

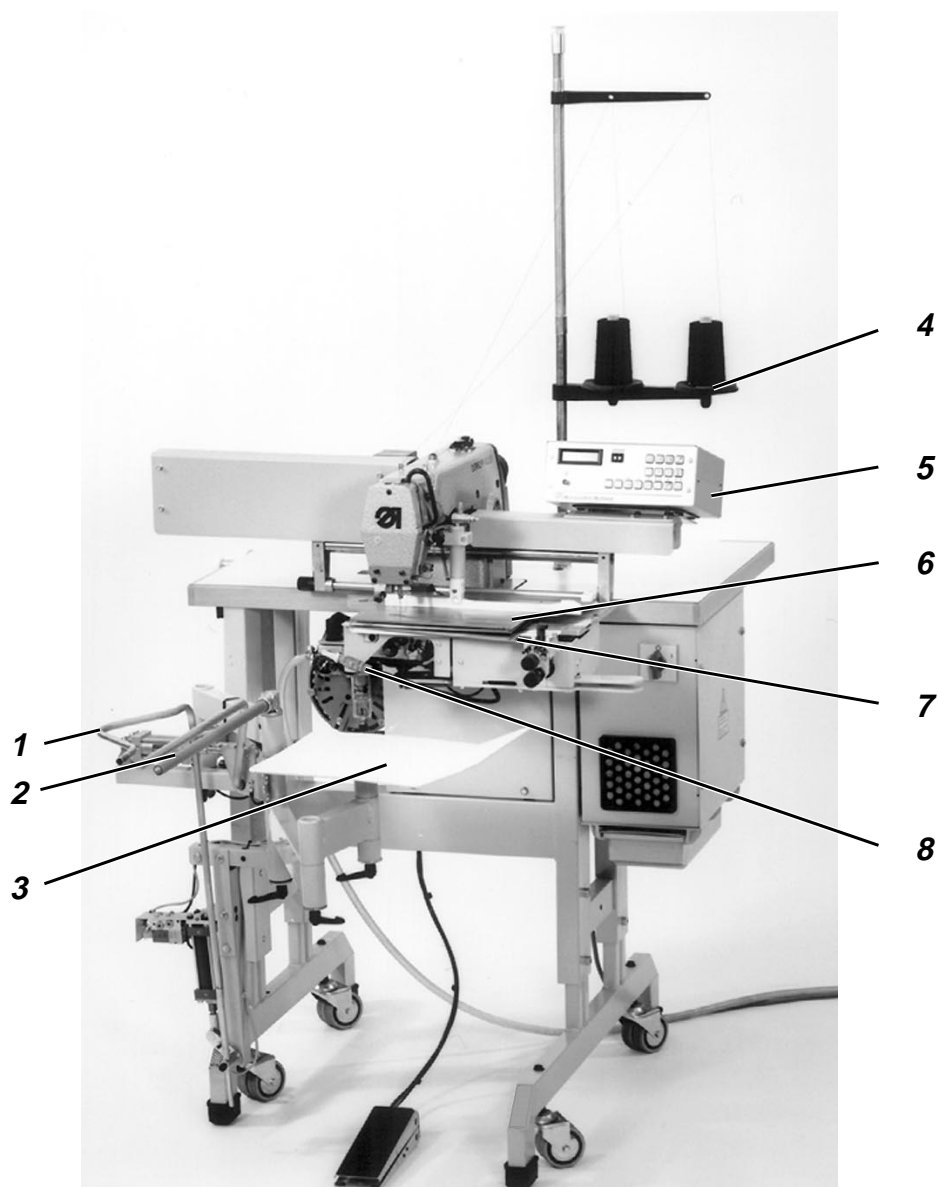
**Part 2: Installation Instructions Cl. 743-221**

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## 1. Scope of Delivery of the Sewing Unit



The scope of delivery is dependent on your order.  
Before installation please check if all required parts are present.

### Standard equipment and optional equipment:

- 1 Smoother device
- 2 Bundle clamp with slewing arm and holder pipe
- 3 Placement table
- 4 Yarn stand
- 5 Microcontrol control unit
- 6 Form set
- 7 Folding table
- 8 Blower pipe from above and/or from the right
- Small parts in the accessories pack



## 2. General Information and Transport Safeguards



### ATTENTION !

The sewing unit may only be installed by trained, skilled personnel. All work on the electrical equipment of the sewing unit may only be conducted by electricians or appropriately instructed persons. The mains plug must be pulled.

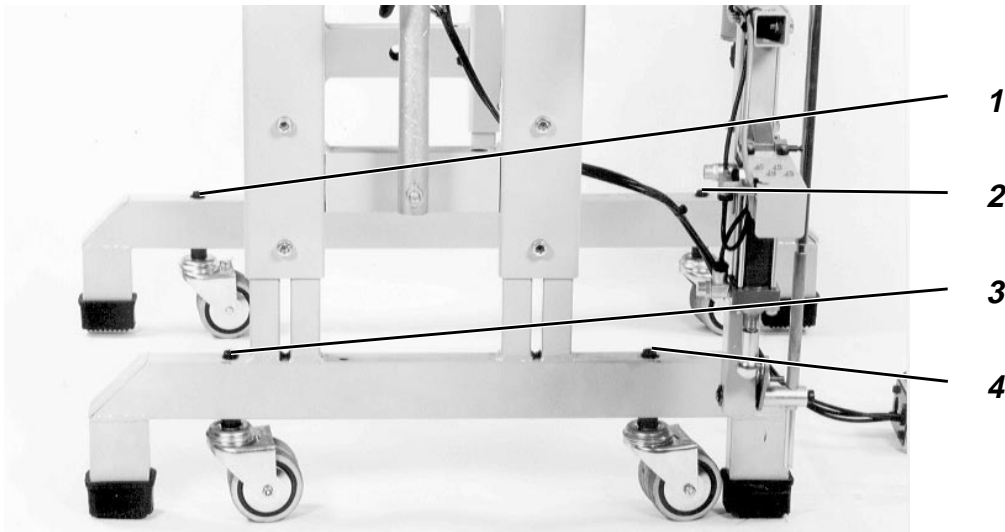
The operating instructions for the sewing drive and the step motor drive are to be observed.

Before installation of the sewing unit the following **transport safeguards** are to be removed:

- The securing band from the sewing drive.
- The angles which on the wooden pallet lock over the feet of the frame.
- Securing bands of the smoother and bundle clamp.
- Securing bands of the placement table.

## 3. Installation of the Sewing Unit

### 3.1 Transport of the Sewing Unit



The sewing unit has 4 castors for in-house transport.



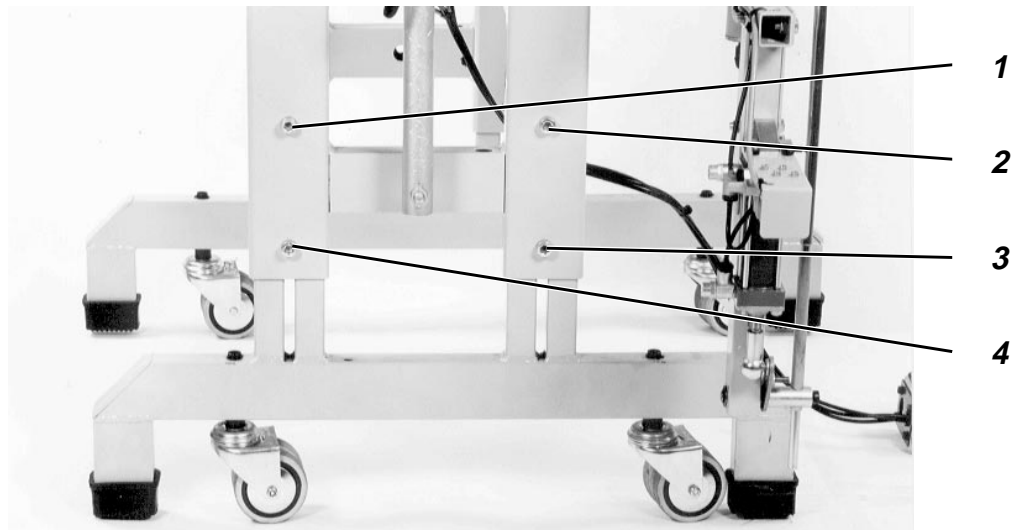
### ATTENTION !

During operation of the sewing unit the castors must be turned in so far that the unit rests firmly on its feet.

- For transport turn the setting screws 1 to 4 **to the left**. The feet must have enough floor clearance for transport.
- Transport the sewing unit.
- To lower the sewing unit turn the setting screws 1 to 4 **to the right**. The feet must rest firmly on the floor.



### 3.2 Setting the Working Height

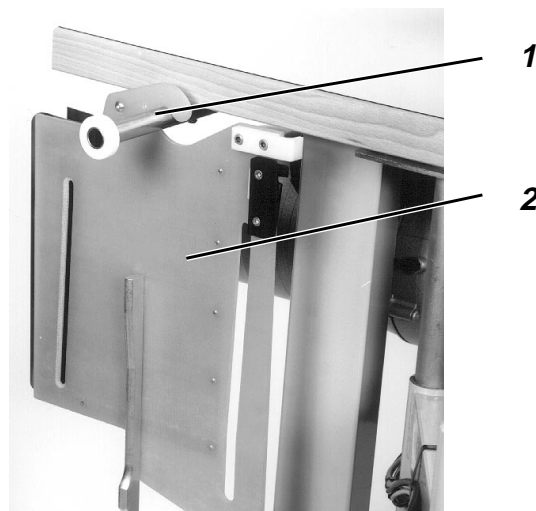


The working height is adjustable between 84.5 cm and 124.5 cm. The sewing unit was brought into the lowest position for shipping.

#### Setting the working height

- Loosen fastening screws 1 to 4.
- Set the unit to the desired height horizontally.
- Tighten fastening screws 1 to 4.

### 3.3 Mounting for the Form Set

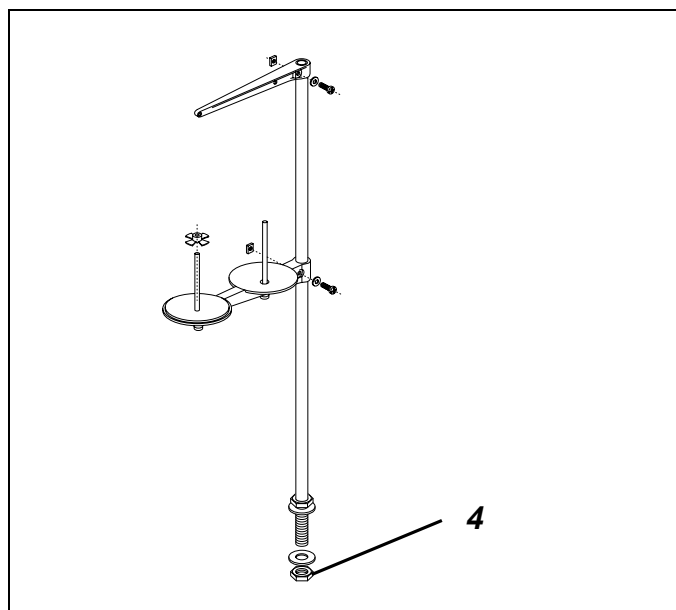
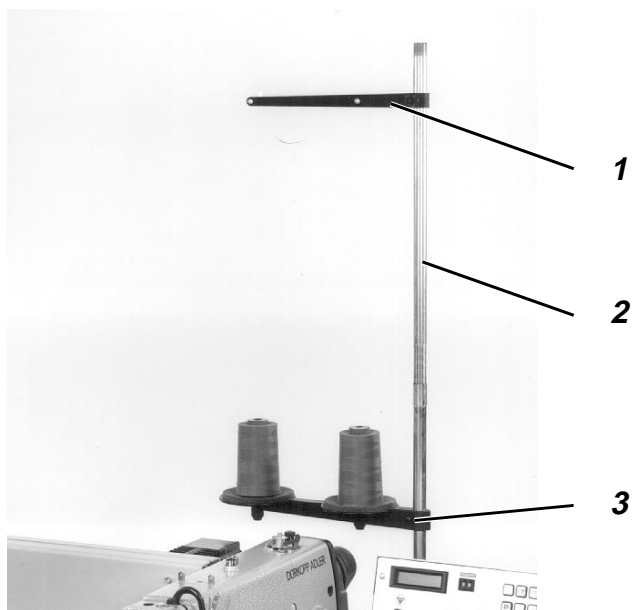


During transport the mounting 1 for the form set 2 is located under the table top.

- Remove the mounting screws.
- Turn the mounting 1 180°.
- Attach the mounting screws again.



### 3.4 Attaching the Yarn Stand



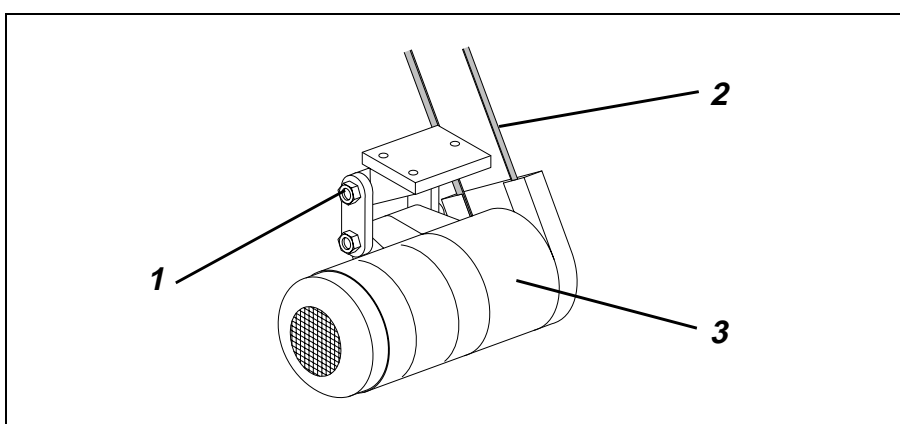
The yarn stand is enclosed loose.

For a mains connection from above, the connection cable can be drawn through the tube 2 of the yarn stand.

The compressed air feed can be guided up through the 2nd drilled hole in the table top and attached to the yarn stand with cable clamps.

- Insert tube 2 and screw the nut 4 fast under the work plate.
- Align the yarn spool holder 1 and take-off arms 3 parallel to the rear edge of the table. The yarn spool holder 1 and take-off arms 3 must lie above one another.

### 3.5 Checking the V-belt Tension



It must be possible to press the V-belt 2 together approx. 10 mm at the center.

#### Setting the V-belt tension

- Loosen screw 1.
- The drive 3 is swung until the desired V-belt tension is achieved.
- Tighten screw 1 again.



## 4. Electrical Connection



### ATTENTION !

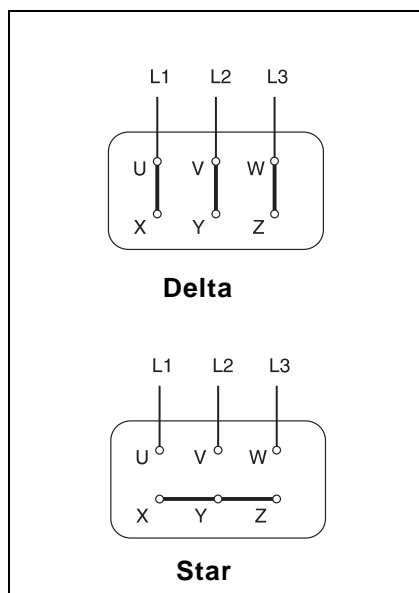
All work on the electrical equipment of the sewing unit may only be conducted by electricians or appropriately instructed persons.  
The mains plug must be pulled.

### 4.1 Connecting the Microcontrol Control Unit



- Place the control unit on the mounting plate and fasten with the stopper nuts.
- Connecting the cables:  
**Attention!**  
Carefully insert the plugs into the control unit back plate. In as far as these exist, observe corresponding designations on the cables and back plate. Also observe the differing outfitting of the plugs with contact pins or contact sockets, as well as their number and arrangement.
- Tighten the screws of the plugs.

### 4.2 Checking the Nominal Voltage



The nominal voltage listed on the identification plate and the mains voltage must correspond !

For conversion to another mains voltage the appropriate parts set must be mounted.

The parts set consists of:

Belt pulley, V-belt, protection switch insert.

**Nominal voltage:**

**Order no.:**

3 ~ 380 - 415 V + N , 50 Hz

9880 743002

3 ~ 220 - 240 V , 50 Hz

9880 743003

3 ~ 220 - 240 V , 60 Hz

9880 743004

When converting to another mains voltage the wiring must be changed. The wiring is to be found in the wiring diagram.

The bridges in the motor terminal box are to be switched in " **Star** " or " **Delta** " appropriate to the mains voltage !



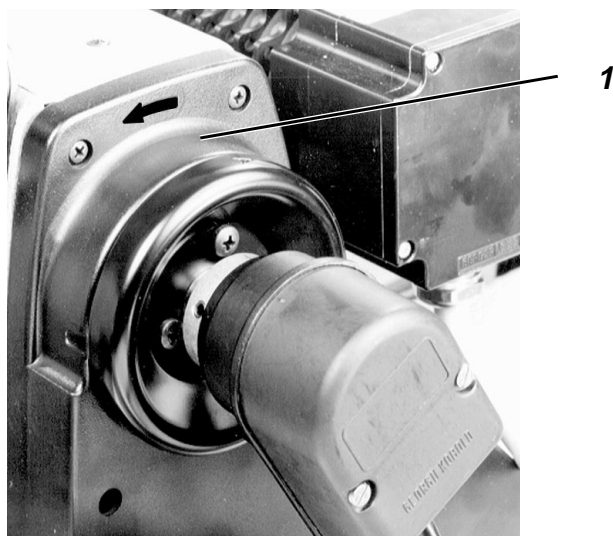
### 4.3 Setting the Motor Protection Switch



The motor protection switch 1 must be set appropriate to the mains voltage.

220 - 230 V	4.2 A
380 - 400 V	2.5 A

### 4.4 Checking the Direction of Rotation of the Motor



#### **ATTENTION !**

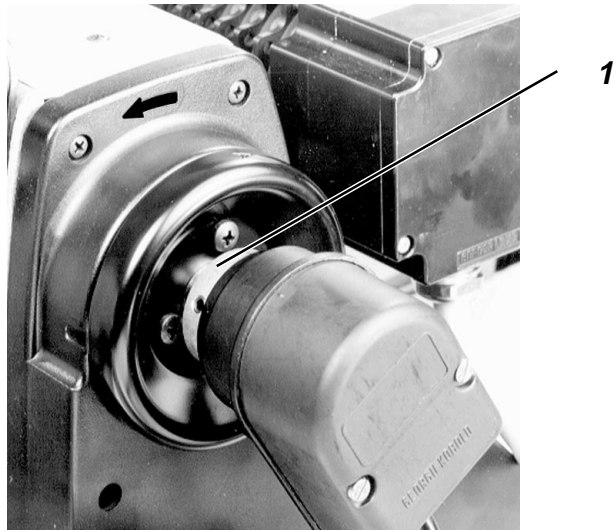
Before commissioning the sewing unit it is essential that the direction of rotation of the motor be checked. Turning on the sewing unit with an incorrect direction of rotation can lead to damage to the unit.

- The correct direction of rotation of the handwheel is shown by the arrow on the handwheel belt guard 1.
- If the direction of rotation is **not** correct, then it must be checked if the power supply generates a clockwise rotary field. If this is the case, then 2 phases in the connection plug must be interchanged.





## 4.5 Checking the Positioning



The sewing unit should position when the handwheel is in position between **B** and **C**.

### Checking the positioning

- Turn the sewing unit off.
- By turning the handwheel, bring the thread lever into a middle position.
- Turn the sewing unit on.  
The sewing unit positions.

### Setting the position

- Loosen the set screws of the synchronizer.
- Hold the synchronizer collar 1 fast.
- Turning the handwheel in position between **B** and **C**.
- Check the positioning again.



## 5. Pneumatic Connection



### ATTENTION !

For a fault-free functioning of the pneumatic control sequences, the following notes are to be observed.

The compressed air supply must be so conceived that even at the moment of the greatest air consumption a minimum operating pressure of **5 bar** is not fallen short of.

The connection to the compressed air supply is made with the accessories available as optional equipment ( 0797 003031 ) or with in-house connection material.

Operating pressure 2 = 6 bar

The blower pressure 1 must be suitable for the material.

Standard setting: approx. 3 bar



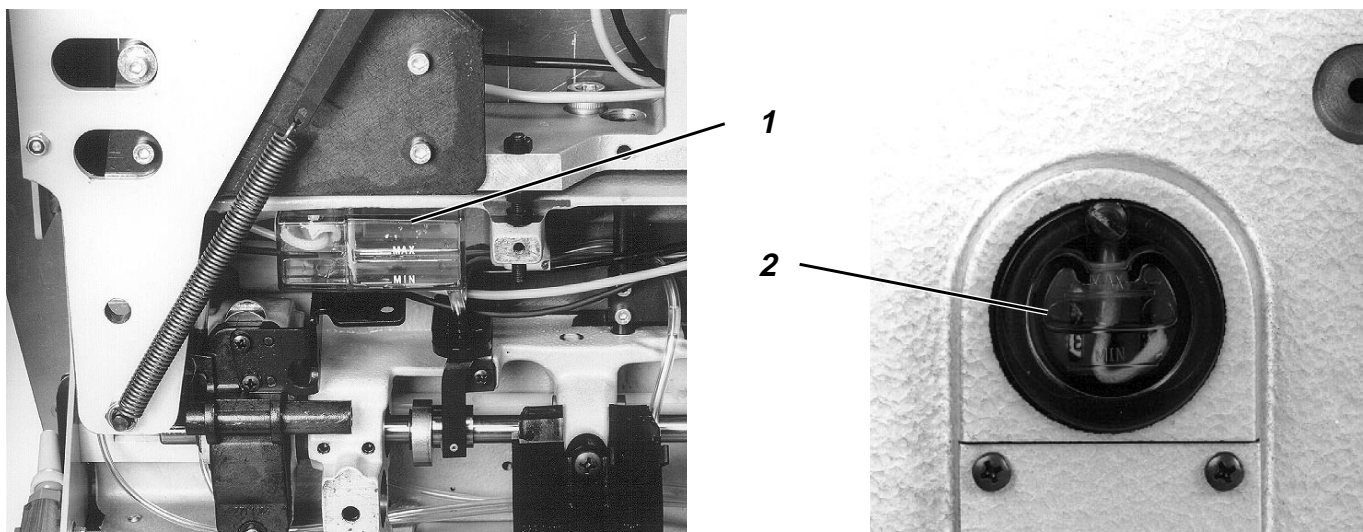
To set the pressure, lift and turn the appropriate knob.

Turn to the left = Decrease pressure

Turn to the right = Increase pressure



## 6. Lubrication



For filling the oil reservoir use only **ESSO SP-NK 10** lubricating oil or an equivalent oil with the following specification:

- Viscosity at 40 °C: 10 mm<sup>2</sup>/s
- Flash point: 150 °C

**ESSO SP-NK 10** lubricating oil is available from **DÜRKOPP ADLER AG** sales offices:

- |                   |             |
|-------------------|-------------|
| 2 liter container | 0570 001699 |
| 5 liter container | 0990 470058 |



### Caution Risk of Injury !

Oil can cause skin rashes.  
Avoid longer skin contact.  
Wash yourself thoroughly after contact.



### ATTENTION !

The handling and disposal of mineral oils are subject to legal constraints.  
Deliver used oil to an authorized reception point.  
Protect your environment.  
Take care not to spill any oil.



### Hook lubrication

- Tilt the machine head up.
- Fill the oil reservoir 1 up to the "Max" mark with oil.
- The required oil feed was set at screw 3 at the factory.  
The oil feed should only be decreased or increased in special cases.

### Machine head lubrication

- Fill the oil reservoir 2 up to the "Max" mark with oil.

3



## 7. Sewing Trial



A sewing trial is to be conducted after completion of the installation work!

- Insert the mains plug.



### Caution Risk of Injury !

Turn the main switch off.  
Thread the underthread for winding only with the sewing machine turned off.

- Thread the underthread for winding (see Operating Instructions).
- Set the " **Program** " switch to " **66** " .
- Turn the main switch on.
- Set the " **Program** " switch to " **01** " to " **05** " .
- Press the "  $\Sigma$  " key and hold down.  
Fill the bobbin at a low sewing speed.



### Caution Risk of Injury !

Turn the main switch off.  
Thread the needle and underthreads only with the sewing machine turned off.

- Thread the needle and underthreads (see Operating Instructions).
- Select the material 1 to be sewn.
- Set the Microcontrol accordingly.  
Select program 10 or 20.
- Conduct a sewing sequence as described in the Operating Instructions.
- Conduct the sewing trial first at low and then with continuously increasing speed.
- Check if the seams meet the desired requirements.  
If the requirements are not met, change the thread tensions (see Operating Instructions).  
The settings given in the Service Instructions are also to be checked as required and, if necessary, corrected.