

POWERline

2571 ME PREMIUM

2574 ME PREMIUM

SET-UP INSTRUCTIONS

2591 ME PREMIUM

The reprinting, copying or translation of PFAFF Service Manuals - whether in whole or in part - is only permitted with our prior consent and with reference to the source.

**PFAFF Industriesysteme
und Maschinen AG**

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

Contents		Page
1	General Notes	4
1.01	Explanation of the symbols.....	4
2	Scope of delivery	5
2.01	Sewing machine accessories.....	5
2.02	Sewing Machine Drive Accessories P 320 / P 321	9
3	Stand and table top	10
3.01	Table top cutout	10
3.02	Assembly drawing for the table top (for machines with P 320 / 321)	11
4	Installation	12
4.01	Assembling the stand and table top	12
4.02	Adjusting the table-top height.....	13
4.03	Assembling the control unit	14
4.04	Setting the sewing machine into the stand	15
4.05	Assemble the mounted motor.....	16
4.06	Connecting the plug-in connections and earth cables	17
4.07	Machine drive in home position/ attach drive belt.....	18
4.07.01	For PFAFF 2571 and 2591 ME PREMIUM.....	18
4.07.02	For PFAFF 2574 ME PREMIUM.....	20
4.08	Mounting the belt guard of the flange motor	22
4.09	Connecting the safety switch	22
4.10	Checking the function of the start inhibitor.....	23
4.11	Activate the PREMIUM functions	23
4.12	Assembling the LED lamp (optional).....	24
4.13	LED light transformer/ Knee switch installation	25
4.14	Assembling the thread guide and take-up lever guard.....	26
4.15	Mounting the control panel.....	27
4.16	Assembling the rear cover and sewing head support.....	28
5	Commissioning	29
5.01	Switching the machine on/off	29
6	Circuit diagrams.....	30

1 General Notes



The machine may only be set-up and commissioned by qualified personnel!
All notes in Chapter 1 Safety of the Instruction Manual must be observed!



There must be suitable electrical connections at set-up site, see Chapter 3 **Specifications** of the Instruction Manual. A firm, level surface and adequate lighting must also be available at the set-up site.



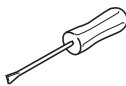
If the machine was delivered without a table, both the stand and the table top intended for use must be constructed for a weight of at least **100 kilos**.

1.01 Explanation of the symbols

In these Set-Up Instructions, symbols emphasize operations to be carried out or important information. The symbols used have the following meaning:



Note, information



Service, repair, adjustment, maintenance
(work to be carried out by qualified staff only)

Safety symbols



Danger!
Points to be observed.



Danger of injury for operating and specialist personnel!

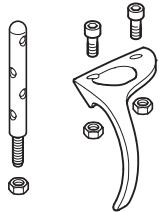
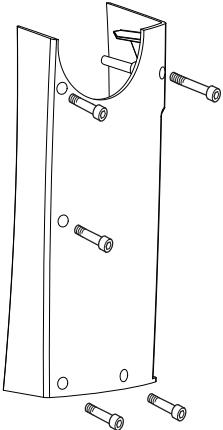

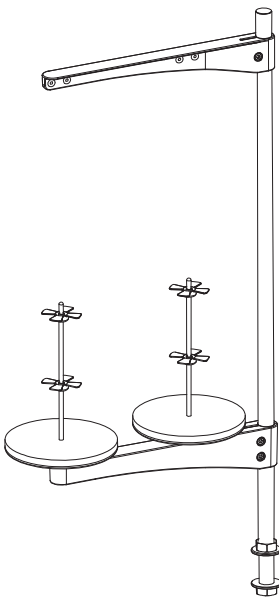
2 Scope of delivery

The scope of delivery of the machine **depends on the order**.

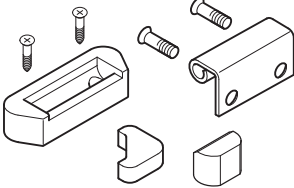

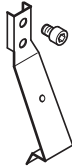
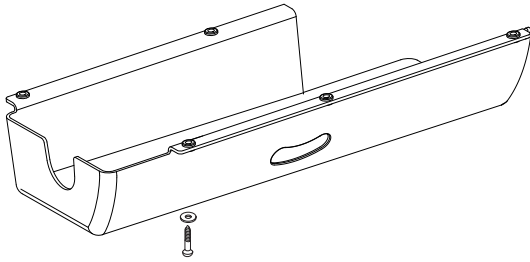
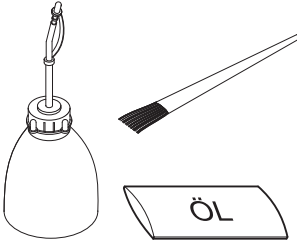
Before setting up the machine, check whether all the required parts have been included.

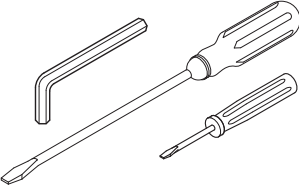

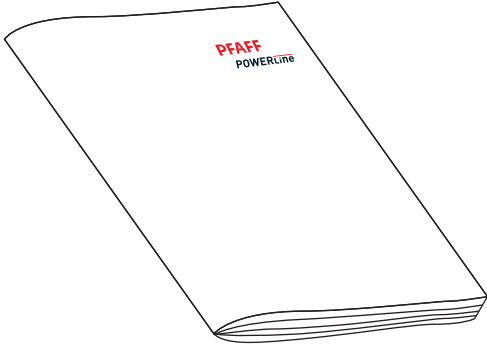
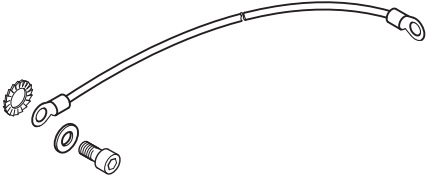
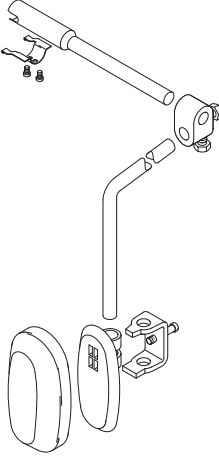
The following description only applies to one special sewing machine, for which all individual components have been delivered by the "PFAFF Industriesysteme und Maschinen AG".

2.01 Sewing machine accessories

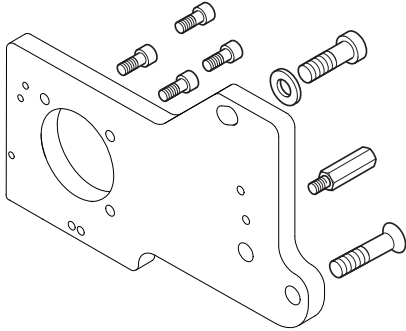
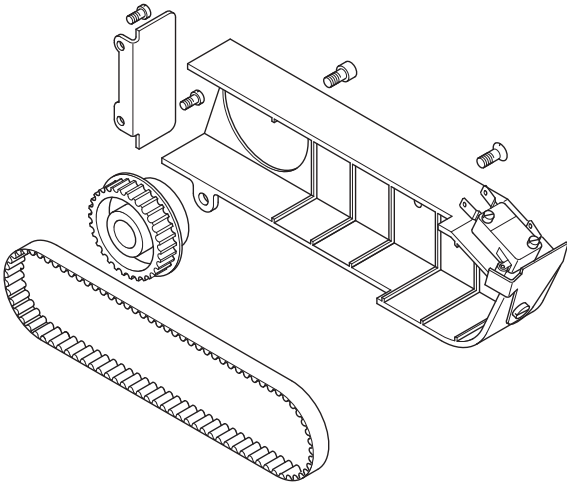
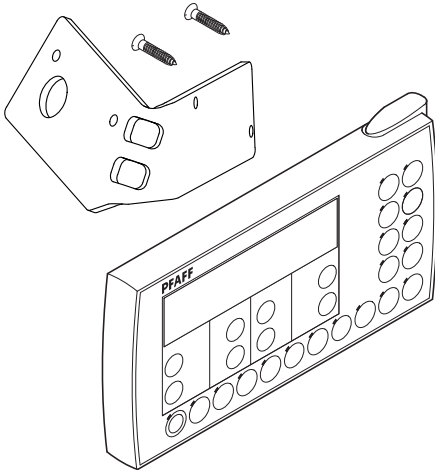
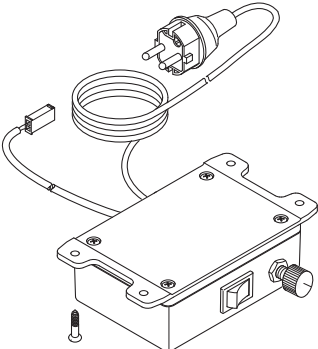
Sewing machine accessories	Description / No. of pieces
	<p>Thread guide and take-up lever guard with nuts (x3)</p>
	<p>Rear cover with screws (1x)</p>
	<p>Bobbin 2571 / 91(5x), 2574 (6x)</p>
	<p>Reel stand complete (1x)</p>

Scope of delivery

Sewing machine accessories	Description / No. of pieces
	<p>Rear rubber pads with screws (2x) Front rubber pads (4x) Hinge with screws (2x)</p>
	<p>Sewing head support</p>
	<p>Tilt lock (1x)</p>
	<p>Oil pan with 5 screws and washers</p>
	<p>Oilcan (1x), Sachet with 80 ml oil, Dusting brush (1x)</p>

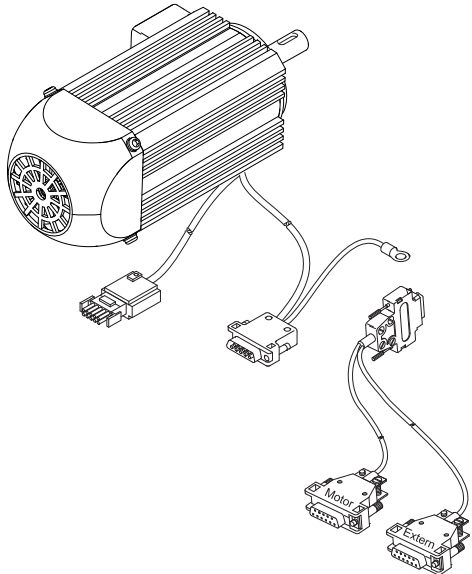
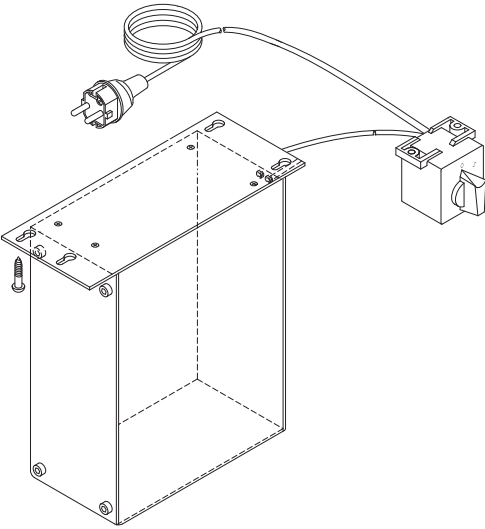
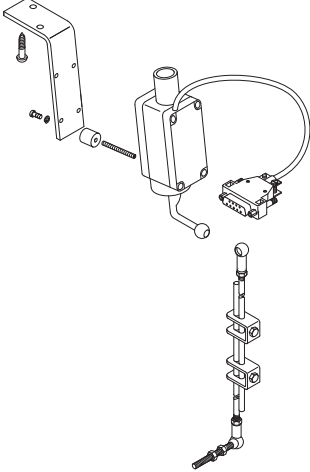
Sewing machine accessories	Description / No. of pieces
	<p>Allan key 3 mm (1x), Screwdriver large (1x), Screwdriver small (1x)</p>
	<p>Sewing head protective cover</p>
	<p>Set-up instructions, instruction manual for the machine</p>
	<p>Earth cable (3x) , Screw and was- hers</p>
	<p>Knee lever</p>

Scope of delivery

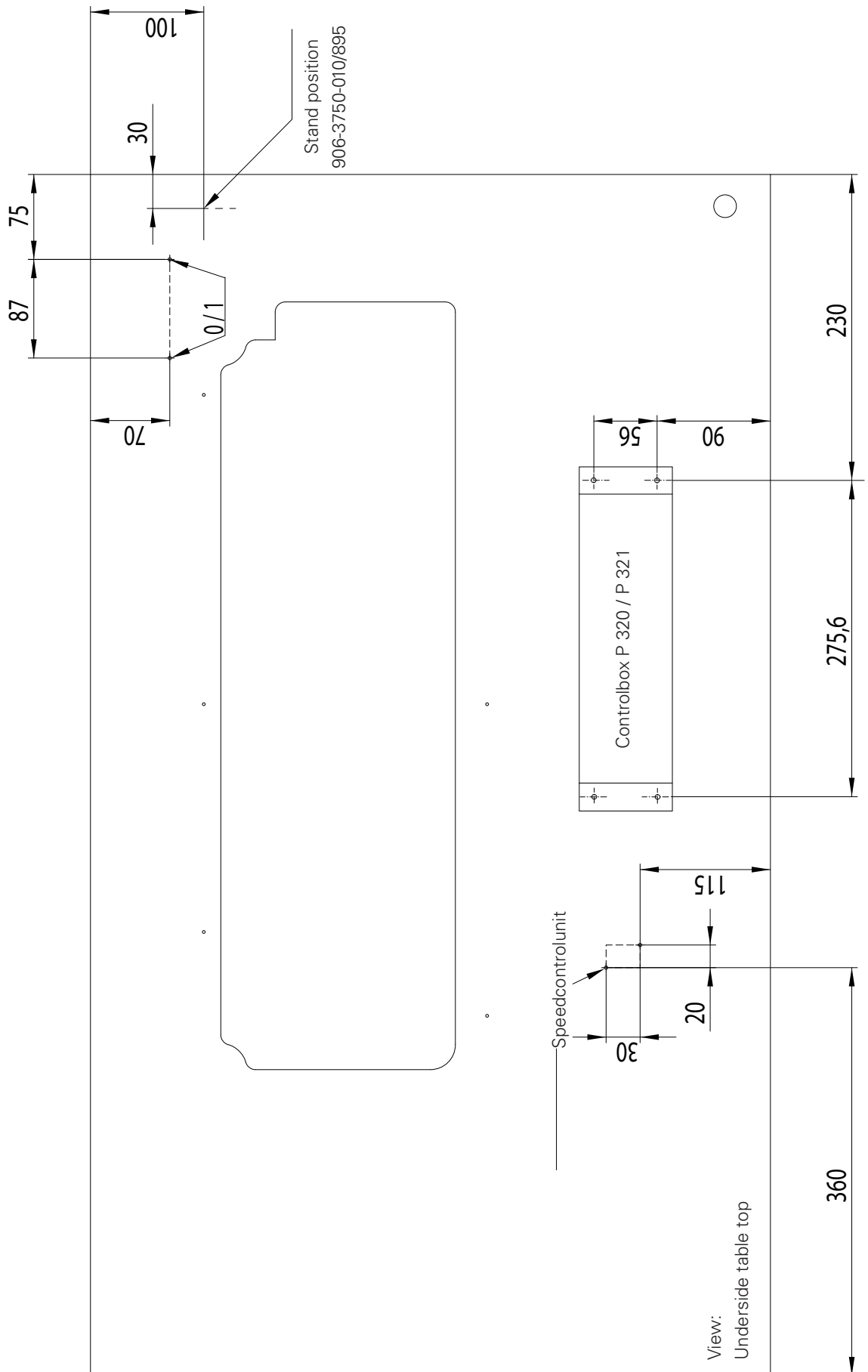
Sewing machine accessories	Description / No. of pieces
 <p>A technical drawing of a motor bracket, which is a rectangular metal plate with a circular cutout on the left side and several mounting holes. It is shown with several screws and bolts of different sizes and types, including a long bolt with a washer and a shorter bolt with a nut.</p>	<p>Motor bracket with fixing screws</p>
 <p>A technical drawing showing a drive wheel (a gear with a serrated edge), a drive belt (a long, narrow, ribbed rubber band), a belt guard (a long, thin metal plate with a curved section), and an approach barrier switch (a small rectangular component with a protruding arm). Several screws are also shown.</p>	<p>Drive wheel , Drive belt, belt guard and approach barrier switch with Fixing screws</p>
 <p>A technical drawing of a control panel bracket, which is a rectangular metal plate with two circular cutouts on the left side. It is shown with two screws. Next to it is a control panel with the 'PFAFF' logo, featuring a digital display and several buttons.</p>	<p>Control panel bracket with control panel and fixing screws</p>
 <p>A technical drawing of a transformer for a sewing lamp. It consists of a rectangular metal housing with a power cord and a three-pronged plug on the left side. A small screw is shown below the housing.</p>	<p>Transformer for the sewing lamp (optional)</p>

2.02

Sewing Machine Drive Accessories P 320 / P 321

Control package P 321	Description
 <p>The image shows a cylindrical motor with a cooling fan on the left end. It is connected to a Y-Adapter via a cable. The Y-Adapter has two separate connectors, one labeled 'Motor' and one labeled 'Extern', which are connected to other cables.</p>	<p>Motor Y-Adapter only on the 2574</p>
 <p>The image shows a rectangular metal control unit with a switch on the right side. A power cord with a three-pronged plug is connected to the top of the unit. The unit is shown with dashed lines indicating its internal structure and mounting points.</p>	<p>Control unit with switch, Fixing screws and cable</p>
 <p>The image shows a speed control unit with a holder and fastening screws. A connecting rod is shown below it, which is used to connect the speed control unit to the pedal.</p>	<p>Speed control unit with holder and fastening screws, and connecting rod to the pedal</p>

3.02 Assembly drawing for the table top (for machines with P 320 / 321)



4 Installation

4.01 Assembling the stand and table top

- Assemble the stand (part no. 906-3750-010/895) and table top as shown in the following illustration.



The stand and table top must be constructed for a weight of at least 100 kg.

- When assembling the table top, please observe the assembly drawing (Chapter 3.02).

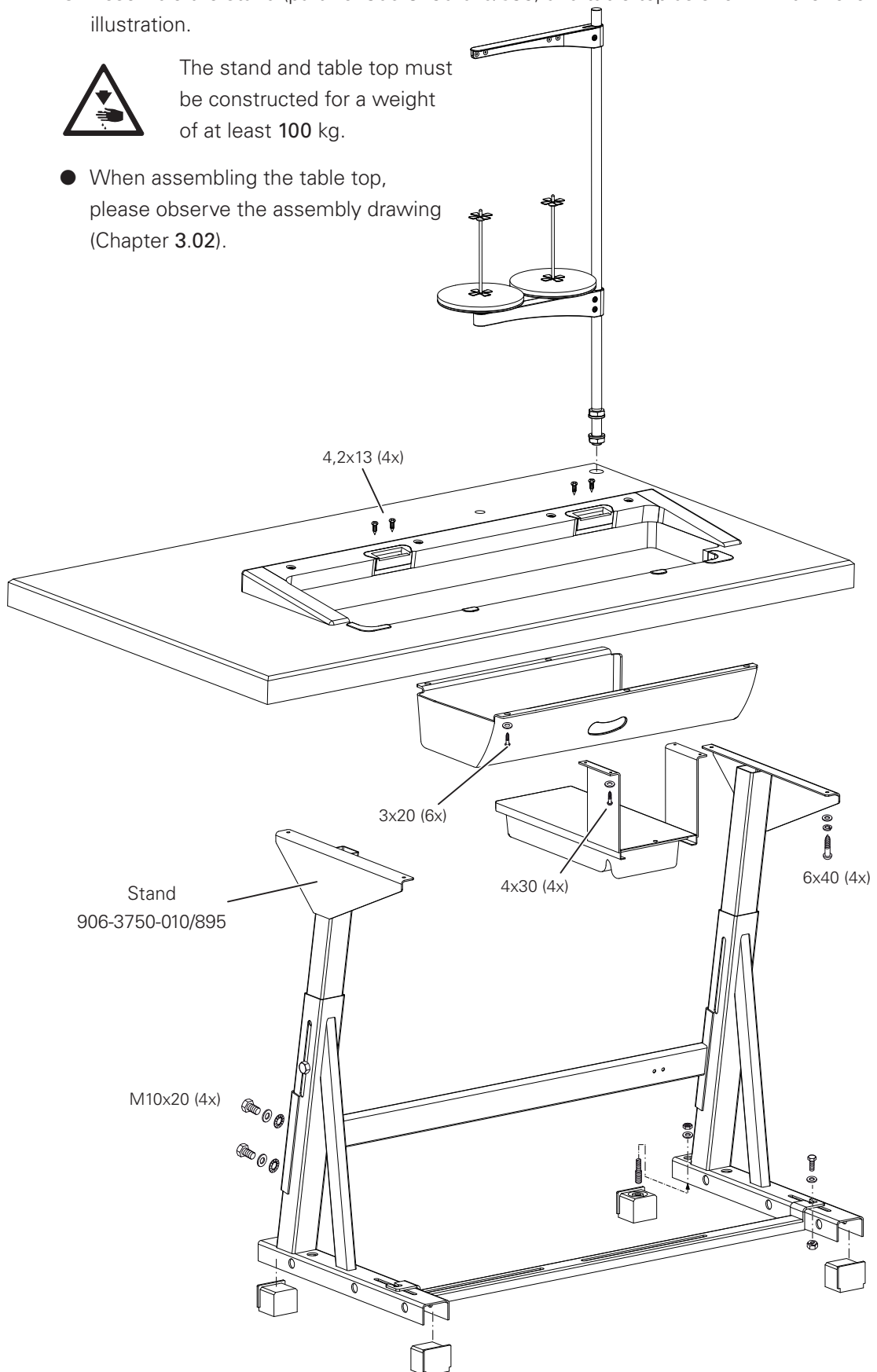


Fig. 4- 01

4.02 Adjusting the table-top height

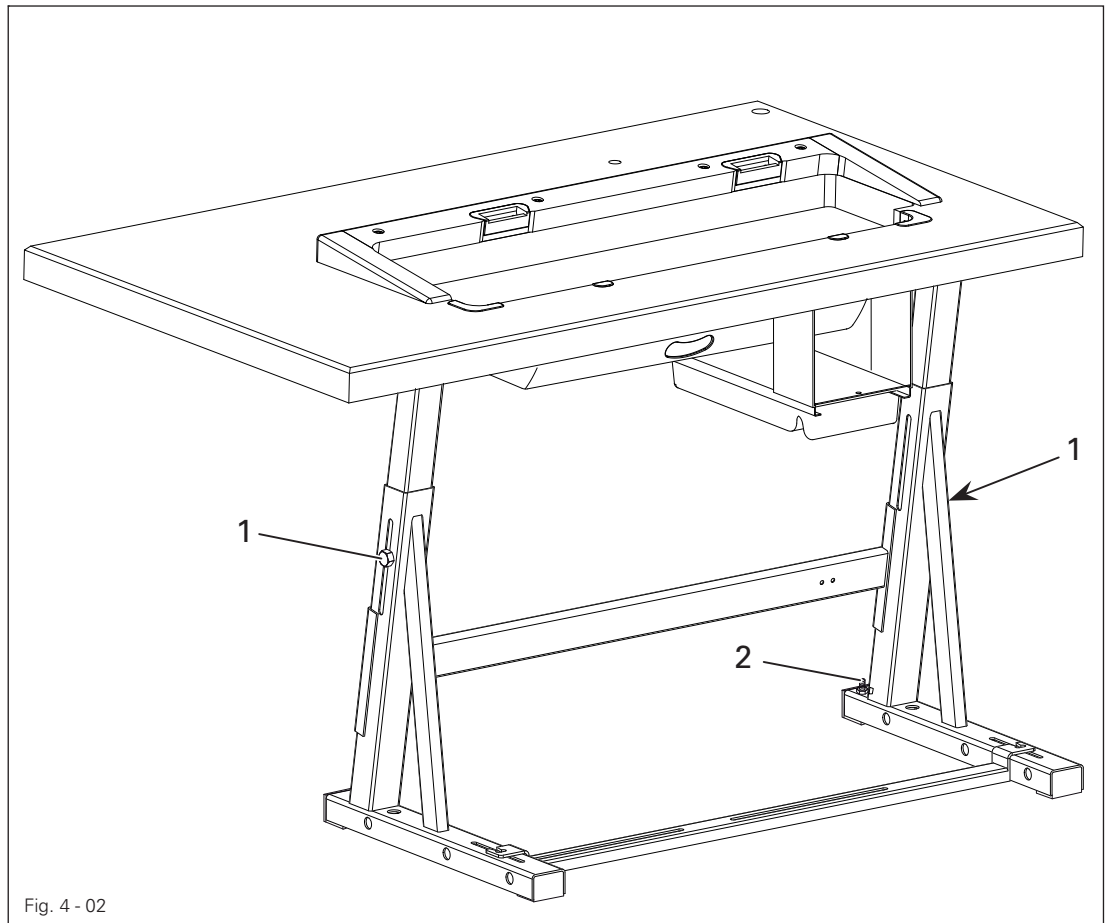
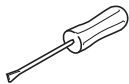


Fig. 4 - 02



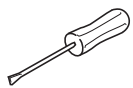
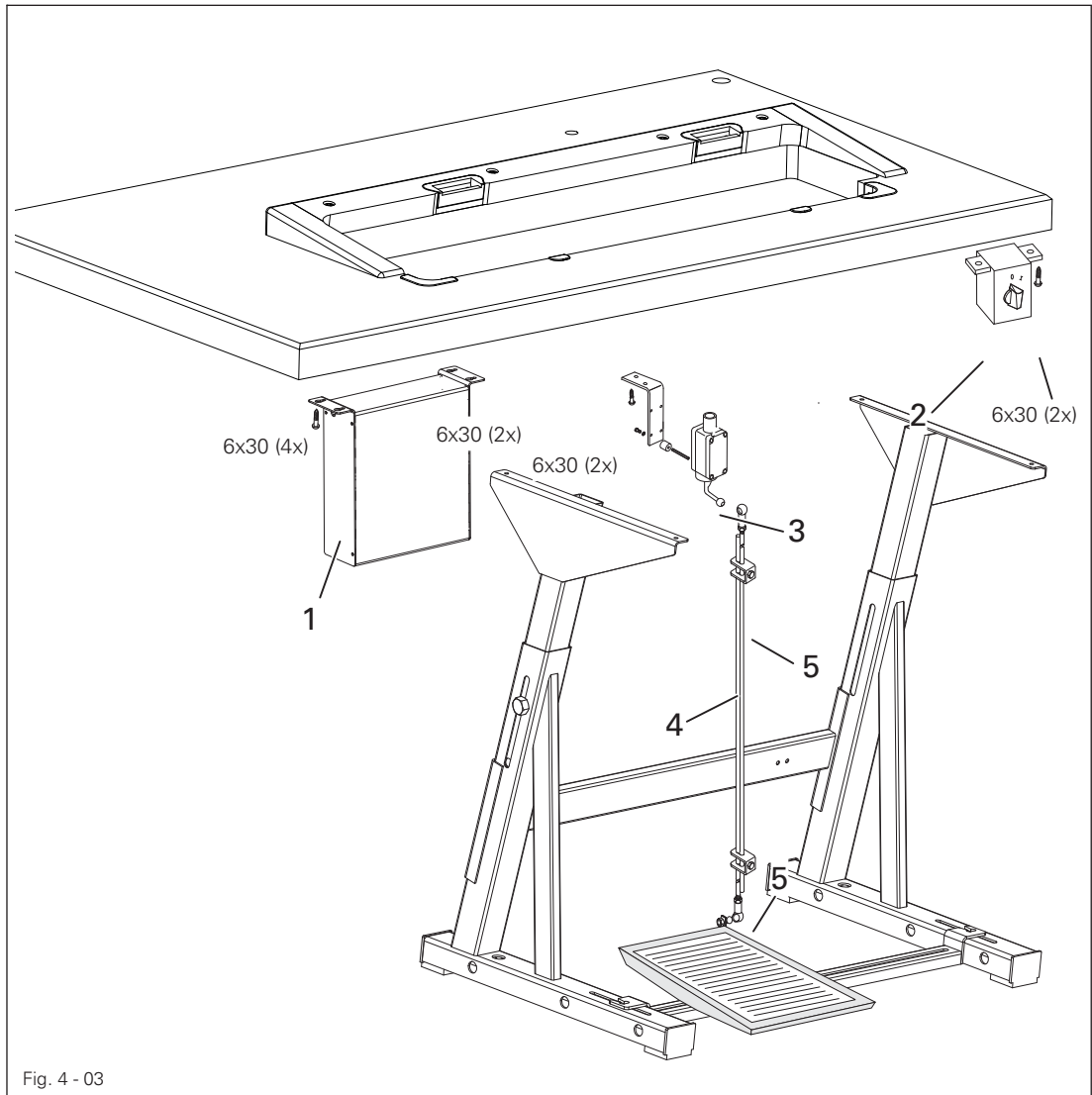
- Loosen screw 1.
- Adjust the table top to the required working height by increasing or reducing the height of the stand and then level the table-top horizontally.



To avoid the stand tilting, adjust it evenly on both sides.

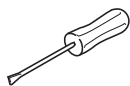
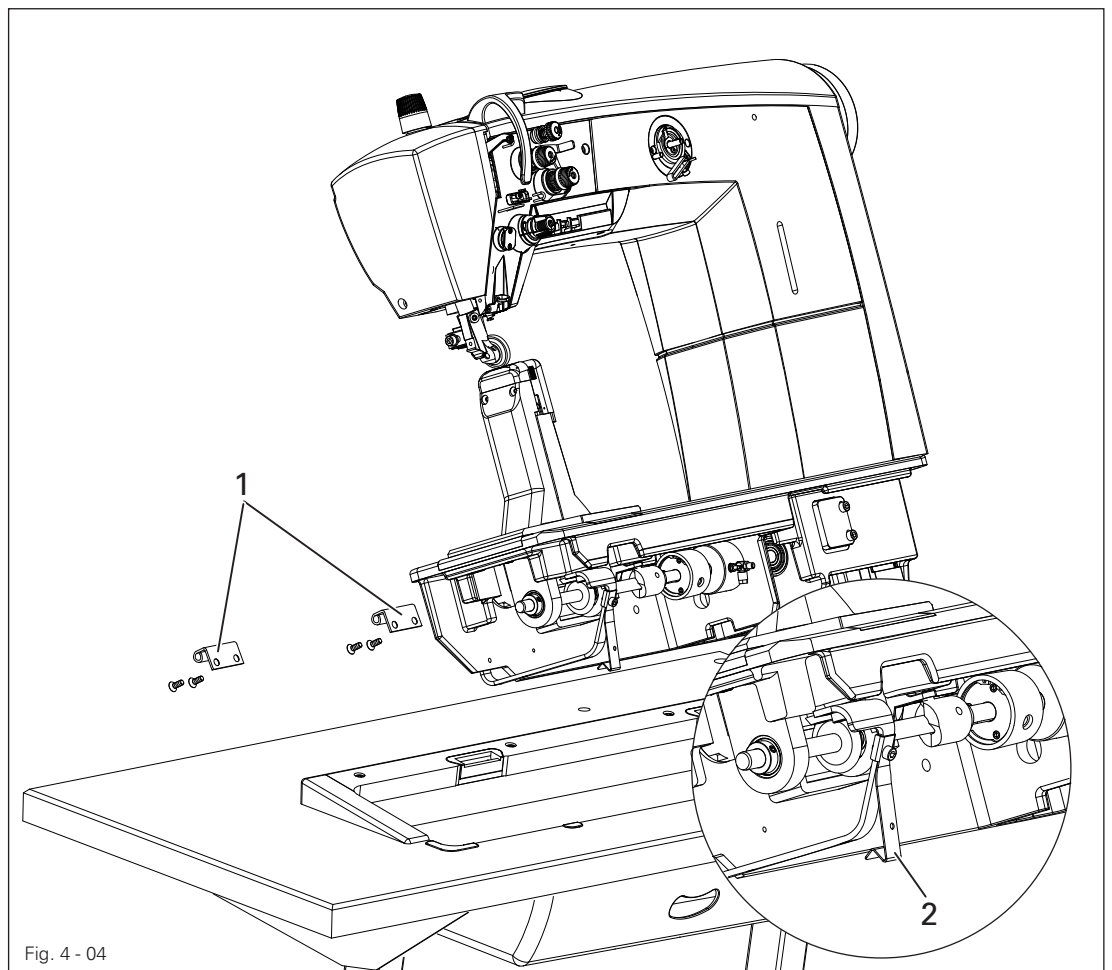
- To guarantee that the stand is standing securely, it must be positioned securely on the ground with all four legs.
- The height can be adjusted with screw 2.

4.03 Assembling the control unit



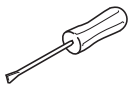
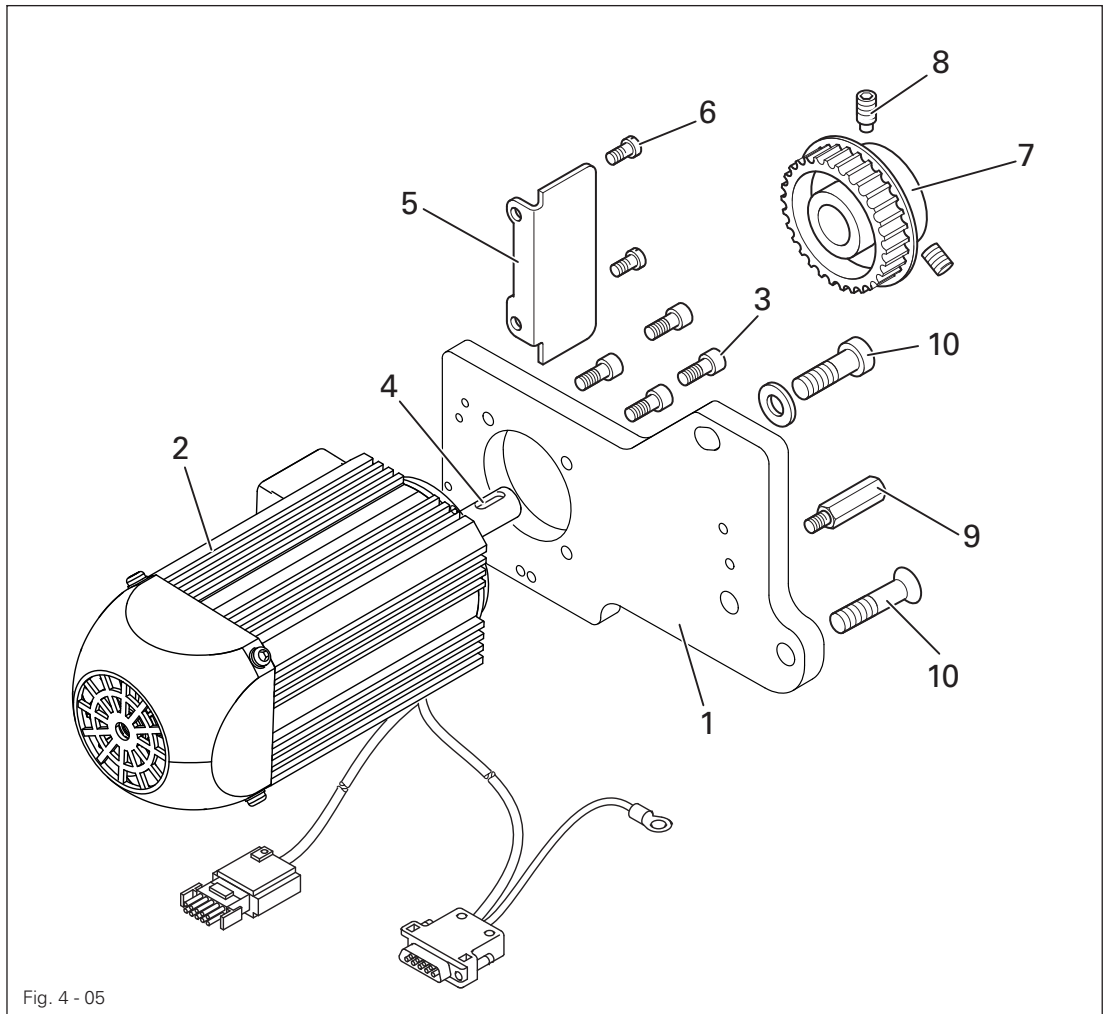
- Fit the control box 1 to the table top with four screws 6x30.
- Attach the mains switch 2 to the table top with two screws 6x30.
- Screw the mains cable of the control box 1 to the table top with a mains lead cleat.
- Assemble the speed control unit 3 and attach it to the table top with two screws 6x30.
- Mount the pedal on the stand's cross-bar, aligning the middle of the pedal with the centre of the needle.
- Fit connection rod 4 to speed control unit 3 and to the pedal.
- The slant of the pedal can be adjusted after loosening screw 6 (slant angle approx. 10°).

4.04 Setting the sewing machine into the stand



- Attach each of the hinges 1 to the sewing head with two screws M6 x 16.
- Attach tilt lock 2 with a M5 x 6 screw.
- Set the sewing machine into the table top.

4.05 Assemble the mounted motor



- Fix bearing plate 1 on to motor 2 using screws 3, as shown in fig. 4-05.
- Remove the wedge from motor shaft 4.
- Attach angle bracket 5 with screws 6.
- Mount drive belt wheel 7 onto motor shaft 4 so that screw 8 is positioned with the hub in the drive shaft slot.
- Screw threaded bolts 9 into bearing plate 1.
- Use screw 10 to fix motor 2 bearing plate 1 to the machine housing (tighten screws 10 only a little).

4.06 Connecting the plug-in connections and earth cables

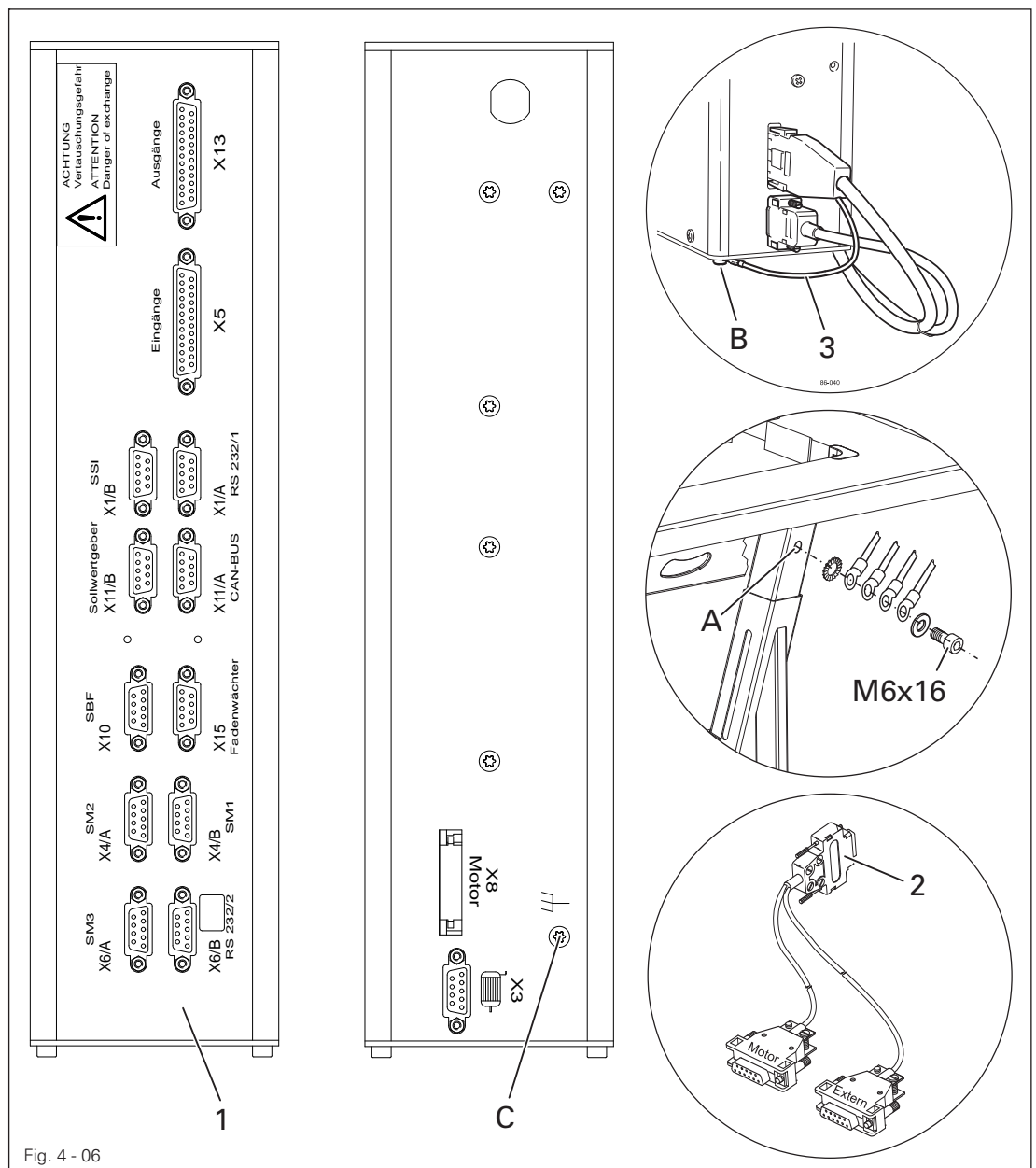
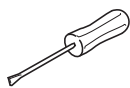


Fig. 4 - 06



- Plug in all connectors to control unit 1 according to their description (see chapter 6 Circuit Diagrams).
- Insert plug 2 from the adapter cable to bush X 3.
- Connect the motor to the "Motor" plug and the synchronizer to the "Extern" plug.



Attention

Plugging in the connector incorrectly can damage the control unit!

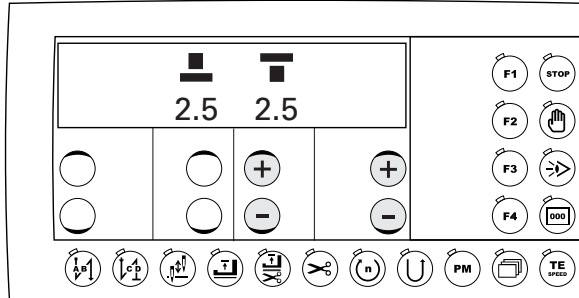
- Attach the following ground cables in order to discharge static electricity.
- Securely attach ground cable from sewing head to ground point A.
- Securely attach ground cable 2 from the motor to ground point B.
- Use a ground cable to connect ground point C and ground point A.
- Securely attach ground cable from the main switch to ground point A.


Installation

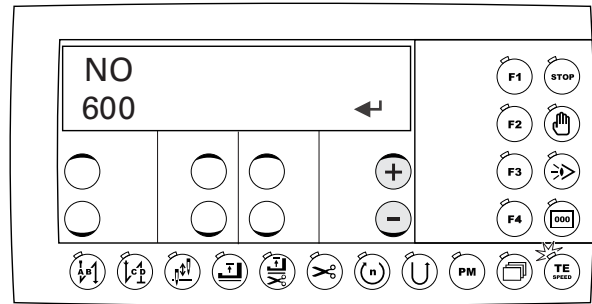
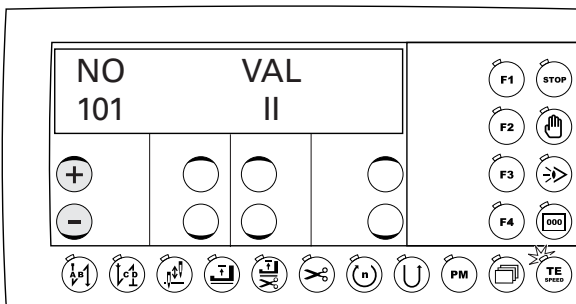
4.07 Machine drive in home position/ attach drive belt

4.07.01 For PFAFF 2571 and 2591 ME PREMIUM

- Switch machine on.

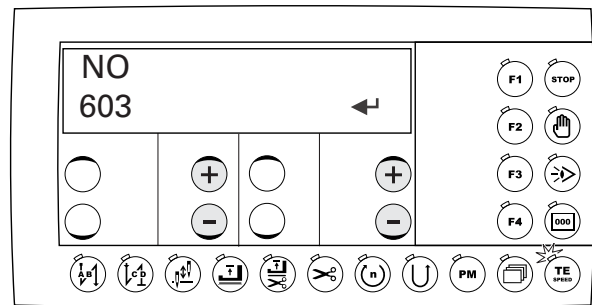
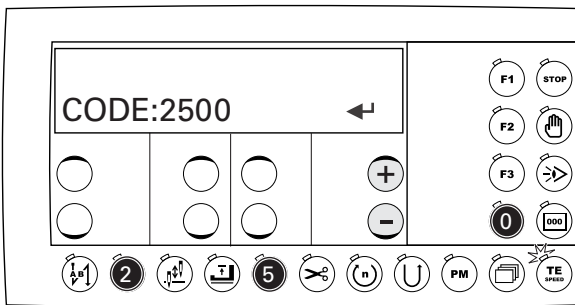


- 2x  ● Press button TE 2x (LED lights up)



- Select parameter group "600" by pressing the +/- button.

- ← ● Confirm selection by pressing "+" on the +/- button on the right

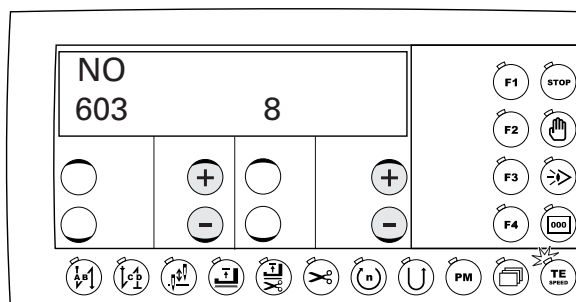


- Input code number by pressing the relevant buttons(ex works, the standard code is set to "2500").

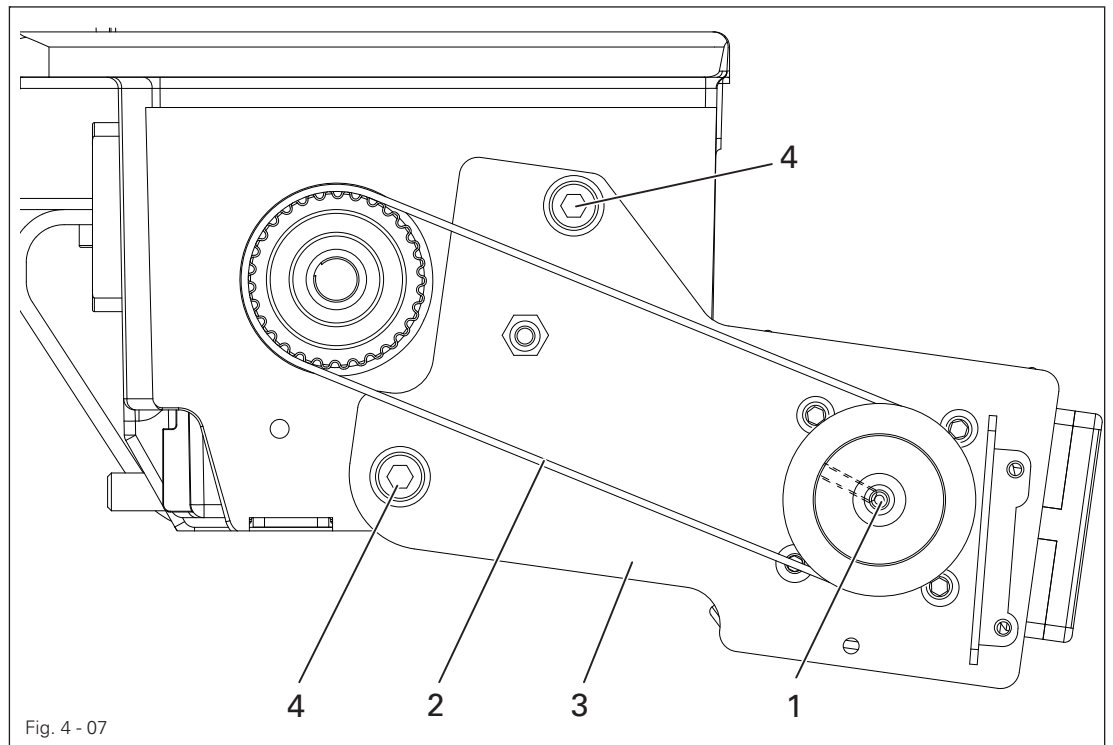
- Select parameter group "603" by pressing the +/- button.

- ← ● Confirm selection by pressing "+" on the +/- button on the right

- Turn the motor shaft by hand until the display shows the value "8 ± 2"



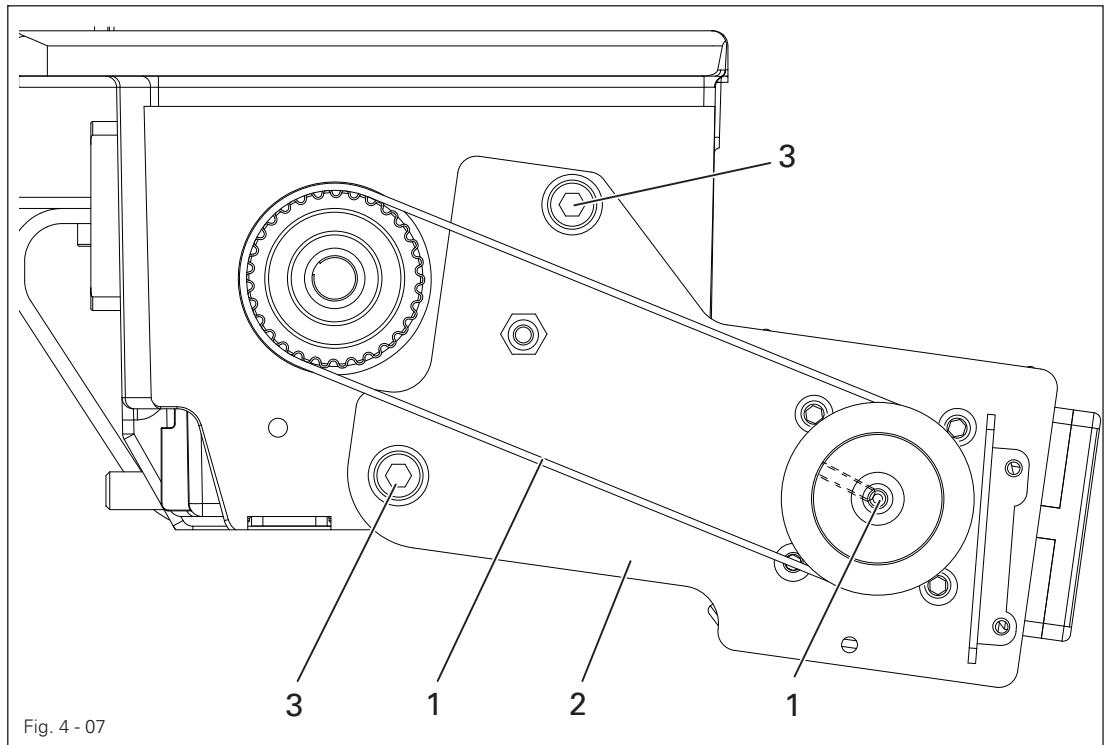
- Turn the handwheel in the direction of rotation until the needle point (approaching from above) is on the upper edge of the needle plate.



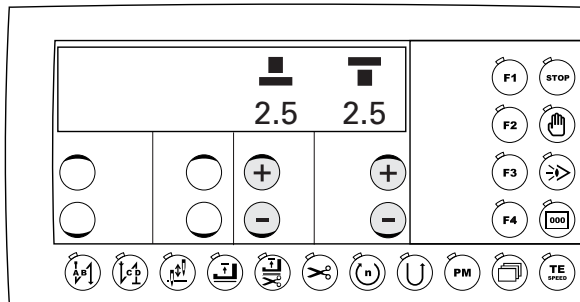
- Attach drive belt 2 while ensuring that both motor shaft 1 and machine are not twisted.
- Pivot motor bearing plate 3 so that drive belt 2 is taut.
- Tighten screws 4 in this position.
- Finish input by pressing TE/Speed.




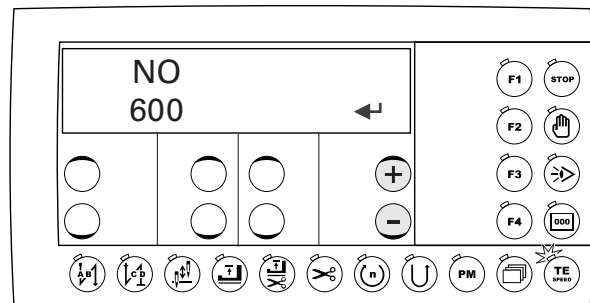
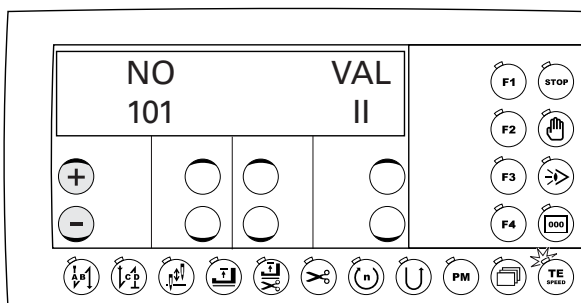
4.07.02 For PFAFF 2574 ME PREMIUM



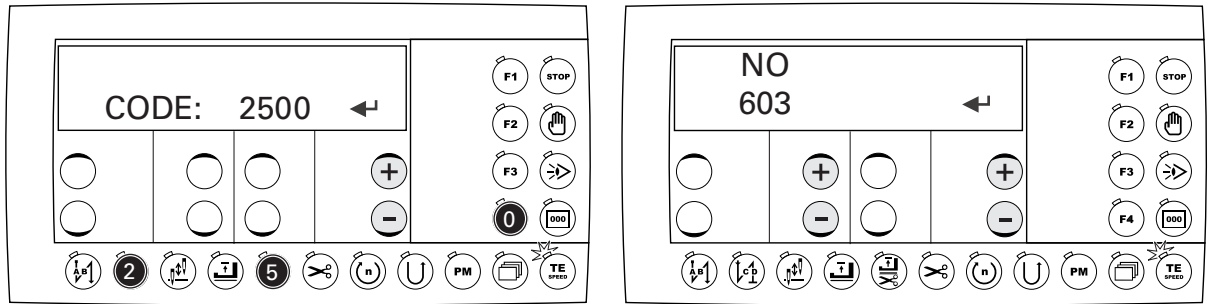
- Attach drive belt 1.
- Swing the bearing plate 2 of the motor, so that the drive belt 1 is tensioned.
- In this position tighten screws 3.
- Switch machine on.



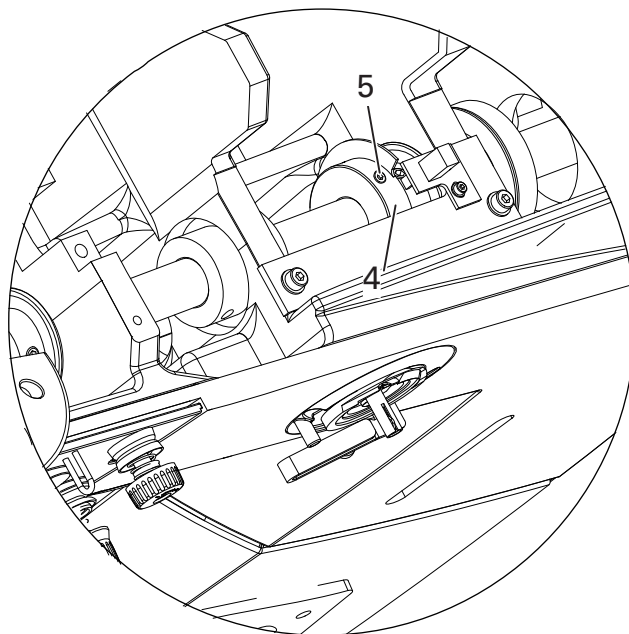
- 2x  ● Press button TE 2x (LED lights up)




- Select parameter group "600" by pressing the +/- button.
- ← ● Confirm selection by pressing "+" on the +/- button on the right.

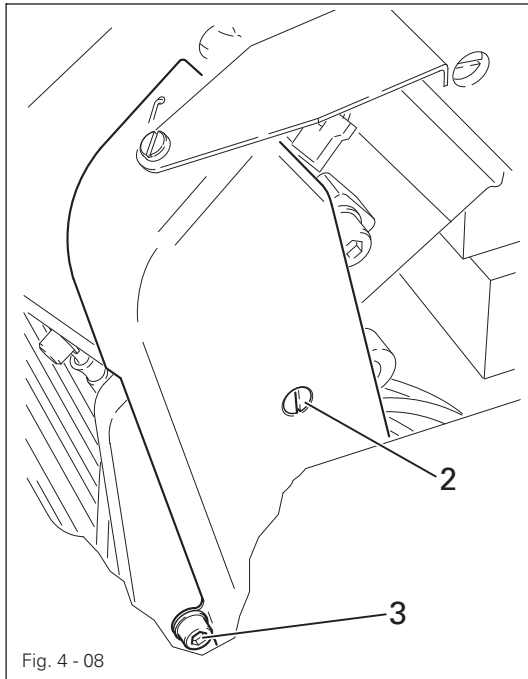


- Input code number by pressing the relevant buttons(ex works, the standard code is set to "2500").
- Unscrew the arm cover.
- Loosen screws 4 of the synchronizer 5 lightly.
- Select parameter group "603" by pressing the +/- button.
- ← ● Let the machine carry out one revolution by pressing the corresponding +/- key.
- Check the needle bar position.



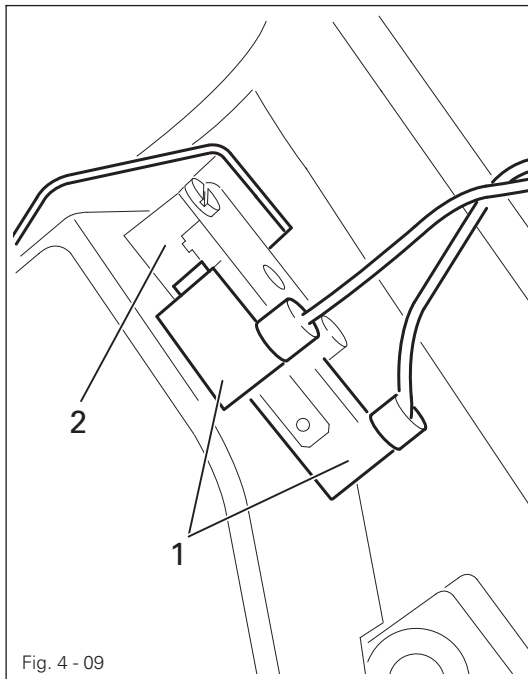
- Hold the synchronizer shaft and turn the balance wheel in sewing direction until the needle point, descending from above, is level with the top edge of the needle plate.
 - Make sure that the synchronizer 5 rests against the right bearing and tighten screw 4.
 - By pressing the corresponding +/- key let the machine carry out another revolution and check the setting - if necessary repeat the adjustment operation.
- 
 - Finish input by pressing TE/Speed.

4.08 Mounting the belt guard of the flange motor



- Attach belt guard 1 with screws 2 and 3.

4.09 Connecting the safety switch



- Connect plug 1 of safety switch 2 as shown in Fig. 4 - 09.

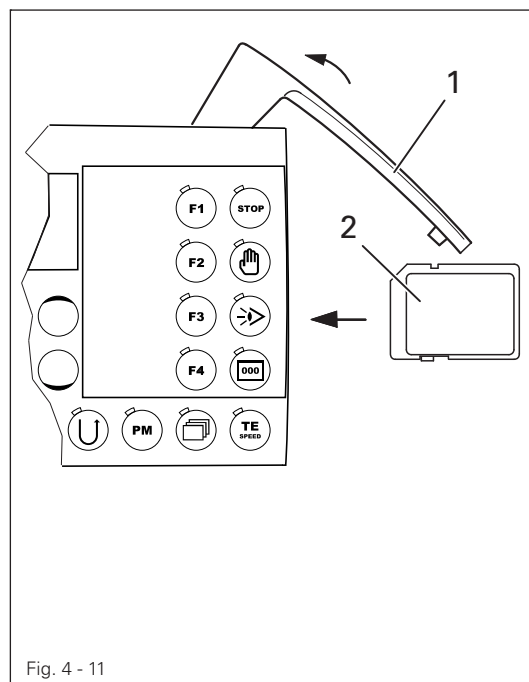


When the machine head is tilted back, the safety switch prevents the machine from starting when the main switch is on.

4.10 Checking the function of the start inhibitor

- Switch the machine on at the main switch and tilt back the sewing head.
- The error message "STOP" must appear on the control panel.
- If the message does not appear, check the setting of switch 2 (Fig. 4 - 09).
- After the sewing head has been set upright, the machine is ready for operation again.

4.11 Activate the PREMIUM functions



- Switch machine off.
- Open cover 1.
- Insert the SD card 2 included, which has the serial number of the machine labelled
- Close cover 1 again.
- Switch machine on.
- The machine will perform a boot process.
- Afterwards the Premium functions are activated, the machine can be used as described in this instruction manual.



Remove the SD card included again from the machine. It is read-only and is **not** intended to save programs.

4.12 Assembling the LED lamp (optional)

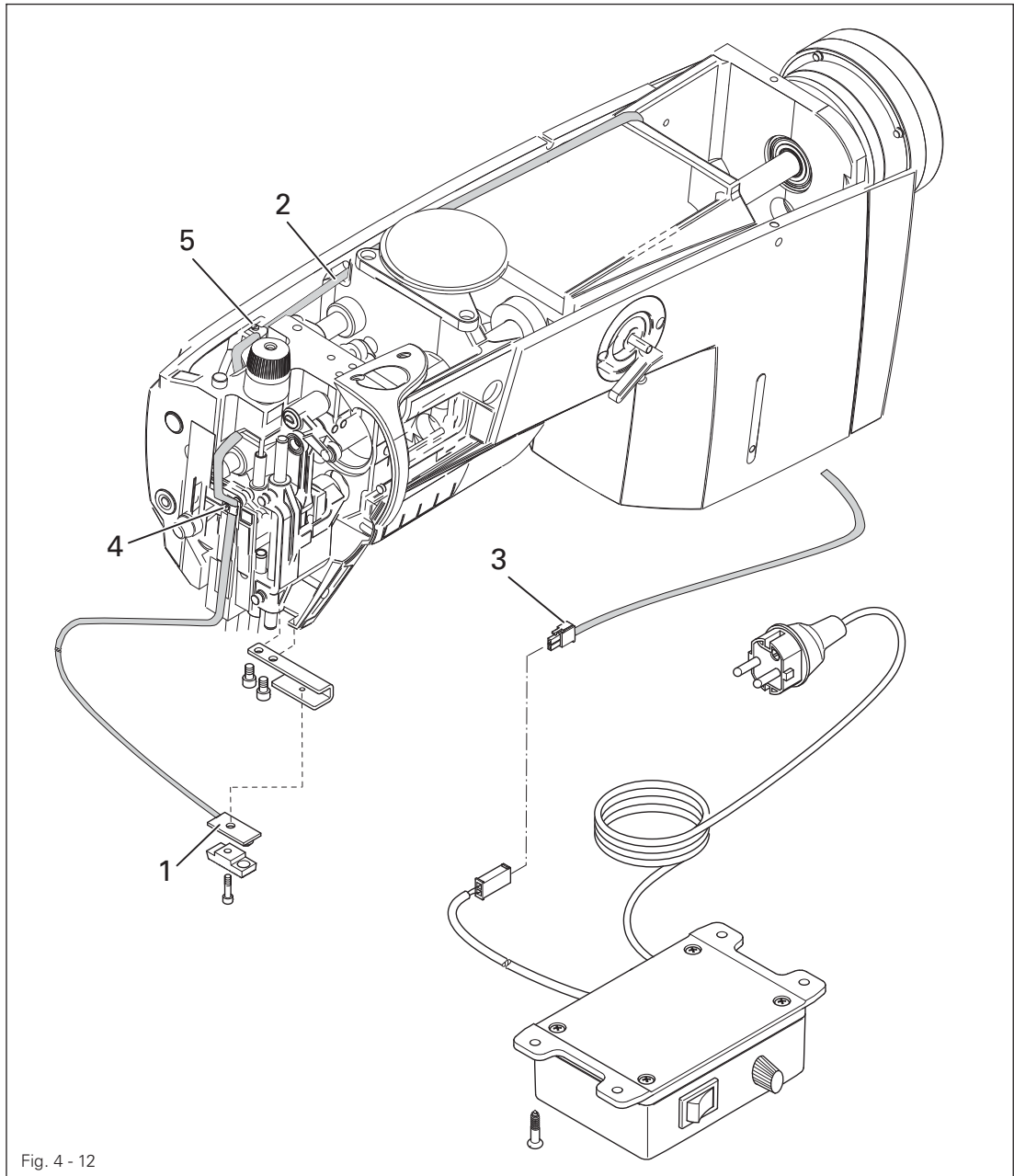
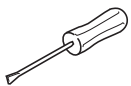


Fig. 4 - 12



- Unscrew the head and arm cover.
- Remove the complete voltage mounting plate.
- Assemble the LED lamps 1 as shown in Fig. 4-12.
- Install cable 2 in the recess of the machine arm and lead plug 3 down through the machine.
- Secure cable 2 with clamps 4 and 5 and the corresponding available screw.
- Reattach the voltage mounting plate and head and arm cover.

4.13 LED light transformer/ Knee switch installation

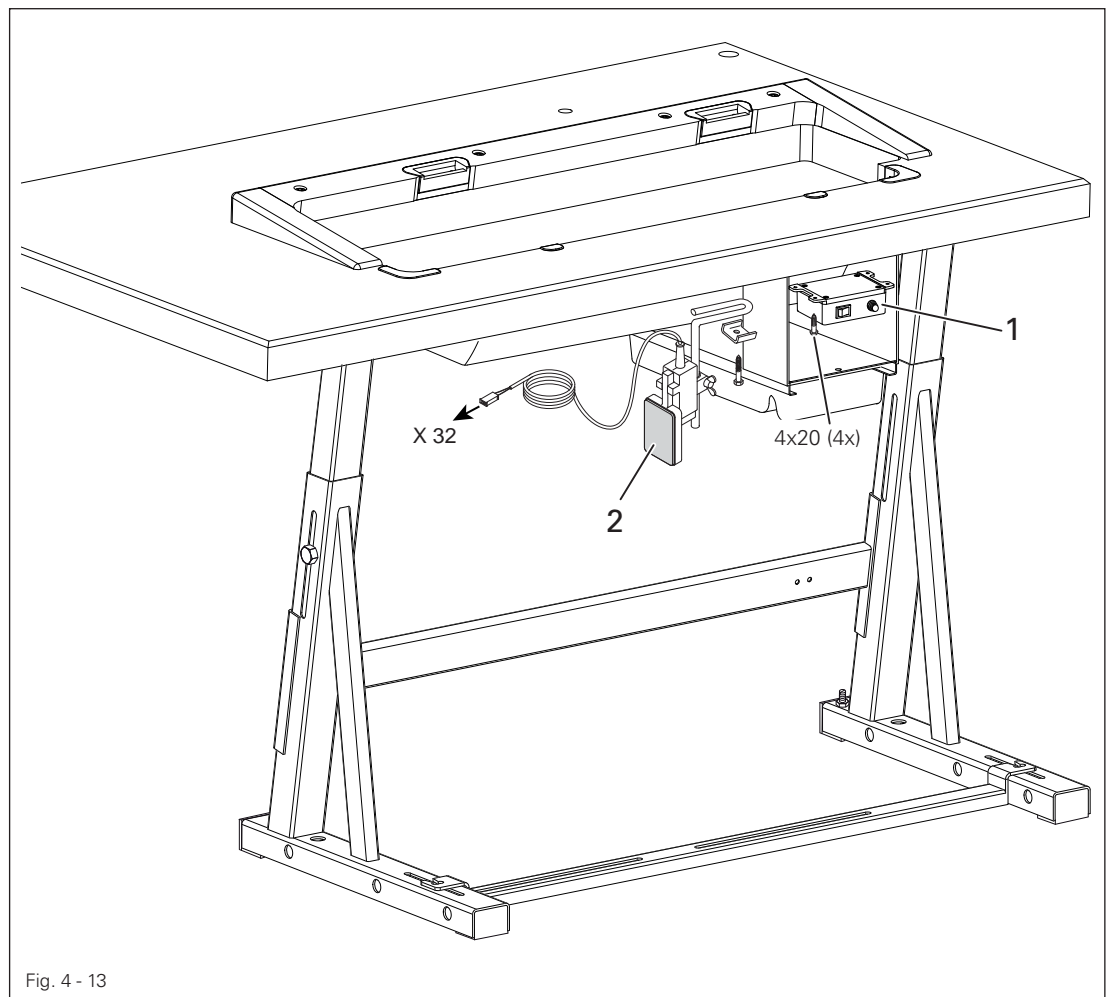
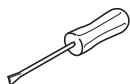
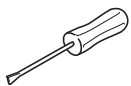
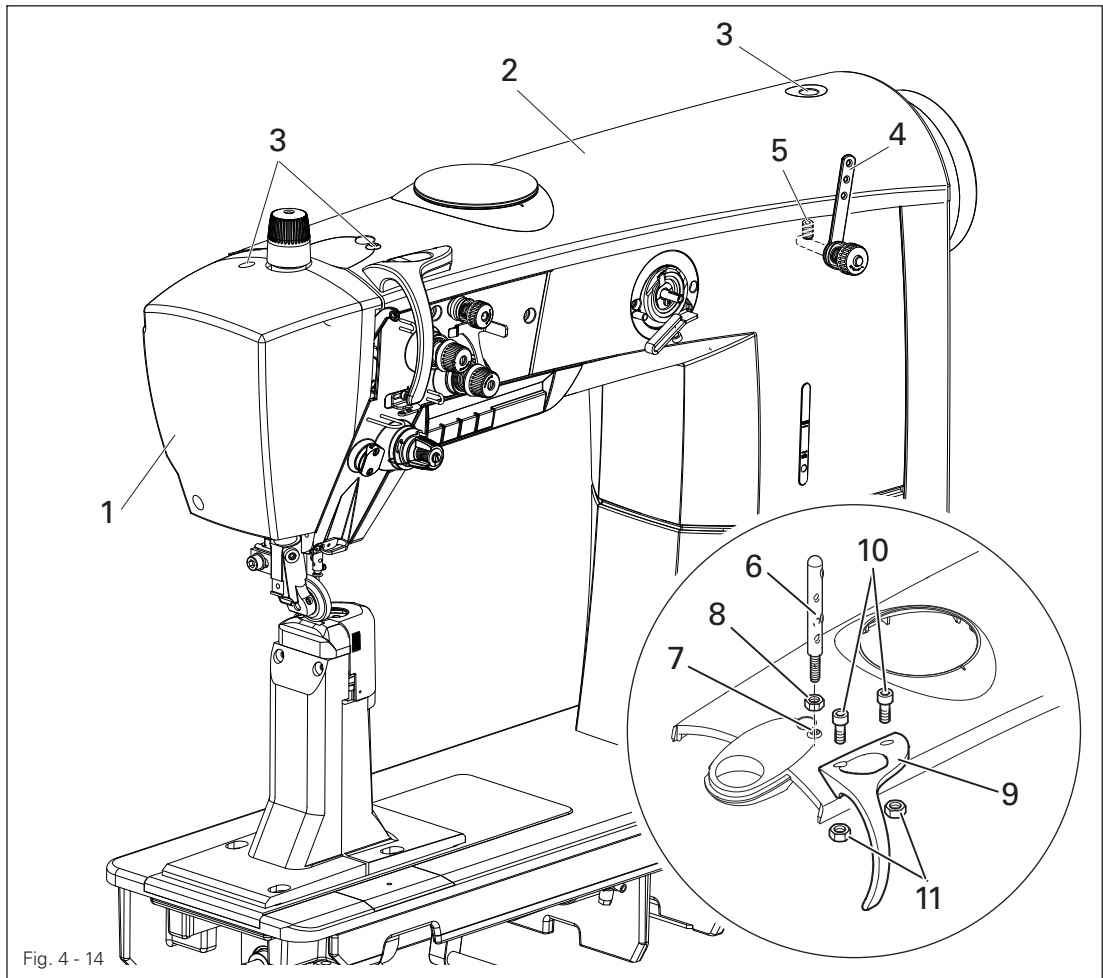


Fig. 4 - 13



- Attach transformer 1 to the table top with four screws 4 x 20.
- Screw the power line with clamps and main leads cleat to the table top.
- Connect the cable to the LED lamp with a connector.
- Mount the knee switch 2 (only Premium version) in the required position and connect the wire with plug X32.

4.14 Assembling the thread guide and take-up lever guard



- Remove face plate 1 and arm cover 2 (screws 3).
- Adjust thread guide 4 (screw 5) as shown in Fig. 4 - 12.
- Insert thread guide 6 in hole 7, and fasten with nut 8 from below.
- Attach take-up lever guard 9 with bolts 10 (M4 x 10) and nuts 11 to arm cover 2.



Leave face plate and arm cover unscrewed for the next assembly steps.

4.15 Mounting the control panel

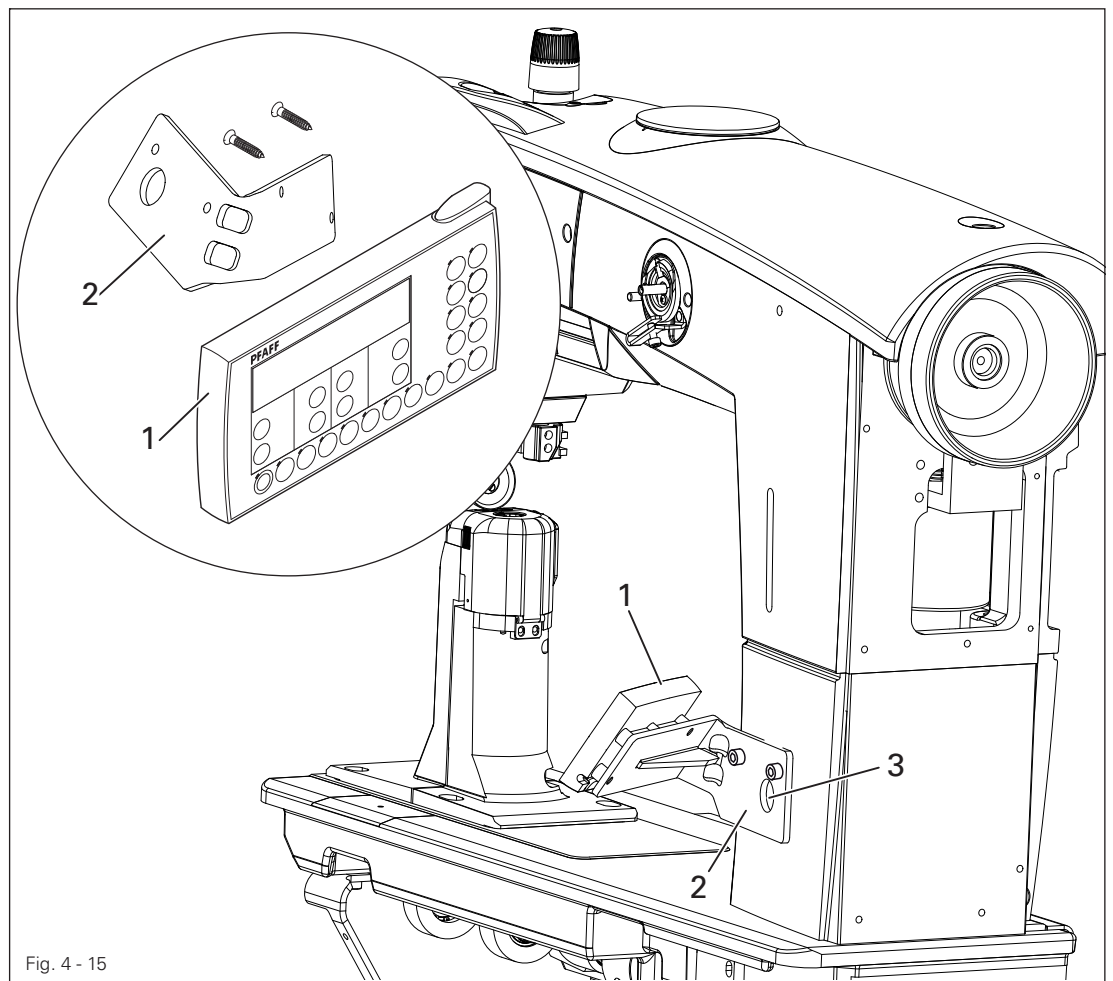
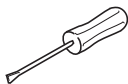
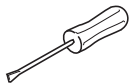
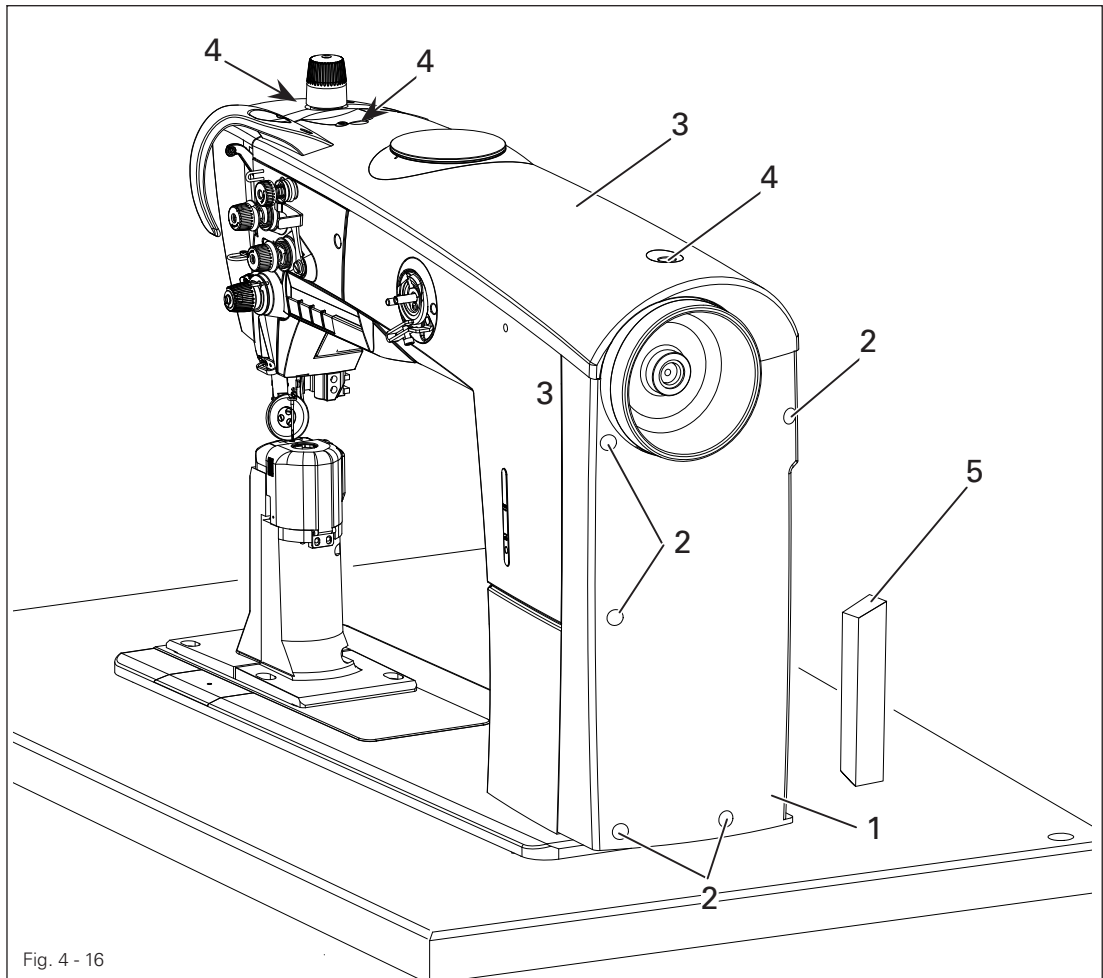


Fig. 4 - 15



- Use two screws **5x10** to fix control panel 1 to control panel bracket 2.
- Thread the cable from the machine through hole 3 in control panel bracket 2 and use two screws **M5x10** to fasten the control panel bracket to the housing.
- Connect the cable from the machine to the control panel.

4.16 Assembling the rear cover and sewing head support



- Attach rear cover 1 with screws 2.
- Attach arm cover 3 with screws 4.
- Insert sewing head support 5 into the hole in the table top.



Do not operate the machine with support 5! Danger from top-heavy sewing head! Machine cannot fall over when tilted backwards!

5 Commissioning



Before commissioning the machine, it must be thoroughly cleaned and then oiled., see chapter **11 Care and maintenance** in the instruction manual.

- Check the machine, particularly its electrical wiring 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!

- Before specialist personnel first commission the machine, have the machine drive home position checked (see chapter **4.07 Machine Drive Home Position**).

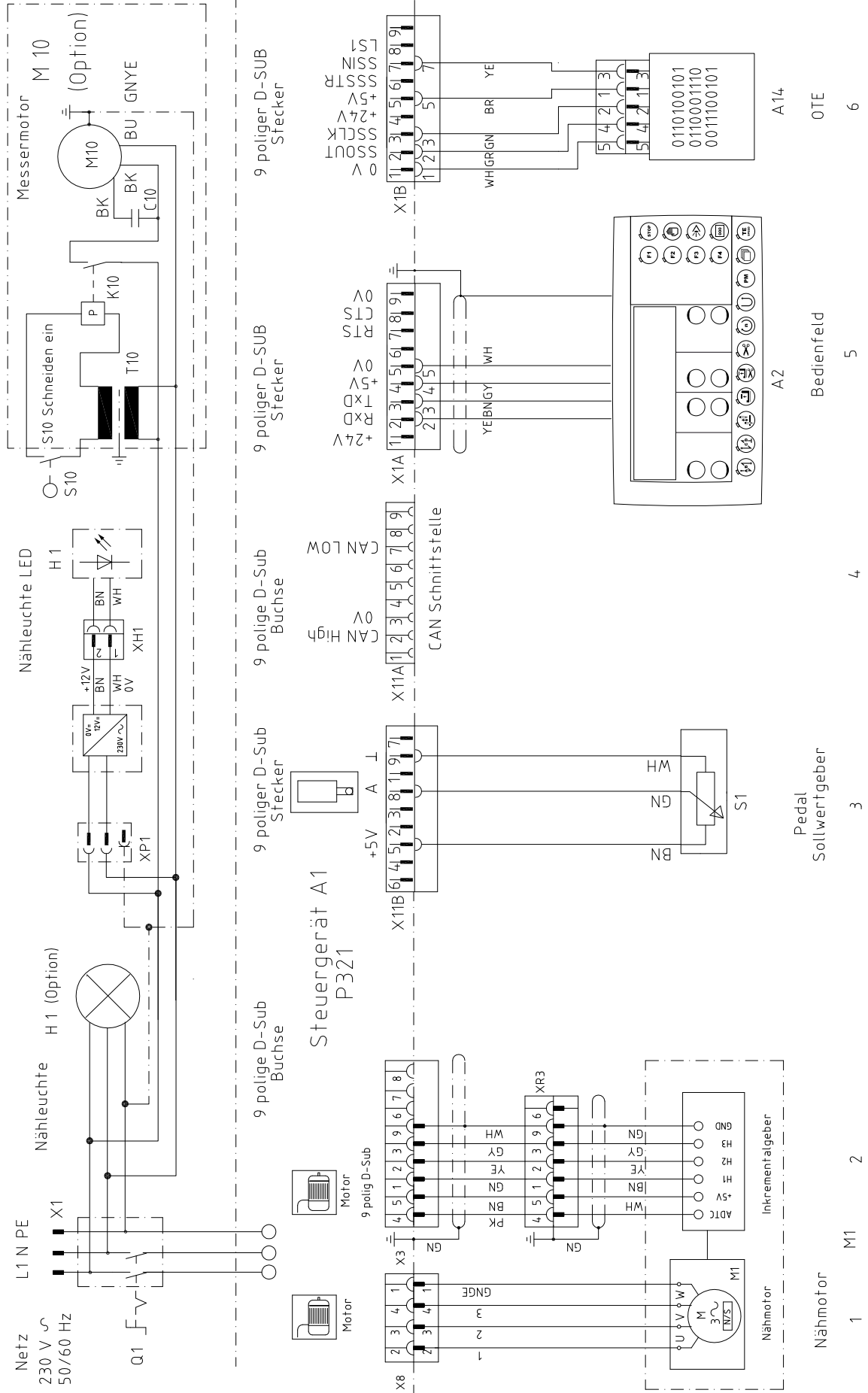
5.01 Switching the machine on/off

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

6 Circuit diagrams

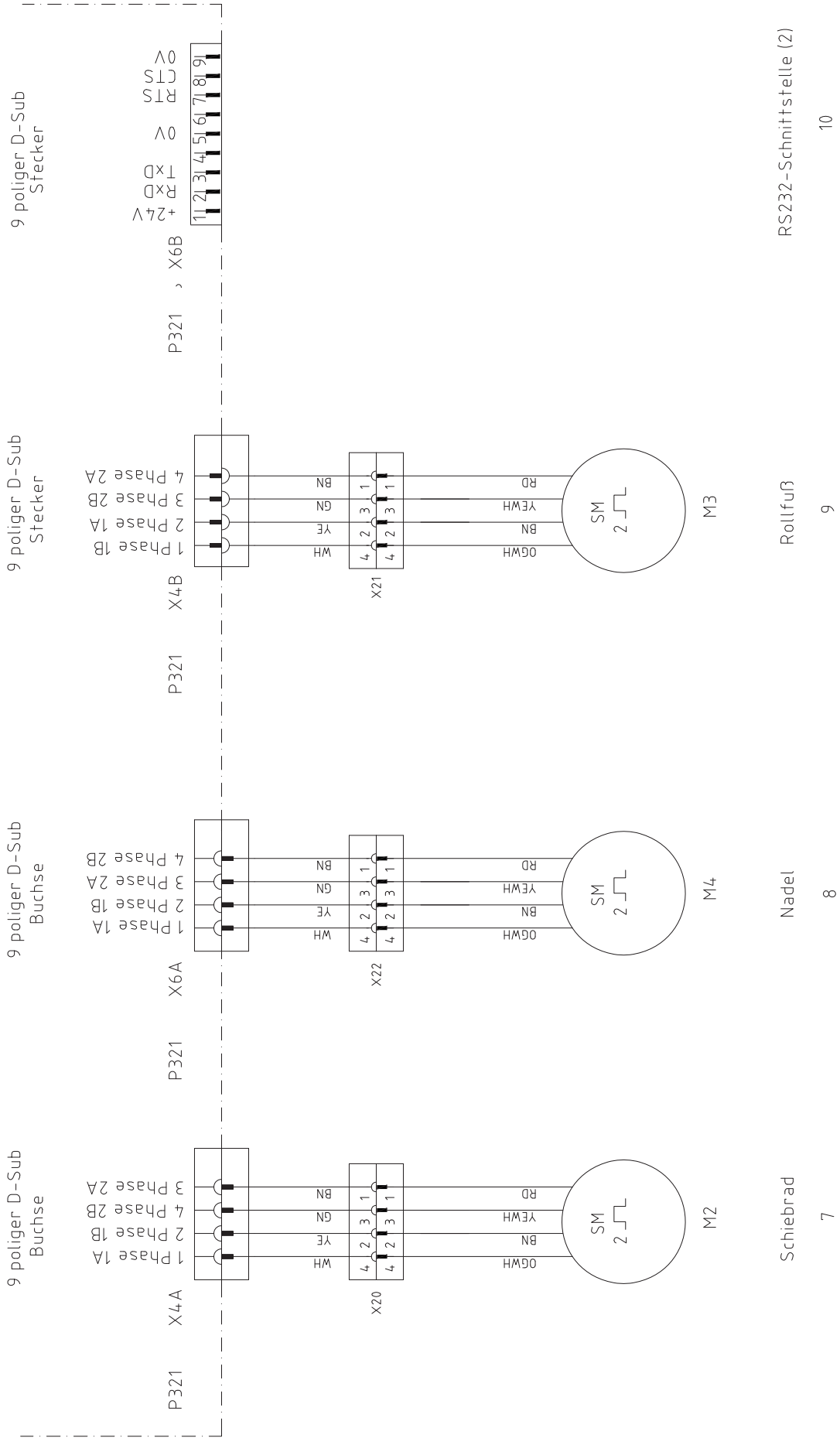
Reference list for the Circuit diagrams 91-191 559-95

A1	PFAFF P 320 / P 321ED Control Device
A2	BDF S3 Control Panel
A14	OTE (Sewing Head Auto Select)
C10	Capacitor for knife drive
DX355	Needle pendulum
H1	Sewing lamp
K10	Relay for knife drive
M1	Sewing motor
M2	Feed wheel step motor
M3	Roller-presser step motor
M4	Needle step motor
M10	Motor edge trimmer
Q1	Main switch
S1	Treadle speed control unit
S10	Switch for edge trimmer
S20	Knee switch
S24	Starting inhibitor button
S41	Hand operation front button
S42	Single stitch button (change needle position)
S43	Thread tension release (FSL)
S44	Automatic presser foot lift (PFA)
T10	Transformer knife drive
X1	Mains plug
X1A	RS232 – control panel interface 1
X1B	VSS OTE
X3	Incremental encoder (sewing motor)
X4A	Feed wheel step motor
X4B	Roller-presser step motor
X5	Inputs
X6A	Needle step motor
X6B	RS232 – interface
X8	Sewing motor
X11A	CAN interface
X11B	Treadle speed control unit
X13	Outputs
Y1	-910/.. PFA
Y2	-900/.. Thread trimmer
Y3	Thread tension release



Steuergerät A1P321

Schrittmotore



RS232-Schnittstelle (2)

10

Rollfuß

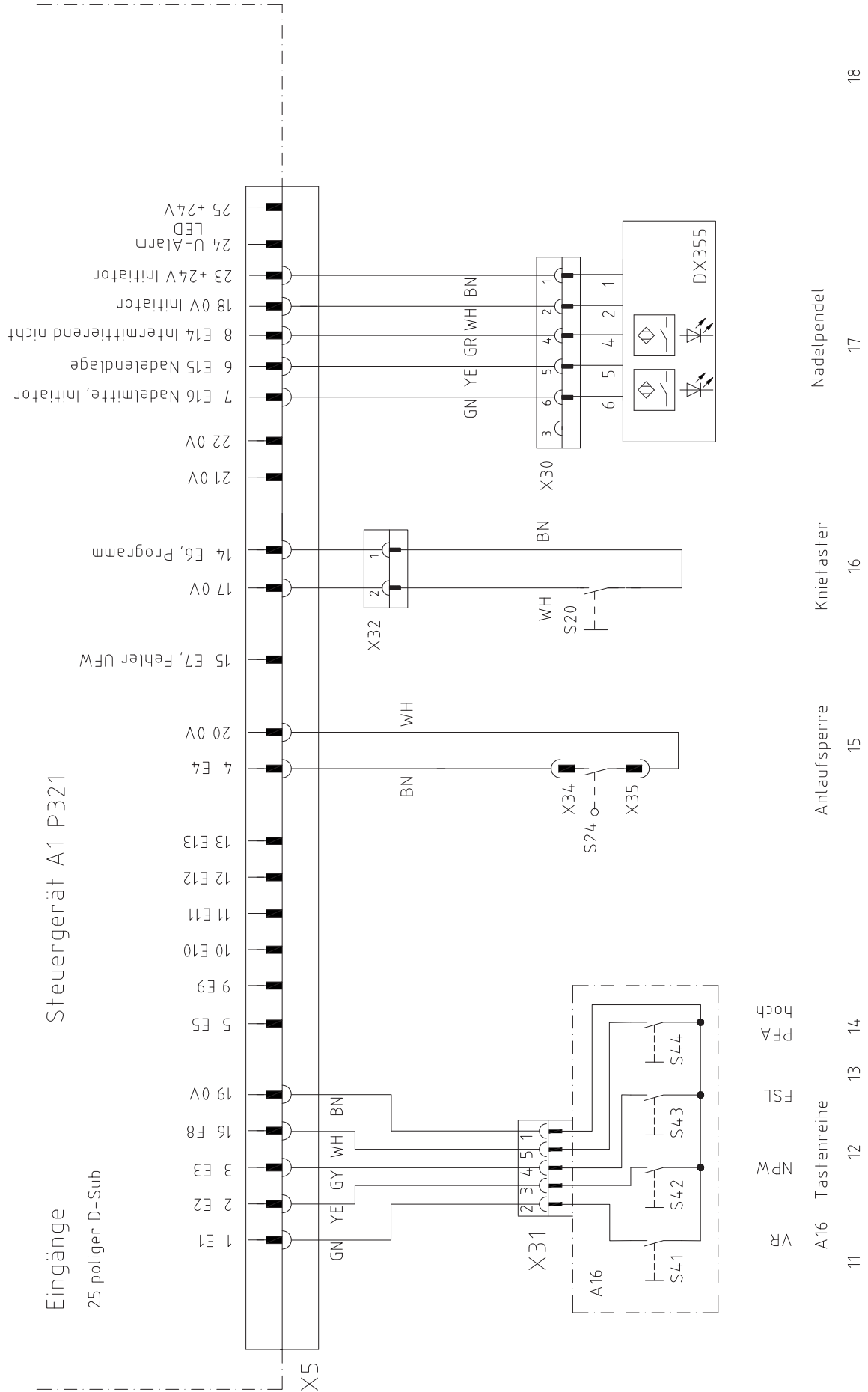
9

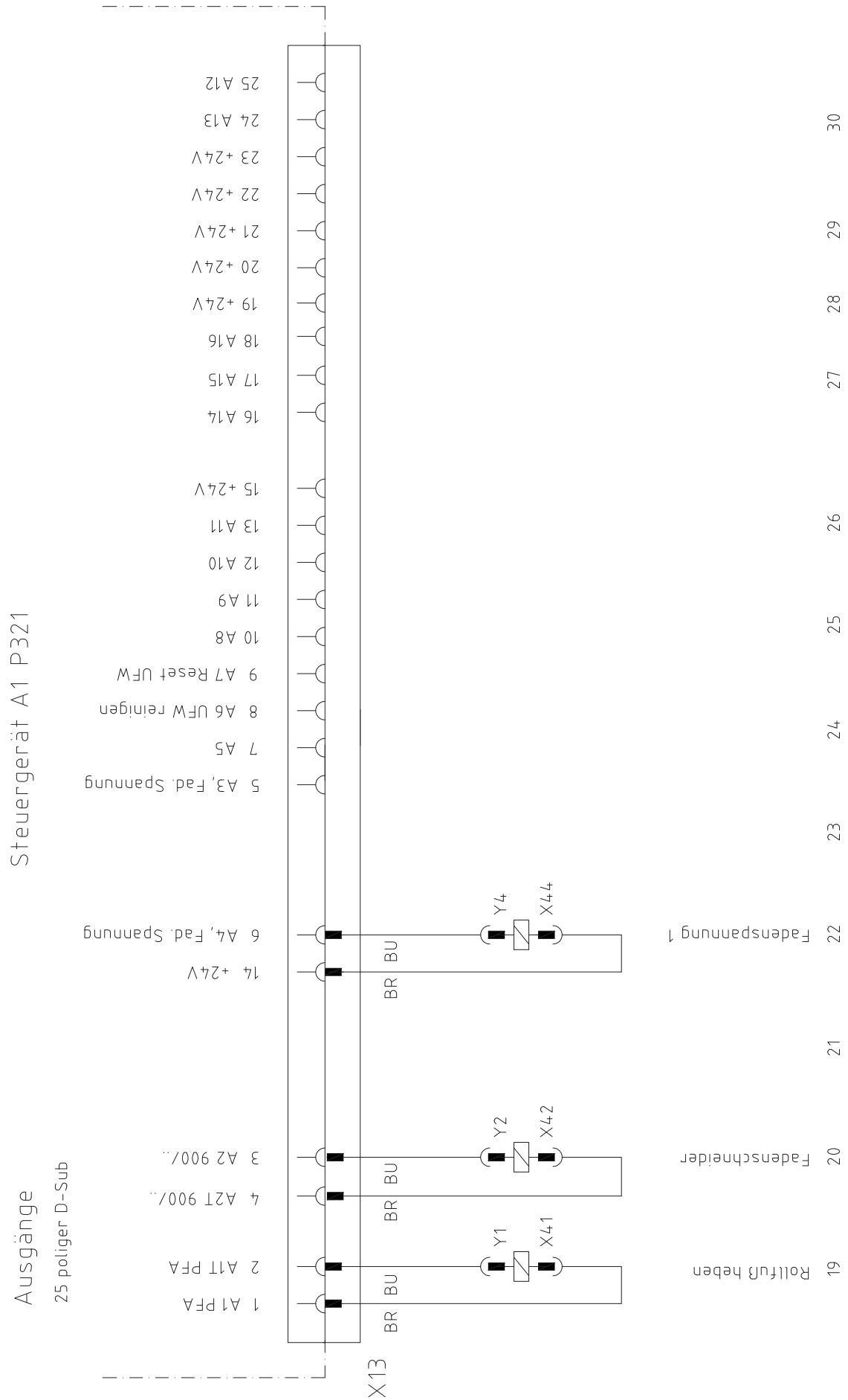
Nadel

8

Schiebrad

7







Europäische Union
Wachstum durch Innovation – EFRE



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