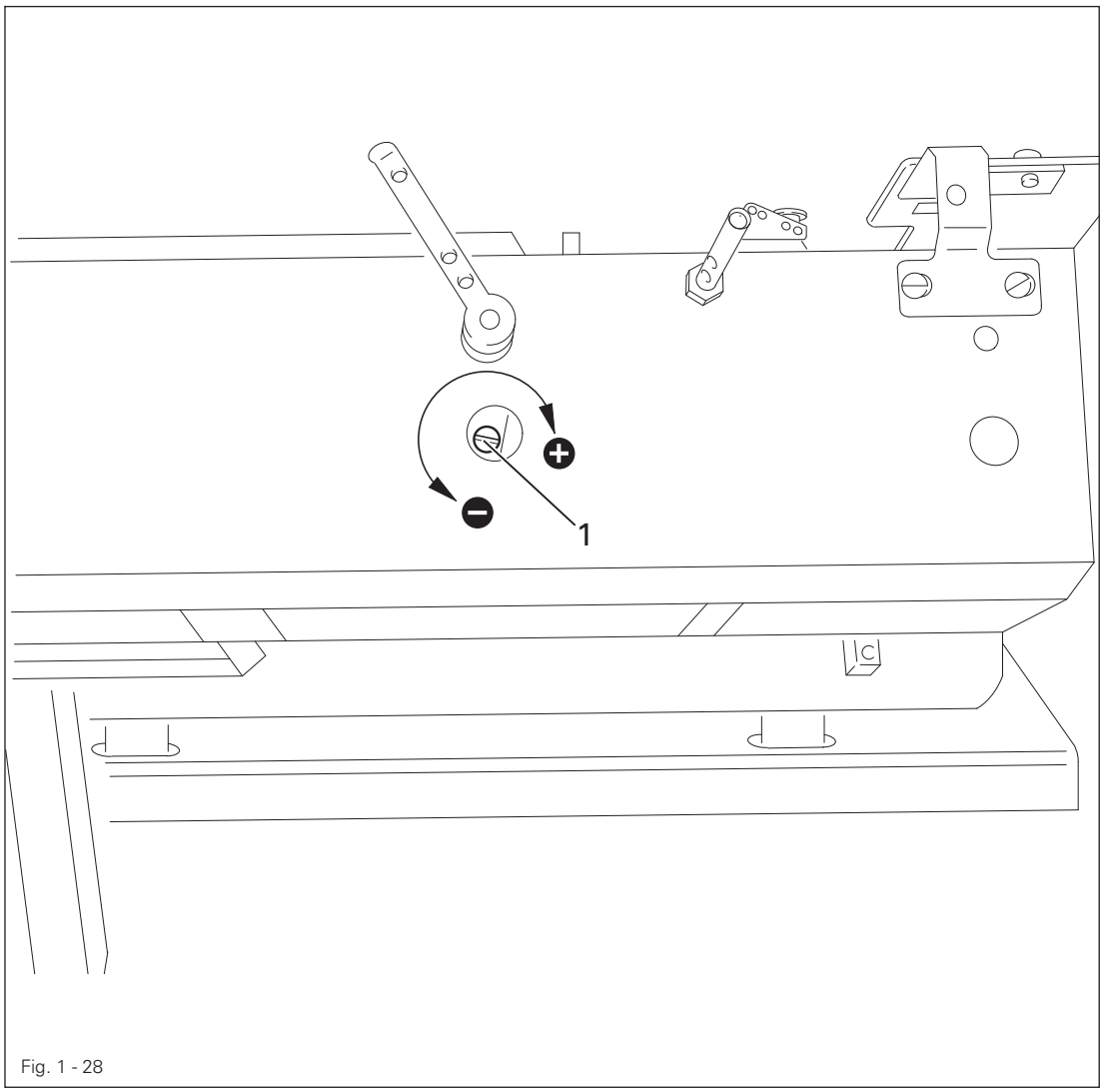
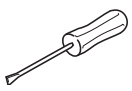


Fig. 1 - 28



- Turn the screw **1** according to the **rule**.

The screw **1** is located under the cover.

13.04.29 Lubrication

Rule
After 10 seconds operation, a light oil strip should appear on a paper strip held to the hook foot.

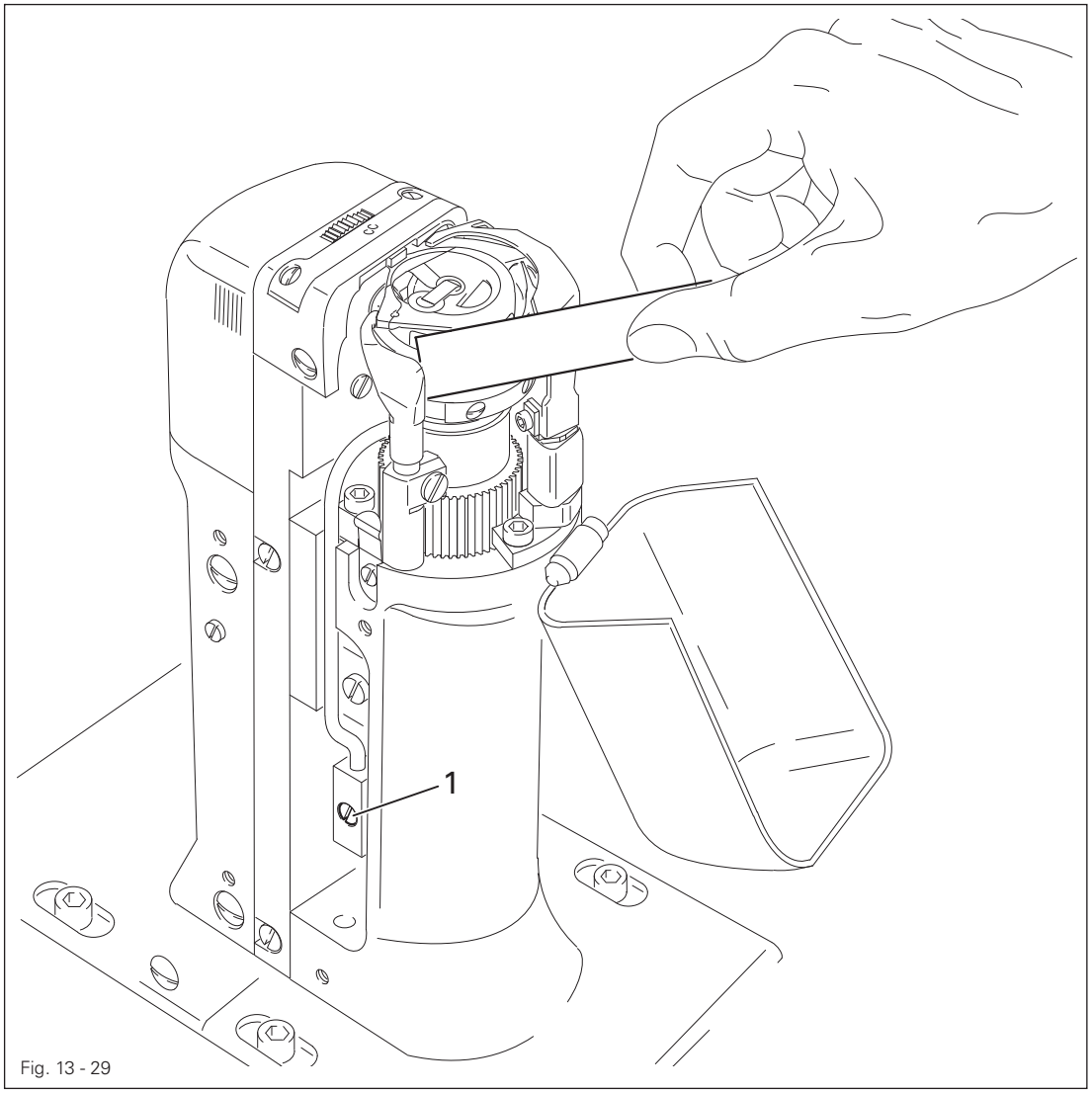


Fig. 13 - 29

- Check whether the oil has been added and the oil tubes are free of air.
- Let the machine run for **2-3 min**.

Do not reach into the needle and hook area while the machine is running!
Risk of injury due to moving parts!

- Hold a paper strip on the hook while the machine is running and check the **rule**.
- If necessary, adjust the oil delivery rate on the screw **1**.

13.04.30 Re-engage safety clutch

The clutch **1** is set ex works. If the thread jams, the clutch **1** disengages to avoid damage to the hooks.
The process to engage the clutch **1** is described below.

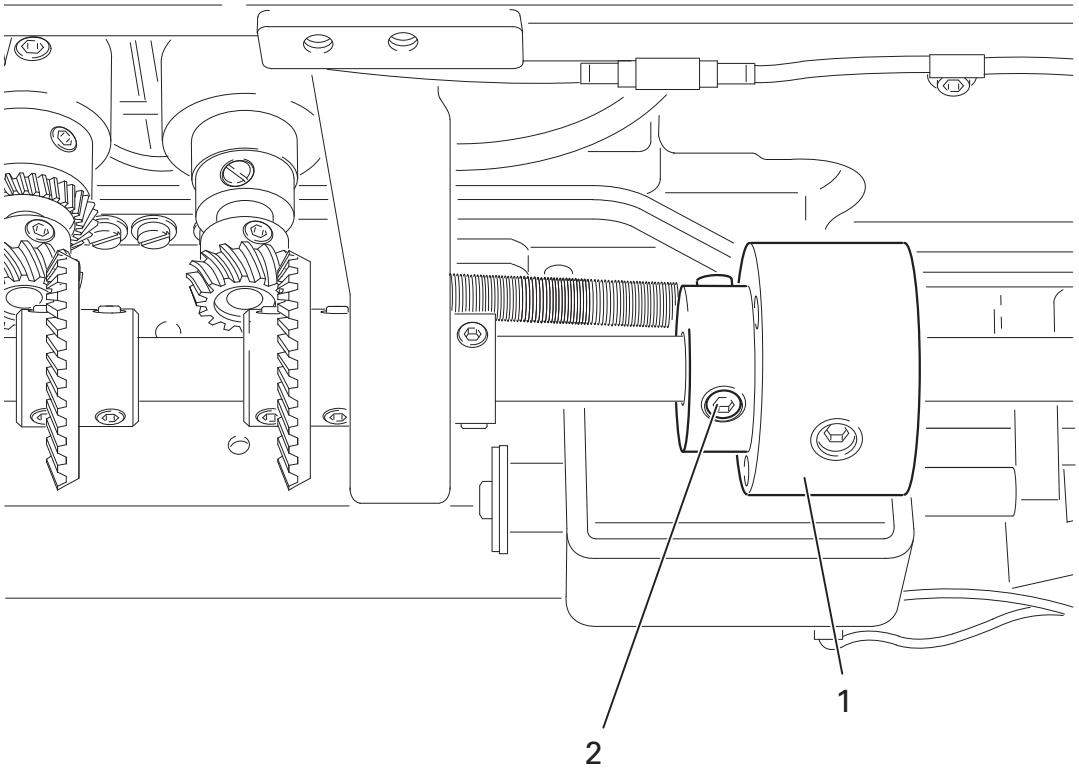


Fig. 13 - 30

- Remove the thread jam.
- Hold the clutch **1** against the screw **2** and turn the handwheel until you notice that the clutch **1** re-engages.

13.05 Adjust edge trimmer -725/04

13.05.01 Knife carrier position (on the PFAFF 571)

Rule
When the edge trimmer is switched on and the adjusting wheel 1 is turned until you feel it reach the upper stop,
1. the knife carrier **2** should be parallel to the post and
2. the upper edge of the needle plate should be at the centre of the knife angle.

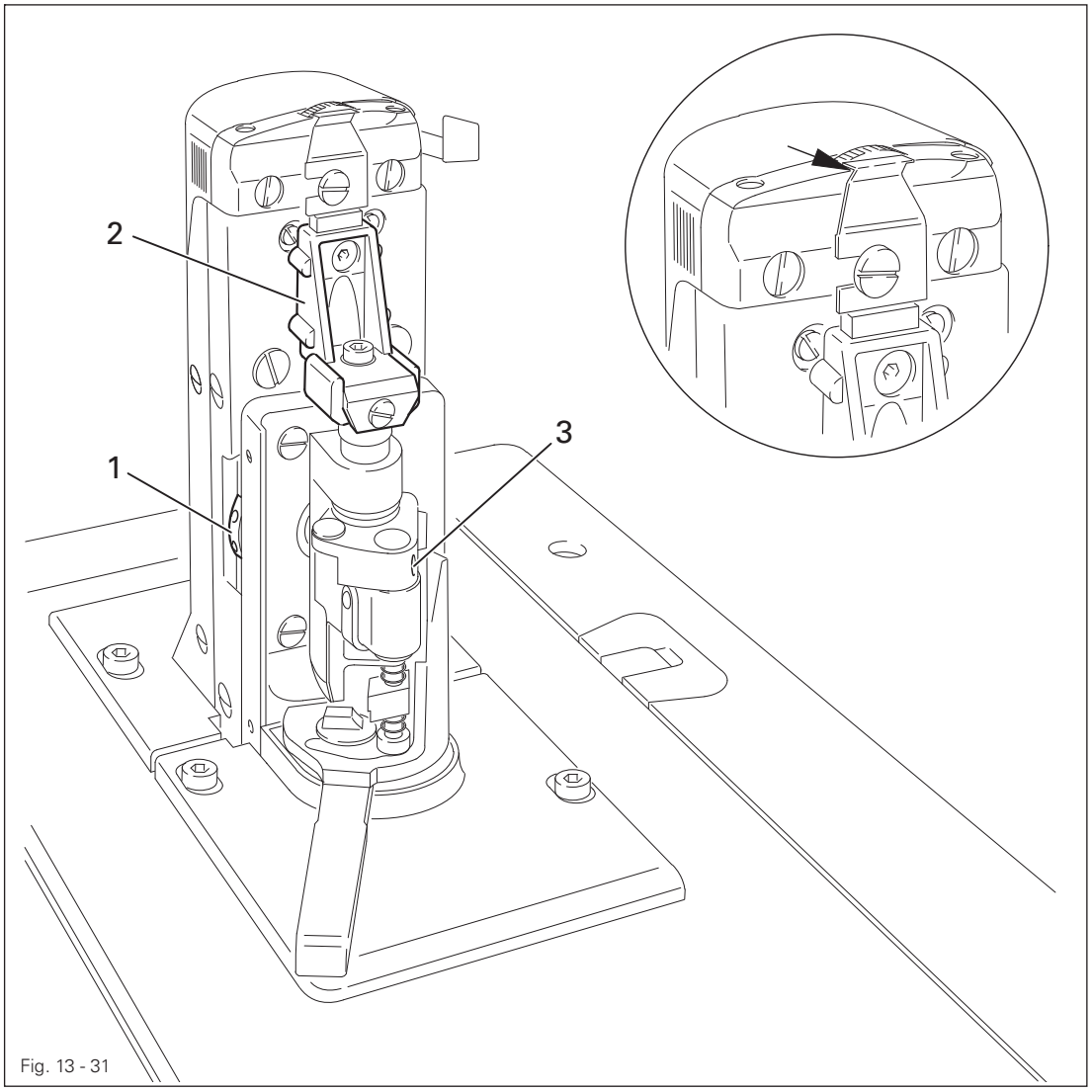
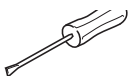


Fig. 13 - 31



- Turn the adjusting wheel **1** until you feel it reach the upper stop and switch on the edge trimmer.
- Adjust the knife carrier **2** (screw **3**) according to the **rule**.

13.05.02 Knife carrier position (on the PFAFF 574 and 591)

Rule
When the edge trimmer is swung in, the centre of the knife angle should be at the same level as the upper edge of the needle plate.

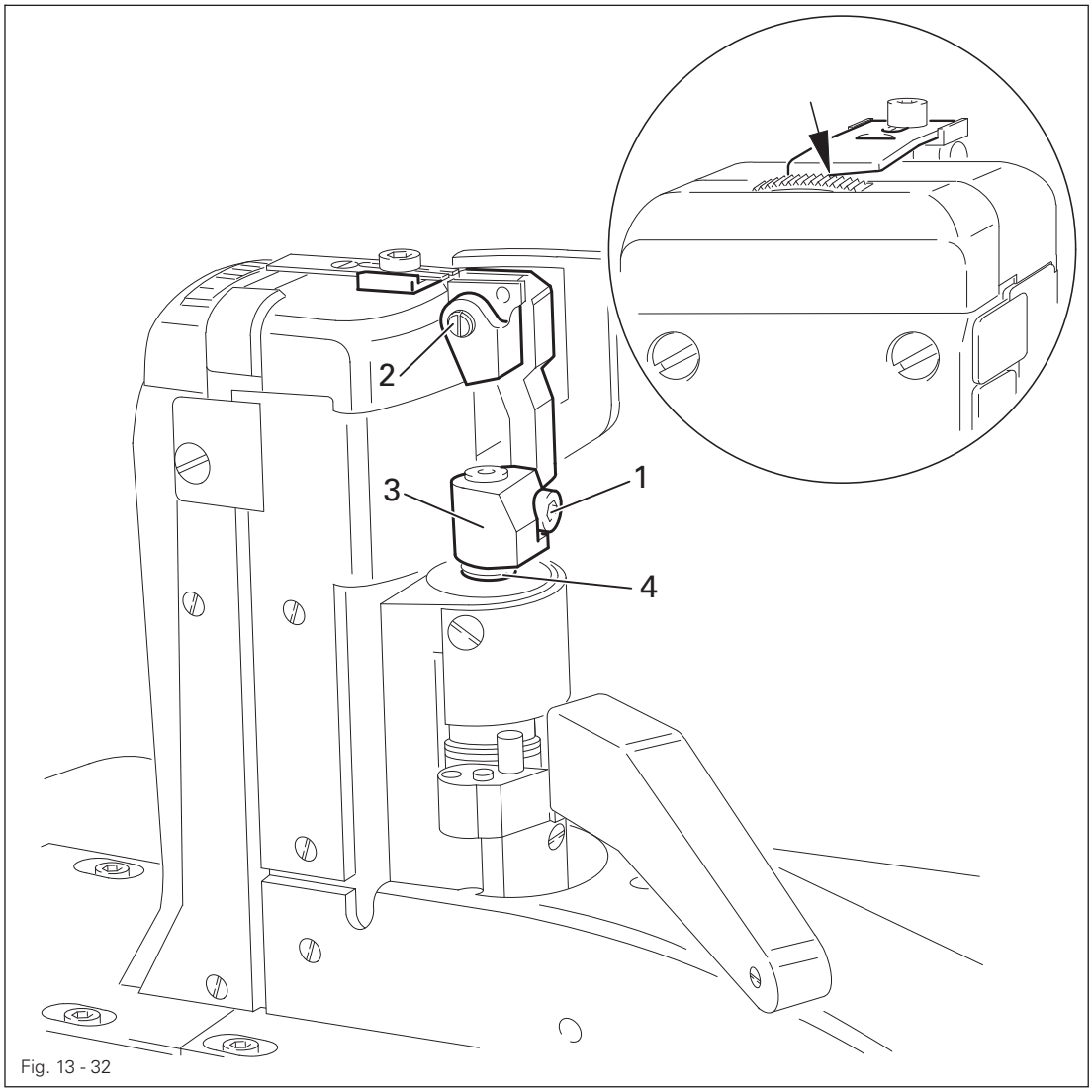
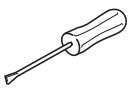


Fig. 13 - 32



- Switch off the machine and swing in the edge trimmer.
- Loosen the screw **1**.
- Set the knife to its central range by turning the eccentric **2**.
- Adjust the knife carrier **3** according to the **rule** and tighten the screw **1**.
- Adjust the circlip **4** to touch the knife carrier **3**.

The default setting on the eccentric **2** may differ depending on the material thickness.

13.05.03 Knife stroke (on the PFAFF 571)

Rule
The knife stroke can be set within a range of 1.0 to 3.5 mm to optimally suit all materials used.

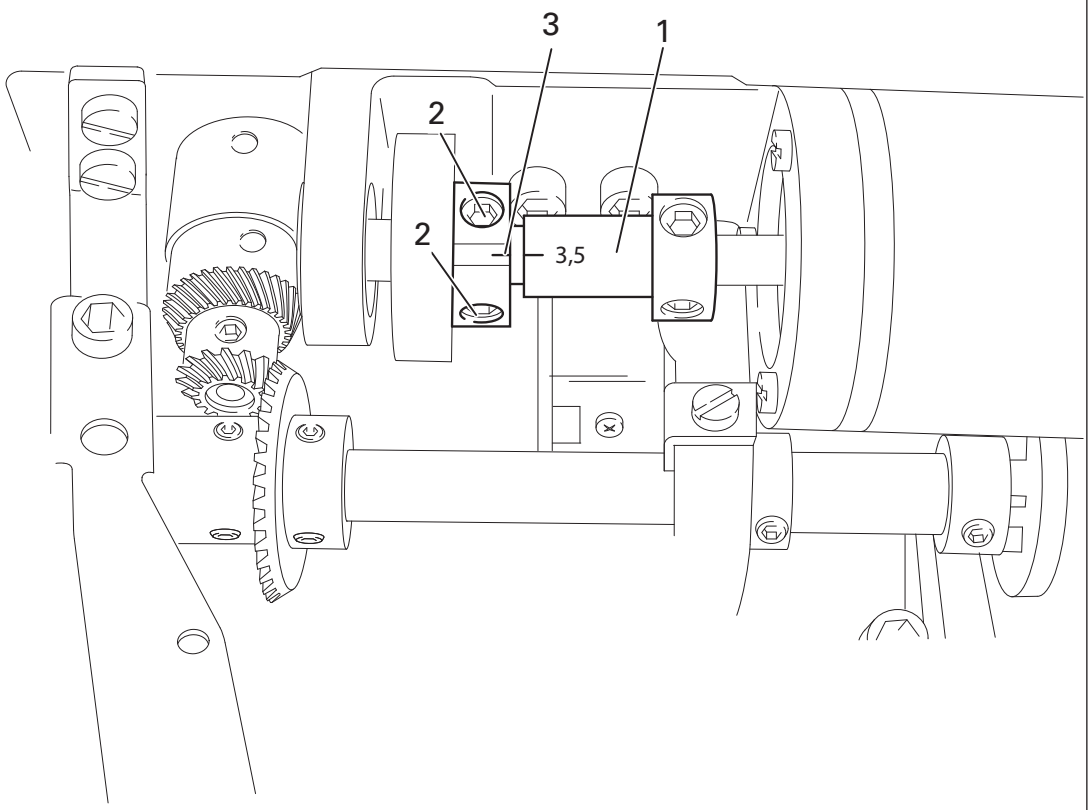


Fig. 13 - 33

- Turn the eccentric **1** (screws **2**) so that the marking of the desired cutting stroke is opposite the marking on the clamp collar **3**.

13.05.04 Knife stroke (on the PFAFF 591)

Rule
The knife stroke can be set within a range of 2.0 to **3.5 mm** to optimally suit all materials used.

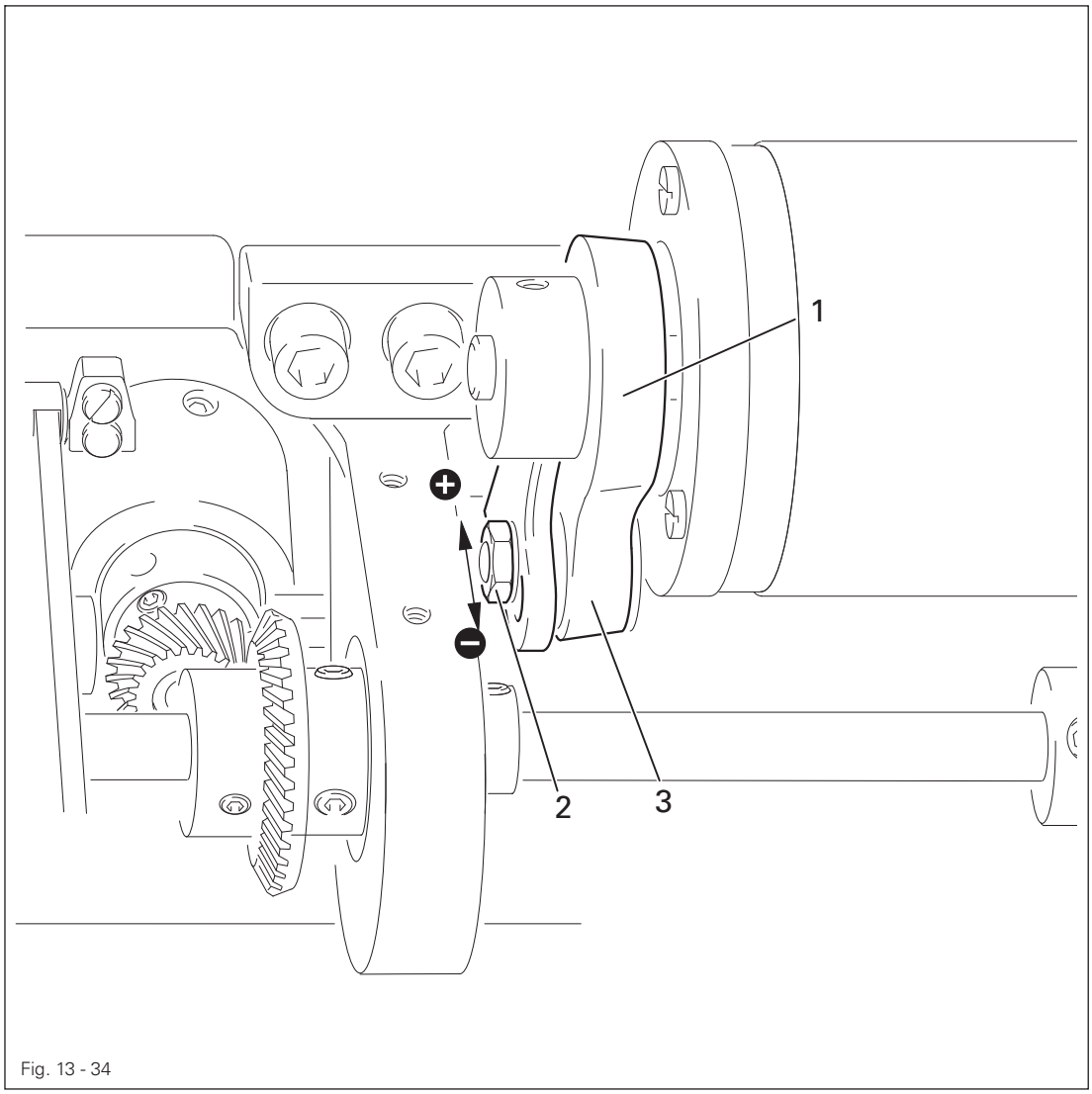


Fig. 13 - 34

- Adjust the crank **1** (nut **2**) in the slotted lever **3** according to the **rule**.

13.05.05 Knife movement (on the PFAFF 571)

Rule
When the edge trimmer is swung in and the needle is in the needle hole, the movement of the knife 1 should be half way in front of and half way behind the needle when turning the motor shaft manually.

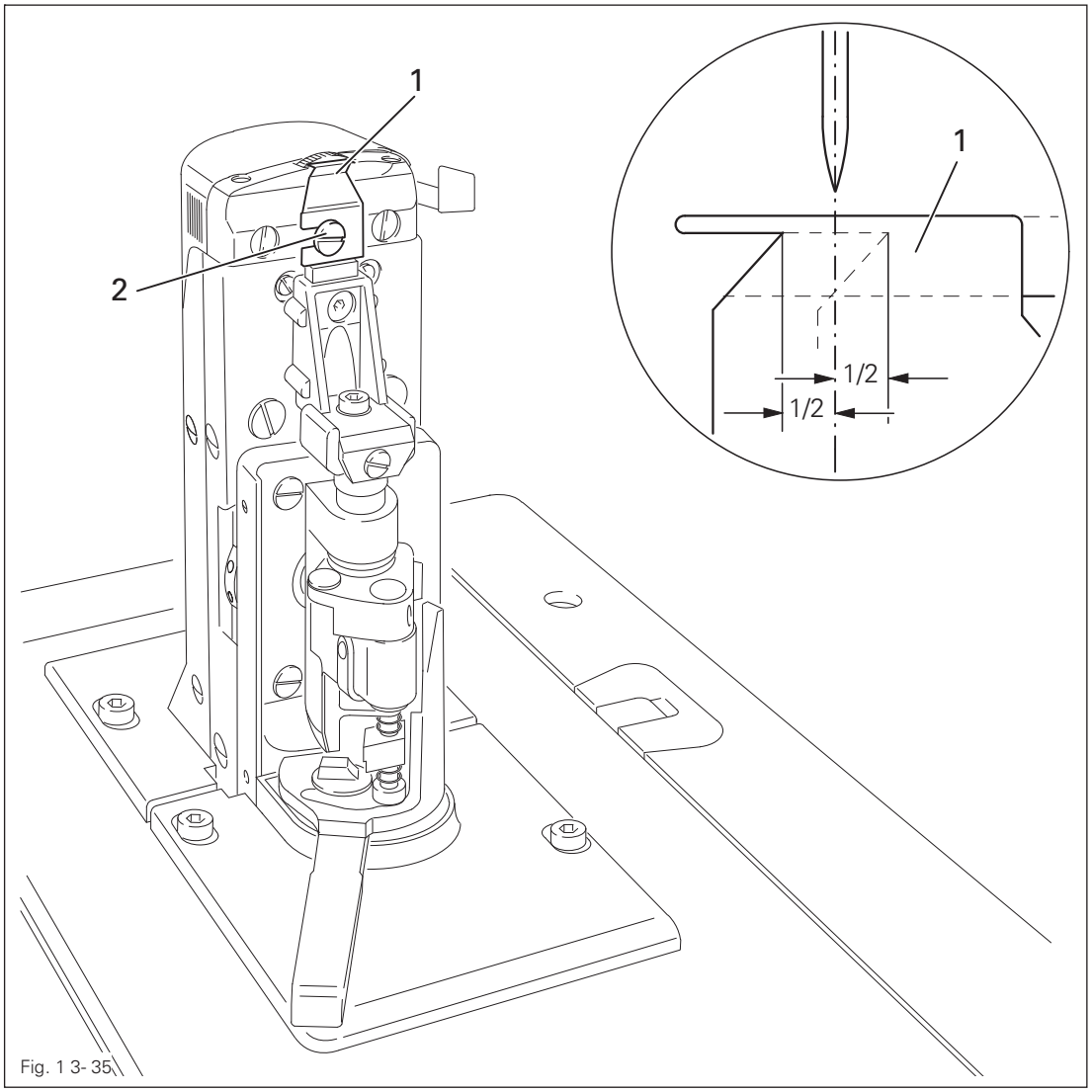
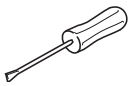


Fig. 1 3- 35



- Switch off the machine and swing in the edge trimmer.
- Adjust the knife **1** (screw **2**) according to the **rule**.

13.05.06 Knife movement (on the PFAFF 574 and 591)

Rule
When the edge trimmer is swung in and the needle is in the needle hole, the movement of the knife 3 should be half way in front of and half way behind the needle when turning the motor shaft manually.

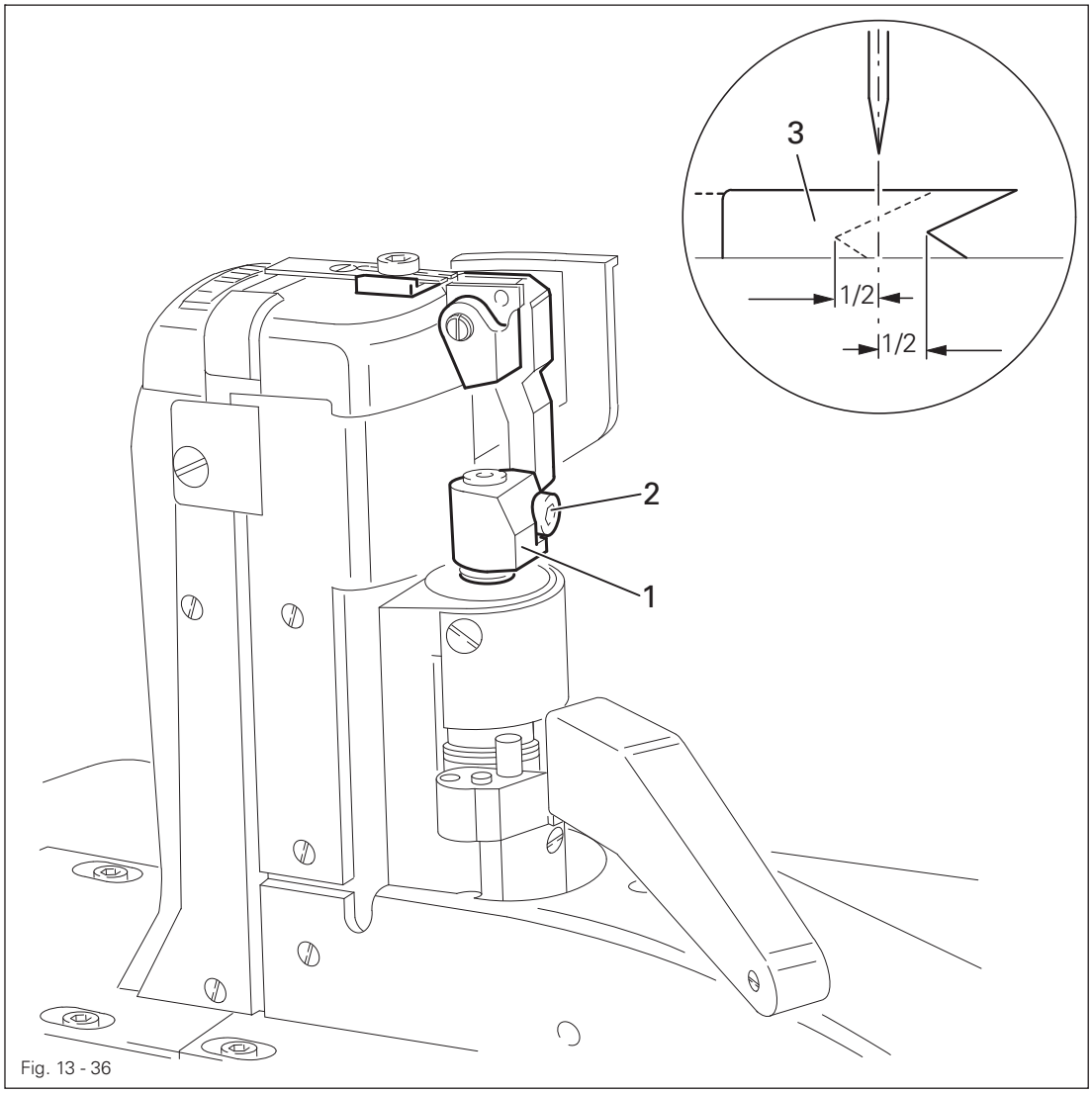
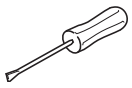


Fig. 13 - 36



- Switch off the machine and swing in the edge trimmer.
- Turn the knife carrier **1** (screw **2**) according to the **rule**.

13.05.07 Knife position

Rule
When the edge trimmer is swung in, the knife should touch the needle plate insert lightly, whereby no whistling sound should occur during the trimming.

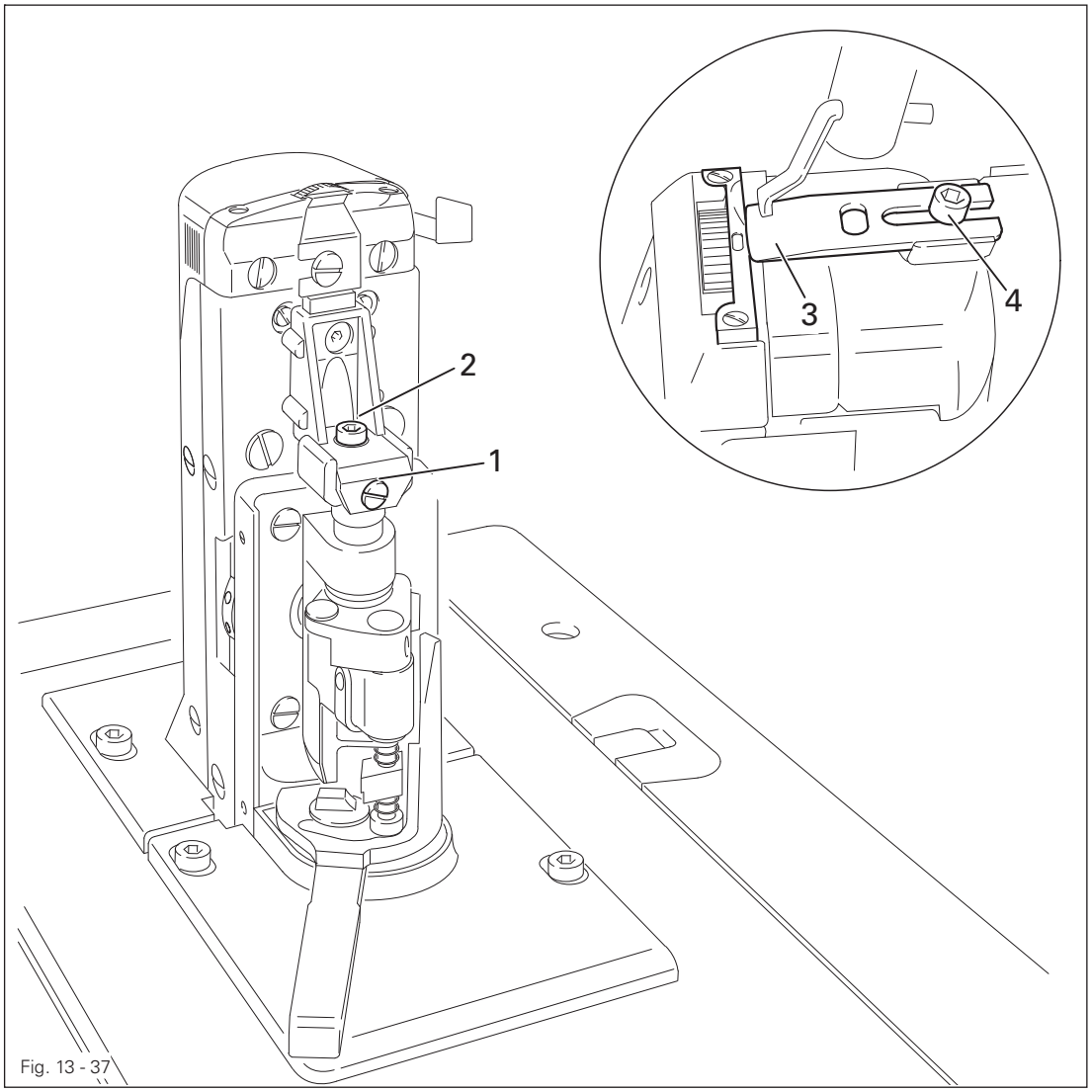
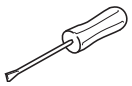


Fig. 13 - 37



PFAFF 571

- Turn the screw **1** (screw **2**) according to the **rule**.
- Carry out a test cut and maybe repeat the adjustment.

PFAFF 591

- Adjust the knife **3** (screw **4**) according to the **rule**.
- Carry out a test cut and maybe repeat the adjustment.

13.06 Adjust thread trimmer -900/81

13.06.01 Roller lever neutral position / control cam radial position

Rule

1. When the thread trimmer is in the neutral position, the lever 5 should fit closely to the plunger 6 and the roller on the roller lever 7 should be 0.3 **mm** away from the control cam **3**.
2. When the thread lever is at TDC, the control cam **3** should have just brought the roller lever **7** to the neutral position and the retaining collar **8** should touch the roller **10**.

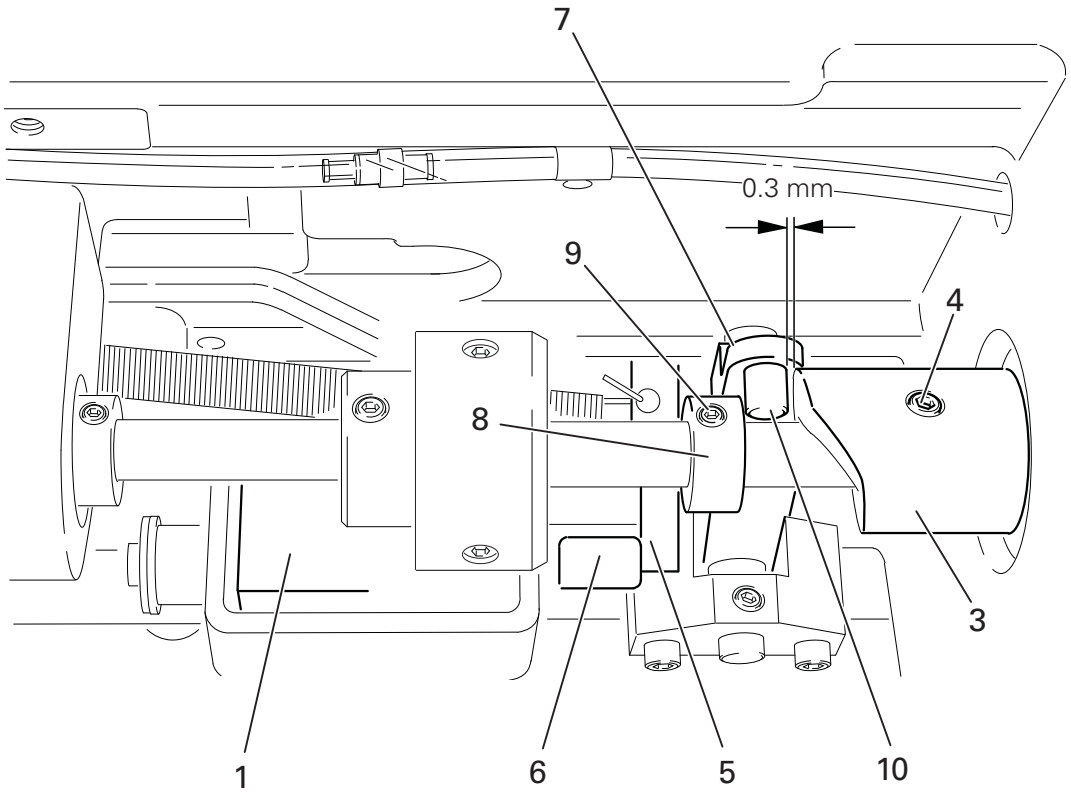


Fig. 13 - 38

- Ensure that the plunger **6** is at the leftmost position, adjust the magnet **1** (**2** screws) according to **rule 1**.
- Turn the control cam **3** (screws **4**) according to **rule 2**.
- Mount the retaining collar **8** (screws **9**) on the roller **10**.

13.06.02 Thread catcher carrier position

Rule

1. There should be a minimum amount of play between the pinion 3 and the toothed segment 4.
2. The clearance between the toothed segment **4** and the outer edge of the thread catcher carrier **1** should be the same size (see arrow) in both the neutral position and the front turning point position of the catcher.

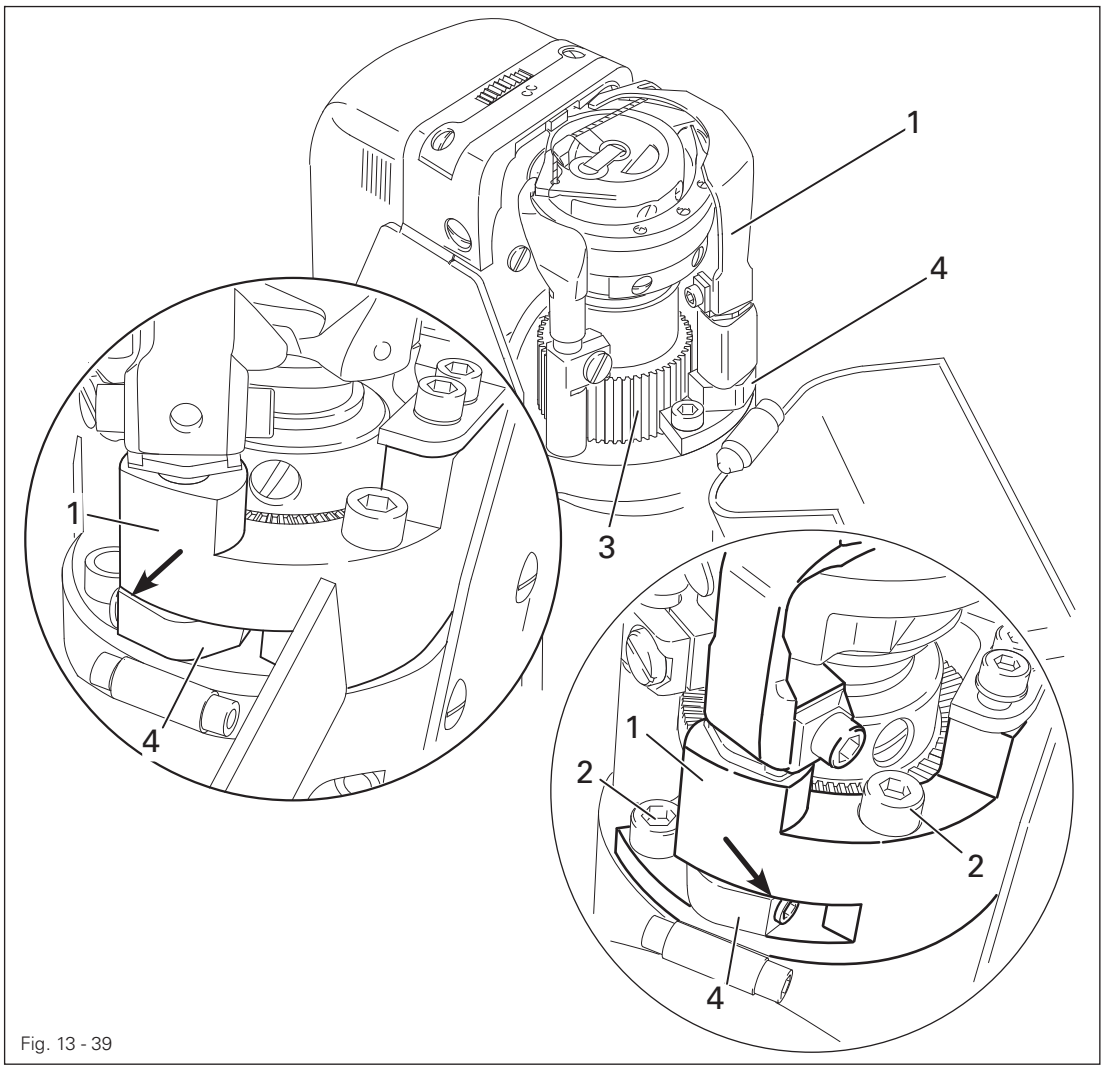


Fig. 13 - 39

● Adjust the thread catcher carrier **1** (screws **2**) according to the **rules**.

If **rule 2** is not achieved, loosen the screw **2** and move the toothed segment **4** by one tooth.

13.06.03 Distance between thread catcher and needle plate

Requirement
During its swivel movement thread catcher 1 should not pass the edge of the needle plate (see arrow)..

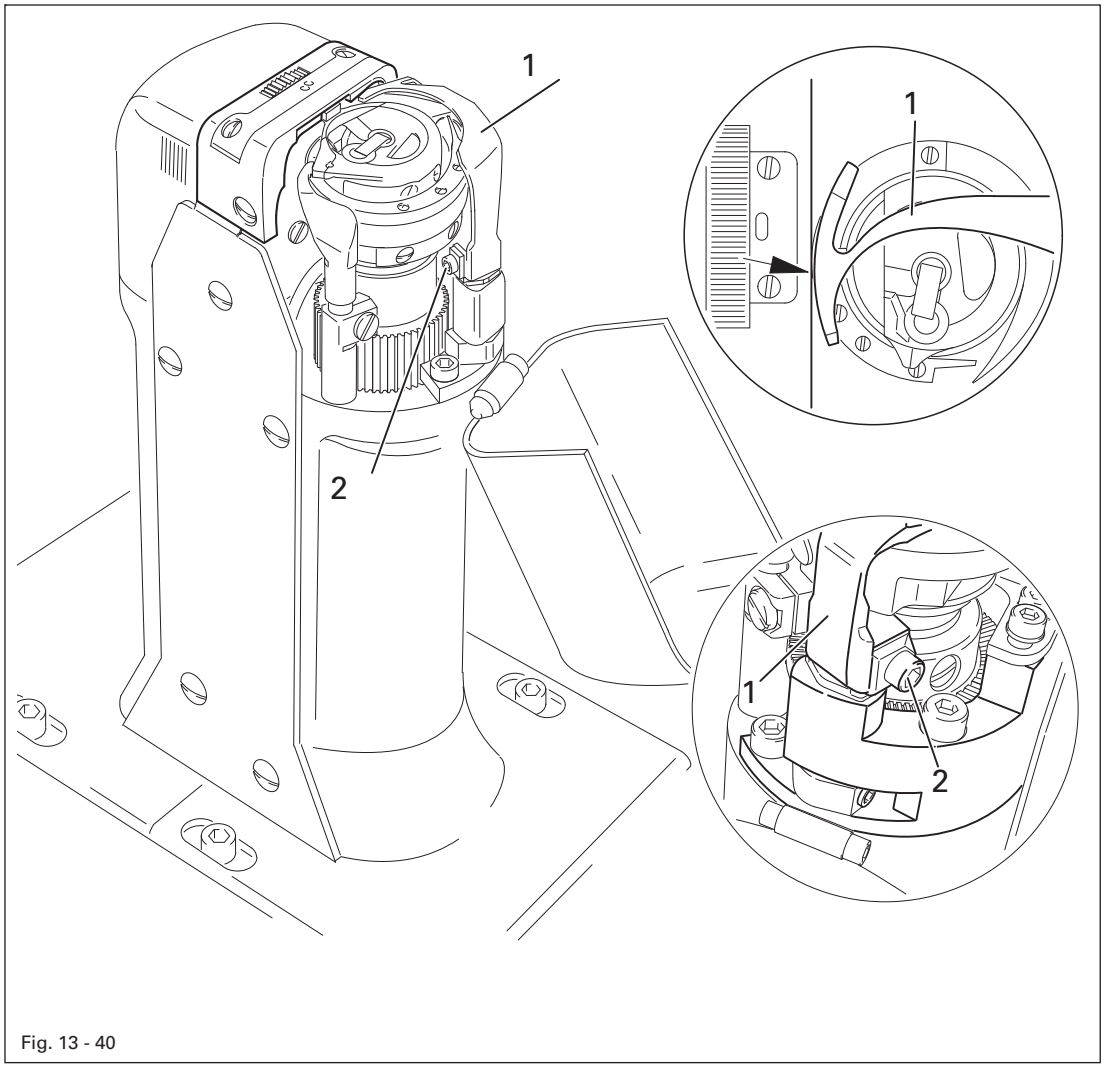
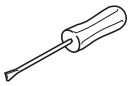


Fig. 13 - 40



- Move thread catcher 1 (screws 2, two screws) parallel to the thread catcher holder in accordance with the requirement.

13.06.03 Thread catcher position

Rule

1. The lower edge of the thread catcher **1** should be **0.1 mm** away from the horn of the bobbin case **5**.
2. When the thread trimmer is in its neutral position, the rear edge of thread catcher **1** should be positioned approx. **2.5 – 3 mm** behind the edge of the knife **6**.

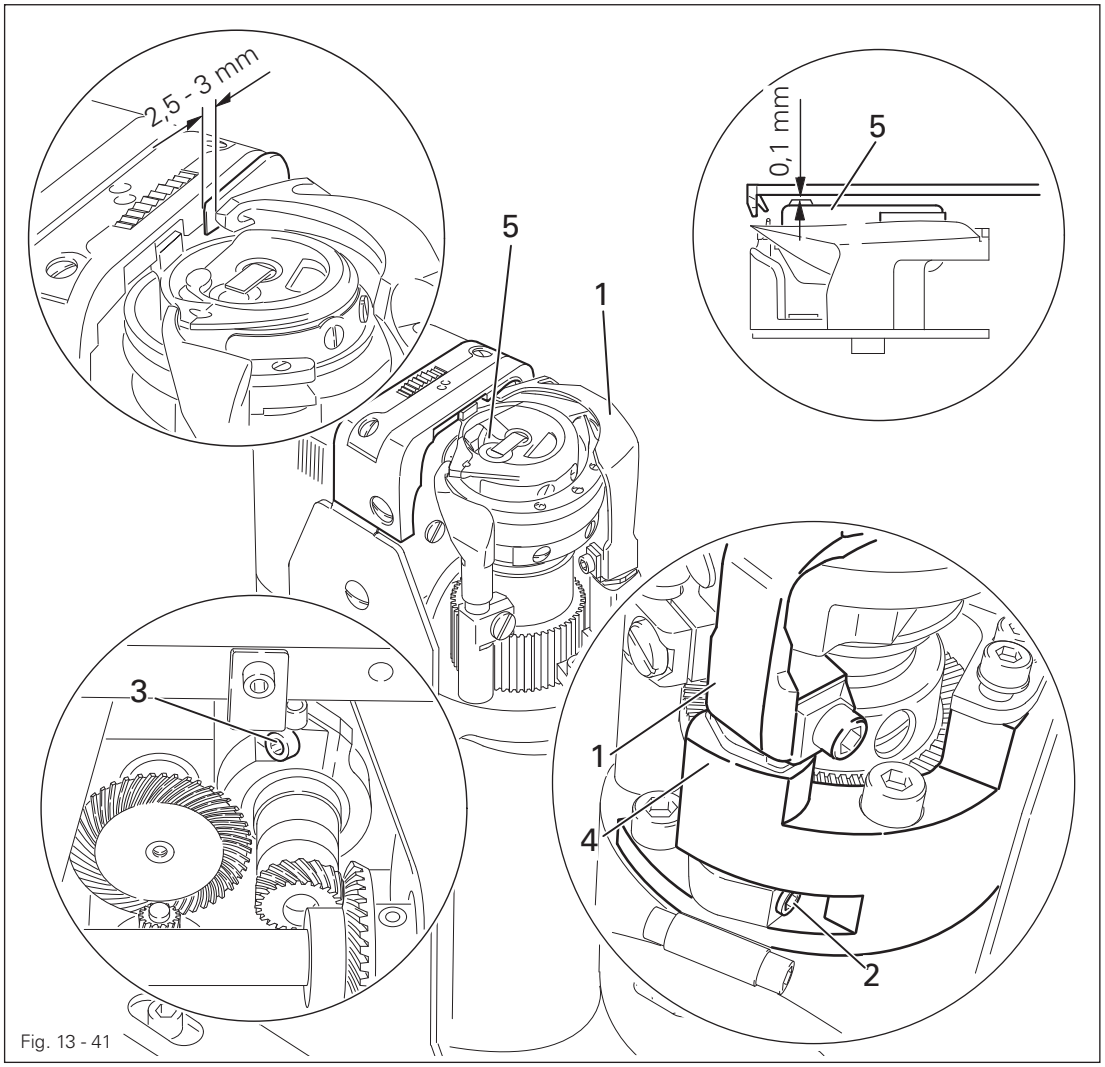


Fig. 13 - 41

- Adjust the thread catcher **1** (**2** x screws **2**) according to **rule 1**.
- Turn the thread catcher **1** (screw **3**) according to **rule 2**.

The thread catcher **1** must be parallel to the surface of the thread catcher carrier **4**.

13.06.0 Knife position and knife pressure

Rule
The knife pressure should be set as low as possible and the cutting operation should be completed safely.

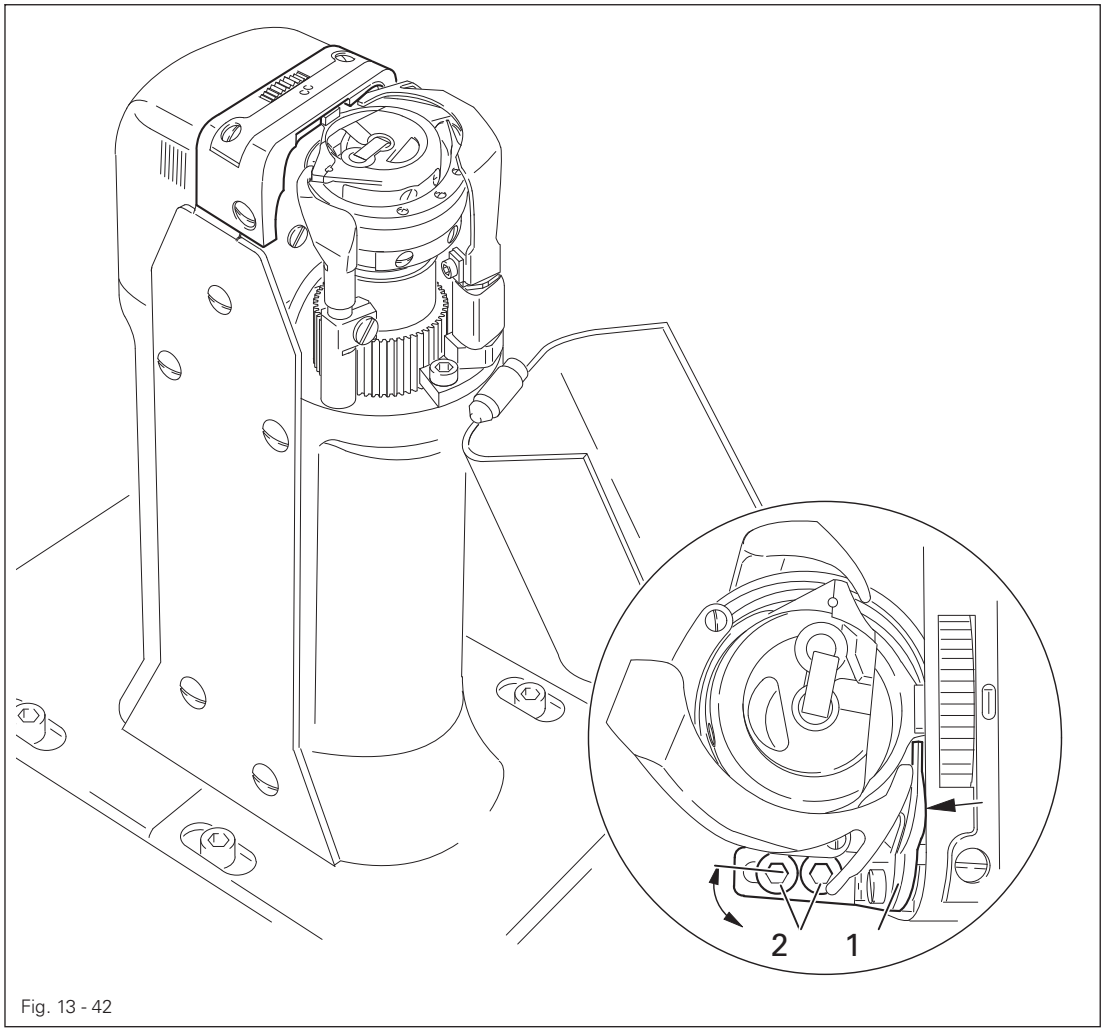
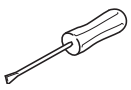


Fig. 13 - 42



● Adjust the eccentric **1** (screws **2**) according to the rule.

13.06.06 Bobbin thread clamp spring

Rule

1. The bobbin thread clamp spring should be guided reliably in the thread groove of the thread catcher 3.
2. The tension of the bobbin thread spring clamp should be as low as possible, but the bobbin thread should be held reliably after the cutting operation.

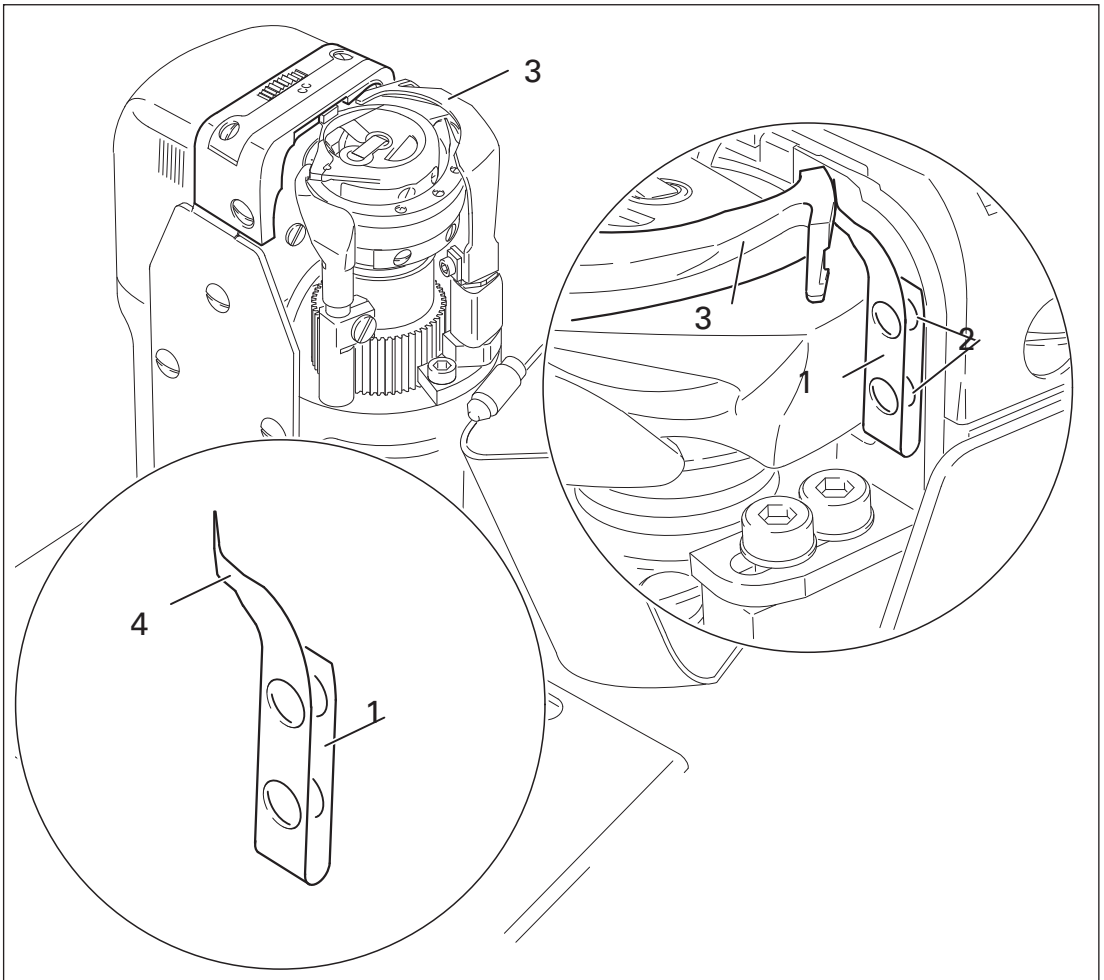


Fig. 13 - 43

- Adjust bobbin thread clamp spring **1** (screws **2**) in accordance with rule 1.
- Adjust the tension in accordance with rule **2** by bending side **4** of the bobbin thread clamp spring **1**.
- Control – rule **1**
- Switch off the machine and bring the take-up lever to its b.d.c.
- Engage and disengage the thread catcher **3** by hand and check rule **1**. Adjust if necessary.
- Control – rule **2**
- After the thread has been cut, sew a few stitches by turning the balance wheel, checking whether the bobbin thread is drawn out of the bobbin thread clamp spring between the 1st and 3rd stitches. If necessary, correct the tension.

13.06.07 Manual test cut

Rule

1. The thread catcher 1 must not push the bobbin thread 3 in front of it during its forward movement.
2. The bobbin thread **3** should be caught securely by the hook **4** in the front turning point position of the thread catcher **1**.
3. The top thread and bobbin thread should be cut precisely and the bobbin thread **3** should be clamped after completing the cutting operation.

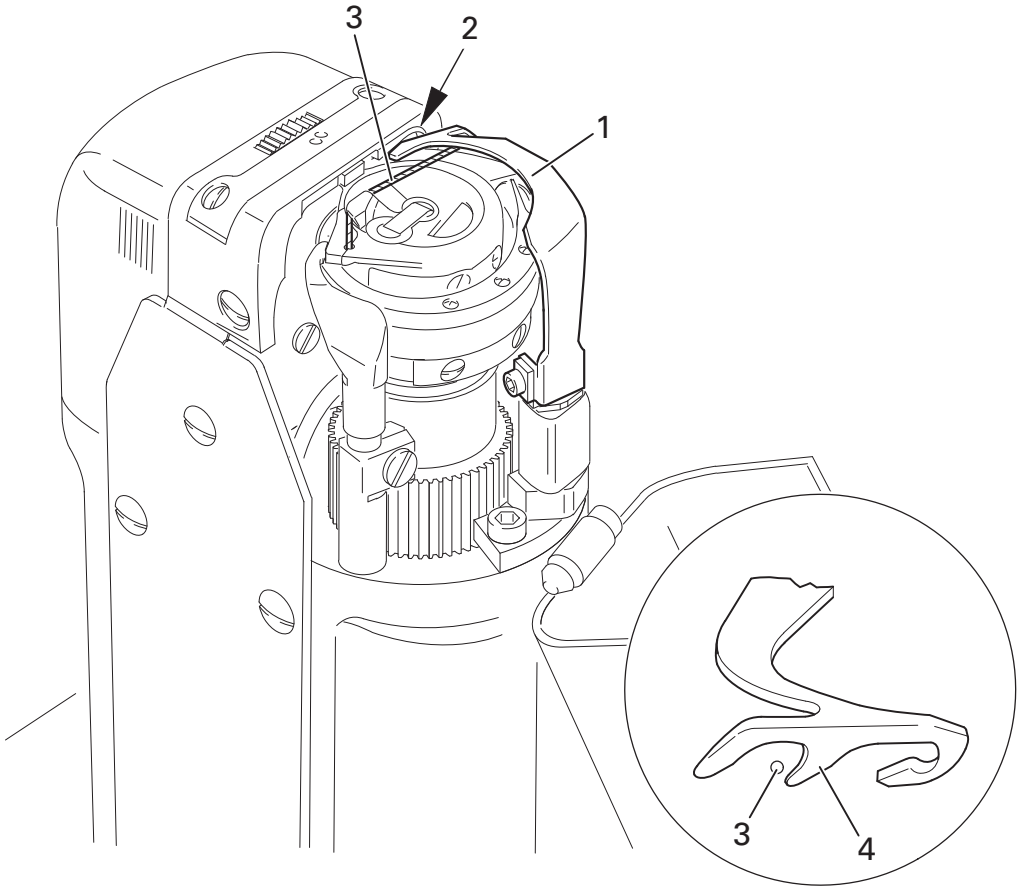
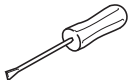


Fig. 13 - 44



- Sew a few stitches.
- Switch off the main switch.
- Carry out the cutting operation manually.
- Check **rules 1** and **2** and, if necessary, re-adjust the thread catcher **1** according to chapter **1.06.03** Re-adjust thread catcher position.
- Check **rule 3** and, if necessary, re-adjust the bobbin thread clamp spring **2** according to chapter **1.06.05** Re-adjust bobbin thread clamp spring.

13.06.08 Tension release

Rule
When the magnet is activated, the tension discs 3 should be at least 0.5 **mm** away from each other.

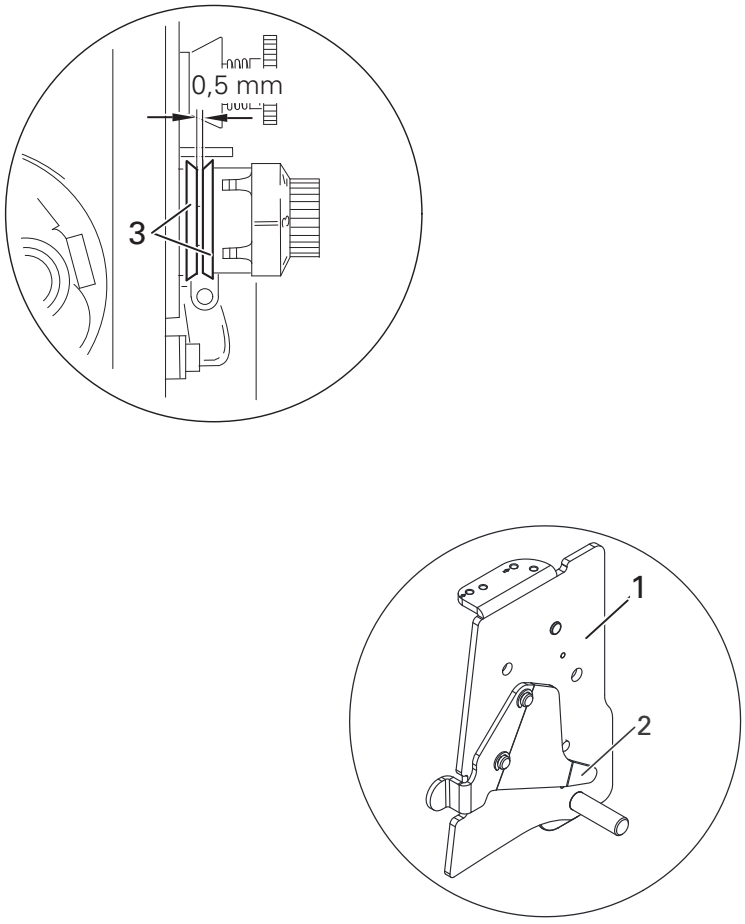
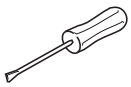


Fig. 13 - 45



- Activate the magnet.
- Unscrew the tension mounting plate **1** and align the pressure plate **2** according to the **rule**.

The time of the tension release can be set via parameter functions, see separate **parameter list.**

13.06.09 Linkage rod (only on the PFAFF 574)

Rule
The driving levers 1 should be parallel when the thread trimmer is the neutral position.

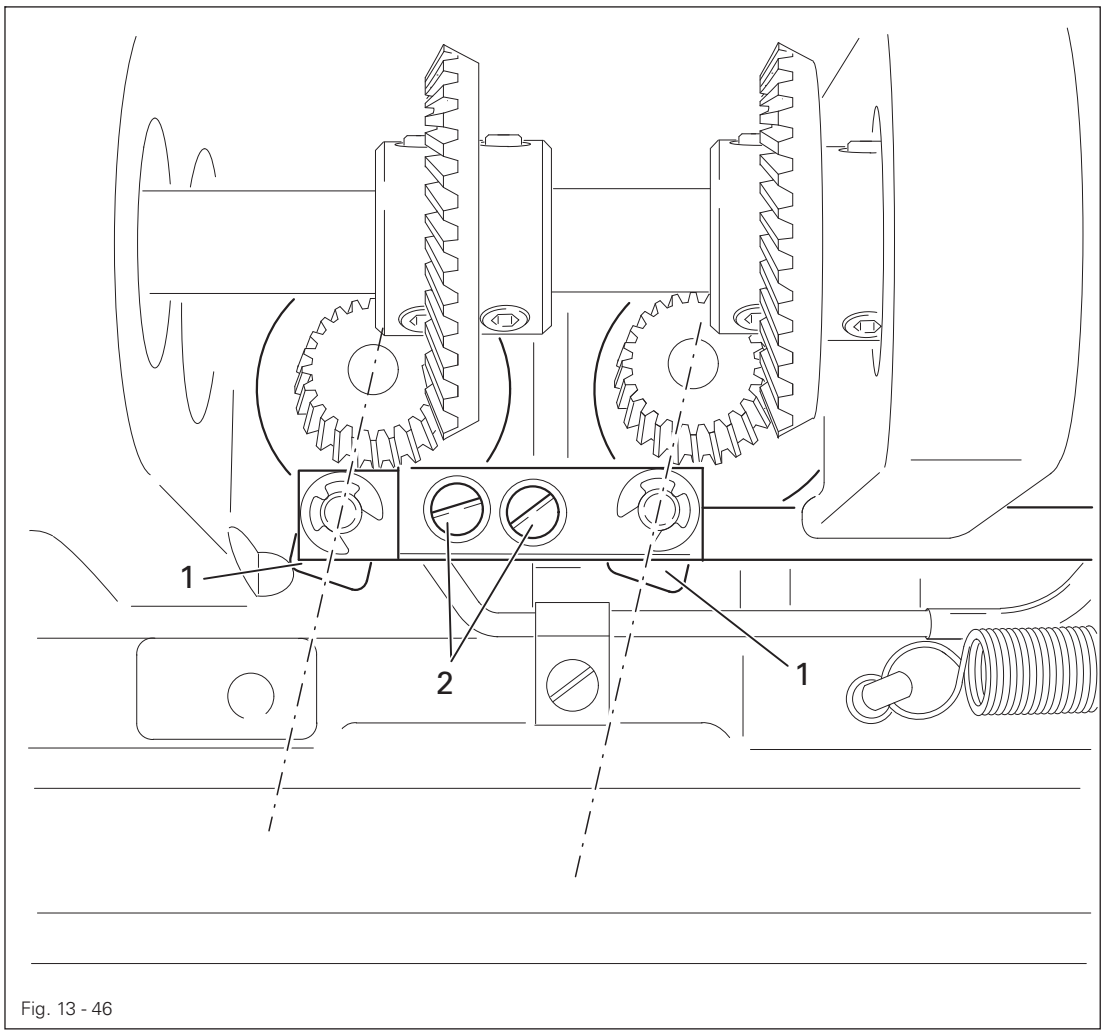
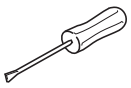


Fig. 13 - 46



● Adjust the driving levers **1** (screws **2**) according to the **rule**.

13.07 Adjust backtacking mechanism -911/..

13.07.01 Needle in needle hole (on the PFAFF 571 and 591)

Rule
The needle should have the same clearance to the inner edge of the needle hole for forward and reverse stitches with maximum stitch length regulation.

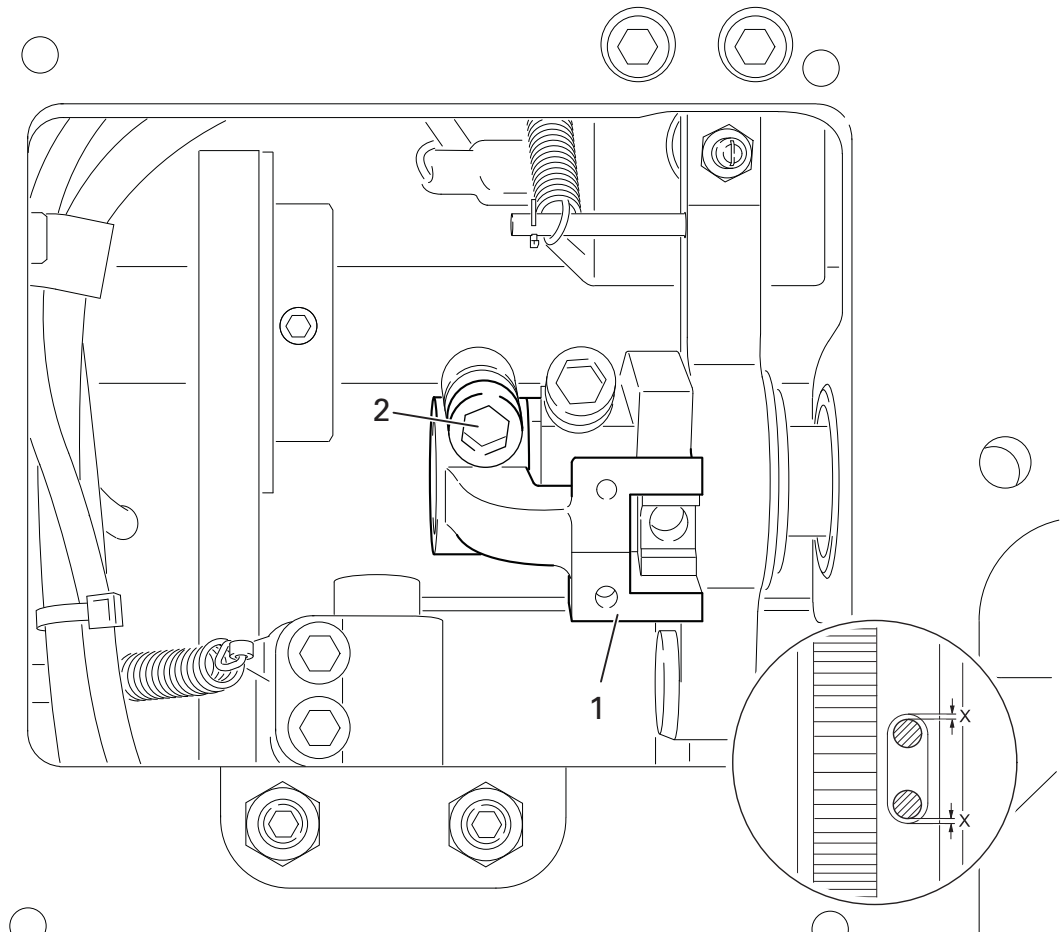


Fig. 13 - 47

● Turn the crank **1** (screw **2**) according to the **rule**.

13.07.02 Clutch for roller presser drive

Rule

1. There should be no play between the cross joint 2 and the connecting rod 1.
2. There should be a clearance of **3 mm** between the cross joint **2** and the mounting **3** when the roller presser is secured.

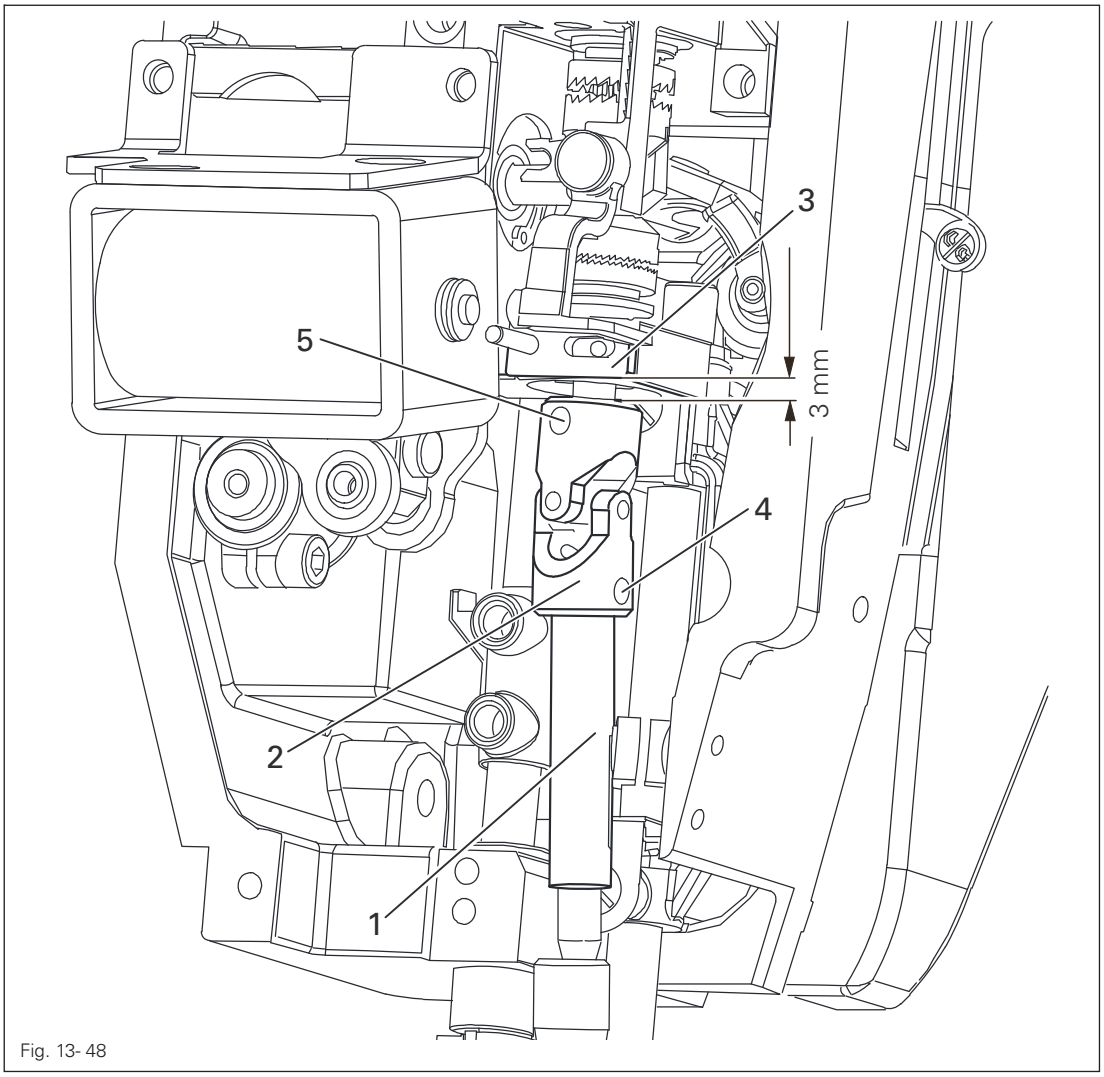
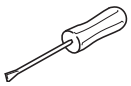


Fig. 13- 48



- Connect the connecting rod **1** (screw **4**) according to **rule 1**.
- Connect the cross joint **2** (screw **5**) according to **rule 2**.

13.07.03 Adjust roller presser drive

Rule

1. Adjust the bevel gears 5.2 and 3 into their position; there must be minimal play between the bevel gears 5.2 and 3.
2. The bevel gear 3 and bevel gear 4 are engaged when sewing forwards; the bevel gears 5.2.3 and 4 must move at the same time.
3. The bevel gear 1 and bevel gear 2 are engaged when sewing backwards; the bevel gears 5.1.2 and 3 must move at the same time.
4. When sewing backwards, the crank 11 must be in its correct position and the magnet lever 12 must be at its maximum lift to reach the crank 11 exactly.

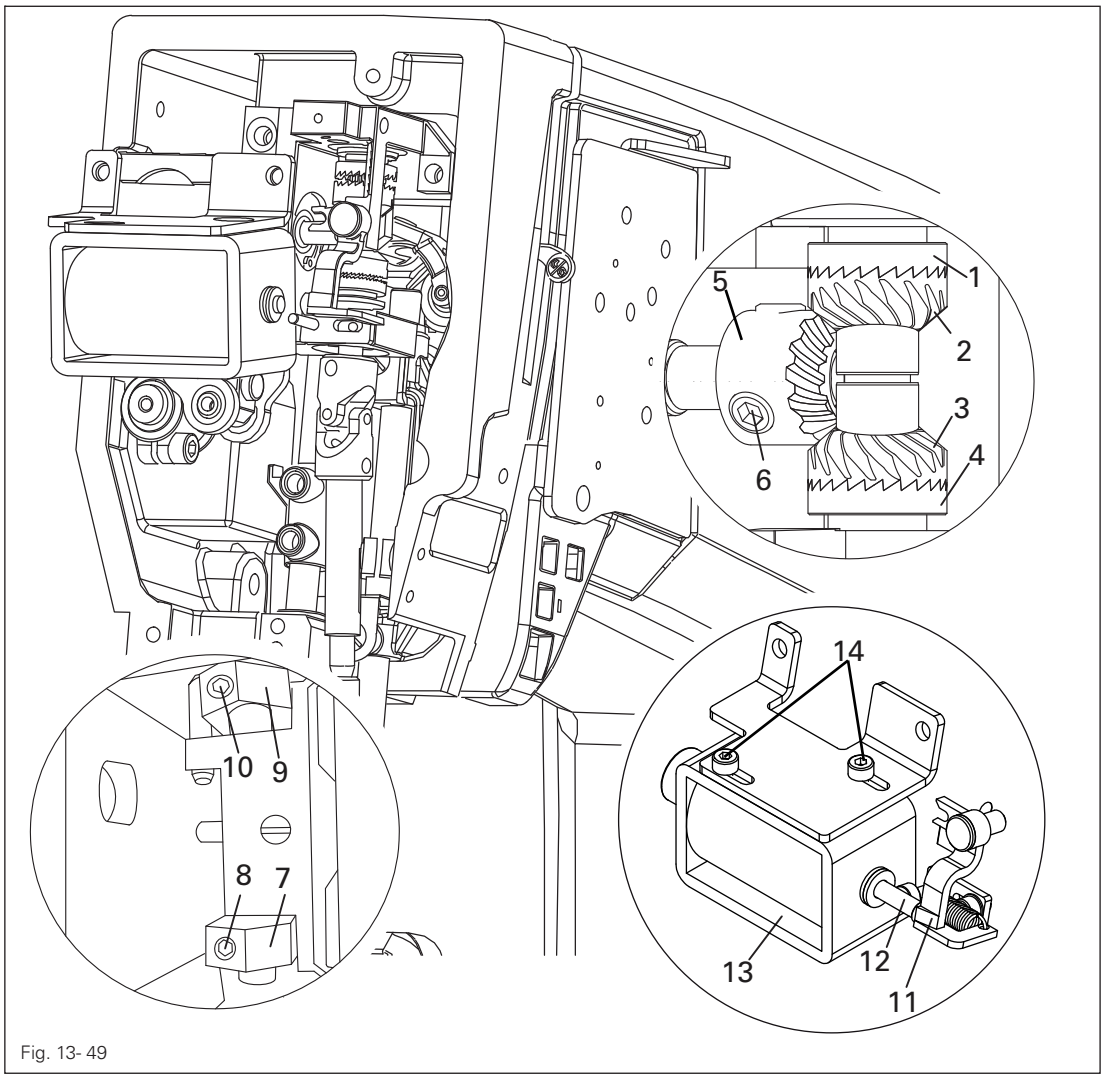


Fig. 13- 49

- Adjust the bevel gear 5 (screw 6) according to rule 1.
- Adjust the retainer 9 (screw 10) according to rule 2.
- Adjust the retainer 7 (screw 8) according to rule 3.
- Adjust the solenoid 13 (screw 14) according to rule 4.

13.07.04 Bevel gears for feed crank drive

Rule

1. Adjust the bevel gears 5.2 and 3 into their position; there must be minimal play between the bevel gears 5.2 and 3.
2. The bevel gear 3 and bevel gear 4 are engaged when sewing forwards; the bevel gears 5.2.3 and 4 must move at the same time.
3. The bevel gear 1 and bevel gear 2 are engaged when sewing backwards; the bevel gears 5.1.2 and 3 must move at the same time.

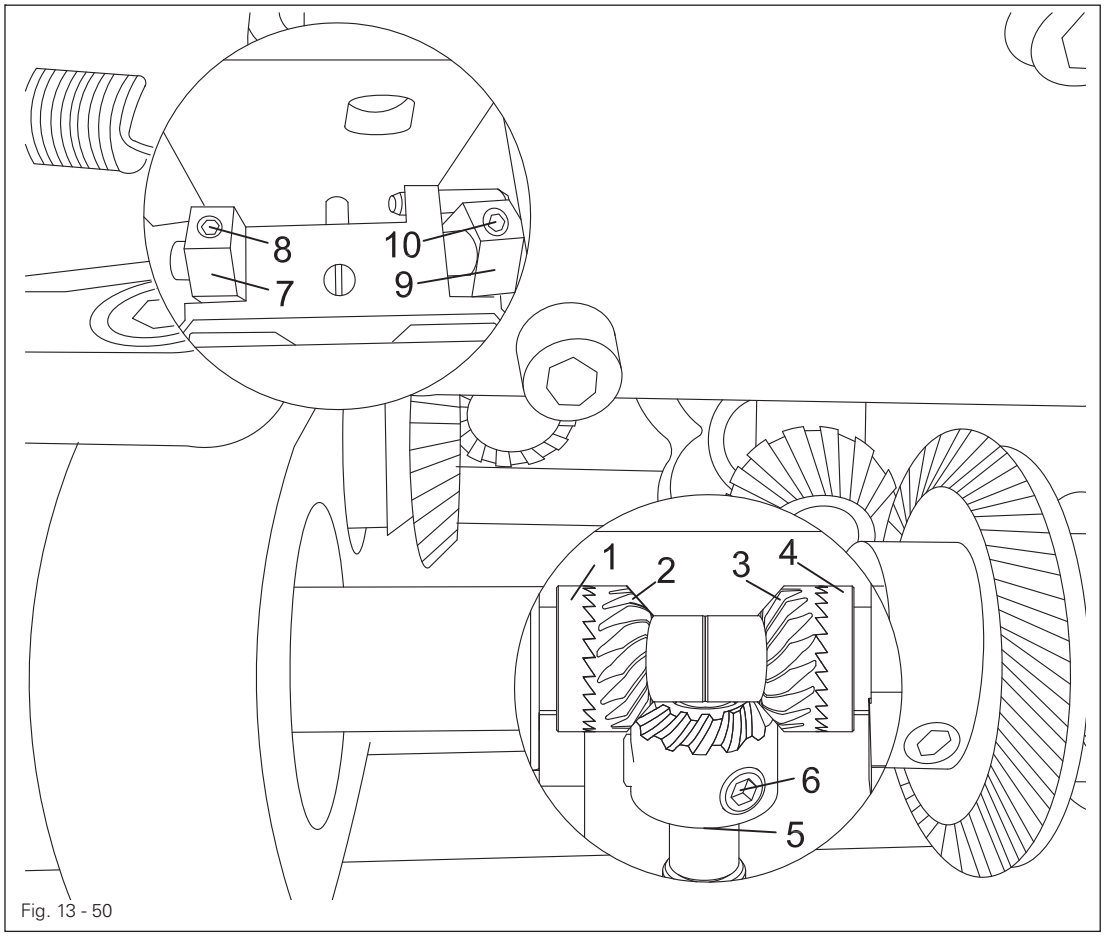
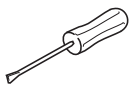


Fig. 13 - 50



- Adjust the bevel gear 5 (screw 6) according to rule 1.
- Adjust the retainer 7 (screw 8) according to rule 2.
- Adjust the retainer 9 (screw 10) according to rule 3.

13.07.05 Adjust switching magnet for feed crank drive

Rule
When sewing backwards, the crank 1 must be in its left position and the magnet lever 2 must be at its maximum lift to reach the crank 1 exactly.

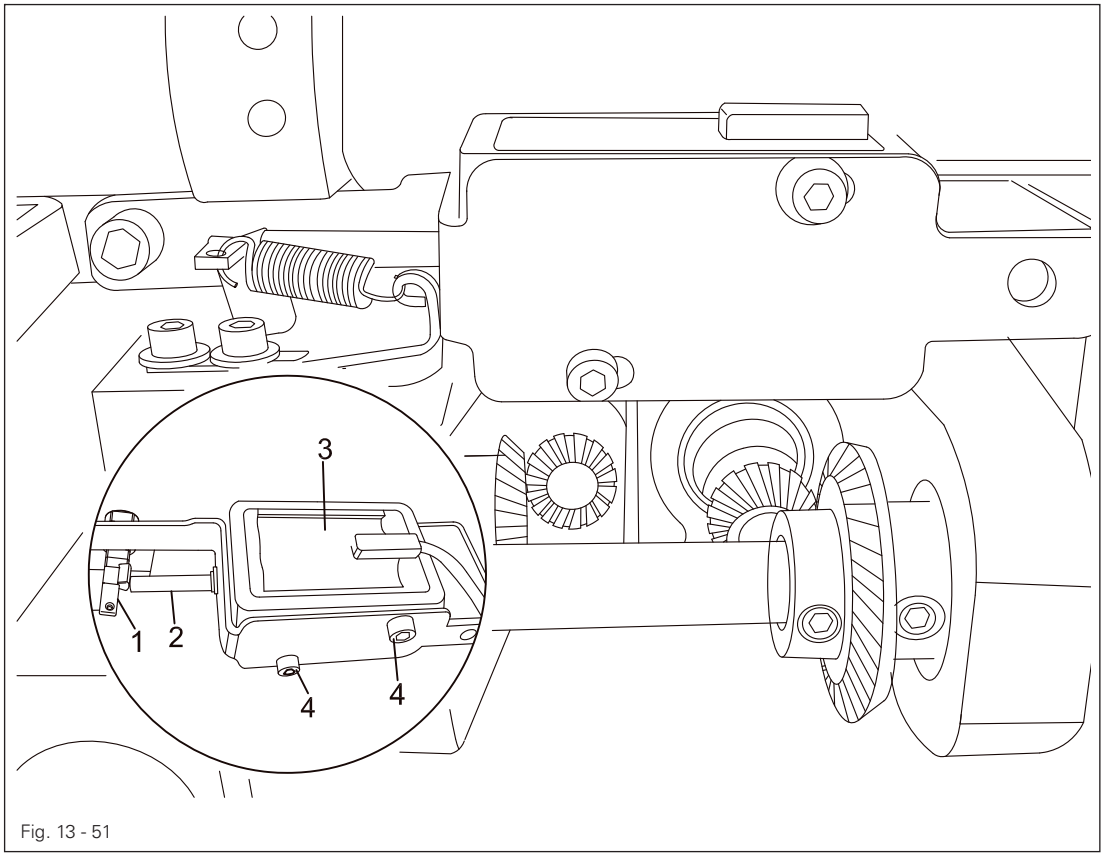
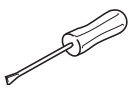


Fig. 13 - 51



- Adjust the magnet **3** (screw **4**) according to the **rule**.

13.07.06 Adjust switching magnet for feed crank drive (on-725/04)

Rule
When sewing backwards, the crank 1 must be in its left position and the magnet lever 2 must be at its maximum lift to reach the crank 1 exactly.

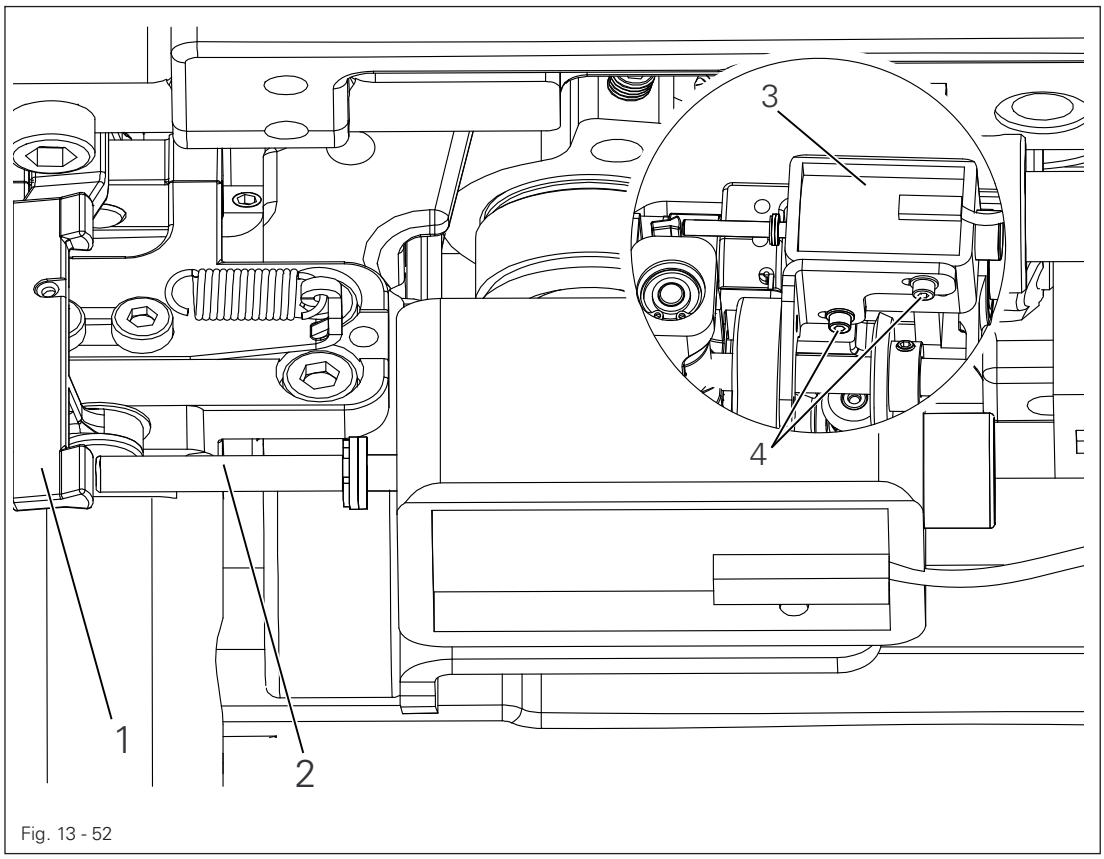
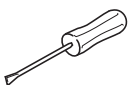


Fig. 13 - 52



● Adjust the magnet **3** (screw **4**) according to the **rule**.

13.08 Parameter settings

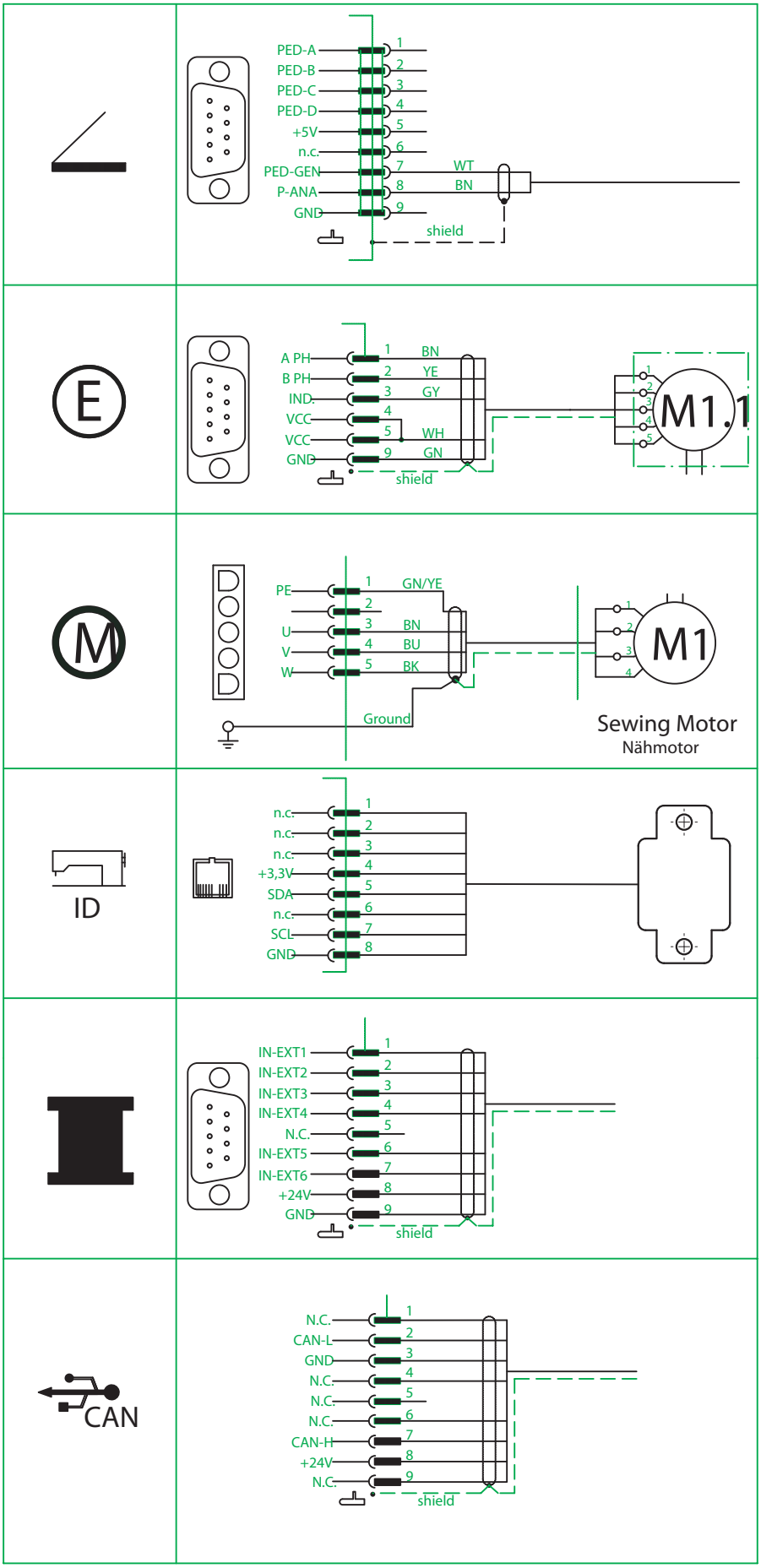
- The separate parameter list for the machine describes how to select the user level and change parameters (see **chapter 1.1.2 Technician level**).

13.079 Internet update of control P40 CD

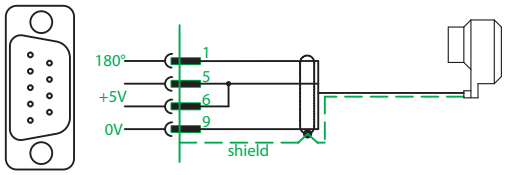
- You need a dongle with the appropriate machine software to be able to perform a control update.
- You can obtain an empty dongle using the order number **72-250 303-91**.
- The **"DongleCopy"** PC tool is needed to upload software onto the dongle.

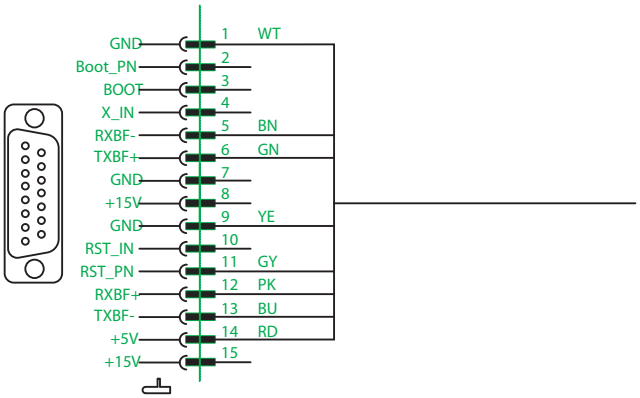
A description of how to perform an Internet update of **control P40 CD** as well as the "**DongleCopy**" PC tool can be downloaded from the Internet address **https://partnerweb.pfaff-industrial.com/**.

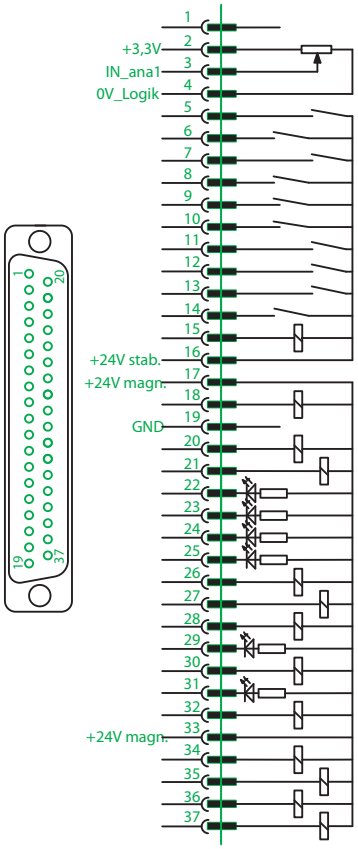
14 Circuit Diagrams 91-191 581-95



SYNC.







function	control box
	P40 CD
input manuel backtack	5
input mmount thread	6
input invers backtack	14
0V	19
output led	31
24V only inputs	16
24V power	17
	33
input stop	11
output trimmer	18
output back tack	34
output footlift	35
output threadtension	36

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