

Serie **6300**

Serie **6500**

Serie **6700**

INSTRUCTION MANUAL

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

6 500 396 →



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

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**PFAFF Industriesysteme
und Maschinen AG**

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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 or feed dog or 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! Haftung.
- 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!



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 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.

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!

1.06

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!

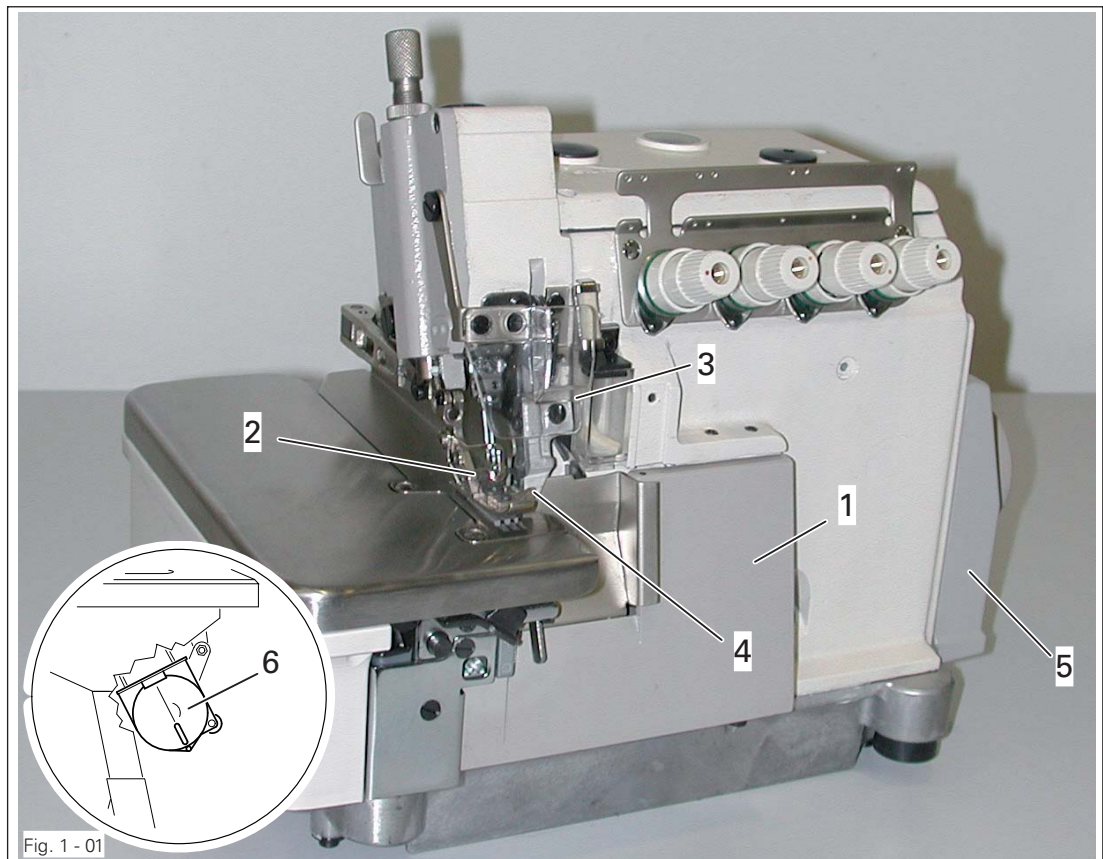


Fig. 1 - 01



Only operate the machine with cover 1 closed!
Danger of injury from moving machine parts!



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



Do not operate the machine without eye shield 3!
Danger of injury from needle fragments which might fly out!



Do not place hands in the knife area 4!
Danger of injury from the knife!



Do not operate the machine without belt covers 5 and 6!
Danger of injury from the drive belts!

2 Proper use

The machines of the series **PFAFF 6300** are single or double-needle overedge sewing machines with stub arm and differential bottom feed.

The machines of the series **PFAFF 6500** are single or double-needle overedge sewing machines with differential bottom feed. The machines of the series

PFAFF 6700 are single or double-needle overedge sewing machines with differential top and bottom feed.

These machines are used for producing closing and blindstitch seams.



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[▲]

3.01 General specifications

Stitch type: see table

Needle system: DCx27

Needle size: 65 – 130 Nm (#9-21)

Motor data: see motor specification plate

Noise data:

Emission sound level at workplace at a speed of 4800 spm: $L_{pA} = 80.0$ dB(A) ■
(Noise measurement in accordance with DIN 45 635-48-B-1, ISO 11204, ISO 3744, ISO 4871)

Sewing head dimensions:

Length: approx. 300 mm

Width: approx. 370 mm

Height: approx. 250 mm

Standard base dimensions:

Length: approx. 1060 mm

Width: approx. 600 mm

Height: approx. 820 mm

Net weight (sewing head): approx. 29 kg

Gross weight of sewing head (with packaging): approx. 39 kg

▲ Subject to alterations

■ $K_{pA} = 2,5$ dB

3.02 Specifications of the 6504

Typ of machine	Number of needles	Number of threads	Number of threads	Seam width (mm)	Stitch length (mm)	Material clearance (mm)	Max. sewing speed (spm)	Stitch type
6504-01/S23-4	1	3	-	3; 4	3,8	5	8500	504
6504-02/S33-4	1	3	-	3; 4	3,8	5	8500	504
6504-32R2/S23-1,5	1	3	-	1,5	3,2	5	7000	504
6504-32R2/S23-3	1	3	-	1,5	3,2	5	7000	504
6504-82/S23-4	1	3	-	3; 4	3,8	5	8500	504
6505-12/S23-4	1	3	-	3; 4	3,8	5,5	8500	505

3.03 Specifications of the 6314, 6514, 6714

Typ of machine	Number of needles	Number of threads	Number of threads	Seam width (mm)	Stitch length (mm)	Material clearance (mm)	Max. sewing speed (spm)	Stitch type
6514-01/S34-2x4	2	4	2	3, 4, 5	3,8	5	8000	514
6514-03/M34-2x4	2	4	2	3, 4, 5	3,8	5,5	7500	514
6514-83/M34-2x4	2	4	2	3, 4, 5	3,2	5	7500	514
6714-03/M34-2x4	2	4	2	3, 4	3,8	5,5	7500	514
6314-03/M34-2x4	2	4	2	3, 4, 5	3,8	5,5	7500	514
6314T-03/M34-2x4	2	4	2	3, 4, 5	3,8	5,5	7500	514

Specifications

3.04 Specifications of the 6516, 6716

Typ of machine	Number of needles	Number of threads	Number of threads	Seam width (mm)	Stitch length (mm)	Material clearance (mm)	Max. sewing speed (spm)	Stitch type
6516-02/S25-3x5	2	5	3	4, 5	3,8	5	7500	516
6516-03/S35-5x5	2	5	5	5, 6	3,8	5	7500	516
6716-03/S35-5x5	2	5	5	5, 6	3,8	5	7500	516
6516H-05/H35-5x6	2	5	6	5, 6	5	5	6000	516

3.05 Specifications of the 6544

Typ of machine	Number of needles	Number of threads	Number of threads	Seam width (mm)	Stitch length (mm)	Material clearance (mm)	Max. sewing speed (spm)	Stitch type
6544-53/M36-5x2x4	3	6	5x2	4	3,8	5,5	7000	401; 514

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 is to be commissioned.



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

5 Transportation, packing and storage

5.01 Transportation to customer's premises

The machines are delivered completely 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.

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:



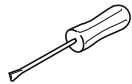
Note, information



Cleaning, care



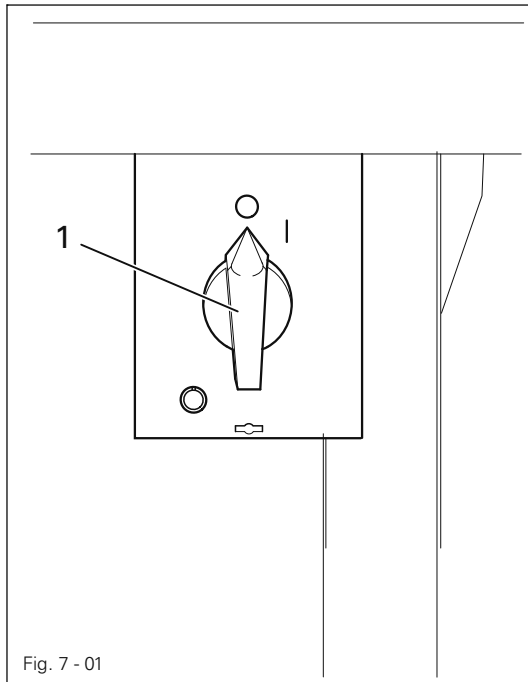
Lubrication



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

7 Controls

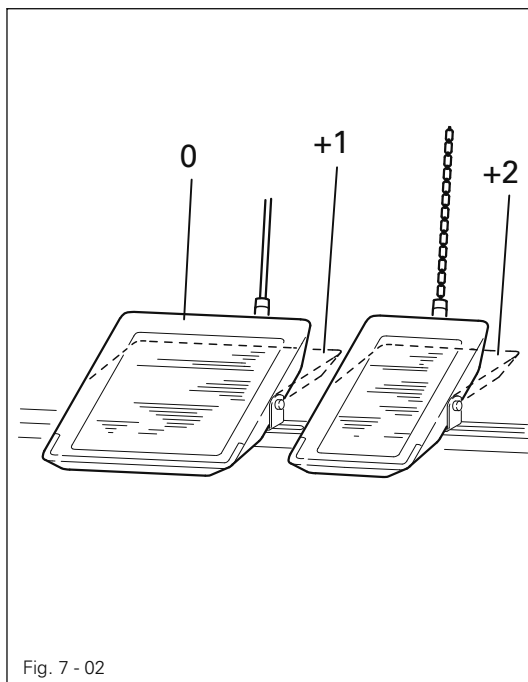
7.01 On/off switch



- The power supply to the machine is switched on or off by turning switch 1.

Fig. 7 - 01

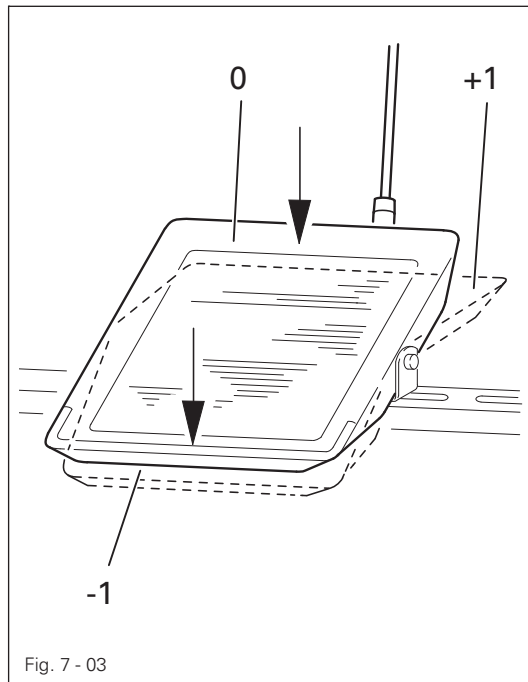
7.02 Pedals (on machines without automatic presser-foot)



- With the on/off switch on
 - 0 = Machine stop
 - +1 = Sew
 - + 2 = Raise presser foot

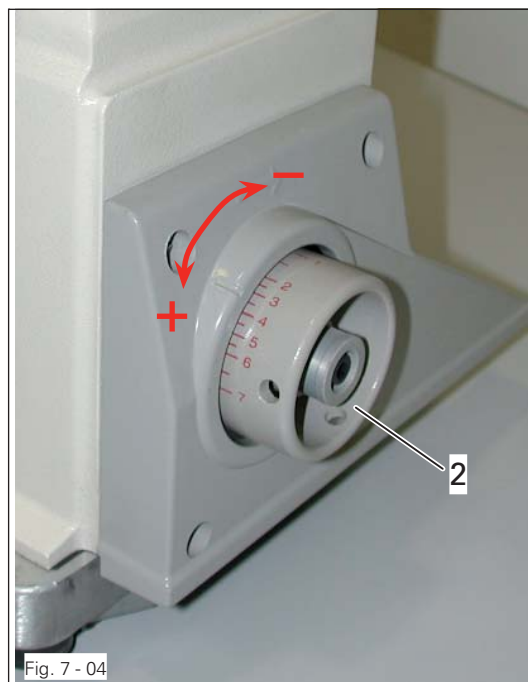
Fig. 7 - 02

7.03 Pedal (on machines with electronic motor)



- With the on/off switch on
- 0 = Machine stop
- +1 = Sew
- + 2 = Raise presser foot

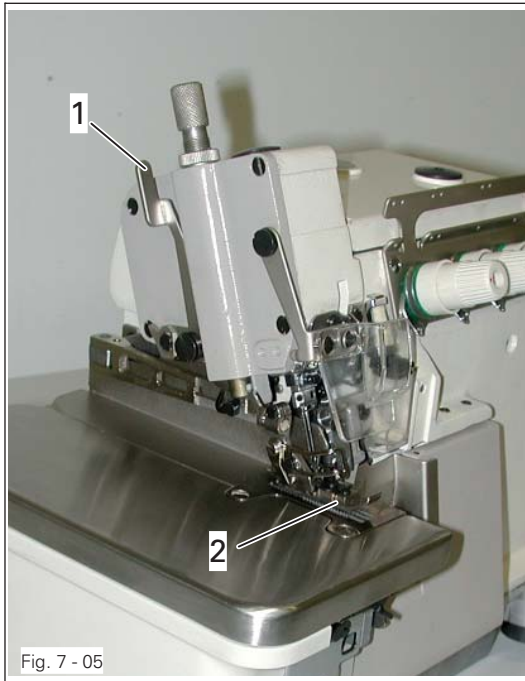
7.04 Stop button for stitch length adjustment



- To adjust the stitch length, press stop button 1 and turn the balance wheel 2 at the same time.



7.05 Sewing foot retracting lever



- After pressing lever 1, the sewing foot 2 can be retracted.



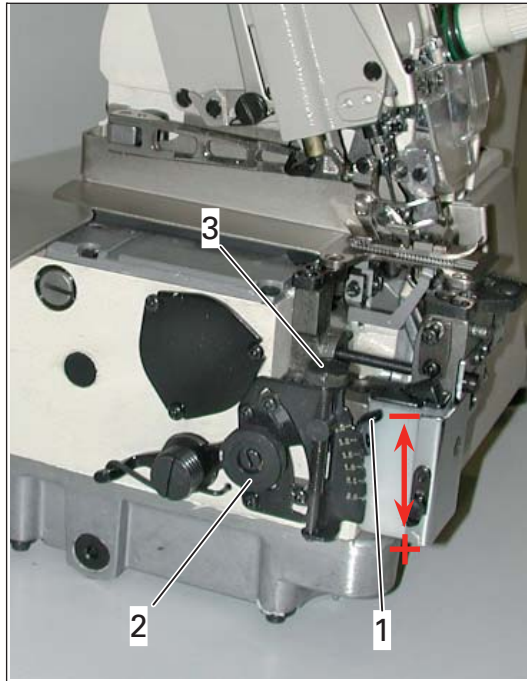
Before retracting the sewing foot, raise the needle bar to its highest position by turning the balance wheel.

7.06 Cloth plate stop lever



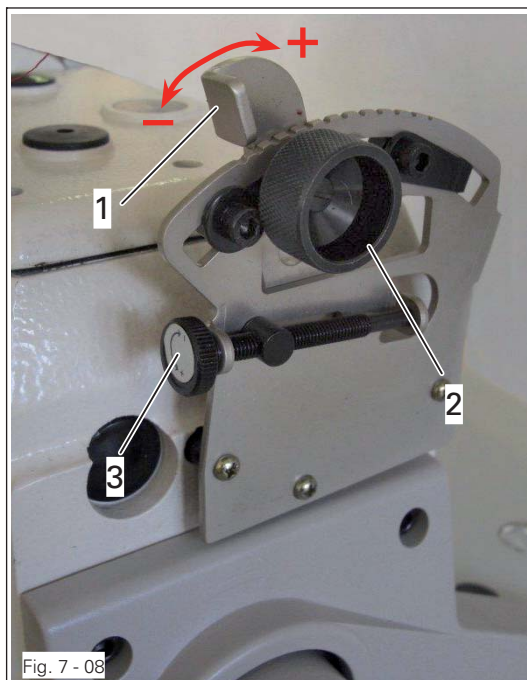
- After pressing lever 1, the cloth plate 2 can be retracted.

7.07 Lever for selecting the differential feed setting



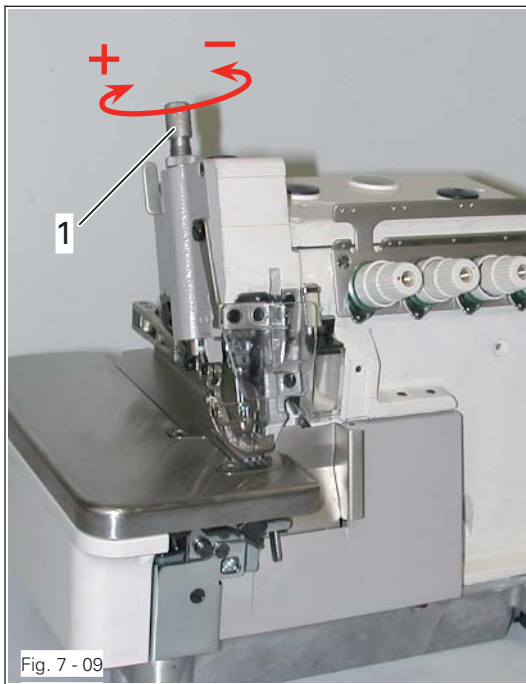
- The differential feed setting is selected on lever 1. Loosen the nut 2 to change the setting.
- Use the adjustment screw 3 for fine adjustment.

7.08 Lever for top feed setting (series 6700 only)



- The top feed setting is selected on lever 1. Loosen the nut 2 to change the setting.
- Use the adjustment screw 3 for fine adjustment.

7.09 Adjustment screw for sewing foot pressure



- Sewing foot pressure must be set in such a way as to ensure correct feed of the work piece.
- The setting is adjusted on the adjustment screw 1.

8 Installation and commissioning



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

If the machine is delivered without a table, it must be ensured that the frame and the table top which you intend to use can hold the weight of the machine and the motor. It must be ensured that the supporting structure is sufficiently sturdy, including during all sewing operations.

8.01 Installation

The site where the machine is installed must be provided with suitable connections for the electric current, see Chapter 3 Specifications.

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

8.01.01 Adjusting the table-top height

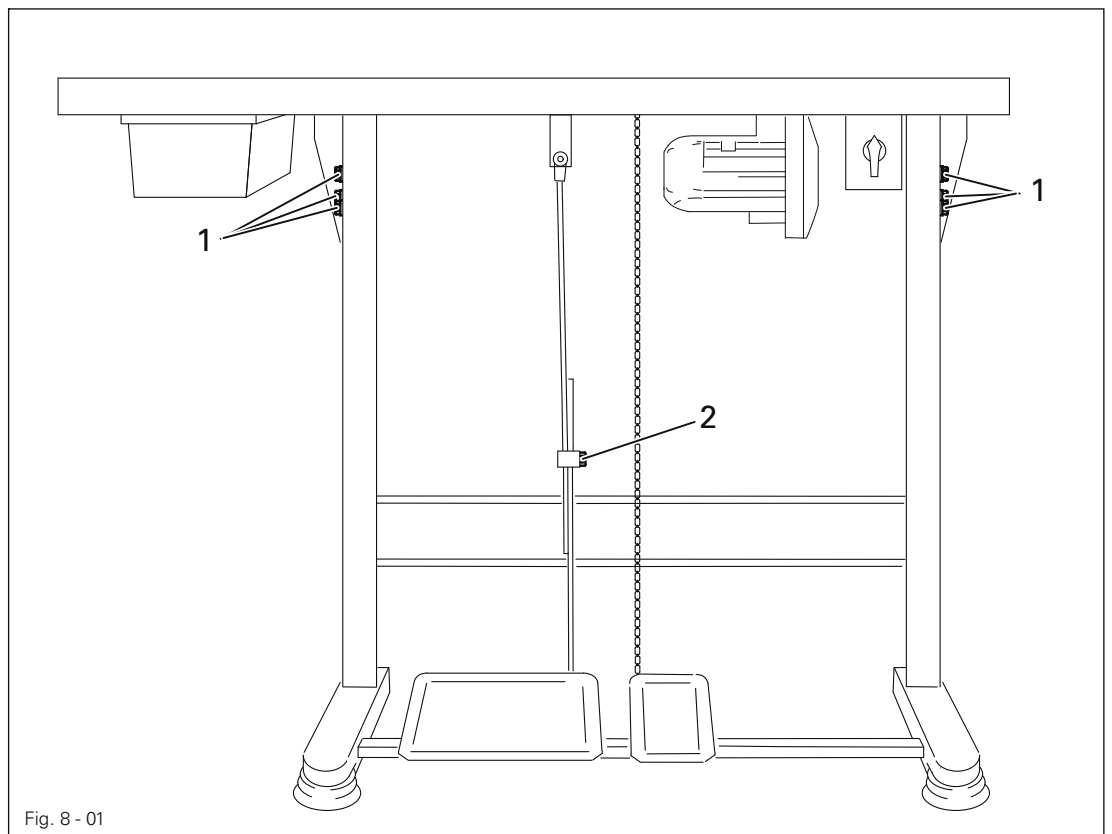
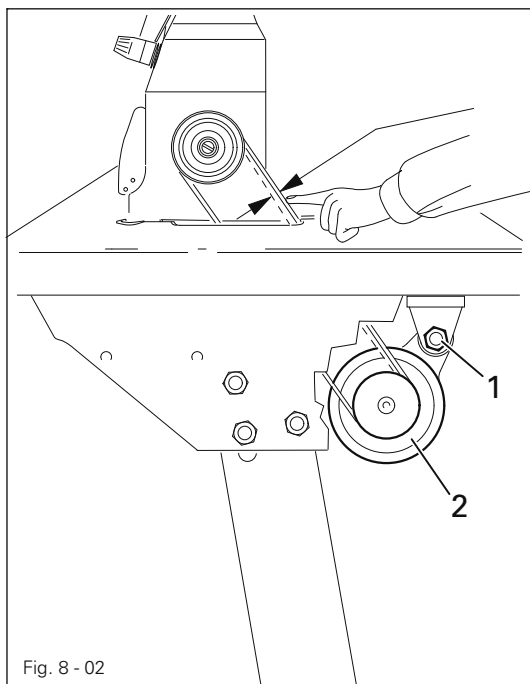


Fig. 8 - 01

- Loosen screws 1 and 2 and set the desired table-top height
- Tighten screws 1 well.
- Adjust the position of the pedal so that you can operate it comfortably and tighten screw 2.

Installation and commissioning

8.01.02 Tightening the V-belt

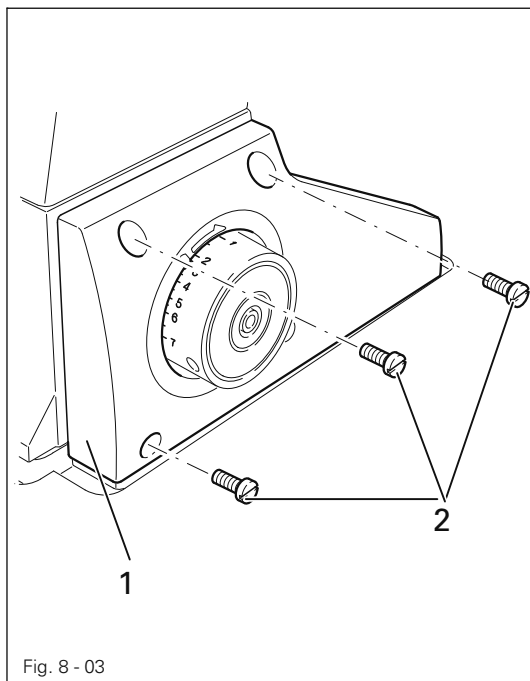


- Loosen nut 1.
- By swinging the motor 2, tighten the V-belt accordingly.
- Tighten nut 1.



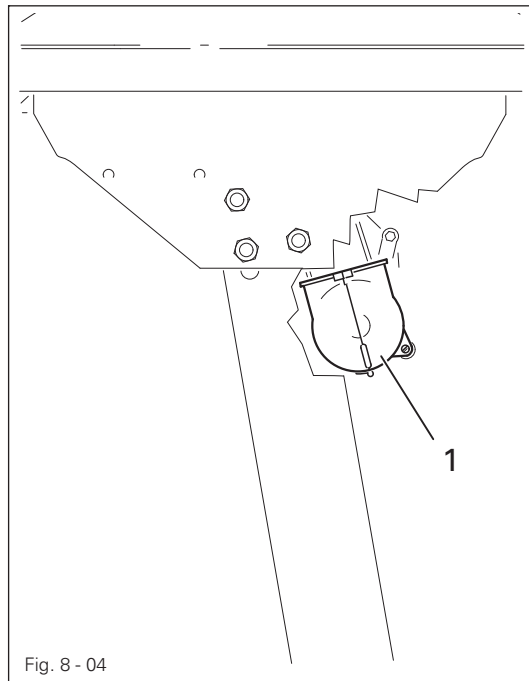
Please note the instructions in the operating manual of the drive.

8.01.03 Fitting the top belt guard



- Attach belt guard 1 to the machine case with the screws 2.

8.01.04 Mounting the bottom V-belt guard



- Adjust bottom -V-belt guard **1** so that the motor pulley and V-belt run freely.



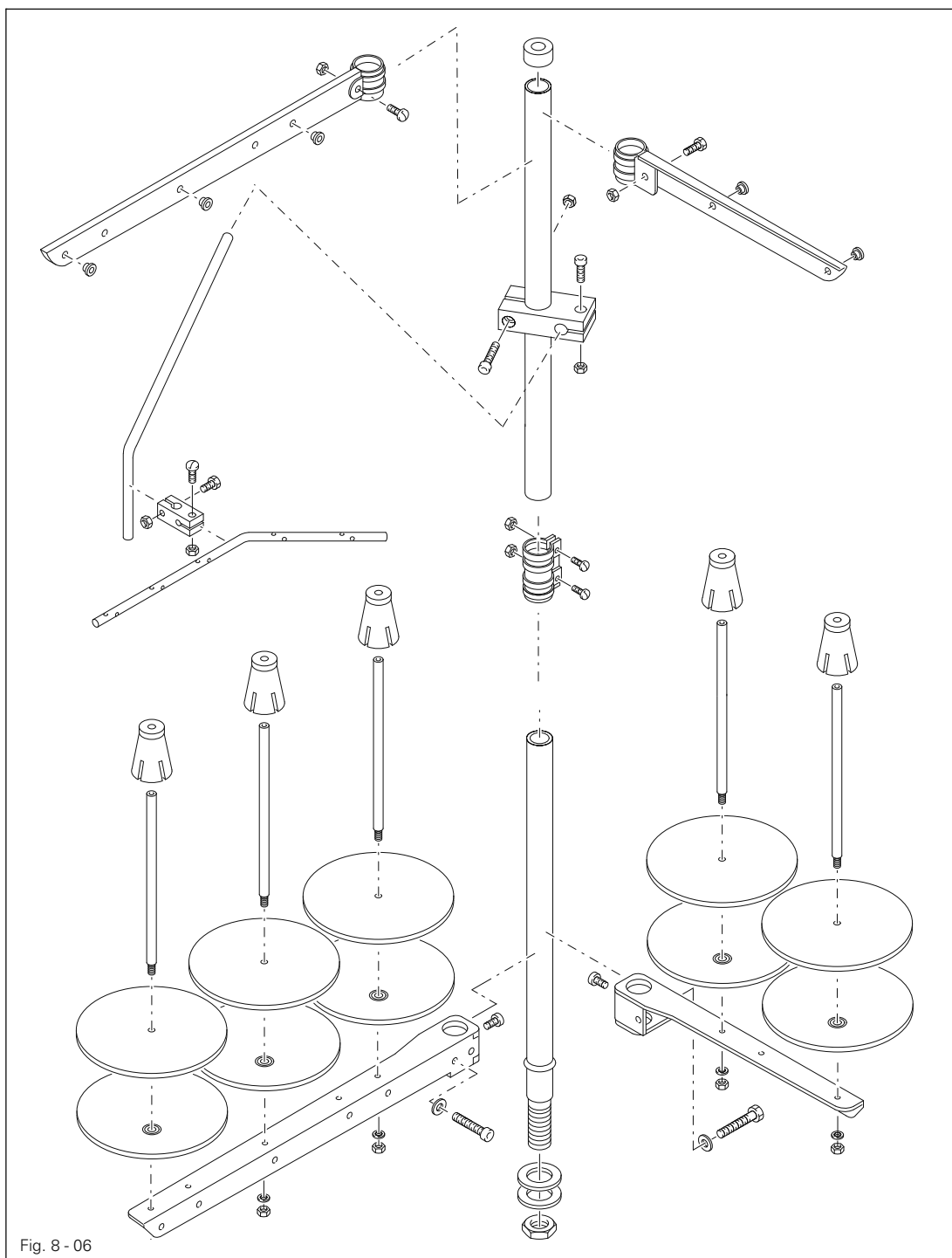
Please note the instructions in the operating manual of the drive.

8.01.05 Chain for securing the pedal



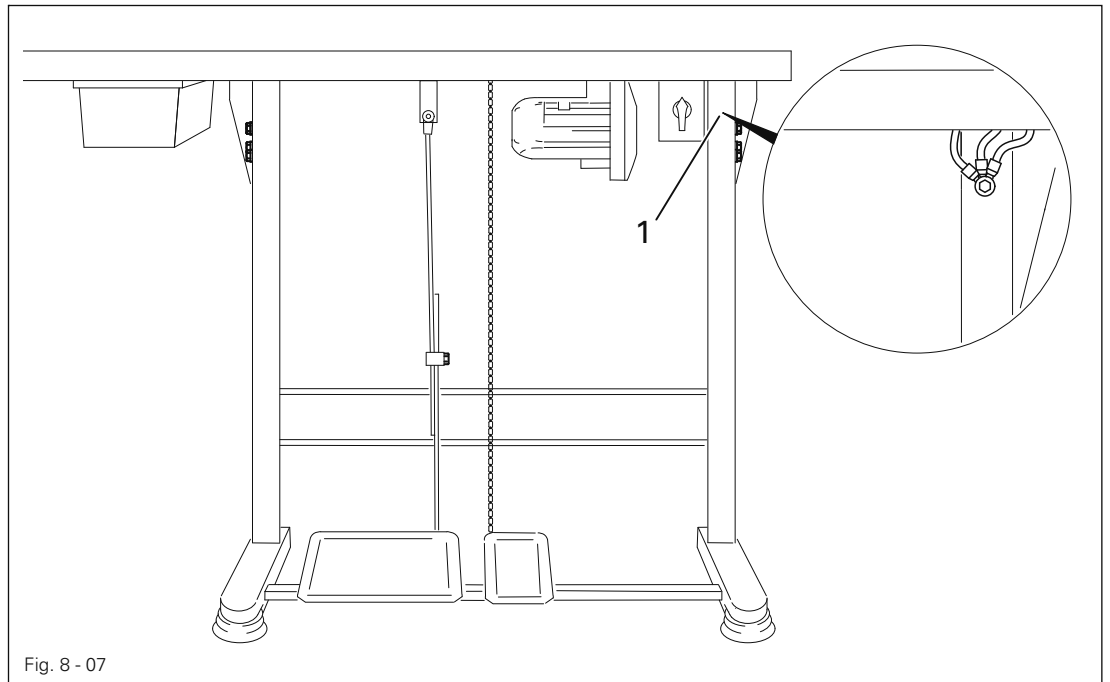
- Secure chain **1** for raising the sewing foot to lever **2** and to the right pedal.

8.01.06 Mounting the reel stand



- Mount the reel stand as shown in Fig. 8-06.
- Afterwards insert the stand in the hole in the table top and attach it with the nuts provided

8.01.07 Connecting the plug-in connections and earth cables



- Connect all plug connections as described in the operations manual of the drive.
- Attach ground cables for machine, main switch, control unit and motor to ground point 1.

8.02 Commissioning

- Check the machine, particularly its electrical wiring, for any damage.
- Clean the machine thoroughly and oil it (see chapter 10 Care and maintenance).
- Have skilled personnel check if the machine can be operated with the available mains voltage.



Do not operate the machine if there is any discrepancy.

The machine may only be connected to an earthed socket!

8.03 Switching the machine on/off



- Switch the machine on (see Chapter 7.01, On/off switch).
- When the machine is running, the balance wheel should turn away from the operator.
- Carry out a test run, making sure that oil can be seen in inspection glass 1.

9 Setting up

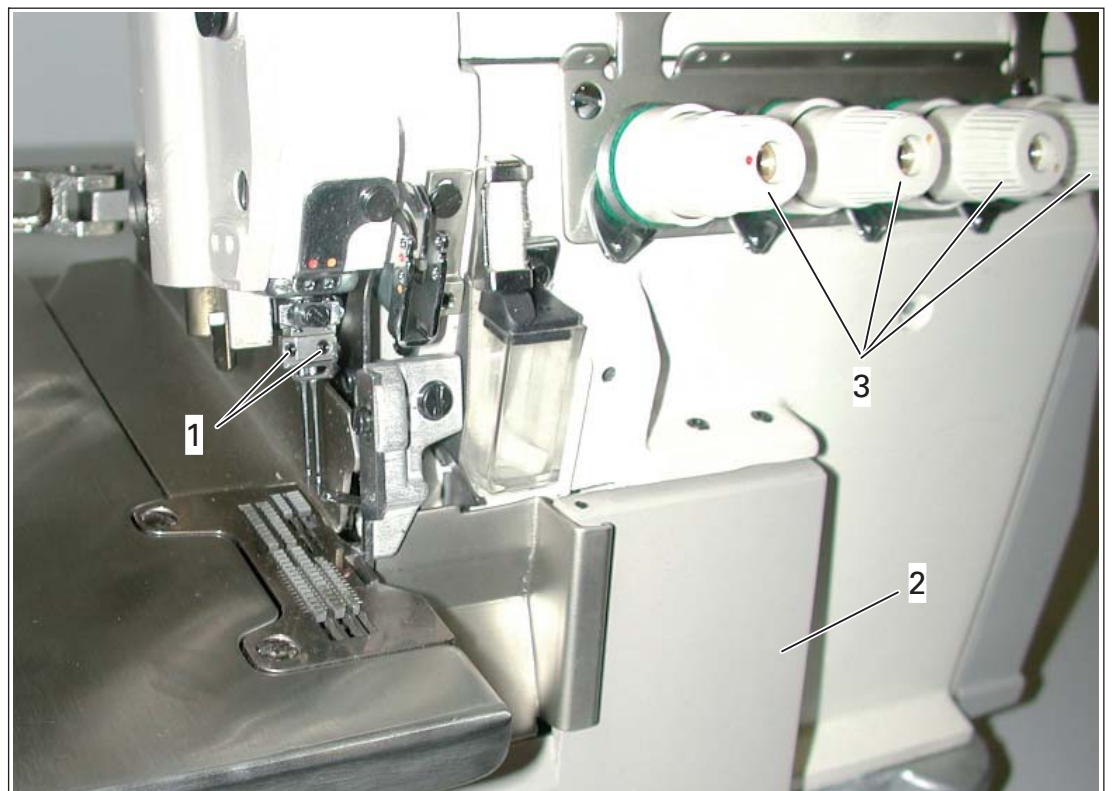


All instructions and regulations in this instruction manual must be observed. Special attention must be given to all safety regulations!



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 on/off switch or removing the machine plug from the electric power socket!

9.01 Inserting the needle / Threading the thread



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



Only use needles from the system intended for the machine, see Chapter 3 Specifications.

- By turning the balance wheel, bring the needle bar to its t.d.c.
- Loosen screw 1.
- Insert the needle as far as possible.
- The long needle groove must be facing forwards.
- Tighten screw 1.
- Thread the sewing thread on the inside of the cover 2 as shown in the threading diagram.
- Adjust the relevant needle thread tension by turning milled nuts 3.

10 Care and maintenance

10.01 Maintenance intervals

Clean the machine	once a day, more often when in continuous operation
Clean the hook compartment	once a day, more often when in continuous operation
Check the oil level	daily
Change the oil	4 weeks after commissioning, then every six months
Oil the thread lubrication	as required
Oil the machine	during commissioning and after long downtimes
Change the knife	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.

10.02 Cleaning the machine

The cleaning cycle required for the machine depends on following factors:

- Single or several shift operation
- Amount of dust resulting from the workpiece

It is therefore only possible to stipulate the best possible cleaning instructions for each individual case.



For all cleaning work the machine must be disconnected from the mains by switching off the on/off switch or by disconnecting the mains plug!
Danger of injury if the machine starts accidentally!



To avoid breakdowns, the following cleaning work is recommended for single shift operation:

- Clean hook compartment and needle area several times a day.
- Clean the entire machine at least once a day.

10.03 Cleaning the hook compartment



Switch off the machine!
Danger of injury if the machine
is started accidentally!

- Open the hook compartment cover 1.
- Clean the hook compartment.
- Close the cover 1.

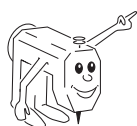
10.04 Checking the oil level



- When the machine is at a standstill, check whether the oil level in inspection glass 1 is between both markings.
- If necessary, remove plug 2 and pour in oil to the top marking.
- Replace plug 2.

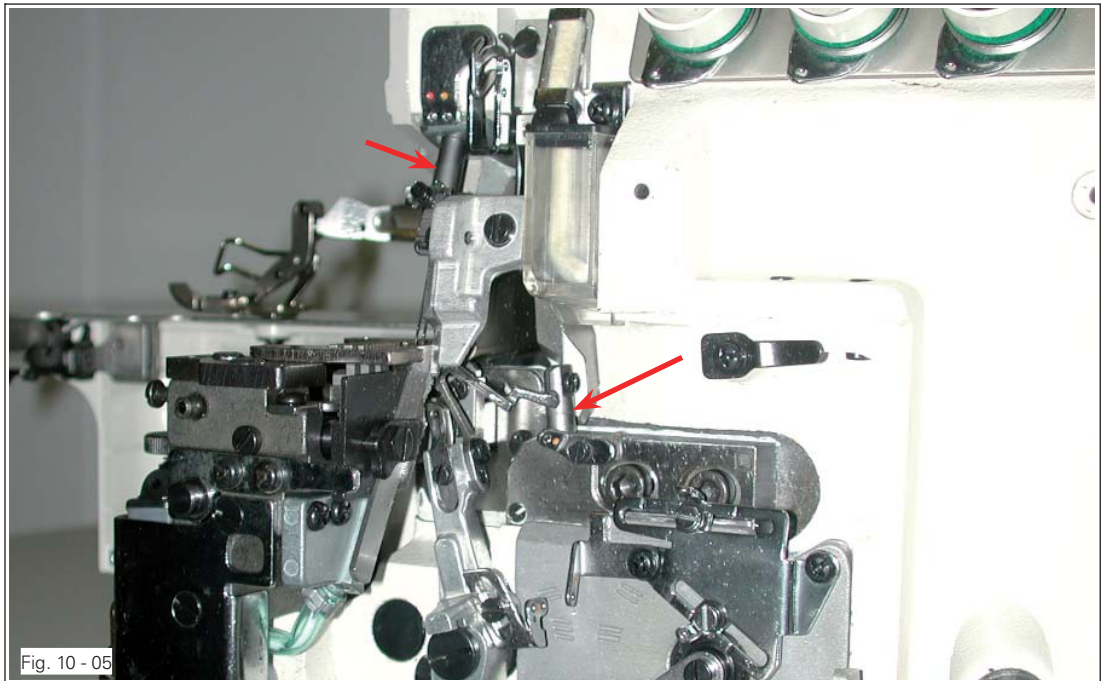


Only use oil with a viscosity of
 $22.0 \text{ mm}^2/\text{s}$ at 40° C and a density
of $0.865 \text{ g}/\text{cm}^3$ at 15° C !



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

10.05 Oiling the machine

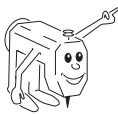


Switch off the machine!
Danger of injury if the machine starts accidentally!

- Before commissioning and before operation after long downtimes, a few extra drops of oil should be applied to the needle bar and hook bar (see arrow).

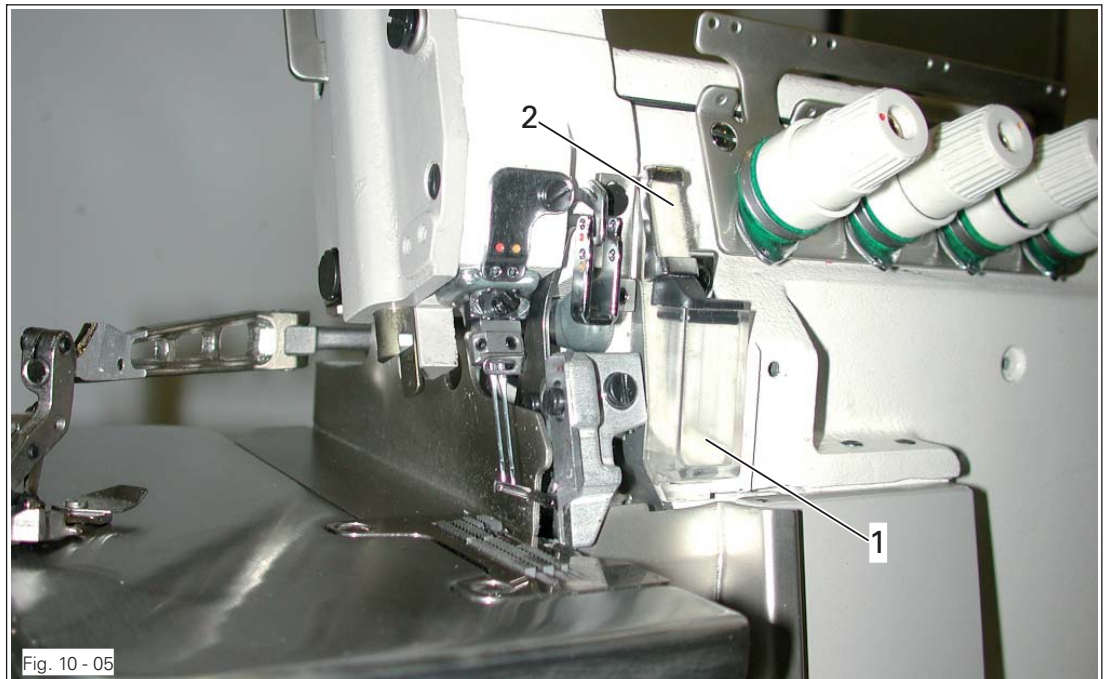


Only use oil with a viscosity of 22.0 mm²/s at 40° C and a density of 0.865 g/cm³ at 15°C!



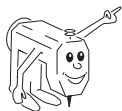
We recommend PFAFF sewing-machine oil, part No. 280-1-120 144.

10.06 Oiling the thread lubrication



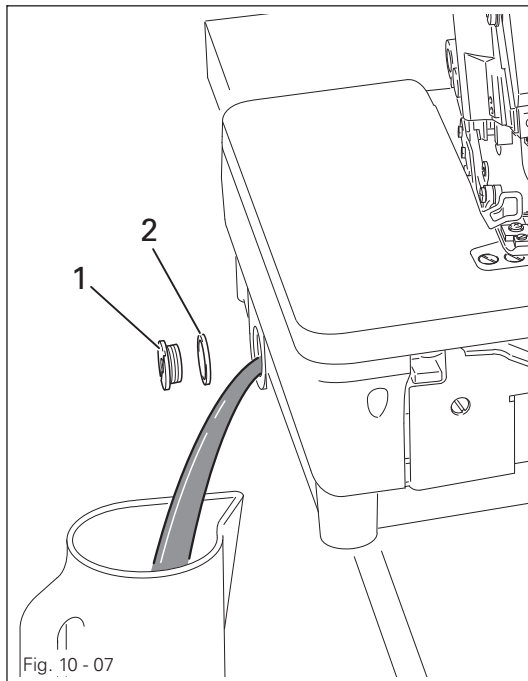
Switch off the machine!
Danger of injury if the machine starts accidentally!

- There must always be oil in oil tank 1 and felt pad 2.
- When required, fill oil into oil tank 1 or soak felt pad 2 with oil.



We recommend PFAFF thread lubricating oil, part no. 280-1-120 217.

10.07 Changing the oil

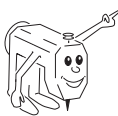


Switch off the machine!
Danger of injury if the machine starts accidentally!

- Place a suitable vessel in position and remove screw 1.
- Let the oil drain off completely.
- Retighten screw 1 with a new sealing ring 2.
- Remove the plug 3 to add fresh machine oil; fill up to the top marking on the sight glass 4.
- Replace plug 3.
- Carry out a test run and check whether the oil in inspection glass 3 is visible.



Only use oil with a viscosity of $22.0 \text{ mm}^2/\text{s}$ at 40° C and a density of 0.865 g/cm^3 at 15° C !



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

10.08 Changing the knife

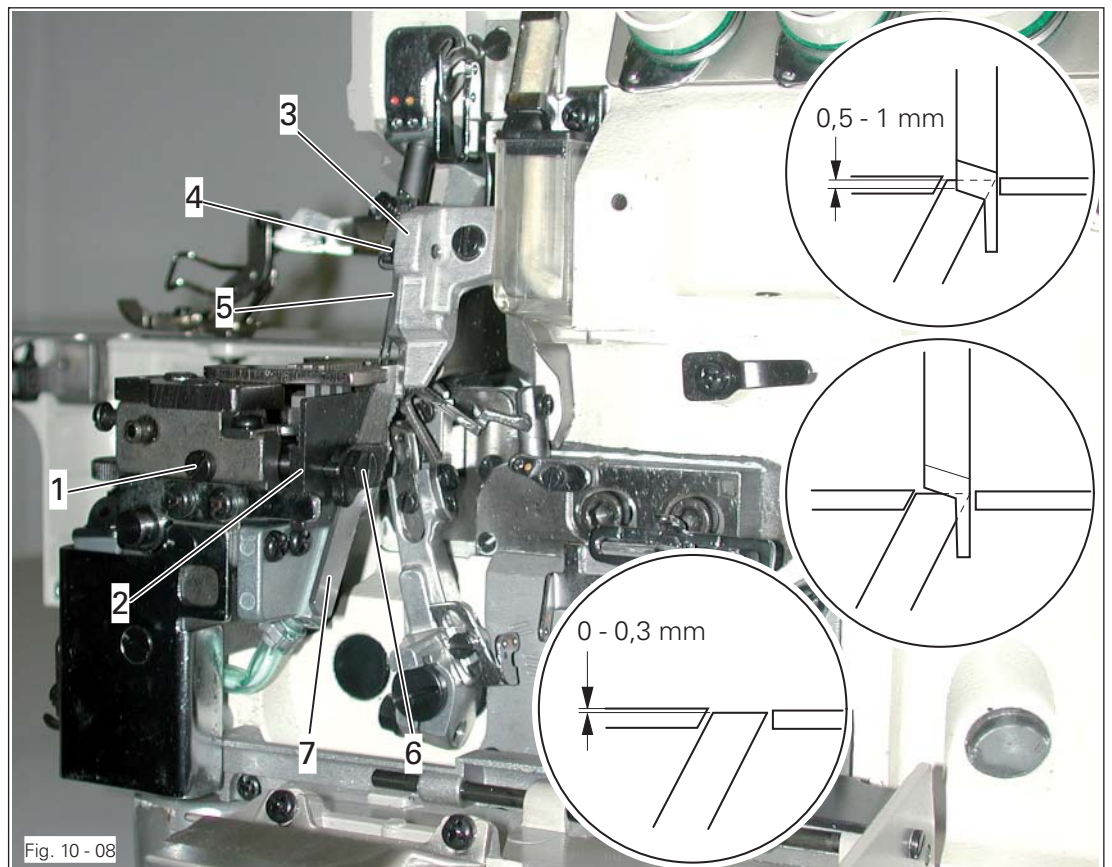


Fig. 10 - 08



Switch off the machine!
 Danger of injury if the machine starts accidentally!

Preparation

- Loosen screw 1, move knife holder 2 as far as possible to the left and slightly tighten screw 1.

Changing the top knife

- Using the balance wheel, position knife holder 3 at t.d.c., unscrew screw 4 and remove knife 5.
- Insert a new knife and slightly tighten screw 4.

Changing the bottom knife

- Unscrew screw 6 and remove knife 7.
- Insert new knife and slightly tighten screw 6.

Adjustment

- The knives 5 and 7 should be positioned so that
 - the blade of the top knife 5 and of the bottom knife 6 overlap by 0.5 – 1.0 mm.
 - the bottom knife 7 is 0.0 -0.3 mm below the needle plate and
 - the knives 5 and 7 cross each other at their central points.
- Position knives 5 and 7 accordingly and tighten screws 4 and 6.
- Adjust the cutting pressure with knife holder 2 and tighten screw 1.



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