

5483

ADJUSTMENT MANUAL

This Adjustment Manual is valid for machines
from the following serial numbers onwards:

2 492 189 →

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**PFAFF Industriesysteme
und Maschinen AG**

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

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1 Adjustment



Please observe all notes from Chapter 1 **Safety** of the instruction manual!
In particular care must be taken to see that all protective devices are refitted properly after adjustment, see Chapter 1.06 **Danger warnings** of the instruction manual!



If not otherwise stated, the machine must be disconnected from the electrical power supply. Danger of injury due to unintentional starting of the machine!

Notes on adjustment

All following adjustments are based on a fully assembled machine and may only be carried out by expert staff trained for this purpose.

Machine covers, which have to be removed and replaced to carry out checks and adjustments, are not mentioned in the text.

The order of the following chapters corresponds to the most logical work sequence for machines which have to be completely adjusted. If only specific individual work steps are carried out, both the preceding and following chapters must be observed.

Screws, nuts indicated in brackets () are fastenings for machine parts, which must be loosened before adjustment and tightened again afterwards.

1.01 Tools, gauges and other accessories for adjusting

- Screwdrivers with blade width from 2 to 10 mm
- Spanners (wrenches) with jaw width from 7 to 14 mm
- 1 set Allen keys from 1.5 to 6 mm
- Metal rule (Order No. 08-880 218-00)
- 1 adjustment pin, \varnothing 5 mm (Order No. 13-030 341-05)
- 1 clamp (Order No. 61-111 600-35/001)
- 1 gauge (Order No. 61-111 642-19)
- 1 gauge for the looper (Order No. 61-111 643-06)

1.02 Abbreviations

t.d.c. = top dead centre

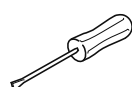
b.d.c. = bottom dead centre

1.03 Explanation of the symbols

In this adjustment manual, symbols emphasize operations to be carried out or important information. The symbols used have the following meaning:



Note, information



Service, repair, adjustment, maintenance
(work to be carried out by qualified staff only)

1.04

Control and adjustment aids



By adjusting the holes 1, 3 and 4 with the adjustment pin (Ø 5 mm) the required needle bar positions can be set exactly.

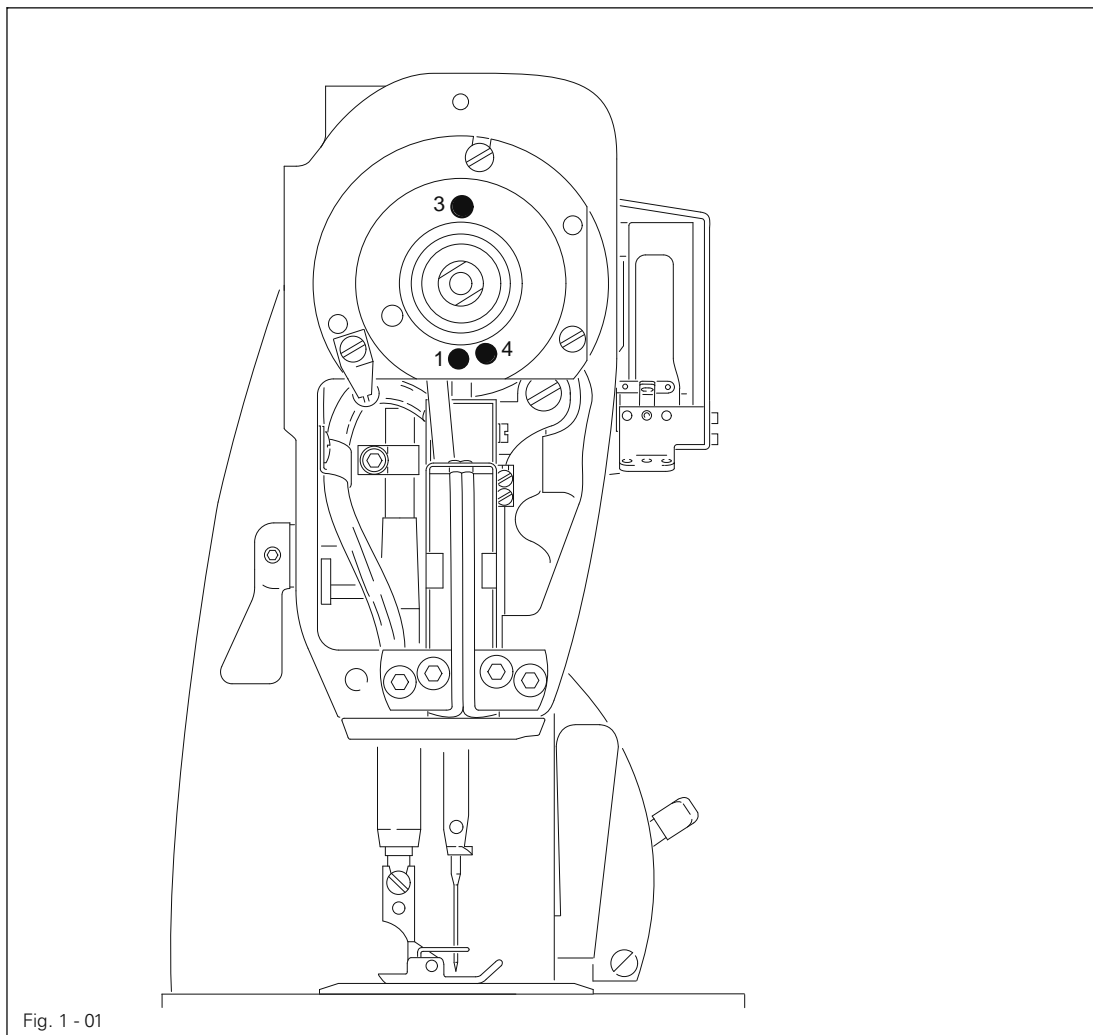
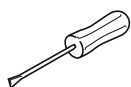


Fig. 1 - 01



- Turn the balance wheel until the needle bar is approximately in the required position.
- Insert the adjustment pin into the appropriate adjustment hole and apply pressure.
- Turn the balance wheel slightly backwards and forwards, until the adjustment pin slips into the rear crank recess, blocking the machine.

Adjustment hole 1 = top dead center of the needle bar (TDC)

Adjustment hole 3 = bottom dead center of the needle bar (BDC)

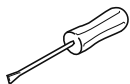
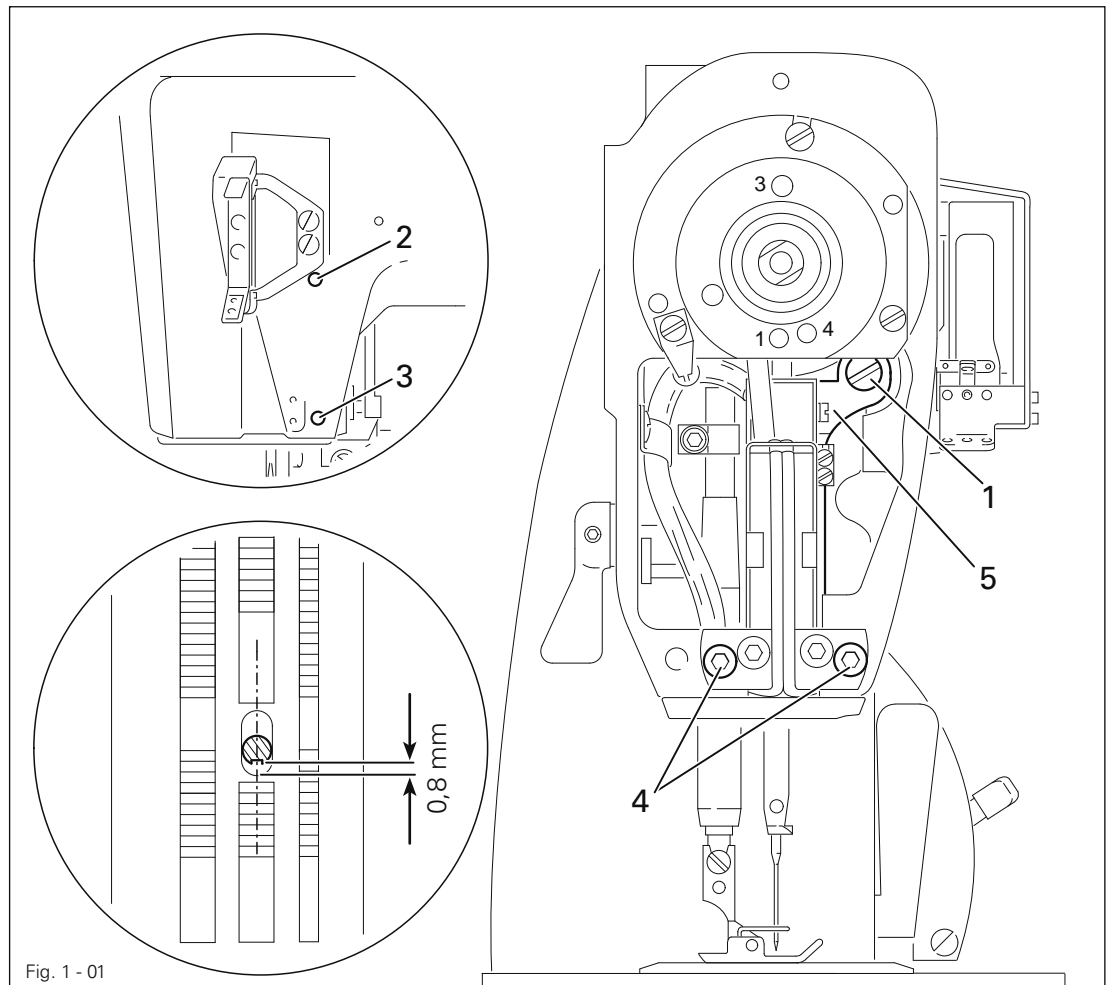
Adjustment hole 4 = 0.8 mm before the top dead center of the needle bar (0.8 before TDC)

1.05 Adjusting the basic machine

1.05.01 Position of the needle in the needle hole

Requirement

1. The needle **6** must be centered in the needle hole in a crosswise direction.
2. The distance between needle **6** and the front edge of the needle plate must be **approx. 0.8 mm**. (In the case of machines with **-911/...** the needle **6** must be centered in the needle hole in the sewing direction.)

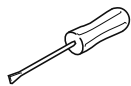
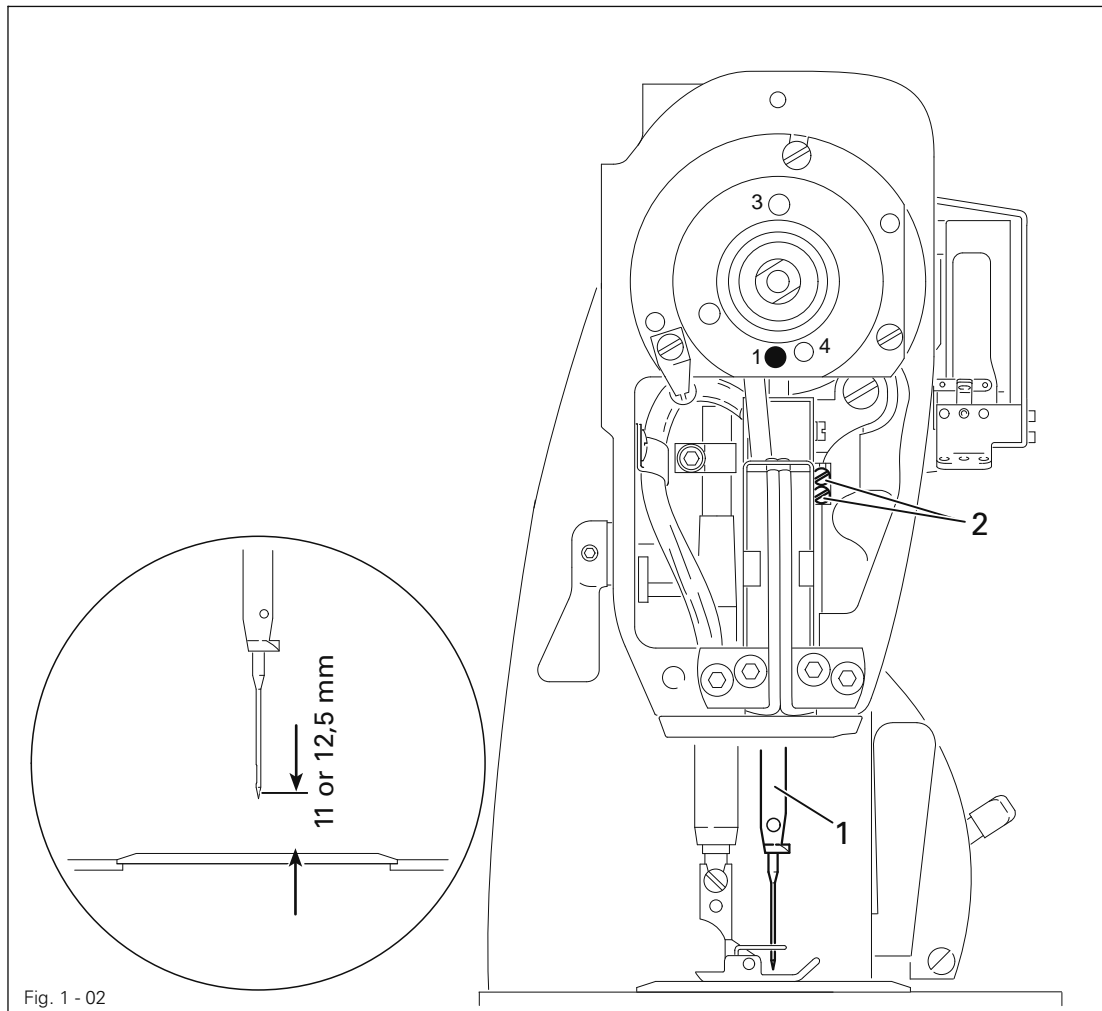


- Loosen screws **1, 2, 3** and **4**.
- Shift needle bar frame **5** according to the **requirements**.
- Tighten screw **3** securely and slightly tighten screw **2**.
- Using screw **1**, pull the guide stud behind it against the eye of the needle bar frame **5** and tighten it.
- Loosen screw **2** and turn the balance wheel a few times (this helps to avoid the occurrence of any tension).
- Tighten screw **2**.
- Tighten screw **4**, making sure that the slotted guide is parallel to the needle bar.

1.05.02 Preliminary adjustment of the needle height

Requirement

With the needle bar at TDC (pin in hole 1) the needle point must be positioned **11 mm** above the needle plate, or in the case of the H-model **12.5 mm**.



- Bring the needle bar 1 to TDC.
- Adjust needle bar 1 (screw 2) according to the **requirement**.

1.05.03 Zeroing the bottom feed (on machines with closed gearcase)

Requirement

With the stitch length set at "0", the feed dog must not move when the balance wheel is turned.

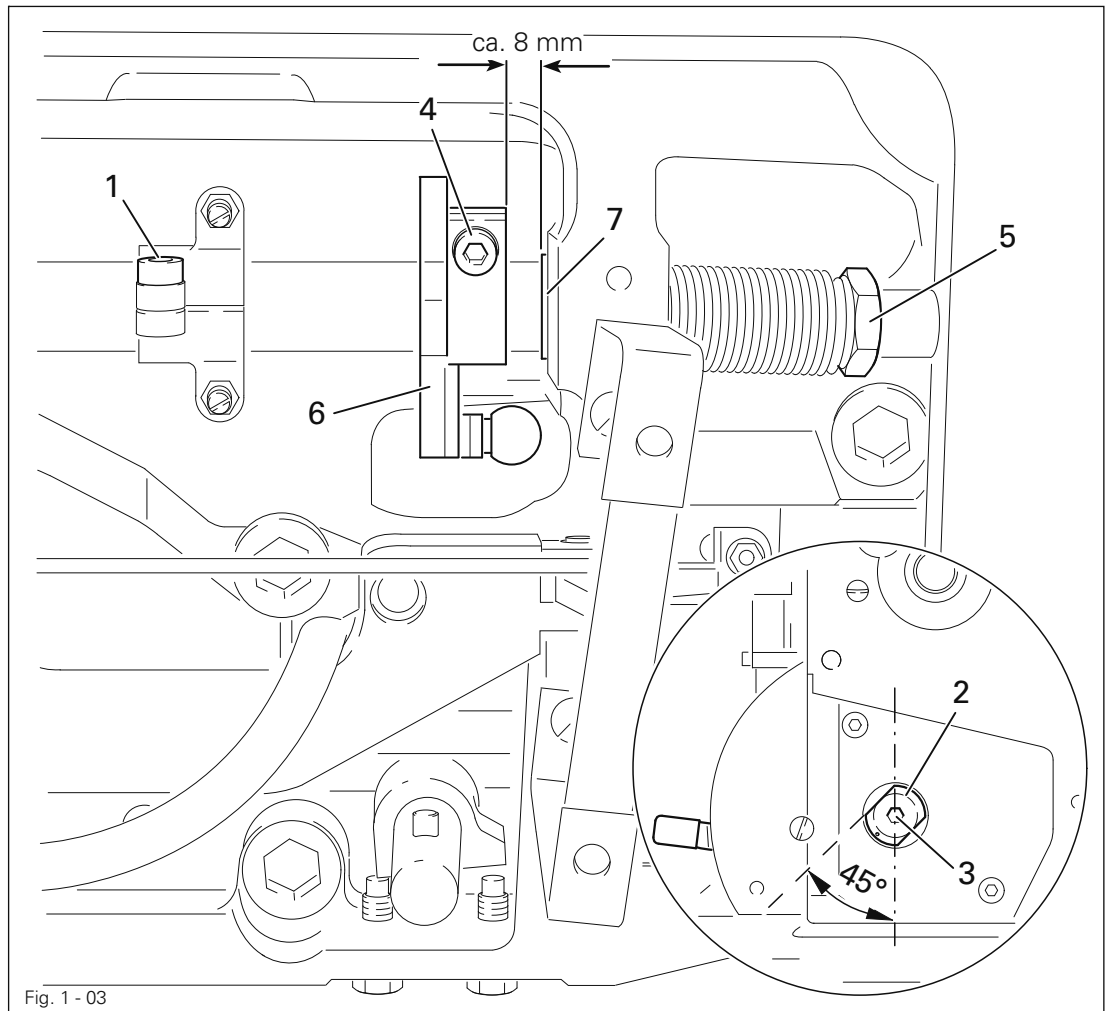


Fig. 1 - 03

- Loosen screw 1.
- Set stitch length at "0".
- Turn eccentric bush 2 (screw 3) so that the marking faces downward and the surface of the eccentric bush 2 is at an angle of 45° to the front edge of the machine.
- Loosen screw 4 and twist tension ring 5 according to the **requirement** while turning the balance wheel continuously.
- Set crank 6 at a distance of **approx. 8 mm** from the contact ring 7 and tighten screw 4.



Screw 1 is left loose for further adjustments.

Adjustment

1.05.04 Zeroing the bottom feed (on machines with open gearcase)

Requirement

With the stitch length set at "0", the feed dog must not move when the balance wheel is turned.

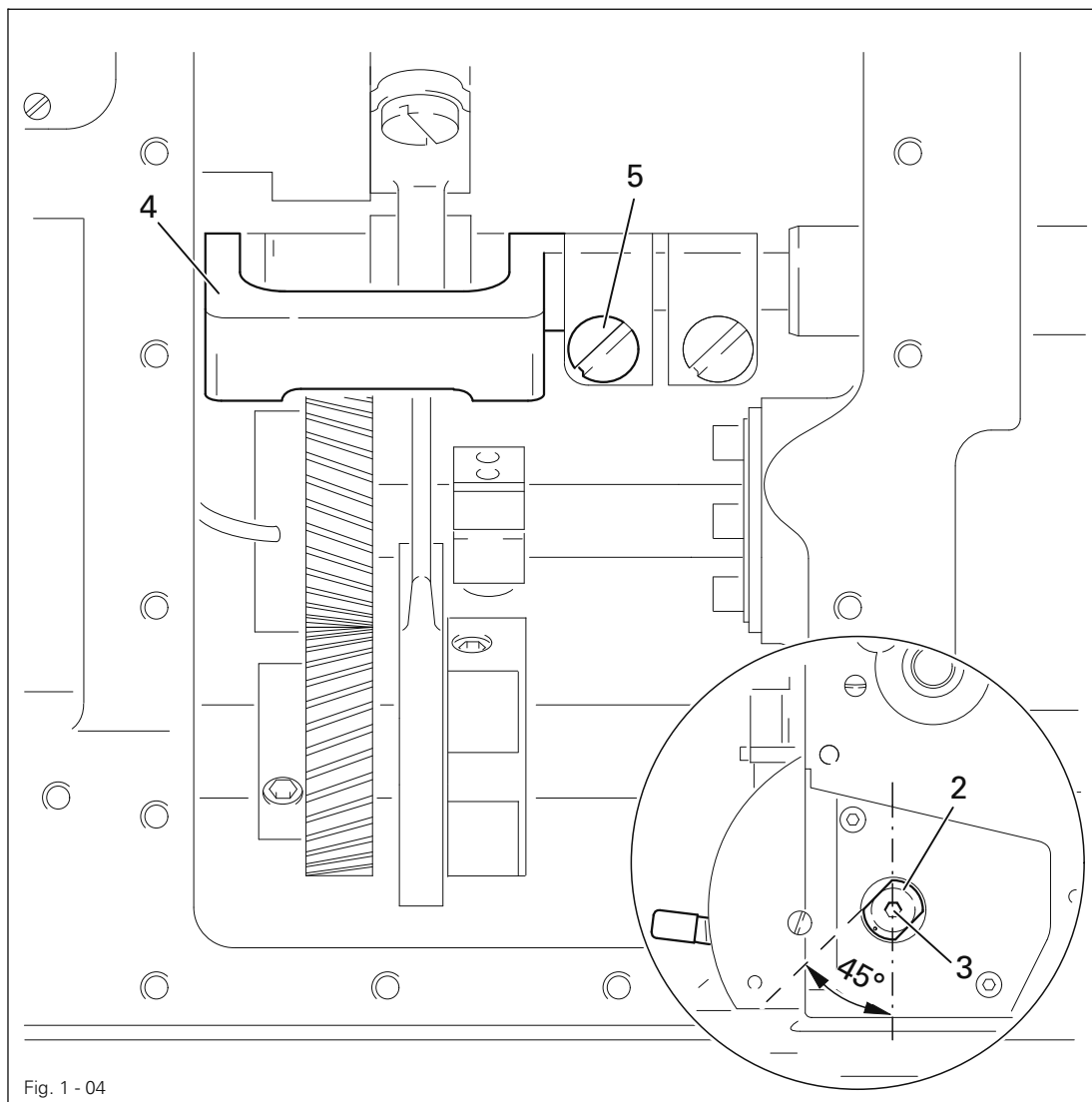
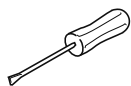


Fig. 1 - 04



- Loosen screw 1 (see Fig. 1 - 03).
- Set stitch length at "0".
- Turn eccentric bush 2 (screw 3) so that the marking faces downward and the surface of the eccentric bush 2 is at an angle of 45° to the front edge of the machine.
- While turning the balance wheel continuously twist crank 4 (screw 5) according to the
- requirement.



Screw 1 is left loose for further adjustments.

1.05.05 Feed driving motion

Requirement

With the stitch length set at its maximum and the needle bar positioned **0.8 mm** before TDC (pin in hole **4**), the feed dog must not move when the reverse feed switch is operated.

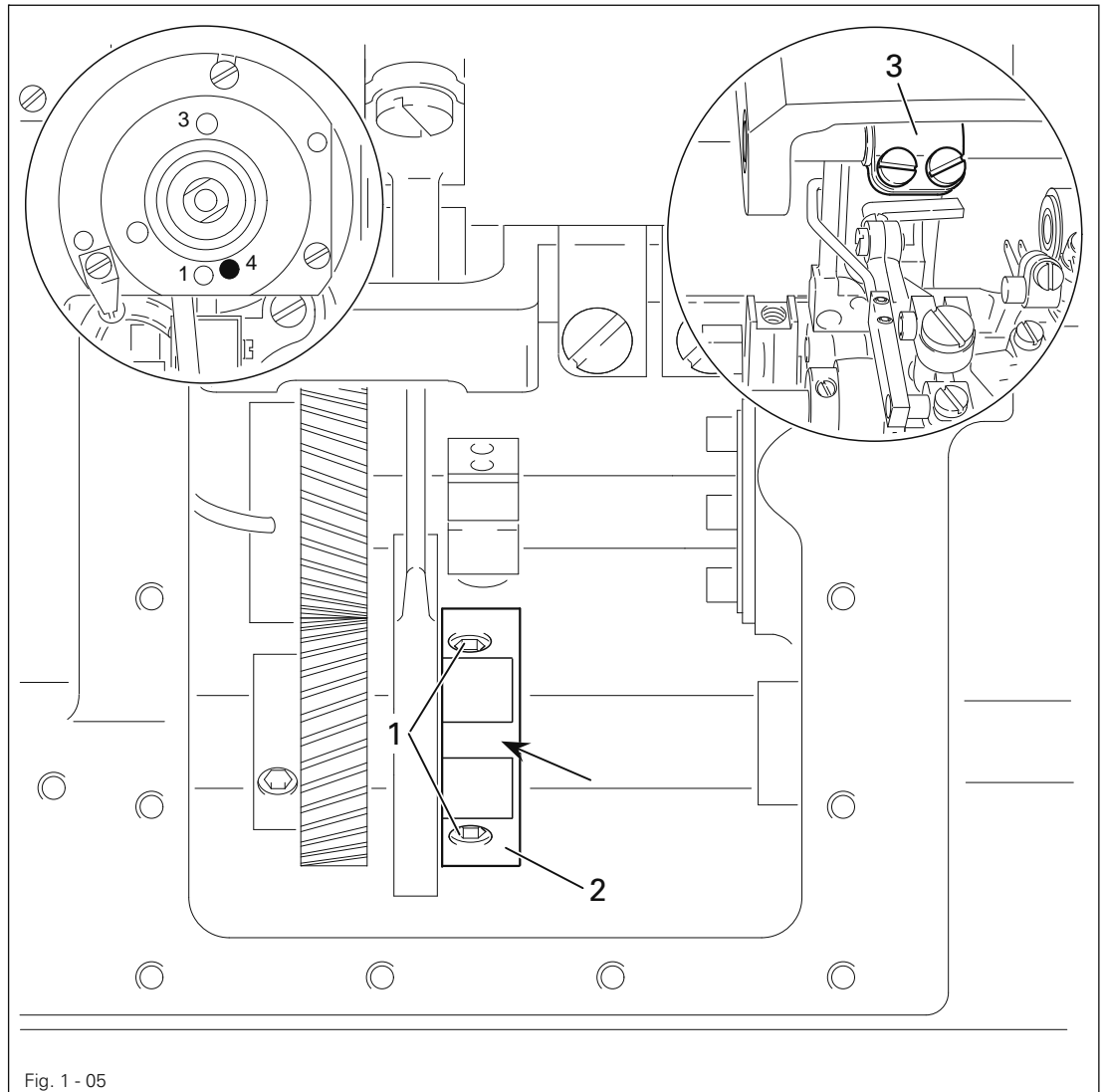
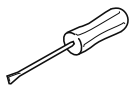


Fig. 1 - 05



- Loosen screw 1.
- Position needle bar **0.8 mm** before TDC and adjust stitch length to maximum setting.
- While operating the reverse feed switch, twist eccentric 2 until the slot is visible (see arrow) and crank 3 does not move.
- Tighten screw 1.

Adjustment

1.05.06 Feed lifting motion

Requirement

When the needle bar is at TDC, or or **0.8 mm** before TDC for H-model machines and machines with -911/.. (pin in hole **1** or **4**), the slot of eccentric **2** must be pointing vertically

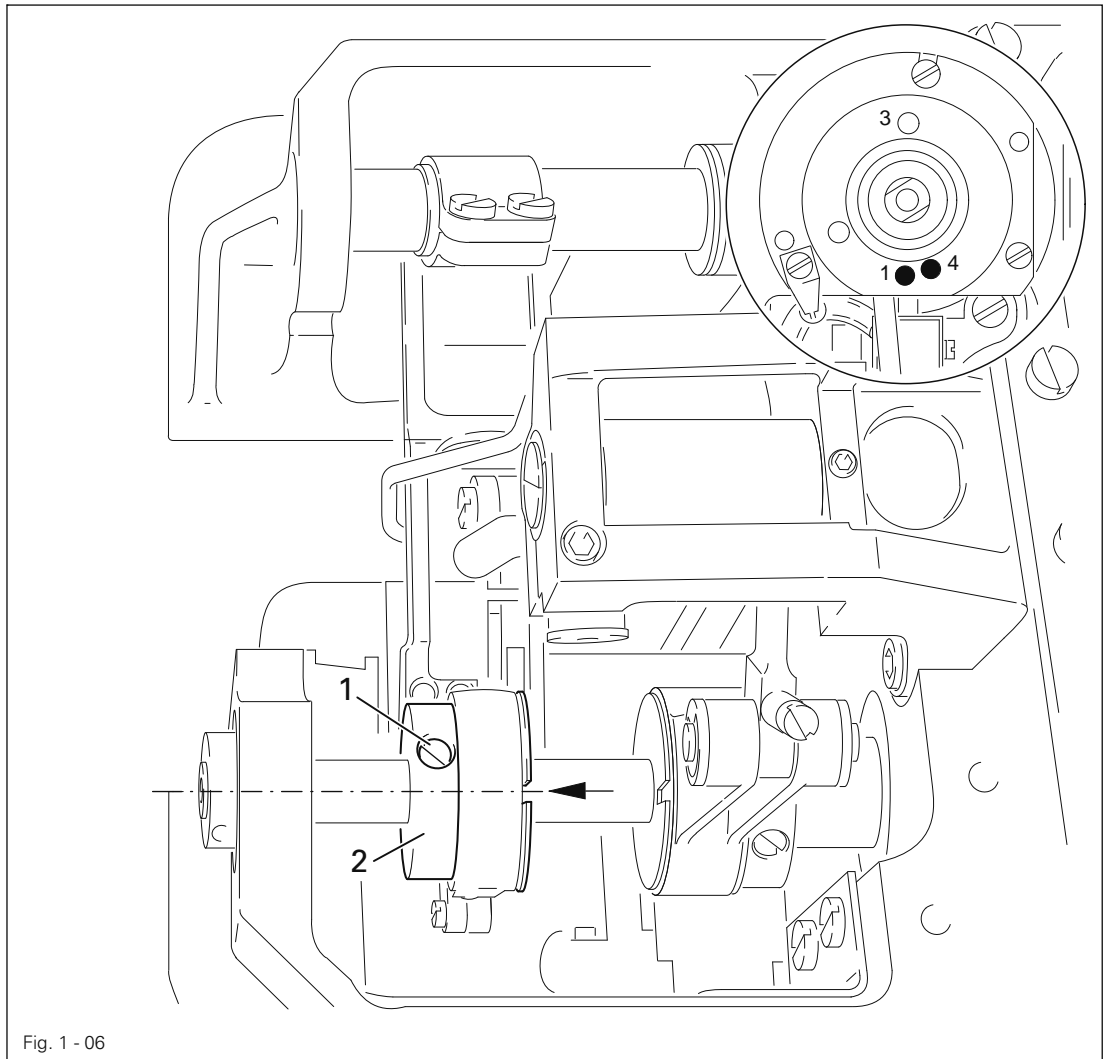
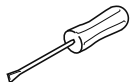


Fig. 1 - 06



- Loosen screw **1**.
- Position needle bar appropriately.
- Twist eccentric **2** according to the **requirement** and tighten accessible screw **1**.
- By turning the balance wheel make the second screw **1** accessible and tighten it.

1.05.07 Feed lifting height

Requirement

With the stitch length set at its maximum and the needle bar positioned at TDC, or at 0.8 mm before TDC for model H machines and machines with -911/... (pin in hole 1 or 4), the feed dog must be centered in its slots and its entire length must be in contact with the adjustment gauge.

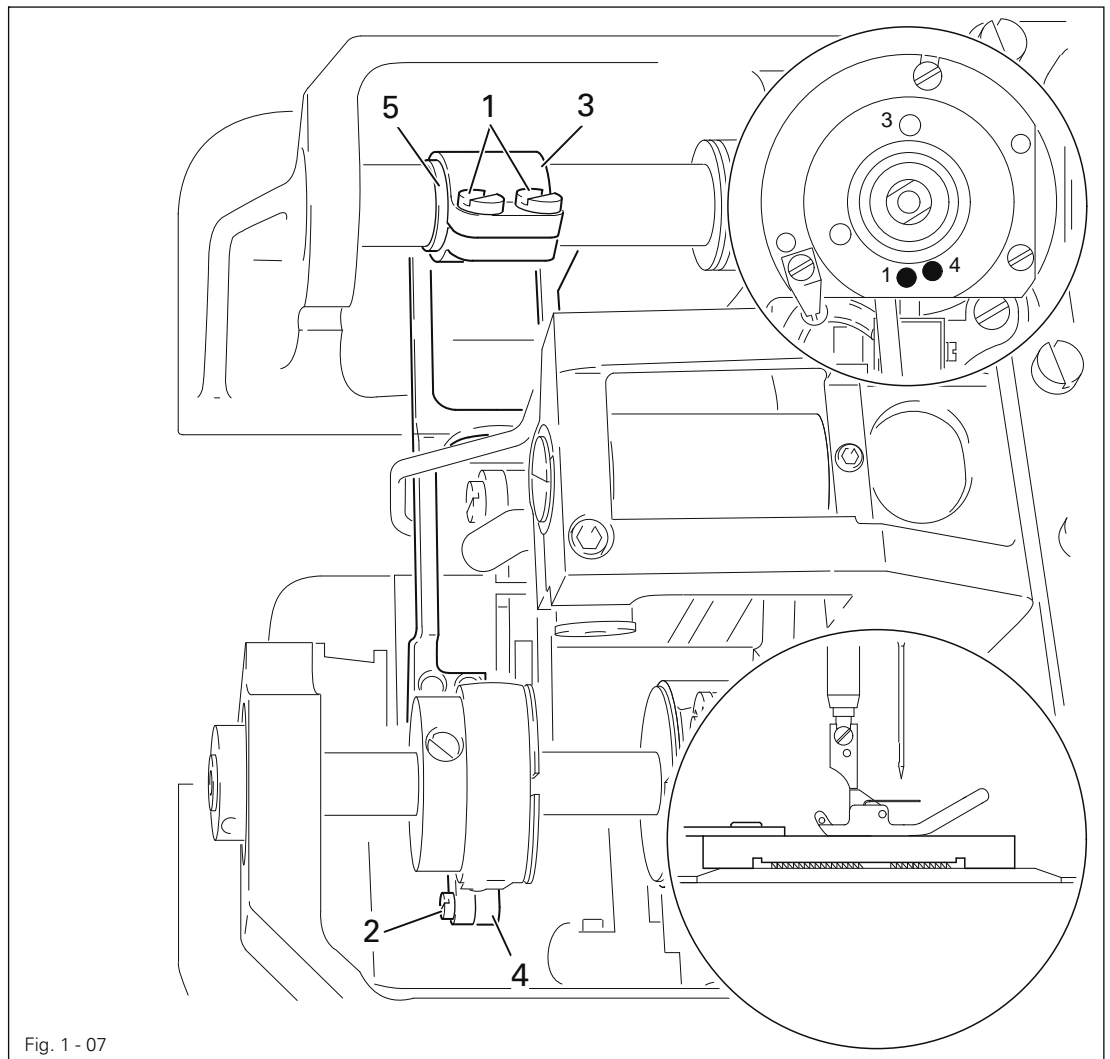
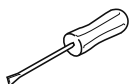


Fig. 1 - 07

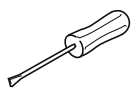
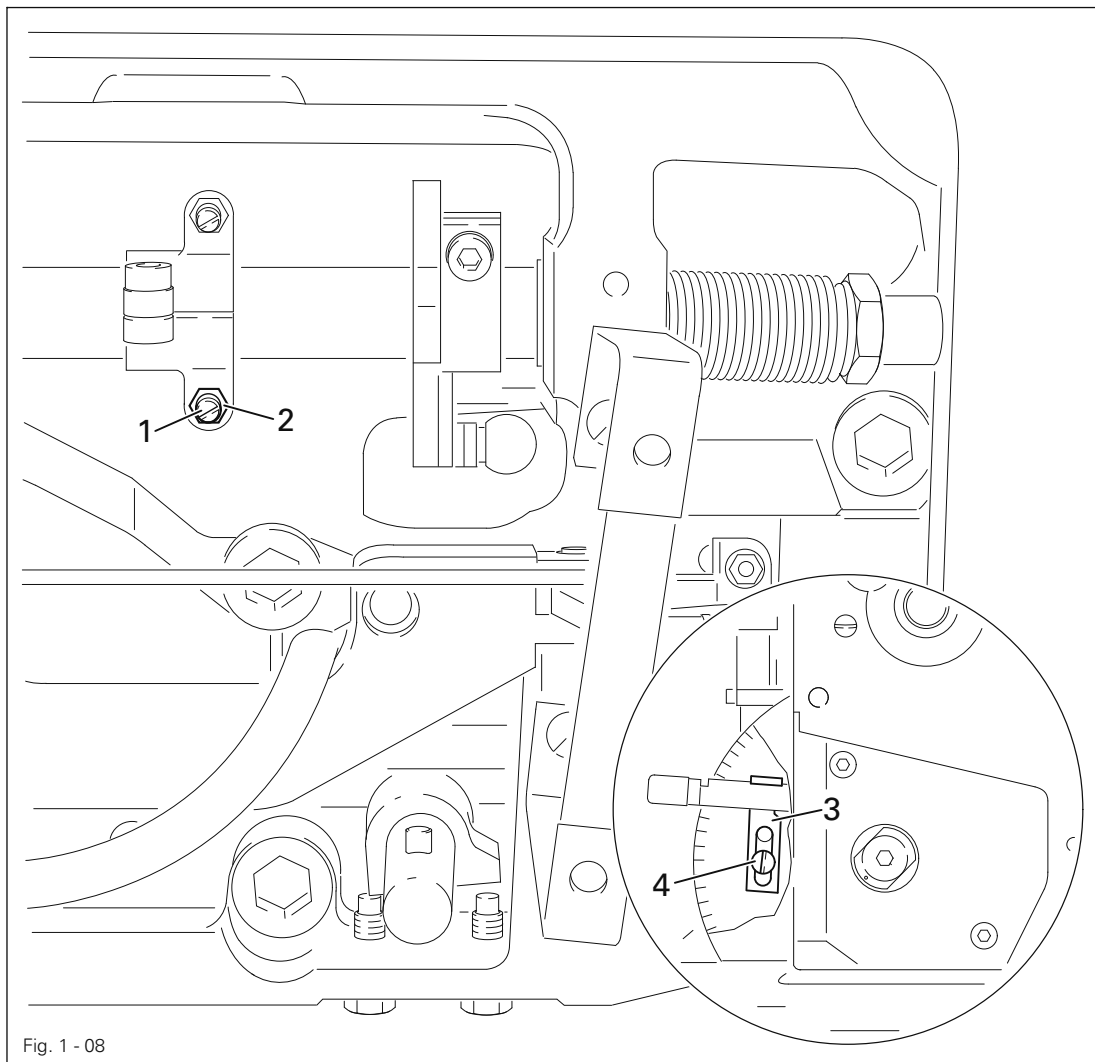


- Set the maximum stitch length and position the needle bar appropriately.
- Place the adjustment gauge (Order No. 61-111 642-19) on the needle plate so that its recess is centered above the feed slots (arrow pointing in feed direction) and lower the presser foot.
- Loosen screws 1 and 2.
- By turning cranks 3 and 4 and the eccentric sleeve 5 adjust the feed dog according to the requirement.

1.05.08 Limiting the stitch length

Requirement

1. When the reverse feed switch is fully pressed, the stitch length must be **1.5 mm**.
2. When the maximum stitch length is set, the feed dog must not come into contact with the needle plate cutout.

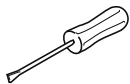
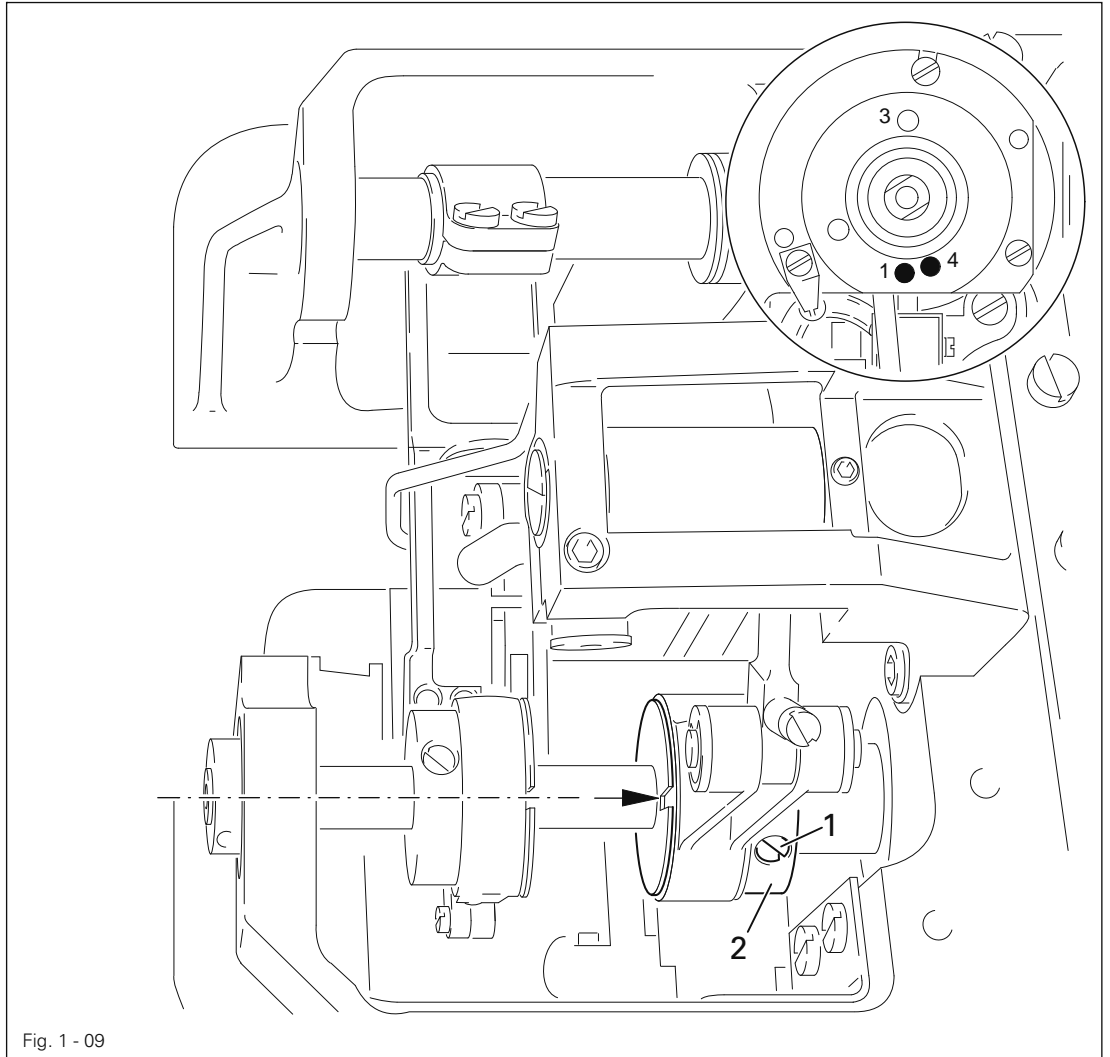


- Set stitch length at **1.5 mm**.
- Turn screw 1 (nut 2) according to **requirement 1**.
- Adjust stop 3 (screw 4) according to **requirement 2**.

1.05.09 Looper avoiding motion

Requirement

With the needle bar at TDC, or at **0.8 mm** before TDC for H-model machines and machines with -911/.. (pin in hole **1** or **4**), the slot in eccentric **2** must be positioned exactly under the center of the shaft.

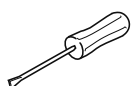
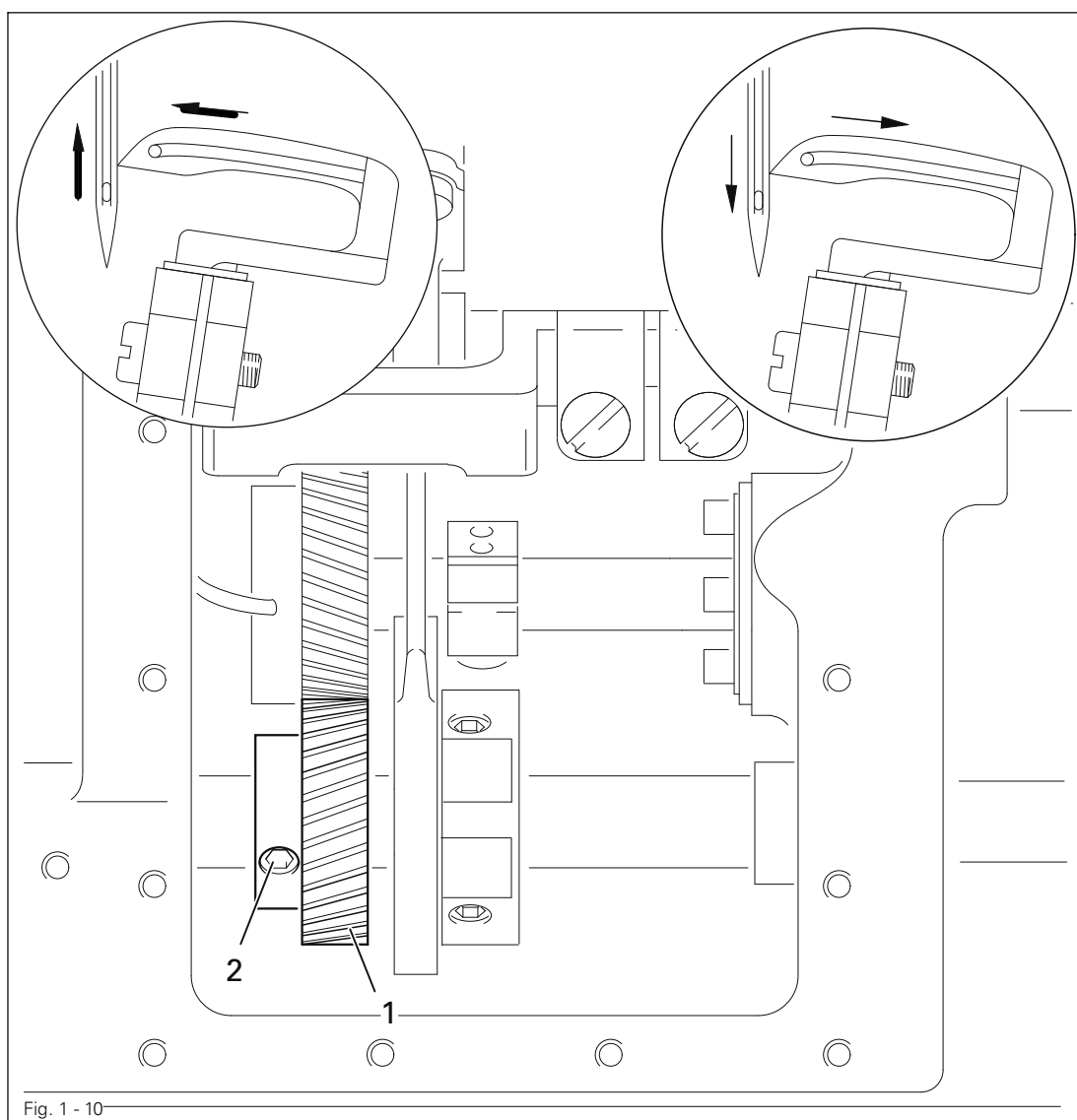


- Loosen screw **1**.
- Bring the needle bar into the appropriate position.
- Turn eccentric **2** according to the **requirement**.
- Tighten screw **1**.

1.05.10 Looper motion

Requirement

When the needle bar reaches its bottom dead center (BDC), the looper must be at its right point of reversal.



Checking the exact right point of reversal:

- Turn the balance wheel until the point of the looper advancing from the right is at the right-hand side of the needle.
- In this position attach C-clamp (order No. 61-111 600-35/001) to the needle bar so that the upward motion of the needle bar is blocked.
- Turn the balance wheel in the opposite direction until the C-clamp regains contact. In this position the looper point must be at the right-hand side of the needle again.
- If the looper point is not positioned at the right-hand side of the needle, turn gearwheel 1 (screw 2) accordingly.
- Repeat control procedure.

1.05.11 Looper height and looper angle

Requirement

When the looper holder 2 is in a vertical position

1. depending on the machine type, there must be a clearance as indicated in the table below between the highest point of the looper back and the needle plate rest, and
2. the looper 7 must be touching the looper adjustment gauge 9.

Machine type	Clearance (x)
Machines without -900/..	0,7 mm
Machines with -900/..	3,2 mm
H-Model machines	
Machines with -911/..	
Two needle machines	1,0 mm on the front looper

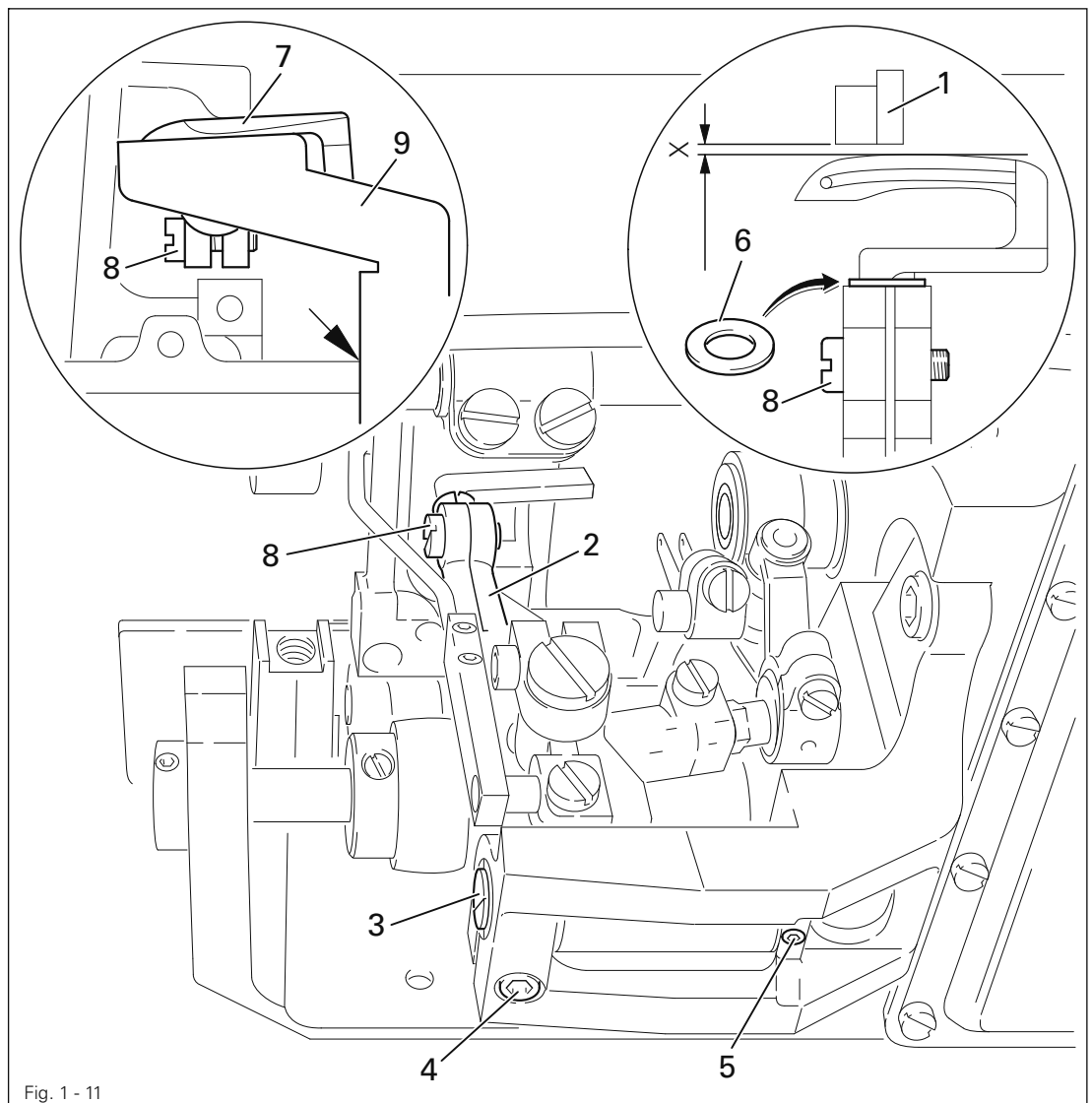


Fig. 1 - 11

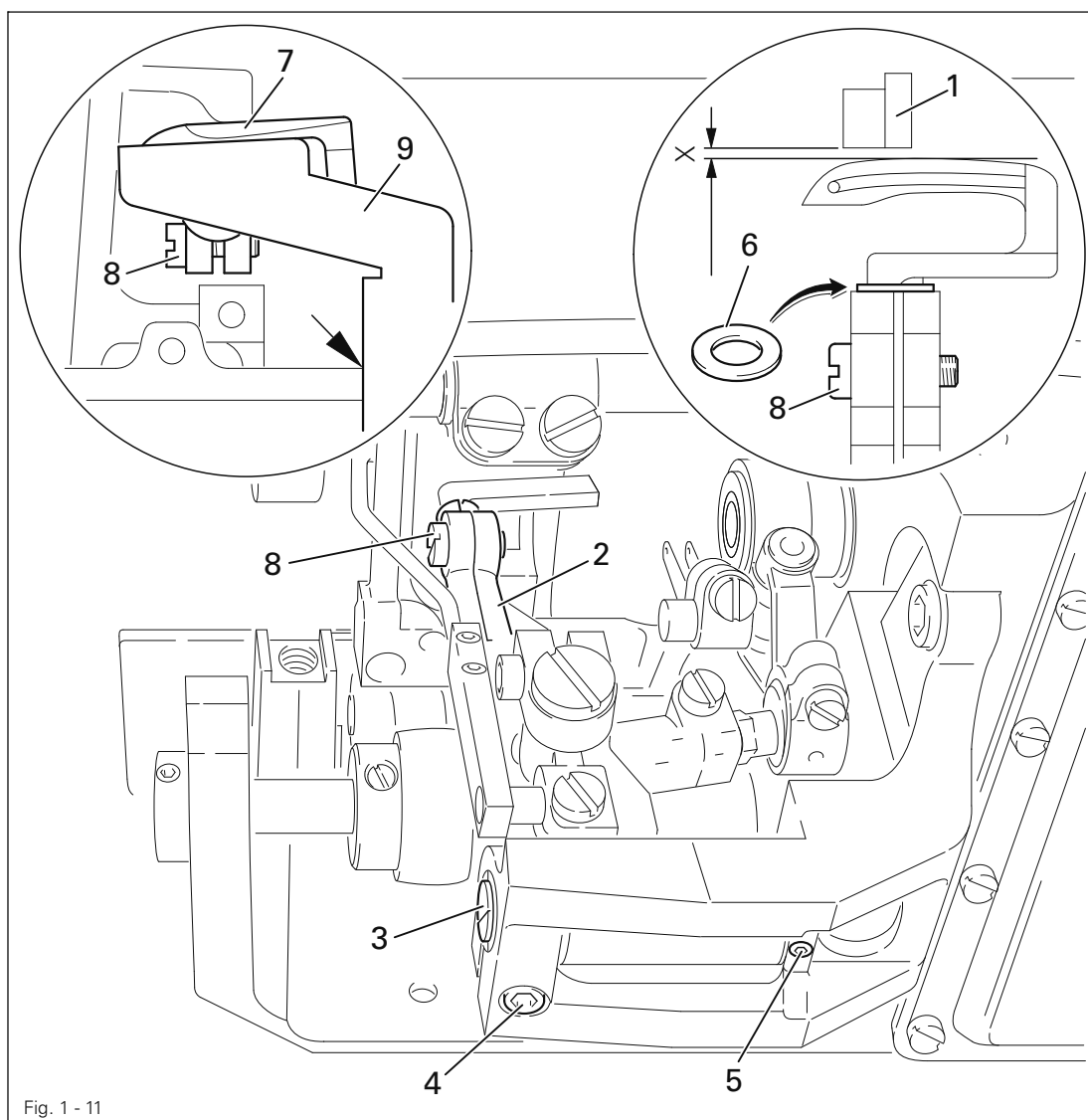
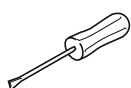


Fig. 1 - 11



- Remove needle plate and bottom feed dog.
- Place gauge 1 (Order No. 61-111 642-19) on the needle plate rest.
- Place looper holder 2 in a vertical position.
- Twist eccentric bearing stud 3 (screws 4 and 5) according to requirement 1.
- Check the adjustment.



If the required clearance is not obtained, replace spacer 6. In order to do so, looper 7 (screw 8) has to be removed.

- Place looper gauge 9 (Order No. 61-111 643-06) on the left edge of the cover plate support (see arrow) and move it towards the looper 7.
- Bring looper 7 (screw 8) into contact with looper gauge 9 (requirement 2).).

Spacer	Order-No.	Spacer	Order-No.
0,3 mm	91-170 693-05	0,8 mm	91-169 615-05
0,5 mm	91-169 614-05	1,2 mm	91-170 694-05

1.05.12 Looper-to-needle clearance in sewing direction

Requirement

In sewing direction there must be a clearance of approx. **0.1 mm** between looper point and needle.

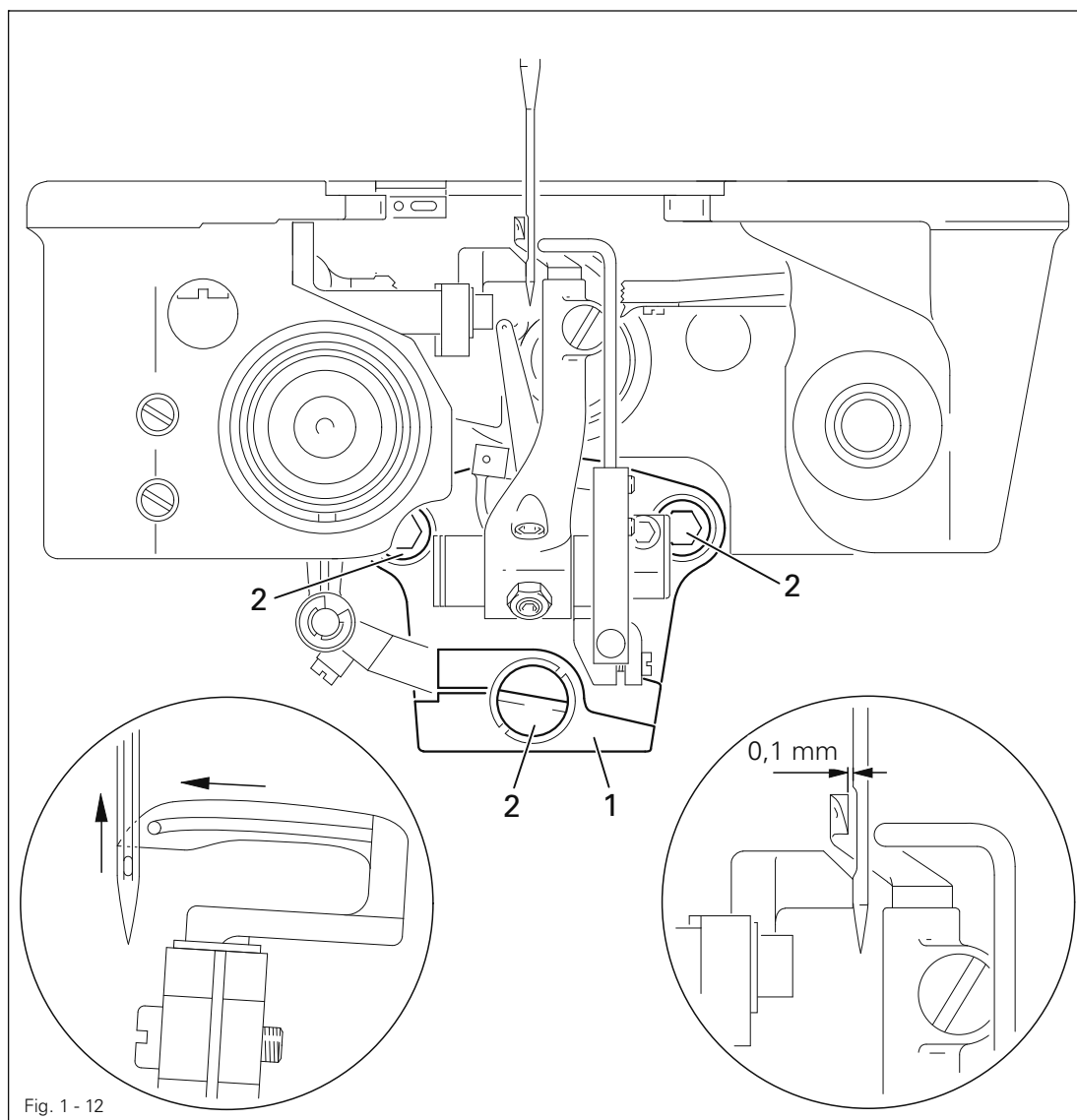
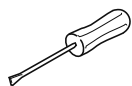


Fig. 1 - 12



- Turn the balance wheel until the looper point coming from the right reaches the left side of the needle.
- Align looper unit **1** (screw **2**) according to the **requirement**.



If a clearance of **0.1 mm** cannot be obtained, the setting of the eccentric bearing stud **3** can be corrected. In this case the looper height and angle must be checked, see **Chapter 1.05.11 Looper height and looper angle**.

1.05.13 Looper-to-needle clearance crosswise to sewing direction

Requirement

When the looper 1 is at its right point of reversal, there must be a clearance between the looper point crosswise to the sewing direction and the needle center of **3.2 mm**.

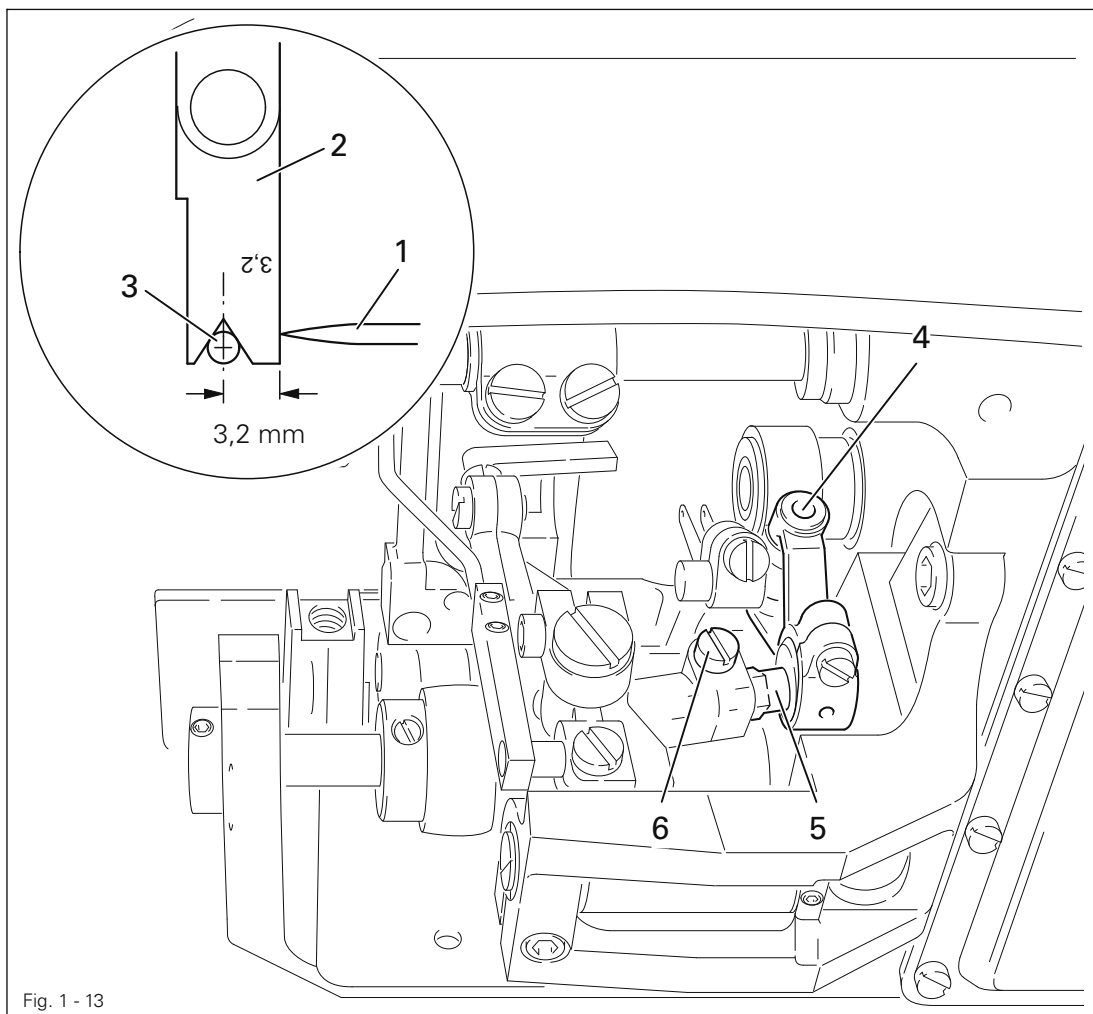
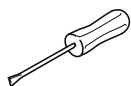


Fig. 1 - 13

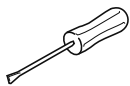
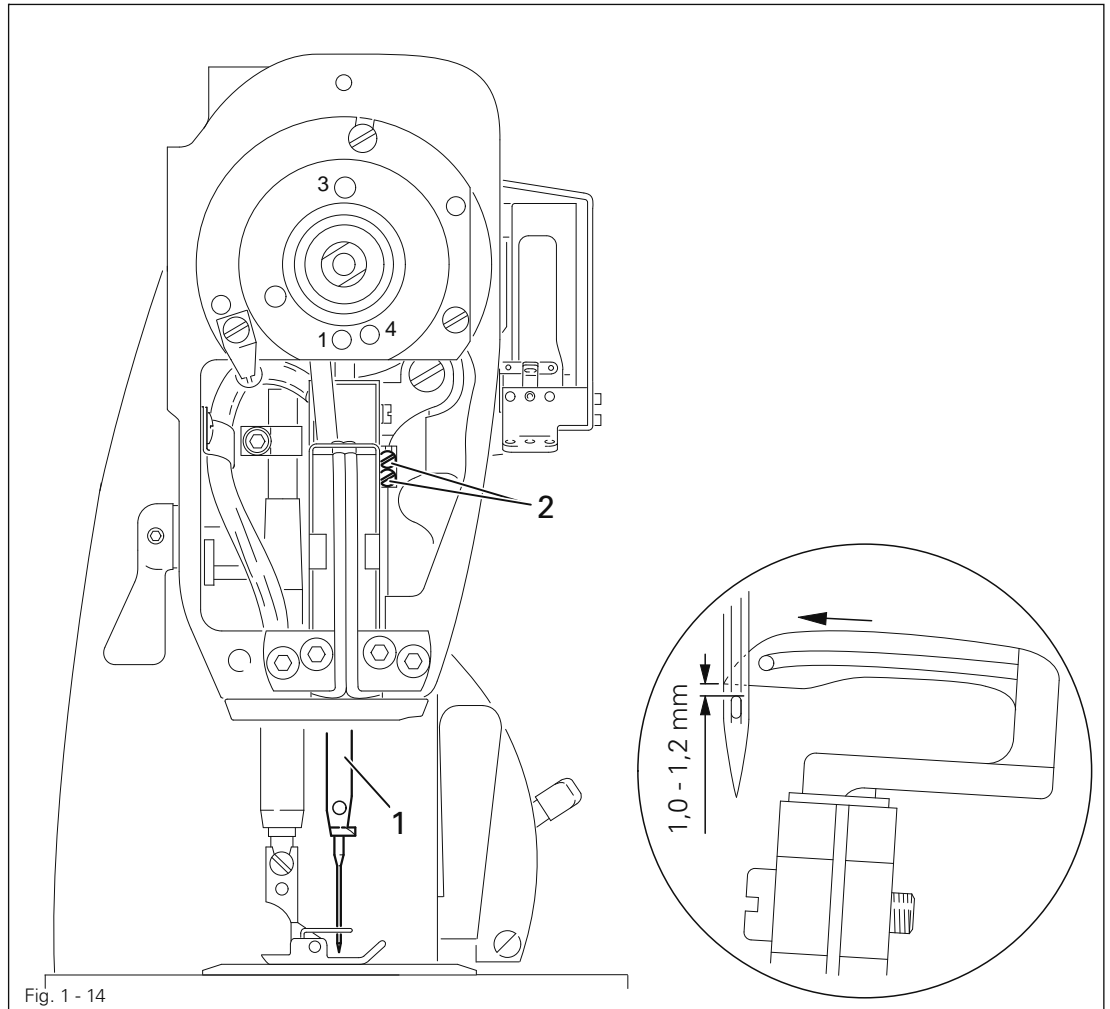


- By turning the balance wheel bring the looper 1 to its right point of reversal.
- Place the "3.2" blade of looper gauge 2 (Order No. 61-111 643-06) against the needle 3 with its notch facing the direction of feed.
- Make sure that the driving link 4 is vertical and turn the ball pin 5 (screw 6) with the aid of an open-ended spanner (size 6), until the looper point 1 contacts the blade.

1.05.14 Final adjustment of the needle height

Requirement

When the point of the looper advancing from the right reaches the left side of the needle, the top edge of the needle eye must be **1.0 - 1.2 mm** below the bottom edge of the looper.



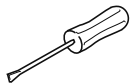
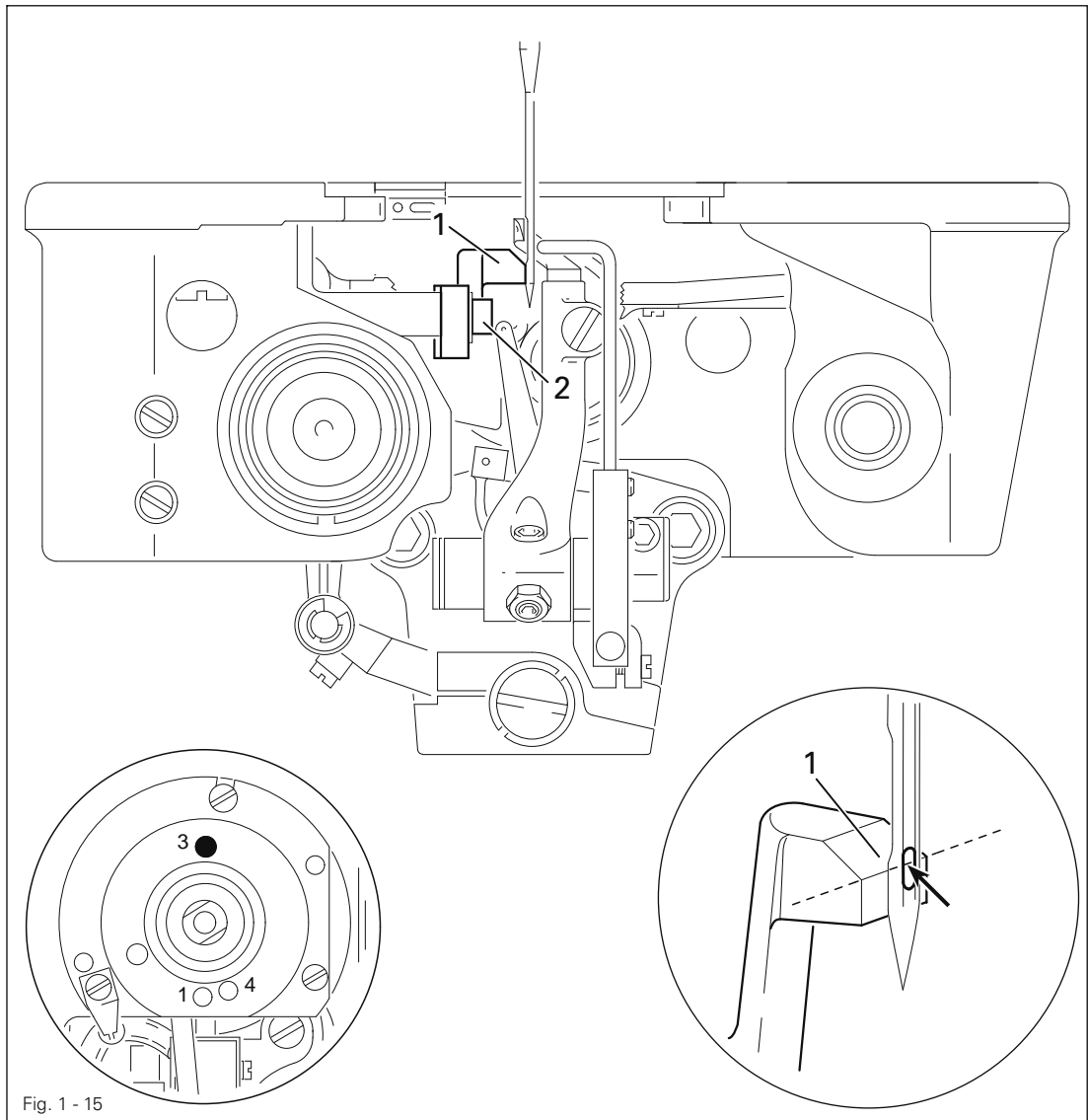
- Turn the balance wheel until the looper point, which is coming from the right, reaches the left side of the needle.
- Without turning the needle bar 1 (screw 2) adjust it according to the **requirement**.

Adjustment

1.05.15 Height of rear needle guard

Requirement

When the needle bar is at bottom dead center (pin in hole 3), the vertical surface of the needle guard 1 must cover about 2/3 of the needle eye.



- Bring the needle bar to BDC.
- Adjust needle guard 1 (screw 2) according to the requirement.

1.05.16 Clearance between rear needle guard and needle

Requirement

When the point of the looper, which is advancing from the right, reaches the right side of the needle, the needle guard 3 must still be in slight contact with the needle.

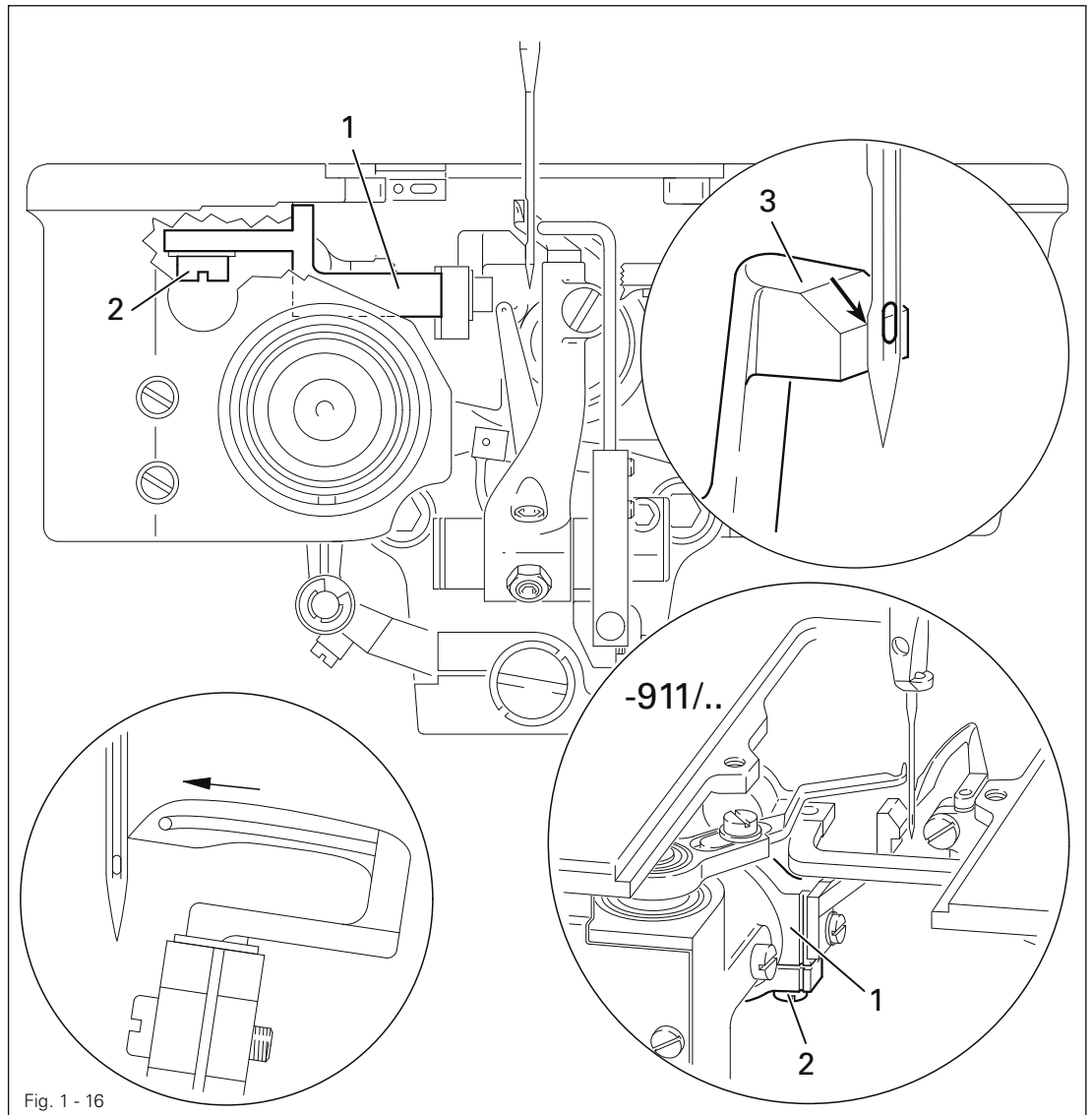
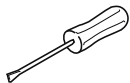


Fig. 1 - 16



- Turn the balance wheel until the looper point is located at the right side of the needle.
- Adjust bracket 1 (screw 2) according to the **requirement**.



Under no circumstances should the needle be deflected by the needle guard 3!

1.05.17 Position of the front needle guard (does not apply to all machines)

Requirement

When the point of the looper 1, which is advancing from the right, is positioned in the center of the needle, the needle guard clip 4 must

1. have a side clearance to the needle of **0.3 - 0.5 mm**
2. be parallel to the looper blade
3. have its top edge at the same height as the point of looper 1.

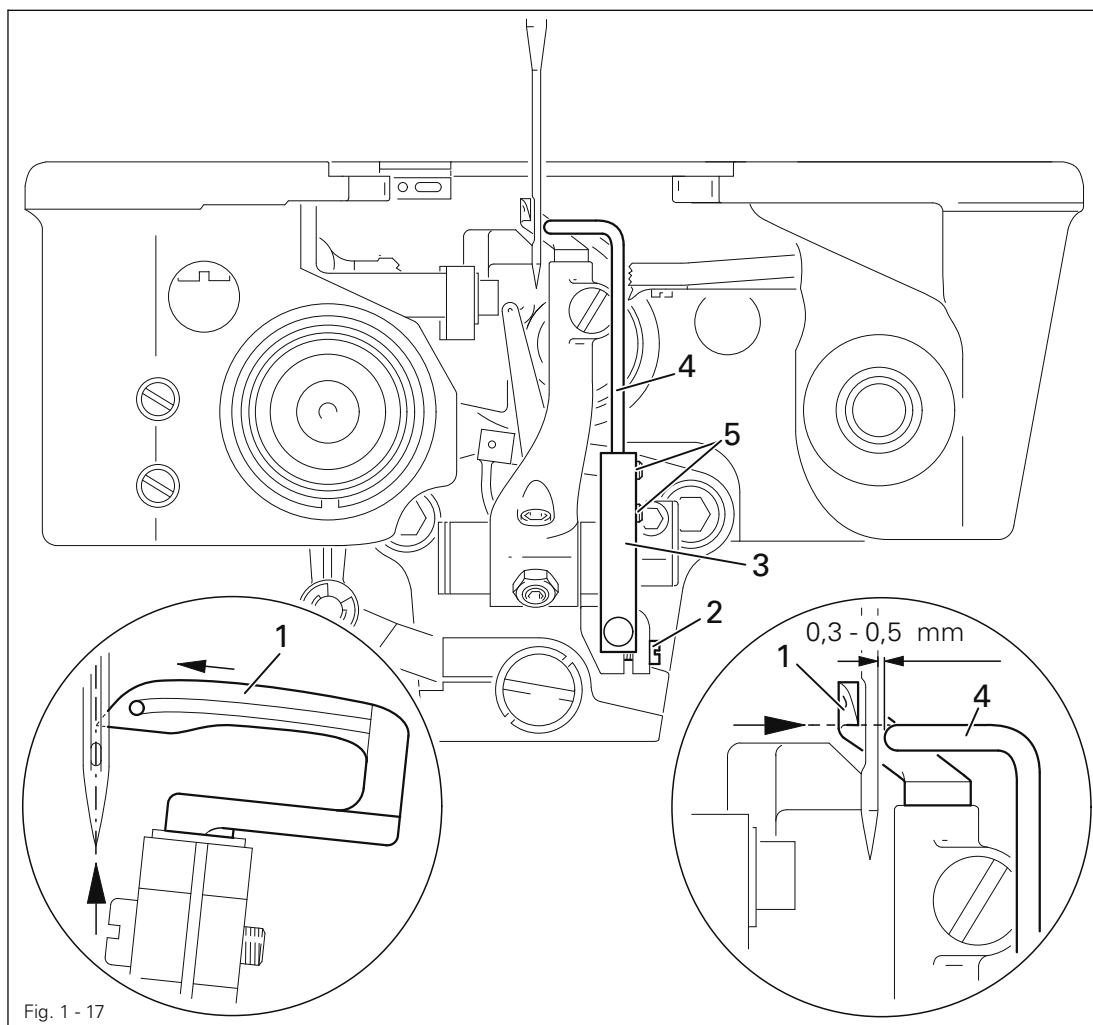
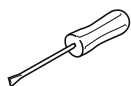


Fig. 1 - 17

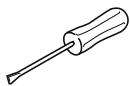
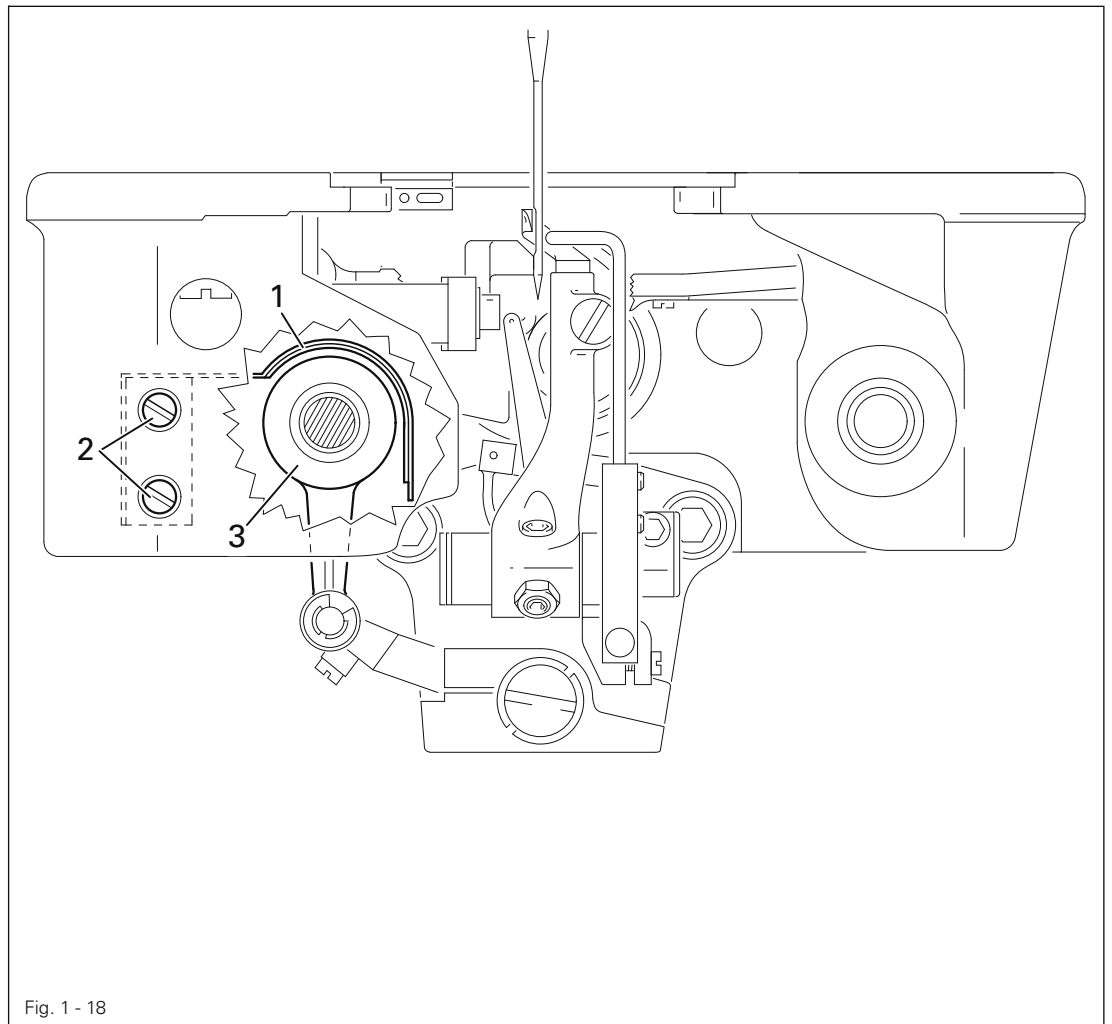


- By turning the balance wheel bring looper 1 to its left point of reversal.
- Loosen screws 2.
- Adjust needle guard bracket 3 so that in this position the needle guard clip 4 is not in contact with looper 1.
- Slightly tighten screws 2.
- Turn the balance wheel until the point of the looper 1, when coming from the right, is positioned in the center of the needle.
- Adjust needle guard bracket 3 according to **requirement 1**.
- Align needle guard clip 4 (screws 5) according to **requirement 2 and 3**.

1.05.18 Guard of looper-avoiding-motion eccentric

Requirement

During motion the eccentric **3** must not touch guard **1**.

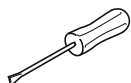
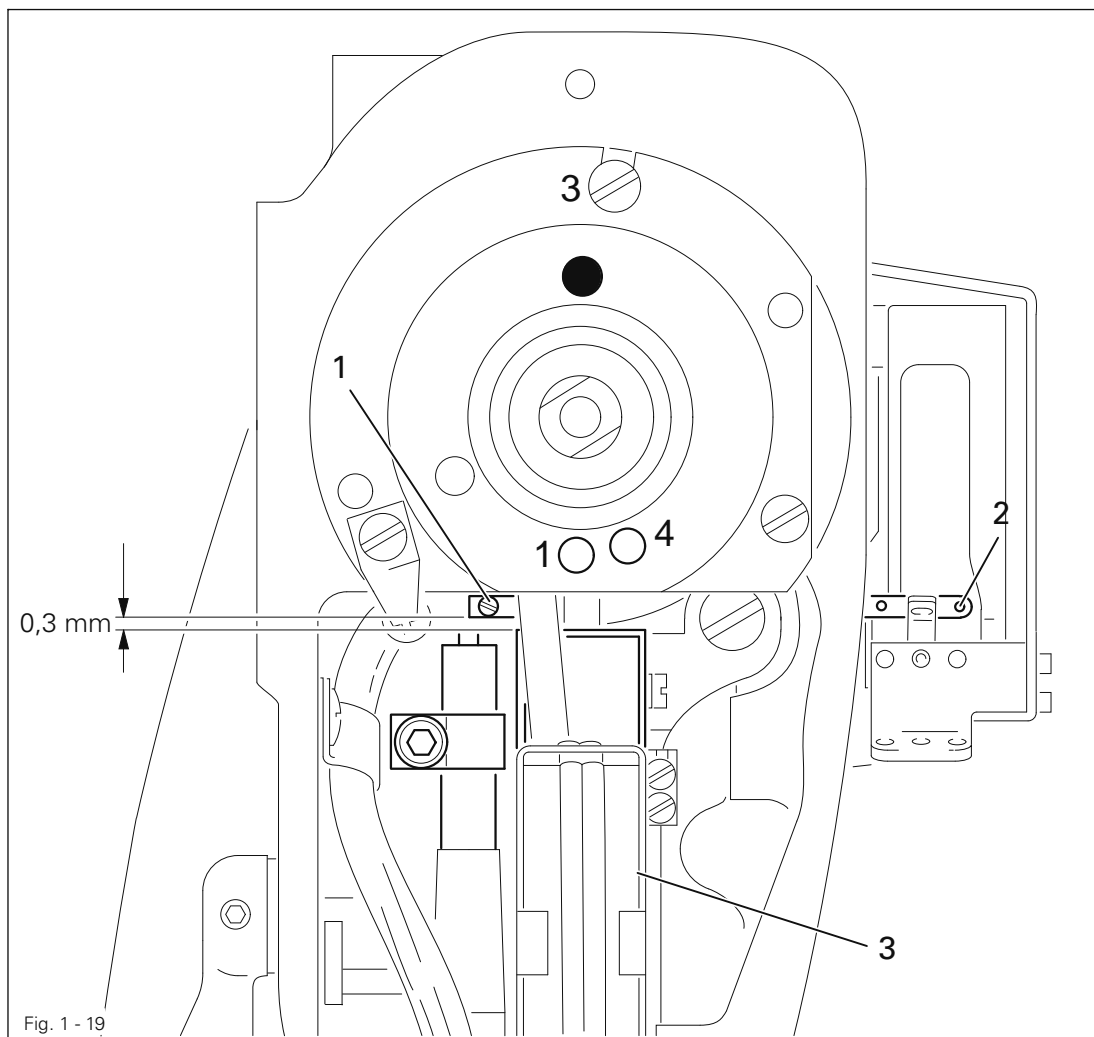


- Adjust guard **1** (screws **2**, accessible through adjustment holes) according to the requirement.

1.05.19 Take-up lever

Requirement

1. When the needle bar is at BDC (pin in hole **3**) there must be a clearance of about **0.3 mm** between the take-up lever **2** and the needle bar frame **3**.
2. The take-up lever **2** must be able to move freely in the center of the needle head slot, and must not have any contact either at TDC or BDC.



- By turning the handwheel make screw **1** accessible and loosen it slightly.
- Bring needle bar to BDC.
- Adjust take-up lever **2** according to **requirement 1**.
- Tighten screw **1** in compliance with **requirement 2**.

1.05.20 Basic setting of the needle thread regulator and the thread guide

Requirement

1. With the needle bar at BDC (pin in hole **3**) the eye of the needle thread regulator **1** and the adjustment hole of the take-up lever **4** must be in line.
2. The thread guide **2** must be vertical and attached with a screw in the center of the elongated hole.

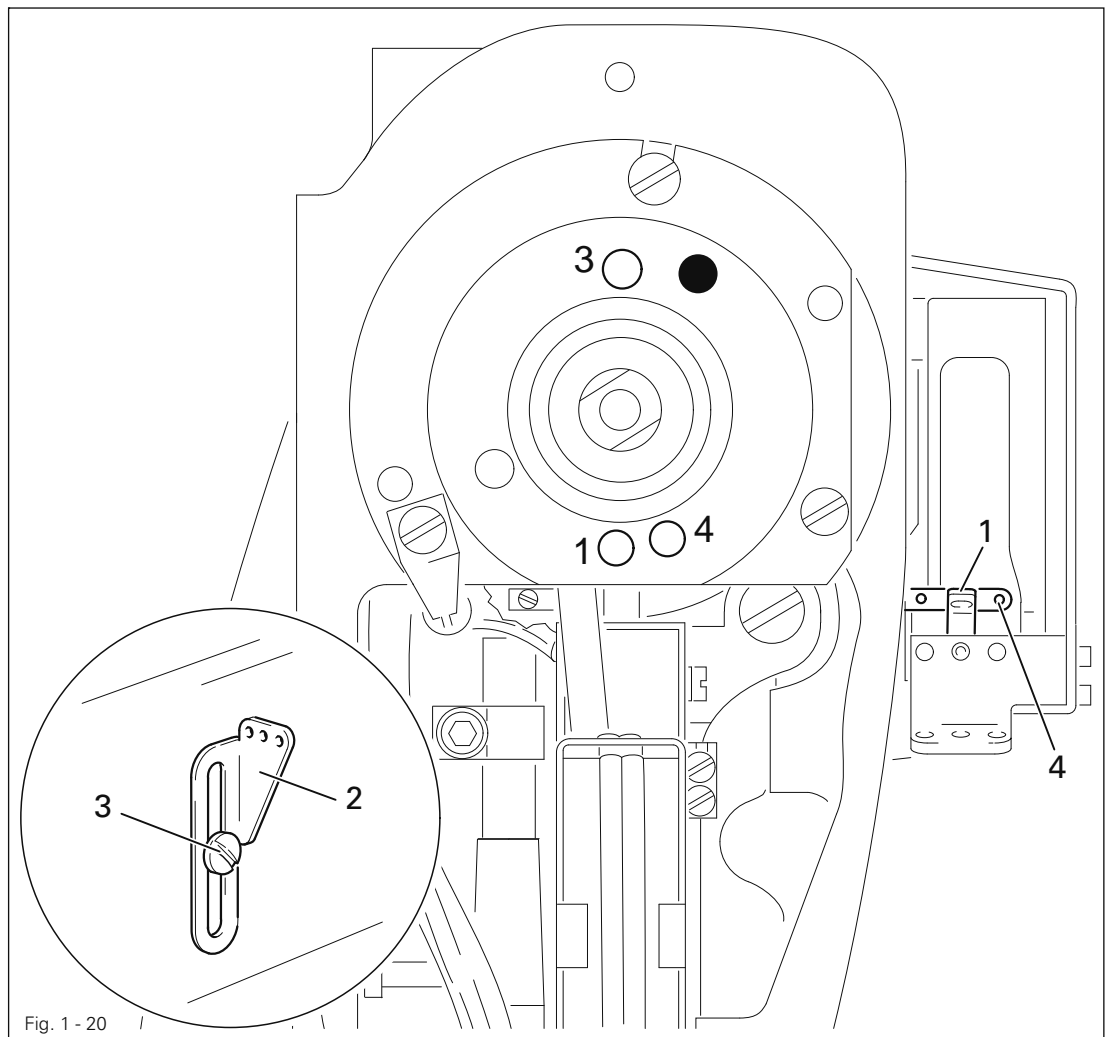
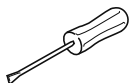


Fig. 1 - 20



- Bring the needle bar to bottom dead center.
- After loosening the screw, adjust the needle thread regulator **1** according to **requirement 1**.
- Tighten the screw of the needle thread regulator.
- Align thread guide **2** (screw **3**) according to **requirement 2**.



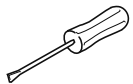
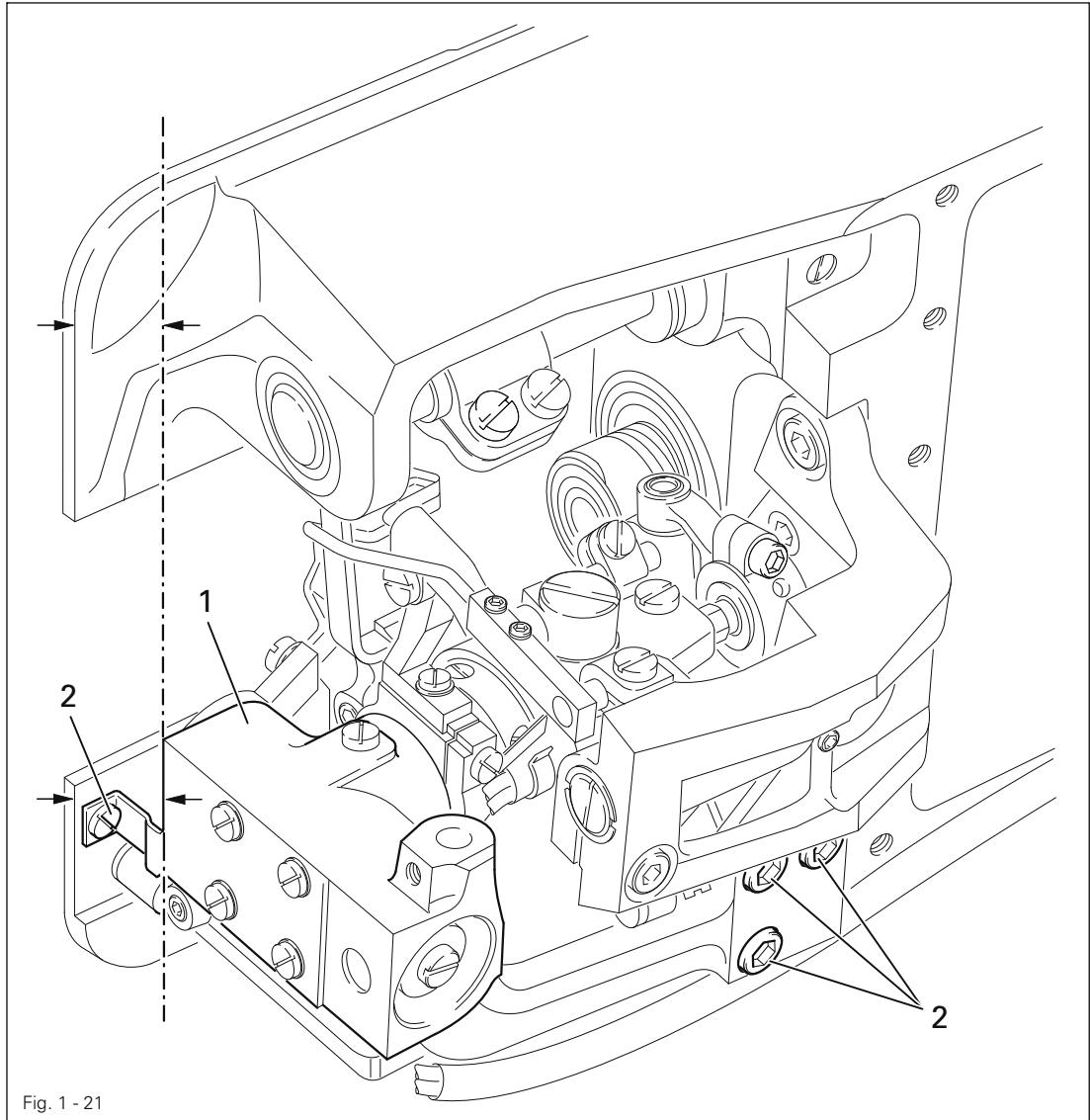
Depending on the type of material and thread used, the basic setting may have to be modified.

Adjustment

1.05.21 Adjustment of the backtacking mechanism (only for machines with -911/..)

Requirement

The face side of the backtacking mechanism **1** must be in line with the bedplate surface of the machine.



- Adjust backtacking mechanism **1** (screws **2** and **3**) according to the requirement.

1.05.22 Spreader drive (only for machines with -911/..)

Requirement

With the needle bar at bottom dead center (pin in hole **3**) the spreader link **3** must be at its rear point of reversal (see arrow).

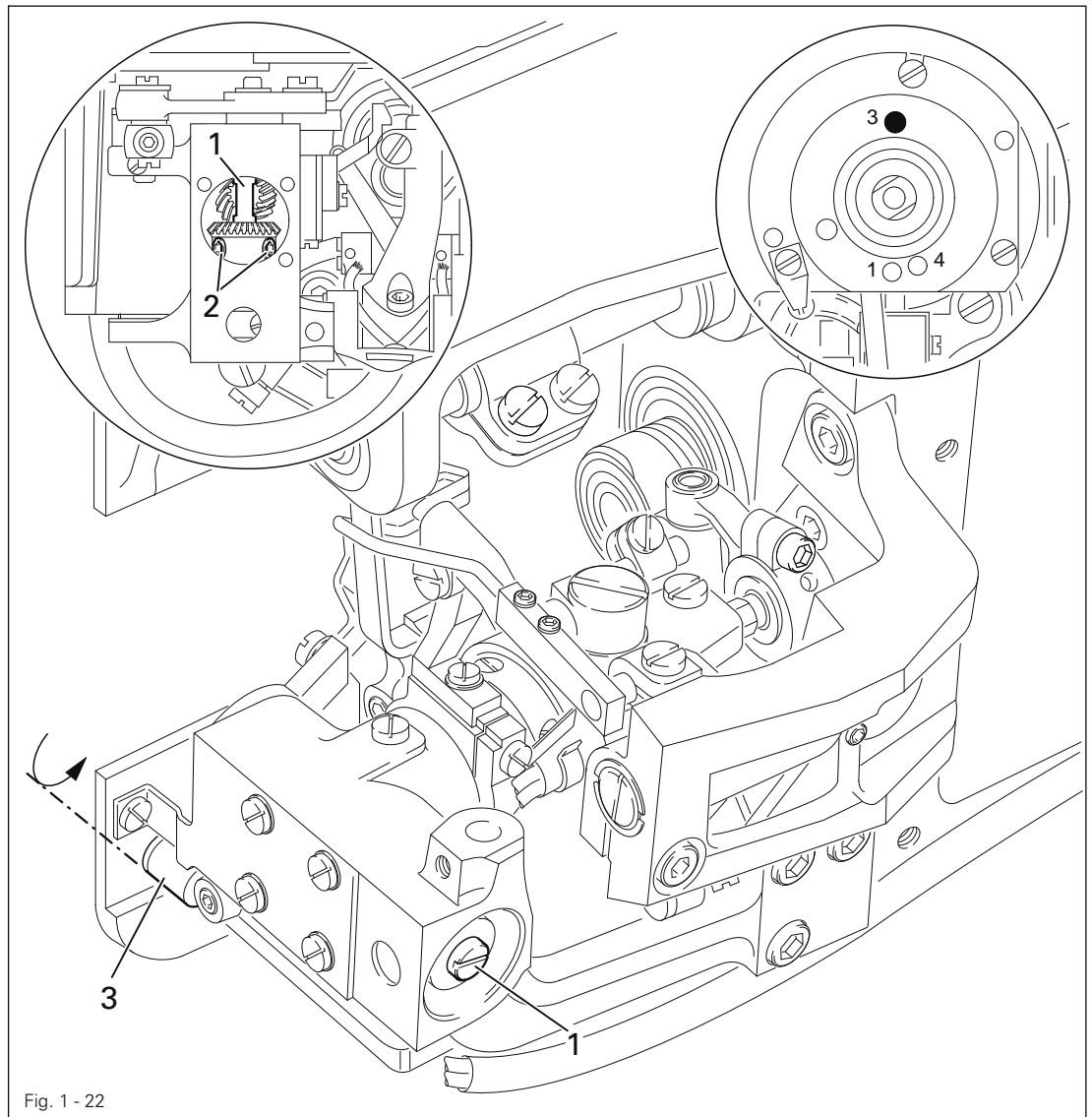
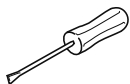


Fig. 1 - 22



- Bring the needle bar to bottom dead center.
- Turn shaft **1** (screws **2**) according to the **requirement**.



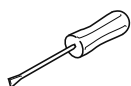
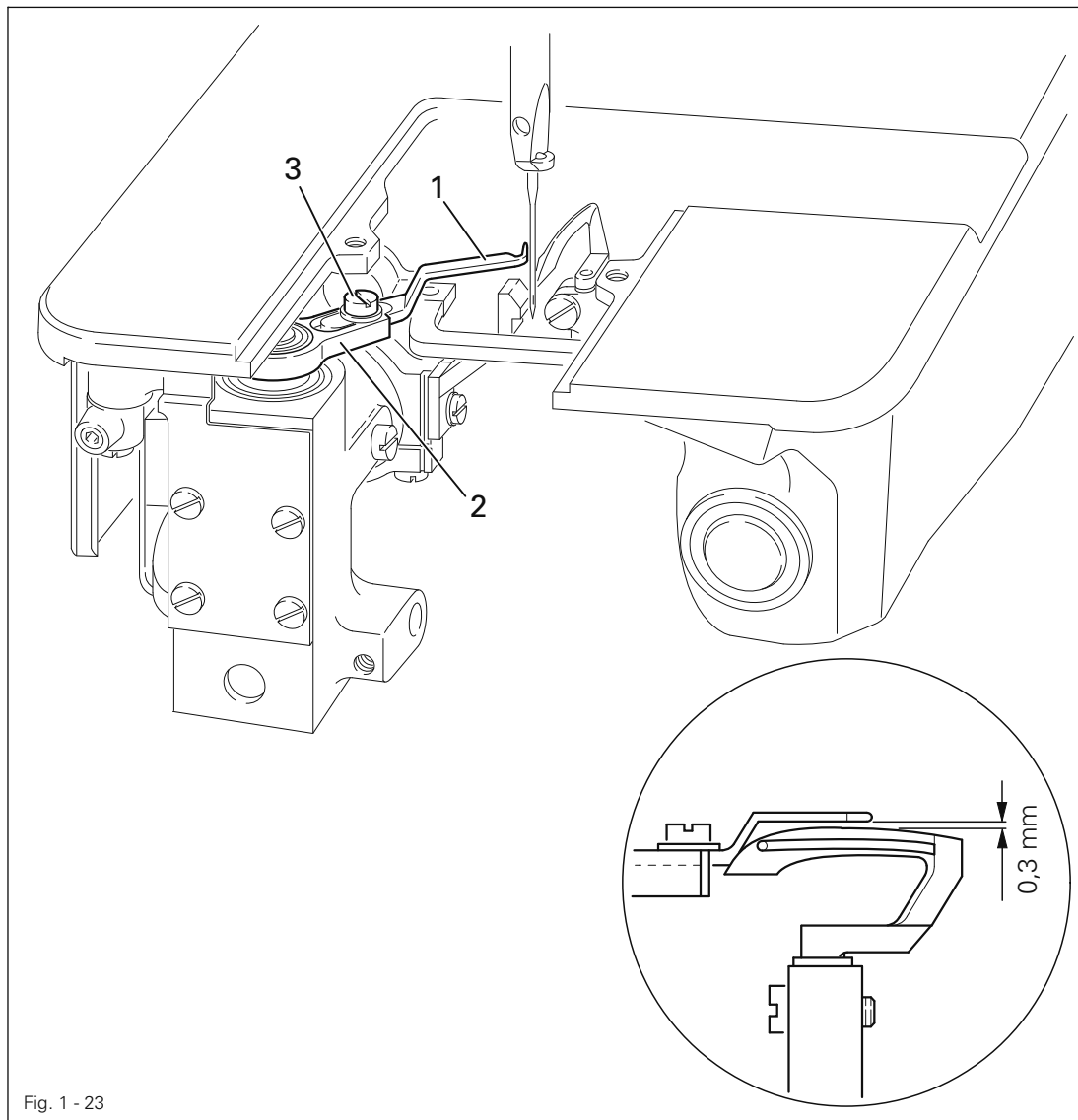
When tightening the shaft, make sure the gears have enough play!

Adjustment

1.05.23 Spreader height (only for machines with -911/..)

Requirement

When the tip of spreader 1 is above the looper, there must be a clearance of **0.3 mm** between the back of the looper and the underside of the spreader 1.



- Turn the balance wheel until the tip of the spreader 1 is above the looper.
- Remove the holder 2 (screw 3) and adjust the height of the spreader according to the **requirement** by inserting an appropriate spacer.

Spacer	Order-No.
0,3 mm	91-170 153-05
0,5 mm	91-172 357-05

1.05.24 Spreader motion and spreader to needle clearance (only for machines with -911/..)

Requirement

When the descending needle is on a level with the back of the looper, the right side of the needle must be in line with the edge of the thread catcher cutout, as seen in feed direction.

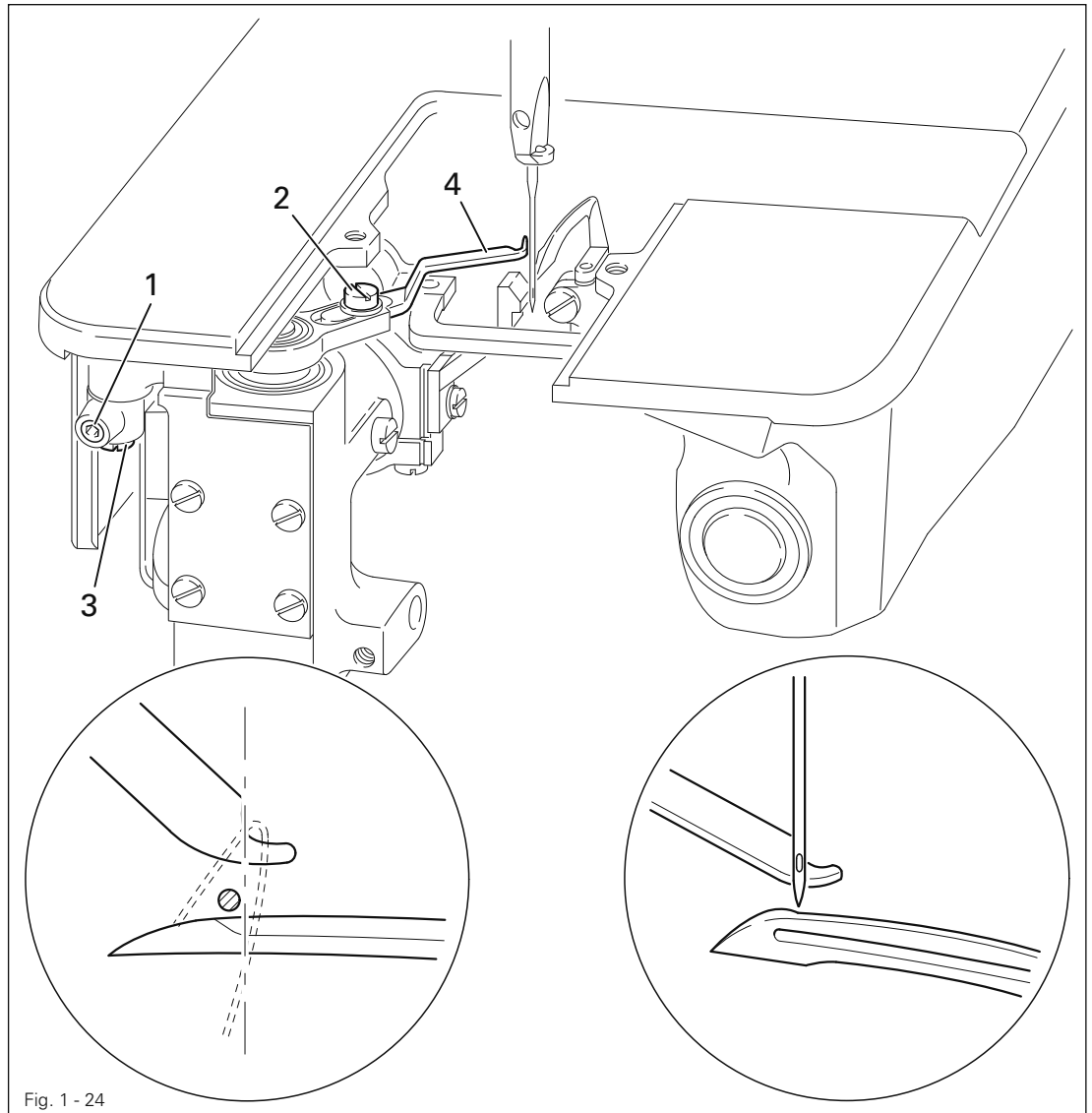
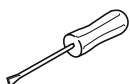


Fig. 1 - 24



- Turn the balance wheel in sewing direction until the needle point is level with the back of the looper.
- Loosen screws 1 and 2.
- Turn the eccentric stud 3 so that its lobe is pointing in sewing direction.
- Adjust eccentric stud 3 and spreader 4 according to the requirement.
- Tighten screws 1 and 2.
- Carry out a functional test, see Chapter 1.05.25 Functional sewing test.

1.05.25 Functional sewing test (only for machines with -911/..)

Requirement

As seen in feed direction, the spreader 1 should reliably pick up the rear part of the needle thread loop and the looper thread.

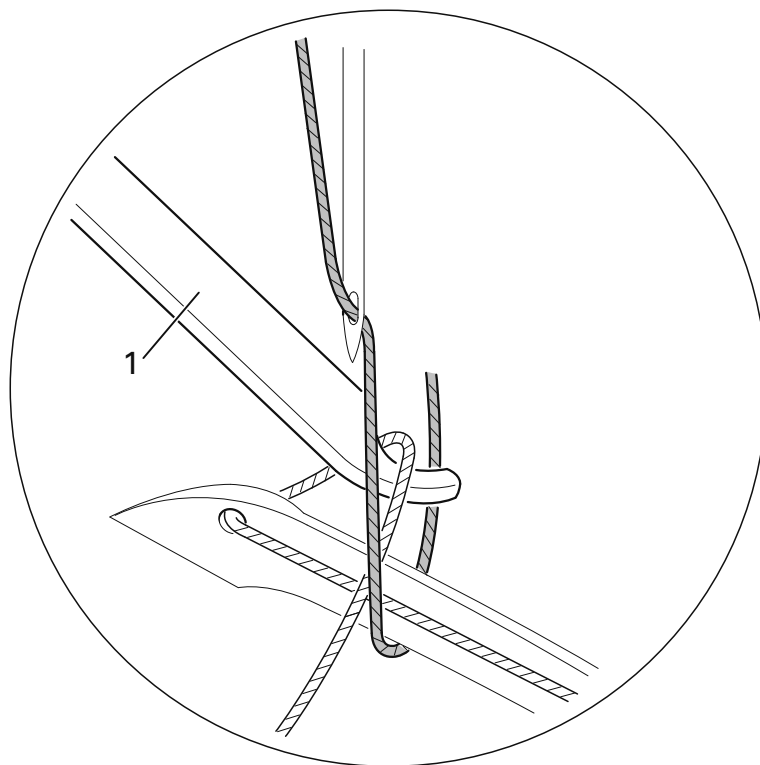
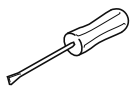


Fig. 1 - 25



- Thread the machine, place fabric under the presser foot and lower the presser foot.
- Turn the balance wheel in sewing direction with depressed reverse-feed control, and check the compliance with the **requirement**.
- If required, readjust the spreader settings.

1.05.26 Looper thread regulator and looper thread take-up

Requirement

1. The distance between the front edge of looper thread regulator **1** and the rear needle plate edge guide must be **29 mm**.
2. The front edges of the thread take-up device **3** and the thread regulator **1** must be about **8 mm** apart.

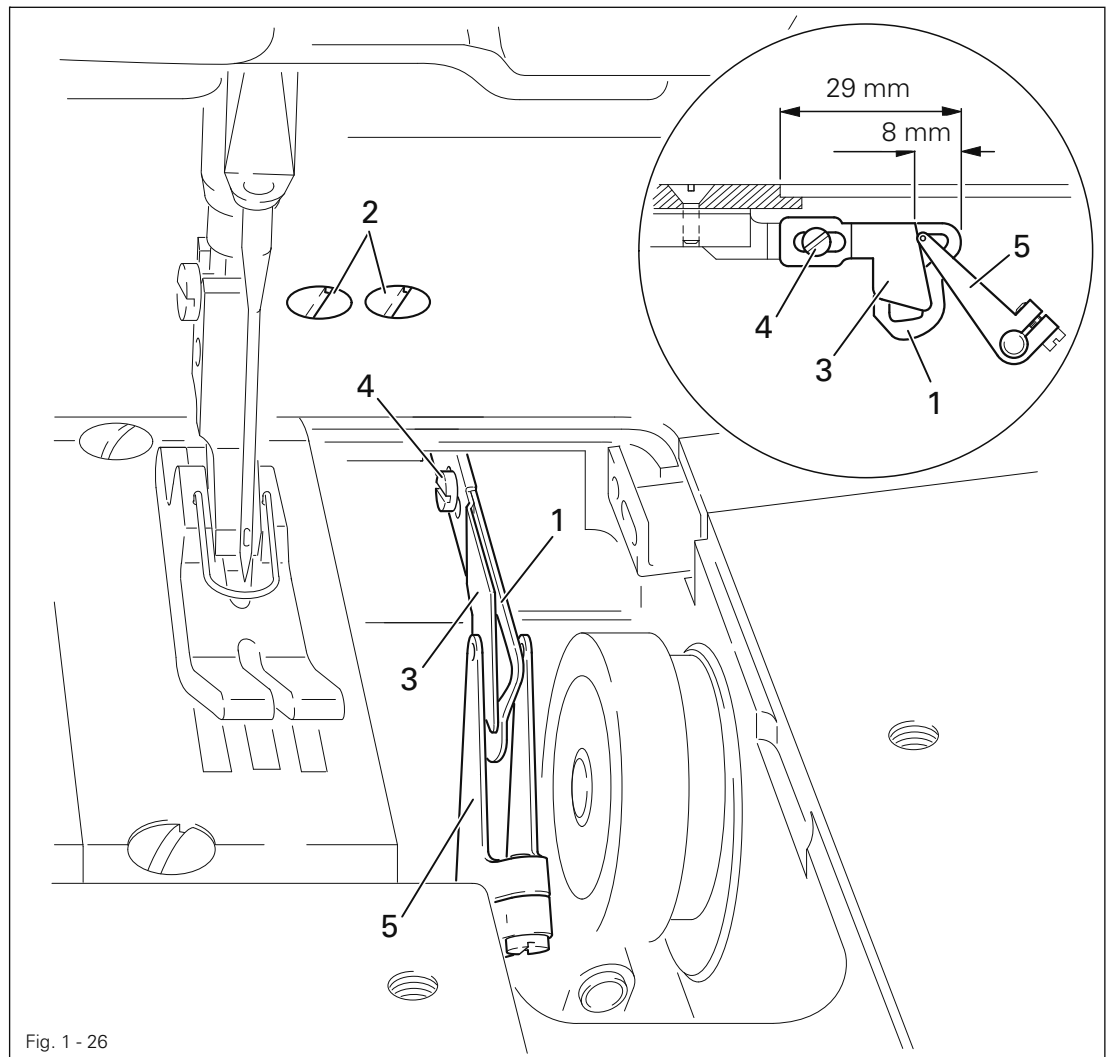
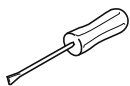


Fig. 1 - 26



- Adjust thread regulator **1** (screws **2**) according to **requirement 1**.
- Adjust thread take-up device **3** (screw **4**) according to **requirement 2**.



Depending on the type of material and thread used, the basic setting may have to be modified.

1.05.27 Looper thread puller

Requirement

With the needle bar in top dead center (pin in hole 1) both eyes of looper thread puller 1 must be at the front edge of the thread take-up device 4.

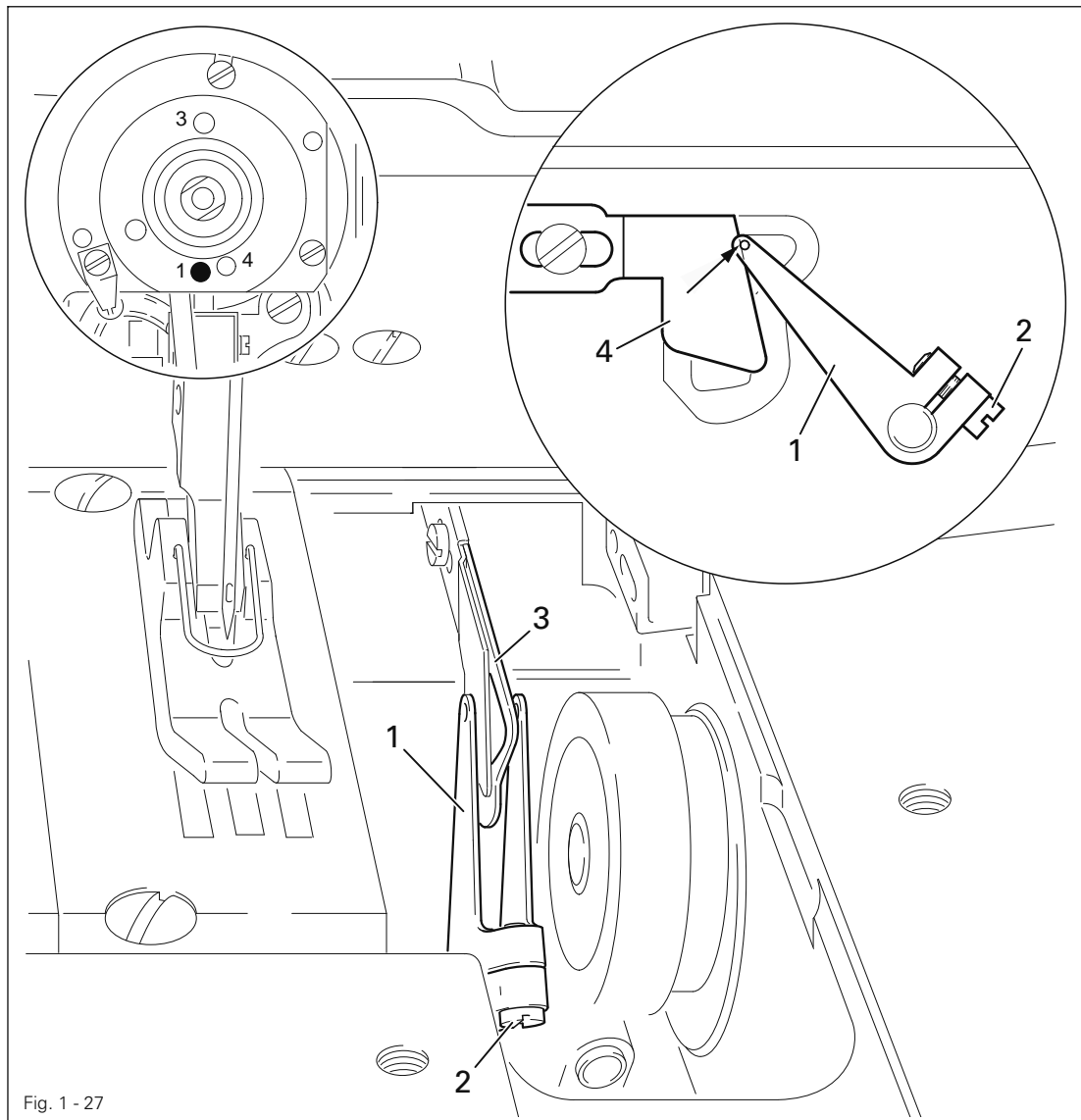
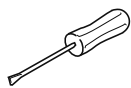


Fig. 1 - 27



- Bring needle bar to top dead center.
- Turn thread puller 1 (screw 2) according to the **requirement**, making sure that the prongs of thread puller 1 are in the middle of the thread regulator 3.

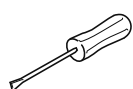
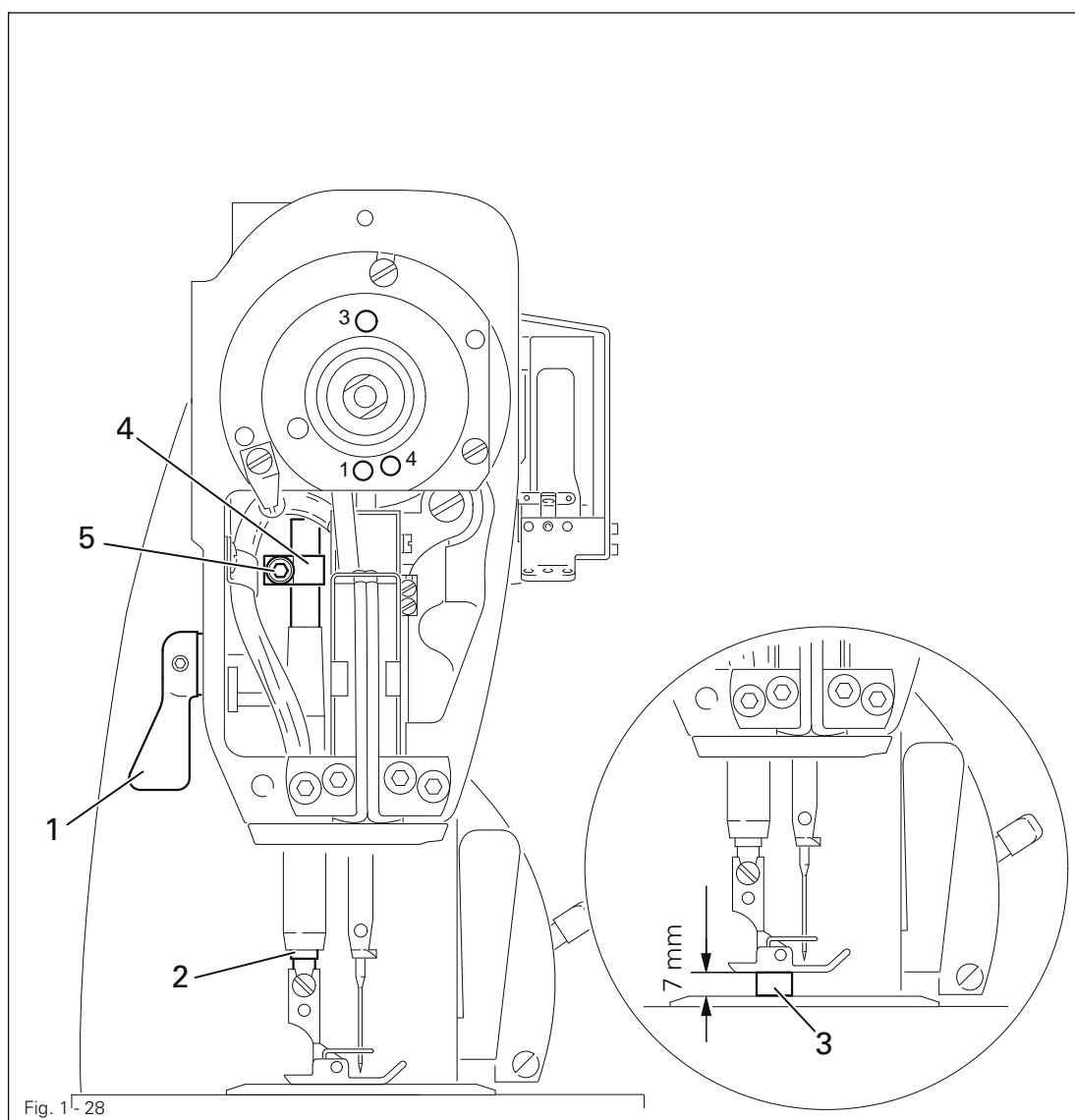


Depending on the type of material and thread used, the basic setting may have to be modified.

1.05.28 Clearance between presser foot and needle plate

Requirement

With the presser bar lifter 1 raised, there must be a clearance of **7 mm** between the presser foot and the needle plate.



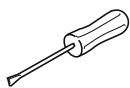
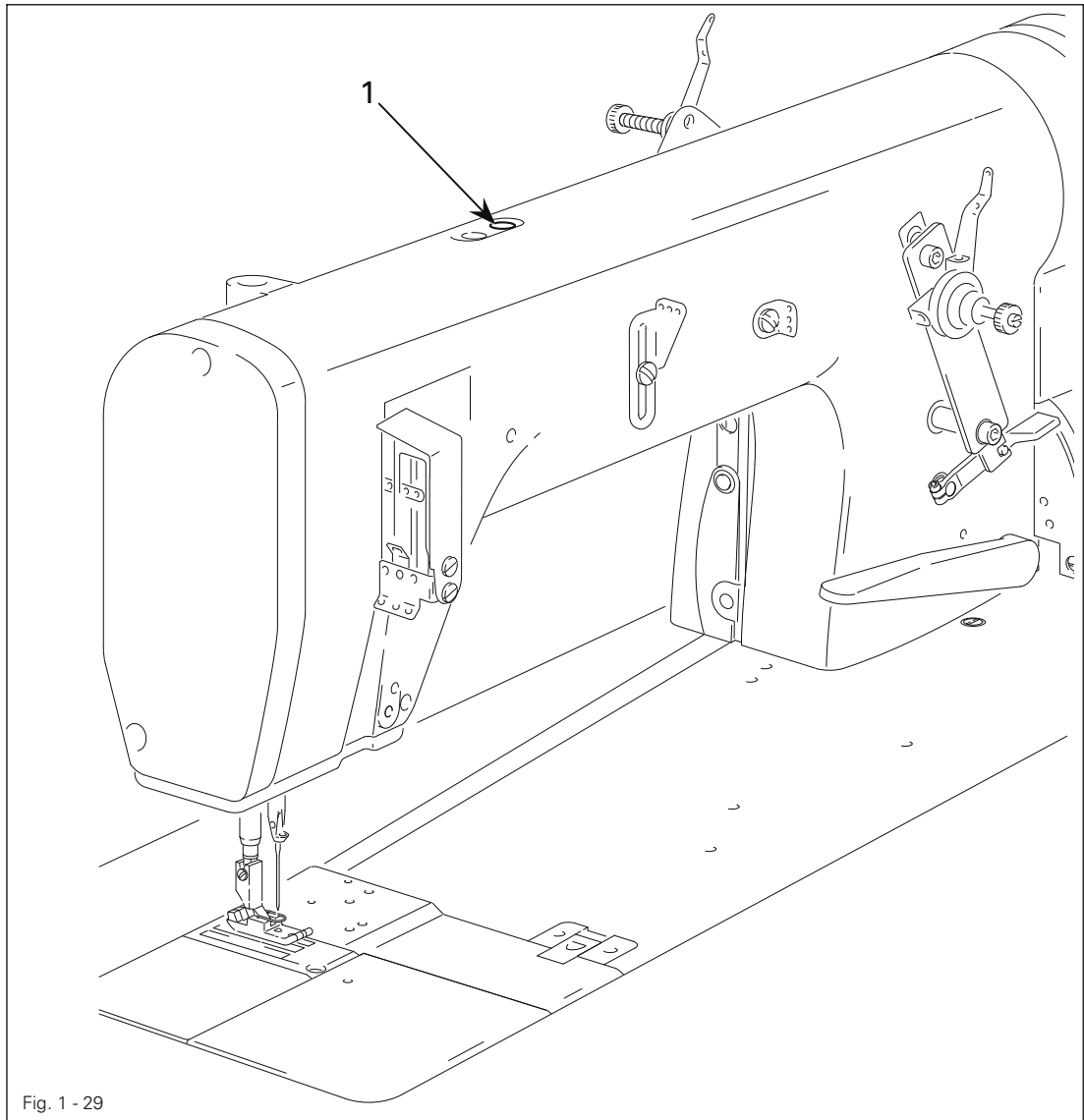
- Raise the presser bar lifter 1.
- Lift presser rod 2 and push the 7 mm thick blade of the adjustment gauge 3 (Order No. 61-111 642-19) under the presser foot.
- Push down presser rod lifter bracket 4 (screw 5) until contact is achieved.

Adjustment

1.05.29 Presser foot pressure

Requirement

The material feed should function perfectly at all times without any pressure marks occurring on the fabric.



- Turn screw 1 according to the requirement.

1.05.30 Knee lever rest position

Requirement

When in its rest position, the knee lever connecting rod must be at right angles to the bedplate.

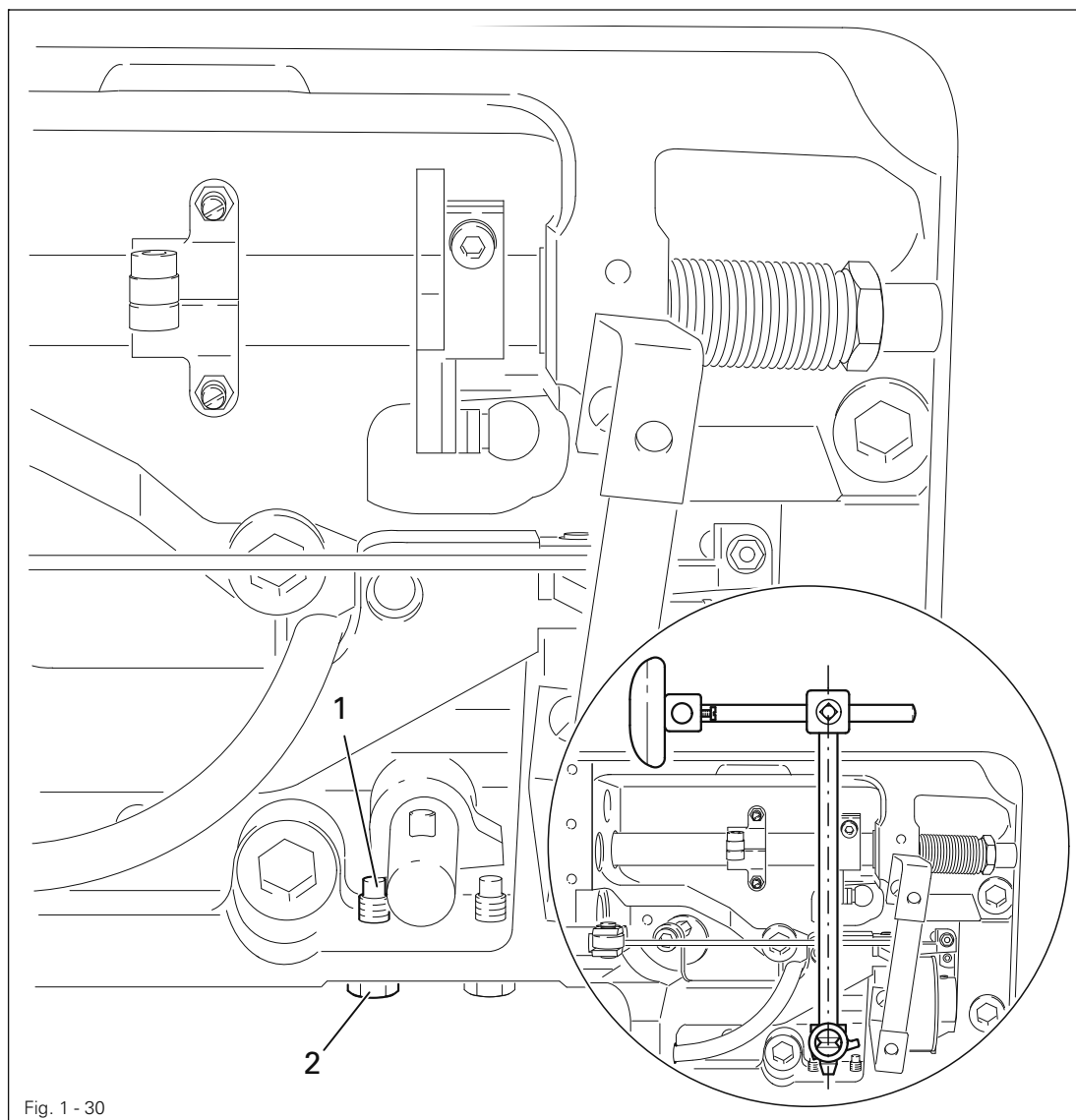
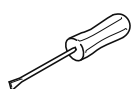


Fig. 1 - 30

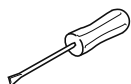
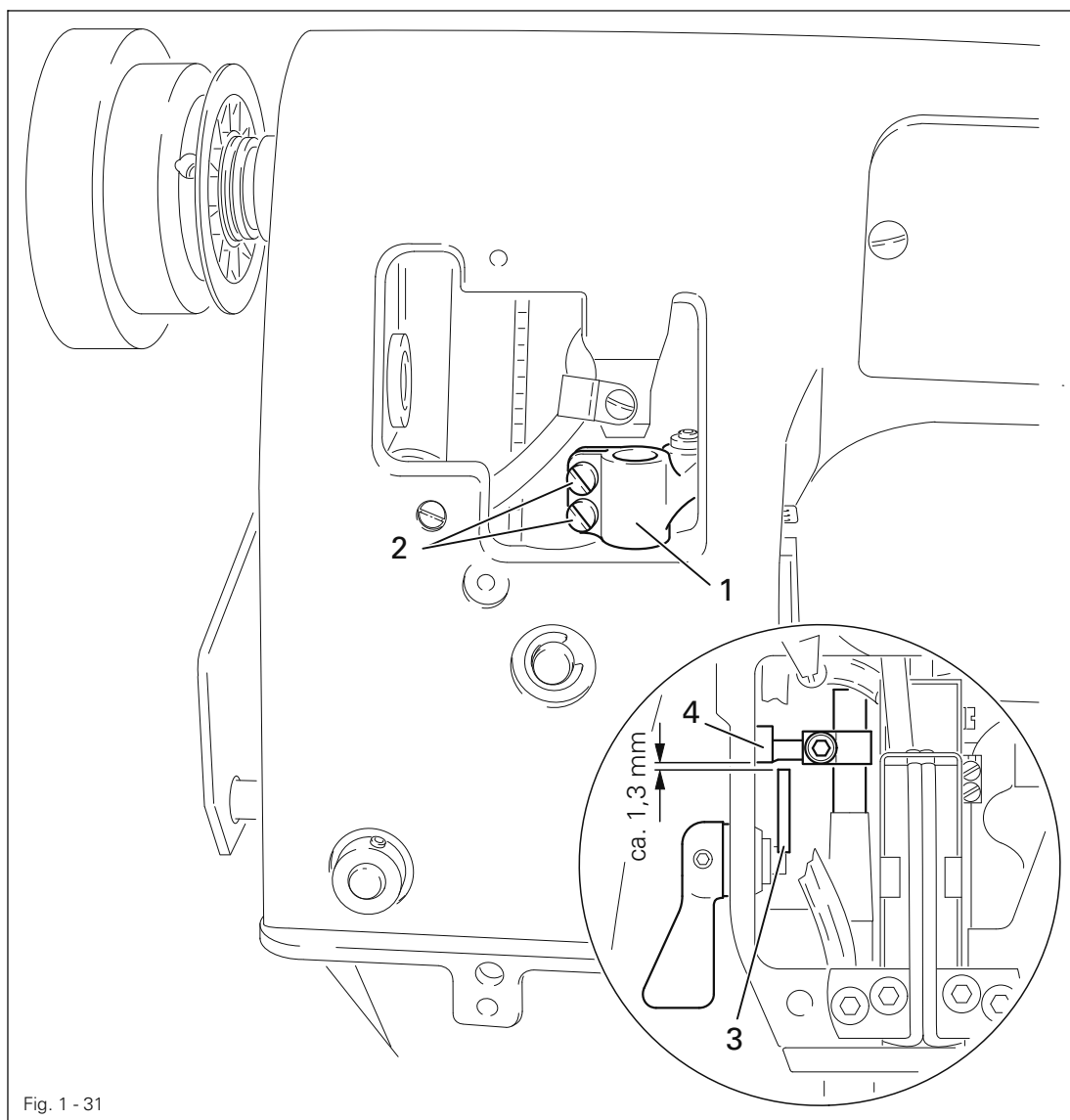


- Raise the presser bar lifter.
- Turn screw 1 (nut 2) according to the requirement.

1.05.31 Knee lever play

Requirement

When the presser foot is resting on the needle plate (feed dog beneath the needle plate), there must be a clearance of **about 1.3 mm** between the lifting lever **3** and lifting piece **4**.



- Lower the presser foot onto the needle plate
- Adjust crank **1** (screws **2**) according to the **requirement**.



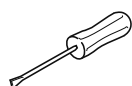
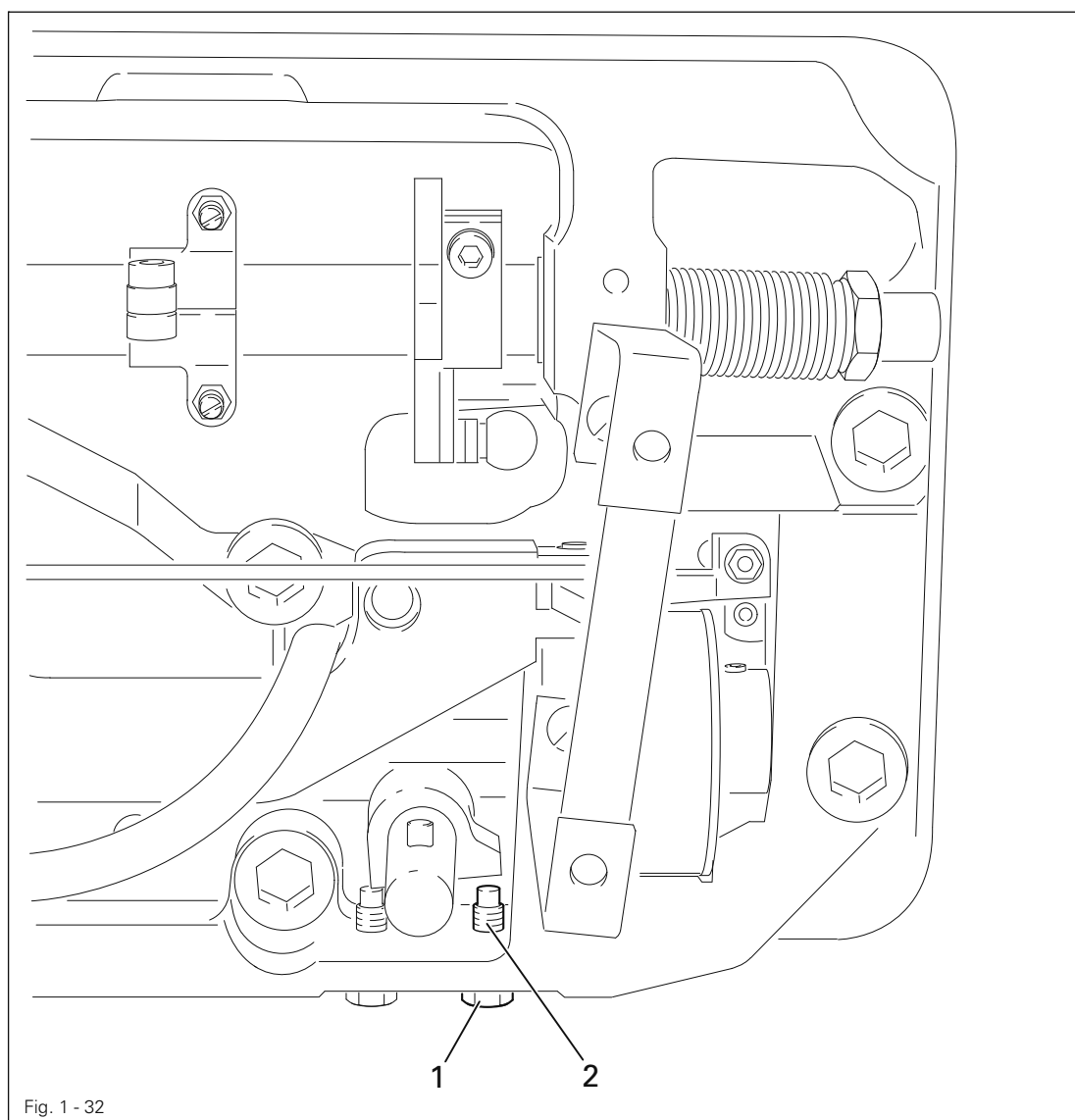
When tightening crank **1**, make sure that the knee lever shaft has no vertical play.

1.05.32 Knee lever stop

Requirement

When the knee lever is fully operated

1. the presser foot must be lifted **approx. 7 mm**, or on H-model machines **approx. 9 mm**, from the needle plate and
2. the presser bar lifter should drop by its own weight.



- Raise the presser foot by means of the presser bar lifter.
- Adjust screw 1 (nut 2) according to the **requirement**.

Adjustment

1.06 Adjusting the thread-trimming device -900/71

1.06.01 Pre-adjust the thread catcher

Requirement

1. Between the point of the thread catcher **4** and the front edge of the mounting plate **1** there must be a clearance of **32.5 - 33 mm**.
2. The guide plates **5** must be parallel to the mounting plate **1**.
3. The thread catcher **4** should move freely and with little play.

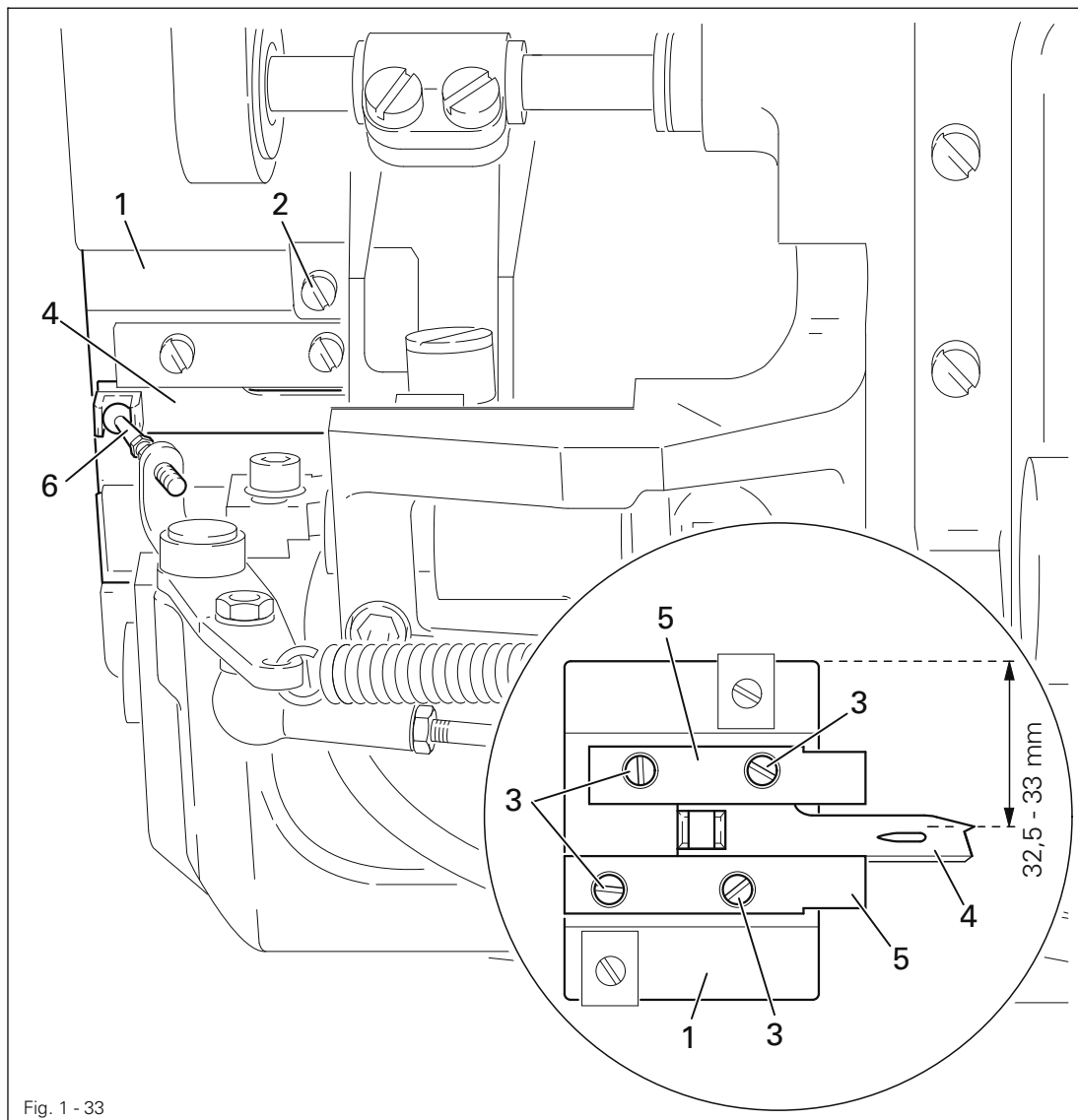
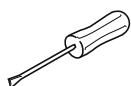


Fig. 1 - 33



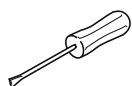
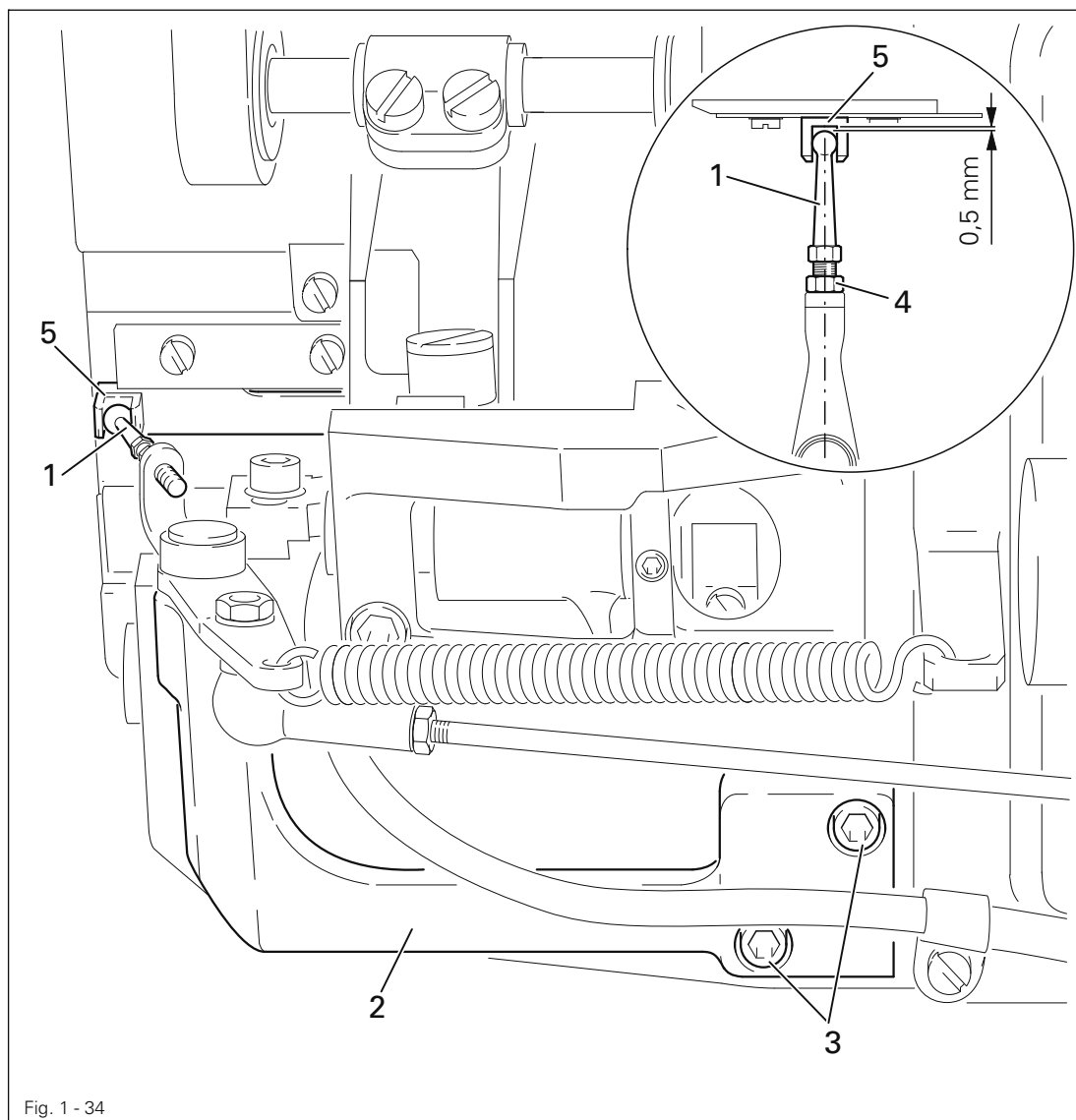
- Remove mounting plate **1** (screws **2**).
- Loosen screws **3**.
- Adjust thread catcher **4** according to **requirement 1**.
- Align guide plates **5** according to **requirements 2** and **3** and tighten screws **3**.
- Making sure that the ball stud **6** engages in the actuator of thread catcher **4**, unscrew the mounting plate **1**.

1.06.02 Positioning the ball stud

Requirement

In a vertical position the ball stud 1 must

1. be located in the middle of actuator 5 and
2. have a clearance of **0.5 mm** to the bottom of actuator 5.



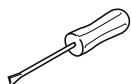
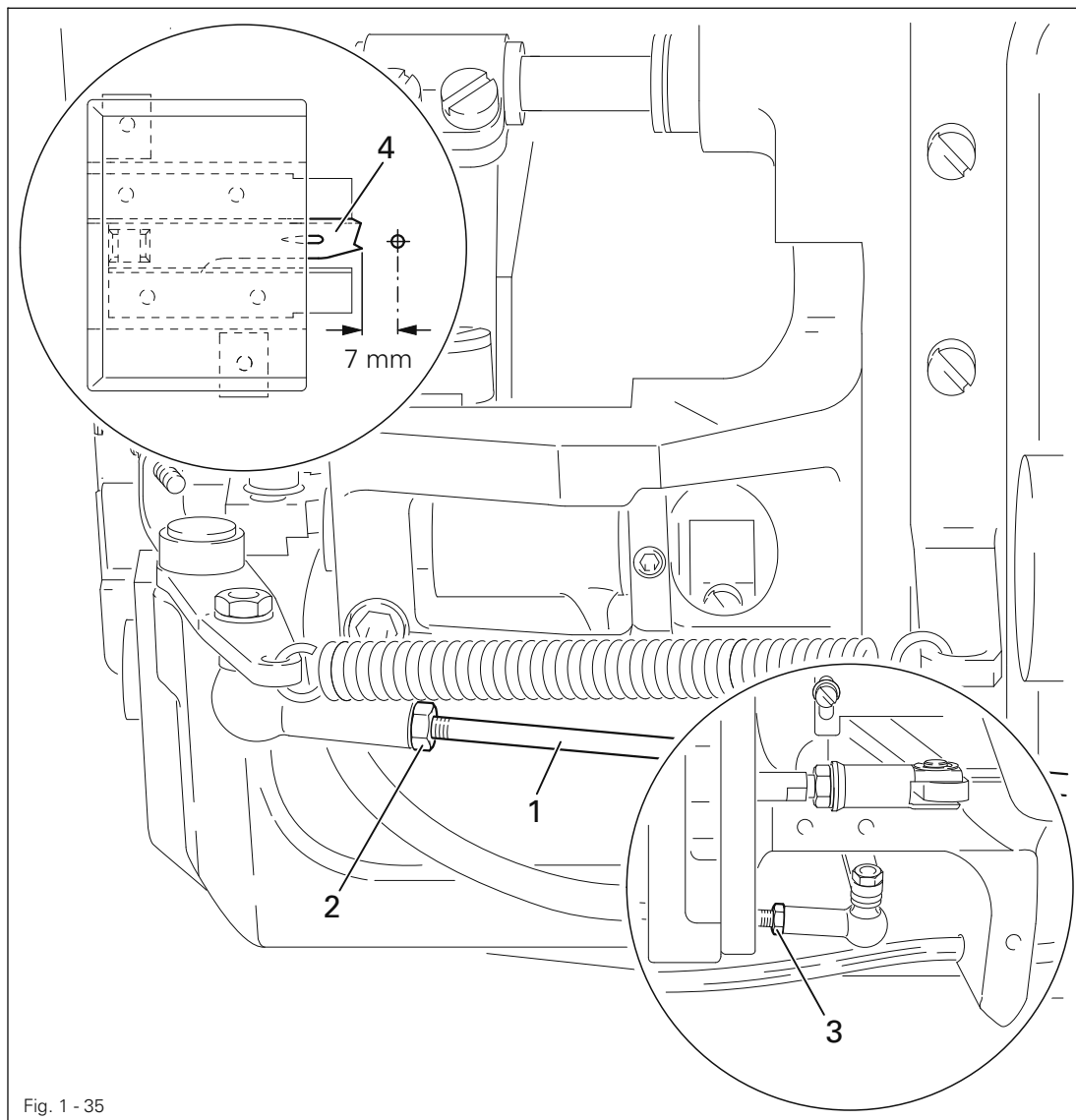
- Set ball stud 1 in a vertical position.
- Adjust bracket 2 (screws 3) according to requirement 1.
- Turn ball stud 1 (nut 4) according to requirement 2.

Adjustment

1.06.03 Position of thread catcher to needle

Requirement

When the thread-trimming device is in a neutral position, there must be a clearance of **7 mm** between the point of the thread catcher **4** and the needle center.

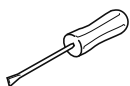
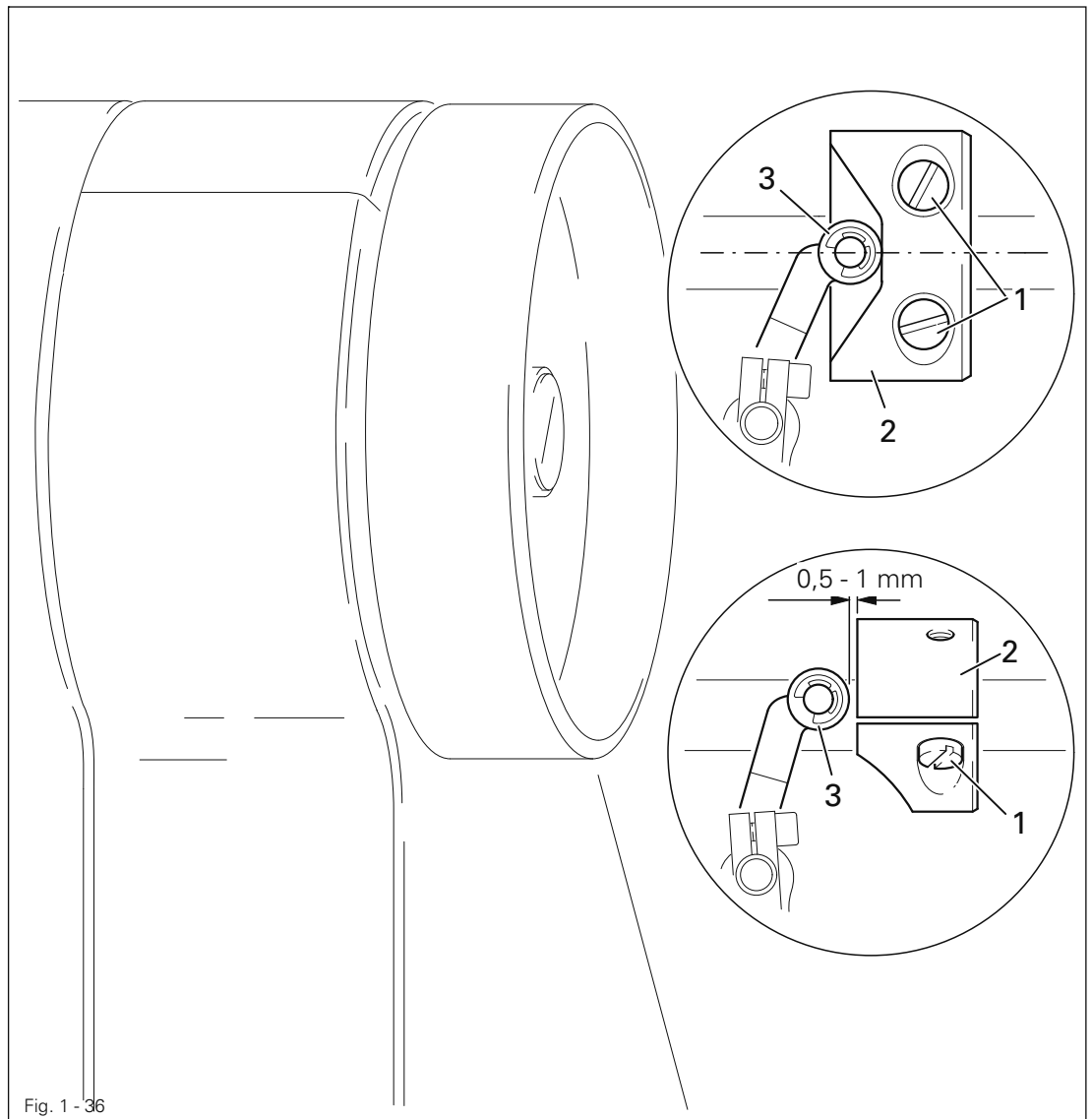


- Bring the thread-trimming device into its neutral position.
- Turn linkage rod 1 (nut 2, nut 3 with left-handed thread) according to the **requirement**.

1.06.04 Thread catcher interlock

Requirement

1. When the needle bar is at TDC, the roller **3** must be located in the center of the cutout of the interlocking cam **2**.
2. When the thread-trimming device is in a neutral position and the needle bar is at BDC, there must be a clearance of **0.5 - 1 mm** between the interlocking cam **2** and the roller **3**.



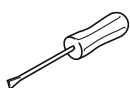
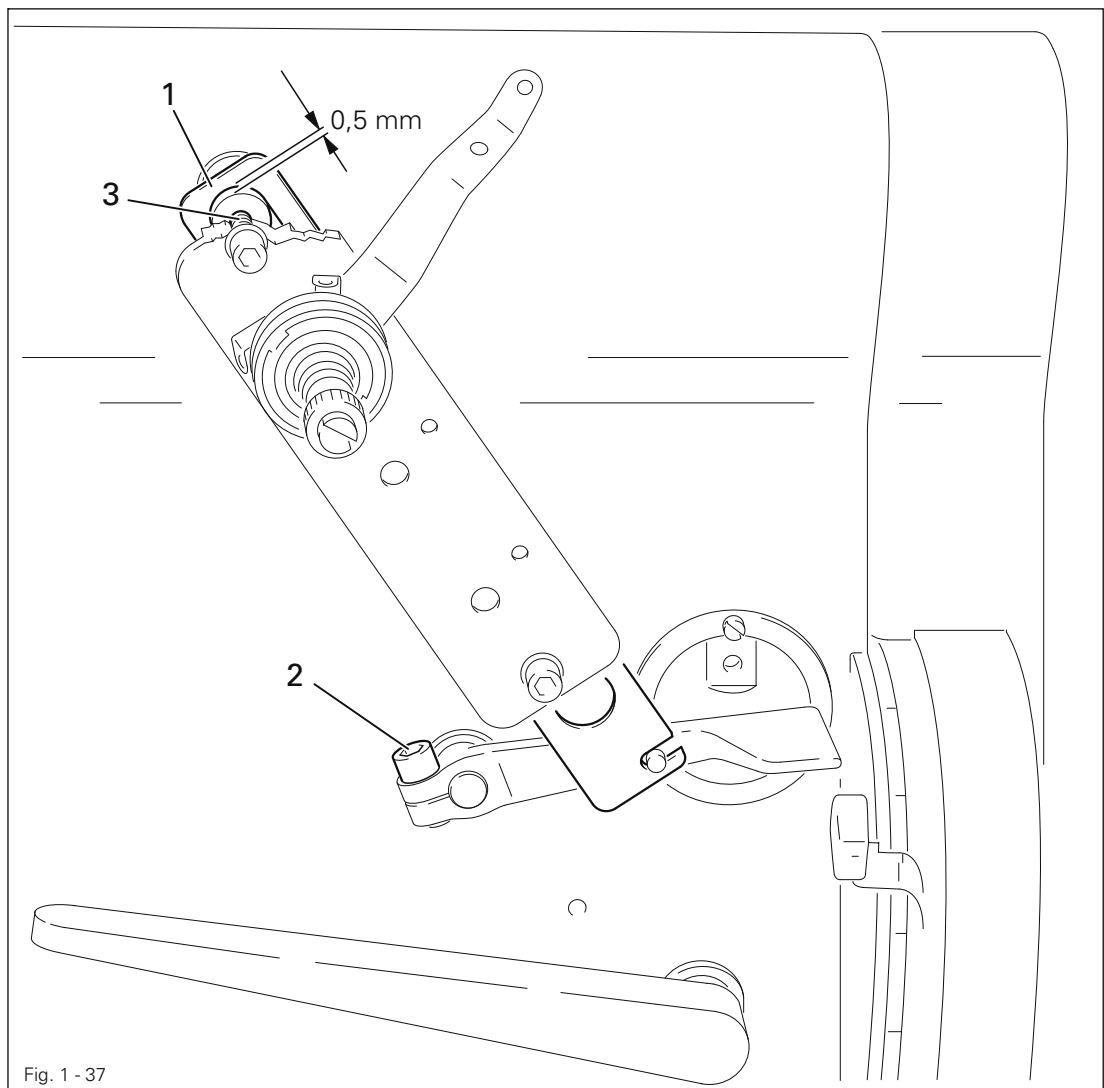
- Loosen screws **1** so that the interlocking cam can be turned on its shaft with resistance.
- Bring the needle bar to TDC.
- In this position turn the interlocking cam **2** according to **requirement 1**.
- Bring the thread-trimming device to its neutral position and the needle bar to BDC.
- Adjust interlocking cam **2** according to **requirement 2** and tighten screws **1**.

Adjustment

1.06.05 Tension release

Requirement

When the cylinder is fully actuated, there must be a clearance of about **0.5 mm** between the top end of the elongated hole in plate **1** and the guide pin **3**.



- Fully actuate the cylinder of the thread-trimming device.
- Adjust plate 1 (screw 2) according to the **requirement**.

1.06.06 Cutting test

Requirement

1. The point of the thread catcher **2** must pick up the looper thread and the rear part of the needle thread loop reliably.
2. When the cover plate **1** is removed, the threads must remain undamaged.
3. When the cover plate **1** is in position, the thread catcher **2** must move between the knife **3** and the clamp springs **5**, during which the threads are properly cut and bound.

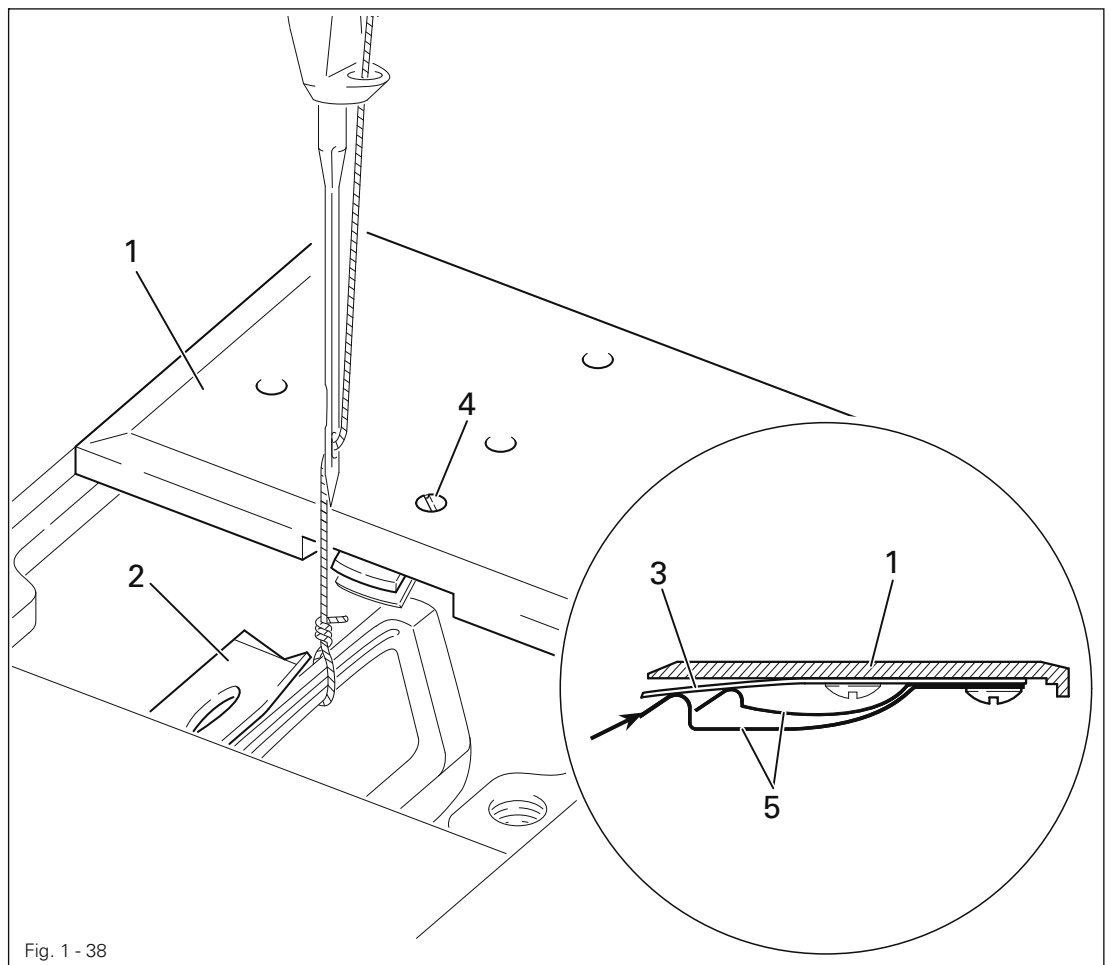
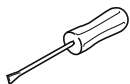


Fig. 1 - 38



- Place material under the presser foot and sew a few stitches.
- Remove cover plate **1**.
- Position the needle as in **Chapter 1.06.04 Thread catcher interlock**.
- Operate the cutting cylinder manually, checking **requirements 1 and 2**.
- If necessary, readjust thread catcher **2** accordingly.
- Screw on cover plate **1**.
- Operate cutting cylinder again, checking **requirement 3**.
- If necessary, carefully turn screw **4** according to **requirement 3**.



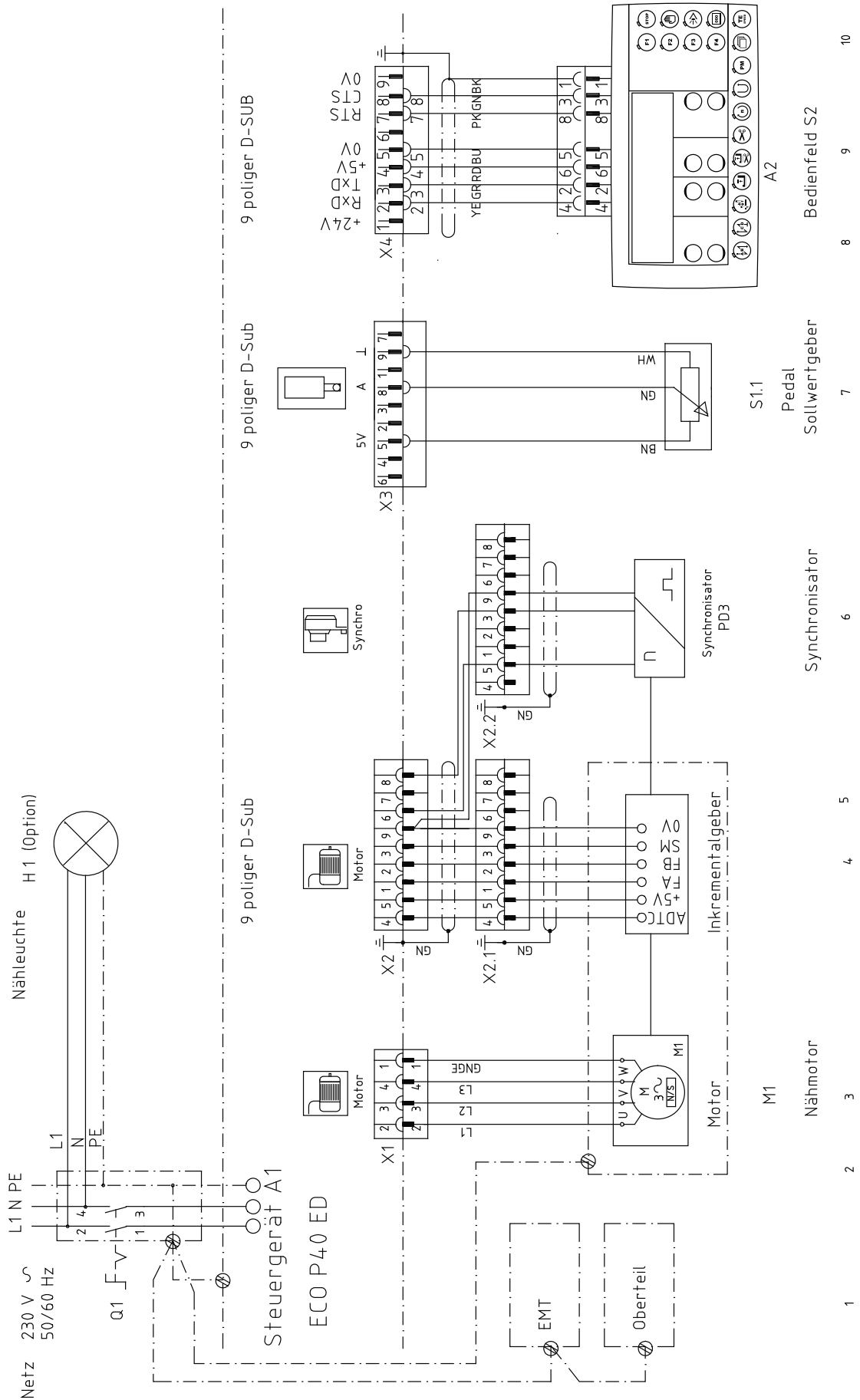
Consult the instruction manual for the drive for a description of the parameter settings and a list of the parameters.

2 Circuit diagrams

2.01 Reference list for the Circuit diagrams 91-191 501-95

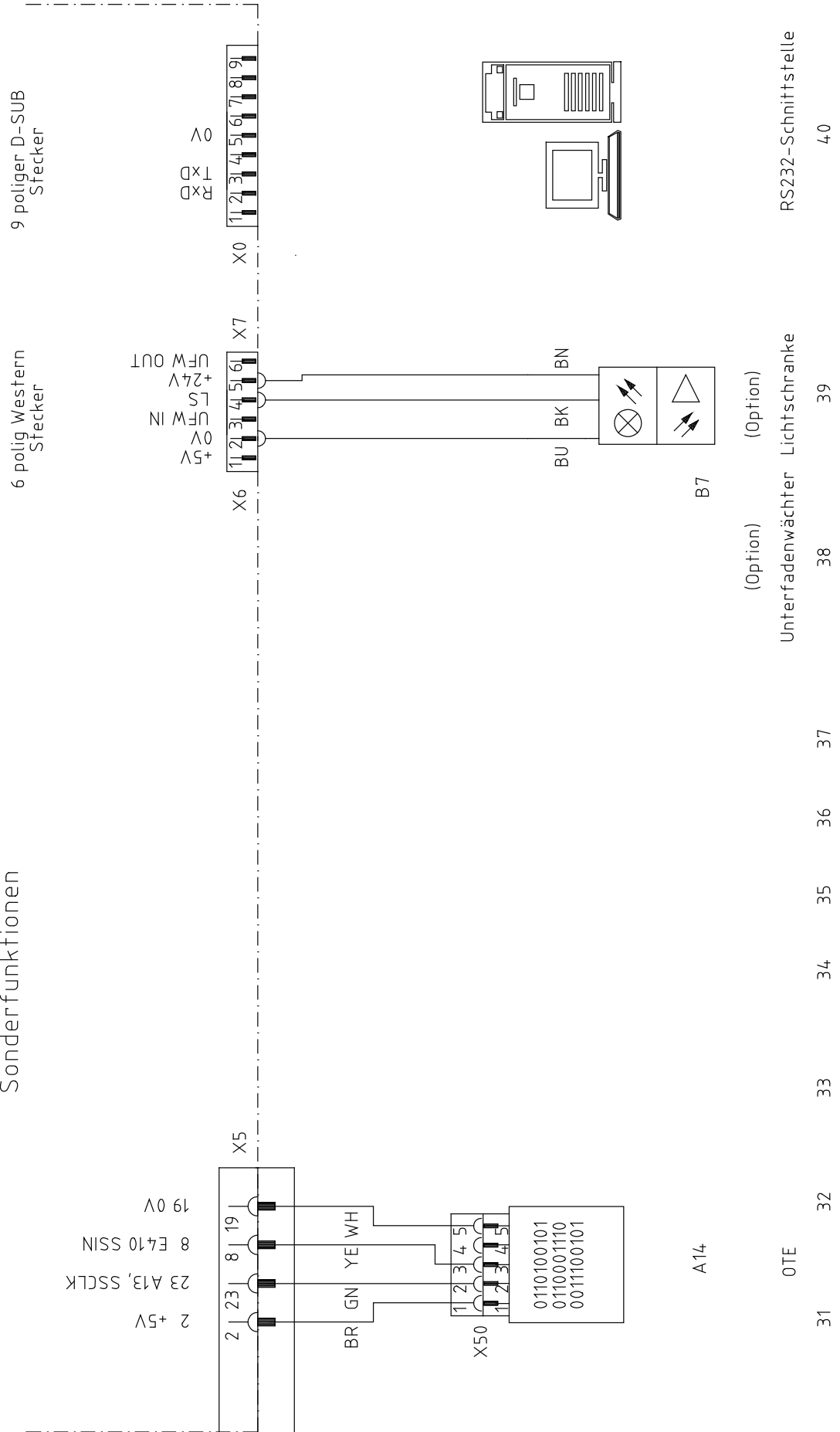
A1	Control unit Quick P40 ED
A2	Control panel BDF S3
A14	Sewing head recognition system (OTE)
H1	Sewing lamp (optional)
H10	LED stitch counter
M1	Sewing motor
Q1	Main switch
S1	Manual backtacking key
S1.1	Pedal speed control unit
S6	Start inhibitor (E6 stop)
X0	PC-interface (RS 232)
X1	Motor
X2	Incremental transducer
X2.1	Incremental transmitter adapter
X2.2	Synchronizer adapter
X2.3	Y5-911/.. backtacking device
X3	Speed control unit
X3.1	Y2 thread trimmer -900/..
X4	A2 Control panel BDF S3
X4.1	Y4 automatic foot lift (-910/..)
X5	Out-/input
X5.1	S1 Manual backtacking key
X6	Bobbin thread monitor (optional)
X7	Photoelectric barrier (optional)
X8	Y8 thread tension release (FSL)
X22	Y2 thread trimmer -900/..
X24	Y4 automatic foot lift (-910/..)
X25	Y5 backtacking device (-911/..)
X28	Y8 thread tension release (FSL)
X50	A14 Sewing head recognition system (OTE)
Y2	thread trimmer -900/.
Y4	automatic foot lift (-910/..)
Y5	backtacking device (-911/..)
Y8	thread tension release (FSL)

2.02 Circuit diagrams 91-191 501-95



Steuergerät A1 ECO P40 ED

Sonderfunktionen





Europäische Union
Wachstum durch Innovation – EFRE



PFAFF Industriesysteme und Maschinen AG

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

Telefon: +49-6301 3205 - 0
Telefax: +49-6301 3205 - 1386
E-mail: info@pfaff-industrial.com