

# PFAFF

On the operator control panel   
the following should be on.   
First backtack   
Second backtack   
Foot lift after trim   
Thread trimmer   
Photocell

## 9083-2/99

### Instruction Manual

When connecting the brown wire which goes to the solenoid for   
turning air on the machine, connect the wire to the outside fuse   
clamp between the outside fuse and the switch.

This instruction manual applies to machines from the  
following serial numbers onwards:

# 2232224 →



This Instruction Manual is valid for all models and subclasses listed in the chapter "**Specifications**".

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## **1 Safety**

### **1.01 Directives**

This machine is constructed in accordance with the European regulations contained in the conformity and manufacturer's declarations.

In addition to this Instruction Manual, also observe all generally accepted, statutory and other regulations and legal requirements and all valid environmental protection regulations!

The regionally valid regulations of the social insurance society for occupational accidents or other supervisory organizations are to be strictly adhered to!

### **1.02 General notes on safety**

- This machine may only be operated by adequately trained operators and only after having completely read and understood the Instruction Manual!
- All Notes on Safety and Instruction Manuals of the motor manufacturer are to be read before operating the machine!
- The danger and safety instructions on the machine itself are to be followed!
- This machine may only be used for the purpose for which it is intended and may not be operated without its safety devices. All safety regulations relevant to its operation are to be adhered to.
- When exchanging sewing tools (e.g. needle, roller presser, needle plate and bobbin), when threading the machine, when leaving the machine unattended and during maintenance work, the machine is to be separated from the power supply by switching off the On/Off switch or by removing the plug from the mains!
- Everyday maintenance work is only to be carried out by appropriately trained personnel!
- Repairs and special maintenance work may only be carried out by qualified service staff or appropriately trained personnel!
- Work on electrical equipment may only be carried out by appropriately trained personnel!
- Work is not permitted on parts and equipment which are connected to the power supply! The only exceptions to this rule are found in the regulations EN 50110.
- Modifications and alterations to the machine may only be carried out under observance of all the relevant safety regulations!

- Only spare parts which have been approved by us are to be used for repairs! We expressly point out that any replacement parts or accessories which are not supplied by us have not been tested and approved by us. The installation and/or use of any such products can lead to negative changes in the structural characteristics of the machine. We are not liable for any damage which may be caused by non-original parts.

## 1.03

### Safety symbols



Danger!  
Points to be observed.



Danger of injury for operating and specialist personnel!



### Caution

Do not operate without finger guard and safety devices. Before threading, changing bobbin and needle, cleaning etc. switch off main switch.

## 1.04

### Important points for the user

- This Instruction Manual is an integral part of the machine and must be available to the operating personnel at all times.
- The Instruction Manual must be read before operating the machine for the first time.
- The operating and specialist personnel is to be instructed as to the safety equipment of the machine and regarding safe work methods.
- It is the duty of the user to only operate the machine in perfect running order.
- It is the obligation of the user to ensure that none of the safety mechanisms are removed or deactivated.
- It is the obligation of the user to ensure that only authorized persons operate and work on the machine.

Further information can be obtained from your PFAFF agent.

## 1.05 Operating and specialist personnel

### 1.05.01 Operating personnel

Operating personnel are persons responsible for the equipping, operating and cleaning of the machine as well as for taking care of problems arising in the sewing area.

The operating personnel is required to observe the following points and must:

- always observe the Notes on Safety in the Instruction Manual!
- never use any working methods which could adversely affect the safety of the machine!
- not wear loose-fitting clothing or jewelry such as chains or rings!
- also ensure that only authorized persons have access to the potentially dangerous area around the machine!
- always immediately report to the person responsible any changes in the machine which may limit its safety!

### 1.05.02 Specialist personnel

Specialist personnel are persons with a specialist education in the fields of electrics, electronics and mechanics. They are responsible for the lubrication, maintenance, repair and adjustment of the machine.

The specialist personnel is obliged to observe the following points and must:

- always observe the Notes on Safety in the Instruction Manual!
- switch off the On/Off switch before carrying out adjustments or repairs, and ensure that it cannot be switched on again unintentionally!
- wait until the luminous diode on the control box is no longer blinking or on before beginning adjustment or repair work.
- never work on parts which are still connected to the power supply! Exceptions are explained in the regulations EN 50110.
- replace the protective coverings and close the electrical control box after all repairs or maintenance work!

1.06

## Danger



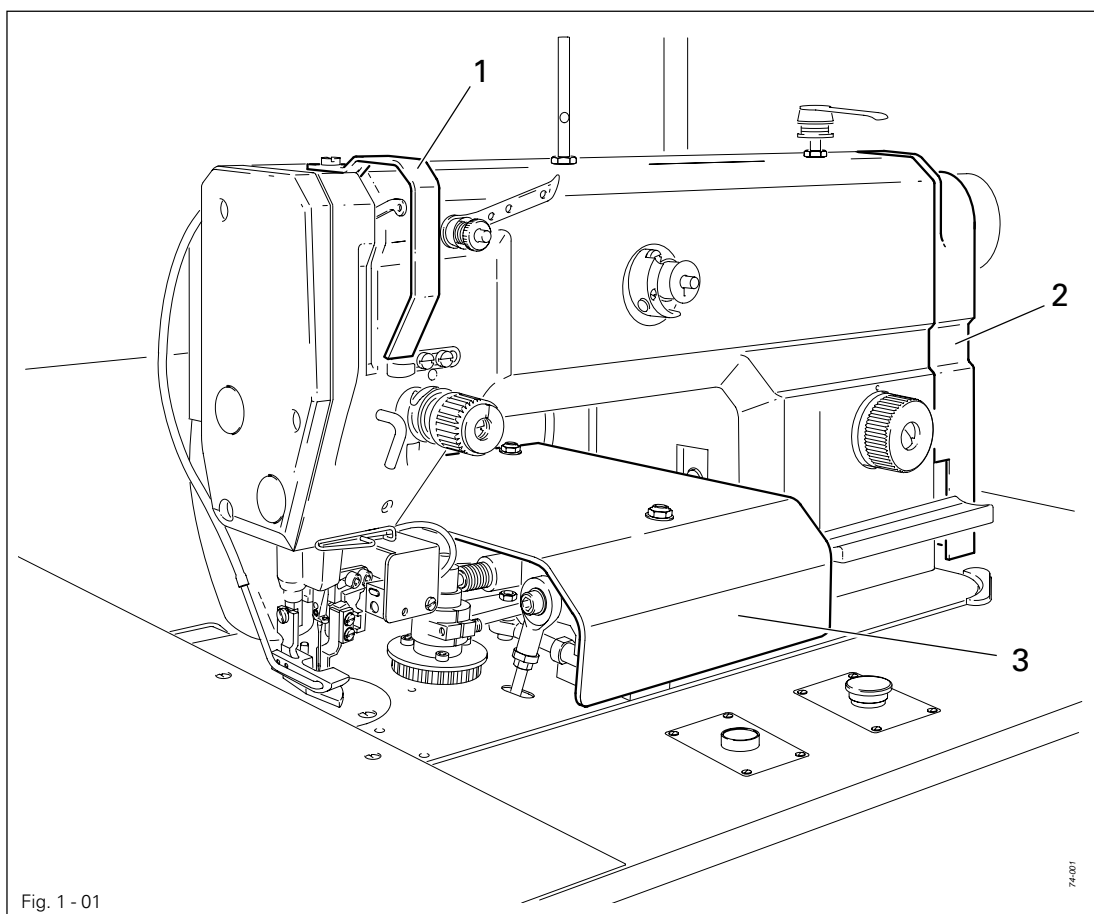
A working area of **1 meter** is to be kept free both in front of and behind the machine while it is in operation so that it is always easily accessible.



Never reach into the sewing area while sewing! Danger of injury by the needle!



Never leave objects on the table while adjusting the machine settings! Objects can become trapped or be slung away! Danger of injury!



Do not operate the machine without its take-up lever guard **1!**  
Danger of injury due to the motion of the take-up lever!



Do not operate the machine without covers **2 and 3!**  
Danger of injury from moving parts!



2      **Proper use**

The PFAFF 9083-2/99 is an ultra-high-speed, single-needle lockstitch sewing machine for stitching and turning small parts.



Any and all uses of this machine which have not been approved of by the manufacturer are considered to be inappropriate! The manufacturer cannot be held liable for any damage caused by the inappropriate use of the machine! The appropriate use of the machine includes the observance of all operational, adjustment, maintenance and repair measures required by the manufacturer!

## 3 Specifications

Stitch type: ..... 301 (lockstitch)

Needle system: ..... 134 KK

Needle size in 1/100 mm: ..... 80 - 100

Handwheel eff. dia.: ..... 65 mm

Bedplate dimensions: ..... 476 x 177 mm

Machine dimensions:

Length: ..... approx. 1250 mm

Width: ..... approx. 800 mm

Height (above table): ..... approx. 300 mm

Max. stitch length: ..... 4.5 mm

Max. speed: ..... 3500 spm ♦

Connection data:

Operating voltage: ..... 190 - 240 V 50/60 Hz, 1 phase

Max. power consumption: ..... 400 VA

Fuse protection: ..... 1 x 16 A, inert

Working noise level:

Emission level at workplace at a speed of 2000 spm<sup>-1</sup>: .....  $L_{pA} < 78$  dB(A) ■

(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)

Net weight: ..... approx. 105 kg

Gross weight: ..... approx. 176 kg

▲ Subject to alternation

♦ Dependent on material, work operation and stitch length

■  $K_{pA} = 2,5$  dB

### 4 Disposal of machine

- The proper disposal of the machine is the responsibility of the customer.
- The materials used in the machines are steel, aluminium, brass and various plastics. The electrical equipment consists of plastics and copper.
- The machine is to be disposed of in accordance with the locally valid environmental protection regulations. If necessary, a specialist is to be commissioned.



Special care is to be taken that parts soiled with lubricants are separately disposed of in accordance with the locally valid pollution control regulations!

### 5 Transport, packaging and storage

#### 5.01 Transport to the customer's premises

Within Germany, machines with a table are delivered without packaging. Machines without a table (sewing head only) and machines which are to be exported are packaged.

#### 5.02 Transport within the customer's premises

The manufacturer bears no liability for transport within the customer's premises or to the individual locations of use. Make sure that the machines are always transported upright.

#### 5.03 Disposal of the packaging

The packaging of these machines consists of paper, cardboard and VCE fiber. The proper disposal of the packaging is the responsibility of the customer.

#### 5.04 Storage

The machine can be stored for up to 6 months if not in use. During this time it should be protected from dust and moisture.

For longer storage the individual parts of the machine, especially the moving parts, must be protected from corrosion, e.g. by a film of oil.

### 6 Explanation of the symbols

In the following section of this Instruction Manual, certain tasks or important pieces of information are accentuated by symbols.

The symbols used have the following meanings:



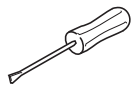
Note, information



Cleaning, care



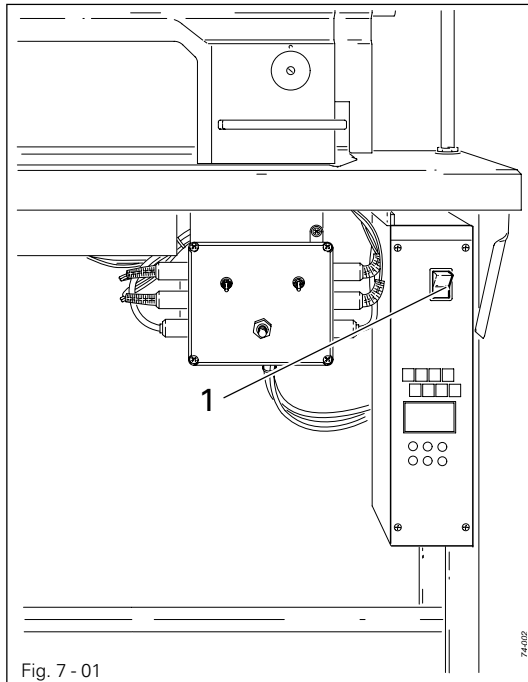
Lubrication, greasing



Servicing, repairing, adjustment, maintenance  
(only to be carried out by specialist personnel)

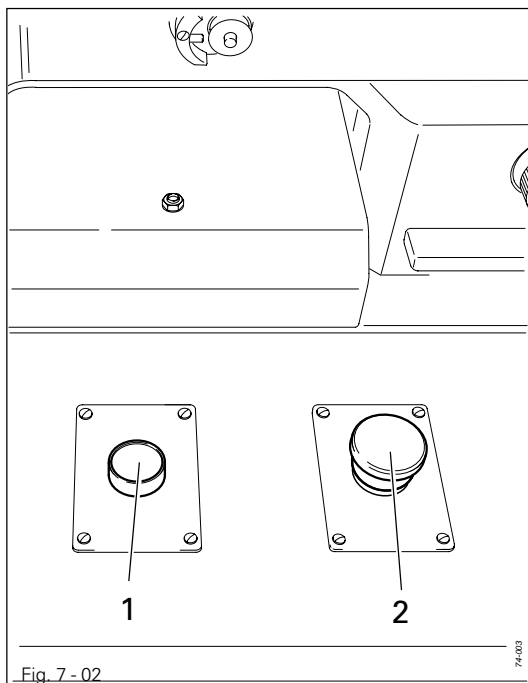
## 7 Controls

### 7.01 Main switch



- Turn the machine on/off by pressing the main switch 1.

### 7.02 Start sewing and interrupt sewing keys



- Press key 1 to start the sewing function.
- To interrupt the sewing function, press key 2. When it is pressed down, key 2 locks: To release it, it must be turned to the right.

When the thread breaks, the sewing function can be interrupted with key 2. However, do not remove the workpiece from the jig! After the thread has been repaired, the sewing function can be continued by releasing key 2 and pressing key 1.

7.03 Edge trimmer

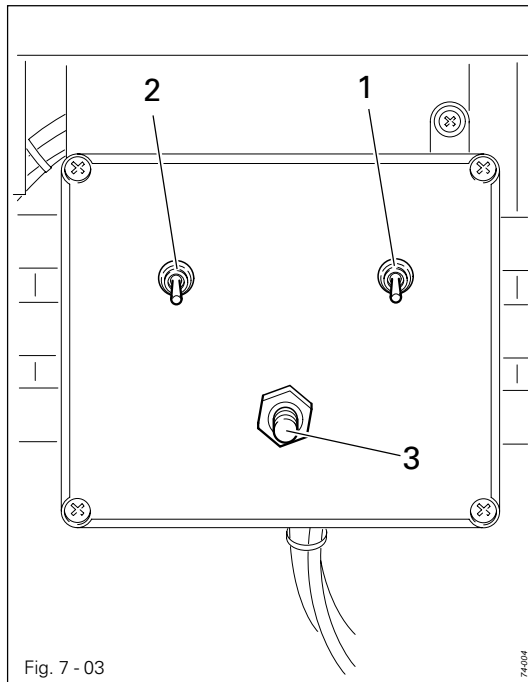


Fig. 7 - 03



Do not touch the moving knife!  
Danger of injury!

- The automatic operation of the edge trimmer is switched on or off with switch 1.
- Switch 2 is used to select the time for switching on the knife.
  - Top position: The knife is switched on immediately.
  - Bottom position: The knife is switched on with a delay. The time delay is set with potentiometer 3.

7.04 Stitch length adjustment wheel

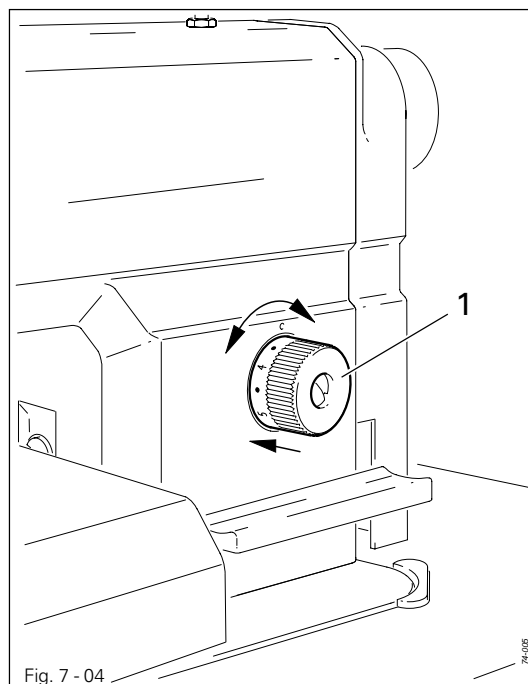
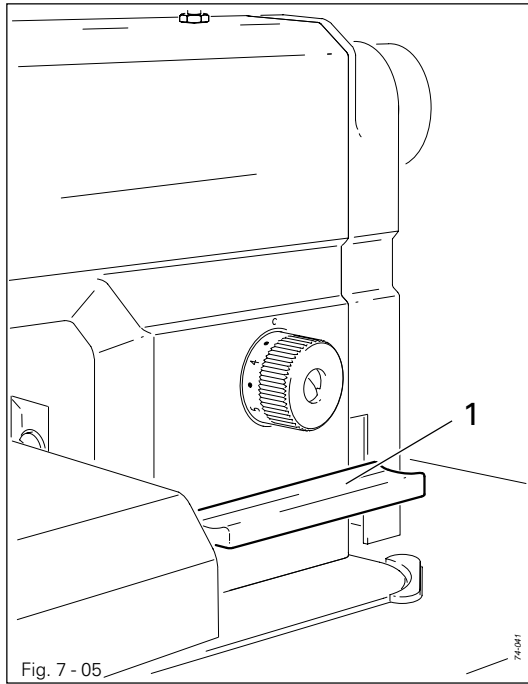


Fig. 7 - 04

- To set the required stitch length, press and simultaneously turn adjustment wheel 1.

7.05

## Stitch condensation key



- While key 1 is pressed, the stitch length is condensed to 1 mm.



## 8 Mounting and commissioning the machine



The machine must only be mounted and commissioned by qualified personnel!  
All relevant safety regulations are to be observed!

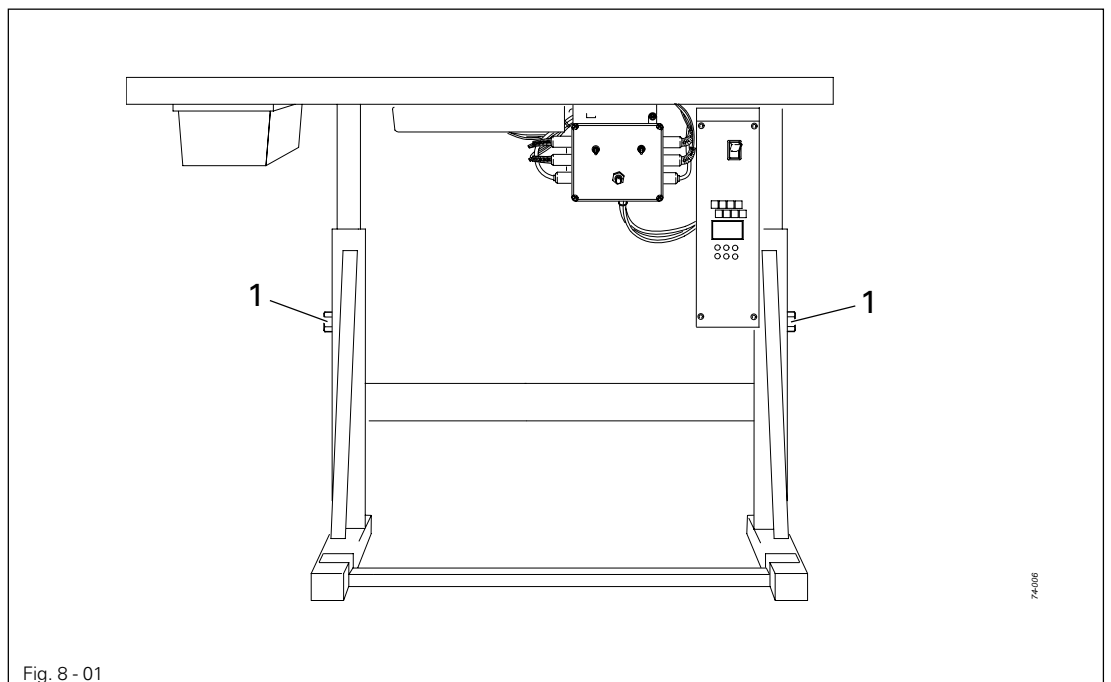
### 8.01 Mounting

The necessary electricity supply must be available at the machine's location. Also, a stable and horizontal surface as well as adequate lighting are required at the location.



Depending on the type of table, the method of packaging used may require that the table top be lowered for transport. The following is a description of how to adjust the height of the table top.

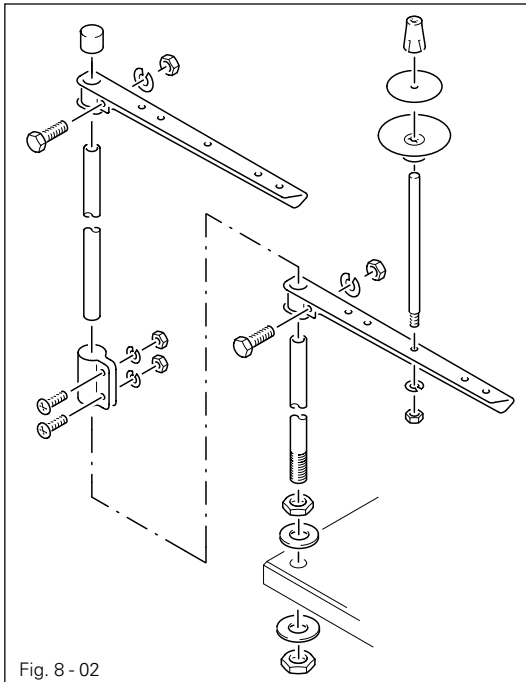
#### 8.01.01 Adjusting the table-top height



- Loosen screws 1 and set the table height as required.
- Well tighten screws 1.

# Mounting and commissioning the machine

## 8.01.02 Mounting the spool holder



- Mount the spool holder as shown in **Fig. 8-02**.
- Insert the spool holder into the hole in the table top and fasten it with the nuts enclosed.

## 8.02 Commissioning

- Examine the machine, in particular the electric cables, for any damage.
- Before commissioning the machine, clean it thoroughly, also see **Chapter 10 Care and Maintenance!**
- Connect the machine to the compressed air system. The manometer should display a pressure of **6 bar**. If necessary, set this value, see **Chapter 10.03 Checking / adjusting the air pressure**.



Have qualified personnel check whether the machine can be operated with the available voltage and whether it is connected properly. If there are any irregularities do **not** operate the machine!



The machine may only be connected to an earthed socket!

## 8.03 Switching the machine on/off

- Switch the machine on or off in accordance with **Chapter 7.01 Main switch**.

9 Preparation



All regulations and instructions in this Instruction Manual are to be observed!  
Special attention is to be paid to the safety regulations!



All preparation work is only to be carried out by appropriately trained personnel.  
Before all preparation work, the machine is to be separated from the electricity supply by removing the plug from the mains or switching off the On/Off switch!

9.01 Inserting the needle

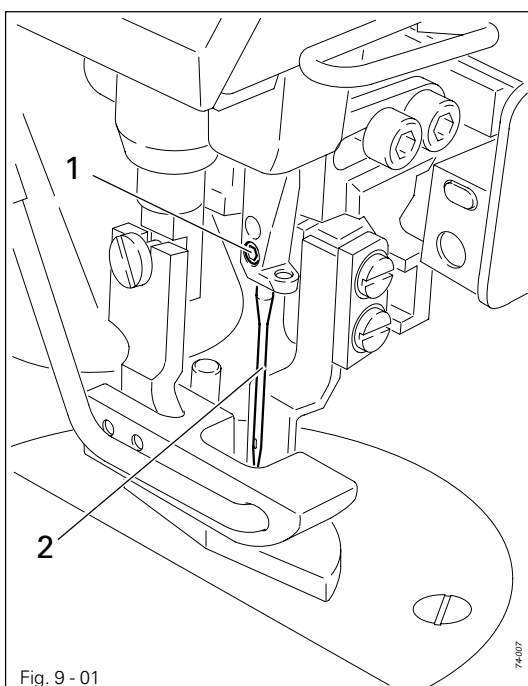


Fig. 9 - 01



Switch off the machine!  
Danger of injury due to unintentional starting of the machine!



Only use needles of system 134 KK.

- Raise needle bar.
- Loosen screw 1 and insert needle 3 until you feel it stop.
- Tighten screw 1.

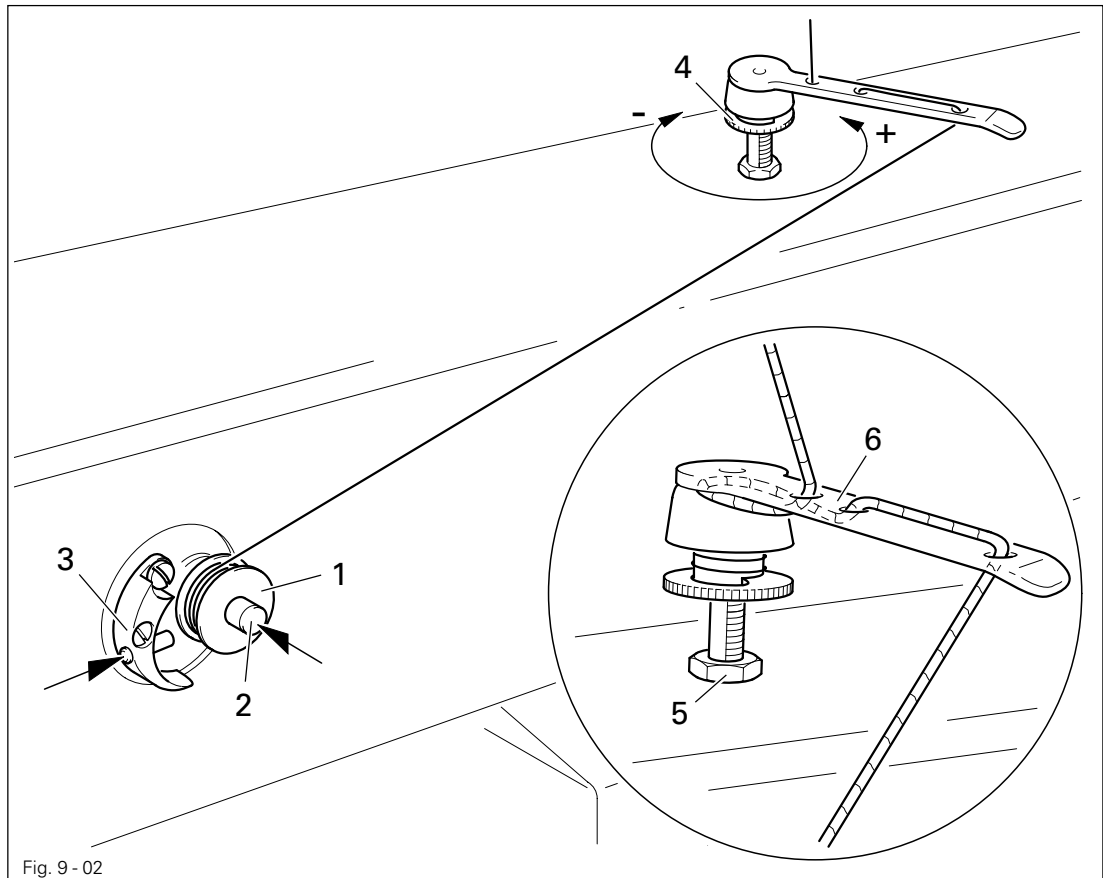


Fig. 9-02

- Place an empty bobbin 1 onto bobbin shaft 2.
- Thread the bobbin in accordance with Fig. 9-02 and wind it anti-clockwise around bobbin 1 a few times.
- Switch on the bobbin winder while at the same time pressing bobbin winder spindle 2 and lever 3.



The bobbin fills up during sewing.



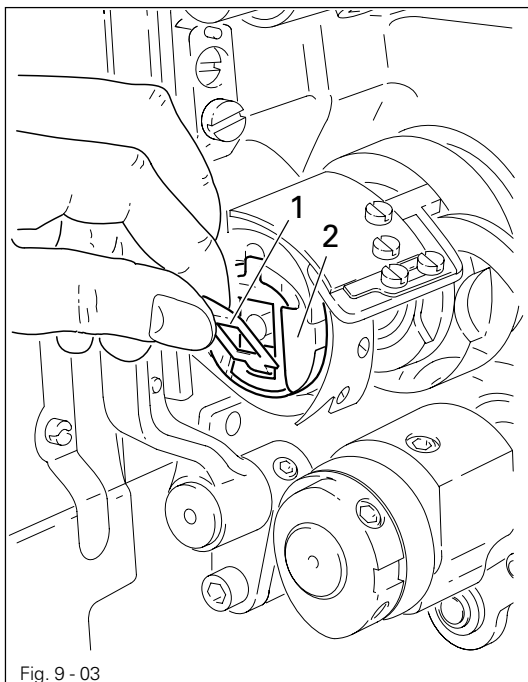
If the machine is only being used to wind the bobbin (without sewing), a bobbin case must be inserted in the hook! (Danger of damage to the hook).

- The tension of the thread on bobbin 1 can be adjusted with knurled screw 4.
- The bobbin winder stops automatically when bobbin 1 is full.

If the thread is wound unevenly:

- Loosen nut 5.
- Turn thread guide 6 accordingly.
- Tighten nut 5.

9.03 Removing/Inserting the bobbin case



Switch off the machine!  
 Danger of injury due to unintentional starting of the machine!

Removing the bobbin case:

- Tilt back the machine.
- Raise latch 1 and remove bobbin case 2.

Inserting the bobbin case:

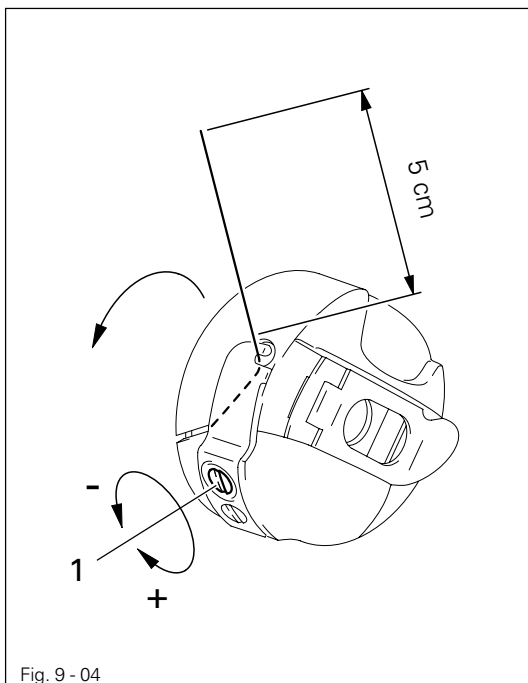
- Press bobbin case 2 until you feel it snap into the bobbin case base.

Return the machine to its upright position using **both** hands!



Danger of injury by crushing between the machine and the table top!

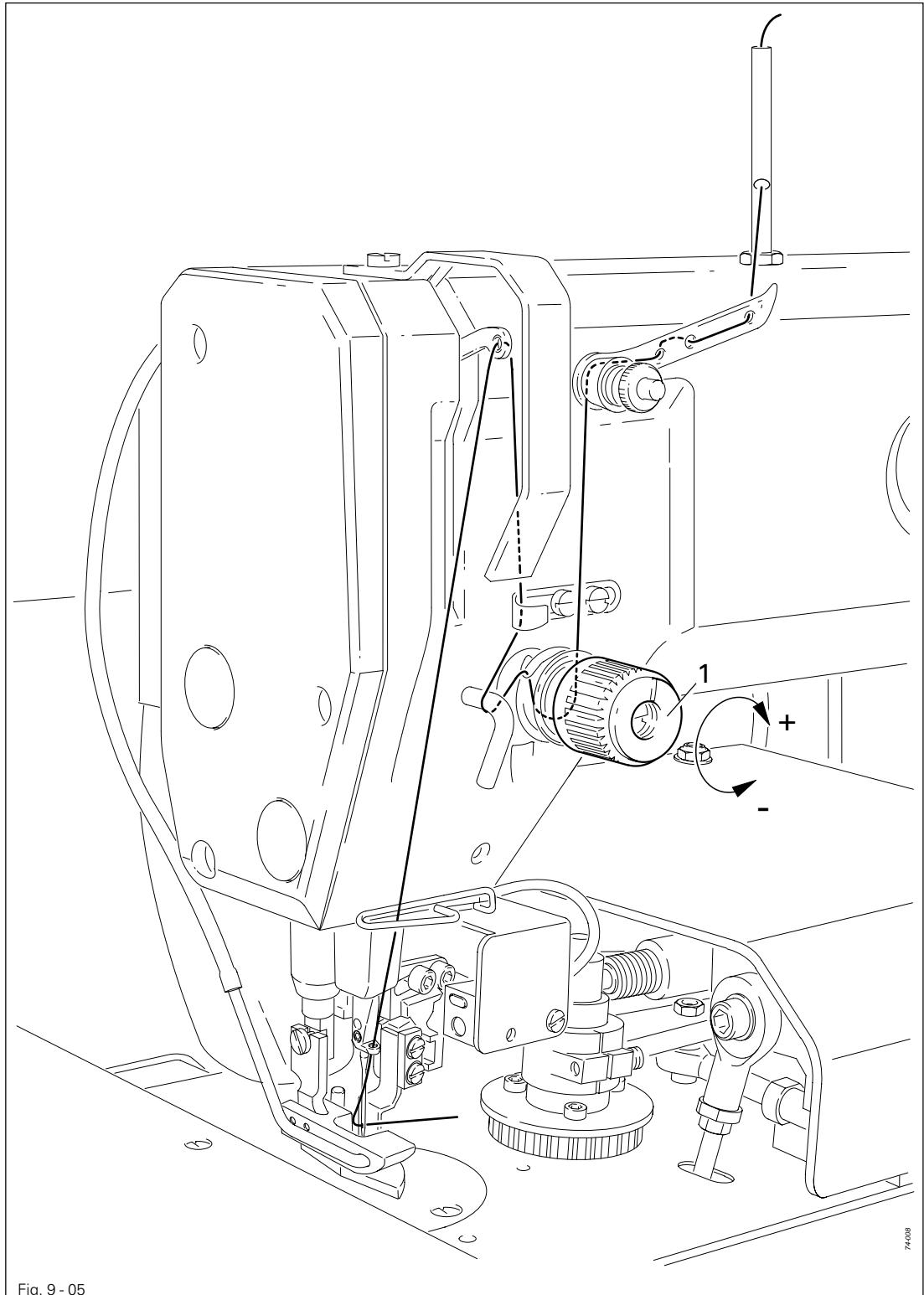
9.04 Inserting the bobbin case / Adjusting the bobbin thread tension



- Insert the bobbin into the bobbin case.
- Pass the thread through the slot under the spring according to Fig. 9-04.
- Adjust the thread tension by turning screw 1.



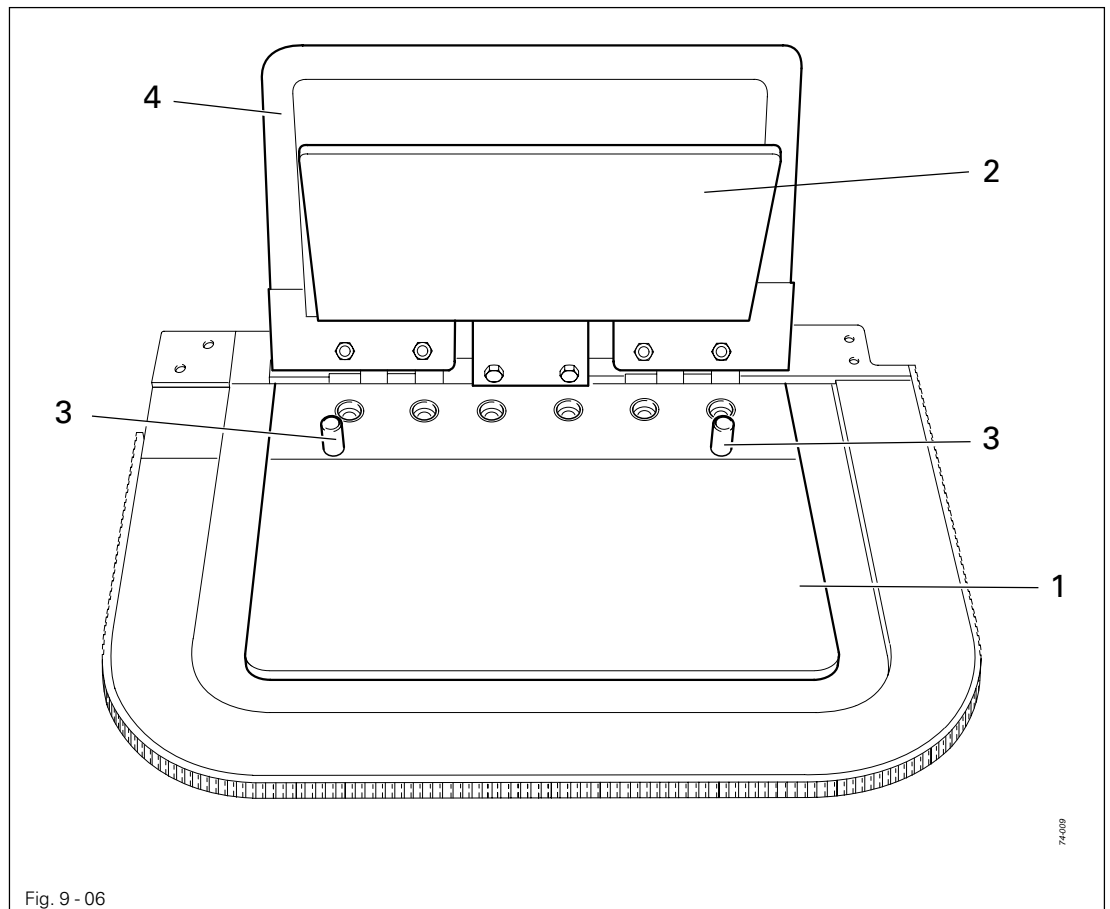
When the thread is pulled, the bobbin must rotate in the direction of the arrow.



Switch off the machine!  
Danger of injury due to unintentional starting of the machine!

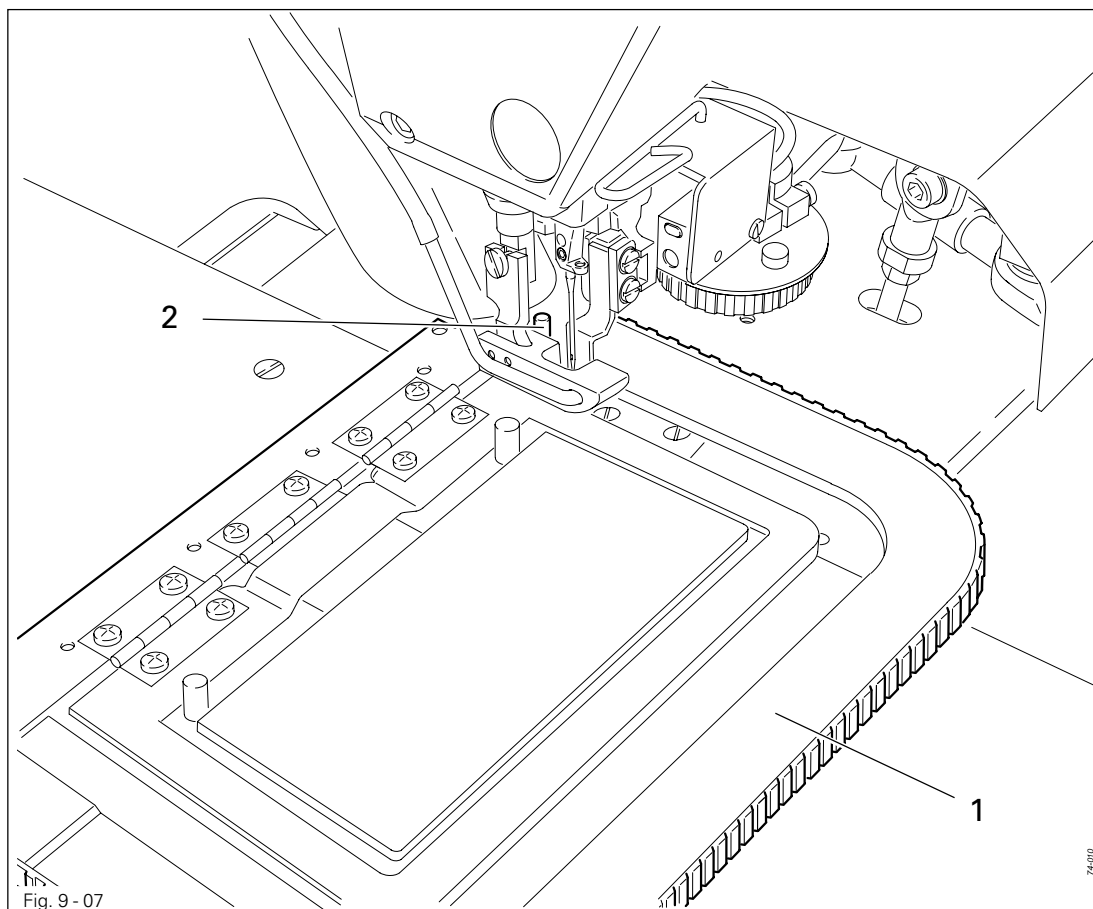
- Thread the machine as shown in **Fig. 9-05**.
- Adjust the needle thread tension by turning disk **1**.

## 9.06 Loading the sewing jig



- Insert the lining between cloth plate 1 and material clamp 2 so that it is touching guide pins 3.
- Close the material clamp 2.
- Place the preliminary cut workpiece for the fullness on material clamp 2 and close material clamp 4.

## 9.07 Inserting the sewing jig



- Move sewing jig 1 against stop 2.
- The machine is ready for operation.



10 Care and maintenance

|  |   |
|--|---|
| Cleaning .....   | daily, several times if in continuous use |
| Checking the oil level .....                               | once a year ▲                             |
| Checking / adjusting the air pressure .....                | daily, before use                         |
| Cleaning the air filter of the air filter/lubricator ..... | as required                               |



▲ These maintenance intervals are calculated for the average running time of a single shift operation. If the machine is operated more than this, shorter intervals are recommended.

10.01 Cleaning the machine

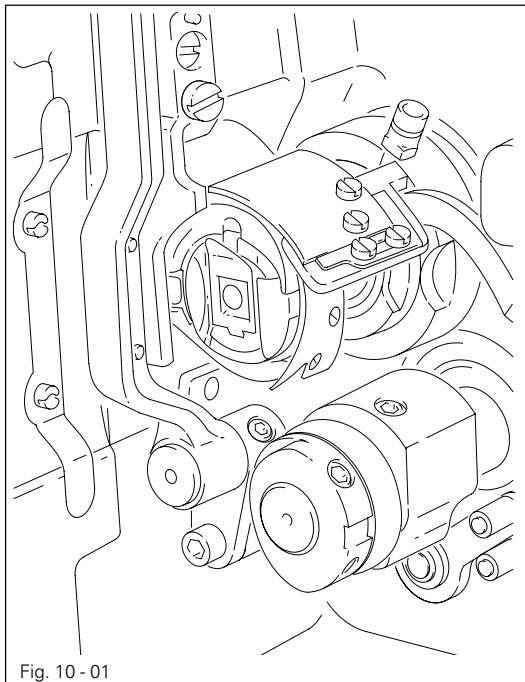


Fig. 10 - 01



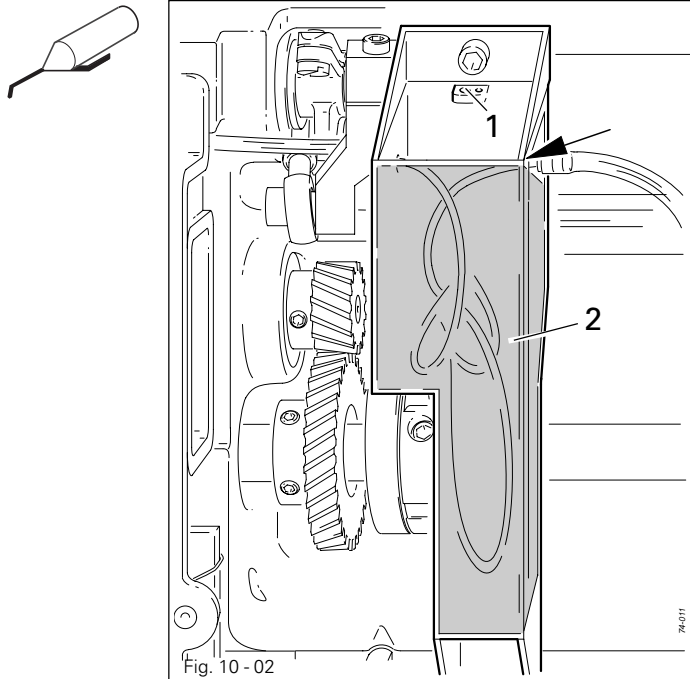
Switch off the machine!  
Danger of injury due to unintentional starting of the machine!

- Tilt back the machine.
- Clean the hook and hook compartment daily, more often if in continuous operation.



Return the machine to its upright position using **both** hands!  
Danger of injury by crushing between the edge of the machine and the table top!

### 10.02 Topping up the oil tank



The oil reservoir must always have oil in it.

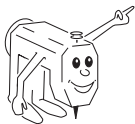
- Whenever it is necessary to refill the reservoir, tilt back the machine and let it rest on the sewing head support.
- Fill oil through hole 1 into the reservoir 2 up to the level of the front edge (see arrow).



Return the machine to its upright position using **both** hands!  
Danger of injury by crushing between the machine and the table top!



Only use oil with a mean viscosity of  $10.0 \text{ mm}^2/\text{s}$  at  $40^\circ\text{C}$  and a density of  $0.847 \text{ g/cm}^3$  at  $15^\circ\text{C}$ .



We recommend PFAFF sewing machine oil, part no. 280-1-120 105.

## 10.03 Checking/adjusting the air pressure

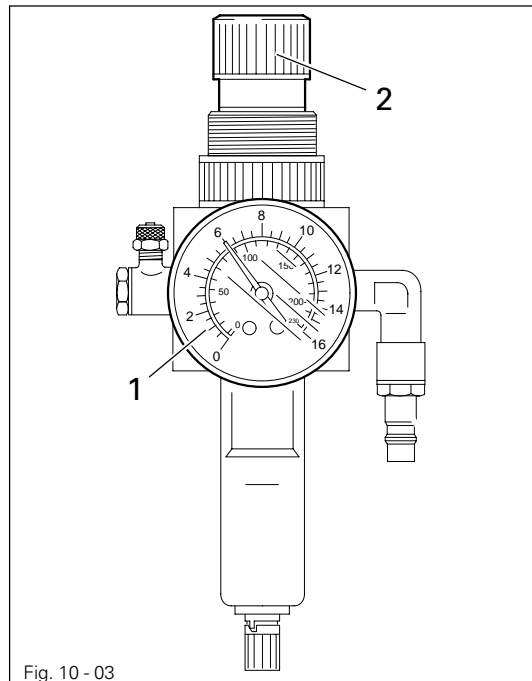


Fig. 10 - 03

- Before operating the machine, always check the air pressure on gauge 1.
- Gauge 1 must show a pressure of 6 bar.
- If necessary adjust to this reading.
- To do so, pull knob 2 upwards and turn it so that the gauge shows a pressure of 6 bar.

## 10.04 Cleaning the air filter of the air-filter/lubricator

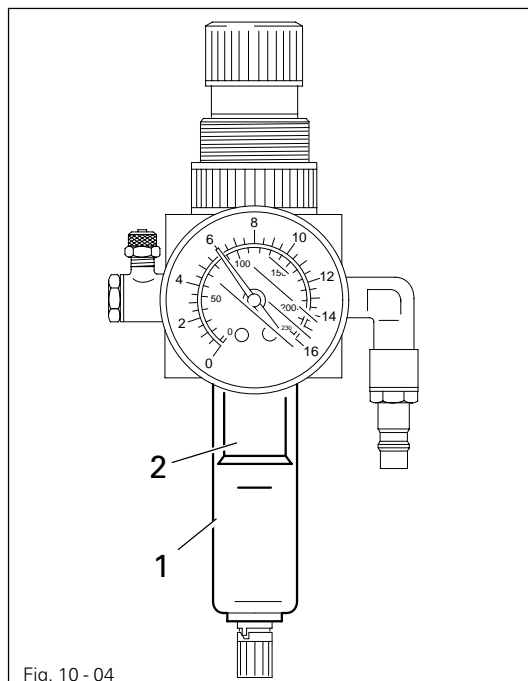


Fig. 10 - 04



Switch the machine off!  
Disconnect the air hose at the air-filter/lubricator.

To drain water bowl 1:

- Water bowl 1 drains itself automatically when the compressed-air hose is disconnected from the air-filter/lubricator.

Cleaning filter 2:

- Unscrew water bowl 1.
- Take out filter 2.
- Clean filter 2 with compressed air or isopropyl alcohol (part No. 95-665 735-91).
- Screw in filter 2 and screw on water bowl 1.

## 11 Adjustment



On the PFAFF 9083-2/99 no adjustable clamp must be fastened to the needle bar! This could cause damage to the special coating of the needle bar.

### 11.01 Notes on adjustment

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.

### 11.02 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 14 mm
- 1 set of Allan keys from 1.5 to 6 mm
- 1 metal ruler, part no. 08-880 218-00
- 1 locking pin (5 mm diameter), part no. 13-033 346-05
- 1 adjustment gauge, part no. 61-111 639-70
- Threads and test materials

### 11.03 Abbreviations

t.d.c. = top dead centre

b.d.c. = bottom dead centre

## 11.04 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

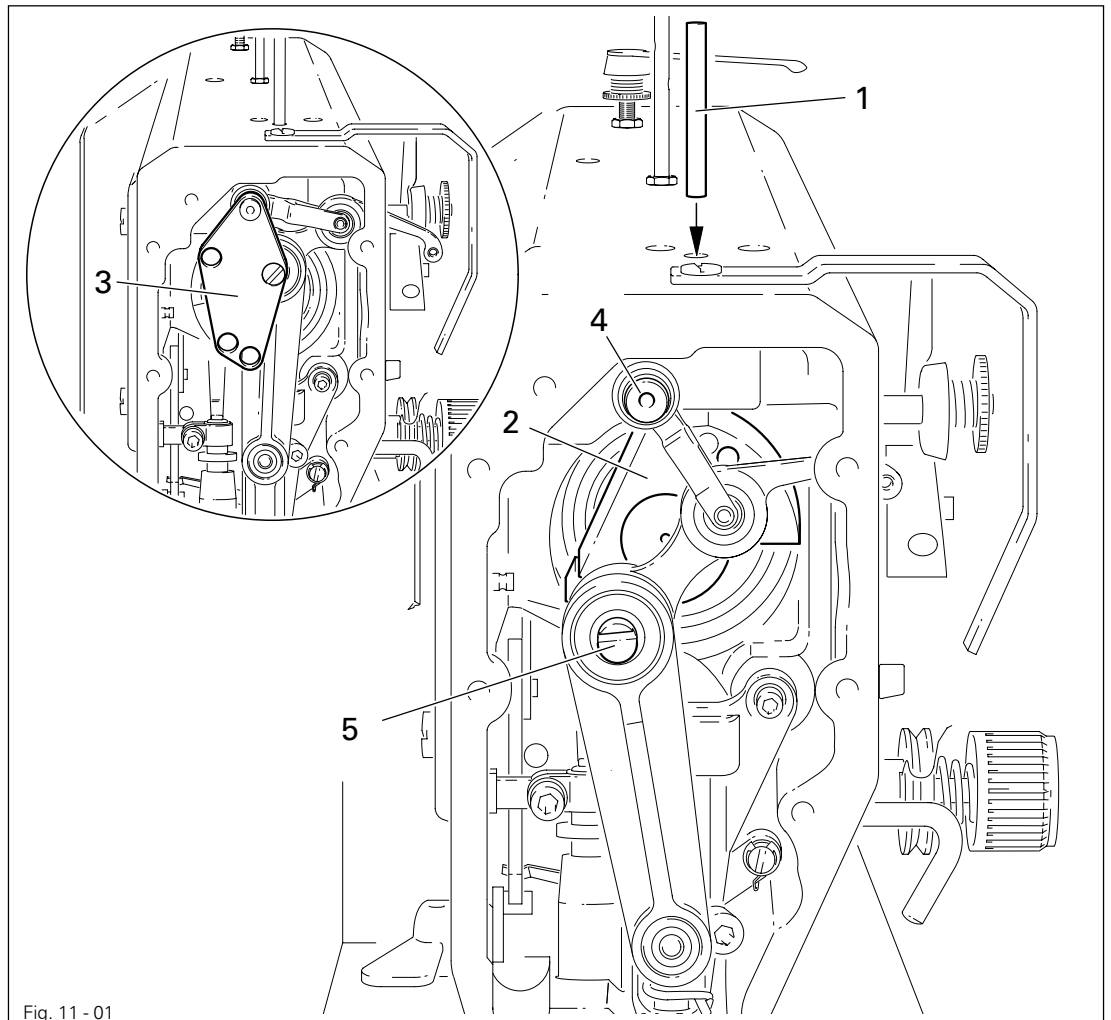
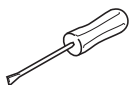


Fig. 11 - 01

**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)

## 11.05 Adjusting the basic machine

### 11.05.01 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.

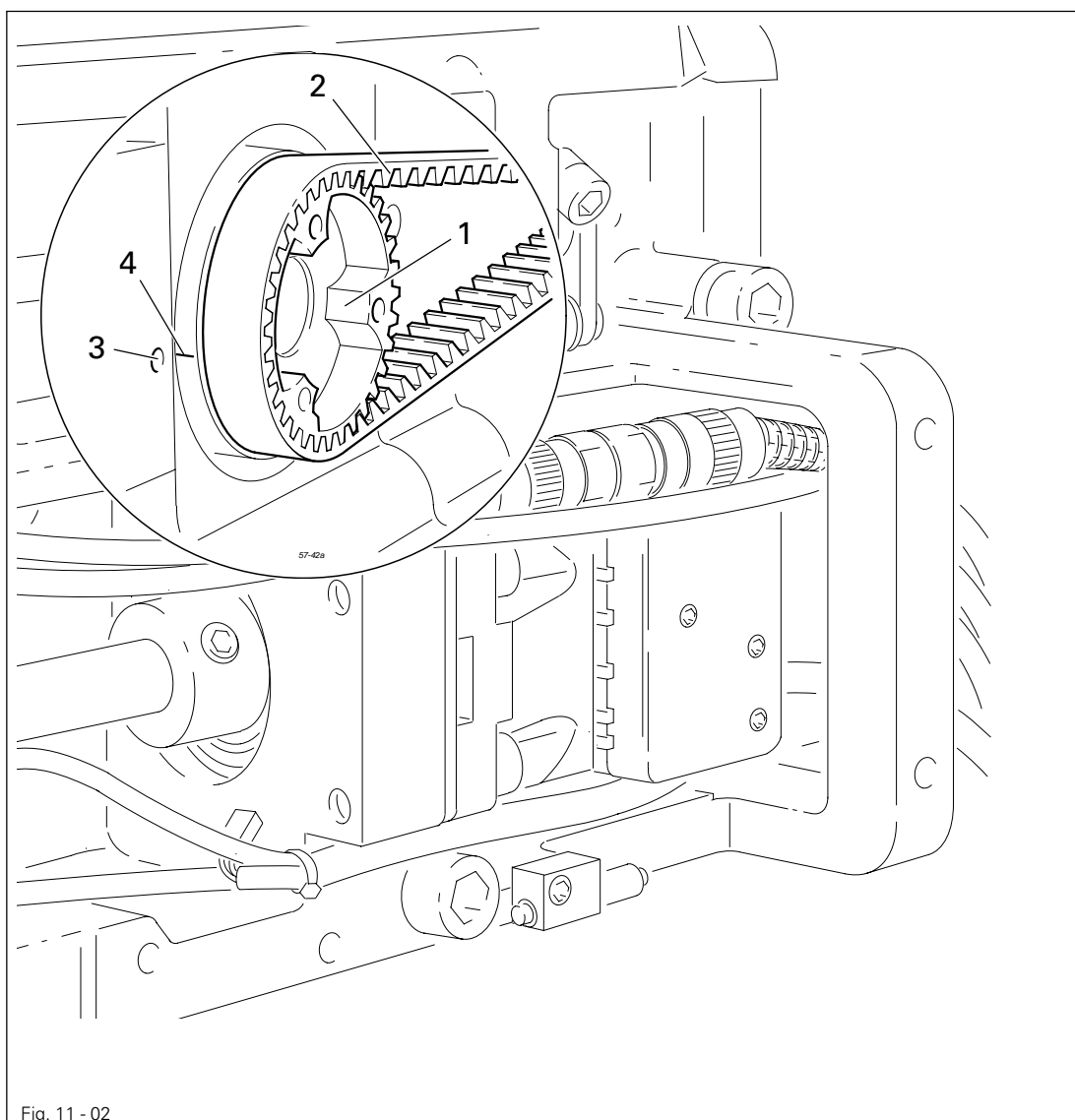
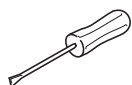


Fig. 11 - 02



- 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.

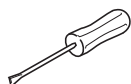
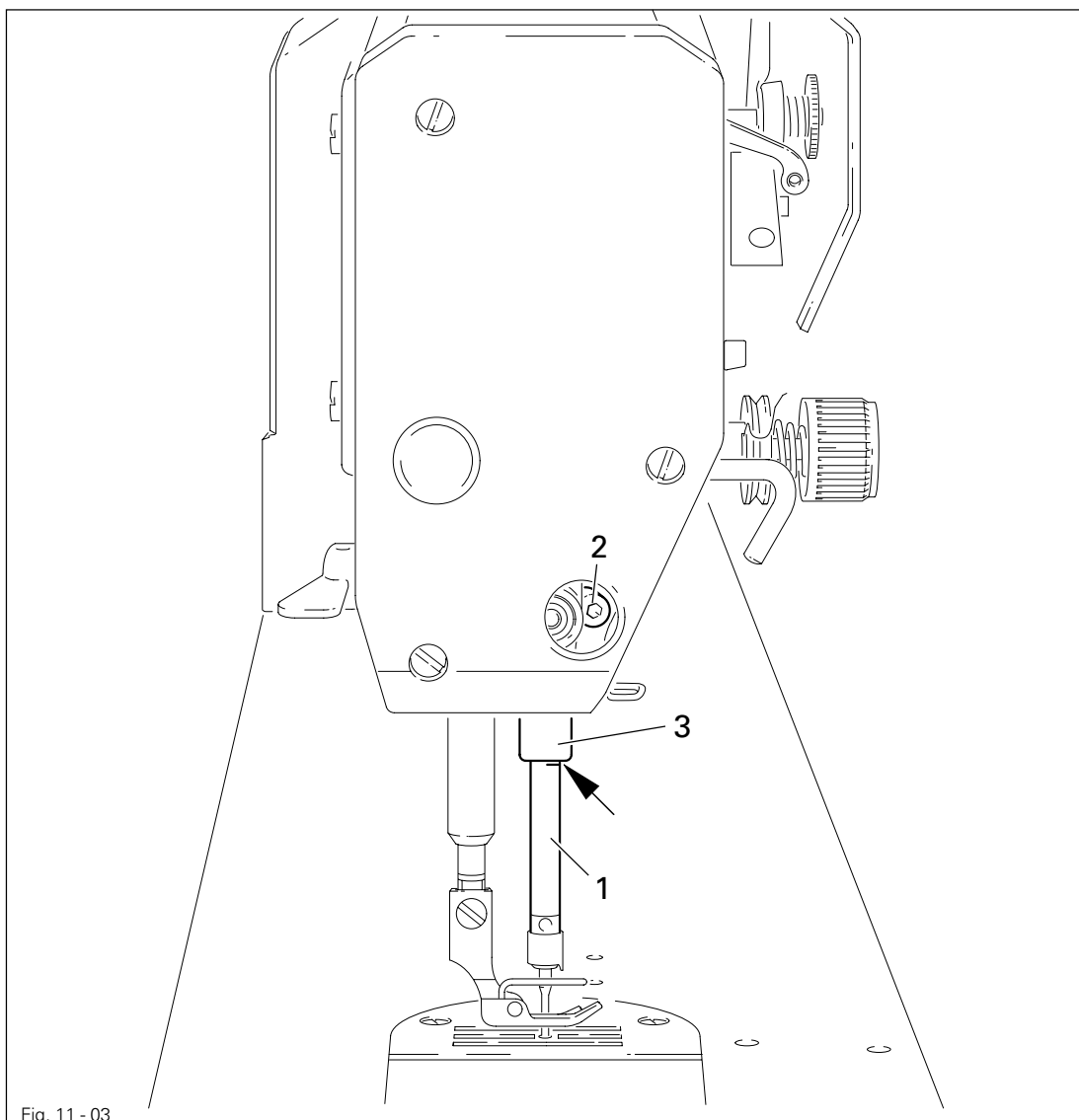


Beim Einbau des Motors auf die richtige Lage von Wellenflansch, Ruckdämpfer und Motorflansch achten!

## 11.05.02 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 11.04 Checking and adjusting aids**.
- Move needle bar **1** (screw **2**), without turning it, according to the requirement.

## 11.05.03 Setting the feed dog at its neutral position

### Requirement

With the stitch length set at "0, cranks 1 and 3 should be in alignment, and there should be no feeding motion of the feed dog when the balance wheel is turned.

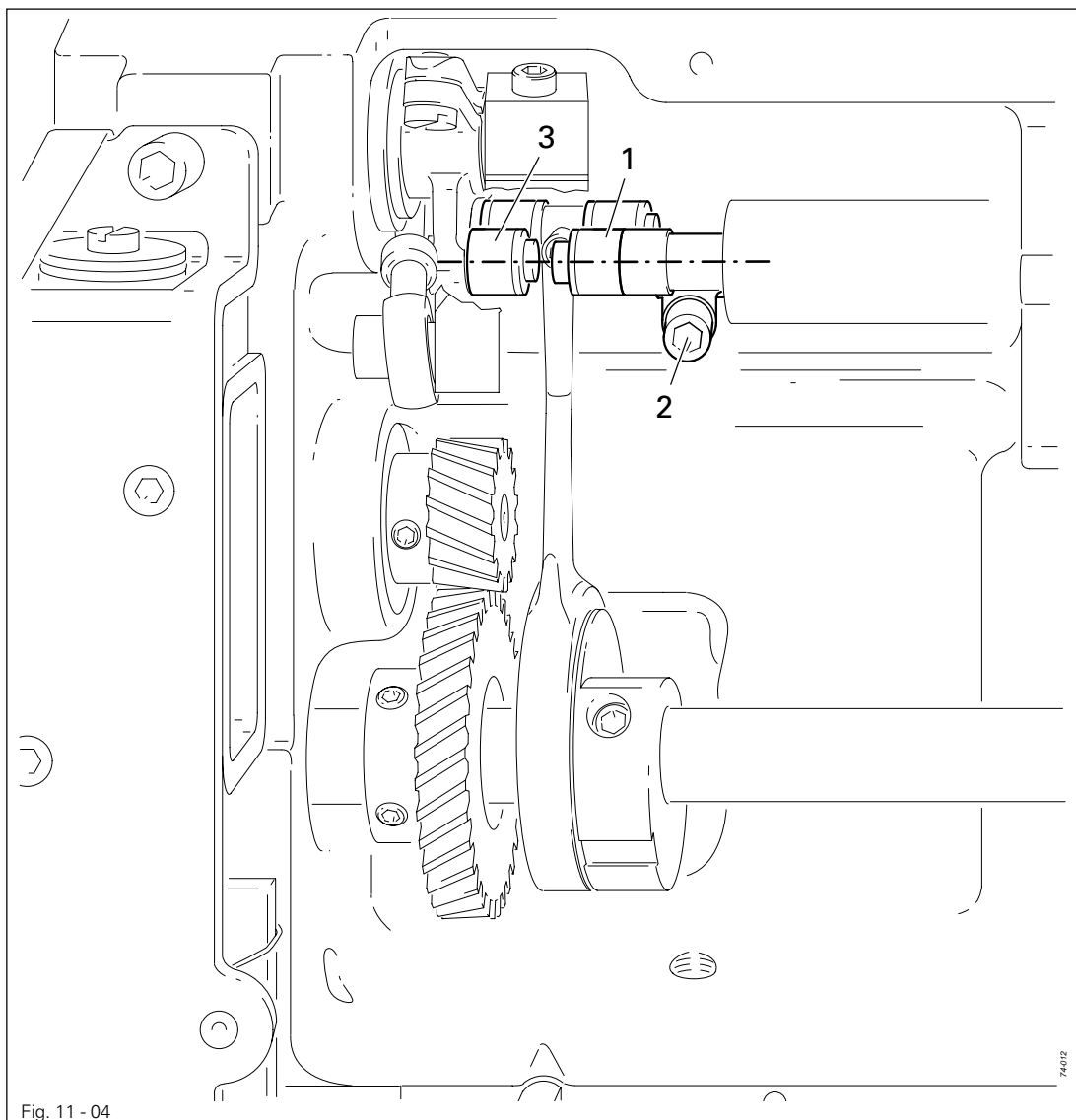
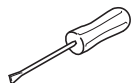


Fig. 11 - 04



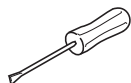
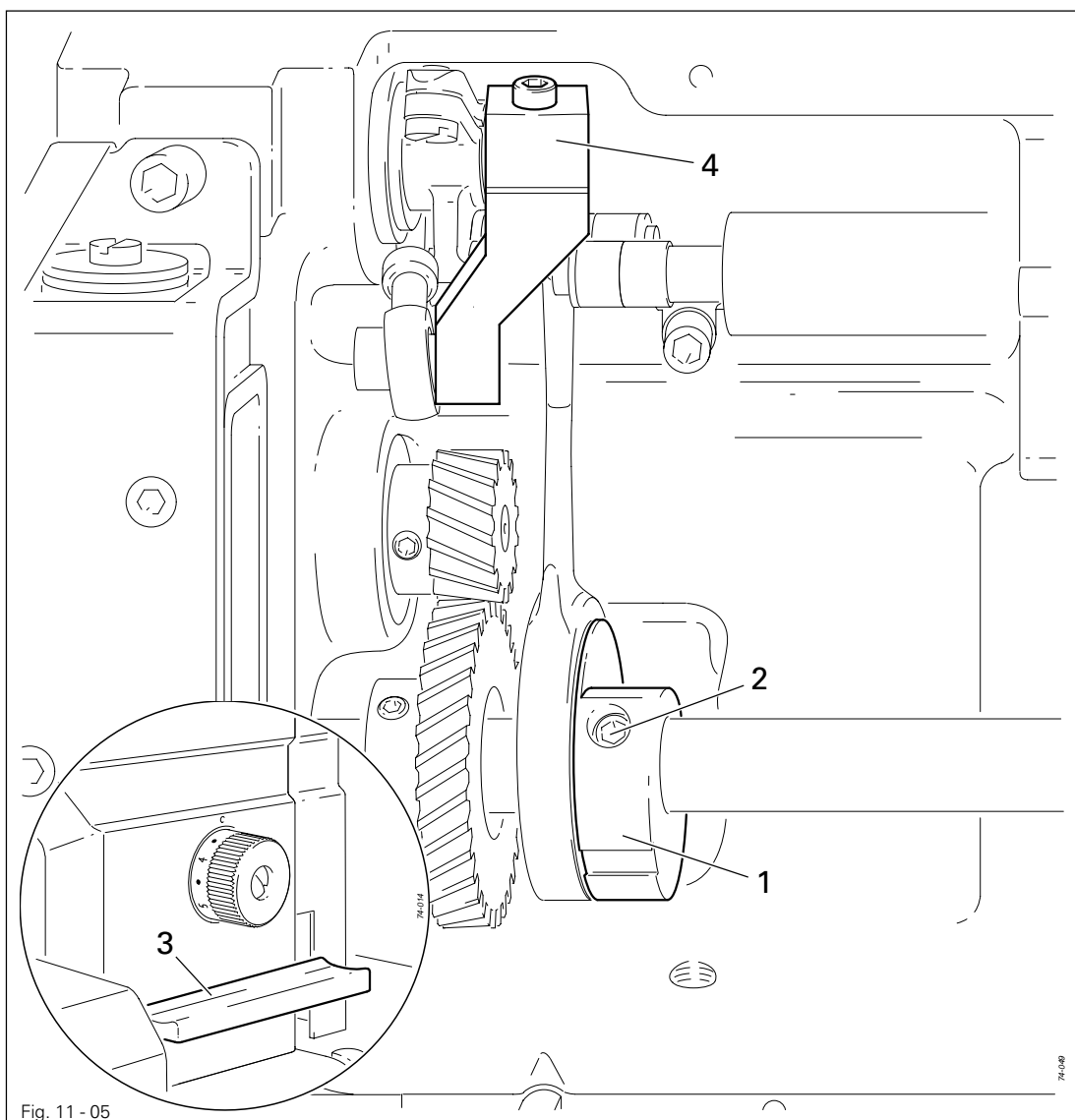
- Cancel the stitch condensation limit, see **Chapter 11.05.13 Stitch condensation**.
- Raise the presser foot and set the stitch length at "0".
- Adjust crank 1 (screw 2) in accordance with the **requirement**.
- Set the stitch condensation limit as described in **Chapter 11.05.13 Stitch condensation**.



## 11.05.04 Feeding motion of the feed dog

### Requirement

When the needle bar is positioned at **0.6 after t.d.c.**, and with the longest stitch length set, lever **4** should not move, when the stitch condensation key **3** is operated.



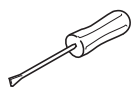
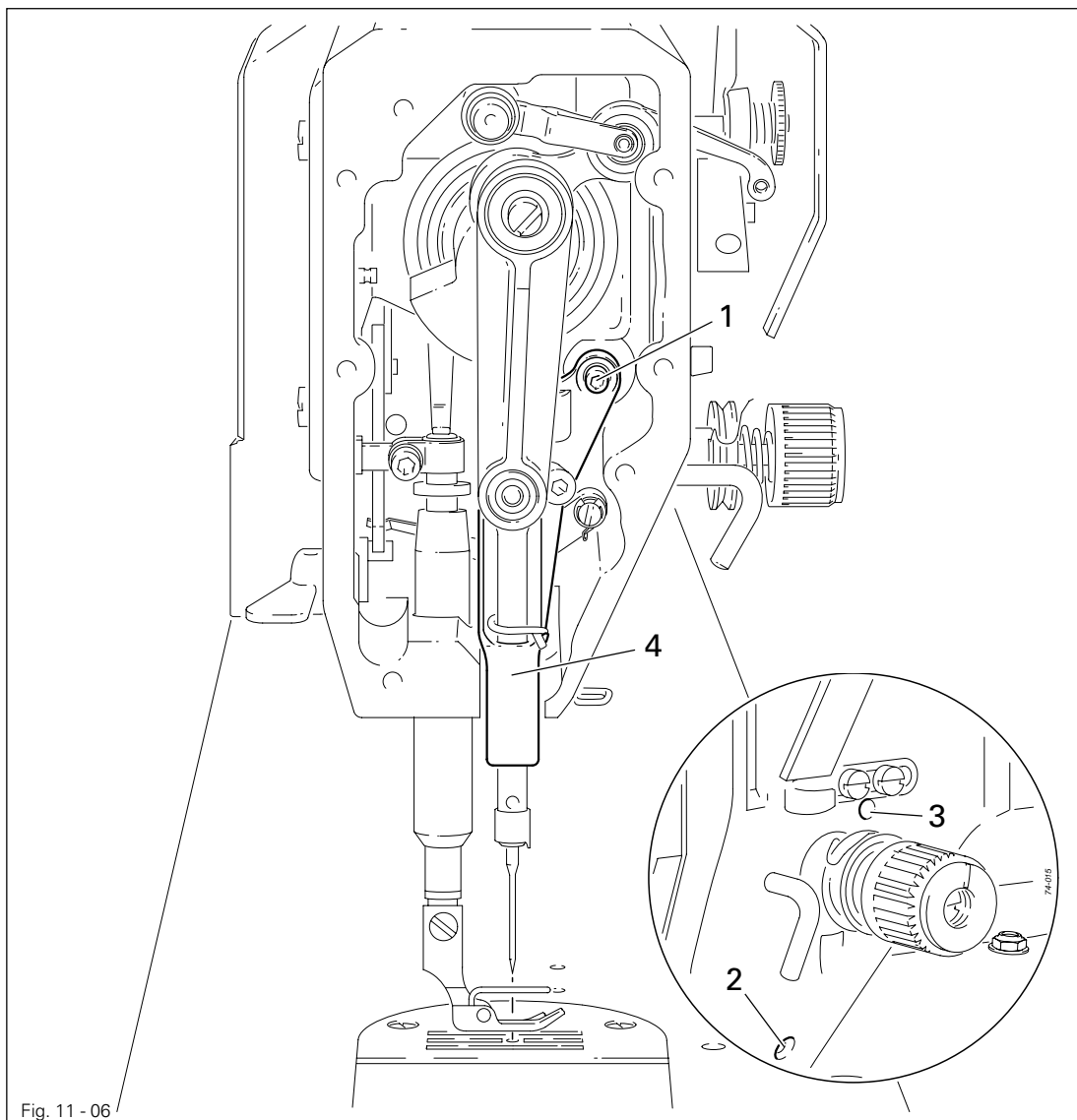
- Without moving it sideways, adjust eccentric **1** (slightly loosen screws **2**) in accordance with the **requirement**.

# Adjustment

## 11.05.05 Needle in needle hole center

### Requirement

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

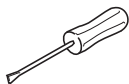
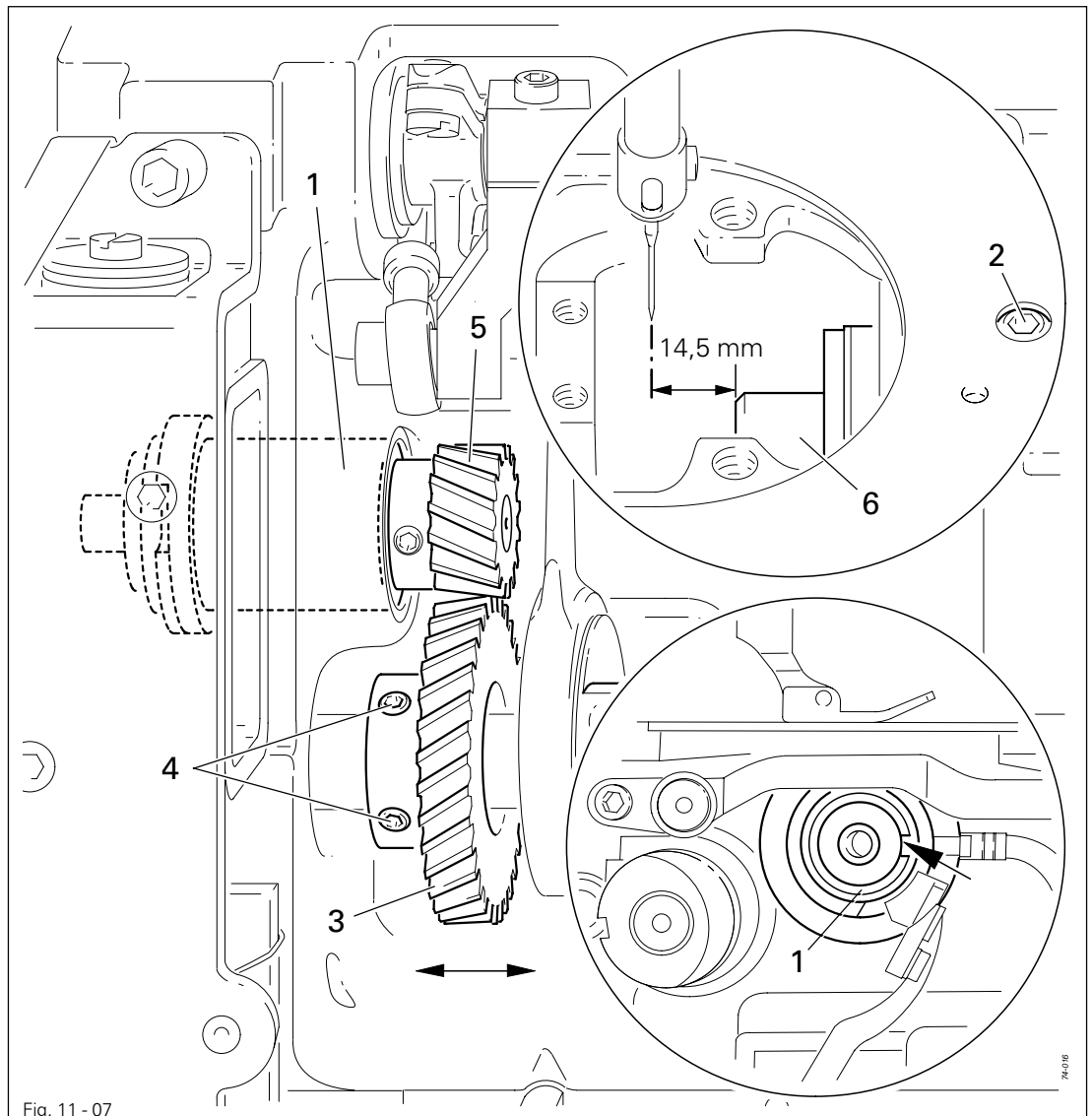


- Set the needle in the needle hole.
- Loosen screws 1, 2 and 3.
- Move the needle bar frame 4 according to the **requirement**.
- Tighten screw 2 and turn screw 3 slightly.
- Via screw 1, bring the retracted guide bolt to the eye of the needle bar frame 4 and tighten it.
- Turn the handwheel a few times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

## 11.05.06 Hook shaft bearing and backlash

**Requirement**

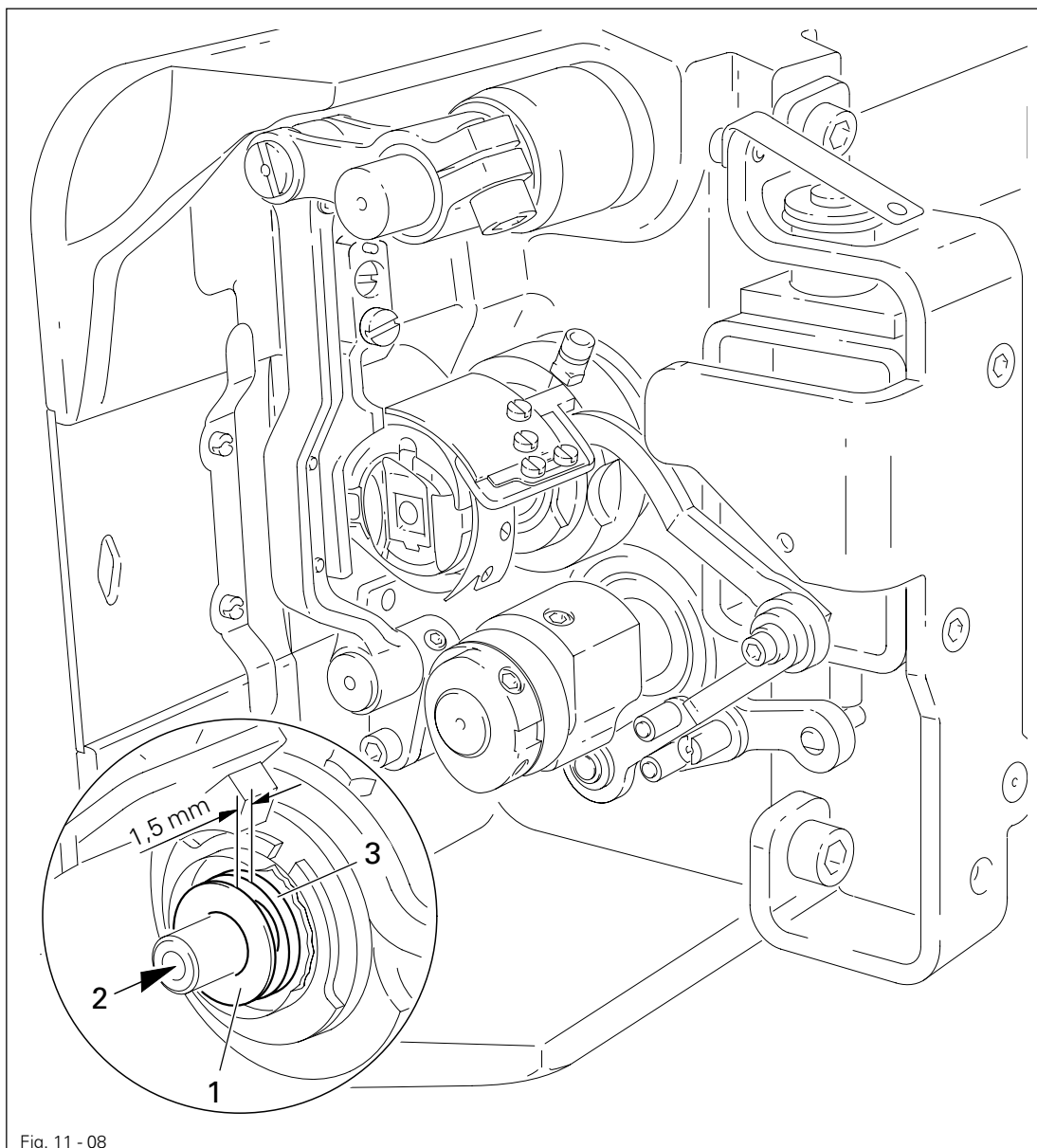
1. The front edge of the hook shaft **6** must be at a distance of **14.5 mm** to the needle center. At the same time, the slot in the hook shaft bearing **1** (see arrow) must be parallel to the bedplate and pointing opposite to the direction of sewing.
2. There must be a slight amount of play between the gears **3** and **5**.



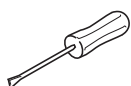
- Align hook shaft bearing **1** (screw **2**) according to **requirement 1**.
- Slide gear **3** (screws **4**) on to the shaft according to **requirement 2**.

## 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.



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.

11.05.08 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**.

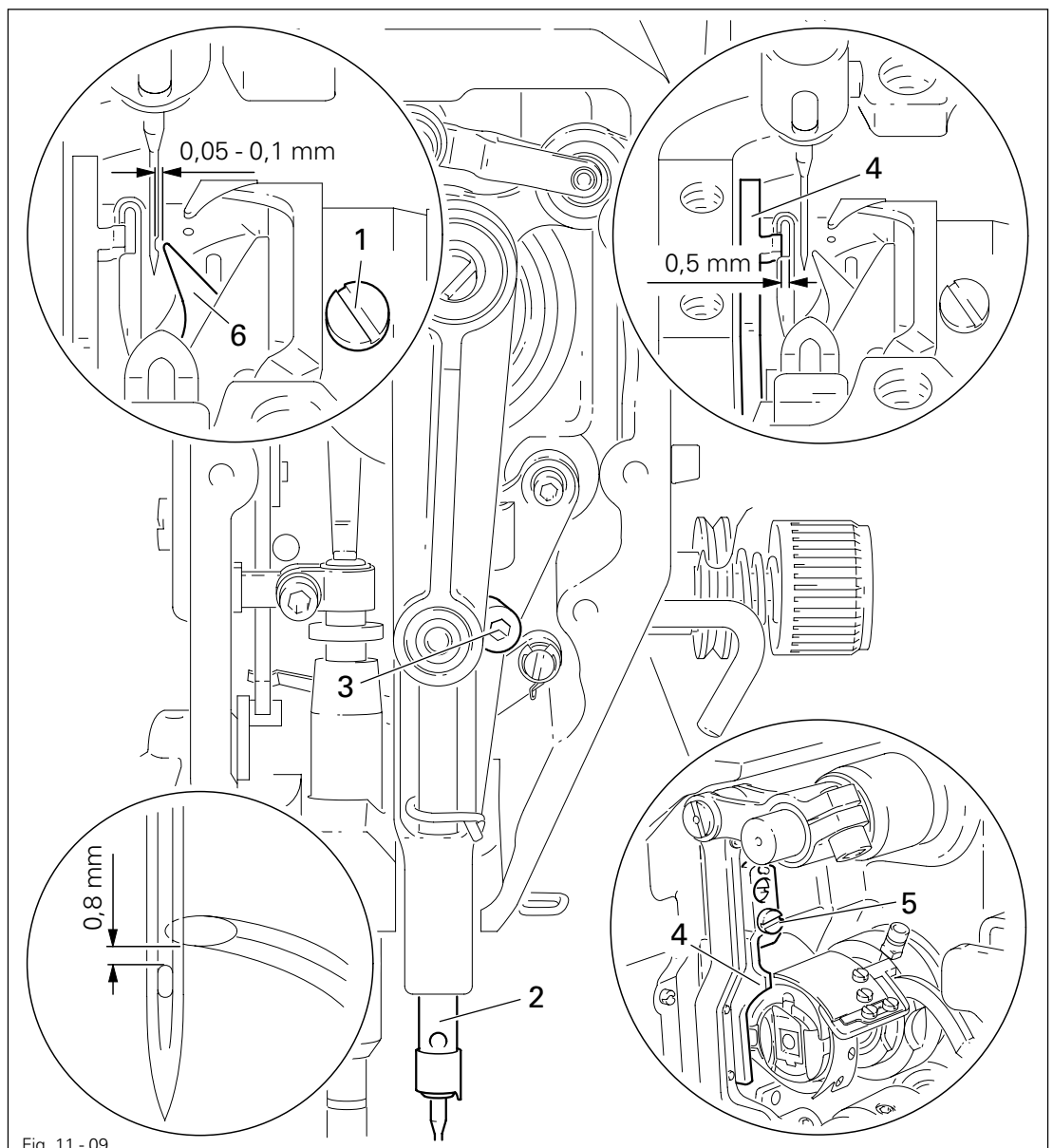
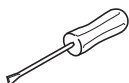


Fig. 11 - 09

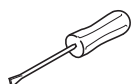
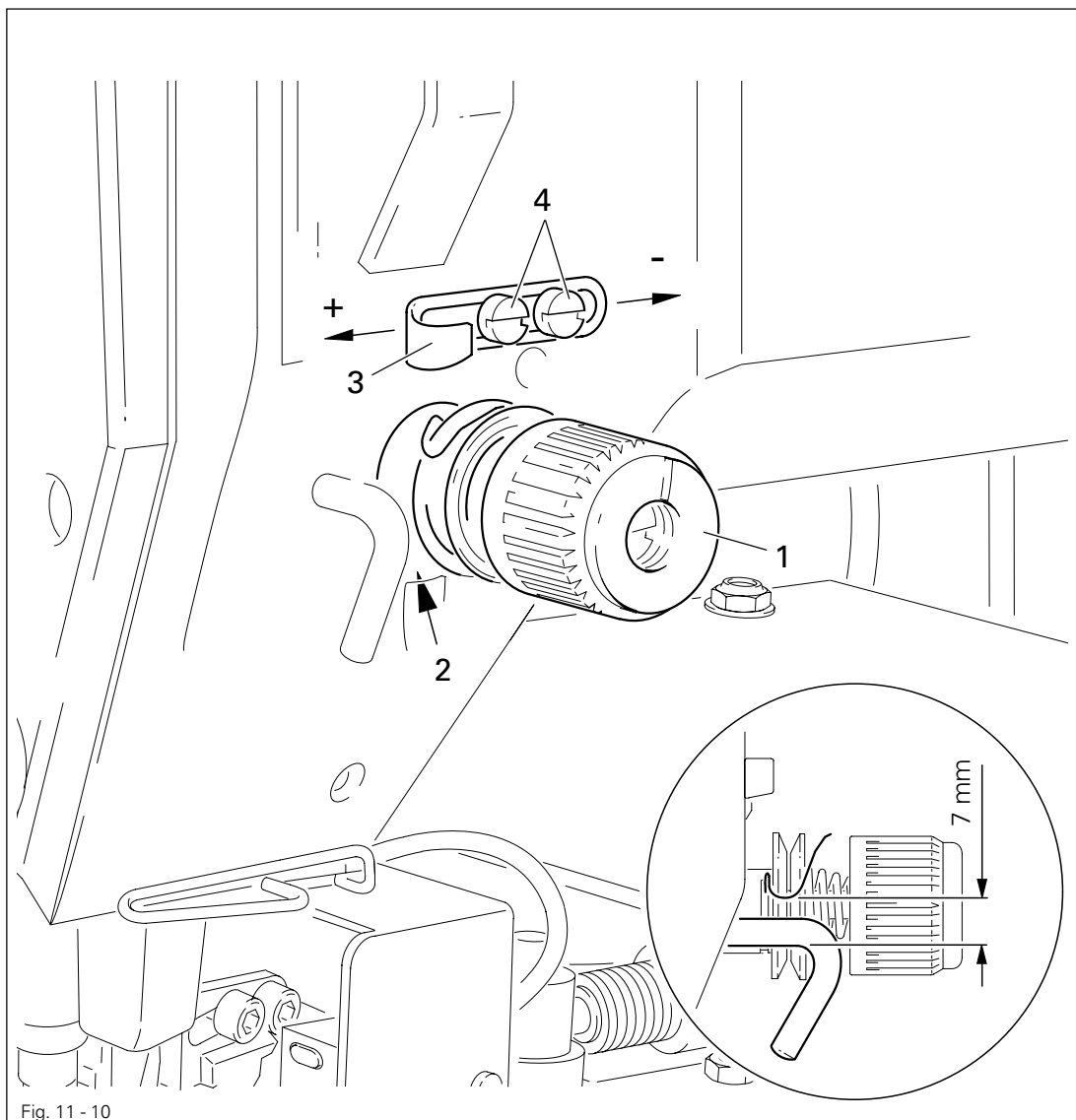


- Using the adjustment pin, position the needle bar at 1.8 mm after BDC.
- Adjust the hook according to **requirement 1**.
- Tighten screw 1.
- Move needle bar 2 (screw 3) without turning it according to **requirement 2**.
- Align bobbin case position finger 4 (screw 5) according to **requirement 3**.

## 11.05.09 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**.



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



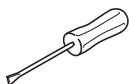
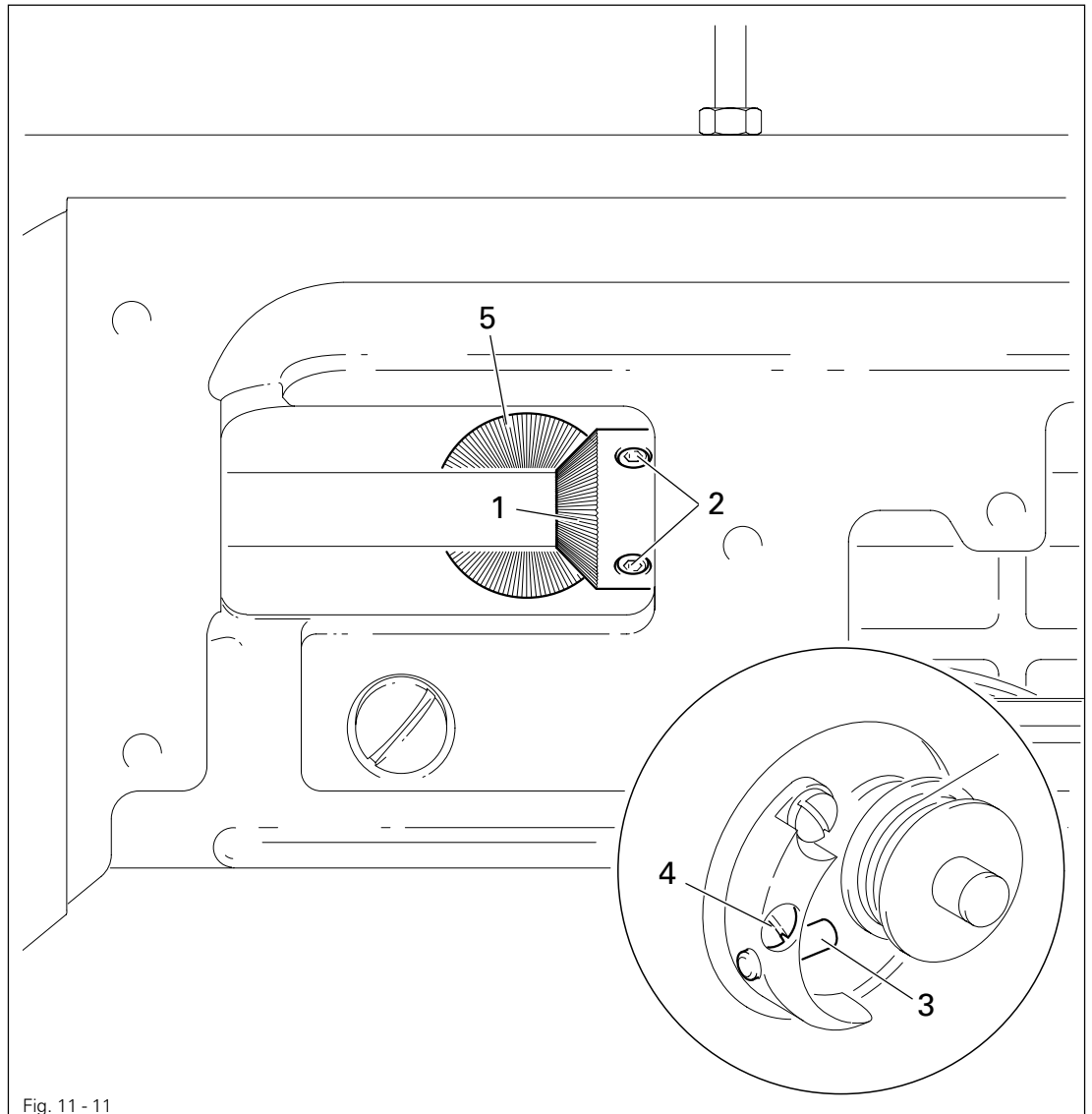
Due to technical sewing reasons it may be necessary to deviate from the spring stroke indicated above.

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

## 11.05.10 Bobbin winder

**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.



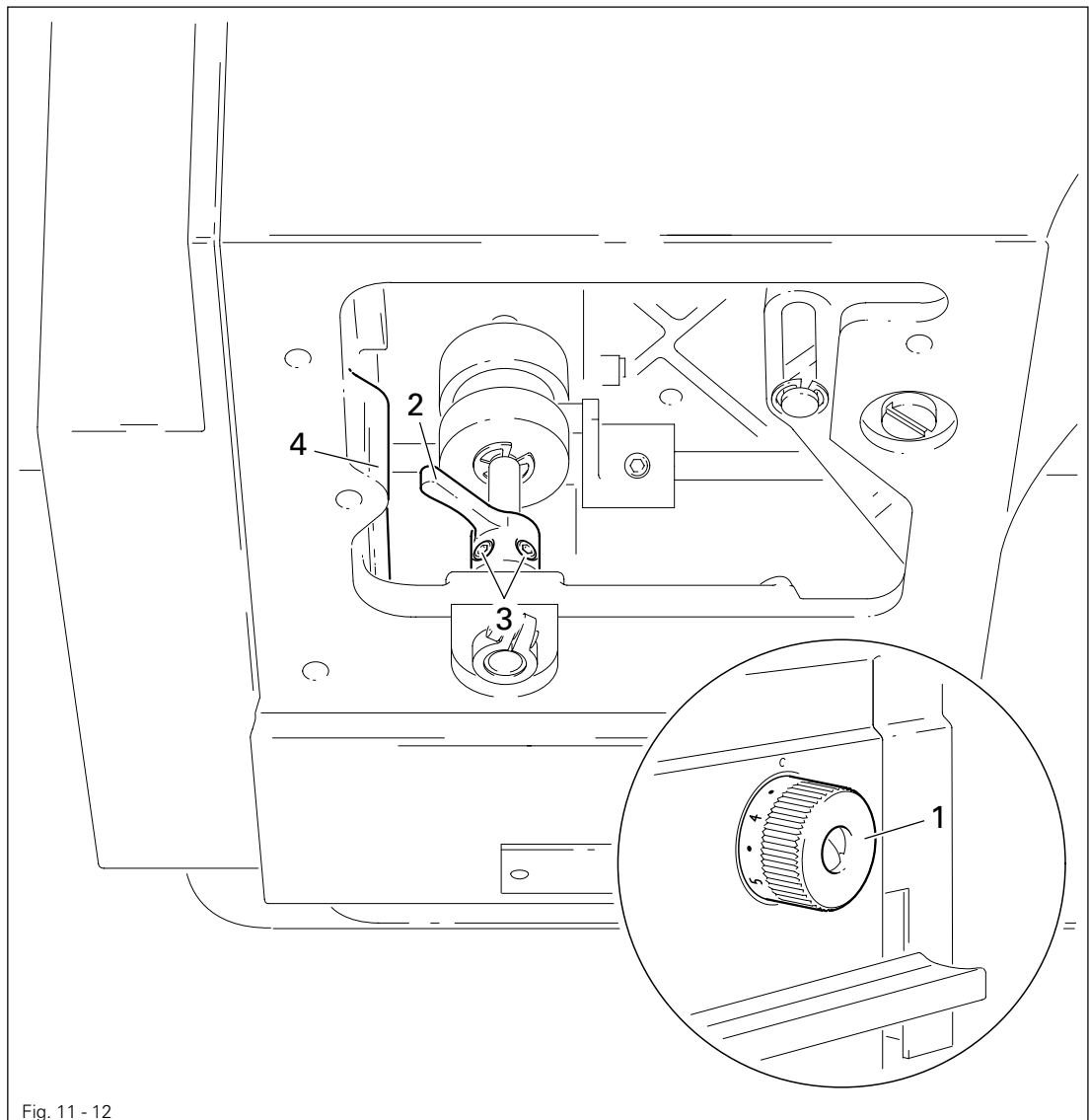
- Move drive wheel **1** (screws **2**) in accordance with **requirement 1** and **2**.
- Move bolt **3** (screw **4**) in accordance with **requirement 3**.

# Adjustment

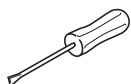
## 11.05.11 Limiting the stitch length



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



The setting for the maximum stitch length should not be larger than **4.5 mm!**



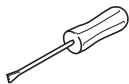
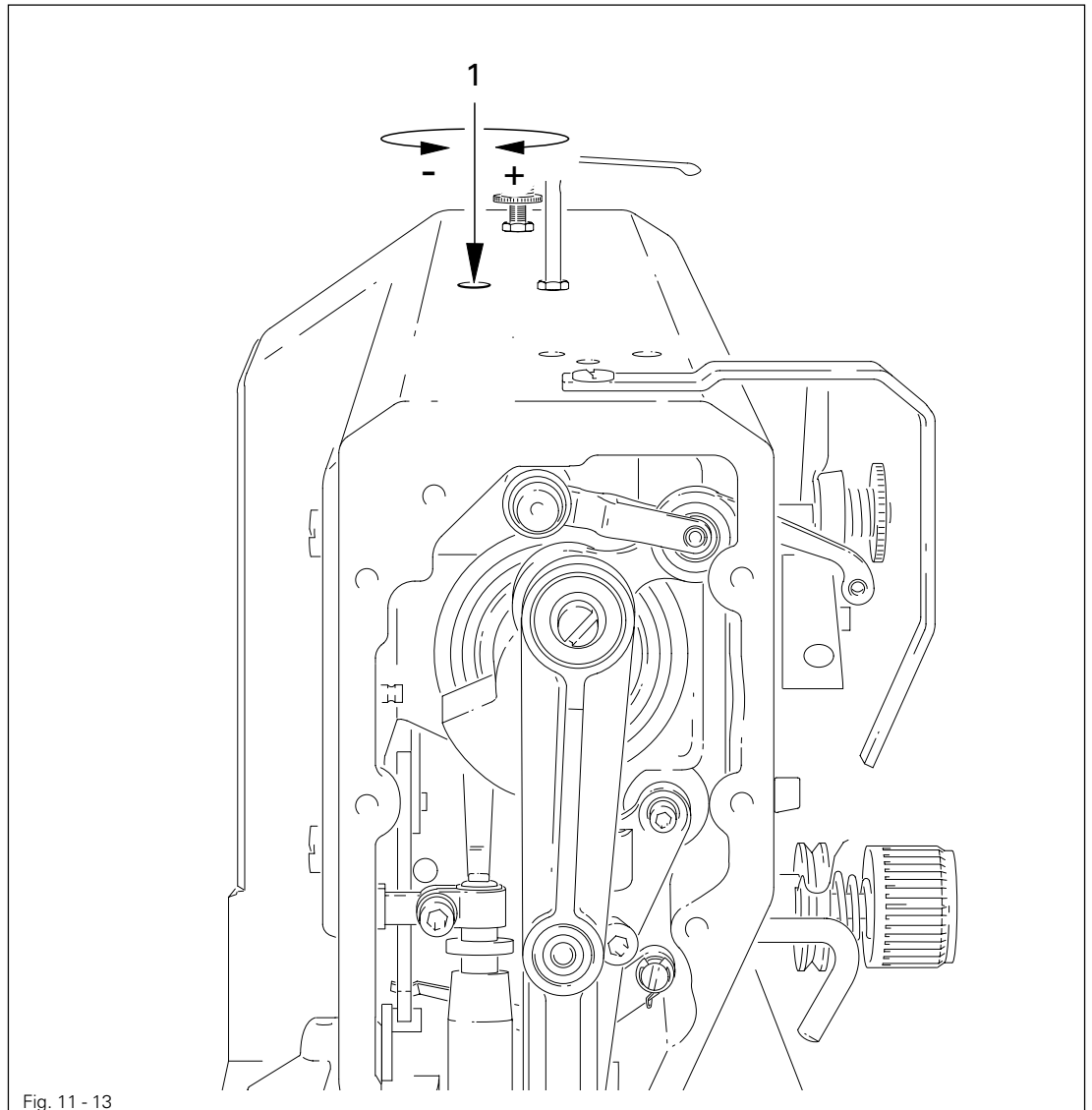
- Set the desired maximum stitch length with regulator disk 1.
- Move crank 2 (screws 3) down against stop 4.



## 11.05.12 Presser foot pressure

### Requirement

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



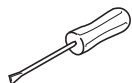
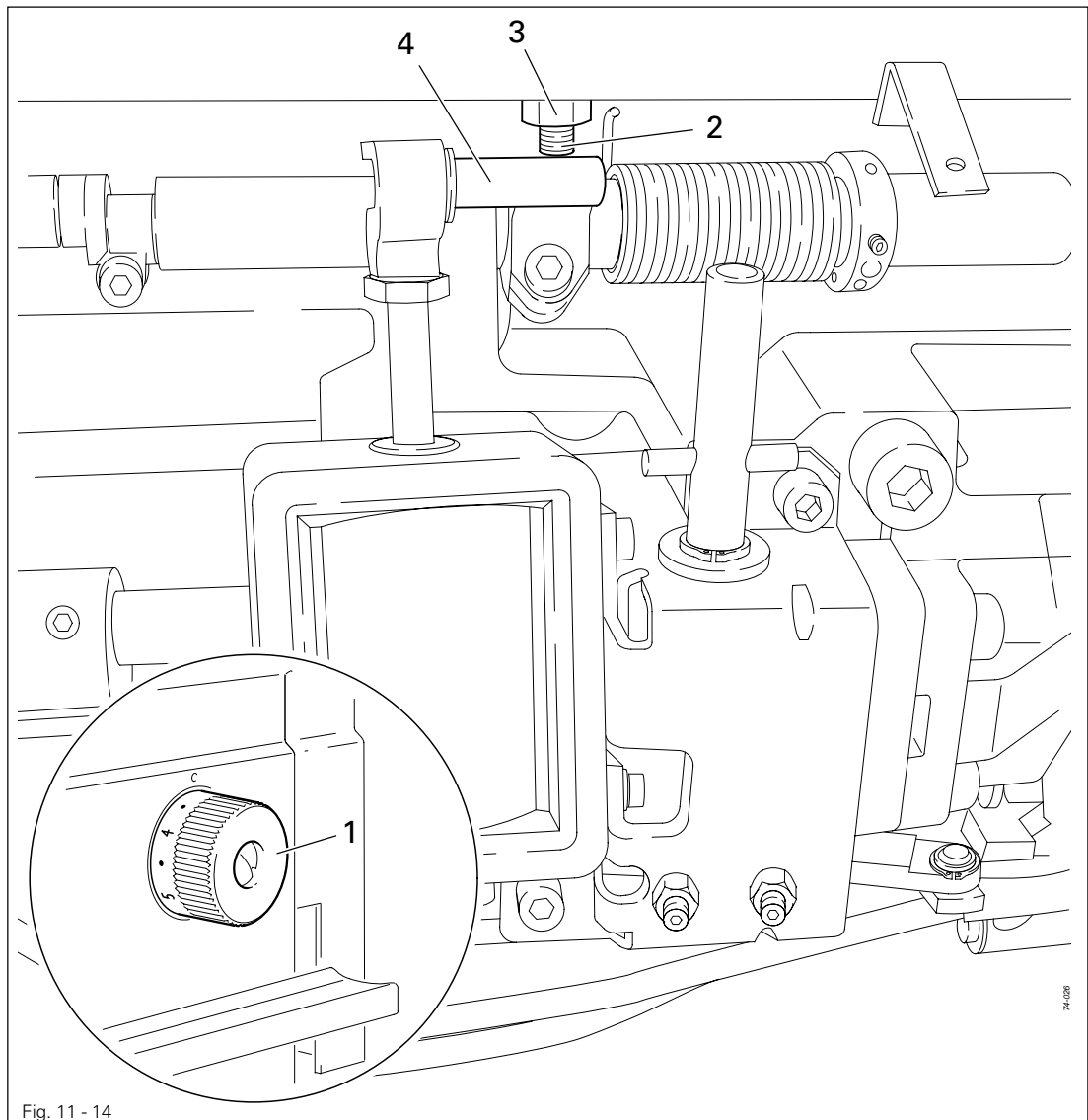
- Turn screw 1 in accordance with the **requirement**.

# Adjustment

## 11.05.13 Stitch condensation

### Requirement

When the stitch length is set at "1", screw 2 should be touching lever 4.



- Select stitch length "1" with adjustment wheel 1.
- Adjust screw 2 (nut 3) in accordance with the **requirement**.

## 11.06 Adjusting the edge trimmer

### 11.06.01 Zero position of the knife

#### Requirement

When the edge trimmer is switched off

1. Pawl **5** should lock into place and
2. The knife should not move when the balance wheel is turned.

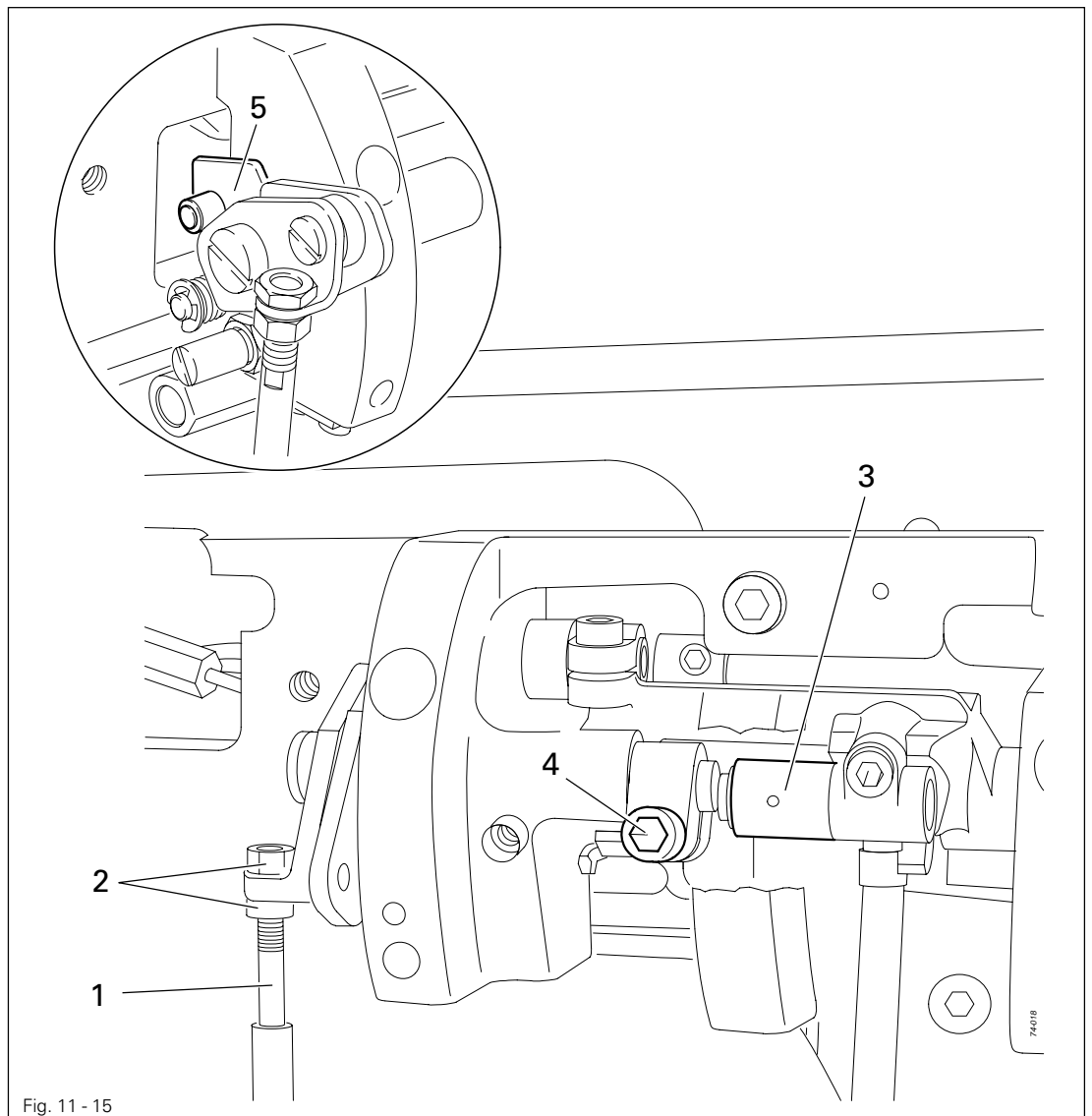


Fig. 11 - 15



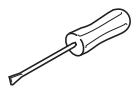
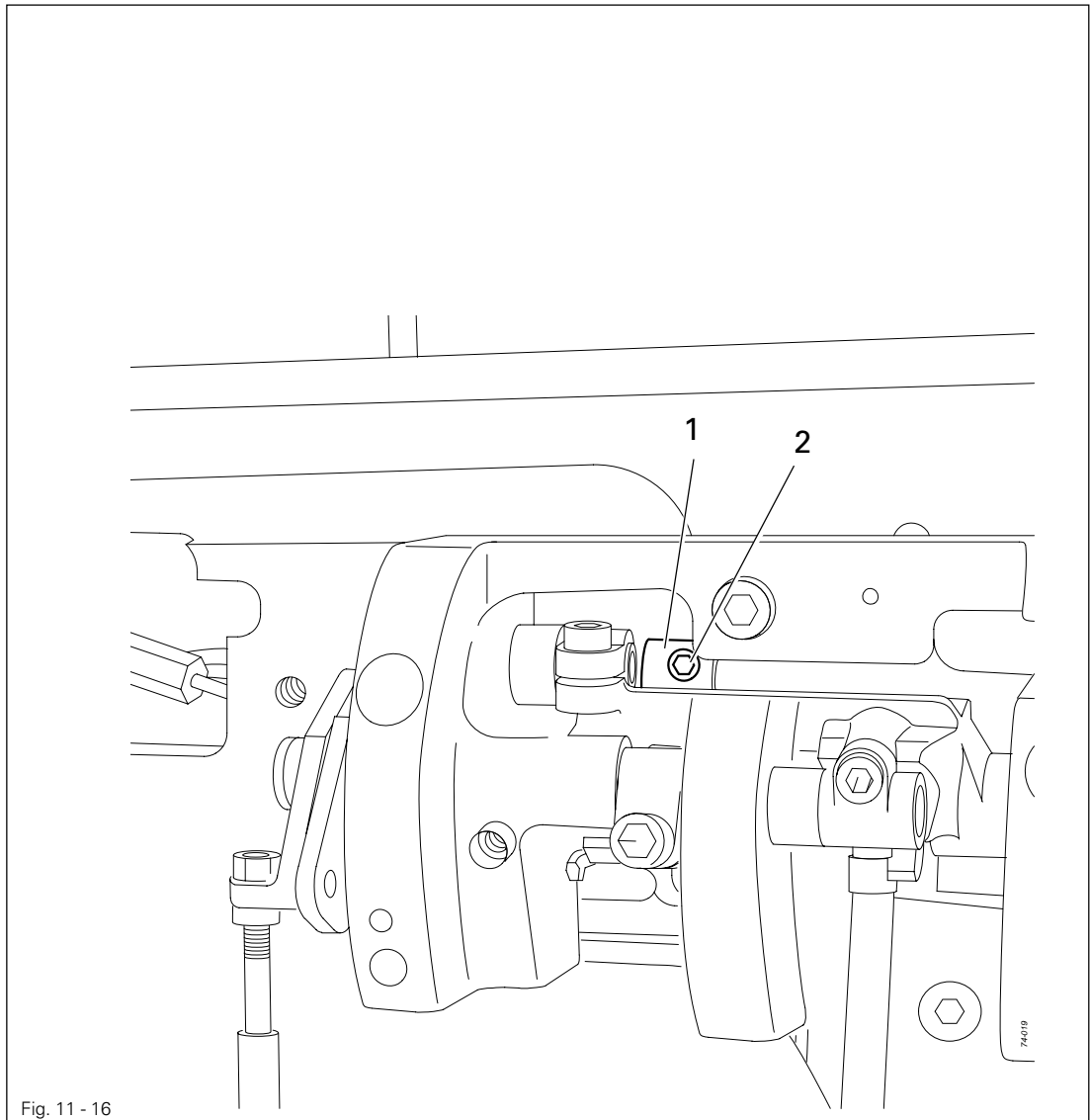
- Adjust plunger **1** (nuts **2**) in accordance with **requirement 1**.
- Adjust slotted lever **3** (screw **4**) in accordance with **requirement 2**.

# Adjustment

## 11.06.02 Knife stroke

### Requirement

When the edge trimmer is switched on, and the needle bar is positioned at it b.d.c., the knife should be at the top of its stroke.



- Adjust eccentric 1 (two screws 2) in accordance with the **requirement**.

## 11.06.03 Knife height

### Requirement

When knife 1 is at its b.d.c., the front edge of the knife blade should be approx. 0.5 mm below the top edge of the stationary knife.

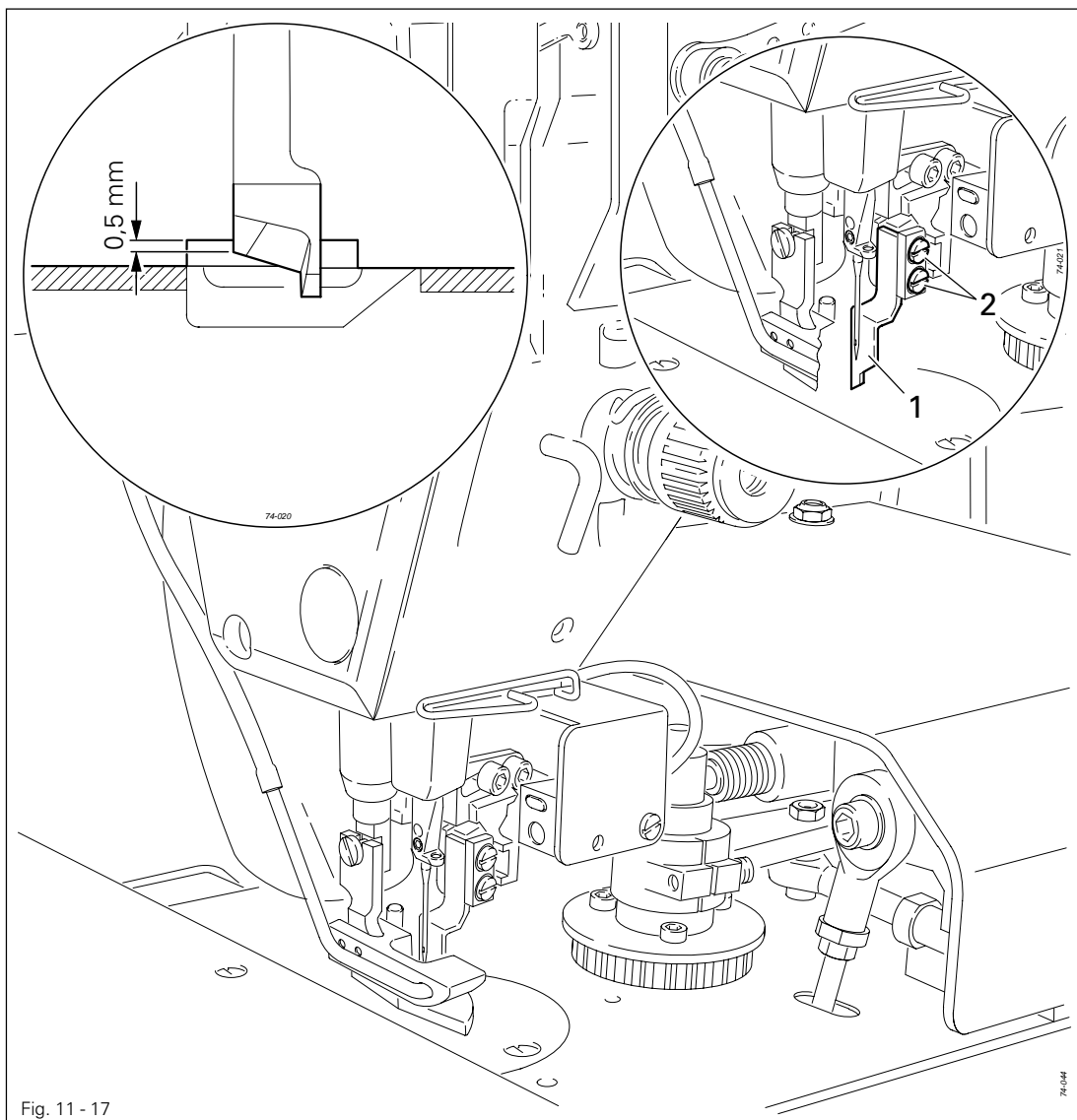
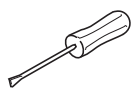


Fig. 11 - 17



- Adjust knife 1 (screws 2) in accordance with the requirement.

# Adjustment

## 11.06.04 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".

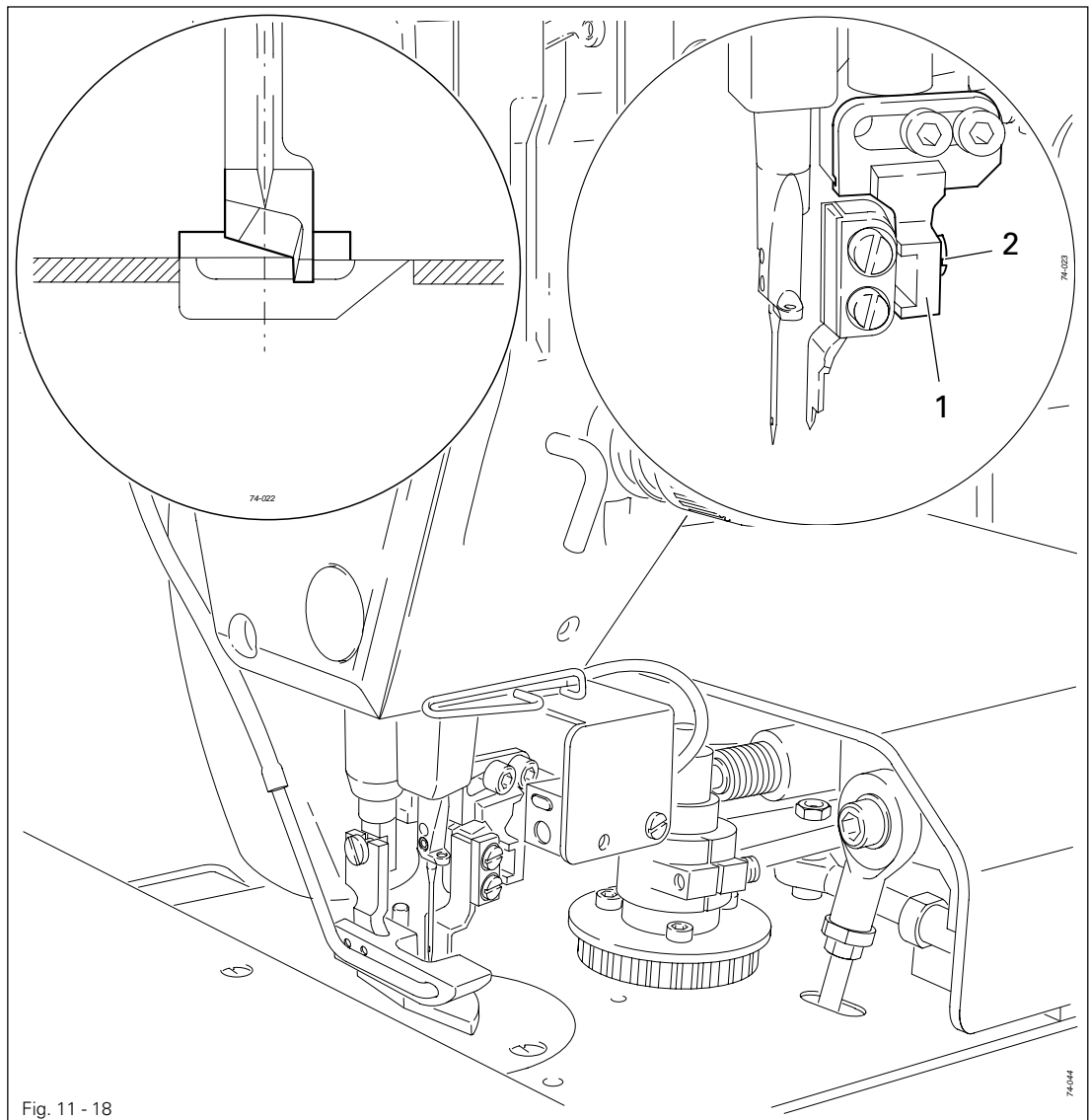
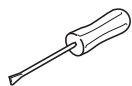


Fig. 11 - 18

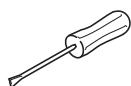
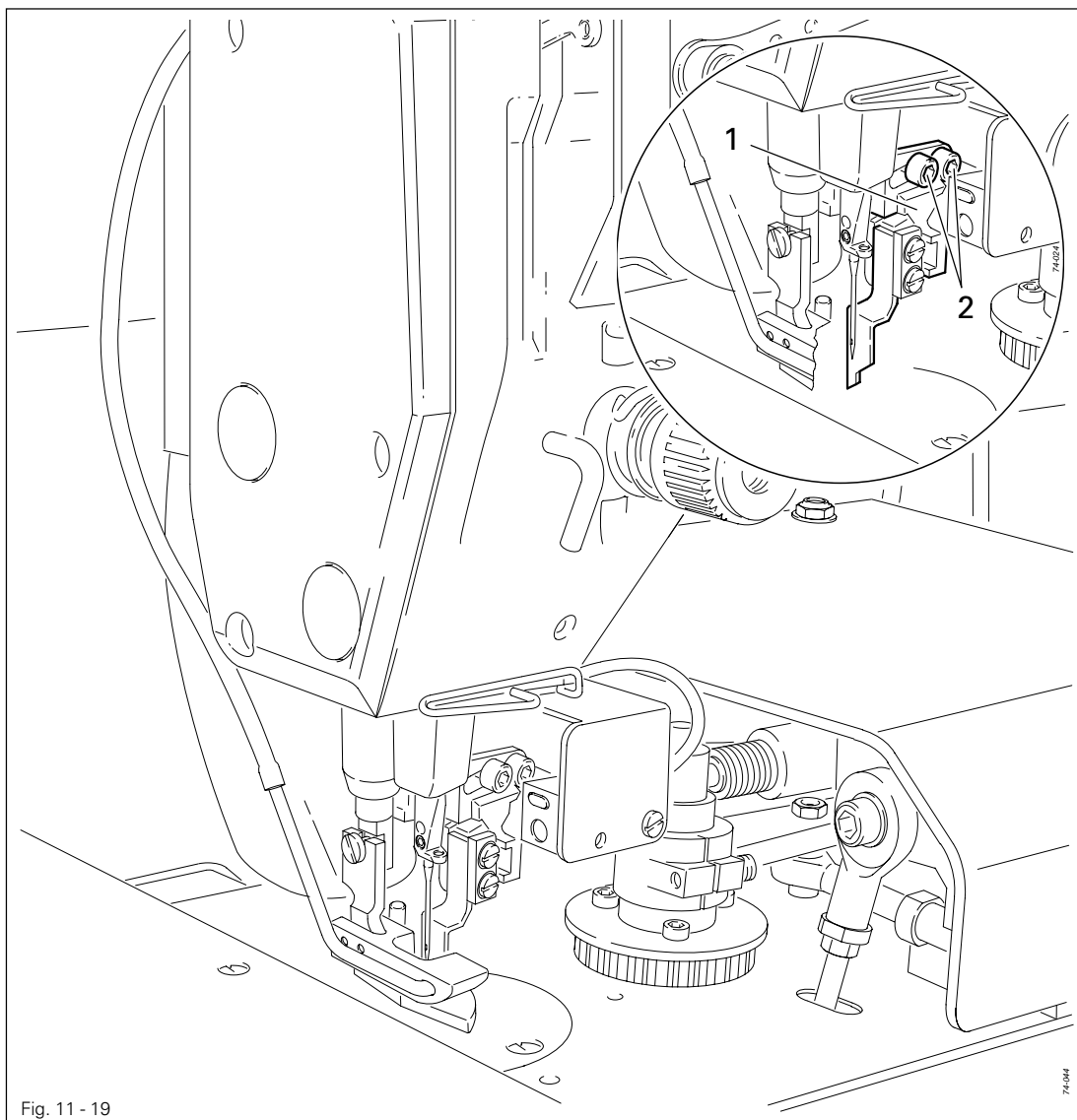


- Adjust knife bracket 1 (screw 2) according to the requirement.

## 11.06.05 Knife position crosswise to sewing direction

### Requirement

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



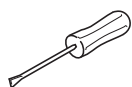
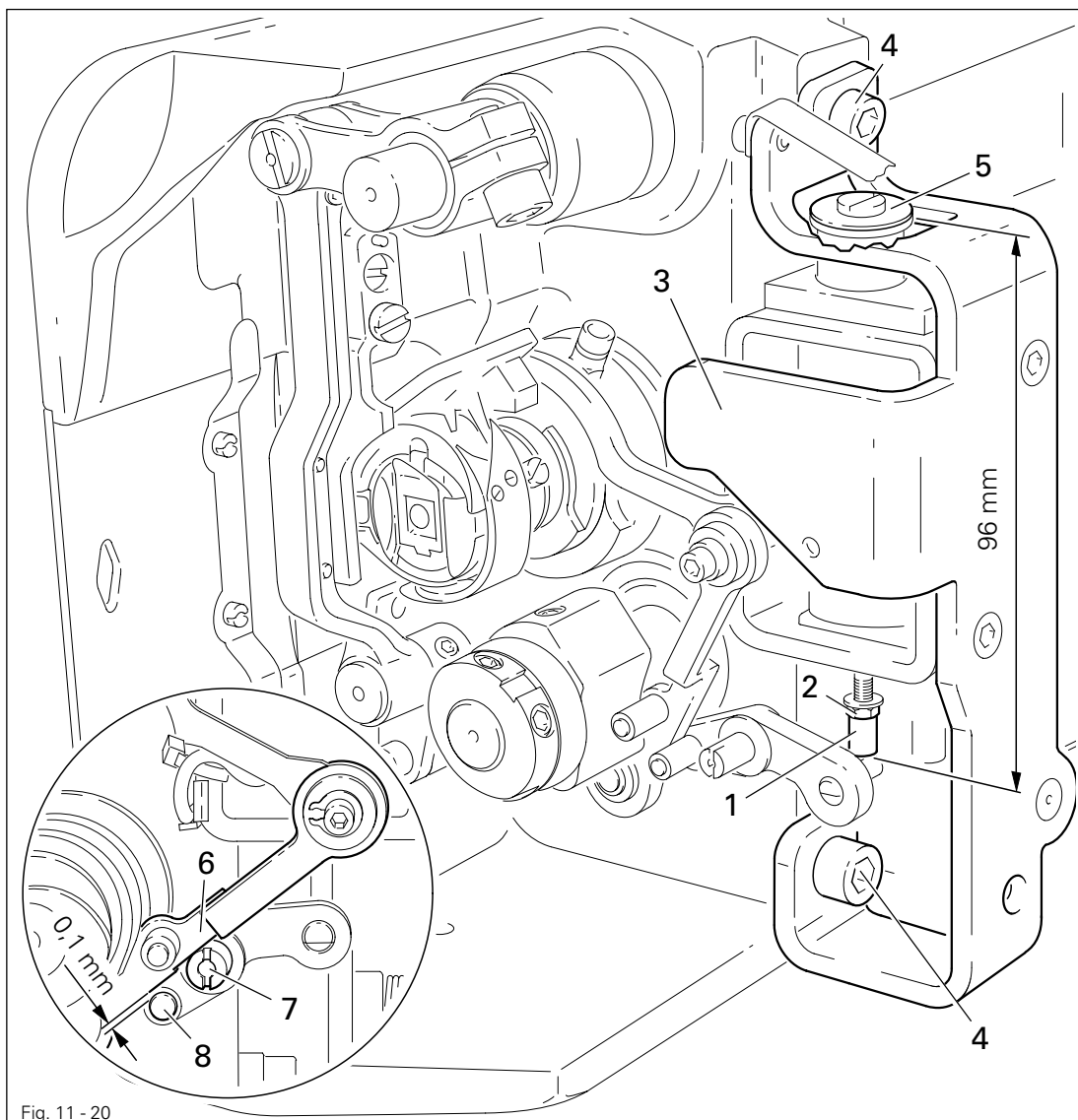
- Adjust knife bracket 1 (screw 2) according to the **requirement**.

## 11.07 Adjusting the thread trimmers

### 11.07.01 Magnet setting

#### Requirement

1. The distance between the bottom edge of the plunger and the top edge of the washer 5 must be **96 mm**.
2. When the thread trimmer is in resting position (magnet retracted), the roller lever 6 must rest against bolt 7 and be at a distance of approx. **0.1 mm** from roller 8.



- Turn plunger 1 (nut 2) according to **requirement 1**.
- Bring thread trimmer into resting position.
- Move magnet holder 3 (screws 4) according to **requirement 2**.



## 11.07.02 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.

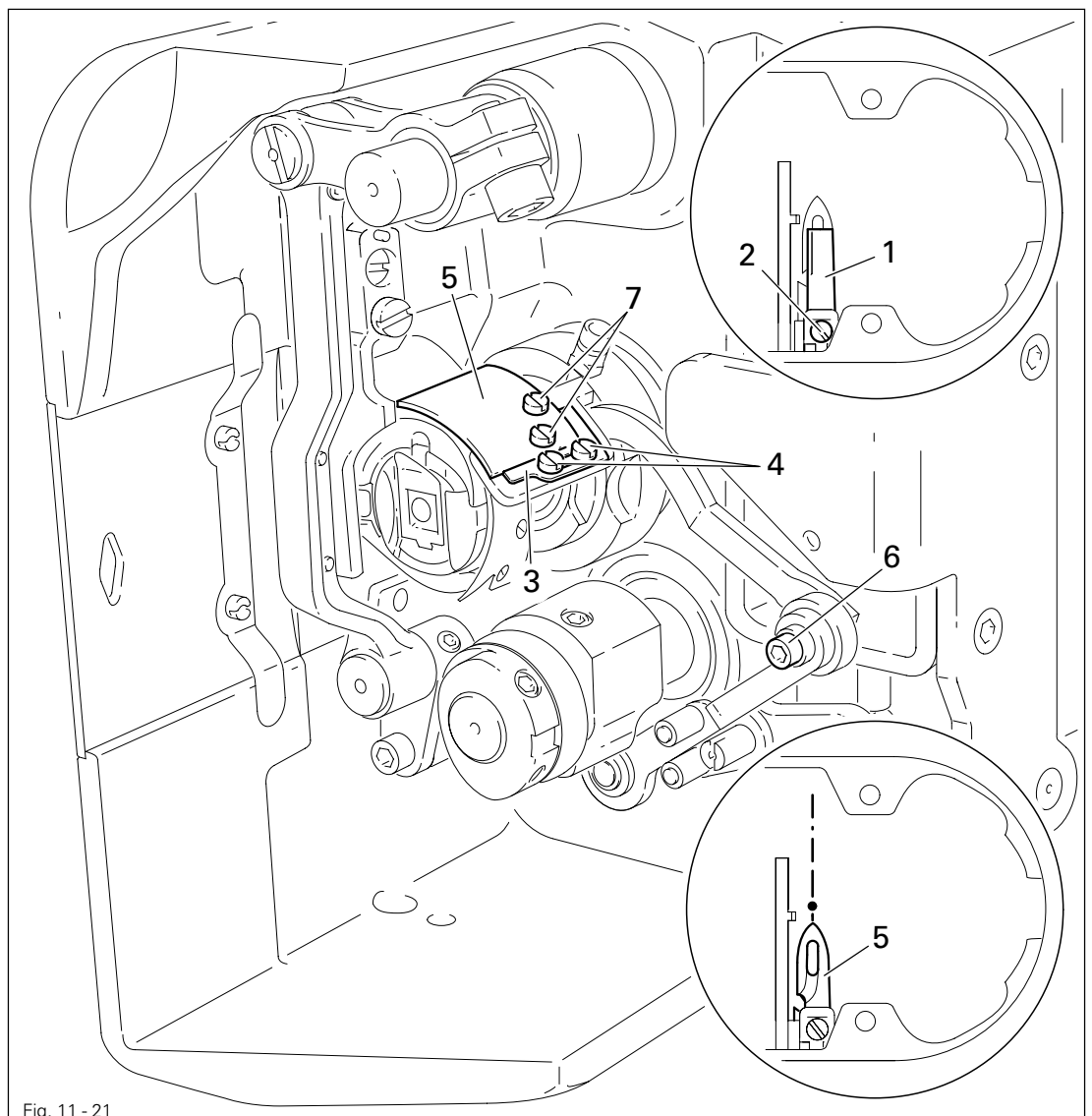
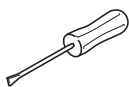


Fig. 11 - 21



- 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.

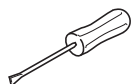
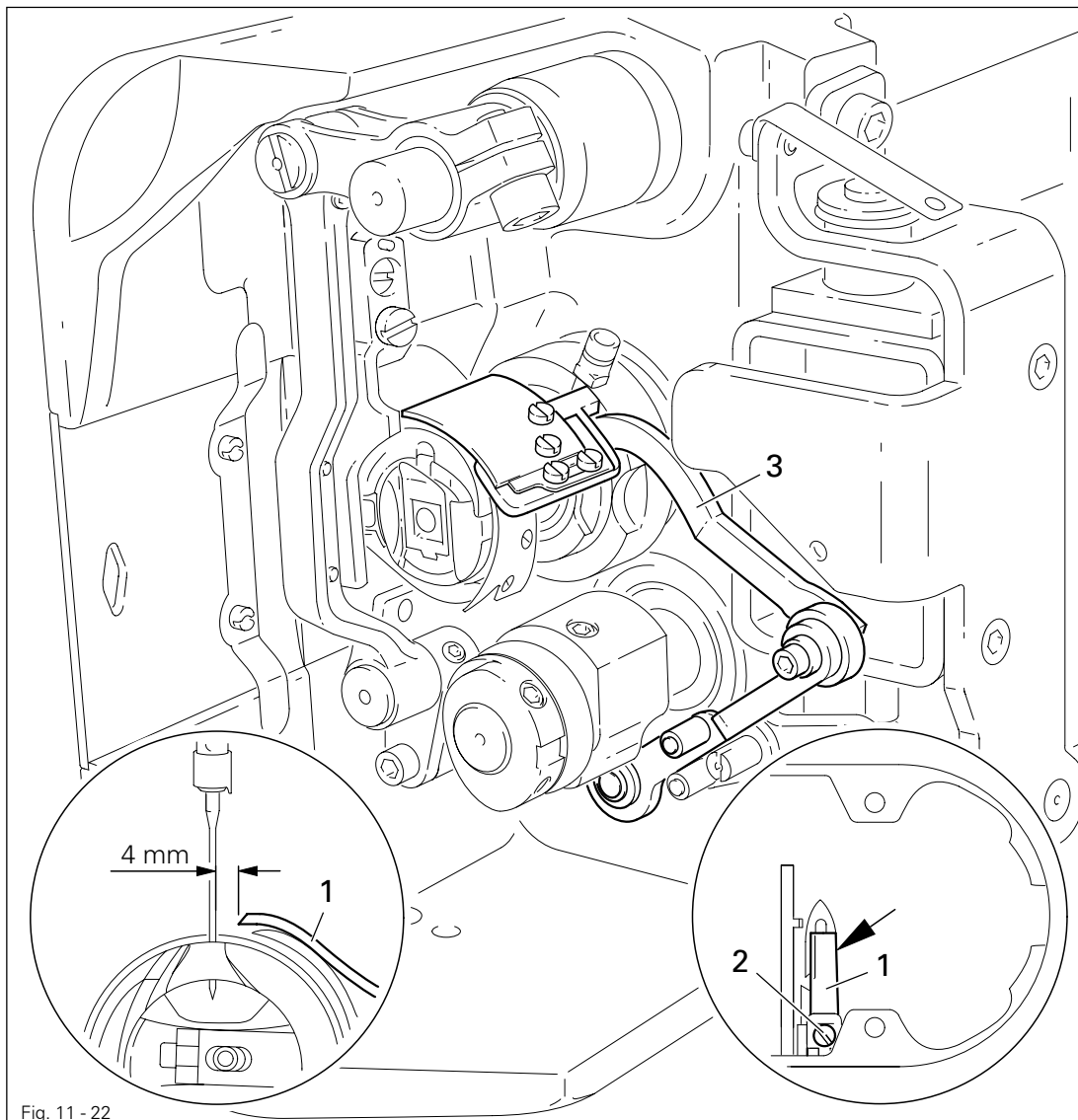


For further adjustments, leave knife **1** removed and stop **3** loosened.

## 11.07.03 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).



- 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**.

## 11.07.04 Front point of reversal of the thread catcher

**Requirement**

When the thread catcher 5 is at its front point of reversal, the rear edge of the thread catcher cutout must be positioned 1 mm before the bobbin case position finger 6.

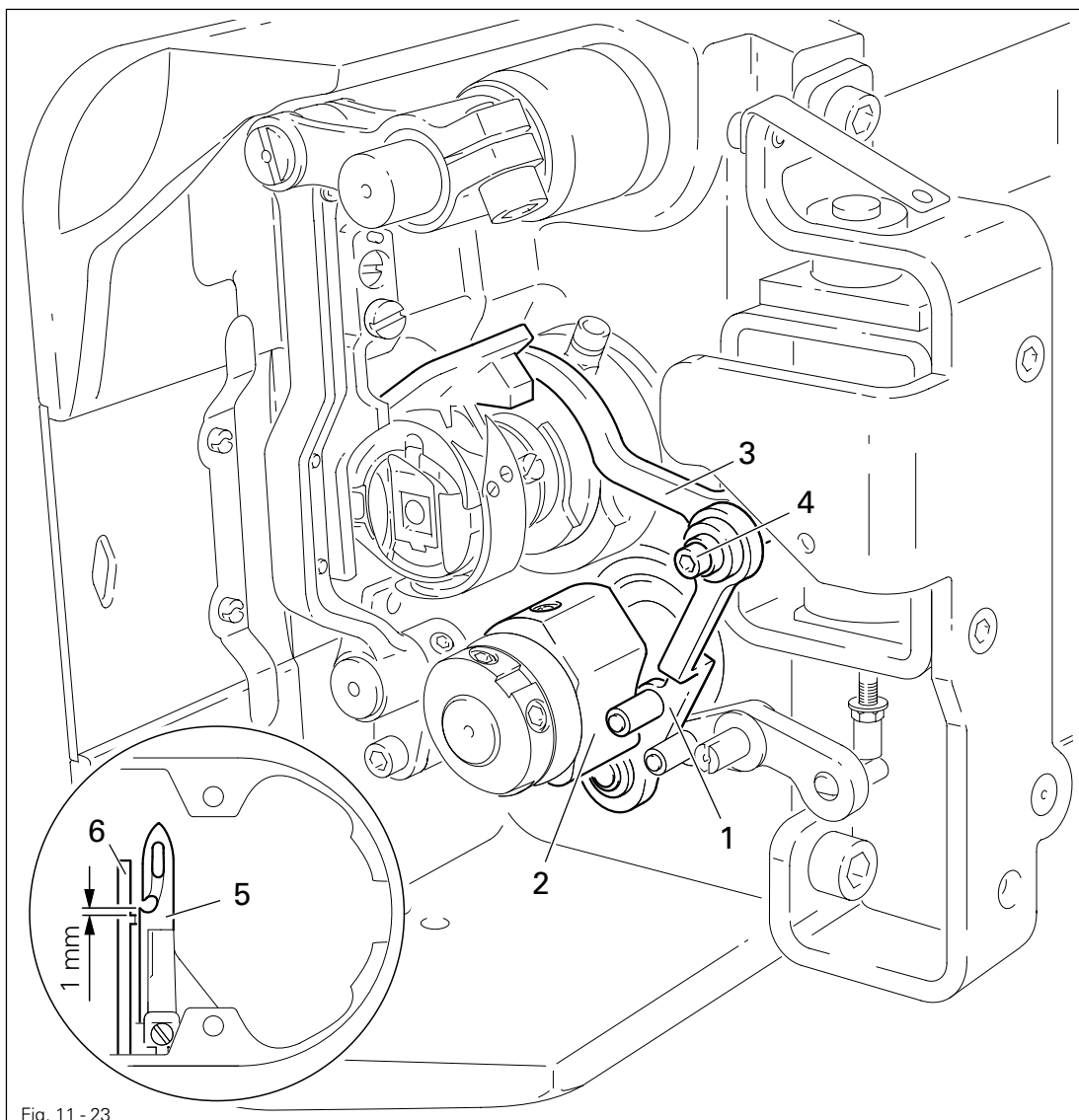
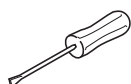


Fig. 11 - 23

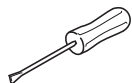
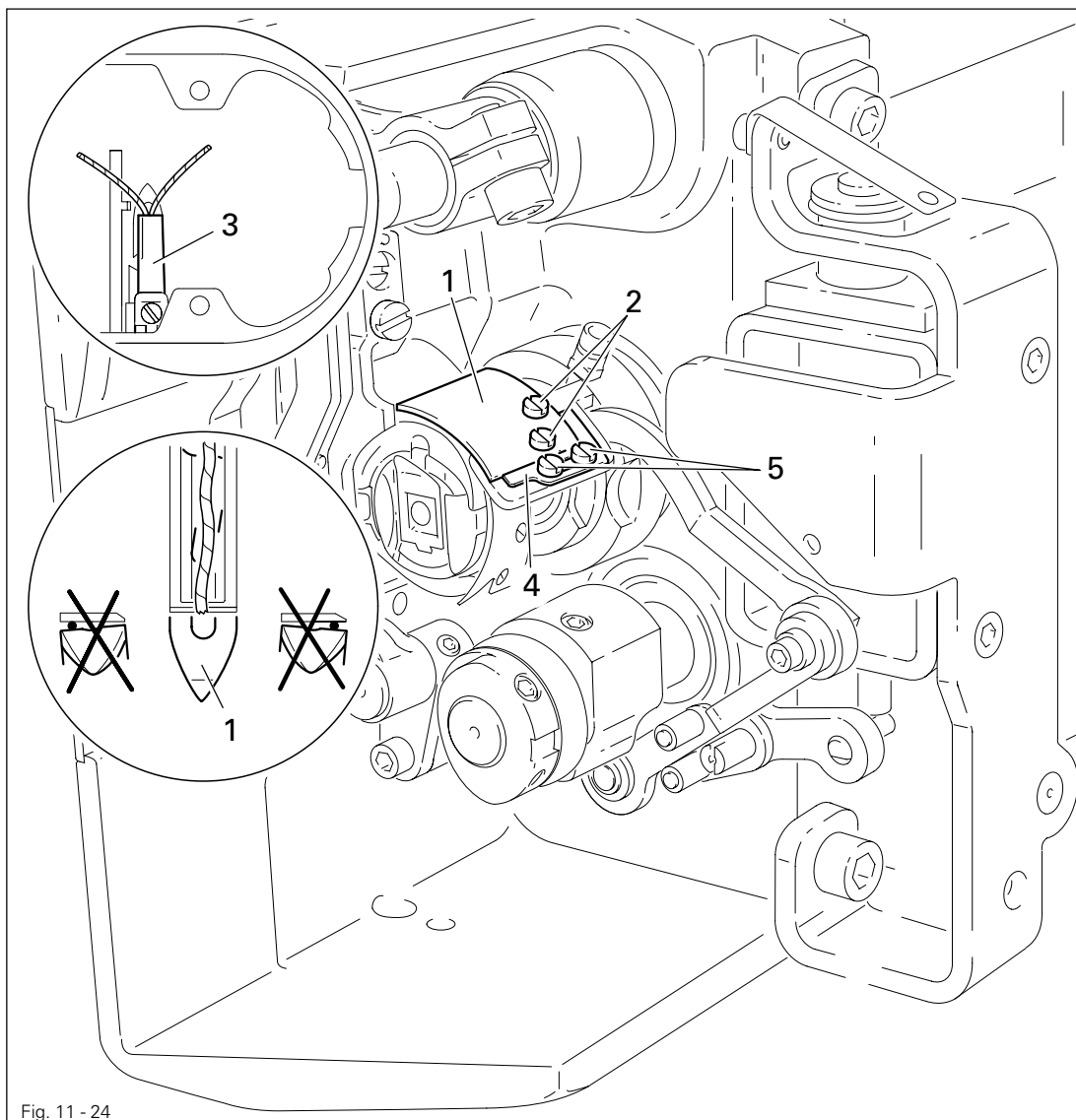


- Swing roller level 1 into the lowest point of the control cam 2.
- Move thread catcher carrier 3 (screw 4) according to the requirement.

## 11.07.05 Manual trimming check

### Requirement

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

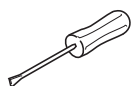
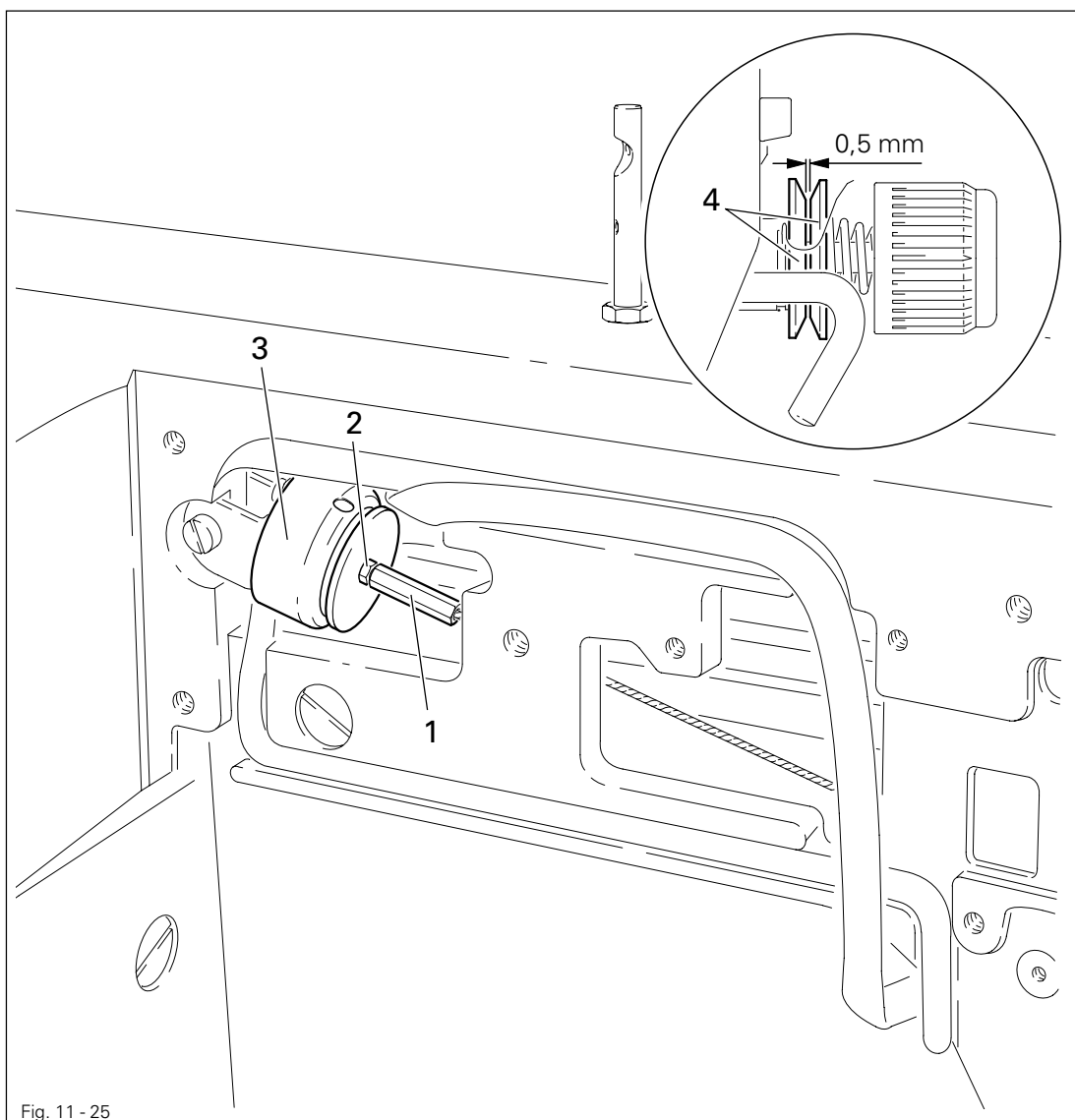


- Move thread catcher 1 by hand to its front point of reversal.
- Double the thread and insert into catcher cutout.
- Carry out trimming operation manually.
- If the threads are not cut according to the **requirement**, align thread catcher 1 (screws 2) with knife 3 accordingly.
- Move stop 4 against thread catcher 1 and tighten screws 5.
- Check chapter 11.07.02 **Lateral alignment of the thread catcher**, and readjust if necessary.

## 11.07.06 Needle thread tension release

### Requirement

When magnets **3** are attracted, there should be a distance between the tensions disks **4** of at least **0.5 mm**.



- Adjust screw **1** (nut **2**) in accordance with the **requirement**.

## Adjustment

### 11.07.07 Readjusting the control cam

#### Requirement

When the take-up lever is at TDC, the roller lever 1 must be brought from the highest point of the control cam 2 and moved against bolt 4 (basic position).

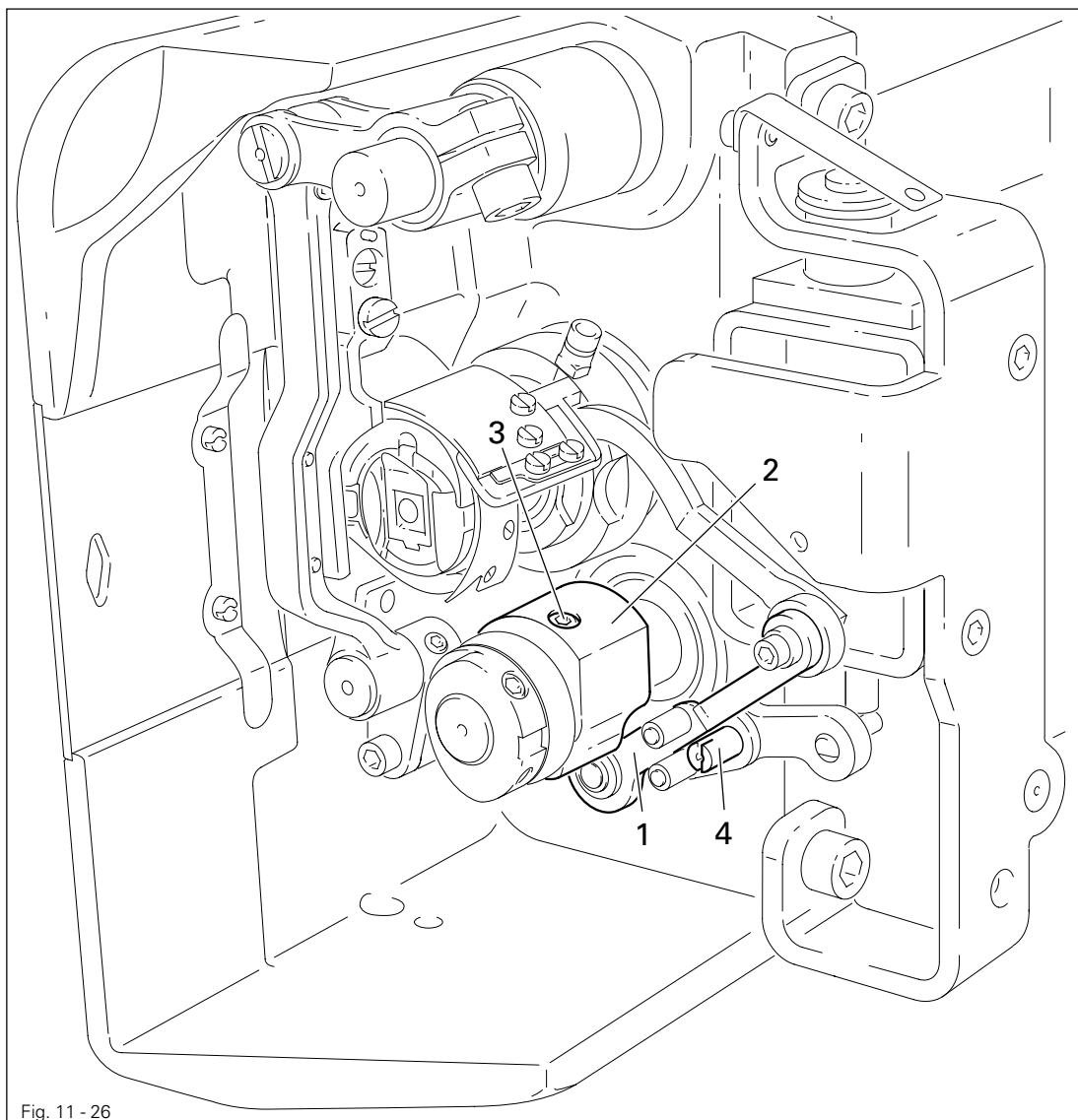
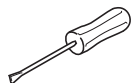


Fig. 11 - 26

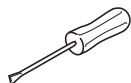
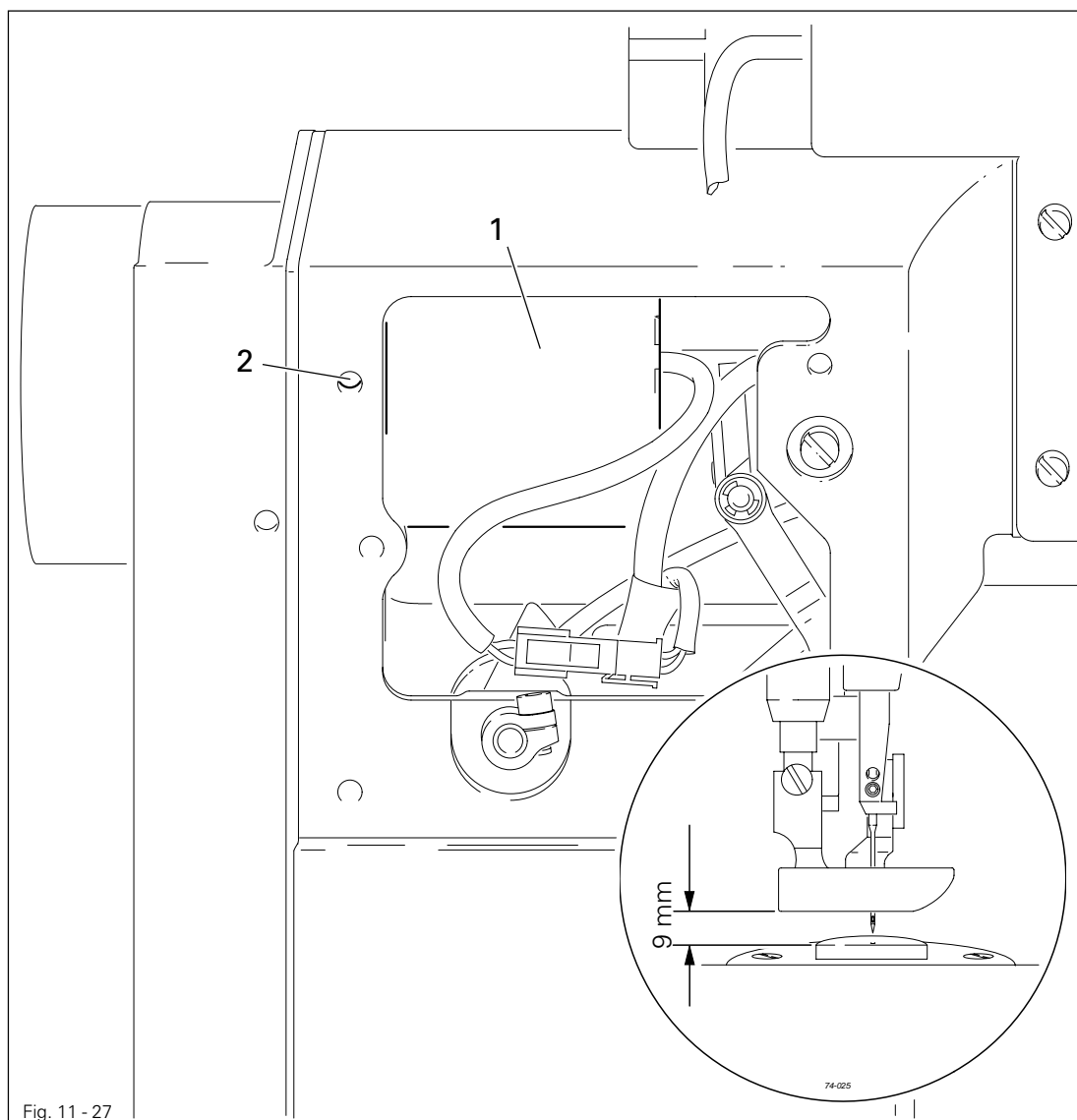


- Switch on machine and sew a few stitches.
- Trigger cutting operation.
- Check to see if the thread was cut cleanly and roller level 1 is in basic position.
- If necessary, turn control cam 2 (screws 3) according to the requirement.

## 11.08 Adjusting the automatic presser foot lift

**Requirement**

When the automatic presser foot lift is operated, there should be a clearance of **9 mm** between the presser foot and the top of the needle plate.



- Adjust solenoid 1 (screw 2) in accordance with the **requirement**.

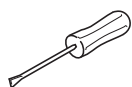
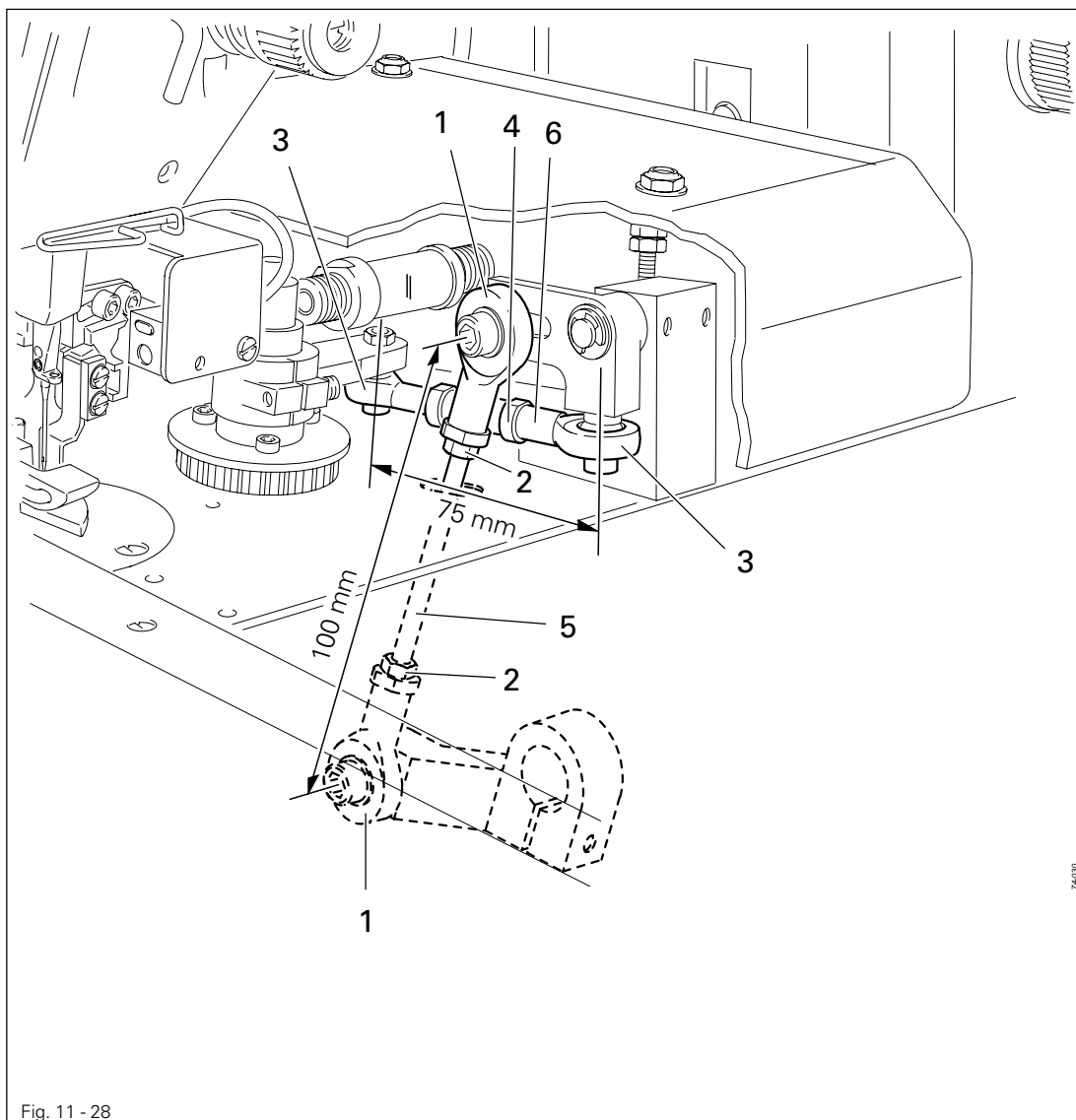
# Adjustment

## 11.09 Adjusting the jig drive

### 11.09.01 Basic setting of the linkage rods

#### Requirement

1. The spherical heads **1** of linkage rod **5** should be at a distance of **100 mm** from each other (centre hole to centre hole).
2. The spherical heads **3** of linkage rod **6** should be at a distance of **75 mm** from each other (centre hole to centre hole).



- Adjust the spherical heads **1** (nuts **2**) in accordance with **requirement 1**.
- Adjust the spherical heads **3** (nuts **4**) in accordance with **requirement 2**.



## 11.09.02 Basic setting of the actuating lever

### Requirement

1. The spherical head 1 should be positioned in the centre of the elongated hole of actuating lever 5.
2. When the needle is positioned 0.8 mm after t.d.c., the actuating lever 5 should be horizontal.

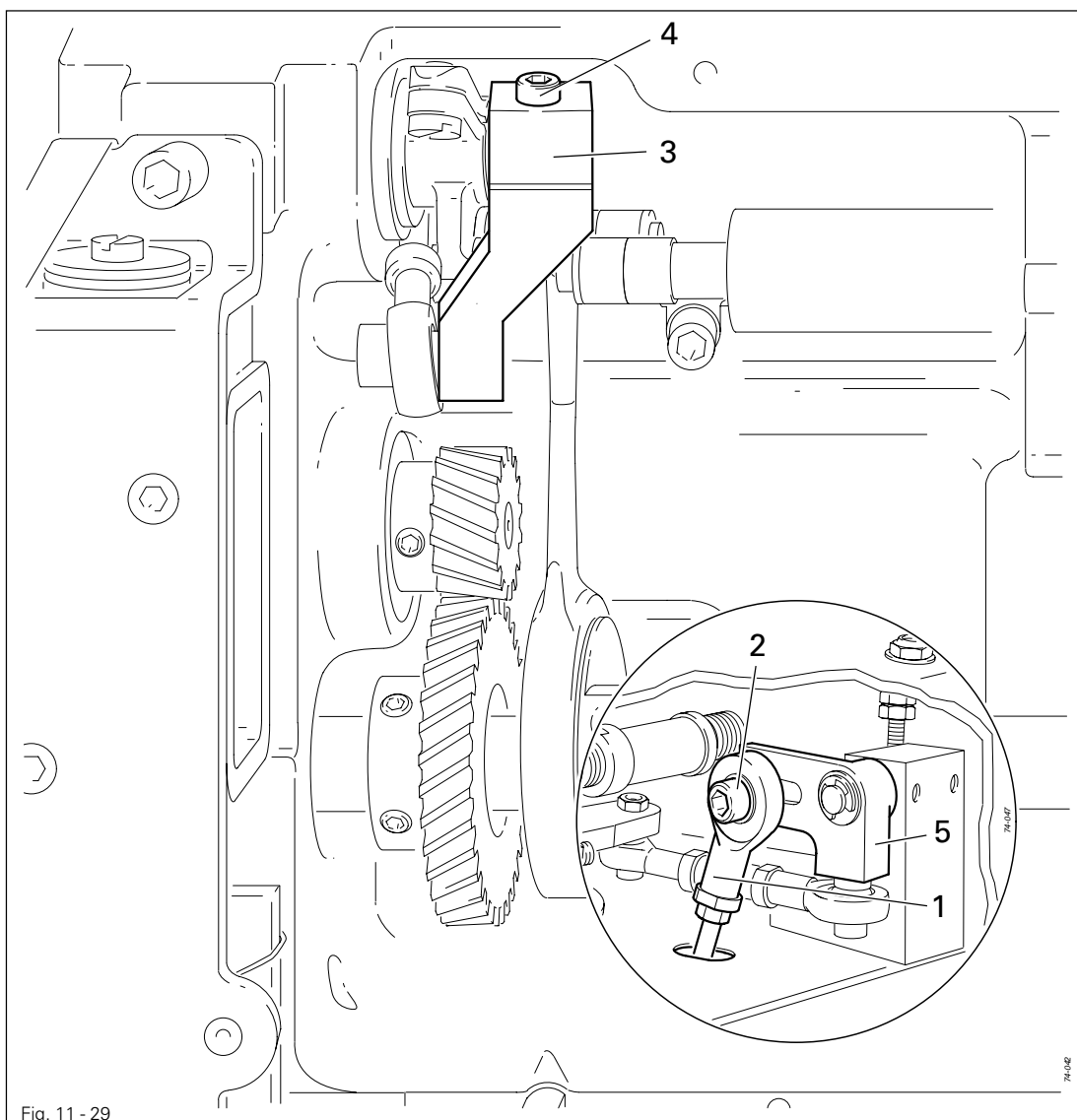
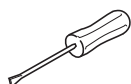


Fig. 11 - 29



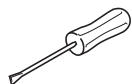
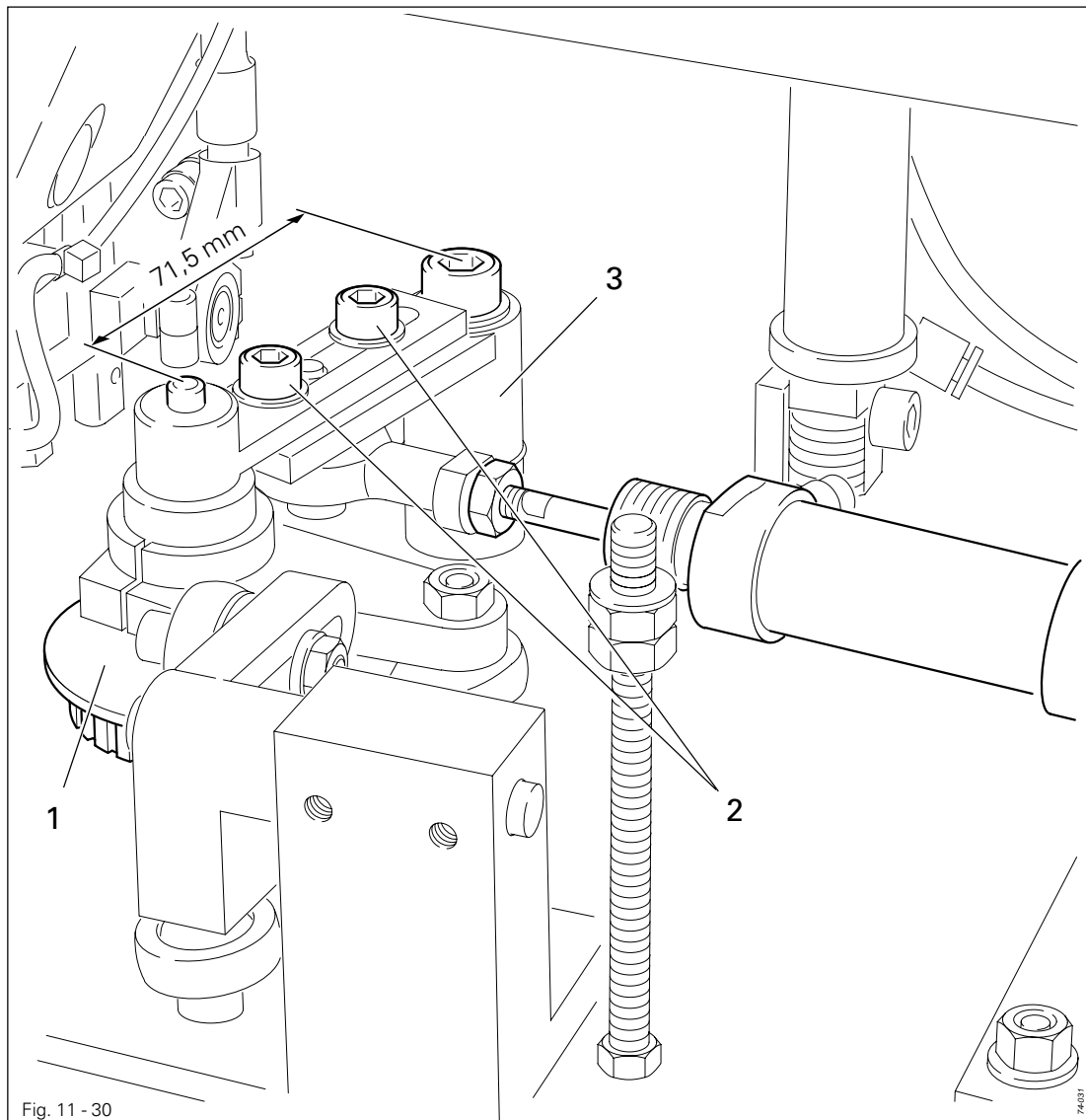
- Adjust the spherical head 1 (screw 2) in accordance with **requirement 1**.
- Adjust lever 3 (screw 4) in accordance with **requirement 2**.

## Adjustment

### 11.09.03 Distance of the axle of the drive wheel from the bearing axle

#### Requirement

The axle of drive wheel **1** should be at a distance of **71.5 mm** to the axle of bearing **3**.

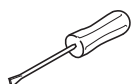
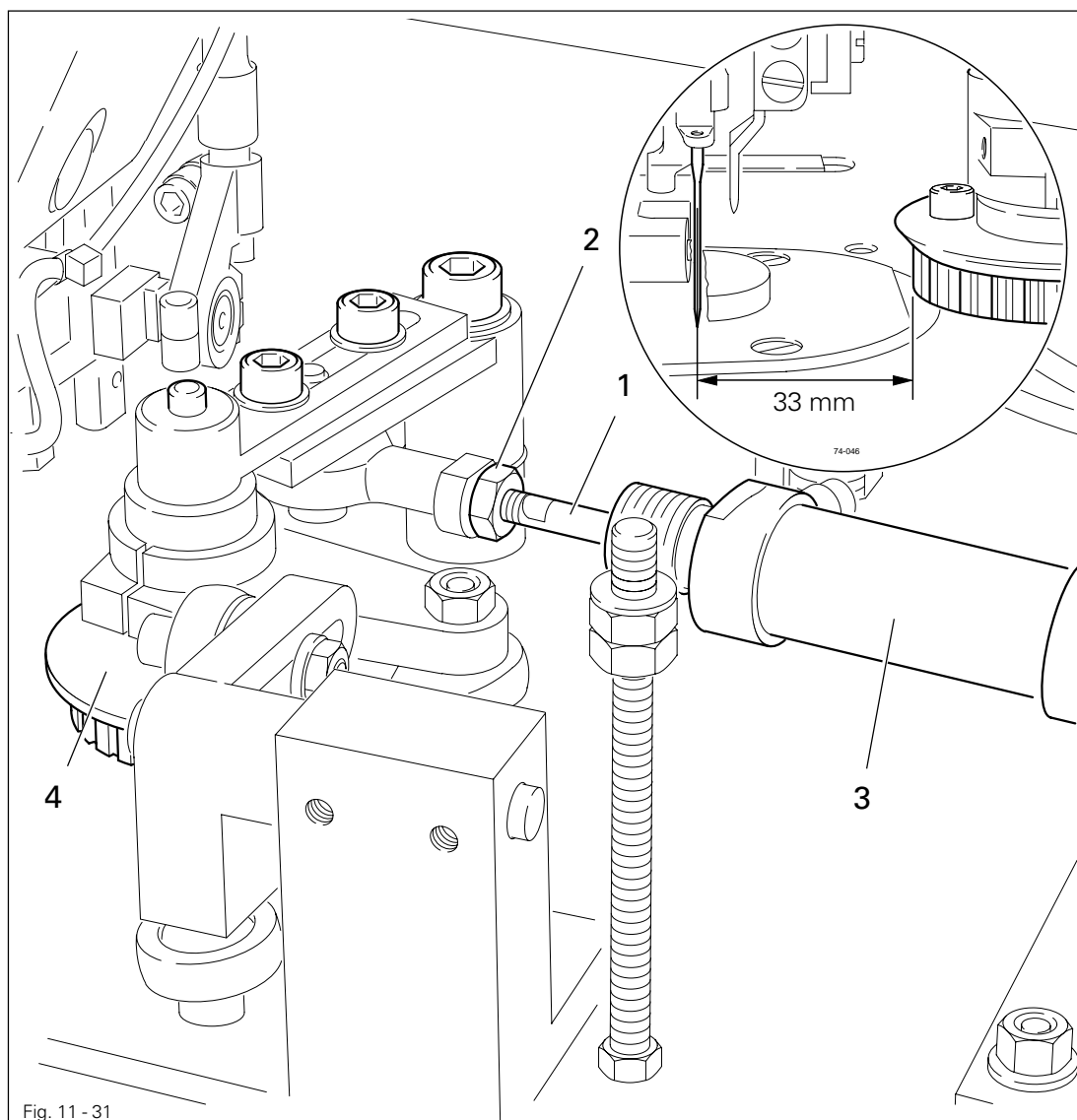


- Adjust drive wheel **1** (screws **2**) in accordance with the **requirement**.

## 11.09.04 Distance of the drive wheel to the centre of the needle

### Requirement

When cylinder 3 is extended, the outer edge of drive wheel 4 should be at a distance of 33 mm from the centre of the needle.



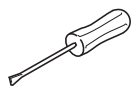
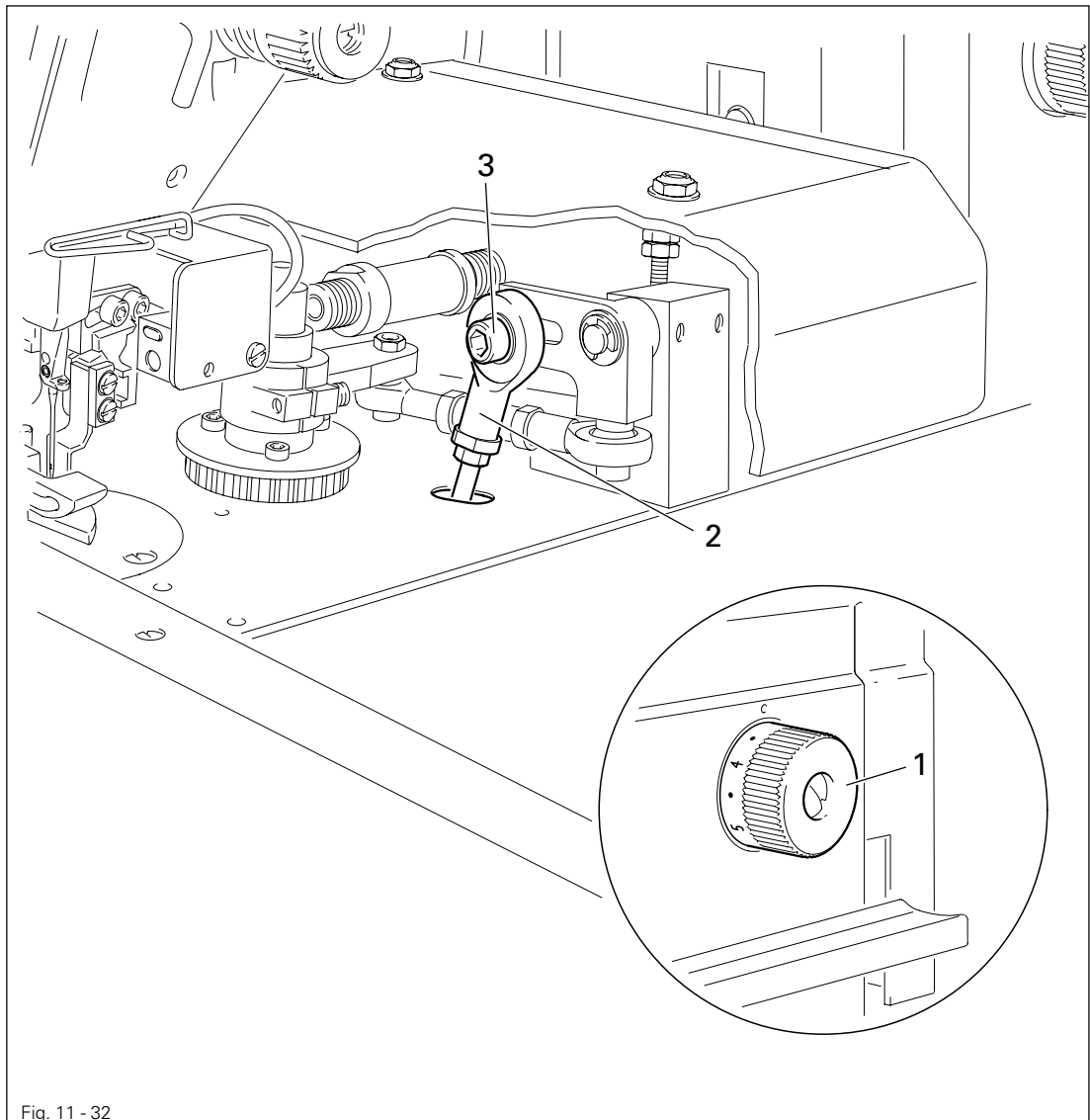
- Adjust plunger 1 (nut 2) in accordance with the requirement.

# Adjustment

## 11.09.05 Stitch length adjustment

### Requirement

When the stitch length is set at "3.5", the actual stitch length should be 3.5 mm.

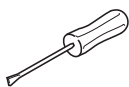
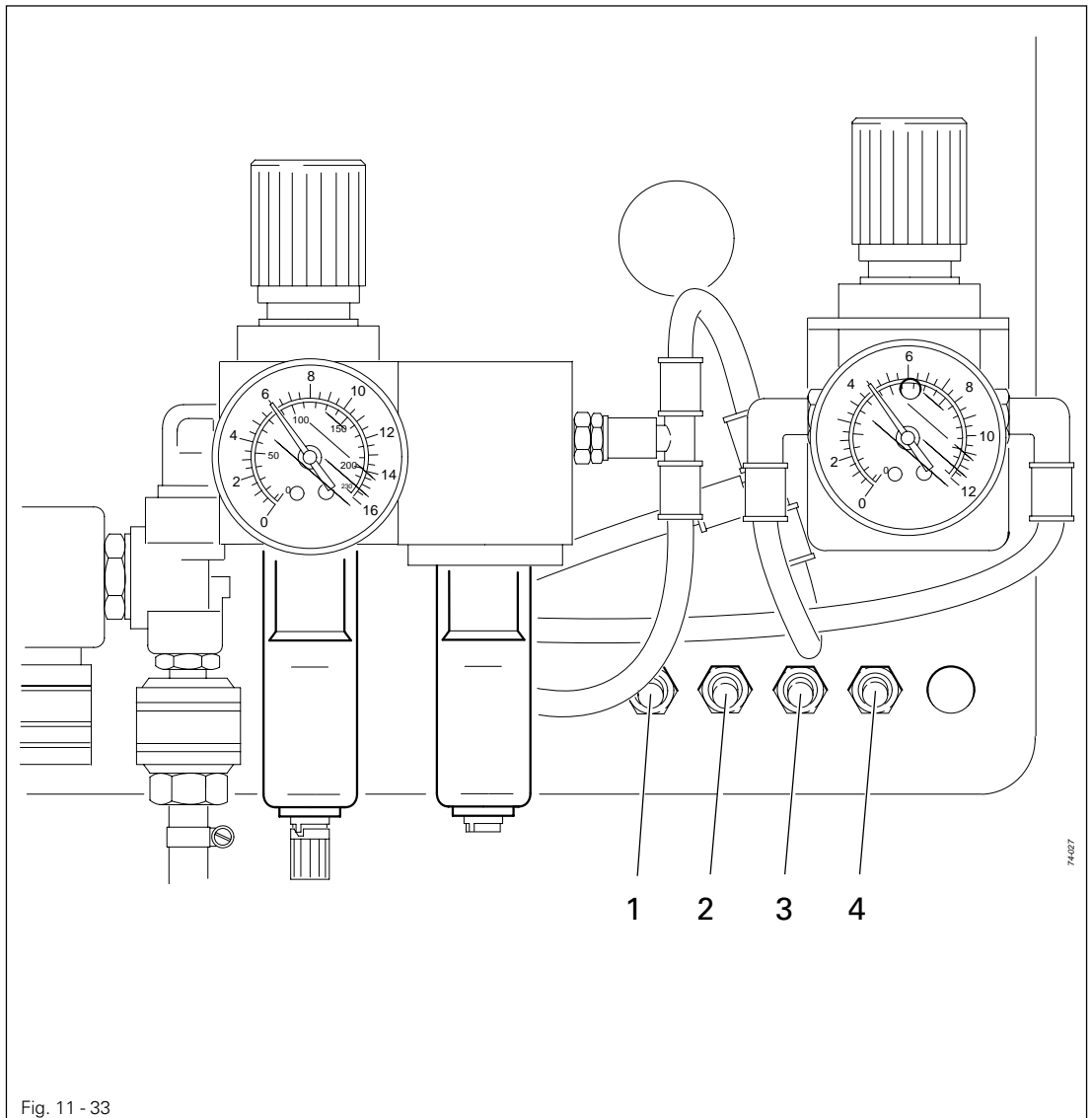


- Select stitch length "3.5" on adjustment wheel 1.
- Adjust spherical head 2 (screw 3) in accordance with the requirement.

## 11.09.06 Adjusting the air chokes

### Requirement

The air chokes 1 – 4 should be set to ensure smooth operation.

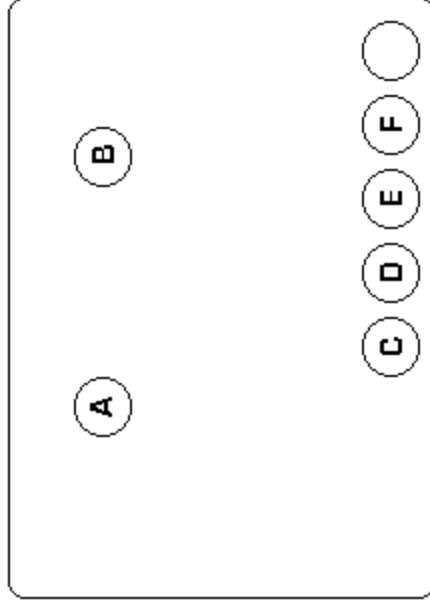


- Air choke 1  
For setting the time delay for "jig stop raised after end of seam".  
This is where the time left to remove the jig after sewing is set.
- Air choke 2  
For setting the time for continued waste extraction after sewing has stopped.
- Air choke 3  
For setting the intensity of the suction air for extracting the cutting waste.
- Air choke 4  
For setting the intensity of the air jet in the presser foot.

## Pneumatic adjustments

Air pressure regulators at the backside of the machine.

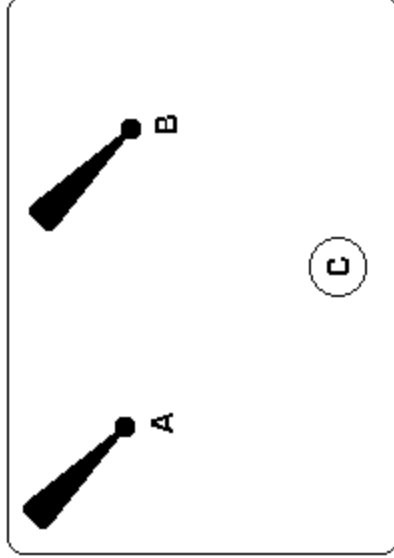
- (A) Main air pressure control.
- (B) Air pressure control for pressure on the cylinder for moving the feed wheel against the template.
- (C) Speed for the positioning pin up.
- (D) Delay for switching off the vacuum at the end of the seam.
- (E) Power of the vacuum.
- (F) Air blowing on the sewing foot.



## Switches and potentiometers

The front side of the machine

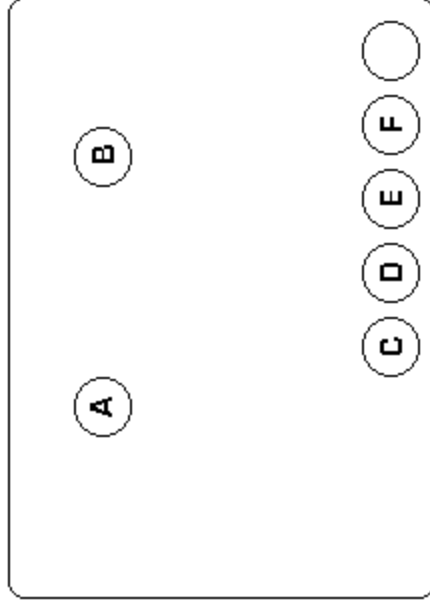
- (A) Edge-cutting knife up or down.
- (B) Activate the edge-cutting system.
- (C) Time delay for edge-cutting knife down.



## Pneumatic adjustments

Air pressure regulators at the backside of the machine.

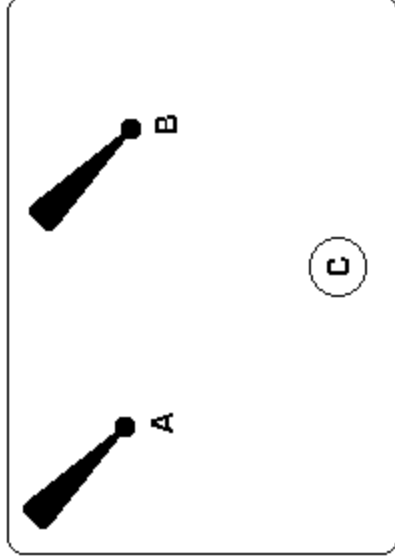
- (A) Main air pressure control.
- (B) Air pressure control for pressure on the cylinder for moving the feed wheel against the template.
- (C) Speed for the positioning pin up.
- (D) Delay for switching off the vacuum at the end of the seam.
- (E) Power of the vacuum.
- (F) Air blowing on the sewing foot.



## Switches and potentiometers

The front side of the machine

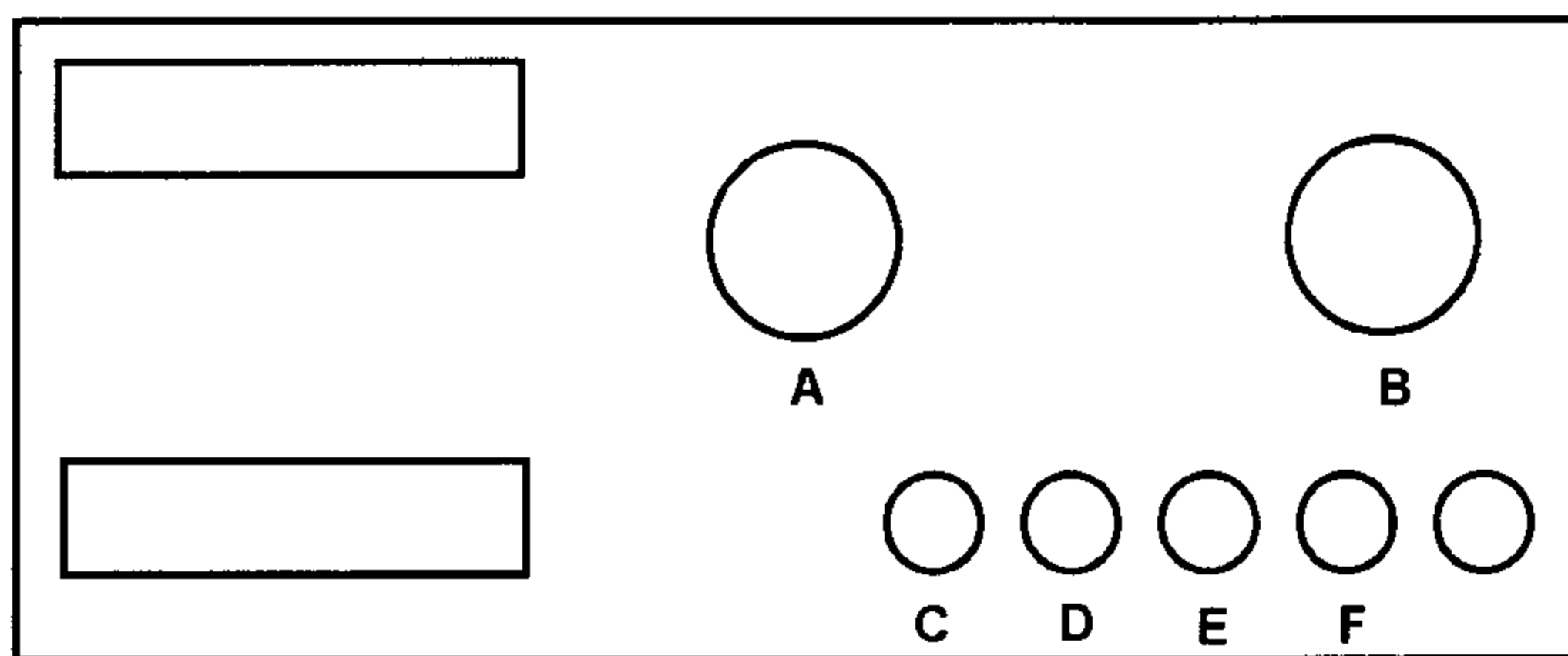
- (A) Edge-cutting knife up or down.
- (B) Activate the edge-cutting system.
- (C) Time delay for edge-cutting knife down.



# Pfaff 9083

## PNEUMATIC ADJUSTMENTS

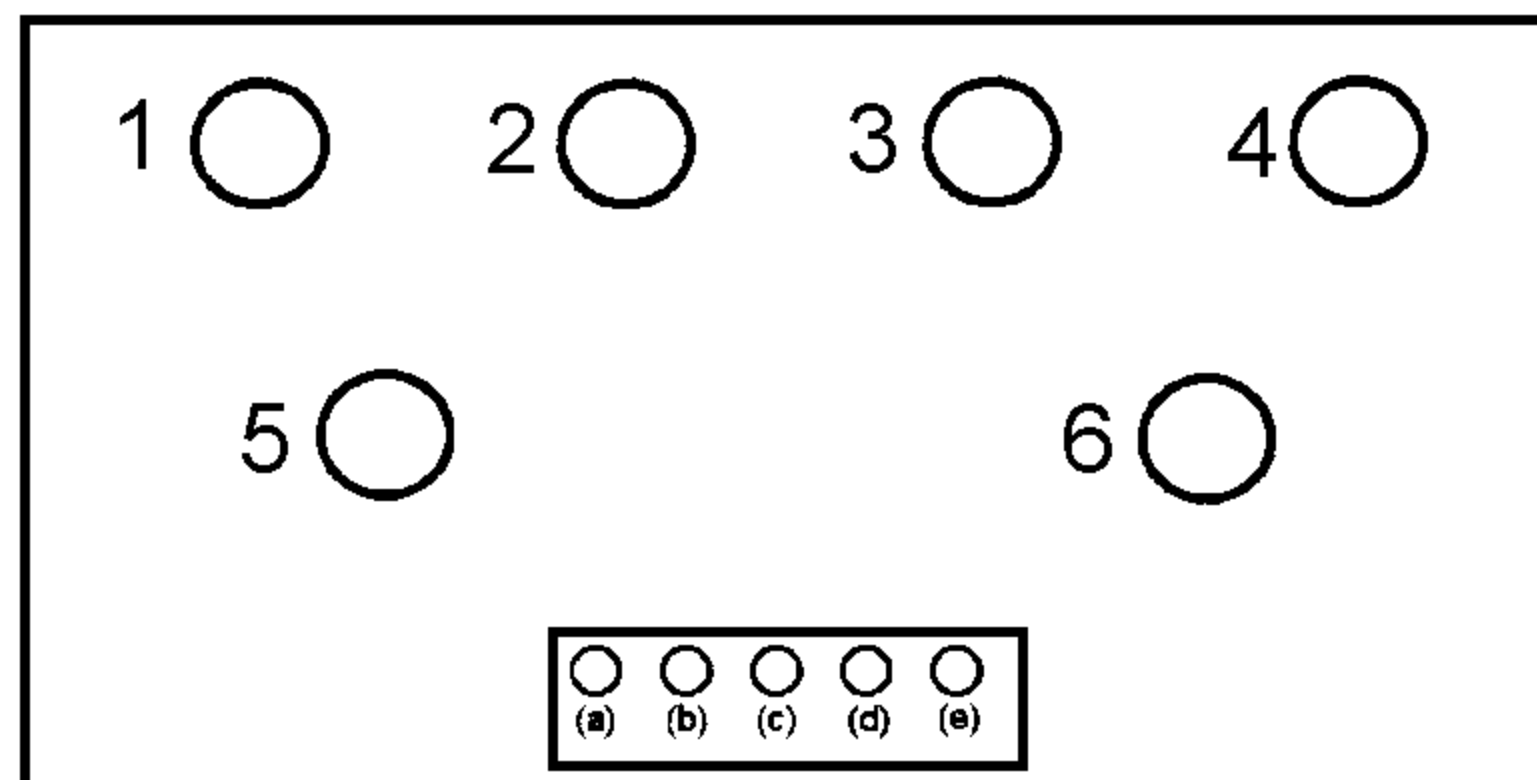
- A -- Air pressure control.
- B -- Air pressure control for cylinder feed belt.
- C-- Speed for positioning pin up.
- D-- Delay for switch off vacuum at the seam end.
- E-- Power of vacuum.
- F-- Needle cooling of sewing foot.



## SWITCHES AND POTENTIOMETERS

- 1 = Delay for edge cutting knife down.
- 2 = Corner stop on / off. (switch up corner stop on-switch down corner stop off.)
- 3 = Edge knife manual down.
- 4 = Edge knife enabled / disabled.
- 5 = Delay adjustment for edge knife down.
- 6 = Delay adjustment for feed wheel forward.

- a = sewing start after turn.
- b = start turning after first stop.
- c = sensitivity photo cell corner stop.
- d = turnstop.
- e = control lamp photo cell.





## Parameter list for the 9083 P40 ED

| Parameter | DESCRIPTION  | Value |
|-----------|--|-------|
| 111       | (LS/STZA) Light barrier compensation stitches 1<br>(stitches from light barrier clear to seam end) | 7     |
| 148       | (AR) Front backtack<br>1 double<br>0 single  | 1     |
| 149       | (ER) End backtack<br>1 double<br>0 single  | 1     |
| 163       | (LS) Sewing with photocell<br>1 yes<br>0 no  | 1     |
| 607       | (DRZ) Speed level  | 2000  |
| 618       | (RDR) Inverse rotation after seam end<br>1 yes<br>0 no   | 1     |
| 651       | (PF) Presser foot with automatic descent on machine stop<br>1 yes<br>0 no                          | 0     |
| 701       | (NAPO) Angular adjustment<br>1 with handwheel (teach in)<br>0 by keys (+/-)                        |       |
| 702       | (NAPO) Needle position one (needle down)   |       |
| 729       | (STVERZ/PF) Start delay after lower presser foot<br>300  | 300   |

On the operator control   
panel, the following should   
be on.   
First backtack   
Second backtack   
Foot lift after trim   
Trim   
Photocell



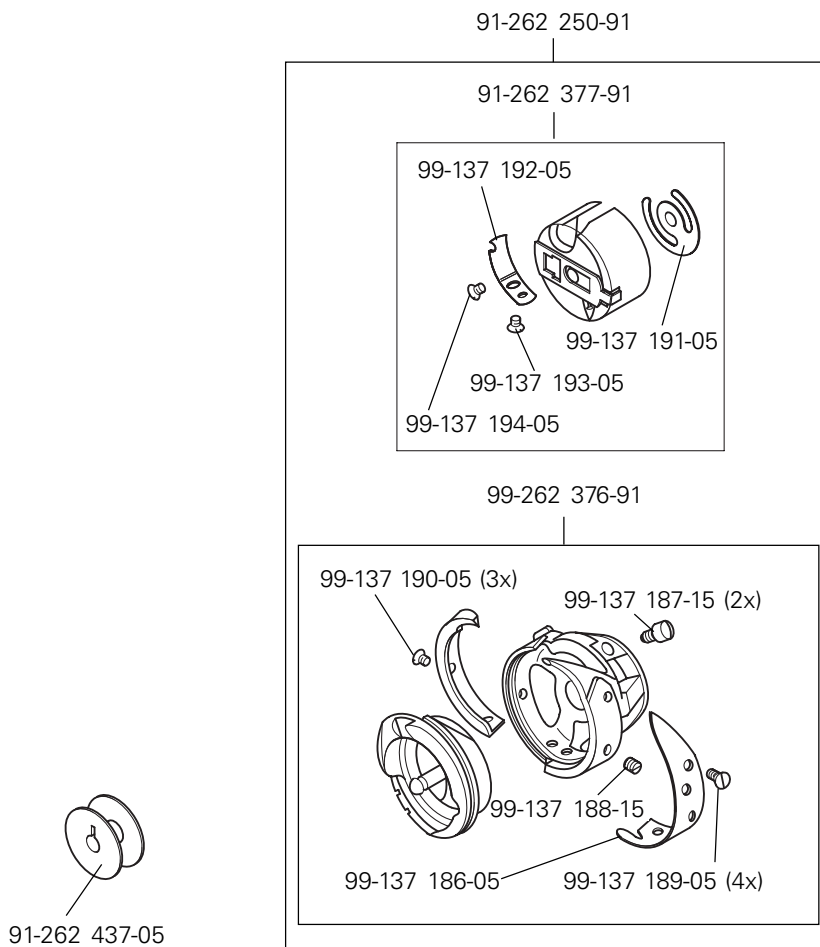
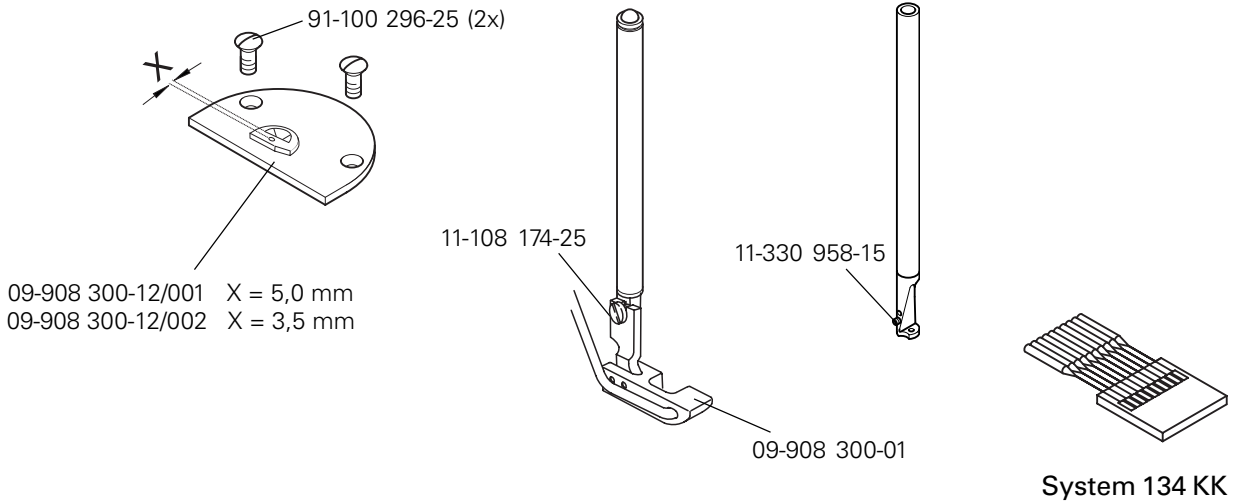
12

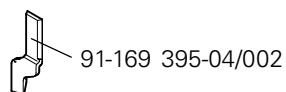
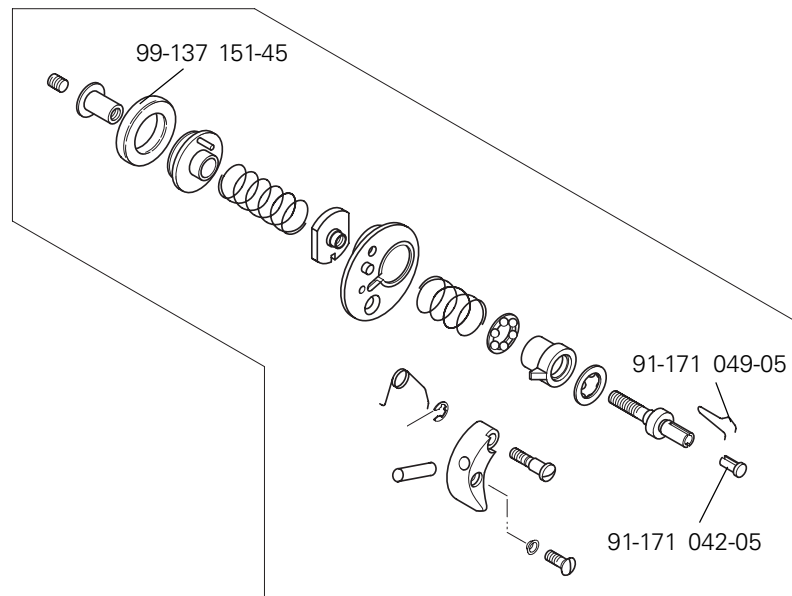
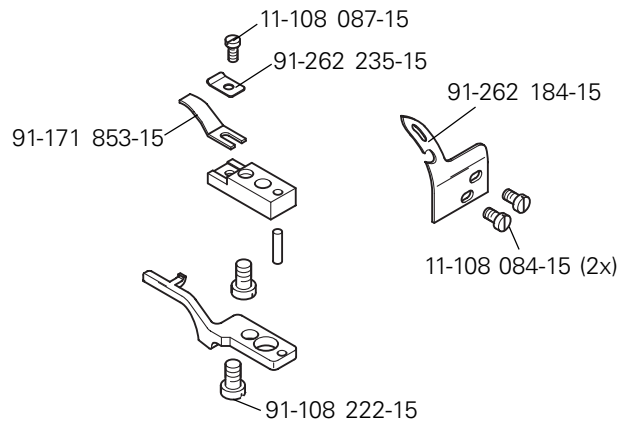
## Wearing parts



This list indicates the most important wearing parts.

You can request a detailed parts list for the complete machine under parts number 296-12-18 453.





# PFAFF

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