

1281/5-1

Sewing unit for closing seams for trousers and skirts

Operating Instructions

Installation Instructions

Service Instructions

CE

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Foreword

This instruction manual is intended to help the user to become familiar with the machine and take advantage of its application possibilities in accordance with the recommendations.

The instruction manual contains important information on how to operate the machine securely, properly and economically. Observation of the instructions eliminates danger, reduces costs for repair and down-times, and increases the reliability and life of the machine.

The instruction manual is intended to complement existing national accident prevention and environment protection regulations.

The instruction manual must always be available at the machine/sewing unit.

The instruction manual must be read and applied by any person that is authorized to work on the machine/sewing unit. This means:

- Operation, including equipping, troubleshooting during the work cycle, removing of fabric waste,
- Service (maintenance, inspection, repair) and/or
- Transport.

The user also has to assure that only authorized personnel work on the machine.

The user is obliged to check the machine at least once per shift for apparent damages and to immediatly report any changes (including the performance in service), which impair the safety.

The user company must ensure that the machine is only operated in perfect working order.

Never remove or disable any safety devices.

If safety devices need to be removed for equipping, repairing or maintaining, the safety devices must be remounted directly after completion of the maintenance and repair work.

Unauthorized modification of the machine rules out liability of the manufacturer for damage resulting from this.

Observe all safety and danger recommendations on the machine/unit! The yellow-and-black striped surfaces designate permanend danger areas, eg danger of squashing, cutting, shearing or collision.

Besides the recommendations in this instruction manual also observe the general safety and accident prevention regulations! The non-observance of the following safety instructions can cause bodily injuries or damages to the machine.

- 1. The machine must only be commissioned in full knowledge of the instruction book and operated by persons with appropriate training.
- 2. Before putting into service also read the safety rules and instructions of the motor supplier.
- 3. The machine must be used only for the purpose intended. Use of the machine without the safety devices is not permitted. Observe all the relevant safety regulations.
- 4. When gauge parts are exchanged (e.g. needle, presser foot, needle plate, feed dog and bobbin) when threading, when the workplace is left, and during service work, the machine must be disconnected from the mains by switching off the master switch or disconnecting the mains plug.
- 5. Daily servicing work must be carried out only by appropriately trained persons.
- 6. Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.
- For service or repair work on pneumatic systems, disconnect the machine from the compressed air supply system (max. 7-10 bar). Before disconnecting, reduce the pressure of the maintenance unit. Exceptions to this are only adjustments and functions checks made by appropriately trained technicians.
- 8. Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.
- 9. Work on parts and systems under electric current is not permitted, except as specified in regulations DIN VDE 0105.
- 10. Conversion or changes to the machine must be authorized by us and made only in adherence to all safety regulations.
- 11. For repairs, only replacement parts approved by us must be used.
- 12. Commissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC directives.
- The line cord should be equipped with a country-specific mains plug. This work must be carried out by appropriately trained technicians (see paragraph 8).



It is absolutely necessary to respect the safety instructions marked by these signs.



Danger of bodily injuries !

Please note also the general safety instructions.

Part 3: Service Instructions Class 1281/5-1

(Edition: 01/2011)

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General Information 1

The service instructions at hand describe the adjustment of the seam closing unit 1281/5-1.

It comprises:

- Quick start guide for the sewing head
- Service instructions for the sewing unit



ATTENTION!

The quick start guide represents an extract from the detailed operating instruction for the sewing head. These operating instructions must, in any case, be read completely and all the instructions must be followed. The company Beisler does not assume any warranty for the correctness of the following explanations.

ATTENTION!

The activities described in these service instructions may be performed only by qualified personnel or appropriately trained personnel!

Caution: Risk of Injury !

Switch off the main switch when performing repair, rebuild or maintenance jobs.

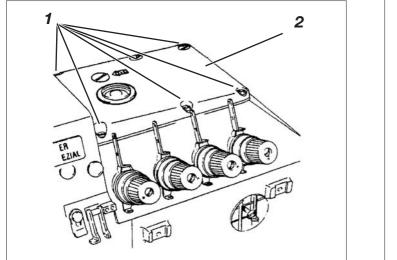
Alignment jobs and functional tests may be performed on a running machine only if all the safety measures are observed and extreme care is taken.

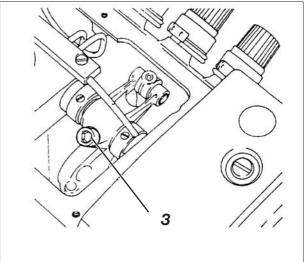
The service instructions at hand describe the adjustment of the sewing unit in purposeful sequence. At this juncture, it must be borne in mind that the various setting positions are dependent on each other. Therefore, make absolutely sure that you perform the adjustment in the described sequence.

A new, faultless needle must be used for all adjustment jobs on stitch-forming parts.

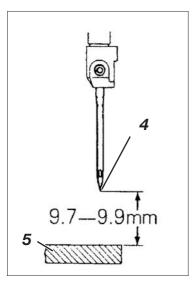
2. Quick start guide for the sewing head

2.1 Adjusting the needle bar height









Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the needle bar height only when the sewing unit is switched off.

Regulation and Control

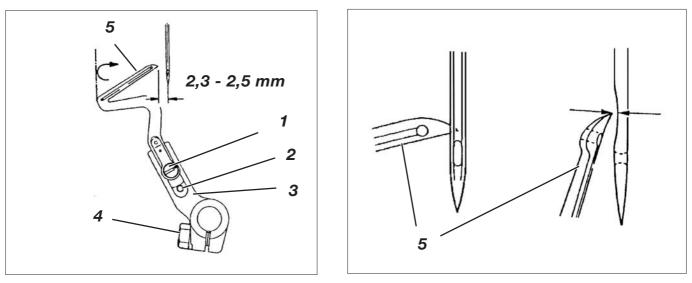
At the upper dead center of the needle bar, the distance between needle point 4 and throat plate must be 9.7 - 9.9 mm.

- Turn the needle bar in its upper dead center.
- Check as to whether the distance between needle point 4 and throat plate 5 is 9.7 to 9.9 mm.

- Unscrew the lid screw 1 and remove lid 2.
- Turn the needle bar in its upper dead center.
- Swivel out the sewing foot.
- Loosen the screw 3 up to the point that the needle bar just about allows itself to be pushed.
- Move the needle bar up to the point that the distance between needle point 4 and throat plate 5 is 9.7 to 9.9 mm.
- Tighten the screw 3.
- Screw on the lid 2 once again.

2.2 Adjusting the hook

2.2.1 Distance of the left hook from the needle





Caution: Risk of Injury !

Switch off the main switch. Check and adjust the hook only when the sewing unit is switched off.

Adjustment crosswise from sewing direction

Regulation and Control

In the left reversal point of the hook 5, the distance between needle center and hook point should be 2.3 to 2.5 mm.

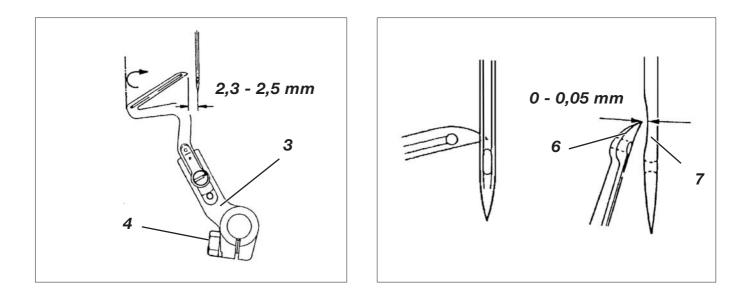
- With the hand wheel, turn the left hook to its left reversal point.
- Check as to whether the distance between needle center and hook point is 2.3 to 2.5 mm.

Correction

- Unscrew throat plate, front feed dog, as well as front and rear needle guard.
- With the hand wheel, turn the hook to its left reversal point.
- Loosen screw 1 and bring the hook to bear against the limit stop 2.
- Retighten the screw 1.
- Loosen the screw 4 up to the point that the hook carrier 3 just about allows itself to be turned.
- Turn the hook carrier up to the point that the distance between needle center and hook point is 2.3 to 2.5 mm.

Note

Do not yet tighten the screw 4.

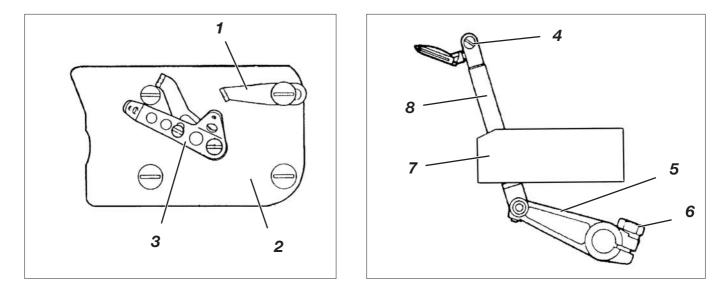


Adjustment in sewing direction

Regulation and Control

The distance between hook point 6 and needle 7 should be 0.0 to 0.05 mm.

- Turn the hand wheel in the direction of rotation until the hook point is exactly at the needle center.
- Move the hook carrier 3 up to the point that the distance between hook carrier and needle is 0.0 to 0.05 mm.
- Check the adjustment crosswise from sewing direction once again and realign it, if need be.
- Tighten the screw 4.



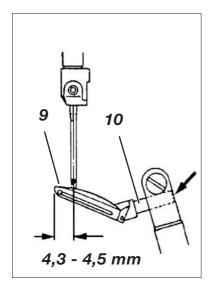


Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the hook only when the sewing unit is switched off.

Adjustment crosswise from sewing direction



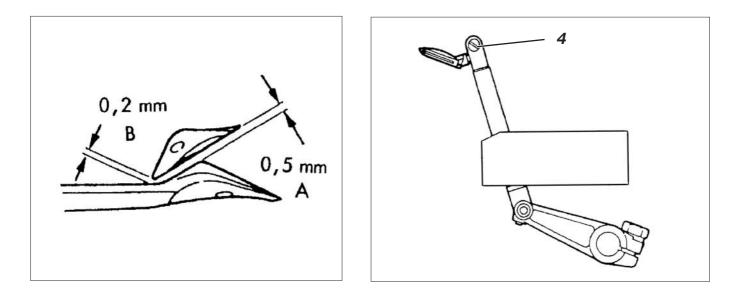
Regulation and Control

When the **right** hook is at its upper reversal point, the distance between hook point 9 and needle center should be 4.3 to 4.5 mm.

- Unscrew the thread guides 1, 3 and lid 2.
- With the hand wheel, turn the hook to its upper dead center.
- Loosen the screw 4 up to the point that the hook just about allows itself to be pushed.
- Move the hook such that the hook shaft (1) is flush with the right side of the hook carrier.
- Loosen the screw 6 slightly.
- Twist the lever 5 such that a distance of 4.3 to 4.5 mm is present between the hook point and needle center. Take care that the bar 8 in bearing 7 does not exhibit any stiffness.
- Tighten the screw 6.

Note

Do not yet tighten the screw 4.



Adjustment in sewing direction

Regulation and Control

When the right hook crosses the left hook, the distance "A" should be 0.5 mm and the distance "B" should be 0.2 mm.

Correction

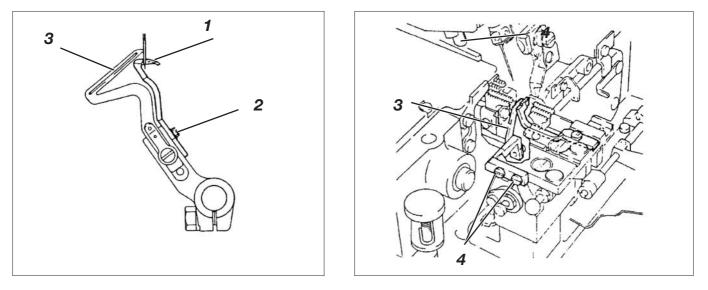
- Turn the hand wheel in the direction of rotation until the right hook crosses the left hook.
- Twist and shift the right hook such that the distance "A" is 0.5 mm and the distance "B" is 0.2 mm.
- Tighten the screw 4 in this position.
- Once again check all the settings and readjust, if need be.
- Remount the thread guides 1, 2 and lid 3.
- Adjust the thread guides according to Chapter "Thread regulation of the serging looper".

Note

The right serging looper is dependent on the thickness of the needle. For needles with Nm 60 - 80, use the hook with the characteristic number 28, and for needles with Nm 80 - 100, use the hook with the characteristic number 22.

2.3 Adjusting the needle guard

2.3.1 Rear needle guard





Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the needle guard only when the sewing unit is switched off.

Regulation and Control

When the point of the left hook 3 is at needle center, the needle guard 1 should bear against the needle and a distance of 0.0 to 0.05 mm should be present between hook point and needle.

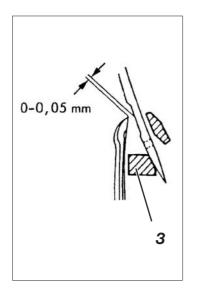
- Turn the hand wheel in the direction of rotation until the hook point is positioned in the direction of the needle.
- Check the distance between hook point and needle.

Correction of mobile version

- Turn the hand wheel in the direction of rotation until the hook point is positioned in the direction of the needle.
- Loosen the screw 2.
- Shift the needle guard 1 such that the needle guard bears against the needle and a distance of 0.0 to 0.05 mm is present between the hook point and the needle center.
- Tighten the screw 2.

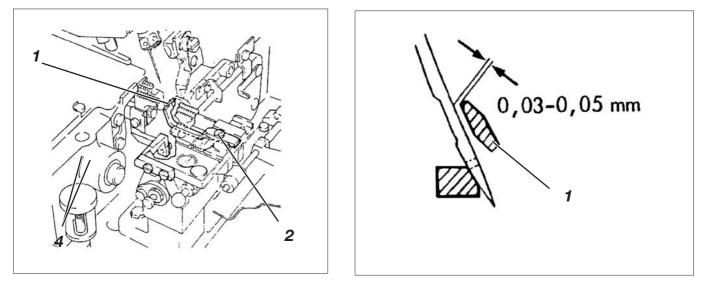
Correction of rigid version

- Turn the hand wheel in the direction of rotation until the hook point is positioned in the direction of the needle.
- Loosen the screw 4.
- Shift the needle guard 3 such that the needle guard bears against the needle and a distance of 0.0 to 0.05 mm is present between the hook point and the needle center.
- Tighten the screw 4.



3

2.3.2 Front needle guard





Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the needle guard only when the sewing unit is switched off.

Regulation and Control

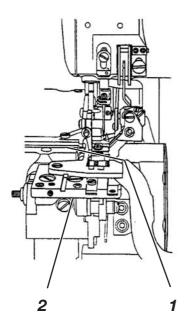
At the bottom dead center of the needle, the distance between needle guard 1 and needle should be 0.03 to 0.05 mm.

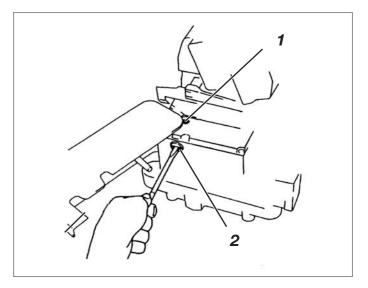
- Turn the hand wheel in the direction of rotation until the needle is exactly at its dead center.
- Check the position of the front needle guard.

- Turn the hand wheel in the direction of rotation until the needle is exactly at its dead center.
- Loosen the screw 2.
- Move the needle guard 1 such that the distance between needle guard and needle is 0.03 to 0.05 mm.
- Tighten the screw 2.

2.4 Adjusting the feed dog

2.4.1 Feed dog position







Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the feed dog position only when the sewing unit is switched off.

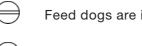
Regulation and Control

In their highest position, the feed dogs should be horizontal.

- Turn the hand wheel in the direction of rotation until the feed dogs are in their highest position.
- Check the position of the feed dogs.

Correction

- Turn the hand wheel in the direction of rotation until the feed dogs are in their highest position.
- Loosen the screw 1.
- Twist the screw 2.

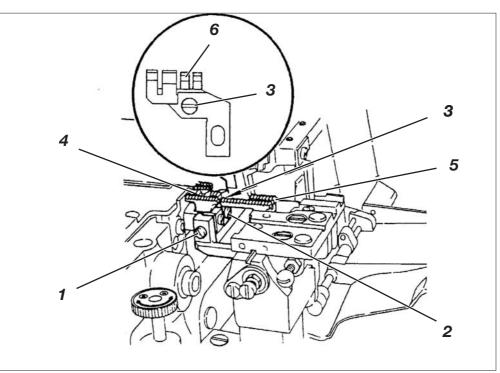


Feed dogs are in horizontal position

) Feed dogs are inclined backwards

Feed dogs are inclined forwards

- Tighten the screw 1.





Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the feed dog height only when the sewing unit is switched off.

Regulation and Control

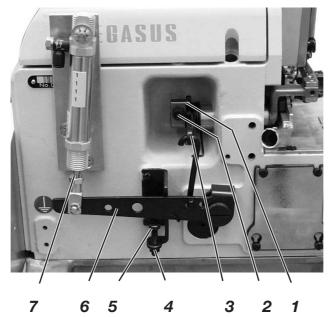
When the feed dogs are in their highest position, the teeth of the main feed dog 4 should be 0.8 mm, the teeth of the differential feed dog 5 should be 0.9 to 1.0 mm and the teeth of the auxiliary feed dog 6 should be 0.6 to 0.7 mm above the upper edge of the throat plate.

- Turn the hand wheel in the direction of rotation until the feed dogs are in their highest position.
- Check the position of the feed dogs with respect to the throat plate.

- Unscrew the throat plate.
- Loosen the screws 1, 2 and 3 slightly.
- Attach the throat plate once again.
- Adjusting the height of the feed dogs.
- Remove the throat plate.
- Tighten the screws 1, 2 and 3.
- Attach the throat plate and tighten the screws.

2.5 Presser foot

2.5.2 Presser foot upper part EXT 3216

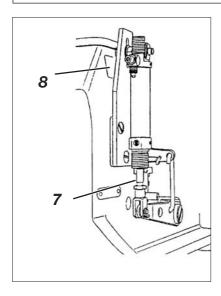




Caution: Risk of Injury !

Switch off the main switch. Check and adjust the presser foot only when the sewing unit is

3



Control

switched off.

When the piston rod 7 is extended, the lever 6 should bear against the screw 5 and the clearance under the sewing foot should be 4 mm.

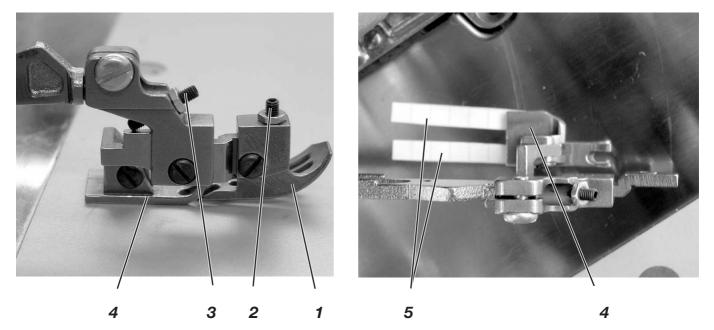
Correction

- Loosen counter nut 4 and turn screw 5 all the way down.
- Swivel in the sewing foot.
- Turn the hand wheel in the direction of rotation until the teeth of the feed dog are below the throat plate upper edge.
- Loosen screw 2 and press ring 1 all the way back up to limit stop.
- Tighten screw 2 in this position.
 Take care that ring 1 and lever 3 do not have any axial play.
- Press lever 6 down until there is a distance of approx. 4 mm between sewing foot and throat plate.
- In this position, bring screw 5 to bear against lever 6 and secure with counter nut.

Note

In case lever 6 does not bear against screw 5 when the piston rod 7 of the cylinder is extended, proceed as follows:

- Loosen the nut 8.
- Shift the cylinder 1 accordingly.
- Tighten the nut 8.





Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the presser foot only when the sewing unit is switched off.

Control

The articulated sewing foot must be free of play and free-moving in its joints.

The front sewing foot sole 1 and rear sewing foot sole 4 must parallel to each other.

Correction of sideways inclination

- Remove front sewing foot sole 1.
- Turn upper part to position "Needle low".
- Place two approx. 5 mm wide paper strips 5 side by side under the rear sewing foot sole 4.
- Adjust the sideways inclination such that inner paper strip is clamped somewhat lesser and can be more easily pulled out from the clamp of the sewing foot than the outer paper strip.

Balancing of front and rear sewing foot sole

- Remount the front sewing foot sole 1.
- Turn upper part to position "Needle low".
- Twist adjusting screw 3 such that the front sewing foot sole just about bears against it.

Inclination of the front sewing foot sole

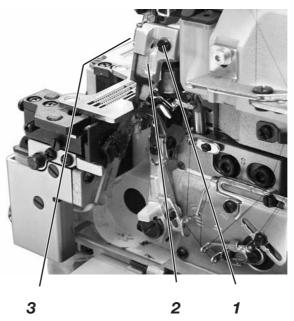
The front sewing foot sole should now bear with its entire length against the throat plate in position "Needle low".

Adjust sewing foot sole with screw 2.

2.6 Upper and lower knife

2.6.1 Changing and adjusting the upper knife

Upper part EXT 3216-03/233K





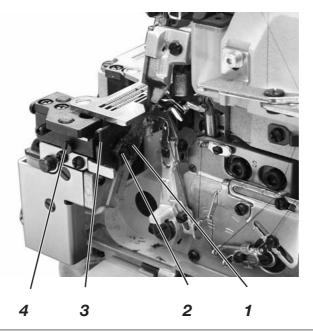
Caution: Risk of Injury ! Switch off the main switch. Check and adjust the upper knife only when the sewing unit is switched off.

Control

When the upper knife is in its lowest position, the front edge of the blade should be 0.5 to 1.0 mm below the throat plate upper edge.

- Turn the hand wheel until the needles are at their upper reversal point and swivel out the sewing foot.
- Unscrew the screw 1.
- Remove the knife holder 2 with the knife.
- Loosen the screw 3 and remove the knife.
- Insert a new, sharp knife and fasten with screw 3.
- Insert knife holder 2 and screw on lightly with screw 1.
- Turn the hand wheel until the knife is in its lowest position.
- Shift the knife such that it lightly bears against the lower knife and the front edge of the blade is approx. 0.5 to 1.0 mm below the throat plate upper edge.

Upper part EXT 3216-03/233K





Caution: Risk of Injury !

Switch off the main switch.

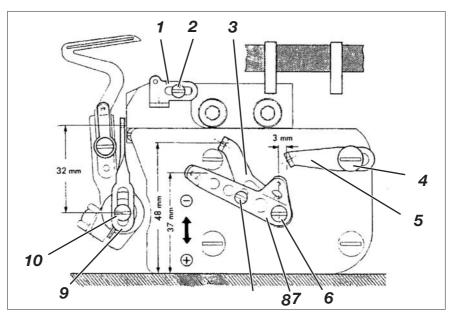
Check and adjust the upper knife only when the sewing unit is switched off.

Control

The blade of the lower knife should be flush against the upper edge of the throat plate.

- Remove the fabric sliding plate.
- Swivel out the sewing foot.
- Loosen the screw 4.
- Pull the lower knife holder 3 to the left up to limit stop and retighten screw 4 lightly.
- Loosen the screw 2 and remove the old knife.
- Insert a new, sharp knife in the guide 1 such that the blade is flush against the upper edge of the throat plate.
- Tighten the screw 2.
- Turn the hand wheel until the upper knife is in its highest position.
- Loosen screw 4 and allow the lower knife holder to spring against the upper knife.
- Tighten the screw 4.

2.7 Thread regulation of serging looper





Caution: Risk of Injury !

Switch off the main switch.

Check and adjust the thread regulation only when the sewing unit is switched off.

Control

The positions of the individual thread guides and/or thread pullers is dependent upon the material used, the sewing yarn and the stitch type.

The following adjustment values may therefore be regarded merely as reference values.

Correction

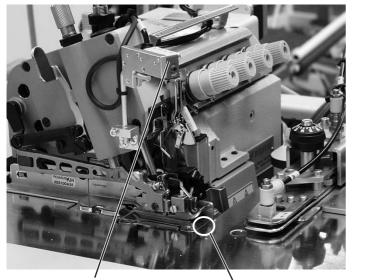
- Turn the hand wheel until the right hook is at its upper reversal point.
- Loosen screw 10 and shift the thread puller 9 such that there is a distance of approx. 32 mm between screw center and loop center.
- Tighten screw 10.
 Make sure that the thread puller 9 is in vertical position.
- Loosen the screws 6 and 8 slightly.
- Bring the thread pullers 3 and 7 to the position shown in the figure.
- Tighten the screws 6 and 8.
- Loosen the screw 4 slightly.
- Bring the thread guide 5 to the position shown in the figure.
- Tighten the screw 4.
- Loosen the screw 2 slightly.
- Shift the thread guide 1 such that the screw 2 is at the center of the elongated hole.
- Tighten the screw 2.

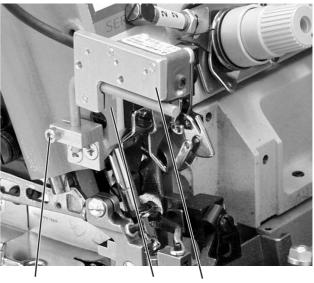
Note

If more or less thread is required in the seam, shift thread pullers 3 and 7 in the direction "+" or "-" respectively.

3. Adjusting the sewing unit

3.1 Adjusting the light barrier



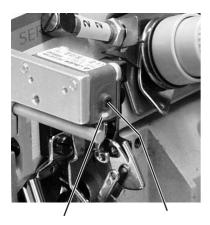


2 1 5 4 3



Caution: Risk of Injury !

The light barrier is adjusted when the sewing unit is switched on. Perform the adjustment and functional test only with the greatest care.



6

5

Align the light barrier

The light barrier 2 should be leveled at the area 1 on the upper part.

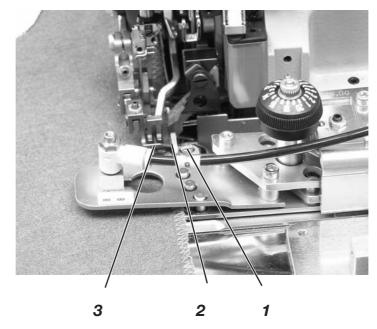
- Loosen the screws 4 and 5.
- Align the light barrier 3 accordingly.
- Tighten the screws 4 and 5.

Adjusting the light barrier intensity

- Adjust the sensitivity potentiometer 5 on the front face above the light emitting diode 6 up to its left limit stop (least sensitivity).
- Turn the potentiometer in clockwise direction until the light emitting diode 6 switches on.
- For safe light barrier operation, turn the potentiometer further by another revolution in clockwise direction.

If the light emitting diode does not light up, then the light barrier should be cleaned, readjusted or exchanged.

3.2 Adjusting the workpiece limit stop





Caution: Risk of Injury !

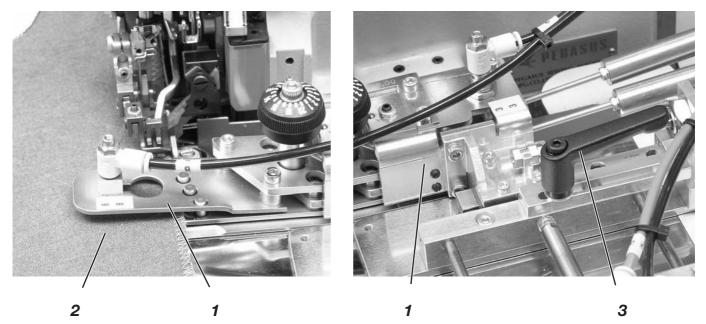
Switch off the main switch. Adjust the workpiece limit stop only when the sewing unit is switched off.

Control

The workpiece limit stop 2 must bear against the sewing foot 3 completely, in order that the fabric is not pulled up between the sewing foot 3 and the limit stop 2 while sewing.

- Loosen the screw 1.
- Push the workpiece limit stop 2 all the way against the sewing foot 3.
- Tighten the screw 1.

3.3 Adjusting the contour guide





Caution: Risk of Injury !

Switch off the main switch.

Adjust the contour guide only when the sewing unit is switched off.

Control

The contour guide 1 should advance until both the lays 2 are always guided securely while stitching down the contours.

Correction of swivel-out width

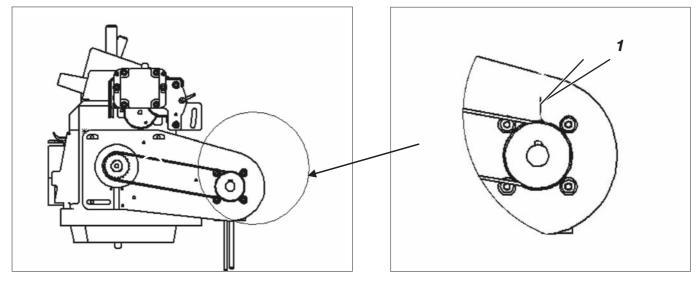
- Loosen the clamping lever 4.
- Shift the contour guide 1 accordingly.
- Tighten the clamping lever 4.

Correction of punching position

- Loosen the nut 6.
- Twist the punch 1 accordingly.
- Tighten the nut 6.

3.4 Direct Drive Sewing Mode

2.4.2 Adjusting the reference





Caution: Risk of Injury !

Switch off the main switch.

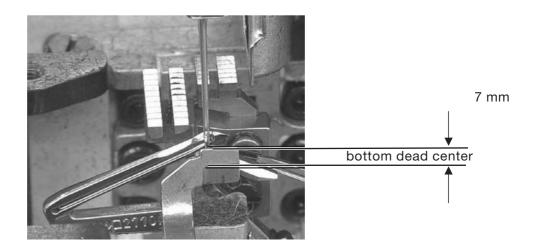
Check and adjust the hook setting only when the sewing unit is switched off.

3

Control

If the needle is in the position "**7 mm after the bottom dead center**", the drive belt should be applied such that the feather key 2 in the motor shaft points to the marking 1 in the motor housing.

- Remove the toothed belt.
- With the hand wheel, turn the needle bar to the position "7 mm after the bottom dead center".
- Twist the motor shaft such that the feather key 2 in the motor shaft points to the marking 1 in the motor housing.
- Apply the toothed belt once again.





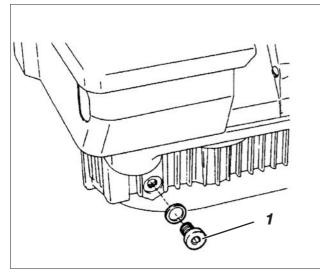
Caution: Risk of Injury !

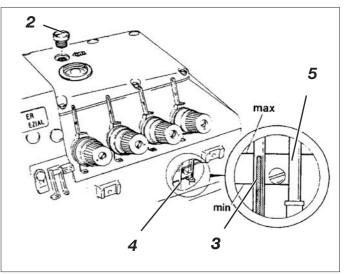
Oil can induce skin rashes. Avoid long-term skin contact. Wash yourself thoroughly after contact.

ATTENTION!

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.

4.1 Oil change and oil filter change





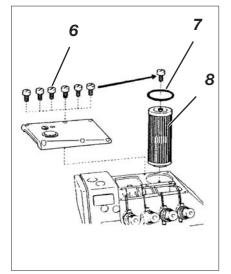
An oil exchange with dismantled machine head must be performed 4 weeks from the initial start-up, and subsequently every 2 years.

The oil filter should be cleaned or exchanged every 2 years.

Note

If the oil pressure indicator 5 does not move downwards when the machine head is operational, or if the oil is dirty, then the oil filter must be cleaned or exchanged.

- Unscrew the drain screw 1 and intercept the used oil in a vessel.
- Retighten the drain screw 1.
- Unscrew the screw 6 of the lid.
- Screw in one of the screws 6 into filter 8 and therewith unscrew and remove the filter.
- Clean or exchange the filter 8.
- Insert new seal 7, place back the lid and tighten the screws.
- Loosen screw 2 and fill oil until the top of the oil level indicator 3 has reached the upper marking in the oil inspection glass 4.
 We recommend oil with a density of 0.865 g/cm³ at 15 ° C.
- Reinsert the screw 2.





Caution: Risk of Injury !

Switch off the main switch.

The sewing unit may be serviced only when it is switched off.

The maintenance jobs to be performed on a daily or weekly basis by the operating personnel at the workplace (cleaning and lubrication) are described in the operating instructions (Chapter 8). They are given in the following table only for the purpose of completeness.

Jobs to be performed	Operating hours				
	8	40	160	500	
Machine head					
- Remove lint and thread waste	X				
- Monitor oil level		X			
- First oil exchange			X		
- Subsequent oil exchange		every 2 years			
Control Box					
 Remove lint and thread waste 	X				
- Keep filter free	X				
-					
Suctioning device					
- Empty the container	X				
 Rid the space under the fabric sliding plate of lint and thread waste 		x			
Pneumatic system					
- Check the water level in the pressure regulator.	X				
- Clean the filter insert in the maintenance unit				Х	
 Check the leak tightness of the system 				Х	