

333-712/02

INSTRUCTION MANUAL

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

7 250 050 →



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

As an alternative to the internet download the adjustment manual can also be ordered in book form under part no. **296-12-19 229/002**.

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**PFAFF Industriesysteme
und Maschinen AG**

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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 jewellery 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!

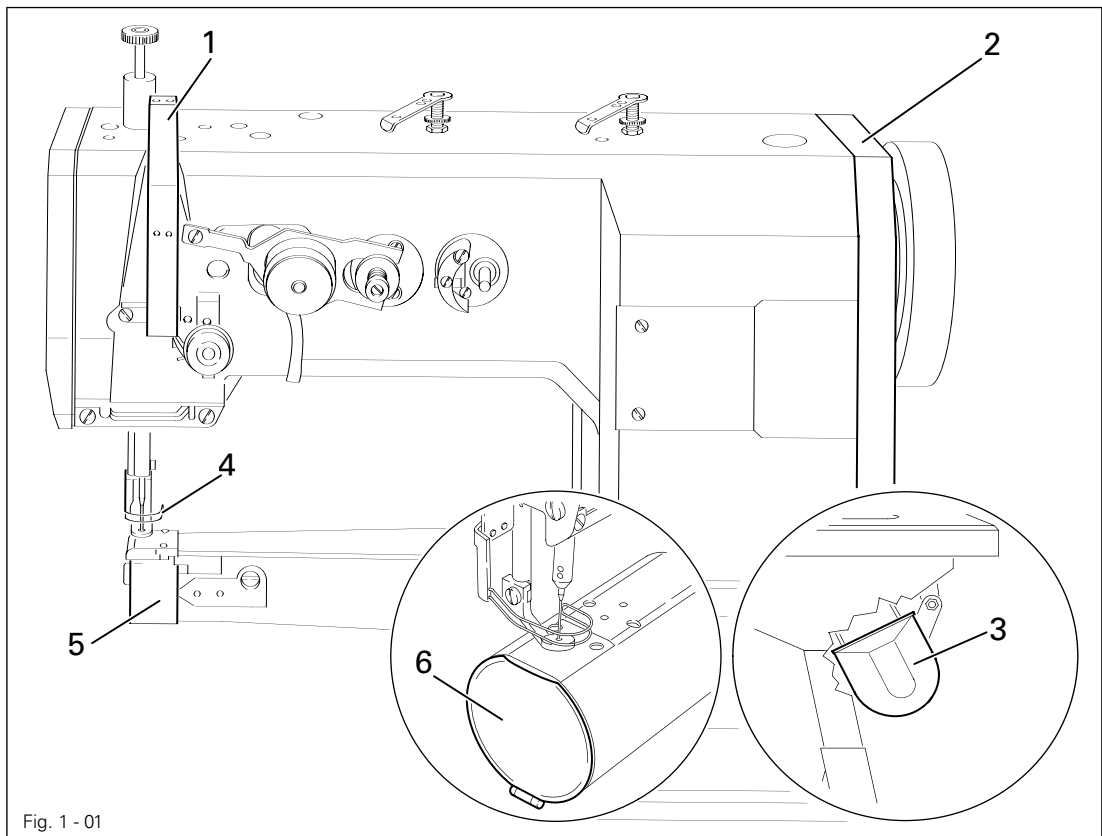


Fig. 1 - 01



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 belt guards 2 and 3!
Danger of injury by rotating v-belt!



Do not run the machine without finger guard 4!
Danger of injury by up and down movement of needle!



Do not operate the machine without cylinder bed cover 5, or always operate it with flap 6 closed. Danger of injury from the rotating hook.

Proper use

The PFAFF **333-712/02** is a single-needle, lockstitch, cylinder bed sewing machines for industrial lockstitch darning work.



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!

Specifications

3 Specifications

3.01 PFAFF 333-712/02 ♦

Stitch type:301 (lockstitch)
Machine model:B
Needle system..... 134-35
Needle size in 1/100 mm: 80 to 100

Max. thread size (synthetics): 40/3▲

Max. sewing speed:
PFAFF 333-712/02 1000 min⁻¹

Effective dia. of balance wheel:90 mm

Dimensions of the machine:

Cylinder-bed end dia.:51 mm
Cylinder-bed circumference: approx. 165 mm
Length: approx. 770 mm
Breadth: approx. 380 mm
Height (above table) approx. 630 mm

Clear workspace length:265 mm

Clear workspace height: 115 mm

Max. fabric clearance:

PFAFF 333-712/02 max. 20 mm

Net weight (sewing head): approx. 38 kg

Motor data: see motor specification plate

Noise data:

Emission sound level at workplace at a speed of 800 spm: $L_{pA} = 78$ dB(A) ■
(Noise measurement in accordance with DIN 45 635-48-B-1, ISO 11204, ISO 3744, ISO 4871)

♦ Subject to technical alterations

▲ Or comparable sizes of other thread types

■ $K_{pA} = 2,5$ dB

3.02 Possible versions and subclasses

Version B: For sewing medium materials

Work aids:

Subclass -900/51 Thread trimmer

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!

Transportation, packing and storage

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:



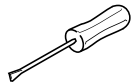
Note, information



Cleaning, care



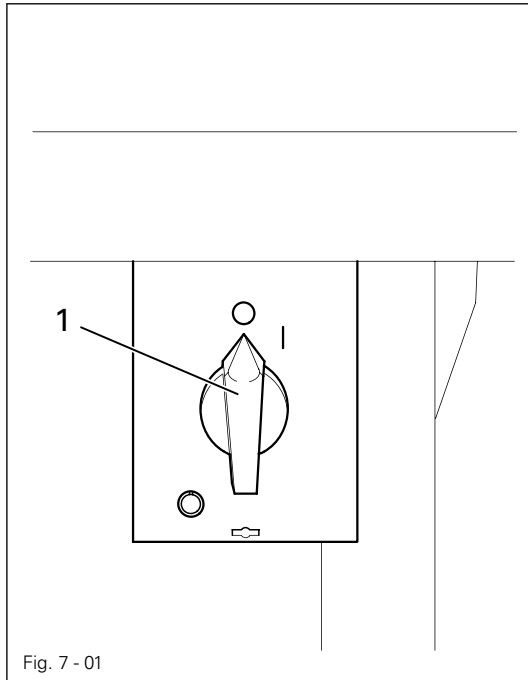
Lubrication



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

7 Controls

7.01 On/off switch

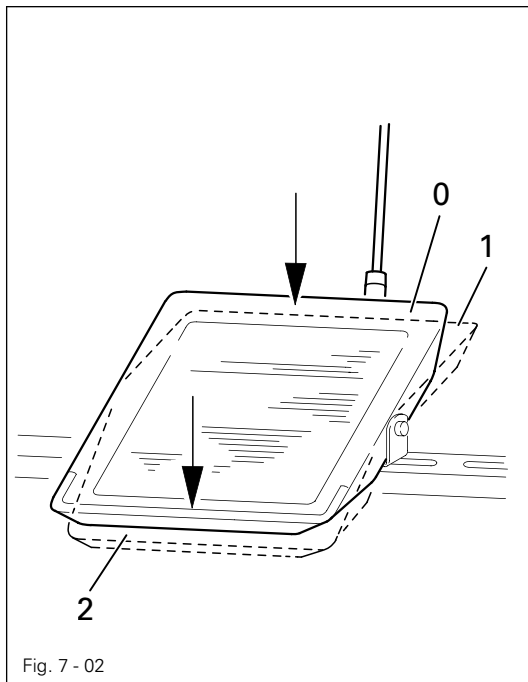


- Switch the machine on or off by turning on/off switch 1.



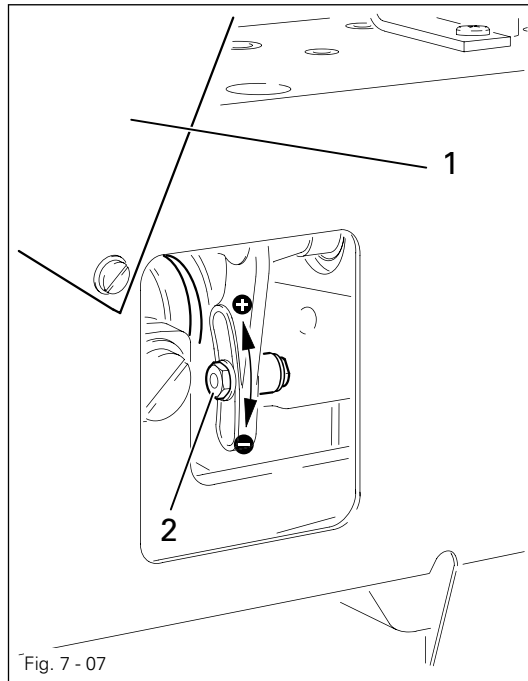
The illustrated on/off switch is fitted to machines with motors. If other motors are used, a different switch may be fitted.

7.02 Pedal



- With the on/off switch on
 - 0 = Neutral position
 - 1 = Sewing
 - 2 = Thread trimming and presser foot lifting (on machines with thread trimmer -900/51) .

7.03 Top feed stroke adjustment



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

- Open cover 1 on the back of the machine, loosen screw 2 and move as required.

7.04 Control panel (on machines with EcoDrive and control unit P40ED)

For the description, please see the separate instruction manual for the control panel

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

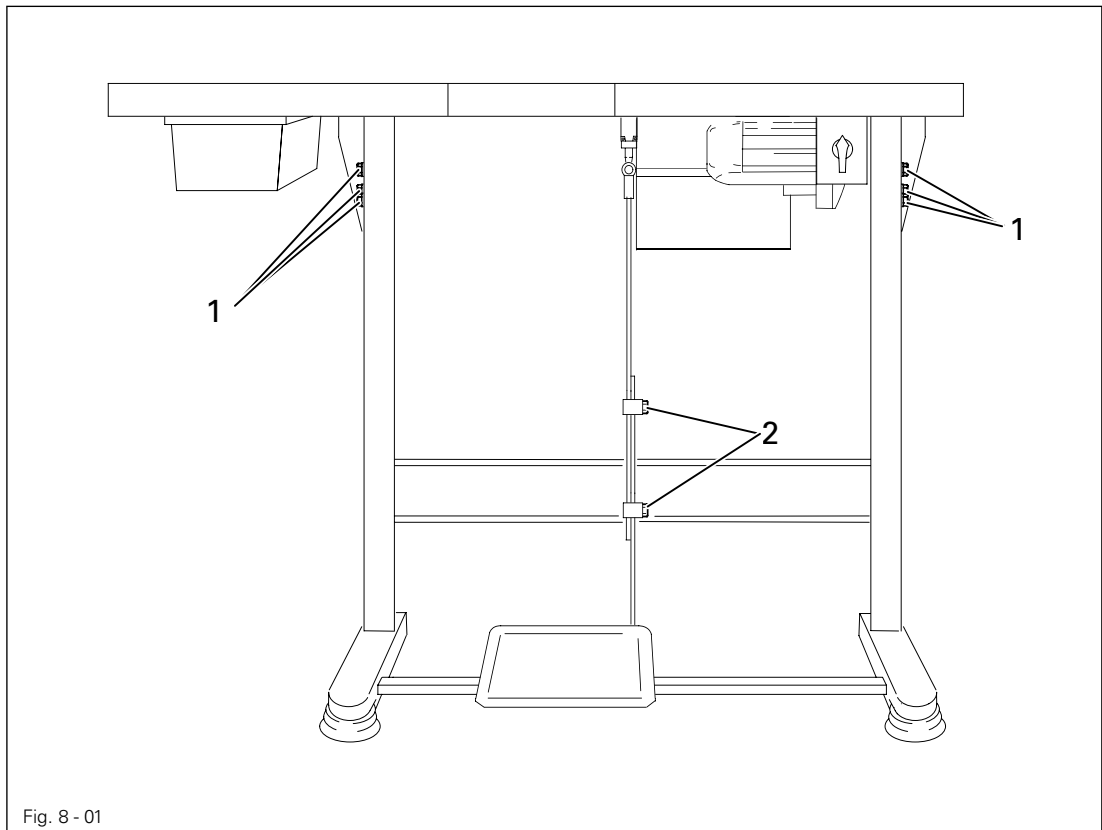
The site where the machine is installed must be provided with suitable connections for the electric current, see Chapter 3 **Specifications**.

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



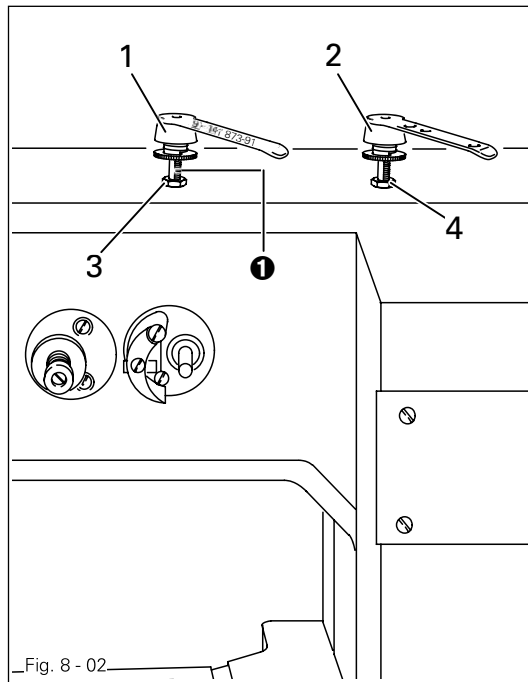
The method of packaging used requires that the table top be lowered for transport. The following is a description of how to adjust the height of the table top.

8.01.01 Adjusting the table-top height



- 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.

8.01.02 Mounting the thread retainers

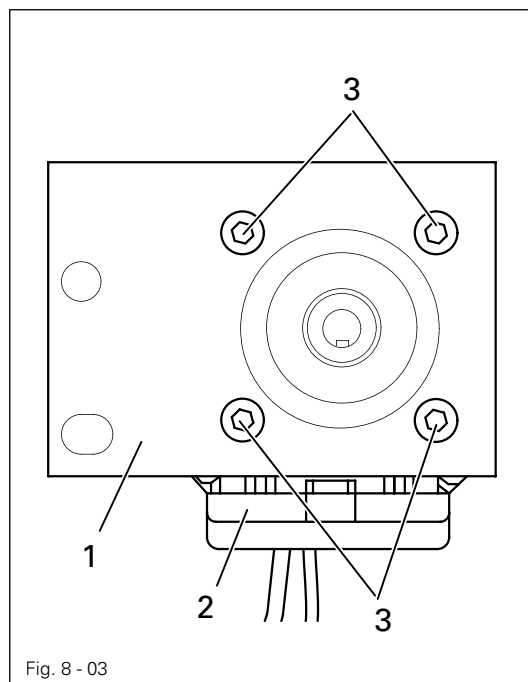


- Screw the thread retainers 1 and 2 into the tapped holes on the top side of the machine and fix them with nuts 3 and 4.



When mounting the thread retainers care must be taken to see that the thread retainer with the weak spring (recognizable from the engraving 91-141 873-91 on the top side) is mounted in position 1.

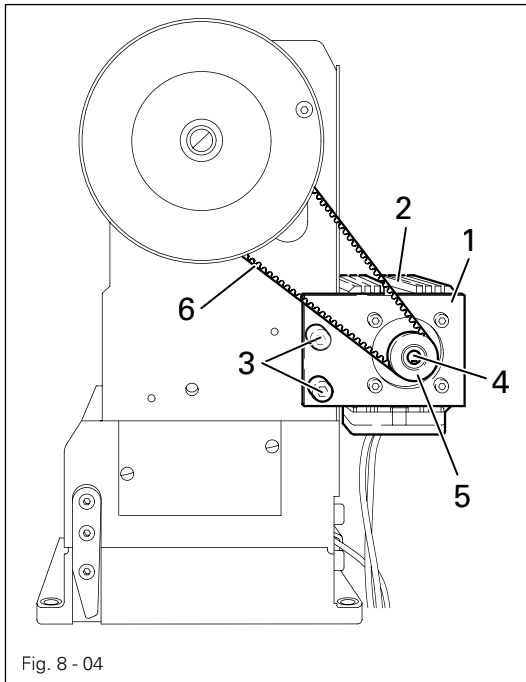
8.01.03 Mounting the flange motor to the bearing plate



- Attach bearing plate 1 to motor 2 with screws 3 as shown in Fig. 8 - 03.

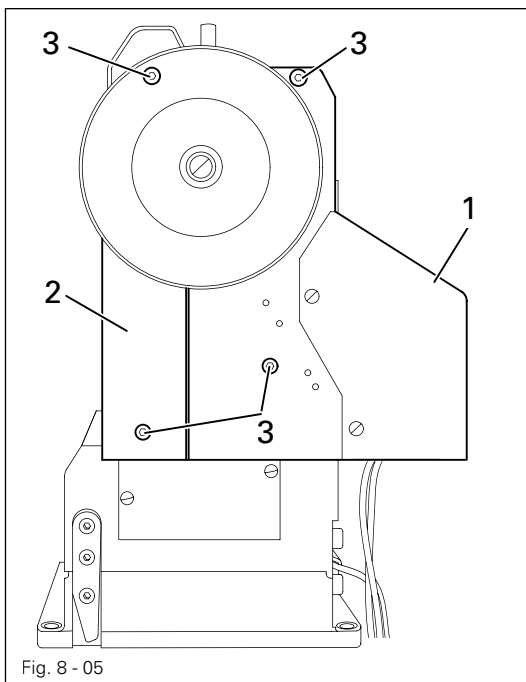
Installation and commissioning

8.01.04 Mounting the flange motor to the machine



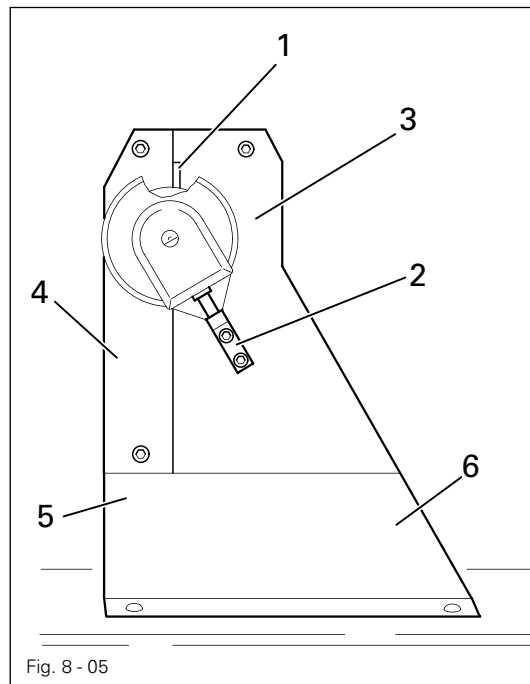
- Attach bearing plate 1 of motor 2 to the machine case with screws 3 (only tighten screws 3 slightly).
- Remove the wedge from motor shaft 4.
- Fit toothed belt wheel 5 to the motor-shaft 4, so that the point of the screw is located in the groove of the motor shaft.
- Fit toothed belt 6.
- Tension the toothed belt by turning the motor.

8.01.05 Mounting the belt guard of the flange motor



- Attach the right section of the belt guard 1 and the left section of the belt guard 2 with screws 3.

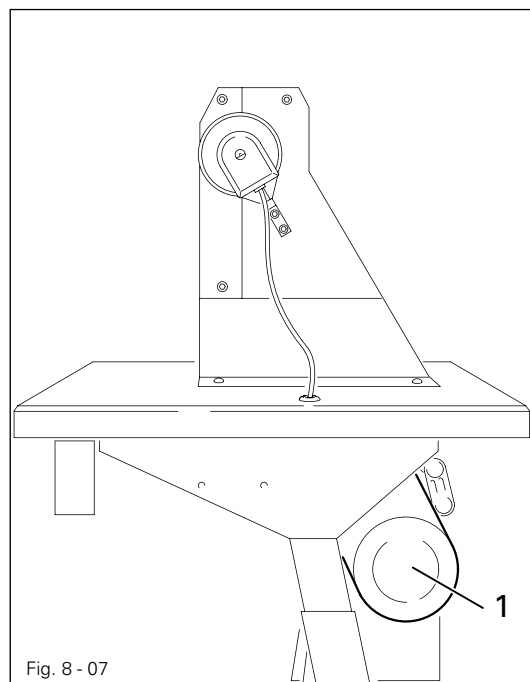
8.01.06 Fitting the upper belt guard (when using clutch motors)



If a large balance wheel is used, the corner 1 of the belt guard 3 must be broken out.

- Screw stop piece 2 onto belt guard part 3.
- Screw on belt guard part 3 onto the housing.
- Screw on belt guard part 4 onto the housing.
- Secure belt guard parts 5 and 6 onto the table top.

8.01.07 Fitting the lower belt guard (when using clutch motors)

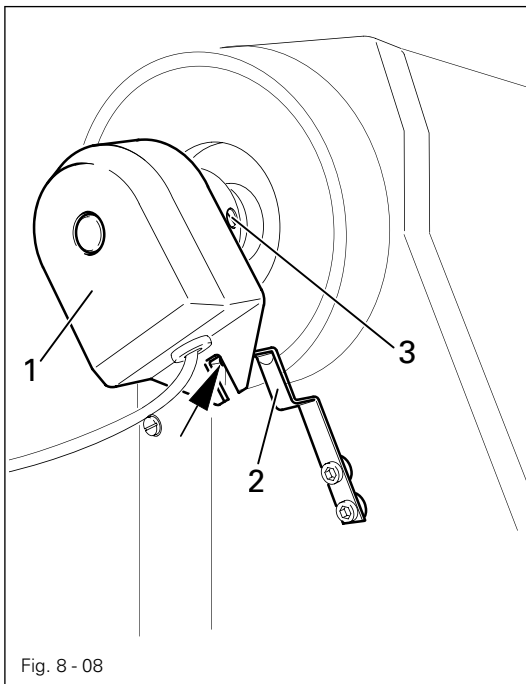


- Position belt guard 1 so that motor pulley and v-belt can run freely.



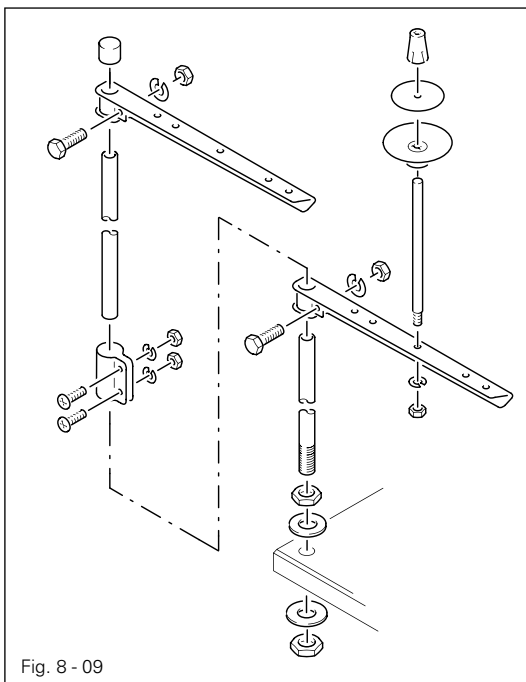
Fig. 8-07 shows a motor. If a different motor is used, please refer to the instruction manual of the motor manufacturer.

8.01.08 Fitting the synchronizer



- Push synchronizer 1 onto the shaft so that stop 2 is standing in the slot on the synchronizer (see arrow)
- Tighten screws 3.
- Connect the synchronizer plug to the adapter (see Chapter 8.02 Connecting the plug connections and earth cables).

8.01.09 Fitting the reel stand



- Fit the reel stand as shown in Fig. 8 - 09.
- Afterwards insert the stand in the hole in the table top and secure it with nuts provided.



Table top mounting and circuit diagrams (see Chapter 12)

8.02

Connecting the plug-in connections and earth cables

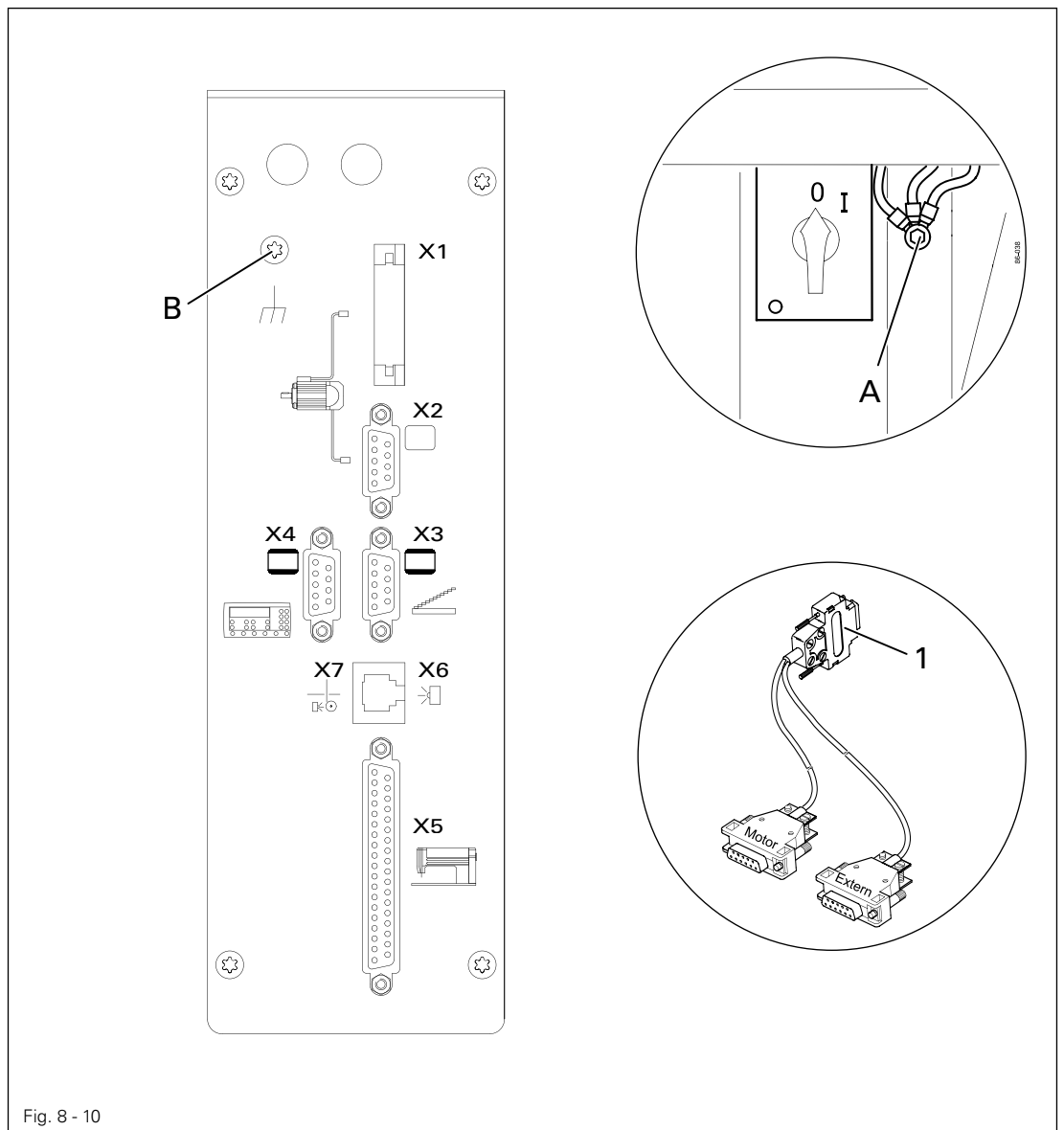


Fig. 8 - 10

- Connect all plugs as labelled to the control box .
- Screw the earth cable from the sewing head and the main switch to earth point A.
- Connect earth point A to earth point B with earth cable.
- Insert plug 1 from the adapter cable to bush X 2.
- Connect the motor to the "**Motor**" plug and the synchronizer to the "**Extern**" plug.
- Fasten the earth cable from plug X1 to earth point B.

8.03 Commissioning

- Check the machine, particularly its electrical wiring and pneumatic tube connections, for any damage.
- Clean the machine thoroughly and oil it (see chapter **11 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.



Before commissioning the machine, have specialized personnel check whether the parameter **799** (machine class) is set at "**4**" and the parameter **800** (sewing direction) is set at "**1**". If necessary, have the adjustment carried out (see Chapter **8.04 Basic position of the machine drive unit**).



The machine may only be connected to an earthed socket!

8.04 Switching the machine on/off

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

8.05 Basic position of the machine drive unit

(only on machines with EcoDrive and control unit P40ED)

- Switch on the machine.
- Press the **TE/speed key** twice to select the input mode.
- Select parameter "**798**" by pressing the corresponding +/- key, and select service level C, see Chapter **Selecting the user level** in the instruction manual for the control panel.
- By pressing the corresponding +/- key select the parameter "**799**" (Selecting the machine class).
- Check whether value "**4**" is set, and correct it if necessary.



If the parameter has to be altered, operate the **TE/Speed** key and then switch off the machine and switch it on again. Then select service level C again as described above.

- By pressing the corresponding +/- key, select parameter "**800**" (selecting the sewing direction).
- By pressing the corresponding +/- key, select the value for the parameter at "**1**".
- By pressing the corresponding +/- key, select parameter "**700**".
- Sew a stitch by operating the pedal.
- Turn the balance wheel in the sewing direction until the descending needle is level with the top edge of the needle plate.
- Then check the parameter values listed in the parameter list (see Chapter **11.05 Parameter Settings**) and adjust them if necessary.
- Conclude the adjustment of the sewing motor by pressing the **TE/Speed key**.

9

Setting up



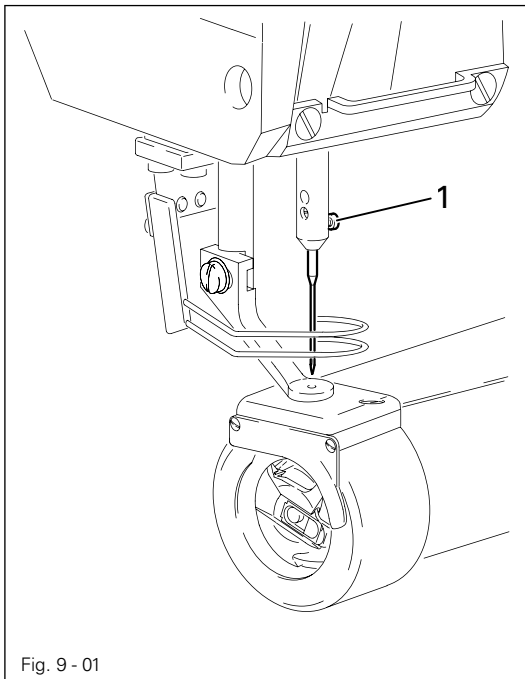
All instructions and regulations in this instruction manual must be observed. Special attention must be given to all safety regulations!



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



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**.

- Raise needle bar.
- Loosen screw 1 and insert needle 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 thread tension

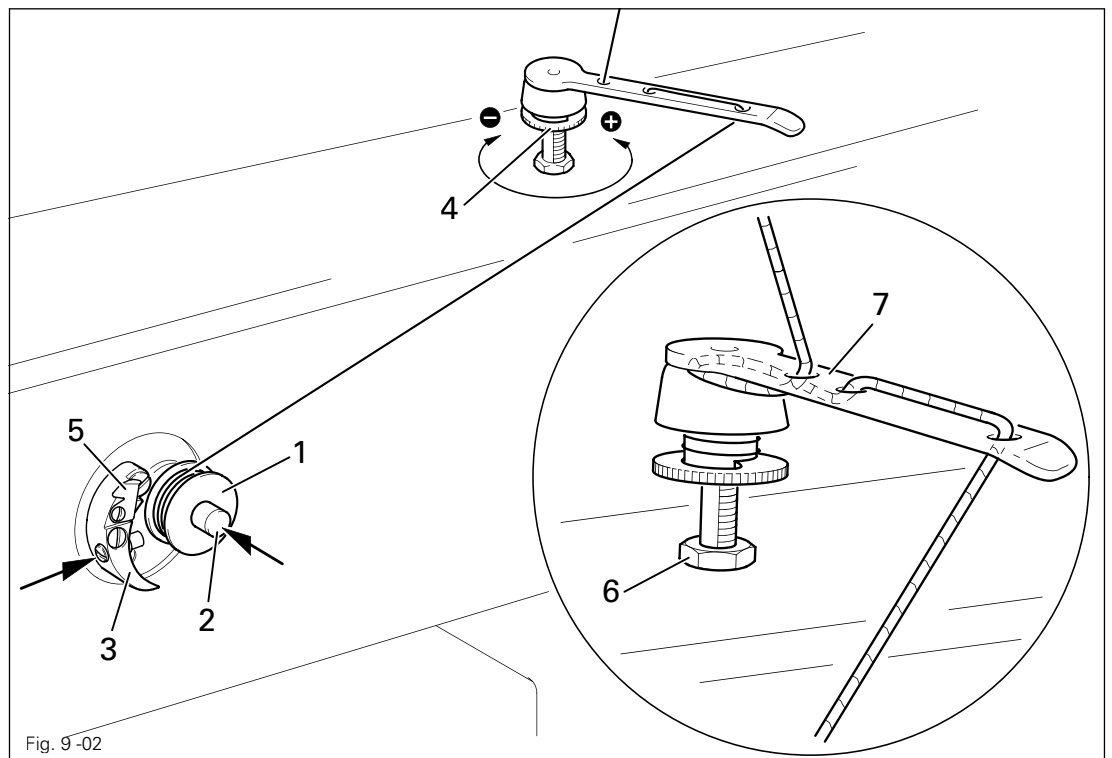


Fig. 9-02

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



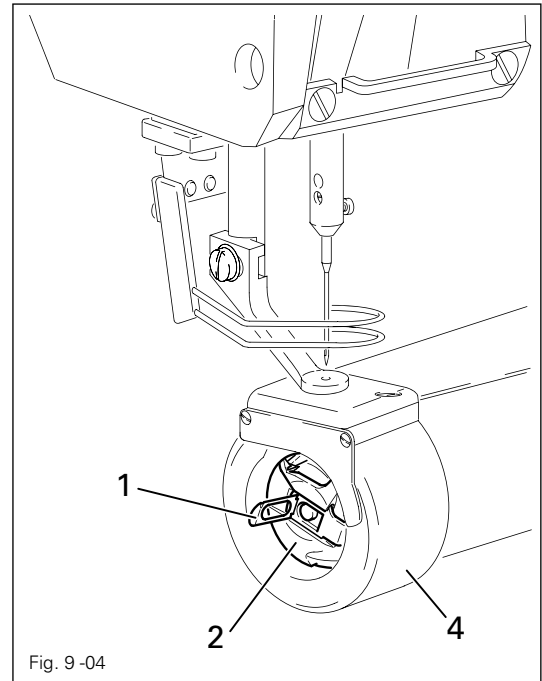
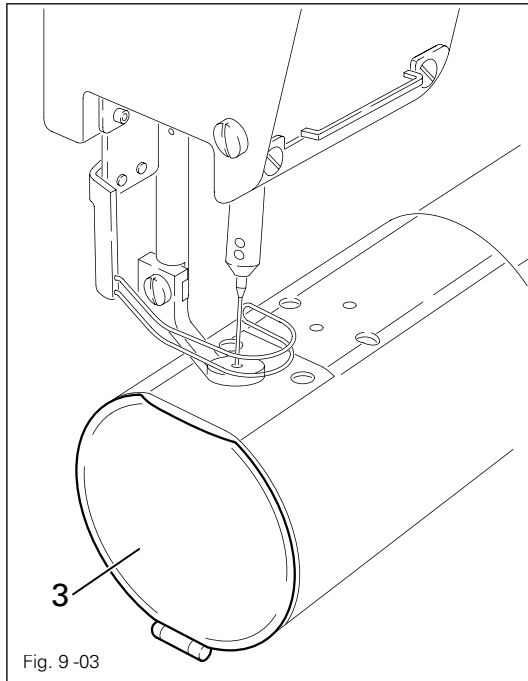
The bobbin fills up during sewing.

- The tension of the thread on bobbin 1 can be adjusted with knurled screw 4.
- The bobbin winder stops automatically when bobbin 1 is full.
- Remove the filled bobbin 1 and cut the thread on knife 5.



If the thread is wound unevenly, loosen nut 6 and turn thread guide 7 accordingly. Retighten nut 6 after the adjustment.

9.03 Removing / Inserting the bobbin case



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

Removing the bobbin case:

- Lift latch 1 and take out bobbin case 2.
(on the PFAFF 333-712/02 open f ap 3).

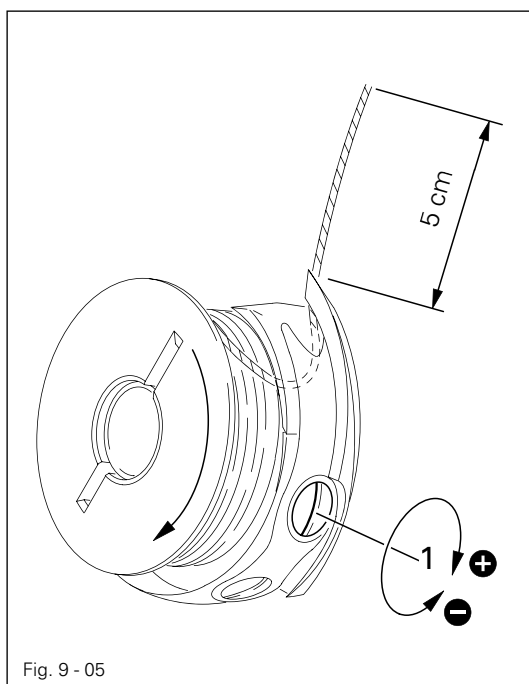
Inserting the bobbin case:

- Insert full bobbin case 2 so that you feel it snap in place.
(on the PFAFF 333-712/02 close f ap 3 again).

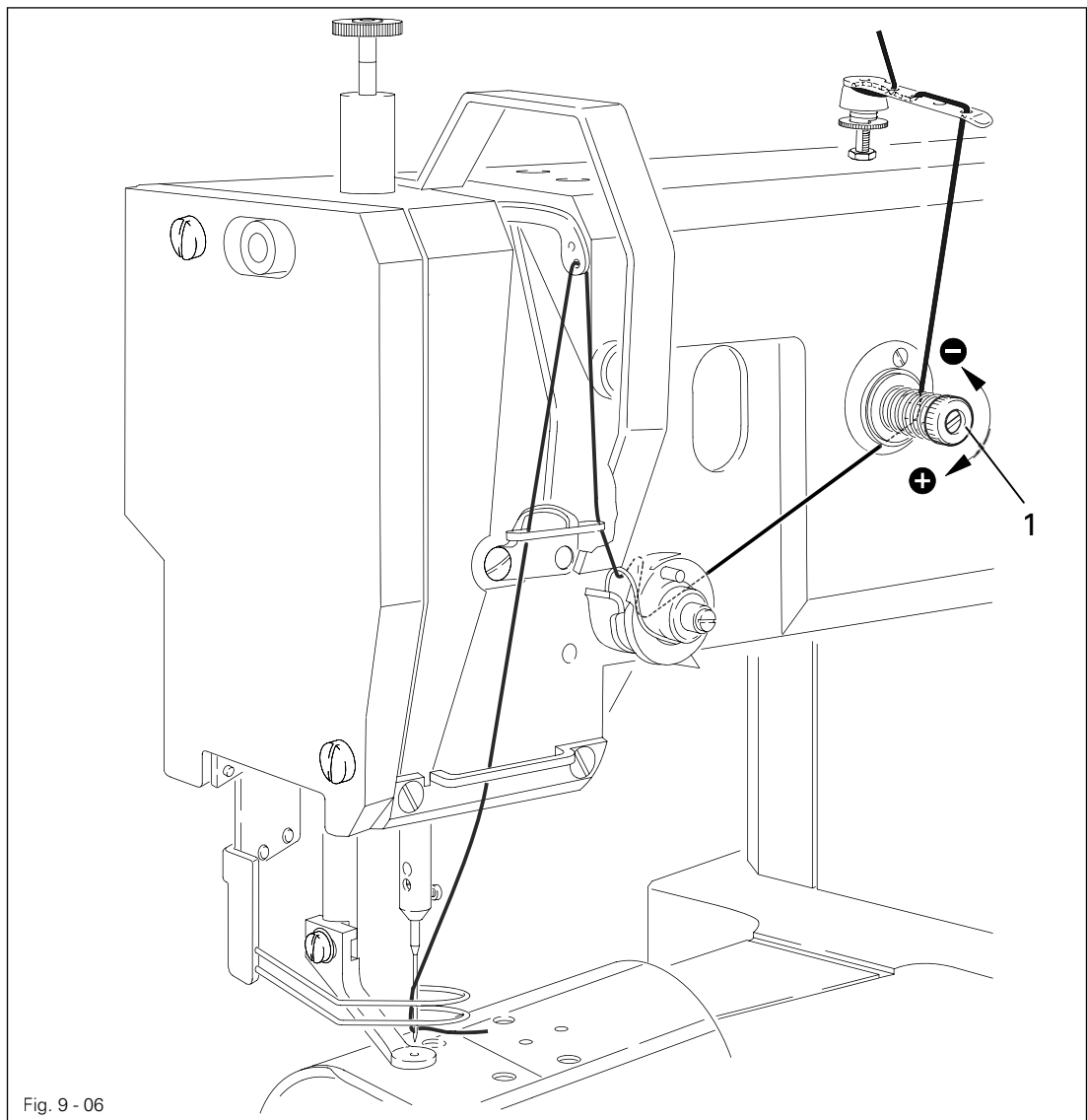


Do not operate the machine without cylinder bed cover 4, or always operate it with f ap 3 closed. Danger of injury from the rotating hook.

9.04 Threading the bobbin thread and regulating the bobbin thread tension



- Thread the bobbin as shown in Fig. 9-05.
- When the thread is pulled, the bobbin must rotate as shown by the arrow.
- Regulate the bobbin thread tension on screw 1.



Switch the machine off!

Danger due to unintentional starting of the machine!

- Thread needle thread as shown in Fig. 9-06.
- Be sure to thread the needle from the left.
- Regulate the needle thread tension by turning knurled screw 1.

Adjusting the stitch counter for the bobbin thread control

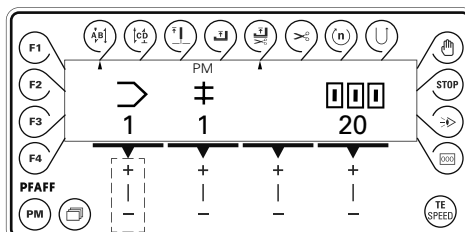
(on machines with EcoDrive and control unit P40ED)

Please see the description in the separate control panel instruction manual.
werden.

9.07 Setting the one-point tacking function

(on machines with EcoDrive and control unit P40ED)

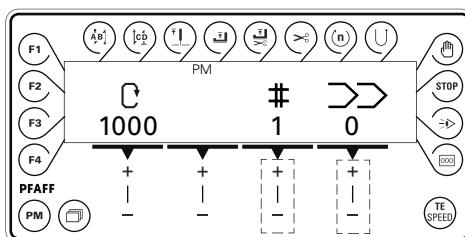
- Switch on the machine.
- Press the **PM** key to select the enter program function. The text "PM" must appear on the display.



- Select the program number "1" with the corresponding +/- key.



- Press the **scroll key**.



- With the corresponding +/- key, set the program with 1 seam segment.

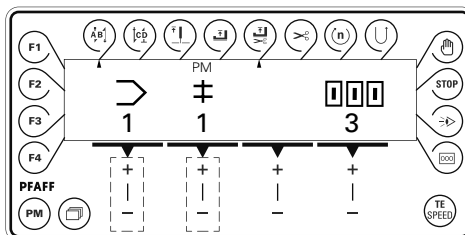


- By entering the value "0" with the corresponding +/- key, stipulate that no program linking will take place.

2x



- Press the **scroll key** twice.



- With the corresponding +/- key, select the seam segment "1".



- With the corresponding +/- key enter the value "3" for the number of start stitches. For these start stitches the function for releasing the thread tension at intervals is switched off.

2x



- Press the **PM** key twice to move to the beginning of the program. The previously created program appears on the display.

10 Sewing (on machines with EcoDrive and control unit P40ED)

In the sewing mode, all relevant settings for the sewing operation are shown on the display and can be altered directly. Functions can be switched on or off by pressing a key.

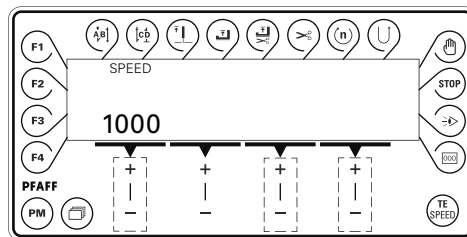
In this mode a difference is made between **manual sewing** and **programmed sewing**. To change from manual to programmed sewing, press the PM key. In programmed sewing the text "PM" appears on the display.



10.01 Manual sewing



After switching on the machine and pressing the **TE/Speed key**, the max. speed can be set with the corresponding +/- key.



Functions in manual sewing, also see Chapter 1.02 **Function keys in the separate instruction manual for the control panel**.



Needle position raised on/off



Thread trimming on/off



Start backtacks on/off

- Sewing is carried out with the pedal functions, see Chapter 7.02 **Pedal**.

In manual sewing please note that the start backtacks function is switched on and three start stitches are set for parameter **470**.



For these start stitches the function for releasing the thread tension at intervals is switched off.

When setting the start backtacks, seam segment "A" should be set at "0" and seam segment "B" at 3.

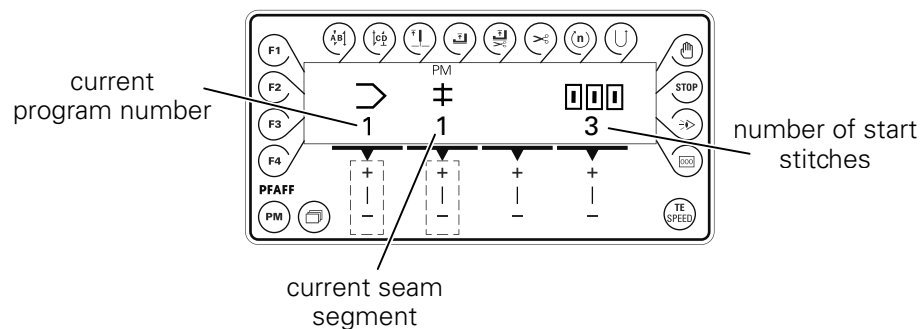
10.02 Programmed sewing

On this machine, the programmed sewing function is only used for one-point tacking.

10.03 Sewing with the one-point tacking function

PM

After the machine has been switched on and the programmed sewing function has been selected with the **PM** key, the display for selecting the program number, seam segment and number of start stitches appears.



- Sewing is carried out with the pedal functions, see Chapter 7.02 Pedal.
- When sewing begins, first of all the pre-selected start stitches are sewn (see Chapter 9.07 Setting the one-point tacking function)
- The machine then stops.
- Each time the pedal is now operated, the machine sews one stitch.

11 Care and maintenance

11.01 Care and maintenance intervals

Cleaning	daily, in continuous operation several times
General oiling	twice a week
Oil the hook.....	daily, before putting into operation
Oil needle-head parts	twice a week



The maintenance intervals in the table refer to the average machine running time in single-shift operation. If the machine running time is longer than this, it is advisable to shorten these intervals.

11.02 Cleaning

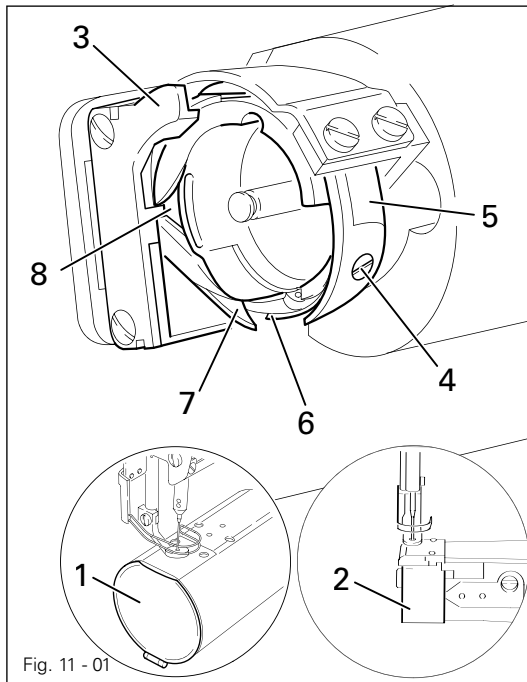


Fig. 11 - 01



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

Cleaning the hook area

- Clean hook area with a brush daily, in continuous operation several times daily.

Cleaning the hook

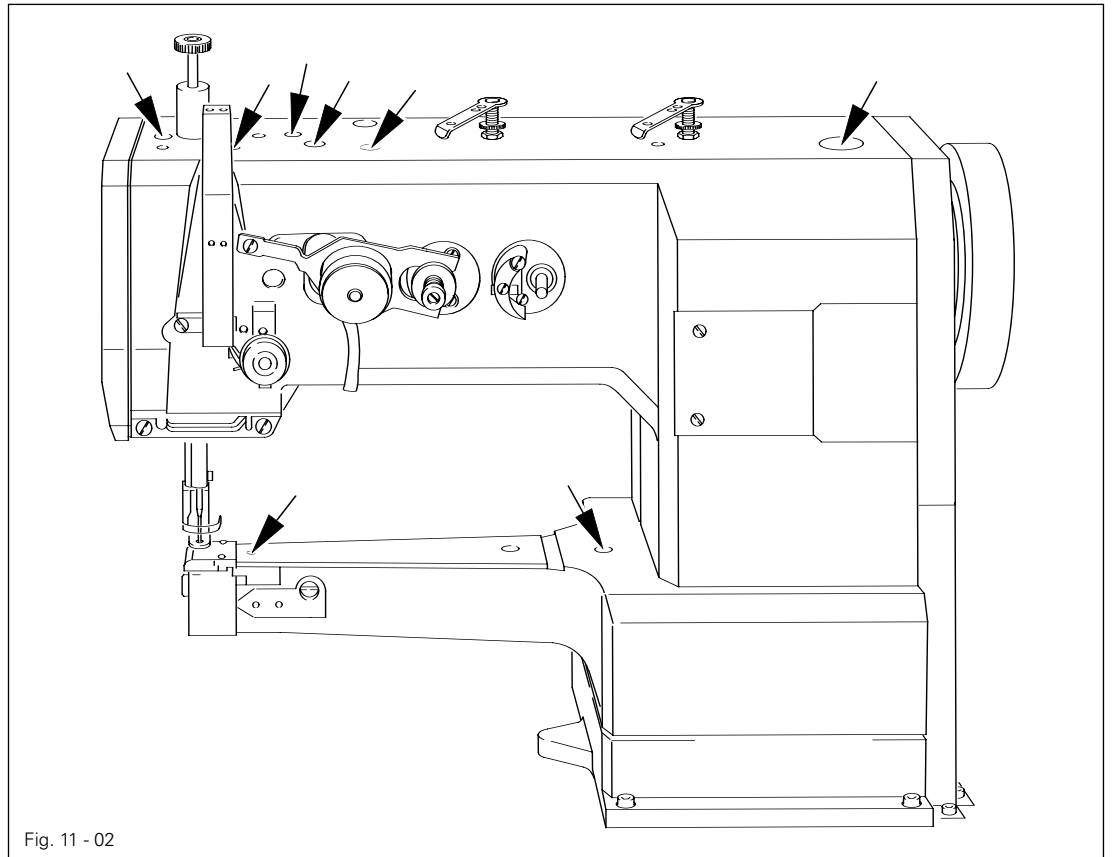
- On the PFAFF 333-712/02-900/51 open the flap or on the PFAFF 333-712/02 remove the cylinder bed cover.
- Set needle bar at its highest position.
- Remove top of bobbin case together with bobbin
- Unscrew and remove bobbin case position stop 3.

- Remove screw 4 and take off hook gib 5.
- Turn balance wheel until point 6 is aligned with point 7.
- Take out bobbin case and clean hook race with petroleum spirit.
- When inserting the bobbin case, make sure that the lug on the rear side of bobbin case position stop 3 enters into groove 8.
- Screw on hook gib 5.
- Insert bobbin case and close cylinder-bed cap.
- Close the flap or replace the cylinder bed cover.



Do not operate the machine without cylinder bed cover 2, or always operate it with flap 1 closed. Danger of injury from the rotating hook.

11.03 General oiling

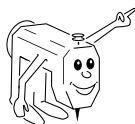


Switch off the machine!
Danger of injury due to unintentional starting of the machine!

- Apply oil at all bearing points above the table (see arrows) twice a week.

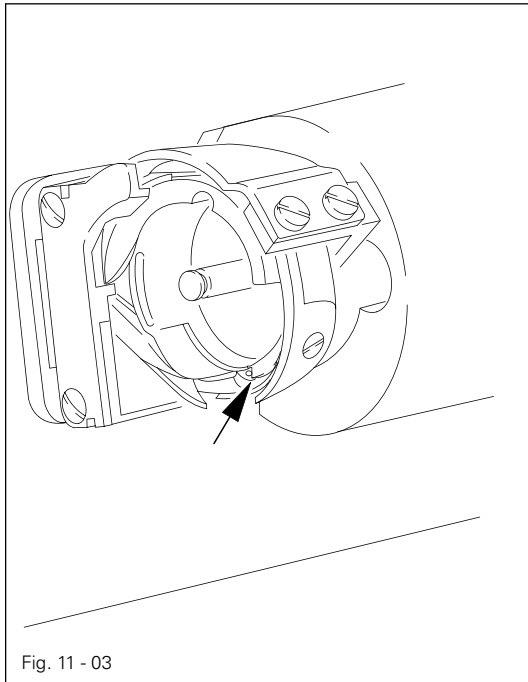


Only use oil with a viscosity of $22.0 \text{ mm}^2/\text{s}$ at 40° C and a density of 0.865 g/cm^3 at 15° C !



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

11.03 Oiling the sewing hook

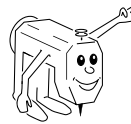


Switch off the machine!
Danger of injury due to unintentional starting of the machine!

- Remove the bobbin case.
- Apply 1 - 2 drops of oil to the hook race daily (see arrow).
- Replace the bobbin case.

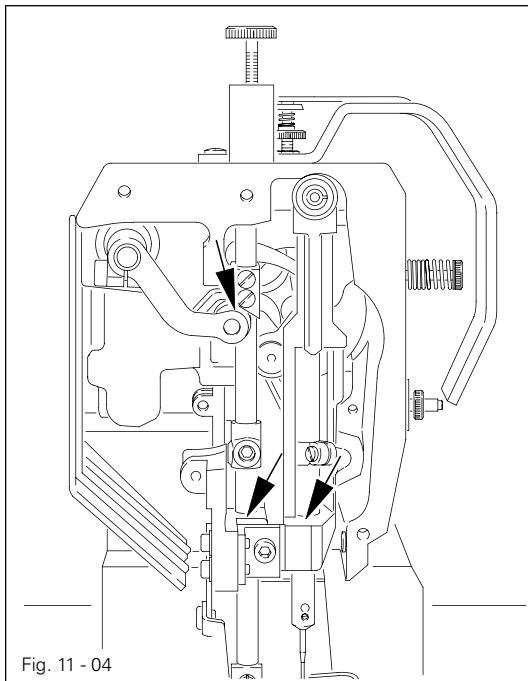


Only use oil with a viscosity of $22.0 \text{ mm}^2/\text{s}$ at 40° C and a density of 0.865 g/cm^3 at 15° C !



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

11.04 Oiling the needle-head parts

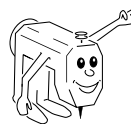


Switch off the machine!
Danger of injury due to unintentional starting of the machine!

- Remove the faceplate.
- Oil all moving parts and bearing points (see arrows) twice a week.
- Ref t the faceplate.



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.

11.05 Parameter settings

(only on machines with EcoDrive and control unit P40ED)

- The selection of the user level and the alteration of parameters is described in the separate instruction manual for the drive unit.

11.05.01 Parameter list

Group	Parameter	Description	User level	Setting range	Set value
3	391	Speed for single stitch with pedal	B, C	200 - 700	450
	392	Change-over to single stitch with pedal	B, C	ON - OFF	ON
	393	Thread tension release after seam end 0 = off, 1 = on	B, C	ON - OFF	OFF
4	470	Number of stitches at beginning of seam (with closed tension) The same number of stitches entered must also be set for the single start backtack.	A, B, C	0 - 20	3
6	607	Speed max.	B, C	300 - 1500	▲
	609	Cutting speed 1	B, C	60 - 300	180
	660	Bobbin thread control 0 = off, 2 = reverse counter	A, B, C	0 - 2	0
7	700	Needle position 0 (needle reference position)	B, C	0 - 255	*
	702	Needle position 1 (needle lowered)	B, C	0 - 255	80
	703	Needle position 2 (take-up lever raised)	B, C	0 - 255	226
	705	Needle position 5 (end of cutting signal 1)	B, C	0 - 255	100
	706	Needle position 6 (start of cutting signal 2)	B, C	0 - 255	80
	707	Needle position 9 (start thread tension release/start thread catcher)	B, C	0 - 255	164
	710	Needle position 3 (Needle up)	B, C	0 - 255	212
	718	Rest brake (start thread tension release)	B, C	0 - 100	7

▲ See Chapter 3 Specifications

* Adjustment see Chapter 8.05 Basic position of the machine drive unit.

Group	Parameter	Description	User level	Setting range	Set value
7	760	Multiplier for the fixed value (200) stitch count	A,B, C	0 - 250	5
	799	Selected machine class	C	1 -8	4
8	800	Rotating direction of the motor	C	0 - 1	1

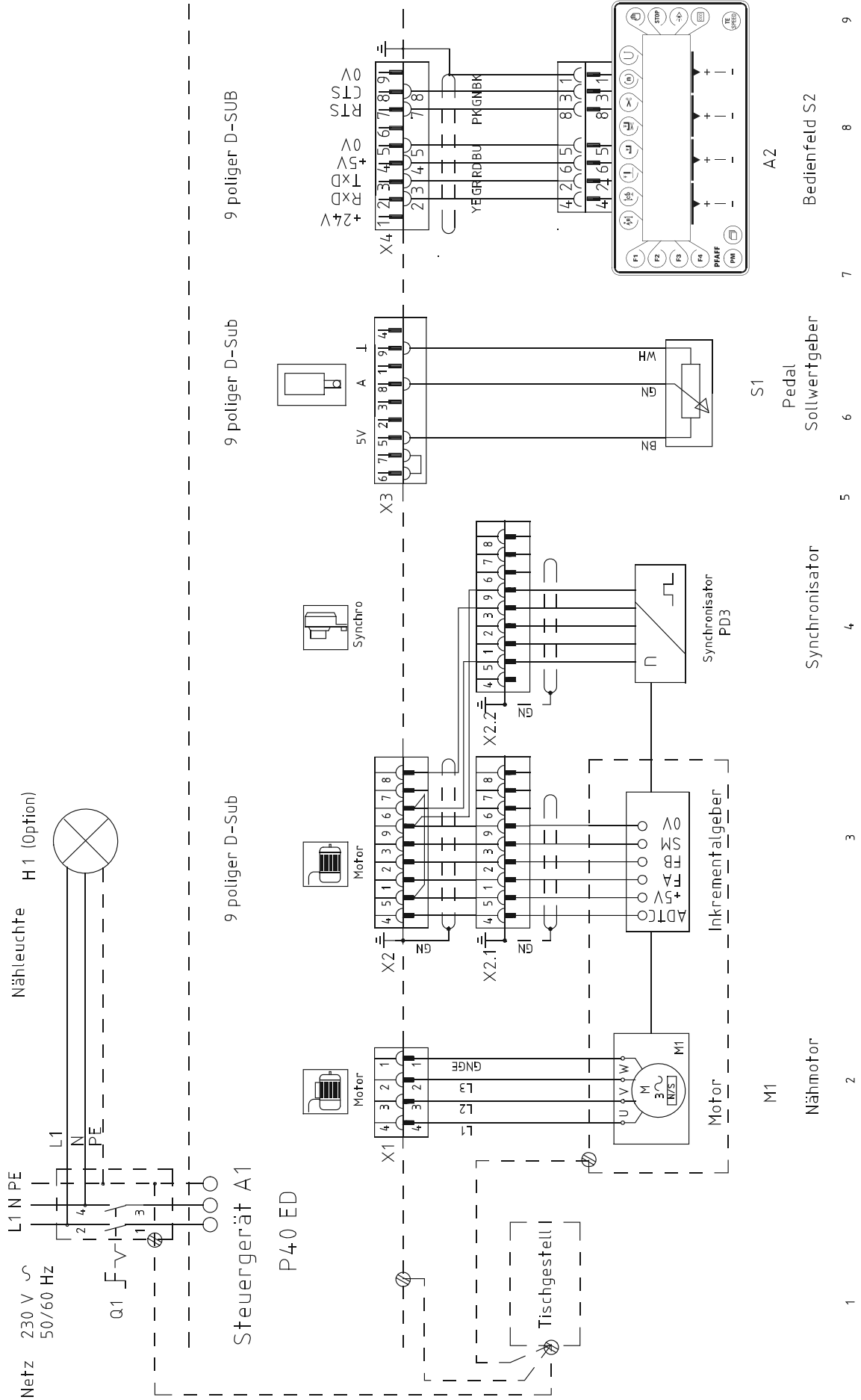


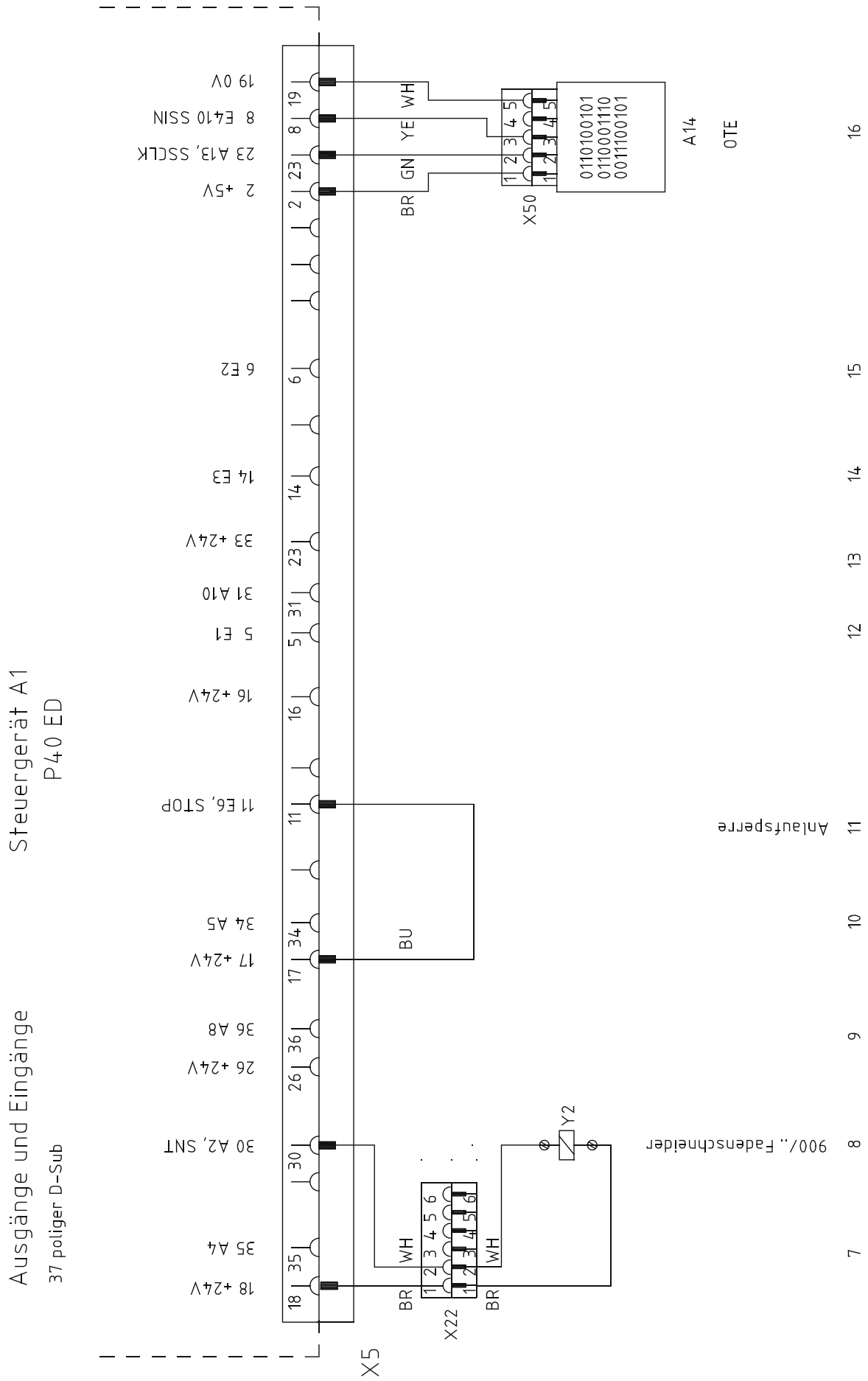
Further parameters and the description for an internet update of the machine software and reset /cold start of the machine can be found in the **instruction manual for the control panel**.

12.03 Circuit diagrams

Reference list for the Circuit diagrams

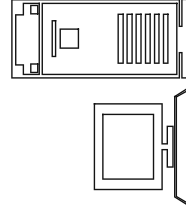
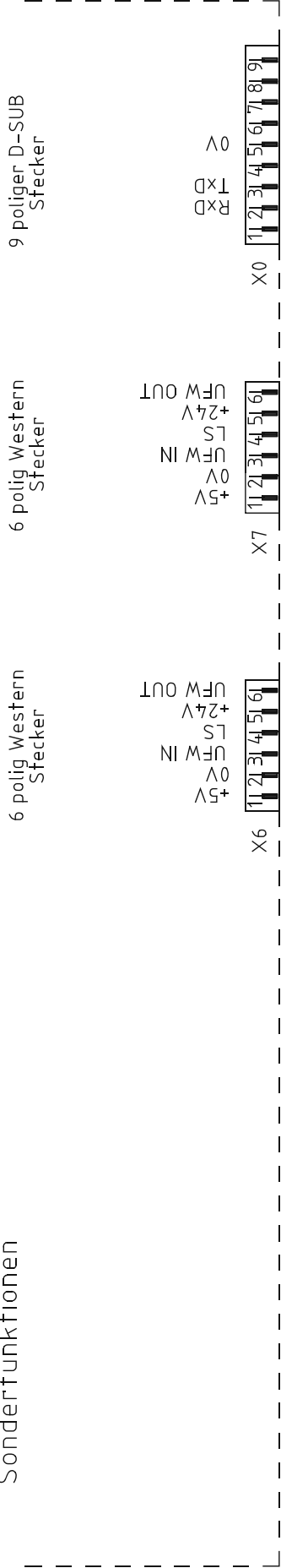
A1	Control unit P40 ED
A2	Control panel BDF S2
A14	Sewing head recognition system (OTE)
H1	Sewing lamp
M1	Sewing motor
Q1	Main switch
S1	Pedal speed control unit
S6	Start inhibitor
X0	PC-interface (RS 232)
X1	Motor
X2	Incremental transducer and Synchronizer PD3
X2.1	Incremental transducer
X2.2	Synchronizer PD3
X3	Speed control unit
X4	Control panel
X5	Out-/input
X6	Bobbin thread monitor (optional)
X7	Photoelectric barrier (optional)
X22	-900/.. thread trimmer
X50	Sewing head recognition system (OTE)
Y2	-900/.. thread trimmer





Steuergerät A1 P40 ED

Sonderfunktionen



(Option)	17	18	19	20	21	(Option)	22	23	24	25	26
						Unterradenwächter			Lichtschanke		RS232-Schnittstelle

This is a list of the most important wearing parts.

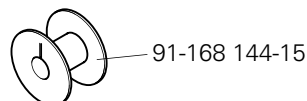
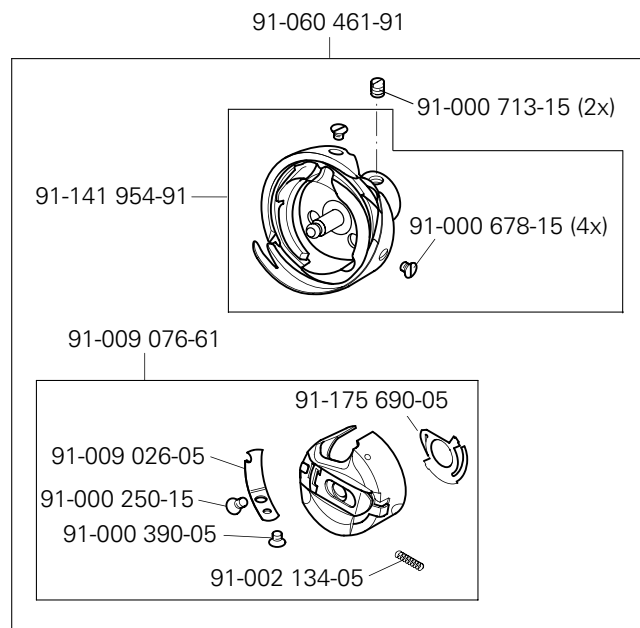
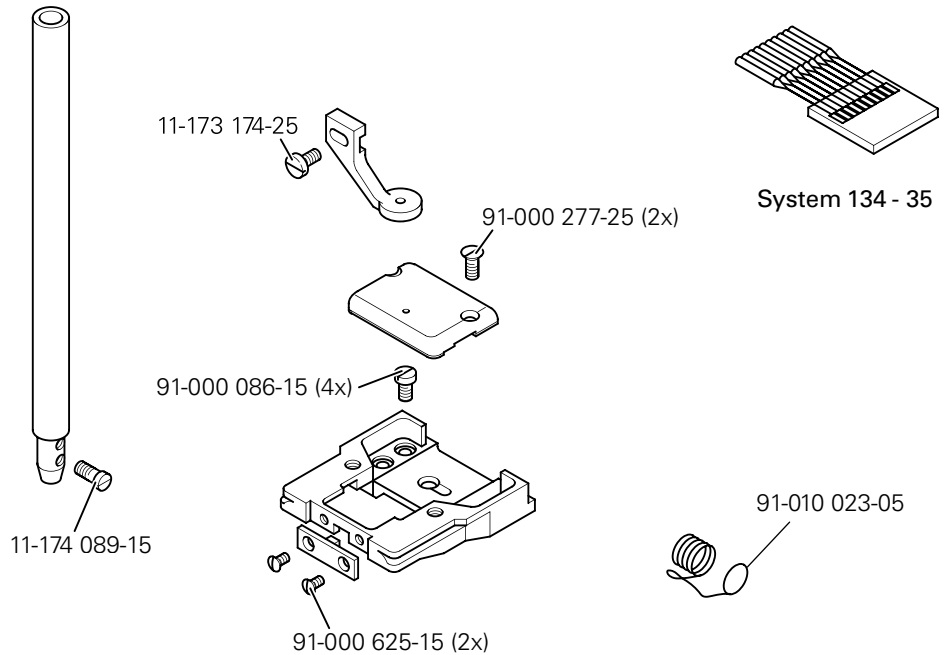
A detailed parts list for the complete machine is included with the accessories.

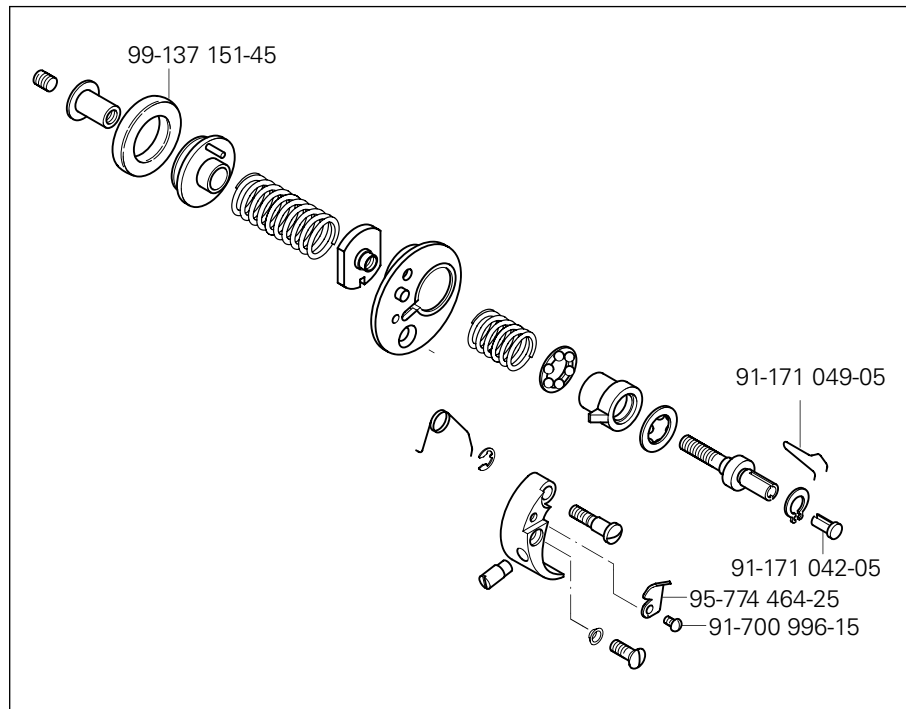
In case of loss, the parts list can be downloaded from the internet address

www.pfaff-industrial.com/pfaff/de/service/downloads As an alternative to

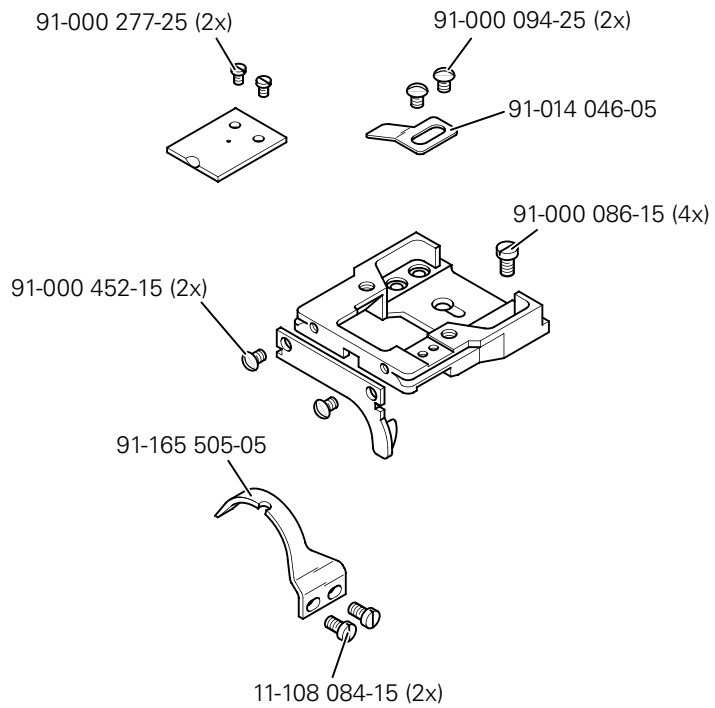
the internet download the parts lists can also be ordered in book form under

part no. **296-12-19 228**





PFAFF 333-712/02-900/51





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