

Preface and General Safety Information

Part 1: Operating Instructions Cl. 8967

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1. Product Description

1.1 Short Description and Proper Use

The special sewing machine 8967 is a single needle-double lock stitch free-arm machine with lower transport without stroke and an upper transport with alternating pressure feet.

The machine is designed and may only be used for sewing of textile material or leather.

1.2 Sub-Classes

8967-160180

Execution without thread trimmer,
Pressure foot lift electropneumatic.

8967-160182

Execution with electromechanical
thread trimmer for needle and
bobbin thread, electropneumatic,
automatic interlock and pressure foot lift.

1.3 Technical Specification

Needle system: System 2134-35

Max. number of stitches:
dependent on pressure foot stroke
and stitch length 2000, 3000 rpm

Maximum stitch length:
forward (F), reverse (R) 6 (F); 6 (R) mm

Pressure foot stroke: 2 - 7 mm

Maximum clearance under
the pressure feet:

When sewing: 10 mm

When raised in needle high position: 17 mm

Maximum thread thickness:

Cotton: 9/3

Synth. endless: 15/3 Nm

Core thread (poly-cotton): 20/3 Nm

Through-feed area: 281 x 135 mm

Free arm diameter 47 mm

Operating pressure: 6 +/- 0.5 bar

Line pressure: 7 - 10 bar

Air consumption per work cycle: 0.15 NL



2. Operating Elements and Their Function

2.1 Elements at the Sewing Head

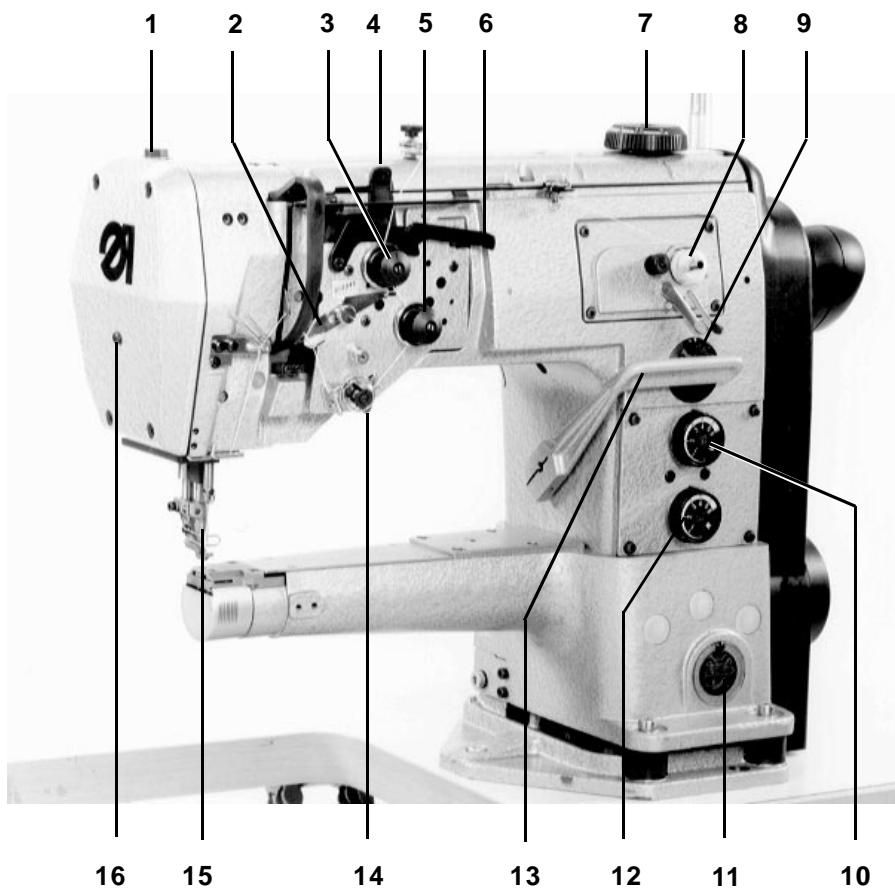
Element	Function
1 Pressure foot screw	- This screw is screwed in completely at the factory and the position may not be changed.
2 Thread regulator	- Setting the correct thread quantity for different material thicknesses, sewing yarns and stitch lengths.
3 Control knob	- Setting auxiliary tension for the needle thread.
4 Lever	- Opening the main needle thread tension and auxiliary needle thread tension.
5 Control knob	- Setting the main tension for the needle thread
6 Lever	- Switching the auxiliary tension on and off. Pull the lever to the right before switching over in order to free it from its catch.
7 Adjustment wheel	- Setting the pressure foot stroke.
8 Lever	- Bobbin thread winding device
9 Viewing glass with 11 fill opening	- Show the oil level in the reservoir. The oil level must be kept above "MIN". If necessary fill Esso "SP NK 10" up to the "MAX" marking in the reservoir.
10 Control knob	- Setting the stitch length for sewing forwards.
12 Control knob	- Setting the stitch length for sewing in reverse.
13 Hand lever	- Continuous adjustment of the stitch length between the set forward and reverse stitch lengths.
14 Lever	- Determining the status of the main needle thread tension during pressure foot lift. Lever up: Tension open. Lever down: Tension closed.
15 Needle	

Caution!



Be sure to turn off the main switch when threading or replacing the needle.
Risk of Injury.

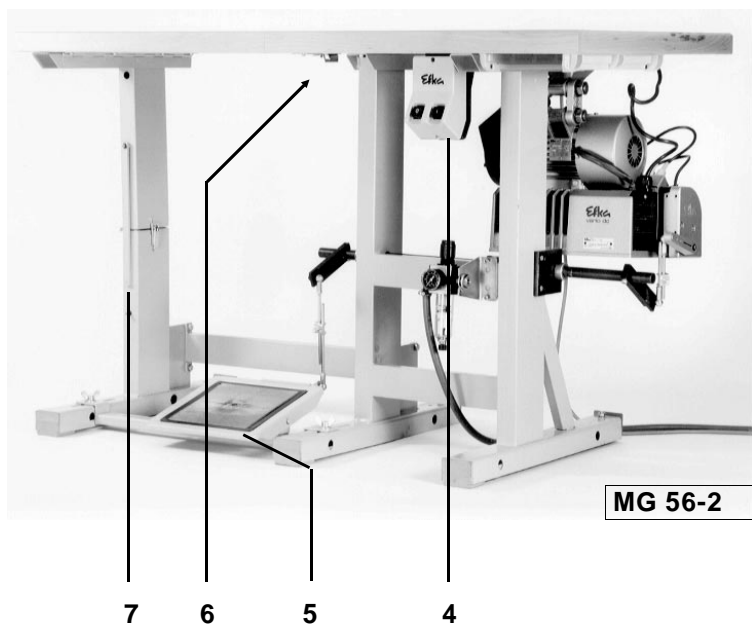
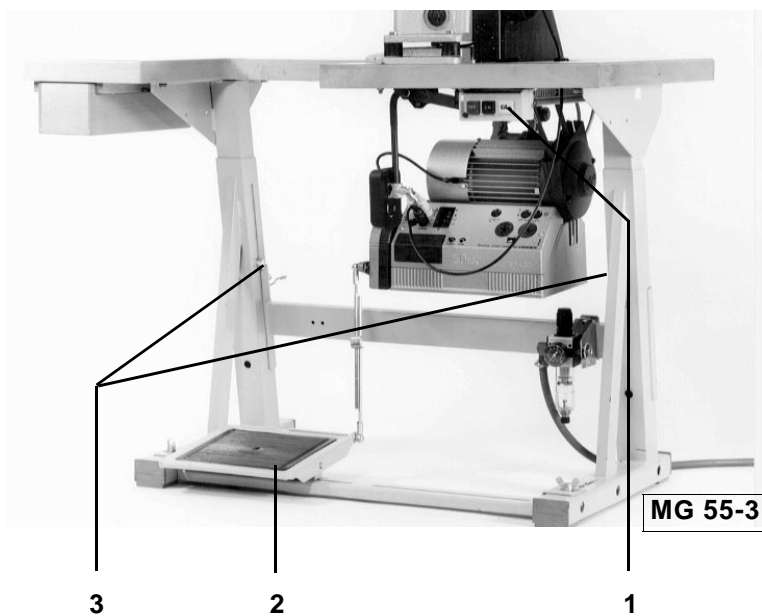
16 Knob	- Arresting the pressure foot in the raised position.
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2.2 Elements on the Frame

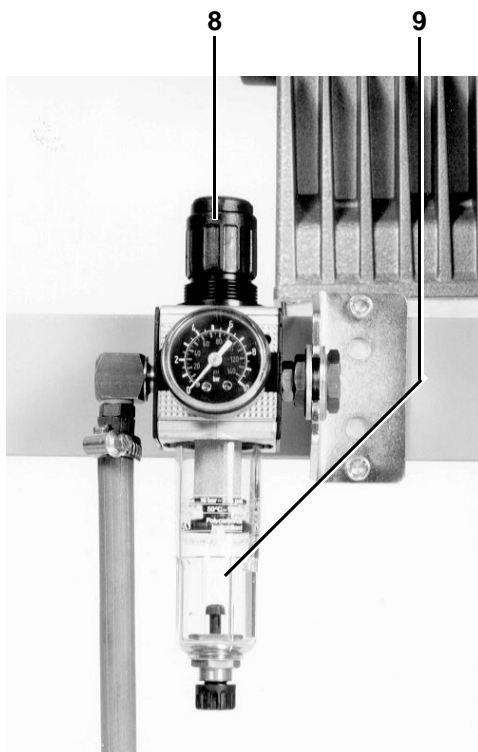
Element	Function
Frame Type MG 55-3	
1 Main switch	- Switching the machine on and off
2 Pedal	
Rest position	- No function
Position forward	- Sewing with desired rpm
Position "half back"	- Raise pressure foot when machine at rest
Position "full back"	- Thread trimming and raise pressure foot
3 Screw	- Setting the Table Top Height.
Frame Type MG 56-2	
4 Main switch	- Switching the machine on and off
5 Pedal	
Rest position	- No function
Position forward	- Sewing with desired rpm
Position "half back"	- Raise pressure foot when machine at rest
Position "full back"	- Thread trimming and raise pressure foot
6 Lever	- Securing the raised table top half
7 Brace	- For supporting the lowered table top in the horizontal position.





Maintenance Unit

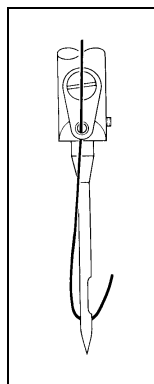
- 8 Air filter and water trap
 - Before the water level reaches the filter, screw in screw 7 far enough to drain water. Do **not** interrupt the compressed air supply.
- 9 Pressure regulator
 - To set to 6 bar pull the bushing 10 up and turn appropriately.





3. Operating the Sewing Machine

3.1 Threading the Needle Thread.



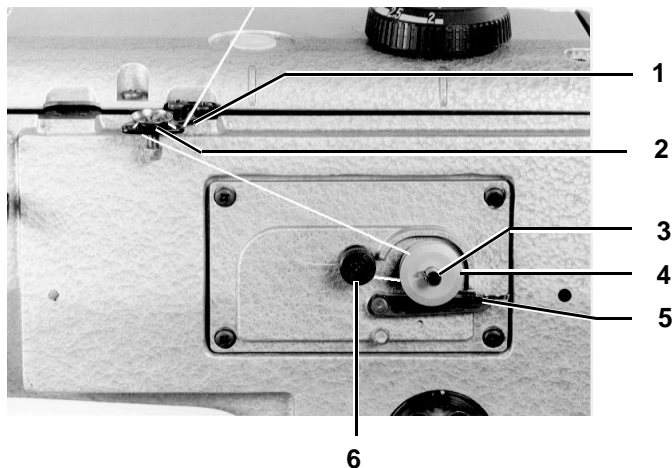
Caution Risk of Injury !

Turn off the main switch before threading.

- Thread the needle thread as shown in the illustration.



3.2 Winding the Bobbin Thread



- Place the bobbin 4 on the bobbin winder 3.
- Pull the thread through the guide 1 and the tension 2.
- Wind the thread approx. 5 x clockwise around the bobbin core and tear off at the thread clamp 6.
- Press the bobbinr lever 5 into the bobbin.
- Sewing
The bobbin winder lever stops the procedure when the bobbin is full.



Attention !

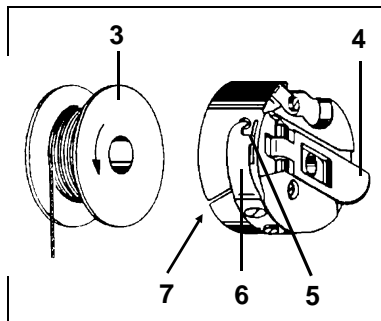
If the thread is not to be wound during sewing, the pressure foot must be arrested in the raised position and the pressure foot stroke set at the smallest value.



3.3 Changing the Bobbin



1 2



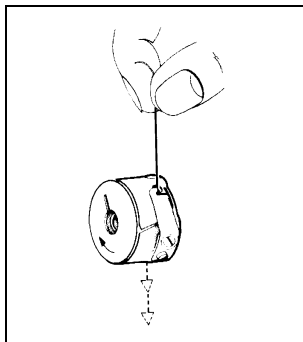
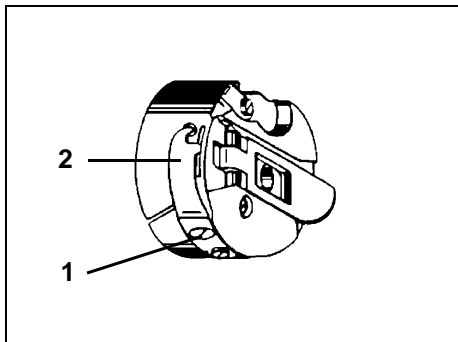
Caution Risk of Injury!

Turn off the main switch before changing the bobbin.

- Bring the needle into the highest position
- Pull the covering cap 1 from the free-arm.
- Remove the bobbin housing 2 with bobbin 3. Hereby raise the bobbin case flap 4 as far as possible.
- Remove the bobbin
- Insert a full bobbin in such a way that, when the thread is pulled off, it turns in the direction shown in the illustration.
- Pull the thread through the slit 7, under the spring 6 to the hole 5.
- Insert the bobbin case with bobbin as far as possible into the bobbin case base and release the bobbin case flap.
For security press in the bobbin case with your index finger and make sure that the bobbin case flap has caught.
- Push on the covering cap 1.



3.4 Setting the Bobbin Thread Tension



Caution Risk of Injury!

Turn off main switch.

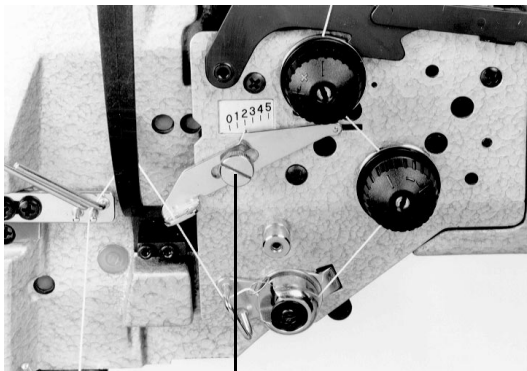
- Bring the needle into the highest position
- Pull the covering cap from the free-arm
- Remove the bobbin housing with bobbin. Hereby raise the bobbin case flap as far as possible.
- Carefully turn the regulating screw 1.
To the right = Increase thread tension
To the left = Decrease thread tension

The initial setting for the tension spring 2 is:
The bobbin housing must slowly lower through its own weight. (see sketch)

- Insert the bobbin case with bobbin as far as possible into the bobbin case base and release the bobbin case flap. For security press in the bobbin case with your index finger and make sure that the bobbin case flap has caught.



3.5 Setting the Thread Regulator.



1

With the thread regulator the needle thread quantity necessary for stitch formation can be regulated. The setting is dependent on the stitch length, material thickness and the yarn characteristics.

Only a precisely set thread regulator assures an optimal sewing result.

The needle thread loop should glide over the hook without excess with little tension.

In the "0" setting the greatest thread quantity is released, such as is required by particularly great stitch length and very thick material.

Adjustment:

- Loosen screw 1.
- Change the position of the thread regulator appropriately.
- Retighten screw 1.

Note

With a correct setting the thread check spring is pulled approx. 1 mm down from its upper end position when the needle thread loop passes the maximum hook circumference.

The 1 mm dimension is a guideline. Depending on the thread check spring tension it can be greater or smaller.



4. Operating the Frame

4.1 Folding Down the Table Top (only Frame MG 56-2)



Caution Risk of Injury!

Hold the table top with both hands when pulling down.

- Release the table top fasteners 1 and 2 under the table top and fastener 3 on the left frame leg.
- Pull down the table top with both hands as shown in the illustration.
- Lock the diagonal brace 4 into the mounting.
- Fold up the table top in the reverse order.



5. Maintenance



Caution Risk of Injury!

Turn off main switch.

Maintenance work must be conducted at the latest after the number of operating hours listed in the column "Interval". Shorter maintenance intervals may be required when working with very linty materials.

Procedure	Interval	Remarks
Head		
Removal of lint accumulations	8	Particularly in following areas: Underside of the stitch bed Transporter stays Area around the hook Bobbin housing top
Check the oil level in both reservoirs	40	see subject 2.1 Element 9 and 11
Maintenance Unit		
Clean insert in the 9 air filter (page 10)	500	



Caution!

Interrupt the compressed air supply and vent the system.