

# PFAFF

## -900/71

Service Manual  
for the 5480 series

At the time of printing, all information and illustrations contained in this document were up to date.

Subject to alteration!

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

**G.M. PFAFF**  
**Aktiengesellschaft**

Postfach 3020  
D-67653 Kaiserslautern

Königstr. 154  
D-67655 Kaiserslautern

Editing / Illustration  
**PFAFF**  
**Abtlg. TES**

	Contents .....	Chapter - Page
<b>1</b>	<b>Safety .....</b>	<b>1 - 1</b>
1.01	General notes on safety .....	1 - 1
1.02	Safety symbols .....	1 - 2
1.03	Danger .....	1 - 2
<b>2</b>	<b>Adjustment .....</b>	<b>2 - 1</b>
2.01	Notes on adjusting .....	2 - 1
2.02	Tools, gauges and other accessories .....	2 - 1
2.03	Abbreviations .....	2 - 1
2.04	Work symbols .....	2 - 1
2.05	Check and adjustment aid .....	2 - 2
2.06	Pre-adjust the thread catcher .....	2 - 3
2.07	Positioning the ball stud .....	2 - 4
2.08	Position of thread catcher to needle .....	2 - 5
2.09	Thread catcher interlock .....	2 - 6
2.10	Tension release .....	2 - 7
2.11	Cutting test .....	2 - 8
2.12	Adjust Synchronizer .....	2 - 9
2.13	Parameter settings.....	2 - 10

## 1 Safety

### 1.01 General notes on safety

- This machine must 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!
- The machine must be used only for the purpose for which it is intended and must not be operated without its safety devices. Observe all relevant safety regulations!
- When exchanging sewing tools (e.g. needle, presser foot, needle plate, feed dog and bobbin), when threading, when the workplace is left unattended and during servicing, the machine must be disconnected from the mains by switching off the on/off switch or by removing the plug from the mains!
- Daily servicing work must be carried out only by appropriately trained persons!
- Repairs and special maintenance work must only be carried out by technicians or persons with appropriate training!
- For service or repair work on pneumatic systems the machine must be disconnected from the compressed air supply. The only exceptions to this are adjustments and function checks made by appropriately trained personnel!
- Work on the electrical equipment must be carried out only by electricians or appropriately trained personnel!
- Work is not permitted on parts and equipment which are connected to the power supply! Exceptions to this are contained in the regulations EN 50110!
- Modifications and alterations to the machine must 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 shall not be liable for any damage which may be caused by non-original parts!

1.02 Safety symbols



Danger!  
Points to be observed.



Danger of injury to operating and specialist personnel!

1.03 Danger



Do not reach into the sewing area while sewing!  
Danger of injury caused by needle!



Do not leave any objects on the table or near the needle plate while carrying out adjusting work. Objects can become jammed or be slung away! Danger of injury!



In order to adjust this device, the machine must be tilted to the back.  
Use **both** hands when returning the machine to an upright position!  
Danger of crushing between sewing head and table top!

## 2 Adjustment



The adjustments in this chapter are explained with the use of illustrations of the PFAFF 5483-814/01 or PFAFF 5483 H-814/01.

### 2.01 Notes on adjusting

All adjustments in these adjustment instructions are based on a completely installed machine and must only be carried out by appropriately trained specialists. Covers on the machine, which have to be removed and replaced for checks and adjustment work, are not mentioned here.

The screws and nuts in brackets ( ) are attachments of machine parts which are to be loosened before making the adjustment and tightened again after the adjustment has been carried out.

### 2.02 Tools, gauges and other accessories

- 1 set of screwdrivers with blade widths from 2 to 10 mm
- 1 set of open-ended spanners/wrenches, 7 to 14 mm across flats
- 1 set of allen keys from 1.5 to 6 mm
- 1 metal rule Order No. 08-880 218-00
- 1 adjustment pin, Ø 5 mm (Order No. 13-030 341-05)
- 1 clamp, Order No. 61-111 600-35/001
- 1 gauge, Order No. 61-111 642-19

### 2.03 Abbreviations

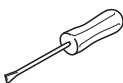
TDC = top dead center

BDC = bottom dead center

### 2.04 Work symbols



Note, information



Servicing, repair, adjustment, maintenance

## 2.05 Control and adjustment aids



By adjusting the holes 1, 3 and 4 with the adjustment pin ( $\varnothing 5$  mm) the required needle bar positions can be set exactly.

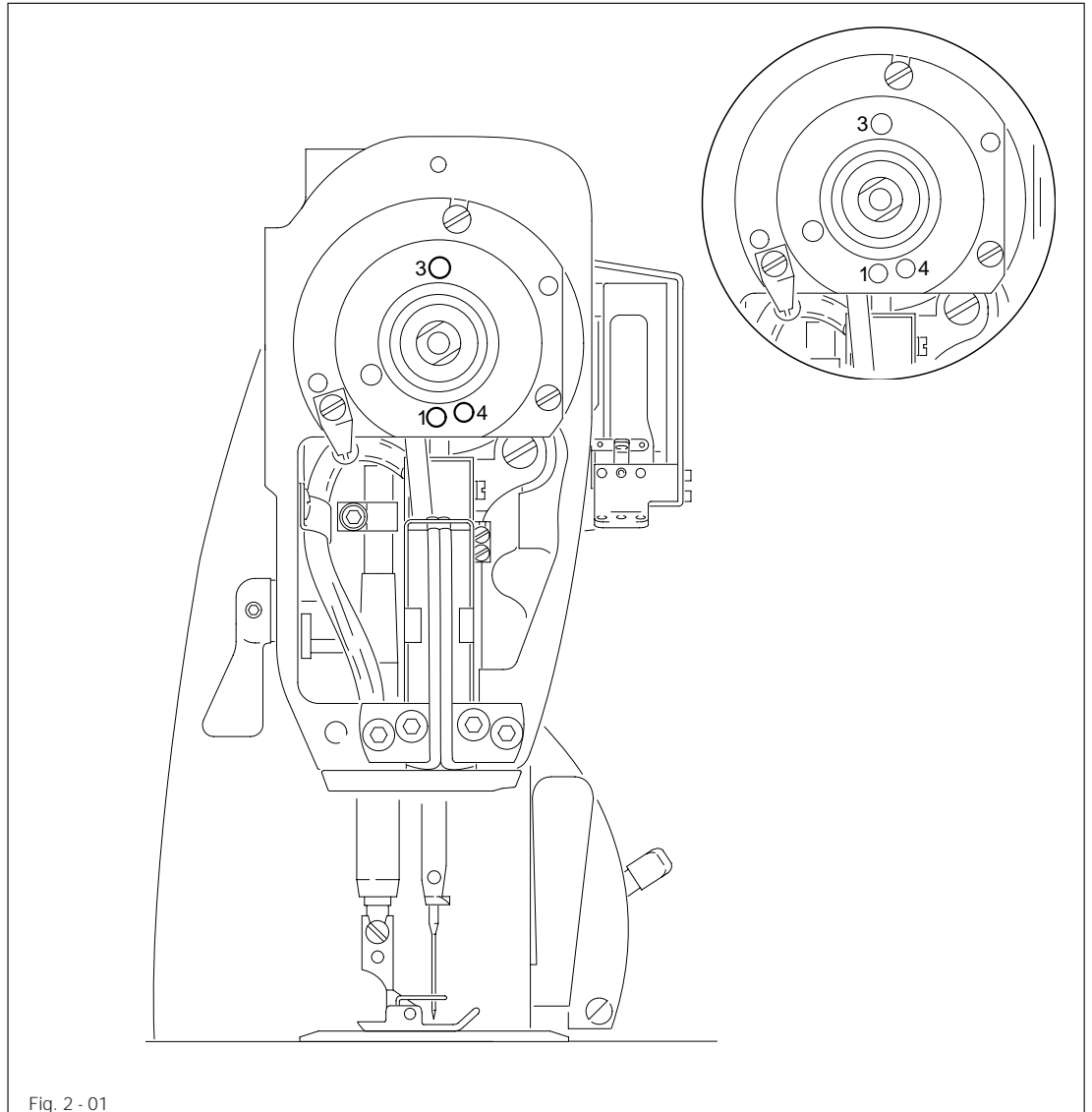
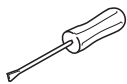


Fig. 2 - 01



- Turn the balance wheel until the needle is approximately in the required position.
- Insert the adjustment pin into the appropriate adjustment hole and apply pressure.
- Turn the balance wheel slightly backwards and forwards, until the adjustment pin slips into the rear crank recess, blocking the machine.

**Adjustment hole 1** = top dead center of the needle bar (TDC)

**Adjustment hole 3** = bottom dead center of the needle bar (BDC)

**Adjustment hole 4** = 0.8 mm before the top dead center of the needle bar (0.8 before TDC)

### Requirement

1. Between the point of the thread catcher 4 and the front edge of the mounting plate 1 there must be a clearance of 32.5 - 33 mm.
2. The guide plates 5 must be parallel to the mounting plate 1.
3. The thread catcher 4 should move freely and with little play.

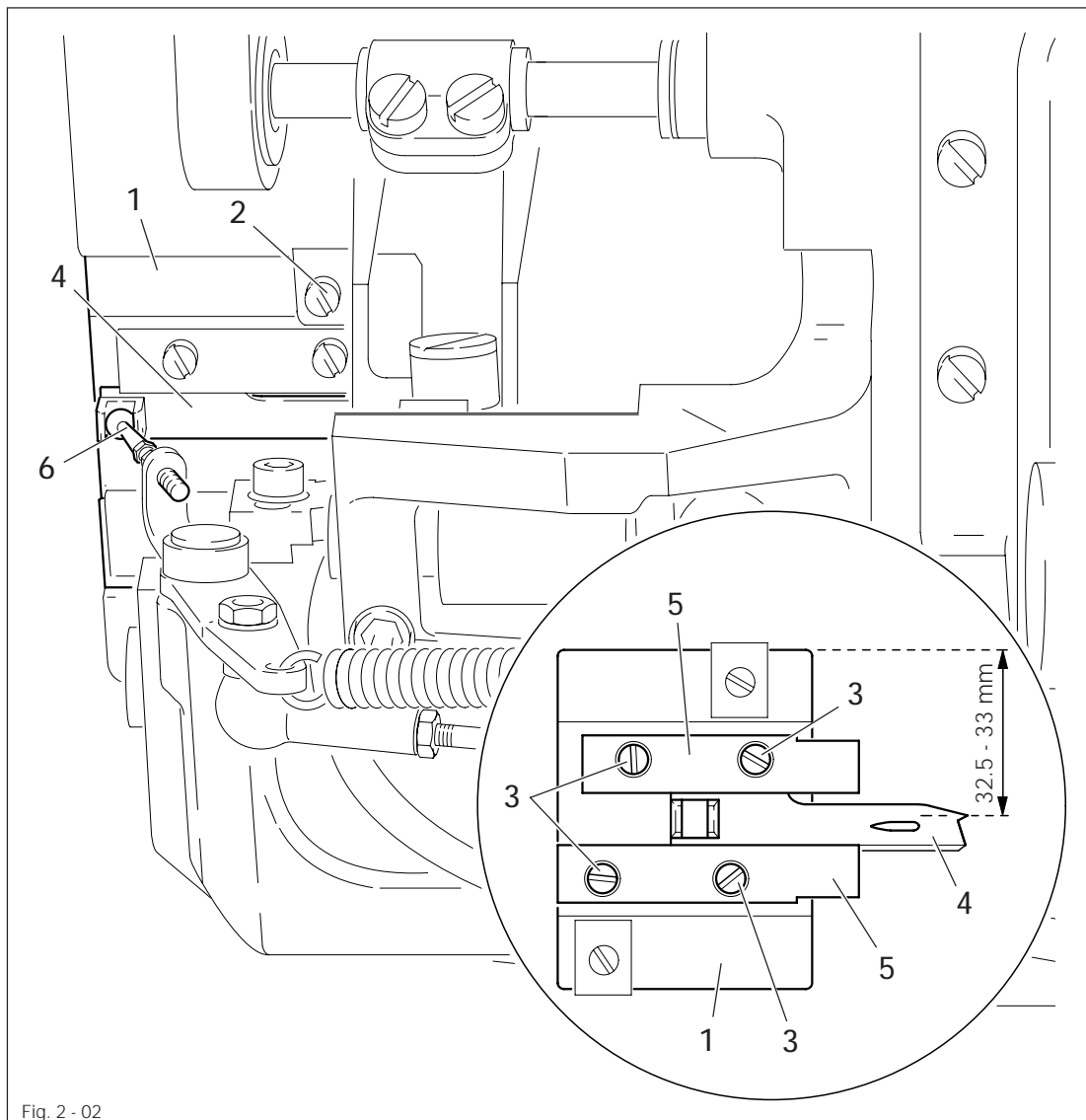
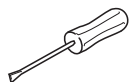


Fig. 2 - 02



- Remove mounting plate 1 (screws 2).
- Loosen screws 3.
- Adjust thread catcher 4 according to requirement 1.
- Align guide plates 5 according to requirements 2 and 3 and tighten screws 3.
- Making sure that the ball stud 6 engages in the actuator of thread catcher 4, unscrew the mounting plate 1.

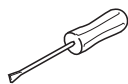
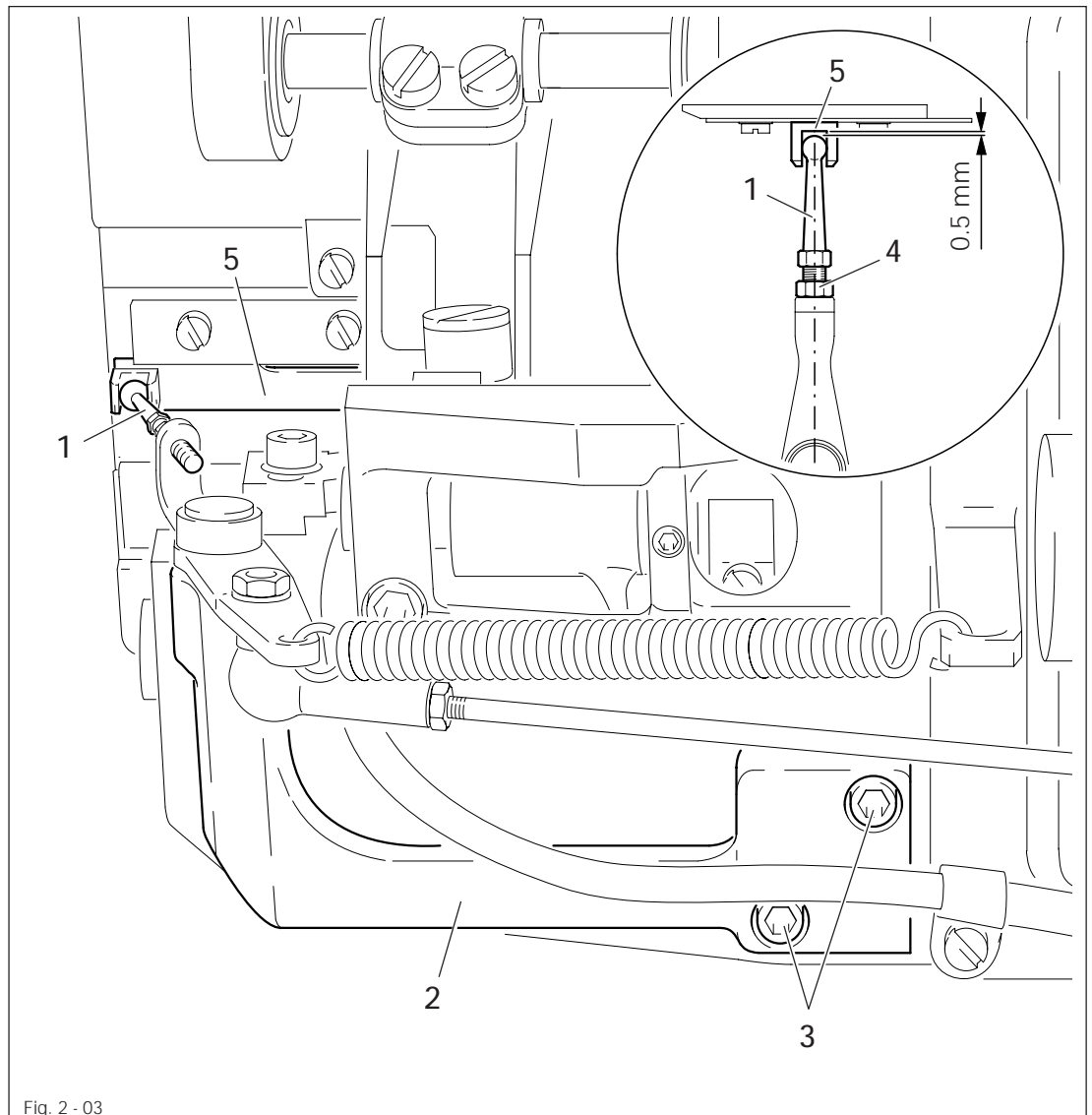


## 2.07 Positioning the ball stud

**Requirement**

In a vertical position the ball stud 1 must

1. be located in the middle of actuator 5 and
2. have a clearance of 0.5 mm to the bottom of actuator 5.



- Set ball stud 1 in a vertical position.
- Adjust bracket 2 (screws 3) according to requirement 1.
- Turn ball stud 1 (nut 4) according to requirement 2.

## 2.08 Position of thread catcher to needle

### Requirement

When the thread-trimming device is in a neutral position, there must be a clearance of 7 mm between the point of the thread catcher 4 and the needle center.

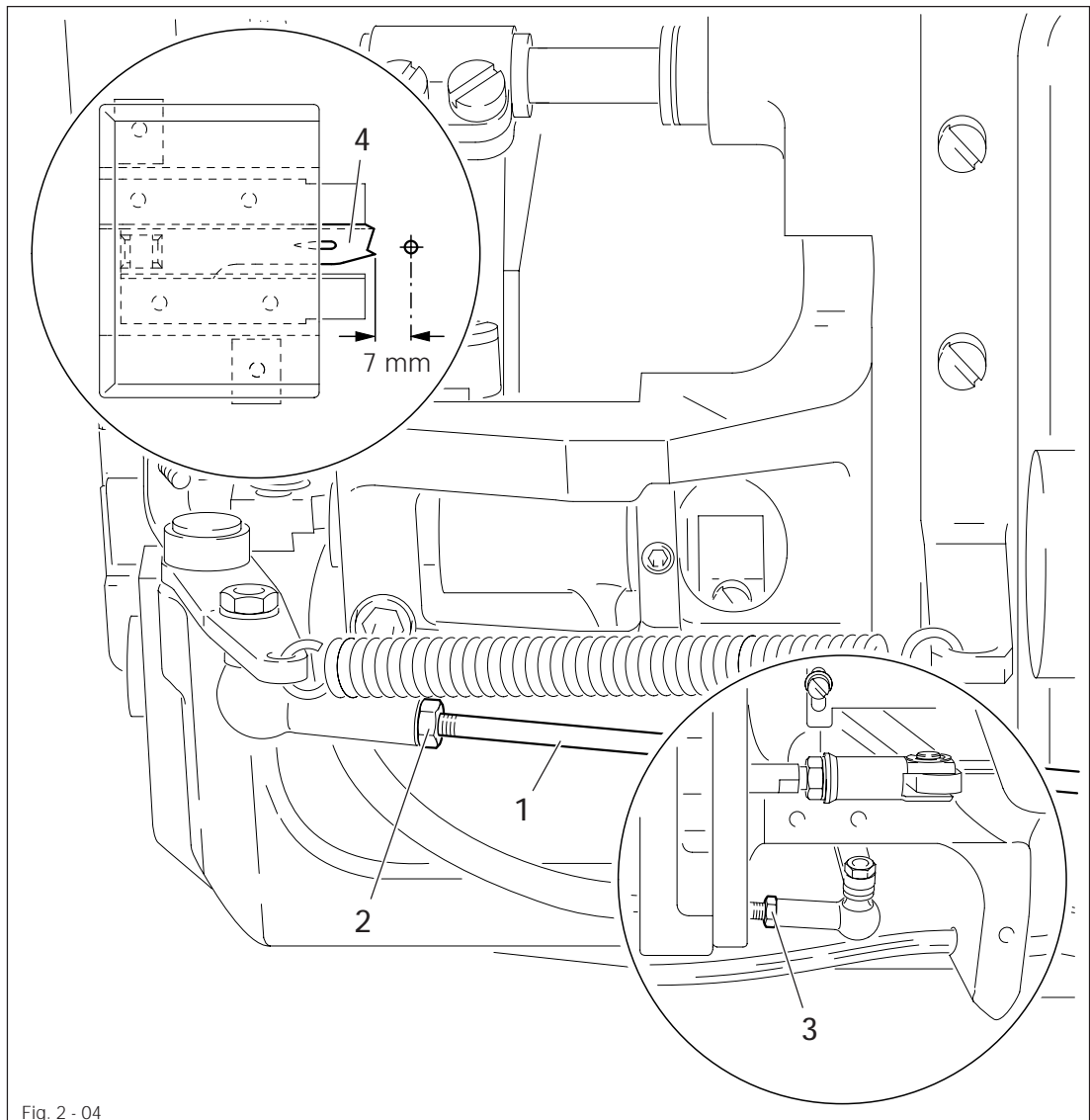
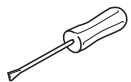


Fig. 2 - 04



- Bring the thread-trimming device into its neutral position.
- Turn linkage rod 1 (nut 2, nut 3 with left-handed thread) according to the requirement.

## 2.09 Thread catcher interlock

## Requirement

1. When the needle bar is at TDC, the roller 3 must be located in the center of the cutout of the interlocking cam 2.
2. When the thread-trimming device is in a neutral position and the needle bar is at BDC, there must be a clearance of 0.5 - 1 mm between the interlocking cam 2 and the roller 3.

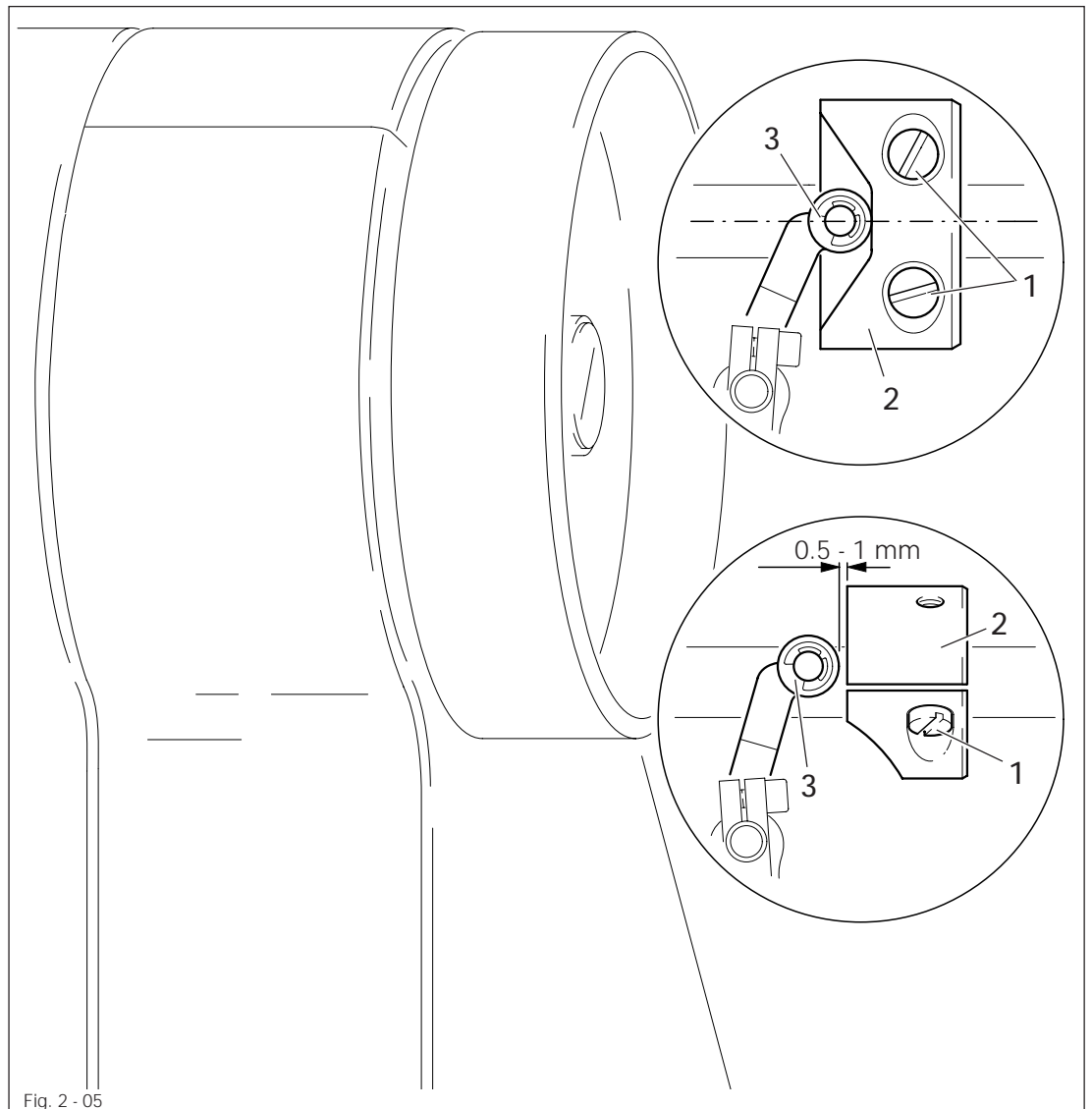
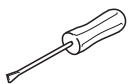


Fig. 2 - 05

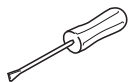
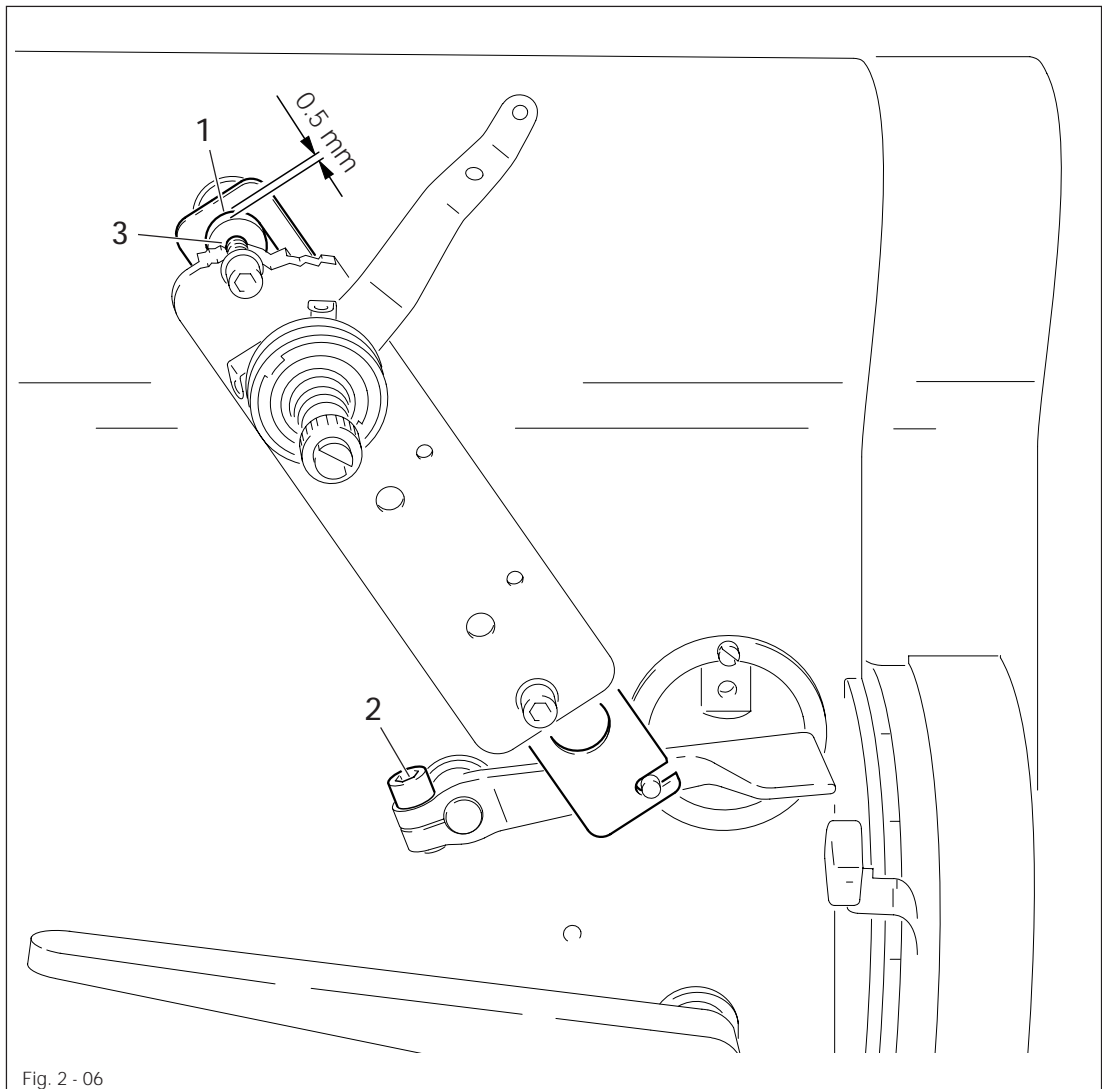


- Loosen screws 1 so that the interlocking cam can be turned on its shaft with resistance.
- Bring the needle bar to TDC.
- In this position turn the interlocking cam 2 according to **requirement 1**.
- Bring the thread-trimming device to its neutral position and the needle bar to BDC.
- Adjust interlocking cam 2 according to **requirement 2** and tighten screws 1.

## 2.10 Tension release

### Requirement

When the cylinder is fully actuated, there must be a clearance of about **0.5 mm** between the top end of the elongated hole in plate 1 and the guide pin 3.



- Fully actuate the cylinder of the thread-trimming device.
- Adjust plate 1 (screw 2) according to the requirement.

## 2.11 Cutting test

## Requirement

1. The point of the thread catcher 2 must pick up the looper thread and the rear part of the needle thread loop reliably.
2. When the cover plate 1 is removed, the threads must remain undamaged.
3. When the cover plate 1 is in position, the thread catcher 2 must move between the knife 3 and the clamp springs 5, during which the threads are properly cut and bound.

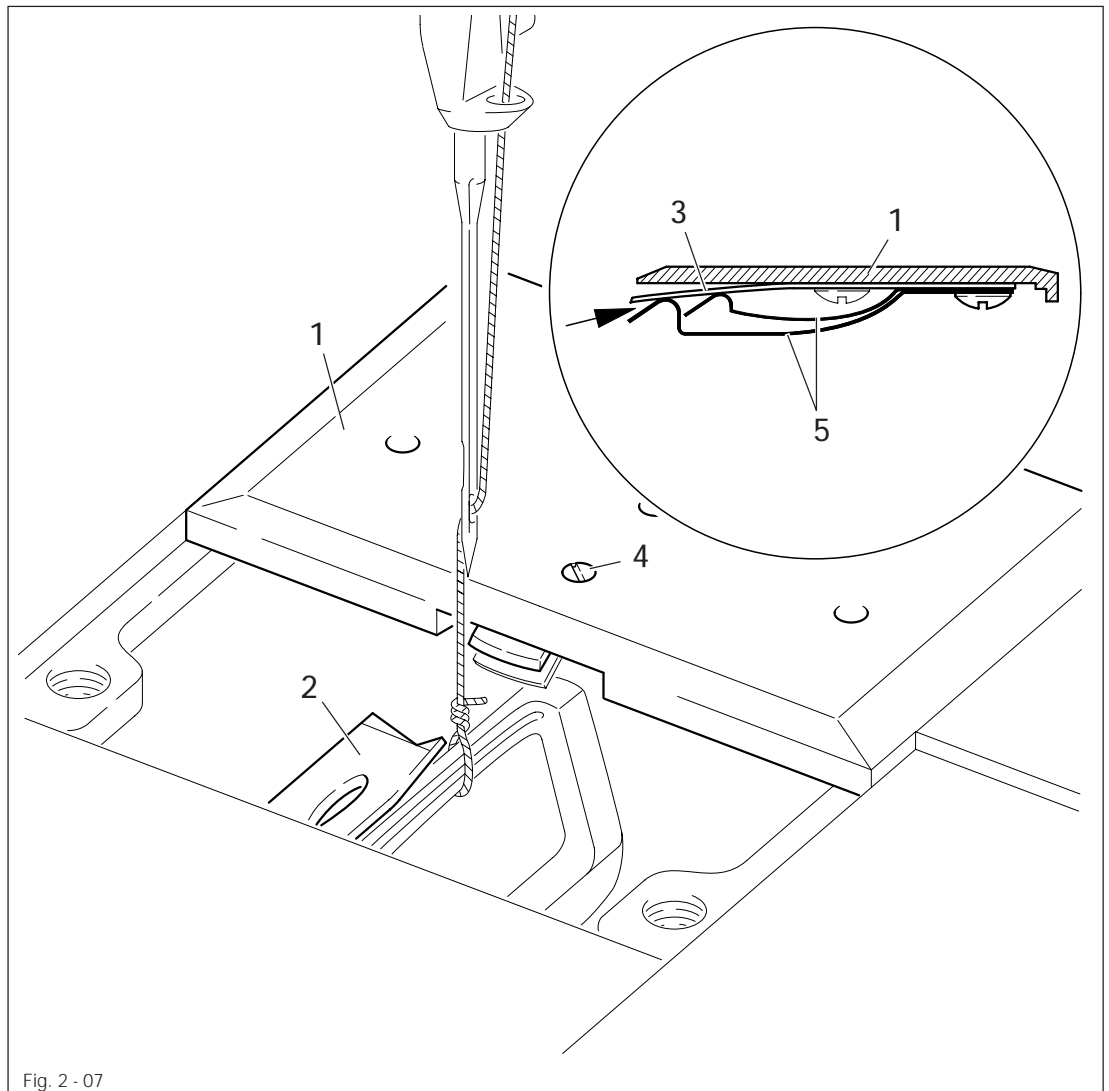
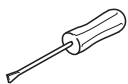


Fig. 2 - 07

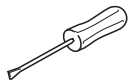
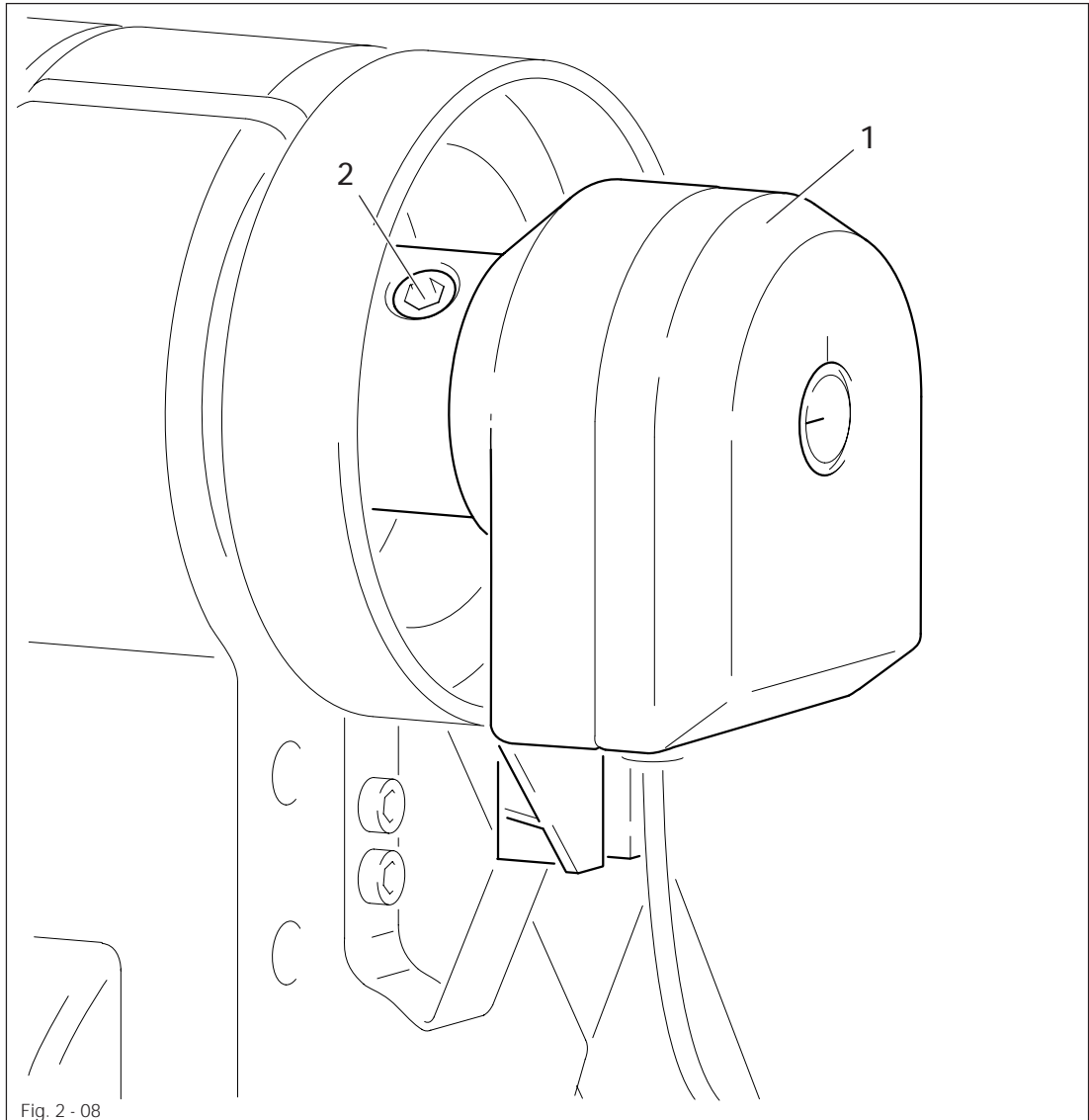


- Place material under the presser foot and sew a few stitches.
- Remove cover plate 1.
- Bring the needle bar to TDC.
- Operate the cutting cylinder manually, checking requirements 1 and 2.
- If necessary, readjust thread catcher 2 accordingly.
- Screw on cover plate 1.
- Operate cutting cylinder again, checking requirement 3.
- If necessary, carefully turn screw 4 according to requirement 3.

## 2.12 Adjust the synchronizer

### Requirement

After the thread has been trimmed, the machine should be positioned 0.3 - 0.4 mm after TDC.



- Adjust synchronizer 1 (screw 2) according to the operating instructions for the motor. Also see Chapter 2.13 Parameter settings.

## 2.13 Parameter settings

Group	Parameter	Significance	Setting	Standard value
6	601	Cut I = yes II = no		I
	607	Max. speed	100 - 10000	5500
	609	Cutting speed 1	30 - 300	180
7	700	Needle position 0 Needle reference position	0 - 239	
	701	Angle setting I = Set synchronizer with balance wheel II = Set synchronizer with buttons "+" and "-"		I
	702	Needle position 1 (needle lowered)	0 - 239	75
	703	Needle position 2 (take-up lever raised)	0 - 239	213
	705	Needle position 5 (End cutting signal 1)	0 - 239	125



Further displays and information are available in the Service Manual, of the motor.

# PFAFF

**G.M. PFAFF  
Aktiengesellschaft**

Postfach 3020  
D-67653 Kaiserslautern

Königstr. 154  
D-67655 Kaiserslautern

Telefon: (0631) 200-0  
Telefax: (0631) 17202  
Internet: [www.PFAFF.de](http://www.PFAFF.de)

Gedruckt in der BRD  
Printed in Germany  
Imprimé en R.F.A.  
Impreso en la R.F.A.