

918

918 U

INSTRUCTION MANUAL

938

938 U

This instruction manual applies to machines
from the serial number **8 300 001** and
software version **0435/006** onwards.



This instruction manual applies to all models and subclasses listed in **chapter 3 Technical Data**.



The adjustment manual for the machine can be downloaded at no charge under www.pfaff-industrial.de/de/service-support/downloads/technical. As an alternative to the Internet download, the adjustment manual can also be ordered under order no. **296-12-19 338/001**.

Reprinting, reproduction and/or translation of PFAFF instruction manuals (including parts thereof) is only permitted with our prior agreement and citation of the source.

**PFAFF Industriesysteme
und Maschinen GmbH**

Hans-Geiger-Str. 12 - IG Nord

D-67661 Kaiserslautern

Contents		Page
1	Safety	5
1.01	Directives	5
1.02	General safety instructions	5
1.03	Safety symbols	6
1.04	Special points of attention for the owner-operator	6
1.05	Operating personnel and technical staff	7
1.05.01	Operating personnel	7
1.05.02	Technical staff	7
1.06	Danger warnings	8
2	Proper Use	9
3	Technical Data ▲	10
3.01	PFAFF 918, 938	10
3.02	PFAFF 918 U, 938 U ▲	11
4	Disposal of the Machine	12
5	Transport, Packaging and Storage	13
5.01	Transport to the customer's premises	13
5.02	Transport within the customer's premises	13
5.03	Disposal of the packaging materials	13
5.04	Storage	13
6	Work Symbols	14
7	Operating Controls	15
7.01	Main switch	15
7.02	Keys on the machine head (only in machines with a flange motor)	15
7.03	Adjusting levers for zigzag stitch and needle position	16
7.04	Reverse-feed key / stitch length adjusting wheel	16
7.05	Adjusting wheel for multi-stitches and zigzag stitches (only on the PFAFF 918 U and 938 U)	17
7.06	Lever to raise the sewing foot	17
7.07	Pedal	18
7.08	Adjusting lever for under-edge trimmer -771/05	18
7.09	Control panel (only in machines with P40 CD)	18
8	Set-up and Initial Start-up	19
8.01	Set-up	19
8.01.01	Setting the table height	19
8.01.02	Inserting the sewing machine into the stand	20
8.01.03	Assembling the flange motor	21
8.01.04	Mounting the flange motor belt guard	21
8.01.05	Mounting the machine cover	22
8.01.06	Assembling the anti-tipping device	22

Table of Contents

	Contents	Page
8.01.07	Mounting the start inhibitor	23
8.02	Connecting the plug-in connections and ground cable	24
8.03	Assembling the reel stand	25
8.04	Initial start-up	26
8.05	Switching the machine on / off	27
8.06	Machine drive home position.....	27
9	Set-up.....	28
9.01	Inserting the needle.....	28
9.02	Winding the bobbin thread / adjusting the bobbin thread tension	29
9.03	Removing / inserting the bobbin case.....	30
9.04	Inserting the bobbin case / adjusting the bobbin thread tension	30
9.04.01	PFAFF 938 and 938 U without thread trimmer	30
9.04.02	PFAFF 938 and 938 U with thread trimmer	31
9.04.03	PFAFF 918 and 918 U	31
9.05	Threading the needle thread / adjusting the needle thread tension.....	32
9.06	Setting the zigzag stitch and needle position	33
9.07	Setting the stitch length.....	33
9.08	Setting multi-stitches and zigzag stitches (on the 918 U and 938 U with a flange motor).....	34
9.08.01	Change-over from zigzag stitch to multi-stitch	34
9.08.02	Change-over from multi-stitch to zigzag stitch	34
9.09	Setting multi-stitches and zigzag stitches (on the 918 U and 938 U with an external motor).....	35
9.09.01	Change-over from zigzag stitch to multi-stitch	35
9.09.02	Change-over from multi-stitch to zigzag stitch	35
10	Maintenance and Care.....	36
10.01	Maintenance intervals.....	36
10.02	Cleaning the machine	36
10.03	Oiling the hook.....	37
10.04	Oiling the zigzag drive.....	38
10.05	Checking / setting the air pressure	39
10.06	Emptying / cleaning the maintenance unit's water tank.....	39
10.07	Parameter settings	40
11	Table Top	41
11.01	Table top cutout	41
11.02	Table top assembly	42
12	Wearing Parts	43

1 Safety

1.01 Directives

The machine was built in compliance with the European regulations specified in the declaration of conformity and declaration of incorporation.

As a supplement to this instruction manual, please also observe the generally applicable, legal and other regulations and legislation – also in the country of use – and the valid environmental protection regulations! Always comply with the locally applicable regulations of the professional associations and other supervisory authorities!

1.02 General safety instructions

- The machine may only be operated after you have become acquainted with the associated instruction manual and only by operating personnel who have received appropriate training!
- Always read the safety instructions and the instruction manual of the motor manufacturer before starting up the machine!
- Always follow the hazard and safety instructions attached to the machine!
- The machine may only be operated for its intended purpose and only with the associated safety covers, while adhering to all the relevant safety requirements.
- The machine must always be disconnected from the power supply by pressing the main switch or pulling out the mains plug when sewing tools are replaced (such as the needle, sewing foot, needle plate and bobbin) and when threading, leaving the workstation, or performing maintenance!
- The daily maintenance work may only be carried out by suitably qualified personnel!
- Repairs and special maintenance work may only be carried out by technical staff or people with appropriate training!
- Work on electrical equipment may only be carried out by qualified technical staff!
- Work on parts and equipment under voltage is not permitted!
- Exceptions are regulated by the EN 50110 standards.
- Modifications and changes to the machine may only be made in compliance with all of the relevant safety requirements!
- Only the replacement parts approved by us for usage may be used for repairs! We warn you expressly that spare parts and accessories that are not supplied by us are also not tested and approved by us.
Fitting or using these products may therefore have negative effects on features which depend on the machine design. We are not liable for any damage caused by the use of non-Pfaff parts.

1.03

Safety symbols



Hazard point!
Special points of attention.



Risk of injury to operating personnel or technical staff!



Electric voltage!
Danger to operating personnel or technical staff



Danger of hands being crushed!
Danger to operating personnel or technical staff



Caution!

Do not operate without finger guard and safety covers!
Turn off the main switch before threading, changing the bobbin or needle, cleaning, etc.!

1.04

Special points of attention for the owner-operator

- This instruction manual is a part of the machine and must be made available to the operating personnel at all times. The instruction manual must have been read before the initial start-up.
- The operating personnel and technical staff must be instructed about the machine's safety covers and about safe working methods.
- The owner-operator may only operate the machine in a flawless condition.
- The owner-operator must ensure that no safety covers are removed or disabled.
- The owner-operator must ensure that only authorised persons work on the machine.

Additional information can be requested from the responsible sales centre.

1.05 Operating personnel and technical staff

1.05.01 Operating personnel

Operating personnel are persons responsible for equipping, operating and cleaning the machine and for fault clearance in the sewing area.

The operating personnel are obligated to comply with the following points:

- The safety instructions provided in the instruction manual must be followed for all work!
- Any work method jeopardising machine safety must be refrained from!
- Tight-fitting clothing must be worn. The wearing of jewellery such as chains and rings is prohibited!
- Care must be taken to ensure that no unauthorised persons are located in the machine's hazard zone!
- Any changes occurring on the machine which impair its safety must be reported to the owner-operator immediately!

1.05.02 Technical staff

Technical staff are persons with technical training in electricity/electronics and mechanics. They are responsible for lubricating, servicing, repairing and adjusting the machine.

The technical staff are obligated to comply with the following points:

- The safety instructions provided in the instruction manual must be followed for all work!
- Turn off the main switch and secure it against reactivation before starting any adjustment and repair work!
- Never work on live parts and equipment!
Exceptions are regulated by the EN 50110 standards.
- Reattach the safety covers following repair and maintenance work!

1.06

Danger warnings



A work area of **1 m** must be kept free in front of and behind the machine to ensure unobstructed access at all times.



Do not reach into the needle range during the sewing operation!
Risk of injury from the needle!



Do not allow any objects to be placed on the table during the adjustment work!
The objects could become jammed or be slung away!
Risk of injury from parts flying around!

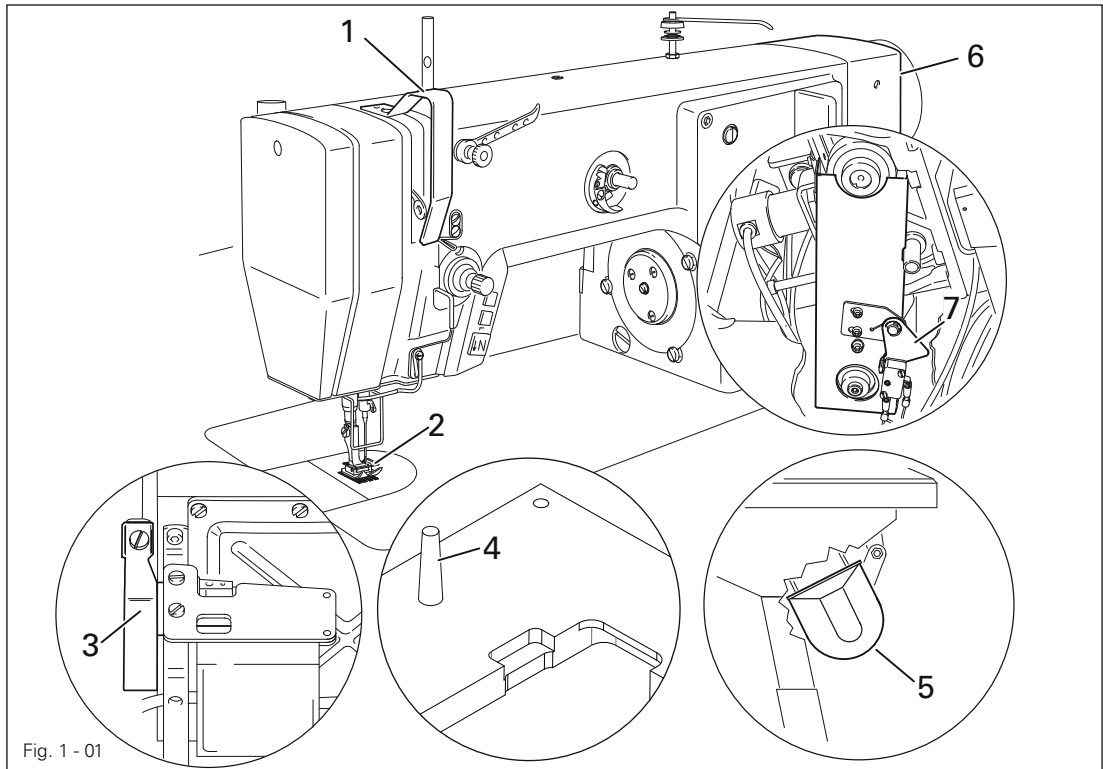


Fig. 1 - 01



Do not operate the machine without the take-up lever guard **1!**
Risk of injury due to the motion of the take-up lever!



Do not operate the machine without the finger guard **2!**
Risk of injury from the needle!



Do not operate the machine without the anti-tipping device **3!**
Risk of injury from crushing between the sewing head and the table top!



Do not operate the machine without the support **4!** Risk of damage due to the top-heavy sewing head!
Machine can tip over backwards when moving it!



Do not operate machines with an underfloor motor without the belt guard **5 and 6!**
Risk of injury from the driving belt!



Do not operate machines with a flange motor without the start inhibitor **7!**
Risk of injury due to accidental machine start-up!

2 Proper Use

The PFAFF 918 is a high-speed zigzag seamer with a drop feed and large hook.

The PFAFF 918 U is a high-speed zigzag seamer with a drop feed, large hook and mechanical change-over from zigzag to **3-stitch** zigzag.

The PFAFF 938 is a high-speed zigzag seamer with a drop feed.

The PFAFF 938 U is a high-speed zigzag seamer with a drop feed and mechanical change-over from zigzag to **3-stitch** zigzag.

The machines are used for sewing lockstitch seams in the clothing and underwear industries.



Any usage not approved by the manufacturer is deemed misuse! The manufacturer shall assume no liability for damage caused by misuse! Proper use also includes compliance with the operating, maintenance, adjustment and repair measures specified by the manufacturer!

3 Technical Data ▲

3.01 PFAFF 918, 938

Stitch type:..... 304 (zigzag lockstitch)

Needle system:..... 438

Needle size in 1/100 mm:

Model A: 60 - 70

Model B: 80 - 100

Clearance beneath the sewing foot: 7 mm

Passage width:..... 260 mm

Clearance height: 130 mm

Bed plate dimensions: 476 x 177 mm

Sewing head dimensions:

Length:..... approx. 550 mm

Width: approx. 180 mm

Height (above table): approx. 300 mm

Max. stitch length

PFAFF 918-6/01: 4.5 mm

PFAFF 938-6/01; -6/27: 2.5 mm

Max zigzag stitch width

PFAFF 918: 10.0 mm

PFAFF 938-6/01: 6.0 mm

PFAFF 938-771/05-6/27: 3.0 mm

PFAFF 938-34/01 R: 4.5 mm

Max. stitch count

PFAFF 918: 5000 stitches/min ◆

PFAFF 938-6/01; -771/05-6/27: 5500 stitches/min ◆

PFAFF 938-34/01 R: 6000 stitches/min ◆

Connection data:

Operating voltage: 230 V ± 10 %, 50/60 Hz

Motor data: see motor instruction manual

Noise data:

Noise emission level at workplace with a sewing speed of $n=4000 \text{ min}^{-1}$: $L_{pA} < 80 \text{ dB(A)}$ ■

(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204,

ISO 3744, ISO 4871)

Net weight of sewing head: approx. 46 kg

Gross weight of sewing head: approx. 54 kg

▲ Subject to alterations

◆ Depending on the material, workstep and stitch length

■ $K_{pA} = 2.5 \text{ dB}$

3.02 PFAFF 918 U, 938 U ▲

Stitch type:.....	304 (zigzag lockstitch)
Needle system:.....	438
Needle size in 1/100 mm:	
Model A:	60 - 70
Model B:	80 - 100
Clearance beneath the sewing foot:	7 mm
Passage width:.....	260 mm
Clearance height:	130 mm
Bed plate dimensions:	476 x 177 mm
Sewing head dimensions:	
Length:.....	approx. 550 mm
Width:	approx. 180 mm
Height (above table):	approx. 300 mm
Max. stitch length:	2.5 mm
Max zigzag stitch width	
PFAFF 918 U:	10.0 mm
PFAFF 938 U:	6.0 mm
Max. stitch count:	
For a needle bar stroke of 33 mm:.....	4500 stitches/min ♦
Connection data:	
Operating voltage:	230 V ± 10 %, 50/60 Hz
Motor data:	see motor instruction manual
Noise data:	
Noise emission level at workplace with a sewing speed of n=3600 min ⁻¹ : . L _{pA} < 78.5 dB(A) ■	
(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)	
Net weight of sewing head:.....	approx. 46 kg
Gross weight of sewing head:	approx. 54 kg

▲ Subject to alterations

♦ The max. stitch count is automatically reduced within the max. preset value depending on the stitch length.

■ K_{pA} = 2.5 dB

4 Disposal of the Machine

- It is up to the customer to dispose of the machine properly.
- The materials used for the machine include steel, aluminium, brass and various plastics. The electrical equipment consists of plastics and copper.
- The machine must be disposed of in accordance with the locally valid environmental protection regulations, with a specialised company being contracted if necessary.



Please ensure that parts coated with lubricants are disposed of separately in accordance with the locally valid environmental protection regulations!

5 Transport, Packaging and Storage

5.01 Transport to the customer's premises

All machines are completely packed for delivery.

5.02 Transport within the customer's premises

The manufacturer assumes no liability for transport within the customer's premises or to the individual usage sites. Please ensure that the machines are only transported in a vertical position.

5.03 Disposal of the packaging materials

The packaging materials of these machines consist of paper, cardboard and VCI fleece. It is up to the customer to dispose of the packaging properly.

5.04 Storage

The machine can be stored for up to **6** months when not in use. It must then be protected from dirt and moisture. For longer storage periods, the machine's single components, especially its sliding surfaces, must be protected against corrosion, e.g. by an oil film.

6 Work Symbols

Activities to be performed or important information in this instruction manual are emphasised by symbols. The symbols used have the following meaning:



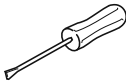
Note, information



Cleaning, care



Lubrication



Maintenance, repairs, adjustment, service work
(only to be carried out by technical staff)

7 Operating Controls

7.01 Main switch

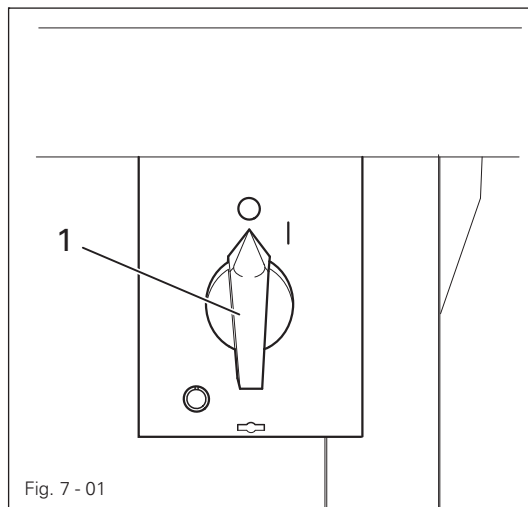
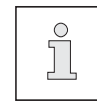


Fig. 7 - 01



Before switching on the machine, raise the take-up lever as far as possible.

- Turning the main switch 1 switches the machine on and off.

7.02 Keys on the machine head (only in machines with a flange motor)

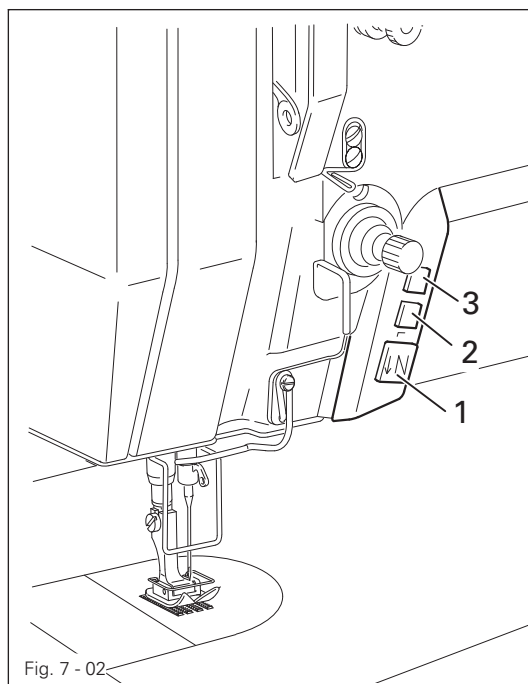


Fig. 7 - 02

- The machine sews backwards if the key 1 is pressed during the sewing operation.
- The keys 2 and 3 can be assigned through the corresponding parameter settings (see separate parameter list).

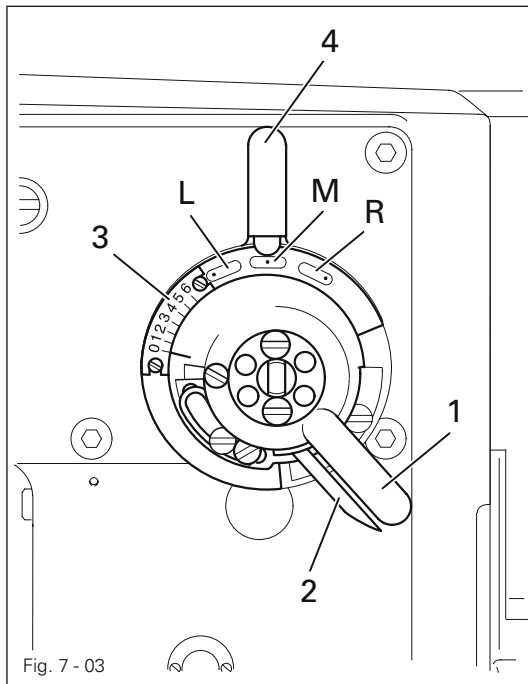
7.02a Lower thread control (only on machines with lower thread monitor -926/04)

- When reaching the amount of residual thread, the light-emitting diode 4 flashes (see Fig. 7 - 02) and the information 3217 appears in the display.
- Now the remaining stitch number (o0605) can be sewn on. With o0606 = 1 the machine stops when the residual density has expired.
- The message is acknowledged with the "Reset" key. If o0606 and o0608 are switched on, the drive stops after the number of stitches has expired. It can not be sewn again until the message has been acknowledged with the "Reset" button. If o0608 is switched off, position can be sewn again after pedal 0. See separate operating instructions P40 CD Chapter 5.3.3 Set remaining thread monitor and activate chapter 5.3.4 remaining thread monitor.



7.03

Adjusting levers for zigzag stitch and needle position



- The adjusting lever 1 is used to adjust the zigzag stitch width.
- The locking lever 2 must be pressed against the adjusting lever 1 to adjust the adjusting lever.



The set zigzag stitch width is shown on the scale 3.

- The required needle position can be set by turning the needle position adjusting lever 4.

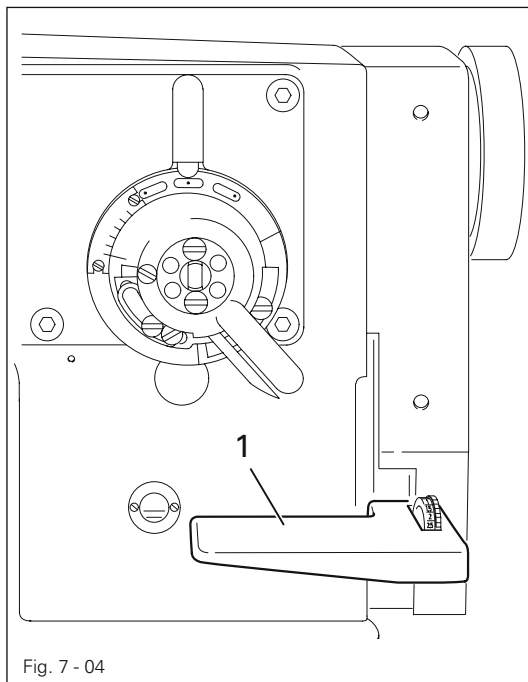
L = Needle position on the left

M = Needle position in the centre

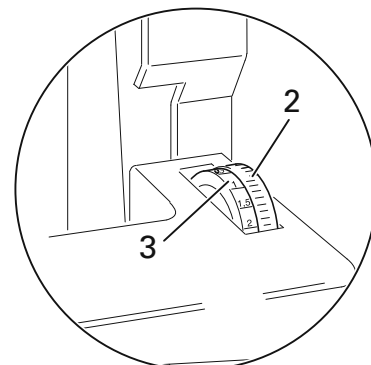
R = Needle position on the right

7.04

Reverse-feed key / stitch length adjusting wheel



- The machine sews backwards if the reverse-feed key 1 is pressed while sewing.
- The stitch length can be set by turning the stitch length adjusting wheel 2.
- The stitch length setting is shown on the scale 3.



7.05 Adjusting wheel for multi-stitches and zigzag stitches

(only on the PFAFF 918 U and 938 U)

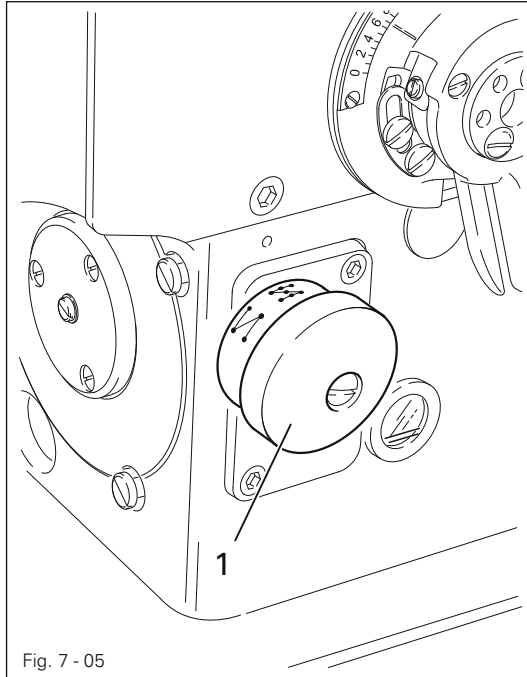


Fig. 7 - 05



Before starting to sew, make sure that the adjusting wheel 1 is engaged! Only make the change-over when the machine is at a standstill! Danger of machine damage!

- Turning the adjusting wheel 1 switches between multi-stitches and zigzag stitches, see chapter 9.10 Setting multi-stitches and zigzag stitches.

7.06 Lever to raise the sewing foot

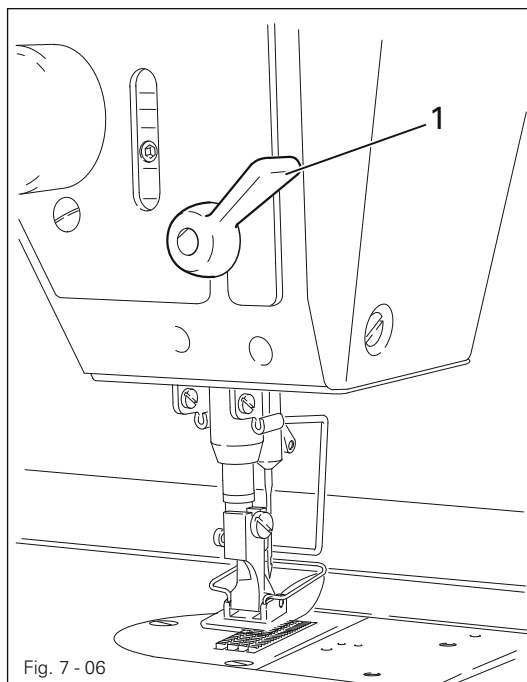
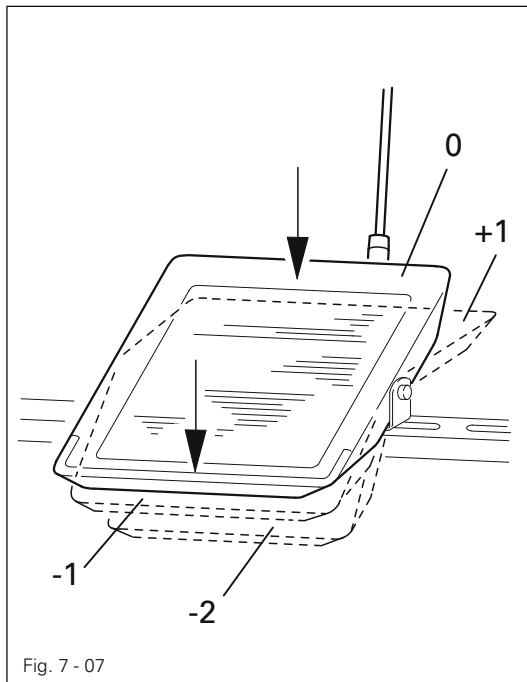


Fig. 7 - 06

- Turning the hand lever 1 raises the sewing foot.

Operating Controls

7.07 Pedal



● With the main switch turned on

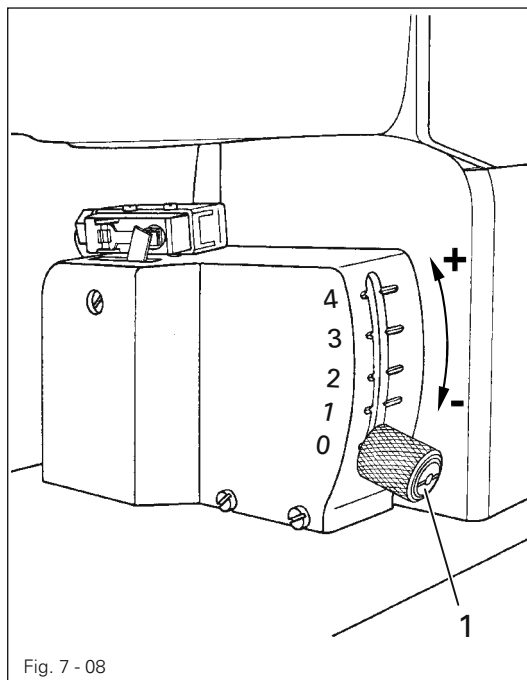
0 = Neutral position

+1 = Sewing

-1 = Raise sewing foot
(in machines with automatic
presser foot lift -910/..)

-2 = Trim thread
(in machines with thread trimmer
-900/..)

7.08 Adjusting lever for under-edge trimmer -771/05



● The under-edge trimmer is switched on and the knife stroke is set by pulling and pushing the lever 1 in the direction of "+".



Do not reach into the knife during operation!

Risk of injury from the knife moving upwards and downwards.

7.09 Control panel (only in machines with P40 CD)

The description can be found in the separate instruction manual for the drive.

8 Set-up and Initial Start-up



The machine may only be set up and started up by qualified personnel! All of the relevant safety regulations must always be complied with in this process! If the machine was delivered without a table, then the stand and the table top provided must safely support the weight of the machine and its motor. Adequate stability of the stand must be guaranteed – even during the sewing operations.

8.01 Set-up

Suitable electrical supply connections must be provided at the erection site, see **chapter 3 Technical Data**. The erection site must also have a firm and level subsurface and adequate lighting.



The table top is lowered for packaging purposes.
The adjustment of the table height is described below.

8.01.01 Setting the table height

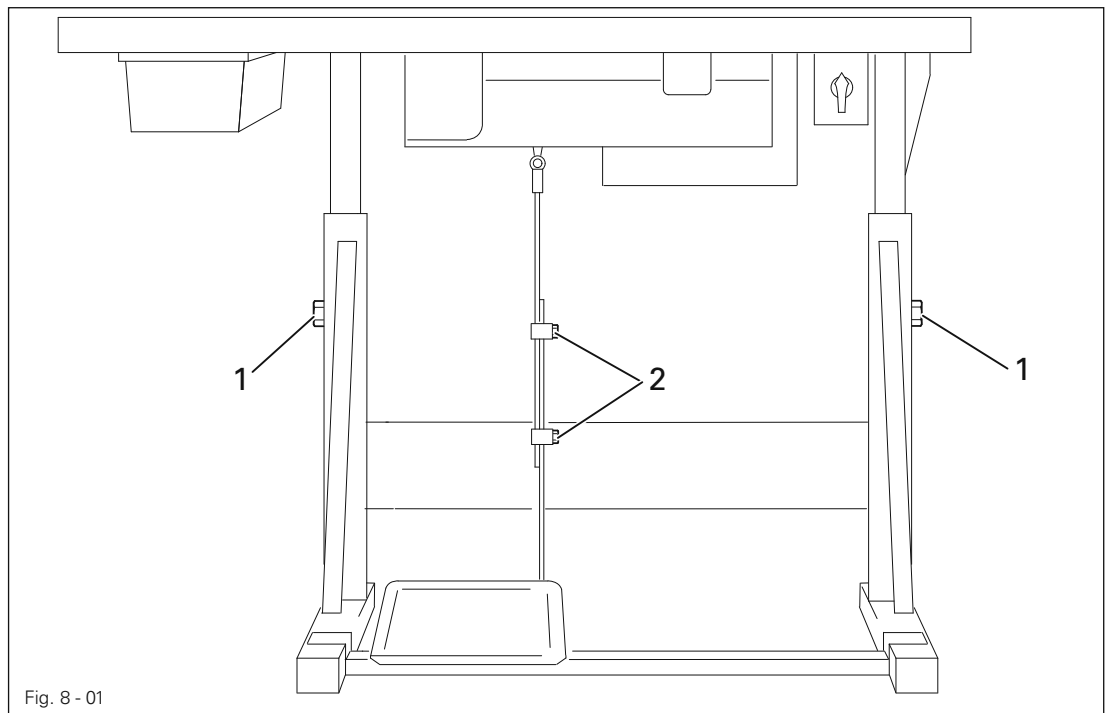


Fig. 8 - 01

- Loosen the screws **1** and **2**.
- Move the table top to the desired working height by pulling it out and pushing it in and align the table top horizontally.

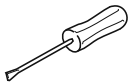
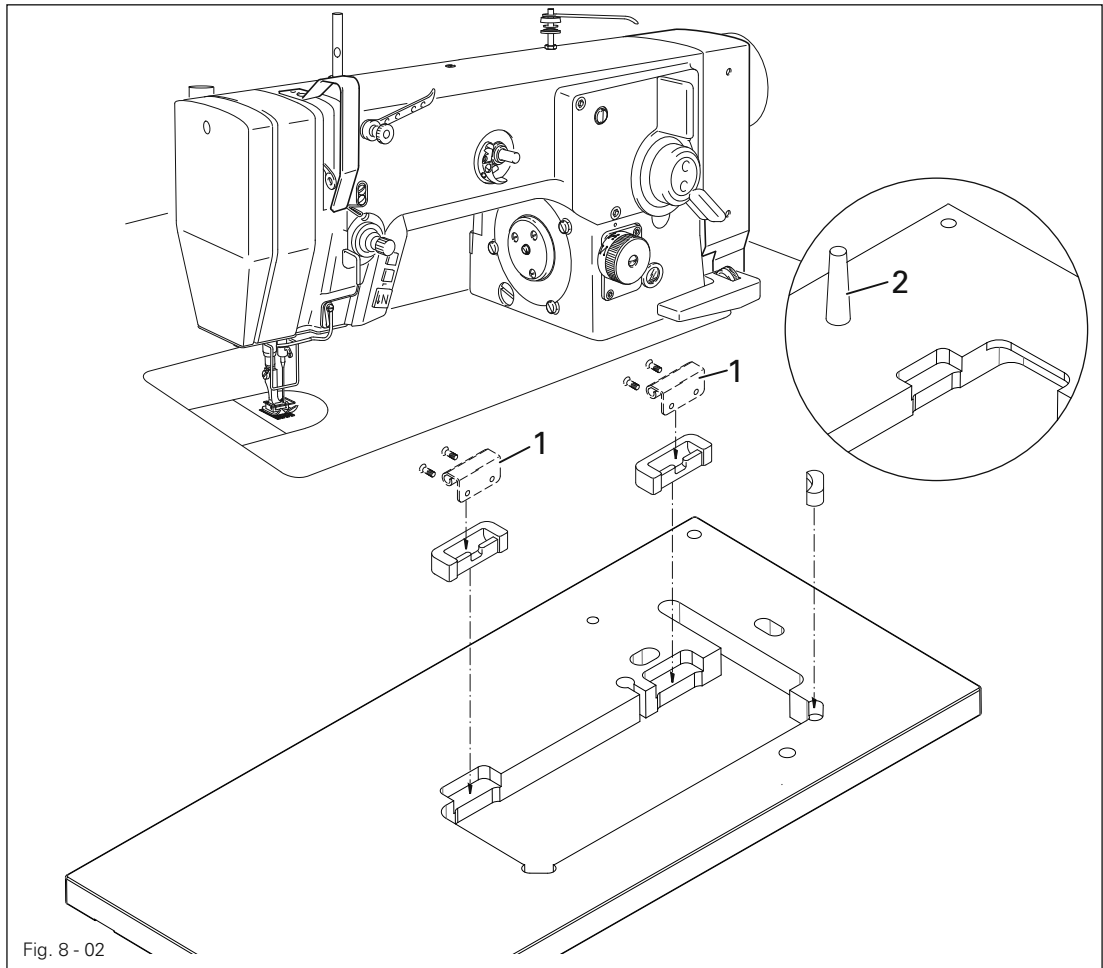


Adjust the stand on both sides evenly to prevent it tilting.

- The stand must have all four feet firmly on the ground to make sure it is positioned securely.
- Firmly tighten the screws **1**.
- Adjust and tighten the desired pedal position on the screws **2**.

Set-up and Initial Start-up

8.01.02 Inserting the sewing machine into the stand



- The hinge 1 is screwed to the sewing head base plate.
- Insert the sewing machine into the table top.
- Insert the sewing head support 2 into the table top hole.



Do not operate the machine without the support 2! Risk of damage due to the top-heavy sewing head!
Machine can tip over backwards when moving it!

8.01.03 Assembling the flange motor

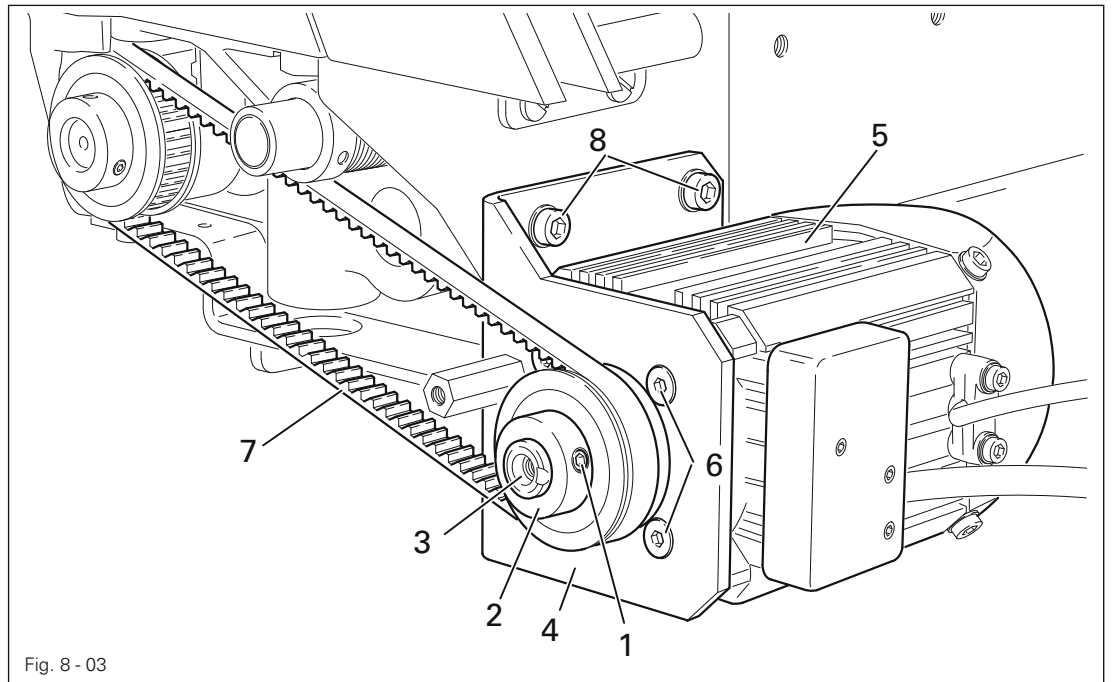


Fig. 8 - 03

- Loosen the screws 1 and pull the toothed belt wheel 2 off the motor shaft 3.
- Screw the bearing plate 4 onto the motor 5 with the screws 6, as shown in Fig. 8-04.
- Slide the toothed belt wheel 2 onto the motor shaft 3 and tighten with the screws 1.
- Tilt the bearing plate 4 with the motor 5 slightly to the side and lay the toothed belt 7 onto the toothed belt wheels.
- Align the bearing plate 4 of the motor 5 with the machine housing and attach with the screws 8.

8.01.04 Mounting the flange motor belt guard

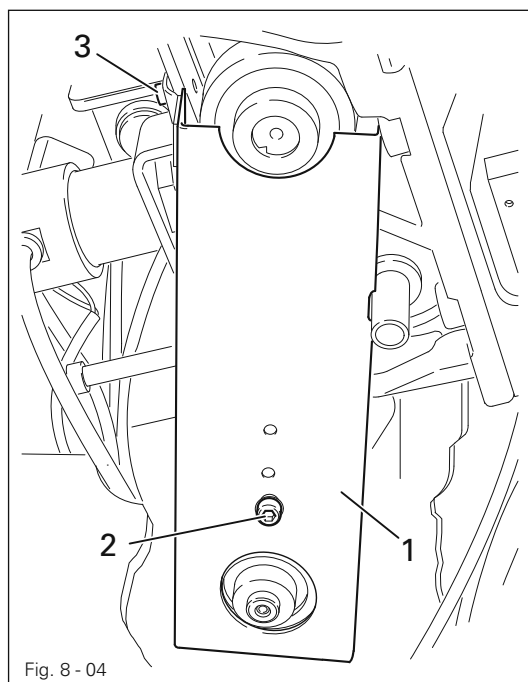
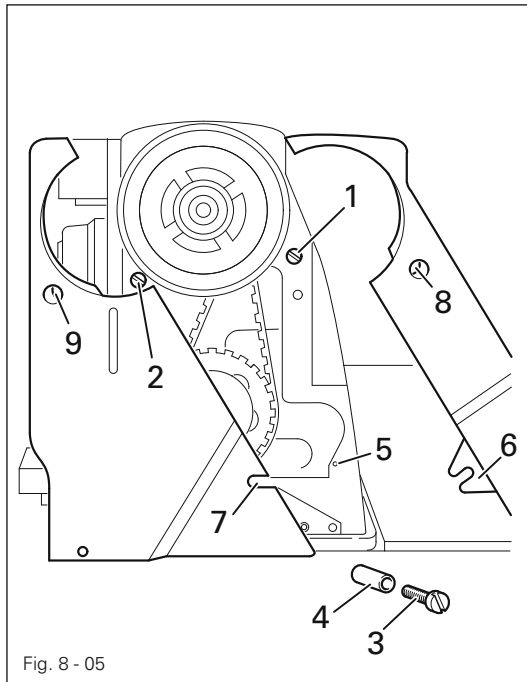


Fig. 8 - 04

- Attach the belt guard 1 with the screws 2 and 3.

Set-up and Initial Start-up

8.01.05 Mounting the machine cover



- Slide the left and right belt guard halves with their slots behind the heads of the screws 1 and 2.
- Screw the screw 3 with the spacing bush 4 into the threaded hole 5.
- Align the belt guard making sure that the lug 6 is behind the slot 7 and in front of the spacing bush 4.
- Tighten the screws 1 and 2 (can be accessed through the holes 8 and 9) as well as the screw 3.
- In addition, the motor cover should be mounted in accordance with the motor manufacturer's instructions when using an external motor.

8.01.06 Assembling the anti-tipping device

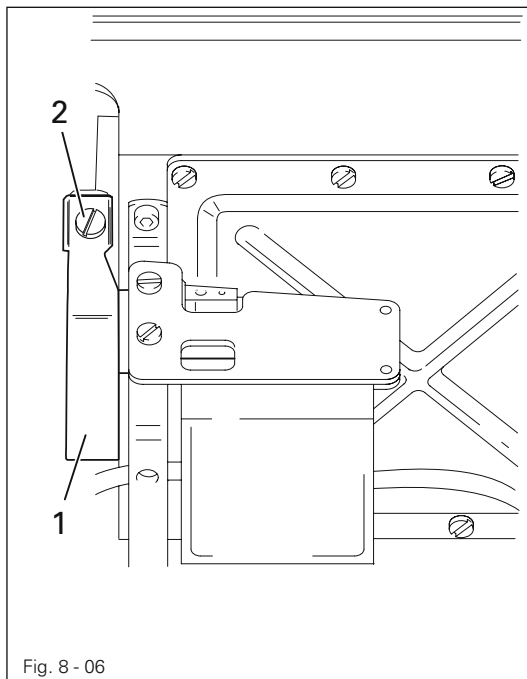


Fig. 8 - 06



Switch off the machine!

Risk of injury due to accidental machine start-up!

- Screw on the anti-tipping device 1 included in the accessories with the screw 2.



Do not operate the machine without the anti-tipping device 1!

Risk of injury from crushing between the sewing head and the table top!

8.01.07 Mounting the start inhibitor

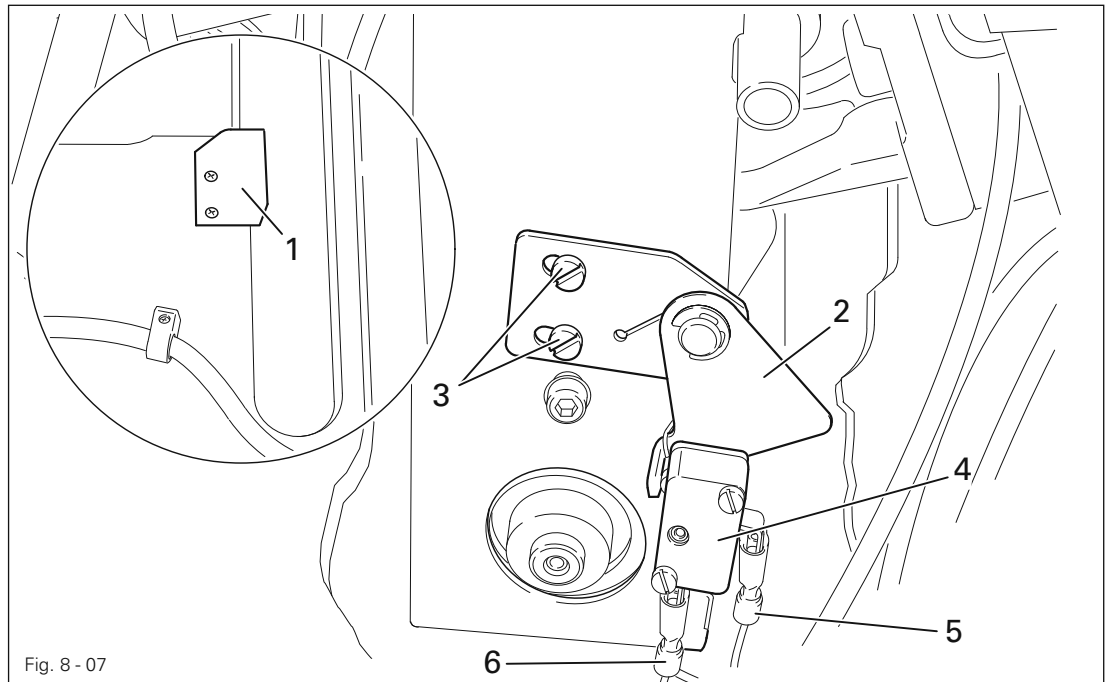


Fig. 8 - 07

- For machines delivered without a table, the plate 1 included in the accessories must be mounted underneath the table top in such a way that the switching plate 2 lays on the plate 1 when the sewing head is tilted upright.
- Loosen the screws 3 and align the switch 4 in such a way that the switching plate 2 is free when the sewing head is on its side, and pressed when the sewing head is upright.
- Plug the connectors 5 and 6 into the switch 4.

Perform a functional test on the start inhibitor

- Switch on the machine at the main switch and move the sewing head backwards. The error message "Error 9" must appear on the control panel.
- The alignment of the switch 4 must be checked if no error message appears.
- The machine is ready for operation again after righting the sewing head.

8.02 Connecting the plug-in connections and ground cable

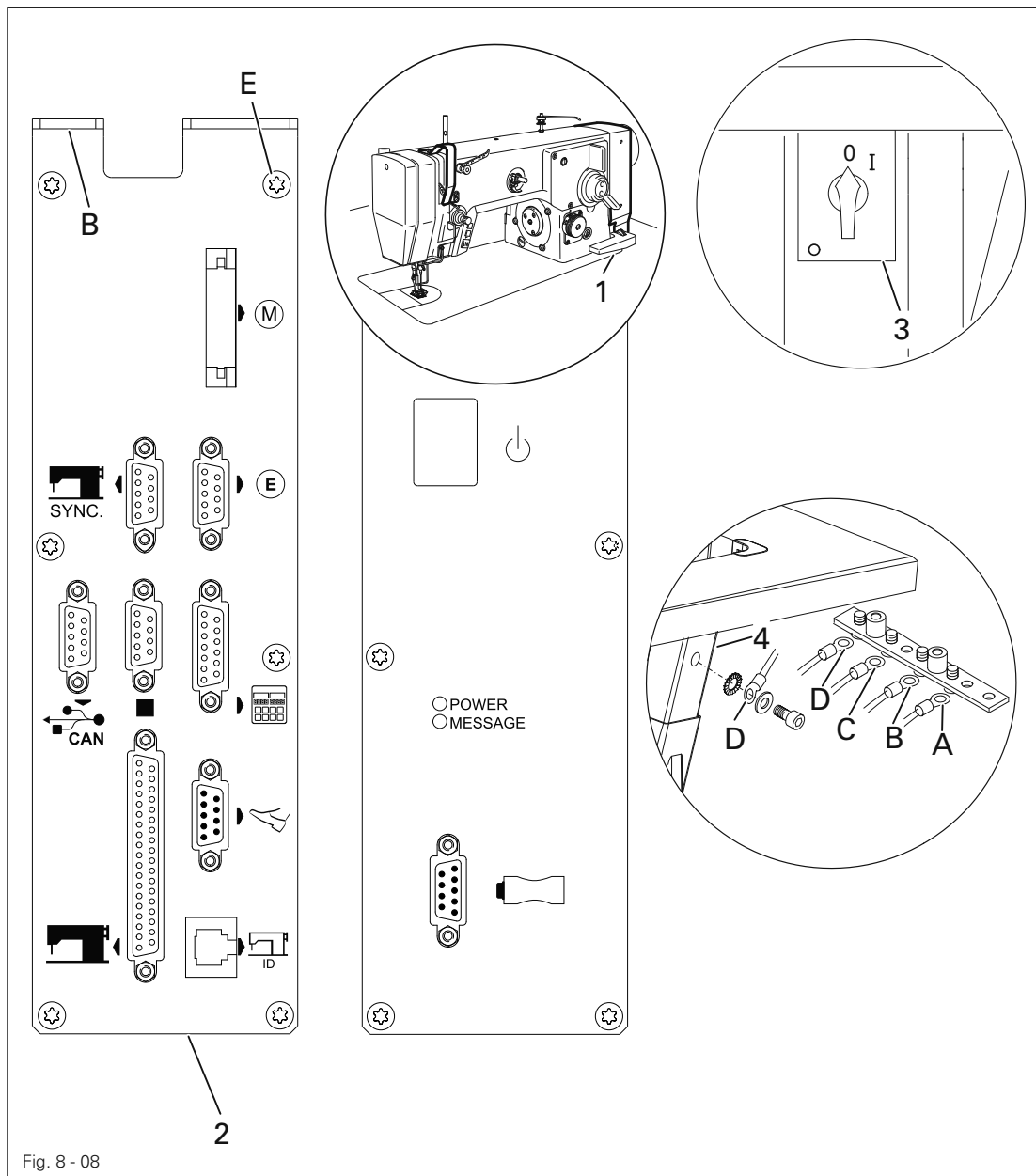
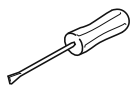


Fig. 8 - 08



- Insert all plugs on the control box 2 in accordance with their designation.
- Insert the "motor" into the bushing E and the bushing M.

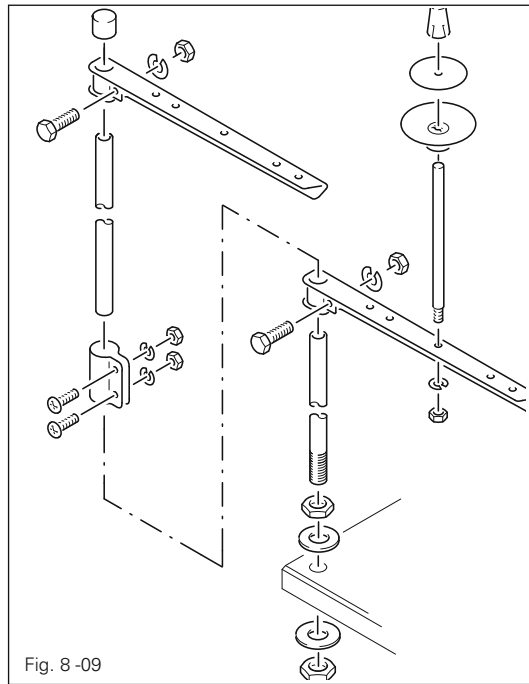


Caution

Inserting the plug incorrectly can damage the control unit!

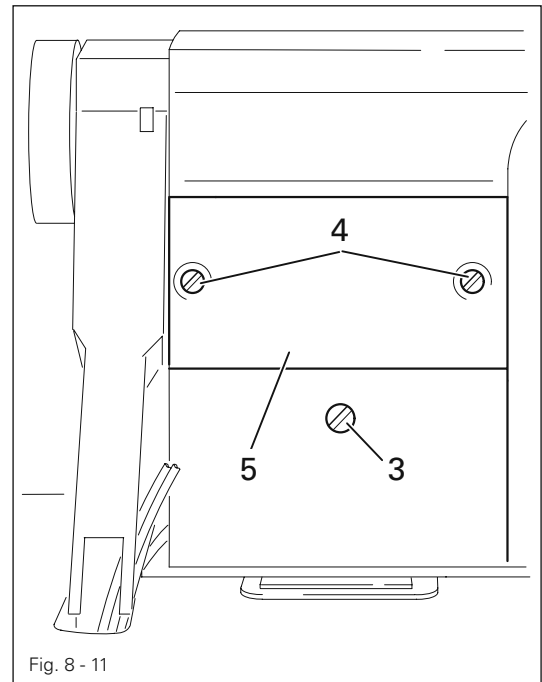
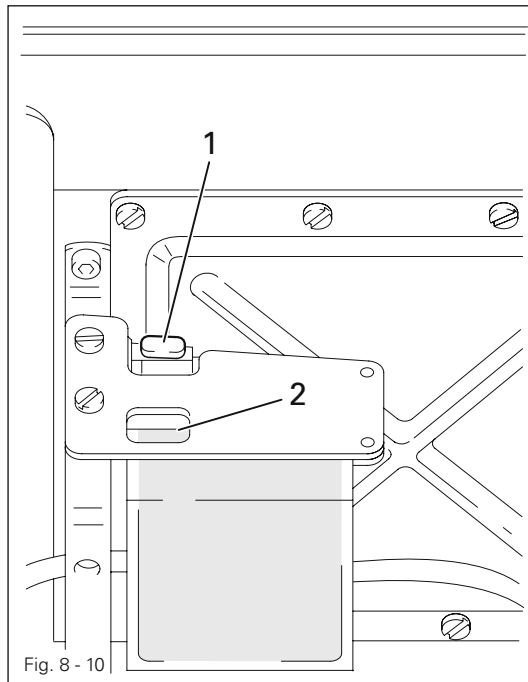
- Attach the following ground cables in order to discharge static electricity
- Securely attach the ground cable from the sewing head 1 to ground point A.
- Securely attach the ground cable from the control point B to ground point B.
- Securely attach the ground cable from the main switch 3 to ground point C.
- Securely attach the ground cable from the stand 4 to ground point D
- Securely attach the ground cable from the motor cable M to ground point E

8.03 Assembling the reel stand



- Assemble the reel stand as shown in the adjacent illustration.
- Then insert the stand into the hole in the table top and secure it with the enclosed nuts.

8.04 Initial start-up



- Remove the plug 1 of the oil reservoir 2 before the initial start-up.
- Remove the screw 3 (Fig. 8 -11) before the initial start-up and fill up the oil to the mark (sight glass on the front of the machine), see chapter 10.04 Oiling the zigzag drive.



Danger of machine damage!

The plug 1 serves solely for transit support and may not be used during the sewing operations.

- Inspect the machine, particularly the electric cables, for any damage.
- Clean the machine thoroughly and then oil or fill the oil, see chapter 10 Maintenance and Care.
- Connect the machine to the compressed air system. The manometer must show a pressure of 6 bar. Set this value if required, see chapter 10.05 Checking / setting the air pressure.
- Arrange for technical staff to check whether the machine's motor may be operated at the existing mains voltage and whether it is connected properly.



Never operate the machine if there are any differences.



The machine must only be connected to a grounded socket!



Arrange for the home position of the machine drive to be verified by certified technicians before the initial start-up! Have these settings carried out where required (see the drive service manual in chapter 4.4.

8.05 Switching the machine on / off

- Switch the machine on (see chapter 7.01 Main switch).

8.06 Machine drive home position

- See chapter 4.4 of the drive service manual

9

Set-up



Observe and comply with all regulations and instructions in this instruction manual. Pay particular attention to all safety regulations!



All set-up work may only be carried out by appropriately instructed personnel. Disconnect the machine from the electricity mains for all set-up work by operating the main switch or by removing the mains plug!

9.01

Inserting the needle

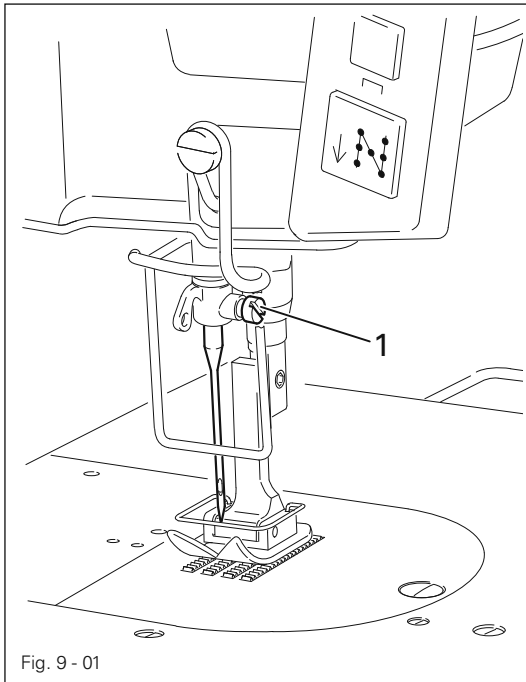


Fig. 9 - 01



Switch off the machine!
Risk of injury due to accidental machine start-up!



Only use needles of the system intended for the machine, see **chapter 3 Technical Data!**

- Bring the needle bar to the top position.
- Loosen the screw 1 and insert the needle until you feel it stop.
The long groove must point forwards.
- Tighten the screw 1.

9.02 Winding the bobbin thread / adjusting the bobbin thread tension

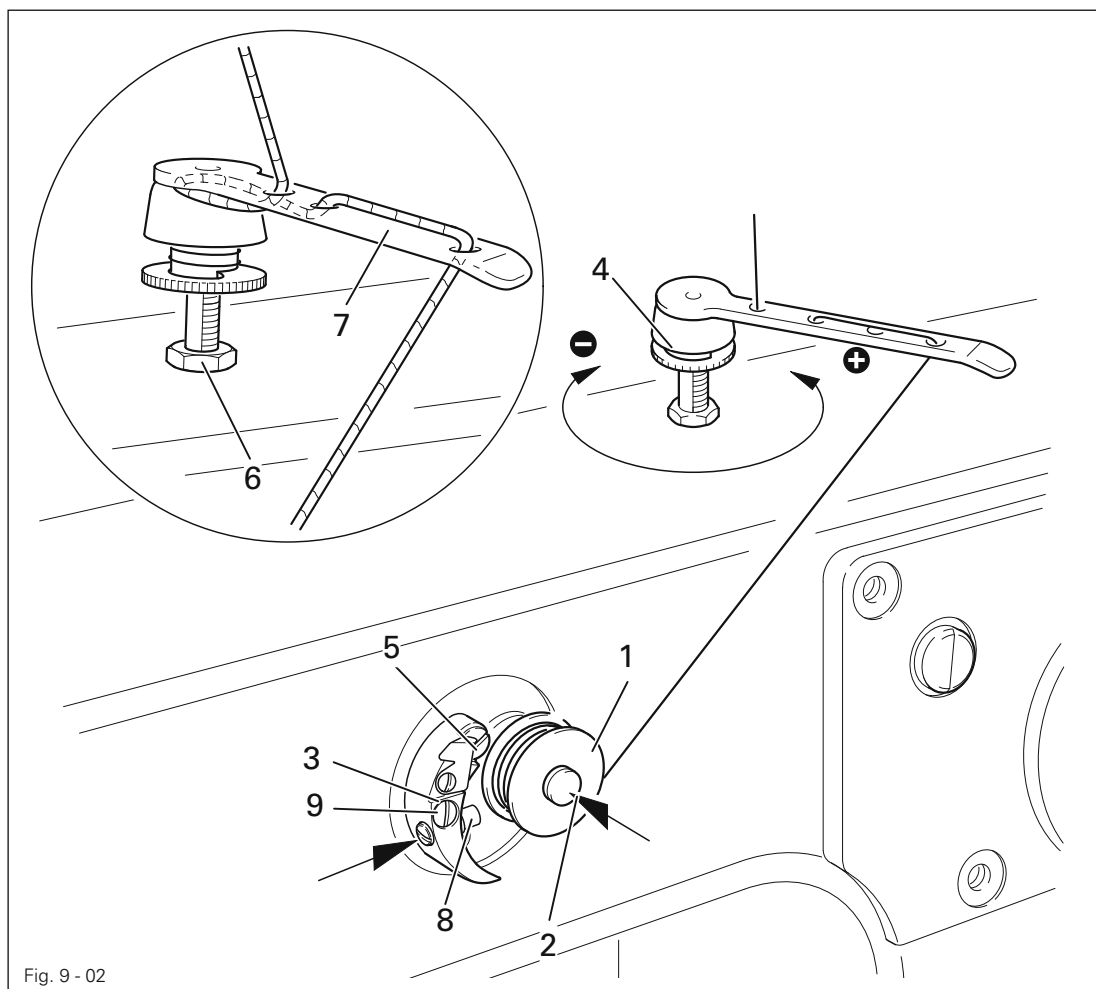


Fig. 9 - 02

- Fit the empty bobbin 1 onto the bobbin winder spindle 2 with the rest thread chamber on the outside.
- Thread in the thread as shown in Fig. 9-02 and wind it round the bobbin 1 a few times in an anti-clockwise direction.
- Switch on the bobbin winder by pressing the bobbin winder spindle 2 and the lever 3 simultaneously.



The bobbin fills up during sewing.



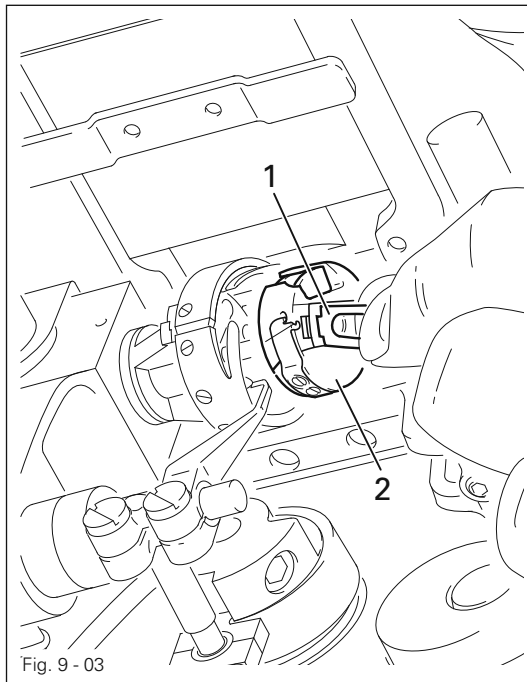
If the machine is only run for bobbin winding (without sewing), a bobbin case must be fitted in the hook! Otherwise a jammed thread may damage the hook!

- The tension of the thread on the bobbin 1 can be adjusted with the knurled thumb screw 4.
- The winder will stop automatically when the bobbin 1 is sufficiently full.
- Remove the filled bobbin 1 and cut the thread with the knife 5.
- The fill amount of the bobbin 1 can be adjusted with the pin 8 (loosen the screw 9 and tighten it again).

If the thread is wound unevenly:

- Loosen the nut 6.
- Turn the thread guide 7 accordingly.
- Tighten the nut 6.

9.03 Removing / inserting the bobbin case



Switch off the machine!
Risk of injury due to accidental machine start-up!

Removing the bobbin case:

- Tilt the machine backwards.
- Raise the lever 1 and remove the bobbin case 2.

Inserting the bobbin case:

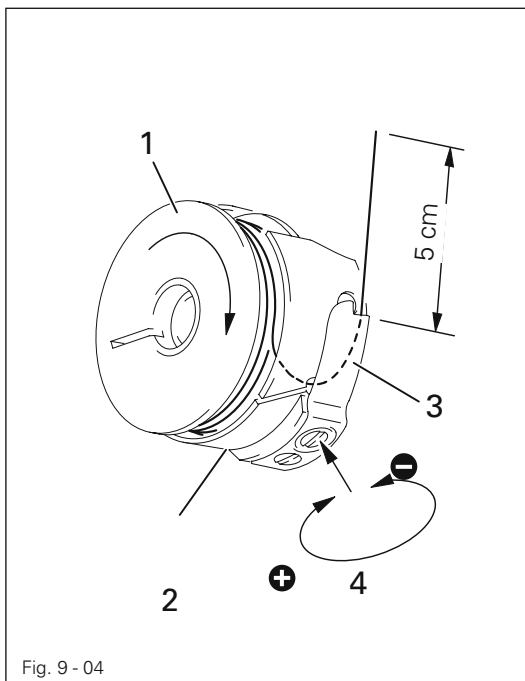
- Press the bobbin case 2 until you feel it snap into the bobbin case base.



Return the machine to its upright position using both hands!
Danger of injury from crushing between the machine and the table top

9.04 Inserting the bobbin case / adjusting the bobbin thread tension

9.04.01 PFAFF 938 and 938 U without thread trimmer

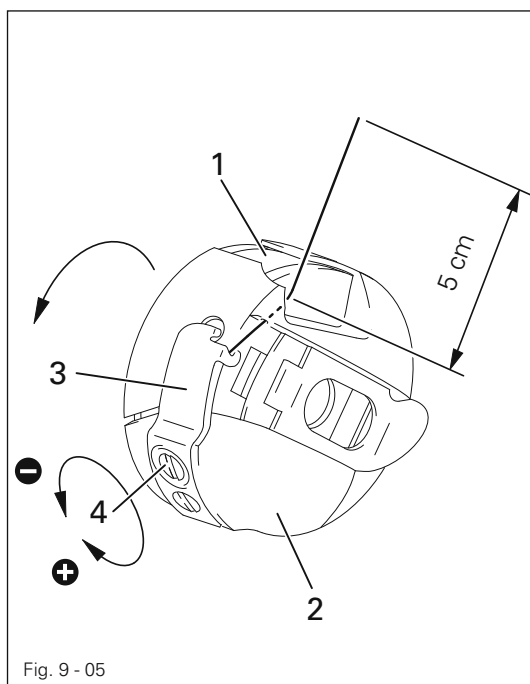


- Insert the bobbin 1 into the bobbin case 2 as shown in Fig. 9-04.
- Pass the thread through the slot under the spring 3.
- Adjust the thread tension by turning the screw 4.



When the thread is drawn off, the bobbin 1 must turn in the direction shown by the arrow.

9.04.02 PFAFF 938 and 938 U with thread trimmer

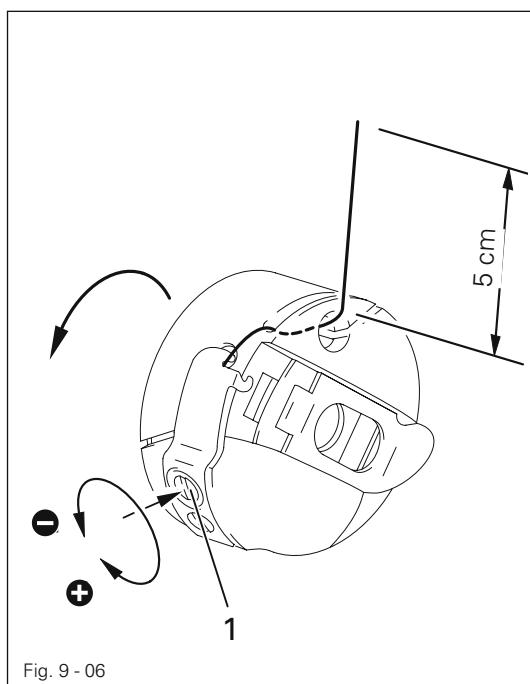


- Insert the bobbin 1 in the bobbin case 2.
- Pass the thread through the slot under the spring 3 and through the hole in the bobbin case 2.
- Adjust the thread tension by turning the screw 4.



When the thread is drawn off, the bobbin 1 must turn in the direction shown by the arrow.

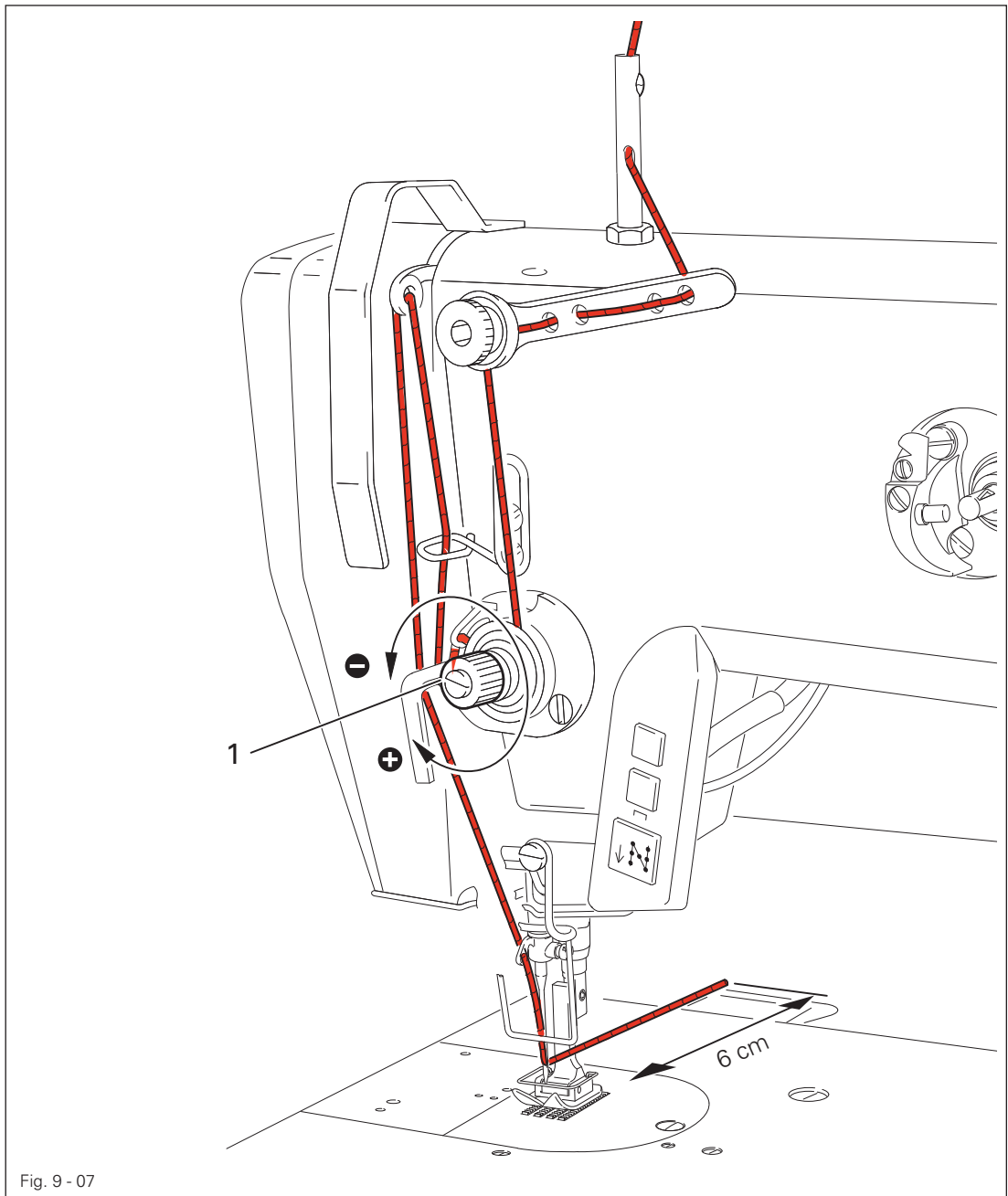
9.04.03 PFAFF 918 and 918 U



- Pass the thread through the slot under the spring as shown in the adjacent illustration.
- Adjust the thread tension by turning the screw 1.



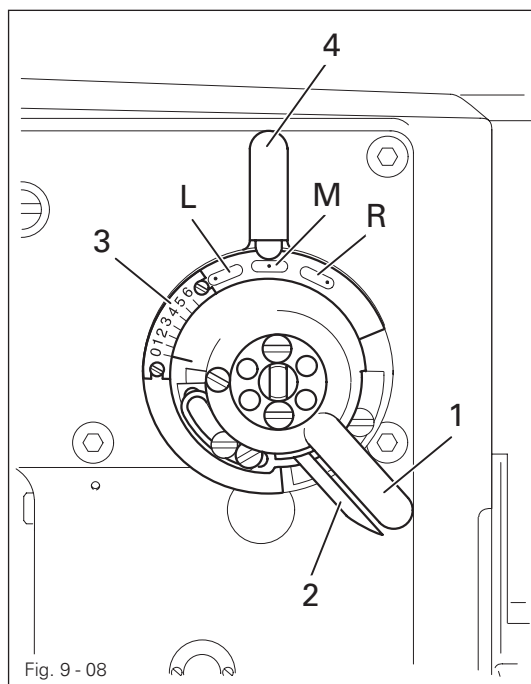
When the thread is drawn off, the bobbin 1 must turn in the direction shown by the arrow.



Switch off the machine!
Risk of injury due to accidental machine start-up!

- Thread the needle thread as shown in Fig. 9-07. Please ensure that the needle is threaded from the front.
- Adjust the needle thread tension by turning the knurled thumb screw 1.

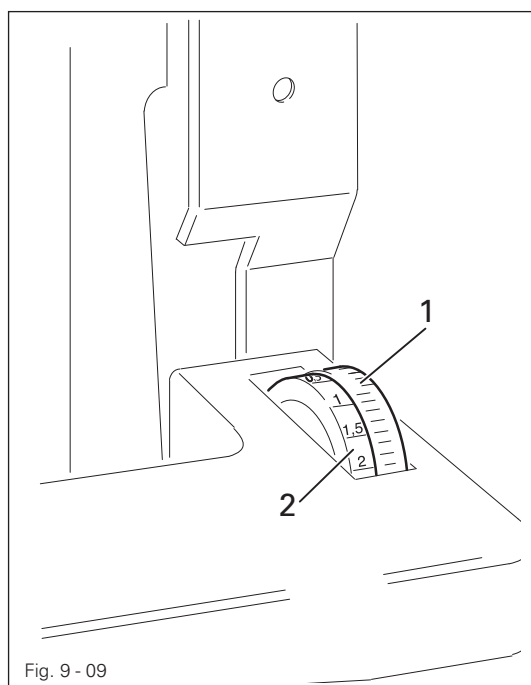
9.06 Setting the zigzag stitch and needle position



- Set the zigzag stitch width by turning the zigzag stitch adjusting lever 1.
- Press against the zigzag stitch adjusting lever 1 to adjust the locking lever 2.
- The setting is shown on the scale 3.
- Set the needle position by turning the needle position adjusting lever 4

L = Needle position on the left
 M = Needle position in the centre
 R = Needle position on the right

9.07 Setting the stitch length

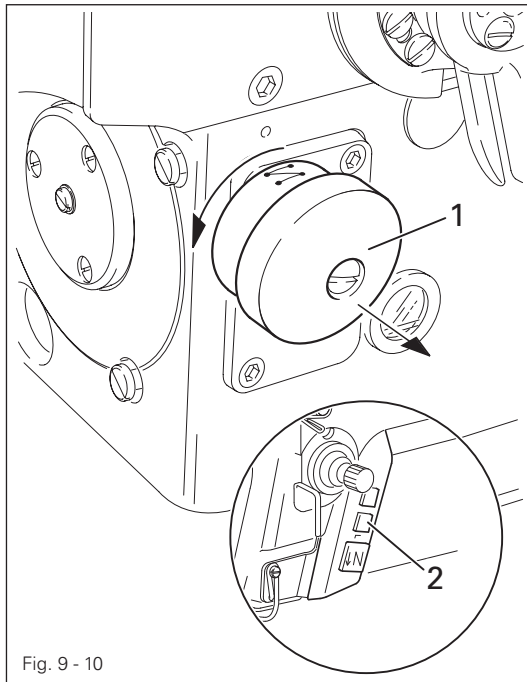


- Set the stitch length by turning the stitch length adjusting wheel 1.
- The setting is shown on the scale 2.

9.08 Setting multi-stitches and zigzag stitches

(on the 918 U and 938 U with a flange motor)

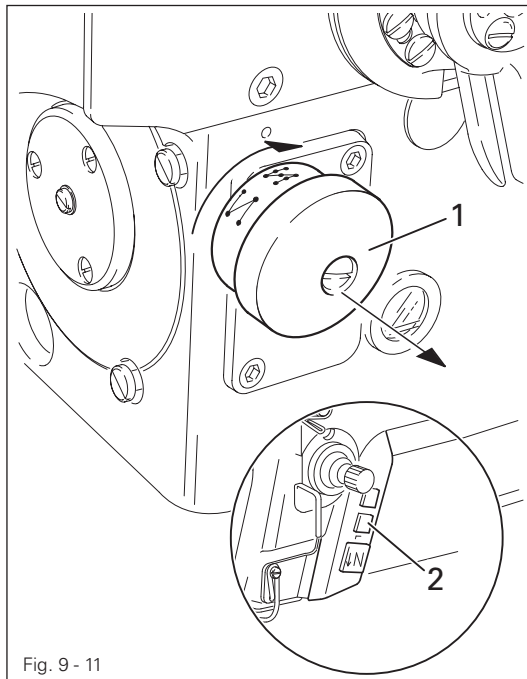
9.08.01 Change-over from zigzag stitch to multi-stitch



Before starting to sew, make sure that the adjusting wheel 1 is engaged! Only make the change-over when the machine is at a standstill! Danger of machine damage!

- Move the machine to the change-over position by pressing the key 2.
- Pull the adjusting wheel 1 and turn in the direction of the arrow until the adjusting wheel engages.

9.08.02 Change-over from multi-stitch to zigzag stitch



Before starting to sew, make sure that the adjusting wheel 1 is engaged! Only make the change-over when the machine is at a standstill! Danger of machine damage!

- Move the machine to the change-over position by pressing the key 2.
- Pull the adjusting wheel 1 and turn in the direction of the arrow until the adjusting wheel engages.

9.09 Setting multi-stitches and zigzag stitches

(on the 918 U and 938 U with an external motor)

9.09.01 Change-over from zigzag stitch to multi-stitch

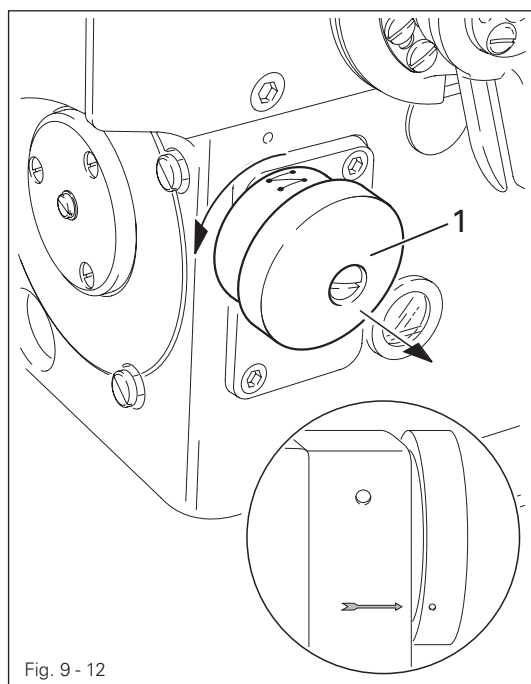


Fig. 9 - 12



Before starting to sew, make sure that the adjusting wheel 1 is engaged! Only make the change-over when the machine is at a standstill! Danger of machine damage!

- Move the needle to its lowest position in the right-hand puncture position by turning the handwheel (mark on the handwheel and arrow must match).
- Pull the adjusting wheel 1 and turn in the direction of the arrow.
- If the adjusting wheel 1 does not engage, turn the handwheel two more turns (mark on the handwheel and arrow must match).
- Repeat the process if necessary until the adjusting wheel 1 engages.

9.09.02 Change-over from multi-stitch to zigzag stitch

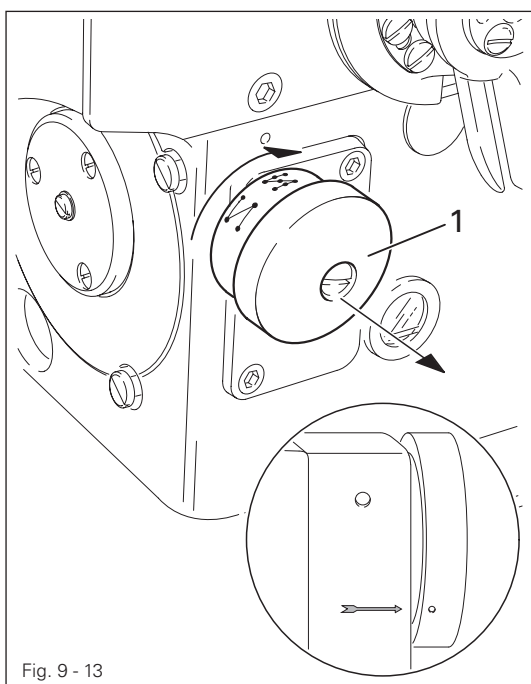


Fig. 9 - 13



Before starting to sew, make sure that the adjusting wheel 1 is engaged! Only make the change-over when the machine is at a standstill! Danger of machine damage!

- Move the needle to its lowest position in its right-hand puncture position by turning the handwheel (mark on the handwheel and arrow must match).
- Pull the adjusting wheel 1 and turn in the direction of the arrow.
- If the adjusting wheel 1 does not engage, turn the handwheel two more turns (mark on the handwheel and arrow must match).
- Repeat the process if necessary until the adjusting wheel 1 engages.

10 Maintenance and Care

10.01 Maintenance intervals

Cleaning	daily, several times if in continuous operation
Check the oil level (hook oil reservoir).....	annually
Check the oil level (zigzag eccentric lubrication)	daily, before start-up
Check/set the air pressure	daily, before start-up
Cleaning the maintenance unit air filter	as needed



These maintenance intervals are based on an average running time of a single shift production shop. Shorter maintenance intervals are recommended for increased running times.

10.02 Cleaning the machine

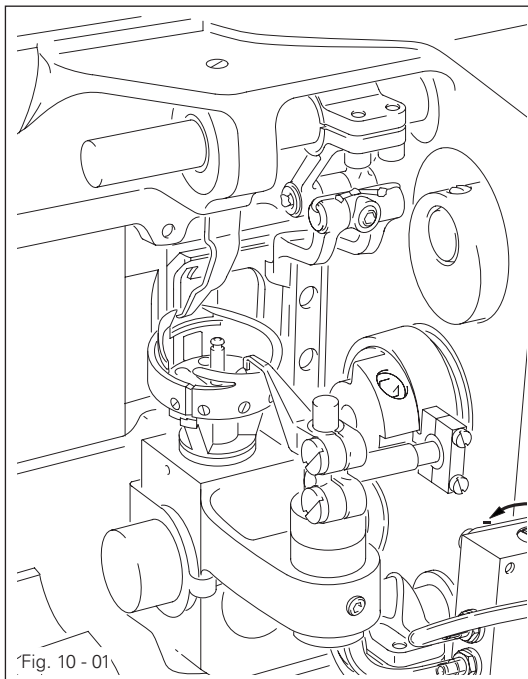
The required cleaning cycle for the machine depends on the following factors:

- Single or multi-shift operation
- Dust formation caused by the workpieces

Optimal cleaning instructions can therefore only be determined on a case-by-case basis.



Disconnect the machine from the electricity mains for all cleaning work by shutting off the main switch or removing the mains plug! Risk of injury due to accidental machine start-up!



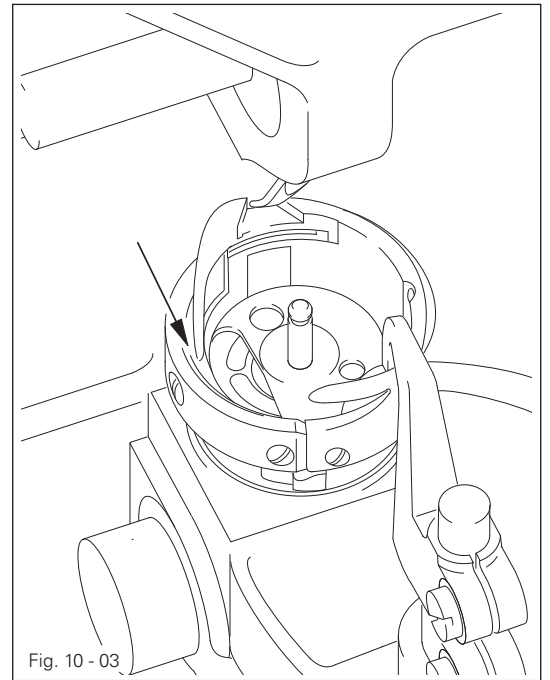
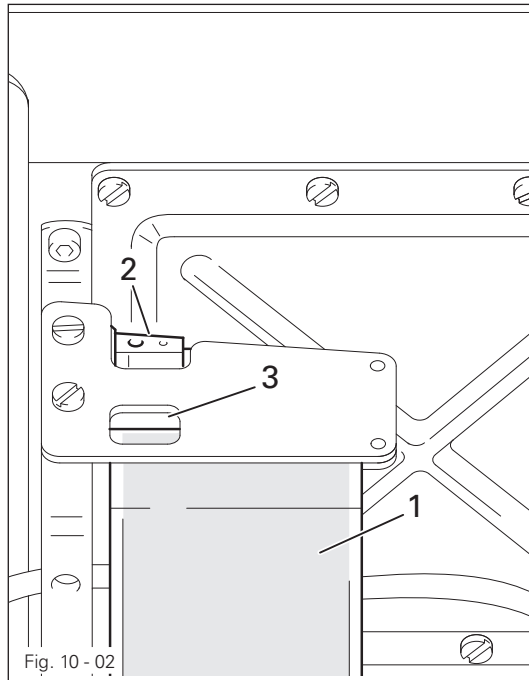
The following tasks are recommended during single shift operation to avoid operational errors:

- Tilt the sewing head backwards.
- Clean the hook and hook area daily or several times during continuous operation.



Return the sewing head to its upright position using both hands! Risk of injury from crushing between the sewing head and the table top!

10.03 Oiling the hook



Switch off the machine!
Risk of injury due to accidental machine start-up!

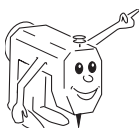


Only use oil with a centre viscosity of **22.0 mm²/s** at **40 °C** and a density of **0.865 g/cm³** at **15 °C**!

- Tilt the sewing head backwards.
- Fill up the oil tank **1** through the hole **2** up to the top marker **3**.
- Also add a few drops of oil onto the hook race at the initial start-up or if the machine has been standing still for a prolonged period of time, see arrow in Fig. **10-03**.



Return the sewing head to its upright position using both hands!
Risk of injury from crushing between the sewing head and the table top!



We recommend PFAFF sewing machine oil, order no. **280-1-120 144**.

10.04 Oiling the zigzag drive

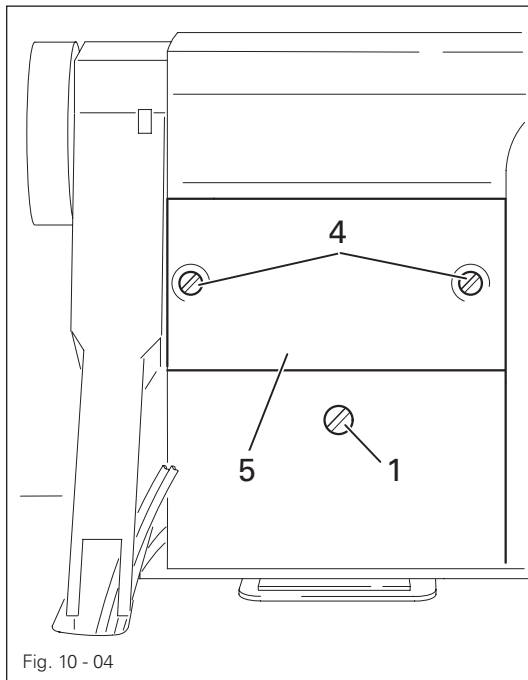
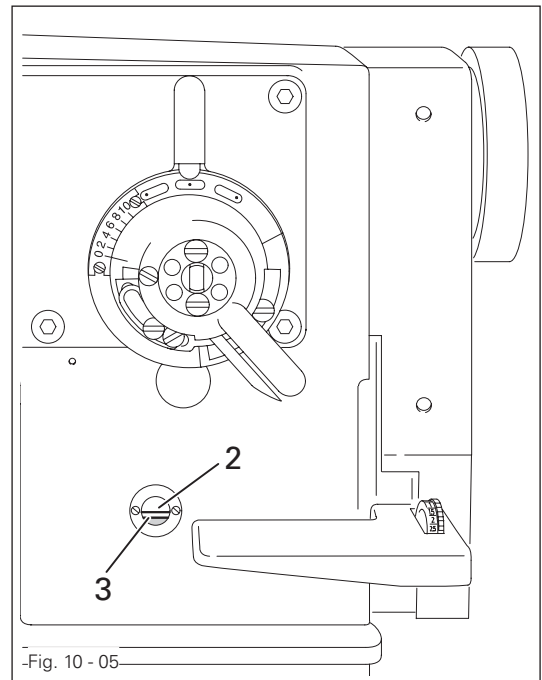


Fig. 10 - 04



-Fig. 10 - 05



Switch off the machine!
Risk of injury due to accidental machine start-up!



Only use oil with a centre viscosity of $68.0 \text{ mm}^2/\text{s}$ at $40 \text{ }^\circ\text{C}$ and a density of $0.881 \text{ g}/\text{cm}^3$ at $15 \text{ }^\circ\text{C}$!

- Check the oil level before every start-up.
- If necessary, unscrew the screw 1 and fill up the oil up to the top marker 2.
- Tighten the screw 1.

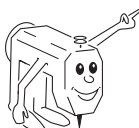


Never allow the oil level to drop below the lowest marker 3!
Danger of machine damage!



It is advantageous to remove the cover 5 to fill larger quantities of oil, e.g. when filling the reservoir before the initial start-up.

- Unscrew the screws 4 and remove the cover 5.
- Make sure that no dirt gets into the housing.
- Fill up the oil to the top marker 2.
- Clean the supporting surface of the cover 5, the housing and the gasket.
- Replace the cover 5 and tighten the screws 4.



We recommend PFAFF sewing machine oil part no. 280-1-120 146.

10.05 Checking / setting the air pressure

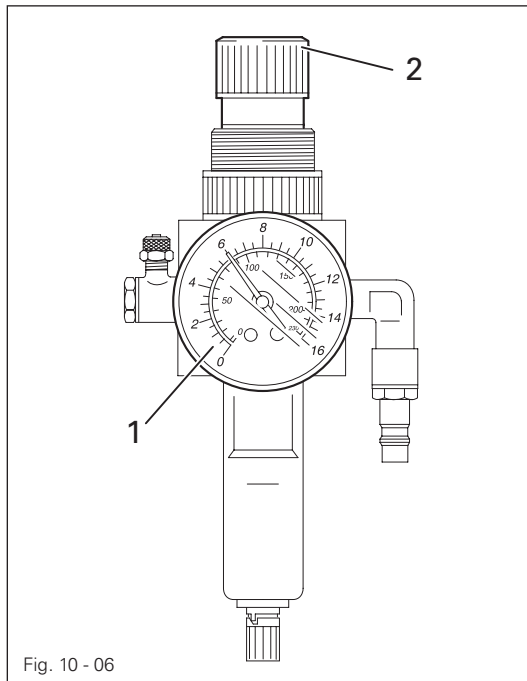


Fig. 10 - 06

- Check the air pressure on the manometer 1 before every start-up.
- The manometer 1 must show a pressure of 6 bar.
- Adjust this value if needed.
- To do this, pull up the button 2 and turn it so that the manometer 1 shows a pressure of 6 bar.

10.06 Emptying / cleaning the maintenance unit's water tank

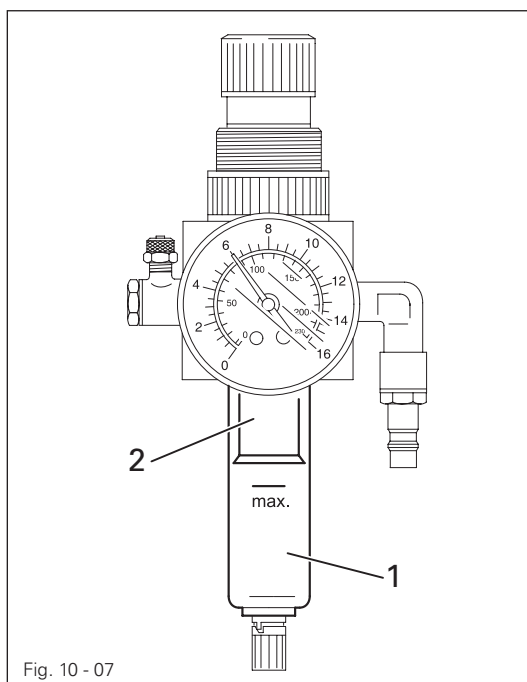


Fig. 10 - 07



Switch the machine off.
Detach the compressed air tube on the maintenance unit.

Empty the water tank

- The water tank 1 empties itself automatically after the compressed air tube for the maintenance unit has been removed.

Clean the filter

- Unscrew the water tank 1 and take out the filter 2.
- Clean the filter 2 with compressed air or isopropyl alcohol (order no. 95-665 735-91).
- Screw in the filter 2 and screw on the water tank 1.

10.07 Parameter settings

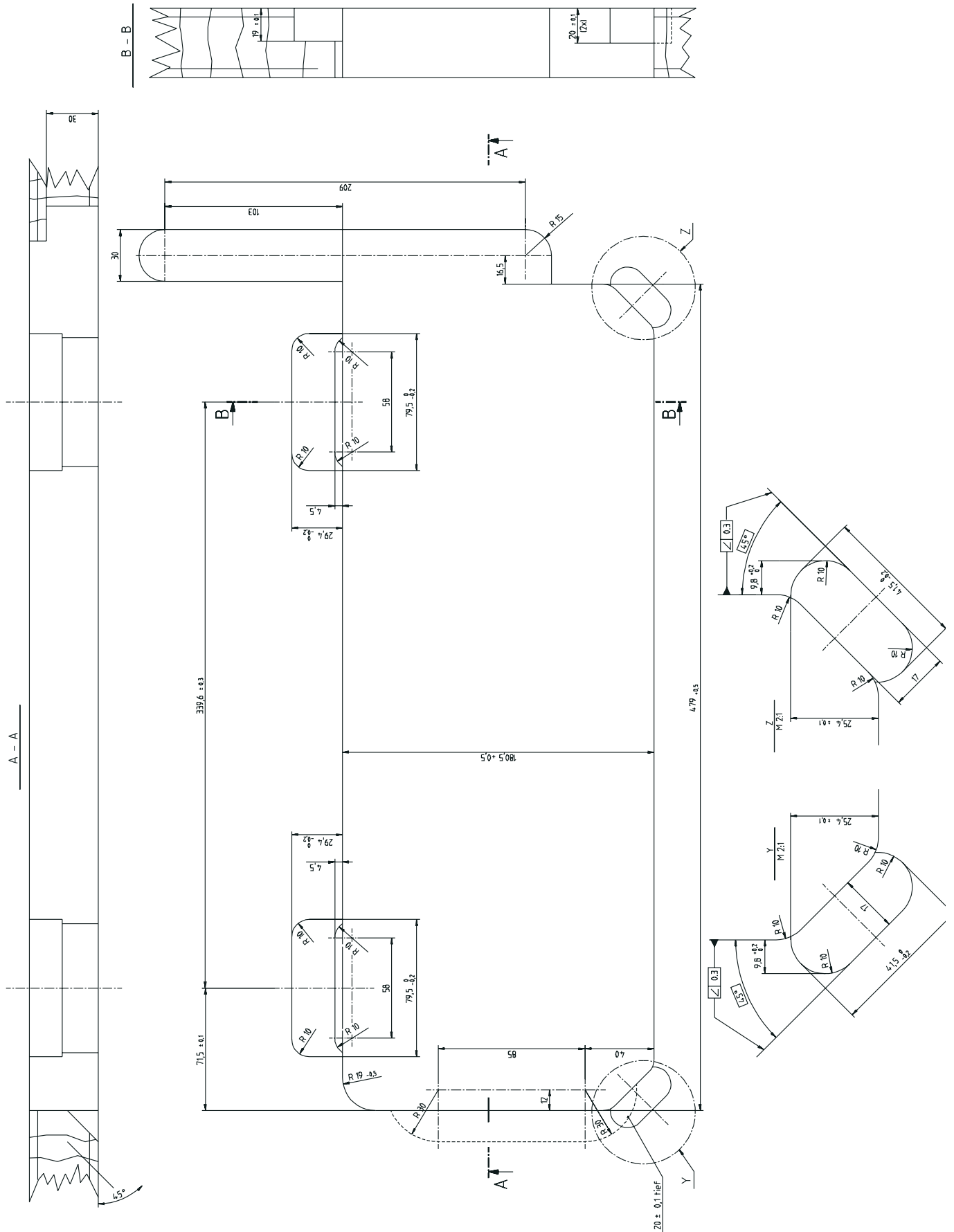


Parameter settings are described in the separate **parameter list** for the drive and may only be changed by qualified technicians.

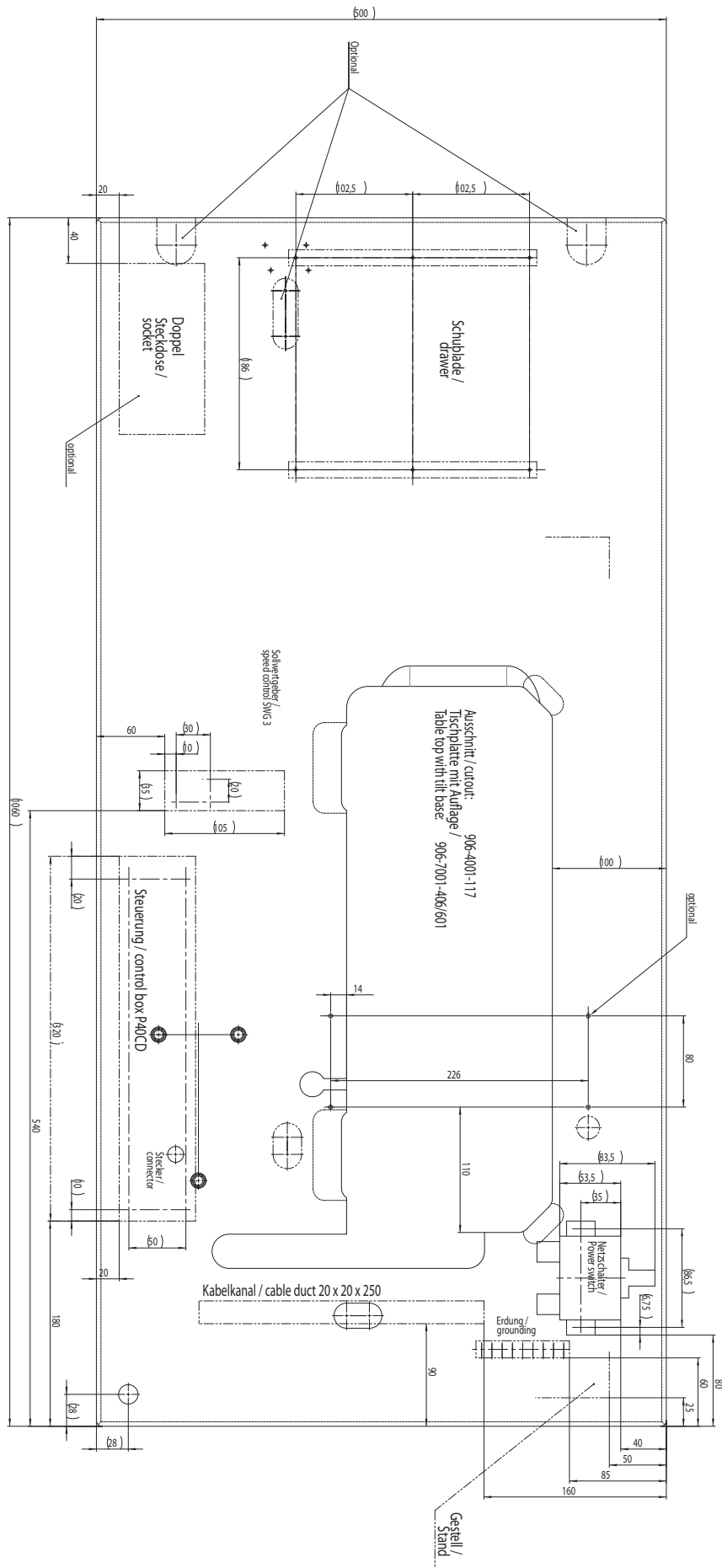
Table top cutout

11 Table Top

11.01 Table top cutout



11.02 Table top assembly



12 Wearing Parts

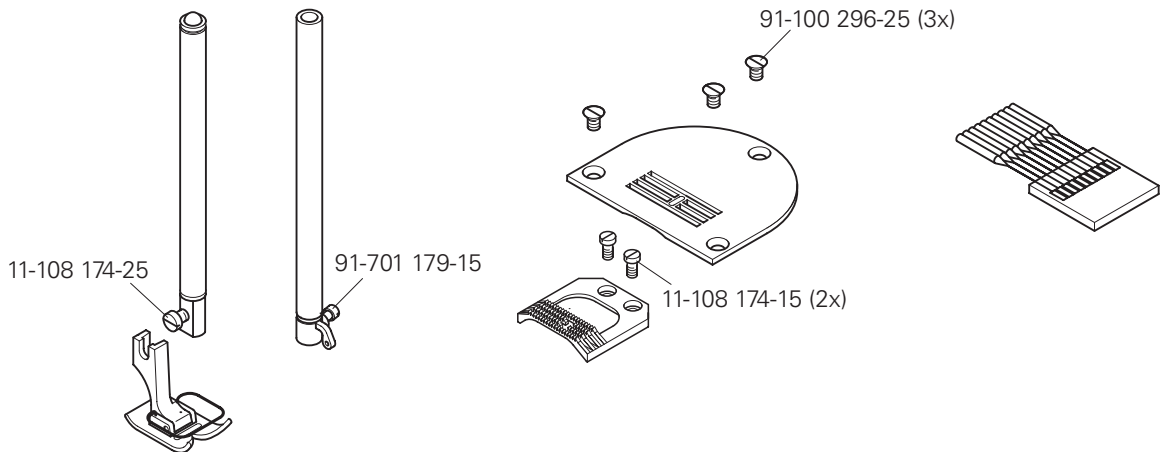


This list shows the most important wearing parts.

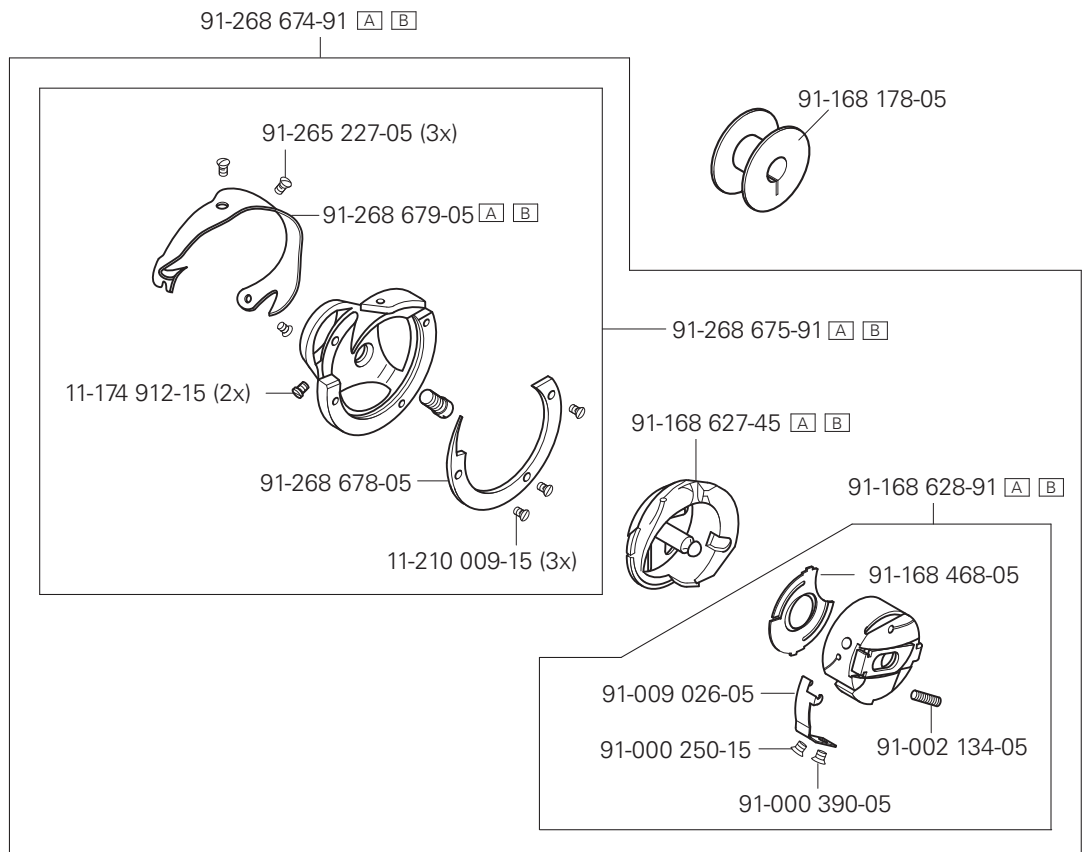
A detailed parts list for the complete machine can be downloaded at

www.pfaff-industrial.de/pfaff/de/service-support/downloads/technical.

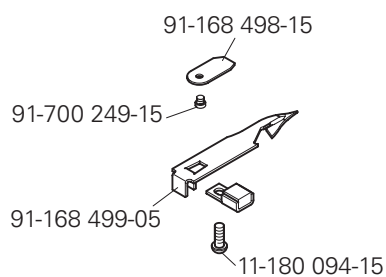
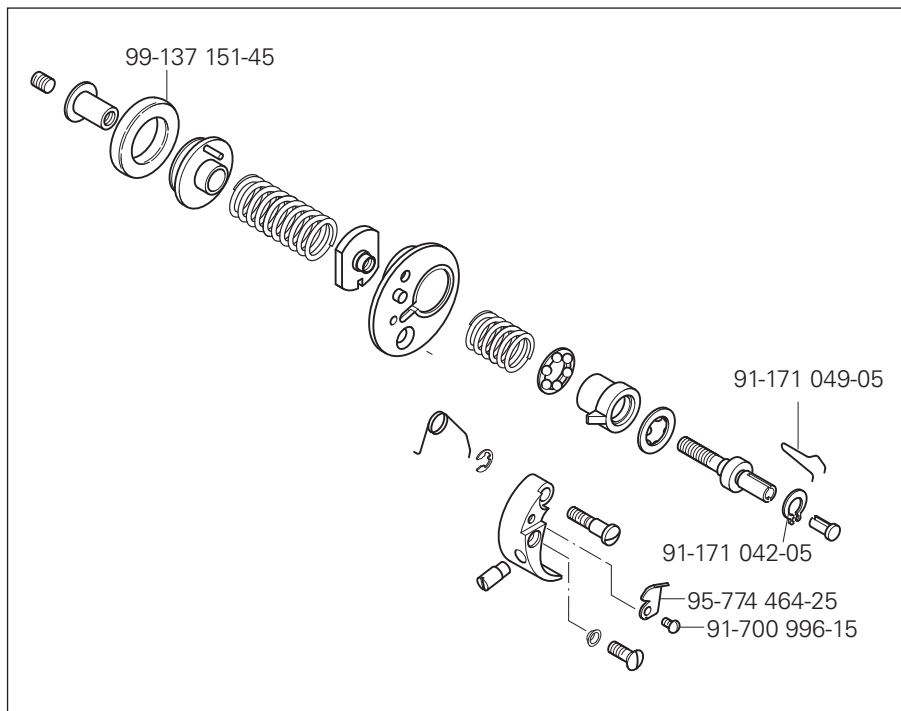
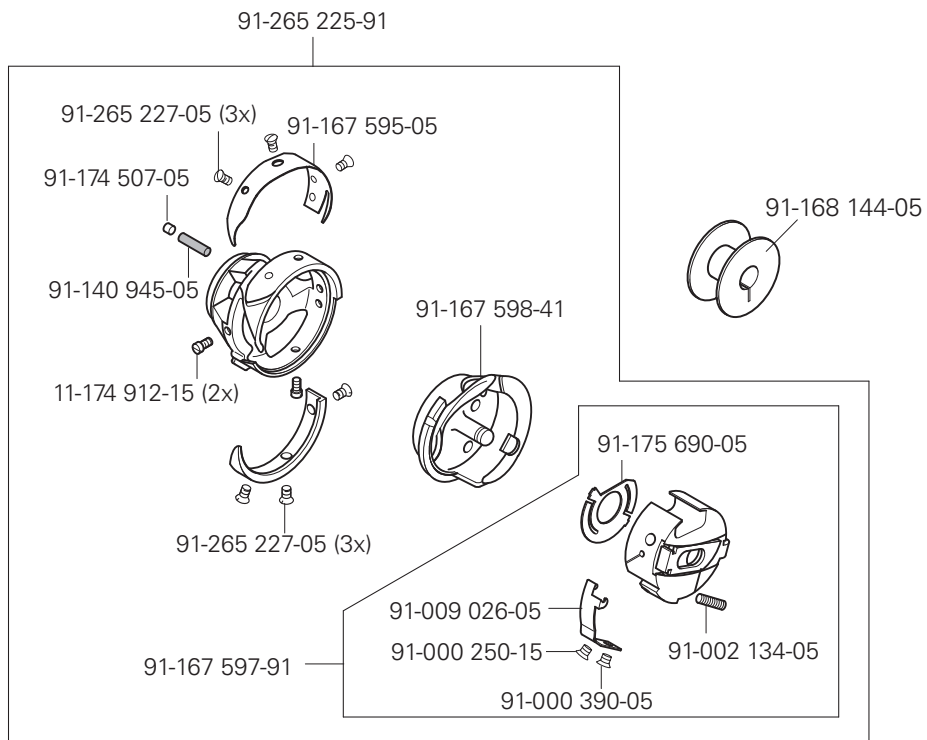
As an alternative to the Internet download, the parts list can also be requested as a hard copy under order no. 296-12-19 337.



PFAFF 918



PFAFF 938





Europäische Union
Wachstum durch Innovation – EFRE

PFAFF Industriesysteme und Maschinen GmbH

Hans-Geiger-Str. 12 - IG Nord
D-67661 Kaiserslautern

Tel.: +49-6301 3205 - 0

Fax: +49-6301 3205 - 1386

E-mail: info@pfaff-industrial.com