

5483

Instruction Manual



This instruction manual applies to all versions and subclasses listed under "Specifications".

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G.M. PFAFF Aktiengesellschaft

Postfach 3020 D-67653 Kaiserslautern Königstr. 154 D-67655 Kaiserslautern

Editing/illustrations
HAAS-Publikationen GmbH
D-53840 Troisdorf

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Safety

1 Safety

1.01 Regulations

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

In addition to this instruction manual, please also observe all generally accepted, statutory and other legal requirements, including those of the user's country, and the applicable pollution control regulations!

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

1.02 General notes on safety

- The machine must only be operated by adequately trained operators and only when the instruction manual has been fully read and understood!
- All notices on safety and the instruction manual of the motor manufacturer are to be read before the machine is put into operation!
- All notes on the machine concerning danger and safety must be observed!
- The machine must be used for the purpose for which it is intended and must not be operated without its safety devices; all regulations relevant to safety must be adhered to.
- When part sets are changed (e.g. needle, presser foot, needle plate, feed dog or bobbin), during threading, when the workplace is left unattended and during maintenance work, the machine must be disconnected from the power supply by turning off the on/off switch or removing the plug from the mains!
- Daily maintenance work must only be carried out by appropriately trained persons!
- Repairs and special maintenance work must only be carried out by qualified technical staff or persons with appropriate training!
- During maintenance or repairs on the pneumatic system the machine must be disconnected from the compressed air supply! The only exception to this is when adjustments or function checks are carried out by appropriately trained technical staff!
- Work on the electrical equipment must only be carried out by technical staff who are qualified to do so!
- Work on parts or equipment connected to the power supply is not permitted! The only exceptions to this are specified in regulations EN 50110.
- Conversion or modification of the machine must only be carried out under observation of all relevant safety regulations!

1 - 1 **PFAFF**

Only spare parts which have been approved by us are to be used for repairs! We draw special attention to the fact that spare parts and accessories not supplied by us have not been subjected to testing nor approval by us. Fitting and/or use of any such parts may cause negative changes to the design characteristics of the machine. We shall not accept any liability for damage caused by the use of non-original parts.

1.03 Safety symbols



Danger!
Special points to observe.



Danger of injury to operating or technical staff!

1.04 Important notes for the user

- This instruction manual belongs to the equipment of the machine and must be available to the operating staff at all times.
 - This instruction manual must be read before the machine is operated for the first time.
- Both operating and technical staff must be instructed on the safety devices of the machine and on safe working methods.
- It is the duty of the user to operate the machine in perfect running order only.
- The user must ensure that none of the safety devices are removed nor put out of working order.
- The user must ensure that only authorized persons operate and work on the machine.

For further information please refer to your PFAFF agency.

PFAFF 1 - 2

Safety

1.05 Notes for operating and technical staff

1.05.01 Operating staff

Operating staff are the persons responsible for setting up, operating and cleaning the machine and for removing any disturbances in the sewing area.

The operating staff are obliged to observe the following points, and must:

- always observe the notes on safety in this instruction manual!
- avoid using any working methods which adversely effect the safety of the machine!
- avoid wearing loose-fitting clothing or jewelry such as necklaces or rings!
- also ensure that only authorized persons are allowed near the danger area of the machine!
- immediately report to the user any changes to the machine that may affect its safety!

1.05.02 Technical staff

Technical staff are persons who have been trained in electrical engineering, electronics, pneumatics and mechanical engineering. They are responsible for lubricating, servicing, repairing and adjusting the machine.

The technical staff are obliged to observe the following points, and must:

- always observe the notes on safety in this instruction manual!
- switch off the on/off switch before carrying out adjustment and repair work and ensure it cannot be switched on again unintentionally!
- never work on parts or equipment still connected to the power supply! Exceptions to this are only permissible according to regulations EN 50110;
- disconnected the machine from the compressed air supply when carrying out maintenance or repair work on pneumatic equipment!
 Exceptions to this are only permissible for function checks;
- replace all safety covers after carrying out maintenance or repair work!

1 - 3 **PFAFF**

1.06 Danger warnings



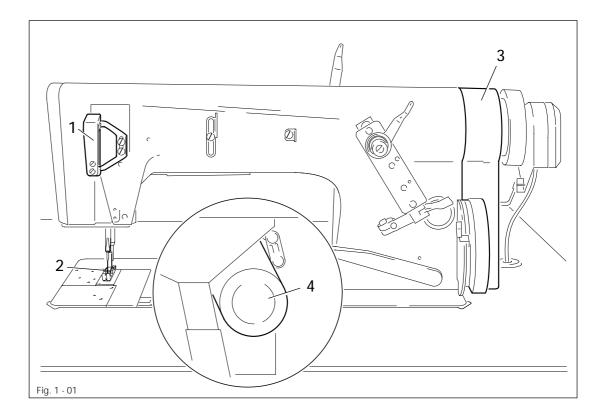
A working area of $1\ m$ must be kept free both in front of and behind the machine, so that easy access is possible at all times.



Never put your hands in the sewing area during sewing! Danger of injury by the needle!



While setting or adjusting the machine do not leave any objects on the table nor in the needle plate area! Objects may be trapped or slung out of the machine!





Do not operate the machine without take-up lever guard 1! Danger of injury by movement of take-up lever!



Do not operate the machine without finger guard 2! Danger of injury by the needle!



Do not operate the machine without belt guards 3 and 4! Danger of injury by rotating drive belt!

PFAFF 1 - 4

Proper use

2 Proper use

The **PFAFF 5483** is an ultra-high-speed chainstitch sewing machine with drop feed and serves for production of chainstitch seams in the textile industry.



Any use of these machines which is not approved by the manufacturer shall be considered as improper use! The manufacturer shall not be liable for any damage arising out of improper use! Proper use shall also be considered to include compliance with the operation, adjustment, service and repair measures specified by the manufacturer!

2 - 1 **PFAFF**

3 **Specifications** 3.01 PFAFF 5483-814/01; 5483 H-814/01 (single-needle machine) Needle system: Needle thickness in 1/100 mm: Model B: 80 to 100 Max. stitch length: Max. sewing speeds: Dimensions of the machine: Length: approx. 580 mm Breadth: approx. 177 mm Height (above table): approx. 265 mm Fabric clearance: Mains voltage and max. power input:see instruction manual of motor Fuse for power input line:see instruction manual of motor Working pressure: 6 bar Air consumption: ~ 0.8 l. per work cycle Noise level at workplace Noise measurement according to DIN 45635-48-A-1 Rights to make technical changes reserved ▲ Depending on material and operation 3.01.01 Models and work aids Model A: For sewing light materials Model B: For sewing medium materials Possible work aids: Subclass -748/26 Puller feed Subclass -911/......Backtacking system

PFAFF

Specifications

3.02	PFAFF 5483-814/01; 5483-814/02; 5483-814/06 (two-needle machine) •		
	Stitch type: 5483-814/015483-814/025483-814/06	402 (cording or vamping stitch)	
	Needle system: 5483-814/01 and 5483-814/06: 5483 H-814/02		
	Needle thickness in 1/100 mm: Model A: Model B:		
	Max. stitch length: Model A and B: Version AN 3.5:		
	Max. sewing speeds: 5483-814/01: 5483 H-814/02 and 5483-814/06:	•	
	Effective balance wheel dia	65 mm	
	Dimensions of the machine: Length: Breadth: Height (above table):	approx. 177 mm	
	Clear workspace width:		
	Fabric clearance: Net weight (sewing head): Gross weight (sewing head):	approx. 37 kg	
	Mains voltage and max. power input: Fuse for power input line: Working pressure: Air consumption:	see instruction manual of motorsee instruction manual of motor6 bar	
	Noise level at workplace at a speed of 4,800 r.p.m.:		
	◆ Rights to make technical changes reserved ▲ Deper	nding on material and operation	
3.02.01	Models and work aids		
	Model A:		
	Possible work aids: Subclass -900/71 (only on -814/02-45/02)	Thread trimmer	

3 - 2 **PFAFF**

4 Disposal of Machine

- Proper disposal of the machine is the responsibility of the customer.
- The materials used for the machine are steel, aluminium, brass and various plastic materials.

The electrical equipment comprises plastic materials and copper.

• The machine is to be disposed of according to the locally valid pollution control regulations; if necessary, a specialist ist to be commissioned.



Care must be taken that parts soiled with lubricants are disposed of separately according to the locally valid pollution control regulations!

PFAFF 4 - 1

Transportation, packing and storage

5 Transportation, packing and storage

5.01 Transportation to customer's premises

Within the Federal Republic of Germany, complete machines (with table and motor) are delivered without packing.

Machines without table (only sewing heads) and machines intended for exports are packed.

5.02 Transportation inside the customer's premises

The manufacturer cannot be made liable for transportation inside the customer's premises nor to other operating locations. It must be ensured that the machines are only transported in an upright position.

5.03 Disposal of packing materials

The packing materials of this machine comprise paper, cardboard and VCE fibre. Proper disposal of the packing material is the responsibility of the customer.

5.04 Storage

If the machine is not in use, it can be stored as it is for a period of up to six months, but It should be protected against dust and moisture.

If the machine is stored for longer periods, the individual parts, especially the surfaces of moving parts, must be protected against corrosion, e.g. by a film of oil.

5 - 1 **PFAFF**

Explanation of symbols

6 Explanation of symbols

In this instruction manual, work to be carried out or important information is accentuated by symbols. These symbols have the following meanings:



Note, information



Cleaning, care



Lubrication



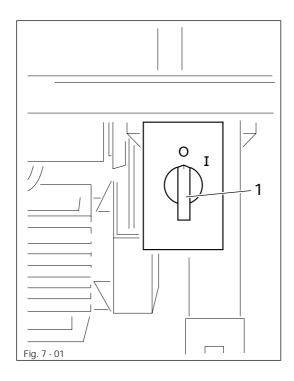
Maintenance, repairs, adjustment, service work (only to be carried out by technical staff)

PFAFF 6 - 1

Controls

7 Controls

7.01 Main switch

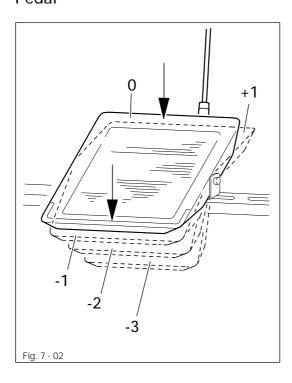


 The machine is switched on or off by turning main switch 1.



The illustrated main switch is fitted to machines with Quick motors. If other motors are used, different switches may be fitted.

7.02 Pedal



0 = neutral position

+1 = sewing, up to maximum speed

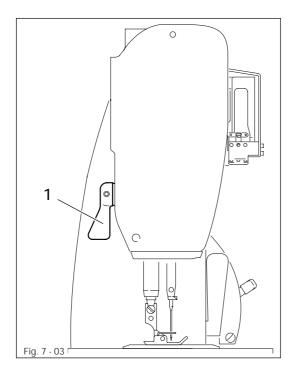
-1 = raise presser foot

-2 = raise puller roller (on machines with -748/26)

-3 = trim thread (on machines with -900/..)

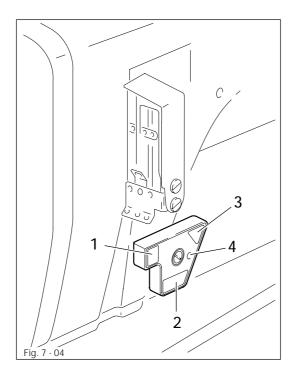
7 - 1 **PFAFF**

7.03 Presser bar lifter



 The presser foot is raised by turning lever 1.

7.04 Switch buttons on needle head

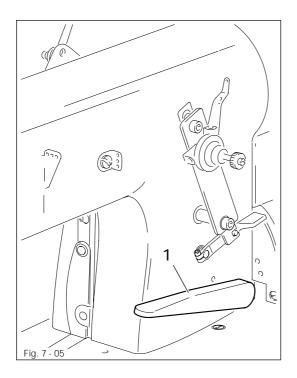


- The following functions are carried out by pressing the corresponding switch button.
- Button 1: Needle positions optionally in upor down position when sewing is interrupted.
- Button 2: On machines with stitch condensation, otherwise reverse sewing.
- Button 3: Suppression of automatic start or finish backtack (diode 4 lights up when function is enabled).

PFAFF 7 - 2

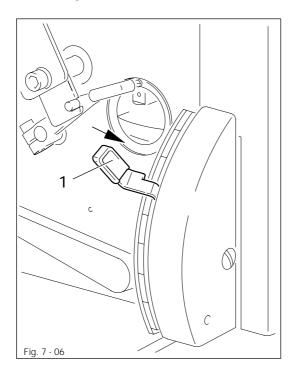
Controls

7.05 Reverse-feed control lever



 To sew condensed stitches, press lever 1 down.

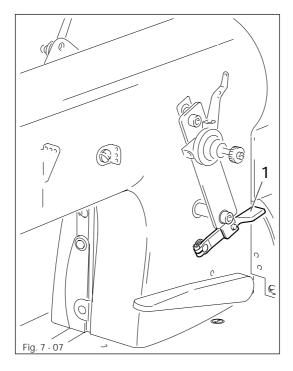
7.06 Feed regulator lever



 To set the stitch length, press lever 1 a little to the right and move it to the required stitch length.

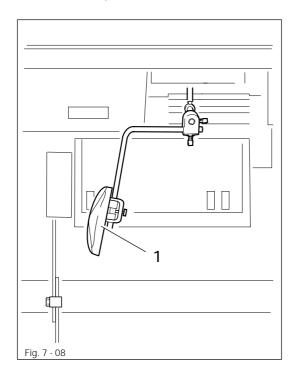
7 - 3 **PFAFF**

7.07 Thread tension release lever



 To release the thread tension push lever 1 downwards.

7.08 Knee lever (on machines without backtacking mechanism -911/..)

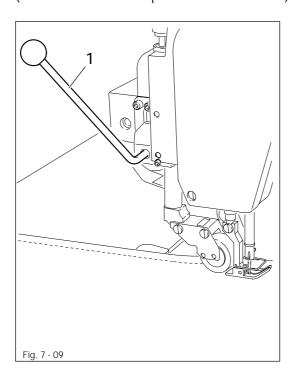


 To raise the presser foot, push kneelever 1 to the right.

PFAFF 7 - 4

Controls

7.09 Lifting lever for puller roller (on machines with puller feed -748/26)



- To raise the roller, press lever 1 downwards.
- To set the roller in its working position, raise lever 1.

7 - 5 **PFAFF**

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



If the machine is delivered without a table, be sure to use a stand and table top that can bear the weight of the machine and the motor reliably.

It is very important to ensure that support of the machine on its stand is firm and steady, also during sewing.

8.01 Installation

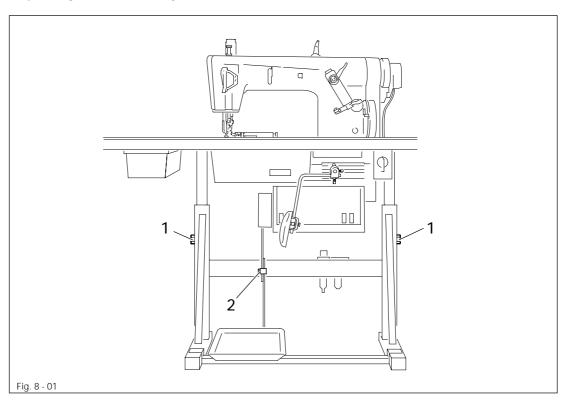
The site where the machine is installed must be provided with power connections (see Chapter 3, Specifications).

It must be ensured that the standing surface of the machine site is firm and horizontal, and that sufficient lighting is provided for.



For packing and transportation reasons the table top is in the lowered position. The table height is adjusted as described below.

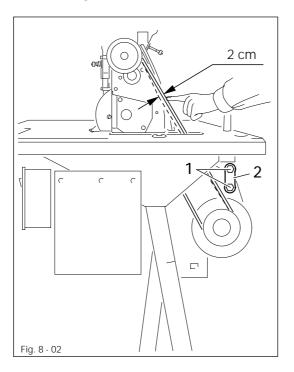
8.01.01 Adjusting the table height



- Loosen screws 1 and 2 and set the table height as required.
- Firmly tighten screws 1.
- Set the required pedal position and tighten screw 2.

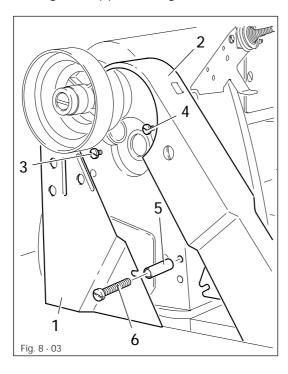
PFAFF 8 - 1

8.01.02 Tensioning the v-belt



- Loosen nuts 1.
- Tension the v-belt with motor bracket 2.
- Tighten nuts 1 firmly.

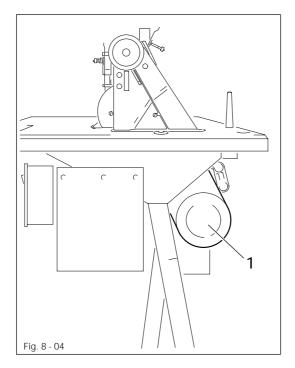
8.01.03 Fitting the upper belt guard



- Push belt guard halves 1 and 2 with their slots behind the heads of screws 3 and 4.
- Fit spacing sleeve 5 on screw 6 and wind screw 6 in a few turns.
- Making sure that the lug on belt guard half 2 is between belt guard half 1 and spacing sleeve 5, position the belt guard and tighten screws 3, 4 and 6.

8 - 2 **PFAFF**

8.01.04 Fitting the lower belt guard

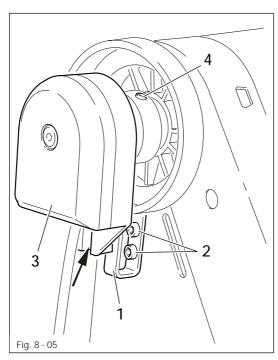


 Position belt guard 1 so that motor pulley and v-belt can run freely.



Fig. 8-04 shows a Quick motor. If a different motor is used, follow the instructions of the motor instruction manual.

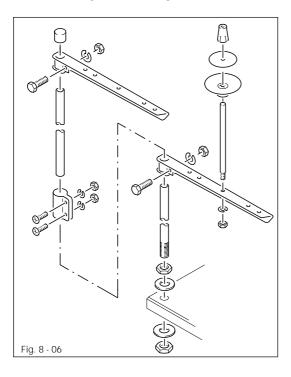
8.01.05 Fitting the synchronizer



- Screw on stop 1 with screws 2.
- Place synchronizer 3 on the shaft so that stop 1 is in the slot of synchronizer 3, see arrow.
- Tighten screws 4 just a little.
- Insert the plug for the synchronizer in the socket on the control box.
- Adjust synchronizer 3 (see Chapter 11.05.01, Adjusting the synchronizer).

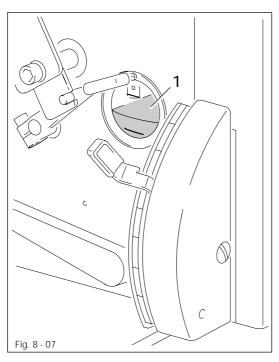
PFAFF 8 - 3

8.01.06 Assembling and fitting the reel stand



- Assemble the reel stand as shown in Fig. 8-06.
- Fit the reel stand in the holes in the table top and secure it with the nuts provided.

8.02 Commissioning





Before setting up, remove the protective foil from oil glass 1!

- Clean the machine thoroughly and afterwards check the oil level (see Chapter 10, Care and Maintenance).
- Check the machine for any damage, especially the electrical leads.
- Have a qualified person check whether the motor can be driven with the existing power voltage and that it is correctly connected in the junction box.



If there are any differences, the machine must definitely not be operated!



The machine must only be connected to a suitably earthed socket!

- When the machine is running, the balance wheel must turn towards the operator; if it does not, have a qualified person change the motor connection.
- Machines with pneumatic equipment have to be connected to the compressed air supply. The pressure gauge must show a pressure of 6 bar. If necessary have this reading adjusted (see Chapter 10.03, Checking/adjusting the air pressure).

8 - 4 **PFAFF**

9 Setting up

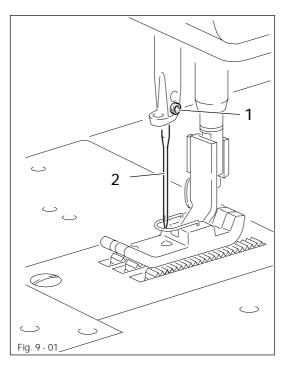


All instructions and regulations in this instruction manual must be observed. Special attention must be given to all safety regulations!



All setting-up work must only be done by personnel with the necessary training. For all setting-up work the machine must be isolated from its power supply by turning off the main switch or removing the machine plug from the electric power socket!

9.01 Inserting the needle on single-needle machines





Switch off the machine!

Danger of injury by
unintentional starting of the
machine!

- Set the needle bar at its highest point.
- Loosen screw 1.
- Push needle 2 fully into the needle bar (the long needle groove must face to the front).
- Tighten screw 1.

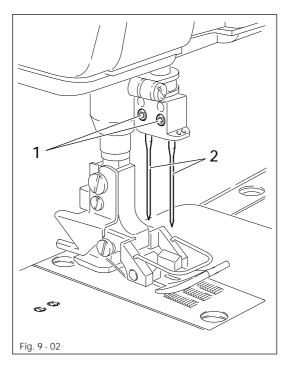


The choice of needle depends on the machine model and on the thread and material used (see Chapter 3, Specifications).

PFAFF 9 - 1

Setting up

9.02 Inserting the needles on two-needle machines





Switch off the machine!

Danger of injury by

unintentional starting of the
machine!

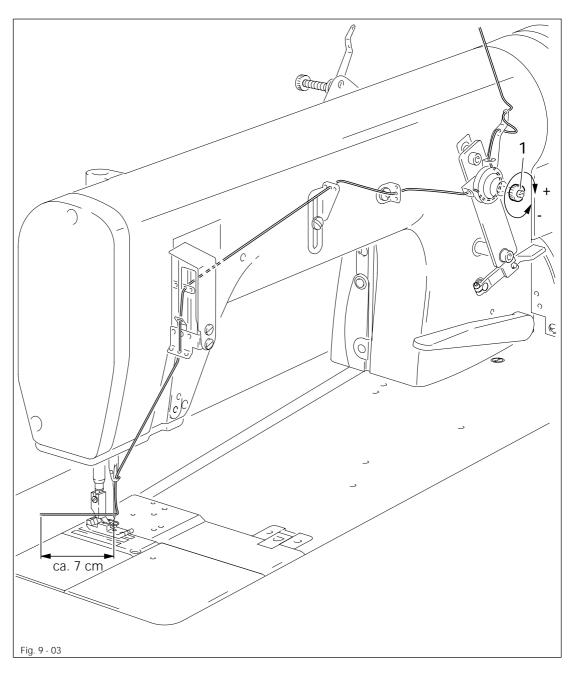
- Set the needle bar at its highest point and loosen screws 1.
- Push needles 2 fully into the needle bar (the long needle grooves must face to the front).
- Tighten screws 1.



The choice of needle depends on the machine model and on the thread and material used (see Chapter 3, Specifications).

9 - 2 **PFAFF**

9.03 Threading the needle thread and regulating its tension on single-needle machines





Switch off the machine!

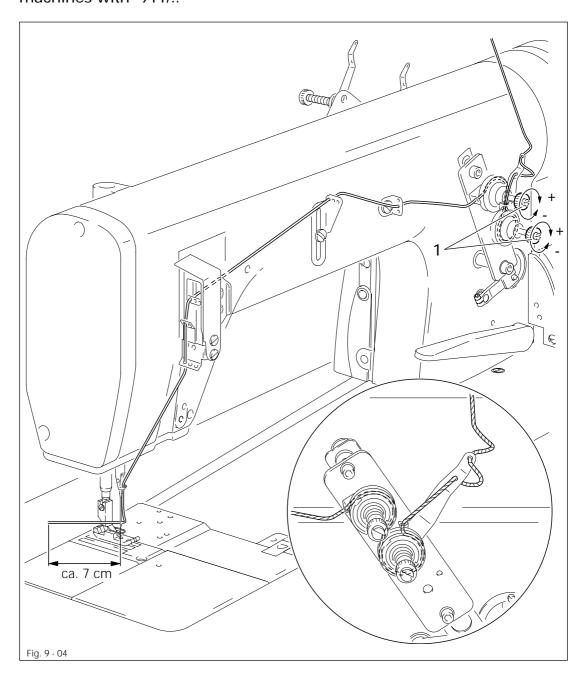
Danger of injury by unintentional starting of the machine!

- Thread the needle thread as shown in Fig. 9-03.
- Regulate the needle thread by turning knurled screw 1.

PFAFF 9 - 3

Setting up

9.04 Thread the needle thread and regulating its tension on single-needle machines with -911/..





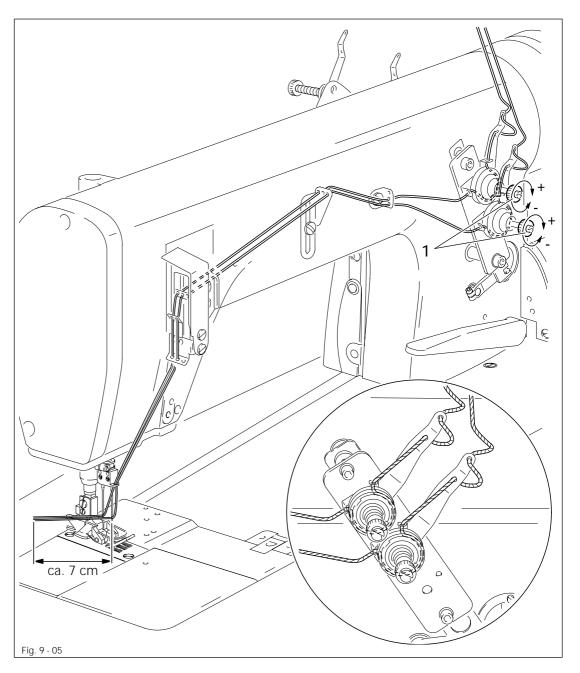
Switch off the machine!

Danger of injury by unintentional starting of the machine!

- Thread the needle as shown in Fig. 9-04.
- Regulate the needle thread tension by turning knurled screws 1.

9 - 4 **PFAFF**

9.05 Threading the needle threads and regulating their tension on twoneedle machines





Switch off the machine!

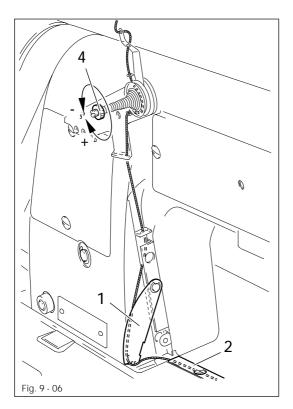
Danger of injury by unintentional starting of the machine!

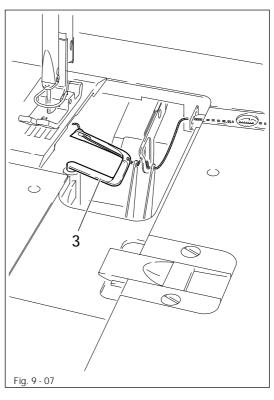
- Thread the needles as shown in Fig. 9-05.
- Regulate the needle thread tensions by turning knurled screws 1.

PFAFF 9 - 5

Setting up

9.06 Threading the looper thread and regulating its tension on single-needle machines







Switch off the machine!

Danger of injury by unintentional starting of the machine!

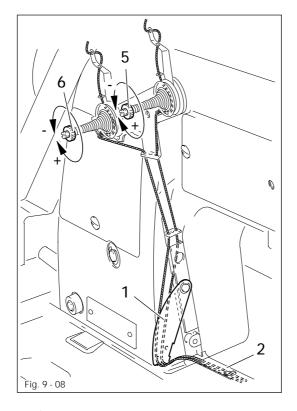
- Open the looper cover and swing out thread guide plate 1.
- Thread the looper thread as shown in Figs. 9-06 and 9-07 and pull it under guide plate 2.
- Thread looper 3 using tweezers.
- Regulate the looper thread by turning knurled screw 4.

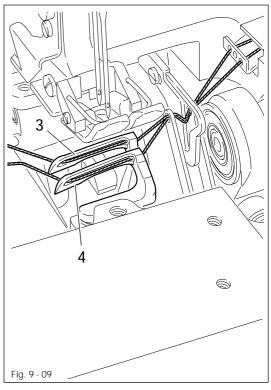


To pull the thread through, release thread tension (see Chapter 7.07)

9 - 6 **PFAFF**

9.07 Threading the looper threads and regulating their tension on twoneedle machines







Switch off the machine!

Danger of injury by unintentional starting of the machine!

- Open the looper cover and swing out thread guide plate 1.
- Thread the looper threads as shown in Figs. 9-08 and 9-09 and pull them under guide plate 2.
- Thread loopers 3 and 4 using tweezers.
- Regulate the looper threads by turning knurled screws 5 and 6.



To pull the thread through, release thread tension (see Chapter 7.07)

PFAFF 9 - 7

Care and maintenance

10 Care and maintenance



These maintenance intervals are calculated for the average running time of a single shift operation. If the machine is operated for a longer period, shorter intervals are recommended.

10.01 Cleaning



Turn the machine off!

Danger of injury if the machine is started accidentally!



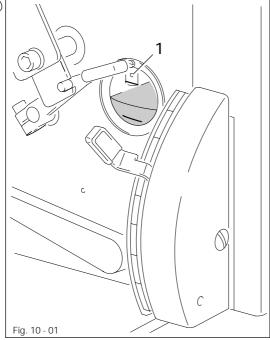
- Tilt sewing head back.
- Clean looper and looper compartment daily, several times if in continuous operation.



Using both hands, set the machine into an upright position! Danger of crushing between the machine and table top!

10.02 Machine oil level







Check oil level before each use.

- The oil level must be between the markings in the inspection glass.
- If required refill oil through hole 1.



Only use oil with a mean viscosity of 22.0 mm²/s at 40° C and a density of 0.865 g/cm³ at 15° C!.

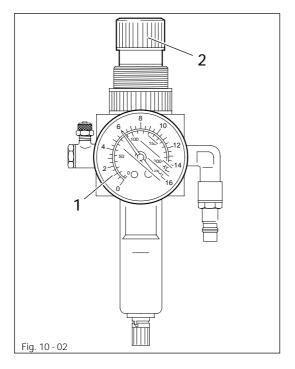


We recommend PFAFF sewing machine oil. Order-No. 280-1-120 144.

10 - 1 **PFAFF**

Care and maintenance

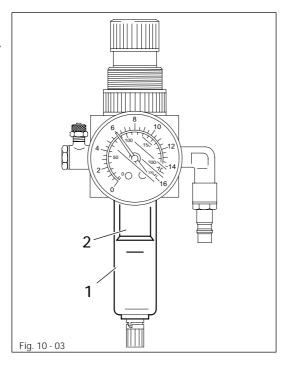
10.03 Checking/adjusting the air pressure



- Before operating the machine, always check the air pressure on gauge1.
- 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







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.

PFAFF 10 - 2

Adjustment

11 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.

11.01 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.

11.02 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
- 1 gauge for the looper, Order No. 61-111 643-06
- Needles
- Sewing thread and test material

11.03 Abbreviations

TDC = top dead center

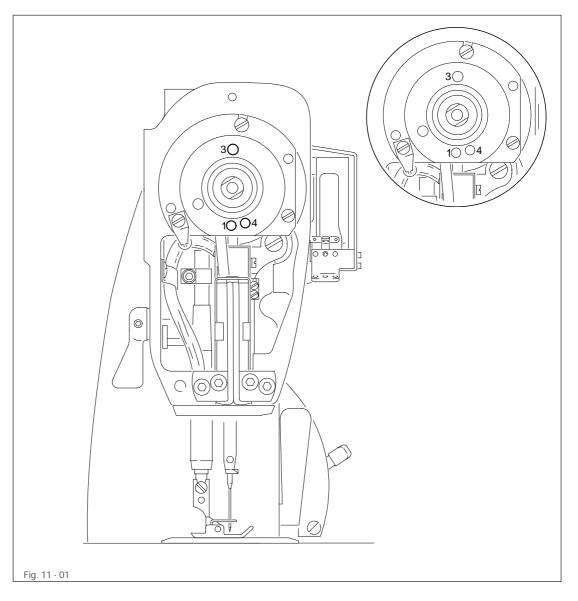
BDC = bottom dead center

11 - 1 **PFAFF**

11.04 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.





- Turn the balance wheel until the needle by is approximately in the required postion.
- 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)

PFAFF 11 - 2

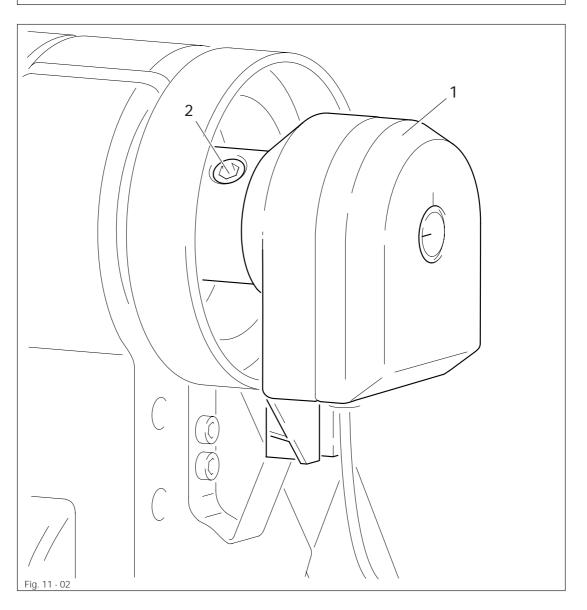
Adjustment

11.05 Adjusting the basic machine

11.05.01 Adjust the synchonizer (only for machines with -900/71)

Requirement

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





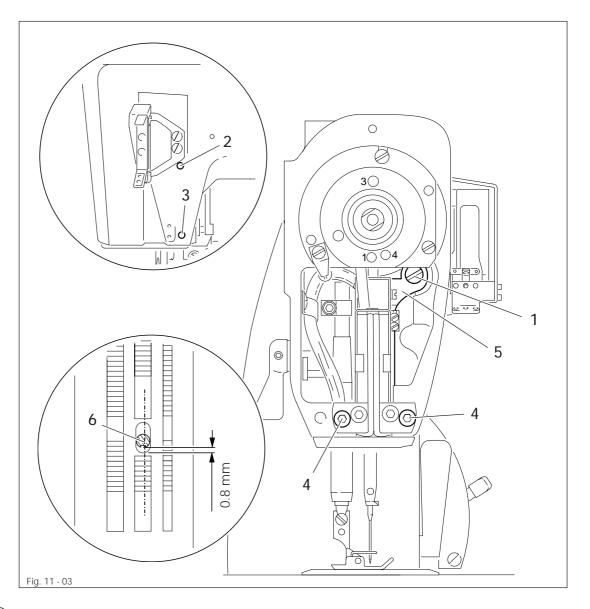
Adjust synchronizer 1 (screw 2) according to the operating instructions for the motor.
 Also see Chapter 11.07 Parameter settings.

11 - 3 **PFAFF**

11.05.02 Position of the needle in the needle hole

Requirement

- 1. The needle 6 must be centered in the needle hole in a crosswise direction.
- The distance between needle 6 and the front edge of the needle plate must be approx.
 0.8 mm. (In the case of machines with -911/... the needle 6 must be centered in the needle hole in the sewing direction.)



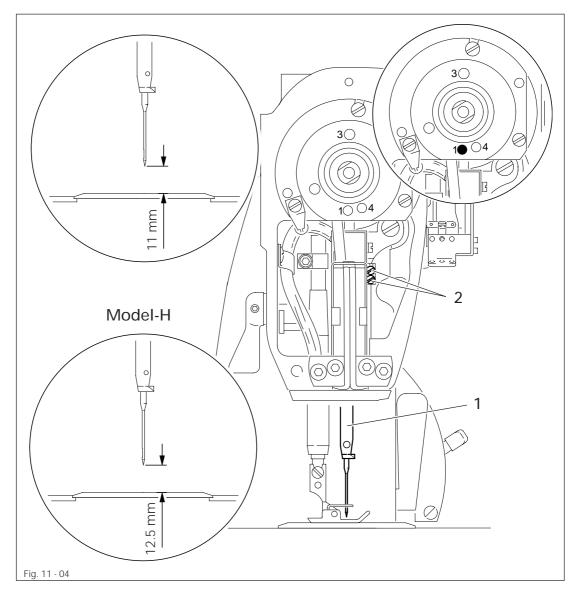


- Loosen screws 1, 2, 3 and 4.
- Shift needle bar frame 5 according to the requirements.
- Tighten screw 3 securely and slightly tighten screw 2.
- Using screw 1, pull the guide stud behind it against the eye of the needle bar frame 5 and tighten it.
- Loosen screw 2 and turn the balance wheel a few times (this helps to avoid the occurence of any tension).
- Tighten screw 2.
- Tighten screw 4, making sure that the slotted guide 6 is parallel to the needle bar.

11.05.03 Preliminary adjustment of the needle height

Requirement

With the needle bar at TDC (pin in hole 1) the needle point must be positioned 11 mm above the needle plate, or in the case of the H-model 12.5 mm.





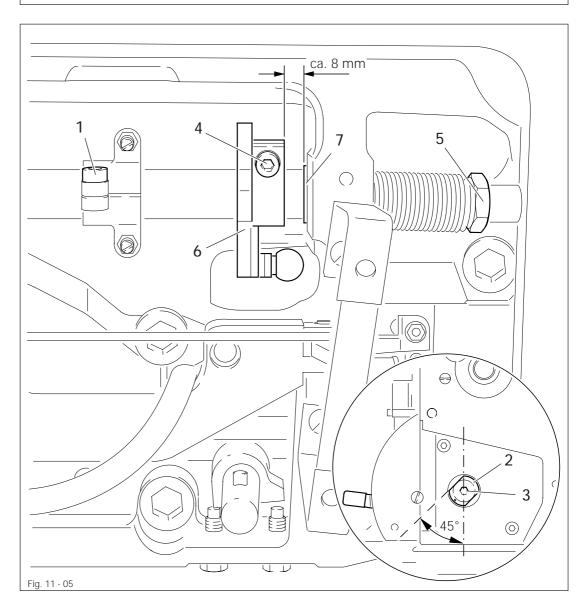
- Bring the needle bar 1 to TDC.
- Adjust needle bar 1 (screw 2) according to the requirement.

11 - 5 **PFAFF**

11.05.04 Zeroing the bottom feed (on machines with closed gearcase)

Requirement

With the stitch length set at "0", the feed dog must not move when the balance wheel is turned.





- Loosen screw 1.
- Set stitch length at "0".
- Turn eccentric bush 2 (screw 3) so that the marking faces downward and the surface of the eccentric bush 2 is at an angle of 45° to the front edge of the machine.
- Loosen screw 4 and twist tension ring 5 according to the requirement while turning the balance wheel continuously.
- Set crank 6 at a distance of approx. 8 mm from the contact ring 7 and tighten screw 4.

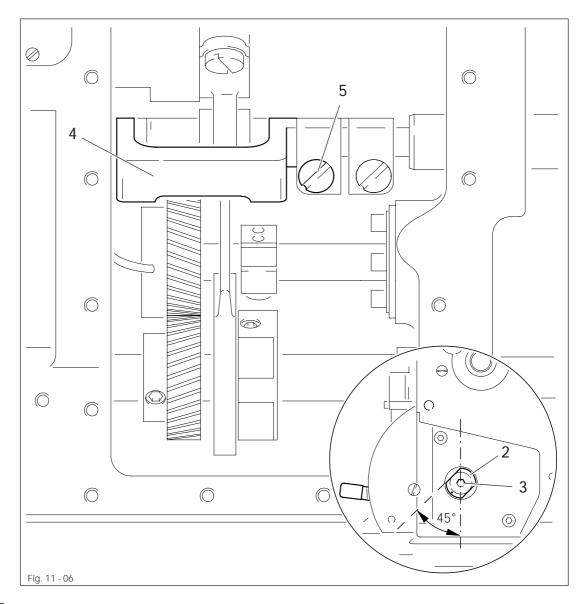


Screw 1 is left loose for further adjustments.

11.05.05 Zeroing the bottom feed (on machines with open gearcase)

Requirement

With the stitch length set at "0", the feed dog must not move when the balance wheel is turned.





- Loosen screw 1 (see Fig. 11-05).
- Set stitch length at "0".
- Turn eccentric bush 2 (screw 3) so that the marking faces downward and the surface of the eccentric bush 2 is at an angle of 45° to the front edge of the machine.
- While turning the balance wheel continuously twist crank 4 (screw 5) according to the requirement.



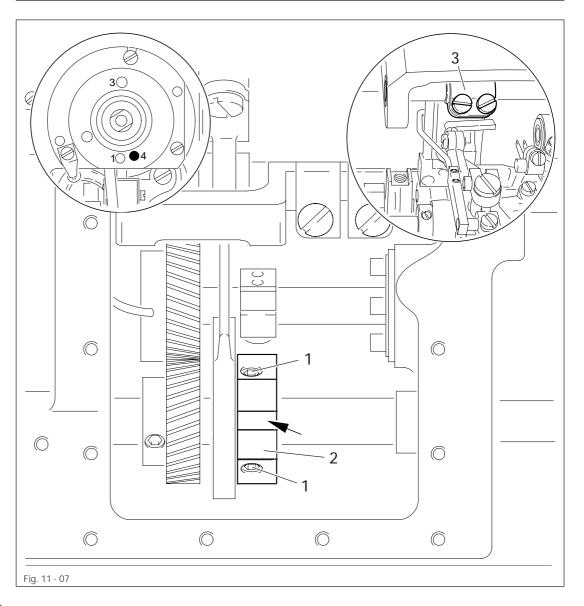
Screw 1 is left loose for further adjustments.

11 - 7 **PFAFF**

11.05.06 Feed driving motion

Requirement

With the stitch length set at its maximum and the needle bar positioned 0.8 mm before TDC (pin in hole 4), the feed dog must not move when the reverse feed switch is operated.



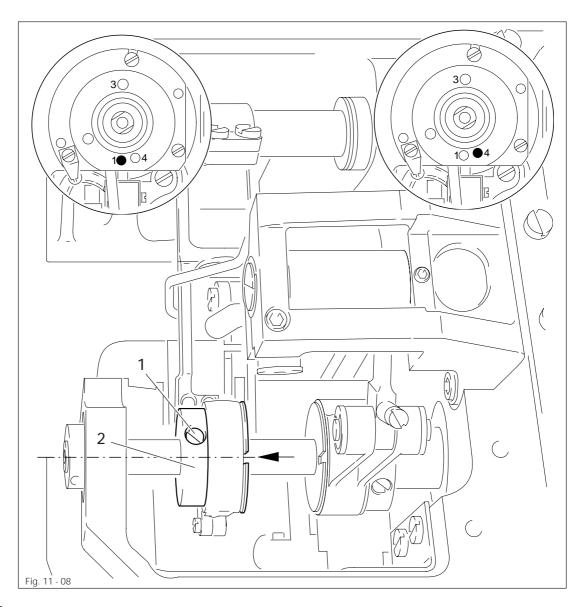


- Loosen screw 1.
- Position needle bar 0.8 mm before TDC and adjust stitch length to maximum setting.
- While operating the reverse feed switch, twist eccentric 2 until the slot is visible (see arrow) and crank 3 does not move.
- Tighten screw 1.

11.05.07 Feed lifting motion

Requirement

When the needle bar is at TDC, or or 0.8 mm before TDC for H-model machines and machines with -911/.. (pin in hole 1 or 4), the slot of eccentric **2** must be pointing vertically downwards.





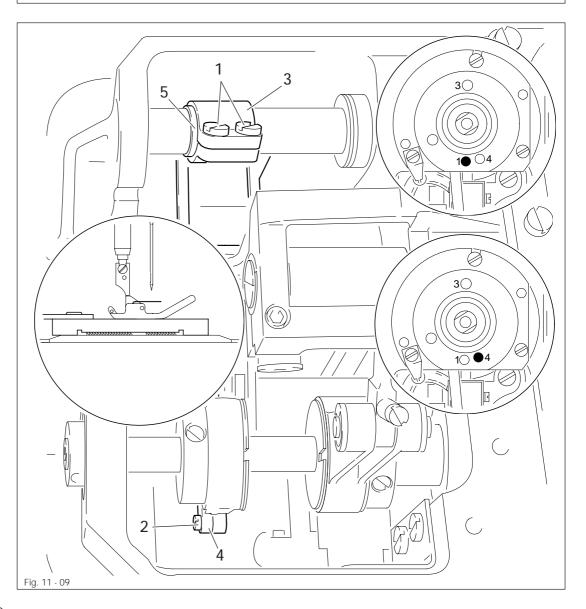
- Loosen screw 1.
- Position needle bar appropriately.
- Twist eccentric 2 according to the requirement and tighten accessible screw 1.
- By turning the balance wheel make the second screw 1 accessible and tighten it.

11 - 9 **PFAFF**

11.05.08 Feed lifting height

Requirement

With the stitch length set at its maximum and the needle bar positioned at TDC, or at 0.8 mm before TDC for model H machines and machines with -911/... (pin in hole 1 or 4), the feed dog must be centered in its slots and its entire length must be in contact with the adjustment gauge.



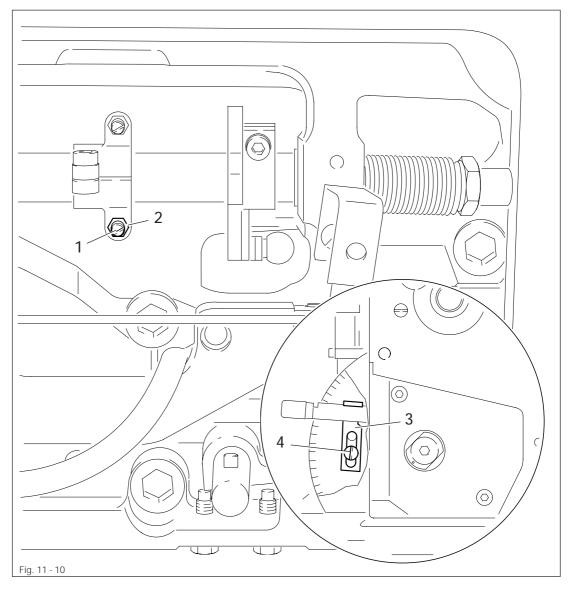


- Set the maximum stitch length and position the needle bar appropriately.
- Place the adjustment gauge (Order No. 61-111 642-19) on the needle plate so that its
 recess is centered above the feed slots (arrow pointing in feed direction) and lower the
 presser foot.
- Loosen screws 1 and 2.
- By turning cranks 3 and 4 and the eccentric sleeve 5 adjust the feed dog according to the requirement.

11.05.09 Limiting the stitch length

Requirement

- 1. When the reverse feed switch is fully pressed, the stitch length must be **1.5 mm**.
- 2. When the maximum stitch length is set, the feed dog must not come into contact with the needle plate cutout.





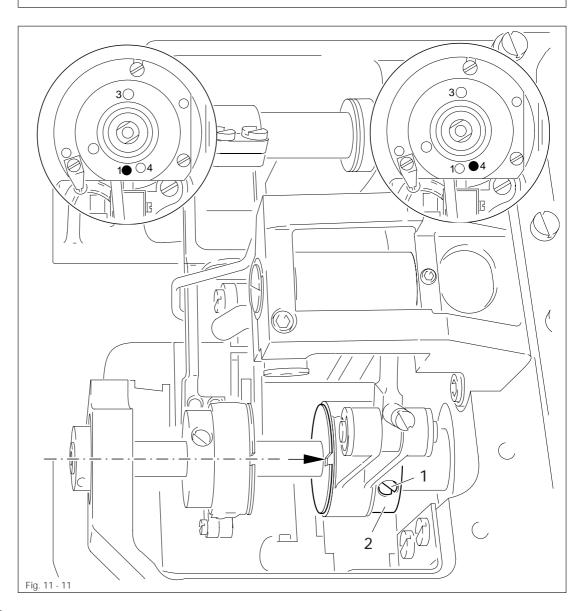
- Set stitch length at 1.5 mm.
- Turn screw 1 (nut 2) according to requirement 1.
- Adjust stop 3 (screw 4) according to requirement 2.

11 - 11 **PFAFF**

11.05.10 Looper avoiding motion

Requirement

With the needle bar at TDC, or at 0.8 mm before TDC for H-model machines and machines with -911/.. (pin in hole 1 or 4), the slot in eccentric 2 must be positioned exactly under the center of the shaft.



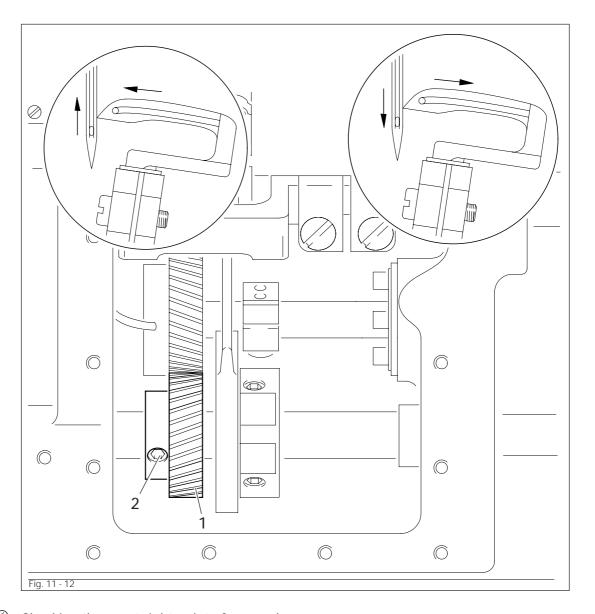


- Loosen screw 1.
- Bring the needle bar into the appropriate position.
- Turn eccentric 2 according to the requirement.
- Tighten screw 1.

11.05.11 Looper motion

Requirement

When the needle bar reaches its bottom dead center (BDC), the looper must be at its **right** point of reversal.





Checking the exact right point of reversal:

- Turn the balance wheel until the point of the looper advancing from the right is at the right-hand side of the needle.
- In this position attach C-clamp (order No. 61-111 600-35/001) to the needle bar so that the upward motion of the needle bar is blocked.
- Turn the balance wheel in the opposite direction until the C-clamp regains contact. In this position the looper point must be at the right-hand side of the needle again.
- If the looper point is not positioned at the right-hand side of the needle, turn gearwheel 1 (screw 2) accordingly.
- Repeat control procedure.

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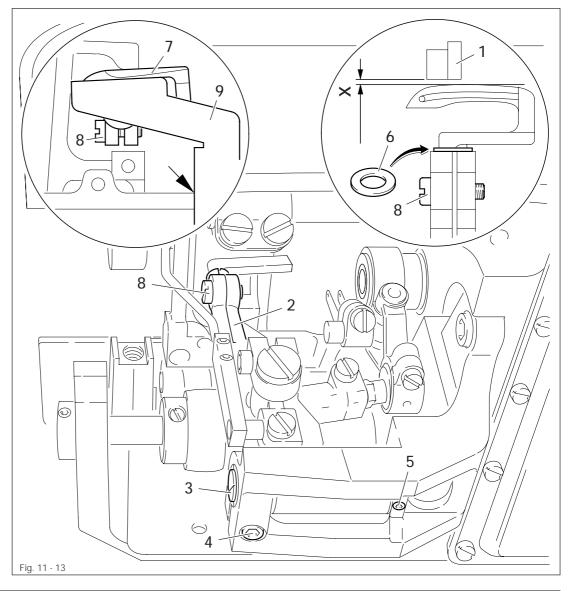
11.05.12 Looper height and looper angle

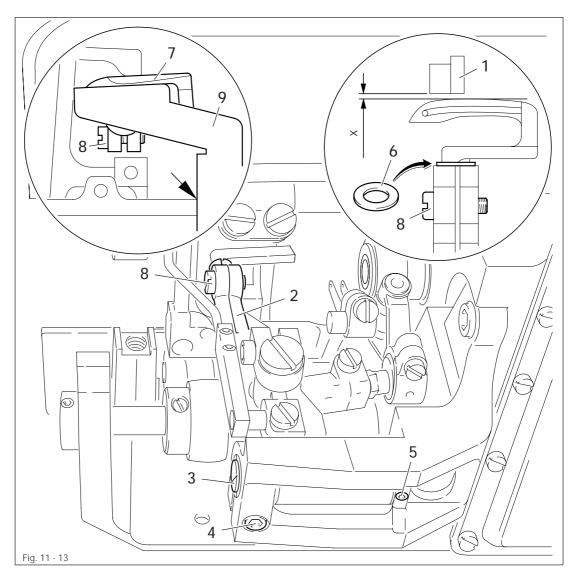
Requirement

When the looper holder 2 is in a vertical position

- 1. depending on the machine type, there must be a clearance as indicated in the table below between the highest point of the looper back and the needle plate rest, and
- 2. the looper 7 must be touching the looper adjustment gauge 9.

Machine type	Clearance (x)		
Machine without -900/	0.7 mm		
Machine with -900/			
H-Model machines	3.2 mm		
Machine with -911/			
Two needle machines	1.0 mm on the front looper		







- Remove needle plate and bottom feed dog.
- Place gauge 1 (Order No. 61-111 642-19) on the needle plate rest.
- Place looper holder 2 in a vertical position.
- Twist eccentric bearing stud 3 (screws 4 and 5) according to requirement 1.
- Check the adjustment.



If the required clearance is not obtained, replace spacer 6. In order to do so, looper 7 (screw 8) has to be removed.

- Place looper gauge 9 (Order No. 61-111 643-06) on the left edge of the cover plate support (see arrow) and move it towards the looper 7.
- Bring looper 7 (screw 8) into contact with looper gauge 9 (requirement 2).).

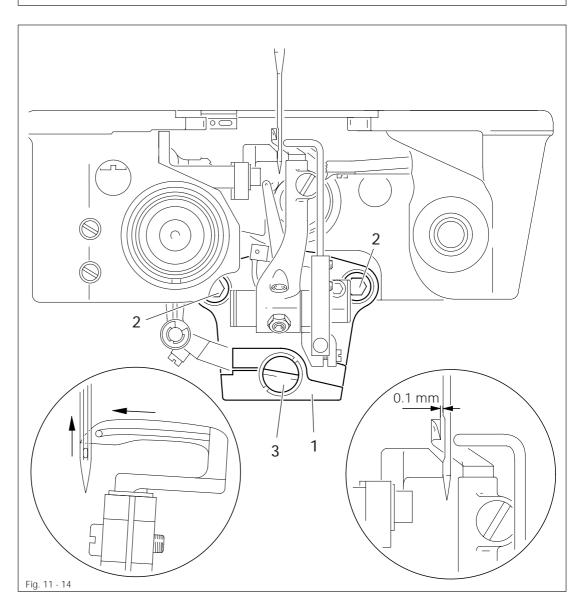
Spacer	Order-No.
0.3 mm	91-170 693-05
0.5 mm	91-169 614-05
0.8 mm	91-169 615-05
1.2 mm	91-170 694-05

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11.05.13 Looper-to-needle clearance in sewing direction

Requirement

In sewing direction there must be a cleaance of approx. **0.1 mm** between looper point and needle.





- Turn the balance wheel until the looper point coming from the right reaches the left side of the needle.
- Align looper unit 1 (screw 2) according to the requirement.

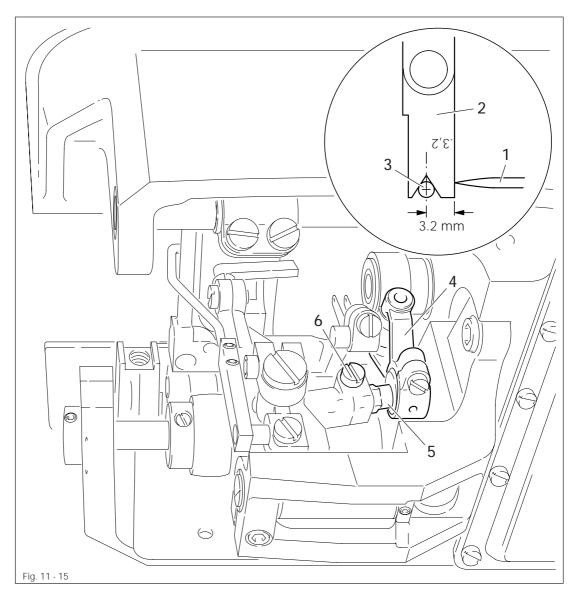


If a clearance of **0.1 mm** cannot be obtained, the setting of the eccentric bearing stud **3** can be corrected. In this case the looper height and angle must be checked, see **Chapter 11.05.12 Looper height and looper angle**.

11.05.14 Looper-to-needle clearance crosswise to sewing direction

Requirement

When the looper 1 is at its right point of reversal, there must be a clearance between the looper point crosswise to the sewing direction and the needle center of 3.2 mm.





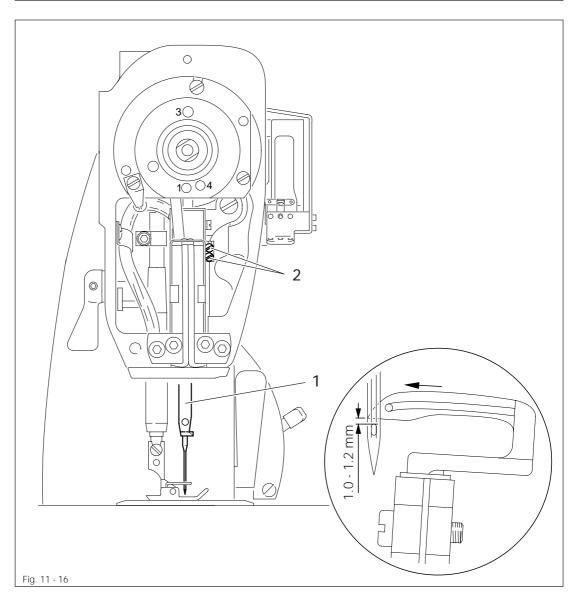
- By turning the balance wheel bring the looper 1 to its right point of reversal.
- Place the "3.2" blade of looper gauge 2 (Order No. 61-111 643-06) against the needle 3 with its notch facing the direction of feed.
- Make sure that the driving link 4 is vertical and turn the ball pin 5 (screw 6) with the aid of an open-ended spanner (size 6), until the looper point 1 contacts the blade.

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11.05.15 Final adjustment of the needle height

Requirement

When the point of the looper advancing from the right reaches the left side of the needle, the top edge of the needle eye must be 1.0 - 1.2 mm below the bottom edge of the looper.



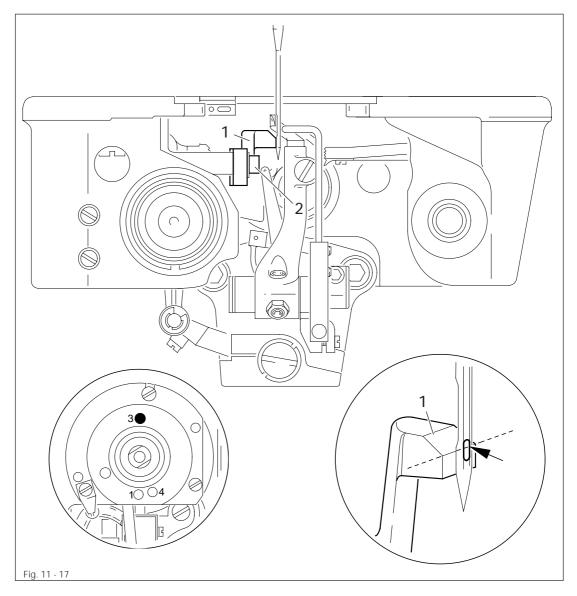


- Turn the balance wheel until the looper point, which is coming from the right, reaches the left side of the needle.
- Without turning the needle bar 1 (screw 2) adjust it according to the requirement.

11.05.16 Height of rear needle guard

Requirement

When the needle bar is at bottom dead center (pin in hole 3), the vertical surface of the needle guard 1 must cover about 2/3 of the needle eye.





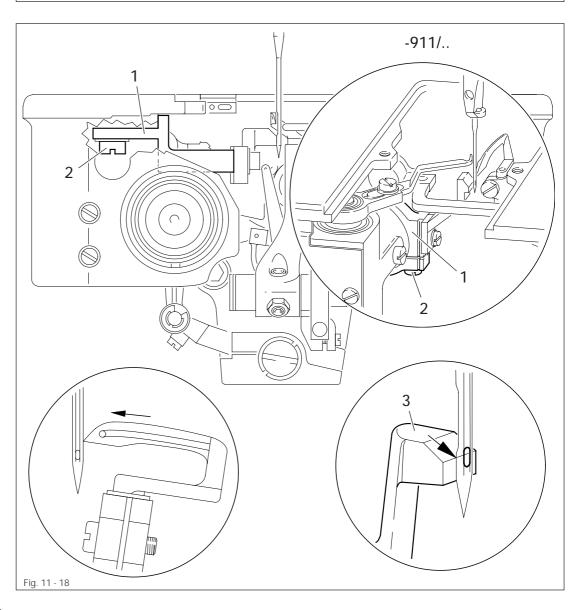
- Bring the needle bar to BDC.
- Adjust needle guard 1 (screw 2) according to the requirement.

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11.05.17 Clearance between rear needle guard and needle

Requirement

When the point of the looper, which is advancing from the right, reaches the right side of the needle, the needle guard 3 must still be in slight contact with the needle.





- Turn the balance wheel until the looper point is located at the right side of the needle.
- Adjust bracket 1 (screw 2) according to the requirement.



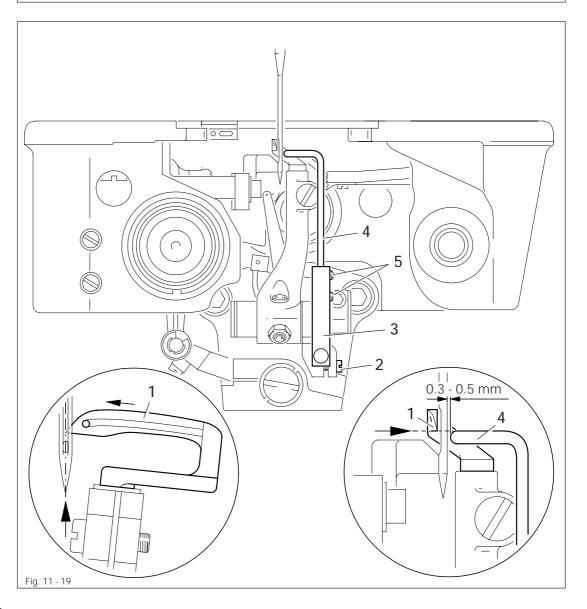
Under no circumstances should the needle be deflected by the needle guard 3!

11.05.18 Position of the front needle guard (does not apply to all machines)

Requirement

When the point of the looper 1, which is advancing from the right, is positioned in the center of the needle, the needle guard clip 4 must

- 1. have a side clearance to the needle of 0.3 0.5 mm
- 2. be parallel to the looper blade
- 3. have its top edge at the same height as the point of looper 1.





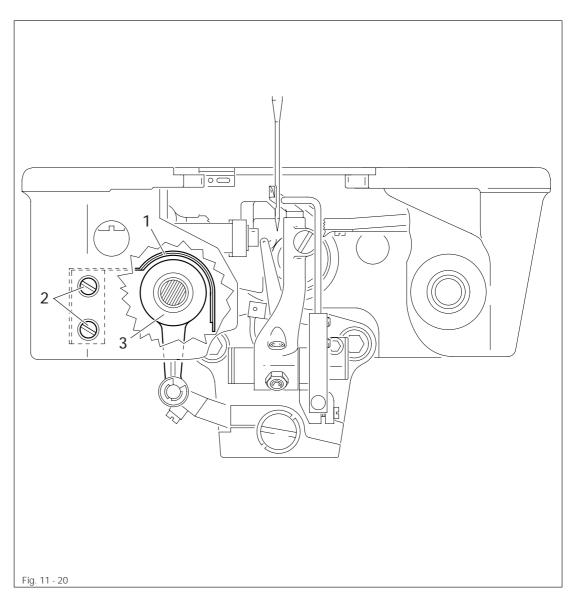
- By turning the balance wheel bring looper 1 to its left point of reversal.
- Loosen screws 2.
- Adjust needle guard bracket 3 so that in this position the needle guard clip 4 is not in contact with looper 1.
- Slightly tighten screws 2.
- Turn the balance wheel until the point of the looper 1, when coming from the right, is positioned in the center of the needle.
- Adjust needle guard bracket **3** according to requirement 1.
- Align needle guard clip 4 (screws 5) according to requirement 2 and 3.

11 - 21 **PFAFF**

11.05.19 Guard of looper-avoiding-motion eccentric

Requirement

During motion the eccentric 3 must not touch guard 1.



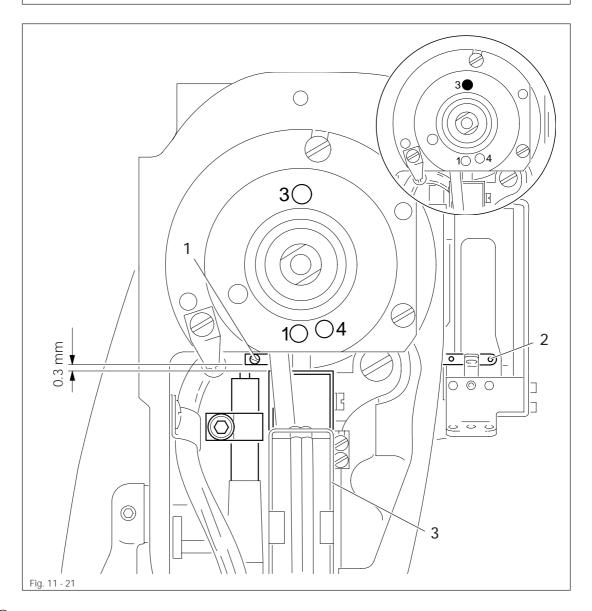


 Adjust guard 1 (screws 2, accessible through adjustment holes) according to the requirement.

11.05.20 Take- up lever

Requirement

- When the needle bar is at BDC (pin in hole 3) there must be a clearance of about
 mm between the take-up lever 2 and the needle bar frame 3.
- 2. The take-up lever 2 must be able to move freely in the center of the needle head slot, and must not have any contact either at TDC or BDC.





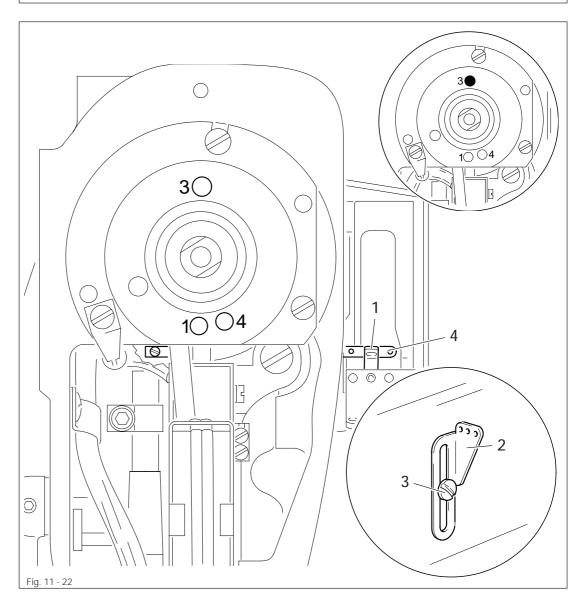
- By turning the handwheel make screw 1 accessible and loosen it slightly.
- Bring needle bar to BDC.
- Adjust take-up lever 2 according to requirement 1.
- Tighten screw 1 in compliance with requirement 2.

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11.05.21 Basic setting of the needle thread regulator and the thread guide

Requirement

- 1. With the needle bar at BDC (pin in hole 3) the eye of the needle thread regulator 1 and the adjustment hole of the take-up lever 4 must be in line.
- 2. The thread guide 2 must be vertical and attached with a screw in the center of the elongated hole.





- Bring the needle bar to bottom dead center.
- After loosening the screw, adjust the needle thread regulator 1 according to requirement 1.
- Tighten the screw of the needle thread regulator.
- Align thread guide 2 (screw 3) according to requirement 2.

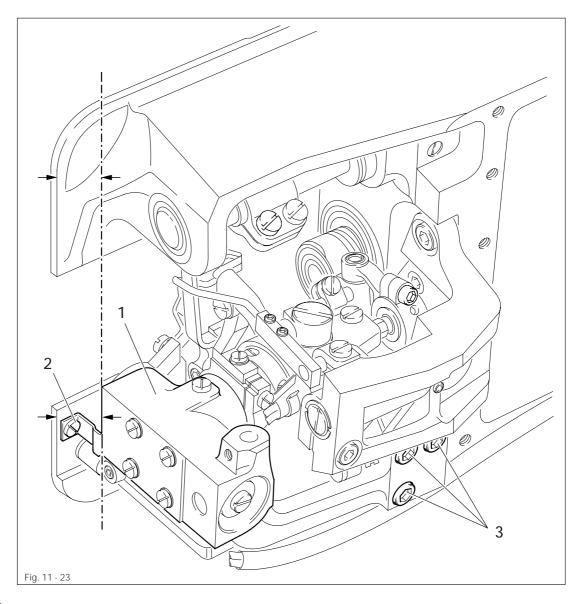


Depending on the type of material and thread used, the basic setting may have to be modified.

11.05.22 Adjustment of the backtacking mechanism (only for machines with -911/..)

Requirement

The face side of the backtacking mechanism 1 must be in line with the bedplate surface of the machine.





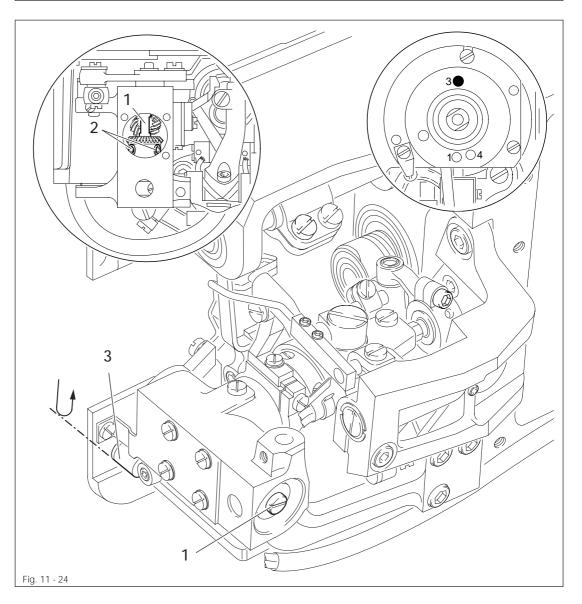
• Adjust backtacking mechanism 1 (screws 2 and 3) according to the requirement.

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11.05.23 Spreader drive (only for machines with -911/..)

Requirement

With the needle bar at bottom dead center (pin in hole 3) the spreader link 3 must be at its rear point of reversal (see arrow).





Bring the needle bar to bottom dead center.

Turn shaft 1 (screws 2) according to the requirement.

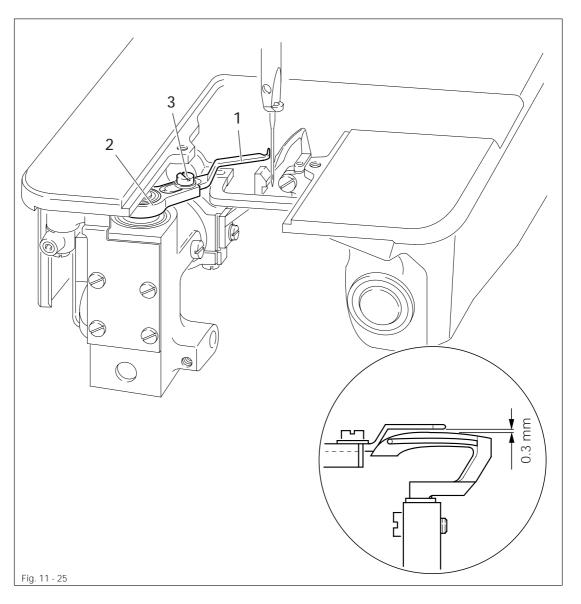


When tightening the shaft, make sure the gears have enough play!

11.05.24 Spreader height (only for machines with -911/..)

Requirement

When the tip of spreader 1 is above the looper, there must be a clearance of 0.3 mm between the back of the looper and the underside of the spreader 1.





- Turn the balance wheel until the tip of the spreader 1 is above the looper.
- Remove the holder 2 (screw 3) and adjust the height of the spreader according to the requirement by inserting an appropriate spacer.

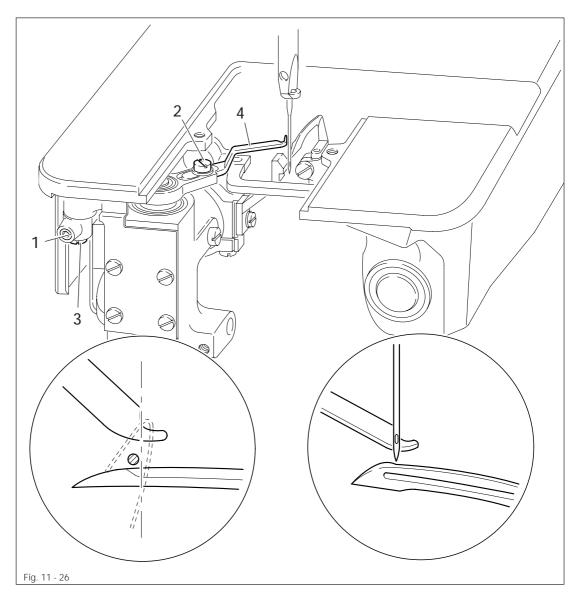
Spacer	Order No.
0.3 mm	91-170 153-05
0.6 mm	91-172 357-05

11 - 27 **PFAFF**

11.05.25 Spreader motion and spreader to needle clearance (only for machines with -911/..)

Requirement

When the descending needle is on a level with the back of the looper, the right side of the needle must be in line with the edge of the thread catcher cutout, as seen in feed direction.



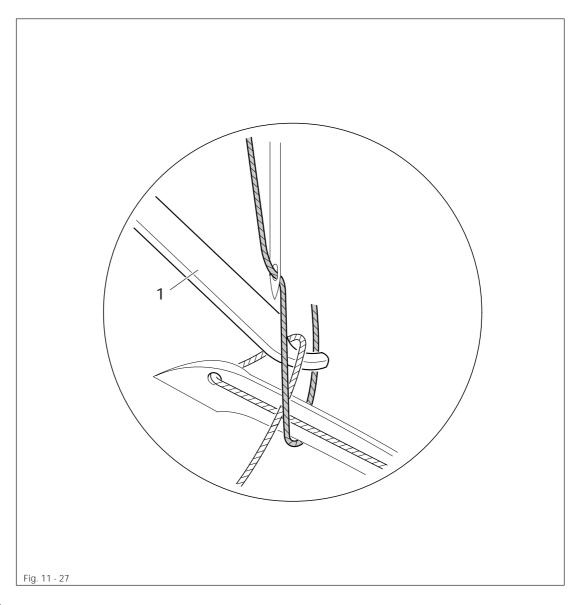


- Turn the balance wheel in sewing direction until the needle point is level with the back of the looper.
- Loosen screws 1 and 2.
- Turn the eccentric stud 3 so that its lobe is pointing in sewing direction.
- Adjust eccentric stud 3 and spreader 4 according to the requirement.
- Tighten screws 1 and 2.
- Carry out a functional test, see Chapter 11.05.26 Functional sewing test.

11.05.26 Functional sewing test (only for machines with -911/..)

Requirement

As seen in feed direction, the spreader 1 should reliably pick up the rear part of the needle thread loop and the looper thread.





- Thread the machine, place fabric under the presser foot and lower the presser foot.
- Turn the balance wheel in sewing direction with depressed reverse-feed control, and check the compliance with the **requirement**.

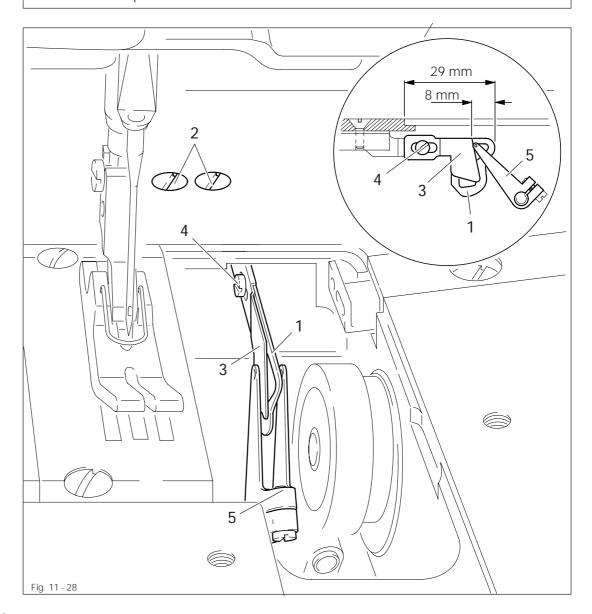
• If required, readjust the spreader settings.

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11.05.27 Looper thread regulator and looper thread take-up

Requirement

- 1. The distance between the front edge of looper thread regulator 1 and the rear needle plate edge guide must be 29 mm.
- 2. The front edges of the thread take-up device 3 and the thread regulator 1 must be about 8 mm apart.





- Adjust thread regulator 1 (screws 2) according to requirement 1.
- Adjust thread take-up device 3 (screw 4) according to requirement 2.

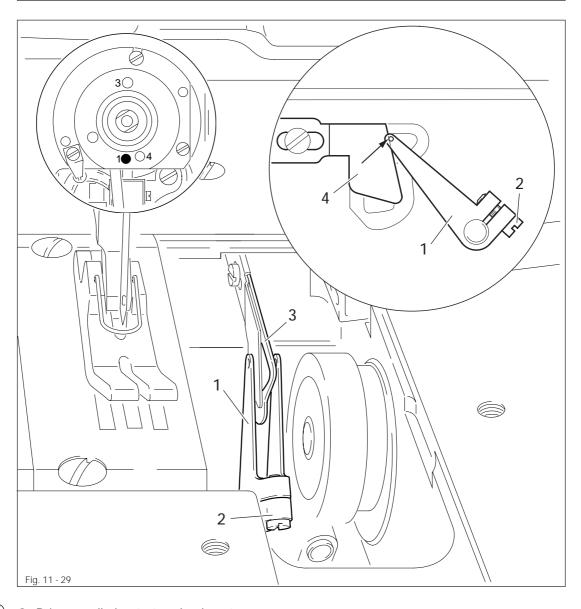


Depending on the type of material and thread used, the basic setting may have to be modified.

11.05.28 Looper thread puller

Requirement

With the needle bar in top dead center (pin in hole 1) both eyes of looper thread puller 1 must be at the front edge of the thread take-up device 4.





- Bring needle bar to top dead center.
- Turn thread puller 1 (screw 2) according to the requirement, making sure that the prongs of thread puller 1 are in the middle of the thread regulator 3.



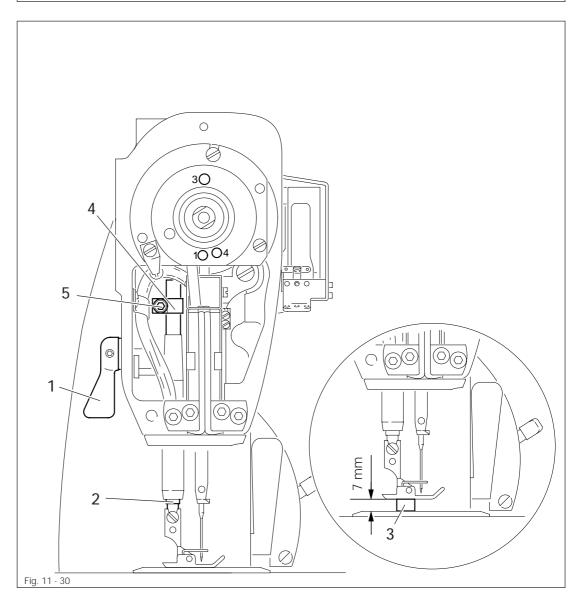
Depending on the type of material and thread used, the basic setting may have to be modified.

11 - 31 **PFAFF**

11.05.29 Clearance between presser foot and needle plate

Requirement

With the presser bar lifter 1 raised, there must be a clearance of 7 mm between the presser foot and the needle plate.



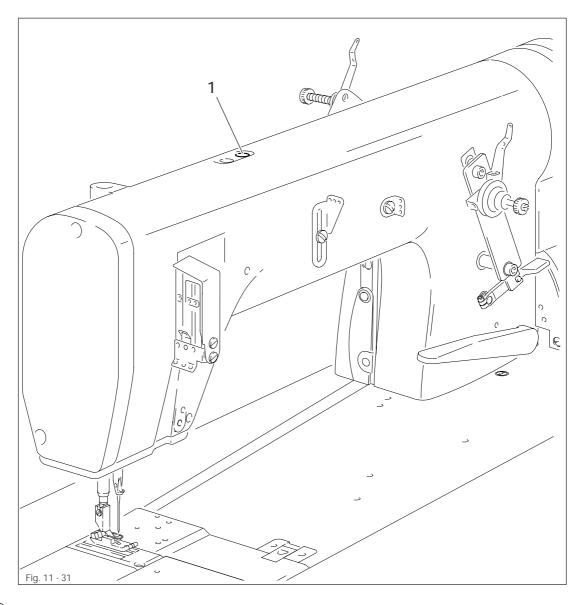


- Raise the presser bar lifter 1.
- Lift presser rod 2 and push the 7 mm thick blade of the adjustment gauge 3 (Order No. 61-111 642-19) under the presser foot.
- Push down presser rod lifter bracket 4 (screw 5) until contact is achieved.

11.05.30 Presser foot pressure

Requirement

The material feed should function perfectly at all times without any pressure marks occurring on the fabric.





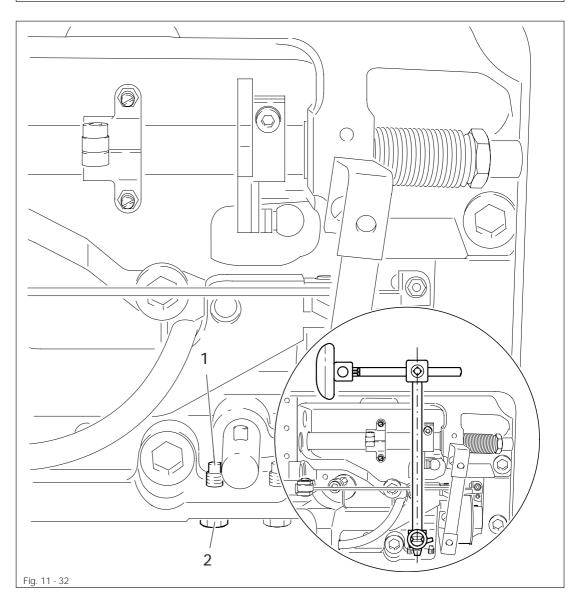
• Turn screw 1 according to the requirement.

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11.05.31 Knee lever rest position

Requirement

When in its rest position, the knee lever connecting rod must be at right angles to the bedplate.



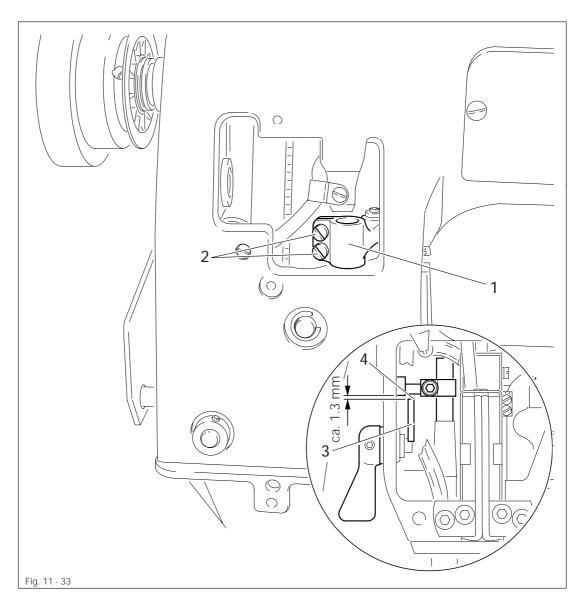


- Raise the presser bar lifter.
- Turn screw 1 (nut 2) according to the requirement.

11.05.32 Knee lever play

Requirement

When the presser foot is resting on the needle plate (feed dog beneath the needle plate), there must be a clearance of about 1.3 mm between the lifting lever 3 and lifting piece 4.





- Lower the presser foot onto the needle plate
- Adjust crank 1 (screws 2) according to the requirement.



When tightening crank 1, make sure that the knee lever shaft has no vertical play.

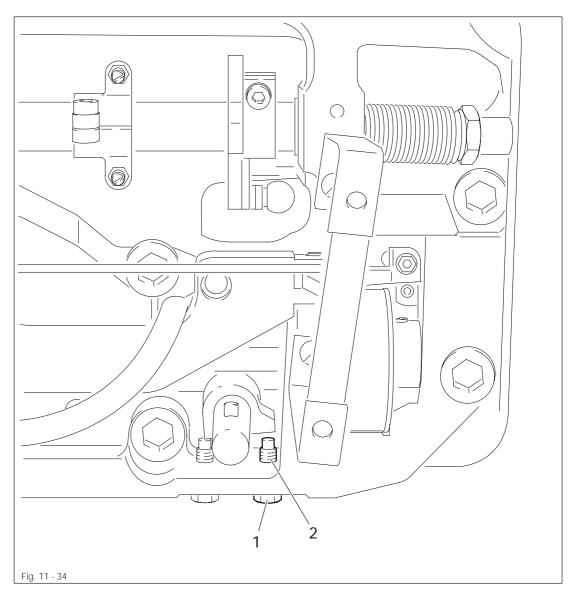
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11.05.33 Knee lever stop

Requirement

When the knee lever is fully operated

- 1. the presser foot must be lifted approx. 7 mm, or on H-model machines approx. 9 mm, from the needle plate and
- 2. the presser bar lifter should drop by its own weight.





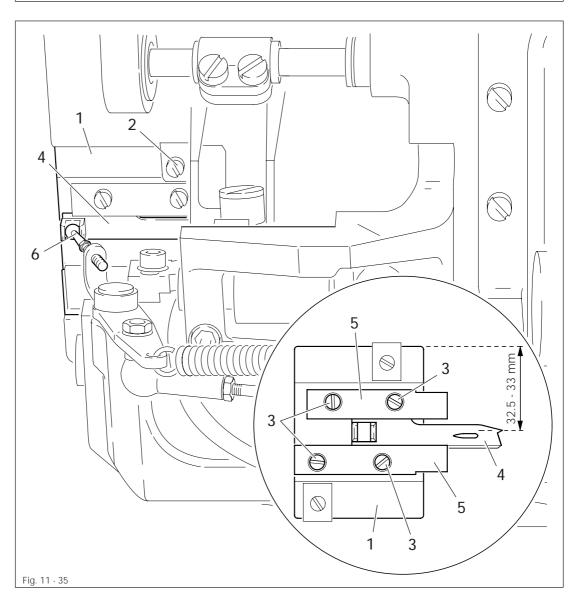
- Raise the presser foot by means of the presser bar lifter.
- Adjust screw 1 (nut 2) according to the requirement.

11.06 Adjusting the thread-trimming device -900/71

11.06.01 Pre-adjust the thread catcher

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.





- 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.

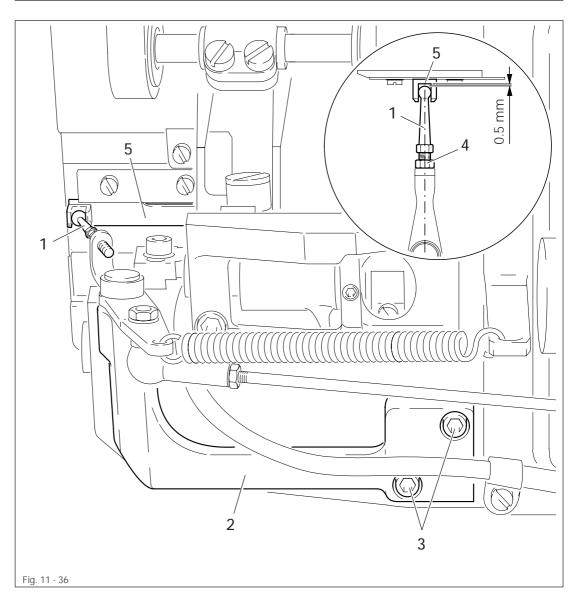
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11.06.02 Positioning the ball stud

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.



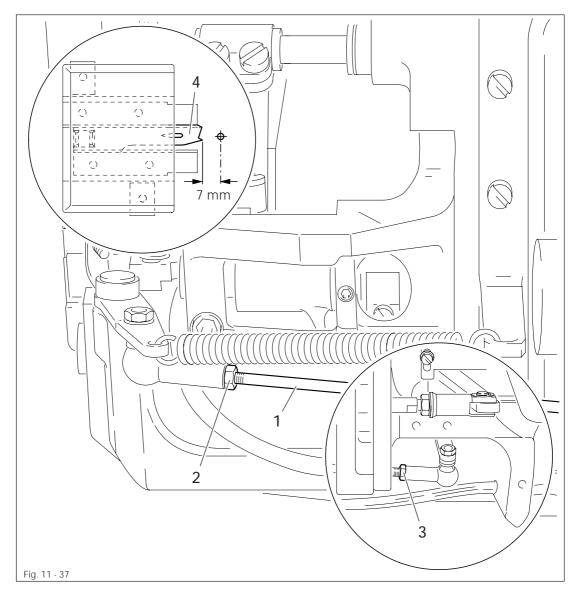


- Set ball stud 1 in a vertical position.
- Adjust bracket 2 (screws 3) according to requirement 1.
- Turn ball stud 1 (nut 4) according to requirement 2.

11.06.03 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.





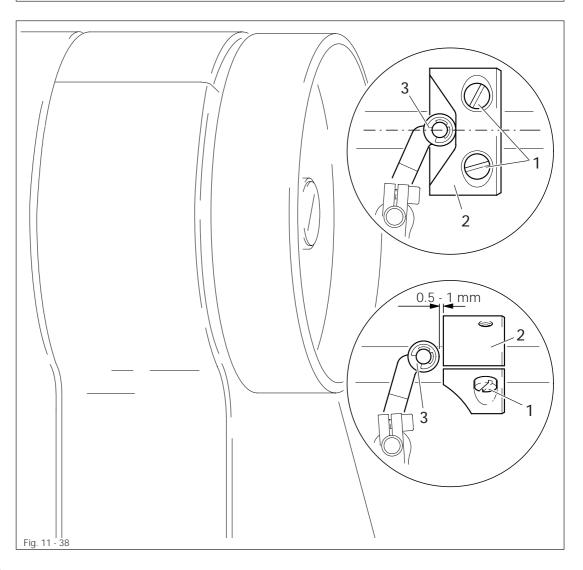
- Bring the thread-trimming device into its neutral position.
- Turn linkage rod 1 (nut 2, nut 3 with left-handed thread) according to the requirement.

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11.06.04 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.



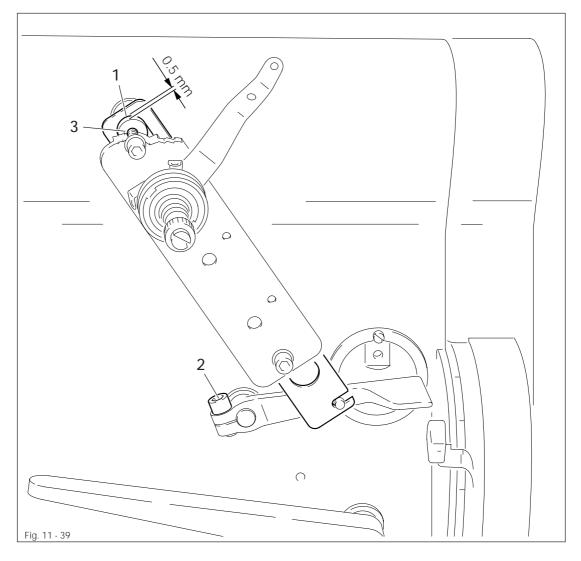


- Loosen screws 1 so that the interlocking cam can be turned on its shaft with resistance.
- Bring the needle bar to TDC.
- In this position turn the interlocking cam 2 according to requirement 1.
- Bring the thread-trimming device to its neutral position and the needle bar to BDC.
- Adjust interlocking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

11.06.05 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.





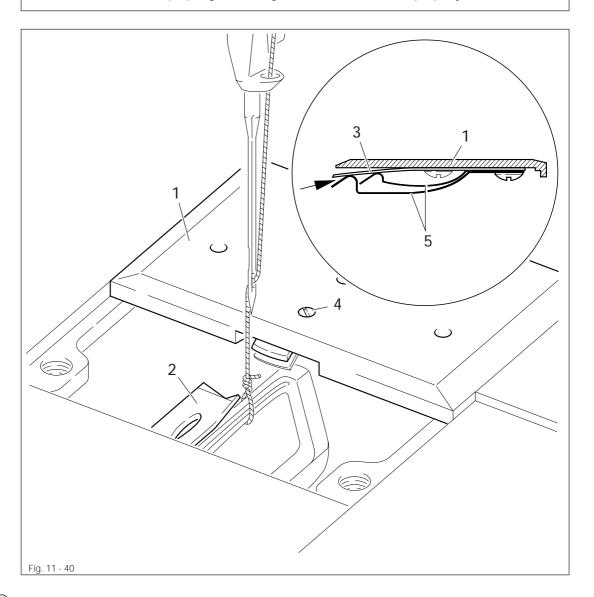
- Fully actuate the cylinder of the thread-trimming device.
- Adjust plate 1 (screw 2) according to the requirement.

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11.06.06 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.





- Place material under the presser foot and sew a few stitches.
- Remove cover plate 1.
- Position the needle as in Chapter 11.06.04 Thread catcher interlock.
- 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.

11.07 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.

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Notes	
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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

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