

487

INSTRUCTION MANUAL

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

2 756 862 →



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. **296-12-18 646/002**.

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**PFAFF Industriesysteme
und Maschinen AG**

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1 Safety

1.01 Directives

The machine has been constructed in accordance with the requirements listed in the EC Declaration of Conformity and the Declaration of Incorporation.

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!

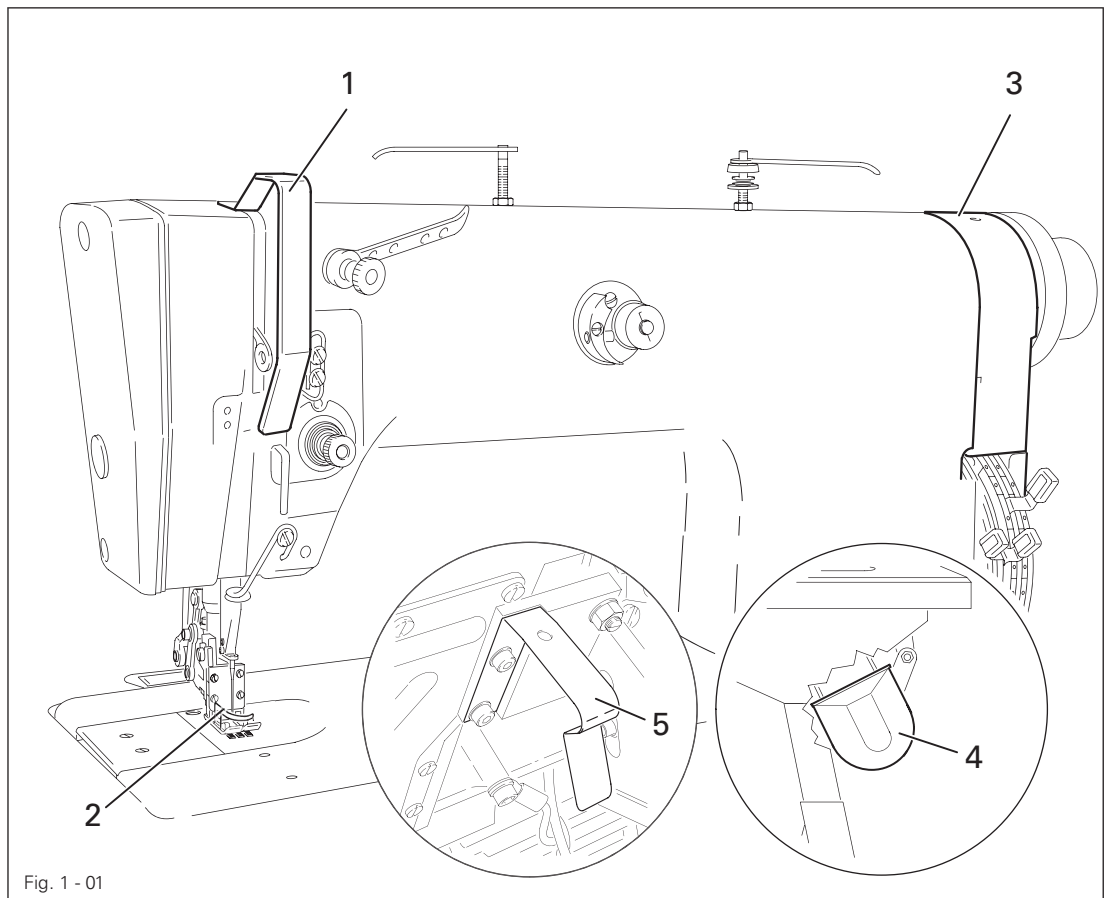


Fig. 1 - 01



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



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



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



Do not operate the machine without tilt lock 5!
Danger of crushing between the sewing head and table top!

2 Proper use

The **PFAFF 487** is an ultra-high-speed sewing machine with variable top feed.

The machine is used for sewing lockstitch seams in 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 487

Stitch type:	301 (lockstitch)
Needle system:	134-35
Needle thickness in 1/100 mm:	
Version B:	80 - 100
Clearance under the sewing foot:	7 mm
Width of fabric clearance:	260 mm
Height of fabric clearance:	130 mm
Bed-plate dimensions:	476 x 177 mm
Sewing head dimensions:	
Length:	approx. 580 mm
Width:	approx. 180 mm
Height: (above table):	approx. 300 mm
Max. stitch length:	
Version B:	4,5 mm
Max. speed ♦	
487	5000 min ⁻¹
487-918/..	4200 min ⁻¹
Motor data:	see motor specification plate
Noise data:	
Emission sound level at workplace at a speed of 4000 spm:	L _{pA} = 79.0 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. 40 kg
Gross weight of sewing head:	approx. 48 kg

▲ Subject to alterations

♦ Dependent on material, work operation and stitch length

■ K_{pA} = 2,5 dB

3.02 Versions and subclasses

Version B:.....for sewing medium-weight materials

Work aids:

Subclass -731/	edge trimmer
Subclass -900/..	Thread trimmer
Subclass -909/03	Thread wiper
Subclass -911/37	automatic foot lift and backtacking device
Subclass -918/14	quick top feed adjustment
Subclass -918/55	programmable quick top feed adjustment

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:



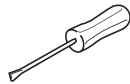
Note, information



Cleaning, care



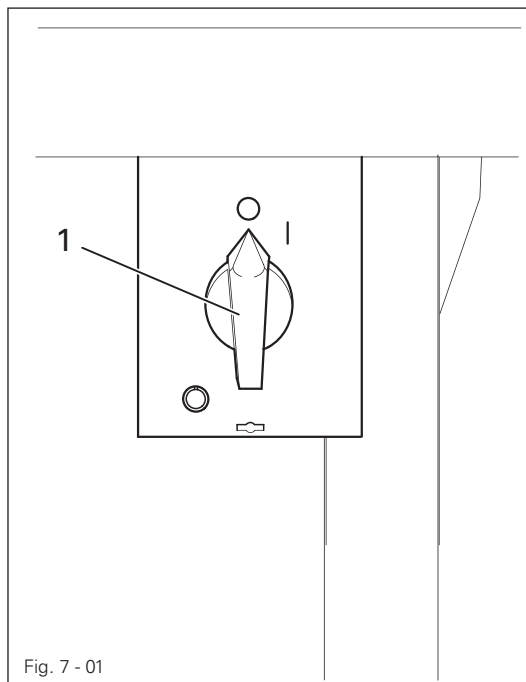
Lubrication



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

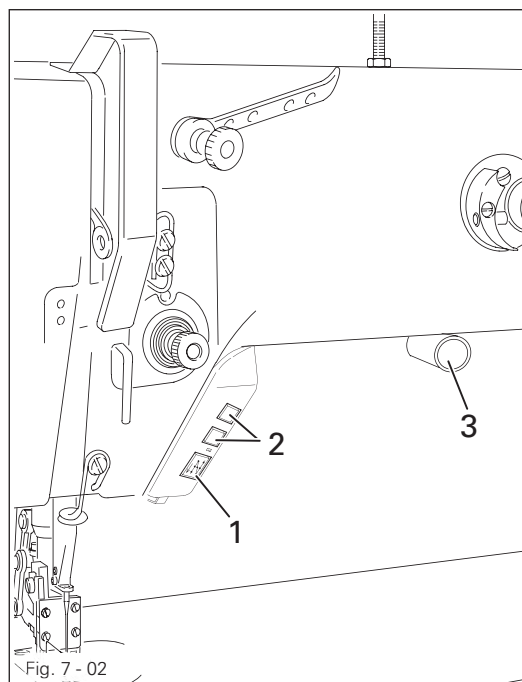
7 Controls

7.01 On/off switch



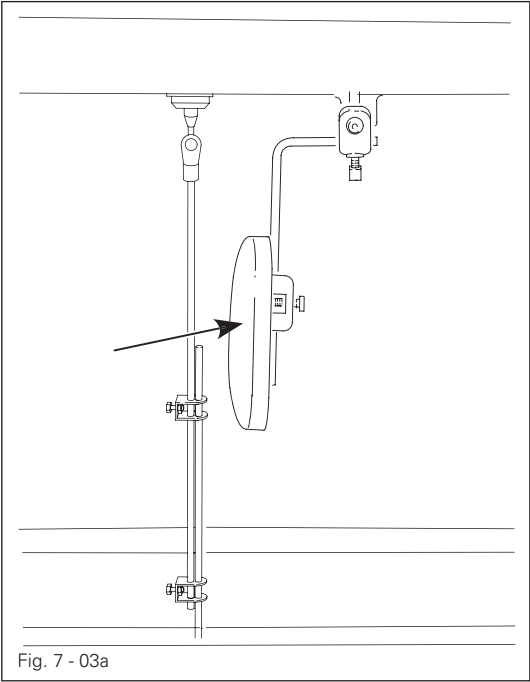
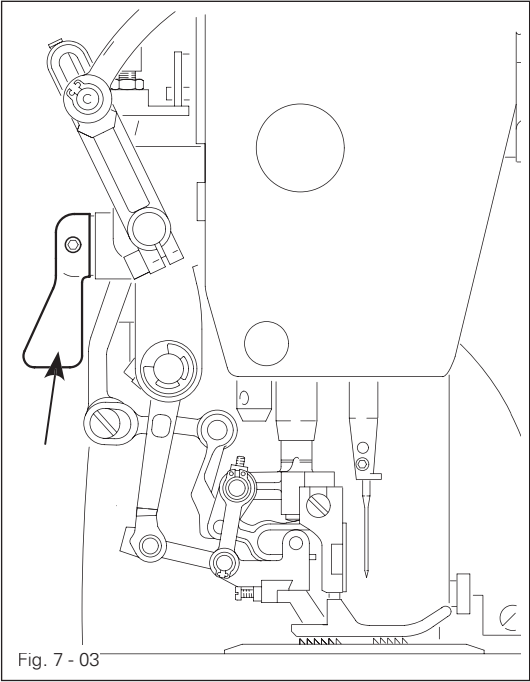
- The power supply to the machine is switched on or off by turning switch 1.

7.02 Keys on the machine head

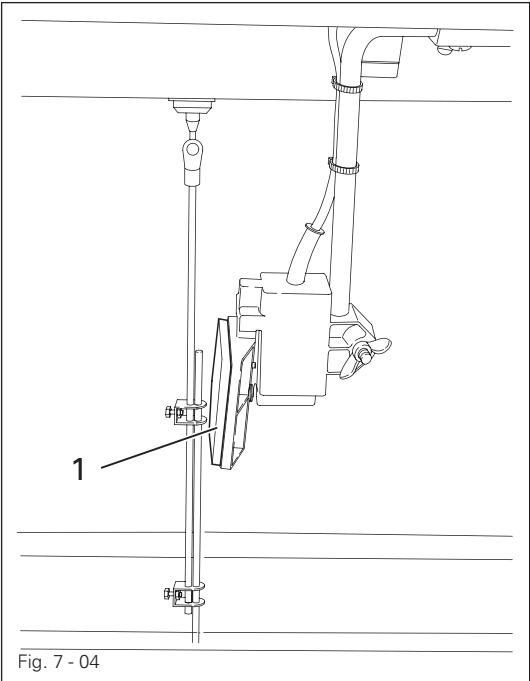


- As long as key 1 is pressed during sewing, the machine sews in reverse.
- Keys 2 can be used for parameter settings (see motor instruction manual).
- Key 3 can be used to switch the edge trimmer on or off (only on machines with -731/12).

7.03 Raising the presser foot



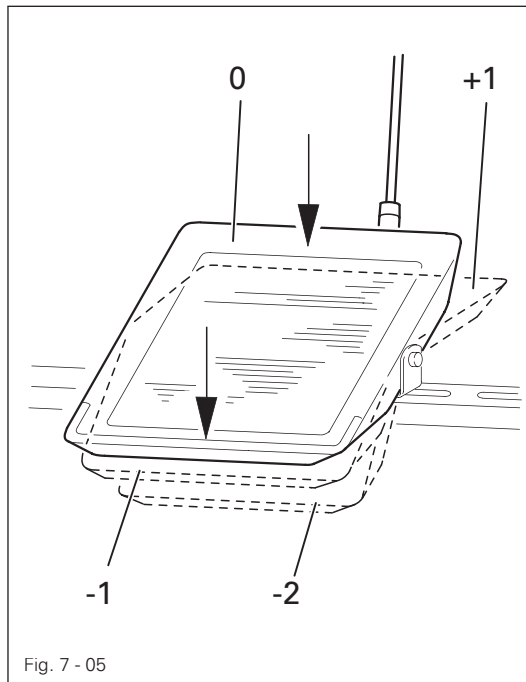
7.04 Knee switch (only on sub-class -918/14)



- By operating knee switch 1 the machine changes from one of two pre-set fullness settings to the other.

7.05

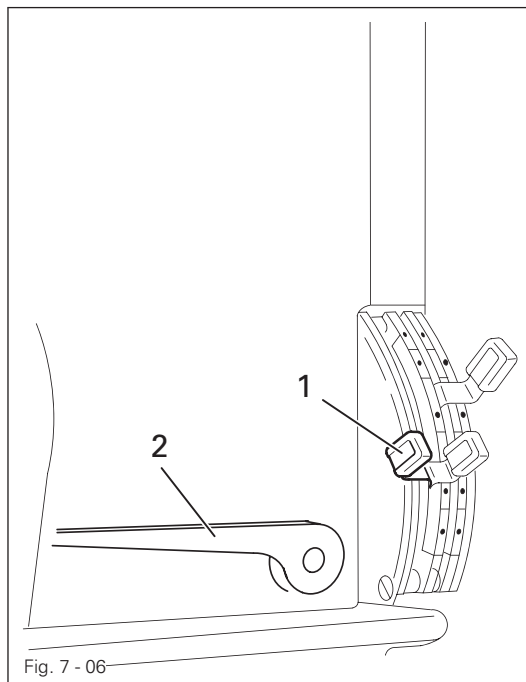
Pedal



- With the on/off switch on
 - 0 = Machine stop
 - +1 = Sew
 - 1 = Raise presser foot (for machines with -911/97)
 - 2 = Trim thread (for machines with -900/..)

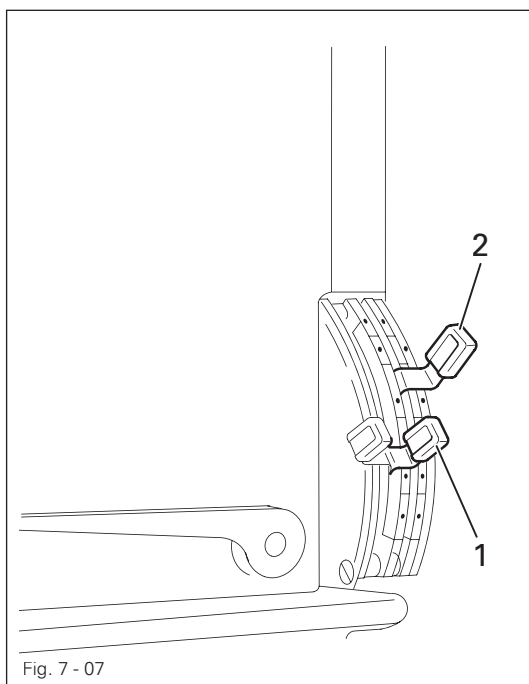
7.06

Stitch length adjustment lever / reverse sewing



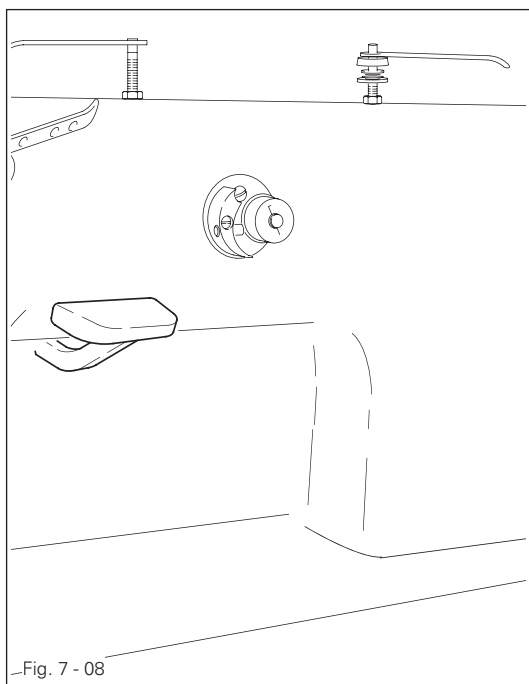
- To adjust the stitch length, press lever 1 to the right and set the desired stitch length.
- As long as the reverse feed lever 2 is pressed during the sewing operation, the machine sews in reverse.

7.07 Top feed adjustment lever



- Adjustment levers 1 and 2 are used to adjust the top feed stroke (also see Chapter 9.06 Adjusting the top feed).

7.08 Edge trimmer -731/11



Do not touch the running motor! Danger of injury!

- By pressing or raising key 1, the edge trimmer is switched on or off.



Switching on the edge trimmer -731/12, see Chapter 7.02 Keys on the machine head.

7.09 **Control panel**

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

7.10 **Operating elements for the programmable fullness control**

The description for programmable fullness control can be found in the separate instruction manual.

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

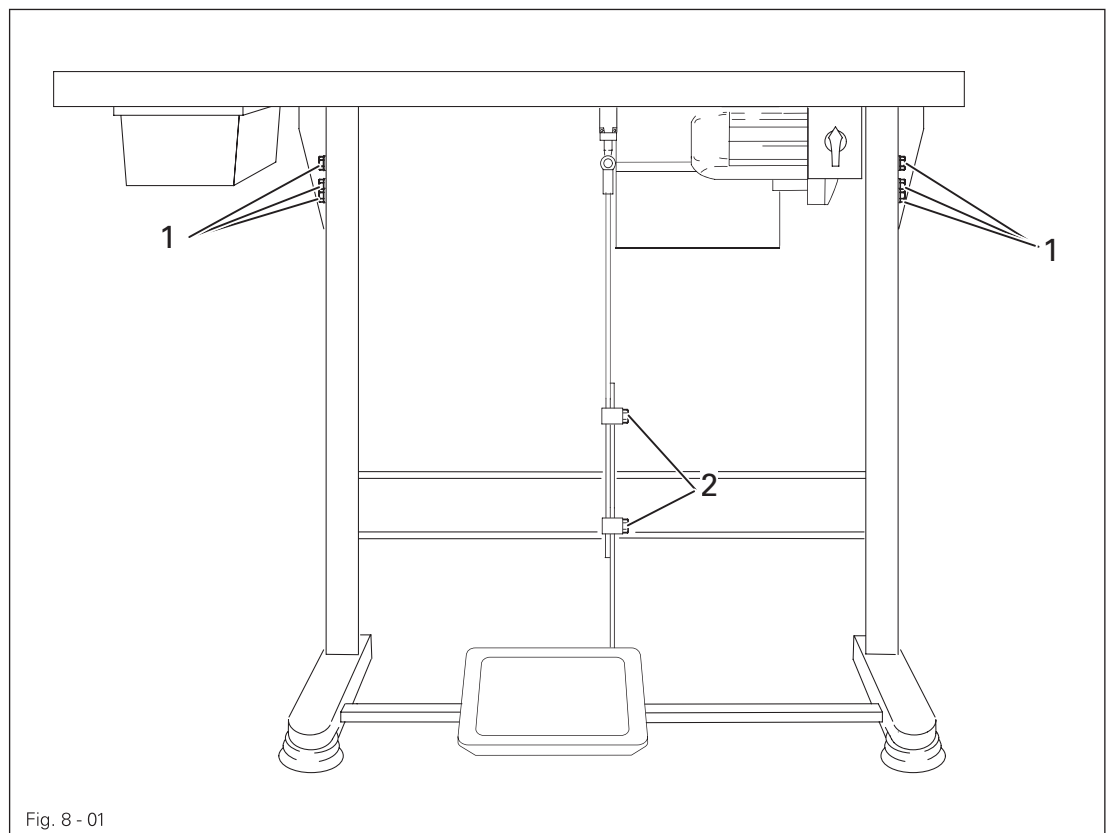
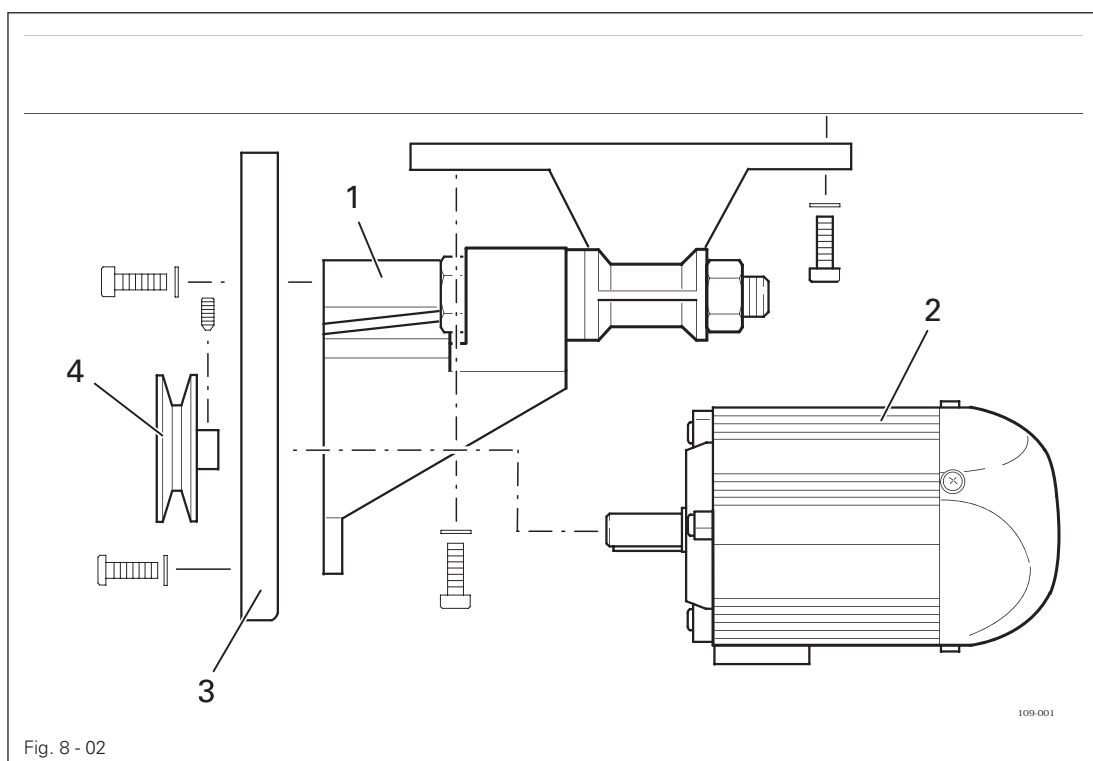


Fig. 8 - 01

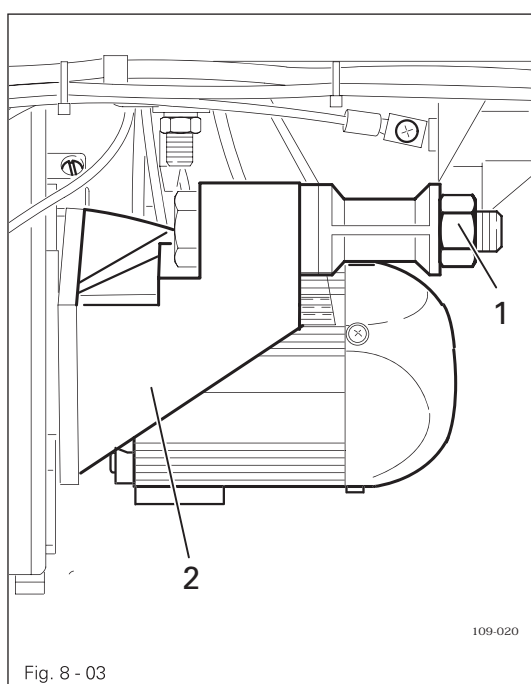
- Loosen screws 1 and 2 and set the desired table-top height
- Tighten screws 1 well.
- Adjust the position of the pedal so that you can operate it comfortably and tighten screw 2.

8.01.02 Assembling the motor (only on machines with EcoDrive and control unit P40 ED)



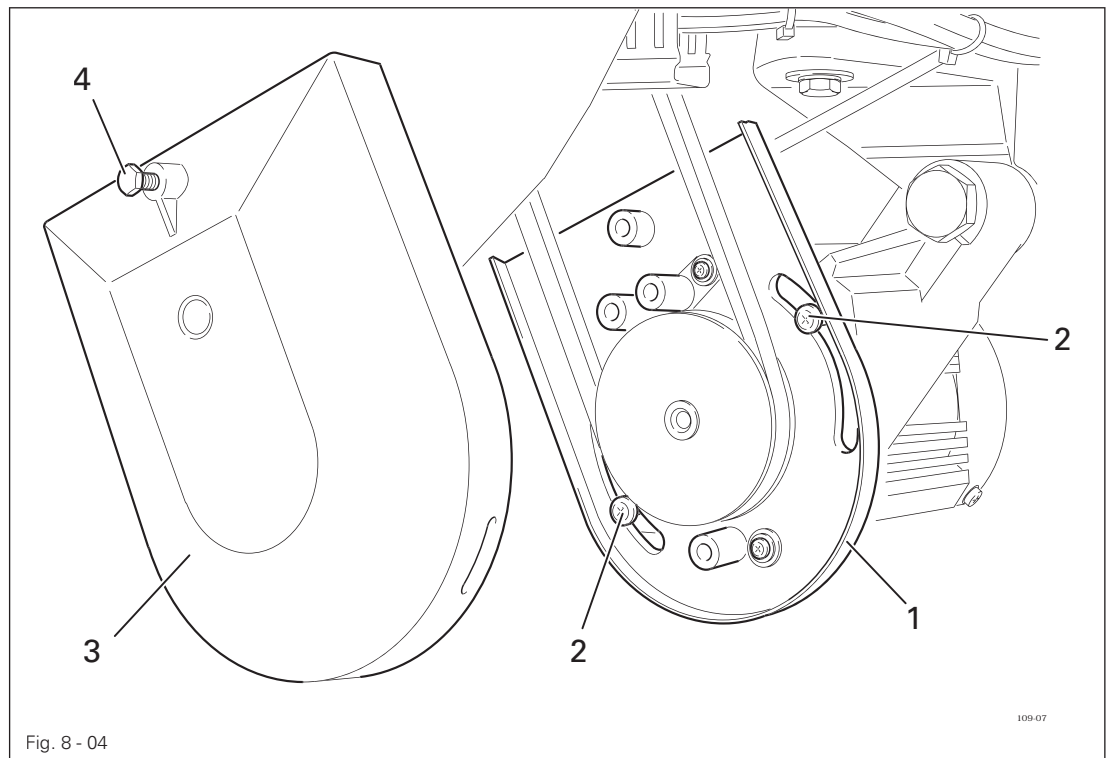
- Assemble motor mounting 1, motor 2, belt guard support 3 and belt pulley 4 as shown in Fig. 8-02.

8.01.03 Tightening the V-belt



- Fit the V-belt.
- Loosen nut 1 and tighten the V-belt by turning motor mounting 2.
- Tighten nut 1.

8.01.04 Mounting the bottom V-belt guard

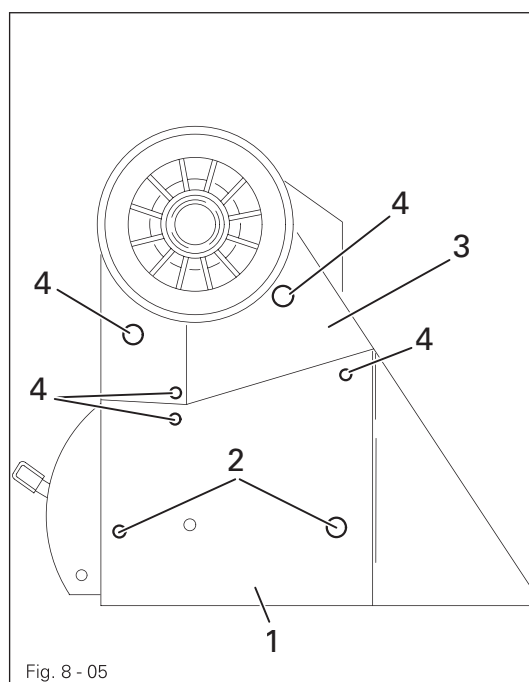


- Loosen screws 2 and adjust belt guard support 1 so that the motor pulley and V-belt run freely.
- Tighten screws 2 and fasten belt guard 3 with screw 4.



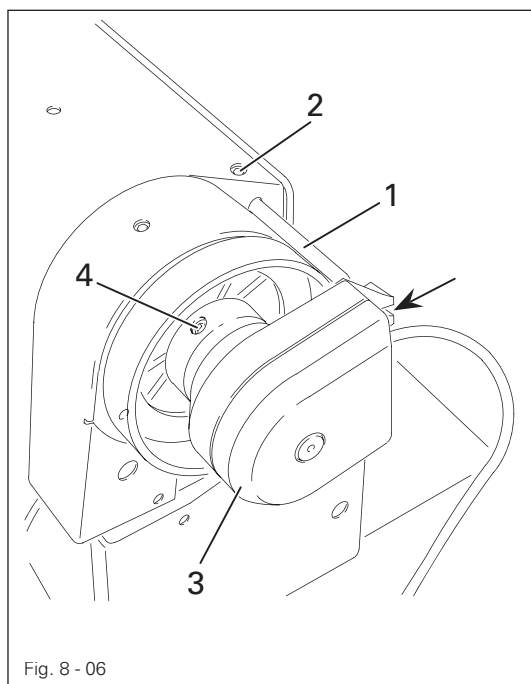
Fig. 8-04 shows a EcoDrive motor. If a different motor is used, follow the instructions of the Motor Instruction Manual.

8.01.05 Fitting the top V-belt guard



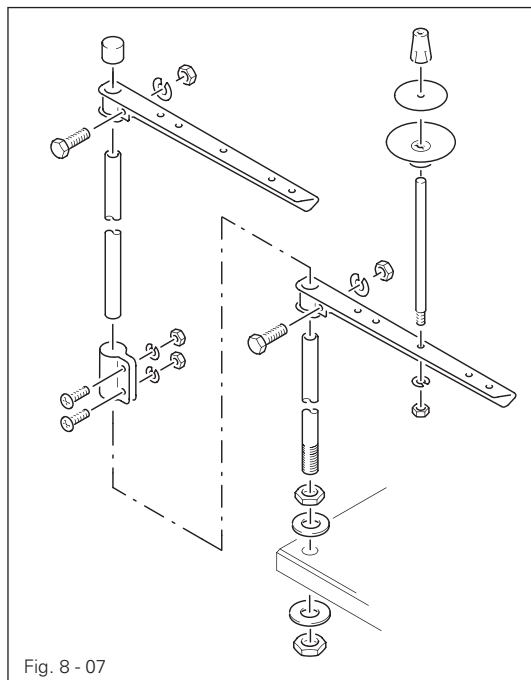
- Fasten bottom section of V-belt guard 1 with screws 2.
- Fasten top section of V-belt guard 3 with screws 4.

8.01.06 Fitting the synchronizer



- Insert position stop 1 in the machine case and fasten it with screw 2.
- Place synchronizer 3 on the shaft so that stop 1 is in the slot of synchronizer 3, see arrow.
- Tighten screws 4 .
- Insert the synchronizer plug into the adapter (see Chapter 8.02 Connecting the plug-in connections and earth cables).

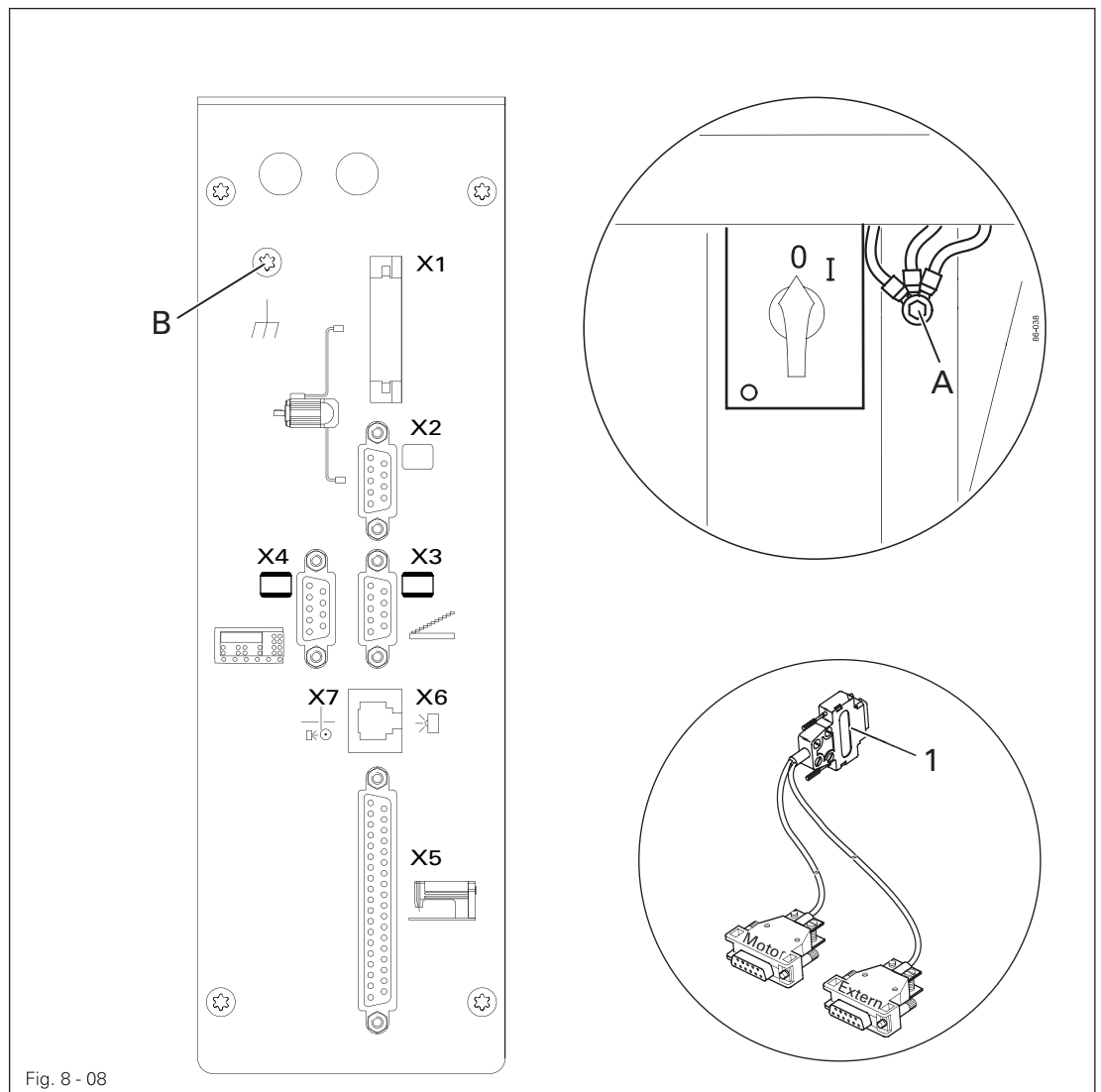
8.01.07 Fitting the reel stand



- Fit the reel stand as shown in Fig. 8 - 07.
- 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 11)

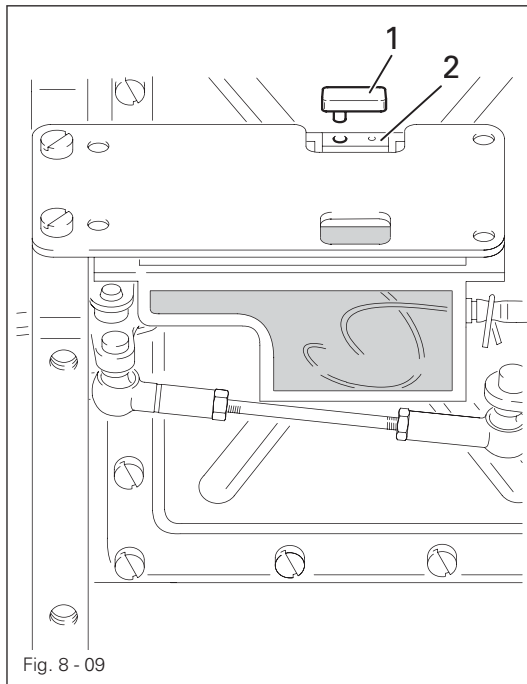


- Connect all plugs as labelled to the control box .
- Screw the earth cable from the sewing head and the main switch to earth point A.
- Connect earth point A to earth point B with earth cable.
- Insert plug 1 from the adapter cable to bush X 2.
- Connect the motor to the "**Motor**" plug and the synchronizer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



On machines with programmable fullness control
(sub-class -918/55, see separate instruction manual)

8.03 Commissioning the machine



- Check the machine, especially the electrical leads, for any damage.
- Remove pin 1 of the oil reservoir 2 (Fig. 8 - 09).



The pin serves only to protect the machine from damage during transport and must not be used when sewing.

- 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.



Before commissioning the machine, have specialized personnel check whether the parameter **799** (machine class) is set at "1" and the parameter **800** (sewing direction) is set at "1". If necessary, have the adjustment carried out (see Chapter 8.05 **Basic position of the machine drive unit**).



On machines with programmable fullness control (sub-class -918/55) this check function is not necessary.



The machine may only be connected to an earthed socket!

- Connect the machine to the compressed air supply. When it is connected, the gauge should show a pressure of approx. 6 bar. If necessary, have this reading correctly set (see Chapter 10.05, **Checking/adjusting the air pressure**).

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 P40 ED)

- 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 "**1**" 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 direction of rotation until the needle point, **descending from above**, is flush with the top edge of the needle plate.
- Then check the parameter values listed in the parameter list (see Chapter **10.07 Parameter Settings**) and adjust them if necessary.
- Conclude the adjustment of the sewing motor by pressing the **TE/Speed key**.



On machines with programmable fullness control
(sub-class **-918/55**, see separate instruction manual)

9

Setting up



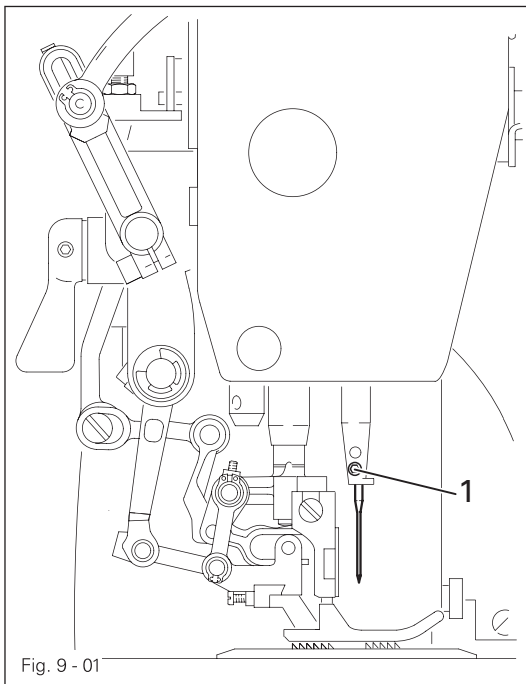
All instructions and regulations in this instruction manual must be observed. Special attention must be given to all safety regulations!



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

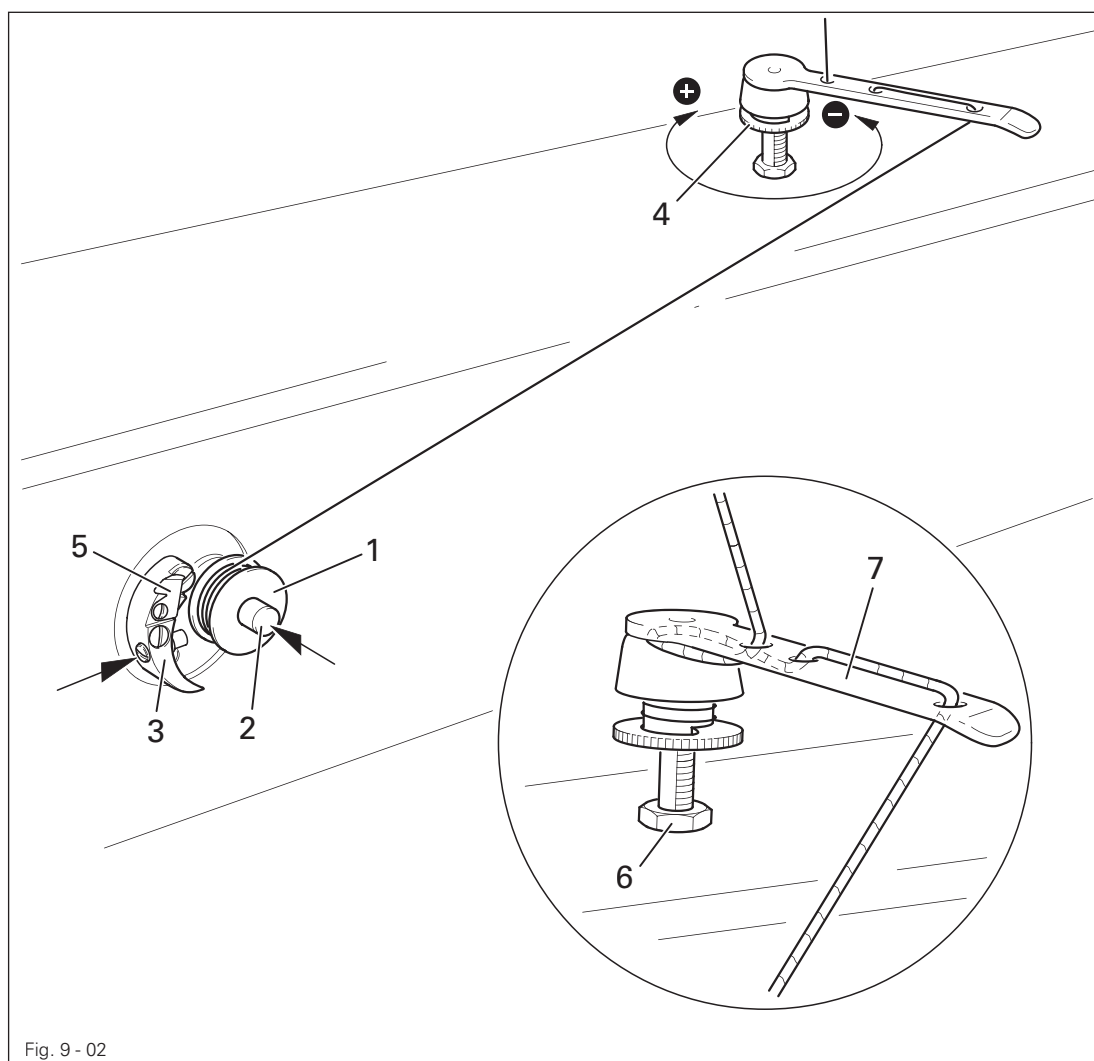


Fig. 9 - 02

- 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.



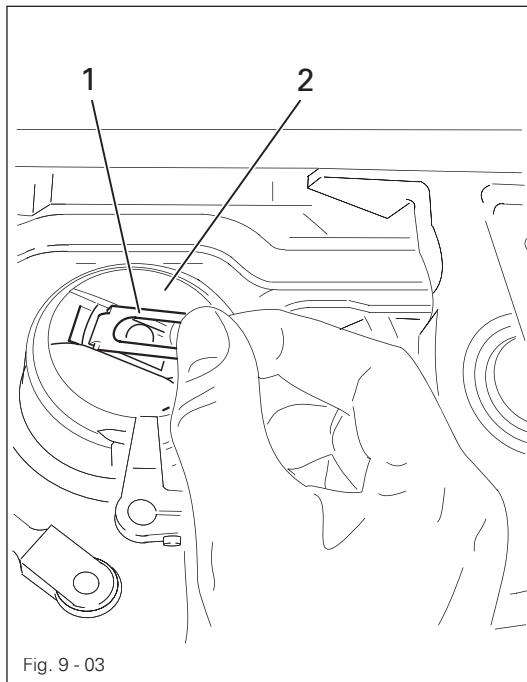
The bobbin fills up during sewing.

- 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 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.

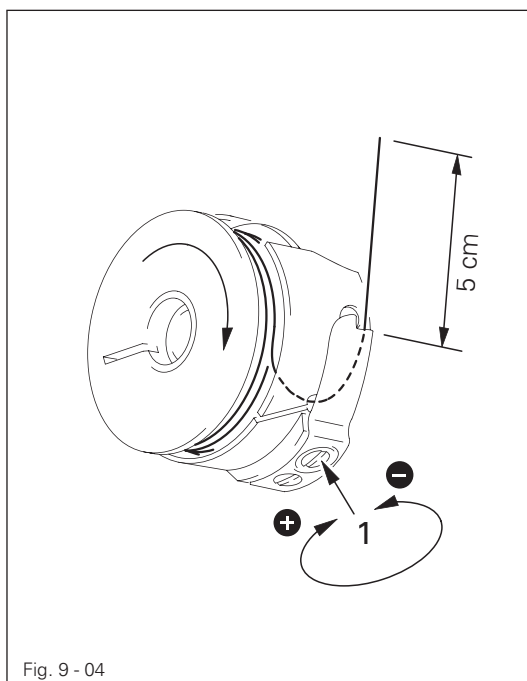
Inserting the bobbin case:

- 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



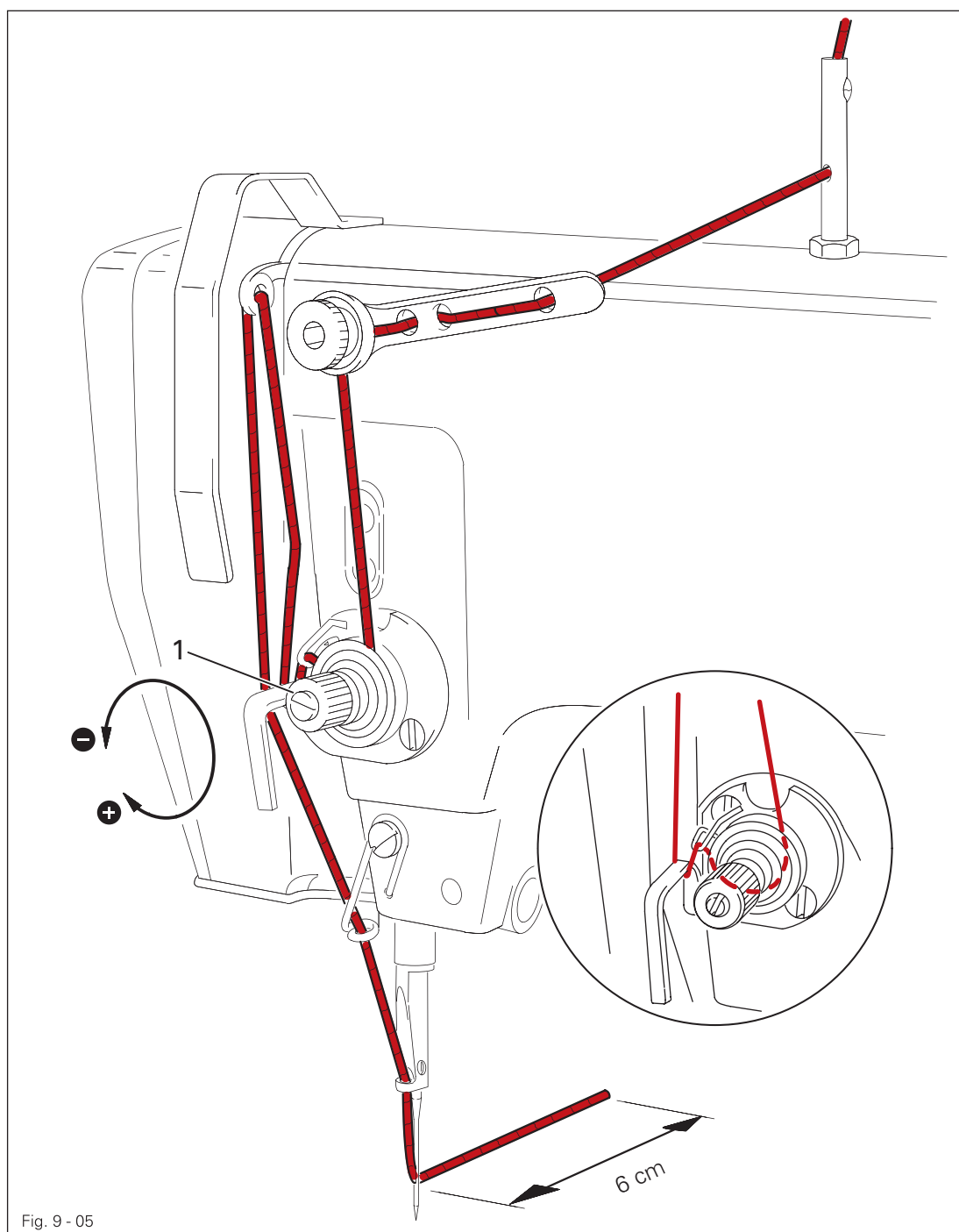
- Insert the bobbin into the bobbin case.
- Pass the thread through the slot under the spring according to Fig. 9-04.
- Pass the thread through the notch.
- Adjust the thread tension by turning screw 1.



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

9.05

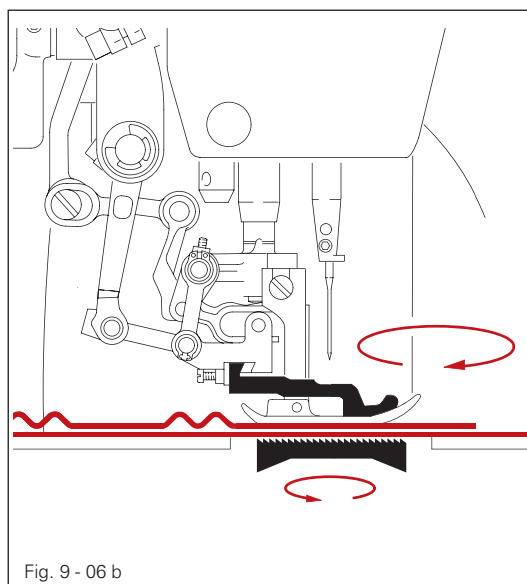
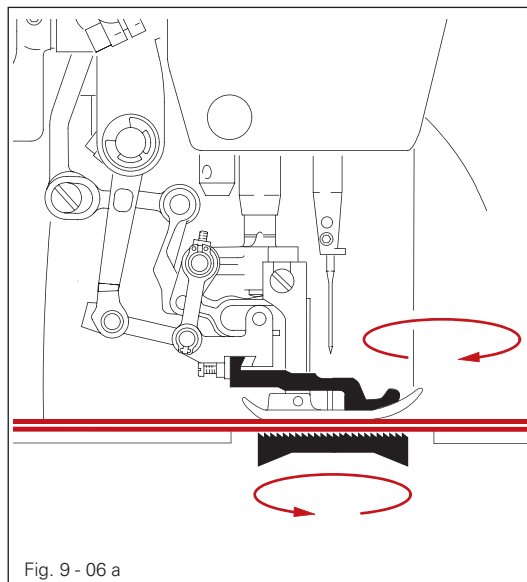
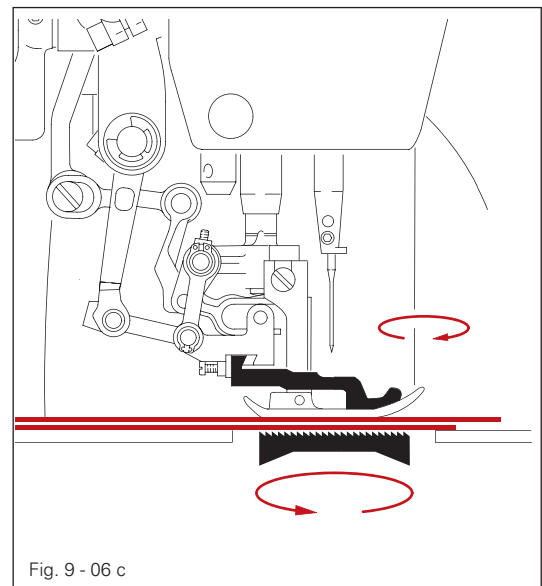
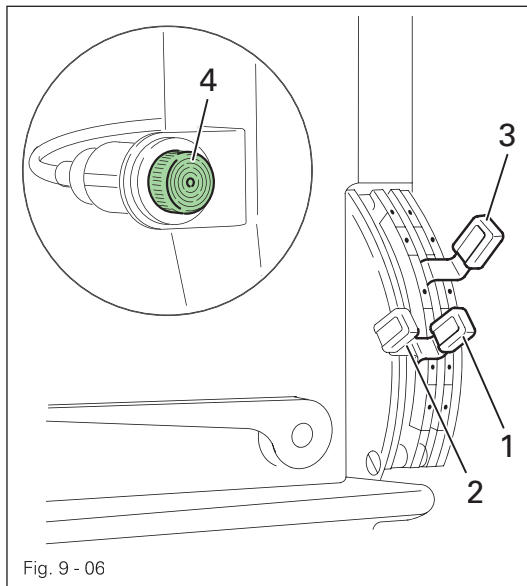
Threading the needle thread / Adjusting the needle thread tension



Switch off the machine!

Danger of injury due to unintentional starting of the machine!

- Thread the machine as shown in Fig. 9-05.
- Adjust the needle thread tension by turning disk 1.



Standard sewing

- Set lever 1 and 2 at the same value. The top and bottom feed dogs operate with the same feed stroke (see Fig. 9-06a).

Top fullness

- Set lever 1 at a higher value than lever 2. The top feed dog applies fullness to the top material ply (see Fig. 9-06 b.) On machines with subclass -918/14 lever 3 is used to limit a second top feed value. It is possible to change from one value to the other by using the knee switch. The display 4 on the machine head shows whether the machine is operating with standard value or fullness.
Green = standard value
White = fullness

Stretching the top material ply

- Set lever 1 at a lower value than lever 2. The top material ply is stretched (see 9-06 c).

9.07 **Adjusting the stitch counter for the bobbin thread control**

(only on machines with EcoDrive and control unit P40 ED)

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

10 Wartung und Pflege

10.01 Wartungsintervalle

Clean the hook compartment	Daily, several times if in continuous use
Check the oil level	Daily, before starting the machine
Clean/lubricate the hinges on the top feed dog	Once a week
Check/adjust the air pressure	Daily, before starting the machine
Clean the filter of the air filter/lubricator	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 removing the mains plug!
Danger of injury if the machine suddenly starts up .

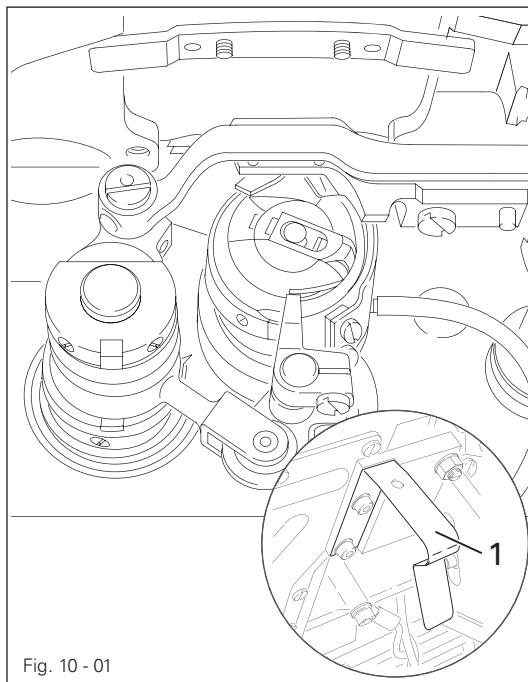


Fig. 10 - 01

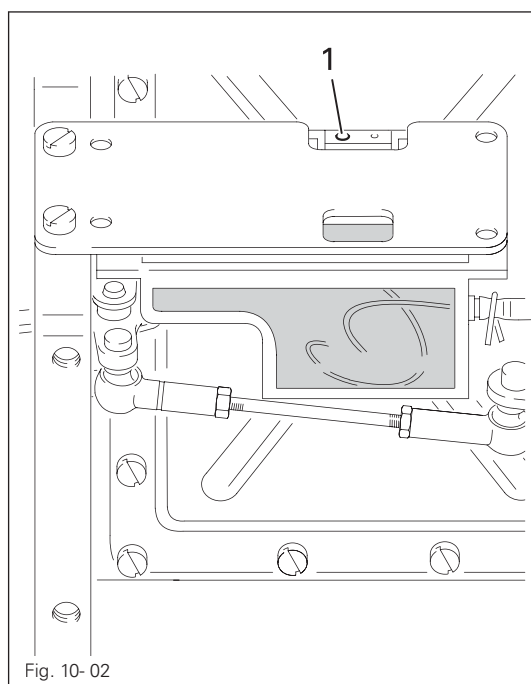
To avoid breakdowns, the following cleaning work is recommended for single shift operation:

- Tilt the machine back onto the sewing head support.
- 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!
When returning the machine to an upright position, tilt protection device 1 must be pressed.

10.03 Oil level of the machine



Check the oil level once a month!

- If necessary fill oil into hole 1 up to the marking.

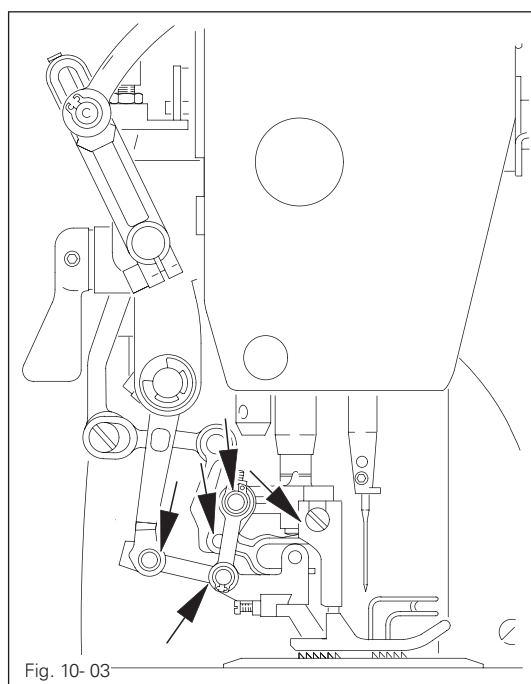


Only use oil with a medium viscosity of $22.0 \text{ mm}^2/\text{s}$ at 40°C and a density of 0.865 g/cm^3 at 15°C !



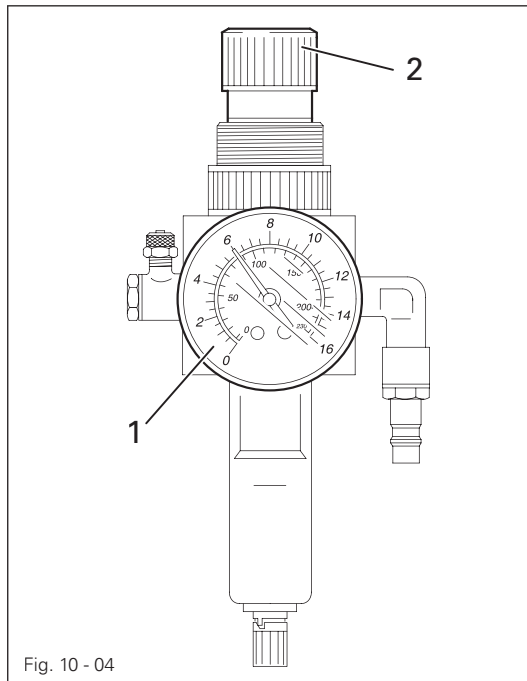
We recommend PFAFF sewing-machine oil, part No. **280-1-120 144**.

10.04 Cleaning/lubricating the top feed joints



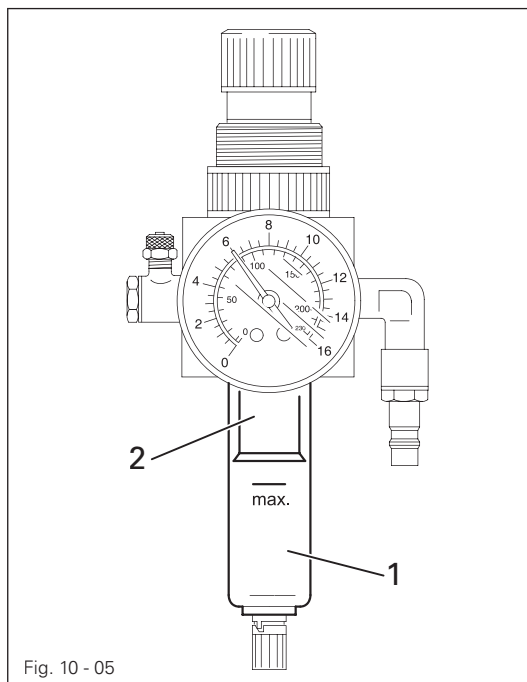
- Once a week or after the machine has stood still for longer periods, clean the points marked in the illustration with the special cleaner, part no. **99-137 468-91**.
- Afterwards lubricate these points with the special lubricant, part no. **99-137 467-91** (wipe off surplus lubricant with a cloth).

10.05 Checking/regulating the air pressure



- Check the air pressure on gauge 1 every time before operation.
- Gauge 1 must show a pressure of 6 bar.
- Regulate this pressure if required.
- To do so, pull knob 2 up and turn it accordingly.

10.06 Emptying/cleaning the water bowl of the air filter/regulator



Switch off the machine.
Disconnect the air hose at the
air filter/regulating unit.

Emptying the water bowl

- Water bowl 1 empties itself automatically when the air hose is disconnected from the air filter/regulator.

Cleaning the filter

- Unscrew water bowl 1 and take out filter 2.
- Clean the filter with compressed air or with isopropyl-alcohol, part number 95-665735-91.
- Screw in filter 2 and screw on water bowl 1.

10.07 Parameter settings (only on machines with EcoDrive and control unit P40 ED)

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

10.07.01 Parameter list

Group	Parameter	Description	User level	Setting range	Set value
1	105	Speed for start backtackl	B, C	300 - 2000	1200
	110	Speed for end backtack	B, C	300 - 2000	1200
6	606	Speed min.	B, C	30 - 300	180
	607	Speed max.	B, C	300 - 6000	▲
	609	Cutting speed	B, C	60 - 300	180
	660	Bobbin thread control 0 = off, 1 = thread monitor, 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	90
	703	Needle position 2 (take-up lever raised	B, C	0 - 255	236
	705	End cutting signal	B, C	0 - 255	200
	706	Start cutting signal	B, C	0 - 255	136
	707	Needle position 9 (start thread tension release/start thread catcher)	B, C	0 - 255	164
	760	Multiplier for the fixed value (200) stitch count	A,B, C	0 - 250	5
	799	Selected machine class	C	1 - 3	1
8	800	Rotating direction of the motor	C	0 - 1	1

▲ See Chapter 3 Specifications

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

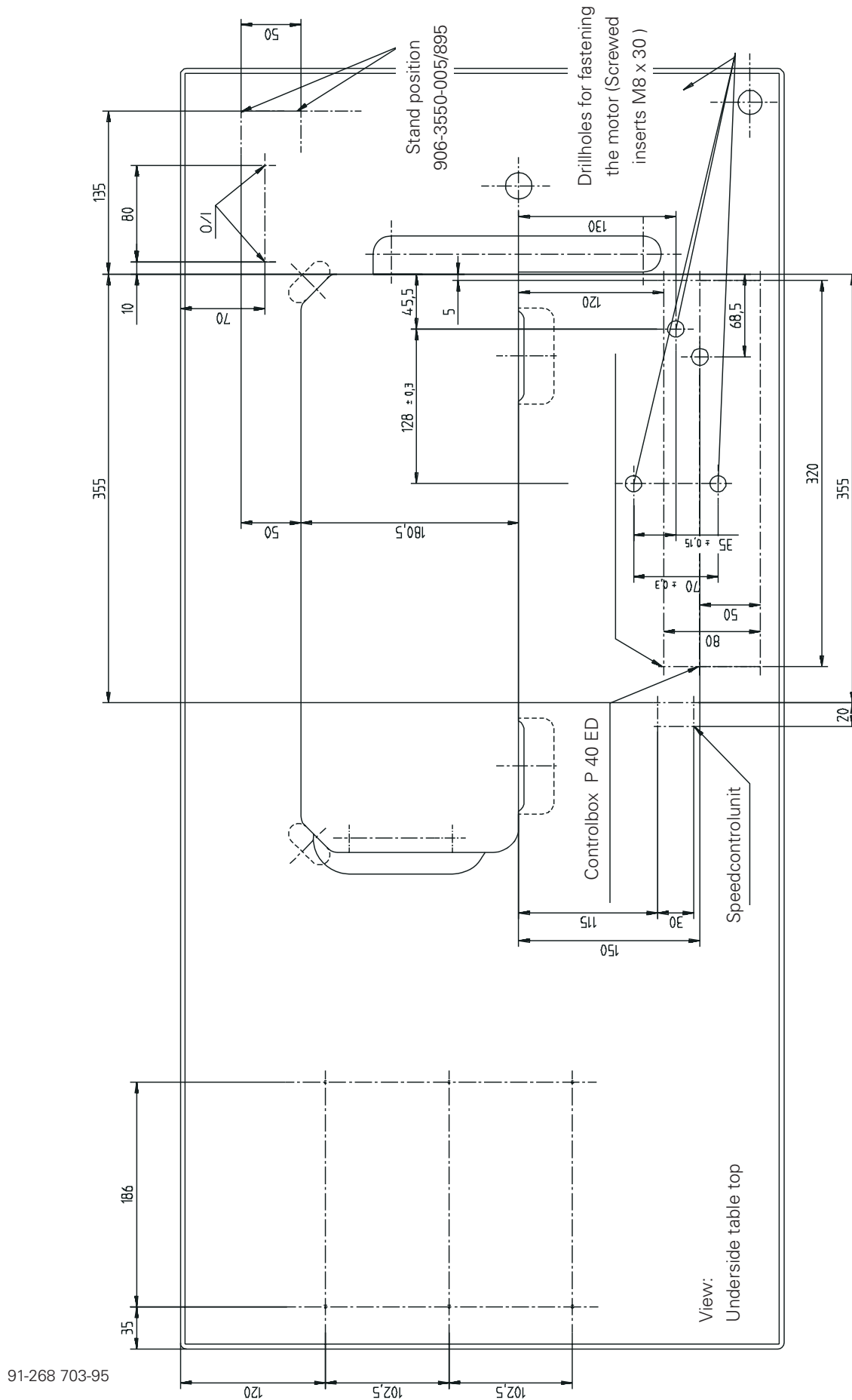


Further parameters and the description for an internet update of the machine software and reset /cold start of the machine can be found in the instruction manual for the motor.

Table top cutout



11.02 Mounting the table top (with EcoDrive and control unit P40 ED)

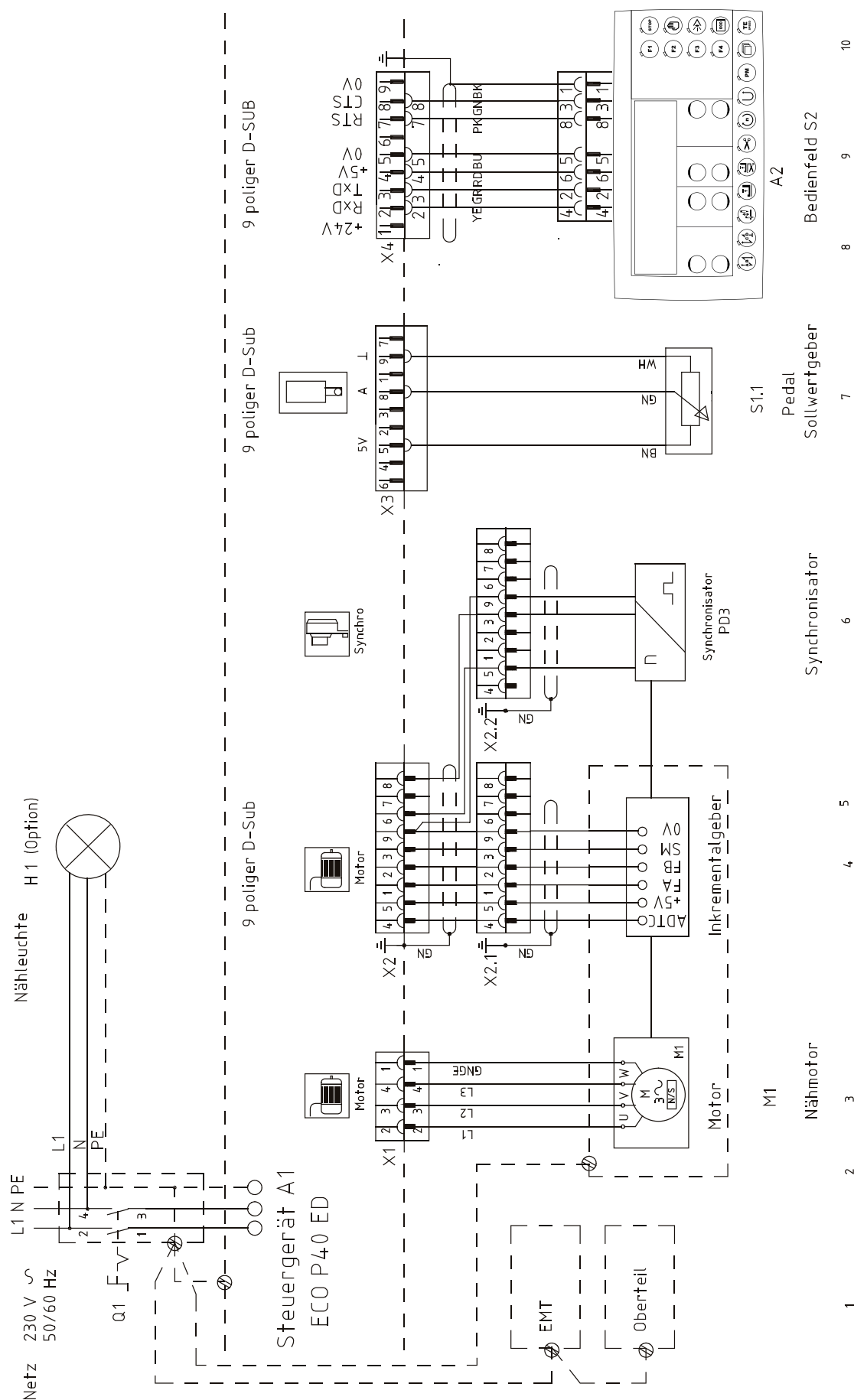


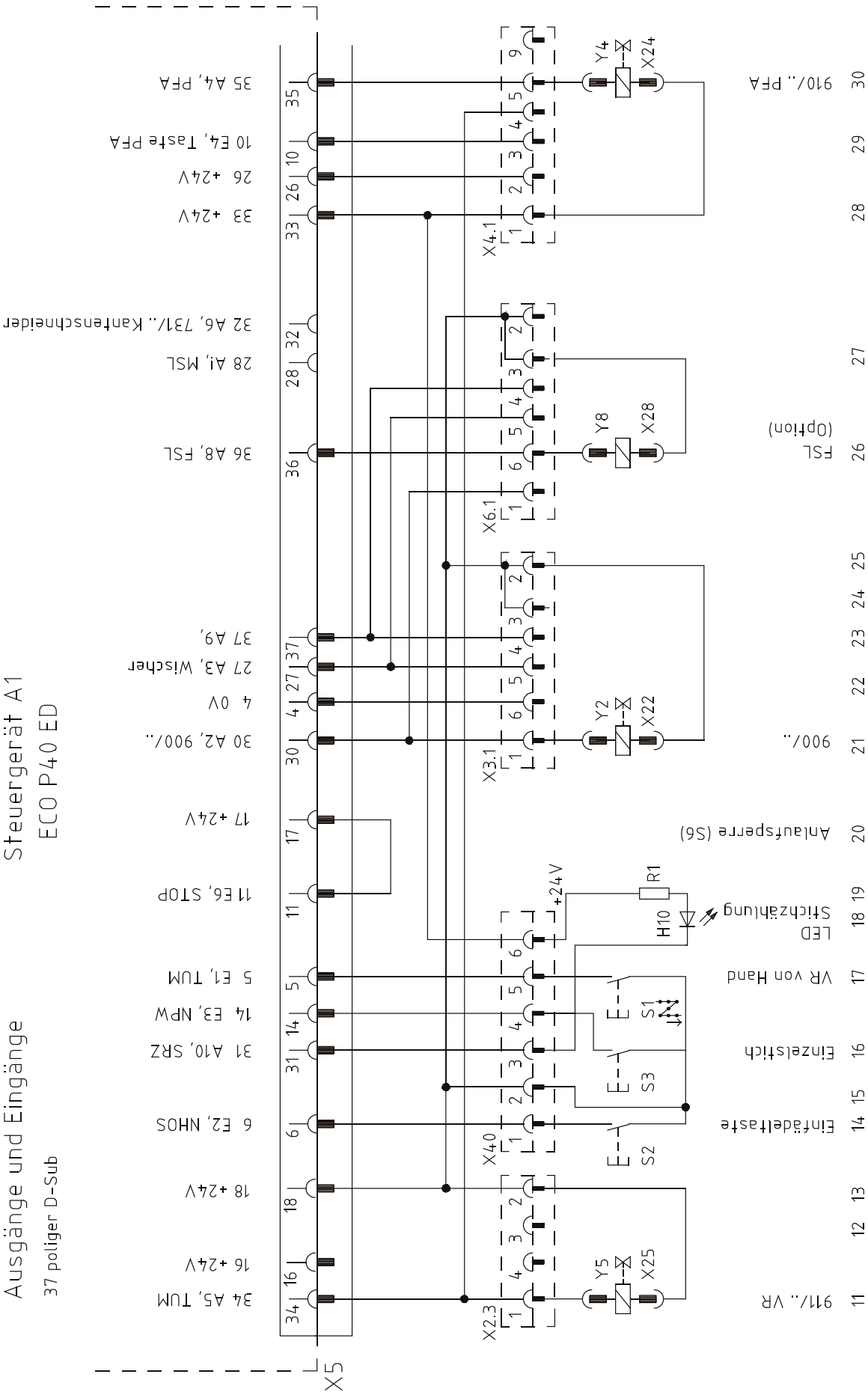
11.03 Circuit diagrams

11.03.01 Reference list for the Circuit diagrams 91-191 501-95

A1	Control unit P40 ED
A2	Control panel BDF S3
A14	Sewing head recognition system (OTE)
H1	Sewing lamp (optional)
H10	LED stitch counter
M1	Sewing motor
Q1	Main switch
S1	Manual backtacking key
S1.1	Pedal speed control unit
S6	Start inhibitor (E6 stop)
X0	PC-interface (RS 232)
X1	Motor
X2	Incremental transducer
X2.1	Incremental transmitter adapter
X2.2	Synchronizer adapter
X2.3	Y5-911/.. backtacking device
X3	Speed control unit
X3.1	Y2 thread trimmer -900/..
X4	A2 Control panel BDF S3
X4.1	Y4 automatic foot lift (-910/..)
X5	Out-/input
X5.1	S1 Manual backtacking key
X6	Bobbin thread monitor (optional)
X7	Photoelectric barrier (optional)
X8	Y8 thread tension release (FSL)
X22	Y2 thread trimmer -900/..
X24	Y4 automatic foot lift (-910/..)
X25	Y5 backtacking device (-911/..)
X28	Y8 thread tension release (FSL)
X50	A14 Sewing head recognition system (OTE)
Y2	thread trimmer -900/..
Y4	automatic foot lift (-910/..)
Y5	backtacking device (-911/..)
Y8	thread tension release (FSL)

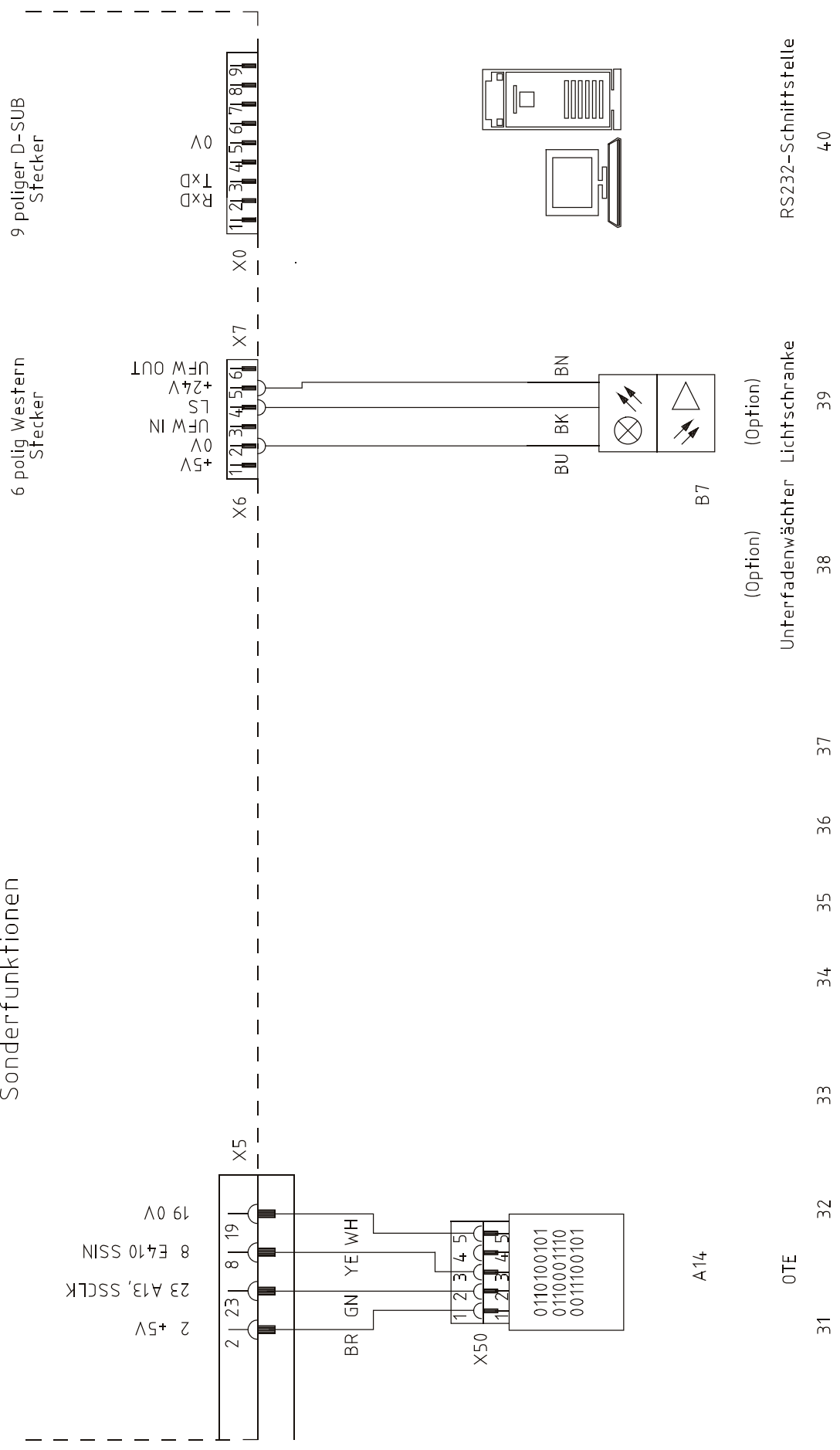
11.03.02 Circuit diagrams 91-191 501-95





Steuergerät A1 ECO P40 ED

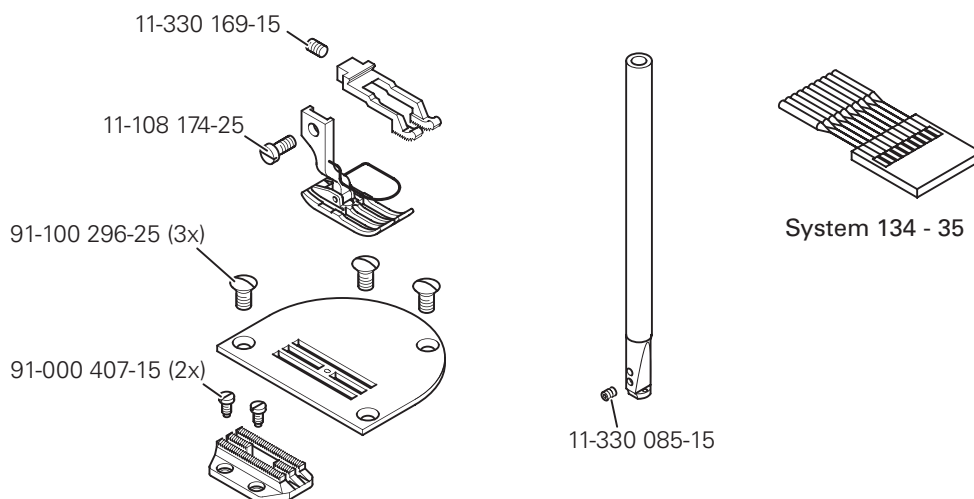
Sonderfunktionen



This is a list of the most important wearing parts.

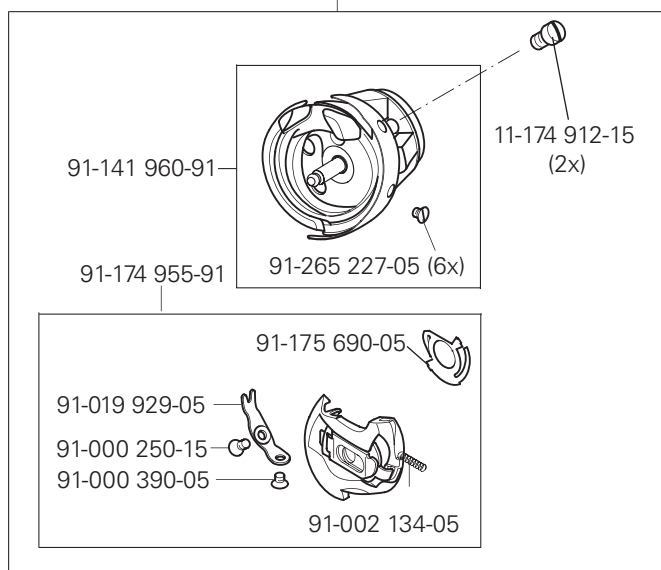
A detailed parts list for the complete machine is included with the accessories.

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. 296-12-18 645.



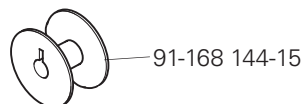
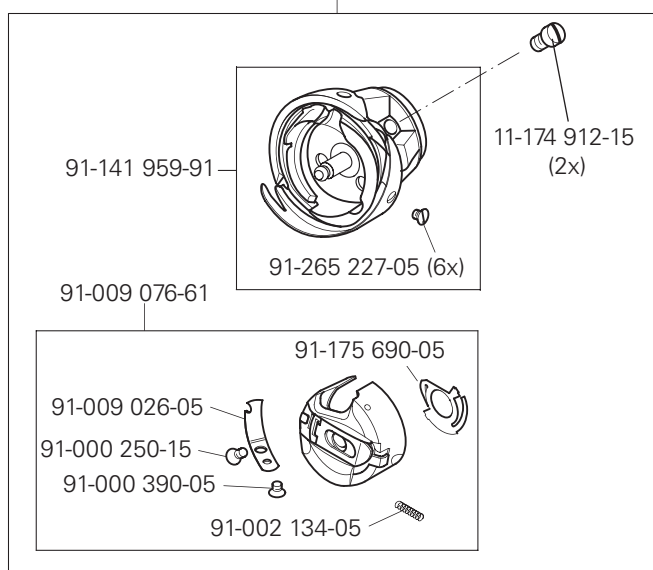
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