

367

Spezialnähmaschine

Aufstellanleitung

[Installation Instructions](#)

Instructions de montage

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GB

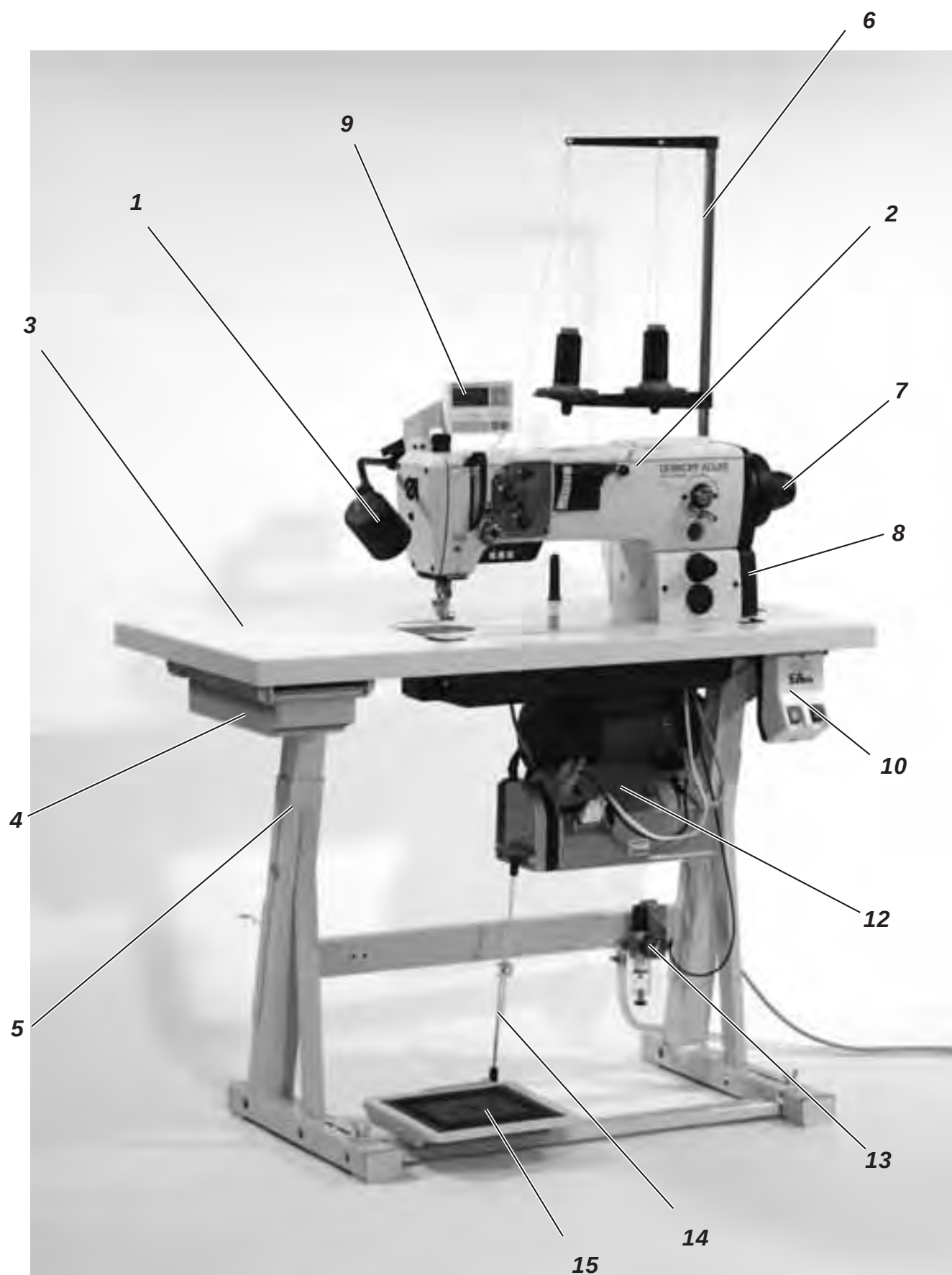
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For your notes



1. Scope of Delivery

What items are supplied **depends on your order** .

Prior to setting up, please check that all the required parts are present.

Equipment (depending on the subclass):

- 1 Sewing lamp
- 2 Machine head
- 3 Table plate
- 4 Drawer
- 5 Stand
- 6 Yarn stand
- 7 Proximity switch
- 8 Belt guard
- 9 Operating panel
- 10 Main switch
- 11 Knee lever
- 12 Sewing drive
- 13 Maintenance unit
- 14 Pedal linkage
- 15 Pedal
- 16 Belt pulley and V-belt
- 17 Small parts in the accessory pack

2. General and transport packing



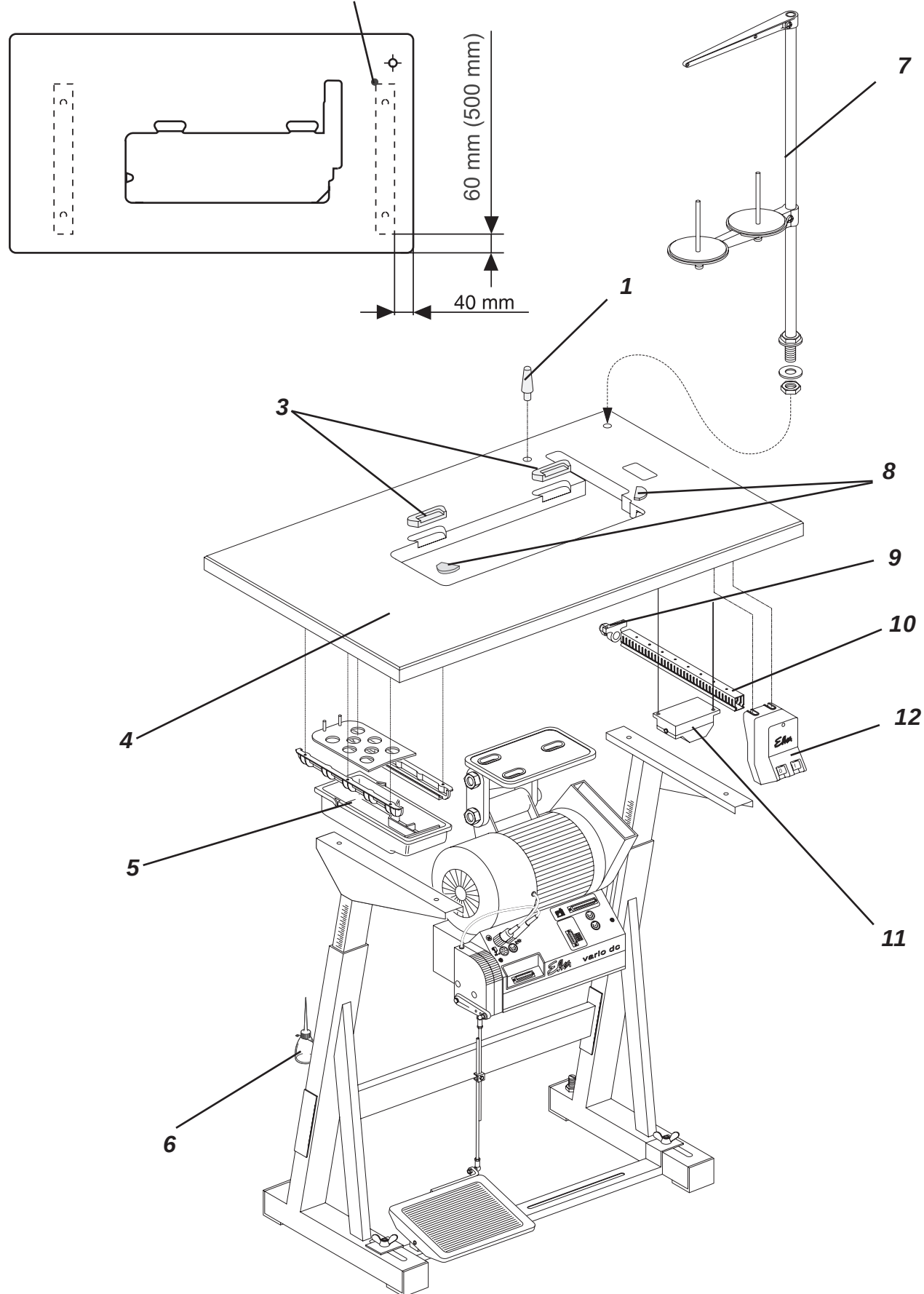
Caution:

The special sewing machine must be set up by trained specialist personnel.

If the special sewing machine you have bought is already set up, the following transport packing must be removed:

- Safety straps and battens on the machine head, table and stand
- Safety block and straps on the sewing drive

Observe the punch-marks of the table plate!



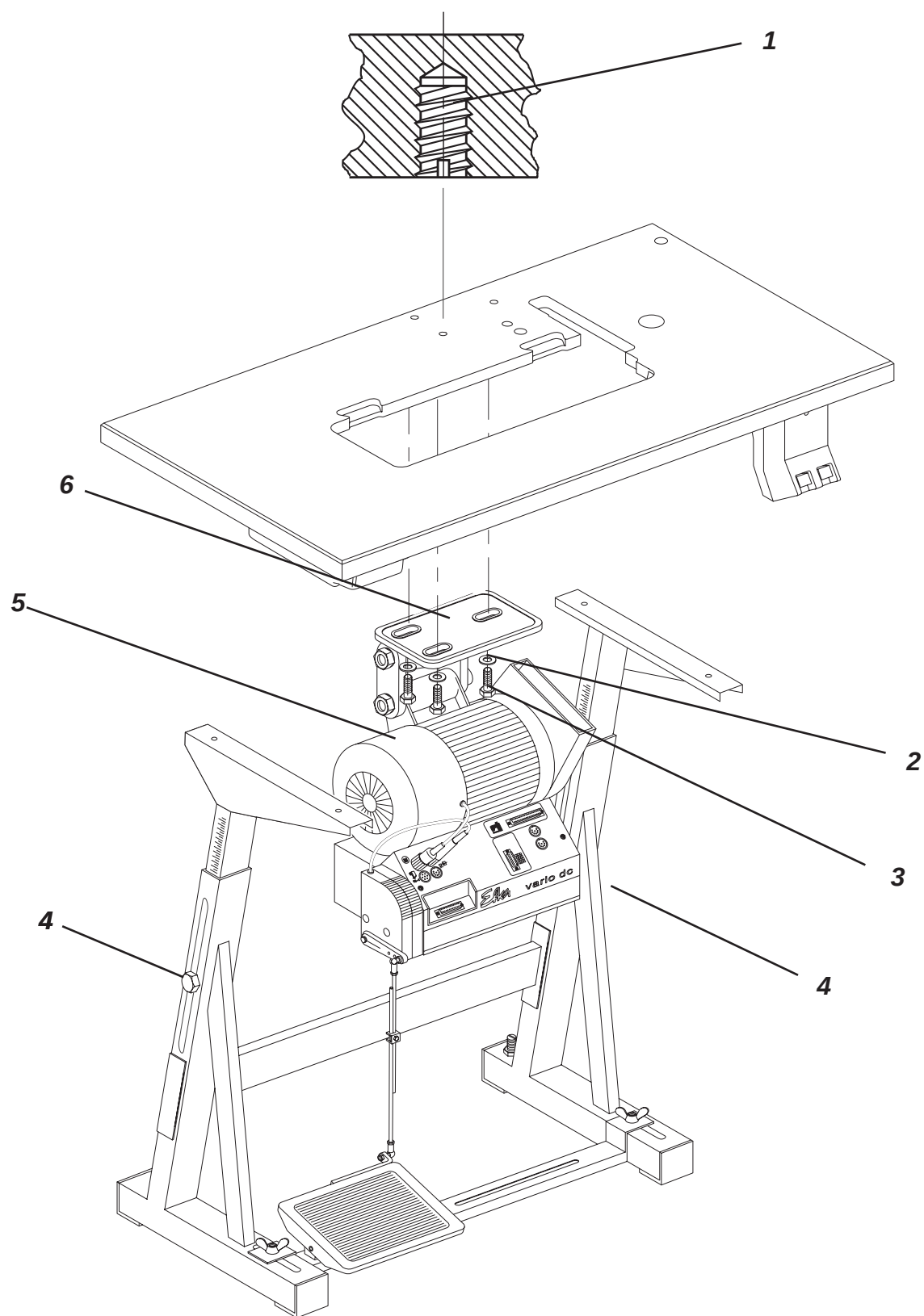
3. Assembling the stand

3.1 Assembling the stand components

- Assemble the individual stand components as shown in the illustration.

3.2 Assembling the table plate and attaching it to the stand

- Insert the upper-part support 1 in the hole in the table plate.
- Insert the hinge bases 3 for the machine head into the recess in the table plate 4 and screw in place.
- Insert the rubber corner 8.
- Screw the drawer 5 with its mountings under the table plate on the left-hand side.
- Screw the main switch 12 under the table plate on the right-hand side.
- Screw the cable conduit 10 under the table plate behind the main switch 12.
- Screw the holder 9 for the mains-lead cleat under the table plate behind the cable conduit 10.
- Screw the sewing-lamp transformer 11 (optional equipment) under the table plate.
- Attach the table plate 4 to the stand with woodscrews (B8 x 35) (see sketch for position).
- Insert the reel stand 7 in the hole in the table plate and secure it with the nuts and washers.
Fit and align the yarn-reel and unwinding holders.
The yarn-reel holder and the unwinding arm must be vertically in line.
- Screw the holder for the oil-can 6 onto the left-hand stand brace.



3.3 Setting the working height

- The working height is adjustable between 750 and 900 mm (measured to the upper edge of the table plate).
- Undo screws 4 on the stand braces.
- Adjust the table plate horizontally to the required working height. To prevent tilting, pull the table plate out or push it in by the same distance on both sides.
- Tighten both screws 4.

4. Sewing drives

4.1 Drive category, type and use

The following sewing drives are available:

Drive type	Clutch motor	Clutch positioning drive	DC positioning drive
Type	1147-F.752.3 * 1148.552.3	VD552KV/6F82FA	DC1600/DA82GA
Use	367-170010 367-180010	367-170010 367-180010	367-170010; -180010 367-170115; -180115 367-170315; -180315

* This clutch motor incorporates an electromagnetic brake that rapidly stops the rotor when it runs on after the motor has been switched off. This prevents the sewing machine from starting up unintentionally if the pedal is operated shortly after switching off.

4.2 Fitting the sewing drive

- Attach the sewing drive 5 with its base 6 on the underside of the table plate.
By screwing the three hexagonal screws 3 (M8x35) with washers 2 into the table-plate nuts 1.

4.3 Drive-pack components

The drive required is supplied as a “drive pack” containing a belt pulley, V-belt, mains cable, pedal linkage, connections and diagrams as well as the sewing drive itself.

Drive pack	9889 036701 1	9889 036701 2	9889 036701 3
Sewing drive type	1147-F.752.3	1147-F.752.3	1148.552.3
Design voltage	3 x 400V 50Hz	3 x 230V 50 Hz	3 x 230V 60Hz
Connection diagram	9800 169002 B	9800 169002 B	9800 169002 B
Belt pulley	100 mm	100 mm	85 mm
V-belt	10 x 1165	10 x 1165	10 x 1140
Lead k; with plug and Main switch	9870 001003	9870 001003	9870 001004
Pedal linkage	MG43 000410	MG43 000410	MG43 000410
Connections	0907 030484	0907 030484	0907 030484
Subclass	367-170010; -180010	367-170010; -180010	367-170010; -180010

Drive pack	9889 036703 8	9889 036704 8
Sewing drive type	DC1600/DA82GA	DC1600/DA82GA
Operating panel	V810	V820
Design voltage	1 x 230V 50/60Hz	1 x 230V 50/60 Hz
Connection diagram	9800 139001 B	9800 139001 B
Data sheet	9800 130014 DAT	9800 130014 DAT
Belt pulley	63 mm	63 mm
V-belt	10 x 1100	10 x 1100
Pedal linkage	MG43 000401	MG43 000401
Connections	9880 001003	9880 001003
Subclass	367-170010; -180010 367-170115; -180115 367-170315; -180315	367-170010; -180010 367-170115; -180115 367-170315; -180315

Drive pack	9889 036705 1	9889 036705 2	9889 036705 3
Sewing drive type	VD552KV/6F82FA	VD552KV/6F82FA	VD552KV/6F82FA
Operating panel (optional)	(V810)	(V810)	(V810)
Design voltage	3 x 400V 50Hz	3 x 230V 50 Hz	3 x 230V 60Hz
Connection diagram	9800 129002 B	9800 129002 B	9800 129002 B
	9800 120009 DAT	9800 120009 DAT	9800 120009 DAT
Belt pulley	100 mm	100 mm	80 mm
V-belt	10 x 1165	10 x 1165	10 x 1165
Lead k; with plug and Motor-protection switch	9870 001009	9870 001010	9870 001010
Pedal linkage	MG43 000401	MG43 000401	MG43 000401
Connections	9880 001004	9880 001004	9880 001004
Subclass	367-170010; -180010	367-170010; -180010	367-170010; -180010

For your notes

5. Assembling the machine head

5.1 Fitting the machine head

- Fit the machine head 1 into the opening in the table plate.

5.2 Fitting and tensioning the V-belt

Remove protective devices

- Remove the handwheel 9.
- Remove the belt guard 2 on the machine head.
- Remove the cover of the belt guard 3 on the sewing drive.

Fit the V-belt and reinstall the protective devices

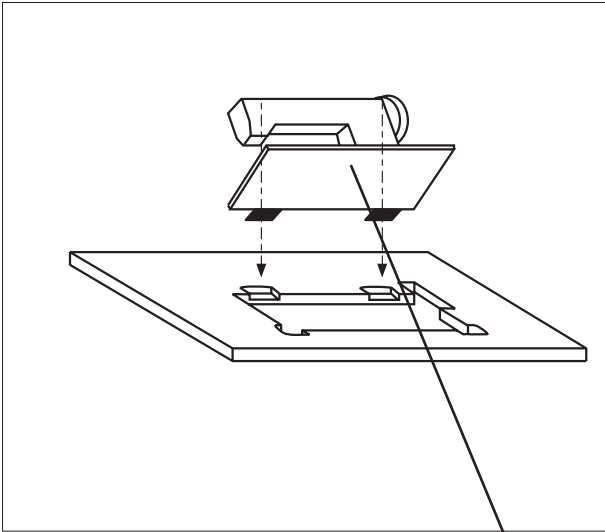
- Attach the belt pulley 6 (in the accessory pack) onto the sewing-drive shaft.
- Place the V-belt 7 on the belt pulley of the machine head.
- Pass the V-belt 7 down through the opening in the table plate.
- Fold back the upper part of the sewing machine.
- Place the V-belt 7 on the belt pulley 6 of the sewing drive.
- Return the upper part of the sewing machine to its original position.
- Fit the belt guard 2 to the machine head.
- Replace the handwheel 9.

Tension the V-belt

- Undo screws 8 on the base of the sewing drive.
- Tension the V-belt 6 by swivelling the sewing drive.
When the belt is correctly tensioned it must be possible to depress it by about 10 mm by gently pressing on it with a finger at its mid-point.
- Tighten screws 8.

Fit the belt guard to the sewing drive

- Adjust the anti-throw protectors 5 (either the cams or the brackets are adjustable, depending on the drive type) of the belt guard 4 as follows:
The V-belt 7 must remain on the belt pulleys when the upper part of the sewing machine is folded back.
See the motor manufacturers' operating manuals.
- Screw on the belt-guard cover.



1

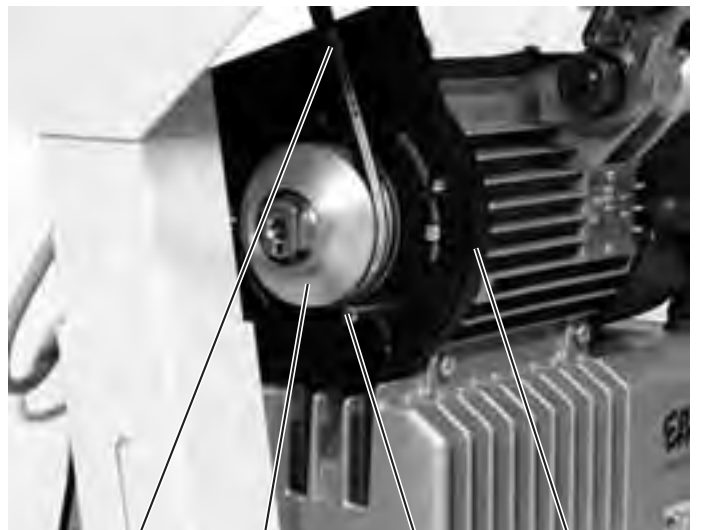


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2



3



7

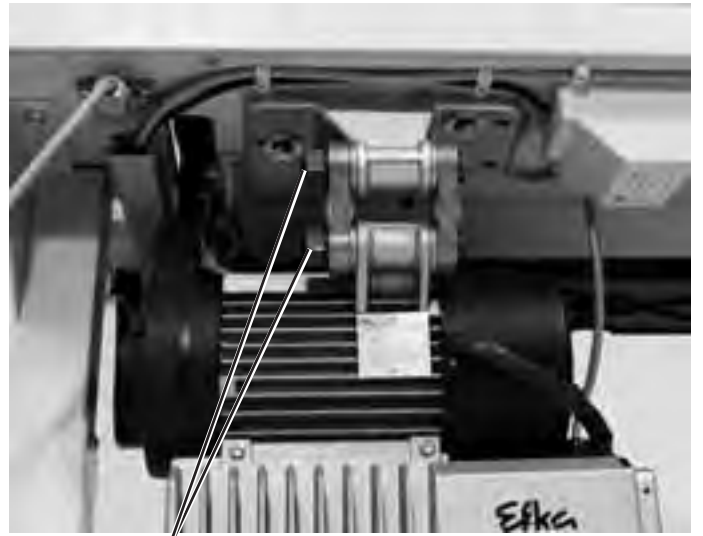
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5

4



7



8

5.3 Fitting the pedal

- Attach the pedal 2 to the stand brace 1.
- For ergonomic reasons align the pedal 2 as follows:
The centre of the pedal must be approximately under the needle.
There are slots in the stand brace 1 to help align the pedal.
- Screw the ball pins from the middle to the front hole in the lever 5.
- Attach pedal linkage 3.
- Slightly undo screw 4.
- Adjust the height of the pedal linkage 3 as follows:
when released the pedal 2 should be at an angle of about 10°.
- Tighten screw 4.

5.4 Attaching the knee lever

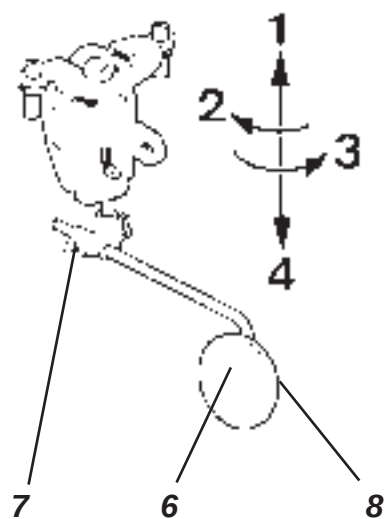
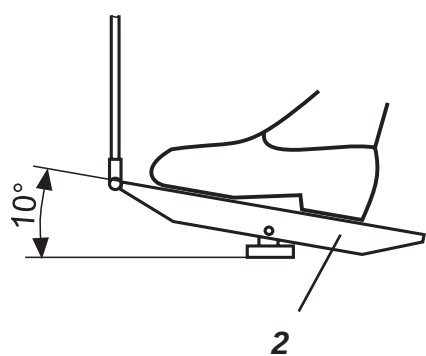
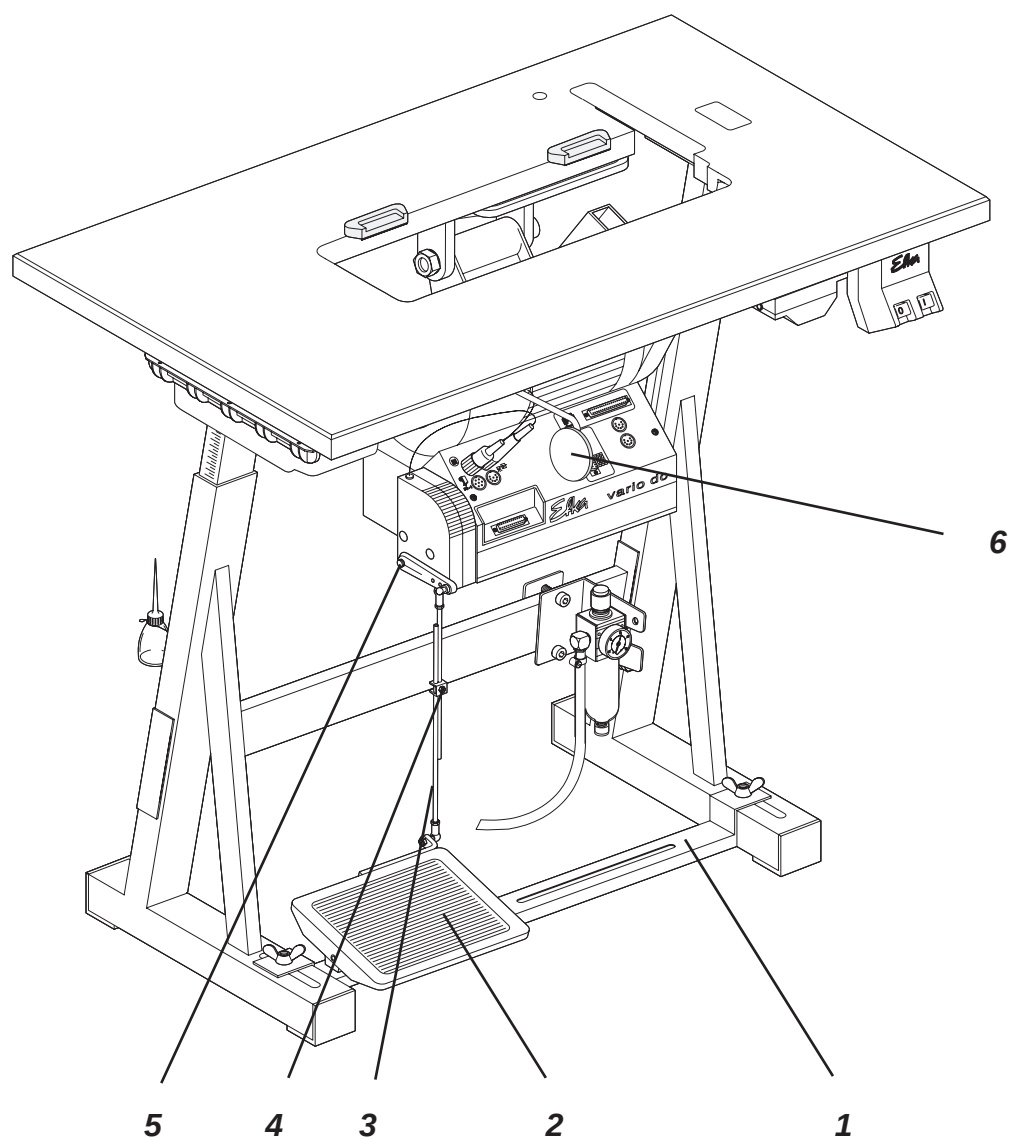
The knee lever 6 mechanically raises the sewing foot.

- Attach the knee lever 6.
- Undo the screws on the joint 7.
Adjust the knee lever so that it can be conveniently
operated with the right knee.
Retighten the screws on joint 7.
- Undo screw 8.
- Align the knee-pad.
- Retighten screw 8.



Caution !

The knee lever 6 must be detached before the machine head is folded back.



5.5 Fitting the operating panel

The machine arm has 2 threaded holes to fit the operating panel to.

- Unscrew the arm cover 1.
- Attach the external operating panel to the arm with the attachment bracket 3 and 2 screws.
- Remove the valve cap 7.
- Lay the connection lead 4 of the operating panel - along the arm and down through the opening in the table plate or down through the arm and the base plate - and secure it.
- Insert the connection plug into the B776 socket of the drive control.
- Replace the arm cover 1.
- Replace the valve cap 7.

5.6 Fitting the sewing lamp (optional equipment)



Caution !

Turning off the main switch does not turn off the current to the sewing lamp.
Remove the mains plug before connecting.

The sewing lamp can be mounted on the arm cover, or on the operating-panel bracket if present.

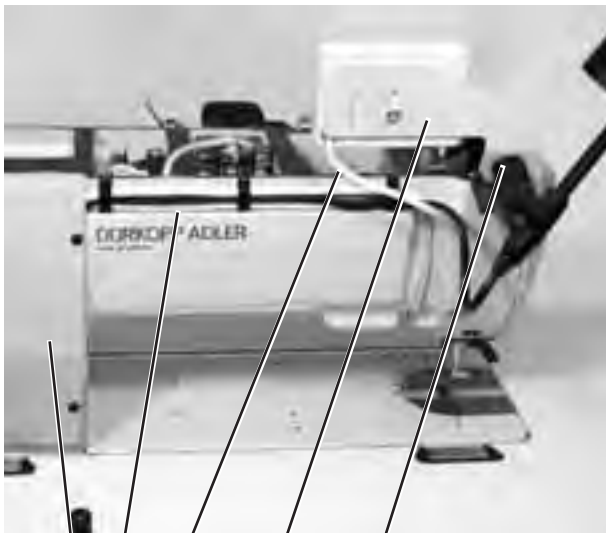
If the holder 2 is attached to the arm cover, an M8 thread must be cut in the relevant hole.



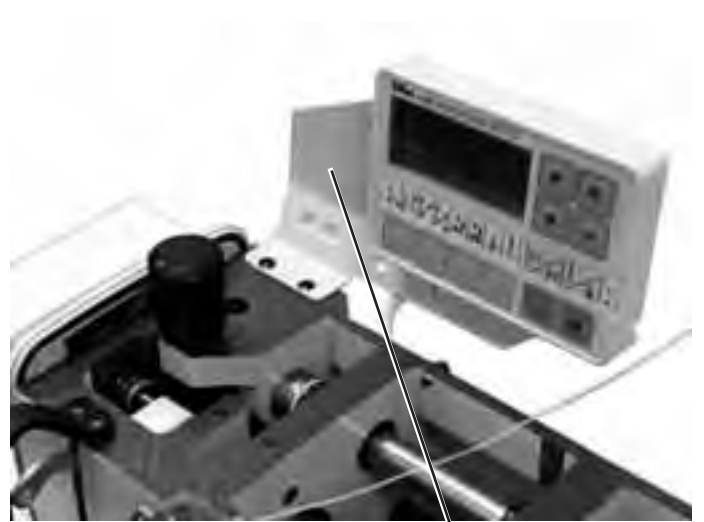
Caution !

The arm cover must be removed for this thread to be cut in the hole.

- Stick the safety warning label on the front of the main switch 5.
- Remove arm cover 1.
- Attach holder 2 to the arm cover 1 or operating-panel bracket 3 with screw and retaining washer.
- Fit the sewing lamp.
- Lay the lead in the opening in the machine arm 8.
- Pass the connection lead down through the hole in the table plate or the arm and the base plate.
- Attach the transformer 6 under the table plate with chipboard screws.
- Attach the connection lead under the table plate with cable ties.
- Plug in the sewing-light transformer lead.
- Fit the arm cover 1.



7 8 4 3 2



3



2 1



6



5

6. Electrical connection

6.1 General



Caution !

All work on the electrical equipment of this special sewing machine may only be carried out by qualified electricians or other appropriately trained persons.

The mains plug must be removed.

6.2 Checking the mains voltage



Caution !

The mains voltage must coincide with the rated voltage specified on the model-identification plate.

6.3 Connecting the sewing drive

6.3.1 Connecting the clutch motor

- Lay the connection cable from the main switch through the cable conduit to the sewing drive and connect it to the sewing drive. See connection diagram 9800 169002 B (in the connection pack) or the circuit diagram on the clutch motor.
- Lay the mains cable from the main switch back through the cable conduit and attach to the mains-lead cleat.

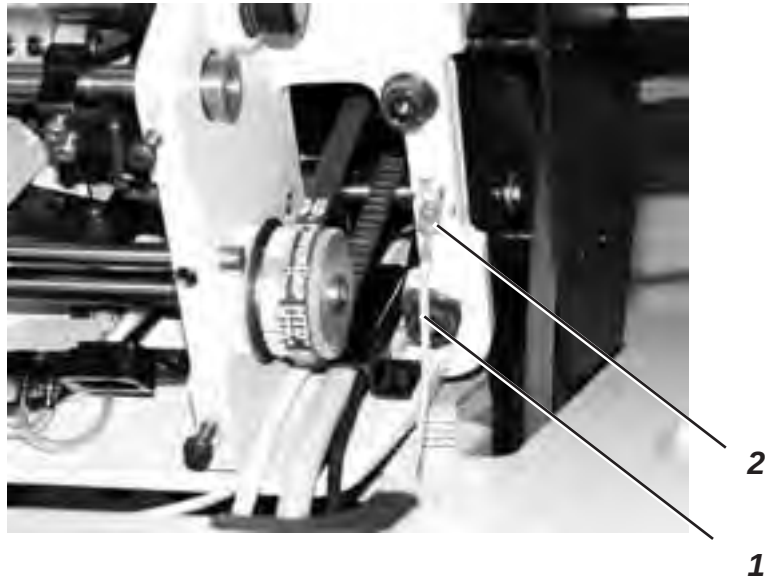
6.3.2 Connecting the coupling-positioning actuator

- Lay the connection cable from the motor-protection switch through the cable conduit to the sewing drive and connect it to the sewing drive. See connection diagram 9800 129002 B (in the connection pack) or the circuit diagram on the coupling-positioning actuator.
- Lay the mains cable from the main switch back through the cable conduit and attach to the mains-lead cleat.
- Plug the cable from the set-point generator into socket b80 of the drive control. See figure page 20.

6.3.3 Connecting the direct-current positioning actuator

- Lay the connection cable from the main switch through the cable conduit to the sewing drive and connect it to the sewing drive. See connection diagram 9800 139001 B (in the connection pack).
- Lay the mains cable from the main switch back through the cable conduit and attach to the mains-lead cleat.
- Plug the lead from the set-point generator into socket b80 of the drive control. See figure page 20.

6.4 Earthing



The earthing cable 1 is in the machine's accessory pack.

The earthing cable 1 takes static charges from the machine head to earth via the motor base.

- Connect the earthing cable 1 to the flat plug 2 (already screwed on the machine head) and lay it through the cable duct to the motor base.
- Screw the earthing cable 1 onto the motor base at the point provided.
- Attach the earthing cable 1 under the table plate with the nail clamps.

Caution!

Please make sure that the earthing cable 1 does not touch the drive belt.

6.5 Connecting the sewing drive to the mains



Caution:

The sewing machine must be connected to the mains with a plug.

Clutch motors and **coupling-positioning actuators** must be connected to a 3 x 380 - 415V 50/60 Hz or 3 x 220 - 240V 50/60 Hz three-phase supply (see tables in section 4.3). Connection takes place in accordance with connection diagram 9800 169002 B or 9800 129002 B.

The **direct-current positioning actuator** is operated with a single-phase alternating current of 190 - 240V 50/60 Hz. Connection takes place in accordance with connection diagram 9800 139001 B.

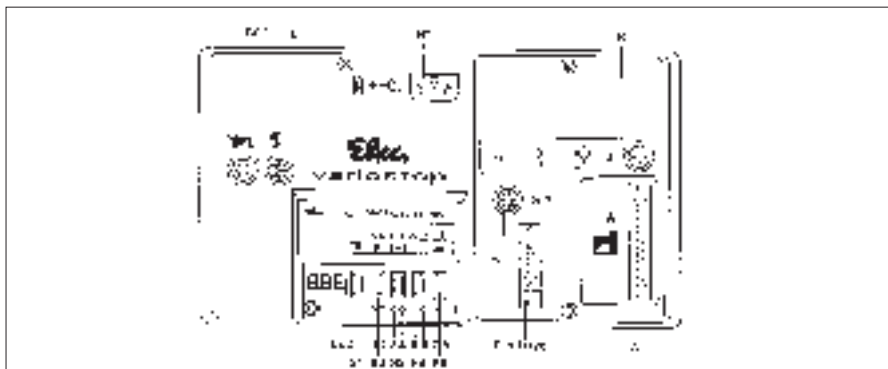
If it is connected to a three-phase supply of 3 x 380V, 3 x 400V or 3 x 415V the sewing drive is connected to one phase and the neutral conductor.

If the mains supply is three-phase 3 x 200V, 3 x 220V, 3 x 230V or 3 x 240V the sewing drive is connected to two phases.

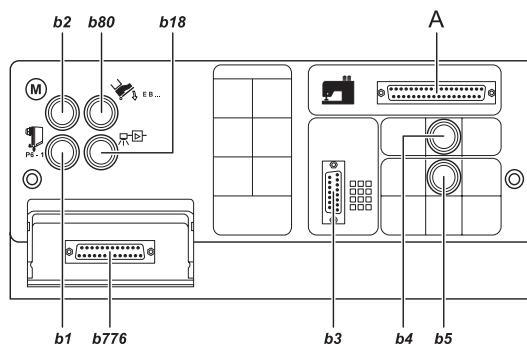
If a number of direct-current positioning actuators are connected to a three-phase mains supply they should be equally distributed over all phases to avoid overloading any one of them.

6.6 Drive-control connection sockets

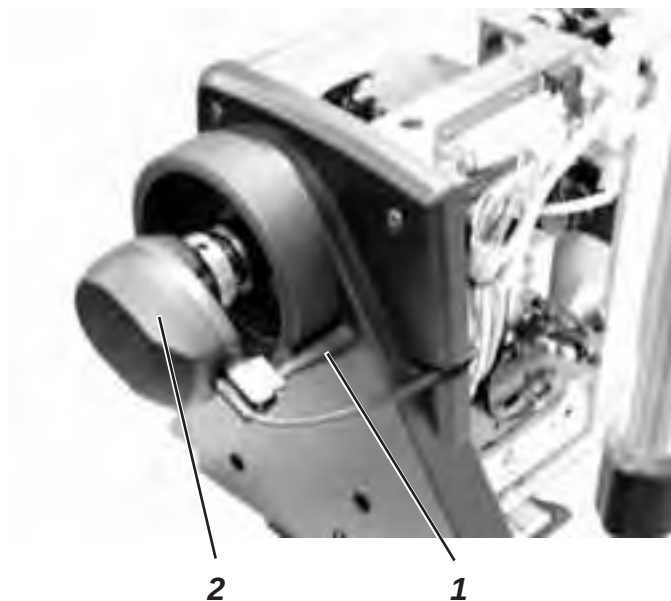
6F82FA control



DA82GA control



6.7 Fitting the proximity switch (class 367-170115; -170315; -180115; -180315 only)

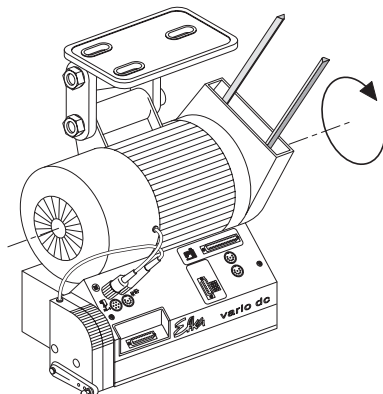


- Push the proximity switch onto the handwheel flange so that the retaining pin on the belt guard engages in its groove.
- Secure the proximity switch with the two screws.

6.8 Connecting the machine head (class 367-170115; -170315; -180115; -180315 only)

- The 9870 367001 cable is plugged onto the 9850 367001 distributor in the upper part and passed down inside the upper part.
- Plug the 37-pole plug of the cable into socket A of the sewing drive and secure with the screw.

6.9 Direction of rotation of sewing drive



Caution:

Before the special sewing machine is started it is essential to check the direction of rotation of the motor. Switching it on can cause damage if the direction of rotation is incorrect.

6.9.1 Checking the direction of rotation of the clutch motors 1147-F.752.3 or 1148.552.3

The direction of rotation of the clutch motor (three-phase motor) depends on its connection to the three-phase supply. The direction of rotation must be checked before use. Proceed as follows:

- Connect the clutch motor and earthing and connect the sewing drive to the mains.
(see sections 6.3.1, 6.4 and 6.5).
- Turn on the main switch.
- Operate the pedal (or the motor's clutch lever) until the belt pulley turns.
- The belt pulley must turn anti-clockwise (looking at the belt pulley).

6.9.2 Changing the direction of rotation of the clutch motors 1147-F.752.3 or 1148.552.3

If the sewing drive rotates the wrong way, the phases on the terminals of the mains connection of the sewing drive 2 must be reversed. This is done as follows:

- **Turn off the main switch. and remove the mains plug.**
- Reverse two of the three phase conductors in the mains plug.
- Insert the mains plug and turn on the main switch.
- Check the direction of rotation (see section 6.9.1).

6.9.3 Checking the direction of rotation with the VD552KV/6F82FA coupling-positioning actuator

The direction of rotation of the coupling-positioning actuator (three-phase motor) depends on its connection to the three-phase supply. After connecting it to the three-phase supply the first commissioning stage must be to check the direction of rotation. Proceed as follows:

- The proximity switch must be fitted. See section 6.7.
- The proximity-switch plug must be plugged in. See figure page 20.
- Do not plug in the 37-pole plug of the sewing machine.
- Turn on the main switch (motor-protection switch).
- Because the 37-pole plug is not plugged in, no valid Autoselect resistance is recognised and the maximum rotation speed is limited.
- Push the pedal slightly forward; the drive rotates; check the direction of rotation.

6.9.4 Changing the direction of rotation with the VD552KV/6F82FA coupling-positioning actuator

If the sewing drive rotates the wrong way, the phases on the terminals of the mains connection of the sewing drive 2 must be reversed. This is done as follows:

- **Turn off the main switch. and remove the mains plug.**
- Reverse two of the three phase conductors in the sewing-drive mains connection.
- Insert the mains plug and turn on the main switch.
- Check the direction of rotation (see section 6.6.3).

6.9.5 Checking the direction of rotation with the DC1600/DA82GA direct-current positioning actuator

The direction of rotation of the direct-current positioning actuator is factory-set to right-to-left by entering the value 1 in parameter F-161. Even so, the first commissioning stage must be to check the direction of rotation. Proceed as follows:

- The proximity switch must be fitted. See section 6.7.
- The plugs of the set-point generator, commutation switch, proximity switch and operating panel must be plugged in. See figure page 20.
- Do not plug in the 37-pole plug of the sewing machine.
- Turn on the main switch.
The operating panel displays "Info A5", which means that no valid Autoselect resistance is recognised and the maximum rotation speed is therefore limited.
- Push the pedal slightly forward; the drive rotates; check the direction of rotation.
- Replace the 37-pole plug of the machine head.

6.9.6 Changing the direction of rotation with the DC1600/DA82GA direct-current positioning actuator

If the sewing drive rotates the wrong way, technician-level parameter **F-161** must be set to the value 1.

For the V810 operating panel see section 6.11.4

For the V820 operating panel see section 6.11.5

Caution !

After a change in the direction of rotation the positions must be reset. See section 6.10.

6.10 Positioning (367-170115; -170315; -180115; -180315)

6.10.1 Defining the positions

Reference position

The reference position is the starting position for all other positions. It is defined as the position of the needle tip, with the needle descending in the normal direction of rotation, at the level of the upper side of the needle plate. With the control correctly set only the reference position needs to be reset after the removal of the proximity switch: all other positions are then automatically correct.

Position 1

In position 1, in the normal direction of rotation, the needle bar is about 5 mm before bottom dead centre.

CAUTION !

The raised sewing feet must not come into contact with the needle bar.

Position 1A

This position is only required for internal functions of the DA82GA control.

Position 2

In position 2 the thread lever is shortly after top dead centre. (The thread must be cut.)

Position 2A

This position is only required for internal functions of the DA82GA control.

Position 3

This position is not required for class 367

Position 3A

This position is not required for class 367

6.10.2 Adjusting the positions with the DC1600/DA82GA direct-current positioning actuator

6.10.2.1 General

Once every rotation the digital proximity switch sends 512 pulses (increments) and one extra pulse to the control. All needle positions are determined by these pulses and the values of parameters F-170 and F-171.

The proximity switch requires no mechanical adjustment.

Caution !

All positions must be reset after:

1. the sewing drive has been operated for the first time
2. the sewing drive, drive control or drive control plate have been replaced
3. the EPROM in the drive control has been replaced.

After the proximity switch has been removed and refitted or replaced only **the reference position** must be reset.

6.10.2.2 Adjusting the positions with the V810 operating panel

Entering the technician-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “P” key.
- Turn on the main switch. “C-0000” appears in the display.
- Release the “P” key.
- Enter code no. **1907**. Press the “+” or “-” keys to alter the value of the flashing digit. Press the “>>” key to move to the next digit.
- Press the “E” key. The first technician-level parameter **F-100** is displayed.

Setting the reference position

- After entering the code number press the “E” key. The first technician-level parameter **F-100** is displayed.
- Press the “+”, “-” and “>>” keys to set parameter **F-170**.
- Press the “E” key. “**Sr1**” appears in the display.
- Press the “>>” key. “**PoS0 ()**” appears in the display.
- Turn the handwheel in the normal direction of rotation until “()” disappears from the display, then turn it further until the reference position is reached (needle tip at the level of the upper side of the needle plate with the needle descending).
- Press the “E” key. The reference position is saved. “**F- 171**” appears in the display.
- If the reference position has not been saved, an error message - “**inF E3**” - appears in the display. Turn the handwheel on, press the “E” key and repeat the above procedure.

Setting positions 1 and 2

- The reference position is set (see above).
- Enter parameter **F-171**.
- Press the “E” key. “**Sr2**” appears in the display.
- Press the “>>” key. “**1 xxx**”, the parameter value of position 1, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “E” key. “**2 xxx**”, the parameter value of position 2, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “E” key. “**1A xxx**”, the parameter value of position 1A, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “E” key. “**2A xxx**”, the parameter value of position 2A, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “P” key twice to stop entering settings and leave programming level.
- Check the positions (see section 6.10.4).

*** Caution !** The parameter values for positions 1, 2, 1A and 2A can be found in the parameter sheet (accessory pack).

6.10.2.3 Adjusting the positions with the V820 operating panel

Entering the technician-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “P” key.
- Turn on the main switch. “C-0000” appears in the display.
- Release the “P” key.
- Enter code no. **1907** with number keys 0 to 9.
- Press the “E” key. The first technician-level parameter **F-100** is displayed and the first digit flashes.

Setting the reference position

- After entering the code number press the “E” key. The first technician-level parameter **F-100** is displayed.
- Set the **F-170** parameter with keys 0 to 9.
- Press the “E” key. “**F-170 Sr1**” appears in the display.
- Press the “B” key. “**F-170 PoS 0 ()**” appears in the display.
- Turn the handwheel in the normal direction of rotation until “**()**” disappears from the display, then turn it further until the reference position is reached (needle tip at the level of the upper side of the needle plate with the needle descending).
- Press the “E” key. The reference position is saved. “**F- 171**” appears in the display.
- If the reference position has not been saved, an error message - “**InFo E3**” - appears in the display. Turn the handwheel again until the required reference position is reached.

Setting positions 1 and 2

- The reference position is set (see above).
- Enter parameter “**F-171**”.
- Press the “E” key. “**Sr2**” appears in the display.
- Press the “B” key. “**F 171 1 xxx**”, the parameter value of position 1, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “E” key. “**F 171 2 xxx**”, the parameter value of position 2, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “E” key. “**F 171 1A xxx**”, the parameter value of position 1A, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “E” key. “**F 171 2A xxx**”, the parameter value of position 2A, appears in the display.
- Correct the parameter value * if necessary, either with the “+” and “-” keys or by turning the handwheel.
- Press the “P” key twice to stop entering settings and leave programming level.
- Check the positions: see section 6.10.4.

* **Caution!** The parameter values for the positions 1, 2, 1A and 2A can be found in the parameter sheet (accessory pack).

6.10.3 Adjusting the positions with the VD552KV/6F82FA coupling-positioning actuator

General

The proximity switch contains an inner disc (generator disc) with increments for regulating the rotation speed, a centre, adjustable disc 1 for position 1 and an outer, adjustable disc 2 for position 2.

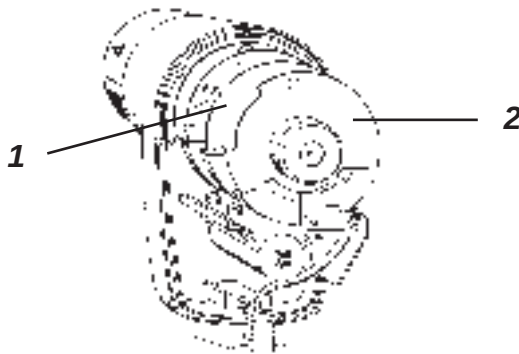


Caution !

Exercise extreme care when adjusting the position discs .

Caution: danger of injury

Please ensure that the position discs and the generator disc (the innermost disc) are not damaged.



Caution !

It is essential to turn off the main switch before adjusting the position discs.

- The direction of rotation of the sewing drive is already correctly set.
- Undo the screw and remove the proximity-switch cover.
- Turn on the main switch.
- Select basic position needle down (LED 7 on) with key S5 (in the control).
- Push the pedal a short distance forward.
- Check the holding position (position 1 - see section 6.10.1).
- If the needle is not in position 1 the centre disc 1 for position 1, with the main switch turned off, must be placed in the required direction.
- Repeat the process until position 1 is set.
- Turn on the main switch.
- Select the basic position needle up (LED 8 on) with key S5 (in the control).
- Push the pedal a short distance forward.
- Check the holding position (position 2 - see section 6.10.1).
- If the needle is not in position 2 the outer disc 2 for position 2, with the main switch turned off, must be placed in the required direction.
- Repeat the process until position 2 is set.
- Replace and screw on the proximity-switch cover.

6.10.4 Checking positioning

Position 1

- Turn on the main switch
- Briefly push the pedal forward, then release it. The needle moves to position 1.
- Check the needle position.

Position 2

- Push the pedal forward, then push it back and hold it there until the machine halts. The needle moves to position 2.
- Check the needle position.

If either or both of the needle positions do not coincide with the definition in section 6.10.1, the setting must be corrected as described in section 6.10.2 or 6.10.3.

6.11 Setting machine-specific parameters

6.11.1 General

The functions of the sewing-drive control are determined by the program and the parameter settings. All parameter values for the relevant machine class and subclass are pre-set by EFKA prior to delivery of the sewing drives. For each class and subclass some parameters at technician and manufacturer level must be changed so that the control is perfectly coordinated with the machine. The parameters concerned are listed in the table below and in the parameter sheet (in the accessory pack).

6.11.2 Autoselect

The control “recognises” which machine series is connected by measuring the Autoselect resistance in the machine. Autoselect selects control functions and the pre-set parameter values. If the control fails to recognise a valid Autoselect resistance (or any at all), the drive runs only with the so-called emergency operating functions to prevent machine damage. See the “EFKA DA82GA” or “EFKA 6F82FA” operating manual.

Autoselect-resistance	Classes	Control sewing drive	Parameter sheet
1000 R (1000 Ohm)	367	DA82GA 6F82FA	9800 130014 PB52 9800 321009 PB52

6.11.3 Table of machine-specific parameters of the DA82GA and 6F82FA controls

The values of the parameters listed below must be changed from their pre-set values.

The values concerned (x) can be found in parameter sheet 9800 130014 PB52 or 9800 321009 PB52 (in the machine's accessory pack).

Parameter	*	Name	367
F-111	T	upper limit of maximum rotation speed	x
F-112	T	starting bar-tack rotation speed	x
F-113	T	ending bar-tack rotation speed	x
F-117	T	rotation-speed stroke adjustment (DB2000)	x
F-123	T	bar-tack synchronisation time for ending bar tack	x
F-124	T	bar-tack synchronisation rotation speed for ending bar	x
F-136	T	tack	x
F-153	T	thread-cut stitch backwards/forwards	x
F-171 **	T	holding power with the machine at a standstill	x
F-180 **	T	needle positions	x
F-182 **	T	number of reverse increments	x
F-190	T	handwheel reverse ON/OFF	x
F-192	T	thread cutter activation angle	x
F-194	T	activation delay for thread-tensioner release	x
F-196	T	activation delay for thread cutter	x
		function of both thread tensioners on sewing-foot lift	

* T = technician-level parameter, A = manufacturer-level parameter

** Not the 6F82FA control



Caution !

**Great care must be taken when changing parameter values, as an incorrectly-set drive control may damage the machine!
A master reset restores all parameters to their pre-set values. See section 6.12.**

6.11.4 Setting parameter values with the V810 operating panel

Changing technician-level parameter values

Entering the technician-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “**P**” key.
- Turn on the main switch. “**C-0000**” appears in the display.
- Release the “**P**” key.
- Enter code no. **1907**. Press the “+” or “-” keys to alter the value of the flashing digit. Press the “>>” key to move to the next digit.
- Press the “**E**” key. The first technician-level parameter **F-100** is displayed.

Selecting parameters and changing values

- Press the “+” and “-” keys to select the next or preceding parameter.
- The parameter can be entered direct with the “>>”, “+” and “-” keys.
- Press the “**E**” key. The value of the selected parameter is displayed.
- Press the “+” and “-” keys to change the parameter value.
- Press the “**E**” key to display the next parameter or the “**P**” key to display the same parameter.

Saving changed parameter values

- Press the “**P**” key to terminate programming.
- Sew a complete seam, i.e. push the pedal forward and then fully back. The change is saved.
- If no seam is sewn, the change is lost.
- Press the “**P**” key again to return to programming level.

Changing manufacturer-level parameter values

Entering the manufacturer-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “**P**” key.
- Turn on the main switch. “**C-0000**” appears in the display.
- Release the “**P**” key.
- Enter code no. **3112**. Press the “+” or “-” keys to alter the value of the flashing digit. Press the “>>” key to move to the next digit.
- Press the “**E**” key. The first manufacturer-level parameter **F-200** is displayed
- Continue as for “**Selecting parameters and changing values**”

**Caution !**

The changed parameter values are not saved unless a complete seam is sewn after leaving programming level, i.e. the pedal is pushed forwards and then all the way back. If the drive is switched off straight after leaving programming level, the changes are lost.

6.11.5 Setting parameter values with the V820 operating panel**Changing technician-level parameter values****Entering the technician-level code number**

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “**P**” key.
- Turn on the main switch. “**C-0000**” appears in the display.
- Release the “**P**” key.
- Enter code no. **1907** with number keys 0 to 9.
- Press the “**E**” key. The first technician-level parameter **F-100** is displayed and the first digit flashes.

Selecting parameters and changing values

- After the code number has been entered the first parameter, **F-100**, is displayed.
The first digit of the parameter number flashes.
- Enter the required parameter number with number keys 0 to 9.
- Press the “**E**” key. The value of the selected parameter is displayed.
- Press the “**+**” and “**-**” keys to change the parameter value.
- Press the “**E**” key to display the next parameter or the “**P**” key to display the same parameter.

Saving changed parameter values

- Press the “**P**” key to terminate programming.
- Sew a complete seam, i.e. push the pedal forward and then fully back. The change is saved.
- If no seam is sewn, the change is lost.
- Press the “**P**” key again to return to programming level.

Changing manufacturer-level parameter values

Entering the manufacturer-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “P” key.
- Turn on the main switch. “C-0000” appears in the display.
- Release the “P” key.
- Enter code no. **3112** with number keys 0 to 9.
- Press the “E” key. The first manufacturer-level parameter **F-200** is displayed
- Continue as for “**Selecting parameters and changing values**”



Caution:

The changed parameter values are not saved unless a complete seam is sewn after leaving programming level, i.e. the pedal is pushed forwards and then all the way back. If the drive is switched off straight after leaving programming level, the changes are lost.

6.11.6 Table of machine-specific parameters of the 6F82FA control

See section 6.11.3.



Caution !

Great care must be taken when changing parameter values, as an incorrectly-set drive control may damage the machine. A master reset restores all parameters to their pre-set values. See section 6.12.

6.11.7 Setting parameters on the 6F82FA control

Changing technician-level parameter values

Entering the technician-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “**P**” key.
- Turn on the main switch. “**Cod**” appears in the display.
- Release the “**P**” key.
- Enter code no. **190**. Press the “+” or “-” keys to alter the value of the flashing digit. Press the “>>” key to move to the next digit.
- Press the “**E**” key. The first technician-level parameter “**100**” is displayed.

Selecting parameters and changing values

- Press the “+”, “-” and “>>” keys to select the parameter.
- Press the “**E**” key. The value of the selected parameter is displayed.
- The parameter value can be changed with the “+” and “-” keys.
- Press the “**E**” key to display the next parameter or the “**P**” key to display the same parameter.

Saving changed parameter values

- Press the “**P**” key to terminate programming.
- Sew a complete seam, i.e. push the pedal forward and then fully back. The change is saved.
- If no seam is sewn, the change is lost.
- Press the “**P**” key again to return to programming level.

Changing parameter values

Entering the manufacturer-level code number

- Turn off the main switch.
- All plugs must be plugged in to the sewing-drive control.
- Press and hold down the “**P**” key.
- Turn on the main switch. “**Cod**” appears in the display.
- Release the “**P**” key.
- Enter code no. **311**. Press the “+” or “-” keys to alter the value of the flashing digit. Press the “>>” key to move to the next digit.
- Press the “**E**” key. The first manufacturer-level parameter - “**200**” - is displayed
- Continue as for “**Selecting parameters and changing values**”



Caution !

The changed parameter values are not saved unless a complete seam is sewn after leaving programming level, i.e. the pedal is pushed forwards and then all the way back. If the drive is switched off straight after leaving programming level, the changes are lost.

6.12 Master reset

A master reset resets all parameter values to their factory settings.

- Turn off the main switch.
- Press the “**P**” key and turn on the main switch.
- Release the “**P**” key..
- Enter code no. “**1907**”. See section 6.10.2 or 6.10.5.
- Press the “**E**” key. The parameter **F-100** is displayed.
- Press the “**E**” key. The value of the parameter **F-100** is displayed.
- Set the value to **170**.
- Press the “**P**” key twice.
- Turn off the main switch.
- After a brief waiting period turn the main switch back on. All parameters except 111, 161, 170, 171 and 190 to 193 have now been restored to their pre-set values.



Caution !

A few parameters, F-111 (maximum rotation speed) for example, are not affected by a master reset.
All machine-specific parameters must be reset again in accordance with the parameter sheet. See section 6.11.

6.13 Connecting the sewing-lamp transformer (optional equipment)



- **Remove the machine's mains plug.**
- Pass the mains cable 1 of the sewing-lamp transformer through the cable conduit 2 to the main switch.
- It is connected to the mains-connection side of the main switch (or motor-protection switch). See connection diagram 9800 139001, 9800 129002 B or 9800 169002 B.
- Stick the adhesive label with the safety instruction on the front of the main switch .
- If the sewing-lamp transformer is connected to a 3 x 380 - 415V three-phase supply it must have a neutral conductor.



Caution !

The sewing-light transformer is directly connected to the mains. It is therefore live even when the main switch is switched off. The mains plug must be removed before carrying out any work on the sewing-light transformer, e.g. changing the fuse.

7. Pneumatic connection



Caution:

The pneumatic units will only operate properly at a supply pressure of 8 to 10 bar. The special sewing machine's operating pressure is 6 bar.

Pneumatic-connection pack

A pneumatic-connection pack for stands with compressed-air maintenance units is available (Order no. 0797 003031).

It contains the following components:

- Connection hose, 5 m long ($\varnothing = 9$ mm)
- Hose nozzles and ties
- Plug-and-socket connector

Connecting the compressed-air maintenance unit

- Attach the compressed-air maintenance unit 1 with bracket, screws and strap to the stand-brace.
- Connect the unit to the compressed-air supply with the connection hose 4 ($\varnothing = 9$ mm) and connector R1/4".

Connecting the compressed-air maintenance unit to the upper part of the sewing machine

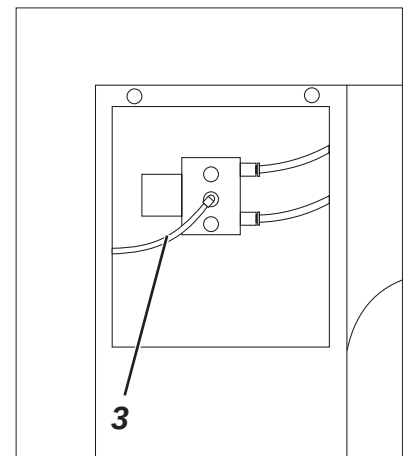
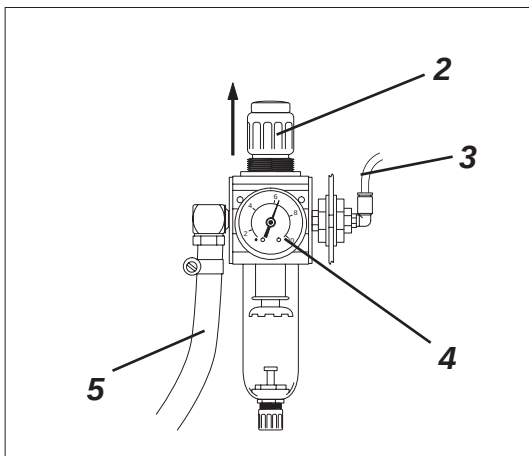
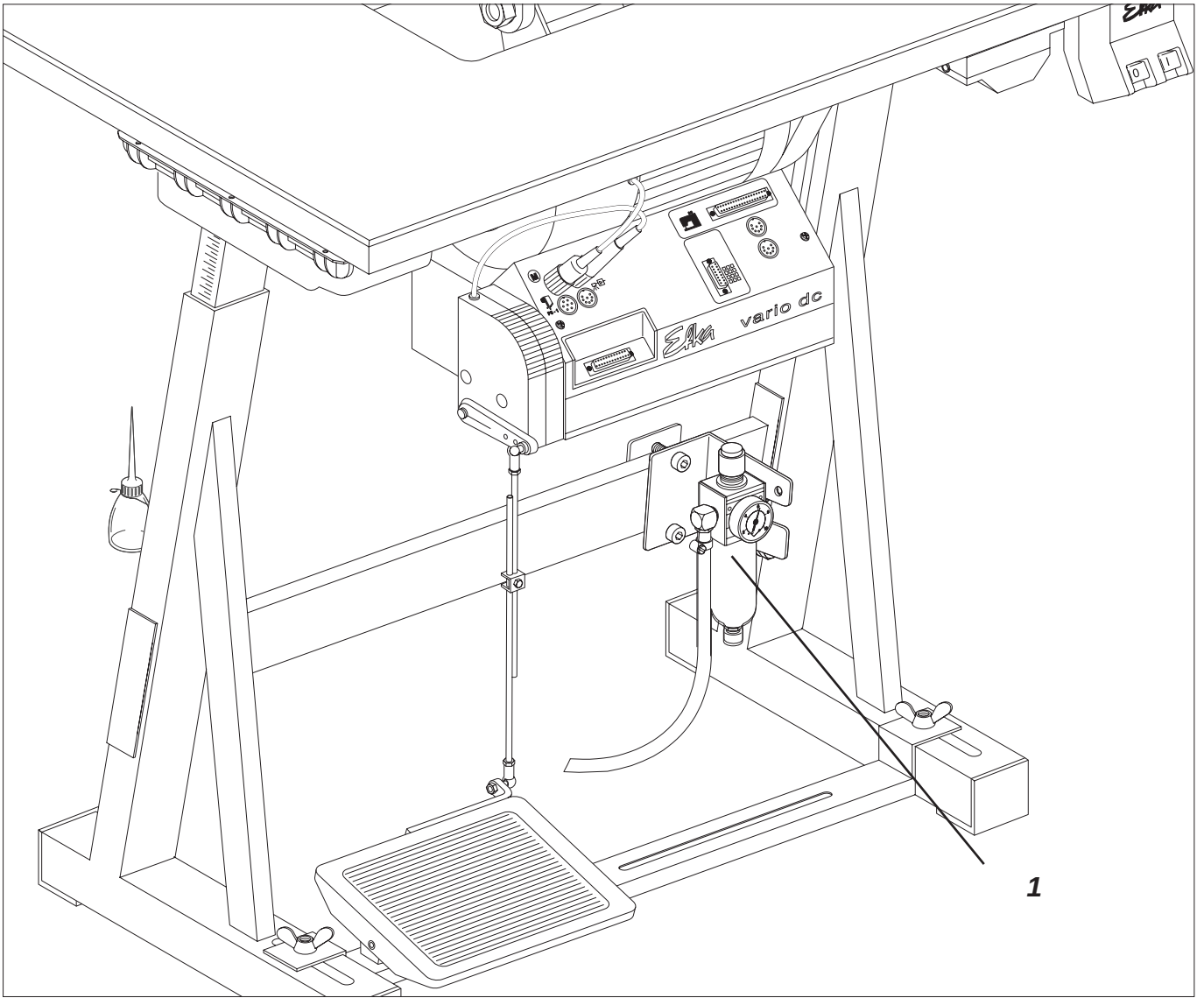
- Unscrew and remove the cover 6.
- Connect the hose 3 (in the accessory pack) to the distributor plate on the machine head.
- Replace the cover 6.

Adjusting the operating pressure

The operating pressure is 6 bar.

It can be read off at the pressure gauge 4.

- To adjust the operating pressure raise and turn handle 2:
Clockwise to increase the pressure
Anticlockwise to reduce the pressure.



8. Lubrication



1



2

3



Caution: danger of injury !

Oil can cause skin eruptions.
Avoid protracted contact with the skin.
In the event of contact, thoroughly wash the affected area.



CAUTION !

The handling and disposal of mineral oils is subject to legal regulation.
Deliver used oil to an authorised collection point.
Protect your environment.
Take care not to spill oil.

To lubricate the special sewing machine use only **DA-10** lubricating oil or an equivalent oil of the following specification:

- Viscosity at 40° C : 10 mm²/s
- Flashpoint: 150 °C

DA-10 is available from **DÜRKOPP ADLER AG** retail outlets under the following part numbers:

- | | |
|--------------------|-------------|
| 250 ml container: | 9047 000011 |
| 1-litre container: | 9047 000012 |
| 2-litre container: | 9047 000013 |
| 5-litre container: | 9047 000014 |

Lubricating the machine head (first filling)

NB:

All wicks and felts are saturated with oil prior to delivery. This oil is returned to the oil reservoir 1, which should therefore not be overfilled.

- Top up the oil reservoir 1 to the “**max.**” mark.

Lubricating the shuttle

- Fold back the machine head.
- Top up the other oil reservoir to the “**max.**” mark through the nipple 2. Check the oil level through the viewing window 3.

9. Sewing test

A sewing test must be carried out when setting-up is complete.

- Insert the mains plug.



Caution: danger of injury

Turn off the main switch.

The needle and looper threads may only be threaded with the sewing machine switched off.

- Thread the bobbin-winder thread (see operating instructions, section 6.5).
- Turn on the main switch.
- Lock the sewing feet in the up position (see operating instructions section, 6.10).
- Fill the bobbin at low speed.
- Turn off the main switch.
- Thread the needle and looper threads (see operating instructions, sections 6.1 and 6.6).
- Select the material to be processed.
- Carry out the sewing test, first at low speed and then gradually increasing it.
- Check that the seams are of the requisite quality.
If not, alter the thread tensioners (see operating instructions, sections 6.2, 6.4 and 6.7).
If necessary the settings given in the servicing instructions should also be checked and corrected

For your notes