

**1163**

INSTRUCTION MANUAL

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

# 6 001 000 →



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



The adjustment manual for the machines can be downloaded free of charge from the internet address

**[www.pfaff-industrial.com/pfaff/de/service/downloads](http://www.pfaff-industrial.com/pfaff/de/service/downloads)**

As an alternative to the internet download the adjustment manual can also be ordered in book form under part no. **296-12-19 125/002**.

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**PFAFF Industriesysteme  
und Maschinen AG**

Hans-Geiger-Str. 12 - IG Nord  
D-67661 Kaiserslautern

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## 1 Safety

### 1.01 Directives

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

In addition to this Instruction Manual, also observe all generally accepted, statutory and other regulations and legal requirements and all valid environmental protection regulations! The regionally valid regulations of the social insurance society for occupational accidents or other supervisory organizations are to be strictly adhered to!

### 1.02 General notes on safety

- This machine may only be operated by adequately trained operators and only after having completely read and understood the Instruction Manual!
- All Notes on Safety and Instruction Manuals of the motor manufacturer are to be read before operating the machine!
- The danger and safety instructions on the machine itself are to be followed!
- This machine may only be used for the purpose for which it is intended and may not be operated without its safety devices. All safety regulations relevant to its operation are to be adhered to.
- When exchanging sewing tools (e.g. needle, roller presser, needle plate and bobbin), when threading the machine, when leaving the machine unattended and during maintenance work, the machine is to be separated from the power supply by switching off the On/Off switch or by removing the plug from the mains!
- Everyday maintenance work is only to be carried out by appropriately trained personnel!
- Repairs and special maintenance work may only be carried out by qualified service staff or appropriately trained personnel!
- Work on electrical equipment may only be carried out by appropriately trained personnel!
- Work is not permitted on parts and equipment which are connected to the power supply! The only exceptions to this rule are found in the regulations EN 50110.
- Modifications and alterations to the machine may only be carried out under observance of all the relevant safety regulations!
- Only spare parts which have been approved by us are to be used for repairs! We expressly point out that any replacement parts or accessories which are not supplied by us have not been tested and approved by us. The installation and/or use of any such products can lead to negative changes in the structural characteristics of the machine. We are not liable for any damage which may be caused by non-original parts.

## 1.03

### Safety symbols



Danger!  
Points to be observed..



Danger of injury for operating and specialist personnel!



### Caution

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

## 1.04

### Important points for the user

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

Further information can be obtained from your PFAFF agent.

## 1.05 Operating and specialist personnel

### 1.05.01 Operating personnel

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

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

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

### 1.05.02 Specialist personnel

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

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

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

1.06

## Danger warnings



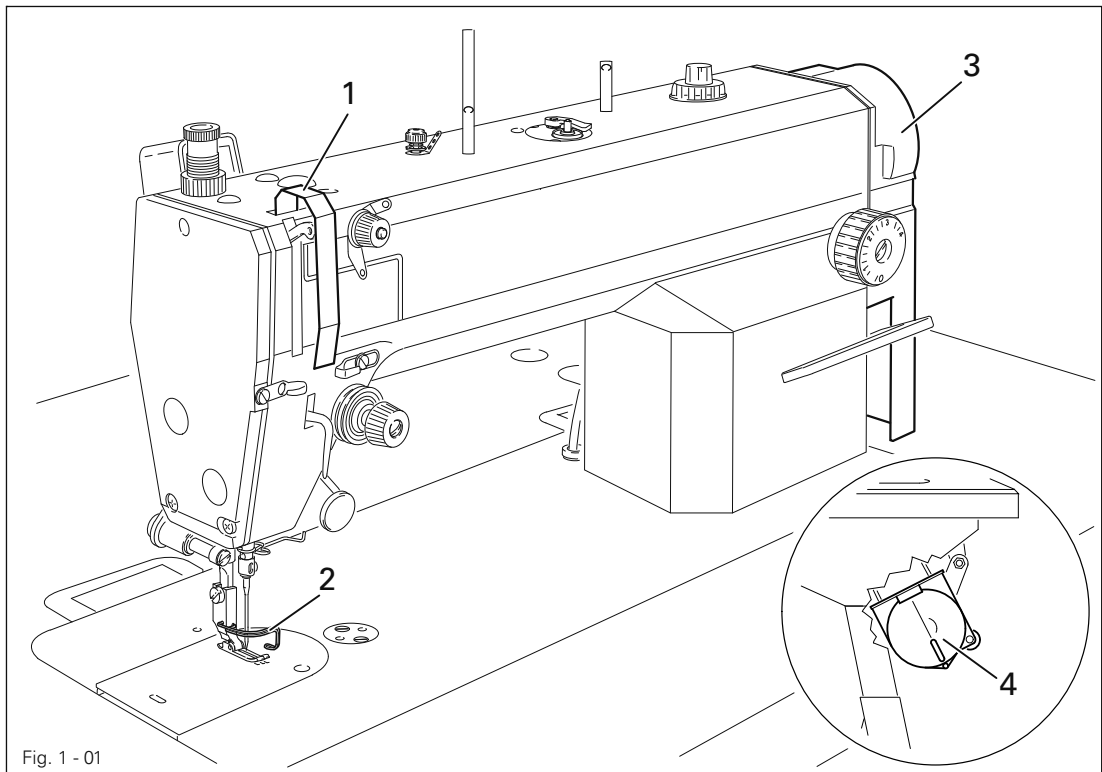
A working area of **1 m** must be kept free both in front of and behind the machine, so that easy access is possible at all times.



Never put your hands or fingers 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 flung out of the machine!



Do not run the machine without take-up lever guard **1**!  
Danger of injury by moving take-up lever!



Do not run the machine without finger guard **2**!  
Danger of injury by up and down movement of needle!



Do not run the machine without belt guards **3** and **4**!  
Danger of injury by rotating v-belt!



2

**Proper use**

The **PFAFF 1163** is a single-needle, high-speed sewing machine with bottom feed. The machine is used to manufacture lockstitch seams in the textile industry.



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 PFAFF 1163

Stitch type:	301 (lockstitch)
Needle system:	134
Needle size (Nm) in 1/100 mm:	
Model B:	80 - 100
Model C:	110 - 120
Handwheel eff. dia.:	65 mm
Clearance under roller presser:	6 - 13 mm
Clearance width:	262 mm
Clearance height:	132 mm
Bedplate dimensions:	476 x 178 mm
Sewing head dimensions:	
Length:	approx. 520 mm
Width:	approx. 180 mm
Height (above table):	approx. 250 mm
Max. stitch length	
Model B:	5,0 mm
Model C:	8,0 mm
Max. speed:	
Model B:	5000 spm ♦
Model C:	3000 spm ♦
Connection data:	
Operating voltage:	see motor specification plate
Max. power consumption:	see motor specification plate
Working noise level:	
Emission level at workplace at a speed of 4000 spm:	$L_{pA} < 77$ dB(A) ■
(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)	
Net weight of sewing head:	approx. 24 kg
Gross weight of sewing head:	approx. 32 kg

▲ Subject to alteration

♦ Dependent on material, work operation and stitch length

■  $K_{pA} = 2,5$  dB

### 3.02 Models and subclasses

Model B: .....for sewing medium-weight materials (standard parts set)  
Model C: .....for sewing medium-heavy materials

#### Work aids:

Sub-class -900/93..... Thread trimmer  
Sub-class -909/93..... Thread wiper  
Sub-class -910/93..... Automatic presser foot lift  
Sub-class -911/93..... Backtacking mechanism

### 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:



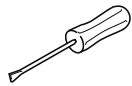
Note, information



Cleaning, care



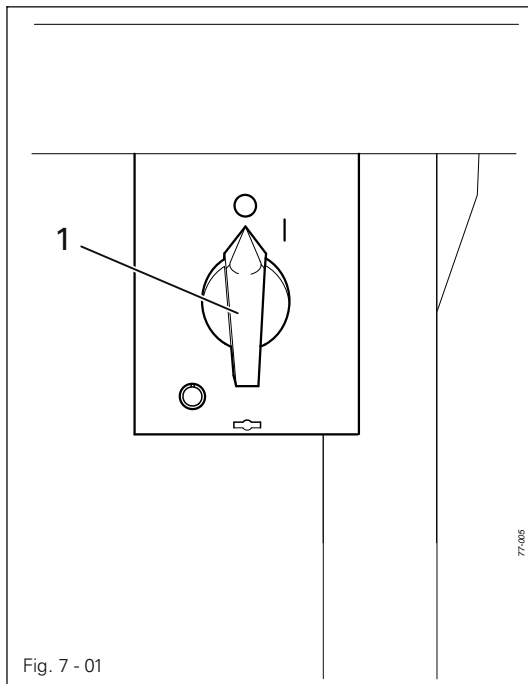
Lubrication



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

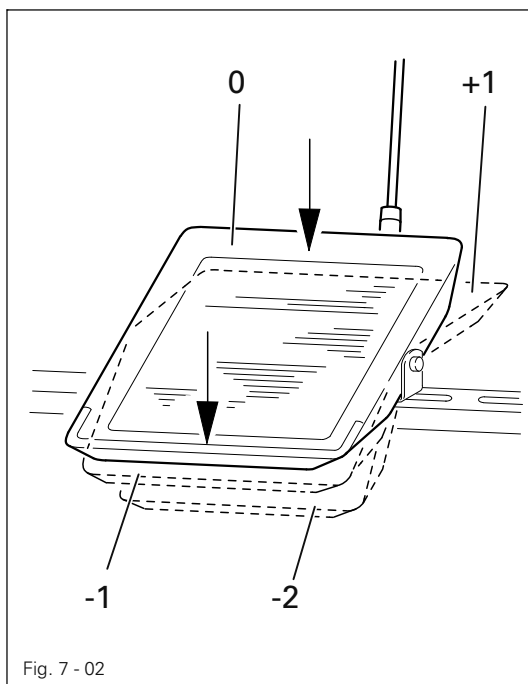
## 7 Controls

### 7.01 On/off switch



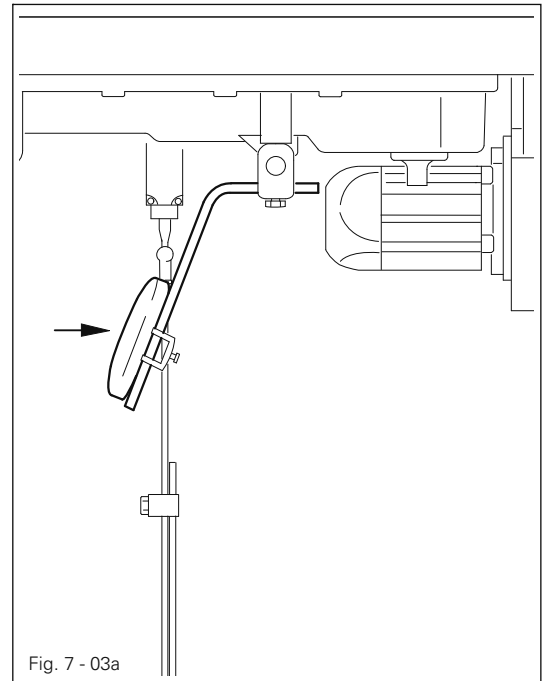
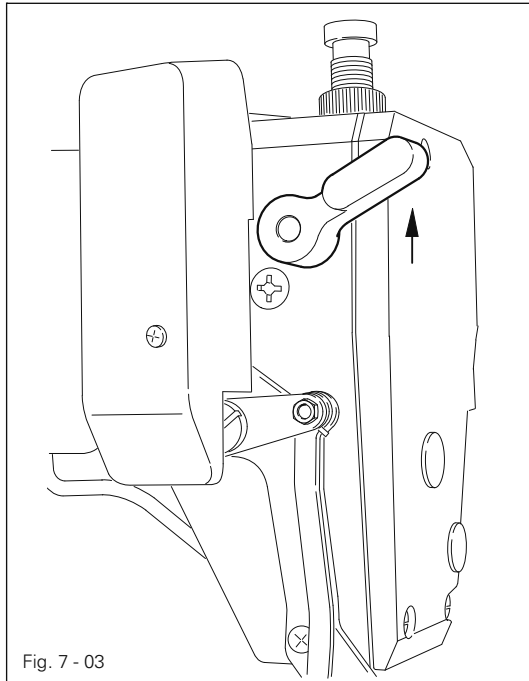
- Switch the machine on or off by turning main switch 1.

### 7.02 Pedal

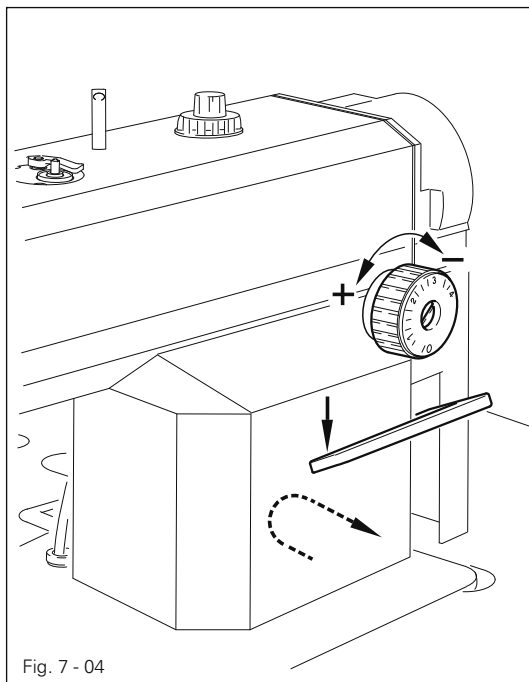


- With the on/off switch on
  - 0 = Machine stop
  - +1 = Sew
  - 1 = Raise presser foot (for machines with -910/93)
  - 2 = Trim thread (for machines with -900/93)

7.03 Raising the presser foot

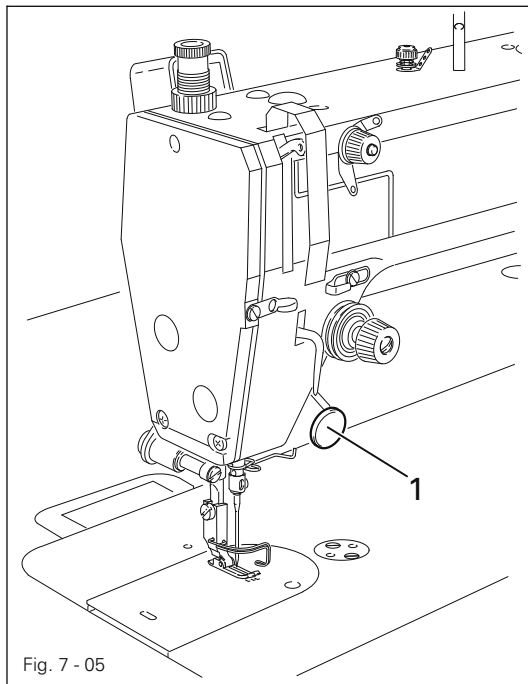


7.04 Feed regulator disk / Reverse feed lever



7.05

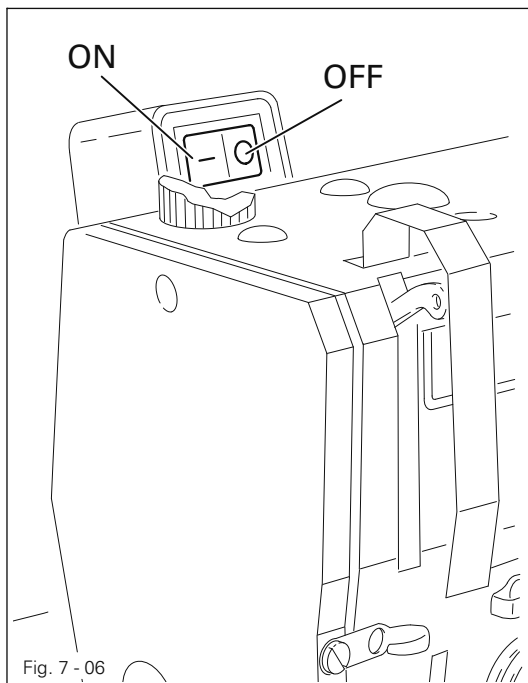
## Key on the machine head (only for machines with -911/93)



- As long as key 1 is pressed during sewing, the machine sews in reverse.

7.06

## Switch for thread wiper -909/93



7.07

## Control panel

The description can be found in the separate instruction manual for the motor.



## 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.



The method of packaging used requires that the table top be lowered for transport. The following is a description of how to adjust the height of the table top.

#### 8.01.01 Adjusting the table-top height

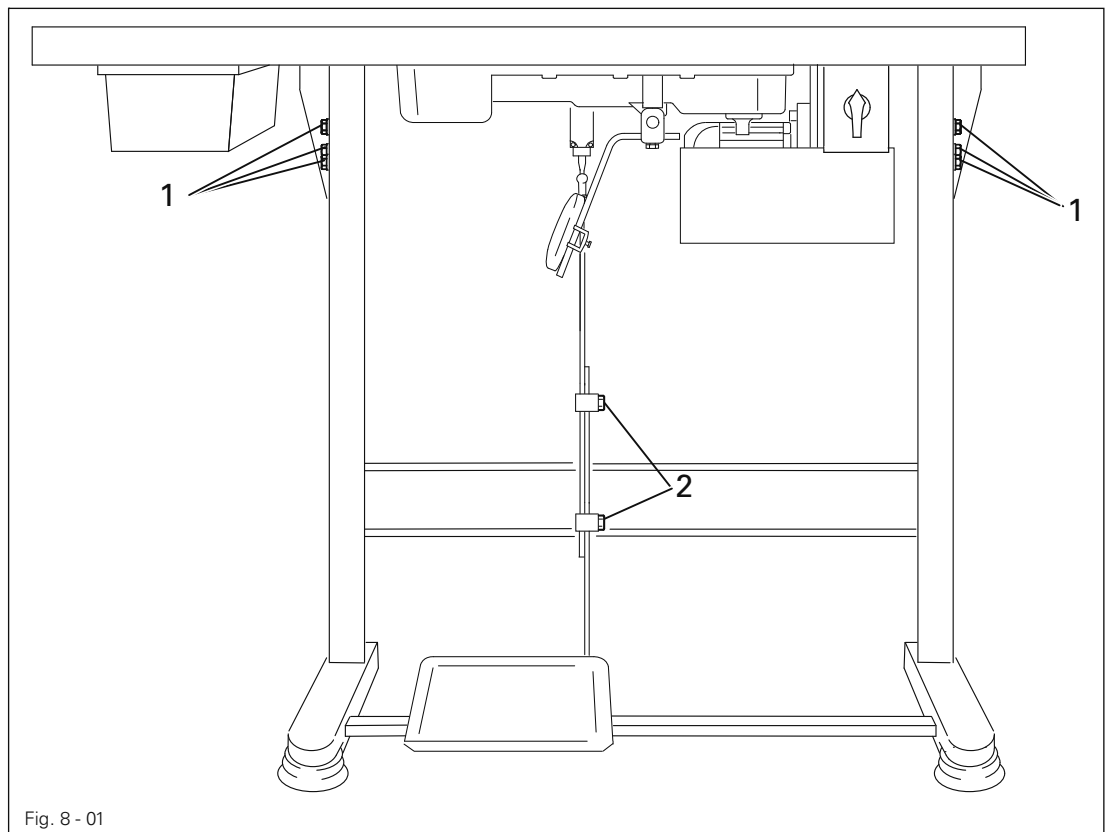
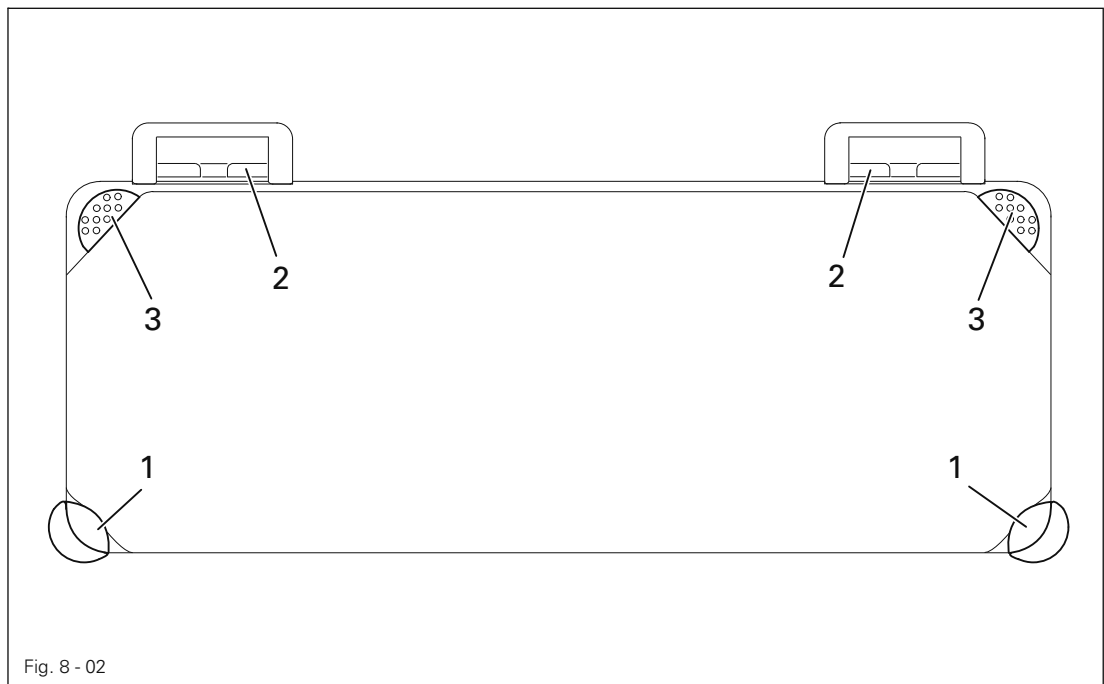


Fig. 8 - 01

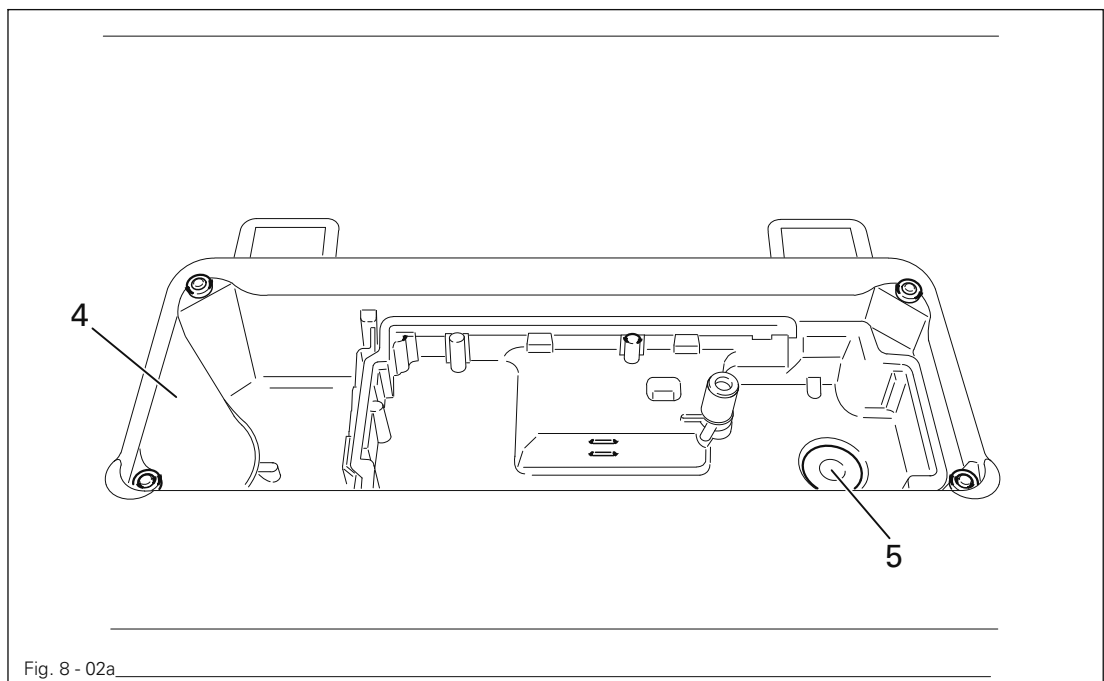
- Loosen screws 1 and 2 and set the desired table-top height
- Tighten screws 1 well.
- Adjust the position of the pedal so that you can operate it comfortably and tighten screw 2.

## Installation and commissioning

### 8.01.02 Fitting the oil pan

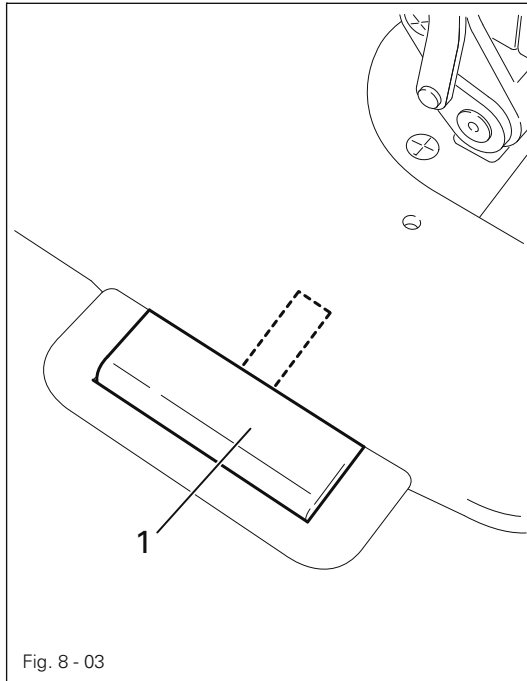


- Insert rubber pads 1 and 2 and fasten them with nails.
- Attach rubber pad 3 with a suitable adhesive.



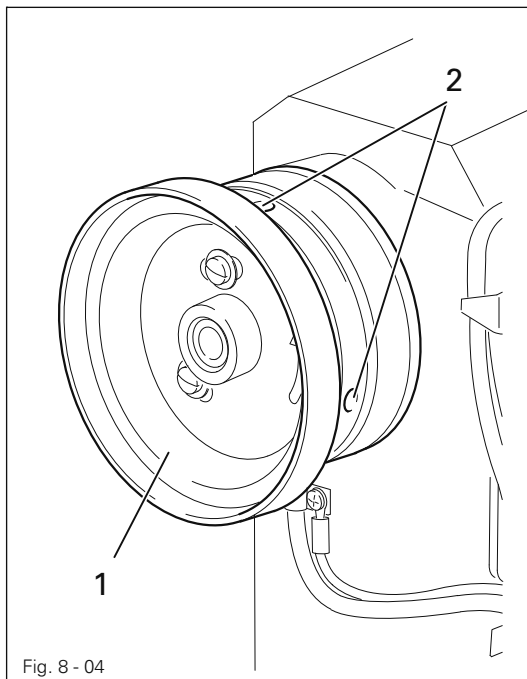
- Insert oil pan 4 in the table top cutout.
- Place magnet 5 in the corresponding recess of the oil pan.

## 8.01.03 Mounting the sewing head



- Insert both hinges **1** in the corresponding holes in the bedplate of the sewing head.
- Insert the sewing head with hinges **1** into the rear rubber pads.

## 8.01.04 Mounting the balance wheel

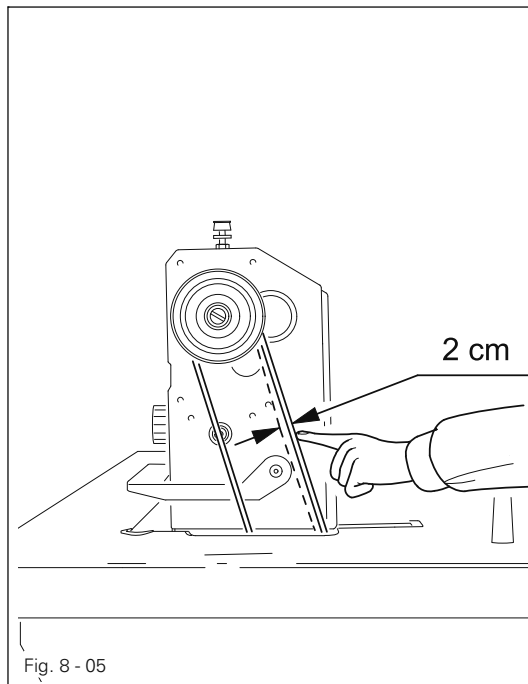


- Fit balance wheel **1** and fasten it with **2** screws **2**.



The balance wheel must only be mounted on machines without a synchronizer.

## 8.01.05 Tightening the V-belt

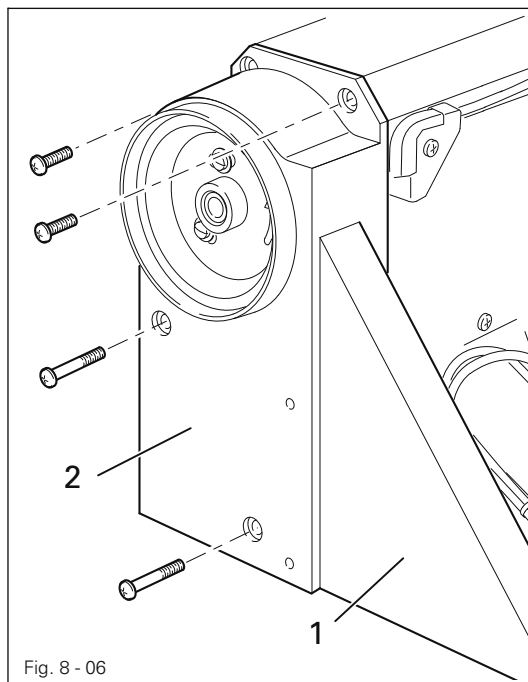


- Tension the V belt as shown in images 8 - 02.



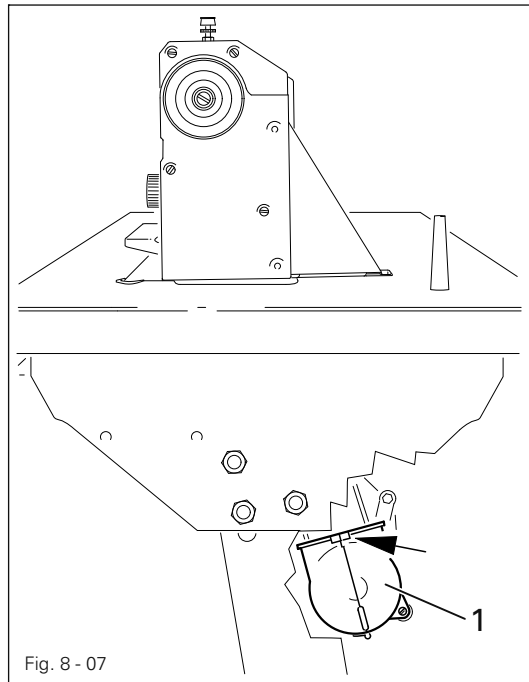
Please note the instructions in the operating manual of the drive for information on parameter settings.

## 8.01.06 Mounting the top V-belt guard



- Fasten part 1 of the V-belt guard to part 2 of the V-belt guard with 4 screws.
- Attach part 2 together with part 1 of the V-belt guard to the machine housing with 4 screws.

## 8.01.07 Mounting the bottom V-belt guard

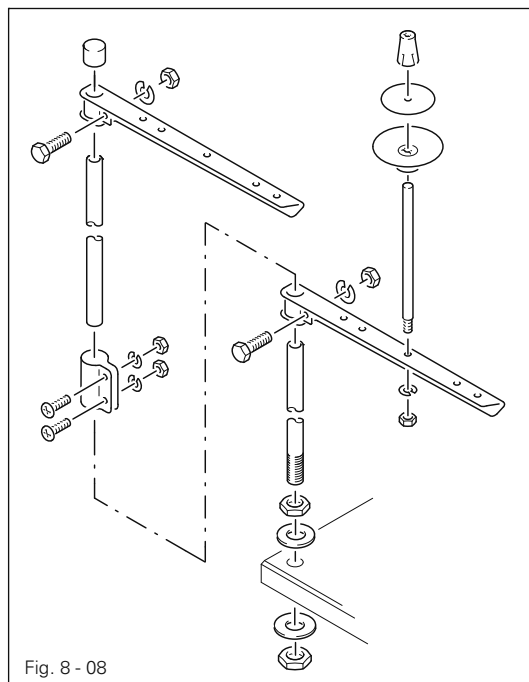


- Adjust bottom -V-belt guard **1** so that the motor pulley and V-belt run freely.



Please note the instructions in the operating manual of the drive for information on parameter settings.

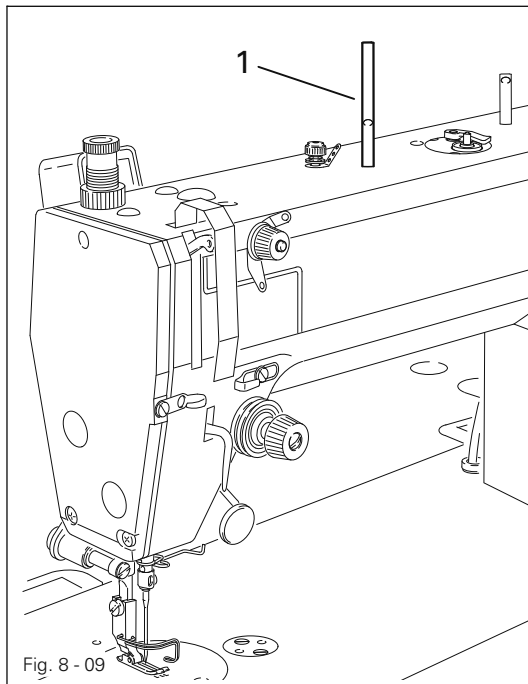
## 8.01.08 Mounting the spool holder



- Mount the spool holder as shown in Fig. 8-08.
- Insert the spool holder into the hole in the table top and fasten it with the nuts enclosed.

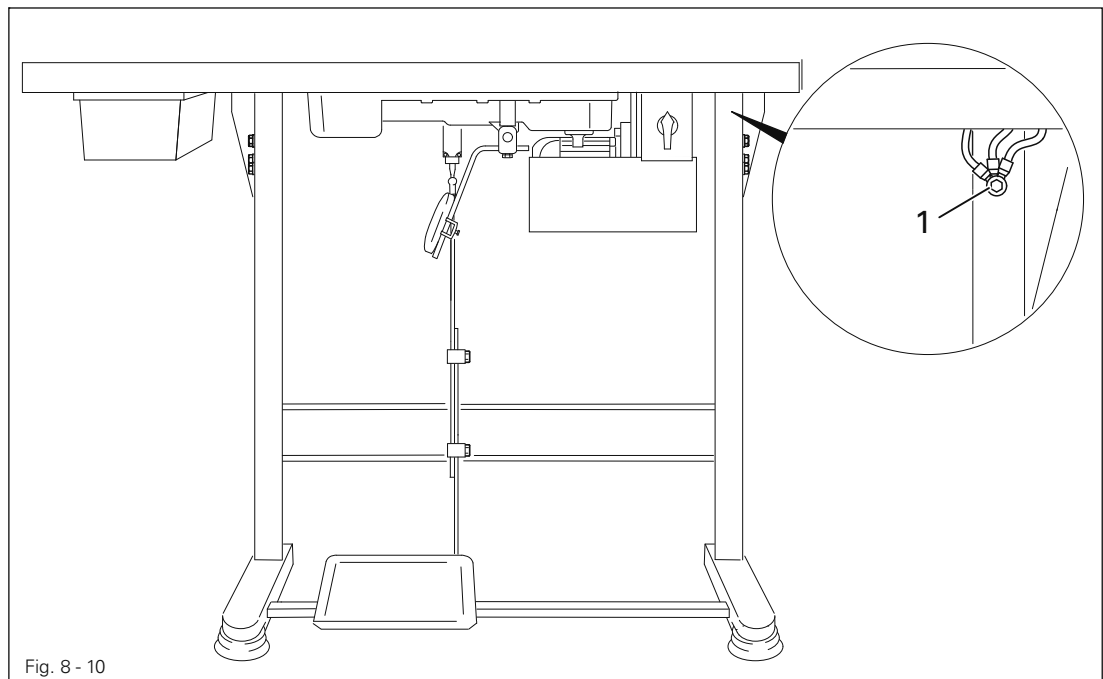
# Installation and commissioning

## 8.01.09 Fitting the thread guide



- Fit the tapered thread guide pin 1 into the corresponding hole in the machine housing.

## 8.02 Connecting the plug-in connections and earth cables



- Connect all plug connections as described in the operations manual of the drive
- The following ground cables must be attached in order to discharge static electricity.
- Attach ground cables for machine, main switch, control unit and motor to ground point 1.

### 8.03 Commissioning



Before commissioning the machine, clean it thoroughly, fill the oil pan with oil and adjust the oil level, see Chapter 10 Care and Maintenance!

- Check the machine, especially the electrical leads, for any damage.
- 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!



Have home position of the machine drive verified by certified technicians before first commissioning! Have settings carried out by technicians where required (see chapter 8.05)

### 8.04 Switching the machine on/off

- Switch the machine on (see Chapter 7.01, On/off switch).

### 8.05 Machine drive home position

- Press and hold buttons "A+" and "B+" and switch machine On.
- The control unit will carry out an automatic reset.
- Switch machine on.
- Press button "P" (parameter 47 is displayed).
- Press button "S"; parameter value must be 62.
- Enter the value manually via +/- if required.
- Deactivate input mode by pressing "S".

9

## Preparation



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



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

9.01

## Inserting the needle

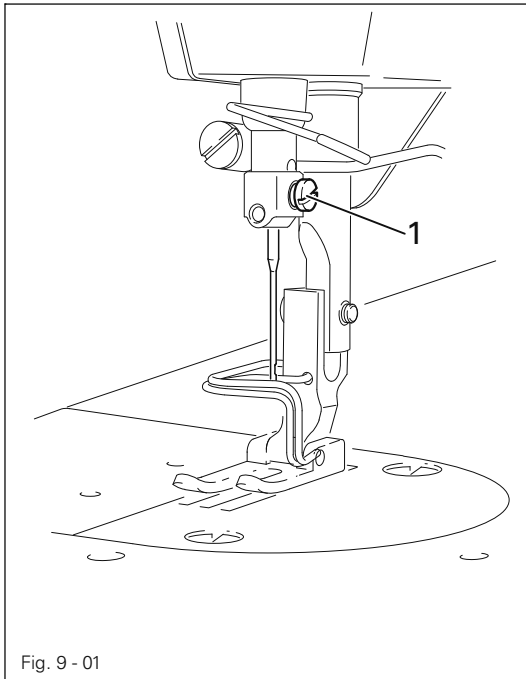


Fig. 9 - 01



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

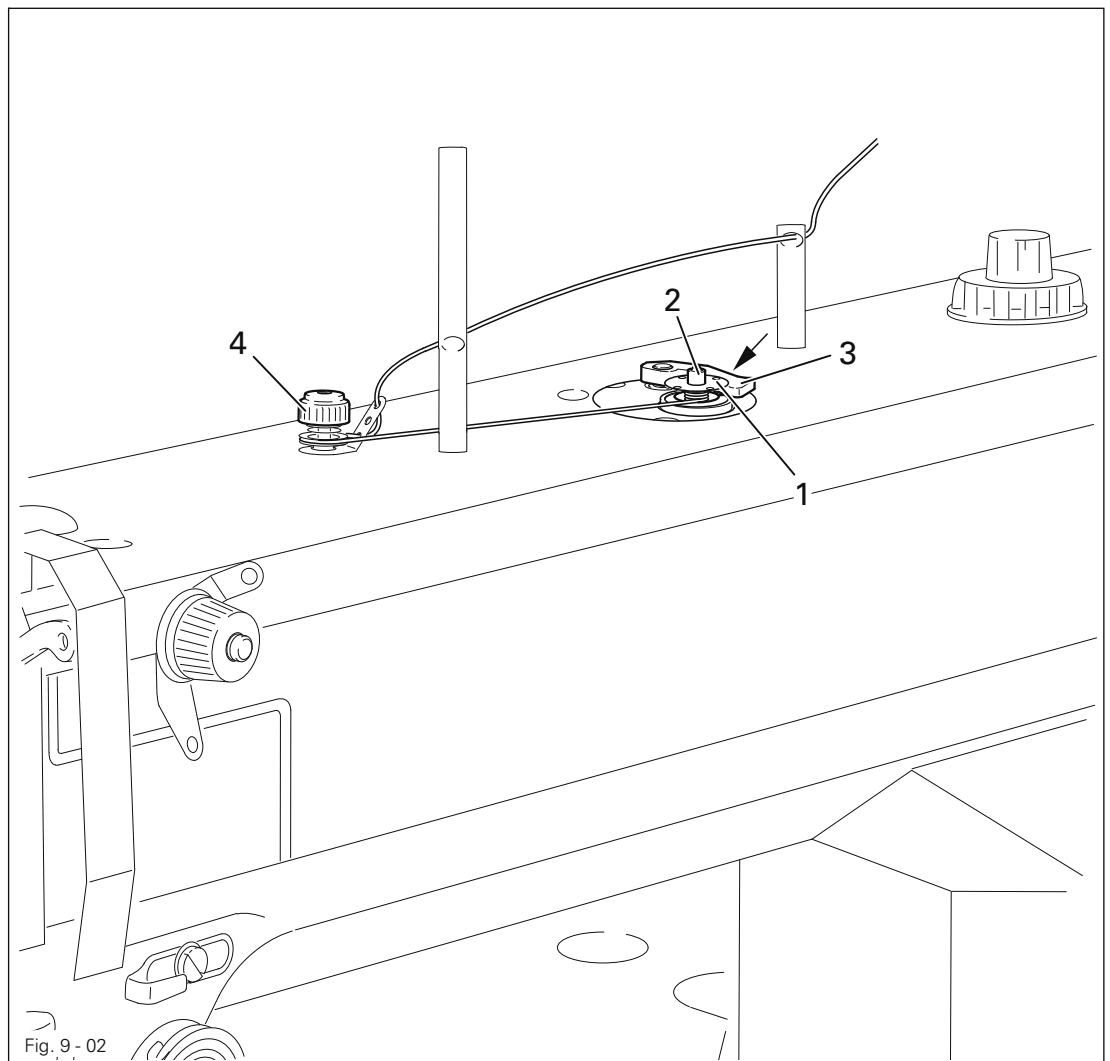


Only use needles from the system intended for the machine, see Chapter 3 Specifications.

- Raise needle bar.
- Loosen screw 1 and insert needle 3 until you feel it stop.
- The long needle groove must be aligned in the direction of the machine head.
- Tighten screw 1.



## 9.02 Winding the bobbin thread / adjusting the preliminary thread tension



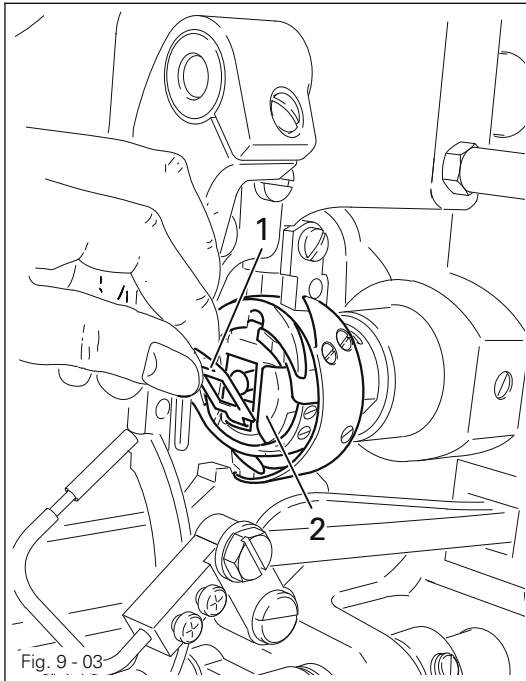
- Place empty bobbin 1 on the bobbin winder spindle 2.
- Thread the thread as shown in Fig. 9.02 and wind it around the bobbin 1 a few times in a clockwise direction.
- Switch on the bobbin winder by pressing lever 3 in the direction of the arrow.



Bobbin 1 is filled during sewing.

- The tension of the thread on bobbin 1 can be adjusted with milled screw 4.
- The bobbin winder stops automatically, when bobbin 1 is sufficiently full.
- To adjust the amount of thread turn the screw on lever 3.

## 9.03 Removing/Inserting the bobbin case



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

### Removing the bobbin case:

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

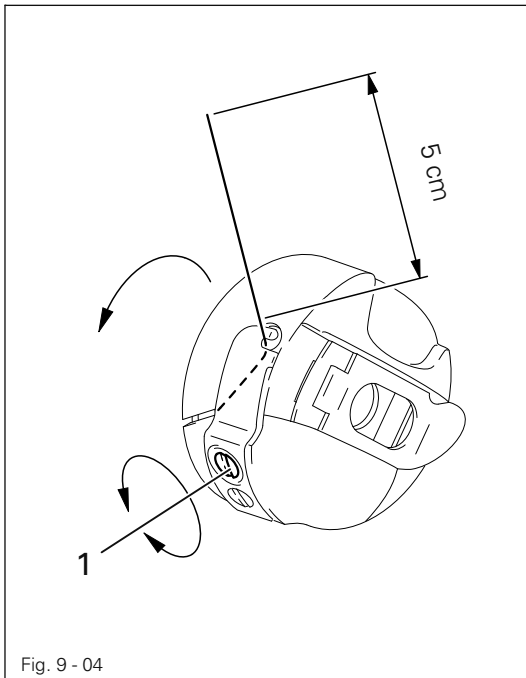
### Inserting the bobbin case:

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



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

## 9.04 Inserting the bobbin case / Adjusting the bobbin thread tension

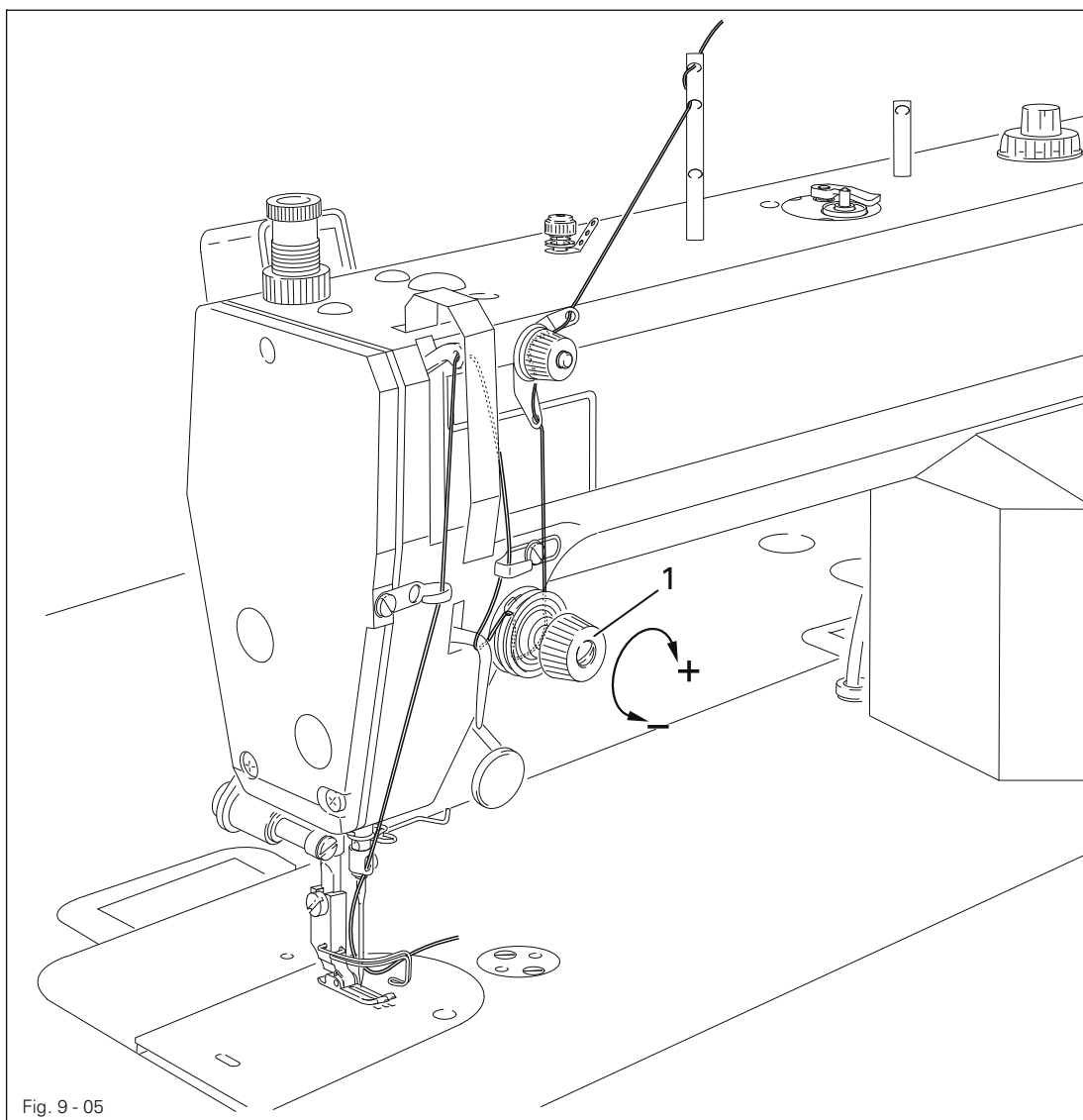


- Insert the bobbin into the bobbin case.
- Pass the thread through the slot under the spring according to Fig. 9-04.
- Adjust the thread tension by turning screw 1.



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

## 9.05 Threading the needle thread / adjusting the needle thread tension



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

- Thread the needle thread as shown in Fig. 9.05.
- Adjust the needle thread tension by turning adjustment wheel 1.

## 10 Care and maintenance

### 10.01 Servicing and maintenance intervals

Cleaning .....	daily, several times if in continuous use
Checking the oil level .....	once a month



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

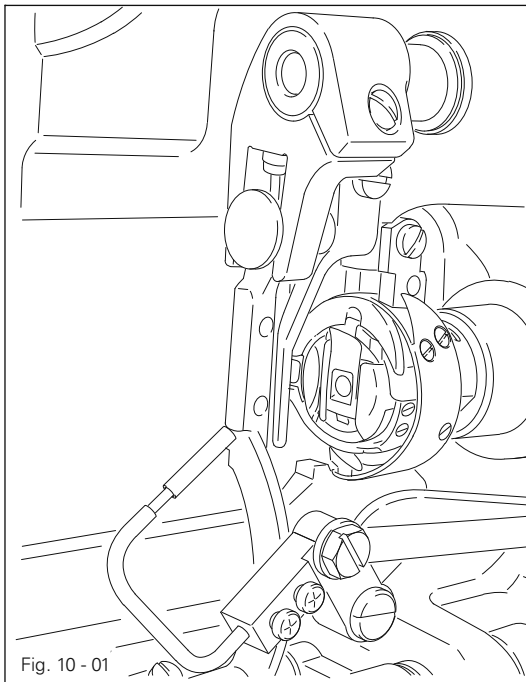
The cleaning cycle required for the machine depends on following factors:

- 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 removing the mains plug!  
Danger of injury if the machine suddenly starts up .



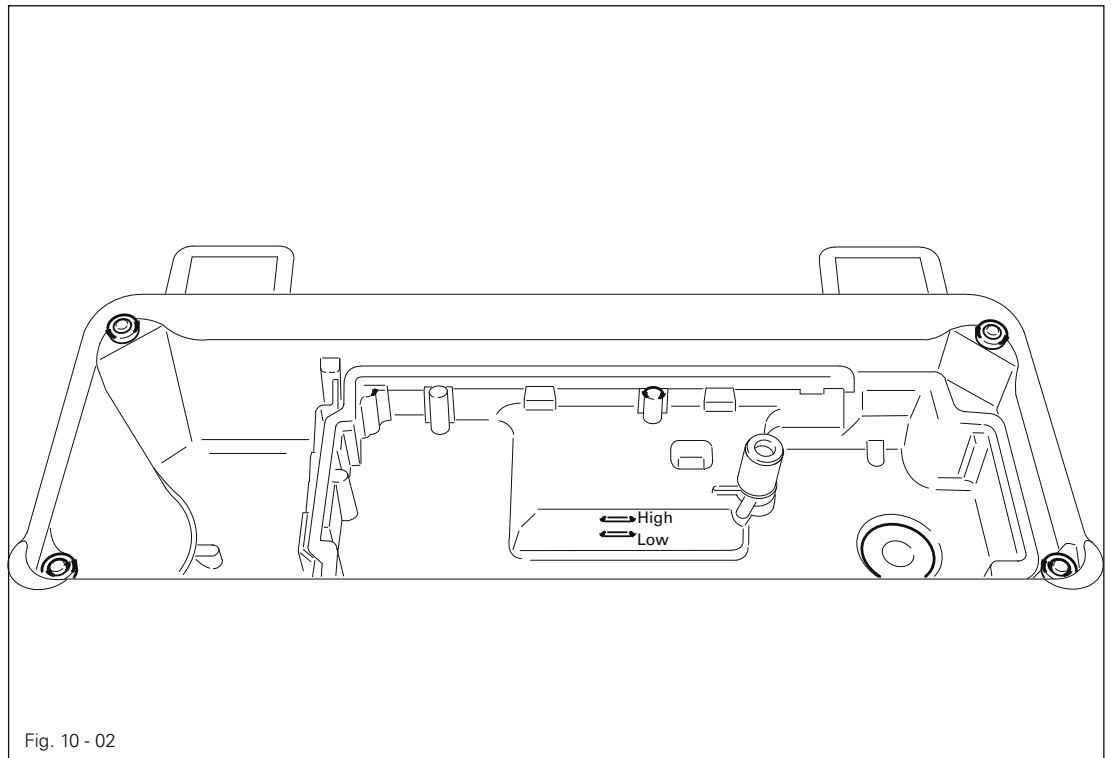
To avoid breakdowns, the following cleaning work is recommended for single shift operation:

- Swing out the cover plate and tilt back the sewing head.
- Clean the hook and hook compartment daily, more often if in continuous operation.



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

## 10.03 Checking the oil level / filling in oil



The oil level must always be between the markings "High" and "Low".

- Switch off the machine.
- Tilt the machine back and check the oil level.
- If necessary fill in oil up to the marking "High".



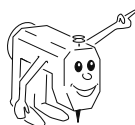
When commissioning the machine or after a long period of non-operation, operate the machine with max. **2000** spm for the first 10 minutes! Danger of damage to the machine!



Set the machine upright with both hands!  
Danger of crushing between machine head and table top.



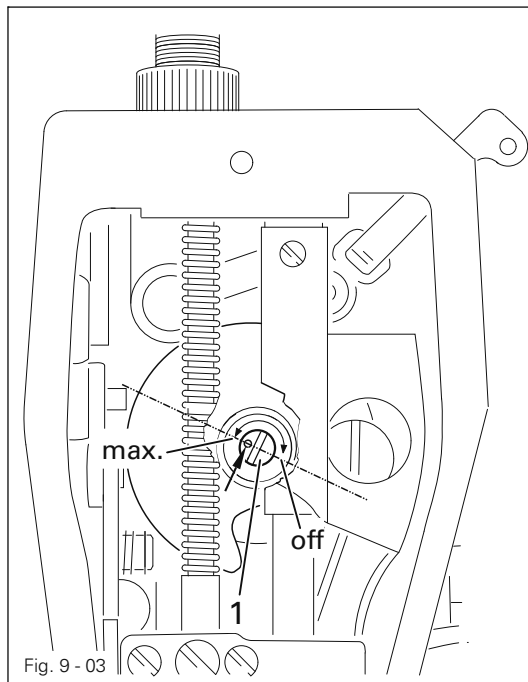
Only use oil with a mean viscosity of **10.0 mm<sup>2</sup>/s** at **40°C** and a density of **0.847 g/cm<sup>3</sup>** at **15°**.



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

### 10.04 Adjusting the lubrication

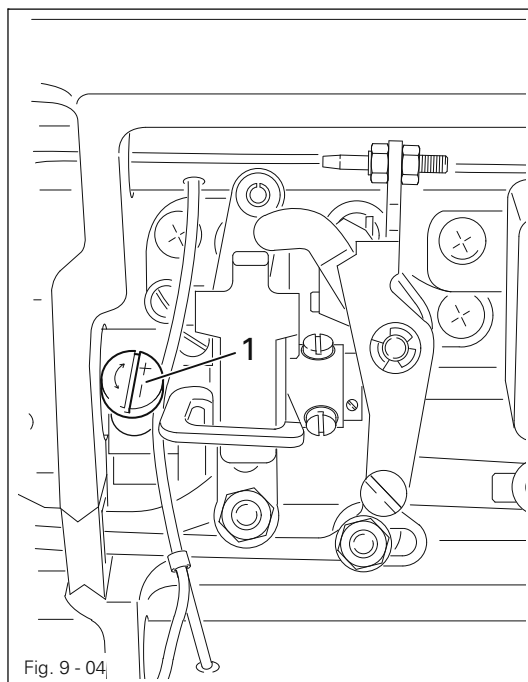
#### 10.04.01 Lubricating the needle head parts



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

- The needle head parts should be adequately lubricated without oil dripping out of the head part.
- Turn eccentric **1** to adjust the oil volume for lubricating the needle head parts. While doing so pay attention to the marking on eccentric **1** (see arrow).

#### 10.04.02 Hook lubrication



The following adjustments may only be carried out by appropriately trained personnel.

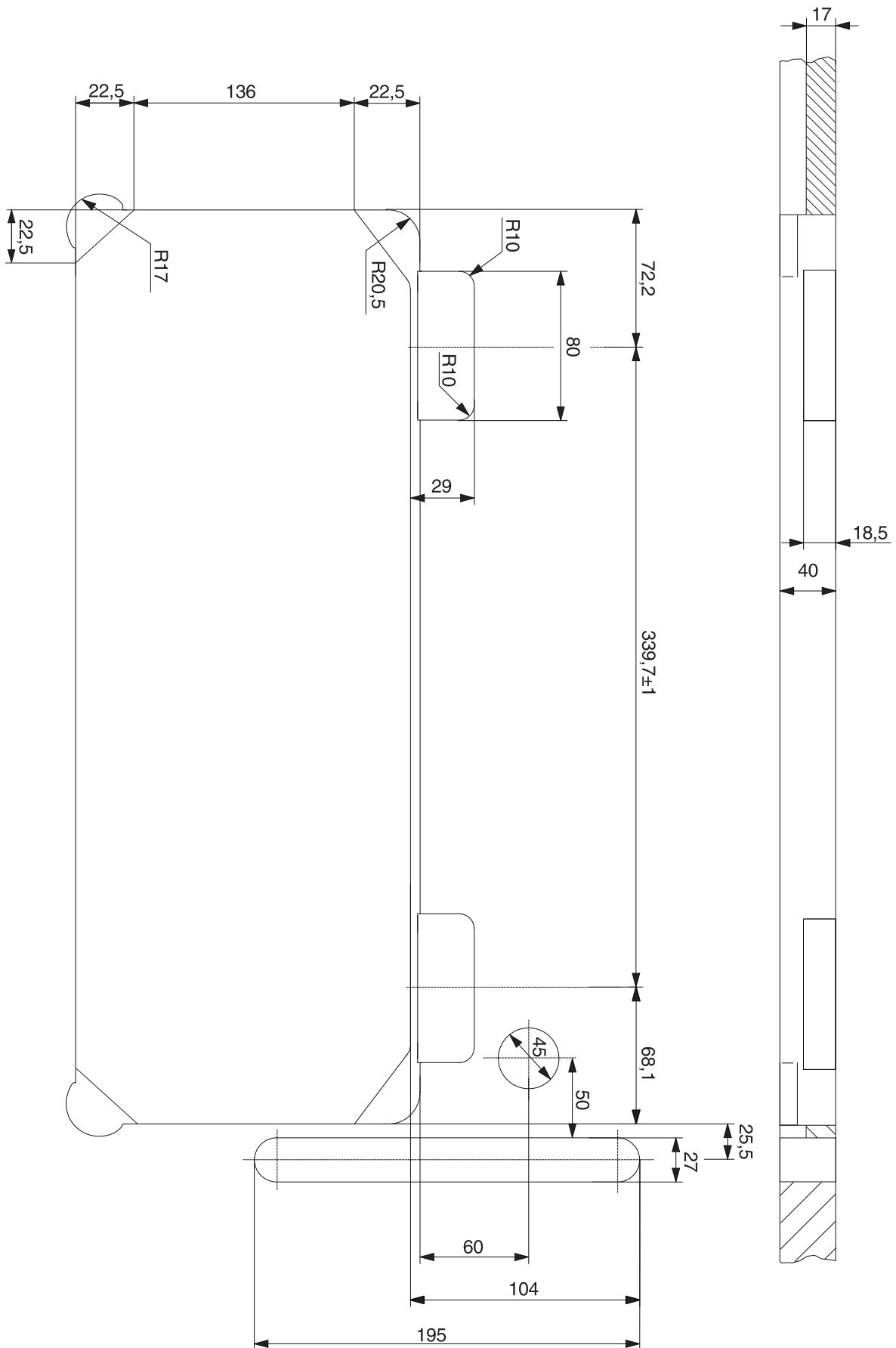
- Remove the needle.
- Dismount the needle plate and bottom feed dog.
- Place a sheet of paper over the needle plate cutout and start the machine running.
- If a thin streak of oil is visible on the paper after a running time of approx. **10** seconds at top speed, the hook lubrication is set correctly.
- To adjust the amount of oil, turn adjustment screw **1**.

10.05 **Parameter settings** (for MH-4-7W-215-CE )

- Parameter settings are described in the separate operations manual for the drive, and may only be changed by qualified technicians!

# Table top cutout

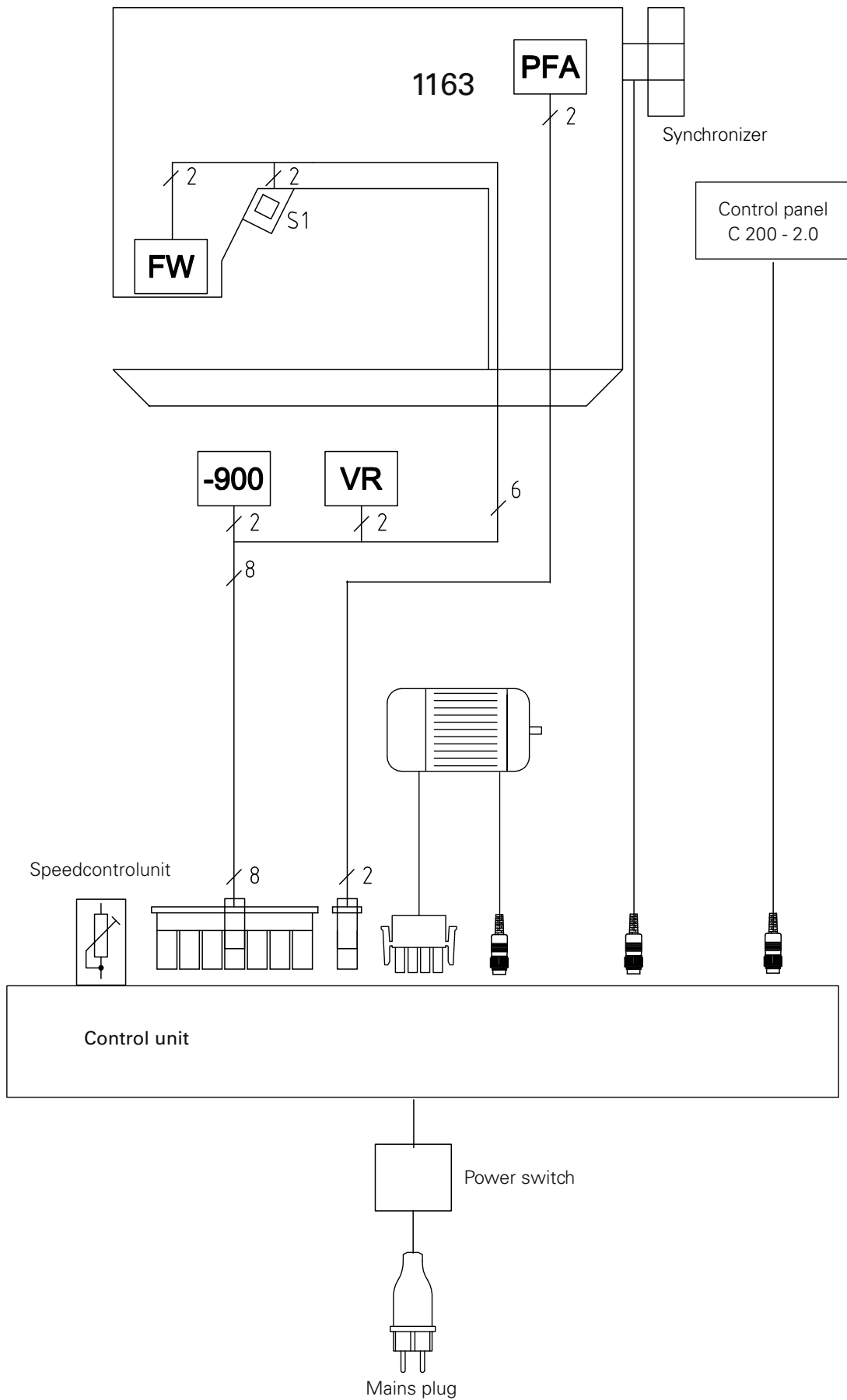
11 Table top cutout





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Block diagram PFAFF 1163 with MH-4-7W-215-CE





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## PFAFF Industriesysteme und Maschinen AG

Hans-Geiger-Str. 12 - IG Nord  
D-67661 Kaiserslautern

Phone: +49-6301 3205 - 0  
Fax: +49-6301 3205 1386  
E-mail: [info@pfaff-industrial.com](mailto:info@pfaff-industrial.com)

### Hotlines:

Technical service: +49-175/2243-101  
Application consultancy: +49-175/2243-102  
Spare-parts hotline: +49-175/2243-103

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