

1243-712/02

INSTRUCTION MANUAL

This instruction manual applies to machines from the following serial numbers onwards: 7 262 540 and software version **0435/002**.



This instruction manual applies for all of the designs and subclasses listed in **Chapter 3 Technical Data**.



The settings 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 settings manual can also be ordered under order no. **296-12-19 316/002**.

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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

- 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 those 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!

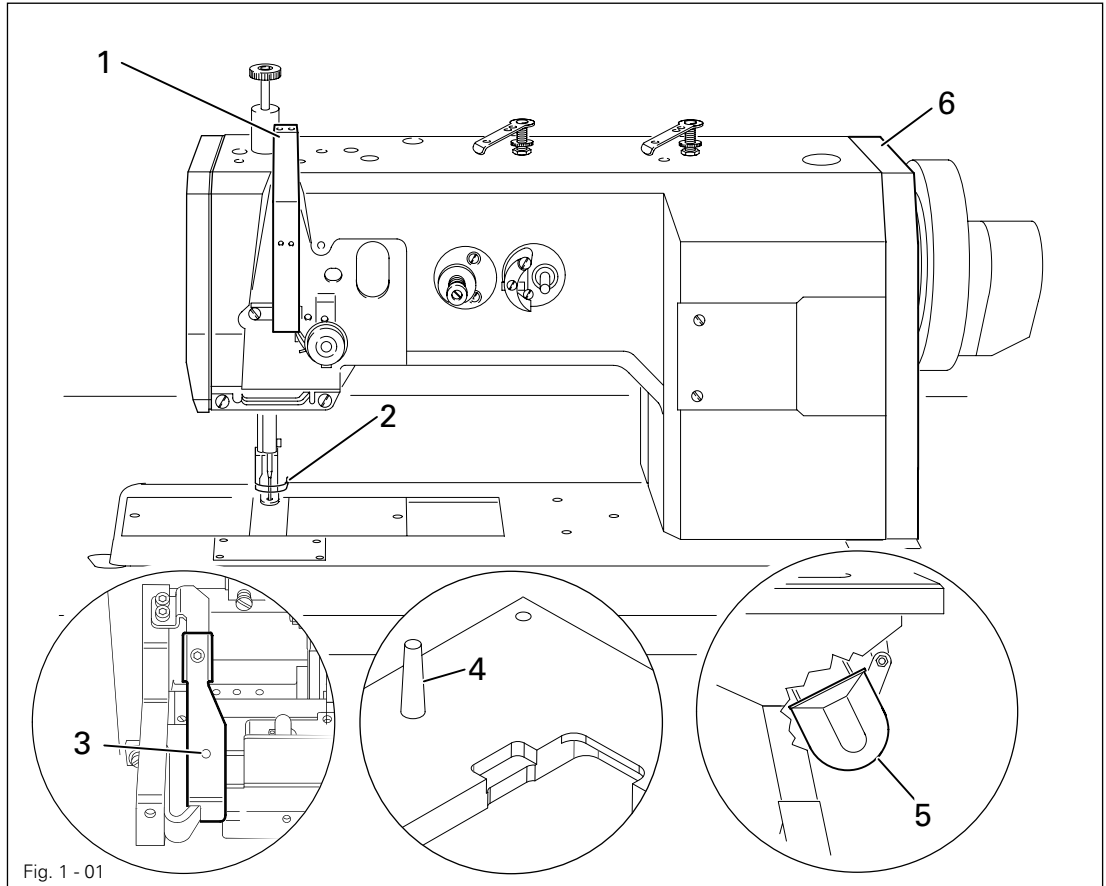


Fig. 1 - 01



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 by 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 the machine without the belt guard **5** and **6!**

Risk of injury due to the rotating driving belt!

2 **Proper Use**

Die PFAFF 1243-712/02 is a single needle lockstitch flat bed sewing machine for industrial lockstitch tacking work.



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 1243-712/02

Stitch type:.....301 (lockstitch)

Needle system:..... 190

Design B for the machining of medium-weight materials

Needle size in 1/100 mm:

Model B: 90 - 110

Stitch length max:.....4.5 mm

Speed max.:

Model B 1000 stitches/min

Clearance beneath the material presser foot.....20 mm

Passage width:270 mm

Clearance height: 115 mm

Bed plate dimensions:518 × 177

Sewing head dimensions:

Length:..... approx. 530 mm

Width: approx. 177 mm

Height (above table):..... approx. 265 mm

Motor data: see motor specification plate

Noise data:

Emissions sound pressure level in the workplace at $n = 800 \text{ min}^{-1}$:..... $L_{pA} = 78 \text{ dB(A)}$ ■

(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)

Net weight of sewing head: approx. 42 kg

Gross weight of sewing head:..... approx. 50 kg

▲ Subject to alterations.

■ $K_{pA} = 2,5 \text{ dB}$

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 consists 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

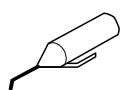
Activities to be performed or important information in this instruction manual are emphasised by symbols. The symbols used have the following meaning:



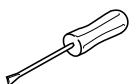
Note, information



Cleaning, care



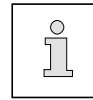
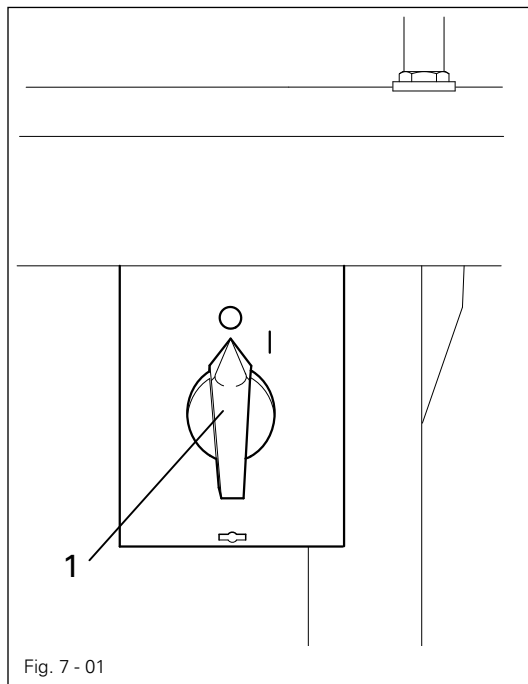
Lubrication



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

7 Operating Controls

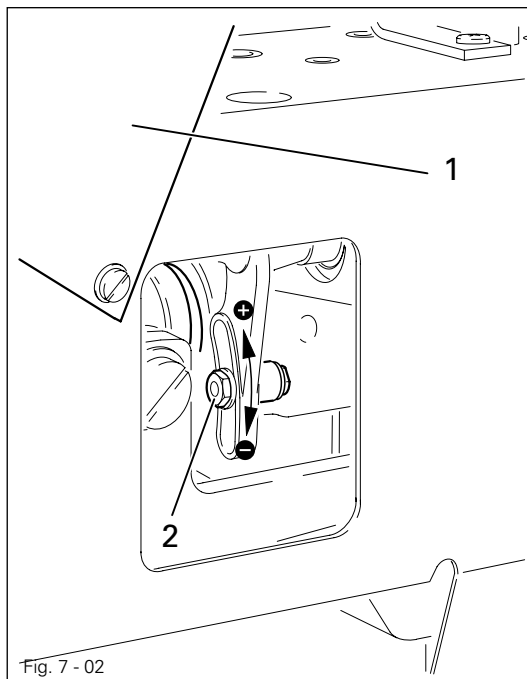
7.01 Main switch



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.

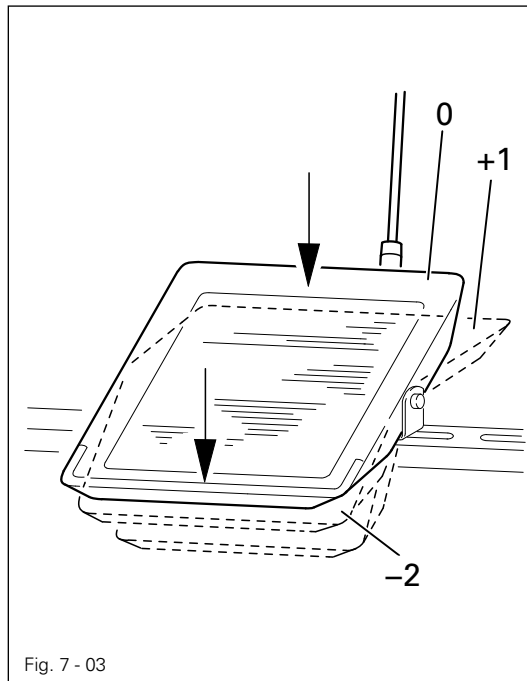
7.02 Material presser foot stroke adjustment



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

- Open the cover 1 on the back of the machine, loosen the nut 2 and move accordingly.

7.03 Treadle



- With the main switch turned on
 - 0 = Neutral position
 - +1 = Sewing
 - 2 = Trim thread
(in machines with thread trimmer -900/56)

7.04 Control panel (only in machines with P40 CD)

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

8 Set-up and Initial Commissioning



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

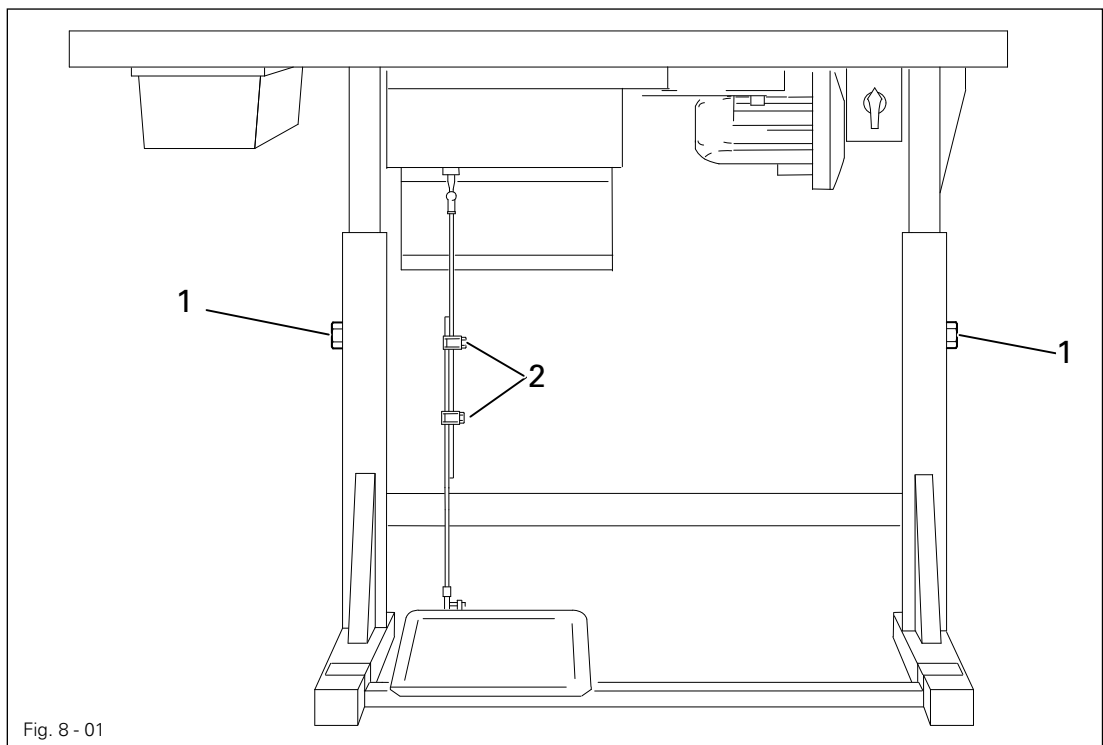


Fig. 8 - 01

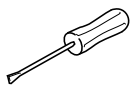
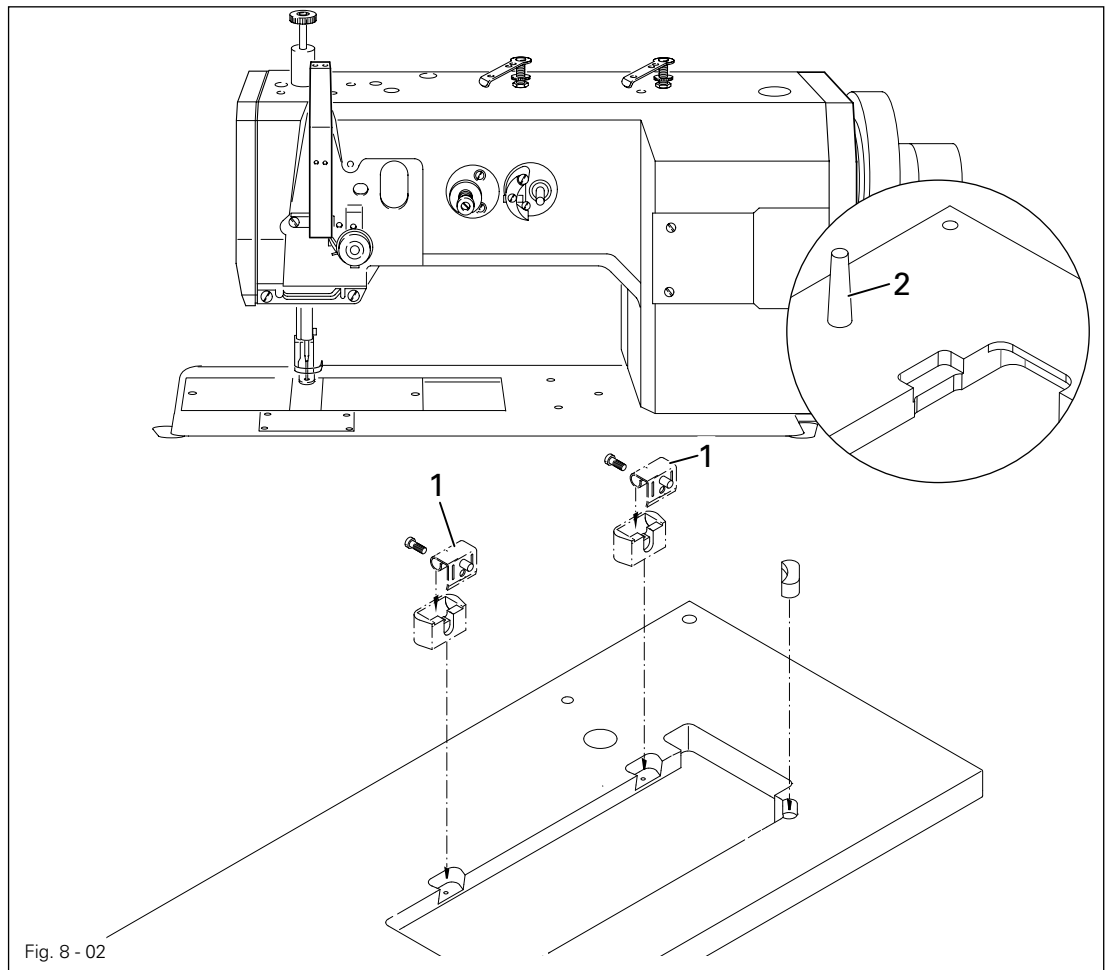
- Loosen the screws 1 and 2.
- Move the table top to the desired working height by pulling it out and pushing it in and align the table top horizontally.



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 treadle position on the screws 2.

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.

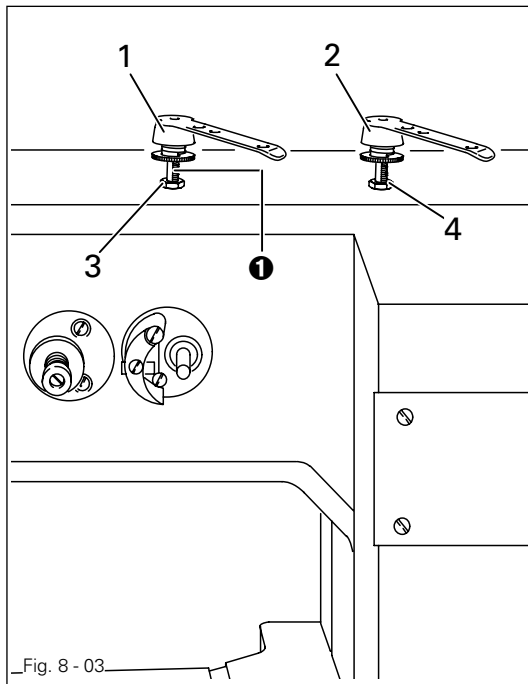


Do not operate the machine without the support 2! Risk of damage due to the top-heavy sewing head!

Machine can tip over backwards when moving it!

Set-up and Initial Commissioning

8.01.03 Mounting the thread retainers

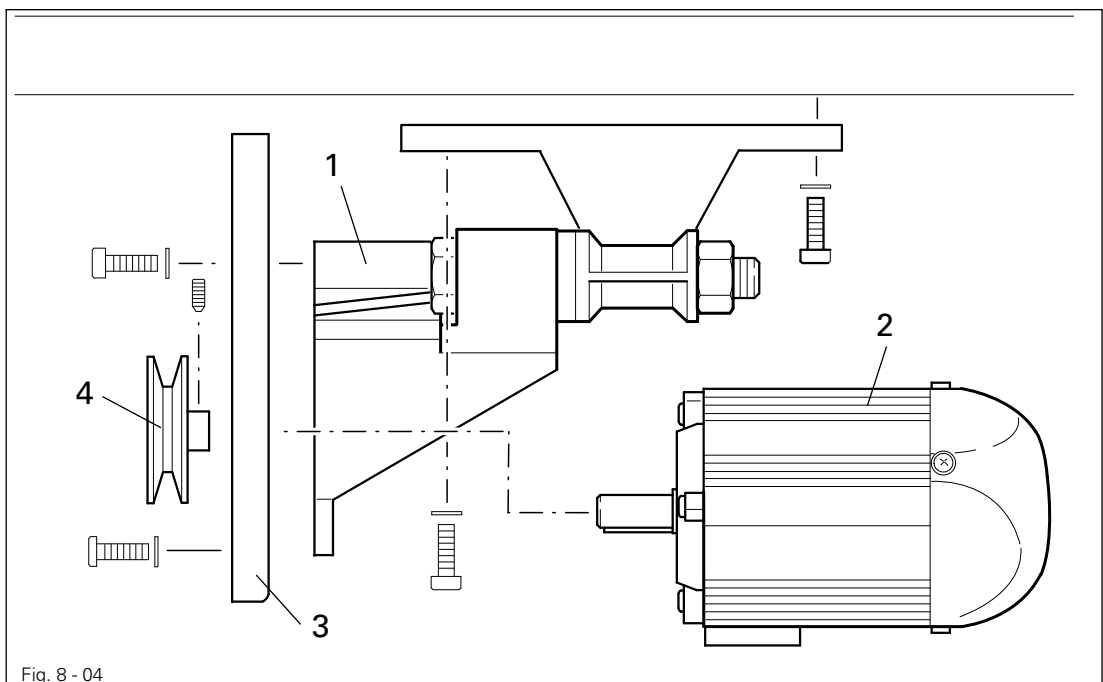


- Screw the thread retainers 1 and 2 into the tapped holes on the top of the machine and secure them using the nuts 3 and 4.



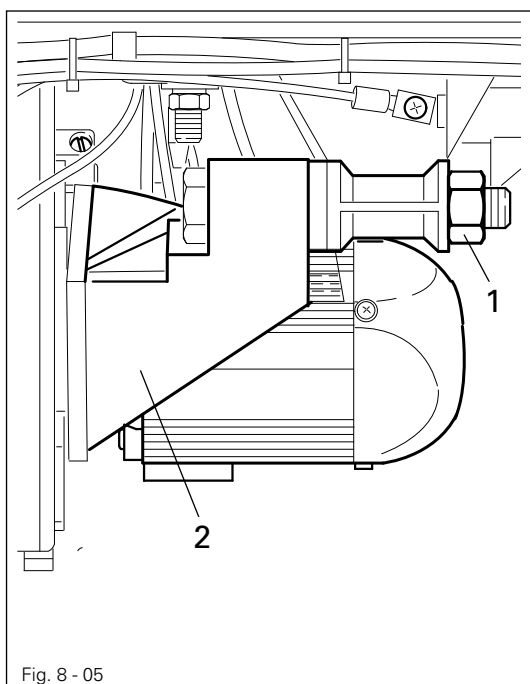
When mounting the thread retainers, make sure that the thread retainer with the weak spring (identifiable by the engraving 91-141 873-91) is mounted on the top side at position 1.

8.01.04 Assembling the motor



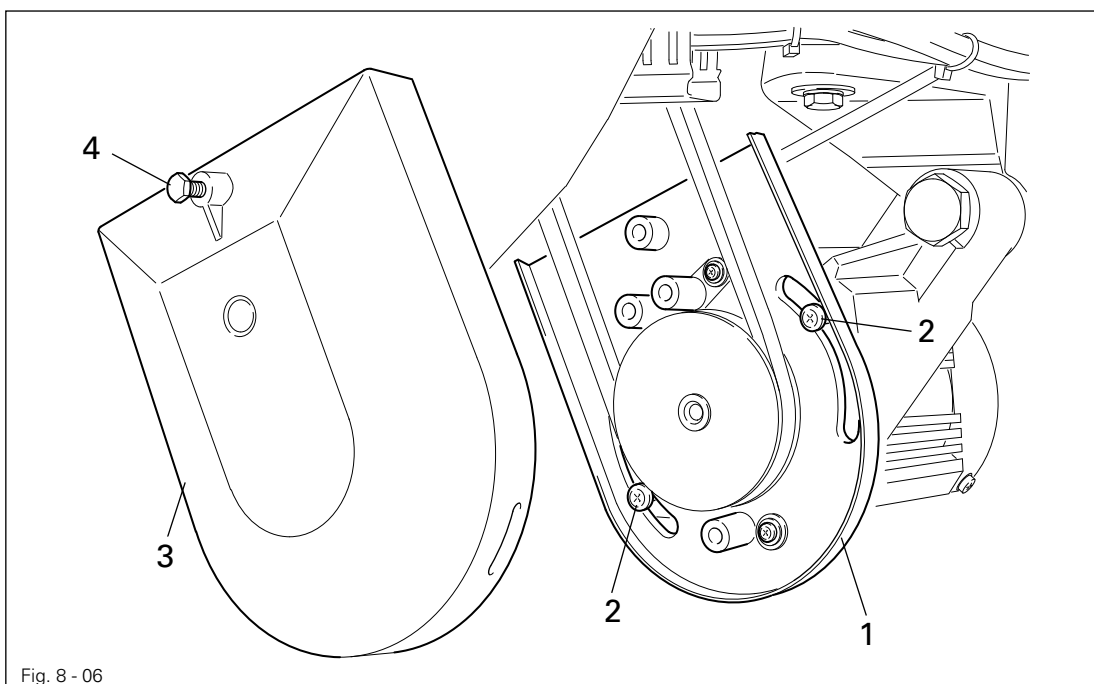
- Assemble the motor bracket 1, motor 2, belt guard bracket 3 and belt pulley 4 as shown in Fig. 8-04.

8.01.05 Tensioning the V-belt



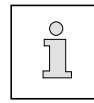
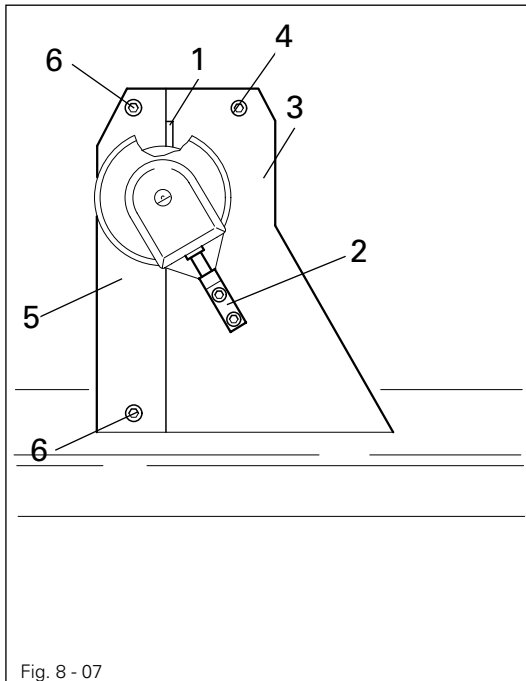
- Fit the V-belt
- Loosen the nut 1 and tension the V-belt by turning the motor bracket 2 out of position.
- Tighten the nut 1.

8.01.06 Mounting the lower V-belt pulley



- Loosen the screws 2 and align the belt guard bracket 1 so that the motor pulley and V-belt run freely.
- Use screw 4 to tighten the screws 2 and the belt guard 3.

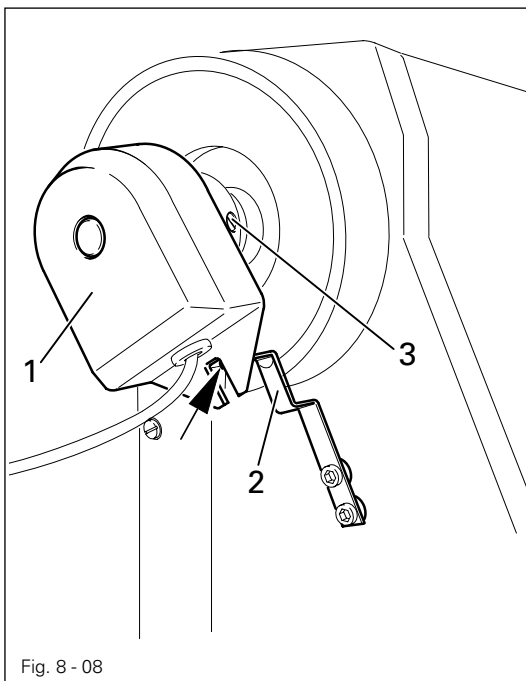
8.01.07 Assembling the upper V-belt guard



The corner 1 of the belt guard part 3 should be broken off when using a large handwheel.

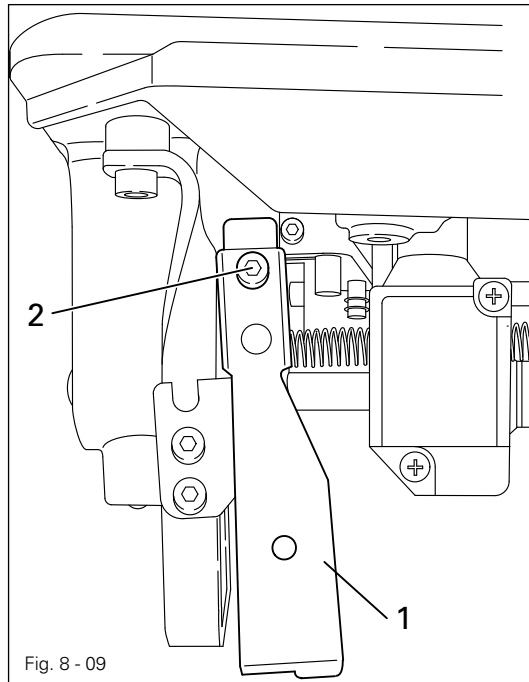
- Screw the position finger 2 to the belt guard part 3
- Use the screws 4 to screw on the belt guard part 3
- Use the screws 6 to screw on the belt guard part 5

8.01.08 Mounting the synchroniser



- Slide the synchroniser 1 onto the shaft so that the position finger 2 is positioned in the synchroniser groove (see arrow).
- Tighten the screws 3.
- Insert the synchroniser plug on the control box (see **Chapter 8.02 Connecting the plug-in connections and ground cable**).
- Adjust the synchroniser, this must be learned with parameter **t0819** in machines with gear reduction. The needle reference position **t0810** must be reset after an update. An adjustment of the treadle **t0820** must also be carried out, see **Chapter 4.4 Positions of the drive service manual**.

8.01.09 Assembling the anti-tipping device



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

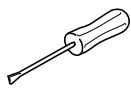
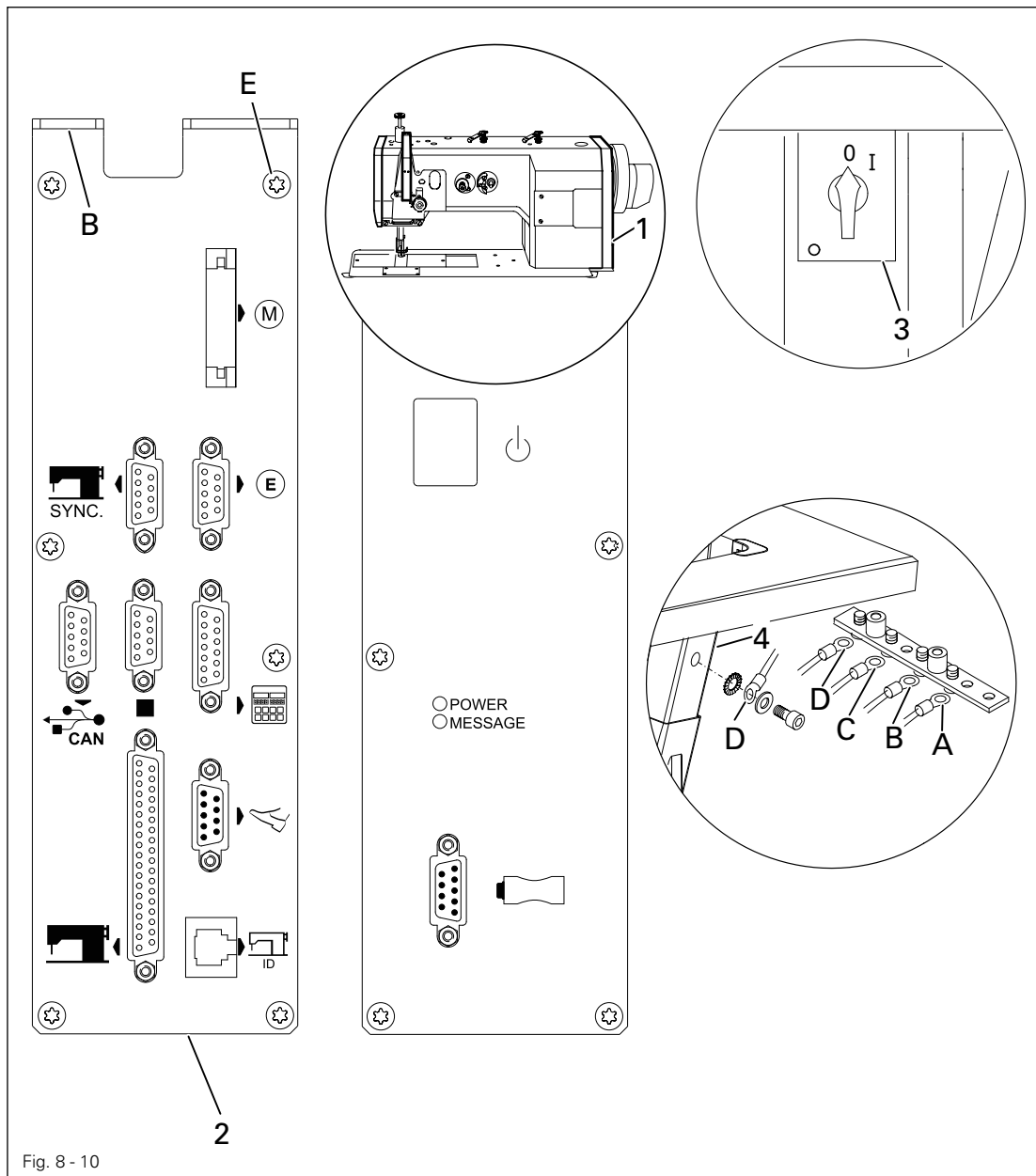
- Screw on the anti-tipping device 1 included in the accessories with the screw 2.

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



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

8.02 Connecting the plug-in connections and ground cable



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

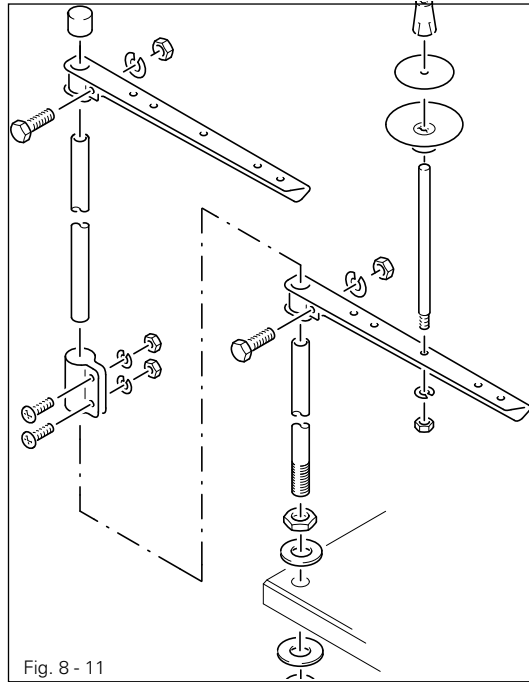


Caution

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 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

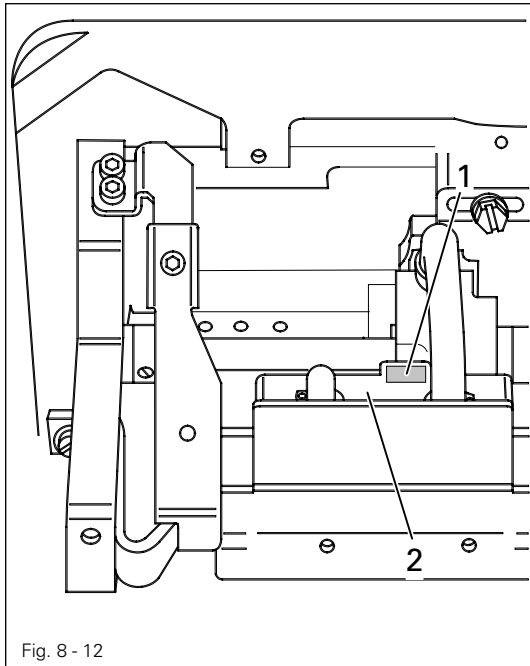


Fig. 8 - 12

- Remove the plug 1 of the oil reservoir 2 before the initial commissioning.



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 it, see also **Chapter 10 Maintenance and Care**.

- 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.

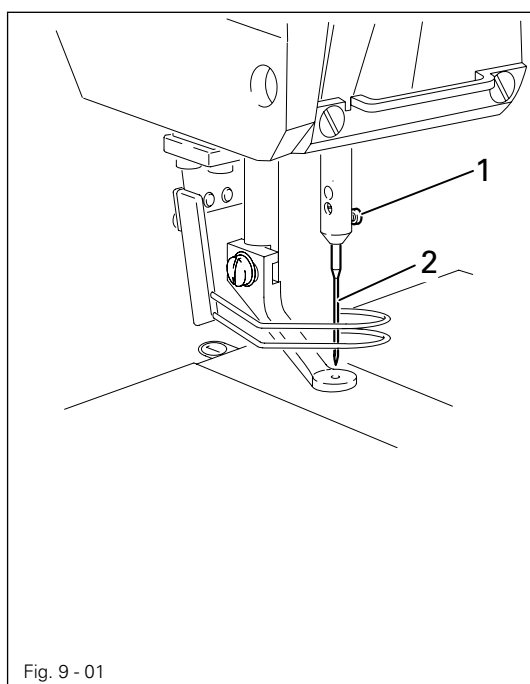
Pay particular attention to all safety regulations!



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



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 **2** until you feel it stop. The long groove must point to the left.
- Tighten the screw **1**

Winding the bobbin thread, adjusting the thread tension

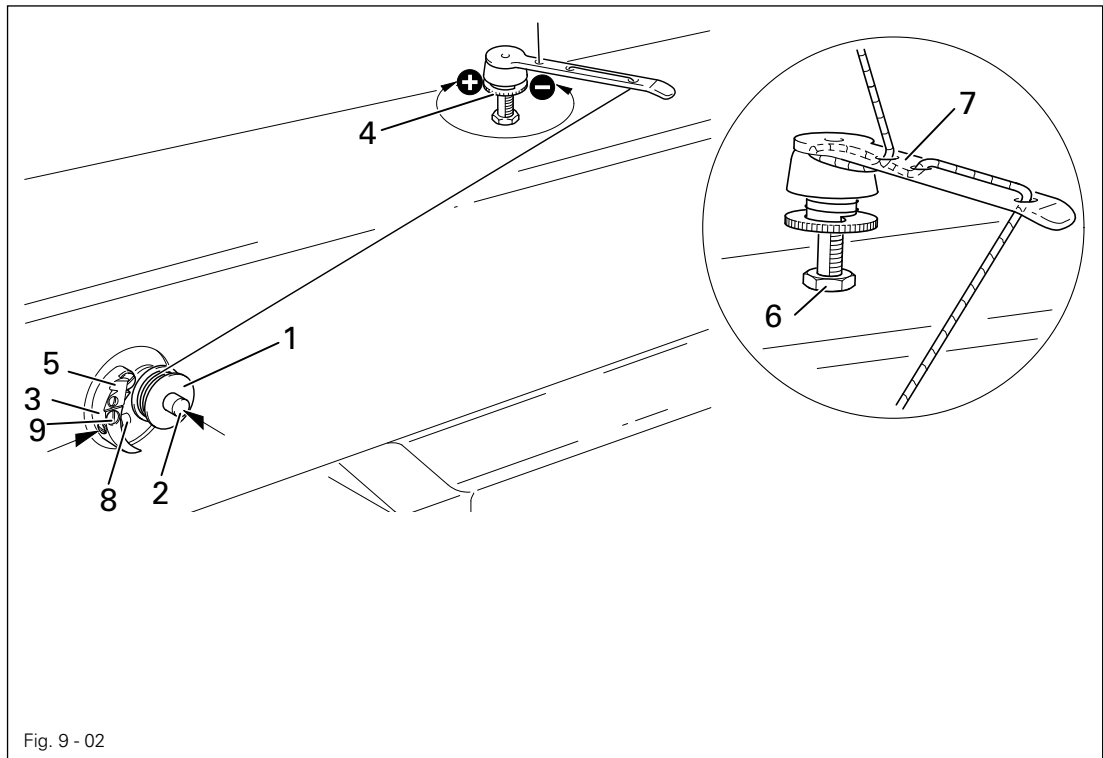


Fig. 9 - 02

- 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 - 03 and wind it round the bobbin 1 a few times in a 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.

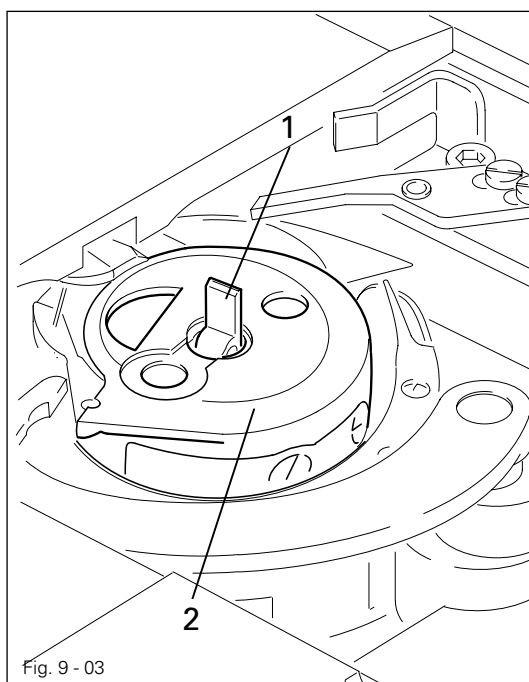
Otherwise a jammed thread may damage the hook!

- The tension of the thread on the bobbin 1 can be adjusted with the knurled thumb screw 4.
- The bobbin winder stops 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:

- Bring the take-up lever to its top position.
- Open the hook area cover, raise the lever 1 and remove the bobbin case 2.

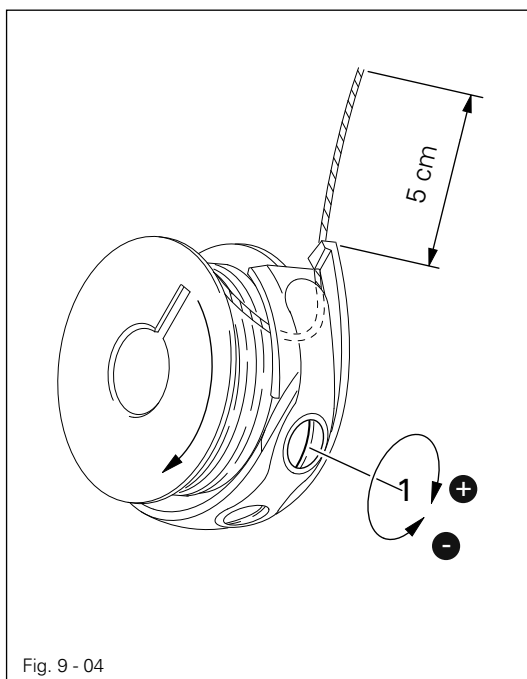
Inserting the bobbin case:

- Press the bobbin case 2 until you feel it snap into the bobbin case base.
- Move the lever 1 and close the hook area cover.



Do not operate the machine with an hook area cover!
Risk of injury due to moving parts!

9.04 Inserting the bobbin case / adjusting the bobbin thread tension



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

- Insert the bobbin as shown in Fig. 9 - 04.
- When the thread is drawn off, the bobbin must turn in the direction shown by the arrows.
- Adjust the thread tension by turning the screw 1.

9.05

Threading the needle thread / adjusting the needle thread tension

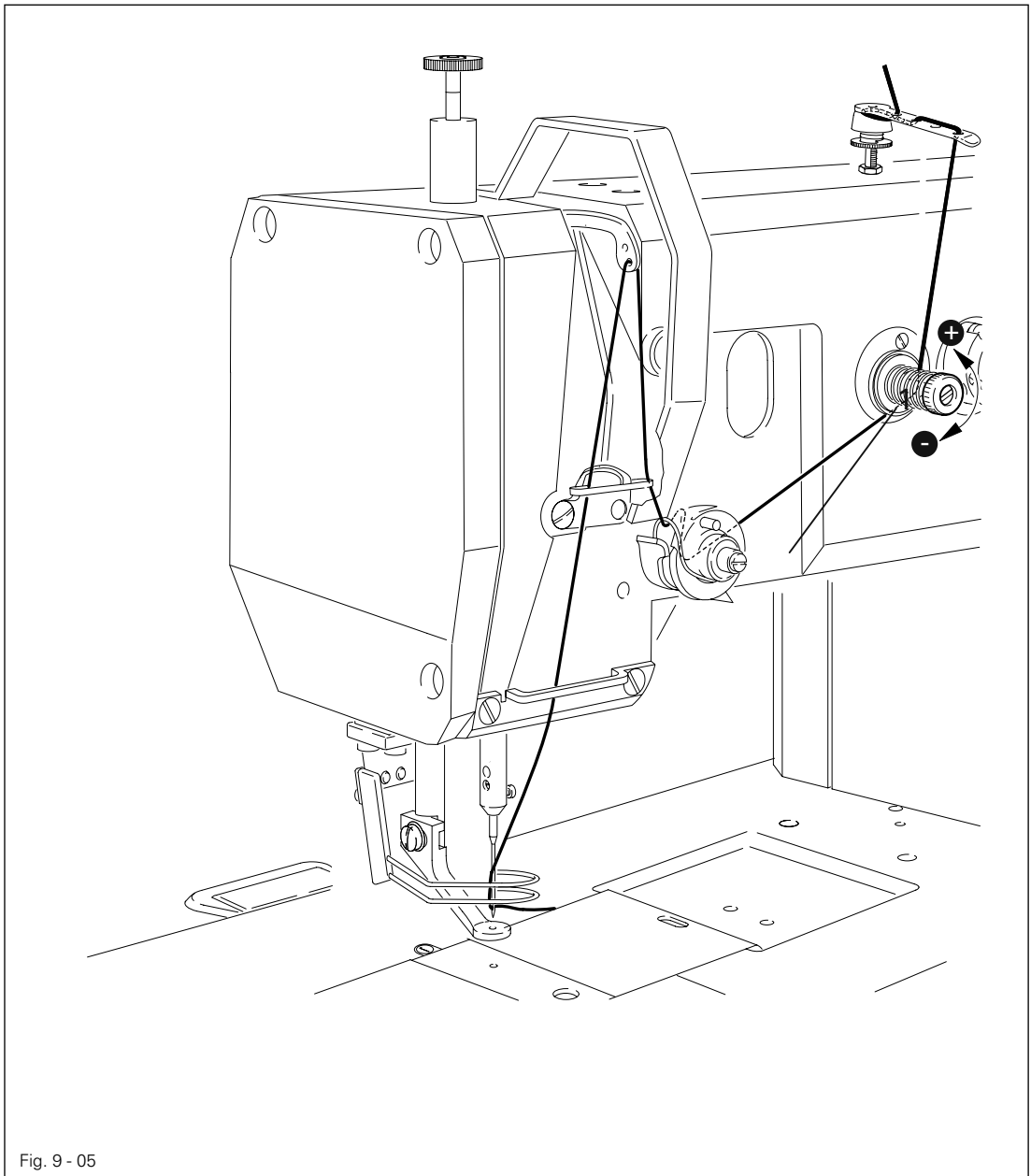


Fig. 9 - 05



Switch off the machine!

Risk of injury due to accidental machine start-up!

- Thread the needle thread as shown in Fig. 9 - 05. Please ensure that the needle is threaded from the left.
- Adjust the needle thread tension by turning the knurled thumb screw 1.

9.06

Setting the bobbin stitch counter

For the description please refer to the separate instruction manual for the drive, see Chapter 5.3.1 Setting the bobbin stitch counter.

10 Maintenance and Care

10.01 Maintenance intervals

Cleaning	daily, several times if in continuous operation
Clean the hook area	daily, several times if in continuous operation
Clean the hook	daily, before start-up
Check the hook oil reservoir	once a week
General oiling	twice a week
Oil the front parts.....	twice a week



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

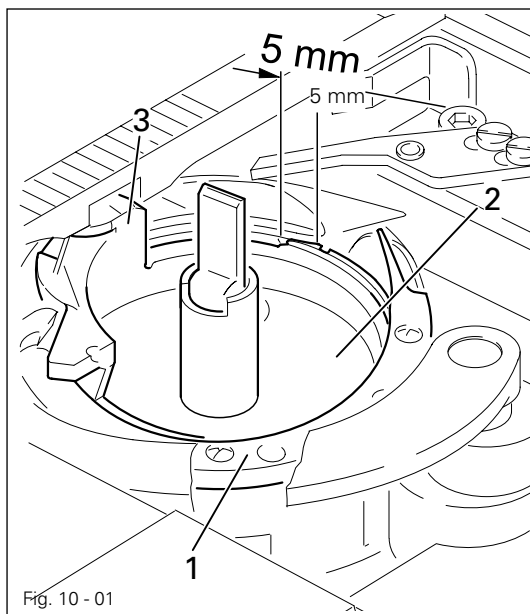
The required cleaning cycle for the machine depends on the following factors:

- 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:

Clean the hook area

- Clean the hook area with a brush

Clean the hook

- Open the hook area cover.
- Bring the needle bar to the top position.
- Remove the bobbin case sewing head with bobbin.
- Unscrew the hook gib 1.
- Turn the handwheel until the tip of the bobbin case 2 has penetrated approx. 5 mm into the groove of the hook race.
- Remove the bobbin case and clean the hook race with kerosene.

- Make sure that the horn 3 engages in the groove of the stitch plate when inserting the bobbin case.
- Screw on the hook gib 1.
- Insert the bobbin case with bobbin.
- Close the hook area cover.



Always operate the machine when the hook area cover is closed!
Risk of injury from the rotating hook!

10.03 General oiling

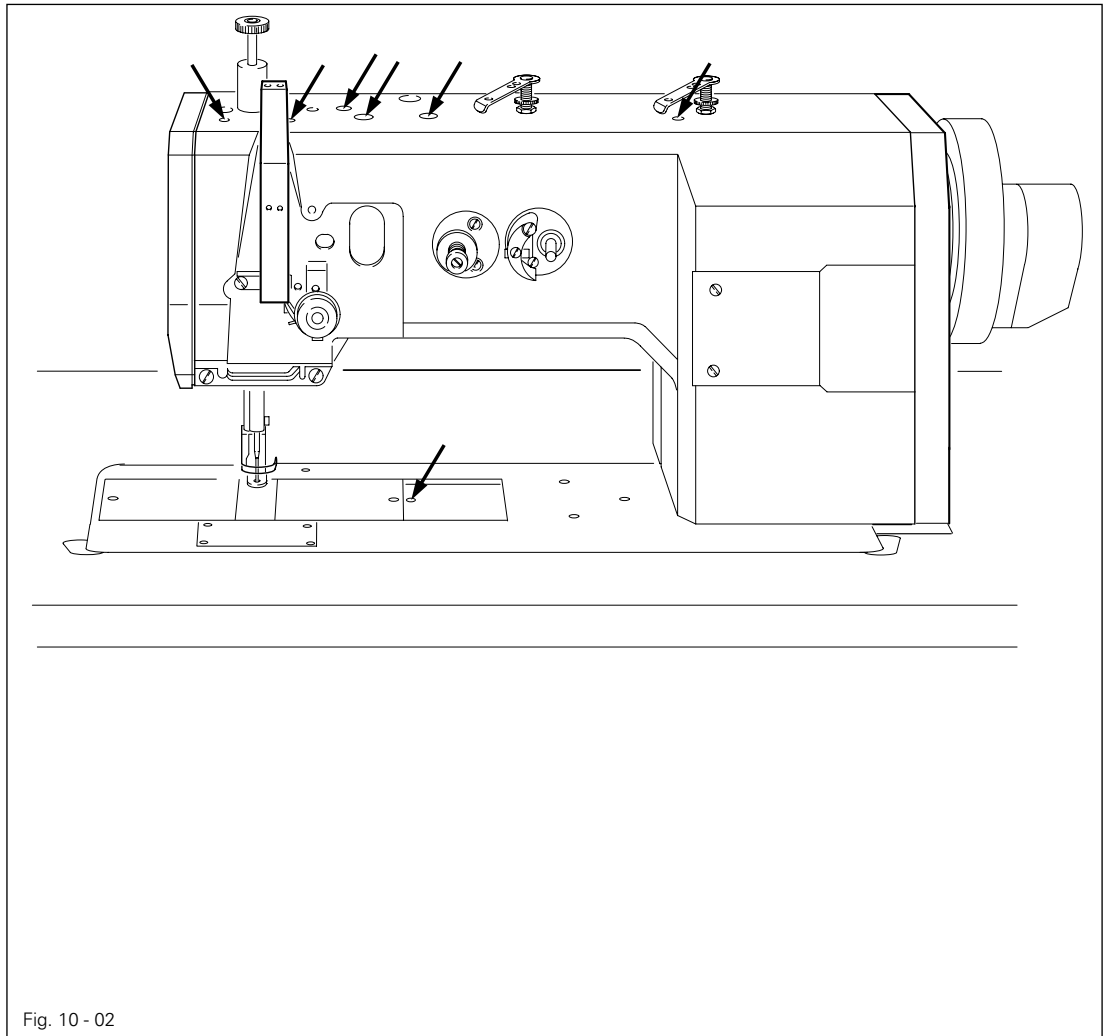


Fig. 10 - 02



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

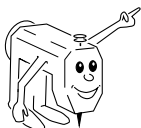
- Oil all points marked with arrows twice a week.



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



Only use oil with a centre viscosity of $22.0 \text{ mm}^2/\text{s}$ at $40 \text{ }^\circ\text{C}$ and a density of 0.865 g/cm^3 at $15 \text{ }^\circ\text{C}$!



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

10.04 Oiling the hook

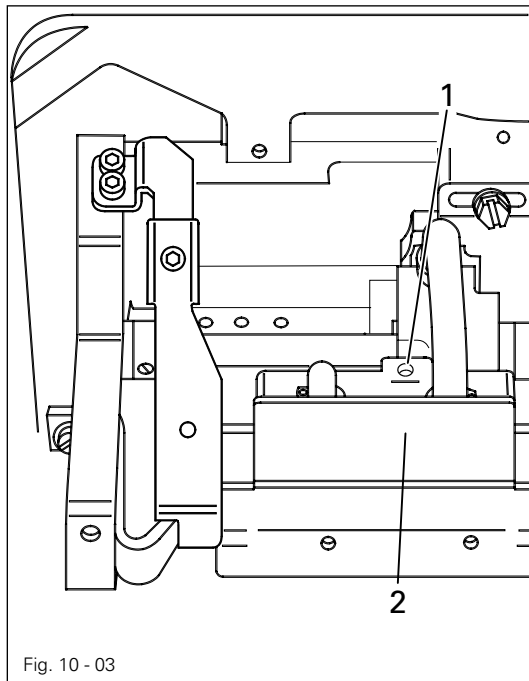


Fig. 10 - 03



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



The oil reservoir must always have oil in it.

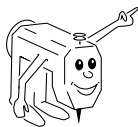
- Tilt machine backwards.
- Fill oil through the hole 1 into the reservoir 2 up to the level of the front edge (see arrow).



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



Only use oil with a centre viscosity of $22.0 \text{ mm}^2/\text{s}$ at $40 \text{ }^\circ\text{C}$ and a density of 0.865 g/cm^3 at $15 \text{ }^\circ\text{C}$.



We recommend PFAFF sewing machine oil part no. 280-1-120 144.

10.05 Oiling the front parts

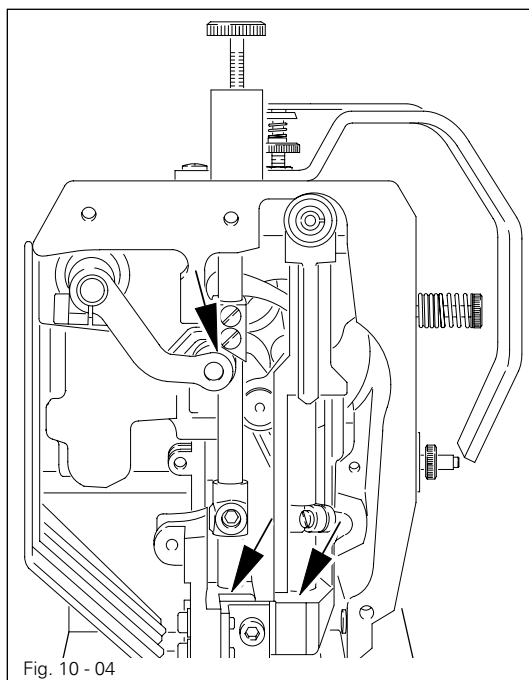


Fig. 10 - 04

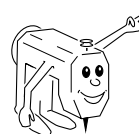


Switch off the machine!
Risk of injury due to accidental machine start-up!

- Unscrew the face cover.
- Oil all sliding and bearing points (see arrows) twice a week.
- Screw the face cover back on.



Only use oil with a centre viscosity of $22.0 \text{ mm}^2/\text{s}$ at $40 \text{ }^\circ\text{C}$ and a density of 0.865 g/cm^3 at $15 \text{ }^\circ\text{C}$!



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

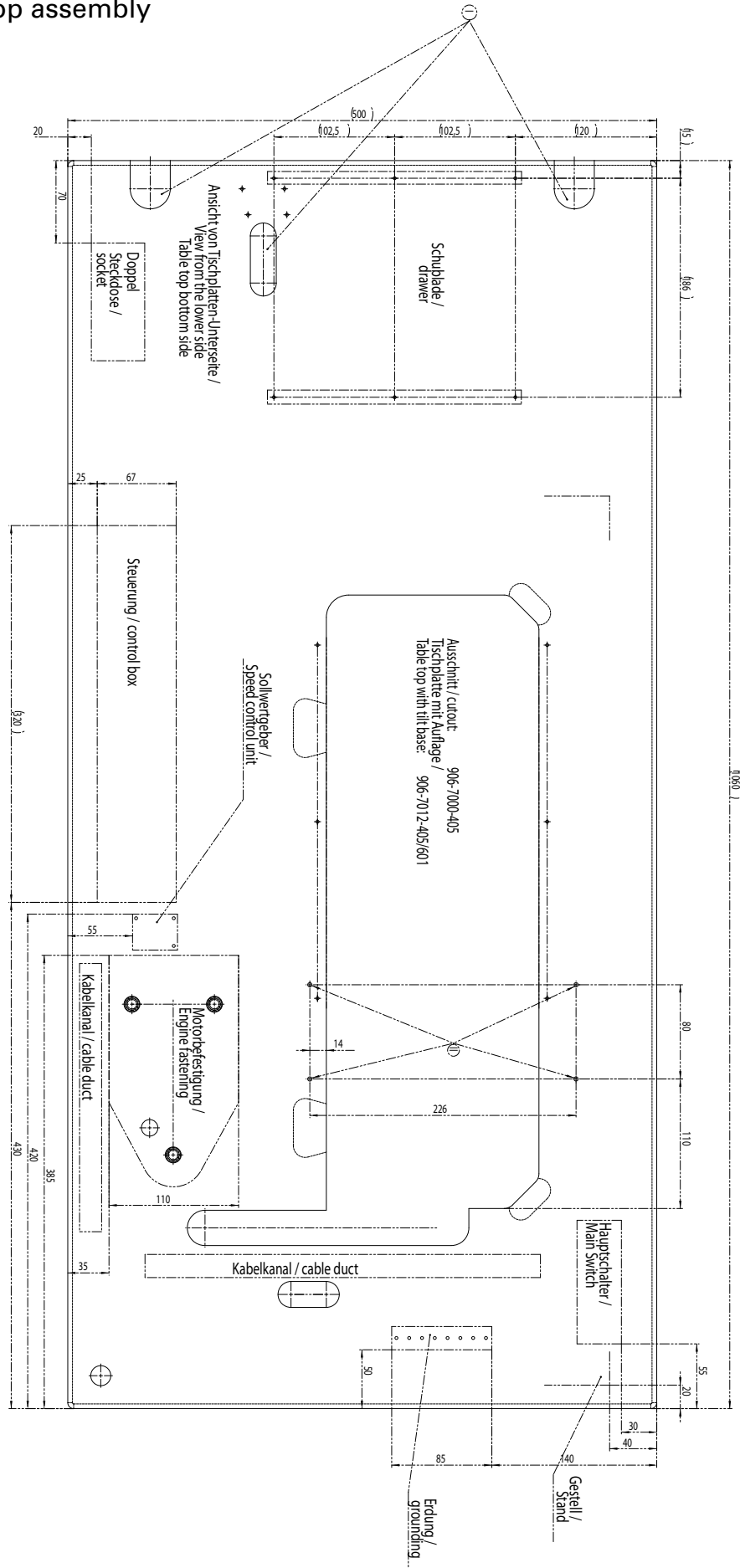
10.06 Parameter settings



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

Table top assembly

11.03 Table top assembly



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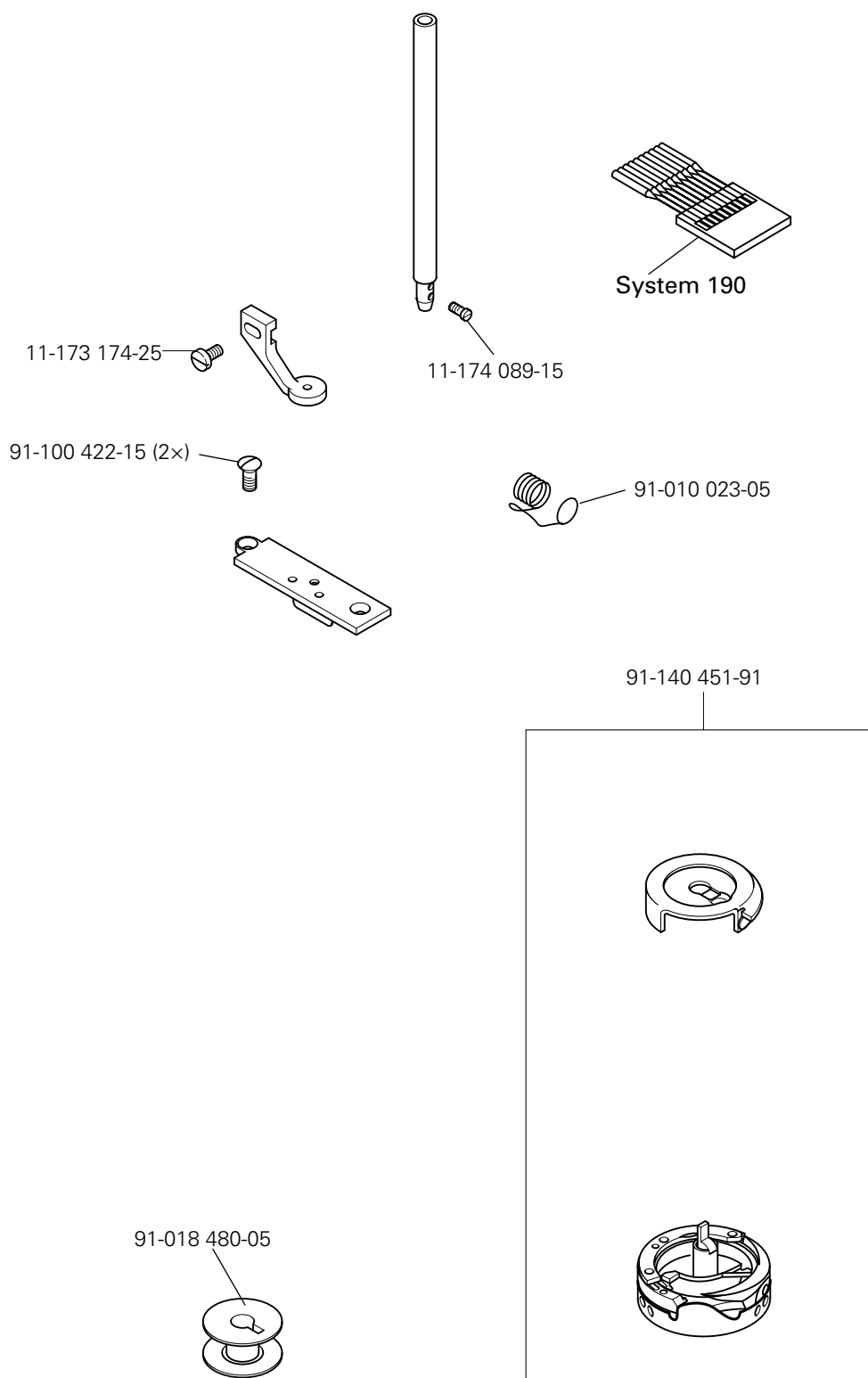
Wearing Parts



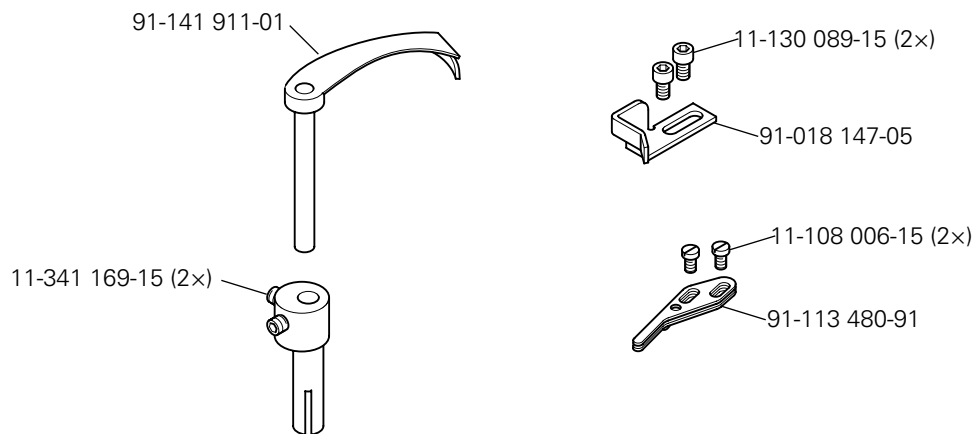
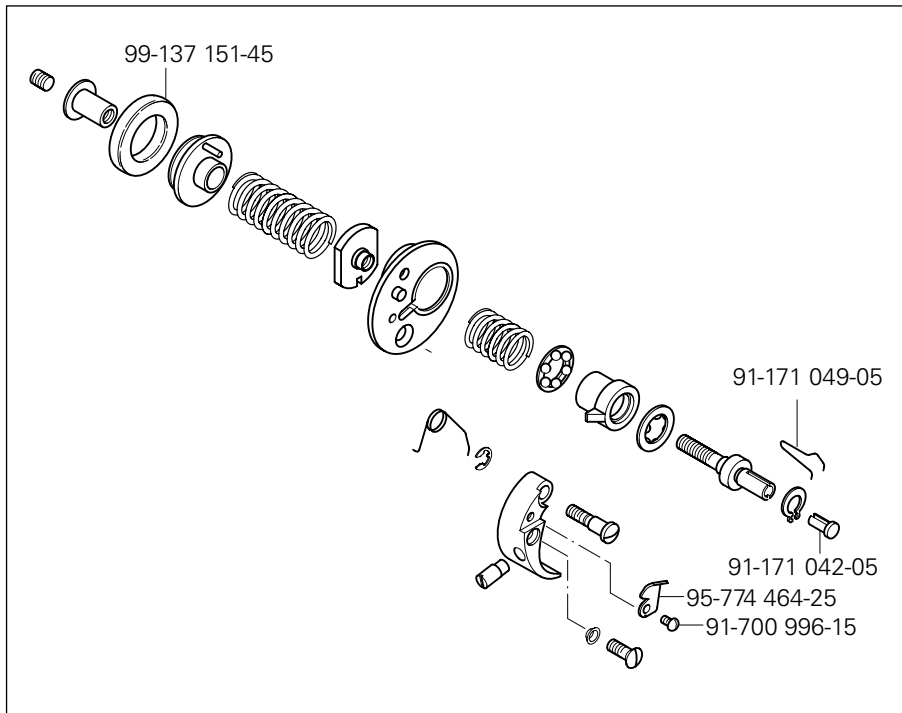
This list shows the most important wearing parts.

A detailed parts list for the complete machine can be downloaded at www.pfaff-industrial.de/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. 296-12-19 315.



Wearing Parts





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