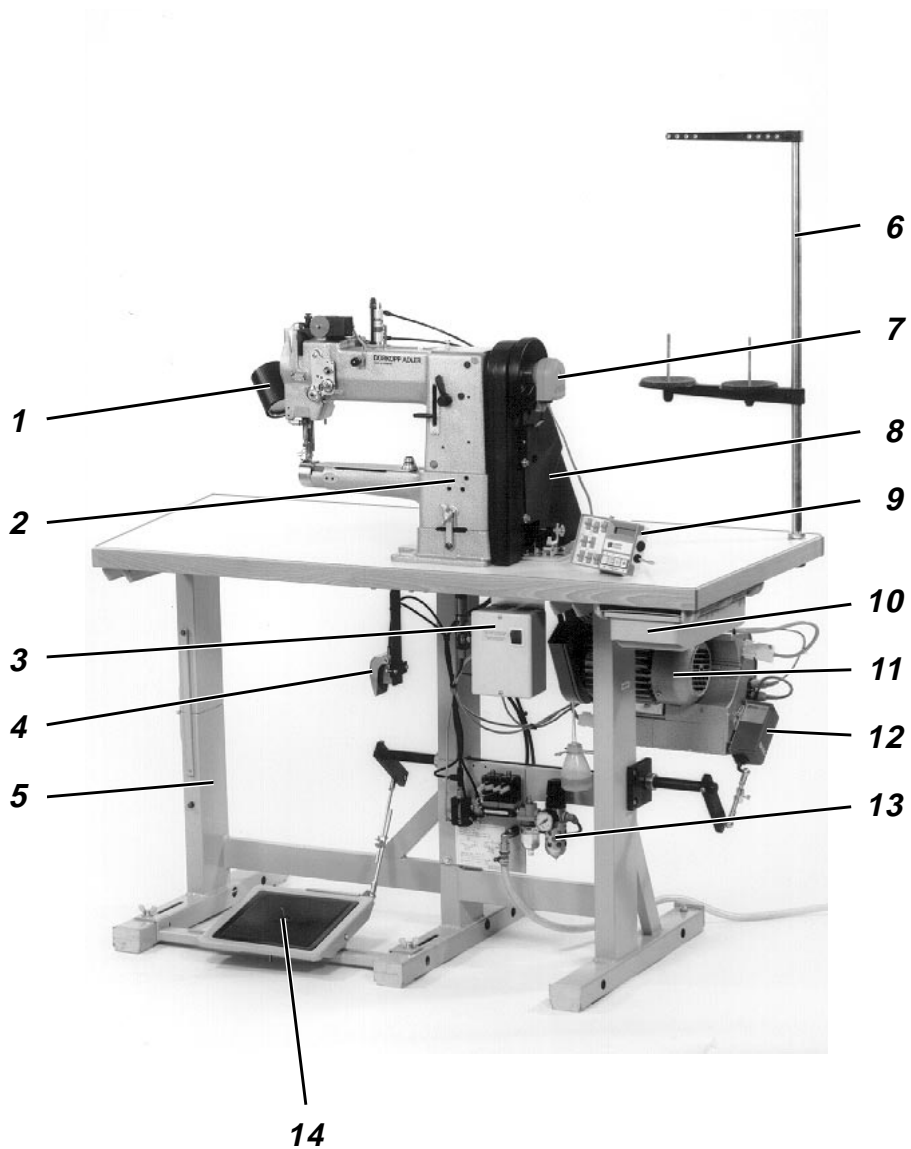


Part 2: Setting-up guide, class 69

1.	Items supplied	3
2.	General and transport packing	3
3.	Assembling the frame	
3.1	MG 56-2 frame	5
3.1.1	Assembling the frame components	5
3.1.2	Assembling the table plate and mounting it on the frame	5
3.2	MG 53-3 frame	7
3.2.1	Assembling the frame components	7
3.2.2	Assembling the table plate and mounting it on the frame	7
3.2.3	Adjusting the working height	7
4.	Assembling and connecting the sewing drive	
4.1	General	9
4.2	Mounting the sewing drive beneath the table plate	9
4.3	Connecting the sewing drive	11
4.4	Checking the nominal voltage	12
4.5	Adjusting the motor-protection switch	12
5.	Mounting the upper part of the machine	
5.1	Attaching the upper part to the table plate	13
5.2	Fitting and tensioning the V-belt	15
5.3	Fitting the bobbin winder	15
5.4	Fitting the pedal	16
5.4.1	MG 56-2 frame	16
5.4.2	MG 53-3 frame	17
5.5	Potential equalisation	19
5.6	Fitting the operating panel (Quick QD554/A51K01 drive unit)	19
5.7	Fitting the knee lever	21
6.	Fitting, connecting and adjusting the proximity switch	
6.1	Fitting and adjusting the proximity switch	22
6.2	Checking the direction of rotation	23
6.3	Checking the positioning	24
6.4	Adjusting positions	24
6.4.1	Efka VD554KV/6F62AV sewing drive	25
6.4.2	Quick QD554/A51K01 sewing drive	26
7.	Pneumatic connection	
7.1	Compressed-air maintenance unit	29
8.	Lubrication	31
9.	Sewing test	32





1. Items supplied

What items are supplied depends on your order. Before setting the machine up, please check that all the required components are present.

This description applies to sewing machines, all components of which have been supplied by **DÜRKOPP ADLER AG**.

Basic equipment (with or without thread clipper, depending on the subclass):

- **2** upper part
- **3** motor-protection switch
- **5** frame (MG 56-2 frame illustrated) with table plate
- **6** reel stand
- **7** proximity switch (depending on drive unit)
- **8** belt guard
- **9** operating panel (depending on drive unit)
- **10** drawer
- **11** sewing drive (depending on drive unit)
- **12** desired-value transmitter (depending on drive unit)
- **14** pedal with pedal linkage
- belt pulley and V-belt
- minor components

Optional extras

- **1** lamp
- **4** knee switch (when fitted with HP 11-1)
- **13** compressed-air maintenance unit

2. General and Transport packing



CAUTION:

The special sewing machine may only be set up by qualified personnel.

Various drive units are available for the **69** (see also chapter 4.1).

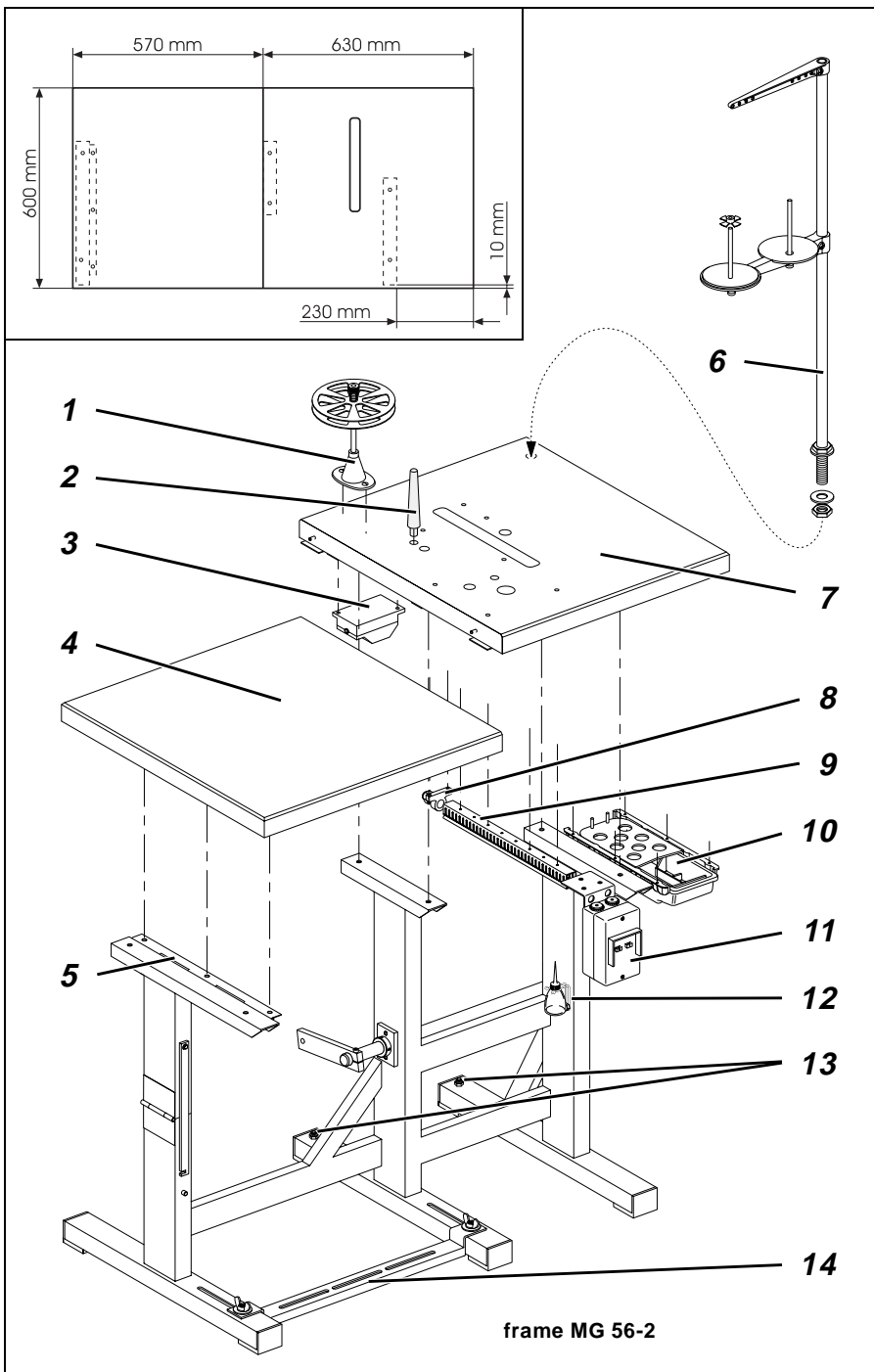
All the illustrations in this setting-up guide relate to a special sewing machine with the Quick QD554/A51K01 sewing drive.

Please note that because of the many different models your special sewing machine may be different from the illustrations.

Transport packing

If you have purchased a ready-mounted special sewing machine, the following transport packing must be removed:

- safety straps and battens on the upper part, table and frame
- safety block and straps on the sewing drive





3. Assembling the frame

Two frame sets are available for the **69** with different table plates:

frame	table plate (W x D)	version
MG 56-2	1200 x 600 mm	folds out separately
MG 53-3	1060 x 550 mm	1-piece, with or without opening

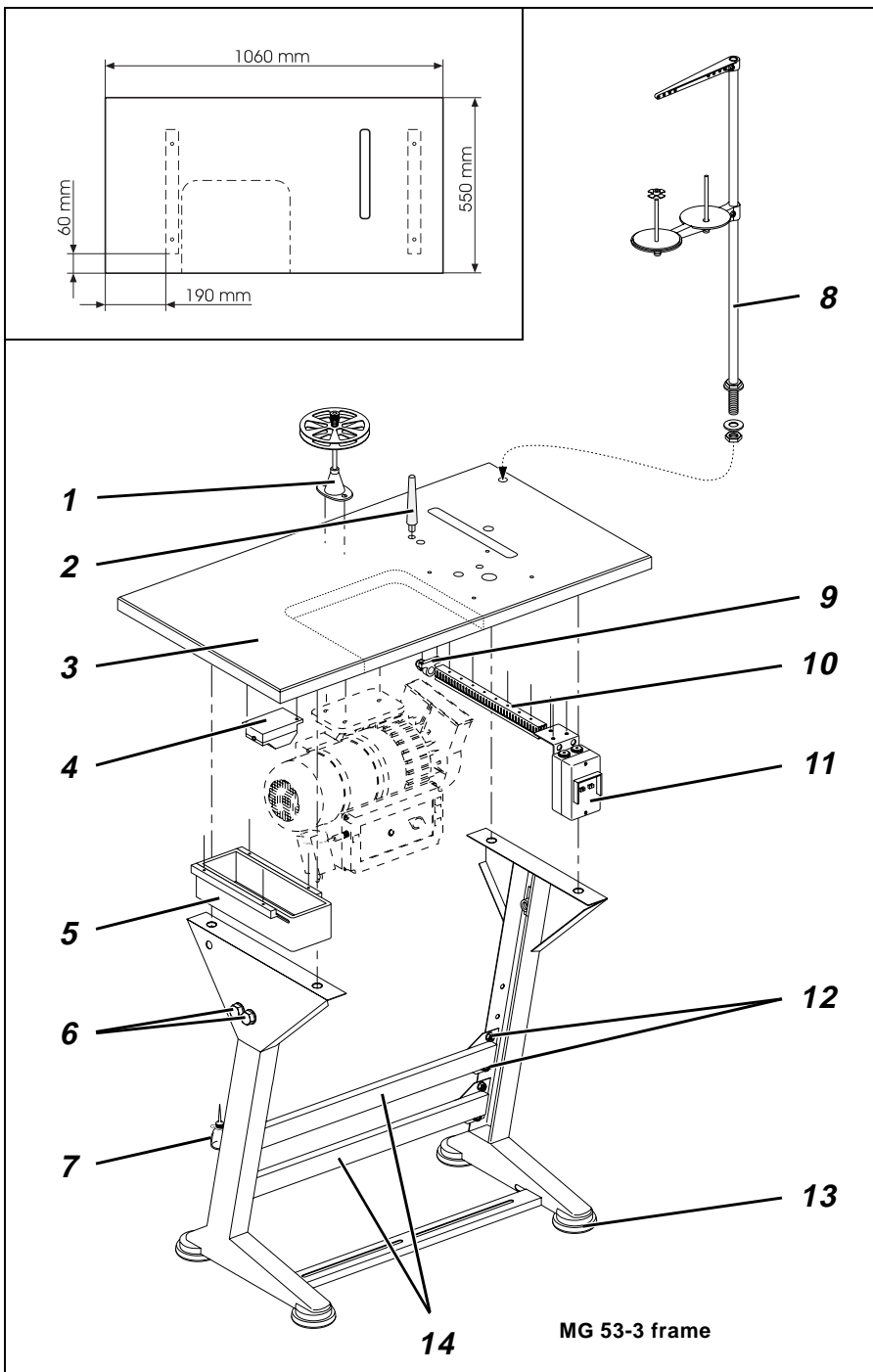
3.1 MG 56-2 frame

3.1.1 Assembling the frame components

- Fit the cross-brace 14 as shown in the illustration.
- Adjust the set screws 13 so that the frame is stable.
All six of its feet must be in firm contact with the floor.

3.1.2 Assembling the table plate and mounting it on the frame

- Hammer the support 2 into the hole in the table plate.
This supports the upper part when it is folded back.
- Screw the drawer 10 with its mountings under the right-hand half of the table plate 7.
- Screw the **motor-protection switch 11** with its attachment bracket underneath the right-hand half of the table plate 7.
- Screw the **cable channel 9** behind the motor-protection switch 11 under the right-hand half of the table plate 7.
- Screw **the holder 8 for the mains-lead cleat** behind the cable channel 9 under the right-hand half of the table plate 7.
- Mount the **sewing-light transformer 3** (optional extra) at the back under the right-hand half of the table plate 7.
- Pass **the mains cable** of the motor-protection switch 11 through the cable channel 9 and holder 8.
- Pass **the connection cables of the sewing drive and sewing-light transformer 3** from the motor-protection switch 11 through the cable channel 9.
- Attach the right-hand half of the table plate 7 to the frame with timber screws (B8 x 35). Its alignment on the frame can be seen from the dimensions in the sketch.
- Attach **the left-hand half of the table plate 4** to the hinge 5 with timber screws (B8 x 35).
- Insert **the reel stand 6** in the hole in the table plate and secure it with nuts and washers.
Fix and align the reel holders and unwinding arms.
The reel holders and unwinding arms must be vertically in line.
- Screw **the oil-can holder 12** to the right-hand frame upright.
- Screw **reel holder 1** to the right-hand half of the table plate 7 (only when fitted with ribbon binder, sewing attachment E4 or E5).





3.2 MG 53-3 frame

3.2.1 Assembling the frame components

- Assemble the frame components as shown in the illustration.
- Fit the four frame feet 13.
- Slightly undo the screws 12 on both sides of the cross-braces 14 and ensure that the frame is stable.
All four of its feet must be in firm contact with the floor.

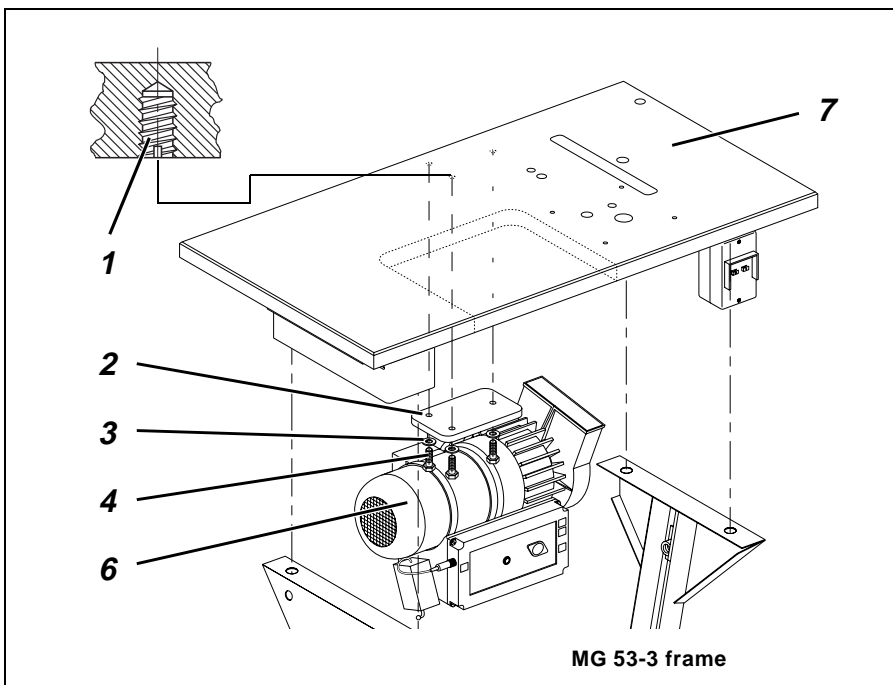
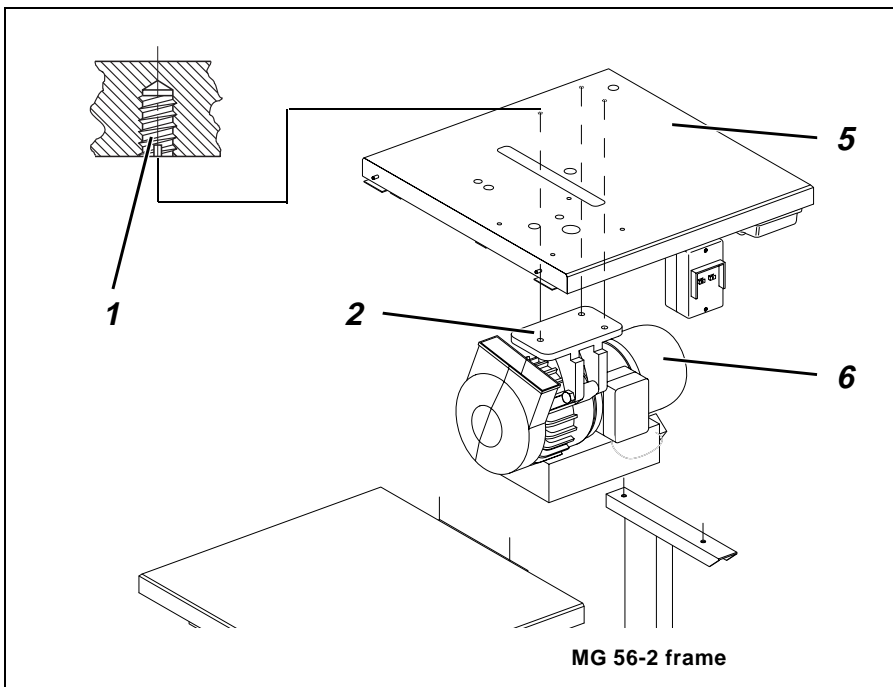
3.2.2 Assembling the table plate and mounting it on the frame

- Hammer the support 2 into the hole in the table plate 3.
This supports the upper part when it is folded back
- Screw the **wooden drawer 5** with its guides on the left under the table plate 3.
- Screw the **motor-protection switch 11** with its attachment bracket under the table plate 3.
- Screw the **cable channel 10** behind the motor-protection switch 11 under the table plate 3.
- Screw the **holder 9 for the mains-lead cleat** behind the cable channel 10 under the table plate 3.
- Screw the **sewing-light transformer 4** (optional extra) under the table plate 3.
- Pass the **mains cable** from the motor-protection switch 11 through the cable channel 10 and holder 9.
- Pass the **connection cable of the sewing drive and the sewing-light transformer 4** from the motor-protection switch 11 through the cable channel 10.
- Attach **table plate 3** to the frame with timber screws (B8 x 35).
Its alignment on the frame can be seen from the dimensions in the sketch.
- Insert the **reel stand 8** in the hole in the table plate 3 and secure it with nuts and washers.
Fix and align the reel holders and unwinding arms.
The reel holders and unwinding arms must be vertically in line.
- Screw the **oil-can holder 7** to the left-hand frame upright.
- Screw **reel holder 1** to the table plate 3 (only when fitted with ribbon binder, sewing attachment E4 or E5).

3.2.3 Adjusting the working height

The working height is adjustable between 750 and 840 mm (measured to the upper edge of the table plate).

- Undo screws 6 on both frame uprights.
- Adjust table plate 3 to the desired working height and ensure it is level.
To avoid tilting pull the table plate 3 out or push it in equally at each side.
- Tighten screws 6.





4. Assembling and connecting the sewing drive

4.1 General

Drive units

Complete drive units are available for the **69**.

The drive unit depends on what attachments are fitted to the special sewing machine.

The following table shows which drive unit is required depending on the subclass and optional extras.

subclass	sewing drive	operating panel	optional extra		
			FLP 14-2	RAP 14-1	HP 11-1
69-373	FIR1147-F-554.3	-			
	Efka VD554KV/6F62AV	-	X		
	Quick QD554/A51K01	AB4		X	X
69-FA-373	Quick QD554/A51K01	AB4	X	X	X

Components of all drive units:

- sewing drive
- pedal linkage
- V-belt pulley ($\varnothing = 112$ mm)
- V-belt
- installation plan
- attachment and connection material

Extra components for FIR 1147-F-554.3 drive unit:

- mains switch with attachment material and connection leads

Extra components for Efka VD554KV/6F62AV and Quick QD554/A51K01 drive units:

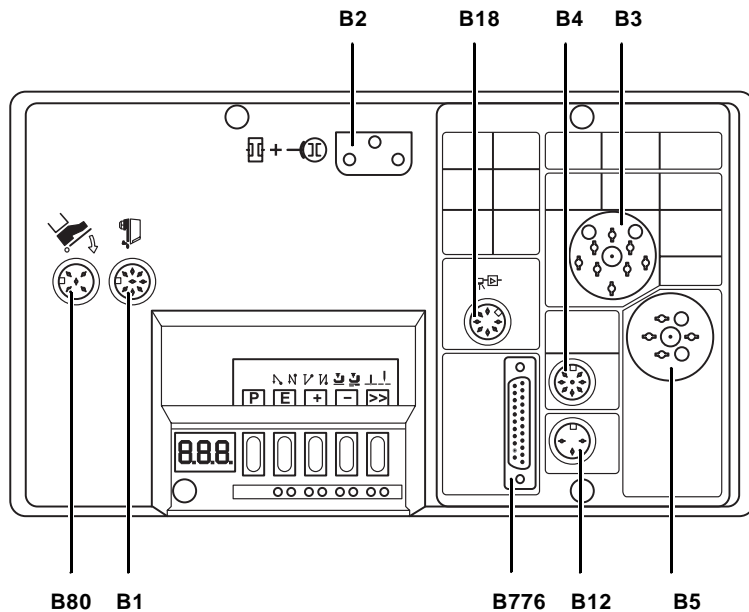
- holder for proximity switch
- earth lead
- motor-protection switch (2,5 - 4,0 A) with attachment material and connection leads
- AB4 operating panel (only for Quick QD554/A51K01)

4.2 Mounting the sewing drive beneath the table plate

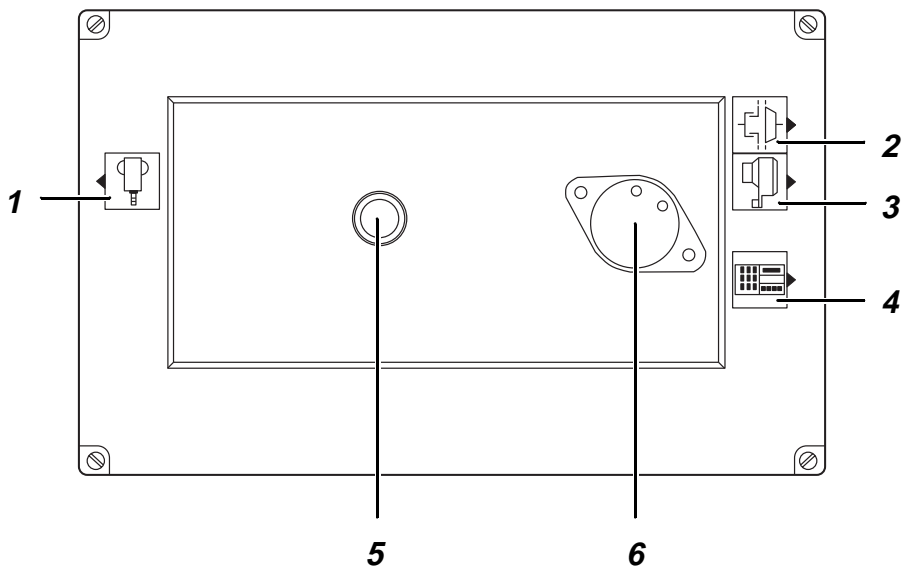
- Attach sewing drive 6 (Quick in the illustration) with its base 2 to the underside of the table plate 7 or right-hand half of the table plate 5 (MG 56-2 frame). Screw in the three hexagonal screws 4 (M8 x 35) with washers 3 into the nuts 1 of the table plate.



Efka VD554KV/6F82AV connection sockets:



Quick QD554/A51K01 connection sockets:





4.3 Connecting the sewing drive



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.

It is essential to comply with the manufacturer's operating instructions (supplied).

All sewing drives (FIR, Efka, Quick):

- Connect the electrical connection lead from the main switch to the sewing drive.

Efka VD554KV/6F82AV sewing drive:

- Plug the connection cable of the clutch/brake into socket **B2** of the control box.
- Plug the connection cable of the desired-value transmitter (pedal) into socket **B80** of the control box.

connection sockets:

- B1** - proximity switch
- B2** - clutch / brake of the sewing drive
- B3** - upper part of machine
- B4** - keypad
- B5** - upper part of machine
- B12** - keypad
- B18** - light barrier
- B80** - desired-value transmitter (pedal)
- B776** - operating panel

Quick QD554/A51K01 sewing drive:

- Plug the connection cable of the clutch/brake into socket **2** of the control box.
- Plug the connection cable of the desired-value transmitter (pedal) into socket **1** of the control box.

connection sockets:

- 1** - desired-value transmitter (pedal)
- 2** - clutch/brake of the sewing drive
- 3** - proximity switch
- 4** - operating panel
- 5** - knee switch
- 6** - upper part of machine



4.4 Checking the nominal voltage



CAUTION:

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

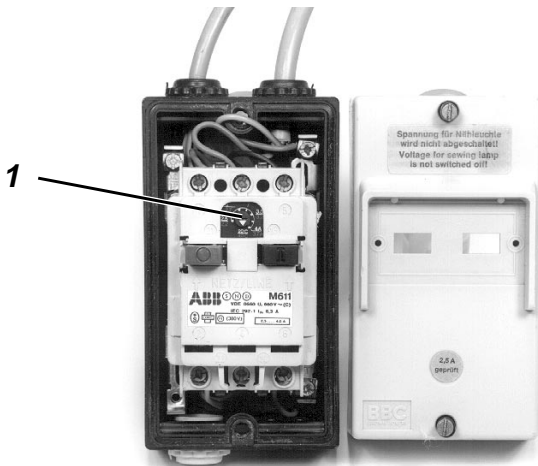
The unit is adapted to the local mains supply via the connection terminals of the sewing-drive transformer.

- Check the arrangement of the connections on the sewing-drive transformer.
- If necessary, change the connections in accordance with the mains voltage (see circuit diagram).

4.5 Adjusting the motor-protection switch

With the **Efka VD554KV/6F82AV** and **Quick QD554/A51K01** sewing drives the motor-protection switch on the induction regulator 1 must be set in accordance with the mains voltage:

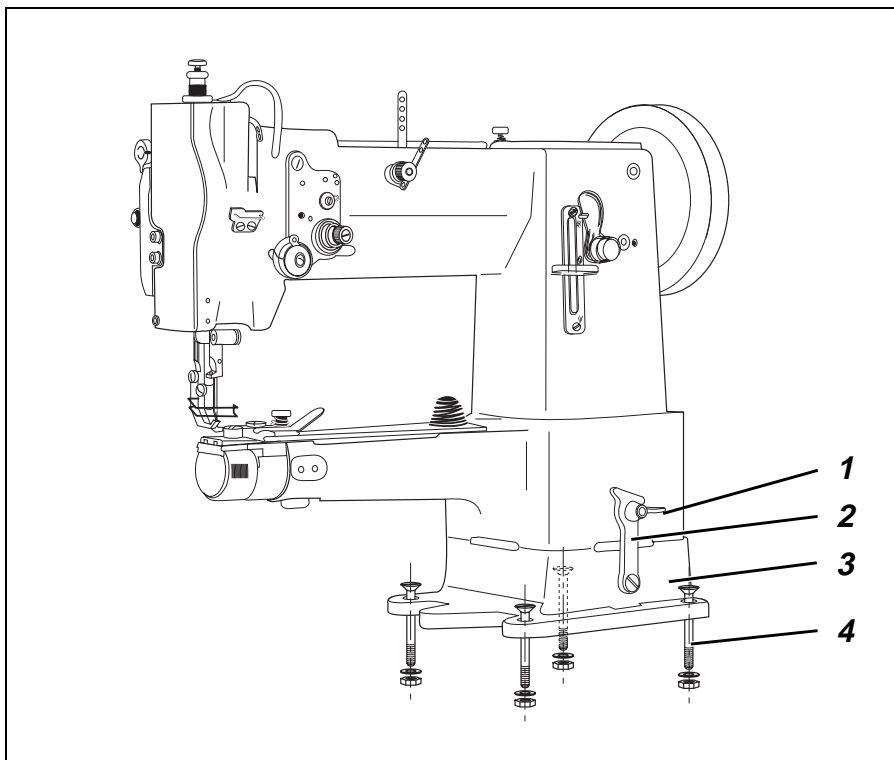
3 x 220-240 V, 50/60 Hz: 4 A
3 x 380-415 V, 50/60 Hz: 2.5 A





5. Fitting the upper part

5.1 Attaching the upper part to the table plate

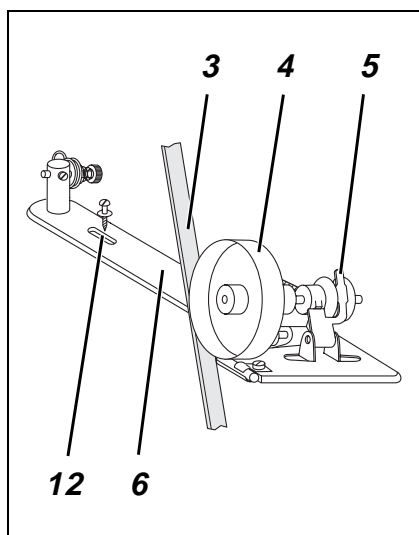
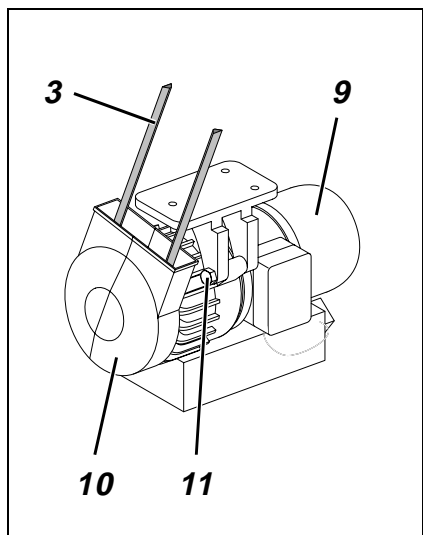
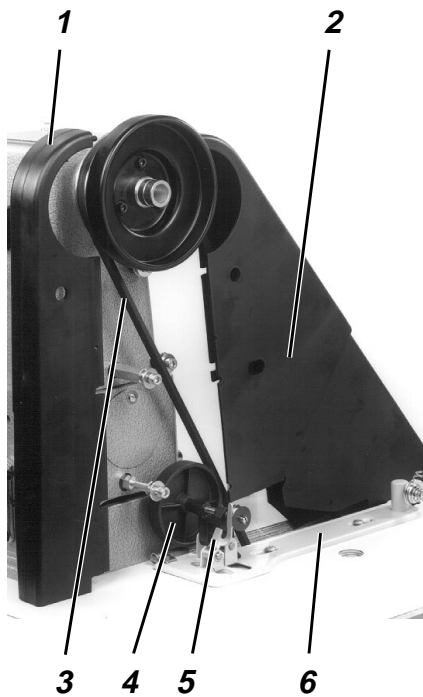


Attaching the upper part to the table plate

- Attach the upper-part base 3 to the table plate with the four screws 4 (M6X60), washers and nuts.

Turning the upper part back

- Undo wing-nut 1.
- Swivel hook 2 to the left.
The upper part is released.
- Turn the upper part back and lay it on the support.





5.2 Fitting and tensioning the V-belt

Removing the protective devices (if they are fitted when the machine is delivered)

- Remove the two-part belt guard 1 and 2 on the upper part.
The attachment screws are accessible through the holes in both parts of the belt guard.
- Remove the belt guard 10 on the sewing drive 9.

Fitting the V-belt and belt guard

- Attach the belt pulley (supplied) to the sewing-drive shaft 9.
- Place the V-belt 3 on the belt pulley on the upper part.
- Pass the V-belt 3 down through the opening in the table plate.
- Turn the upper part back.
- Place the V-belt 3 on the belt pulley of the sewing drive 9.
- Turn the upper part forward again.
- Fit the two-part belt guard 1 and 2 to the upper part.
- Screw on the anti-twist device 8 for the proximity switch 7 (**Efka VD554KV/6F62AV** and **Quick QD554/A51K01** drive units only).

Tensioning the V-belt

- Undo screw 11 on the base of the sewing drive 9.
- Tension the V-belt 3 by swivelling the sewing-drive 9.
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 screw 11.

Fitting the belt guard to the sewing drive

- Adjust the run-off protectors (adjustable cams or joints, depending on the drive type) of the belt guard 10 as follows:
With the upper part turned back the V-belt 3 must remain in contact with the belt pulleys.
- Fit the belt guard 10 to the sewing drive 9.

5.3 Fitting the bobbin winder

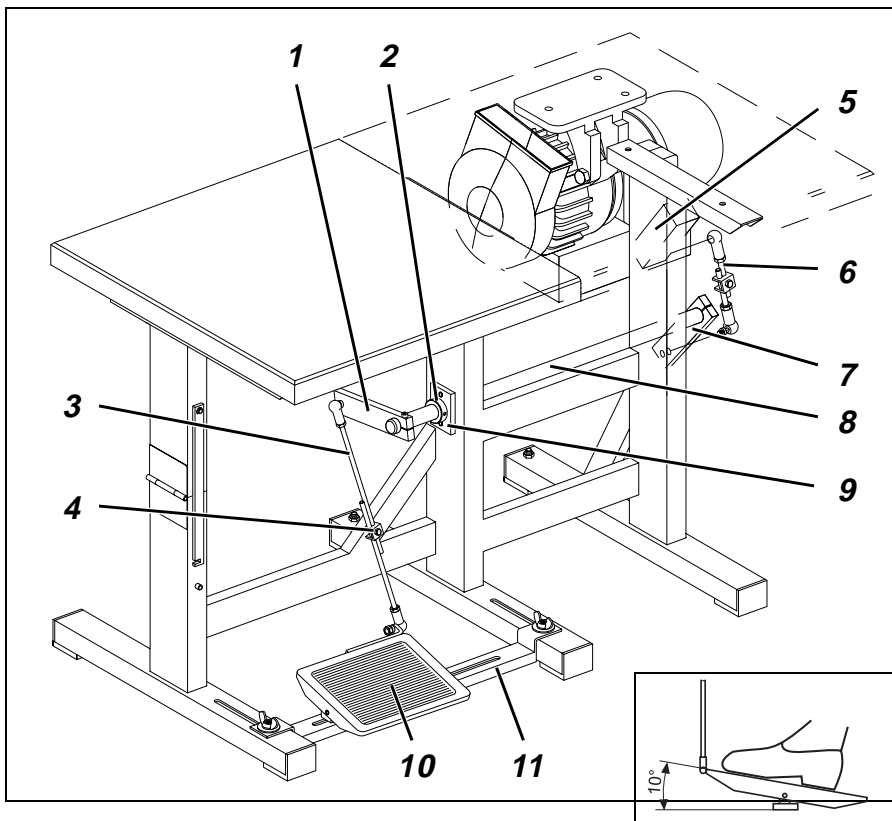
The V-belt 3 drives the bobbin winder via the bobbin-winder wheel 4.

- Swivel the bobbin-winder lever 5 against the bobbin.
- Attach the bottom of the bobbin winder 6 to the table plate with two timber screws.
Use the slots 12 to align the bottom of the bobbin winder 6 as follows:
The bobbin-winder wheel 4 must be in contact with the V-belt 3 under very slight pressure.
- Turn the handwheel.
The bobbin-winder wheel 4 must turn with it.



5.4 Fitting the pedal

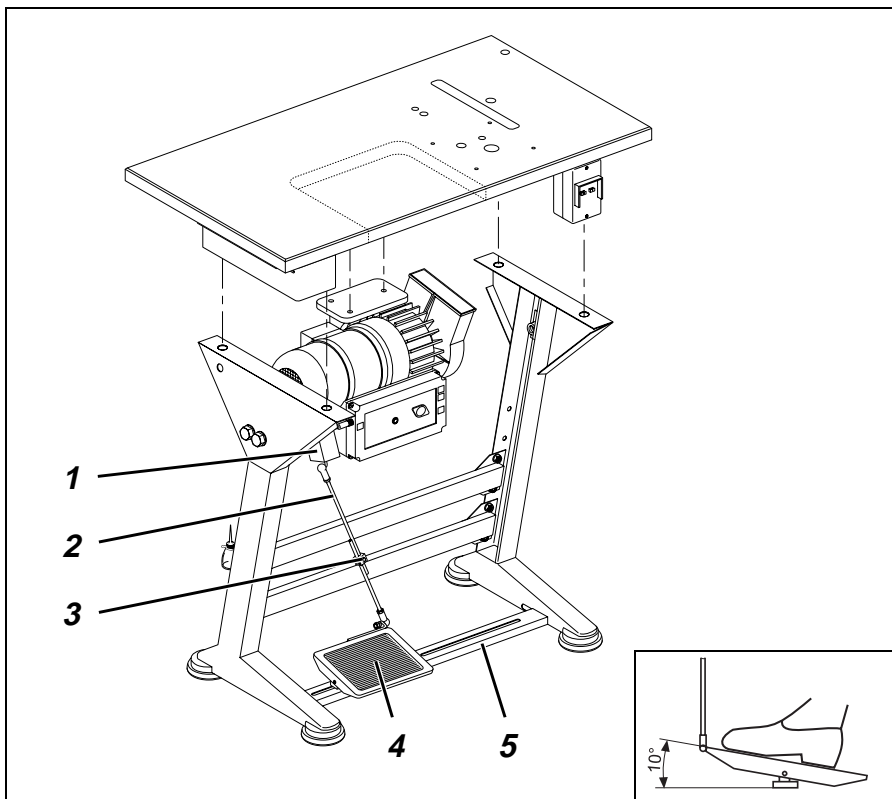
5.4.1 MG 56-2 frame



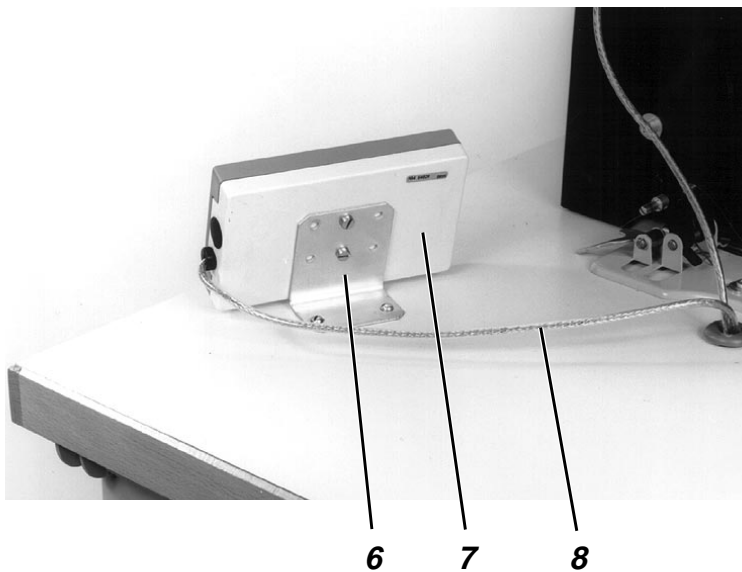
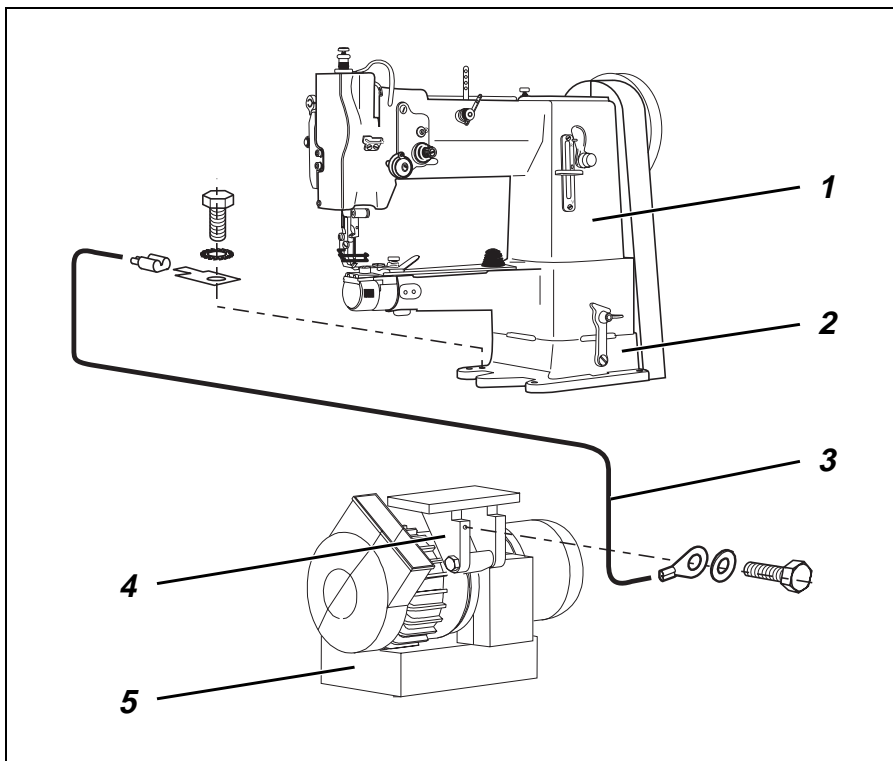
- Attach the pedal 10 to frame strut 11. There is a slot in frame strut 11 for this purpose.
- Fit pedal linkage 3 to the pedal 10 and attach lever 1.
- Attach the linkage 6 to lever 7 and the desired-value transmitter 5 of the sewing drive.
- Undo the threaded pins on both adjustment rings 2.
- Undo locking screws on levers 1 and 7.
- Align the shaft 8 axially with levers 1 and 7. Linkages 3 and 6 must be vertical when seen from the operating side.
- To fix the shaft 8 push the adjustment rings 2 up against the bearing plates 9.
- Tighten locking screws on levers 1 and 7.
- Slightly undo screw 4.
- Adjust the height of pedal linkage 3 as follows: When not under pressure the pedal 10 must be at an inclination of about 10°.
- Tighten screw 4.



5.4.2 MG 53-3 frame



- Attach pedal 4 to the frame strut 5.
There is a slot in frame strut 5 for this purpose.
- Attach pedal linkage 2 to the pedal 4 and desired-value transmitter 1 of the sewing drive.
- Slightly undo screw 3.
- Adjust the height of pedal linkage 2 as follows:
When not under pressure the pedal 4 must be at an inclination of about 10°.
- Tighten screw 3.





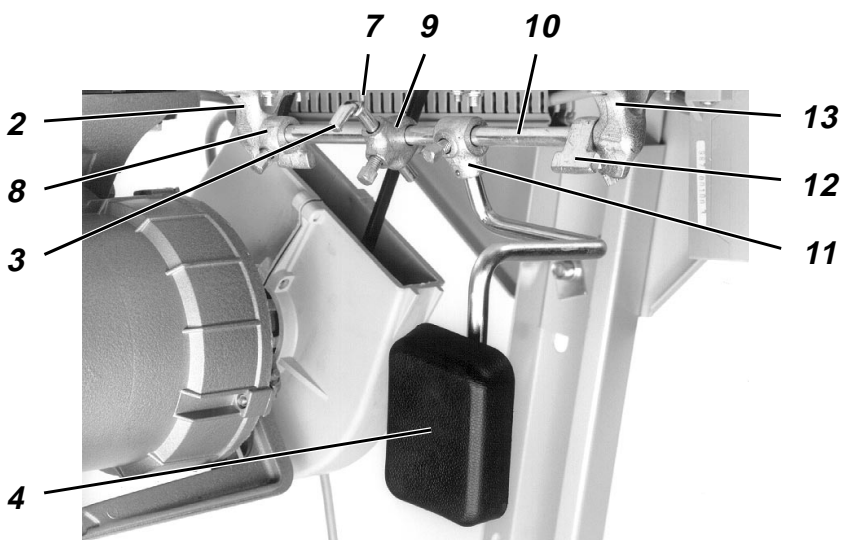
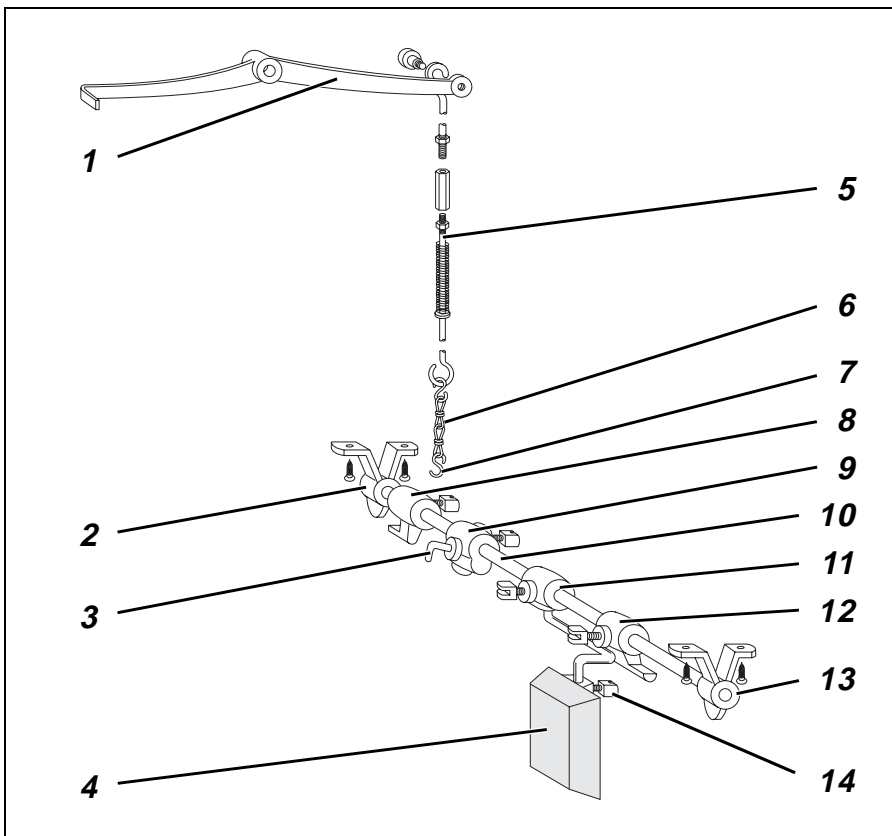
5.5 Potential equalisation

On the **Efka VD554KV/6F62AV** and **Quick QD554/A51K01** drive units the earthing lead 3 conducts static charges from the upper part 1 via the sewing drive 5 to earth.

- Attach the cable lug of the earthing lead 3 to the base 4 of the sewing drive 5 with screw (M4) and washer.
A threaded hole is provided in the base 4 for this purpose.
- Pass the earthing lead 3 up through the hole in the table plate.
- Attach the earthing lead 3 to the base 2 of the upper part with receptacle, tab, antiturn washer and screw (M4).
A threaded hole is provided in the base 2 for this purpose.

5.6 Fitting the operating panel (Quick QD554/A51K01 drive unit)

- Attach external operating panel 7 to the table plate with attachment bracket 6 and timber screws.
- Pass connection lead 8 down through the hole in the table plate.
- Insert the plug of the connection lead 8 into the socket 4 of the drive-control unit (see illustration on page 10).





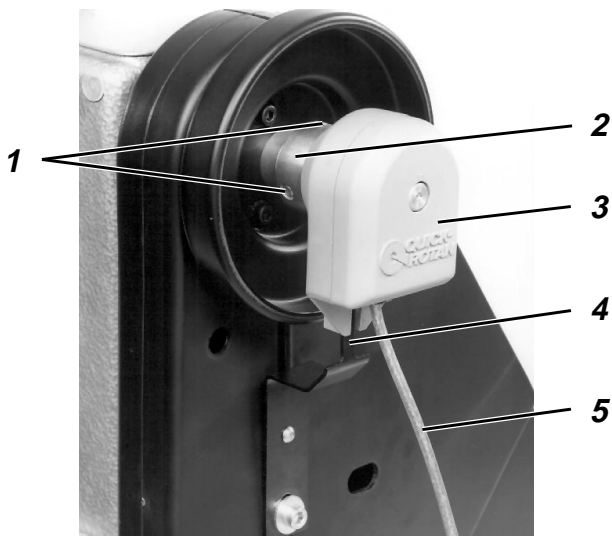
5.7 Fitting the knee lever

The sewing feet are mechanically raised with the knee lever 4. The movement of the knee lever is transmitted to the lifting lever 1 via the chain 6 and tension bar 5.

- Attach the shaft 10 with both supports 2 and 13 and 4.5 x 20 timber screws beneath the table plate.
- Place stop cams 8 and 12 against supports 2 and 13.
- The stop cams 8 and 12 limit the movement of the knee lever 4 in both directions. Turn the stop cams on the shaft 10 accordingly and tighten the locking screws.
- Attach chain 6 with hook 7 to the pressure bar 3.
- Move the adjustment block 9 along shaft 10 and tighten the locking screw. The chain 6 must pass vertically down through the hole in the table plate.
- Move the block 11 along shaft 10 and tighten the locking screw. The knee lever 4 must be easy for the operator to use in a normal sitting position.
- Undo locking screw 14.
- Adjust the height of knee lever 4.
- Tighten locking screw 14.



6. Fitting, connecting and adjusting the proximity switch



6.1 Fitting and adjusting the proximity switch

- Place the proximity switch 3 (Quick in the illustration) on the handwheel flange. The groove in the proximity-switch housing must engage with the belt guard via the antitwist device 4.
- Tighten both threaded pins 1 on the proximity-switch ring 2.
- Pass the connection lead 5 down through the hole in the table plate.
- Insert the plug of connection lead 5 in the appropriate socket of the drive-control unit (see illustrations on page 10).



6.2 Checking the direction of rotation



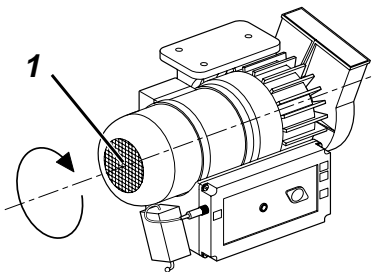
CAUTION:

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.

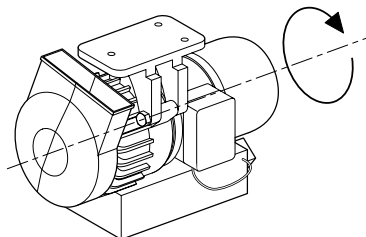
The sewing drives are fitted to the frames in two different positions.

The direction of rotation of the sewing drive depends on which frame is used.

MG 53-3 frame:
left rotation



MG 56-2 frame:
right rotation



frame	direction of sewing-drive rotation (looking at the belt pulley)
MG 53-3	left rotation (anticlockwise)
MG 56-2	right rotation (clockwise)

In the three-phase sewing drives used it is the rotating field of the supply voltage which determines the direction of rotation.

- Insert the mains plug.
- Check the direction of rotation of the motor fan (behind the fan grille 1) by briefly turning on the main switch. The arrows in the above illustration show the correct direction of rotation for the two frame types.
- If the direction of rotation is wrong, two phases in the mains plug must be swapped over.



CAUTION:

If the direction of rotation has been changed the positions must be reset or re-programmed.



6.3 Checking the positioning

- Turn on the main switch.
- Move the pedal briefly forwards.
The sewing machine assumes **position 1** (loop-stroke position, i.e. 2 mm after top dead centre). Check the position of the needle.

CAUTION

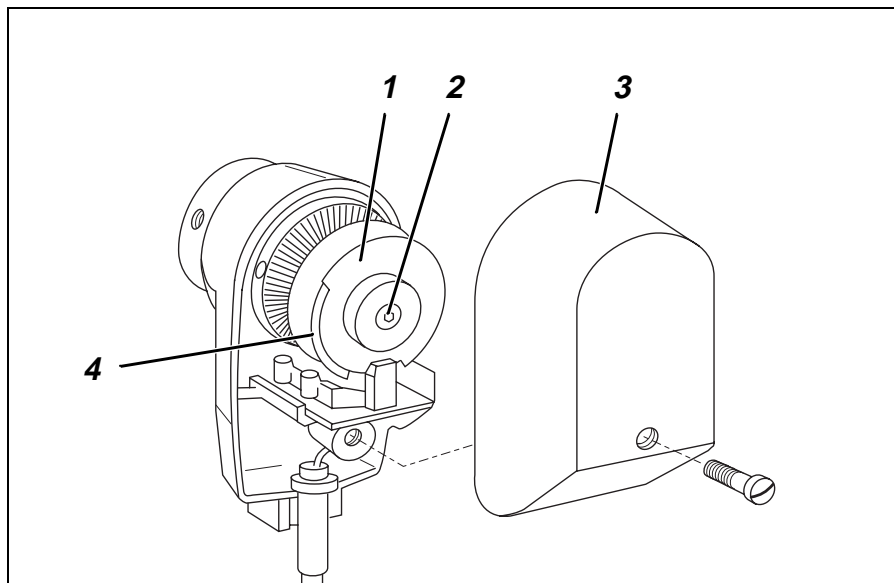
Subclass **69 FA** assumes a position such that after top dead centre the upper edge, eye of the needle and the surface of the needle plate are all at the same level.

- Move the pedal fully back and hold it there.
On machines with a thread clipper the thread is severed.
The sewing machine assumes **position 2** (just behind the highest position of the thread lever, i.e. the tension in the thread should just have been released).
- Check whether the thread lever is just behind its top dead centre.
To do this, turn the handwheel a few degrees in both directions.
- This is normally all the checking which is necessary.
Should any adjustment to the works settings be necessary, proceed as follows.

6.4 Adjusting positions

The proximity switch must be re-adjusted after the following work has been carried out:

- fitting the proximity switch when setting up the special sewing machine
- unscrewing the proximity switch
- replacing the proximity switch
- replacing the microprocessor of the drive-control unit
- replacing the entire drive-control unit





6.4.1 Efka VD554KV/6F62AV sewing drive



Caution: danger of injury

Turn off the main switch before adjusting positioning pulleys 1 and 4.

The utmost care must be taken when adjusting the positioning pulleys. The positioning pulleys and the generator (innermost) pulley must not be damaged.

The position of positioning pulleys 1 and 4 determines the machine positions.

Position 1

- Use the ">>" button on the control box to select the basic "**needle down**" position (the left-hand LED beneath the button lights up).
- Move the pedal briefly forwards.
The sewing machine stops in the 1st position.
- Check whether the needle is in the loop-stroke position (2 mm after bottom dead centre).

CAUTION:

Subclass **69 FA** assumes a position such that after bottom dead centre the upper edge, eye of the needle and the surface of the needle plate are all at the same level.

- Turn off the main switch.
- Remove cover 3 after undoing the attachment screw.
- Slightly undo locking screw 2.
- Turn the middle positioning pulley 4 for position 1 in the desired direction.

Position 2 (thread lever just behind top dead centre)

- Turn on the main switch.
- Use the ">>" button on the control box to select the basic "**needle up**" position (the right-hand LED beneath the button lights up).
- Move the pedal briefly forwards.
The sewing machine stops in the 2nd position.
- Check whether the thread lever is just behind top dead centre.
The tension in the thread should just have been released.
- Turn off the main switch.
- Turn the outer positioning pulley 1 for position 2 in the desired direction.
- Turn on the main switch.
- Check the 1st and 2nd positions again.
Repeat the process if necessary.
- Tighten locking screw 2.
- Replace cover 3.



CAUTION:

After the direction of rotation has been changed the positions must be reset.



6.4.2 Quick QD554/A51K01 sewing drive

No mechanical adjustment to the digital proximity switch is required.
Only the reference position must be set prior to the machine's first use.

The machine positions are registered by the proximity switch in steps (increments) and displayed.

One revolution of the handwheel is equivalent to 480 steps. The display is updated every 2 steps. A change from one displayed value to the next thus corresponds to an angle of rotation of about 1.5°.

The angle of positions 1 and 2 to the reference position is defined in each case by a fixed number of increments.

Reference position

The reference position is starting point for all pre-set positions.
In the reference position the needle is just entering the needle plate.
The tip of the needle is on a level with the upper side of the needle plate.

Position 1

In the 1st position the needle must be in the loop-stroke position, i.e. 2 mm after bottom dead centre.

On machines with thread clippers the severing process is initiated in the 1st position.
Subclass **69 FA** assumes a position such that after bottom dead centre the upper edge, eye of the needle and the surface of the needle plate are all at the same level.

position 2

In the 2nd position the thread lever must be just behind its upper dead centre.

Programming steps:

1. Selecting programming mode

- Turn off the main switch.
- Simultaneously press and hold down the "**G**" and "-" buttons.
- Turn on the main switch again.
The control unit switches to technician level.
"***MANUAL**" appears in the display.

2. Programming the reference position

- Simultaneously press the "**G**" and "-" buttons.
- Release both buttons.
"**ENTER**" appears in the display.
- Press the "**G**" button repeatedly until "**G7*******" appears in the display.
- Press the "**F**" button.
"**700*XXXX**" appears in the display.
"**XXXX**" stands for the number value of the position at which the proximity switch is screwed on.
- Move pedal briefly forwards.
The upper part takes up any position.
- Turn the handwheel to move the upper part to the reference position (needle tip on the upper edge of the needle plate).
Caution:
For all settings the handwheel must be turned in the machine's direction of rotation.



- Move pedal briefly forwards.
The programmed reference position is saved.
- Simultaneously press the "G" and "-" buttons.
"*MANUAL" appears in the display.

3. Programming position 1

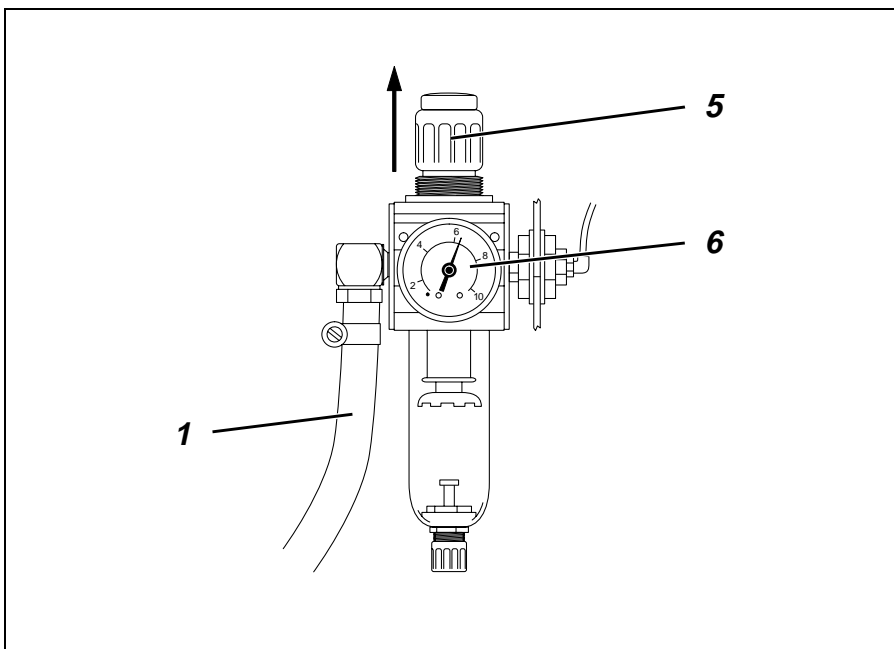
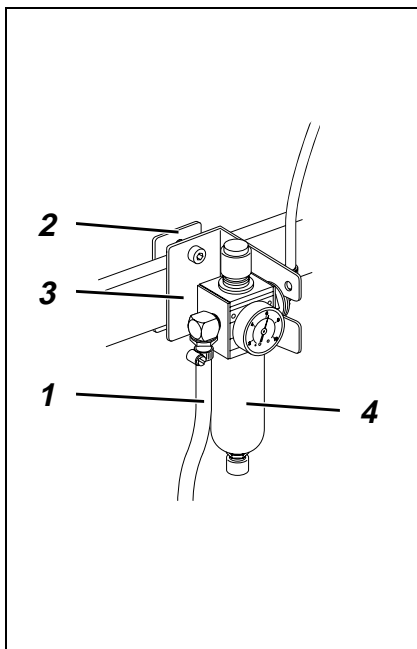
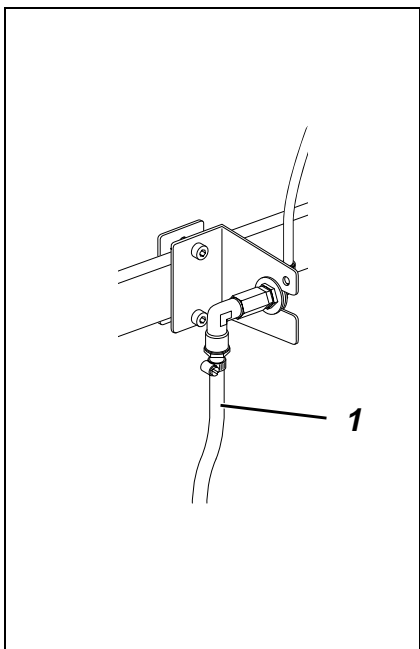
- Simultaneously press the "G" and "-" buttons.
- Release both buttons.
"ENTER" appears in the display.
- Press the "F" button.
appears in the display "700*XXXX".
- Press the "F" button repeatedly until "702*XXXX" appears in the display.
- Move pedal briefly forwards.
The upper part moves to pre-set position 1.
- Turn the handwheel until the 1st position (loop-stroke position) is reached.
CAUTION:
Subclass 69 FA assumes a position such that after bottom dead centre the upper edge, eye of the needle and the surface of the needle plate are all at the same level.
- Move pedal briefly forwards.
The programmed 1st position is saved.

4. Programming position 2

- Press the "F" button.
"703*XXXX" appears in the display.
- Move pedal briefly forwards.
The upper part moves to pre-set position 2.
- Turn handwheel until the 2nd position (thread lever just behind its top dead centre) is reached.
- Move pedal briefly forwards.
The programmed 2nd position is saved.

5. Leaving programming mode

- Simultaneously press the "G" and "-" buttons.
"*MANUAL" appears in the display.
- The sewing machine is ready for operation.





7. Pneumatic connection

The pneumatic optional extras require a supply of moisture-free compressed air.



CAUTION:

The pneumatic assemblies will only function properly at a mains pressure of 8 to 10 bar.

The operating pressure of the special sewing machine is **6 bar**.

- Connect the special sewing machine to the local compressed-air supply with connection hose 1 ($\varnothing = 9$ mm).
- **Pneumatic connection kit**
A pneumatic connection kit is available for frames with a compressed-air maintenance unit and pneumatic optional extras under order no. 0797 003031. It contains the following components:
 - connection hose, 5m long, $\varnothing = 9$ mm
 - hose connectors and ties
 - connector plug and socket

7.1 Compressed-air maintenance unit

The WE-6 compressed-air maintenance unit for pneumatic optional extras is available under order no. 9781 000002.

Connecting the compressed-air maintenance unit

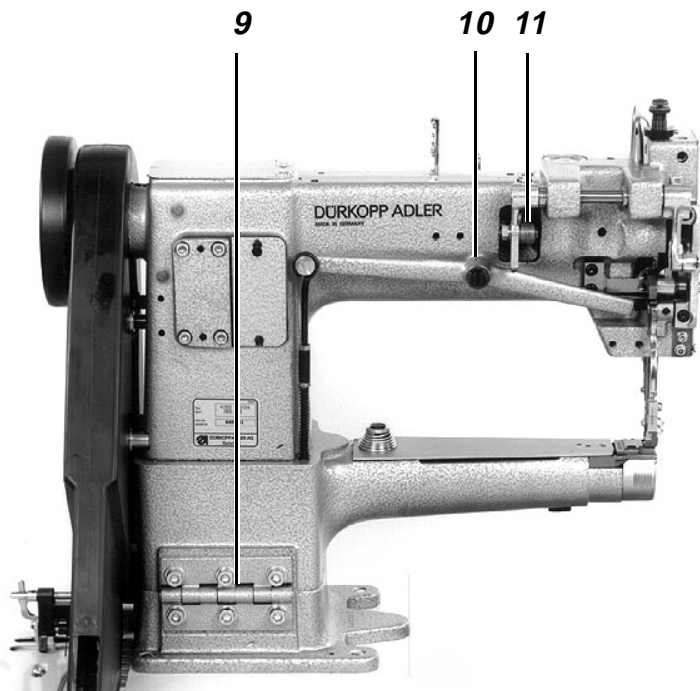
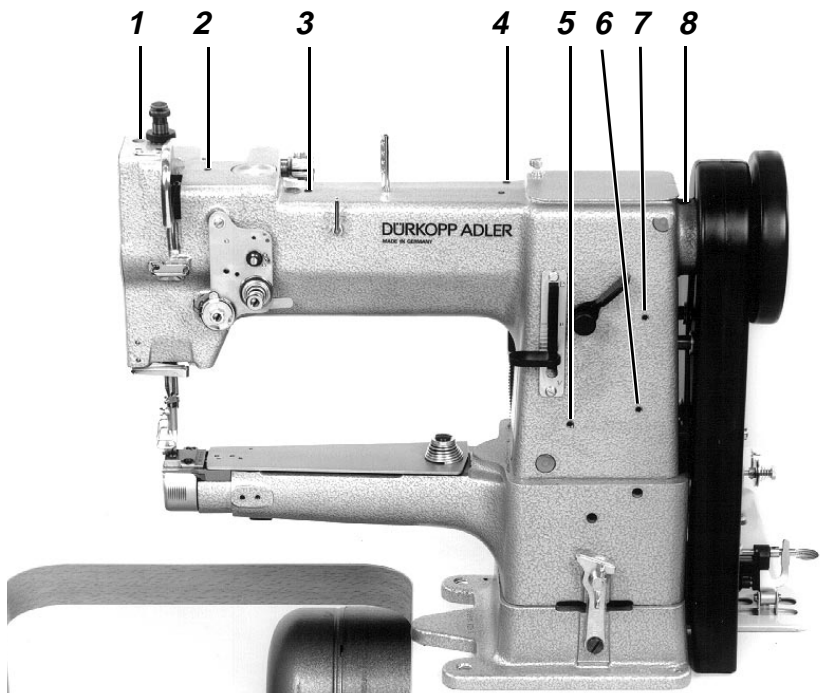
- Attach the compressed-air maintenance unit 4 with bracket 3 and plate 2 to the frame.
- Connect the compressed-air maintenance unit 4 with connection hose 1 ($\varnothing = 9$ mm) and R1/4" hose connector to the local compressed-air supply.

Adjusting the operating pressure

The operating pressure is **6 bar**.



It can be read off at the pressure gauge 6.

- To adjust the operating pressure, lift and turn rotary handle 5.
 - to increase pressure: turn rotary handle 5 clockwise
 - to decrease pressure: turn rotary handle 5 anticlockwise





8. Lubrication

	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

ESSO SP-NK 10 lubricating oil

or an equivalent oil of the following specification:

- viscosity at 40° C : 10 mm²/s
- flashpoint: 150 °C

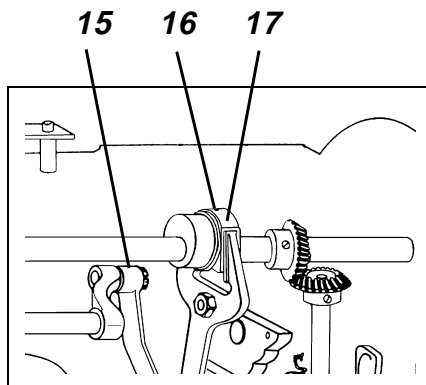
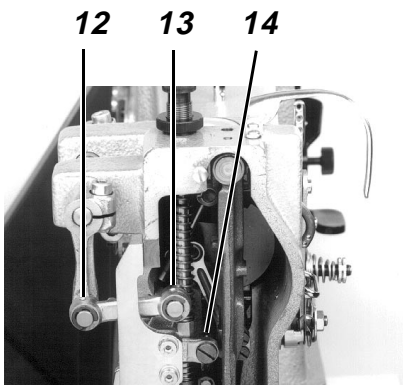
ESSO SP-NK 10 is available from **DÜRKOPP ADLER AG** retail outlets under the following part numbers:

2-litre container: 9047 000013

5-litre container: 9047 000014

Oiling lubrication points

- Remove top, cap, needle plate and lower part of needle plate.
- Use a cloth to clean all visible parts of rust-inhibiting grease and dirt.
- Oil lubrication points 1-17 shown in the illustration with a few drops of oil.
NB:
Subclass **69-FA-373** has no lubrication point 8.
- Replace top, lower part of needle plate, needle plate and cap.





9. Sewing test

A sewing test must be carried out on completion of the setting-up process.

- Insert the mains plug.



Caution: danger of injury

Turn off the main switch.
The looper thread may only be threaded for winding on with the sewing machine switched off.

- Thread the looper thread for winding on (see operating instructions).
- Lock the sewing feet in the raised position (see operating instructions).
- Turn on the main switch.
- Fill the bobbin at low sewing speed.



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 needle and looper threads (see operating instructions).
- Select the material to be processed.
- Carry out a sewing test, first at low speed and then at gradually increasing speed.
- Check that the seams are of the required quality.
If not, alter the thread tensions (see operating instructions).
If necessary the settings given in the servicing instructions should be checked and adjusted.