

# PFAFF

## 1181

## 1183

### Adjustment Manual

## 1181-D

## 1183-D

This Adjustment Manual is valid for machines from the following serial numbers onwards:

# 6 001 000 →

The reprinting, copying or translation of PFAFF Service Manuals, whether in whole or in part, is only permitted with our previous authorization and with written reference to the source.

**PFAFF Industrie Maschinen AG**

Postfach 3020

D-67653 Kaiserslautern

Königstr. 154

D-67655 Kaiserslautern

Contents .....		Chapter - Page
<b>13</b>	<b>Adjustment .....</b>	<b>13 - 1</b>
13.01	Tools, gauges and other accessories for adjusting .....	13 - 1
13.02	Abbreviations .....	13 - 1
13.03	Explanation of the symbols .....	13 - 1
13.04	Checking and adjusting aids .....	13 - 2
13.05	Adjusting the basic machine .....	13 - 3
13.05.01	Basic position of the machine drive .....	13 - 3
13.05.02	Preadjusting the needle height .....	13 - 4
13.05.03	Bottom feed neutral position .....	13 - 5
13.05.04	Neutral position of the needle feed (only on PFAFF 1181) .....	13 - 6
13.05.05	Bottom feed lifting motion .....	13 - 7
13.05.06	Bottom feed dog height .....	13 - 8
13.05.07	Feed dog motion of bottom feed dog .....	13 - 9
13.05.08	Feeding motion of needle feed (only on PFAFF 1181) .....	13 - 10
13.05.09	Needle in needle hole center (only on PFAFF 1183) .....	13 - 11
13.05.10	Needle to needle hole centre (on PFAFF 1181) .....	13 - 12
13.05.11	Synchronous strokes of needle- and drop feed (only on PFAFF 1181) .....	13 - 13
13.05.12	Hook shaft bearing and toothed belt tension .....	13 - 14
13.05.13	Hook lubrication .....	13 - 15
13.05.14	Needle rise, hook-to-needle clearance, needle height and bobbin case position finger .....	13 - 16
13.05.15	Thread check spring and slack thread regulator .....	13 - 17
13.05.16	Position of knee lever .....	13 - 18
13.05.17	Knee lever stop .....	13 - 19
13.05.18	Bobbin winder .....	13 - 20
13.05.19	Limiting the stitch length.....	13 - 21
13.05.20	Stitch length adaptation .....	13 - 22
13.05.21	Presser foot pressure .....	13 - 23
13.05.22	Modifying the needle bar stroke .....	13 - 24
13.06	Adjusting the edge trimmer -731/01 .....	13 - 25
13.06.01	Zero position of the knife .....	13 - 25
13.06.02	Cutting motion .....	13 - 26
13.06.03	Knife height .....	13 - 27
13.06.04	Knife position in sewing direction .....	13 - 28
13.06.05	Knife position crosswise to sewing direction .....	13 - 29
13.07	Adjusting the thread trimming device -900/24 .....	13 - 30
13.07.01	Adjusting the solenoid / preliminary adjustment of the control cam .....	13 - 30
13.07.02	Lateral alignment of the thread catcher .....	13 - 31
13.07.03	Knife position .....	13 - 32
13.07.04	Front point of reversal of the thread catcher .....	13 - 33
13.07.05	Manual trimming check.....	13 - 34

---

# Contents

---

	Contents .....	Chapter - Page
13.07.06	Needle thread tension release .....	13 - 35
13.07.07	Readjusting the control cam .....	13 - 36
13.08	Adjusting the thread wiper -909/04 .....	13 - 37
13.08.01	Thread wiper movement .....	13 - 37
13.08.02	Thread wiper position .....	13 - 38
13.09	Adjusting the automatic presser foot lift -910/06 .....	13 - 39
13.10	Adjusting the back-tacking mechanism -911/37 .....	13 - 40
13.11	Parameter settings .....	13 - 41
13.11.01	Selecting the user level .....	13 - 41
13.11.02	Example of a parameter input .....	13 - 42
13.11.03	Liste der Parameter .....	13 - 43
13.11.04	Reset / Cold start .....	13 - 44
13.12	Internet update of the machine software .....	13 - 45
13.13	Explanation of the error signals .....	13 - 46
14	Circuit diagrams .....	14 - 1

## 13 Adjustment



On the **PFAFF 1181** and **1183** do not use a screw clamp on the needle bar! The special coating of the needle bar could be damaged.



Please observe all notes from **Chapter 1 Safety** of the instruction manual! In particular care must be taken to see that all protective devices are refitted properly after adjustment, see **Chapter 1.06 Danger warnings** of the instruction manual!

If not otherwise stated, the machine must be disconnected from the electrical power supply.

All following adjustments are based on a fully assembled machine and may only be carried out by expert 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 which have to be completely adjusted. If only specific individual work steps are carried out, both the preceding and following chapters must be observed.

Screws, nuts indicated in brackets ( ) are fastenings for machine parts, which must be loosened before adjustment and tightened again afterwards.

### 13.01 Tools, gauges and other accessories for adjusting

- 1 set of screwdrivers with blade widths from 2 to 10 mm
- 1 set of wrenches with jaw widths from 7 to 14 mm
- 1 set of Allan keys from 1.5 to 6 mm
- 1 metal rule, (Part No. 08-880 218-00)
- 1 feed dog adjustment gauge, Part No. 61-111 639-71
- 1 adjustment pin (5 mm dia.), Part No. 13-033 346-05
- Adjustment gauge, part No. 61-111 639-70
- 1 adjustment gauge for tightening the hook drive belt, Part-No. 61-111 639-76
- Sewing thread and test material

### 13.02 Abbreviations

TDC = top dead center

BDC = bottom dead center

### 13.03 Explanation of the symbols

In this adjustment manual, symbols emphasize operations to be carried out or important information. The symbols used have the following meaning:



Note, information



Service, repair, adjustment, maintenance  
(work to be carried out by qualified staff only)

## 13.04 Checking and adjusting aids



With the aid of blocking pin 1 (part No. 13-033346-05) and if necessary adjustment gauge 3 (part No. 61-111 639-70) the machine can be blocked in the following positions for adjustment

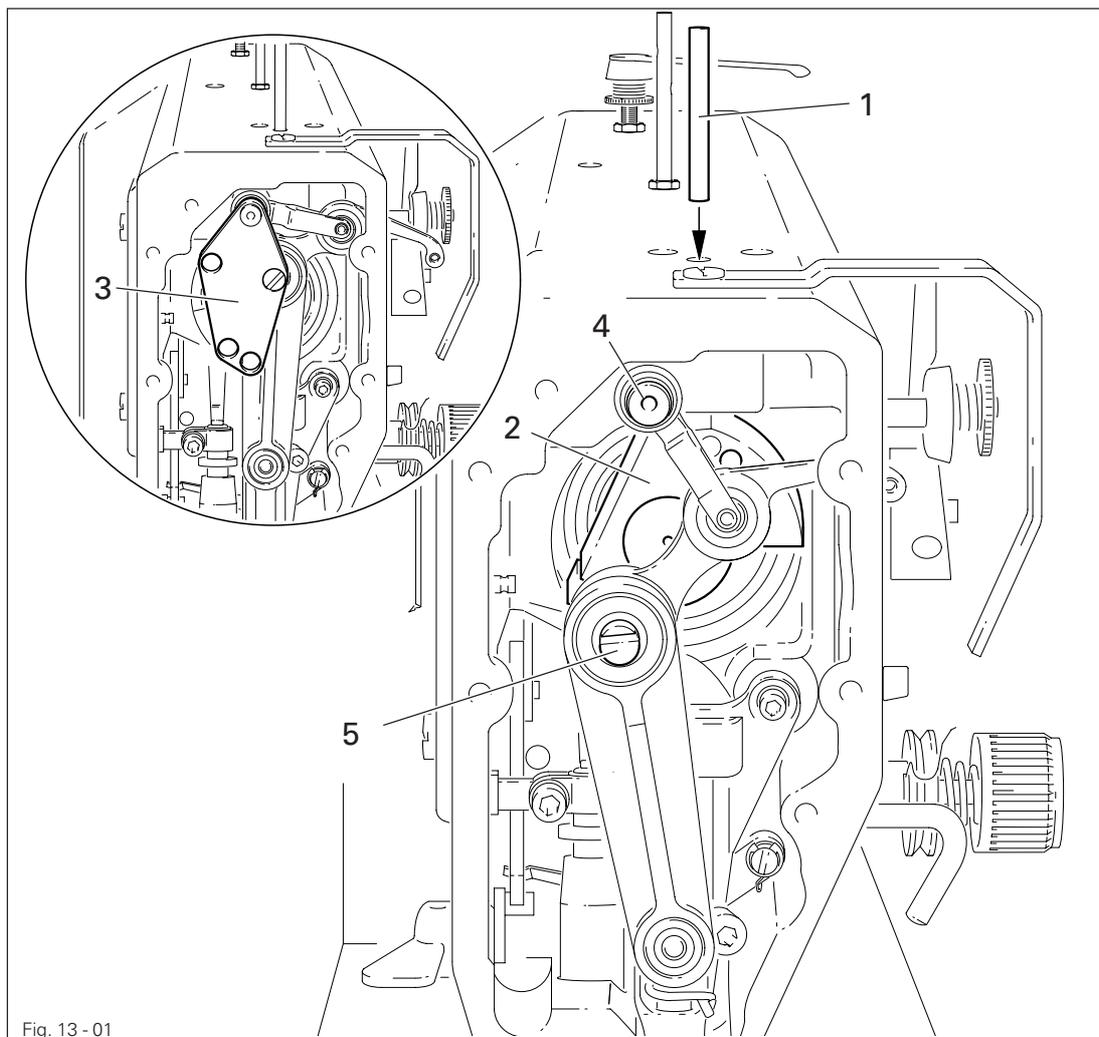


Fig. 13 - 01



### Needle bar position 1.8 mm past b.d.c.

- Turn balance wheel until needle bar is roughly in required position
- Insert blocking pin 1 in hole
- Turn balance wheel slightly back and forth until blocking pin engages crank 2

### Needle bar position 0.6 mm past t.d.c.

- Set needle bar roughly at required position
- Place adjustment gauge 3 onto pins 4 and 5, making sure right side is used (for 30 or 36 mm needle bar stroke)

### Needle bar position 0.6 mm past b.d.c.

- Set needle bar roughly at required position
- Place adjustment gauge 3 onto pins 4 and 5, making sure right side is used (for 30 or 36 mm needle bar stroke)

## 13.05 Adjusting the basic machine

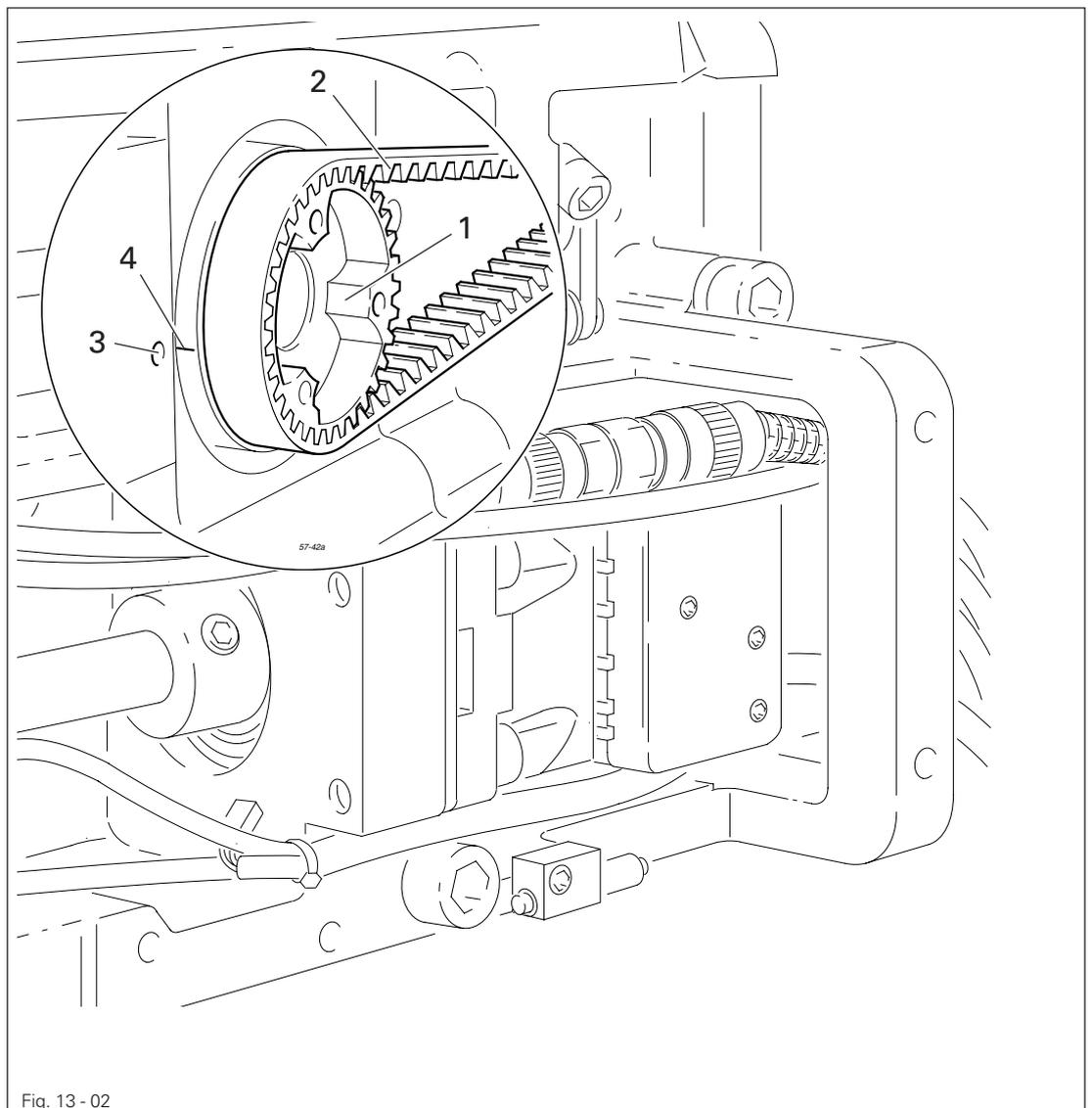
### 13.05.01 Basic position of the machine drive



This adjustment is only required if toothed belt 2 has been removed.

#### Requirement

When the needle bar position is 0.6 mm above the BDC, the marks on the machine housing 3 and toothed belt wheel 1 must be flush with each other.



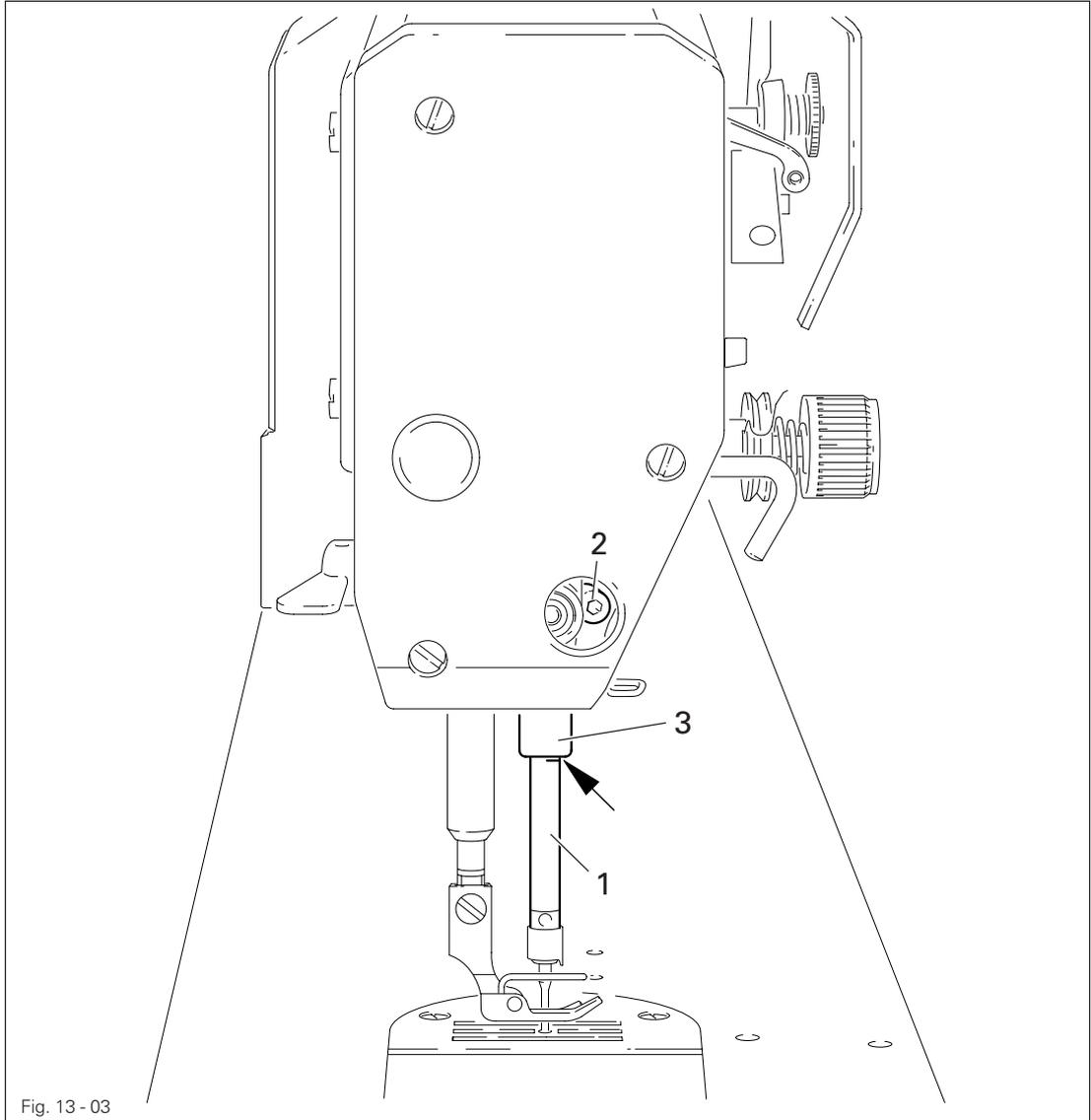
- Set needle bar at 0.6 mm past b.d.c.
- Turn toothed belt sprocket 1 according to **Requirement** and push on toothed belt 2.

# Adjustment

## 13.05.02 Preadjusting the needle height

### Requirement

When the needle bar is positioned 1.8 mm above BDC, the mark on the needle bar **1** must be flush with the bottom edge of the needle bar frame **3**.



- Set needle bar at 1.8 mm past b.d.c. and block machine with blocking pin, see **Chapter 13.04 Checking and adjusting aids**.
- Move needle bar 1 (screw 2), without turning it, according to the requirement.

## 13.05.03 Bottom feed neutral position

### Requirement

At stitch length setting "0", cranks 1 and 3 must be flush and the feed dog must not make any feeding motion when the balance wheel is turned.

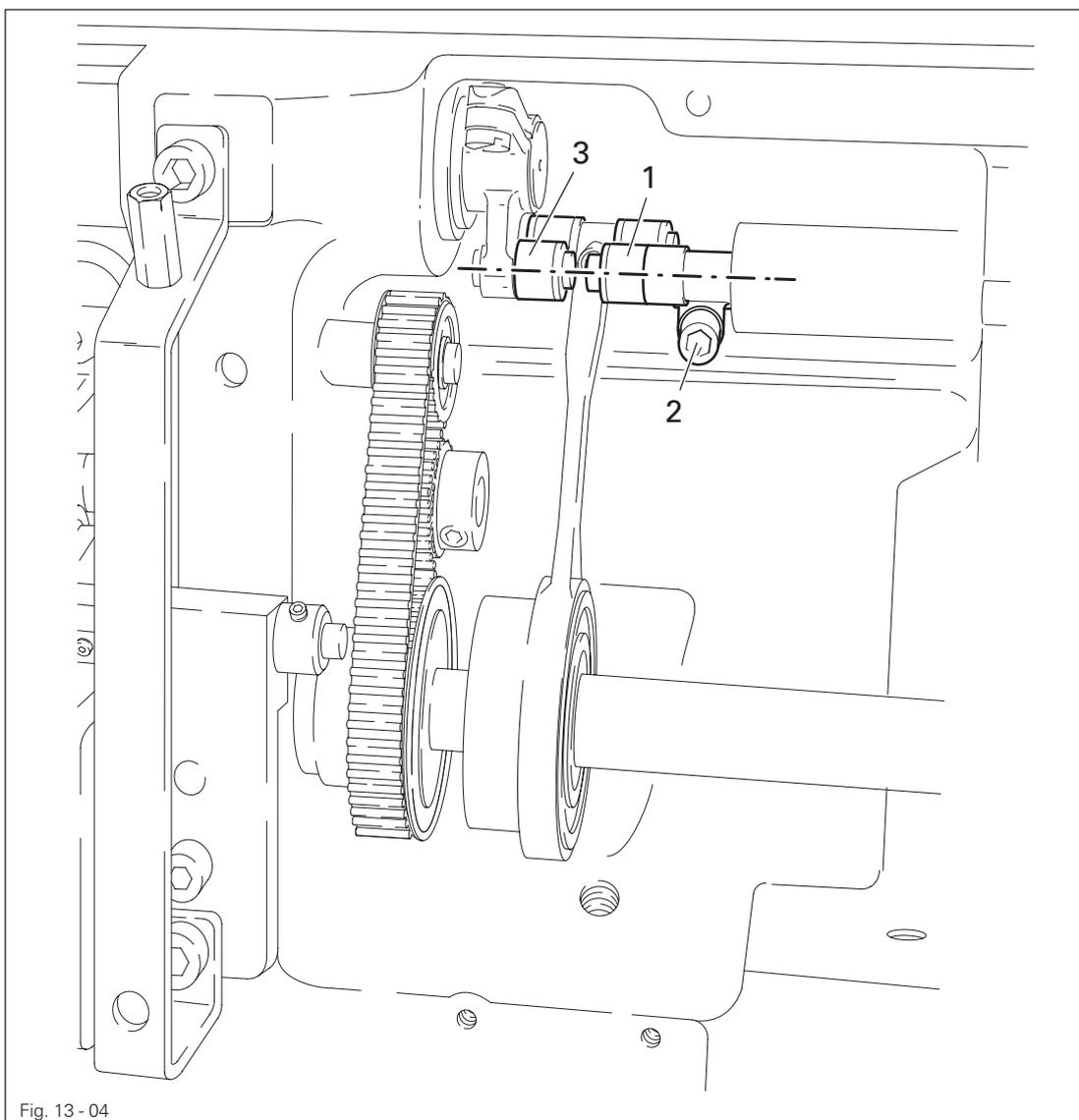


Fig. 13 - 04



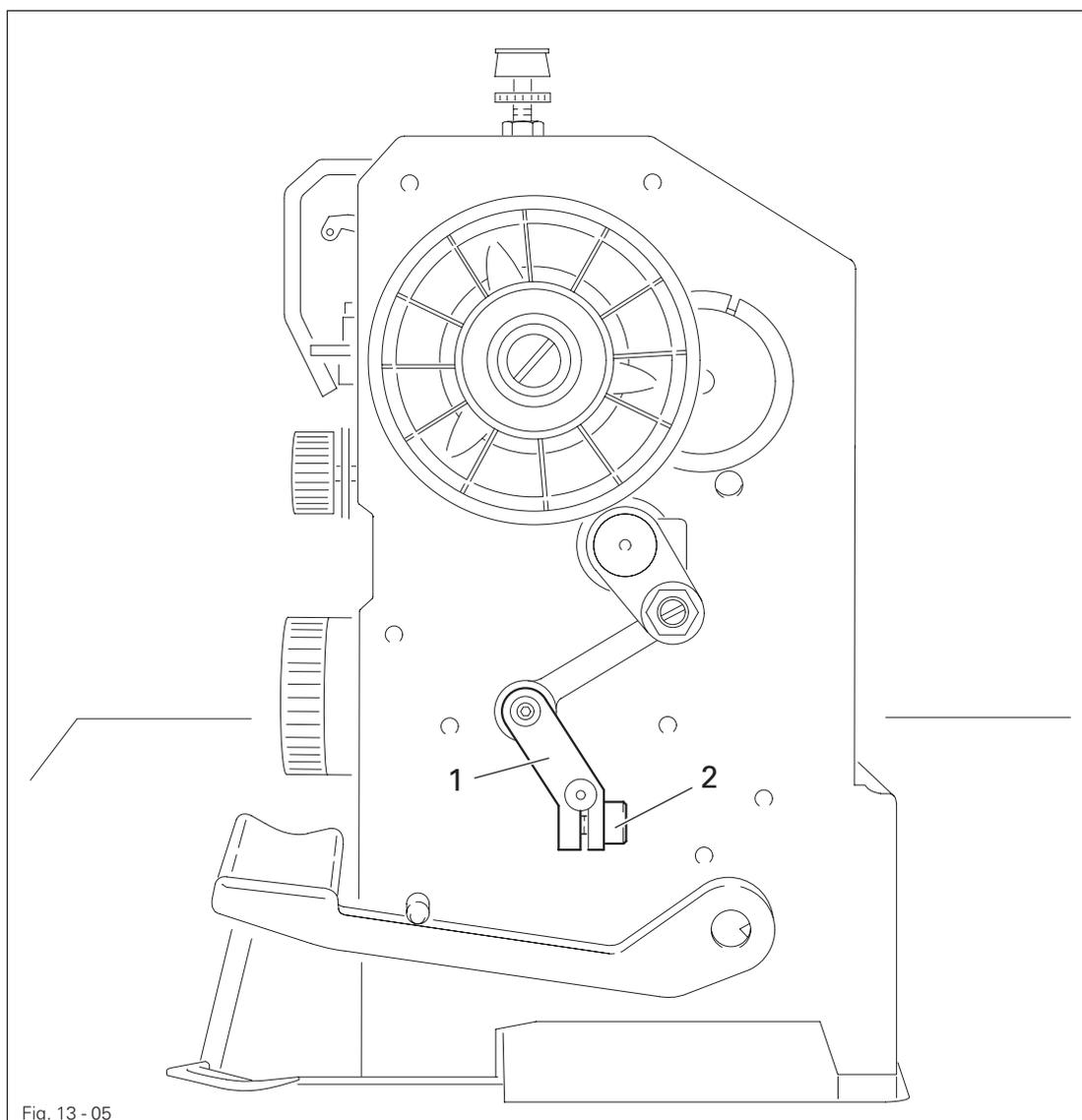
- Raise the presser foot and set the stitch length to "0".
- Turn crank 1 (screw 2) according to the requirement.

## Adjustment

### 13.05.04 Neutral position of the needle feed (only on PFAFF 1181)

#### Requirement

At stitch length setting "0" the needle bar must not make any feeding motion when the balance wheel is turned.



- Set stitch length "0".
- Turn crank 1 (screw 2) according to Requirement.

## 13.05.05 Bottom feed lifting motion

**Requirement**

At stitch length setting "0" and needle bar position 0.6 past b.d.c. on the **PFAFF 1181** and at needle bar position t.d.c. on the **PFAFF 1183**,

1. the bottom feed dog must be at its highest position,
2. control cam 3 must rest on lifting eccentric 1.

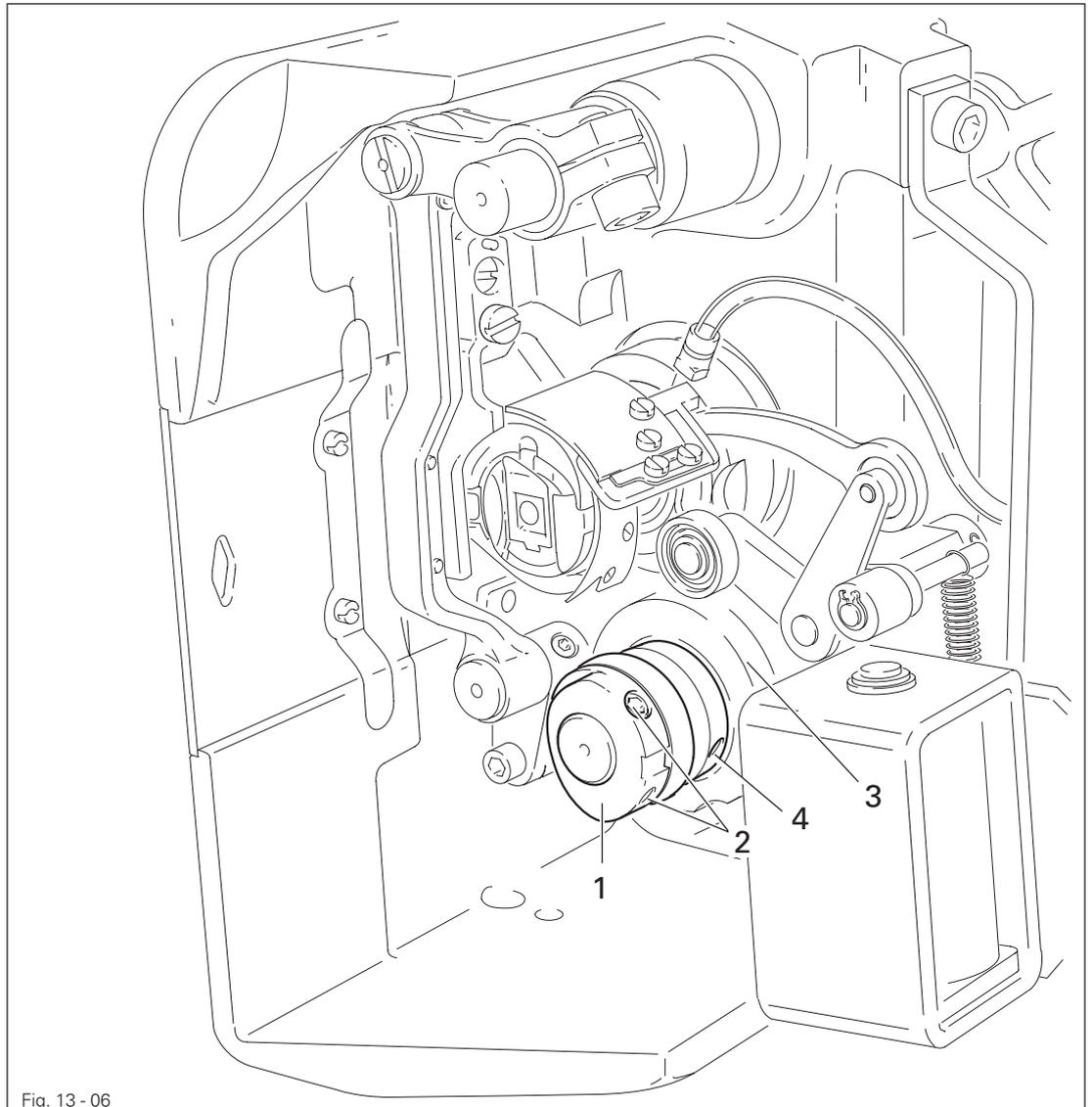


Fig. 13 - 06



- Set stitch length "0" and set needle bar at required position
- Turn eccentric 1 (screws 2) according to Requirement 1.
- Adjust control cam 3 (screws 4) according to Requirement 2.

## 13.05.06 Bottom feed dog height

### Requirement

When feed dog 1 is at its highest point at stitch length setting "0" it must

1. be centred in the feed slot crosswise and in feeding direction
2. Rest on feed dog adjustment gauge 2 over its entire length.

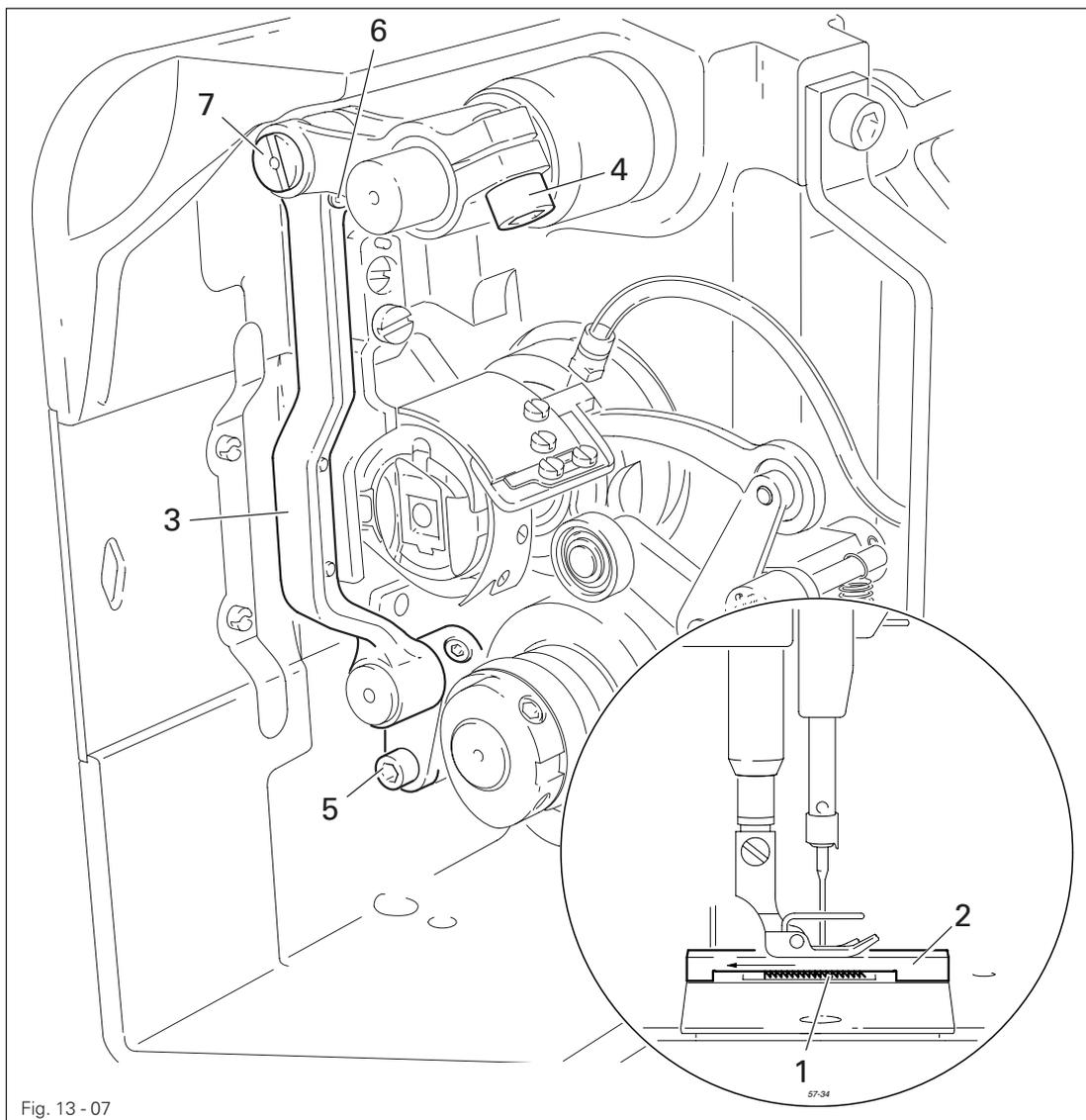


Fig. 13 - 07

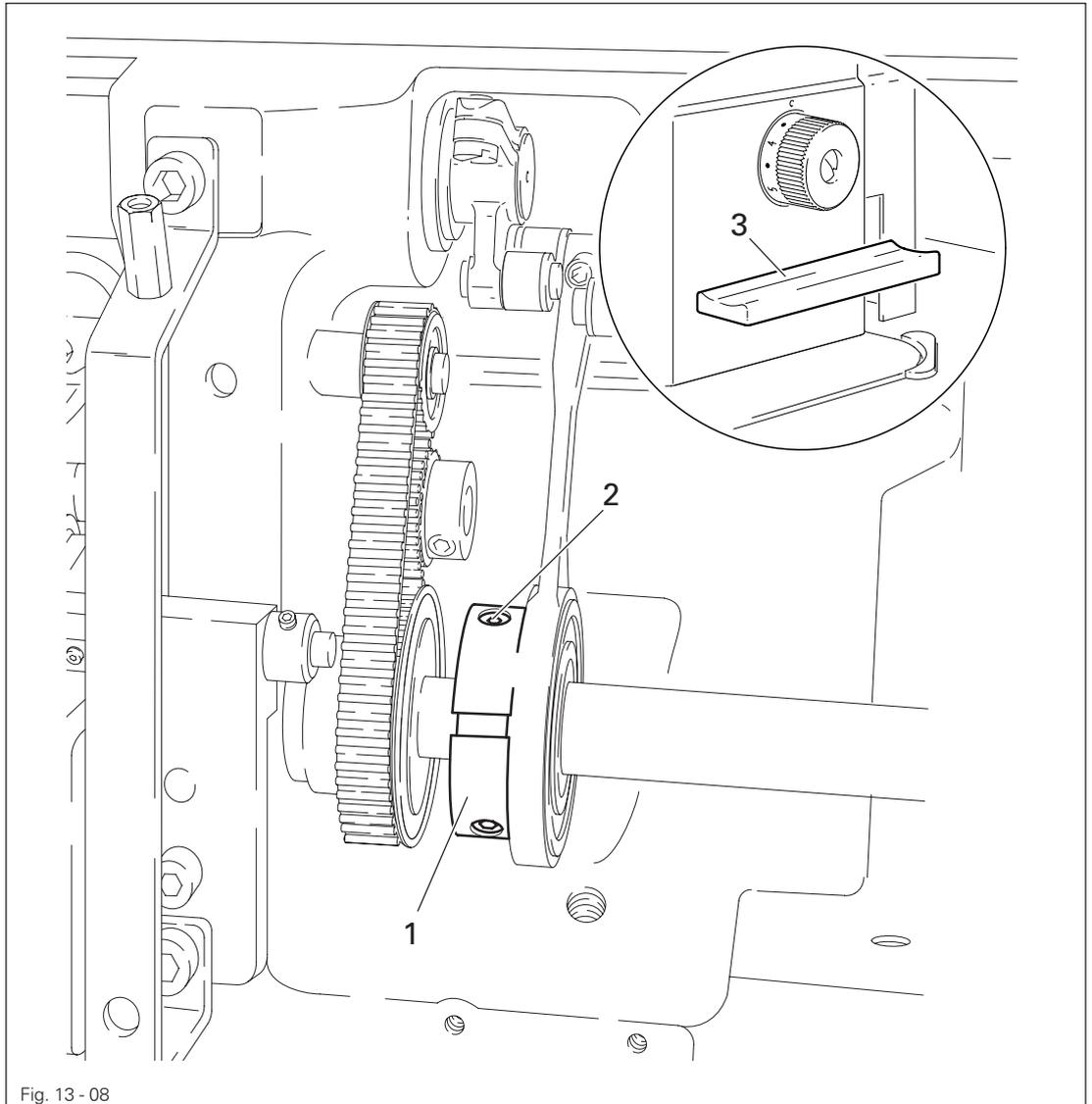


- Set stitch length at "0" and feed dog 1 at its highest position
- Raise the presser foot.
- Place feed dog adjustment gauge 2 on the needle plate cutout with the arrow in sewing direction so that it is flush with the front edge, and lower the presser foot onto it.
- Adjust feed bar 3 (screws 4) according to **Requirement 1**.
- Loosen screws 5 and 6.
- Adjust feed bar 3 or eccentric 7 according to **Requirement 2**.
- Tighten screws 5 and 6 firmly.

## 13.05.07 Feed dog motion of bottom feed dog

**Requirement**

With the needle bar at a position **0.6 past b.d.c.** on the **PFAFF 1181** or in position **0.6 past t.d.c.** on the **PFAFF 1183** the feed dog must not make any feeding motion when reverse-feed lever **3** is operated at the longest stitch length setting.



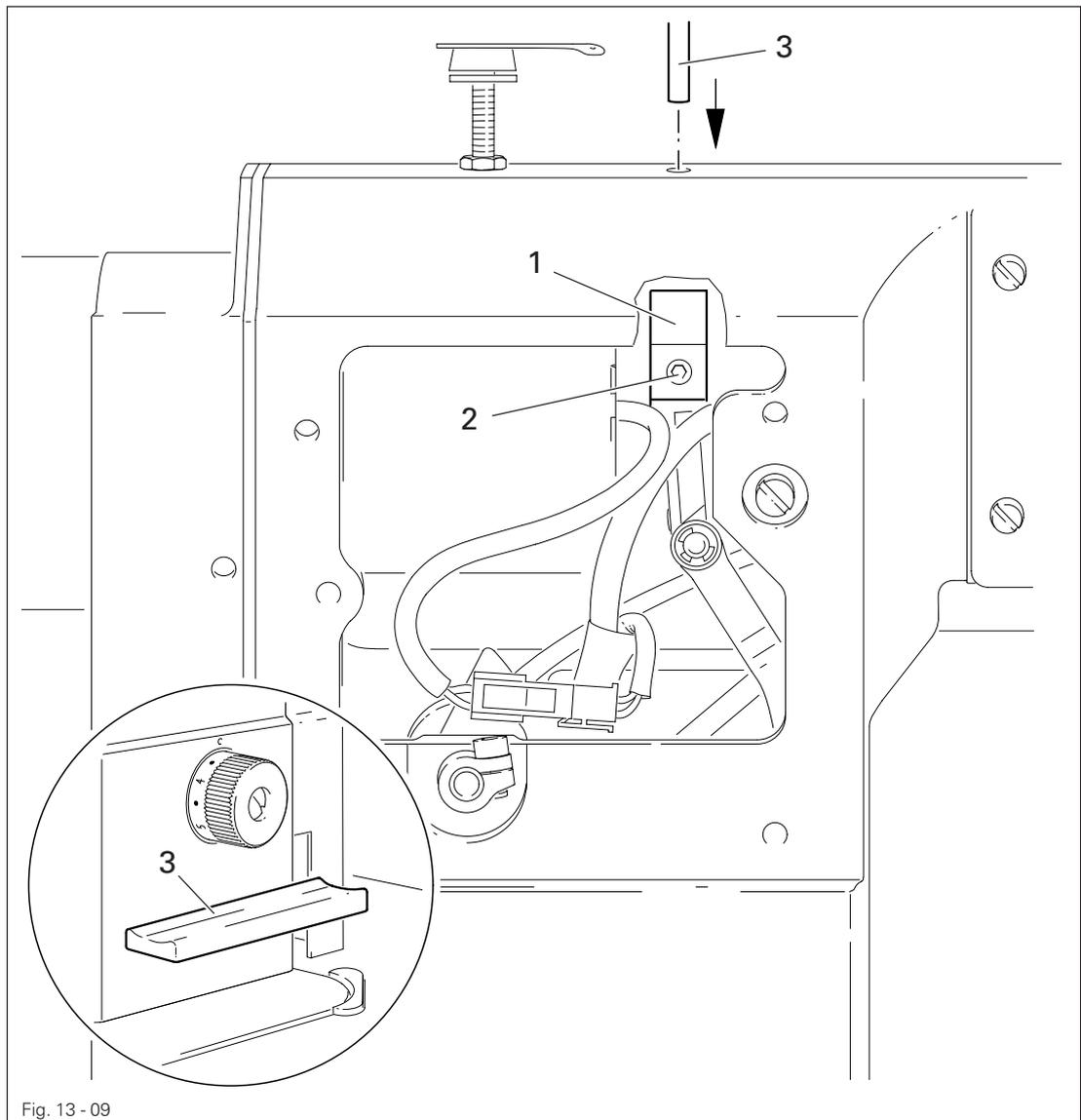
- Set the longest stitch and the needle bar at the corresponding position.
- Adjust eccentric **1** (loosen screws **2** a little) according to Requirement, but make sure it is not moved sideways.

## Adjustment

13.05.08 Feeding motion of needle feed (only on PFAFF 1181)

### Requirement

When the longest stitch length is set and the needle bar is positioned **0.6 mm past b.d.c.**, the needle should not move when the reverse-feed key **4** is operated.



- Bring the needle bar into the position 0.6 mm past t.d.c.
- Turn eccentric 1 (screws 2) until the adjustment pin 3 locks into place.

## 13.05.09 Needle in needle hole center (only on PFAFF 1183)

### Requirement

The needle must penetrate the needle hole exactly in the middle.

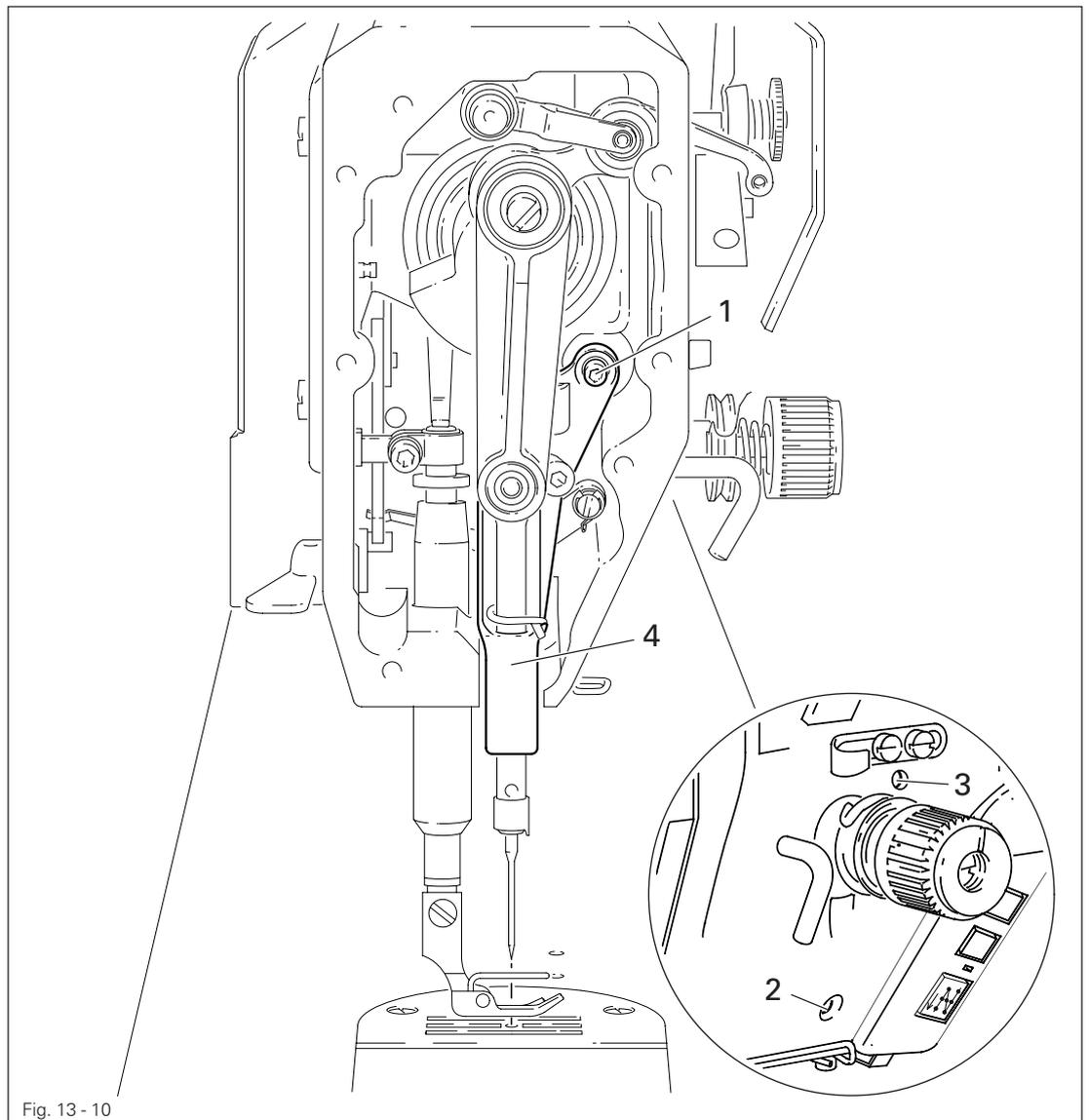


Fig. 13 - 10



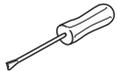
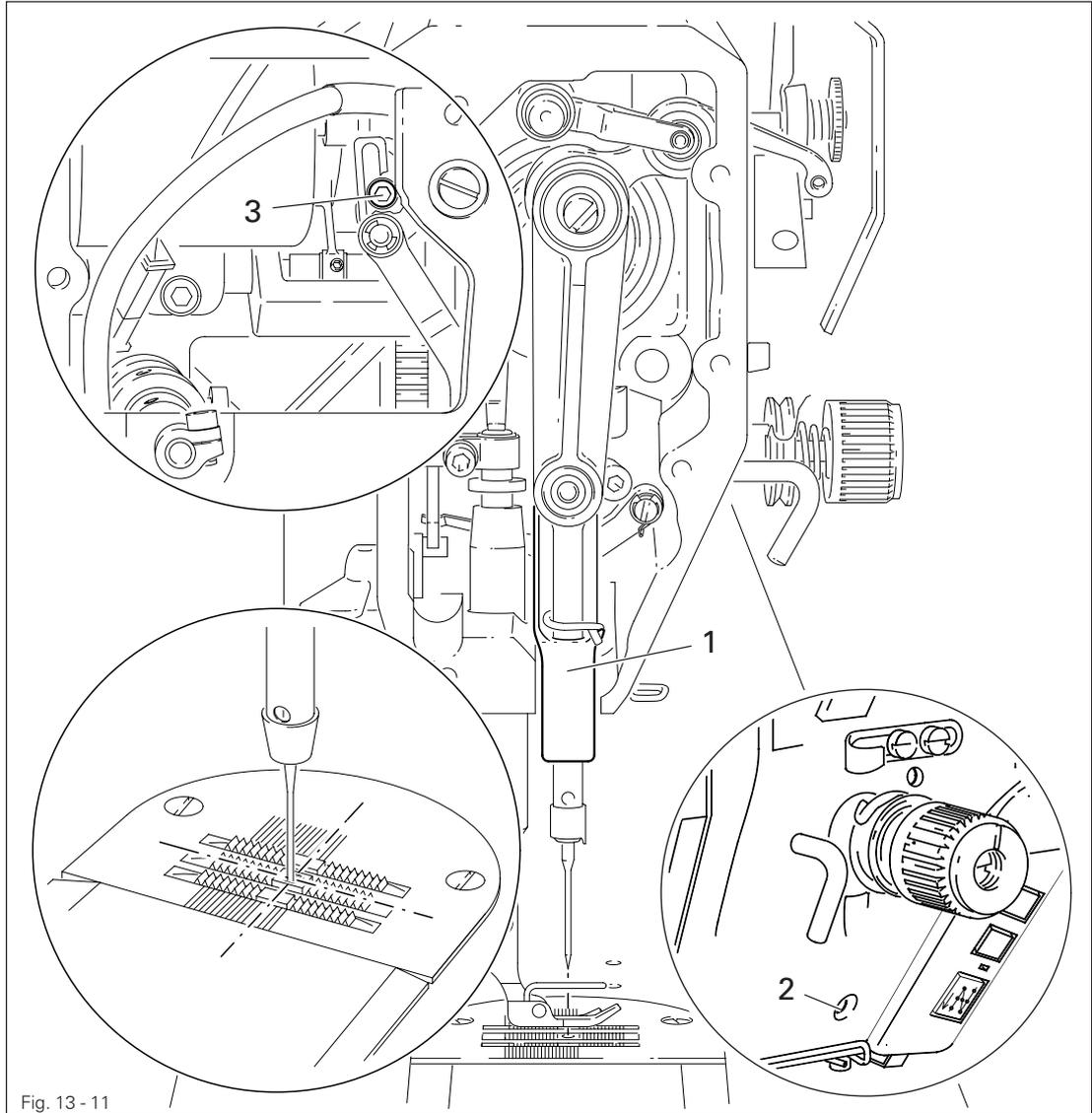
- Set the needle in the needle hole.
- Loosen screws 1, 2 and 3.
- Move the needle bar frame 4 according to the **requirement**.
- Tighten screw 2 and turn screw 3 slightly.
- Via screw 1, bring the retracted guide bolt to the eye of the needle bar frame 4 and tighten it.
- Turn the handwheel a few times to prevent distortion to the needle bar frame 4.
- Tighten screw 3.

# Adjustment

## 13.05.10 Needle to needle hole centre (on PFAFF 1181)

### Requirement

The needle must enter exactly in the centre of the needle hole.



- Set stitch length "0".
- Set the needle in the needle hole by turning the balance wheel
- Turn needle bar frame 1 (screws 2 and 3) according to **Requirement**.

## 13.05.11 Synchronous strokes of needle- and drop feed (only on PFAFF 1181)

### Requirement

At the longest stitch length setting the needle and feed dog must move by the same stroke when the balance wheel is turned.

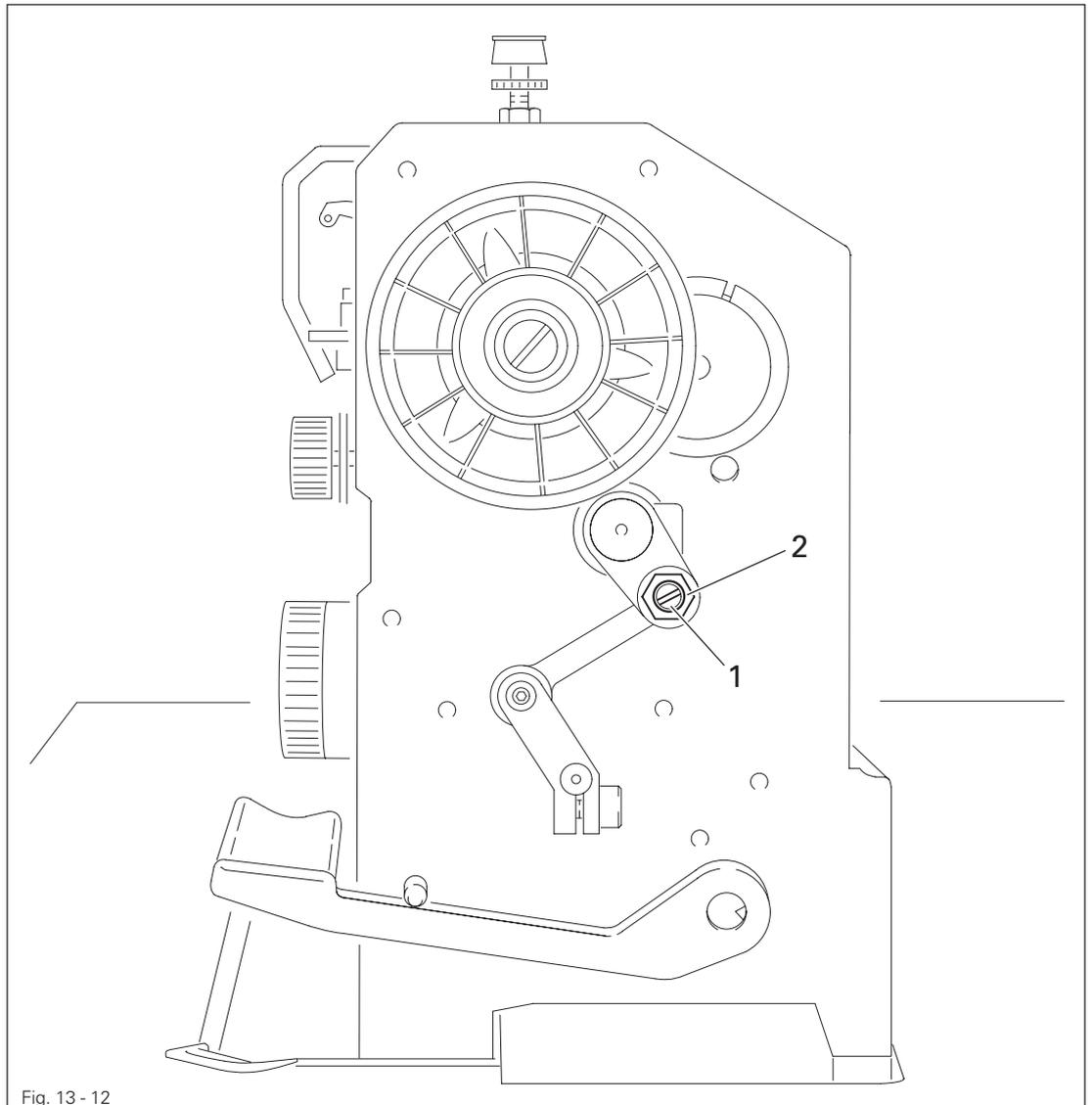


Fig. 13 - 12

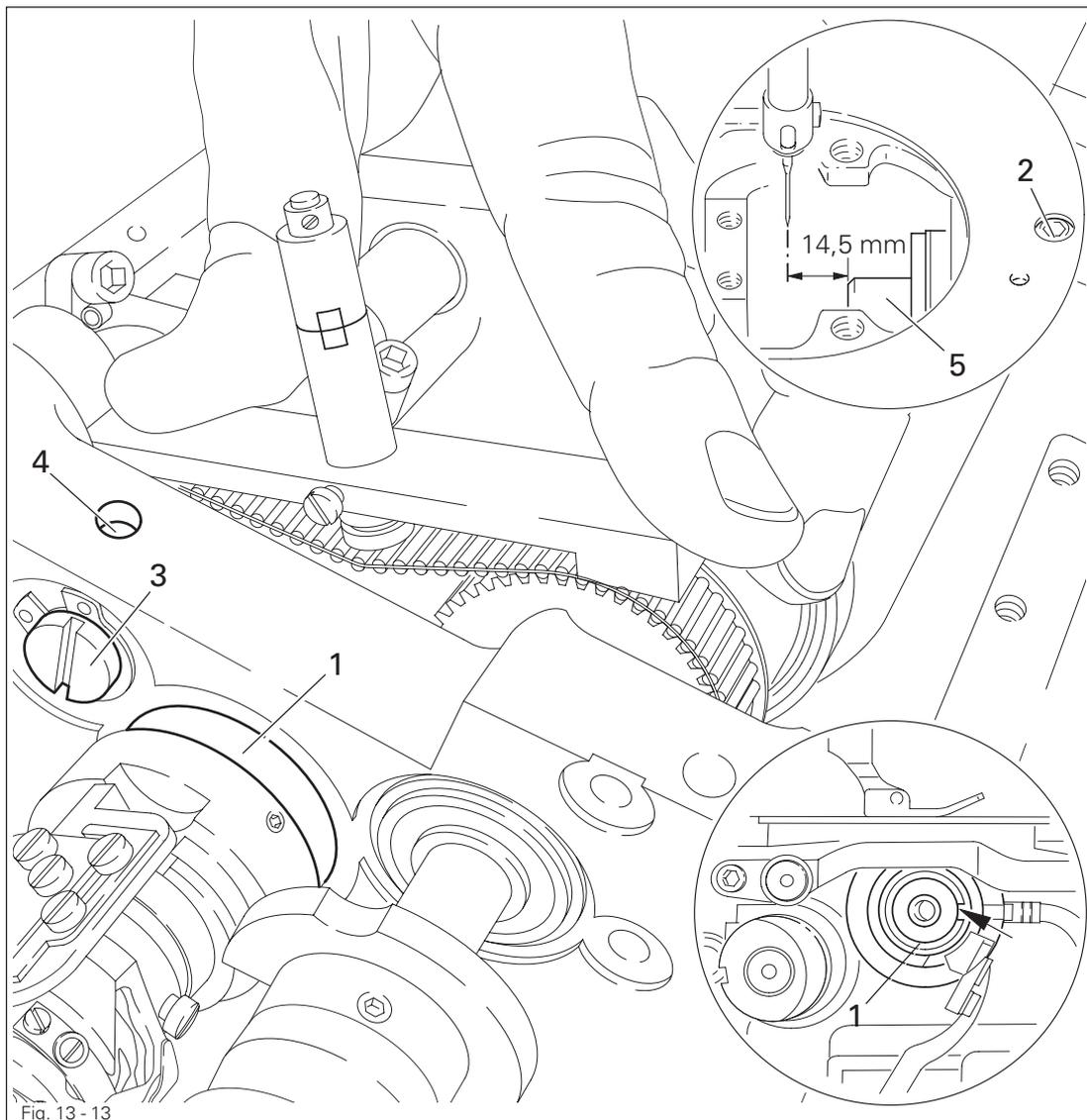


- Set the longest stitch.
- Turn eccentric 1 (nut 2) according to **Requirement** .

## 13.05.12 Hook shaft bearing and toothed belt tension

### Requirement

1. The front edge of the hook shaft **6** must be at a distance of **14.5 mm** to the needle center. At the same time, the slot in the hook shaft bearing **1** (see arrow) must be parallel to the bedplate and pointing opposite to the direction of sewing.
2. The toothed belt should be tightened in such a way that, when the gauge is pushed onto the toothed belt, the marking in the gauge window corresponds to the marking on the bushing.



- Align hook shaft bearing **1** (screw **2**) according to **requirement 1**.
- Push the gauge (Part-No. 61-111 639-76) onto the toothed belt so that it is centred to the toothed belt and touching the bearing of the sliding shaft. The gauge window must be facing the hook.
- Eccentric **3** (screw **4**) clockwise in accordance with **requirement 2**, taking care that the axial position of eccentric **3** is not altered.

## 13.05.13 Hook lubrication

**Requirement**

1. The centrifugal disk 1 must be positioned **1.5 mm** in front of the oil ring 3.
2. When the machine is running at full speed, **after approx. 10 seconds** a mark should be made by a fine stripe of oil on the strip of paper placed over the needle plate cutout.

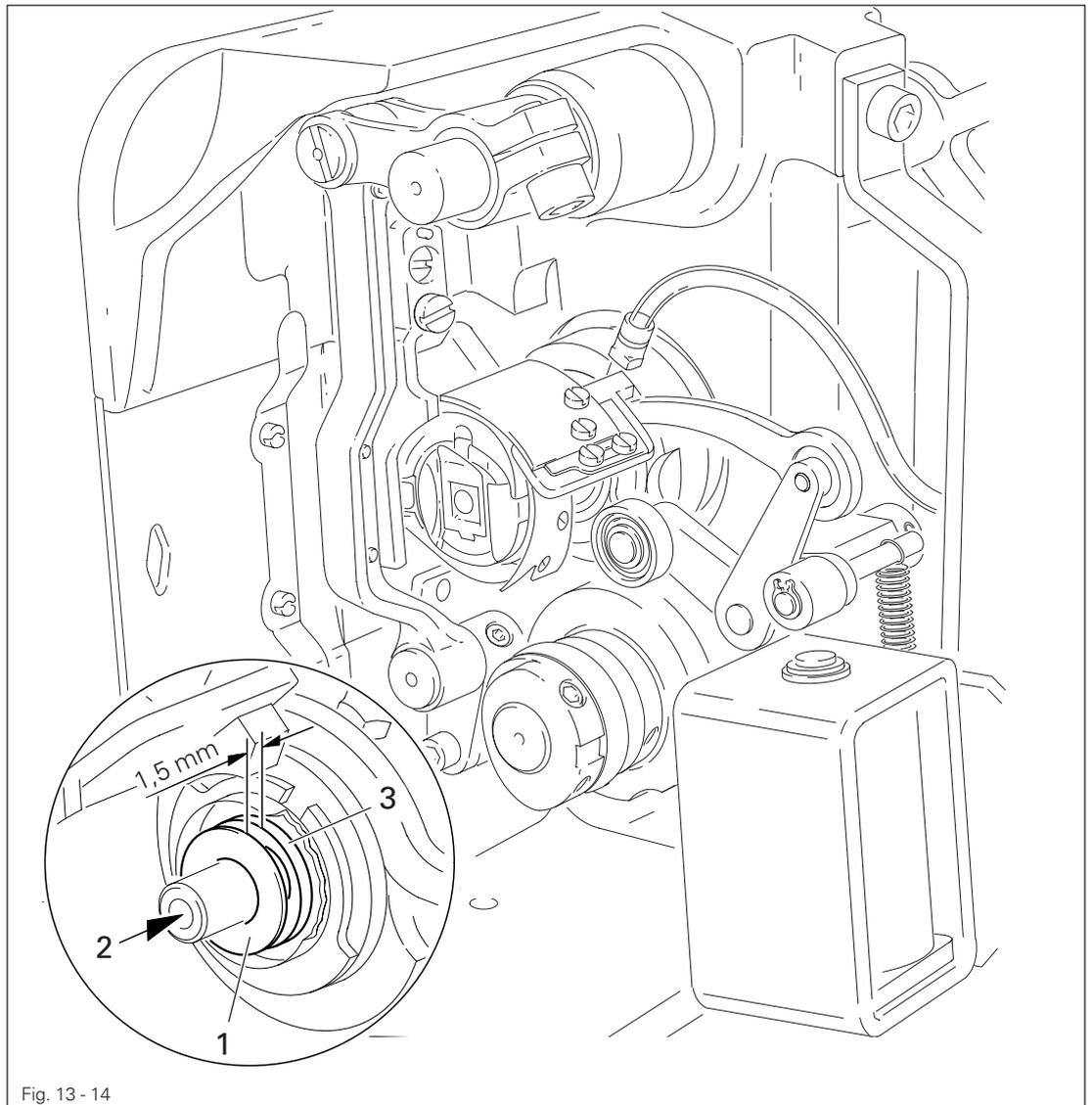


Fig. 13 - 14



The adjustment is only necessary if the wick has been replaced.  
When replacing the wick, make sure that the new wick is impregnated with oil.



- Move the centrifugal disk 1 (screw 2) according to **requirement 1**.
- Check **requirement 2**. If necessary, move centrifugal disk 1.

## 13.05.14 Needle rise, hook-to-needle clearance, needle height and bobbin case position finger

### Requirement

With the needle at 1.8 mm after BDC,

1. the hook point **6** must point to the middle of the needle and be at a distance of **0.05 mm - 0.1 mm** to the clearance cut of the needle, and
2. the top edge of the needle eye must be **0.8 mm** below the hook point.
3. Between the projection of the bobbin case position finger **4** and the bottom of the retaining groove there should be a distance of **0.5 mm**.

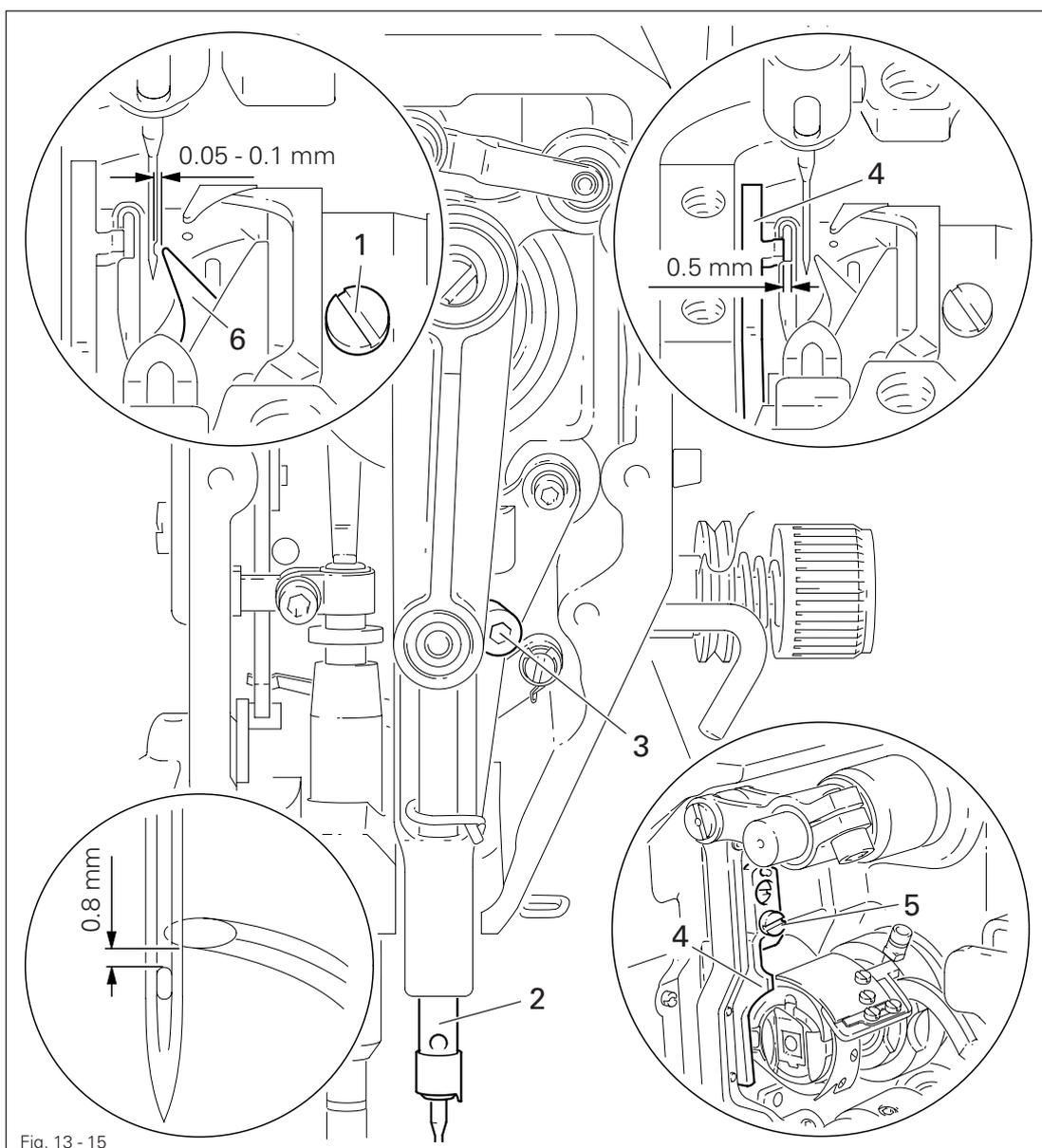


Fig. 13 - 15



- Using the adjustment pin, position the needle bar at 1.8 mm after BDC.
- Adjust the hook according to **requirement 1**.
- Tighten screw **1**.
- Move needle bar **2** (screw **3**) without turning it according to **requirement 2**.
- Align bobbin case position finger **4** (screw **5**) according to **requirement 3**.

## 13.05.15 Thread check spring and slack thread regulator

**Requirement**

1. The motion of the thread check spring must be completed when the needle point enters the material (spring stroke approx. **7 mm**).
2. When the thread loop is at its largest when going around the hook, the thread check spring must have moved by approx. **1 mm**.

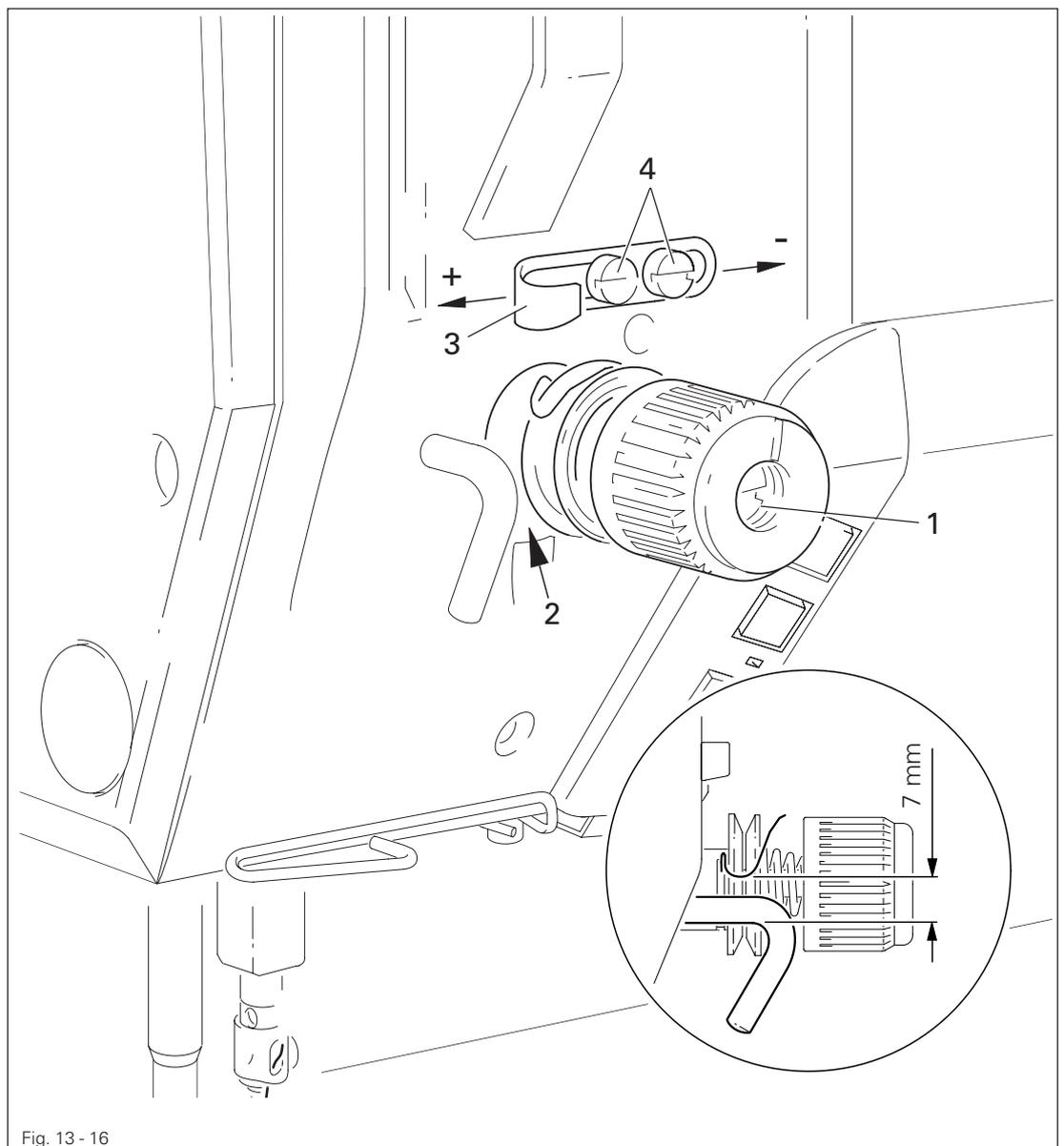
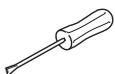


Fig. 13 - 16



- Turn thread tension 1 (screw 2) according to **requirement 1**.
- Turn thread tension 3 (screw 4) according to **requirement 2**.



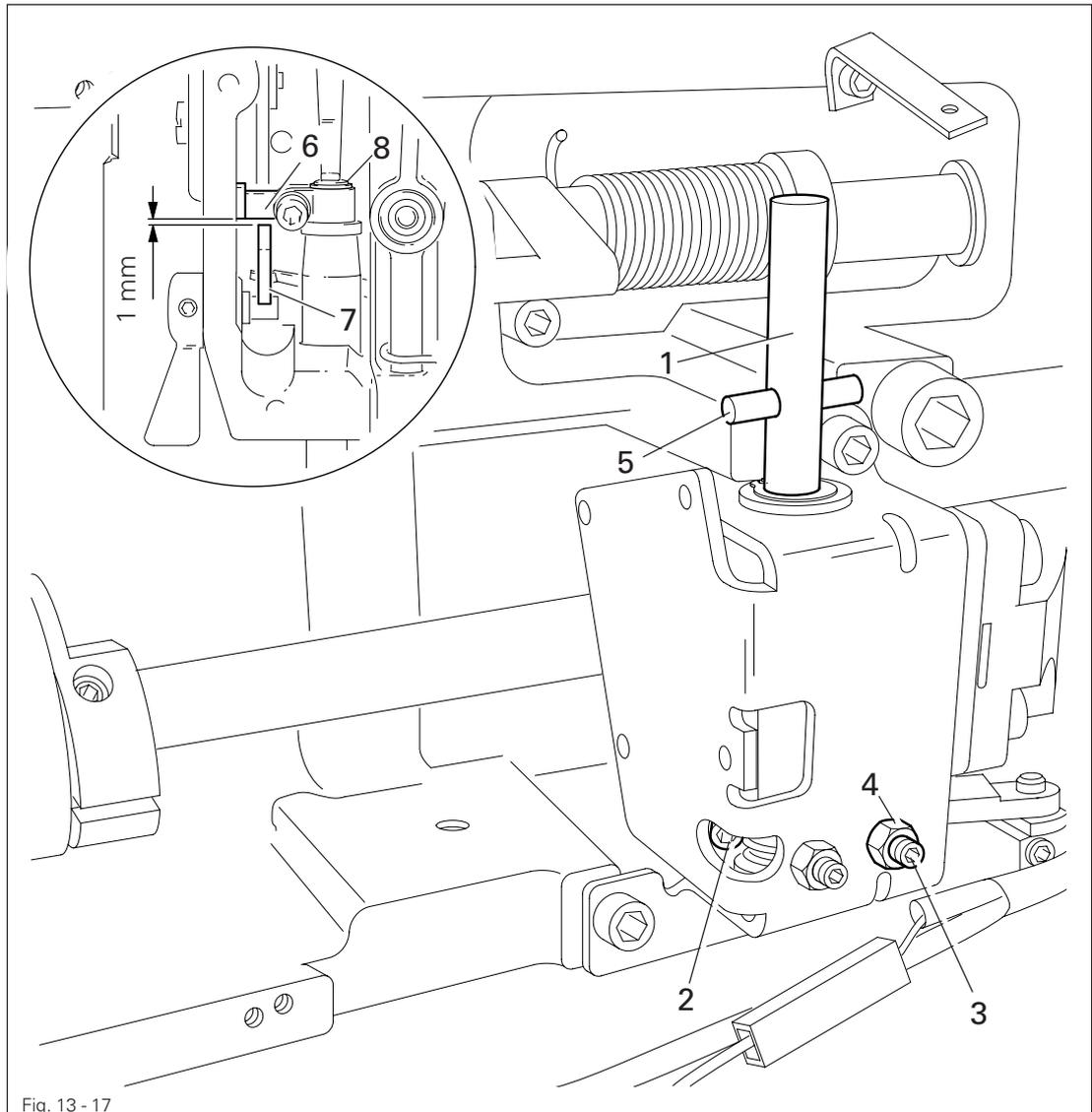
Due to technical sewing reasons it may be necessary to deviate from the spring stroke indicated above.

Move the slack thread regulator 3 (screw 4) toward the "+" (= more thread) or toward the "-" (= less thread)

## 13.05.16 Position of knee lever

### Requirement

1. When the knee lever is in its resting position, the axle **5** must be parallel to the bedplate.
2. When the presser foot is resting on the needle plate, the presser bar lifting lever **6** must be touching the circlip **8** lightly and be at a distance of approx. **1 mm** from lifting piece **7**.



- Lower the presser foot onto the needle plate.
- Turn shaft **1** (screws **2**) according to **Requirement 1**.
- Turn screw **3** (nut **4**) according to **Requirement 2**.

## 13.05.17 Knee lever stop

**Requirement**

When the knee lever is fully actuated,

1. the presser foot must be raised approx. **9 mm** (or approx. **13 mm** for a large needle bar stroke) above the needle plate, and
2. lever **3** must swing down automatically.

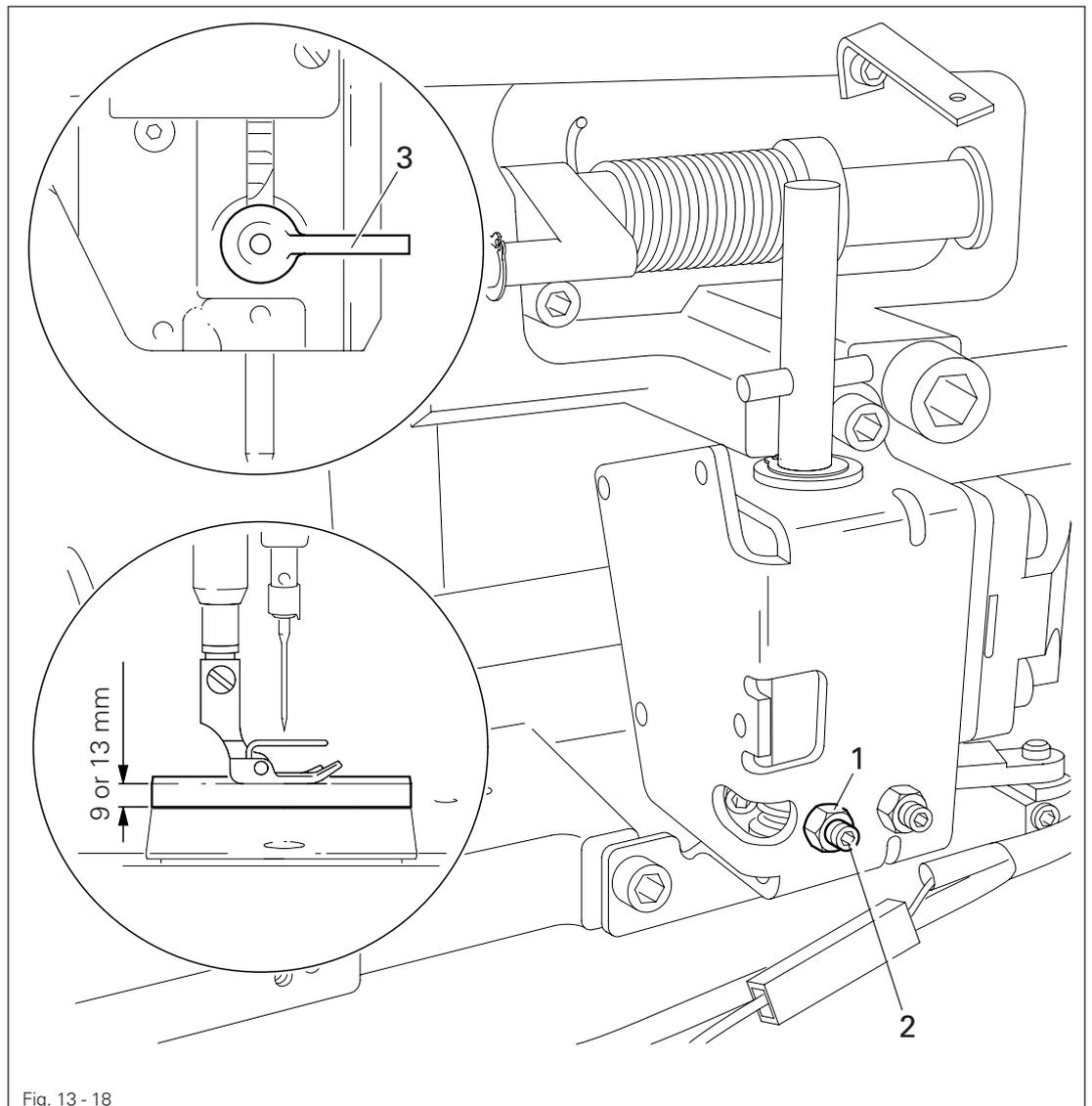


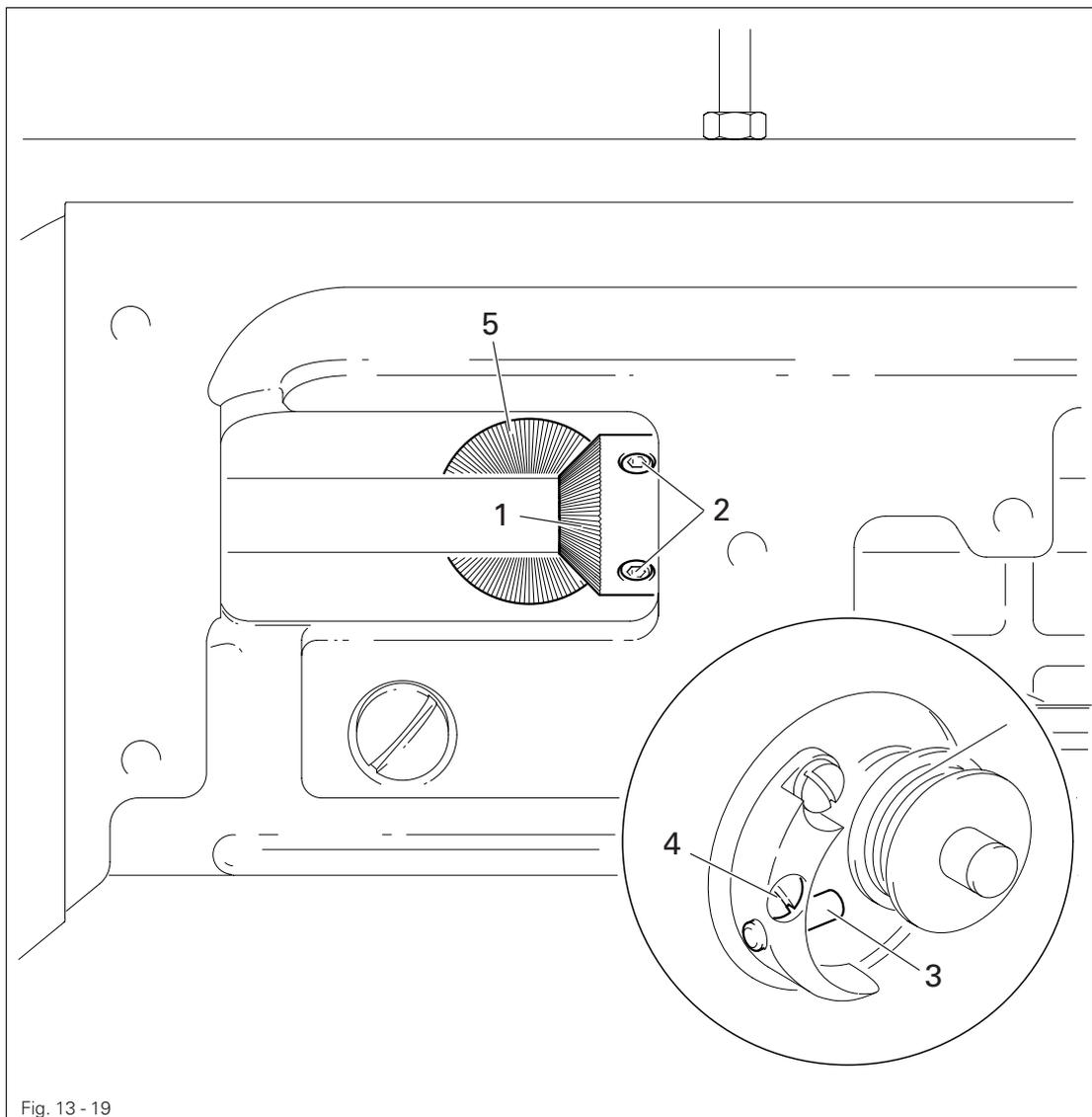
Fig. 13 - 18



- Loosen nut **1** and unscrew screw **2** a few turns.
- Raise the presser foot and slide a **9 mm** (for small needle bar stroke) or **13 mm** (for large needle bar stroke) thick spacer under the presser foot.
- Swing down lever **3**
- Move the knee lever until it is fully actuated. The presser foot must remain on the spacer.
- Now turn screw **2** as far as it will go.
- Turn screw **2** a half turn back and tighten nut **1**.

## Requirement

1. With the bobbin winder on, the drive wheel **1** must engage reliably.
2. With the bobbin winder off, the friction wheel **5** must not be driven by the drive wheel **1**.
3. The bobbin winder must turn off automatically when the thread level is approx. **1 mm** from the edge of the bobbin.



- Move drive wheel **1** (screws **2**) in accordance with **requirement 1 and 2**.
- Move bolt **3** (screw **4**) in accordance with **requirement 3**.

## 13.05.19 Limiting the stitch length



The maximum stitch length which can be selected can be limited mechanically.

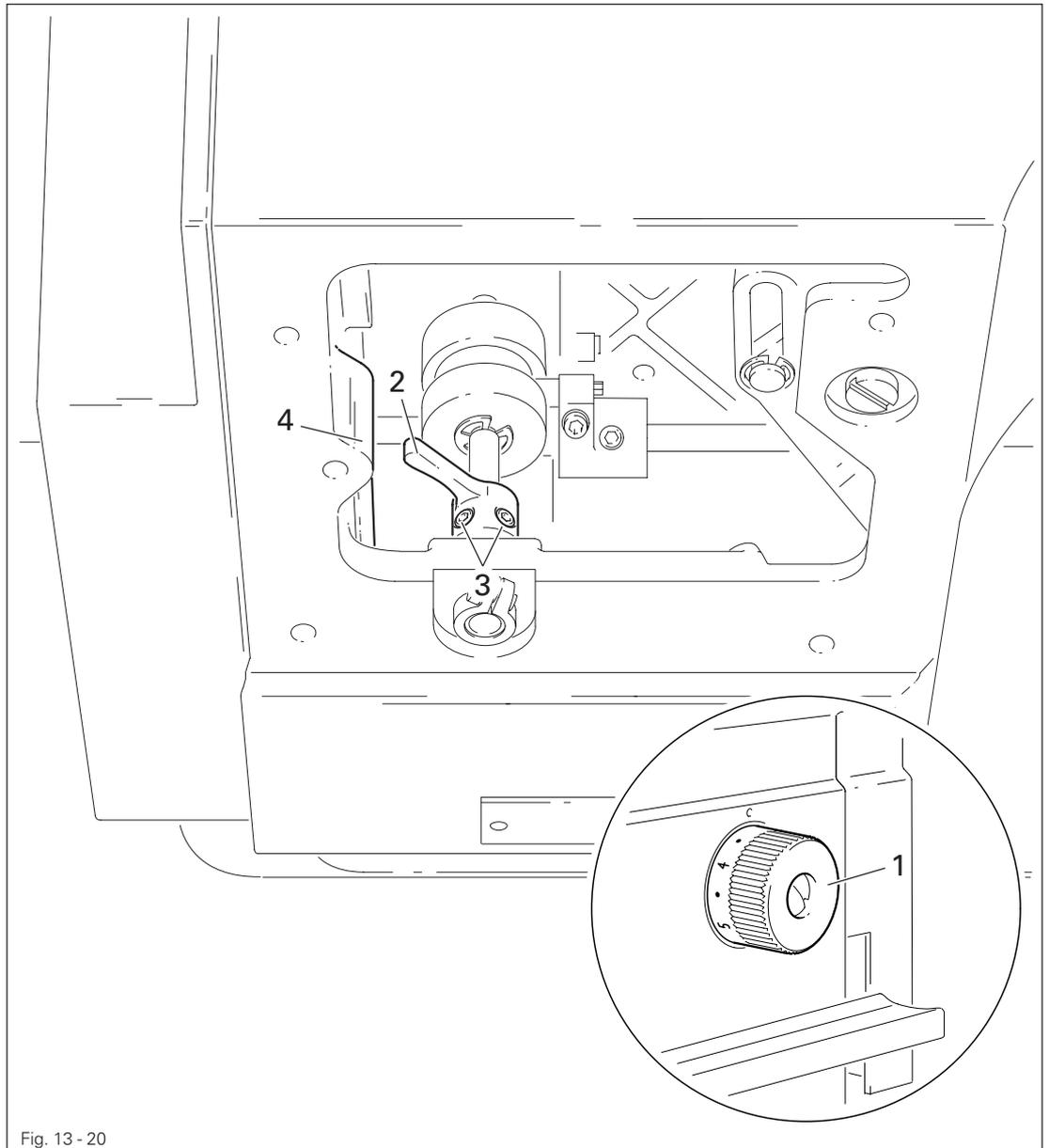


Fig. 13 - 20



When using Version A and B part sets, the maximum adjustable stitch length must not be larger than 3.0 or 4.5 mm (see chapter 3 Specifications)!



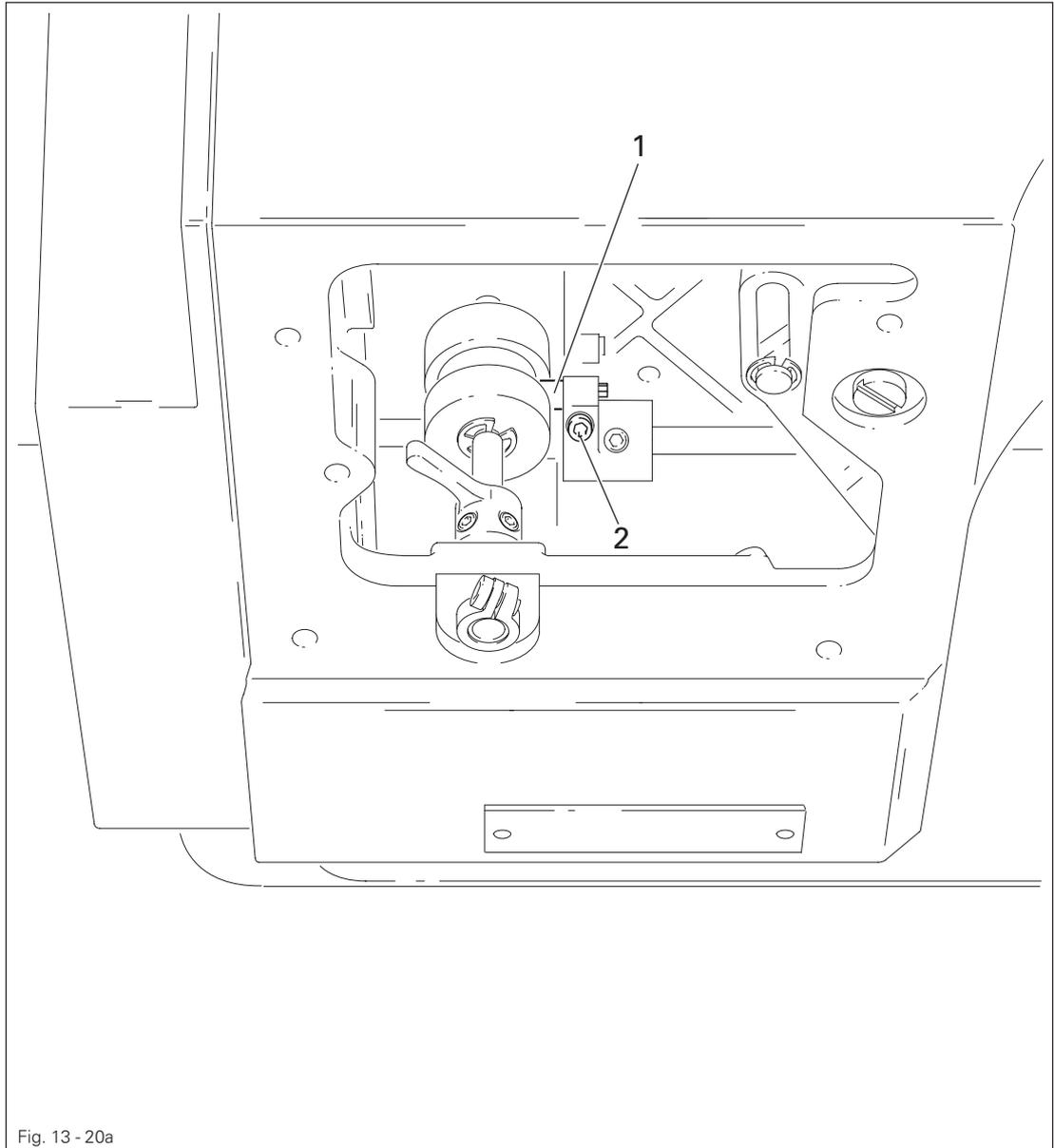
- Set the desired maximum stitch length with regulator disk 1.
- Move crank 2 (screws 3) down against stop 4.

# Adjustment

## 13.05.20 Stitch length adaptation

### Requirement

Forward and reverse stitches should have the same length.

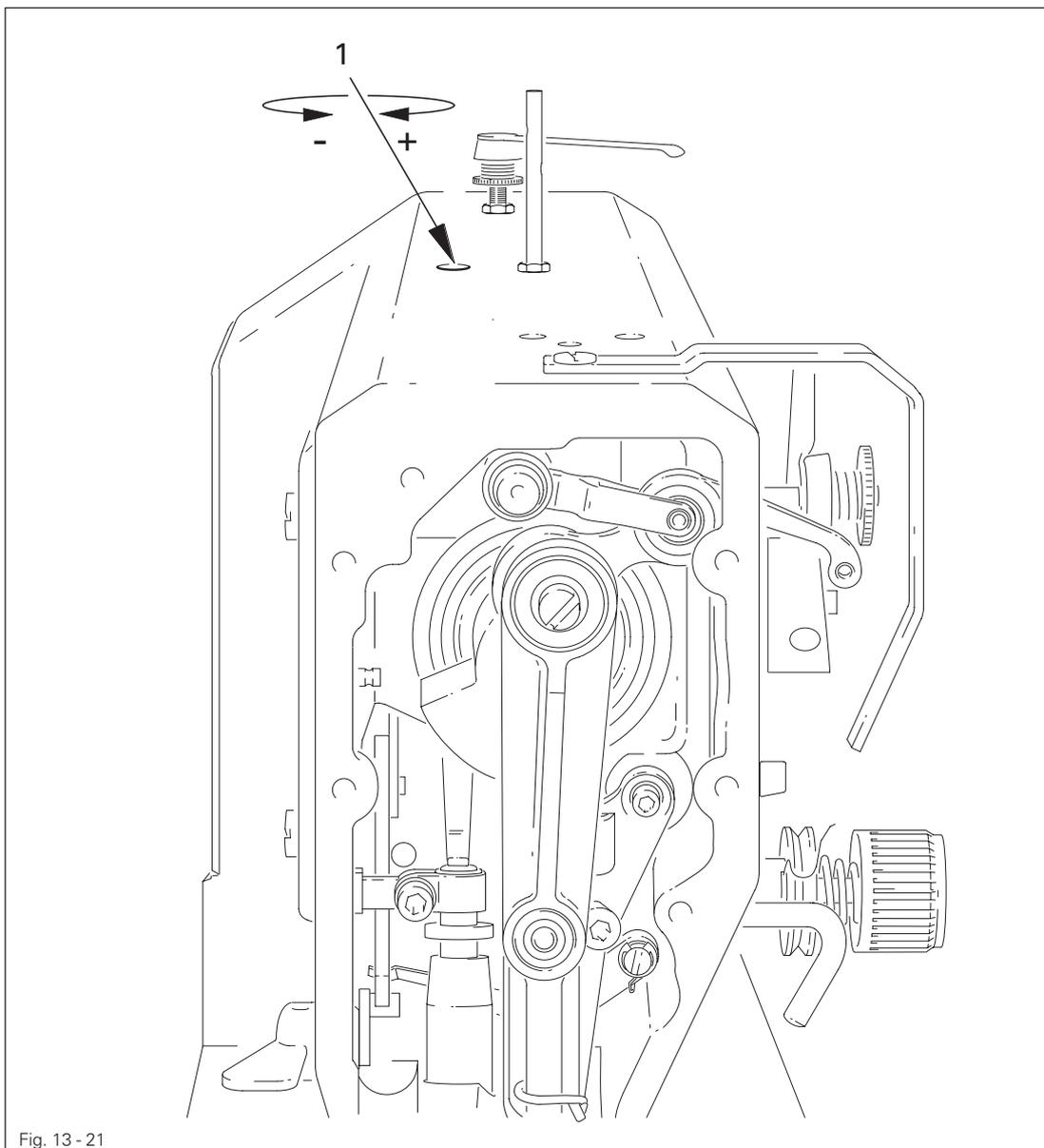


- Turn eccentric 1 (screw 2) according to Requirement.

## 13.05.21 Presser foot pressure

### Requirement

The material must be fed reliably. In the process, pressure marks on the material must not be made.

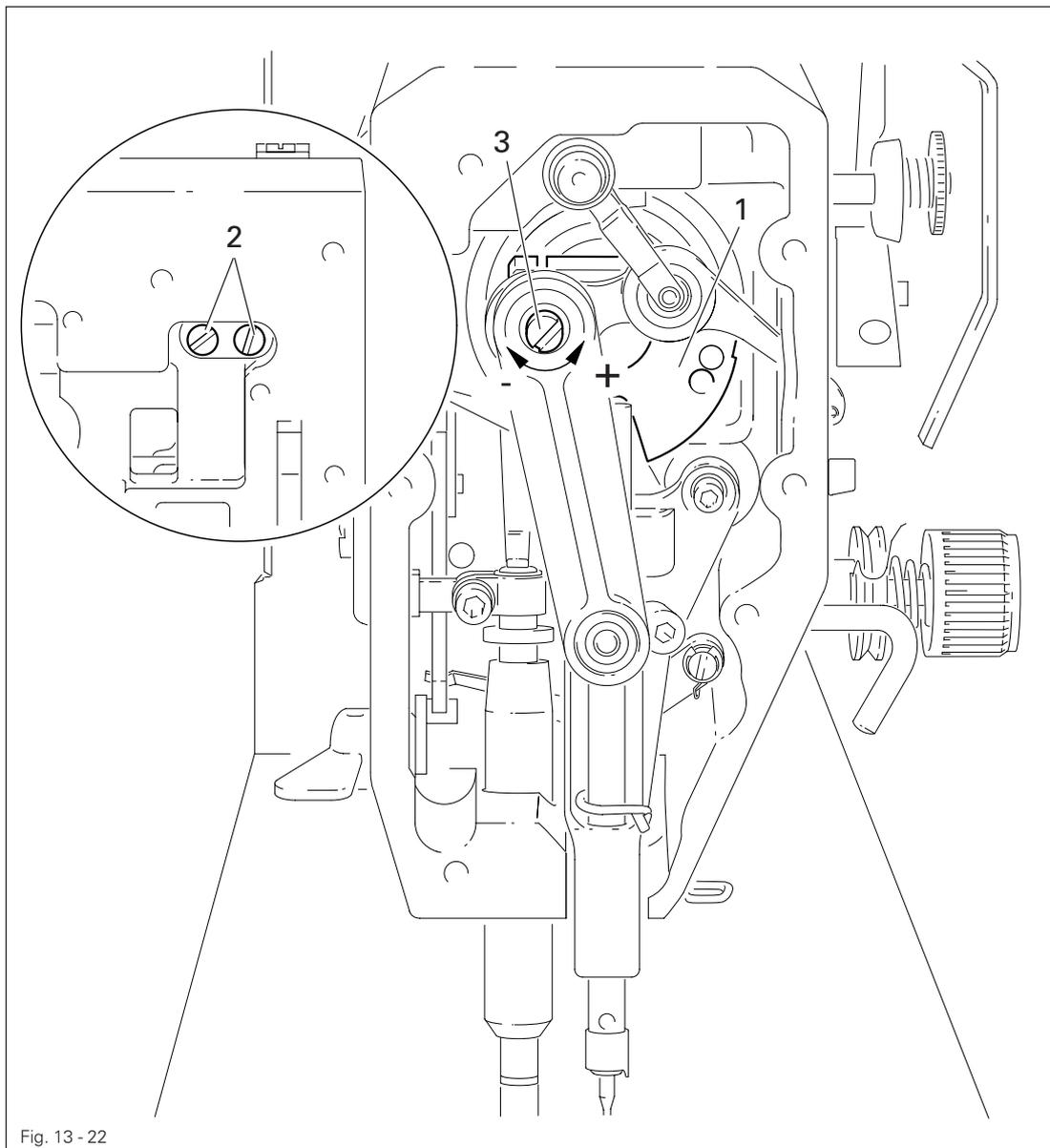


- Turn screw 1 in accordance with the requirement.

## 13.05.22 Modifying the needle bar stroke



The needle bar stroke is preset in the factory according to requirement. The needle bar stroke can be modified later if specific operating conditions make it necessary to do so.



When the needle bar stroke is altered, it is absolutely necessary to readjust the needle height! With a 36 mm needle bar stroke, the maximum speed must be limited to 3800 spm.



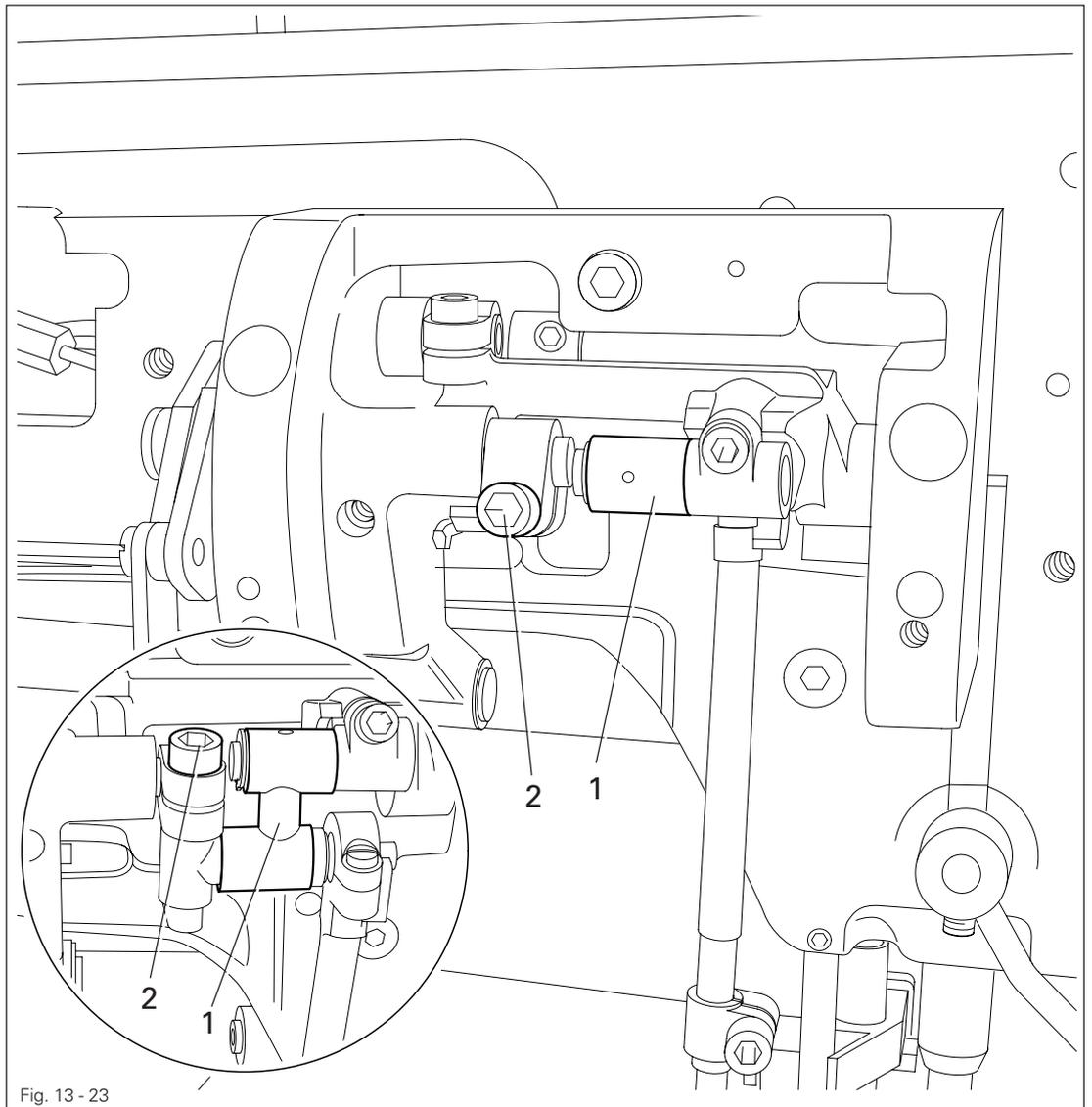
- Via the hand wheel, turn crank **1** until the screws **2** can be accessed from the side opening of the housing.
- Turn eccentric **3** (screws **2**) as far as possible toward "**+**" (= large needle bar stroke) or toward "**-**" (= small needle bar stroke).
- Adjust needle height (see **chapter 13.05.02 Preadjusting the needle height** and/or **chapter 13.05.14 Needle rise, hook-to-needle clearance, needle height and bobbin case position finger**).

## 13.06 Adjusting the edge trimmer –731/01

### 13.06.01 Zero position of the knife

#### Requirement

With the edge trimmer switched off, the knife should not move when the balance wheel is turned.



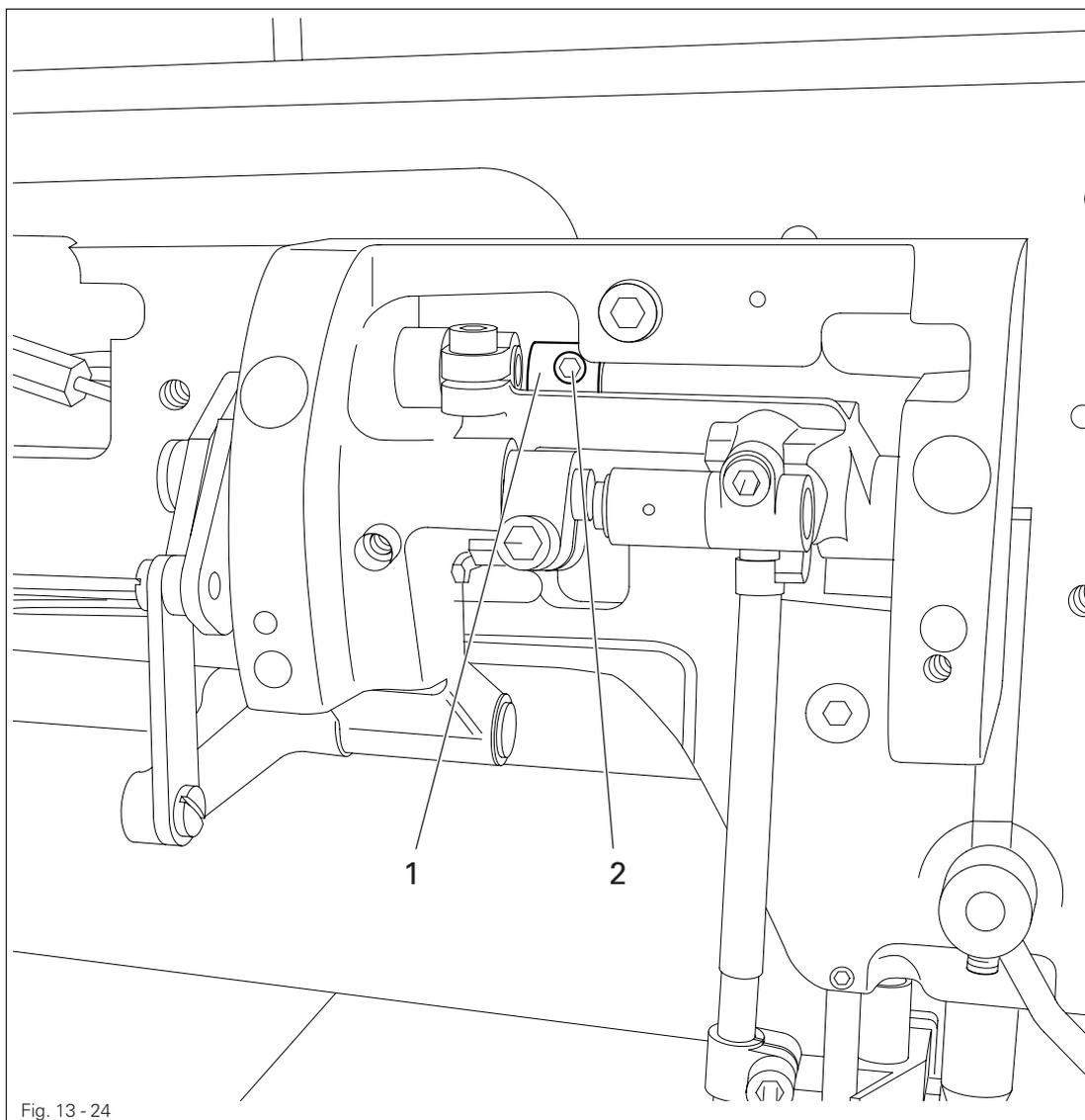
- Turn crank 1 (screw 2) according to the requirement.

## Adjustment

### 13.06.02 Cutting motion

#### Requirement

With the edge trimmer switched on and the needle bar at its t.d.c. on the **PFAFF 1183**, or at its b.d.c. on the **PFAFF 1181**, the knife should be at the top of its stroke.



- Switch on the edge trimmer and bring the needle bar to t.d.c. or b.d.c. (see **requirement**).
- Turn eccentric **1** (two screws **2**) according to the **requirement**.

## 13.06.03 Knife height

### Requirement

When the knife is at the bottom of its stroke, the front edge of the knife blade should be approx. **0.5 mm** below the top edge of the stationary knife.

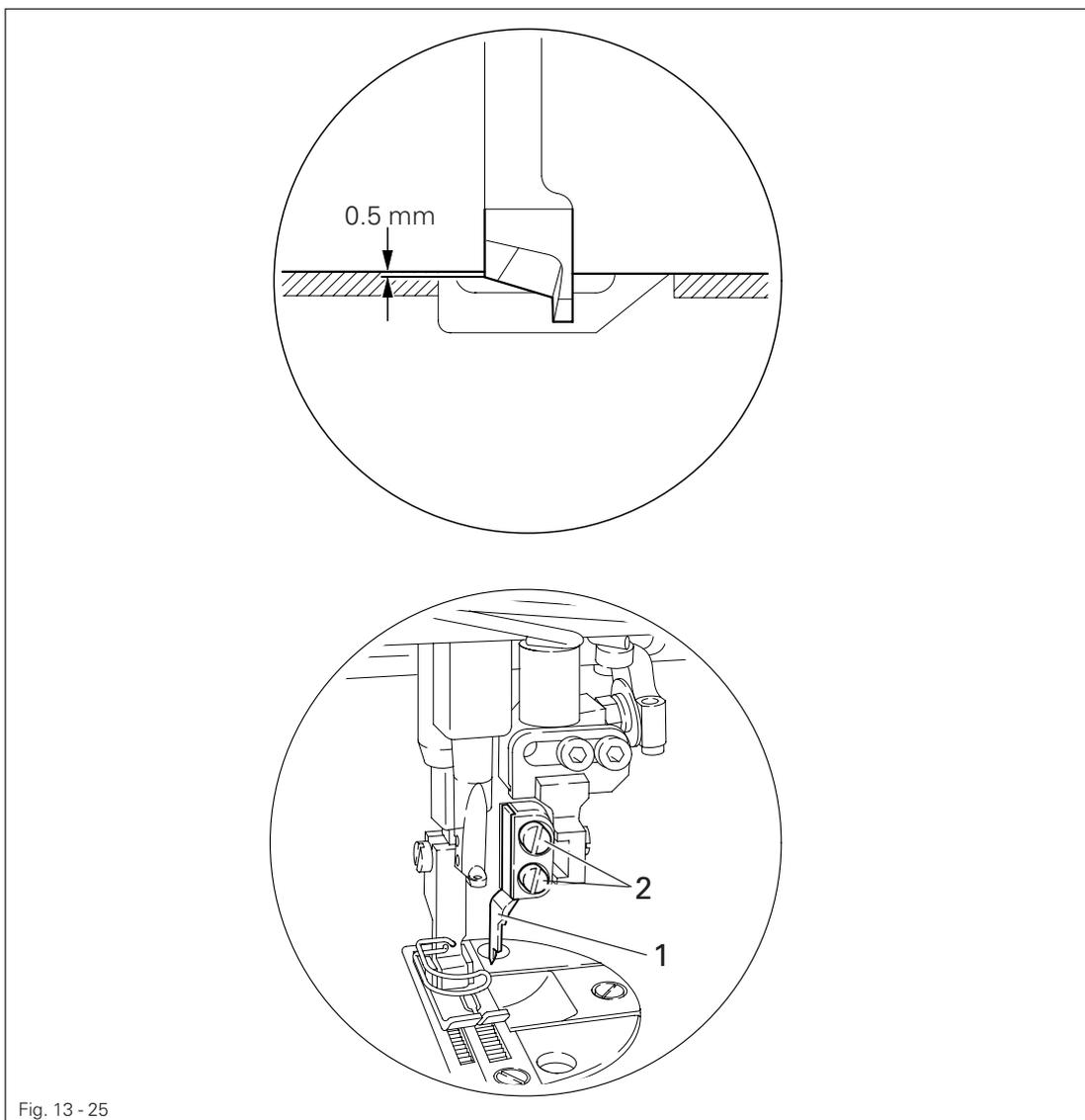


Fig. 13 - 25



- Switch on the edge trimmer and bring the knife to the bottom of its stroke.
- Adjust knife 1 (screws 2) according to the **requirement**.

## Adjustment

### 13.06.04 Knife position in sewing direction

#### Requirement

When the needle is at its b.d.c., the centre of the knife blade should be positioned at "needle centre".

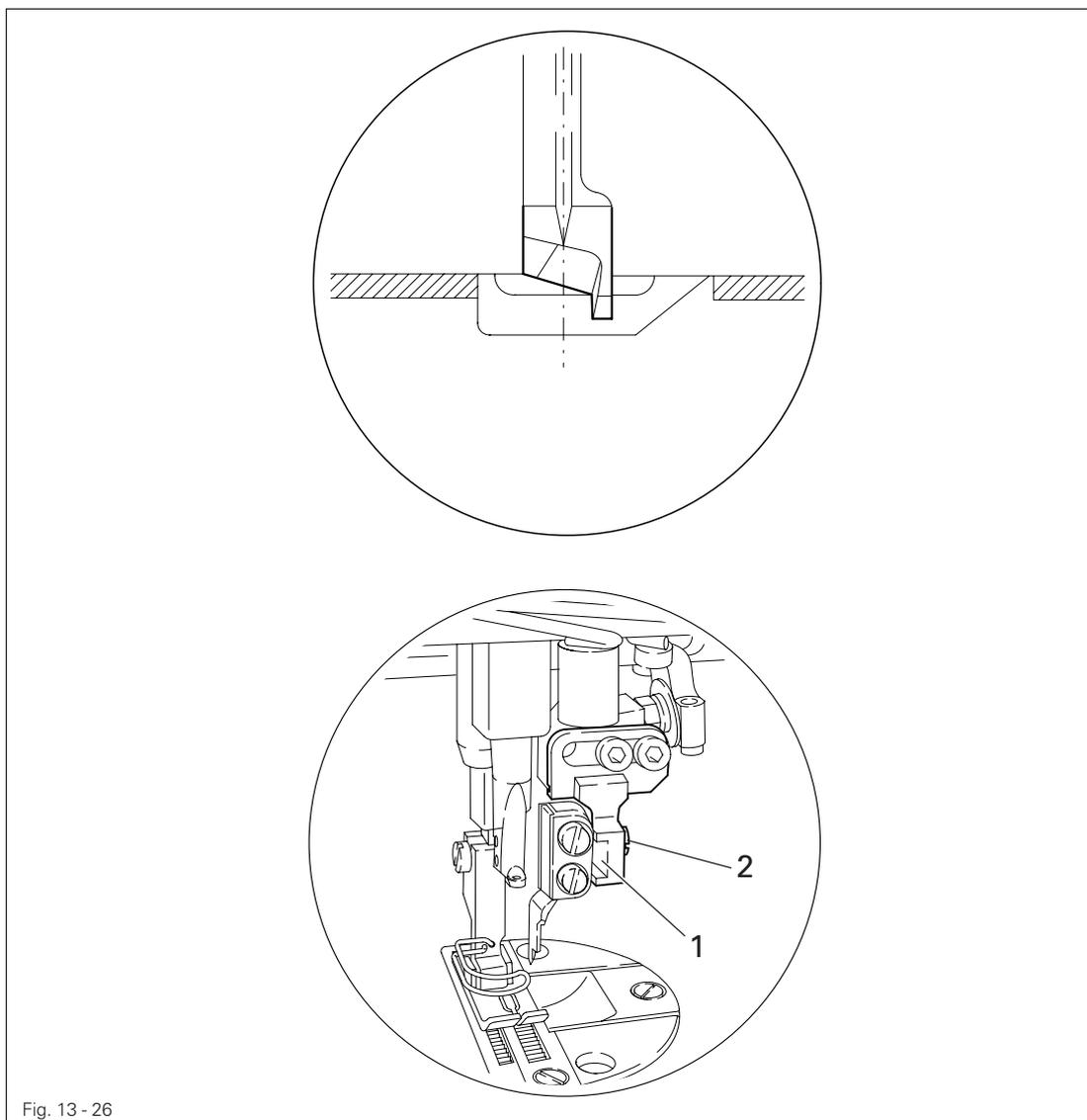


Fig. 13 - 26



- Adjust knife bracket 1 (screw 2) according to the **requirement**.

## 13.06.05 Knife position crosswise to sewing direction

### Requirement

The knife should be resting on the stationary knife **3** with light pressure.

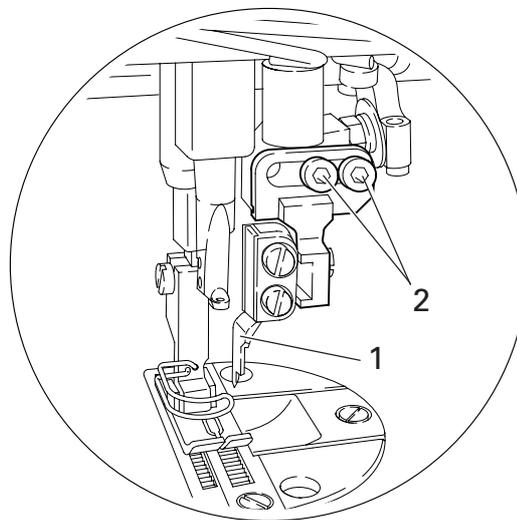


Fig. 13 - 27



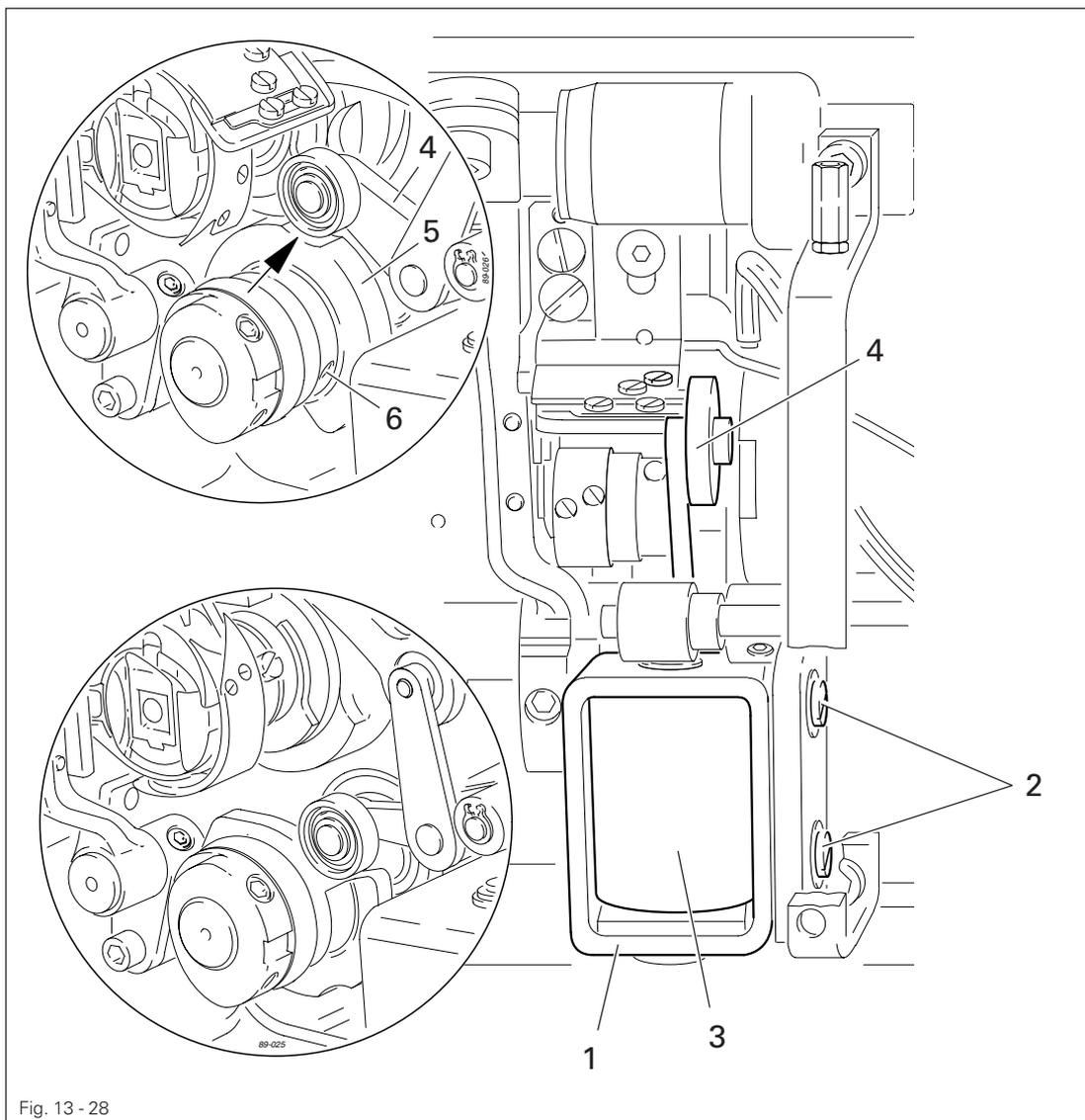
- Adjust knife bracket **1** (screw **2**) according to the **requirement**.

## 13.07 Adjusting the thread trimming device -900/24

### 13.0.01 Adjusting the solenoid / preliminary adjustment of the control cam

#### Requirement

1. When solenoid **3** is completely extended, roller lever **4** should be at the lowest point of the control cam.
2. When the needle bar is positioned at 1.8 mm after b.d.c. (needle rise position), roller lever **4** should engage in the appropriate recess of the control cam.



- Adjust solenoid holder **1** (screws **2**) in accordance with **requirement 1**.
- Adjust control cam **5** (screws **6**) in accordance with **requirement 2**.

## 13.07.02 Lateral alignment of the thread catcher

### Requirement

1. The tip of the thread catcher **5** must point exactly to the center of the needle.
2. The thread catcher **5** must be horizontal. It must not graze anything when it is operating.

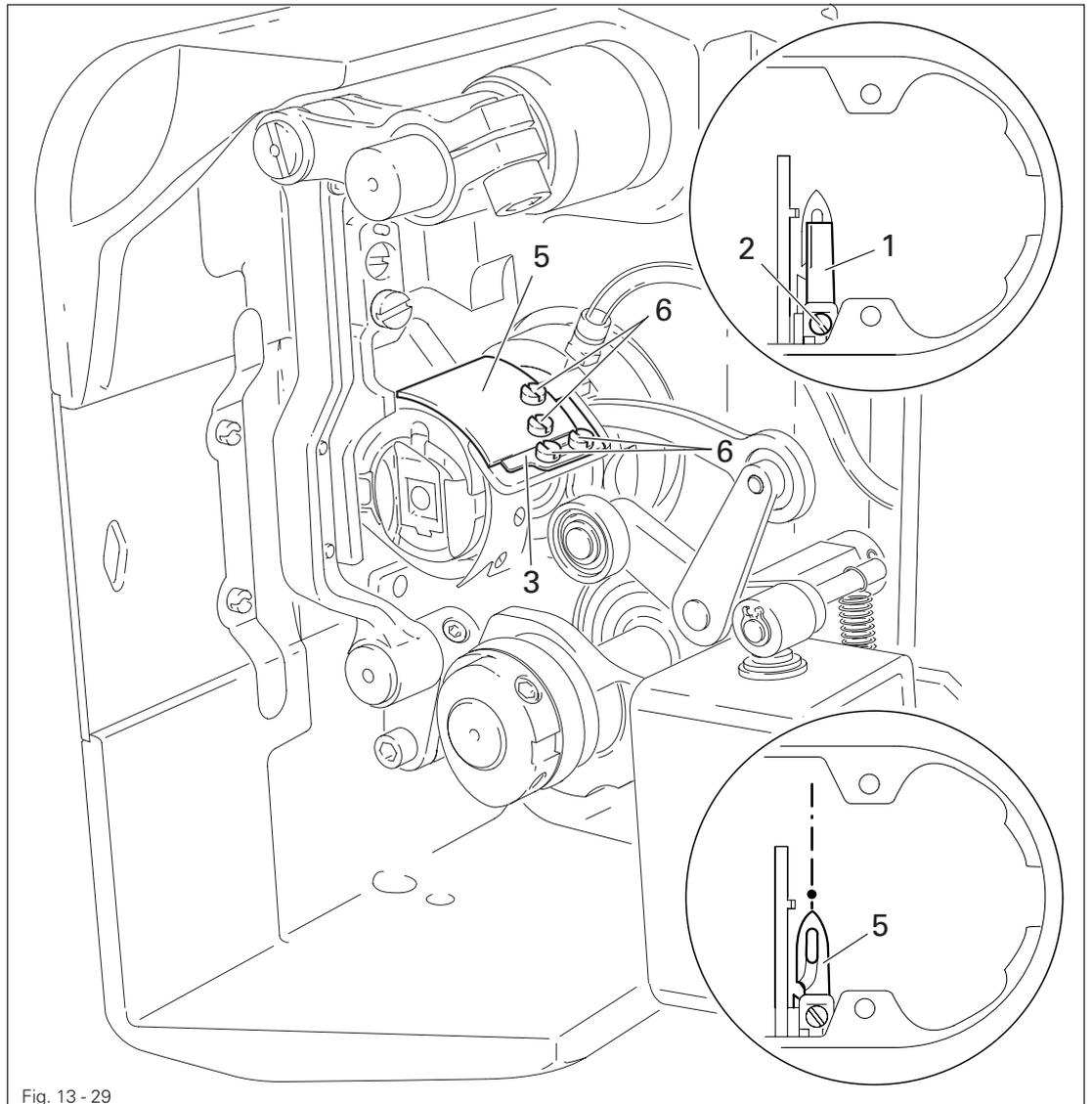


Fig. 13 - 29



- Remove knife **1** (screw **2**).
- Move needle bar to its BDC.
- Loosen stop **3** (screws **4**).
- Position thread catcher **5** (screw **6**) manually in front of the needle.
- Align thread catcher **5** (screws **7**) according to the requirements.



For further adjustments, leave knife **1** removed and stop **3** loosened.

## 13.07.03 Knife position

### Requirement

1. There must be a distance of **4 mm** between the cutting edge of the knife and the needle.
2. The right edge of the knife **1** must not extend beyond the right edge of the thread catcher (see arrow).

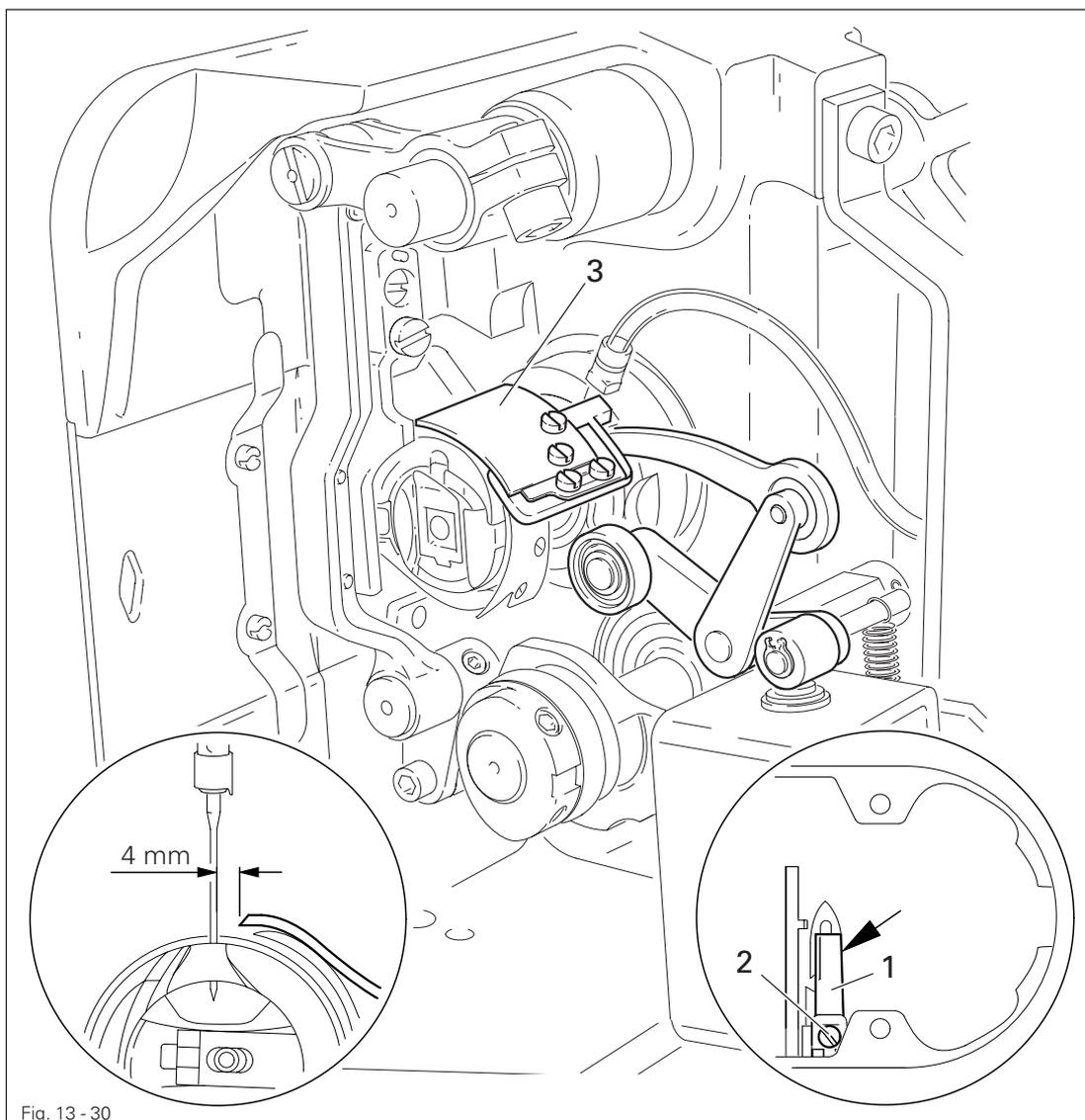


Fig. 13 - 30



- Bring the needle bar to BDC.
- Slide knife **1** under the locking tab and align according to **requirement 1**.
- Tighten screw **2** lightly.
- Adjust thread catcher carrier **3** by hand until the wedge point in the thread catcher is positioned just in front of the cutting edge of the knife.
- Align knife **1** according to **requirement 2** and tighten screw **2**.

## 13.07.04 Front point of reversal of the thread catcher

### Requirement

At the front point of reversal of thread catcher 4, the tip of the thread catcher cutout should be 1 mm in front of the bobbin case position finger 5.

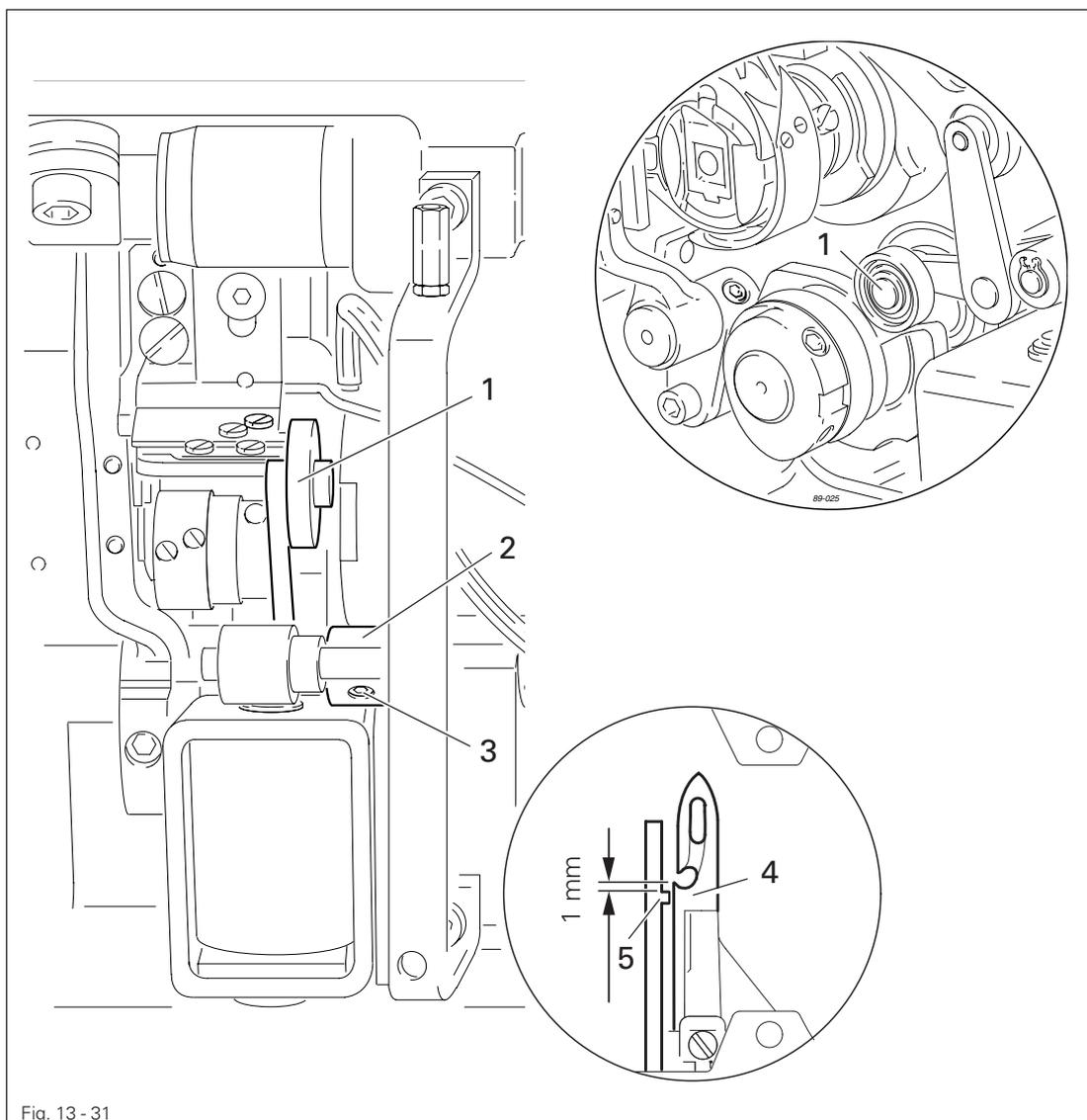


Fig. 13 - 31

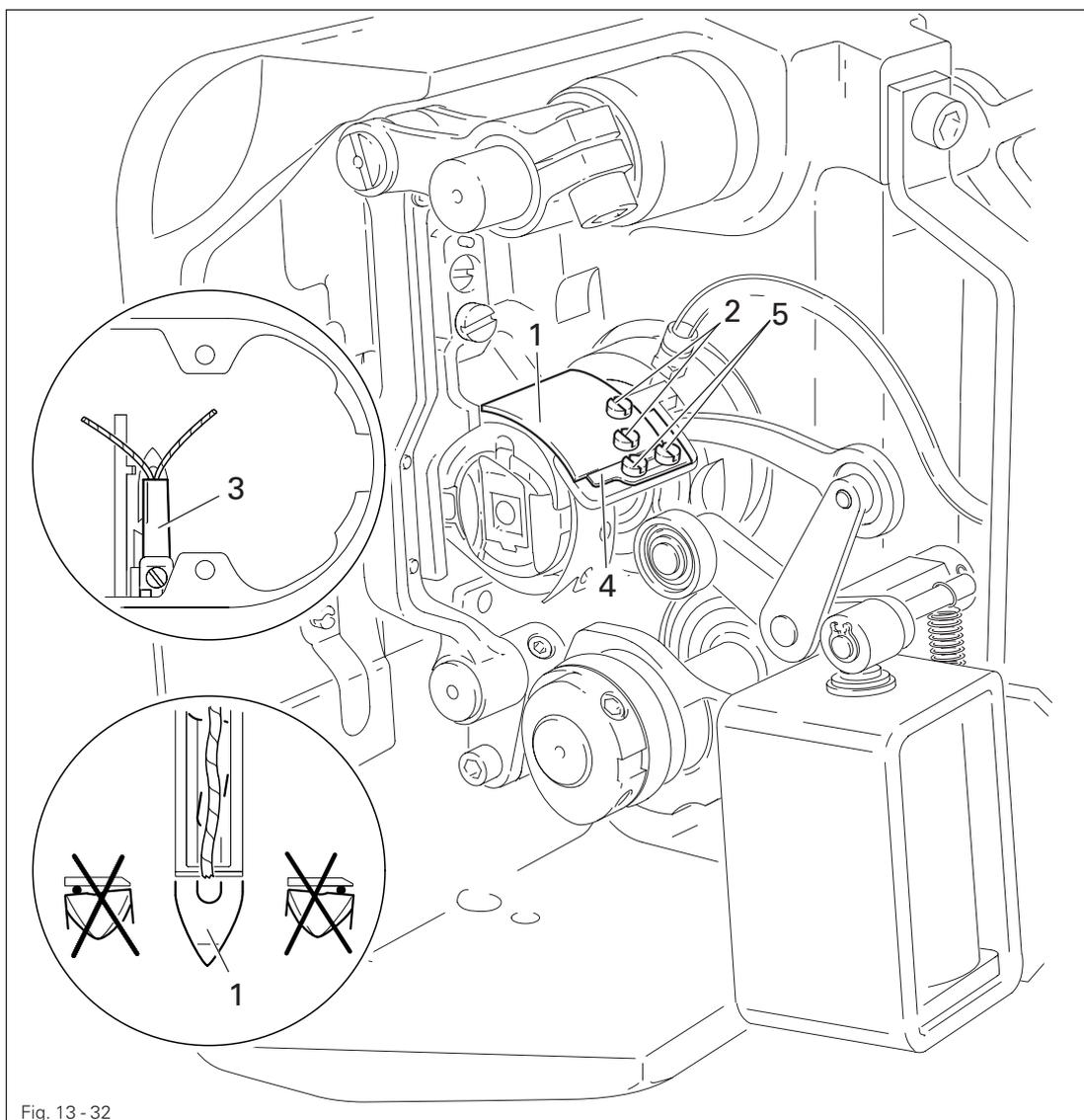


- Position roller lever 1 at the lowest point of the control cam.
- Adjust bush 2 (screws 3) according to the requirement.

## 13.07.05 Manual trimming check

### Requirement

Two threads must be cut perfectly both left and right in the cutout of thread catcher 1.

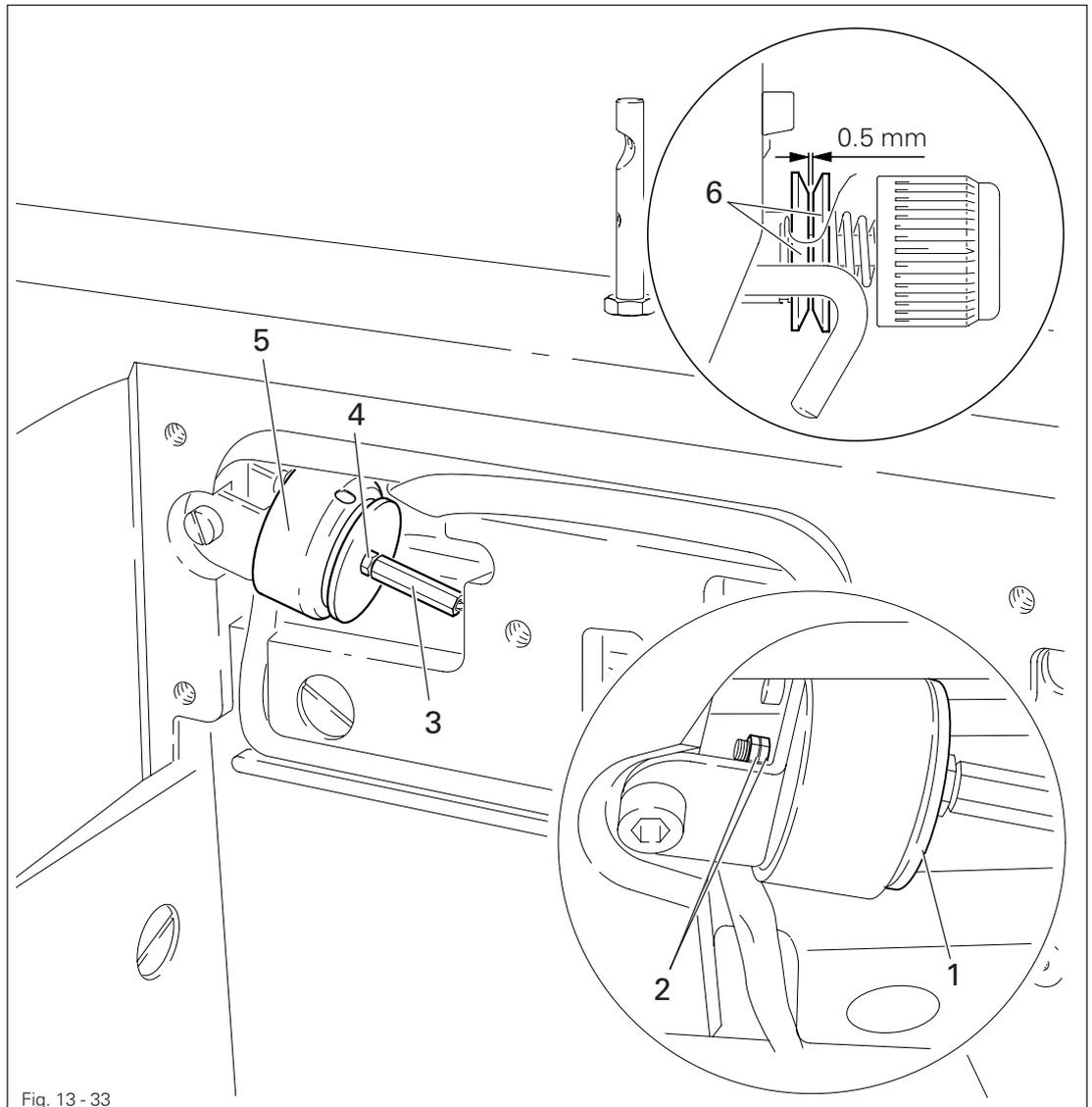


- Move thread catcher 1 by hand to its front point of reversal.
- Double the thread and insert into catcher cutout.
- Carry out trimming operation manually.
- If the threads are not cut according to the **requirement**, align thread catcher 1 (screws 2) with knife 3 accordingly.
- Move stop 4 against thread catcher 1 and tighten screws 5.
- Check chapter **13.07.02 Lateral alignment of the thread catcher**, and readjust if necessary.

## 13.07.06 Needle thread tension release

### Requirement

1. The magnet lift should be 1.5 mm.
2. When the magnet 5 is operated by hand, there should be a distance of at least 0.5 mm between the tension discs 6.



- Adjust disc 1 (nuts 2) according to the requirement.
- Adjust screw 3 (nut 4) according to the requirement.

## Adjustment

### 13.07.07 Readjusting the control cam

#### Requirement

When the take-up lever is in its t.d.c., control cam 1 should have moved thread catcher 3.

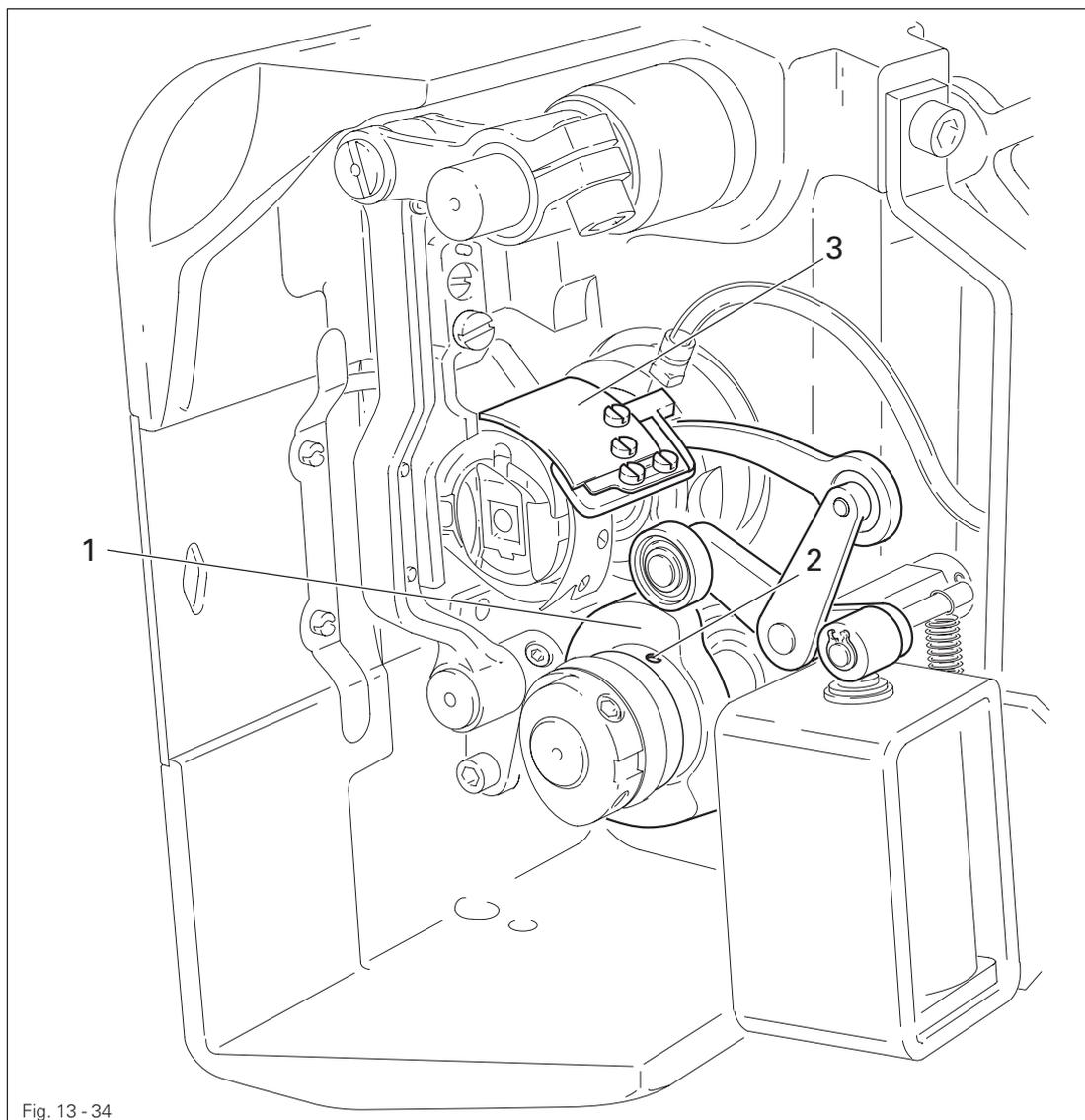


Fig. 13 - 34



- Adjust control cam 1 (screws 2) according to the requirement.

## 13.08 Adjusting the thread wiper -909/04

## 13.08.01 Thread wiper movement

**Requirement**

1. The thread wiper 5 must not strike against anything when it is moving.
2. When the take-up lever is at TDC, the thread wiper 5 is to move under the needle point and clear it by approx. 1 mm when the engaging solenoid 2 is operated.

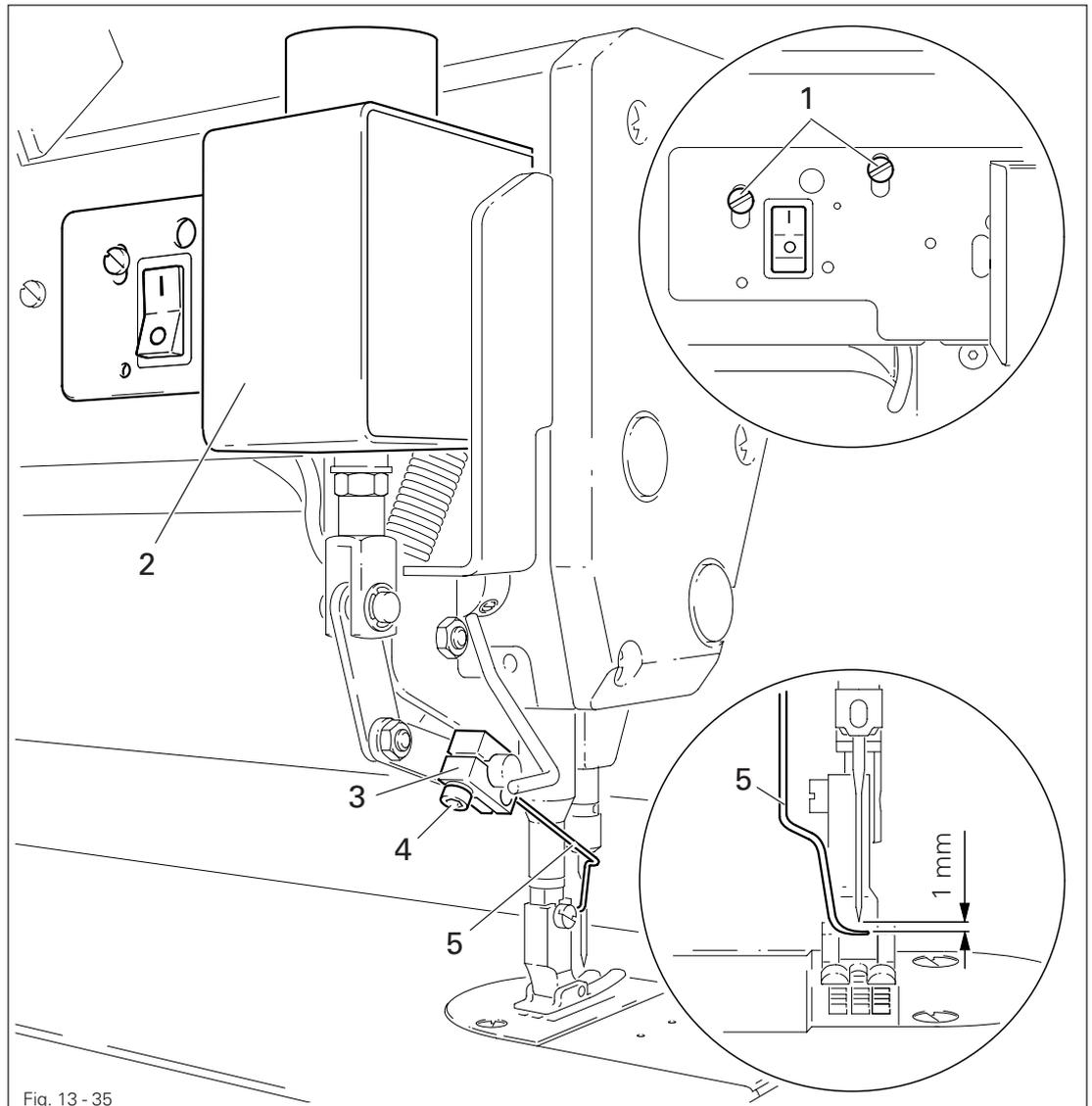


Fig. 13 - 35



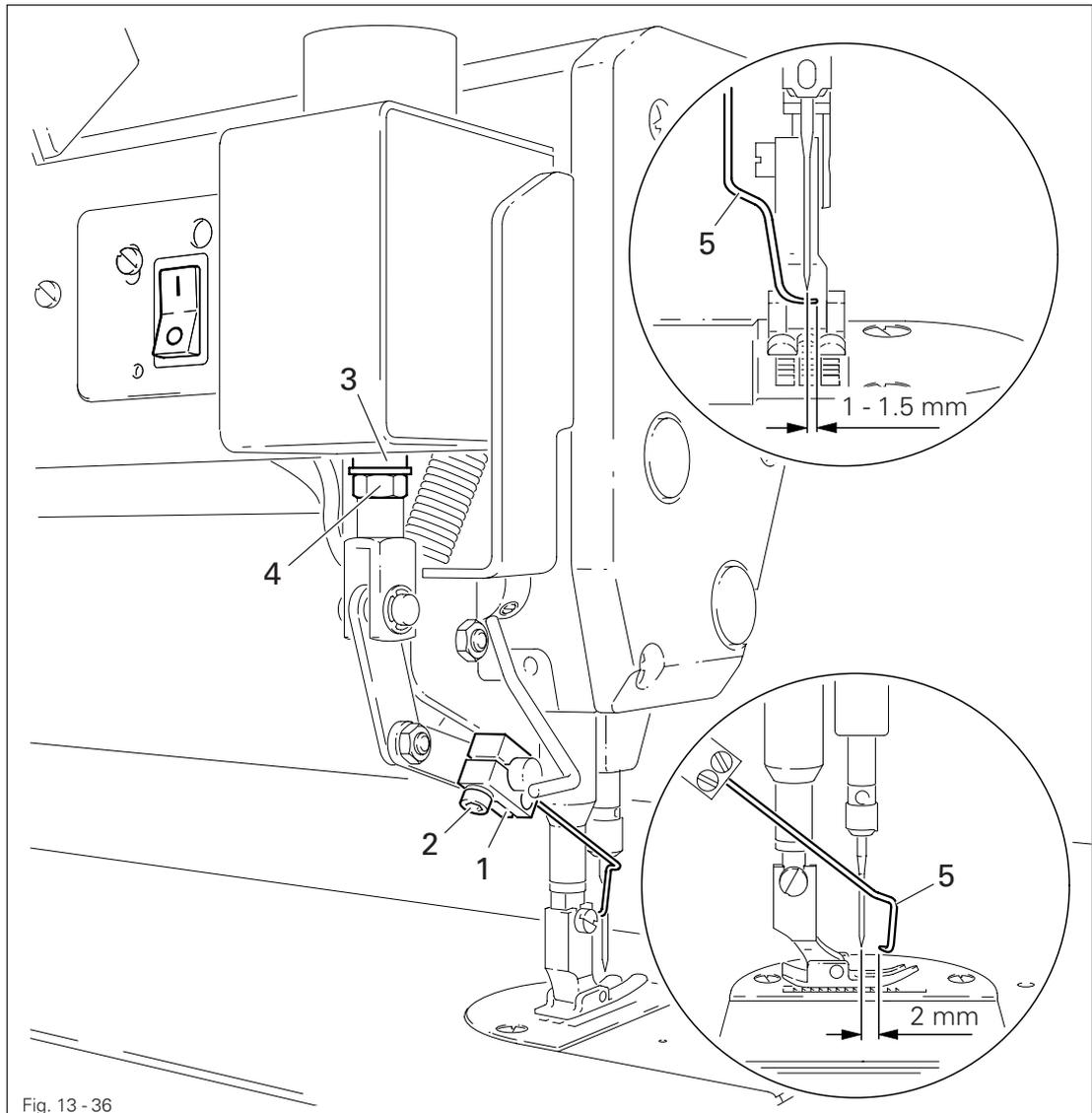
- Bring the take-up lever to TDC.
- Loosen screws 1.
- Push thread wiper 2 parallel to the bedplate to the very top and tighten screws 1 slightly.
- Turn bracket 3 (screw 4) according to **requirement 1**.
- Move thread wiper 2 parallel to the bedplate according to **requirement 2**.
- Tighten screws 1.

## 13.08.02 Thread wiper position

### Requirement

Seen from the direction of sewing

1. The point of the thread wiper **5** must be approx. **1 - 1.5 mm** to the right of the needle, and
2. The thread wiper **5** must be approx. **2 mm** in front of the needle in its foremost position.

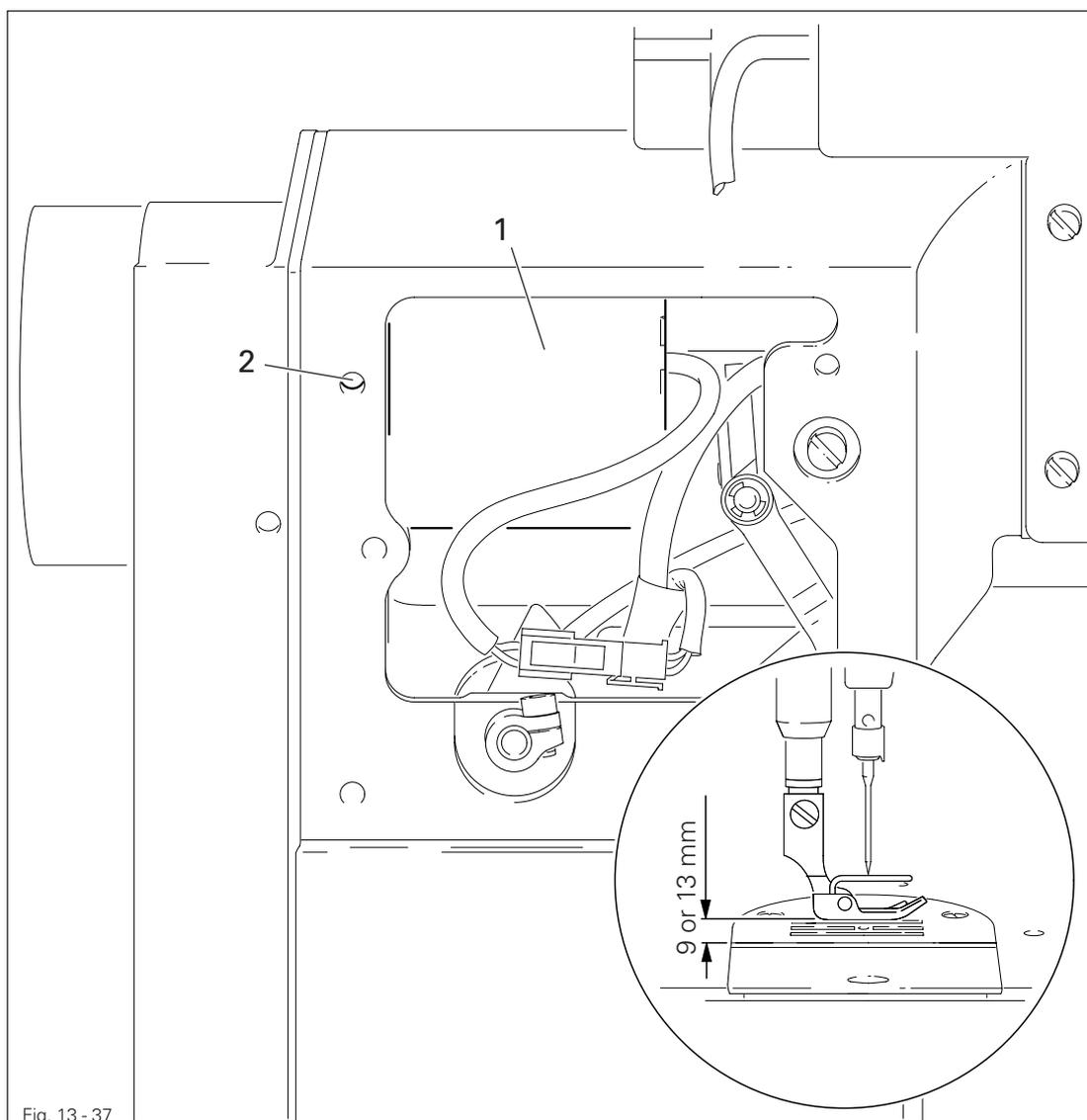


- Slide bracket **1** (screw **2**), without turning it, on the shaft according to **requirement 1**.
- Turn rod **3** (nut **4**) according to **requirement 2**.

## 13.09 Adjusting the automatic presser foot lift -910/06

**Requirement**

When the automatic presser foot lift is operated, the clearance between the presser foot and the needle plate must be **9 mm** for a small needle bar stroke and **13 mm** for a large needle bar stroke.

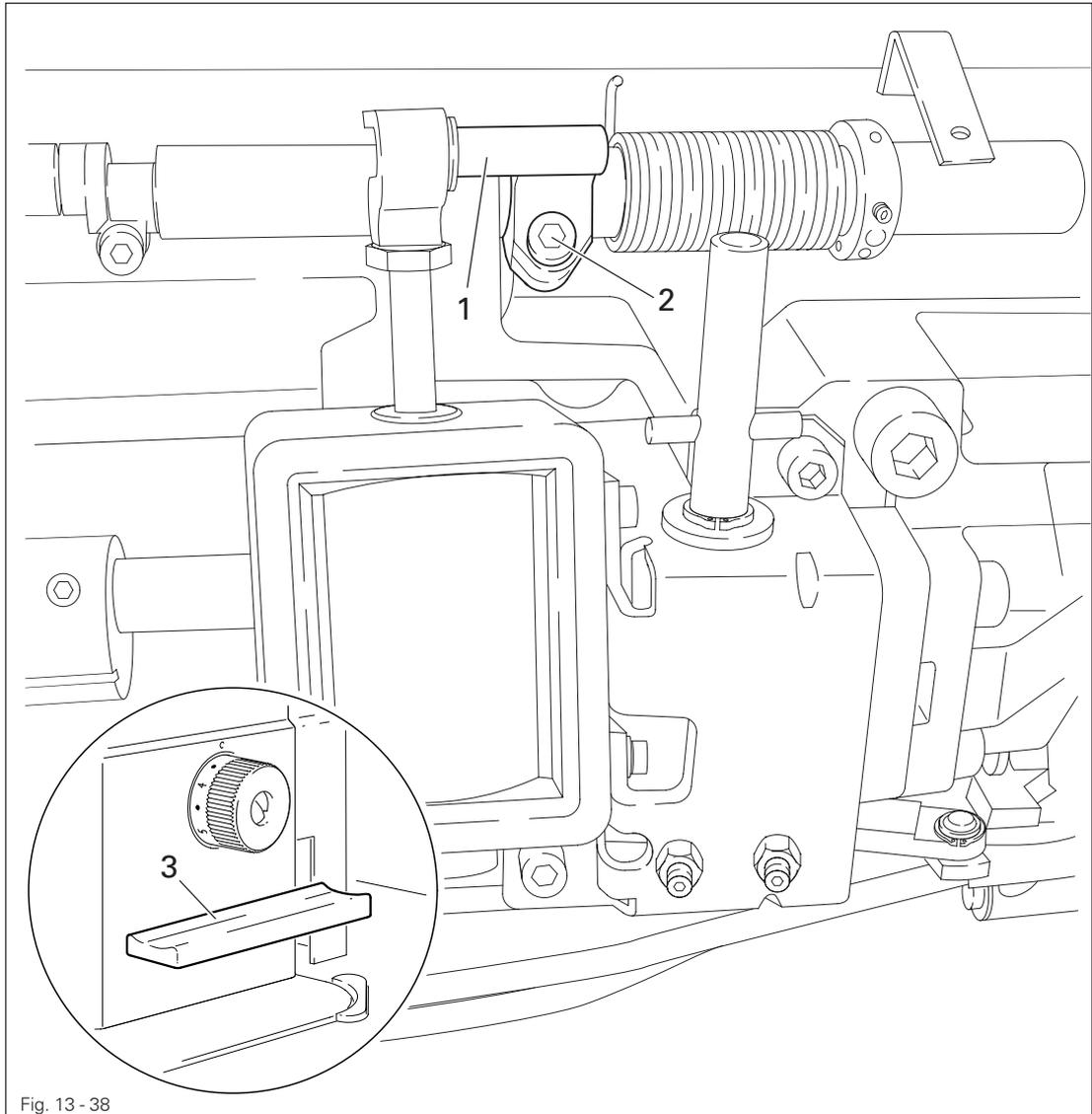


- Move magnet 1 (screw 2) according to the requirement.

## 13.10 Adjusting the back-tacking mechanism -911/37

### Regel

When the longest stitch length is set, the reverse-feed control switch 3 operated and the plunger extended, lever 1 should not touch the bed-plate.

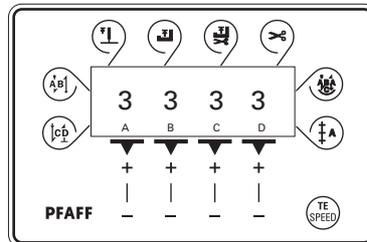


- Adjust lever 1 (screw 2) according to the requirement.

## 13.11 Parameter settings

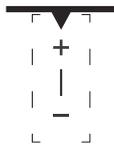
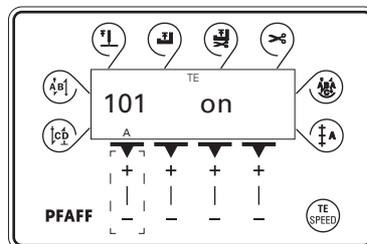
### 13.11.01 Selecting the user level

- Switch on the machine.

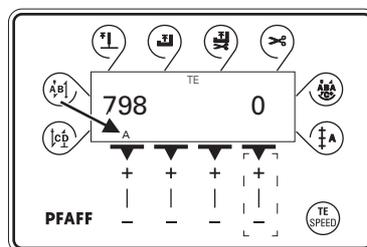


2 x 

- Press the TE/Speed key twice to call up the input mode.



- By pressing the corresponding +/- key select the parameter group "798".



- By pressing the corresponding +/- key select the desired user level:

- "0" = operator level A
- "1" = technician level B
- "11" = service level C

The selected user level is displayed on the screen. (see arrow)



## 13.11.03 Liste der Parameter

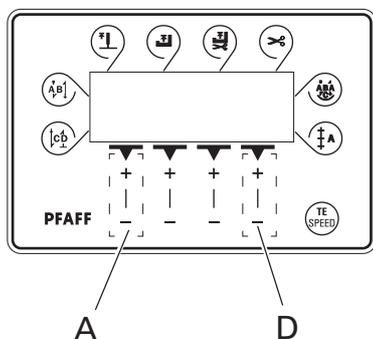
Gruppe	Parameter	Bedeutung	Nutzer-ebene	Einstellbereich	Einstellwert
1	101	Control panel beep tone	A, B, C		on
6	605	Speed display	B, C		off
	607	Speed max.	B, C	300 - 6000	4000
	609	Cutting speed	B, C	60 - 500	180
	660	Bobbin thread control 0 = off 1 = thread monitor 2 = reverse counter	A,B,C	0 - 2	0
7	700	Needle position 0 (needle reference position)	B,C	0 – 255	
	702	Needle position 1 (needle lowered)	B,C	0 – 255	90
	703	Needle position 2 (take-up lever raised)	B, C	0 - 255	236
	705	Needle position 5 (end of cutting signal 1)	B, C	0 - 255	200
	706	Needle position 6 (start of cutting signal 2)	B, C	0 - 255	136
	707	Needle position 9 (start thread tension release)	B,C	0 - 255	164
	797	Hardwaretest	B, C		off
	798	User level 0 = User level 1 = Technician level 11 = Service level	A,B,C	0,1,11	0
	799	Selected machine class	C	1 - 3	1
8	800	Rotating direction of the motor	C	0 - 1	0



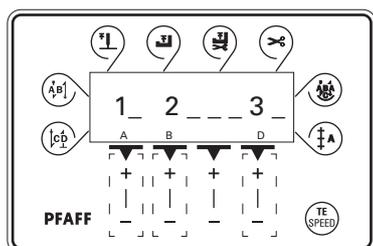
Further parameters are listed in the **Motor Instruction Manual**.

## 13.11.04 Reset / Cold start

After selecting the reset menu, by pressing the corresponding key it is possible to delete seam parameters, delete seam programs and to carry out a cold start.



- Press and hold "+" on keys **A** and **D** and switch on the machine, see **Chapter 7.01 Main switch**.



**A** Resetting the seam parameters

- Press "+" on key "A".  
All parameters are deleted, the display "—rE—" appears for a short time on the screen.



**B** Resetting the seam programs

- Press "+" on key "B".  
All seam programs are deleted, the display "—rE—nA" appears for a short time on the screen.



**D** Cold start

- Press "+" on key "D".  
With the exception of the value for the machine class, the values of the machine control unit are set back to their basic values, the display "—COLd—" appears for a short time on the screen.



After the cold start all programmed values are set back to their status at the time of delivery. For this reason after a cold start it is necessary to re-enter first the parameter "799" and then the parameter "700".

## 13.12 Internet update of the machine software

The machine software can be updated with PFAFF flash programming. For this purpose the PFP boot program and the appropriate control software for the machine type must be installed on a PC. To transfer the data to the machine, the PC and the machine control unit must be connected with an appropriate null modem cable (part no. 91-291 998-91).



The PFP boot program and the control software of the machine type can be downloaded from the PFAFF-homepage using the following path:

[www.pfaff-industrial.com/de/service/download/steuerungssoftware.html](http://www.pfaff-industrial.com/de/service/download/steuerungssoftware.html)

To update the machine software carry out the following steps:



While the machine software is being updated, no setting up, maintenance or adjustment work may be carried out on the machine!

- Switch off the machine.
- Connect the PC (serial interface or appropriate USB-adapter) and the machine control unit (RS232).
- Switch on the PC and start the PFP boot program.
- Select the machine type.
- Press the "programming" button.
- An extra program (quick loader) is started.
- Switch on the machine within 60 seconds.
- The software update is carried out, the update progress is shown on the bar display.
- When the update has been completed, the message "**software update successfully completed**" appears.



If this message does not appear, the entire procedure must be repeated!  
The machine is not safe for operation until the programming has been completed successfully and without faults.

- Switch off the machine and end the quick loader and PFP boot program.
- End the connection between the PC and the machine control unit.
- Switch on the machine.
- A plausibility control is carried out and, if necessary, a cold start.



More information and assistance is at your disposal in the file "PFPHILFE.TXT", which can be called up from the PFP boot program by pressing the "help" button.

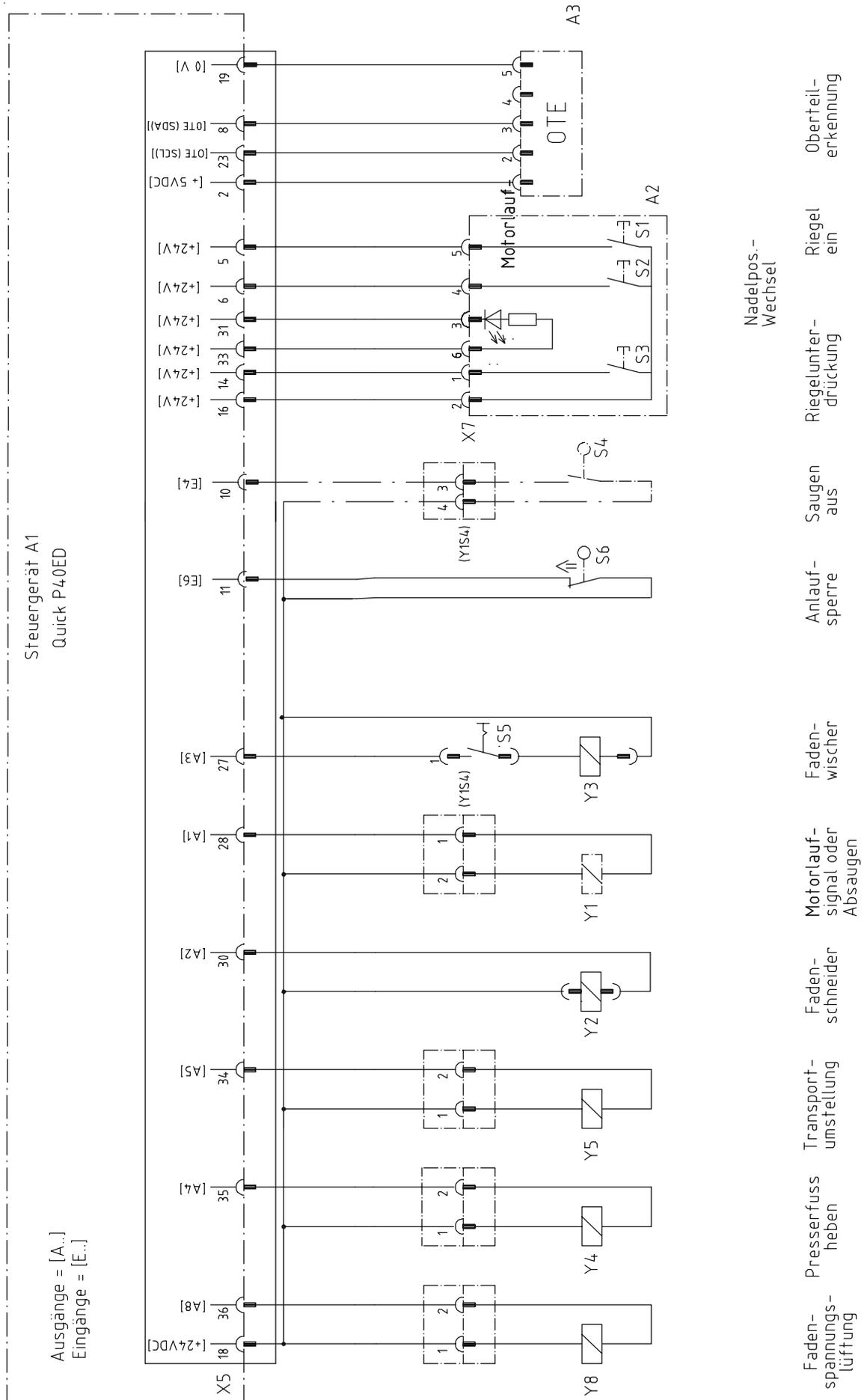
## 13.13 Explanation of the error signals

Signal	Description
E001	Pedal not in neutral position
E009	Start inhibitor during standstill
E010	Incorrect machine class
E062	Short circuit 24V
E063	Overload mains supply circuit
E064	Network monitoring
E065	Extint low in operation
E066	Short circuit
E067	Network off
E068	Extint low in operation
E069	No increments
E070	Motor blocking
E071	No incremental connector
E074	External transmitter for synchronisation marker missing
E088	RAM defective
E092	Start inhibitor when motor running
E173	Start error

**14      Circuit diagrams****Circuit diagram reference list**

A1	Controller Quick P40 ED
A2	Keyboard on machine head
A3	Sewing head recognition system
A4	Control panel S1
H1	Sewing lamp
M1	Sewing motor
Q1	Main switch
S1	Pedal speed control unit
A2/S1	Bartack key on
A2/S2	Needle position change key
A2/S3	Bartack suppression key
S4	Suction OFF key
S6	Start inhibitor key
X1	Motor
X2	Increment transmitter
X3	Speed control unit
X4	Control panel S1
X5	Outputs-inputs
X6	Photoelectric barrier (optional)
X7	Bobbin thread monitor (optional)
Y1	Motor running signal or suction
Y2	-900/.. Thread trimmer
Y3	-909/.. Thread wiper
Y4	-910/.. Automatic presser foot lift
Y5	-911/.. Backtacking mechanism
Y8	Thread tension release





# PFAFF

## PFAFF Industrie Maschinen AG

Postfach 3020  
D-67653 Kaiserslautern

Königstr. 154  
D-67655 Kaiserslautern

Telefon: (0631) 200-0  
Telefax: (0631) 17202  
E-Mail: [info@pfaff-industrial.com](mailto:info@pfaff-industrial.com)