



ADLER

Bedienungsanleitung
Operating Instructions
Instructions de service
Instrucciones de empleo
Istruzioni per l'uso

366

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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 immediately 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 permanent 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!

General safety instructions

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.
7. 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.
13. 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.



**Adler class 366
Instructions for Operators**

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1. Technical data cl. 366

Subclasse	:	-76-12	-76-12-RDAP
- Max. stitch length			
• forward	mm:	10	10
• backward	mm:	10	10
- Max. stitch width	mm:	12	12
(zig-zag)			
- Needle system	:	794	794
- Needle size	Nm:	140-250	140-250
(according to E-No.)			
- Thread thickness			
a) Cotton	NeB:	-	-
b) Synth. sewing thread	Nm:	11/3	11/3
c) Braided thread	Nm:	18/4	18/4
- Max. bobbin contents			
of thread b)	ca. m:	27	27
- Seam width / needle	mm:	-	-
clearance			
(according to E-No.)			
- Max. space below presser			
feet			
• Sewing	mm:	14	14
• Lifting (with NP)	mm:	14	14

2. Completion

2.1 Installation and connection

- Install the sewing machine on the table top
(Do not forget to connect to the ground!)
- Position the belt and, if required, correct the tension by modifying the motor position.
- Fit the belt guard on the motor and on the sewing machine
- Install the reel stand
- Connect the pedal with the rods
(In 366-76-12 hang-in the chain of the lifting lever on the right pedal)
- Install and connect the synchronizer.
- Establish electric connections of the machine (note the specifications on the type plate!)
- Establish pneumatic connections (366-76-12-RDAP)
 - For pneumatic oil see chapter 6.
 - For connecting the air hoses see fig. 1.
 - Verify the service pressure of 6 bar.
- Install and connect any additional equipment:
 - Screw the bobbin winder, controlled by cardioid cam, on the table top so that with the bobbin winder bewing switched on its wheel 1/5 is driven by the V-belt.
 - Connect the needle cooling to the non oiled compressed air (6 bar).
 - Connect the hook cooling to the oiled or non oiled compressed air (6 bar).
 - Install the oil atomizer with throttle on the stand on the left (fig. 3)

2.2 First use

- Oil the machine. (For the machine oil and the oil points see the chapter 6)
- Zero the position transmitter. (See the Quick operating instructions or the instructions for mechanics)
- Wind the lower thread and insert the bobbin into its case (chapter 4)
- Thread the needle (chapter 4)
- Conduct sewing test with material

3. Operating and functional elements

3.1 Elements on the sewing machine

- A/6 Additional handwheel (in 366-76-12)
- B/6,7 Stitch regulator lever
- C/6,7 Needle thread main tension with thread pulling spring
- D/6,7 Needle thread pre-tensions
- E/6,7 Thread guides
- F/6 Pressure regulating screw for fabric presser
(only in 366-76-12)
- F/7 Cylinder for pneumatic foot pressure and lift
(366-76-12-RDAP)
- f/7 Push-button for arresting the foot in its upper position
- G/6,7 Zigzag device
- O/6,7 Throw width control lever
- H/6,7 Bobbin winder
- J/4 Foot lifting lever (366-76-12)
- J/6,7 Lever for tilting the sewing machine
- L/7 Potentiometer for continuous speed control
- M/7 Key: backtacking within the seam
(366-76-12-RDAP)
- N/7 Key: needle up/down (1/2 Stitches)
(366-76-12-RDAP)
- R/7 Control panel

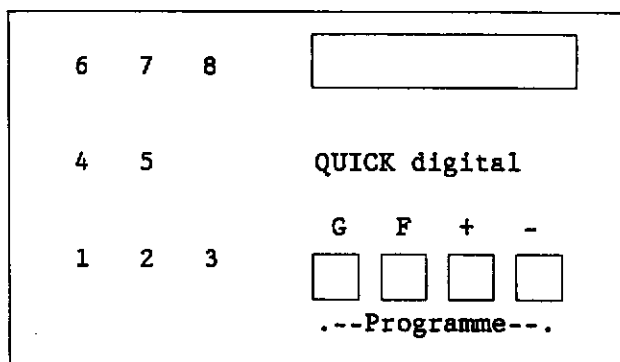
3.2 Elements on the stand

- P/2 Main switch
- Q/2 Motor control box
- S/2 Conditioning unit
- T/2 Manometer and pressure reducing valve for
pneum. foot pressure (366-76-12-RDAP)
- A/3 Oil atomizer for hook lubrication
- B/3 Throttle for hook lubrication

3.3 Elements on the control panel

Explanation:

- On the "Quick digital" control panel there are in the left half 8 switches, to the functions of which are subordinated any other memorized functions.
- In the right half, at bottom, there are 4 keys, permitting to release several functions, depending on which key is operated and when it is operated.
- In the right upper portion there is the 8 digit display field.



Switch	Function
1	Initial backtacking ON OFF
2	Final backtacking ON OFF
3	Needle cooling while sewing ON OFF
4	Initial backtacking double simple
5	Without function
6	Backtacking type Decorative backtack (stitch in stitch) Normal backtack
7	Sewing foot position with the pedal released above below
8	Without function

Key	Mode	Operation	Function
G	Sewing	tipping / pressing	-
	Adjustment (technician)	tipping / pressing	Indexing groups of hundreds step by step / continuously
F	Sewing	tipping / pressing	When the switches 1 or 2 are on, the following back-tack will be suppressed. When the switches 1 or 2 are off, an initial or a final backtack will be produced. (backtack inversion)
	Adjusting	tipping / pressing	Indexing the adjustment numbers step by step / continuously
+	Sewing	tipping / pressing	1 stitch will be sewn Sewing at the lowest speed
	Adjusting	tipping / pressing	The displayed value will be increased step by step / continuously
-	Sewing	tipping / pressing	Changing programme after programme end step by step / continuously
	Adjusting	tipping / pressing	The displayed value will be decreased step by step / continuously
<div style="display: inline-block; vertical-align: middle;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">G</div> <div style="display: inline-block; vertical-align: middle; margin-left: 5px;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">-</div> </div> </div>	Sewing	<div style="display: inline-block; vertical-align: middle;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">G</div> <div style="display: inline-block; vertical-align: middle; margin-left: 5px;">press.</div> </div>	Entering the adjustment mode
	Adjusting	<div style="display: inline-block; vertical-align: middle;"> <div style="border: 1px solid black; padding: 2px; display: inline-block;">-</div> <div style="display: inline-block; vertical-align: middle; margin-left: 5px;">tipp.</div> </div> " "	Leaving the adjustment mode

Display Text	Meaning
MANUAL	Sewing mode M called up: normal (pedal-controlled) sewing
SEAM-A	Sewing mode A called up: Sewing the programmed section "A"
SEAM-B	Sewing mode B called up: Sewing the programmed seam sections B ₁ and B ₂
*---"---	Control mode M, A or B - Sewing mode on the technician level
---"---*	Confirmation of the backtack inversion (see F key)
----->F	Adjustment mode operator level
PROGRAM	Adjustment mode technician level
RESET+/-	Mode for resetting all values to the state as supplied
e. g. **2300**	Speed display
e. g. 101*0002	Adjustment number 101, value 2, - 2 initial backtack stitches forward
e. g. G7*****	Calling the group of hundreds 7 (G key) for the adjustment numbers 700-799
ERROR 1	Error when switching on - Machine switched on with the pedal being lowered - Knee switch in operated condition when adjusting Deleting: machine OFF/ON, without operating the pedal
ERROR 2 bis ERROR 6	Call the technician (Error description in the Quick Operating Instructions, page V)

4. Operation of the machine

4.1 Winding the lower thread

- Slip the empty bobbin onto the bobbin winder shaft.
- Pass the thread from the reel stand via the bobbin winder pretension and wind the thread several times around the bobbin.
- Press the lever V/5,6,7 against the bobbin.
- Switch on the machine and lower the pedal forwards.
(If the sewing is not started at the same time, lift the presser foot).
- As soon as the bobbin is full, the bobbin winder is disconnected automatically.

4.2 Inserting the bobbin into its case

- Switch off the machine.
- Move the thread take-up lever into its upper position.
- Press back the spring W/8; introduce a screwdriver between the spring and the bobbin case, so that the latter moves out.
- Insert the bobbin into its case so that, when unwinding the thread, the bobbin turns counter-clockwise.(Fig. 9)
- Close the case and pass the thread through the slit under the spring.

4.3 Adjusting the bobbin thread tension

- Switch off the machine.
- Swing out the bow B/10, remove the cover ring D/10 and take out the hook.
- Loosen the screw c/8 and adjust the thread tension by the screw d/8
- Retighten the screw c/8 and replace the hook.

4.4 Inserting the needle

- Switch off the machine.
- Move the needle bar into its upper position.
- Introduce the needle into the needle holder up to the stop and so that its groove faces the hook point.

4.5 Threading the needle

- Switch off the machine.
- Pass the thread according to fig. 11.

4.6 Lifting the presser foot

Class 366-76-12:

- Operate the right pedal or
- operate the lifting lever.

Class 366-76-12-RDAP:

- Lower the pedal half backwards or
- operate the switch 8 on the control panel.
- Arresting in lifted position: press the button f/7 on the cylinder.

Note:

When operating the machine without fabric the presser foot must be lifted.

4.7 Adjusting the foot pressure

- Class 366-76-12:
Loosen the counter nut f/4 and adjust the foot pressure by the screw F/4.
- Class 366-76-12-RDAP:
The pressure and the lifting of the cloth presser foot are controlled by the same cylinder, having a constant service pressure of 6 bar. By means of the pressure reducing valve B/1 the pressing intensity can be adapted to the fabric requirements. The foot pressure should not exceed 3 bar. The pressure exerted on the cloth presser foot is indicated by the manometer C/1.

4.8 Adjusting the stitch length

Turn the rotary handle on the stitch regulator lever:

Turn to the right = for shorter stitches

Turn to the left = for longer stitches

4.9 Sewing backwards and backtacking the seam

Class 366-76-12:

- For sewing backwards, move the stitch regulator lever upwards beyond the zero point.

Class 366-76-12-RDAP:

- Operate the M/7 key on the arm head.
If applies, operate the knee lever (additional equipment)
- Programming the automatic backtacking on the control pan.
(See chapters 3.3 and 5.)
- Releasing the final backtack in "MANUAL" mode by lowering the pedal backwards.

4.10 Adjusting the throw width

Loosen the nut g/12 and adjust the desired throw width according to the scale 0-12.

4.11 Changing the zigzag stitch type

Explanation:

The sewing machine has a zigzag transmission with a ratio of 1:12. Thus, by changing the control cams it is possible to produce all zigzag types covered by the transmission ratio.

Normally, the machine is supplied with two control cams for two-stitch and six-stitch zigzag seams. A further control cam for four-stitch zigzag seams can be supplied at request.

Changing the control cams:

- Switch off the machine.
- turn over the plastic cover.
- Remove the nut b/14 and remove the control cam.
- Slip-on the new control cam. Introduce the roller into the cam race.
If applies, loosen the nut g/12 and move the lever in the respective position. Fasten the control cam by the nut b/14 in the axial direction.
- By means of the threaded pins a/14 eliminate any play between the control cam and the tappet.

4.12 Switching off the needle cooling (Only RDAP)

Control panel: Operate the switch 3.

5. Adjustments on the Quick control panel

Explanation:

- The motor producer has included into the motor control a number of basic adjustments required by the sewing machine manufacturer, so that after "zeroing the position transmitter" (see the Instruction for mechanics of the Quick operating instructions) it is ready for use.
- The different numbers of stitches for backtacks, depending on the operation to be carried out, must be determined by the operator. The respective adjustment numbers can be obtained as follows:

5.1 Changing the adjustment values





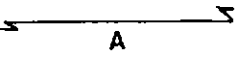
Entries	Remarks / Display text = DT
1. <u>Calling sewing mode:</u> - Switch on the motor - Select the desired sewing mode by the key - .	DT: MANUAL or SEAM-A or SEAM-B
2. <u>Calling adjustment mode:</u> - Operate G key and hold, Tip - key and release both.	DT: ----->F
3. <u>Calling adjustment number:</u> - Tip F key until the desired adjustment number appears.	e.g. DT: 101*0002
4. <u>Adjusting the value:</u> - Increasing the displayed value by + key - Reducing the displayed value by - key	The newly adjusted value will remain memorized when leaving the adjustment number or the adjustment mode. If the machine is switched off immediately after the adjustment, the old value will be maintained. It is possible to call further adjustment numbers and to adjust new values.
5. <u>Leaving the adjustment mode:</u> - Operate G key and hold tip - key and release both.	DT: MANUAL or SEAM-A or SEAM-B

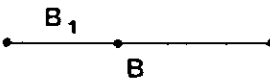
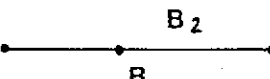


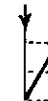
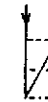
Entries	Remarks / Display text = DT
<p>6. <u>Control:</u></p> <ul style="list-style-type: none"> - check adjustment values(s). 	
<p>7. <u>Correct, if required:</u></p> <ul style="list-style-type: none"> - Call adjustment mode. - Tip F key. - Change the value. 	<ul style="list-style-type: none"> - DT: ----->F The last called adjustment number will appear.

Note:

The values of the other adjustment numbers must be modified by a technician. (See the instructions for mechanics of the Quick instructions for operators!)

5.2 List of adjustment numbers

No.	Designation	Sector	Value	Symbol / Remarks
101	Sewing programme offer	M A B M + A M + B A + B	M A B	By this adjustment number it is possible to determine which modes (MANUAL, SEAM-A SEAM-B) can be called by the key P
102	No. of stitches of initial bartack forwards	0 - 255	3	 See also switch 4
103	No. of stitches of initial bartack backwards	0 - 255	4	
108	No. of stitches of final bartack backwards	0 - 255	2	
109	No. of stitches of final bartack forwards	0 - 255	0	
111	at present no function			
201	No. of stitches of SEAM-A distance	0 - 255	20	

No.	Designation	Sector	Value	Symbol / Remarks
301	No. of stitches of B_1 seam section	0 - 255	10	
302	No. of stitches of B_2 seam section	0 - 255	10	
303	No. of seam sections ($B_1 + B_2$)	0 - 255	2	$(B_1+B_2) + B + \dots$ 1 2
505	No. of stitches of initial decorative bartack - forwards	0 - 30	3	 See also the switches 4 and 7
506	No. of stitches of initial decorative bartack - backwards	0 - 30	3	 See also switch 7
507	No. of stitches of final decorative bartack - forwards	0 - 30	3	
508	No. of stitches of final decorative bartack - backwards	0 - 30	3	
521	At present no function			

6. Maintenance

6.1 Sewing machine

Daily maintenance

- Clean the hook, the feed dog and the needle thread tension.
- Oil the lubrication points (see fig. 13, 15, 16).

Weekly maintenance

- Check the oil atomizer for the hook lubrication and replenish if required.

Maintenance every three months

- Control the toothed belt.
- Control the V-belt tension.

Lubrication oil

Use only brand oils, e. g. ESSO MILLCOT K 68 with the following features:

Viscosity bei 40° C : 65 mm²/s
Point of inflammation: 212° C

ESSO MILLCOT K 68 can be obtained from Dürkopp and Adler:

1 l : ref. no. 990 47 012 8
5 l : ref. no. 990 47 012 9

6.2 Pneumatic conditioning unit

Monthly maintenance

- Check oil level in the oil atomizer.
- Check oil supply quantity of the oil atomizer.

Maintenance every three months

- Clean the filtering element in the filter.
- Check the "tightness" of the pneumatic system.

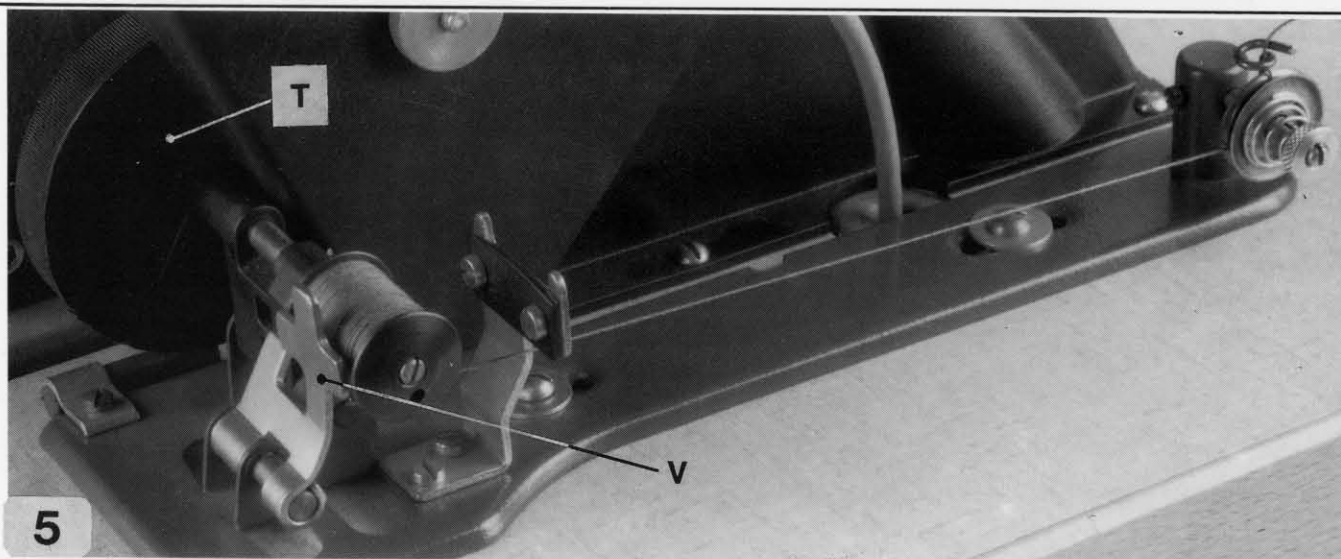
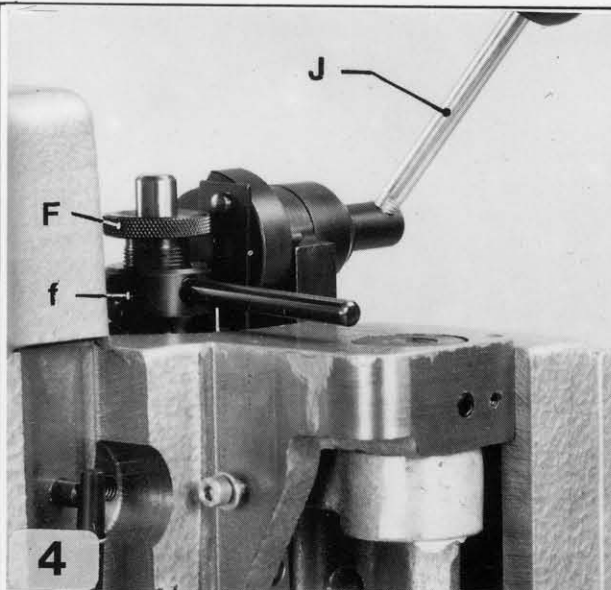
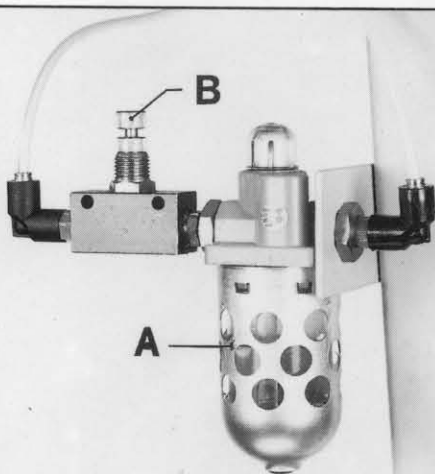
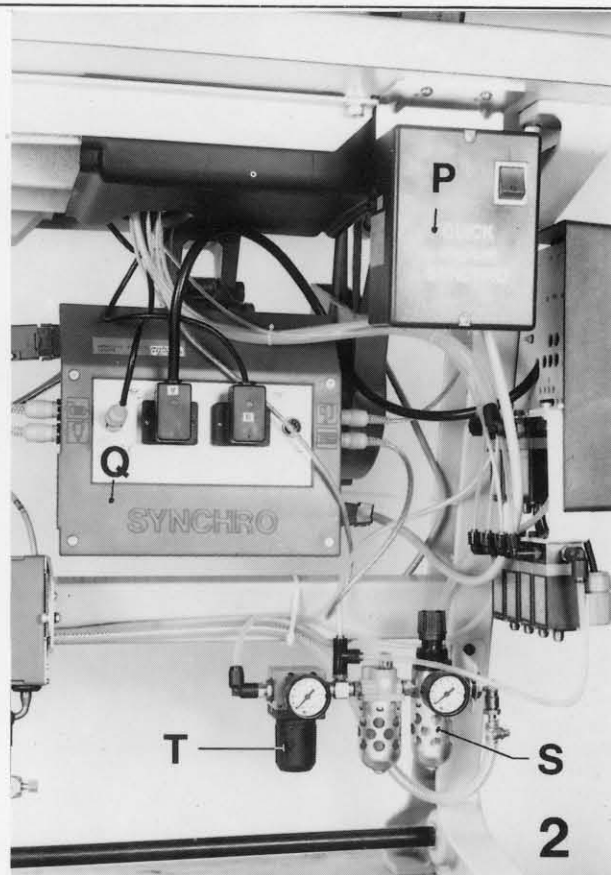
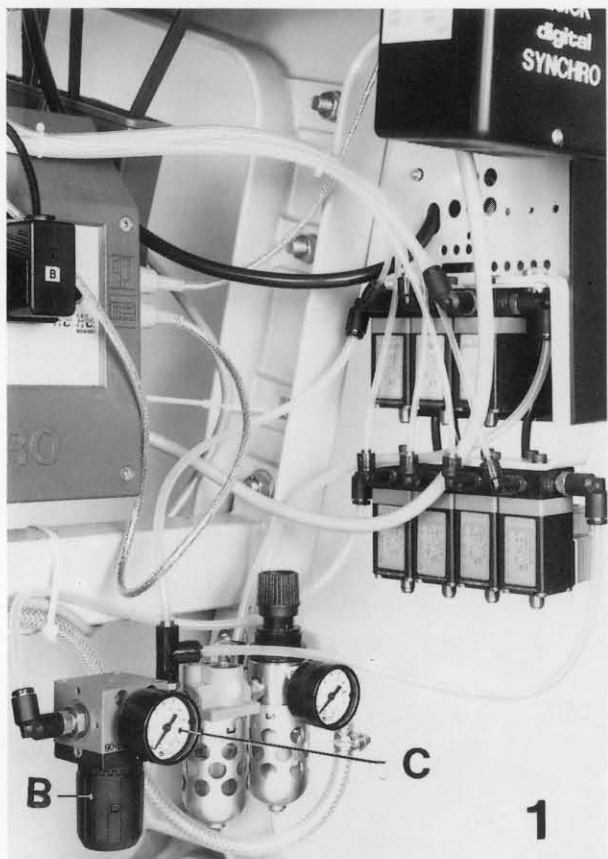
Pneumatic oil

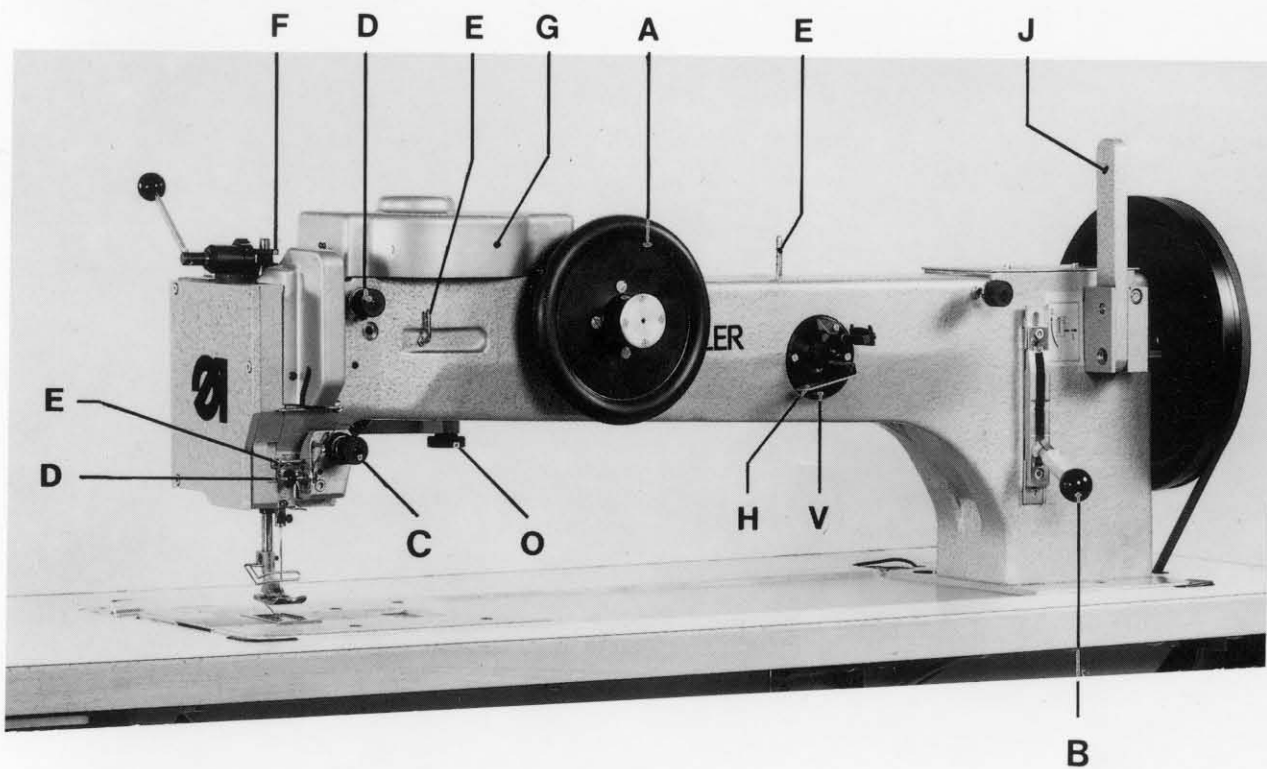
Use only brand oil, e.g. ESSO NUTO H 68 with the following features:

Viscosity bei 40° C : 66 mm²/s
Point of inflammation: 236° C

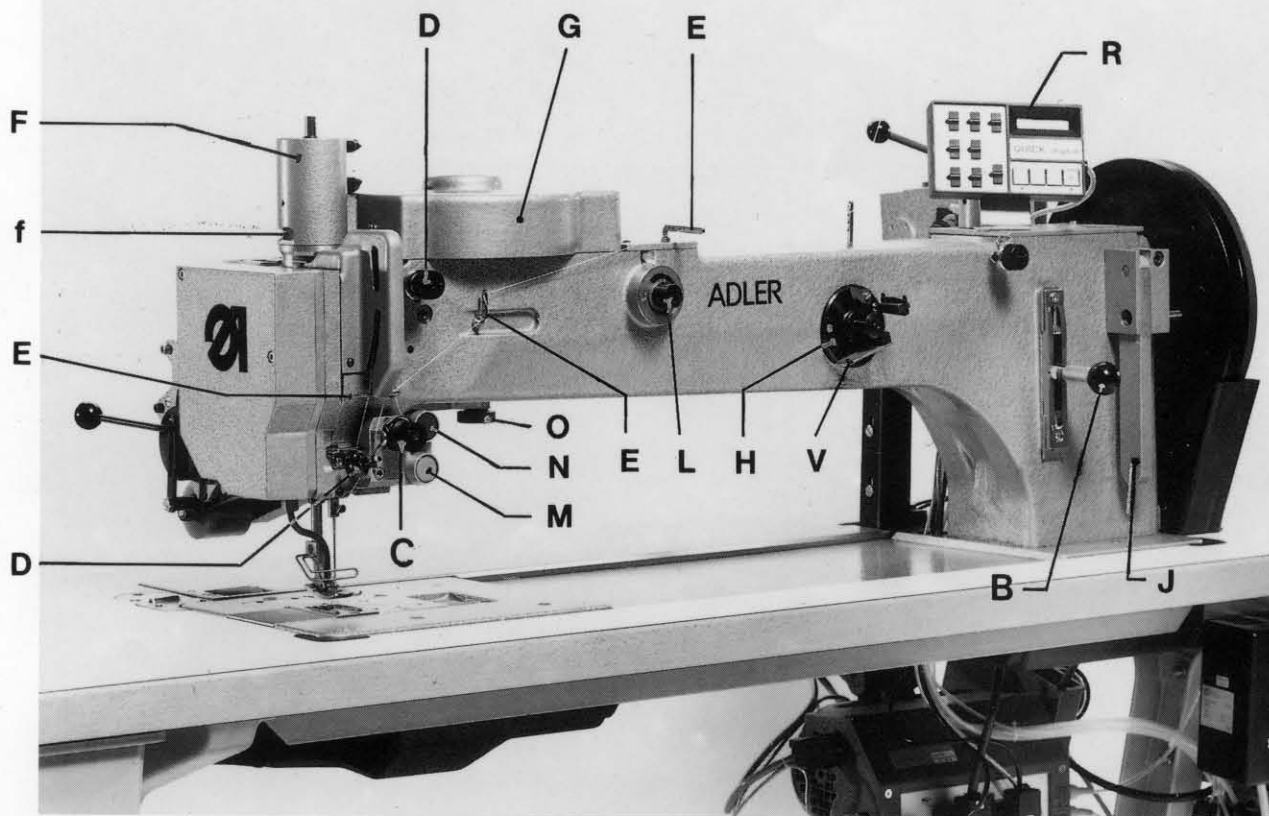
ESSO NUTO H 68 can be obtained from Dürkopp and Adler:

250 cm³: ref. no. 990 81 006 7
1 l : ref. no. 990 47 010 5

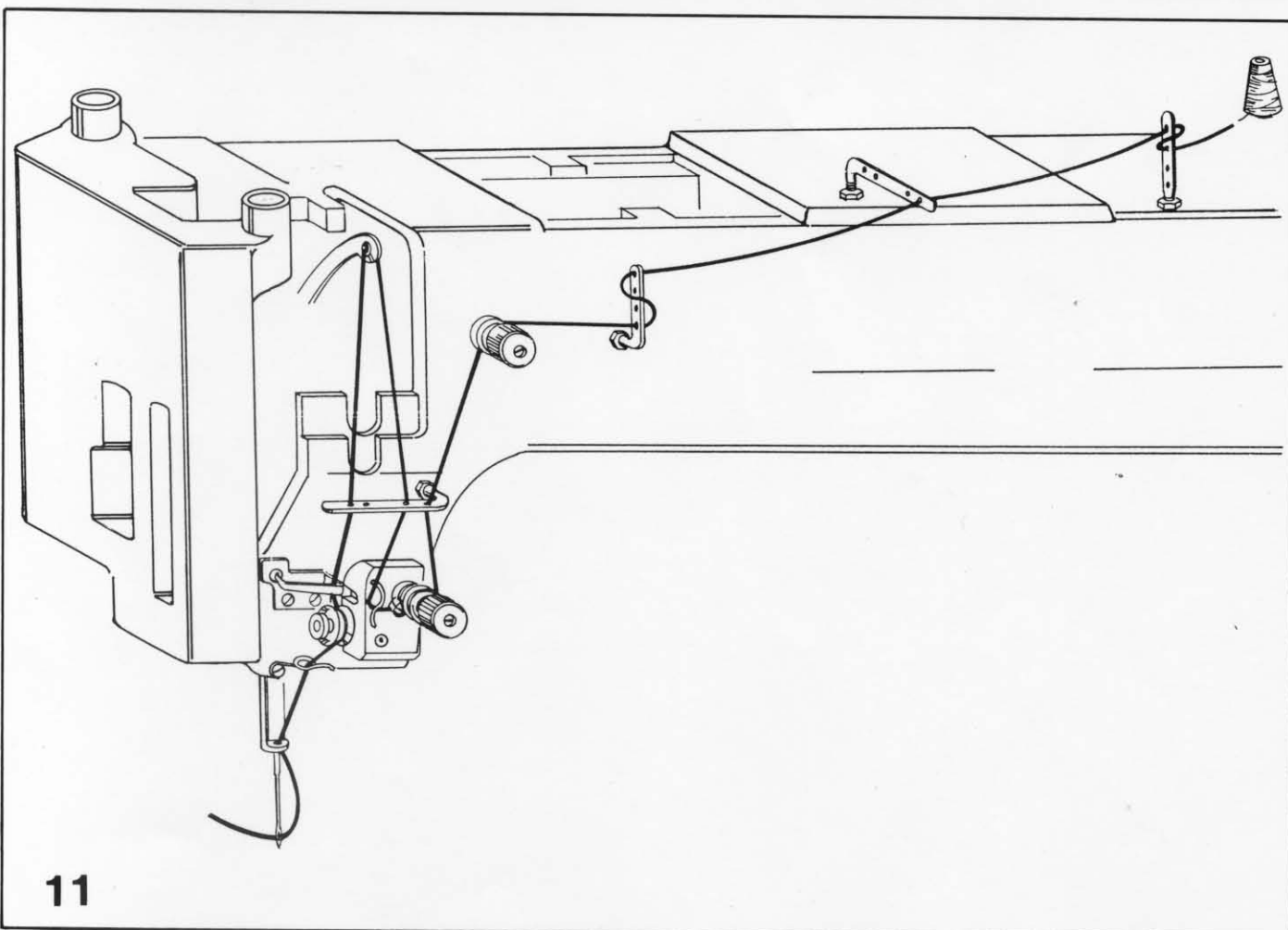
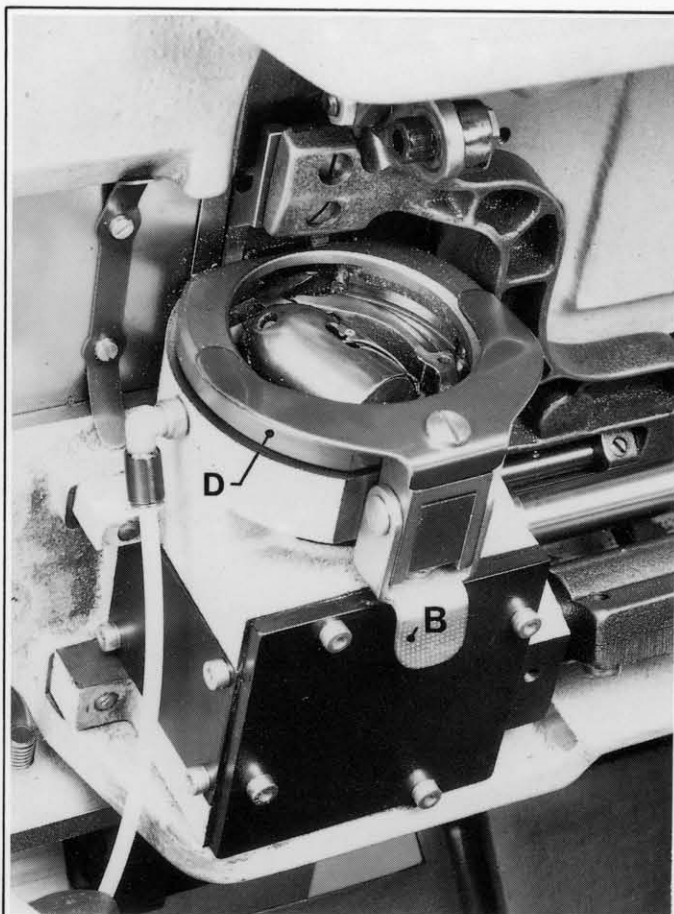
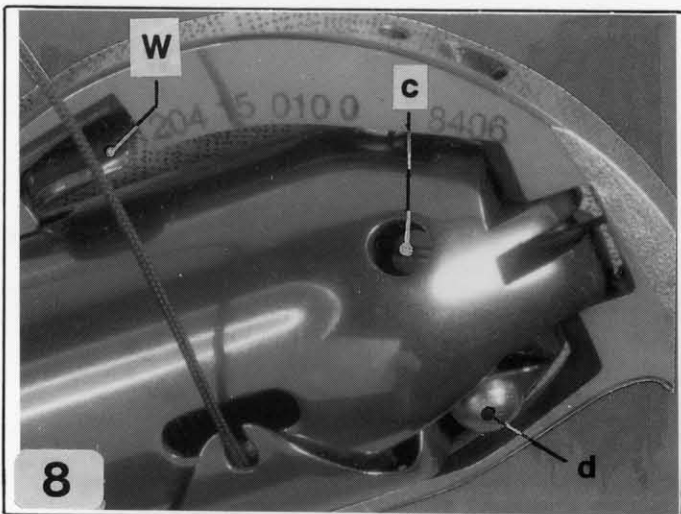




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11

