

GC6760^{SERIES}

SETUP, INSTRUCTION- & SERVICE MANUAL

DOUBLE LOCKSTITCH HIGH-SPEED SEAMER
WITH DIRECT DRIVE
WITH BOTTOM AND NEEDLE FEED



TYPICAL

Thank you for purchasing a TYPICAL sewing machine.
Please read the safety instructions carefully before you
start the machine.

With industrial machines you normally work directly in front
of the moving parts like the needle or the take-up-lever.
A risk of injury can occur from this parts. So make sure that
you are familiar with the machine and listen to the orders of
the instructor for a save and correct handling.

The instruction manual must be always available at the
workplace. Every person that works on the machine must be
familiar with the instruction manual. Only authorized persons
may work on the machine.

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1 // SAFETY

1/1 General Safety Instructions

This manual and the warning symbols on the machine should ensure the safe use of the machine, so that no accidents and injuries may occur. Please read this instruction and also the safety instructions of the motor manufacturer carefully.

The machine may only be set into operation after this instruction manual has been read and the operator has been trained by authorized personal.

The machine may only be used as specified and with the appropriate safety devices. General safety instructions must be applied.

Take note of the danger and safety instructions on the machine.

The machine must be switched off, or plug pulled when maintenance and other work e.g. changing of needle, sewing foot, needle plate, feed dog, bobbin or threading is done, also when leaving the working place.

Daily maintenance work may only be taken out by properly trained personnel.

Repairs and special maintenance may only be done by technical personnel or specially trained staff.

Only qualified mechanic may take out work on the electrical equipment.

Works on live parts are not allowed. Conversions or modifications to the machine may only be done with the common safety measures.

Only original TYPICAL spare parts or parts which are cleared by TYPICAL are allowed to use when repairing the machine.

The machine can only be used when the whole unit complies with the EC-Directive.

The connecting cable must be equipped with a country-specific connecting plug. This must be done by an electrician.

1/2 Notice to the owner

This manual must be at all times be available for the operator as it is part of the machine. Make sure that the persons whom are working on the machine read it before starting the machine for the first time.

The owner must make sure that the machine is in good working order.

The owner must check that all safety devices are in place and in working order.

The owner must make sure that only authorize, trained persons are working on the machine

1/3 Operators and Technical Staff

It is the operator's responsibility to take care of small adjustments, operating and cleaning of the machine. The operator has to refrain from any actions that can interfere with the safety of the machine. There is no jewelry, changings or rings to be worn while working on the machine. The clothing should be tight fitting. Only authorized personnel is allowed on the workplace. The incidence of an error on the machine that can interfere with the safety must be reported to the supervisor.

The skilled technical staff is responsible for lubricating, maintenance, repairing and adjusting of the machine. The machine must be switched of before starting any work on the machine and be secured that it can't be switched on by evident. Exceptions are listed in the regulation EN 50110. The safety guards must be replaced after finishing the repair and maintenance work.

Operators and technical staff must take attention of the safety and operating instructions in this manual.

1 // SAFETY

1/4 Safety Symbols



Caution

When ignoring this sign injury or damage to the machine or equipment can occur



A triangle always means „Danger“. The picture inside the triangle shows the kind of danger that can occur. Injury is possible when ignored.



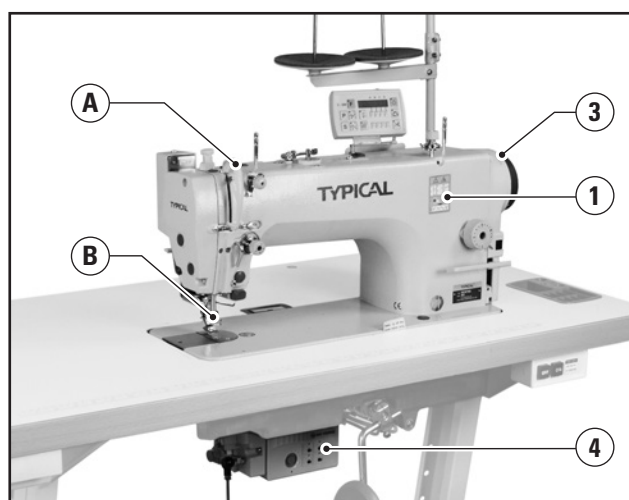
This sign indicates that you are not allowed to do something.



This symbol indicates that you have to do something.
In this case to earth the machine.

1 // SAFETY

The following warning signs are on the machine. Please follow these whenever you use the machine. If they are not readable or removed please contact your TYPICAL-Dealer.



Safety devices

- A Finger guard
- B Take up lever guard

1/5 Warning signs on the machine

1



Caution



Moving parts can cause injuries. Please follow the safety precautions. Push the main switch before you thread the machine or change the needle, bobbin e.g. or clean the machine.

2



The machine must be earthed at all times. Otherwise there is the danger of electrocution. The functioning of the machine can also be impaired.



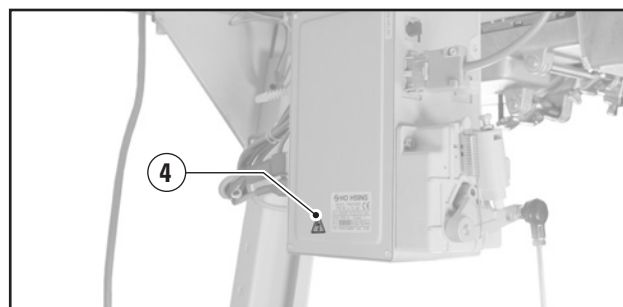
3 ↓

Work direction

4



Danger



2 // TECHNICAL DATA

- Stitch type 301
- Max. sewing speed 4.000 s.p.m. (**GC6760 MD3**)
- Max. stitch length 5,5 mm (**GC6760 HD3**)
- Max. foot lift 16 mm with knee lever
- Floating foot fine adjustment for better sewing quality
- Adjustable take up lever (58 -62 mm) for better sewing results on different material

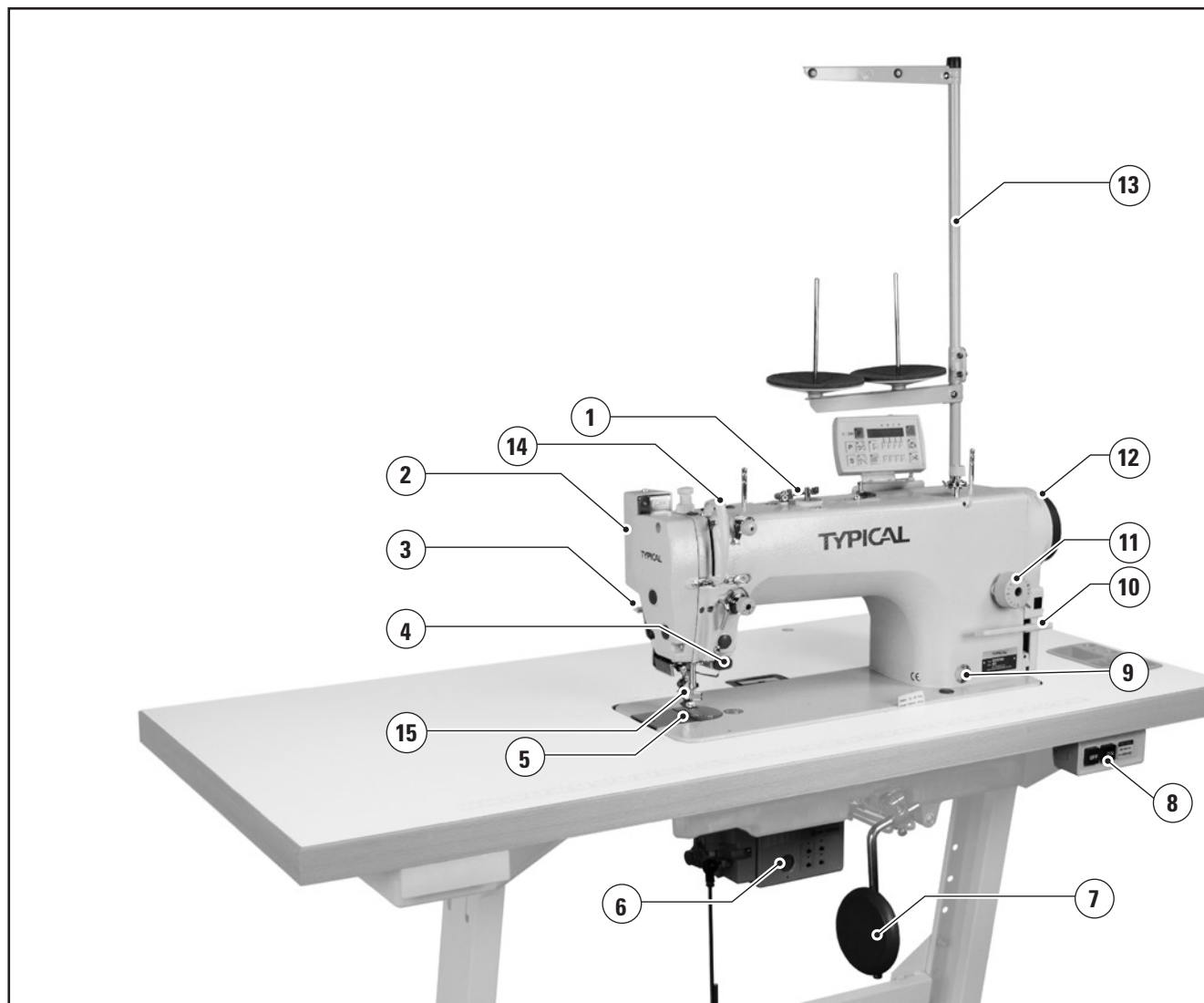
AUTOMATIC CLOSED LUBRICATION SYSTEM

SUBCLASSES

- **GC6760MD3**
High speed sewing machine for fine to medium thread and material (needle bar raise 33 mm)
- **GC6760HD3**
High speed sewing machine for heavy thread and material (needle bar raise 35 mm)

														
67630-	MD3	•	4,000	•	4.5	134/DPx5 75-110	33	•	6/16	•	•	•	◦	M
	HD3	•	3,500	•	5.5	134/DPx5 120-140	35	•	6/16	•	•	•	◦	H

3 // NAMES OF THE MAIN PARTS



- 1// Bobbin winder
- 2// Thread wiper
- 3// Lifting lever
- 4// Back tack button
- 5// Sewing foot
- 6// Control circuit
- 7// Knee lever
- 8// Main switch
- 9// Oil sight window
- 10// Revers lever

- 11// Stitch length regulator
- 12// Hand wheel
- 13// Tread stand

Safety devices

- 14// Take up lever guard
- 15// Finger guard

4 // INSTALLATION

**Caution**

Please note that the machine may only be installed by qualified personnel.

**Caution**

Contact your TYPICAL-Dealer or an electrician when work on the power supply is necessary.

**Caution**

The weight of the machine is 46 kg. The installation should be taken out by two persons.

**Caution**

Connect the machine to the electricity when finished installing the machine.
Injury may occur by accidental starting of the machine when touching of the foot pedal.

**Caution**

Hold the machine with both hands when tilting it back or repositioning the machine head.
When you hold the machine only with one hand it can slip and you can injure your hand.

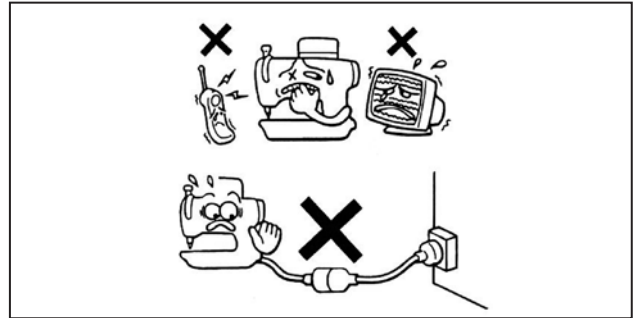


4 // INSTALLATION

4/1 Work place

Never place the machine next to a TV, radio or cordless phone. These devices could be interfered by the machine.

Don't use extension leads on the machine. Plug it directly into the socket. Otherwise it can cause problems.

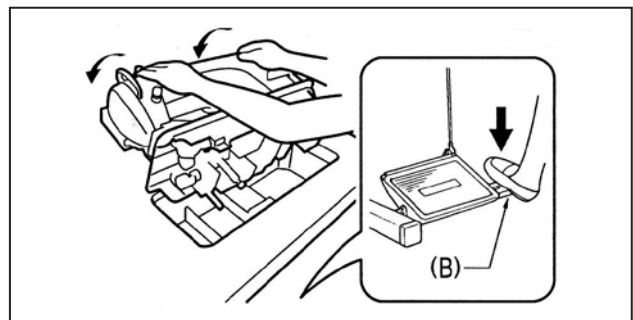


4/2 How to carry the machine

Transport the machine with appropriate hoist.

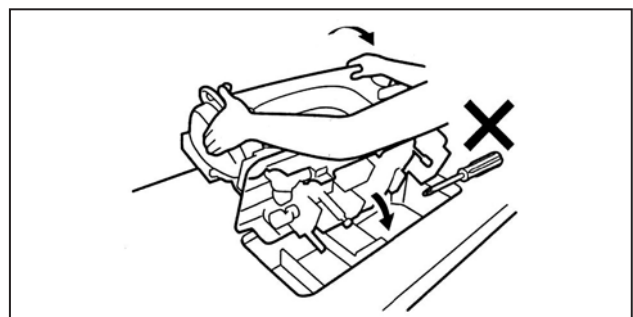
4/3 Tilting the sewing head

The table top should have a strength of 40 mm to hold the weight of the machine and stand the vibration of the machine.



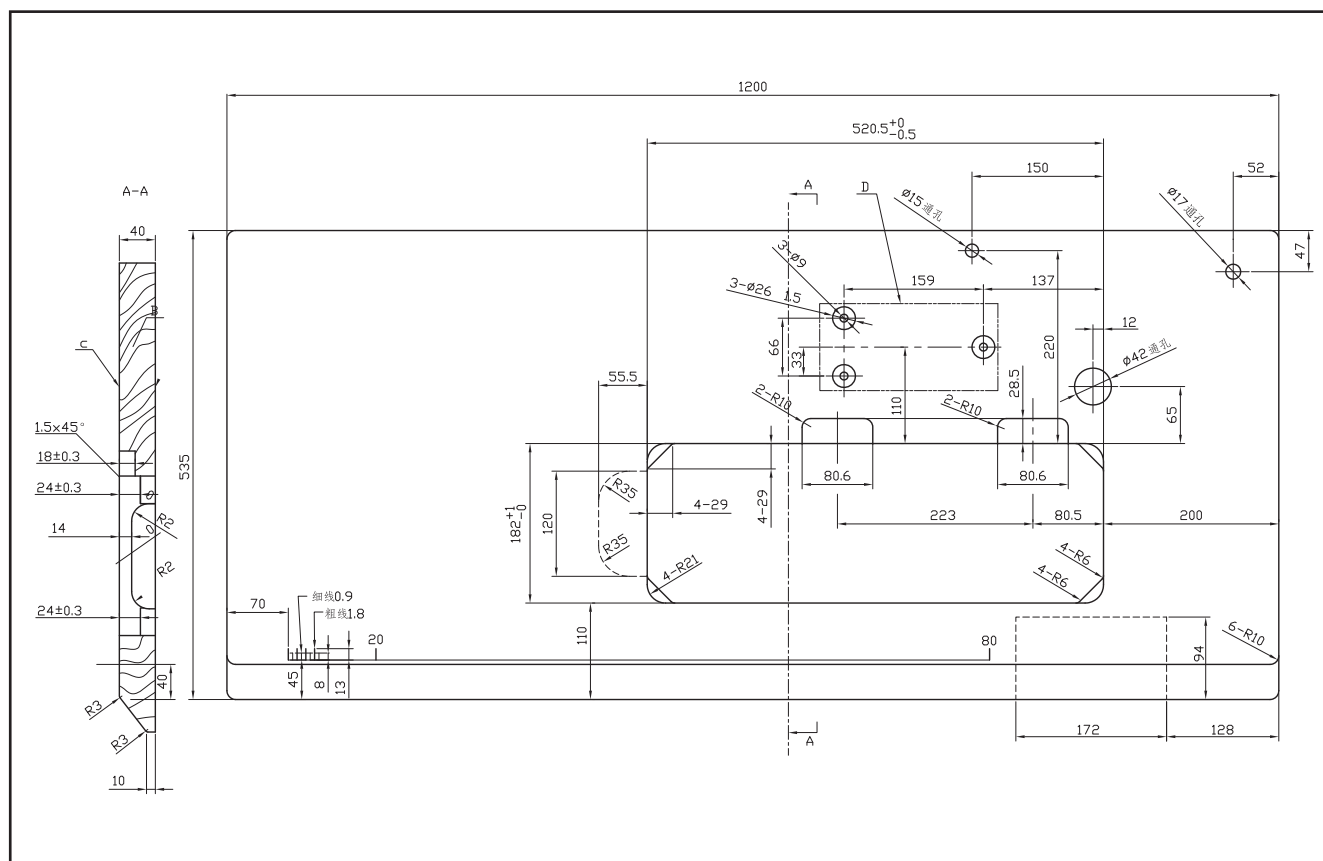
4/4 Re-positioning the machine

Remove tools close to the hole in the table top.
Lift the machine head with both hands back in position.



4 // INSTALLATION

4/5 Table Top Drawing



The table top should have a strength of 40 mm to hold the weight of the machine and stand the vibration of the machine.

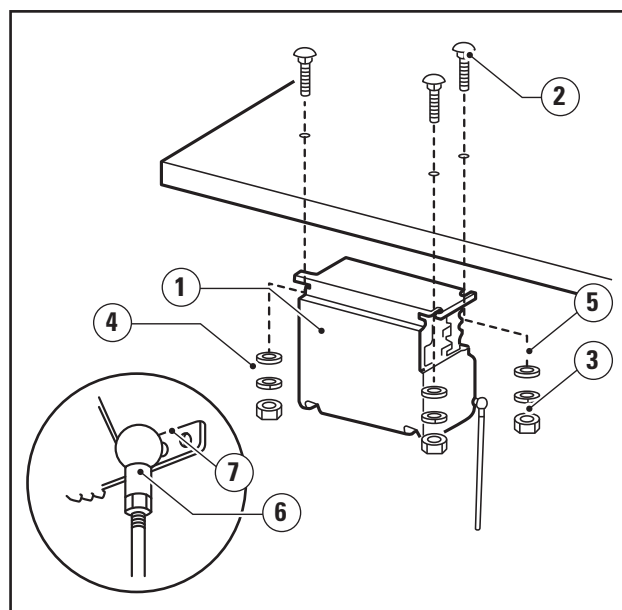
Drill the required holes like shown in the drawing.

4 // INSTALLATION

4/6 Setup

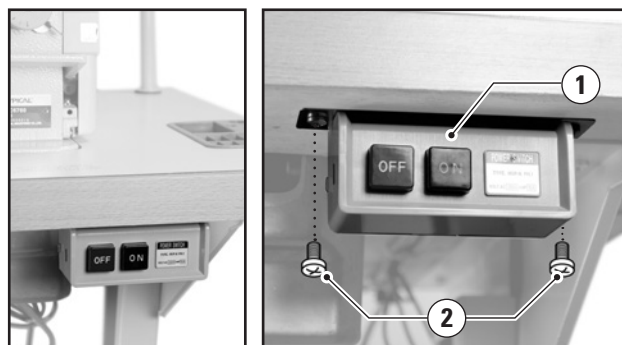
4/6/1 Control and connecting rod

- (1) Control
- (2) Screws (3x)
- (3) Nuts (3x)
- (4) Spring washer (3x)
- (5) Washer (3 x)
- (6) Connecting rod
- (7) Nut



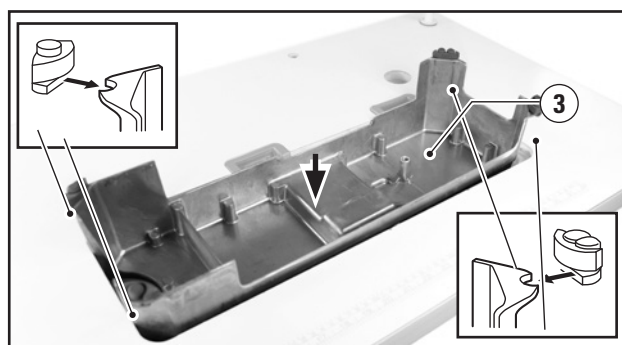
4/6/2 Main on/off switch

- (1) Main on/off switch
- (2) Screws (2x)



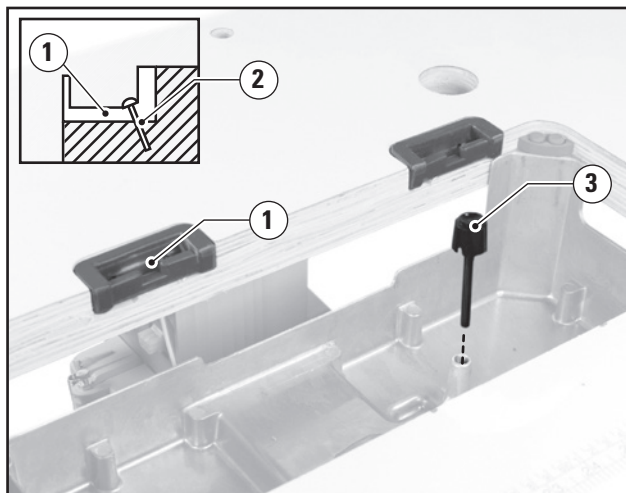
4/6/3 Oil pan

- (1) Rubber cushion left (2x)
- (2) Rubber cushion right (2x)
- (3) Oil pan



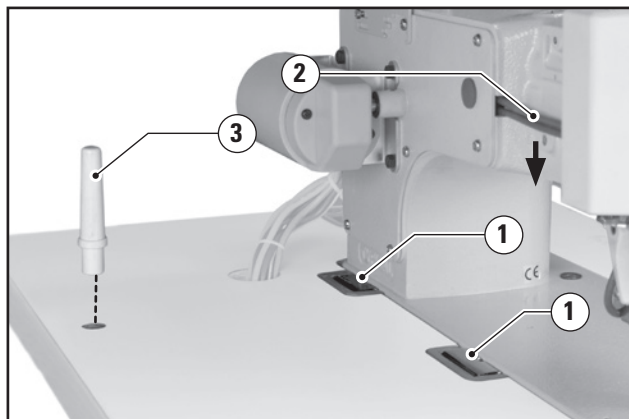
4 // INSTALLATION

4/6/4 Rubber cushion and knee lever rod



- (1) Rubber cushion (2x)
- (2) Nägel (4 Stück)
- (3) Kniehebelstange

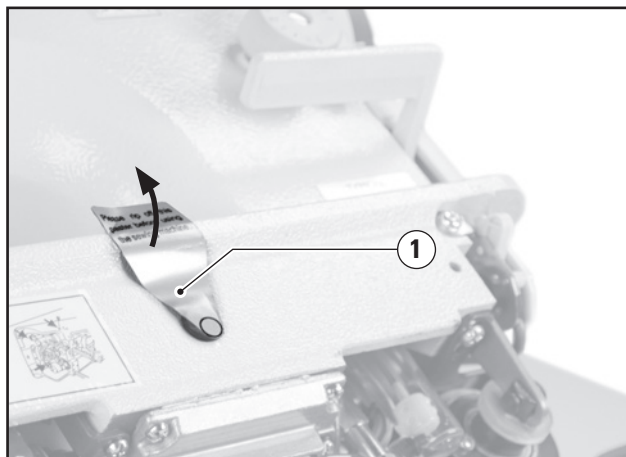
4/6/5 Machine head



- (1) Hinges (2 x)
- (2) Machine head
- (3) Sewing head support

Make sure that the sewing head support is absolute secure positioned. Otherwise the machine is instable when tilted back.

4/6/6 Sticker



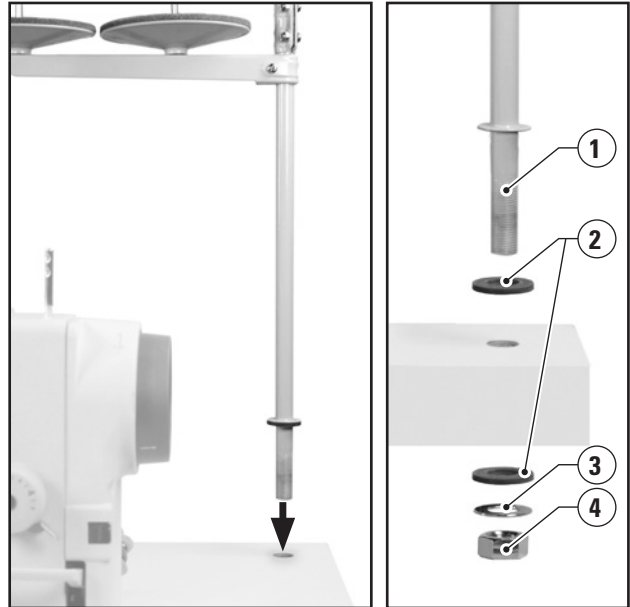
- (1) Re-move sticker

4 // INSTALLATION

4/6/7 Thread stand

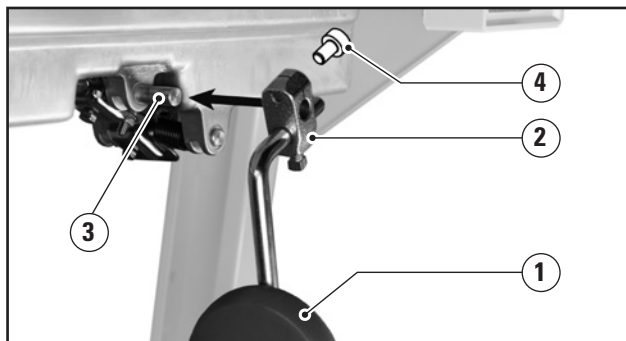
(1) Thread stand

Tighten the nut (4) to secure both rubber rings (2) and washer (3). The thread stand must sit firm and shouldn't move.



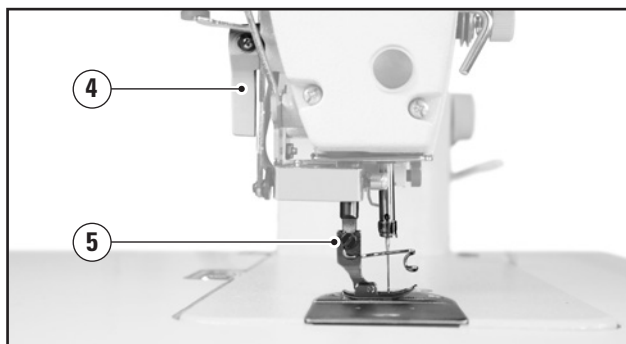
4 // INSTALLATION

4/6/8 Assembly and adjusting of the knee lever



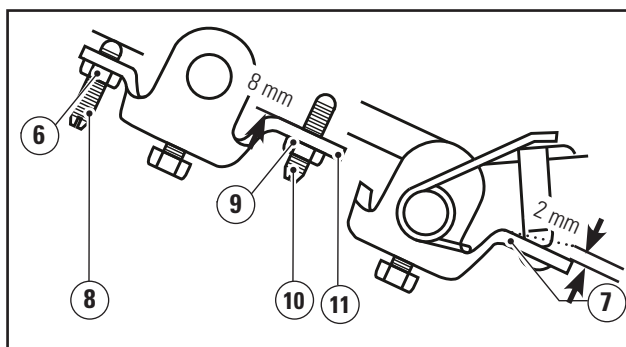
(1) Knee lever pad

(2) Holder



1. Put the holder (2) on the bolt (3) and tighten screw (4).

2. Turn the hand wheel until the feed dog is positioned underneath the needle plate.



3. Lower the sewing foot (5) with the lifting lever (4)

4. Loosen nut (6)

5. Turn the stop screw (8) until you have a clearance of approximately 2mm to the lever (7) when you push the knee lever pad lightly.

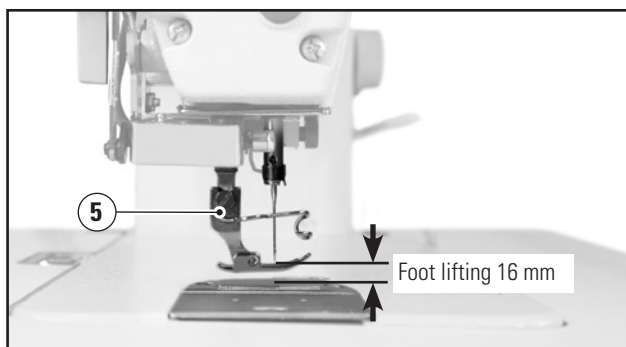
6. Tighten nut (6)

7. Loosen nut (9)

8. Turn the stop screw (10) until you have a clearance between the stop screw (10) and the lever (11) of approximately 8 mm.

9. Turn the stop screw (10) until the sewing foot is in the desired position. The clearance for the sewing foot is approximately 16 mm when the knee lever is pad is pushed to the maximum.

10. Tighten nut (9) when you finished with the adjustments.



4 // INSTALLATION

4/7 Lubrication



Caution

The machine must only be plugged in when the all the lubricating work is complete. Injuries could occur when the foot pedal is touched accidentally.

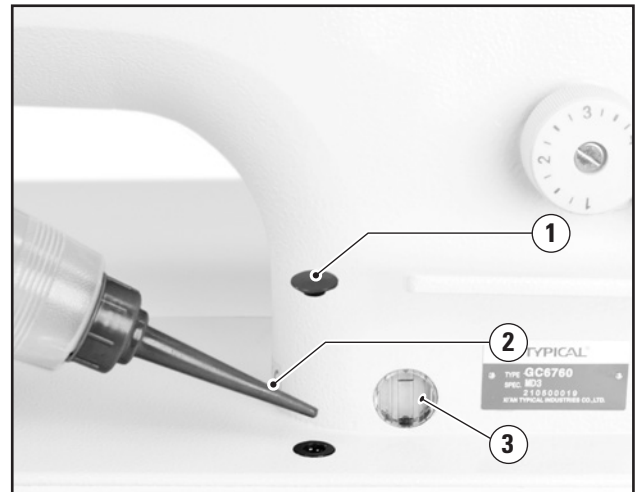


Always wear protective glasses and safety gloves when you work with lubricating oil and grease to avoid contact with the eyes and skin that may cause inflammations. Under no circumstances eat or drink lubricating oil or grease. Keep out of reach for children.

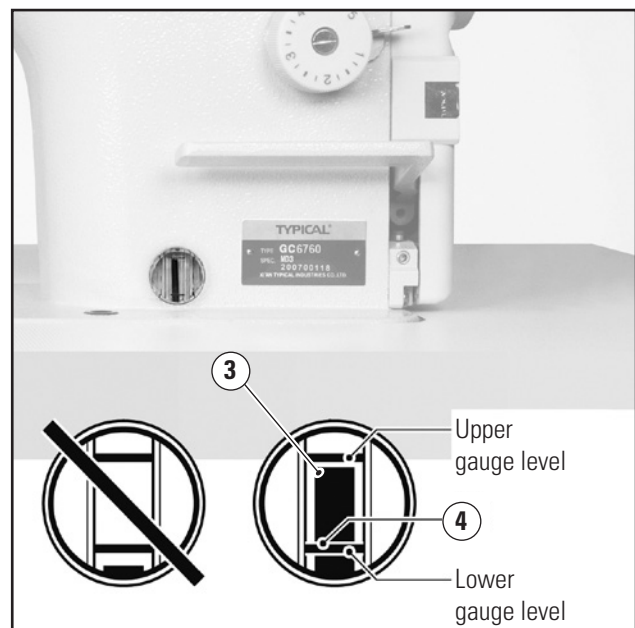


The machine must always be lubricated and the oil reservoir must be filled before the first use of the machine. Check lubrication when machine was not used for a long time. Use only lubricants which are recommended by TYPICAL.

1. Remove rubber plug (1). Fill in 150 ml lubricating oil from the oil bottle supplied with the machine (2) into the oil reservoir. Take care of the filling level (3).
2. Replace rubber plug (1)



3. Check oil level on the gauge (4) it must be on the upper mark of the gauge.
4. Oil must be refilled when the oil level (4) has dropped to the lower mark.



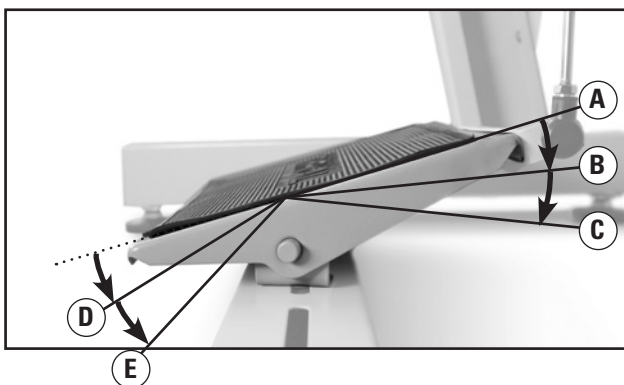
4 // INSTALLATION

4/8 Test run



Caution

Never touch moving parts with your hands or tools while machine is running.
It can lead to injury or damage to the machine.



1. Switch on machine.
2. Test if the machine, by lightly touching pedal (1) in direction B, starts to sew at slow speed.
3. The machine should attain full speed when the pedal is pushed to the limit (Position C)
4. When the foot pedal (1) is released (Position A) the machine must stop with the needle in the lower position.
5. The foot will be lifted by lightly touching the pedal (1) in direction D. (optional extra)
6. Pushing the pedal in position E will activate the automatic thread cutter and the needle will move in the upper position.

5 // SETTING UP

5/1 Inserting needle

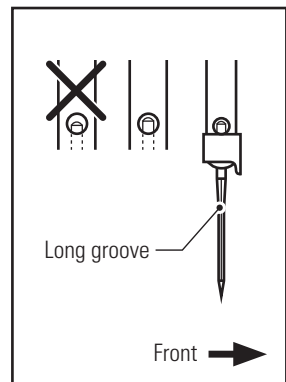
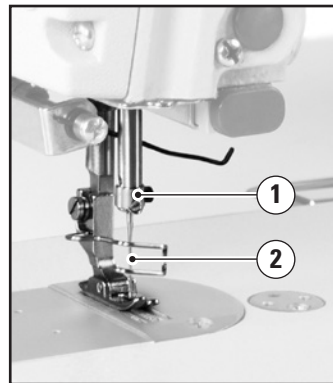


Caution

Switch off machine before you insert the needle.
You can injure yourself, when the foot pedal is touched by accident.



1. Turn the hand wheel to bring the needle bar is in the highest position.
2. Loosen needle set screw (1)
3. Push the needle (2) straight up to the top.
Make sure that the long groove shows to the left side.
4. Tighten needle set screw (1)



5/2 Re-moving the bobbin case



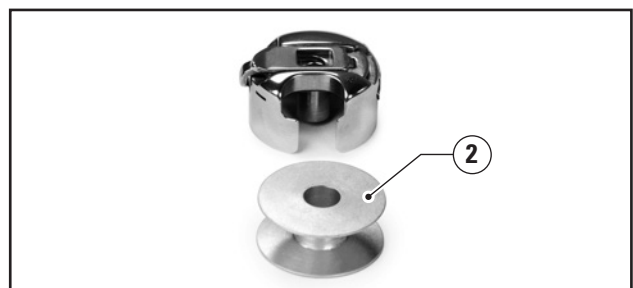
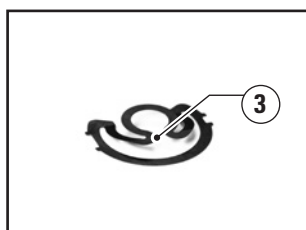
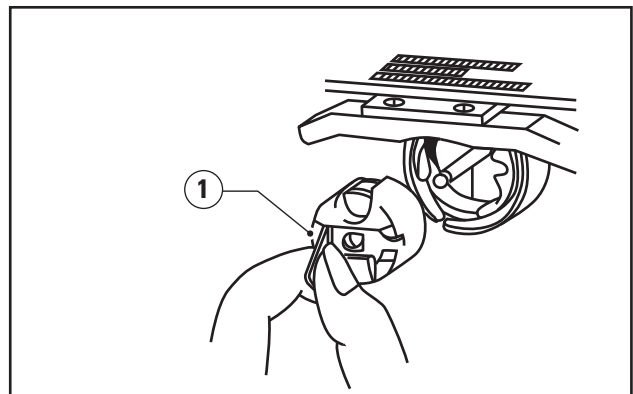
Caution

Switch off machine before you insert the needle.
You can injure yourself, when the foot pedal is touched by accident.



1. Turn the hand wheel until the needle is above the needle plate.
2. Pull the latch (1) on the bobbin case to the front and remove the bobbin case.
3. Remove the bobbin case (2).

Inside the bobbin case is a stop motion spring (3) to avoid spinning of the bobbin e.g. when thread cutting.



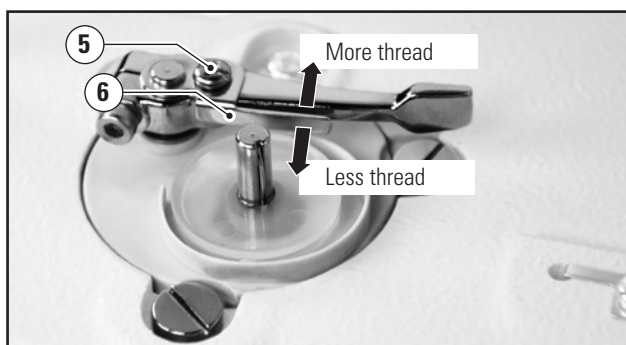
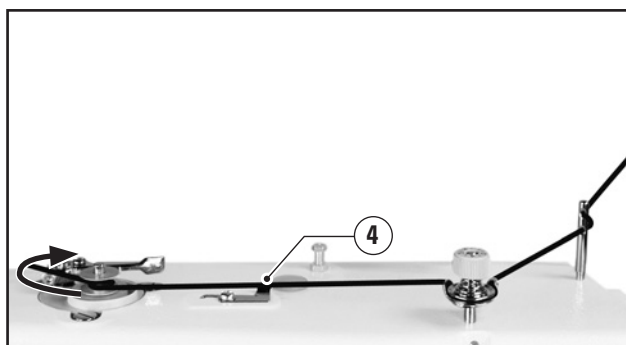
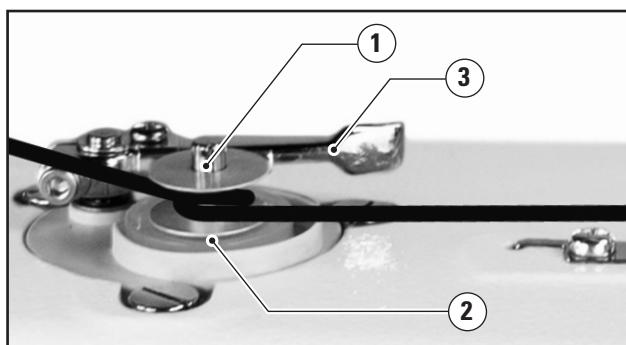
5 // SETTING UP

5/3 Bobbin winding



Caution

Do not touch moving parts. This can lead to injury or damage to the machine.



1. Switch on machine.
2. Place bobbin (1) on the bobbin winder spindle (2)
3. Wind the thread a view times in the shown direction on the bobbin (1)
4. Push the bobbin winder lever (3) in direction of the bobbin.
5. Lift the sewing foot with the lifting lever.
6. To start the winding press the fool pedal.
7. The bobbin winder lever (3) will release automatically when winding is finished.
8. After finishing the bobbin winding remove bobbin and cut the thread on the cutter (4)

Loosen the screw (5) and adjust the bobbin winder lever to the desired thread amount.

The capacity of the bobbin should be utilized by 80 %.

5 // SETTING UP

5/4 Inserting the bobbin case

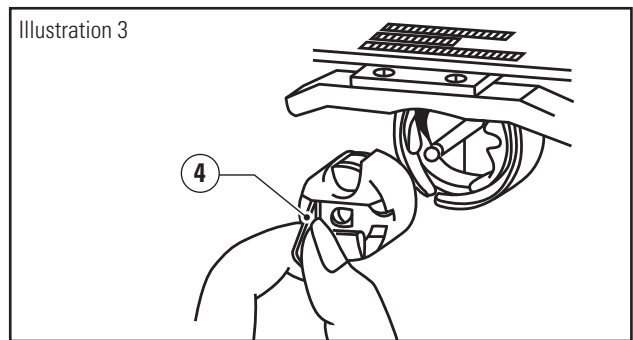
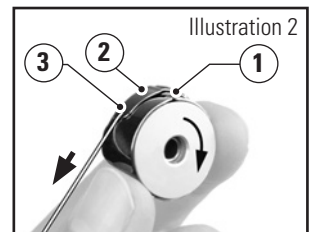
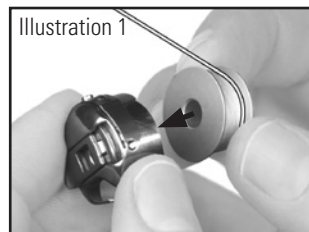


Caution

Switch off machine before inserting the bobbin case. Injury may occur if foot pedal is pressed accidentally.



1. Turn the hand wheel until needle is above the needle plate.
2. Put the bobbin in the bobbin case that it turns clockwise when you pull the thread. (Illustration 2)
3. Pull the thread in the slot (1) under the tension spring (2) and through the tread guide (3) (Illustration 2)
4. Check if the bobbin turns clockwise when you pull the thread. (Illustration 2)
5. Hold the bobbin case on the latch (4) and insert into the hook. (Illustration 3)



5/5 Threading the machine

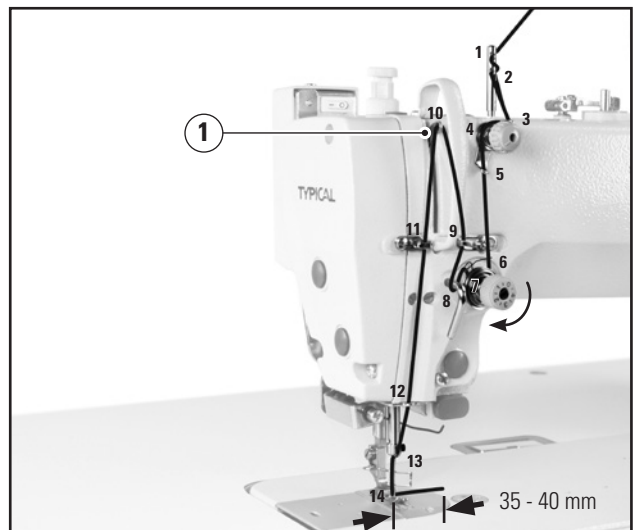


Caution

Switch off machine before inserting the bobbin case. Injury may occur if foot pedal is pressed accidentally.

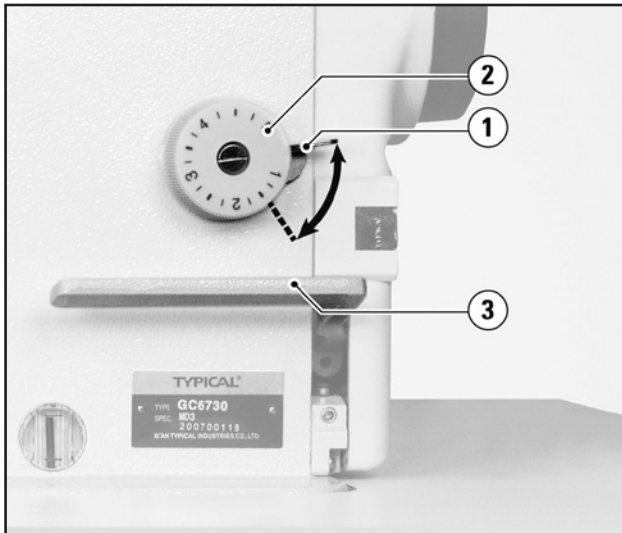


1. Bring the take up lever (1) in the highest position by turning the hand wheel. This will make it easier to thread the machine. It will also make sure that the thread is not pulled out when you start the machine.



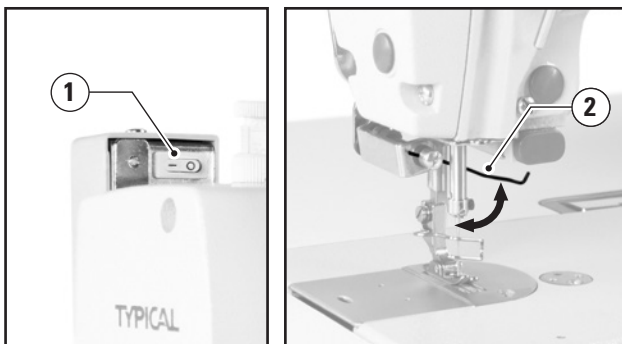
5 // SETTING UP

5/6 Adjusting the stitch length



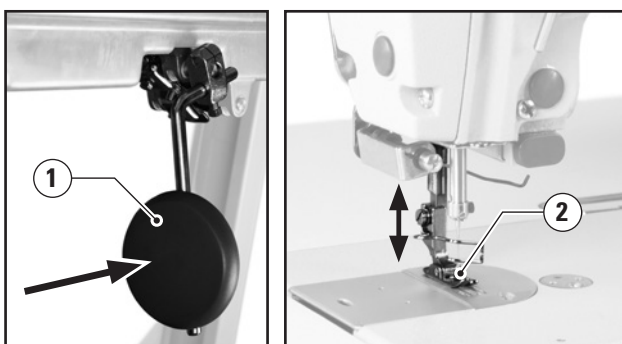
1. Press the lock lever on the adjusting knob (1) upwards. Now it is unlocked.
2. Turn the adjusting knob (2) that the desired stitch length is shown on the highest position of the knob. The higher the number the longer is the stitch. Please note that the numbers are only guidelines. Depending on the thickness and type of the material the stitch length can vary. First sew a view stitches and adjust accordingly. The adjusting knob can be turn more easily, when changing from a long to a shorter stitch length, when you push the back tack lever (3) half way down.
3. To lock the lock lever on the adjusting knob push it hard down.
4. Check that the adjusting knob (2) doesn't turn while the machine is running.

5/7 Usage of the thread wiper



1. Push the switch on the tread wiper (1) to position 1.
2. The thread wiper (2) will now work after the tread is cut off.

5/8 Usage of the knee lever



1. To lift the presser foot (2) push the knee lever (1).

6 // SEWING



Caution

Make sure all safety devices are in place before you start the machine.
Injury may occur if these devices are missing.



Caution

If the machine starts accidentally by touching the foot pedal injury may occur.
For this reason switch off machine before you commence with the following works:

- Threading the machine
- Changing the needle or bobbin

The machine must be also be switched off when you leave the machine or the machine is not in use.



Caution

Never touch moving parts or hold objects onto machine while you are sewing.
Both can lead to injury or damage to the machine.



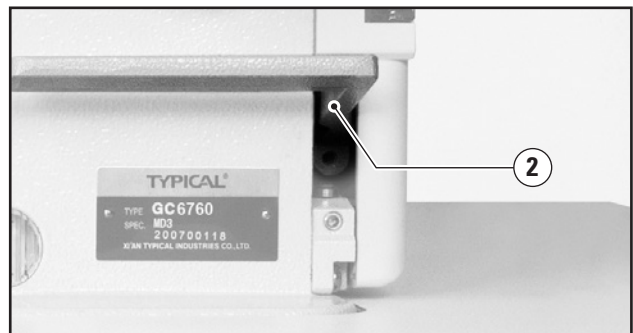
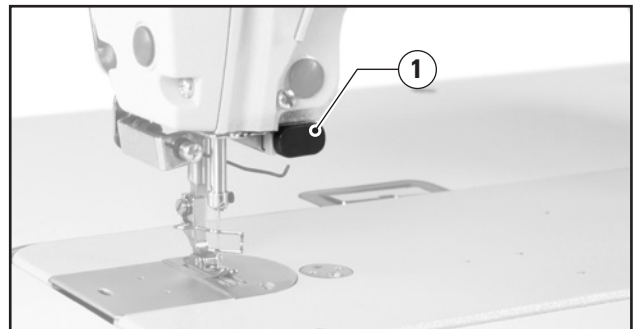
Caution

Hold machine with both hands when tilting the machine backwards or bringing it back in position.
If you hold it with only one hand it could slip and your hand could be jammed by the machine.



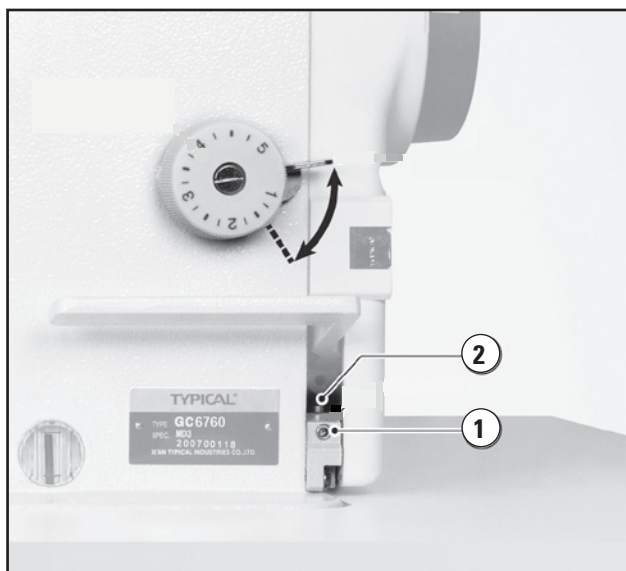
1. Switch the machine on the main switch on. To start sewing press foot pedal forwards.
2. By touching the back tack button (1) or revers lever (2) you revers the sewing direction.
3. Release the back tack button (1) or revers lever (2) and the machine will work forwards again.

6/1 Start the machine and back tacking



6 // SEWING

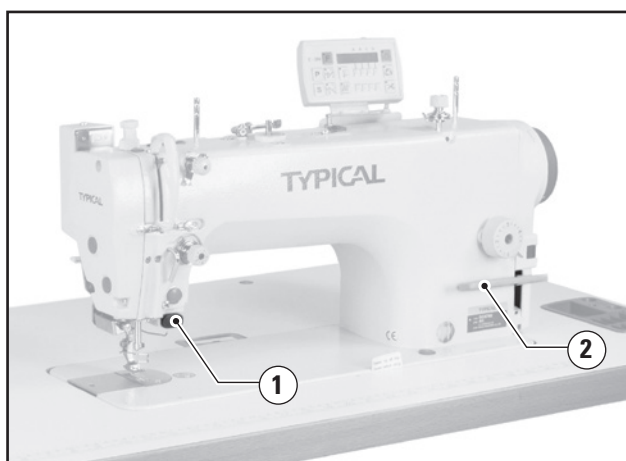
6/2 Set the stop for the stitch condensing



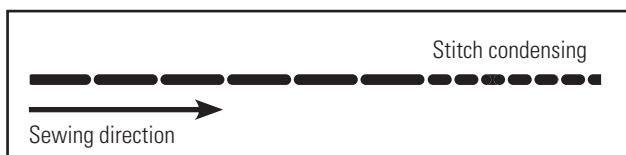
With the TYPICAL GC6760 Series you can achieve stitch condensing by a setting on the revers lever.

1. Loosen screw (1)
2. Set the stop for the stitch condensing (2) on the red mark and tighten screw (1) again. The stitch length will be 2 (Illustration at the bottom of the page).
3. If a shorter stitch condensing is required move the stop further down.
4. If a longer stitch condensing is required move the stop further up.

6/3 Sewing a stitch condensing



1. Push the revers lever (2) right down on the point where you want to start the stitch condensing.
2. When you want a normal back tack, press the back tack button (1) on the machine head.

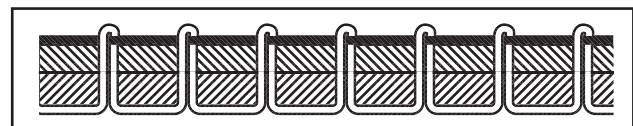
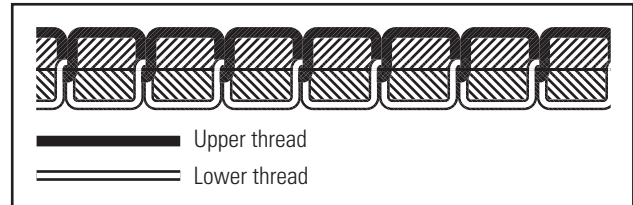


7 // THREAD TENSION

For an even stitch the upper and lower tension must be adjusted to an optimal setting.

In this case is the upper thread tension is too loose or the lower thread tension too tight. Tighten the upper thread tension or loosen the lower thread tension.

In this case is the upper thread tension is too tight or the lower thread tension too loose. Loosen the upper thread tension or tighten the lower thread tension.



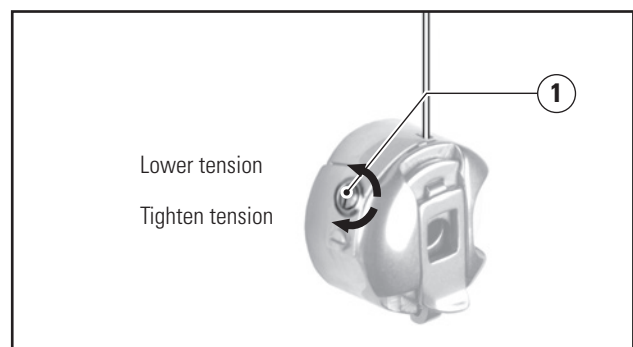
Caution

Switch the machine off before removing or inserting the bobbin case. Injuries may occur if foot pedal is pressed accidentally.



1. Hold the bobbin case as shown in the picture.
2. Turn the adjusting screw (1) until the bobbin case slides slowly down by its own weight while holding it on the thread.

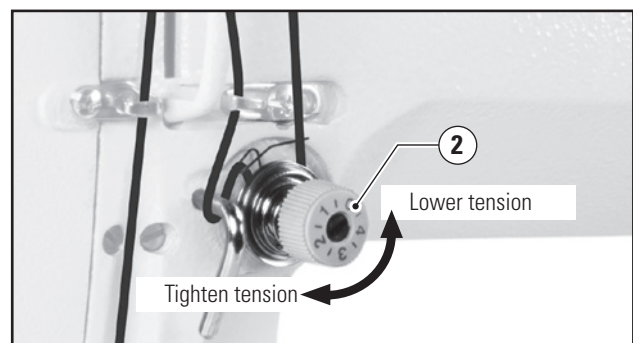
7/1 Setting the lower thread tension



7/2 Setting the upper thread tension

You have to adjust the upper tension after setting the lower thread tension, to get an even stitch.

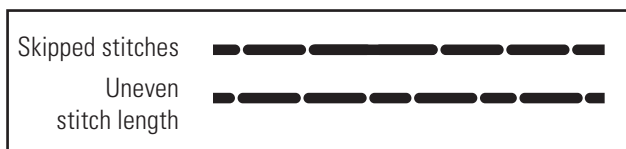
1. Lower the sewing foot.
2. Regulate the upper thread tension by turning the tension dial (2). Turn clockwise for a tighter tension, or anticlockwise for a lower tension.



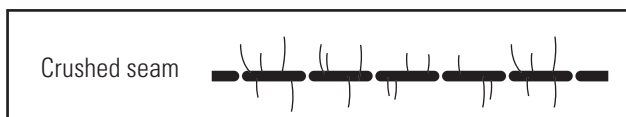
7 // THREAD TENSION



For an even stitch you also have to achieve an optimal foot pressure. This means as soft as possible, but hard enough that the material doesn't shift.

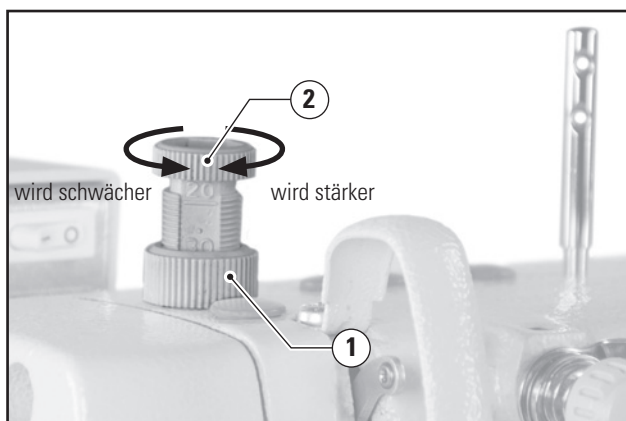


In this case the foot pressure is too light. You must tighten the foot pressure.



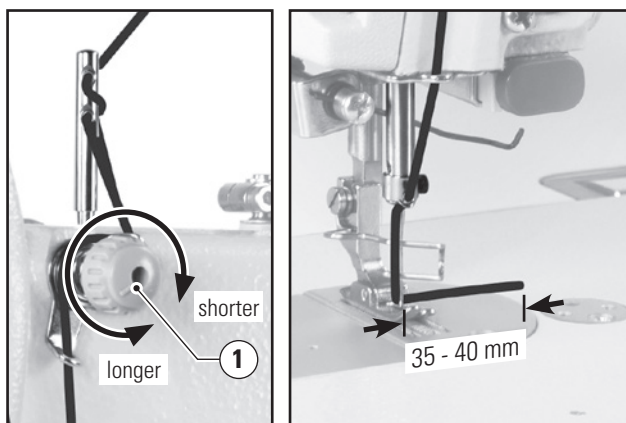
In this case the foot pressure is too high. You must loosen the foot pressure.

7/3 Adjusting the foot pressure



1. Loosen the lock nut. (1)
2. Turn the adjusting screw (2), to loosen or tighten the pressure on the presser foot. Turn the screw (2) clockwise to tighten or anticlockwise to loosen the pressure.
3. Tighten lock nut (1) after adjustment.

7/4 Setting the thread end length from the needle after cutting



The upper tension opens when the thread is cut. The tension is only conducted by the pretension (1).

1. The standard thread length for the upper thread, after cutting is 35 to 40 mm
2. You must raise the setting on the pretension to shorten the rest thread length on the needle. When you reduce the tension the rest thread length will be longer.

8 // CLEANING AND MAINTENANCE

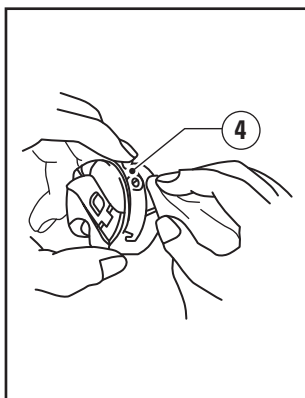
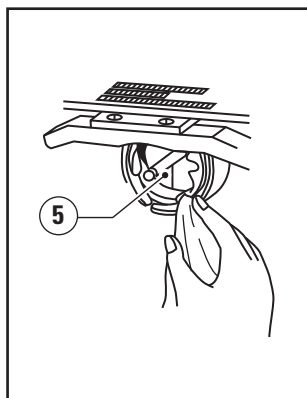
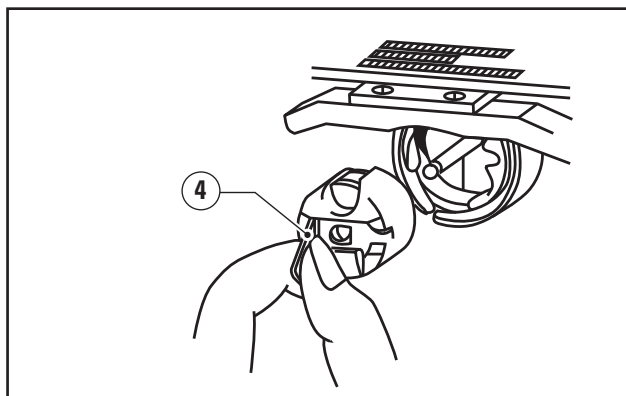
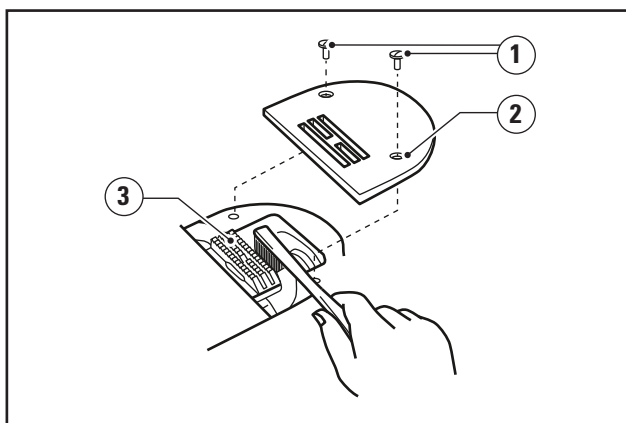
	Caution Switch off machine before you start cleaning it. Injury may occur if foot pedal is pressed accidentally.	
	Caution Always wear protective glasses and safety gloves when you work with lubricating oil and grease to avoid contact with the eyes and skin that may cause inflammations. Under no circumstances eat or drink lubricating oil or grease. Keep out of reach for children:	
	Caution Hold the machine with both hands when tilting the machine backwards or bringing it back in position. If you hold it with only one hand it could slip and your hand could be jammed by the machine.	

8 // CLEANING AND MAINTENANCE

8/1 Daily cleaning and maintenance

Regular cleaning and maintenance will guarantee perfect running of the machine and will help to extend the economic life-time of your sewing machine. The following cleaning work should be done daily. The machine must also be cleaned and checked when it was not used for a long time.

8/1/1 Cleaning



1. Lift the presser foot.
2. Remove needle plate (2) by loosening the screws (1).
3. Remove dust from the feed dog (3) with a soft wire brush.
4. Replace needle plate (2) and tighten both screws (1).
5. Tilt sewing head with both hands backwards.
6. Remove bobbin case (4)
7. Remove bobbin from bobbin case (4) and clean bobbin case with a lint-free cloth.
8. Dust the hook (5) with a soft cloth and check if the hook (5) is in a good working order.
9. Put bobbin back into bobbin case (4) and replace into hook (5).

8 // CLEANING AND MAINTENANCE

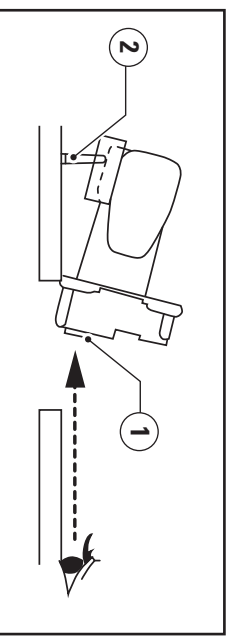
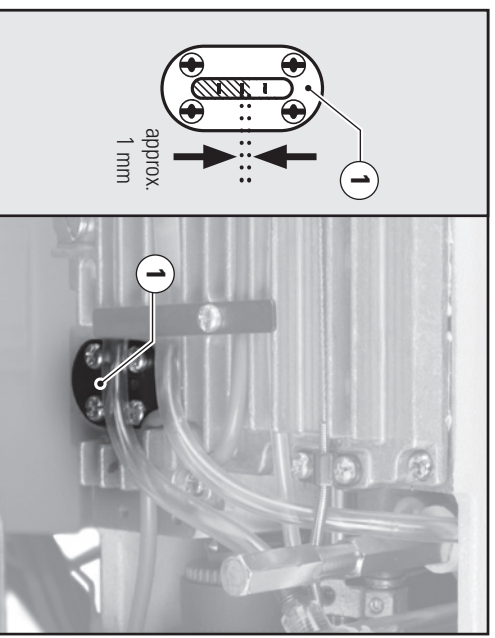
8/1/2 Checking the transmission oil level

When the machine is tilted backwards for a while the oil amount in the felt will diminish put the oil level on the oil sight window (1) will raise. The exact amount of oil can't be read. For this reason check the oil level immediately after tilting the machine backwards.

The oil level reading on the oil sight window (1) can vary depending on the angle of the tilted machine. Make sure that the sewing head support (2) is installed in the right position. The correct position of the sewing head support (2) is shown in the table-top drawing on page 12.

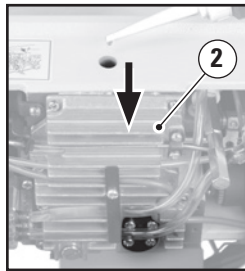
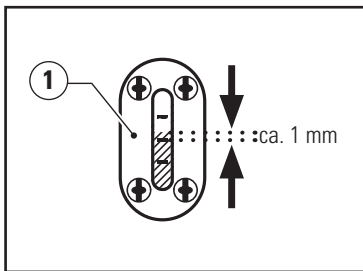
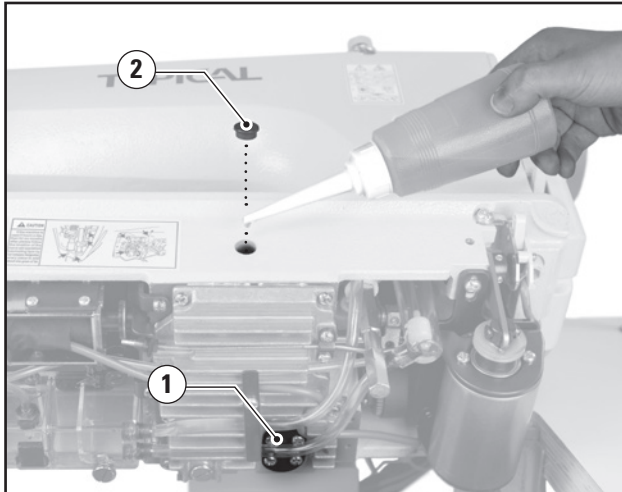
The oil level should be approx. 1 mm above the center mark on the oil sight window(1). By delivery of the machine ex works there is 70 ml oil supplied.

1. Check the oil level by looking from the front at the oil sight window.
2. If the oil level is to low refill oil.



8 // CLEANING AND MAINTENANCE

8/1/3 Refill oil

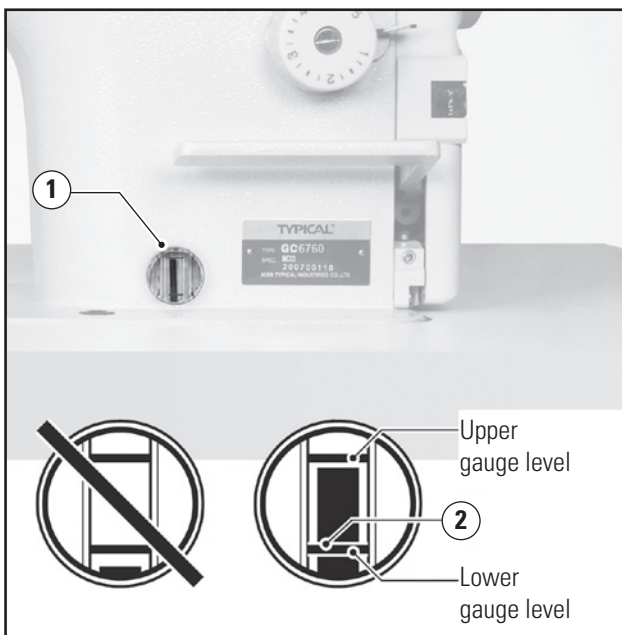


Use only oil which is recommended by TYPICAL.

1. Remove rubber plug (2)
2. Refill oil until oil level is approx. 1 mm above the center mark on the oil sight window. Replace only 10 mm at one time. Then check again. If it is still too low repeat. Never fill in too much oil at one time otherwise it can spill out.
3. Replace rubber plug (2) to the opening.
4. Bring sewing head back in the upright position.

The rubber plug has a small opening to regulate the air pressure. In case it has to be replaced make sure that you use one which is recommended by TYPICAL.

8/1/4 Checking the oil level

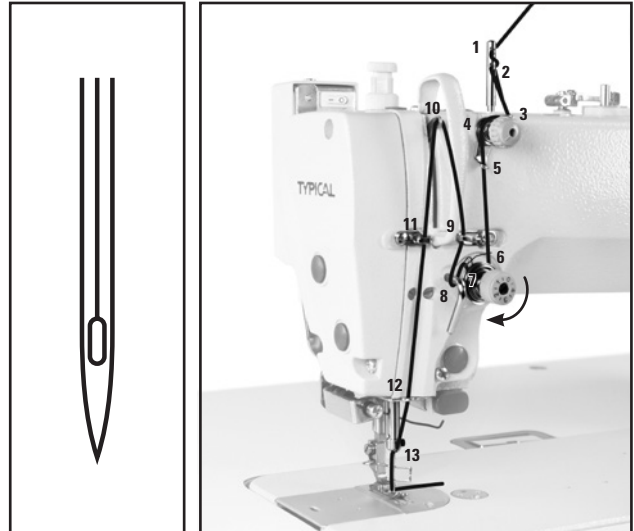


1. Check the oil level on the oil sight window (1)
2. Refill oil when the oil level is below the lower mark (2) on the oil sight window.

8 // CLEANING AND MAINTENANCE

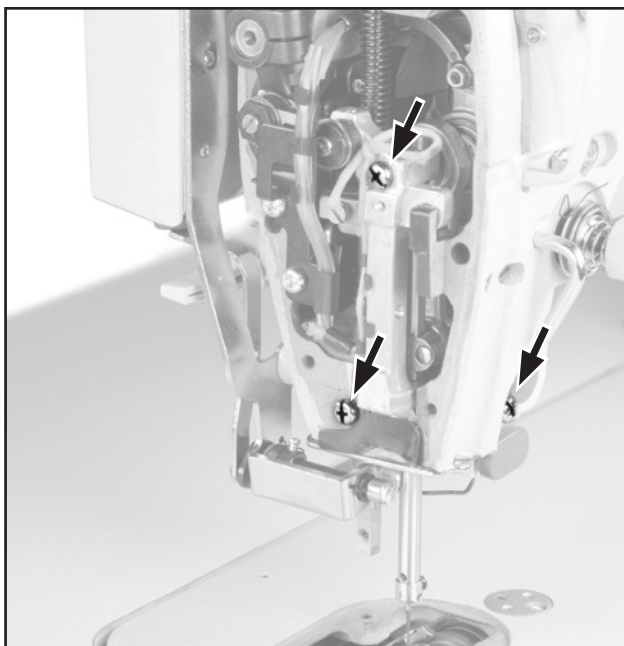
8/1/5 Checking needle and thread

1. Check if the needle is bend or the point is broken off.
Replace if necessary.
2. Check the upper threading of the machine.



8 // CLEANING AND MAINTENANCE

8/2 Lubricating



Use only grease which is recommended by TYPICAL.

1. Switch machine off on the main switch.
2. Remove the screws which are marked with arrows.
3. Grease the marked spots until grease is coming out slightly.
4. Tighten screws and set screws to push the grease into the openings.
5. Turn the hand wheel a few times in order to spread the grease with the needle bar.
6. Wipe excess grease with a cloth around the screws and set screws, below the needle bar and the lower part of needle bar frame clean.

9 // ADJUSTING THE HOOK LUBRICATION



Caution

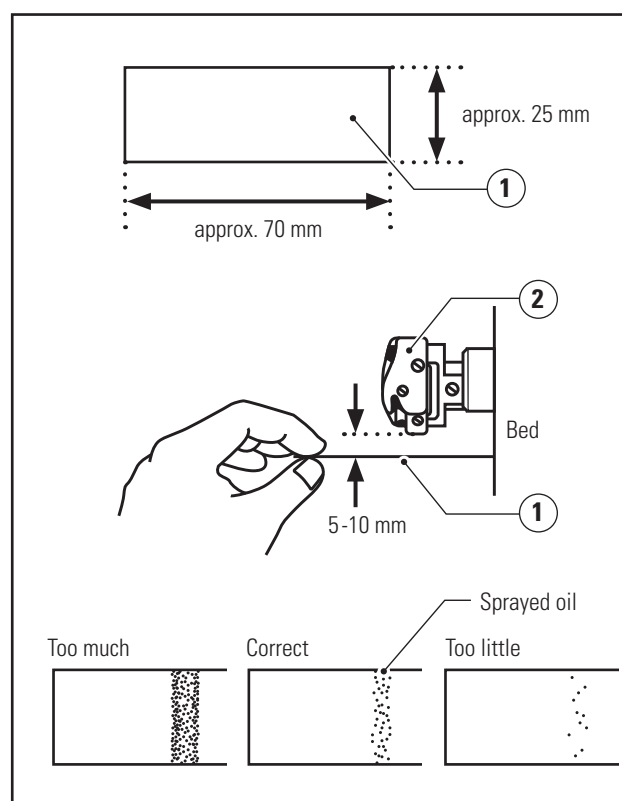
Do not touch any moving parts like the hook or the feeding mechanism, when you check the hook oil level with the help of an oil check paper. Injury may occur.



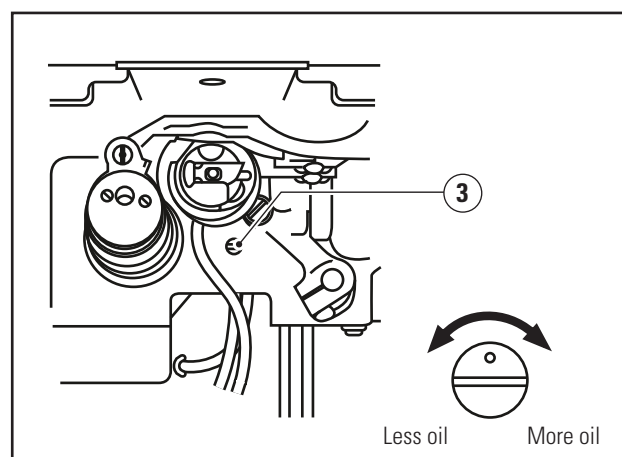
When you replace the hook or set the sewing speed of the machine, check how much oil is exposed to the hook with the help of the following instructions.

9/1 Checking and adjusting the amount of lubrication

1. Remove the upper thread.
2. Lift the sewing foot with the lifting lever.
3. Let the machine run for approx. one minute without really sewing. Follow the same start and stop pattern as you would normally do.
4. Place the oil check paper (1) below the hook (2) and hold it in position. (You can also use a normal sheet of paper instead of the oil check paper) Let the machine run at normal speed for 8 seconds.
5. Check the amount of oil sprayed on the paper.



6. Turn the adjusting screw (3) to regulate the amount of lubrication. Turn clockwise to increase lubrication and anti-clock wise to decrease the amount of lubrication.
7. Check the amount of lubrication again.
8. Repeat until you have the desired amount of hook lubrication.
9. Check the oil level again after the machine was for 2 hours in use.



10 // ADJUSTMENTS

	Caution Maintenance and inspection of the sewing machine should be done by qualified technicians.	
	Caution Work on electric parts can only be taken out by qualified personnel. Please contact your TYPICAL dealer or an electrician.	
	Caution Refit all safety devices to the machine in case they were removed and make sure that they are in good working order.	
	Caution Hold the sewing head with both hands when you tilt the machine backwards or bring back in original position. Because of the weight of the machine it can slip when you hold it with only one hand and your hand might be jammed by the machine.	
	Caution Switch the machine off and pull the plug when doing the following work on the machine. Injury may occur by accidently starting the machine: • Cleaning and maintenance • Changing of wear and tear parts like the hook and knives	
	Caution If it is necessary for certain adjustments to keep the machine on the power supply please be extra careful an follow all the safety precautions.	

10 // ADJUSTMENTS

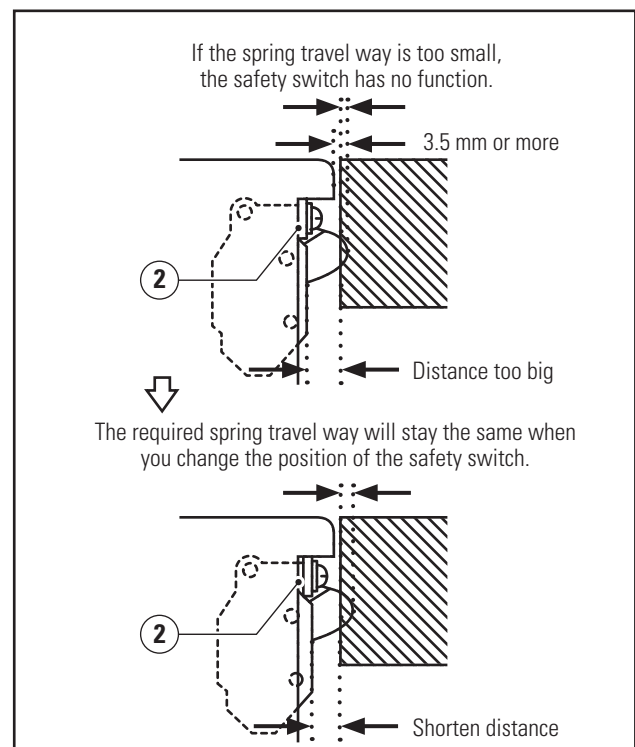
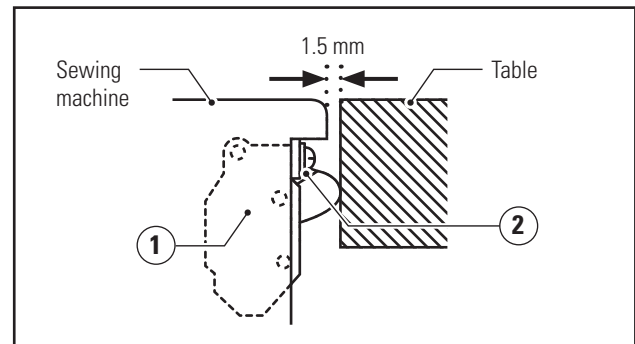
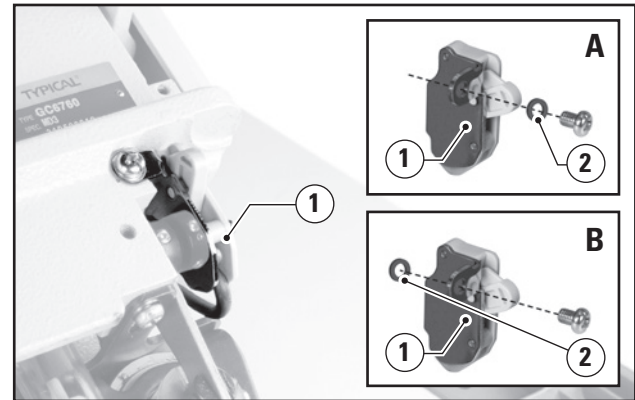
10/1 Adjust the safety switch

The safety switch (1) is normally at position A.

Make sure that the distance between the safety switch (1) and the table top is correct for proper functioning. It can be negative to the functioning of the safety switch (1) if the distance between machine head and table top cut-out bigger than shown below .

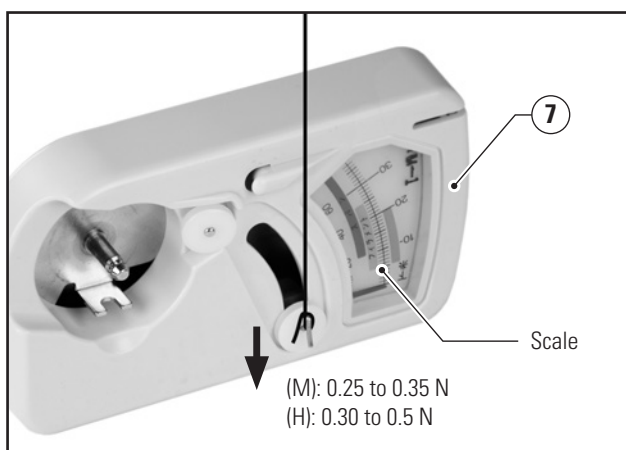
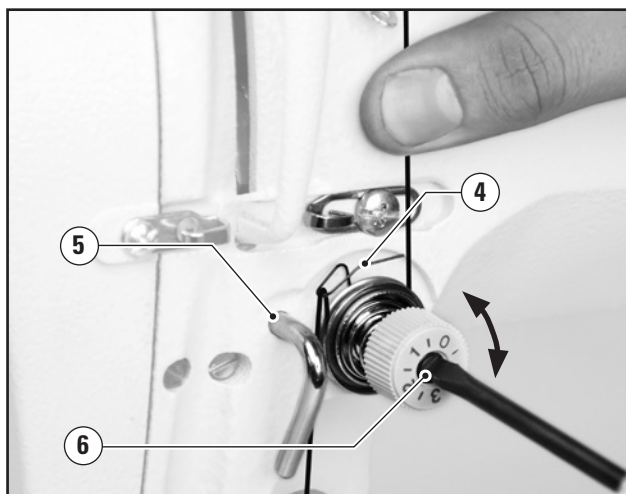
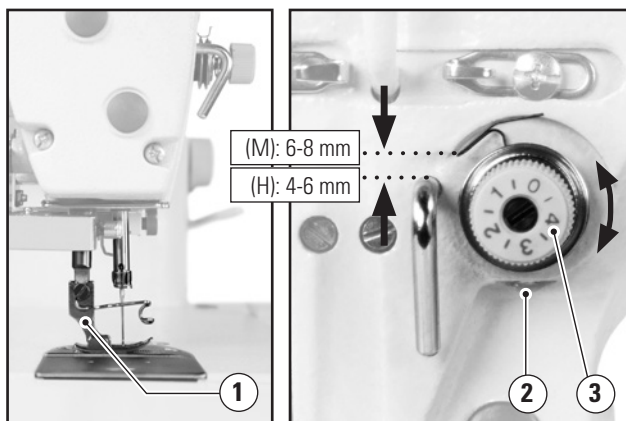
The distance between machine head and table top cut-out is standardly 1.5 mm. If the distance is 3.5 mm or more install with the help of a washer (2) between the machine and the switch (see illustration).

In case one washer is not enough to fit the safety switch you can use washers of the same size.



10 // ADJUSTMENTS

10/2 Adjust the take up spring



The pre-set position of the take up spring (1) is 6 to 8 mm (4 to 6 mm for the specification H) above the upper edge of the thread guide when the sewing foot is lowered.

1. Lower the sewing foot (1)
2. Loosen the set screw (2)
3. Turn the holder for the thread tension (3) to adjust the position of the take up spring.
4. Tighten the set screw (2)
Take up spring strength:
The pre-set strength of the take up spring (4) varies depending on the version of the machine.
M: 0.25 to 0.35 N
H: 0.30 to 0.5 N
5. Hold the upper thread above the tension knob tight and pull with the thread from the left side the take up spring (4) to the same height than the lower edge of the thread guide (5). Measure the strength of the take up spring now.
6. Push a screw driver in the slot of the tension stud (6) and turn, to adjust the strength of the take up spring.

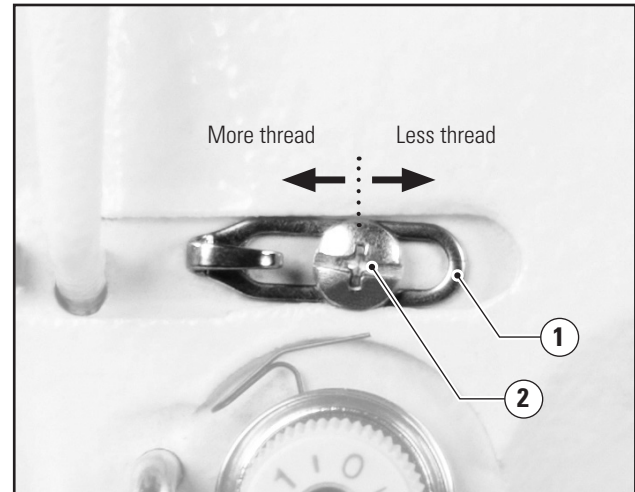
When you use a tension measuring device (7) (optional extra) you can see the reading on the scale on the side of the red line.

10 // ADJUSTMENTS

10/3 Adjust the thread control

The basic setting for the tread control (1) is with the screw (2) in the centre of the long slot of the thread control. Loosen the screw (2) to adjust the thread control (1).

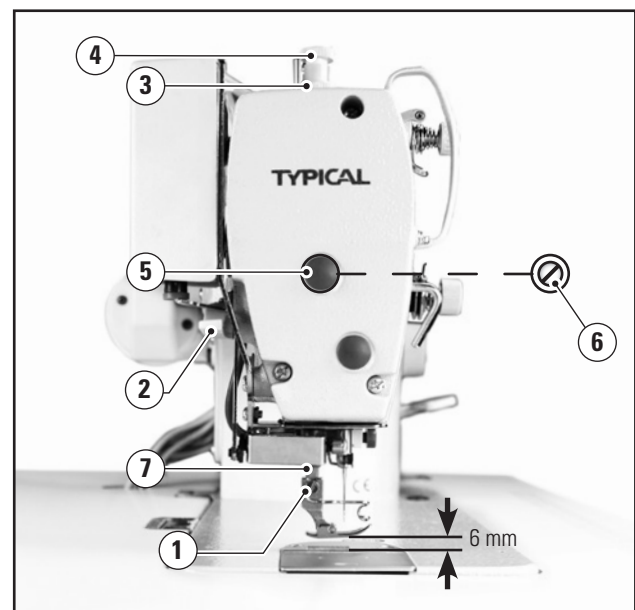
1. When sewing heavy material move the thread control to the left for more thread in the seam.
2. On fine material move the tread control to the right for less thread in the seam.



10/4 Adjusting the presser foot height

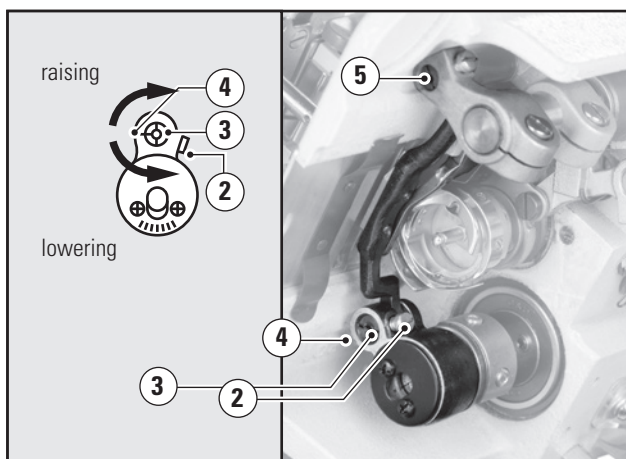
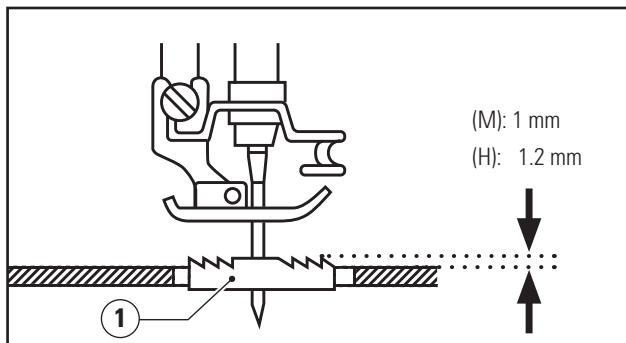
When you lift the presser foot (1) with the help of the hand lever (2) it should be 6 mm high.

1. Loosen the nut (3) on the adjusting screw (4). Turn the adjusting screws until there is no more pressure on the foot.
2. Lift the hand lever (2). The presser foot (1) will lift as well.
3. Remove the plug (5).
4. Loosen the screw (6) and push or pull the presser bar (7) with the sewing foot up or down until it is 6 mm high.
5. Make sure that the presser foot is positioned parallel to the needle plate and tighten screw (6).
6. Replace plug (5).
7. Adjust the pressure on the pressure foot with the adjusting screw (4) and tighten the nut (3).



10 // ADJUSTMENTS

10/5 Adjust the feed dog height



The feed dog (1) should be 1.0 mm (M-Version) or 1.2 mm (H-Version) above the needle plate on the turning point.

1. Turn the hand wheel, to bring the feed dog (1) to the highest position.
2. Tilt the machine with both hands backwards.
3. Loosen screw (2).
4. Set the feed lifting eccentric (3) with the notch on the line (4).
5. Tighten screw (2) afterwards.

Turn the feed driving eccentric (5) in order to avoid changing the feed dog angle (1) when doing the above work. (Illustration B)

Illustration A

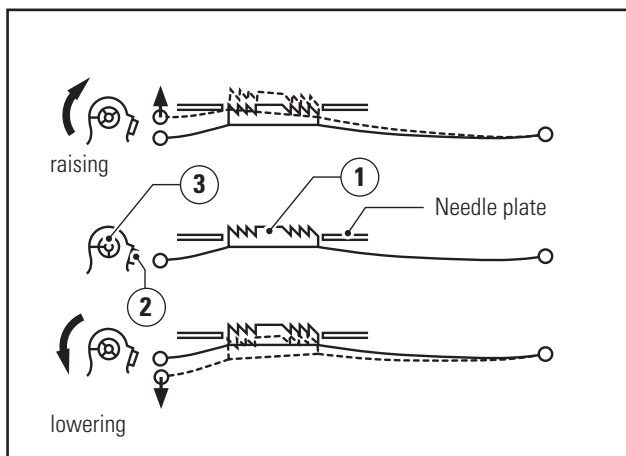
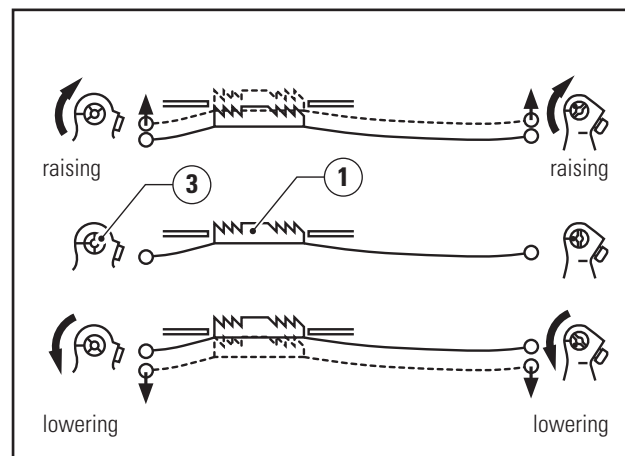


Illustration B



10 // ADJUSTMENTS

10/6 Adjust the feed dog angle

The feed dog (1) must be parallel with the needle plate surface when it exits the needle plate.

1. Turn the hand wheel until the feed dog (2) is the same height as the needle plate.
2. Tilt the machine with both hands backwards.
3. Loosen both set screws (4).
4. Turn the eccentric (2) until the notch is on the marking.
5. Tighten both screws (4).

If the feed dog is lowered in front it will stretch the material slightly.

If the feed dog is lifted in front it will gather the material slightly.

Turn the eccentric (5) to change the angle of the feed dog (1) even further, while you do above work. (Illustration D)

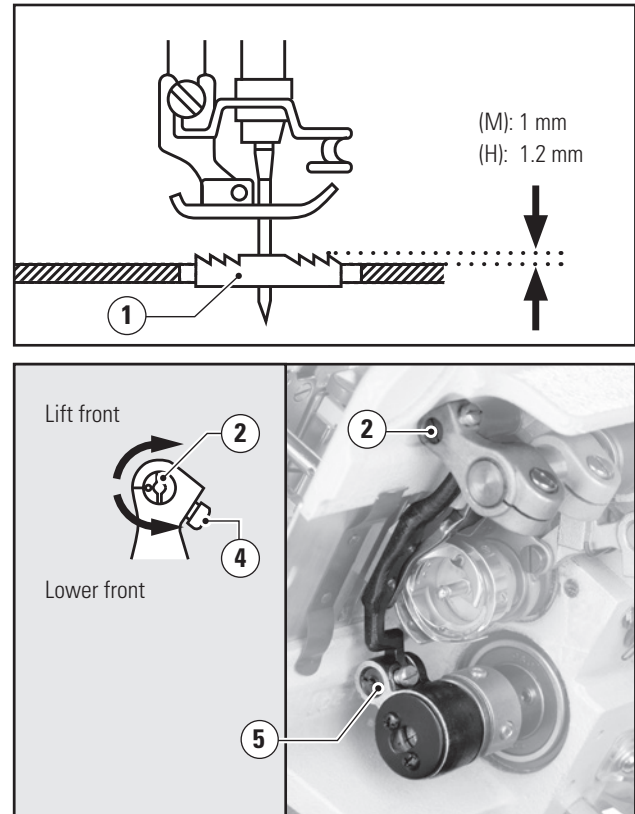


Illustration C

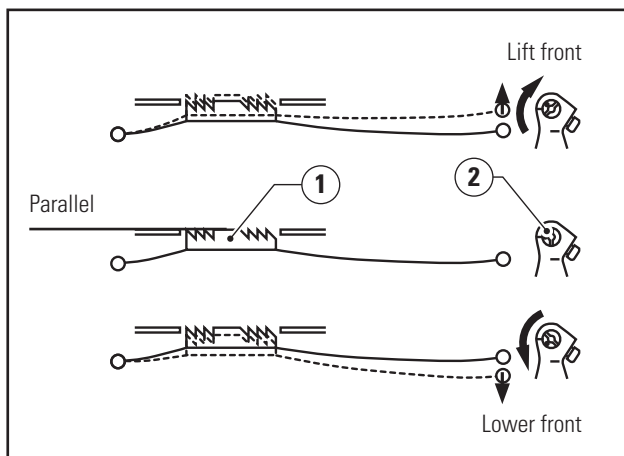
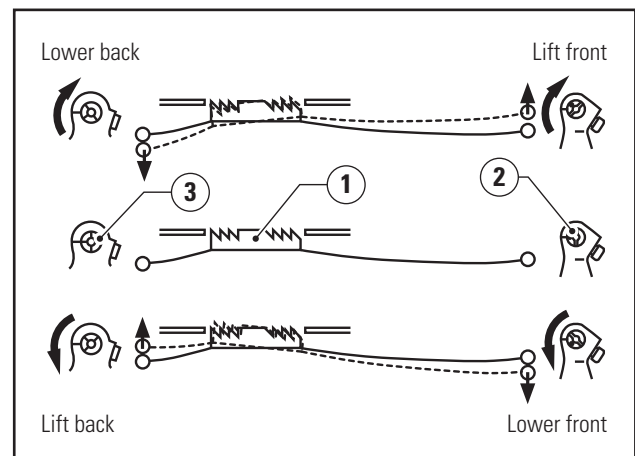
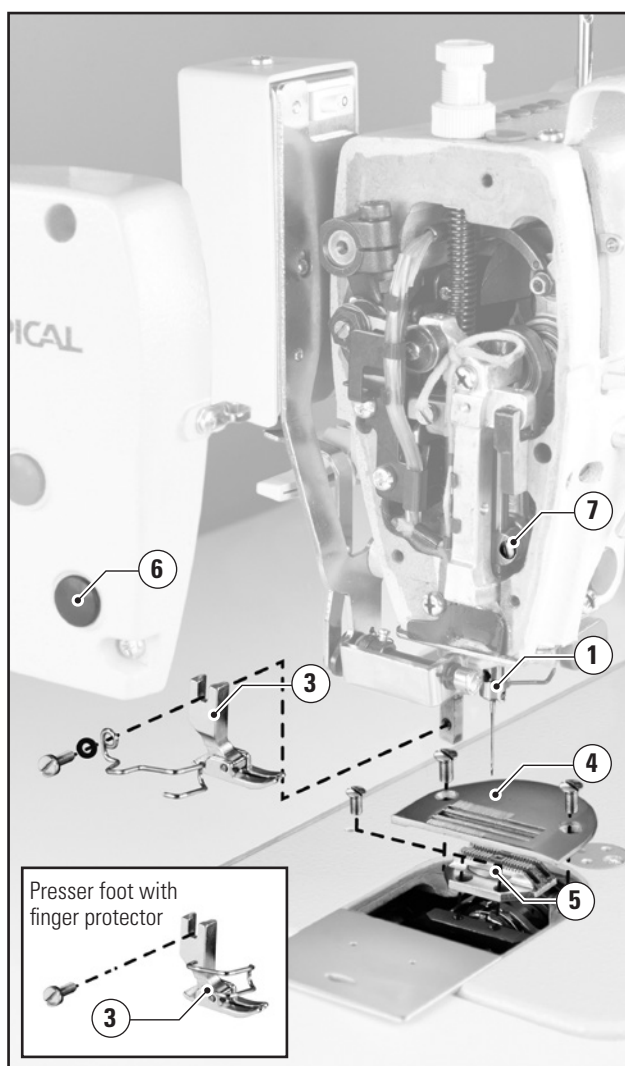
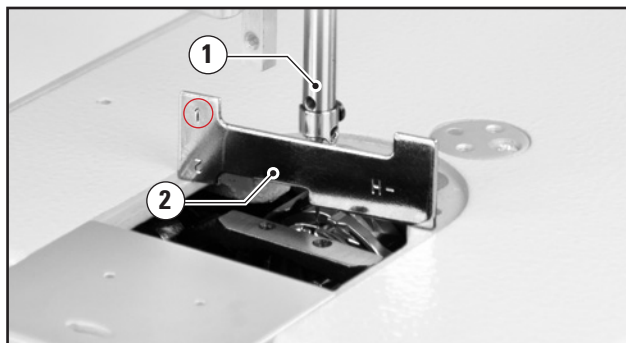


Illustration D



10 // ADJUSTMENTS

10/7 Pre-adjustment of the needle bar height



The needle height should be pre-adjusted that the lower end of the needle bar (1) touches the gauge (2) when it is in the lowermost position.

1. Remove the presser foot (3), needle plate (4) and feed dog (5).
2. Bring the needle bar in the lowermost position by turning the hand wheel.
3. Remove the rubber plug (6) on the front plate.
4. Loosen screw (7)
5. Set the gauge (2) like shown in the illustration in the machine.
6. Move the needle bar (1) up or down until it touches the gauge.
7. Tighten screw (7).
8. Re-place rubber plug (6).
9. Replace feed dog (5), needle plate (4) and sewing foot (3)

10 // ADJUSTMENTS

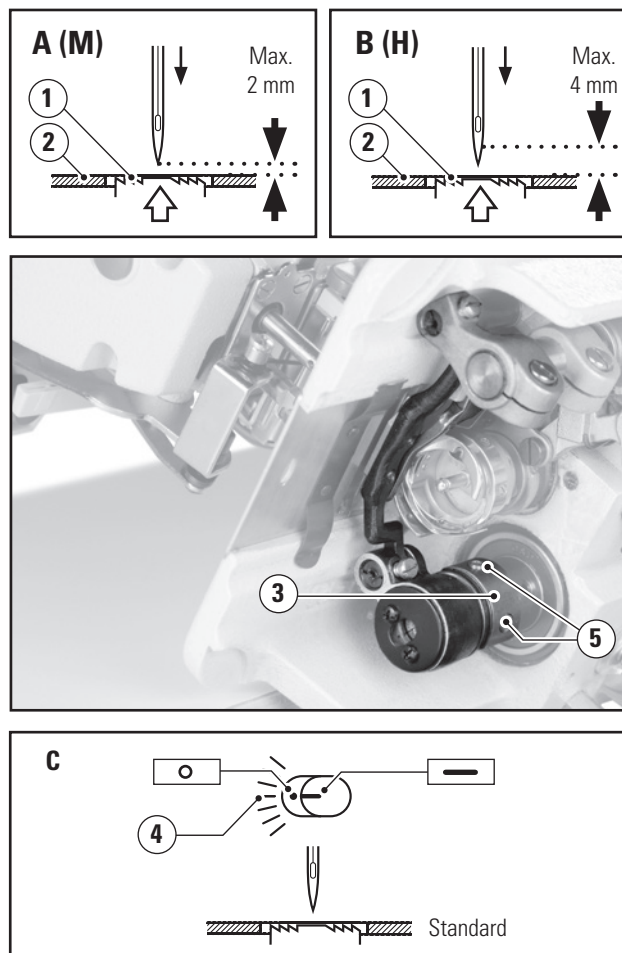
10/8 Adjust lower feeding movement

The point of the needle must be, depending on the machine version, (M=2 mm, H=4 mm) above the needle plate (2), when the feed dog(1), coming up is flush with the needle plate (Illustration A and B).

The standard setting is when the marking „-“ on the drive shaft is opposite the punch mark „o“ and the line 4 (see Illustration C).

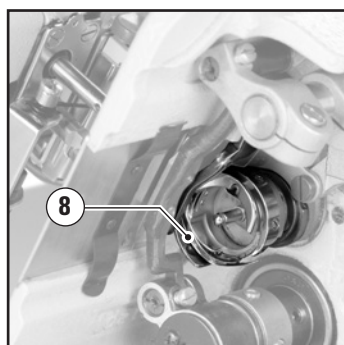
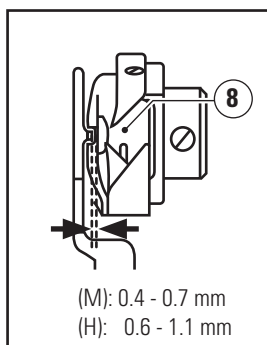
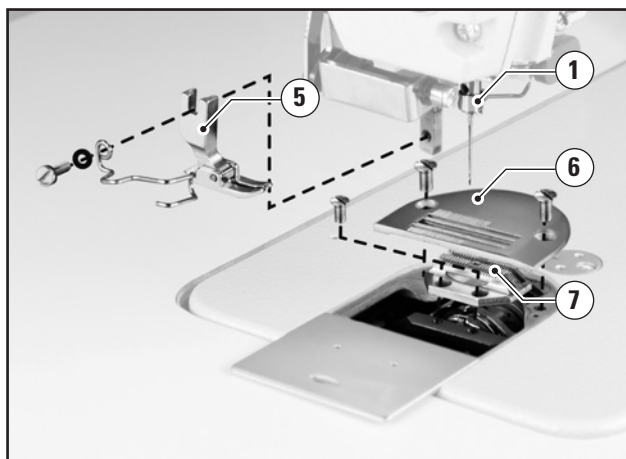
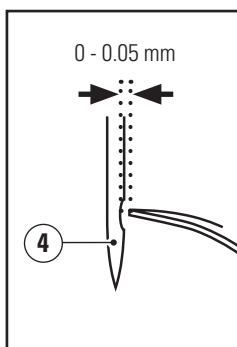
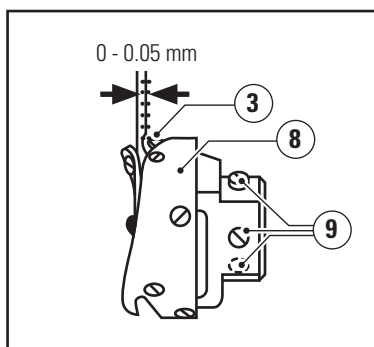
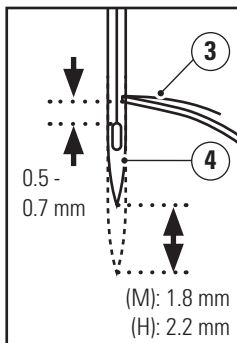
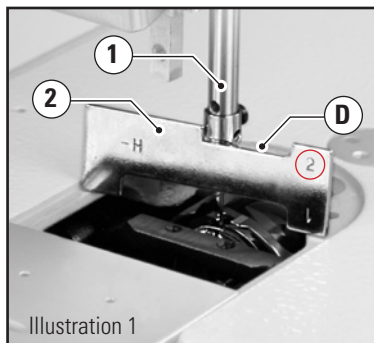
1. Adjust stitch length to maximum setting.
2. Tilt machine with both hands backwards.
3. Loosen both set screws (5) and turn the eccentric according to the instructions.
4. Tighten both set screws (5) after adjustment.

The pre-set timing of needle- and feed mechanism should not be altered, it could lead to needle breakage.



10 // ADJUSTMENTS

10/9 Adjusting the hook distance, needle bar rise and needle height



The point of the hook (3) must be in the center of the needle (4) when the needle bar (1) is 1.8 mm (2.2 mm version H) after the lower turning point and must have a distance of 0 to 0.05 mm to the needle.

The eye of the needle must be 0.5 to 0.7 mm below the point of the hook. (Readjustment see 10/7 on page 40).

The needle bar (1) must be, as shown in illustration 1, in line with the line D on the upper edge of the gauge, when you use a gauge (2).

1. Remove presser foot (5), needle plate (6) and feed dog (7).
2. Set stitch length as follows:
<M> Stitch length 0
<H> Stitch length 3
3. Loosen the screws (9) on the hook (8) so it can be turned.
4. Move the needle bar (1) up by turning the hand wheel until it touches the gauge.
5. In this position turn the hook (8) to the center of the needle (4). Keep a distance of 0 to 0,05 mm to the side of the needle.
6. Tighten all 3 set screws (9).
7. Replace feed dog (7), needle plate (6) and presser foot (5) in this order.

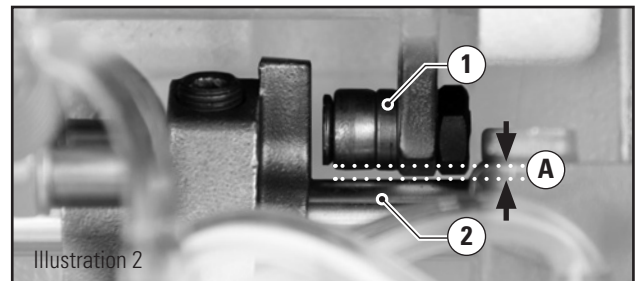
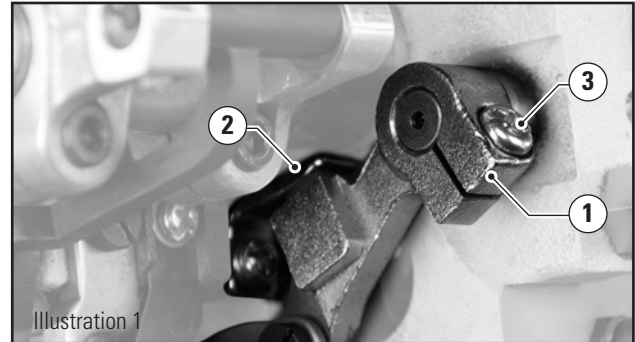
10 // ADJUSTMENTS

10/10 Adjusting the thread cutter

10/10/1 Pre-adjusting the roller lever

The distance between the roller and the shaft must be about 3 mm when the lever (1) (Illustration 1) is touching the stop (2) at position (A) (Illustration 2).

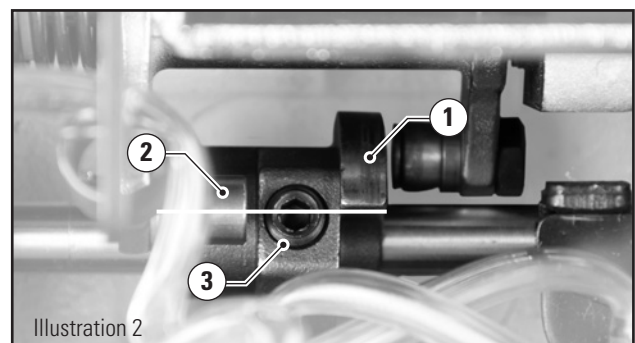
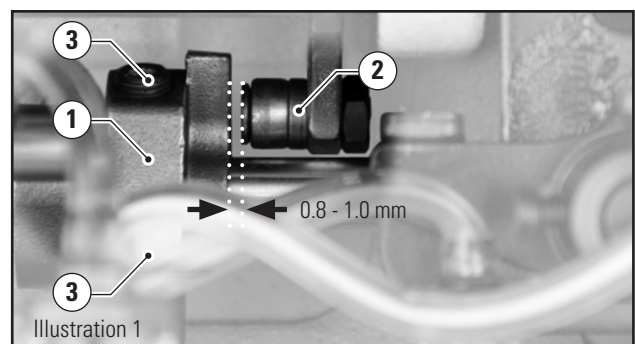
1. Push the lever (1) to the stop (2), loosen screw (3), turn the roller lever until a distance of 3 mm between roller and shaft is achieved. (Make sure that the roller lever and shaft are under spring pressure)
2. Tighten screw (3) in this position.



10/10/2 Pre-adjusting the cam

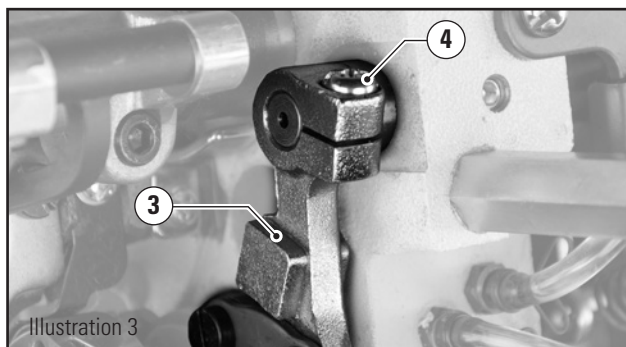
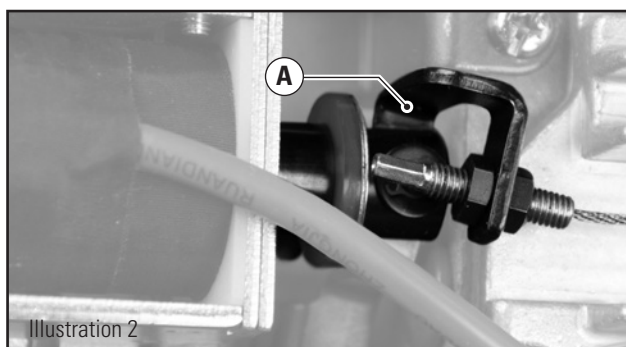
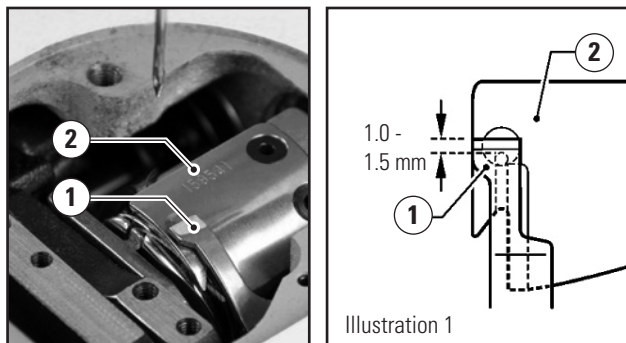
The cam (1) must have a distance of 0.8 to 1.0 mm to the roller (2) when the tread cutter is in inoperative position. The first screw (3) of the cam (1) must be opposite the roller (2) when the needle bar is on the upper turning point.

1. Loosen screw (3)
2. Move cam (1) to the side until a distance of 0.8 to 1 mm is achieved.
3. Turn the cam (1) until the first screw (3) is opposite the roller (2) when the needle bar is on the upper turning point. (Caution: Point 2 mustn't be touched)
4. Tighten screws (3)



10 // ADJUSTMENTS

10/10/3 Setting the movable thread catcher



The cutting edge must be about 1 to 1.5 mm behind the knife edge of the stationary knife (2) when the movable thread catcher (Illustration 1) is on the front turning point.

1. Turn the hand wheel until the needle is coming up from the lower turning point and the point of the needle is in line with the needle plate. Move the lever (A) (Illustration 2) to the left to initiate cutting operation. (Secure lever in this position)
2. Turn hand wheel until the movable thread catcher (1) is in the foremost turning point. (Illustration 1)
3. In this position loosen screw (4) (Illustration 3) and adjust movable thread catcher (1) (Illustration 1) that it is about 1 to 1.5 mm behind the knife edge of the stationary knife (2).
4. Tighten screw (4) (Illustration 3).

10 // ADJUSTMENTS

10/10/4 Timing the cam

The take up lever must be 2 mm before the upper turning point when the movable thread catcher is at the foremost turning point and the treads are cut.

1. Loosen screws (1) (Illustration 1) so you can just turn the cam.
2. Turn the hand wheel until the needle is coming up from the lower turning point and the point of the needle is in line with the needle plate. Move the lever (A) (Illustration 2) to the left to initiate cutting operation. (Secure lever in this position)
3. Turn hand wheel until the movable thread catcher (1) is in the foremost turning point. (Illustration 1)
4. Turn the cam so that the movable thread catcher is at the foremost turning point (Make sure the cam is not moving to the side!)
5. Tighten screws (1) (Illustration 1).

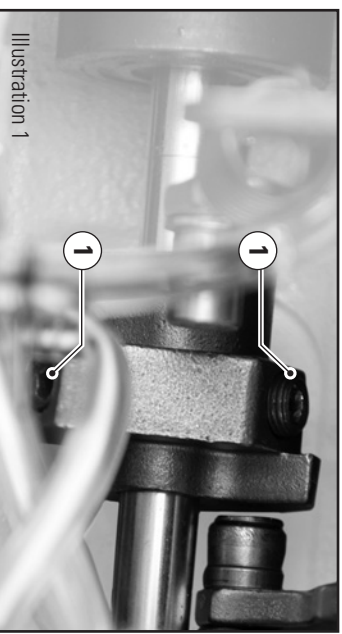


Illustration 1

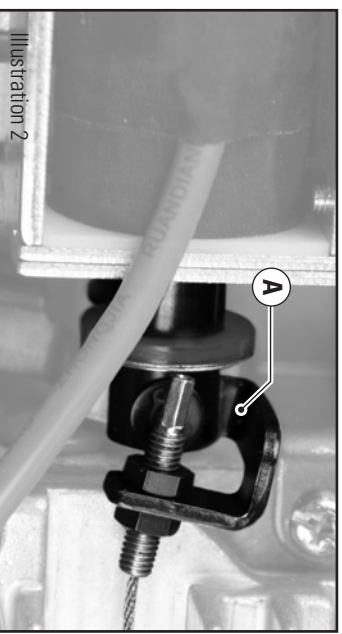
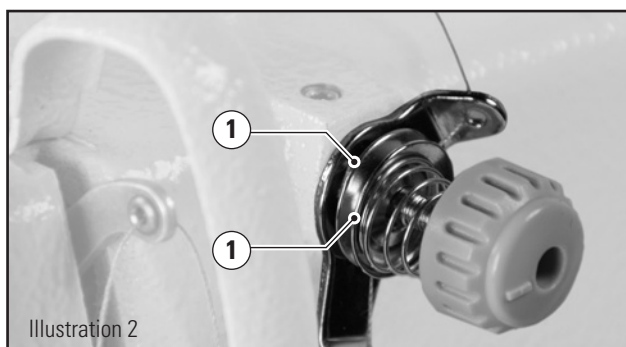
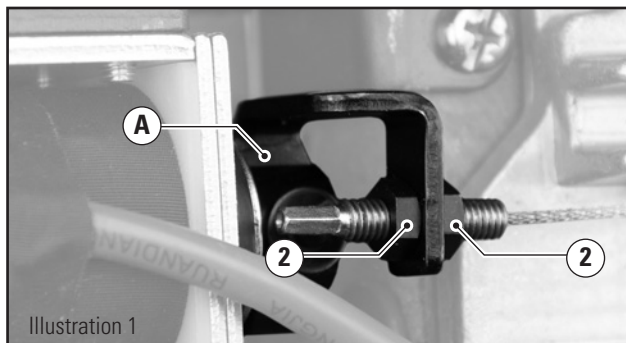


Illustration 2



10 // ADJUSTMENTS

10/10/5 Setting the tension release



The tension discs (1) (Illustration 2) should be about 0.5 to 1.0 mm apart when the lever (A) (Illustration 2) is at the left position.

1. Turn the hand wheel until the needle is coming up from the lower turning point and the point of the needle is in line with the needle plate. Move the lever (A) (Illustration 2) to the left to initiate cutting operation. (Secure lever in this position)
2. Loosen the counter nuts (2) (Illustration 1) and turn until a distance of 0.5 to 1.0 mm is achieved.
3. Tighten counter nuts (2).

10/10/6 Set knife pressure



The knife pressure should be as low as possible but the thread must be cut securely. Low knife will result in less wear and tear on the parts.

1. Turn the screw (A) (Illustration) clock wise for more pressure and anti-clock wise for less pressure

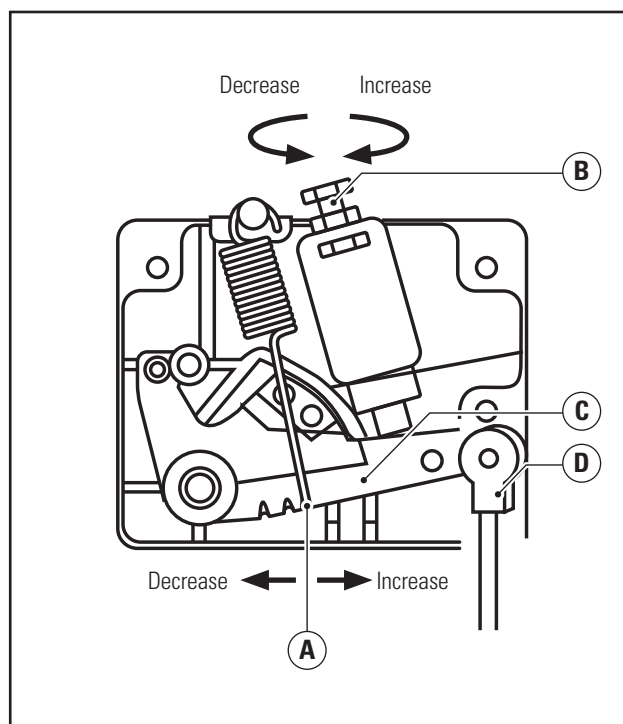
10 // ADJUSTMENTS

10/11 Adjusting the foot pedal

Components of the speed control unit:

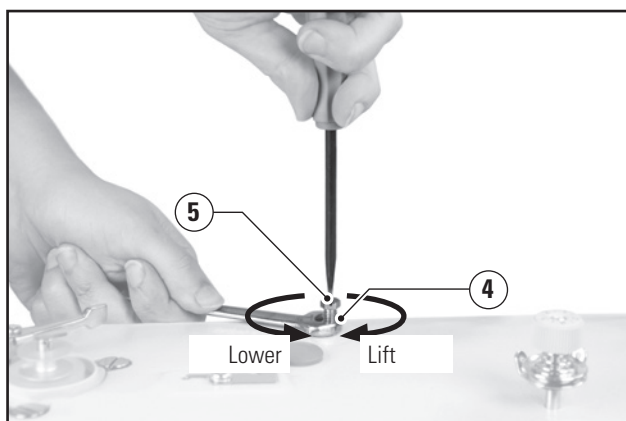
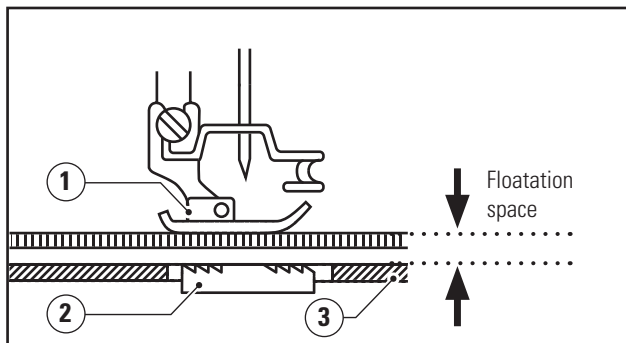
- A Spring for the forward force adjustment
- B Bolt for the revers force adjustment
- C Pedal / pedal arm
- D Transmission shaft for the pedal

Adjustment		Result
1	Forward run	Move spring A to the right = Power decrease
	Power setting	Move spring A to the left = Power increase
2	Revers run	Turn Bolt B to ↶ = force decrease
	Power setting	Turn Bolt B to ↷ = force increase
3	Pedal deflection	Move shaft D to the right = Deflection is higher
	Setting	Move shaft D to the left = Deflection is lower



10 // ADJUSTMENTS

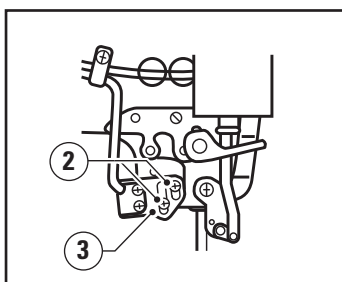
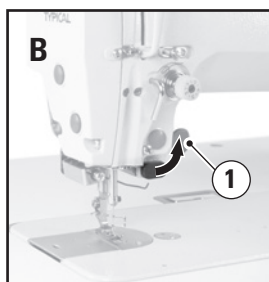
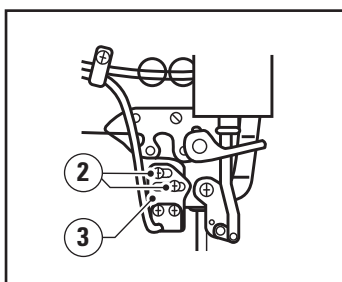
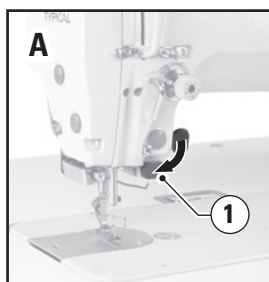
10/12 Sewing of stretch- or high pile material



When sewing stretch- or high pile material it can happen, that the material is pushed apart by the pressure of the foot. The seam is stretched and puckered. To get a better result with these materials you can, on the GC6760, put the presser foot, with the help of an adjustable stop, in a state of floatation. The height of the presser foot above the needle plate must be established by testing on the various materials.

1. Move the feed dog (2) below the needle plate (3) by turning the hand wheel.
2. Lower the presser foot (1) onto the needle plate (3).
3. Loosen the nut (4)
4. Set the required floating height with the help of a screw driver on the set screw (5).
To lift the presser foot, turn the set screw (5) clockwise.
To lower presser foot, turn the set screw (5) anti-clockwise.
5. Tighten nut (4) when required height is reached.
6. Test if result is satisfactory.

10/13 Adjusting the electric back tack switch on the machine head



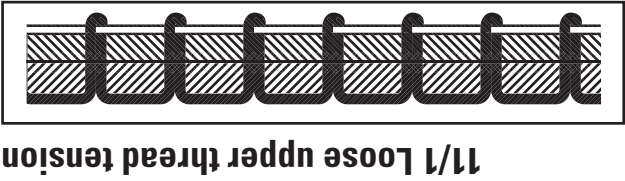
The switch (1) can be attached like shown in illustration A or B as desired.

1. Loosen screws (2).
2. Push the switch unit (3) to the desired position A or B.
3. Tighten screws (2) again.

11 // ERROR MESSAGES & POSSIBLE TROUBLESHOOTING

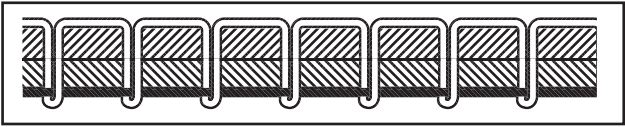
Check the following points before you send a service- or repair request when you have problems with the machine. Switch the machine off and contact a qualified technician or your dealer if you can not rectify the fault with the help of this instructions.

 Caution Switch the machine off and pull the plug. Wait for at least 5 minutes before you open the front unit and control unit. This parts are under high voltage and contact may cause dangerous injuries.	
 Caution Switch the machine off and pull the plug before you start looking for the fault. Injury may occur when the machine is started accidentally by pushing the foot pedal.	



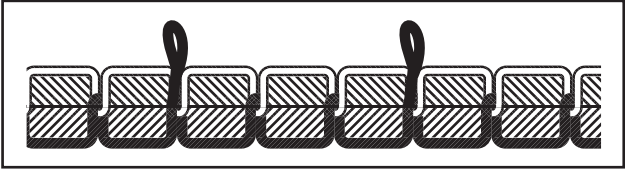
11/1 Loose upper thread tension

When the upper thread tension is too loose it can be, because the upper tension is too loose, or the lower tension is too tight. Check the upper and lower thread tension and readjust if necessary. See point 7/1 and point 7/2 in this manual.



11/2 Loose lower thread tension

When the lower thread tension is too loose it can be, because the lower tension is too loose, or the upper tension is too tight. Check the lower and upper thread tension and readjust if necessary. See point 7/1 and point 7/2 in this manual.

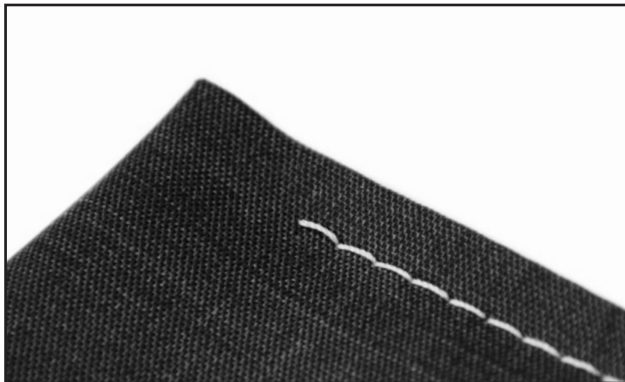


11/3 Loops appear

When loops appear in the seam it can be possible, that thread path is not smooth, or the bobbin is not turning evenly. Polish the thread path with fine sandpaper or a fine-grained file. Take the bobbin case out and check thread tension. In case the bobbin or the bobbin case is damaged replace it.

11 // ERROR MESSAGES & POSSIBLE TROUBLESHOOTING

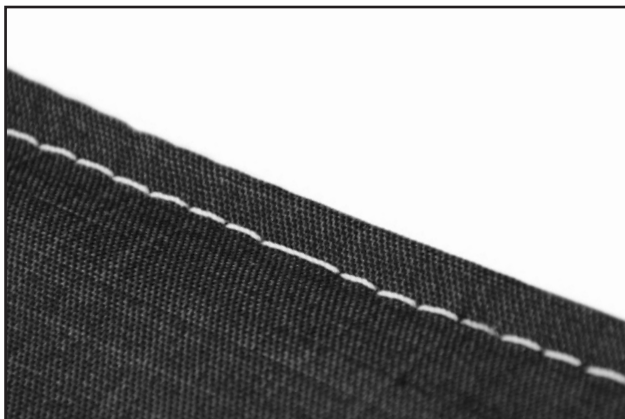
11/4 Missing stitches when you start sewing



Missing stitches when you start sewing can have various reasons.

1. Check if the tension on the take up spring is too tight.
2. Check if the take up spring is in the right position.
3. Check if the upper thread end is long enough after cutting. Adjust the pre tensioner if necessary.
4. Check that the thread is cut off cleanly. Sharpen the stationary knife or replace the stationary knife and the moving knife.
5. Check if the thread end from the bobbin is long enough after cutting. When the bobbin is spinning in the bobbin case replace brake spring.
6. Check if the needle is too heavy for your material. Replace with a thinner needle if necessary.
7. Check the sewing speed when you start sewing. Use the soft-start-function if necessary.

11/5 Skipped stitches while sewing



Skipped stitches while sewing can have various reasons.

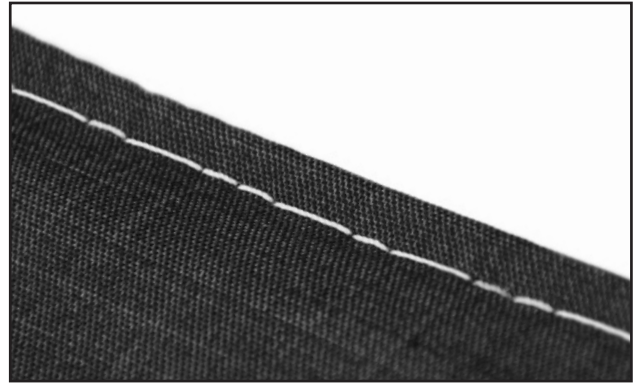
1. Check if the point of the needle is bent or blunt. Replace if necessary.
2. Check if the needle is inserted the right way.
3. Check if the machine is threaded properly.
4. Check if the needle is too thin for the material.
5. Check the foot pressure. It is maybe too soft or too hard.
6. Check the tension on the take up spring.

11 // ERROR MESSAGES & POSSIBLE TROUBLESHOOTING

11/6 Irregular stitch length

Irregular stitch length can have various reasons.

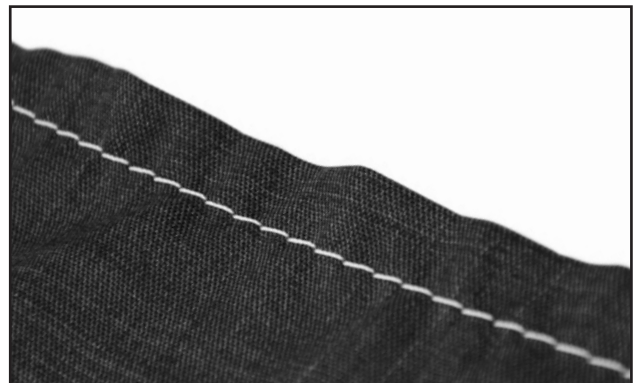
1. Check the foot pressure and adjust if necessary.
2. Check the feed dog height.
3. Check if the bobbin is scratched.
A damaged bobbin can be polished with an oiled grindstone.



11/7 Puckered seam

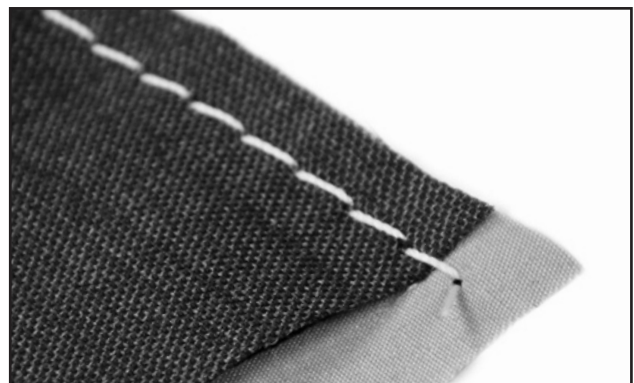
A puckered seam can have various reasons.

1. Check if the upper thread tension is to tight.
2. Check if the lower thread tension is to tight.
3. Check if the tension on the take up spring is to tight.
4. Check if the take up spring is in the right position.
5. Check if the foot pressure is to tight.
6. Check if the sewing speed is to high. Reduce the sewing speed if necessary with the speed-control-button.



11/8 Shifted material layers

Check the foot pressure when the upper and lower material layers are shifted.



11 // ERROR MESSAGES & POSSIBLE TROUBLESHOOTING

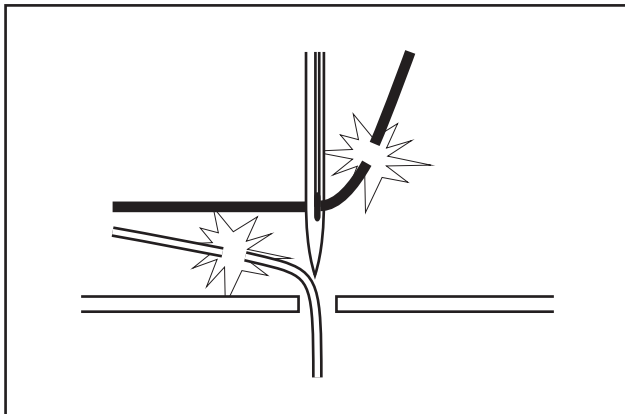
11/9 Lower thread builds knots not the beginning / Bobbin spins when thread is cut



Knots on the beginning of the seam or the spinning of the bobbin when the tread is cut can have various reasons.

1. Check if the bobbin is turning the right way when you pull the tread.
2. Check if there is too much thread on the bobbin. It should be only filled to 80 % of the bobbin capacity.
3. Check if the break spring is fitted.
4. Check if the bobbin turns freely. Replace bobbin if necessary.

11/10 Upper and lower thread breakage



Upper and lower thread breakage can have various reasons.

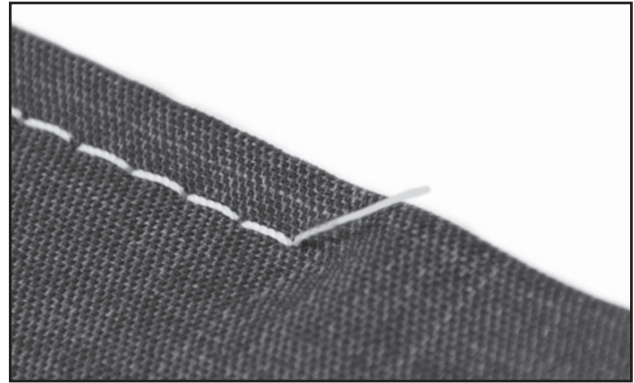
1. Check if the needle is bent or the point of the needle is damaged.
2. Check if the needle is put in the right way.
3. Check if the machine is threaded the right way.
4. Check if the hook is lubricated properly. When the oil level is on the last line refill oil.
5. Check the upper and lower thread tension. It may be too tight or too loose.
6. Check the way of the take up spring. In case the operating distance is too small, the tension can be too loose.
7. Check if there is damage to the hook, feed dog or any other parts.
8. Check if the thread path is damaged. In this case, polish the thread path with fine sandpaper or replace the damaged part.

11 // ERROR MESSAGES & POSSIBLE TROUBLESHOOTING

11/11 Faulty thread cutting

It can have various reasons when the upper and lower thread are not cut properly.

1. Check if the stationary or movable knife is blunt or damaged. Replace if necessary.
2. Check if the needle is inserted properly.

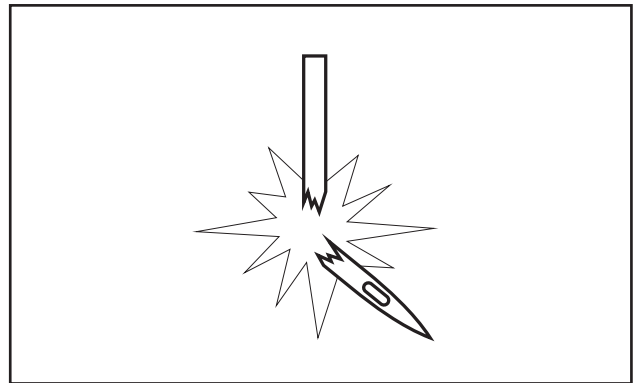


11/12 Needle breakage

Needle breakage can have various reasons.

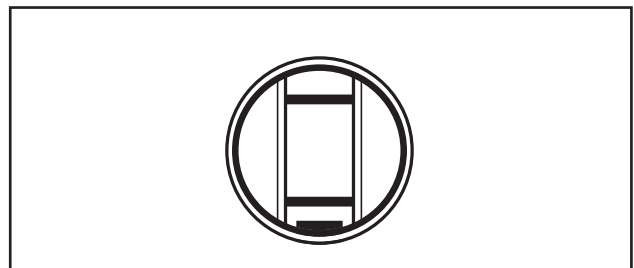
1. Check if the needle is inserted properly.
2. Check that the material is not pushed or pulled when sewing.
3. Check if the needle is bent or the point of the needle is damaged. Maybe the eye of the needle is blocked. Replace needle if necessary.

Never leave pieces of the broken needle in the material. When you break a needle always look for all the pieces.



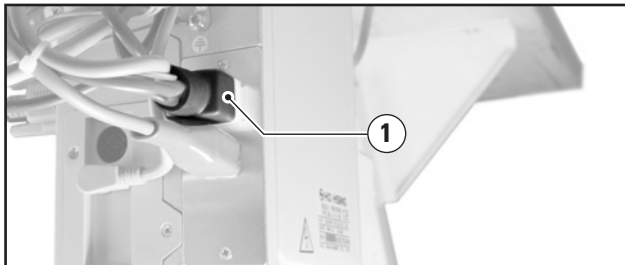
11/13 Oil level not visible

If you can not see the level on the oil sight window check if there is enough oil in the machine. To do so tilt machine backwards.



11 // ERROR MESSAGES & POSSIBLE TROUBLESHOOTING

11/14 Machine doesn't start



In case the machine doesn't start, when you switch it on and press the foot pedal, check if the power plug (1) is plugged into the control.

11/15 Machine doesn't run at high speed

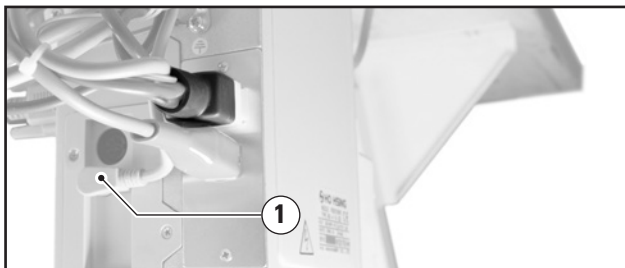
When the machine doesn't run at high speed, check the settings of the sewing speed and / or the speed of the back tack unit.

11/16 Machine stops while sewing

It can have various reasons when the machine stops while you are sewing.

1. Check if the number of stitches is fixed. Press the button for fixing the number of stitches to switch this function off.
2. Check if the voltage is too low. A too long cable lowers the voltage as well when there are too many machines in use at the same time on one plug. This can activate the reset-function, so the machine stops even so the power supply seems normal.

11/17 No readout on the control panel



It can have various reasons when there is no readout on the control panel.

1. Check if the power supply was unplugged from the control.
2. Check the connection between the control panel (1) and controller is intact.

12 // DISPOSAL OF MACHINE

The orderly disposal of the machine is the responsibility of the customer. Materials used for the machine are steel, aluminum, brass and various plastic material. The electronic parts contain various plastic material and copper.

The local environmental protection regulations must be observed when the machine is disposed. A special disposal company must be possibly used.



Caution!

Parts with lubricant residue must be separately disposed according to some local environmental protection regulations!

The packaging of the machine is made out of paper, cardboard and VCE-Vlies. The proper disposal the packaging is the responsibility of the customer.

GC6760

**DOUBLE LOCKSTITCH HIGH-SPEED SEAMER
WITH DIRECT DRIVE
WITH BOTTOM AND NEEDLE FEED**



This machine may only be operated by adequately trained operators only after having completely read and understood the instruction manual.

Parts are subject to changes in design without prior notice.



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