



**HIGHLEAD**

**GC22818-1D**

**Cylinder bed basting machine with trimmer**

**Instruction Manual**  
**Parts Catalog**

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## **1. SAFETY**

### **1) GENERAL SAFETY TIPS**

- ① The machine should only be used after studying the accompanying instruction manual and only by specially instructed operating staff.
- ② Before bringing the machine into service read the safety tips and the instruction manual of the engine manufacturer.
- ③ The machine may only be used according to their regulations and not without the accompanying protective fittings. All relevant safety regulations should also be observed.
- ④ When changing sewing tools (for example needle, presser foot, needle plate and bobbin winder), when threading up, when leaving the work place as well as during maintenance work the machine should be unplugged or switched off at the main switch.
- ⑤ Daily maintenance work should only be carried out by specially trained personnel.
- ⑥ Repair work as well as special maintenance work should only be carried out by skilled workers or specially trained personnel.
- ⑦ Working on the electrical equipment should only be carried out by qualified electricians.
- ⑧ Working on active parts and equipment are not permitted.
- ⑨ Only the spare parts provided by us should be used during repairs. We explicitly point out that the spare parts and accessories that are not supplied by us are also not tested or passed by us. The installation or use of such products can in certain circumstances reduce the predetermined quality of your machine. We take no responsibility for damage caused by the use of non-original parts.

### **2) IMPORTANT POINTS FOR THE EMPLOYER**

- ① This instruction manual is a component of the machine and must always be at the disposal of the machine operators. It is necessary to read the manual before using the machine for the first time.
- ② Operation and maintenance personnel must be instructed on safety features of the machine and safe working methods.
- ③ The employer must ensure that the machine is only used if it is in perfect condition.
- ④ The employer should make sure that only authorised persons are permitted to work on the machine.
- ⑤ Further information can be obtained from the responsible sales office.

### **3) SERVICE AND TECHNICAL PERSONNEL**

#### **(1) Service Personnel**

Service personnel are responsible for the preparing, running and cleaning of the machine as well as the elimination of faults in the sewing. Service personnel must observe the following points:

- ① to follow the safety guidelines in the instruction manual
- ② to avoid any type of work which may reduce the safety of the machine
- ③ to wear tight-fitting clothes and avoid wearing jewellery, like necklaces and rings

④ to report immediately changes in the machine which may reduce safety to the employer.

## **(2) Technical Personnel**

Technical personnel are responsible for the lubrication, maintenance, repair and adjustments to the machine. Technical personnel must observe the following points:

- ① To follow safety guidelines in the instruction manual
- ② Before beginning maintenance work the main switch must be switched off and it must be ensured that it will not be switched on again.
- ③ Working on active parts and equipment is not permitted.
- ④ After repair and maintenance work the protective covering must be put back and the electric control box must be closed.

## **2. TESTING, TRANSPORT & STORAGE**

### **1) TIPS ON TESTING**

The machine was tested before delivery according to the EN60204-3-1 edition 1/86.

### **2) TRANSPORT WITHIN THE CUSTOMER SITE**

Transport within the customer site is not the responsibility of the manufacturer. It should be ensured that the machine is correctly transported.

### **3) STORAGE**

The machine can be stored unused for up to 6 months. It should be protected against dirt and moisture. If the machine is to be stored longer the individual parts, in particular the sliding plates, should be protected against corrosion, with an oil film for example.

## **3. INSTALLATION & FIRST OPERATION**

The machine should only be installed and started by qualified technical personnel. All the relevant safety regulations should be observed. Suitable electricity supply must be available at the installation site (see technical data). It must be ensured that there is an even and solid ground surface as well as sufficient lighting at the installation site.

### **1) ASSEMBLING THE BOBBIN STANDS**

Place the bobbin stands in the drill hole in the table plate and fix them into place with the enclosed nuts.

### **2) FIRST OPERATION**

Before the first operation check the electric cables in case of any possible damage.

- ① Clean and oil the machine thoroughly
- ② Allow technical specialists to check whether the machine's motor may be connected to the available main supply and whether it is properly plugged in. If there is any deviation, do not start the machine.
- ③ When the machine is running the balance wheel should be turned towards the operator. Otherwise let technical specialists adjust the motor.

## 4. SPECIFICATIONS

Max. Sewing Speed	1000rpm
Max. Stitch Length	
Thread Take-up Lever Stroke	65.5mm
Needle Bar Stroke	39.4mm
Presser Foot Stroke	15mm
Needle	DP×35LR 14#-16#
Lubrication System	Manual

## 5. PREPARATION

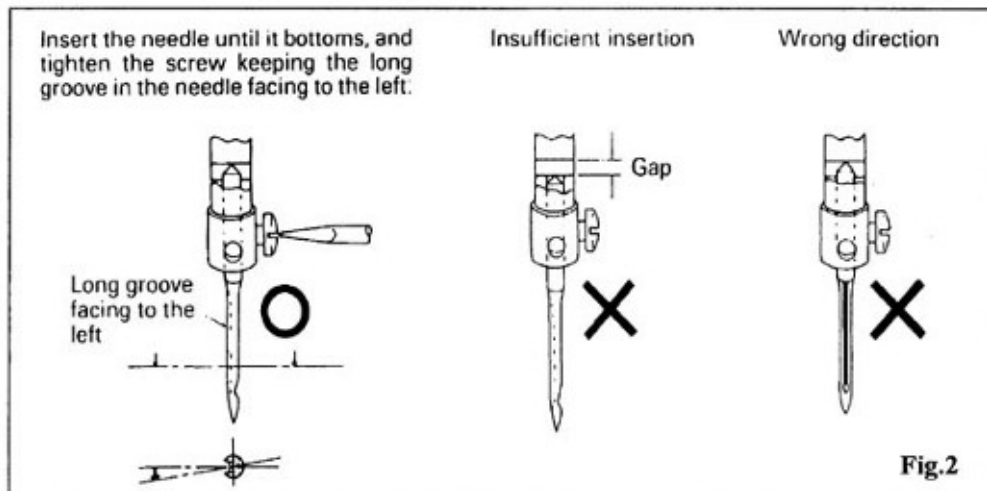
① All regulations and guidelines in this manual should be observed, with special attention being paid to safety regulations.

② All preparation work may only be carried out by specially instructed personnel. Before all preparation work the machine should be disconnected from the main electricity supply by switching off the main switch or unplugging it.

### 1) ATTACHING THE NEEDLE (Fig.2)

The choice of the right needle depends on the model of the machine as well as the thread and material to be used.

- ① Switch off the machine!
- ② Loosen needle-holding screw
- ③ Put the needle in as far as it will go (the long needle groove should point to the left)
- ④ Tighten needle-holding screw 1



### 2) WINDING THE LOWER THREAD, REGULATING THE TENSION OF THE THREAD (Fig.3)

- ① Put an empty bobbin onto the bobbin shaft and thread the thread according to Fig 3
- ② Push the bobbin catch in the direction of the arrow
- ③ The bobbin is filled during the progress of the sewing.
- ④ The bobbinet stops automatically when the bobbin is full.
- ⑤ The tension of the thread on the bobbin can be adjusted with knurl-screw 2.

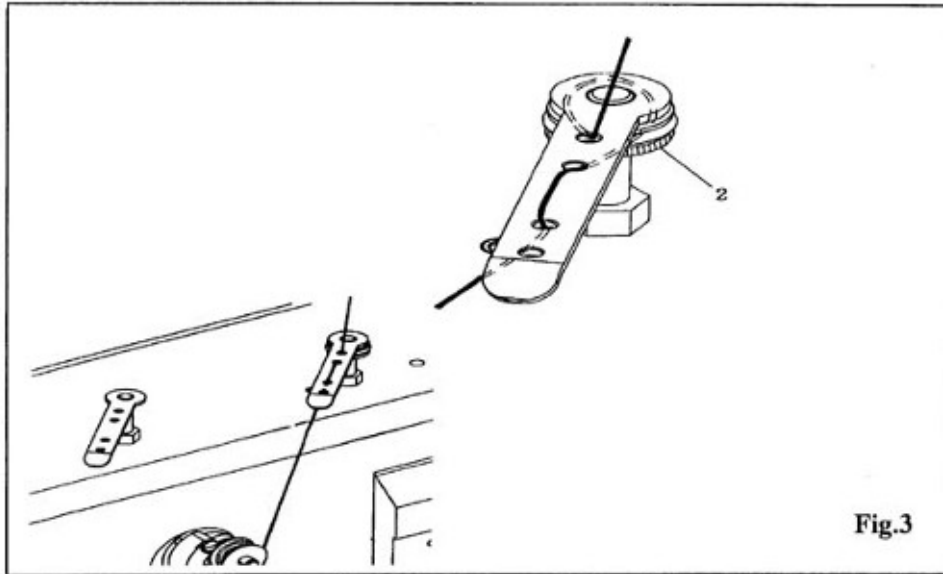


Fig.3

3) Threading the bobbin thread and regulating the bobbin thread tension (Fig.4, Fig.5)

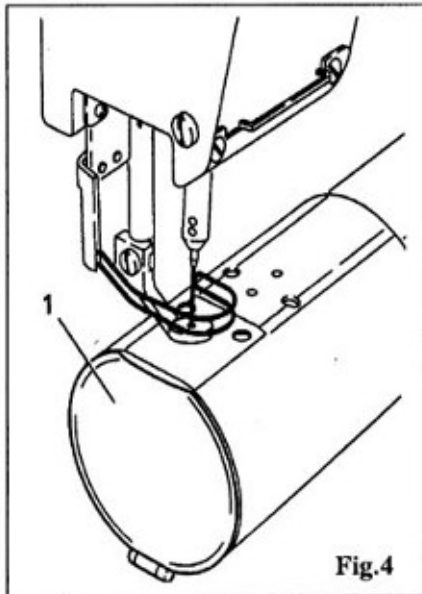


Fig.4

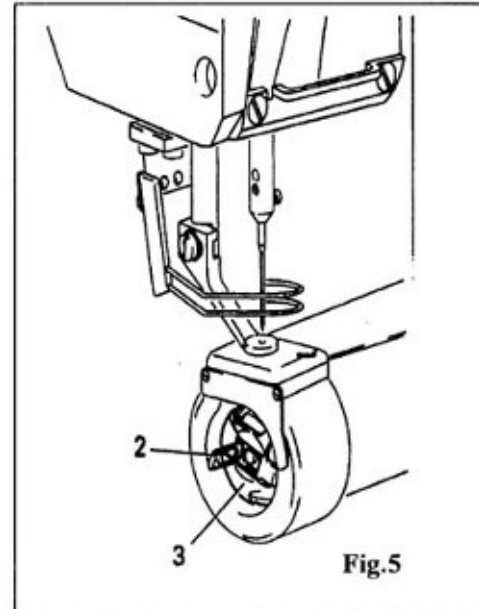


Fig.5

**Remove the bobbin case:**

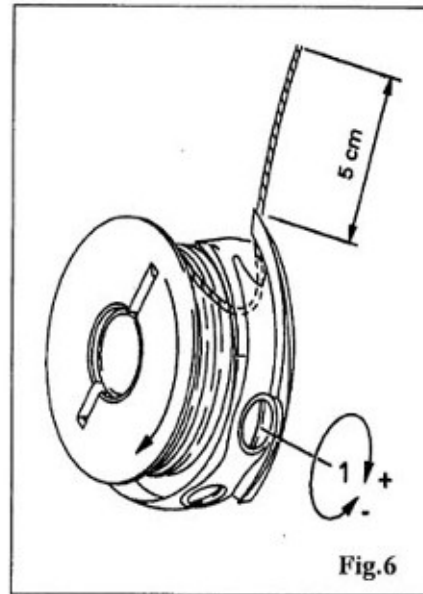
- ① Open flap 1.
- ② Lift latch 2 and remove bobbin case 3.

**Inserting the bobbin case:**

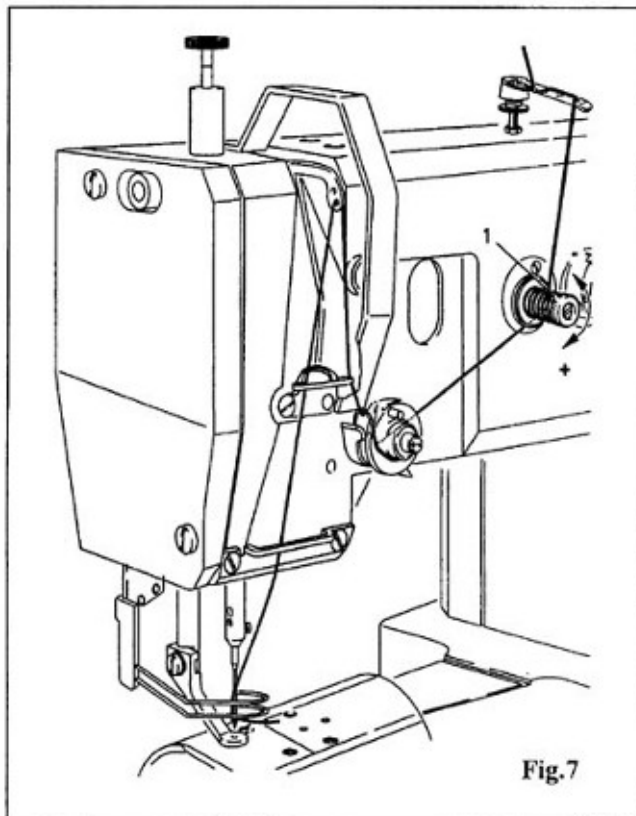
- ① Insert the full bobbin case so that it clicks firmly into place.
- ② Close flap 1 again.

#### 4) Threading the bobbin thread and regulating the bobbin thread tension (Fig.6)

- ① Thread the bobbin as shown in Fig. 6.
- ② When the thread is pulled. The bobbin must rotate as shown by the arrow.
- ③ Regulate the bobbin thread tension on stew 1.



#### 5) Threading needle thread / adjusting needle thread tension(Fig.7)



- ① Thread needle thread as shown in Fig. 10. Be sure to thread the needle from the Left.
- ② Regulate the needle thread tension by turning knurled screw 1.



## 6. CARE AND MAINTENANCE

### 1) Cleaning (Fig.8)

Switch off the machine!

Danger of injury due to unintentional starting of the machine!

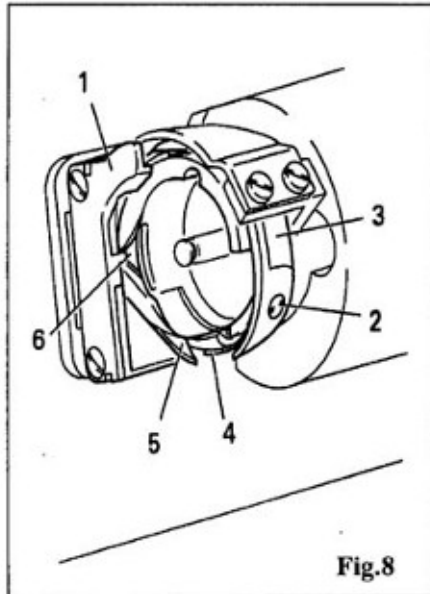


Fig.8

#### Cleaning the hook area:

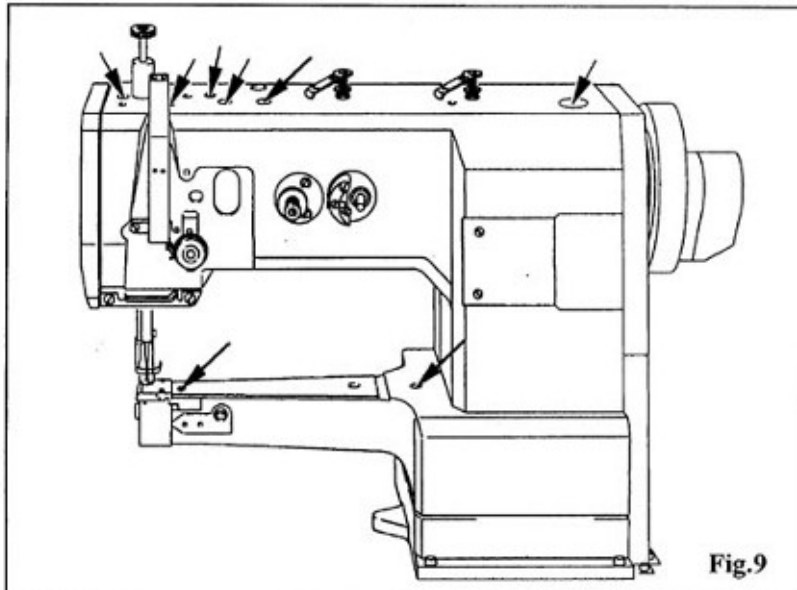
Clean hook area with a brush daily. In continuous operation several times daily.

#### Cleaning the hook:

- ① Open the flap or
- ② Set needle bar at its highest position.
- ③ Remove top of bobbin case together with bobbin
- ④ Unscrew and remove bobbin case position stop 1.
- ⑤ Remove screw 2 and take off hook gib 3.
- ⑥ Turn balance wheel until point 4 is aligned with point 5.
- ⑦ Take out bobbin case and clean hook race with petroleum spirit.
- ⑧ When inserting the bobbin case. Make sure that the lug on the rear side of bobbin case position stop 1 enters into groove 6.
- ⑨ Screw on hook gib 3.
- ⑩ Insert bobbin case and close cylinder-bed cap.
- (1) Close the flap

## 2) General oiling (Fig.9)

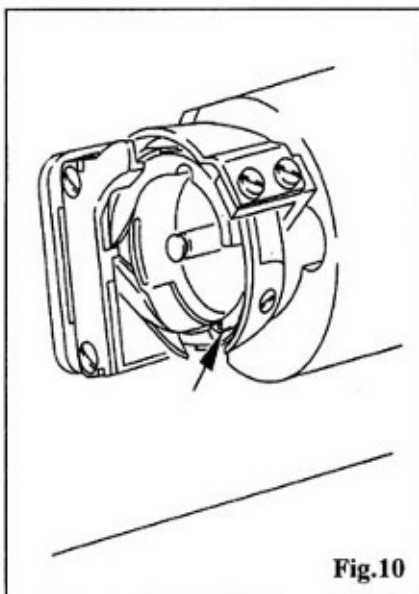
Switch off the machine! Danger of injury due to unintentional starting of the machine!



Apply oil at all bearing points above the table(see arrows)twice a week.

## 3) Oiling the sewing hook (Fig.10)

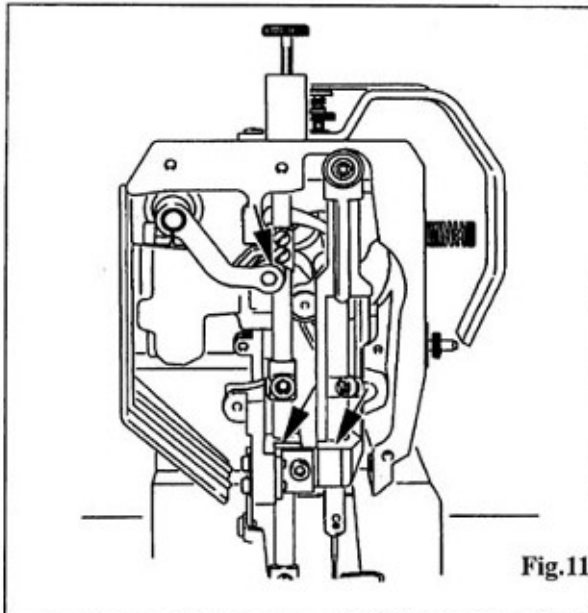
Switch off machine! Danger of injury by unintentional starting of the machine!



- ① Open the cylinder-bed cap.
- ② Apply 1 or 2 drops of oil in hole 1 in the hook race(see arrow) .
- ③ Reït the cylinder-bed cap.

#### 4) Oiling the needle-head parts (Fig.11)

Switch off the machine! Danger of injury due to unintentional starting of the machine!



- ① Remove the faceplate.
- ② Oil all moving parts and bearing points(see arrows)twice a week.
- ③ Refit the faceplate.

### 7. ADJUSTMENT

Unless stated otherwise, during all adjustment work the machine must be disconnected from the electric and pneumatic power supply!

Danger of injury if the machine is started accidentally!

#### 1) Notes on adjustment

All adjustments in this instruction manual refer to a completely assembled machine and must only be carried out by appropriately trained technical personnel. Machine covers that have to be removed and replaced for checks and adjustment work are not mentioned in the text. The screws and nuts indicated in brackets () are for the fixation of machine parts that have to be unscrewed before adjustment and tightened again afterwards.

#### 2) Tools, gauges and other equipment for adjusting

- ① Screwdrivers with blade widths from 2 to 10mm
- ② Spanners (wrenches)in sizes from 7 to 14mm
- ③ Allen keys from 2 to 6mm
- ④ Metal rule
- ⑤ Needle-rise gauge
- ⑥ Screw clamp
- ⑦ Needles
- ⑧ Sewing thread and material for stitching off

### 3) Abbreviations

t. d. c. =top dead centre

b. d. c. =bottom dead centre

### 4) Adjustment of the basic machine

#### (1) Needle position in needle hole(Fig.12)

##### Requirement

The needle must be exactly centered in the needle hole.

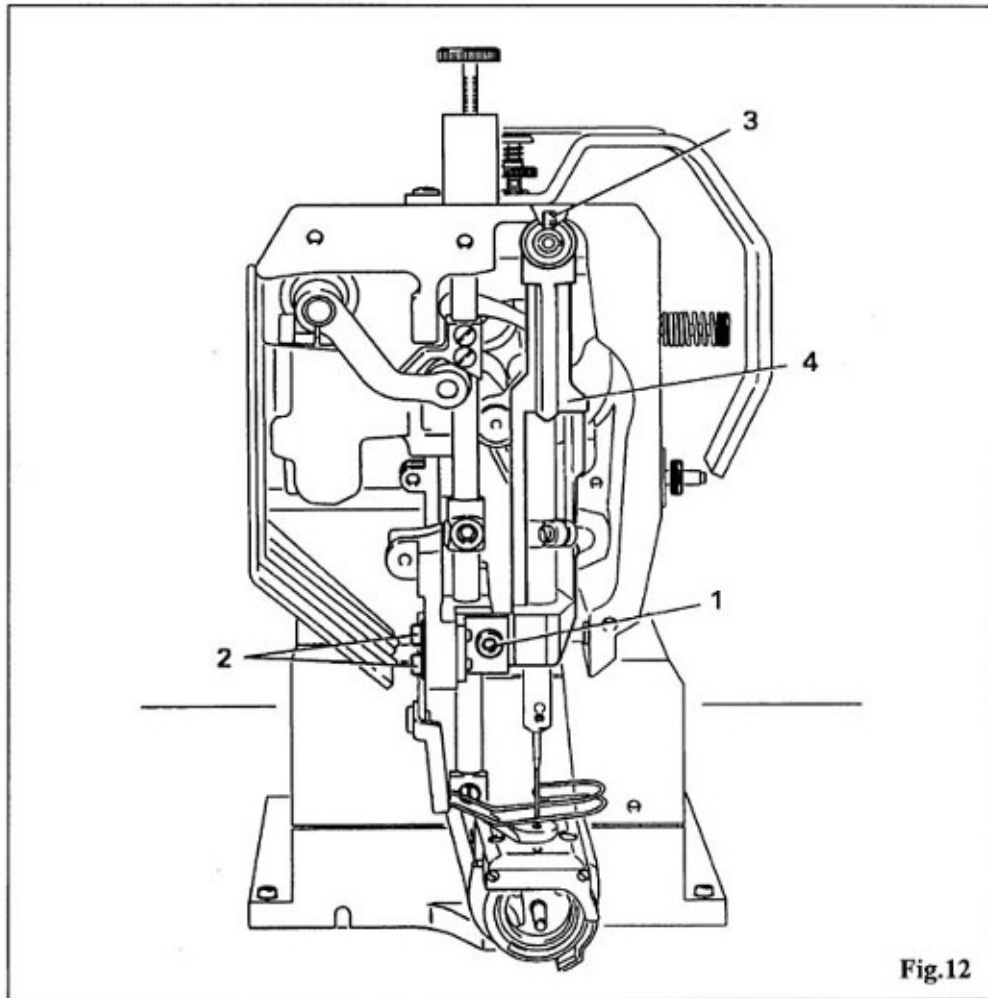


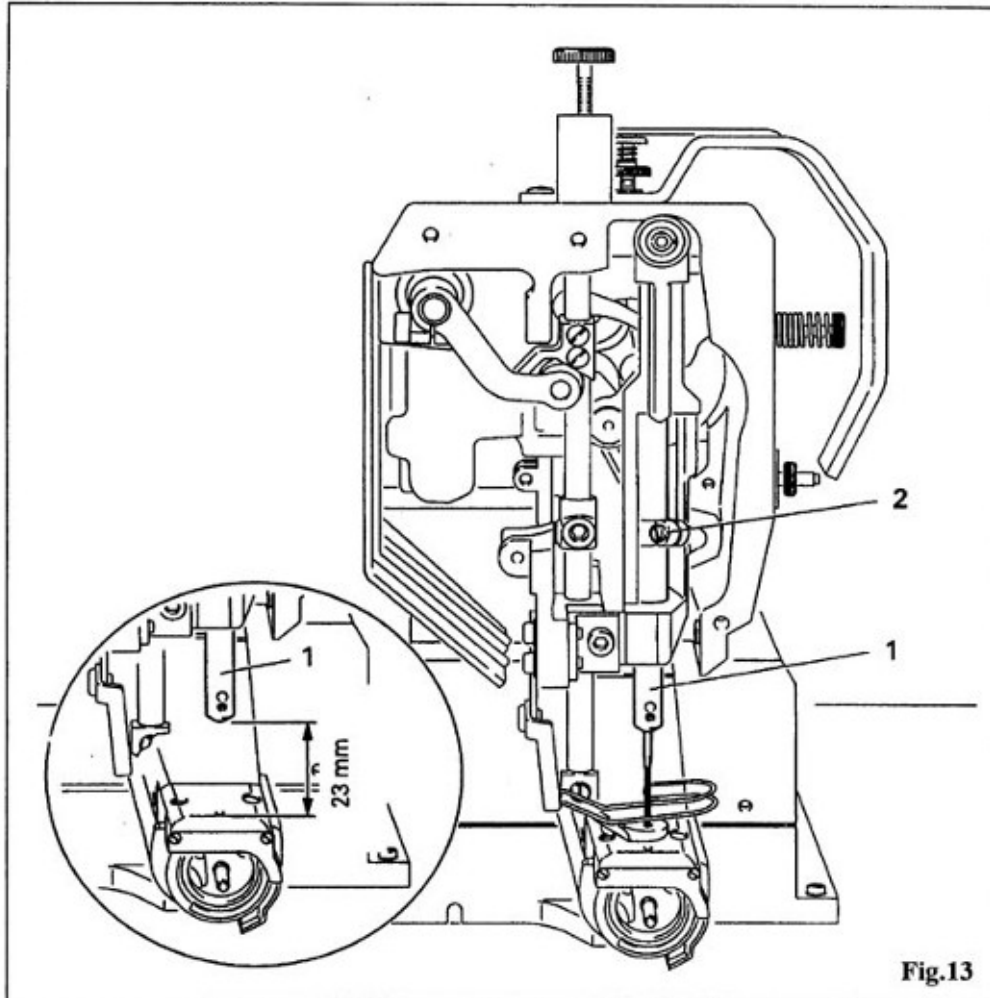
Fig.12

- ① Loosen screws 1, 2 and 3.
- ② Turn the balance wheel to set the needle just above the needle hole.
- ③ Re-position needle bar frame 4 according to Requirement.
- ④ Tighten screws 1, 2 and 3.

**(2) Needle height (preliminary adjustment) (Fig.13)**

**Requirement**

**With the needle bar at b. d. c. the clearance between needle bar and needle plate must be 23mm.**



**Fig.13**

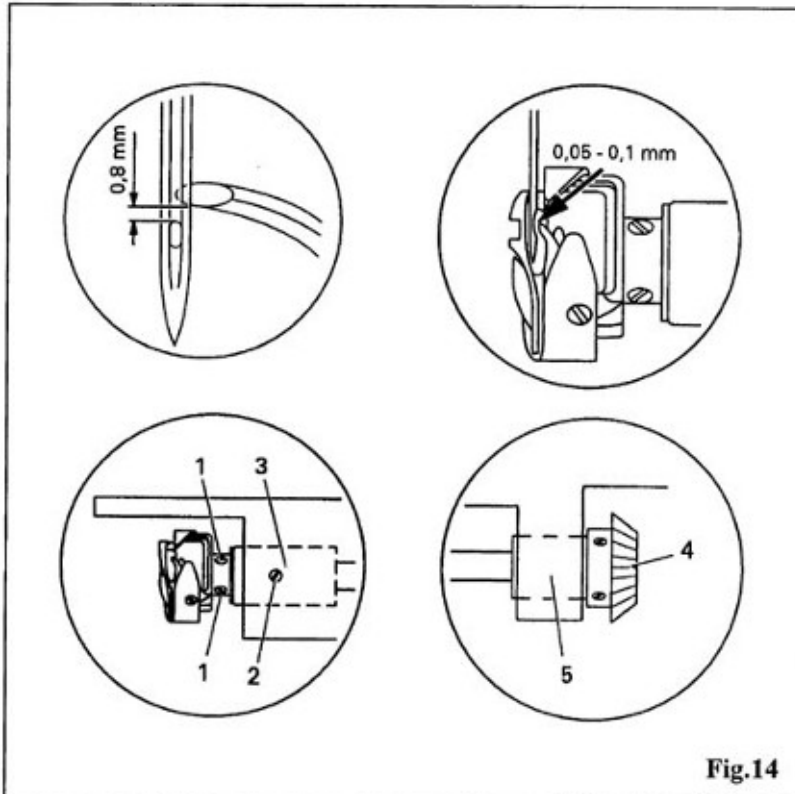
Position the height of needle bar 1(screws 2)according to Requirement. but do not turn it

**(3) Hook clearance, needle rise and needle height(Fig.14)**

**Requirement**

**In the needle-rise position(=1.8 mm past b. d. c. of the needle bar)**

**The hook point must be at “needle centre” and the clearance between hook and needle 0.05 to 0.1mm. and the top of the needle eye must be 0.8mm below the hook point.**



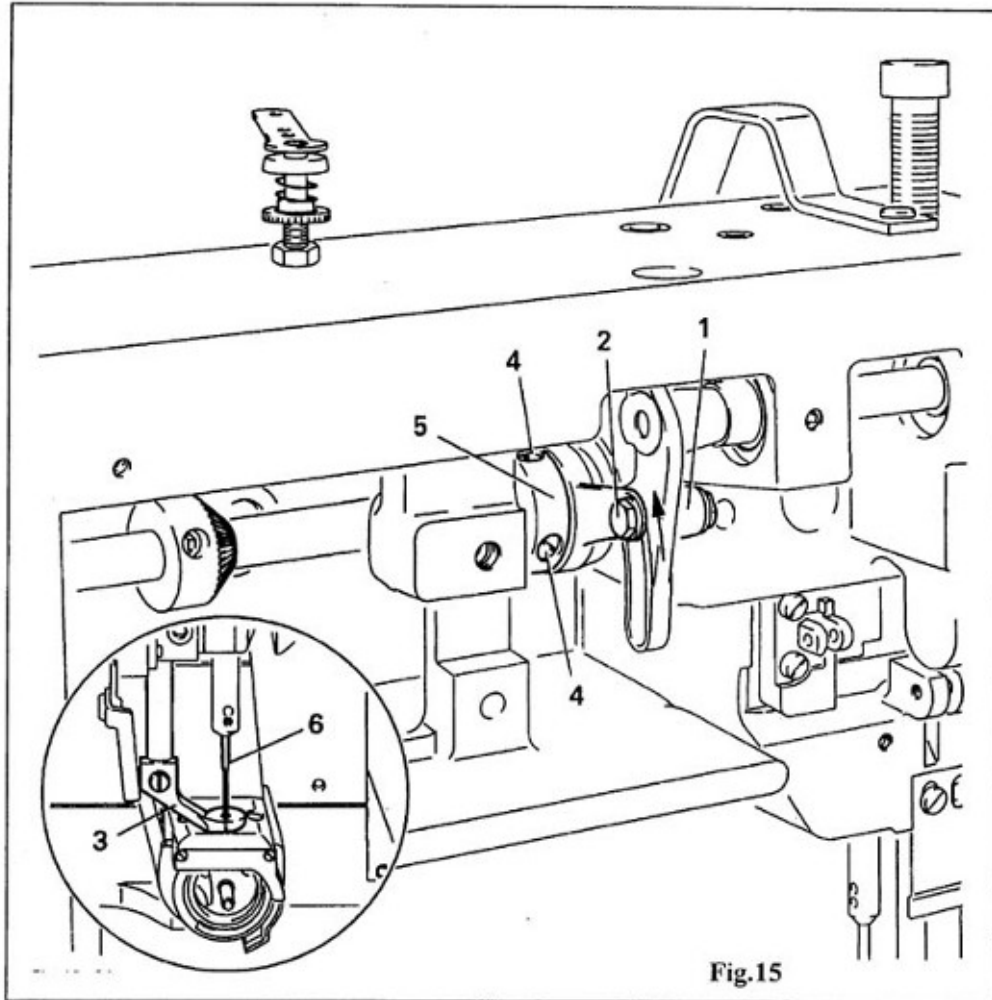
**Fig.14**

- ① Loosen screws 1 and 2(screw 2 is on the rear side of the machine).
- ② Set the needle bar at b. d. c. and place the 1.8 mm thick feeler gauge with its cutout close under the lower needle bar bearing.
- ③ Place the screw clamp up against the feeler gauge and tighten it.
- ④ Remove the feeler gauge and turn the balance wheel until the screw clamp is resting against the needle bar bearing.
- ⑤ Adjust the hook according to Requirements.
- ⑥ If necessary adjust the needle height, see Chapter (2) Needle height(preliminary adjustment).
- ⑦ Move hook shaft bearing 3 against the hook and tighten screw 2.
- ⑧ Move bevel gear 4 against bearing 5 and tighten screws 1.

**(4) Top feed lifting motion (Fig.15)**

**Requirement**

**When the balance wheel is turned, lifting presser 3 and needle point 6 must reach the needle plate at the same time.**



**Fig.15**

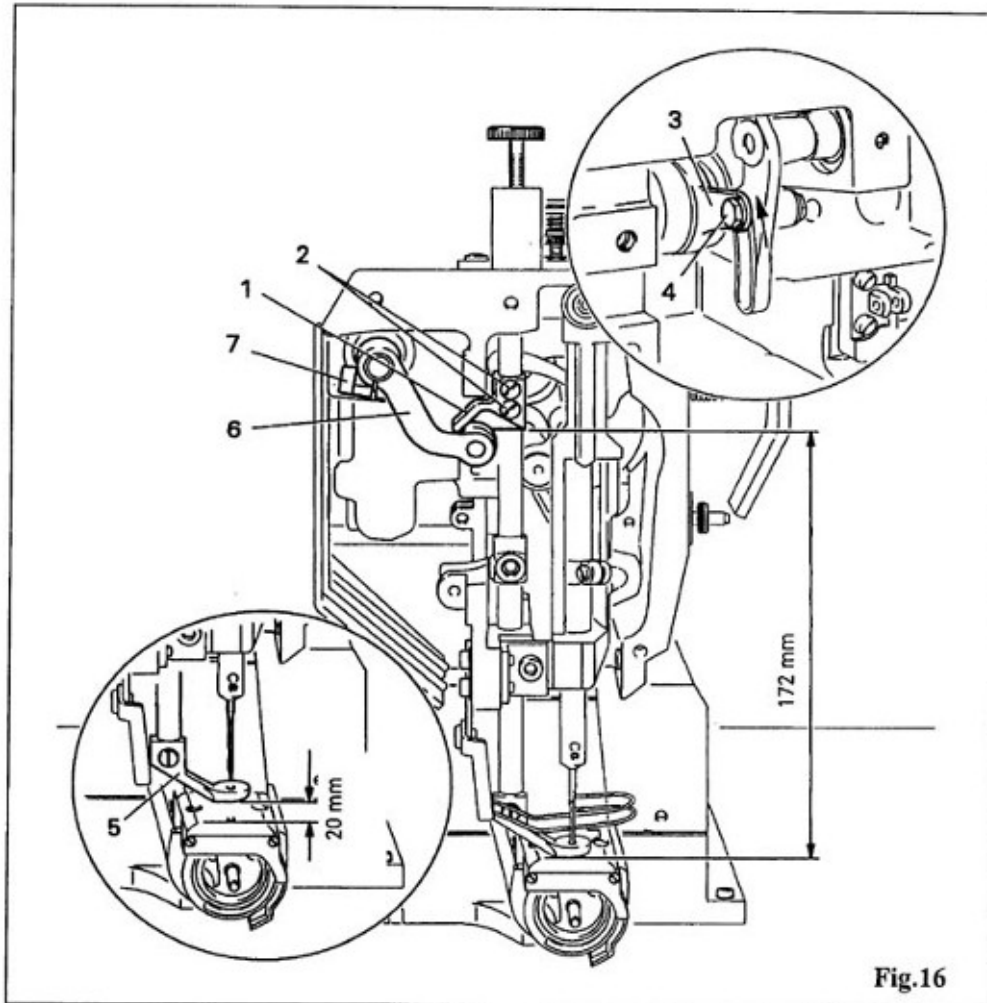
- ① Push lever 1(screw 2)fully up in its slot.
- ② Lower lifting presser 3 onto the needle plate.
- ③ Loosen screws 4 just enough to allow eccentric 5 to be turned on its shaft.
- ④ Turn eccentric 5 according to **Requirement**.
- ⑤ Tighten screws 4.

**(5) Top feed stroke (Fig.16)**

**Requirement**

**1.**When the needle bar is at b. d. C. actuator 1 must be at a distance of 172 mm from the needle plate.

**2.**At the longest stroke setting. lifting presser 5 must be 20mm from the needle plate when at t. d. c.



**Fig.16**

- ① Set needle bar at b. d. c.
- ② Re-position actuator 1(screws 2)according to **Requirement 1.**
- ③ Push lever 3(screw 4)to the top end of its linkage slot.
- ④ Turn balance wheel to set lifting presser 4 at t. d. c.
- ⑤ Turn crank 6(screw 7)according to **Requirement 2.**



(6) Needle-thread tension release (Fig.17)

**Requirement**

With the take-up lever at b. d. c. the tension disks must be apart by their maximum clear-ance of 1.0mm.

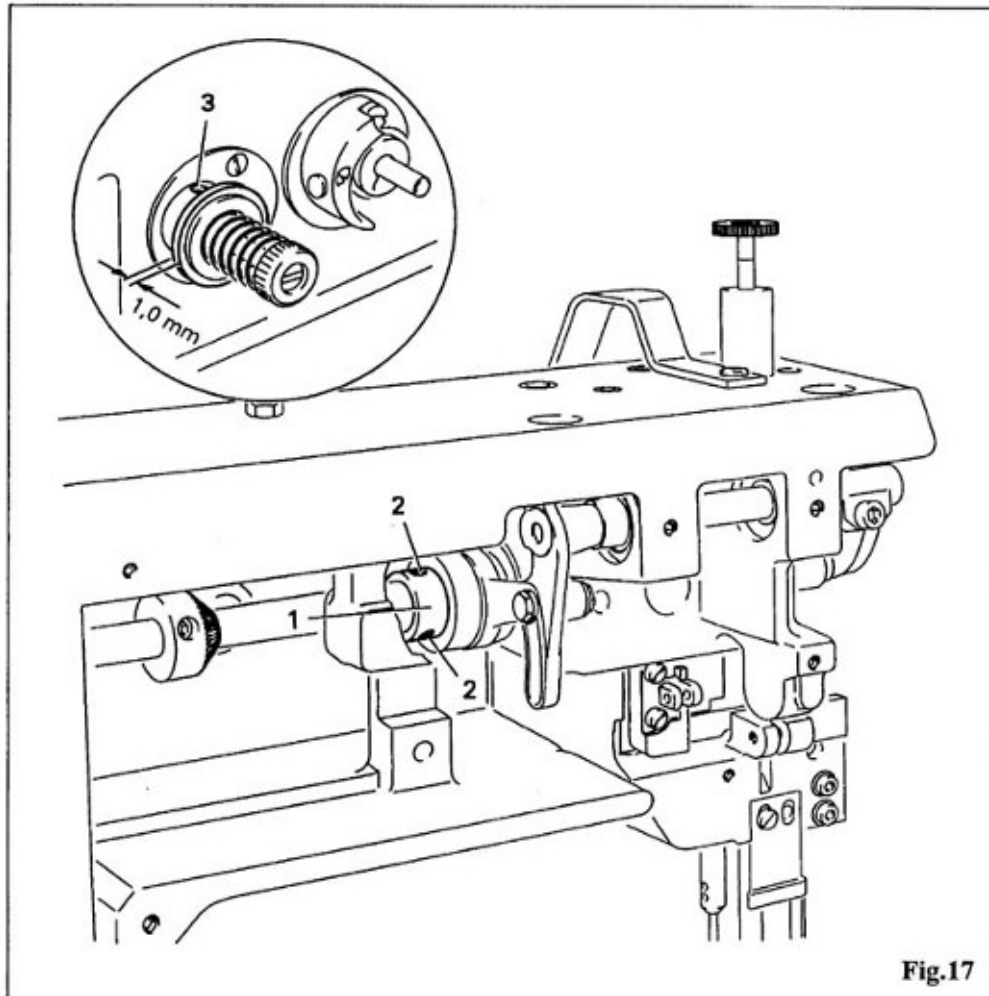


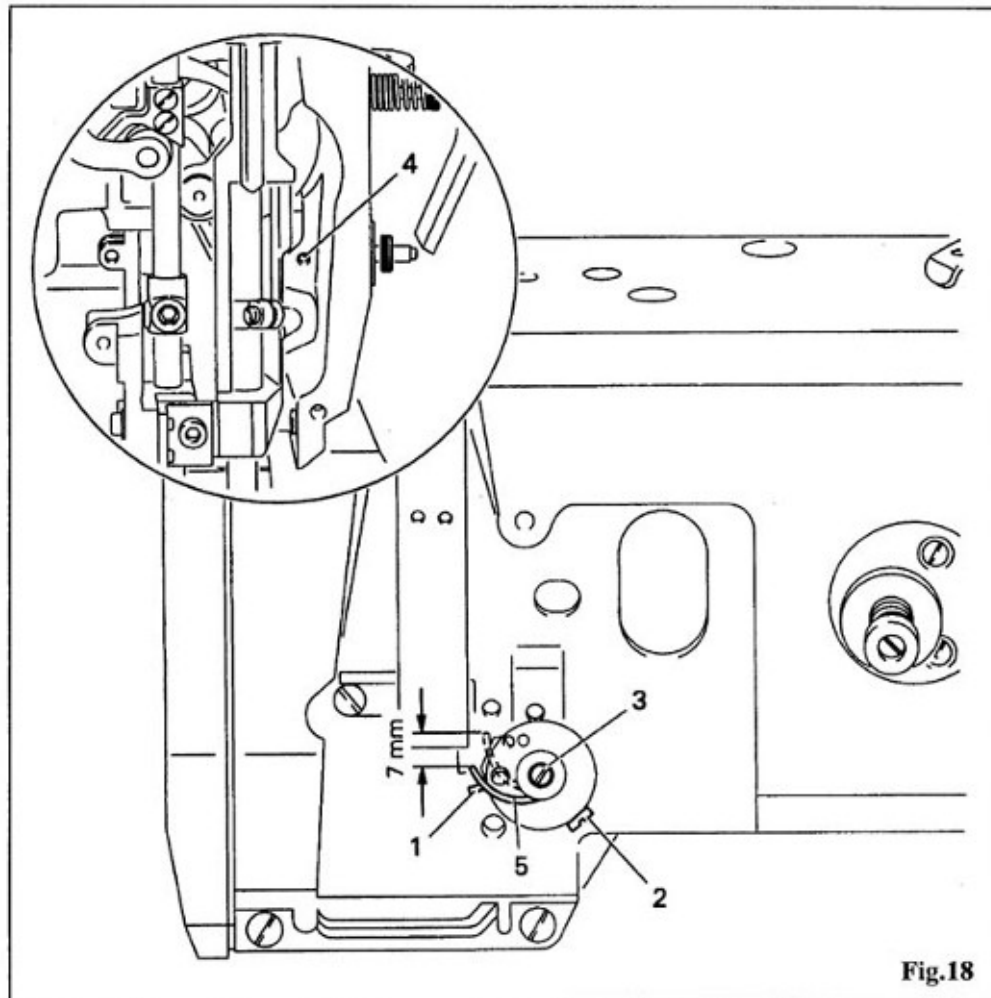
Fig.17

- ① Set take-up lever at b. d. c.
- ② Turn eccentric 1(screws 2)until the tension disks are at their maximum clearance.
- ③ Adjust tension(screw 3)according to **Requirement**.

**(7) Thread check spring (Fig.18)**

**Requirement**

The movement of thread check spring 5 must be finished when the needle point enters the material(=spring stroke of about 7mm).



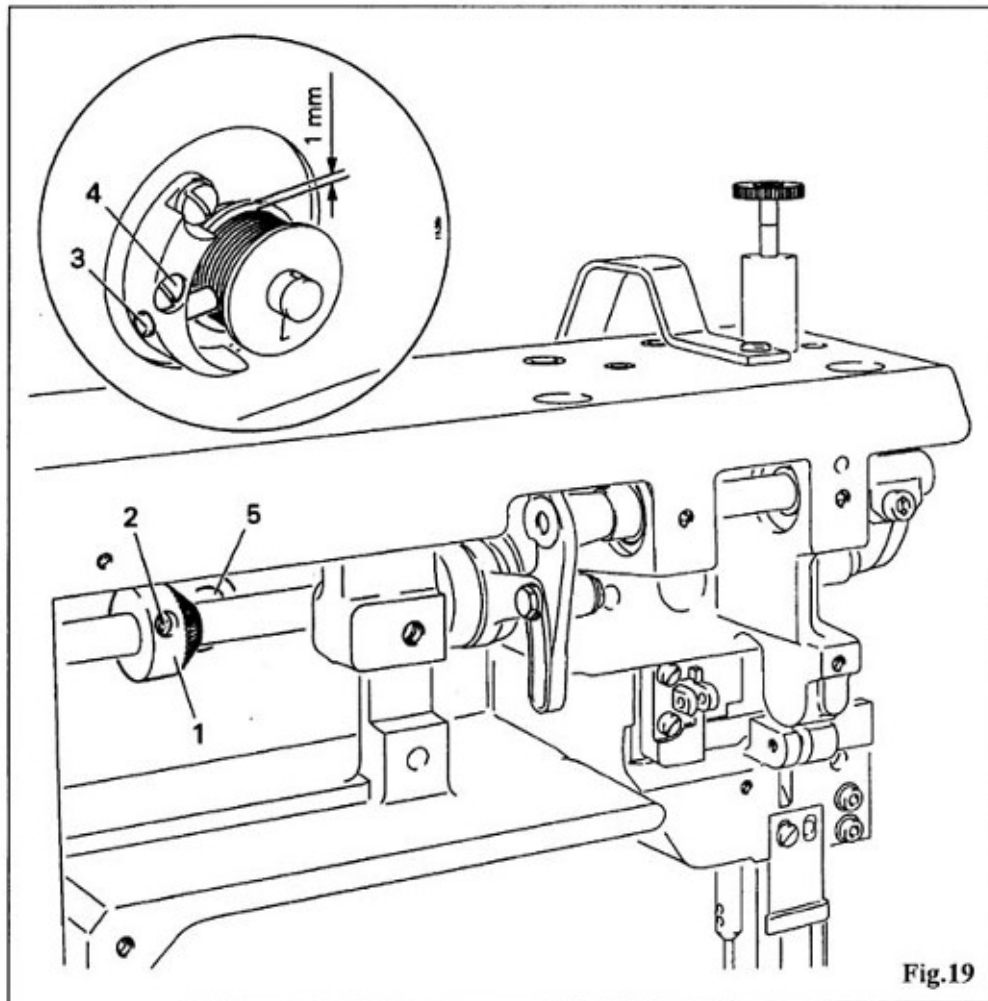
**Fig.18**

- ① Adjust stop 1(screw 2)according to Requirement.
- ② To adjust the pressure of the spring. turn screw 3(screw 4).

**(8) Bobbin winder (Fig.19)**

**Requirement**

1. With the bobbin winder engaged, friction wheel 5 must be driven reliably.
2. With the bobbin winder disengaged, friction wheel 5 must not run against drive wheel 1.
3. The bobbin winder must switch itself off when the filled thread is about 1mm from the rim of the bobbin.



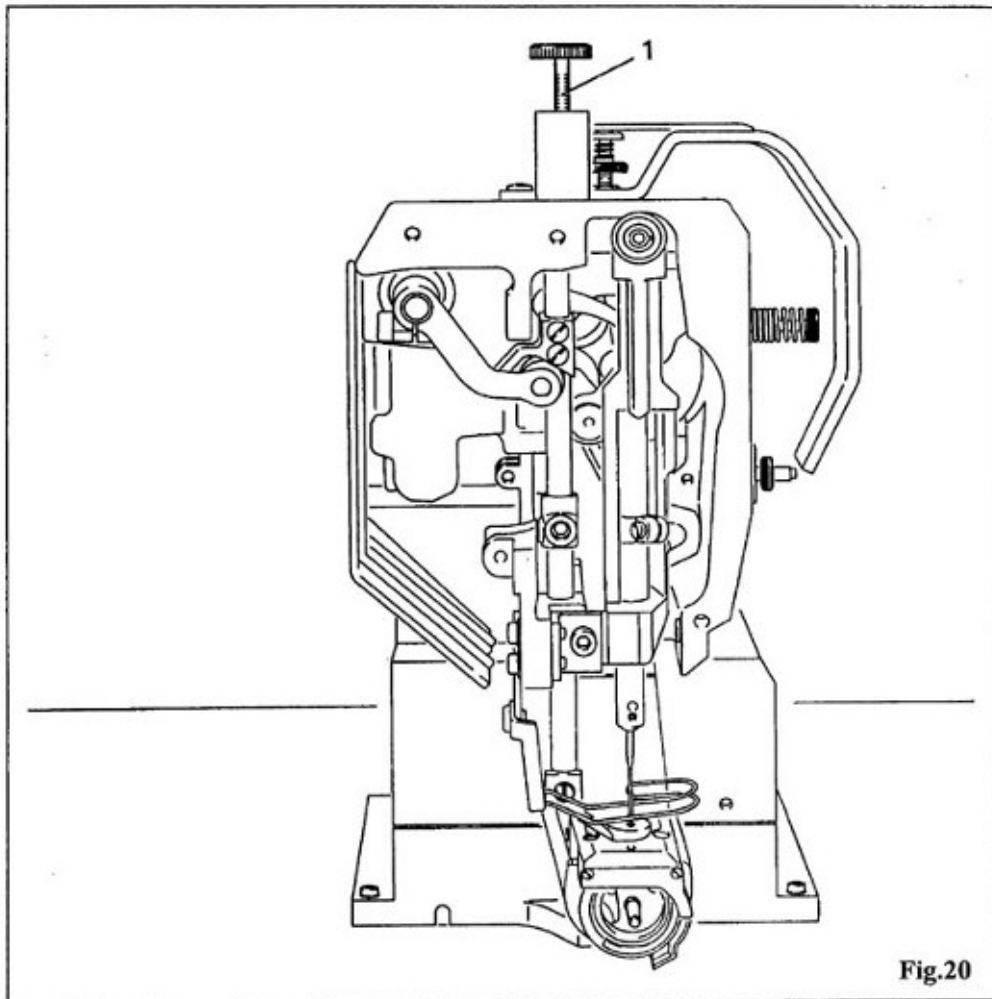
**Fig.19**

- ① Position drive wheel 1(screws 2)according to **Requirements 1 and 2.**
- ② Position pin 3(screw 4)according to **Requirement 3.**

**(9) Pressure of the Lifting presser (Fig.20)**

**Requirement**

**The material must be reliably held. even at the highest sewing speed.**



**Fig.20**

Turn screw 1 according to Requirement

## 5) Adjusting the thread trimmer

### (1) Control cam (preliminary adjustment) (Fig.21)

#### Requirement

with the needle bar at b. d. c. ,groove 4 of control cam 2 must be vertically below control pin 5.

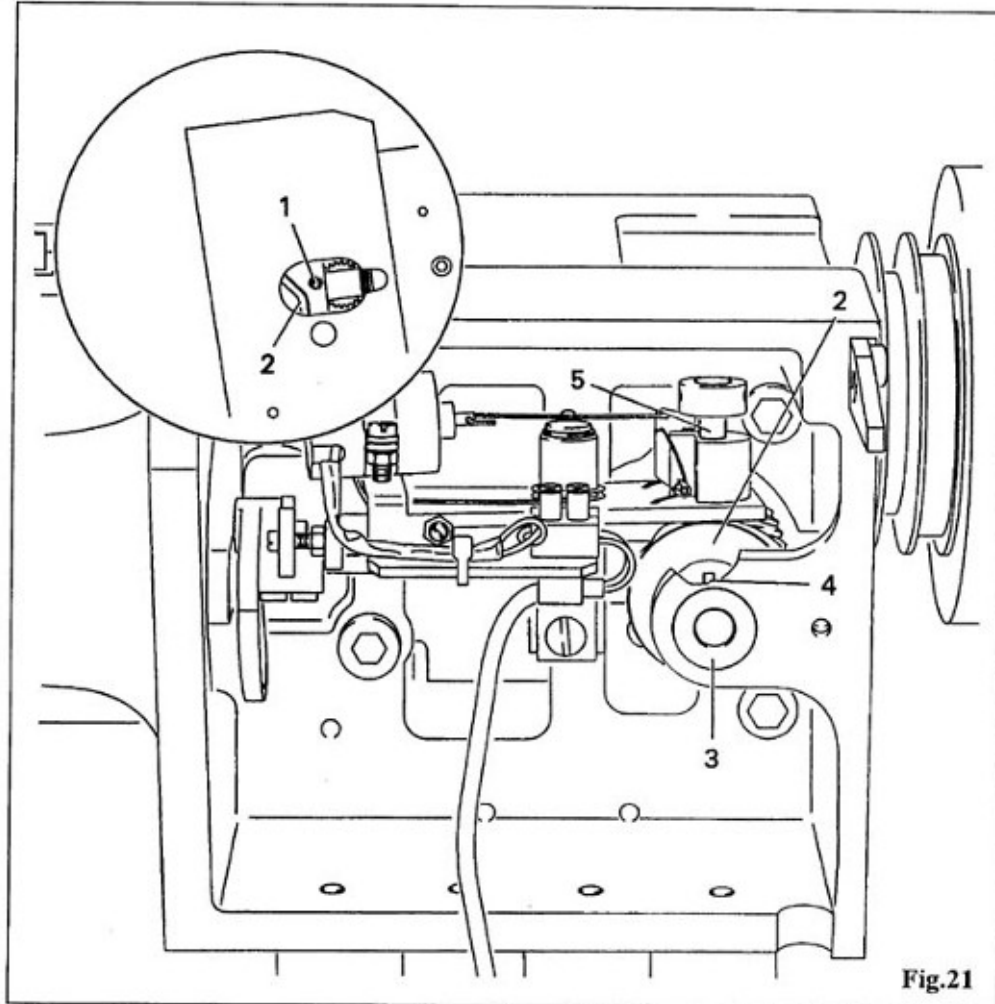


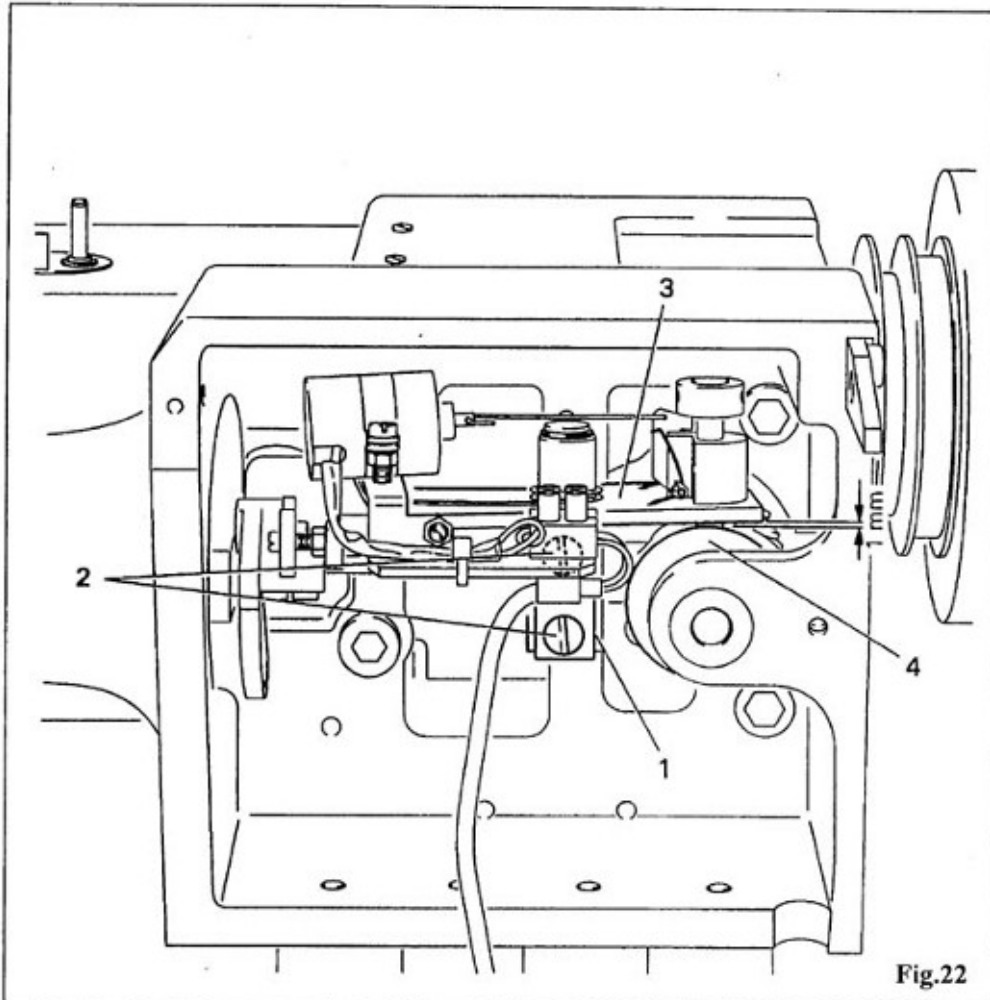
Fig.21

- ① Loosen screws 1 through the hole in the machine housing.
- ② Set the take-up lever at b. d. c.
- ③ Turn control cam 2 according to Requirement.
- ④ Move control cam 2 down against bearing 3 and tighten the accessible screw 1.
- ⑤ Make the second screw 1 accessible and tighten it also.

**(2) Control lever height (Fig.22)**

**Requirement**

**With the needle bar at b. d. c. there must be a clearance of 1.0mm between control lever 3 and control cam 4.**



① Set the needle bar at b. d. c.

② Position bracket 1(screws 2)of control lever 3 in the elongated hole according to Requirement.

### (3) Control pin (Fig.23)

#### Requirement

With the needle bar at b. d. c. control pin 5 must drop easily into the track of control cam 7 when engaging solenoid 6 is operated.

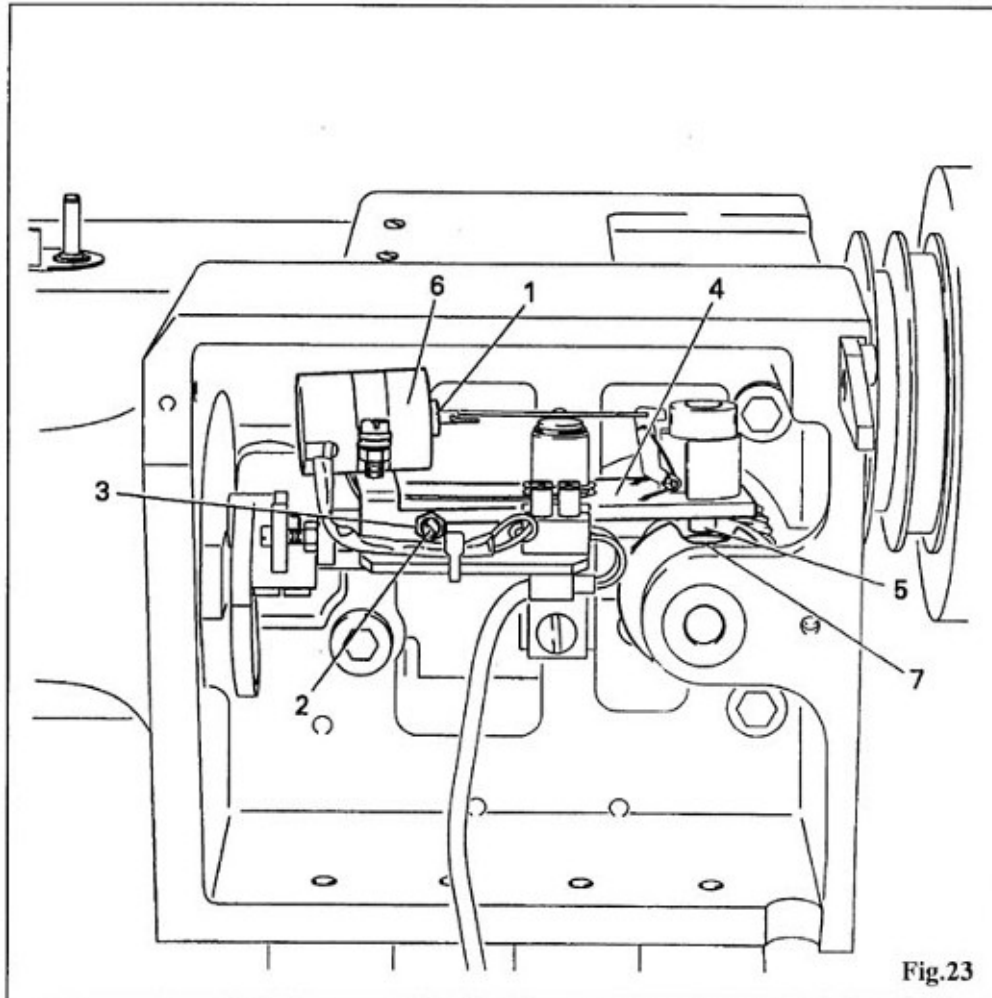


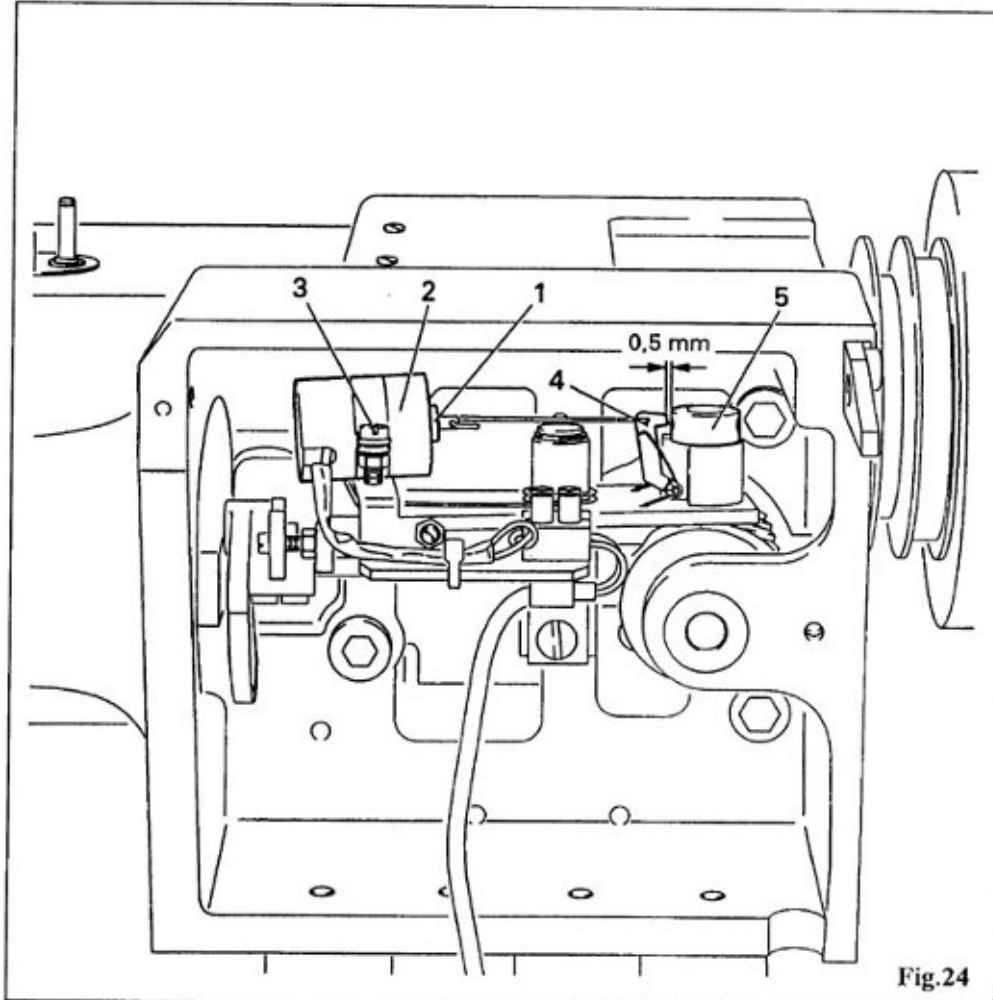
Fig.23

- ① Set the needle bar at b. d. c.
- ② Operate the solenoid core by hand.
- ③ Turn screw 2(nut 3)inwards until it is resting lightly against control lever 4.
- ④ Turn screw 2 back again by about half a turn until the movement of control pin 5 corresponds with the **Requirement**.

**(4) Engaging solenoid (Fig.24)**

**Requirement**

**With the needle bar at b. d. c. and solenoid core 1 fully operated there must be a clearance of approx. 0.5 mm between Locking pawl 4 and fixing collar 5.**



**Fig.24**

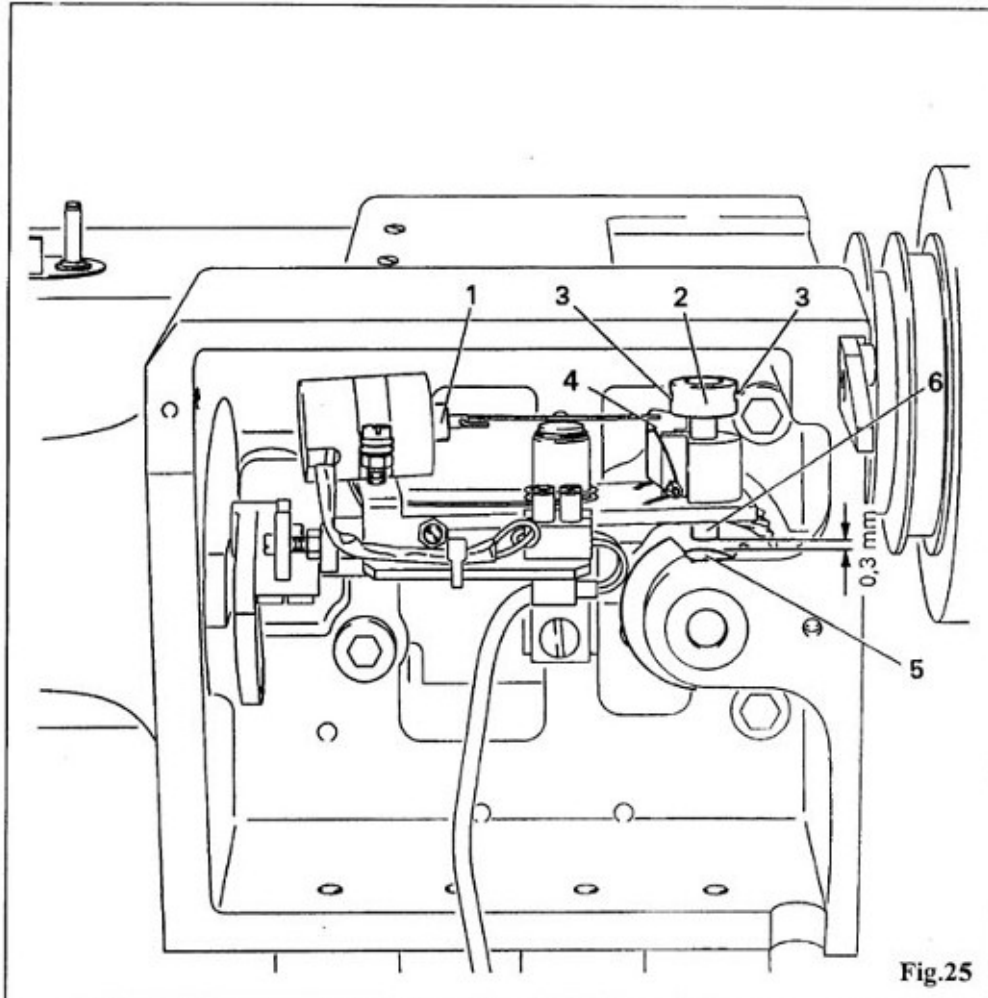
- ① Set the needle bar at b. d. c.
- ② Push solenoid core 1 fully in.
- ③ Position solenoid housing 2 (screw 3) according to Requirement.



**(5) Control pin height (Fig.25)**

**Requirement**

**With the thread trimmer in its resting position and locking pawl 4 engaged there must be a clearance of 0.3mm between the highest point of control cam 5 and control pin 6.**



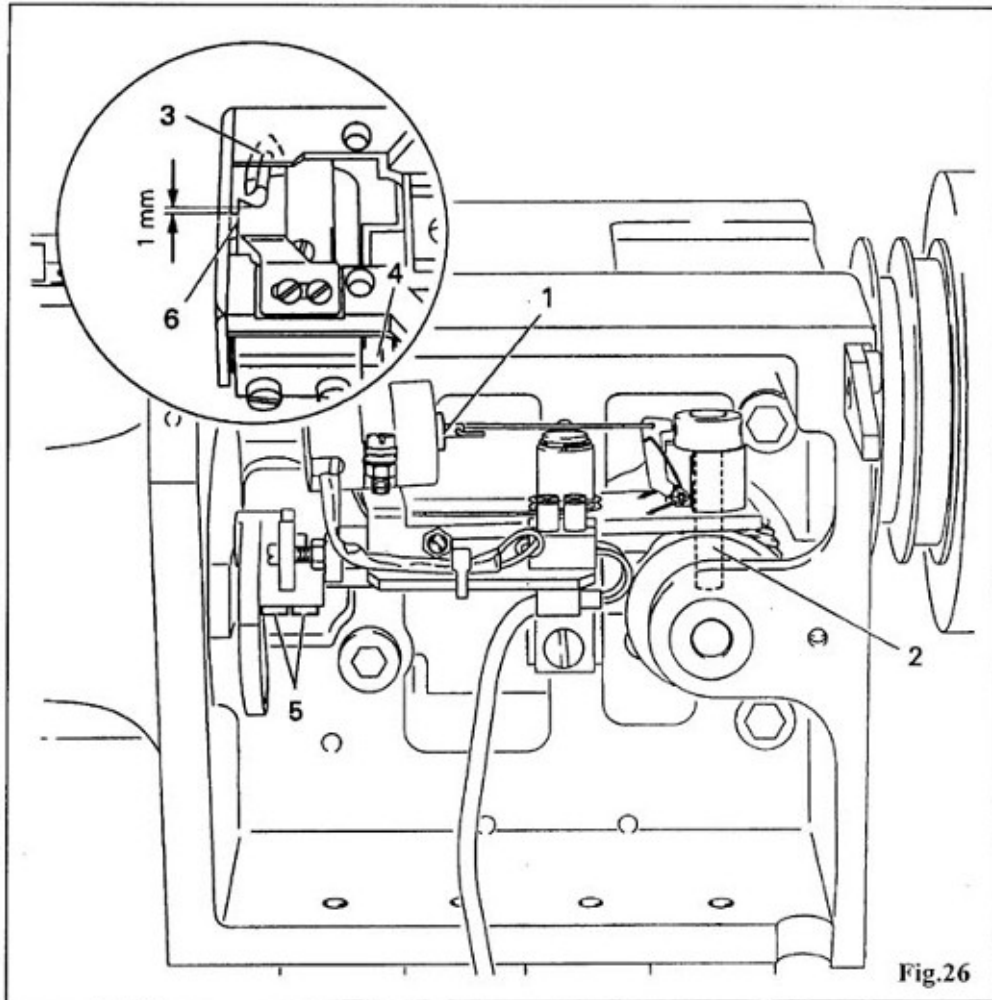
**Fig.25**

- ① Set the needle bar at t. d. c.
- ② Operate the solenoid core.
- ③ Position fixing collar 2 (screws 3) according to Requirement.

**(6) Front position of thread catcher (Fig.26)**

**Requirement**

**With thread catcher 3 at its front position the back edge of the thread catcher cutout must be 1mm beyond the front edge of bobbin case position stop 6.**



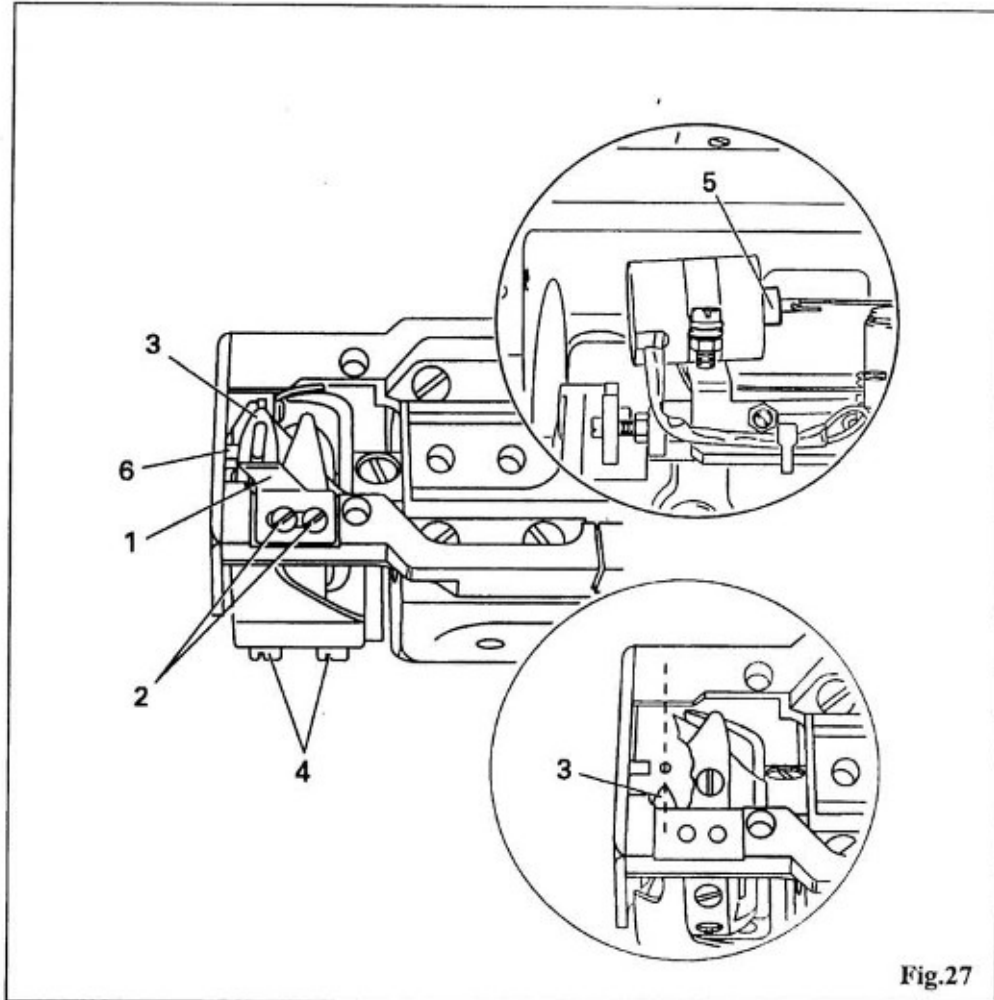
**Fig.26**

- ① Set the needle bar at b. d. C.
- ② Operate solenoid core 1 so that control pin 2 drops into the cam track.
- ③ Turn the balance wheel in sewing direction to set thread catcher 3 at its front position.
- ④ Turn thread catcher 4(screws 5)to set thread catcher 3 according to **Requirement**.

**(7) Lateral position of thread catcher (Fig.27)**

**Requirement**

**With the needle bar at b. d. c. the point of thread catcher 4 must be at the centre of the needle.**



**Fig.27**

- ① Remove knife 1(screws 2).
- ② Set the needle bar at b. d. c.
- ③ Operate solenoid core 3 by hand and turn the balance wheel until the needle bar is at t. d. c. In doing so, make sure that thread catcher 4 does not strike bobbin case position stop 5 during its motion.
- ④ Set lateral position of thread catcher 4(screws 6)according to **Requirement**.

**(8) Control cam (final adjustment) (Fig.28)**

**Requirement**

When the end of hook gib 2 is 2mm behind the centre of bobbin-case position finger 3, as viewed in feeding direction, there must be a clearance of approx. 4mm between catcher point 4 and hook gib 2.

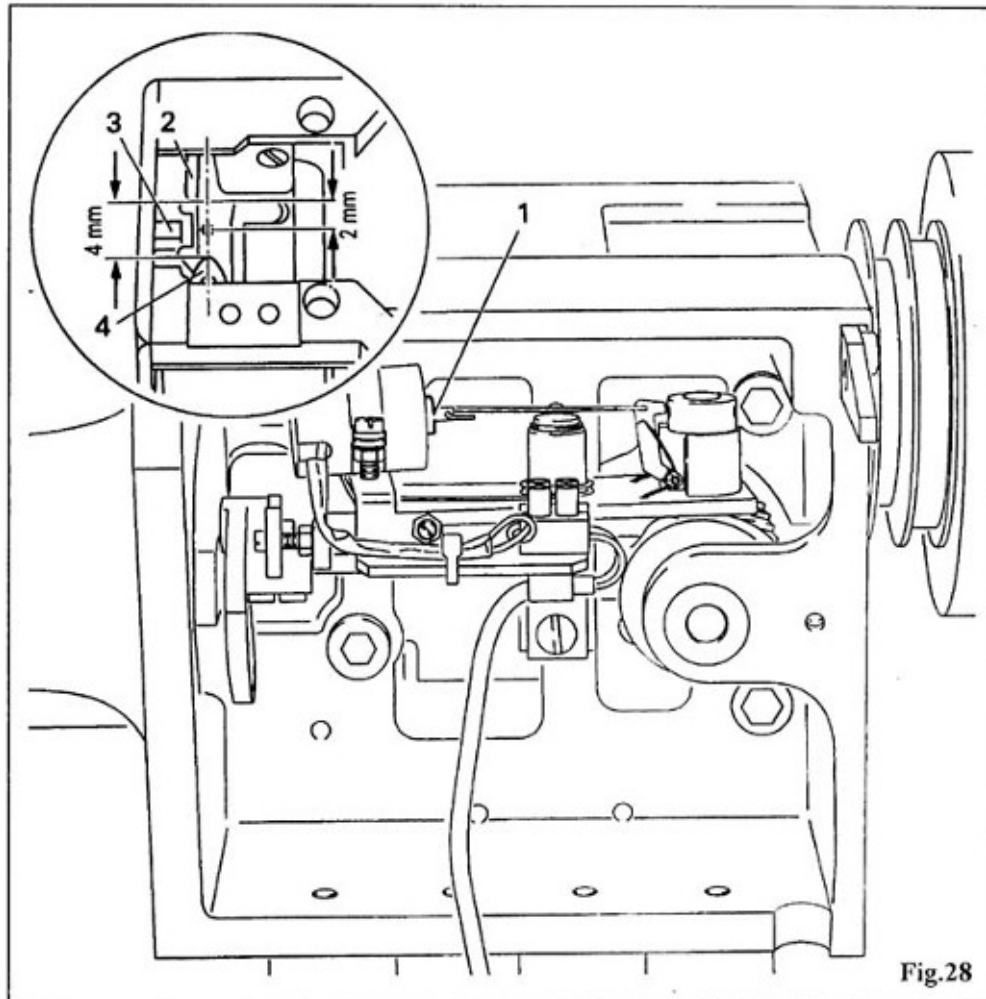


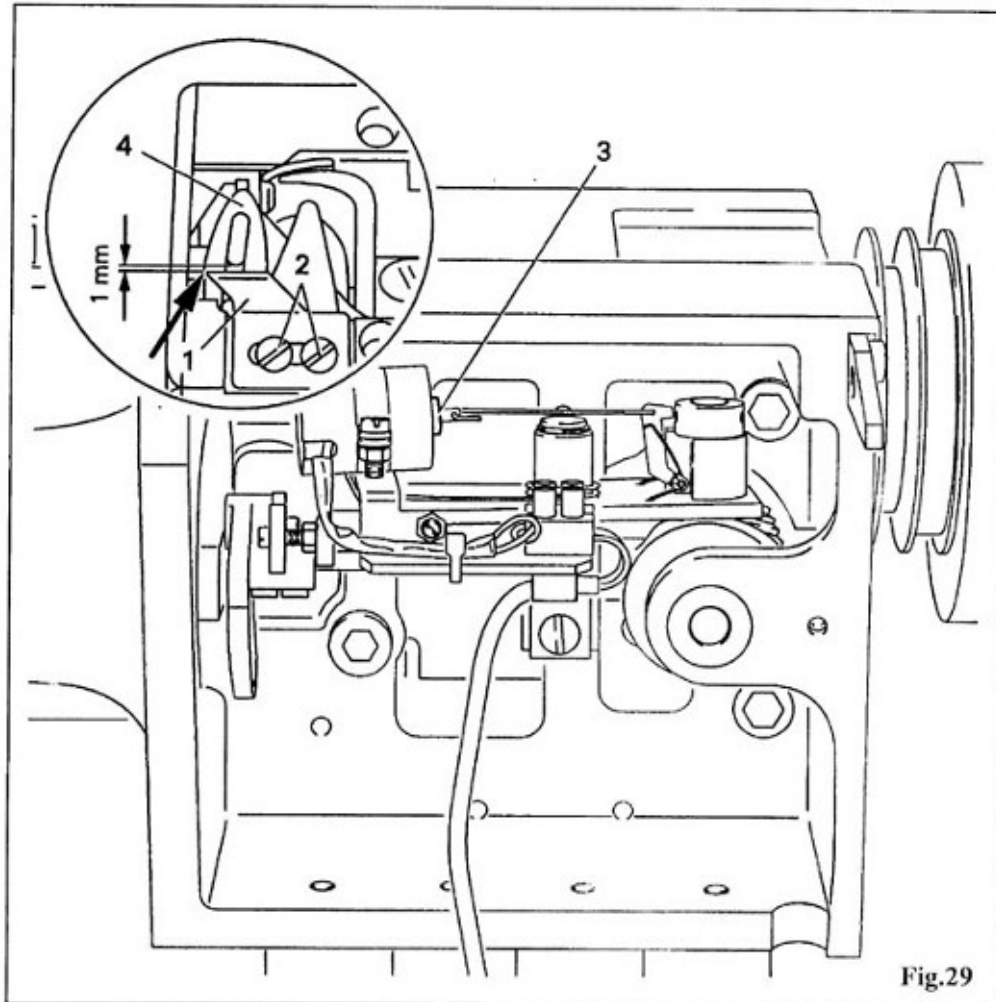
Fig.28

- ① Set the needle bar at b. d. c.
- ② Operate solenoid core 1 by hand.
- ③ Turn the balance wheel farther (sewing direction) until the end of hook gib 2, viewed in sewing direction, is 2 mm behind the centre of bobbin case position finger 3.
- ④ Check according to requirement and re-adjust control cam if necessary. See Chapter (1) **Control cam (preliminary adjustment)**

### (9) Knife(Fig.29)

#### Requirement

when the back edge of the thread catcher cutout is 1mm in front of the knife edge. the left knife edge must be flush with the edge of the thread catcher.

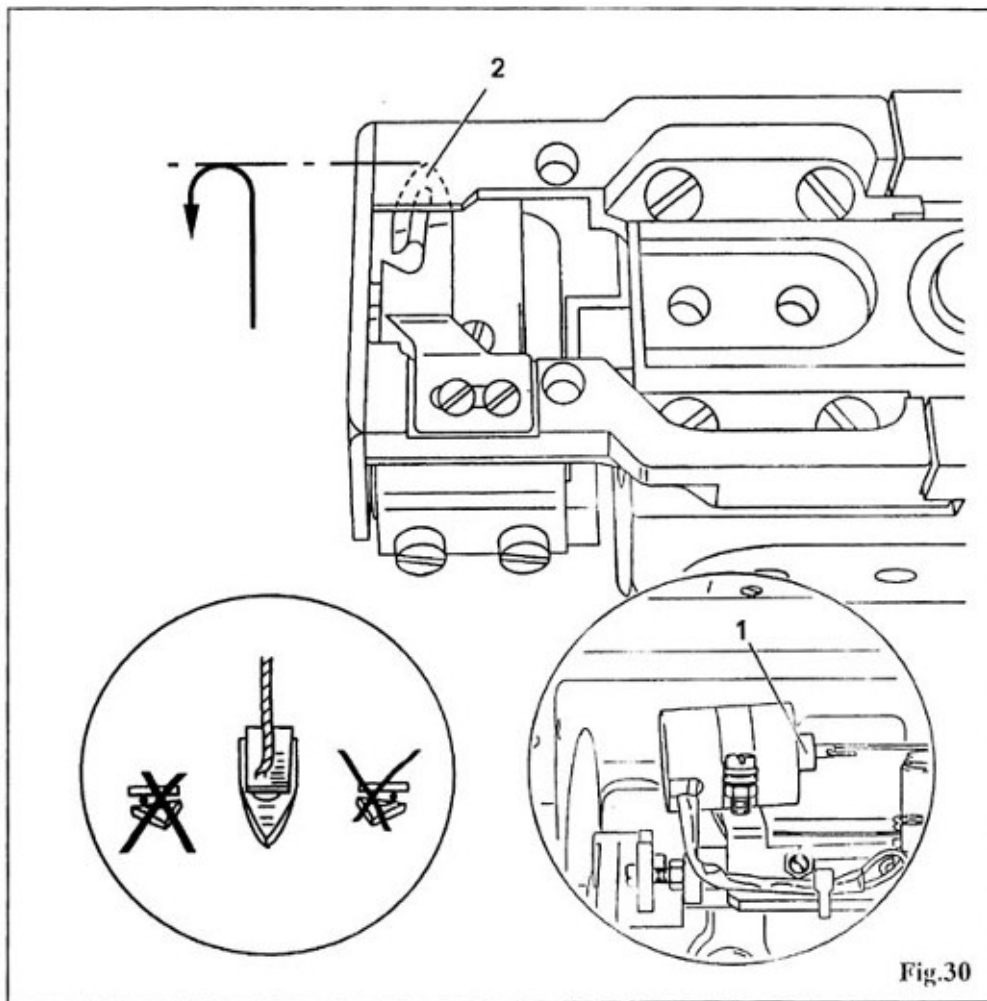


- ① Screw on knife 1(screws 2)finger-tight.
- ② Set the needle bar at b. d. c. and operate solenoid core 3.
- ③ Turn the balance wheel(sewing direction)until the short point of thread catcher 4 is aligned with the knife edge.
- ④ Set the lateral position of knife 1 according to Requirement(see arrow).
- ⑤ Tighten screws 2.
- ⑥ Turn the balance wheel to check whether the back of the thread catcher is not twisted in relation to the knife edge.
- ⑦ If necessary-adjust thread catcher 4. see Chapter (7) Lateral position of the thread catcher.

**(10) Cutting test (Fig.30)**

**Requirement**

**The knife must stand parallel to the thread catcher and both threads must be reliably cut.**

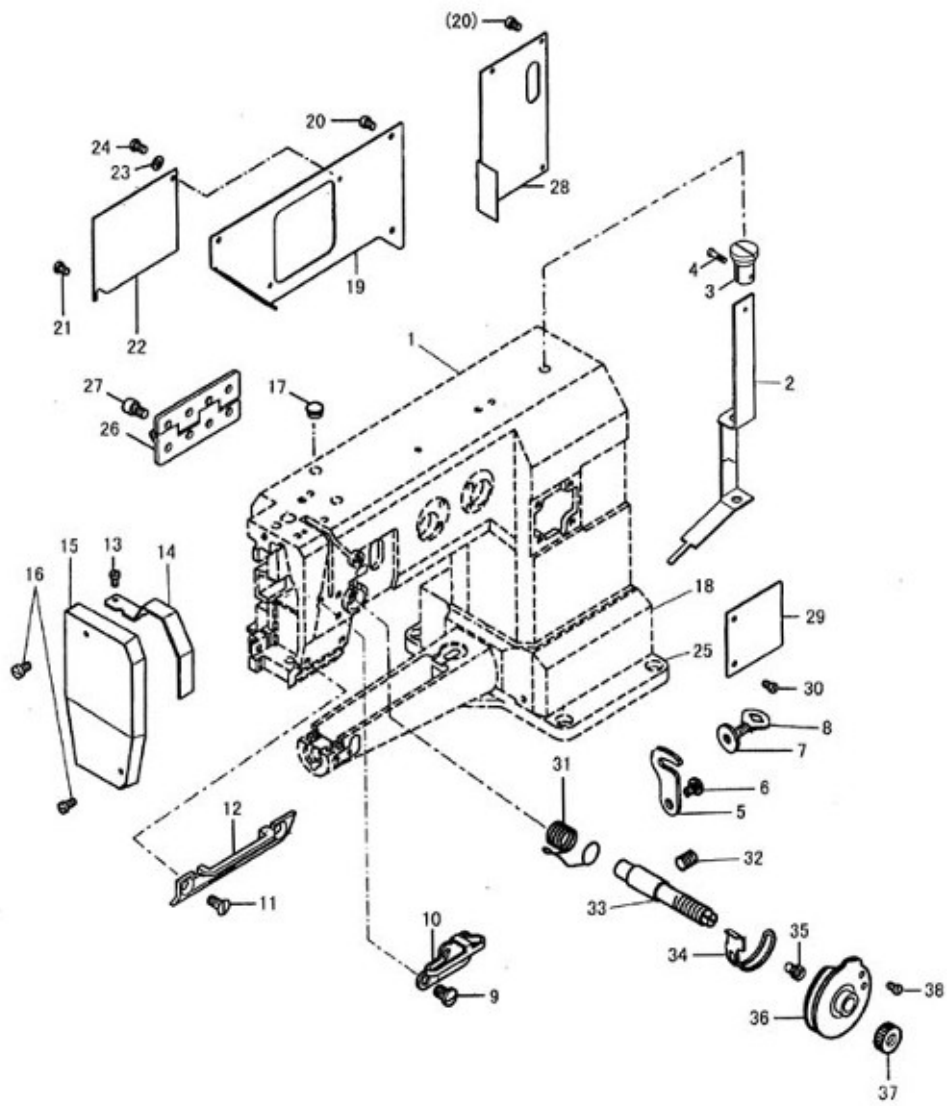


**Fig.30**

- ① Set the needle bar at b. d. c. and operate solenoid core 1.
- ② Turn balance wheel (sewing direction) until thread catcher 2 is in its front position. Take a double piece of thread. pull it into the cutout of thread catcher 2 and turn the balance wheel farther to make a cutting test.
- ③ Check that both threads are reliably cut.
- ④ If necessary re-adjust thread catcher 2. see Chapter (7) **Lateral position of the thread catcher.**

# A.ARM BED MECHANISM

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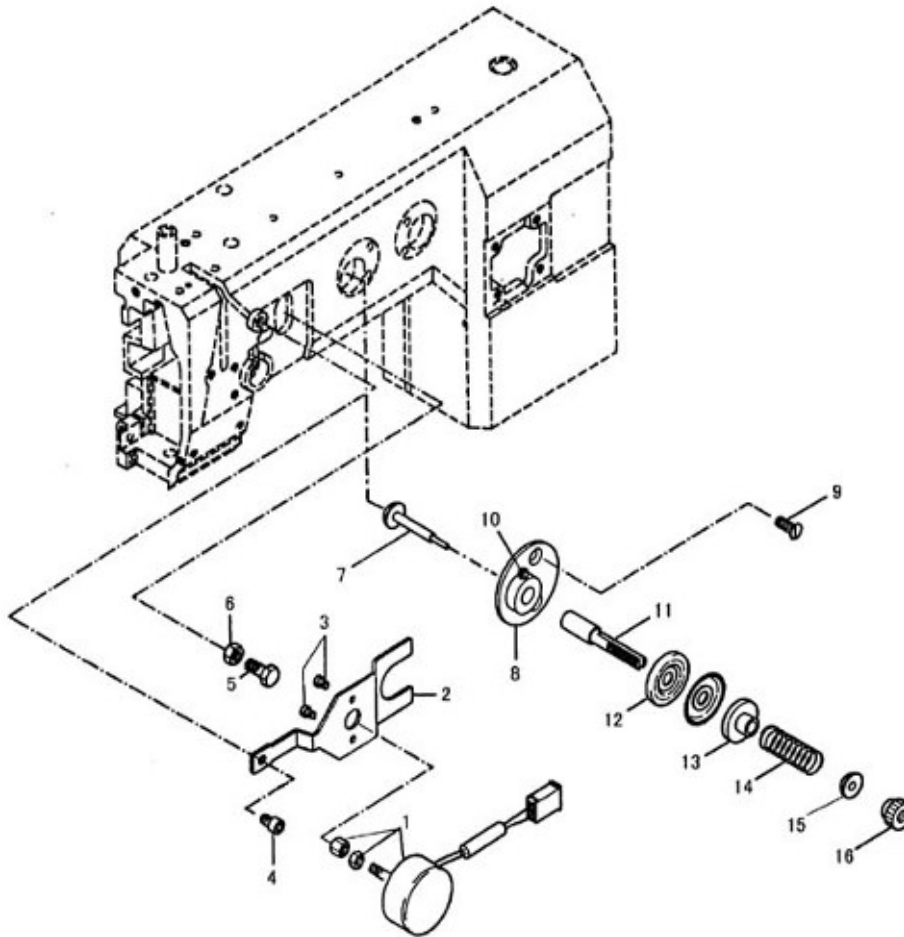
A. ARM BED MECHANISM

Fig. No.	Part No.	NAME	Pcs.	Remarks
A01	HK605B8001	Arm	1	
A02	H7326B8001	Felt	1	
A03	H7327B8001	Fixed nip	1	
A04	H401040160	Screw	1	M4×16
A05	H4100B2060	Link plate	1	
A06	H4100B2070	Screw	1	1/4 (24) × 5.7
A07	H4100B2080	Screw	1	1/4 (24) × 20
A08	H4100B2090	Washer	1	
A09	HA700B2060	Screw	1	SM11/64 (40) × 8
A10	H7335B8001	Thread guide	1	
A11	H7322B8001	Screw	2	M4×6
A12	H7321B8001	Thread guide	1	
A13	HA300C2030	Screw	1	11/64 (40) × 8
A14	H4717B8001	Thread take-up cover	1	
A15	HK614B8001	Face plate	1	
A16	H401050160	Face plate screw	2	M5×16
A17	HA106B0673	Rubber plug	2	φ 19
A18	HK606B8001	Arm bed	1	
A19	H7312B8001	Arm side cover (1)	1	
A20	H7314B8001	Screw	8	M5×8
A21	H7316B8001	Screw	1	M4×6
A22	H7315B8001	Sover slab	1	
A23	H7318B8001	Washer	1	
A24	H7317B8001	Screw	1	M4×4.5
A25	H7309B8001	Supporter	1	
A26	H5350B7101	Hinge	1	
A27	H415080160	Screw	8	M8×16
A28	H7313B8001	Arm side cover (2)	1	
A29	HK612B8001	cover	1	
A30	H7326E8001	Screw	2	M5×7.5
A31	H4713C8001	Thread take-up spring	1	
A32	H2004J0067	Screw	1	9/64 (40) × 7
A33	H4805C8001	Thread tension stud	1	1/4 (40) × 8.5
A34	H3221B6819	Spring stop	1	
A35	H3200B2100	Screw	1	9/64 (40) × 6.5
A36	H32481BD21	Plate complete	1	
A37	H32481B721	Thumb nut	1	1/4 (40) × 4.5
A38	H4804C8001	Screw	1	9/64 (40) × 2.9



## B.THREAD TENSION REGULATOR MECHANISM

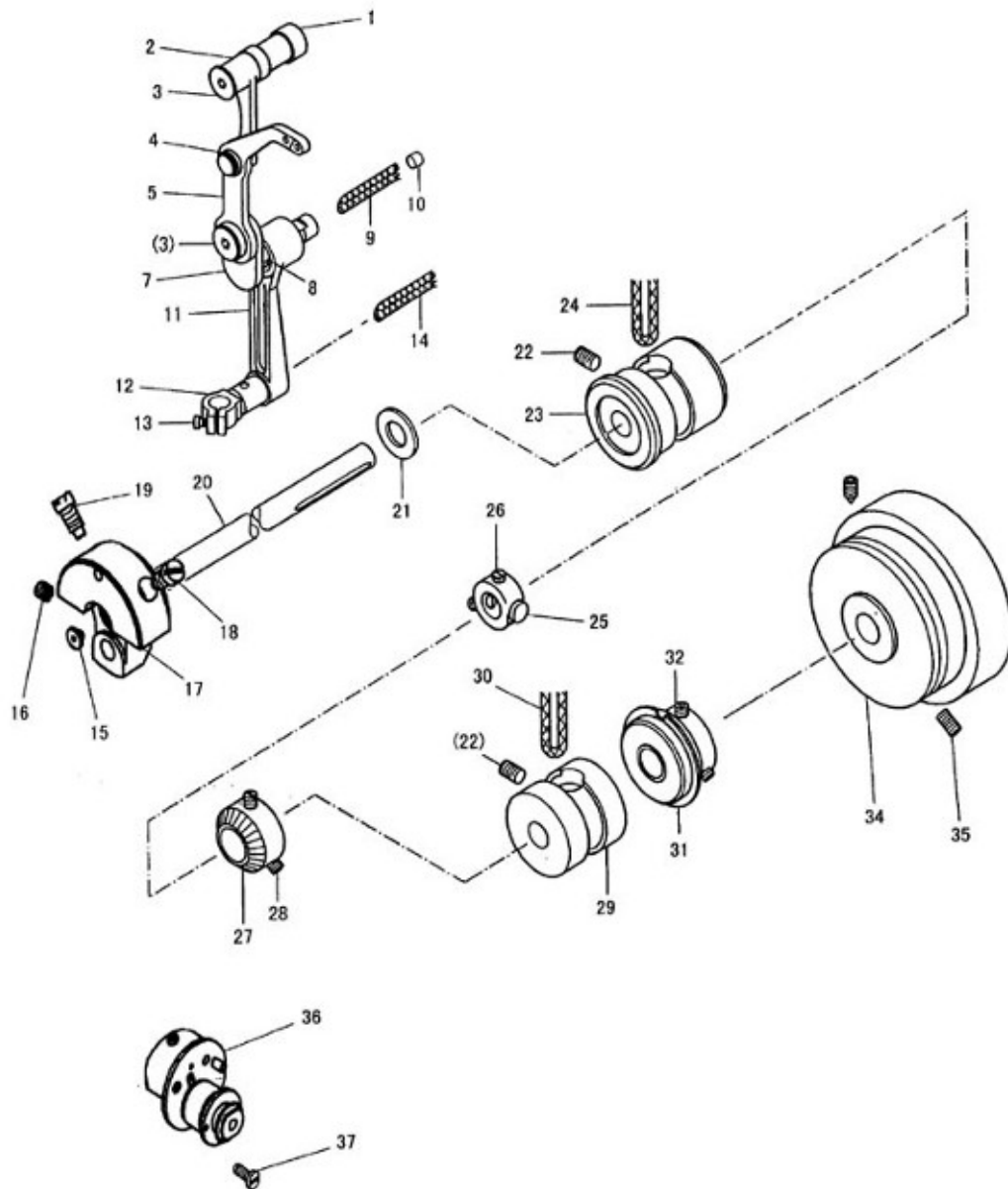
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### B. THREAD TENSION REGULATOR MECHANISM

Fig.No.	Part No.	NAME	Pcs.	Remarks
B01	HK612C7101	solenoid complete	1	
B02	HK611C8001	setting frame	1	
B03	H409030050	Screw	2	M3×5
B04	HA300C2030	Screw	1	11/64 (40) × 8
B05	H102050100	bolt	1	M5×10
B06	H003008050	nut	1	M5
B07	HK608C8001	thread releasing pin	1	
B08	HK605C7101	setting plate complete	1	
B09	H7322B8001	Screw	2	M4×6
B10	H428040040	Screw	1	
B11	HK609C8001	Screw	1	1/4 (40) × 49
B12	HA310B0705	thread tension disc	2	
B13	HA310B0702	thread tension releasing disc	1	
B14	HA115B0703	spring	1	
B15	HA115B7010	Thumb nut complete	1	
B16	HA310B0701	Thumb nut revolution stopper	1	

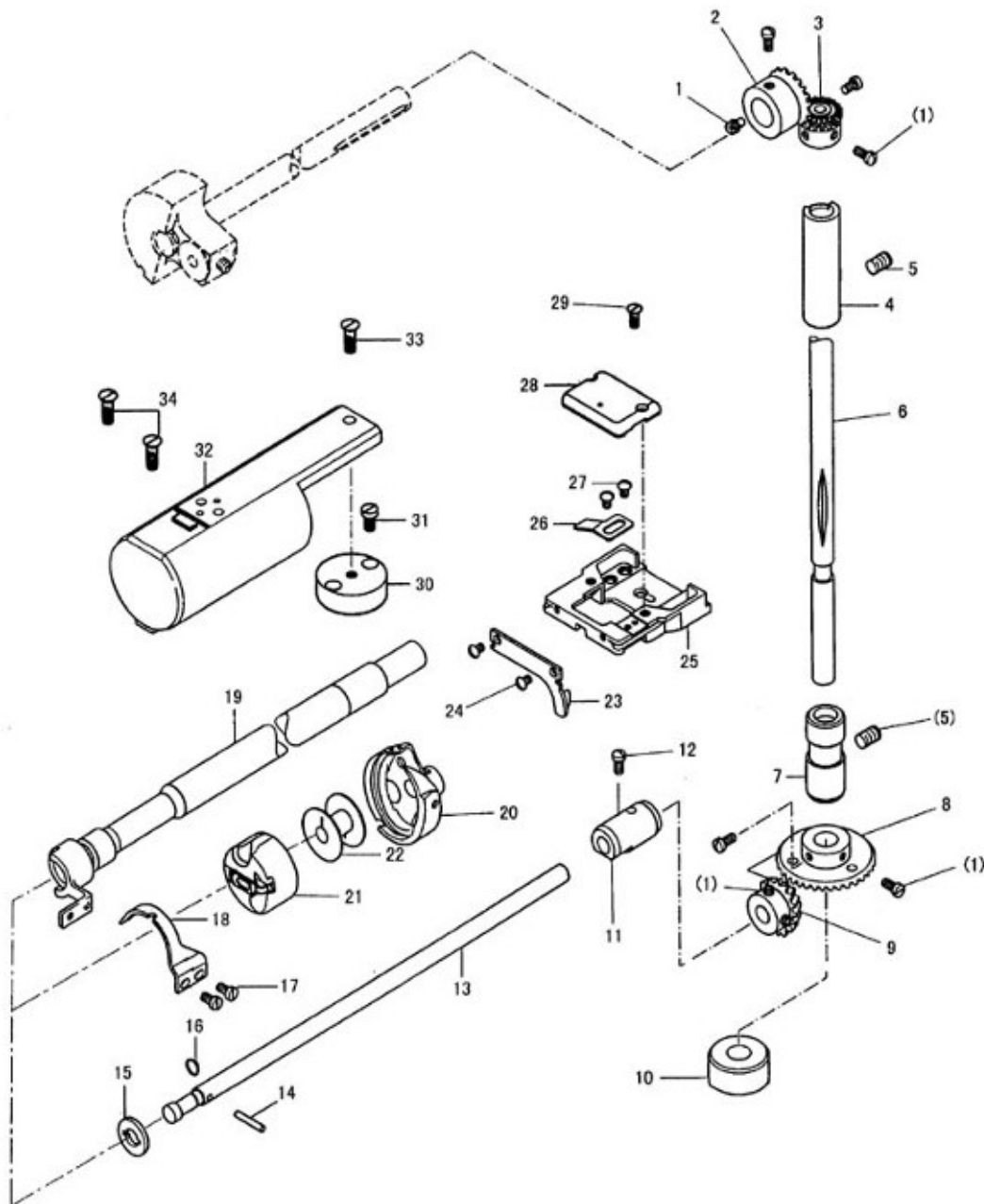
# C.ARM SHAFT\*LOWER SHAFT MECHANISM



C. ARM SHAFT\*LOWER SHAFT MECHANISM

Fig. No.	Part No.	NAME	Pcs.	Remarks
C01	H7350D8001	Pin	1	
C02	H7349D8001	Lever for pulley	1	
C03	H7351D8001	Screw	2	9/64 (40) × 7
C04	H7221G8001	Bearing	1	K7 × 10 × 8T2
C05	HK606D8001	Thread take-up lever	1	
C07	HK608D8001	Crank	1	
C08	H7358D8001	Bearing	1	K9 × 12 × 13T2
C09	H7355D8001	Oil wick	1	
C10	H7354D8001	Rubber plug	1	
C11	H7352D8001	Lever for pulley	1	
C12	H7326G8001	Needle bar connecting stud	1	
C13	H7327G8001	Screw	1	M4 × 10
C14	H7328G8001	Oil wick	1	
C15	H7319D8001	Arm shaft stopper	1	
C16	HA307C0662	Screw	2	1/4 (40) × 6
C17	HK610D8001	Needle bar crank	1	
C18	HA100C2070	Screw	1	9/32 (28) × 10
C19	HA100C2060	Screw	1	9/32 (28) × 13
C20	H7318D8001	Arm shaft	1	
C21	HF968G8001	washer	1	1.5
C22	H428060080	Screw	1	M6 × 8
C22	H428060080	Screw	1	M6 × 8
C23	H7320D8001	Arm shaft bushing (left)	1	
C24	H7321D8001	Felt	1	
C25	HK611D8001	cam	1	
C26	HA305E0662	Screw	2	15/64 (28) × 4.5
C27	H7324D8001	Bobbin winder wheel	1	
C28	HA307C0662	Screw	2	1/4 (40) × 6
C29	H7322D8001	Arm shaft bushing (middle)	1	
C30	H7323D8001	Felt	1	
C31	H5335C7101	bearing complete	1	
C32	HA113F0684	Screw	2	15/64 (28) × 8.5
C34	HK604D7101	Balance wheel	1	
C35	HA110D0672	Screw	2	15/64 (28) × 12
C36	H7325D7101	Bobbin winder assay	1	
C37	H7322B8001	Screw	2	M4 × 6

# D.FEEDING AND FEED LIFTING & HOOK SHAFT MECHANISM

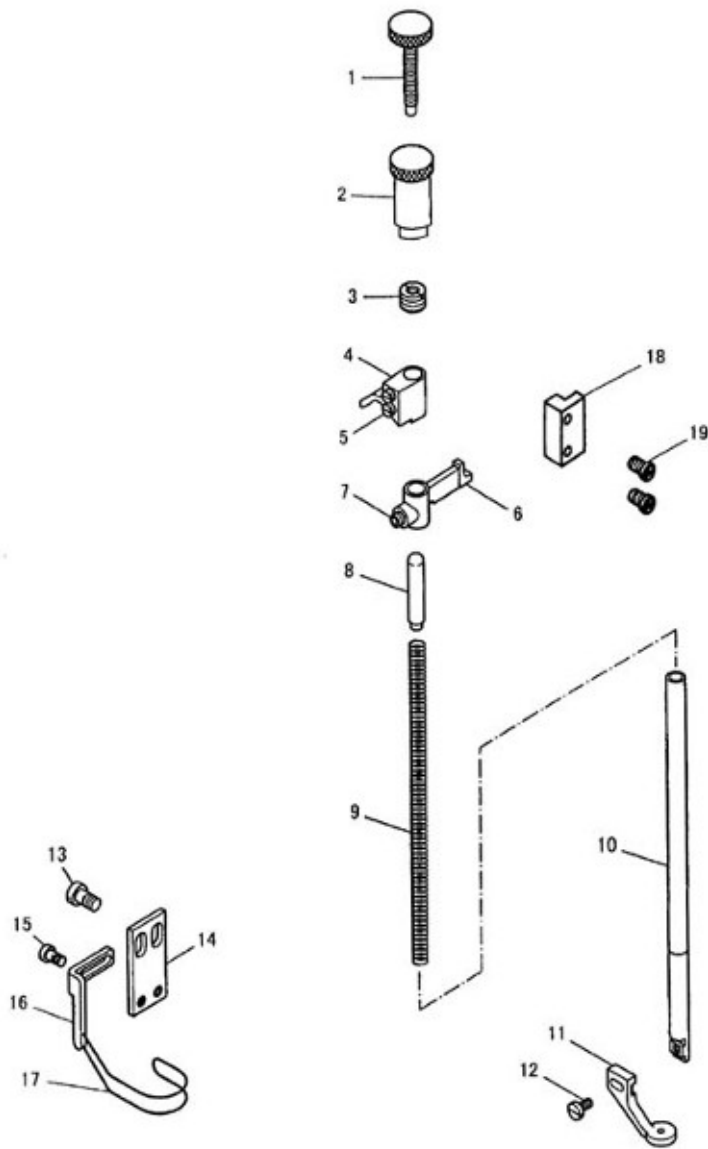


D. FEEDING AND FEED LIFTING & HOOK SHAFT MECHANISM

Fig. No.	Part No.	NAME	Pcs.	Remarks
D01	HA108C0663	Screw	2	1/4 (40) × 7
D02	HY507D8001	Upper shaft gear	1	
D03	HY508D8001	Vertical shaft gear (upper)	1	
D04	H7312C8001	Vertical shaft bushing (upper)	1	
D05	H428060080	Screw	1	M6 × 8
D06	HK610E8001	Vertical shaft	1	
D07	H7314C8001	Vertical shaft bushing (lower)	1	
D08	HK640E8001	Vertical shaft gear (lower)	1	
D09	HK639E8001	Bevel gear for hook shaft	1	
D10	HK611E8001	Vertical shaft bushing (lower)	1	
D11	H7316C8001	Rotating hook shaft bushing (right)	1	
D12	H2404G0658	Screw	1	11/64 (32) × 7.7
D13	HK614E8001	Rotating hook shaft	1	
D14	H605020100	pin	1	2 × 10
D15	HK613E8001	Stop ring	1	
D16	H007009070	Stop ring	1	7
D17	HK619E8001	Screw	2	
D18	HK618E8001	knife	1	
D19	HK615E7101	sleeve complete	1	
D20	HK634E8001	Rotating hook	1	KR238
D21	HK635E8001	Bobbin sheath	1	SC39
D22	HK636E8001	Bobbin	1	
D23	HK607E8001	Hook	1	
D24	HK637E8001	Screw	2	M2.5 × 6
D25	HK605E8001	Fixing plate bracket for the needle plate	1	
D26	HK608E8001	knife	1	
D27	HK609E8001	Screw	2	
D28	HK606E8001	Needle plate	1	
D29	H7307C8001	Screw	2	9/64 (40) × 6
D30	HK620E8001	holder	1	
D31	H7330C8001	Screw	2	M4 × 6
D32	HK622E7101	stop plate	1	
D33	HK621E8001	Screw	1	M5 × 8
D34	HK633E8001	Screw	2	9/64 (40) × 16.5

# E.PRESSER FOOT MECHANISM

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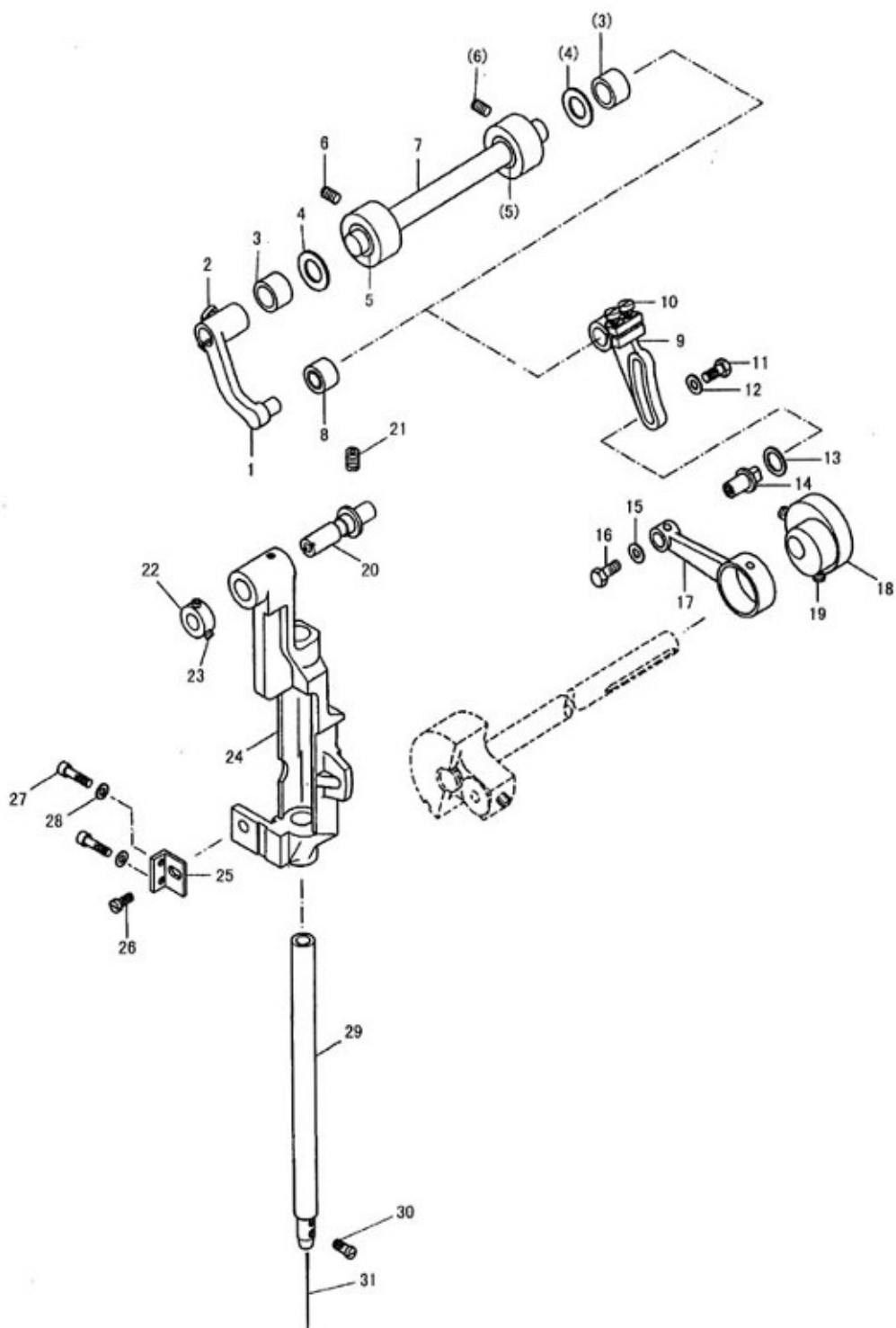
E. PRESSER FOOT MECHANISM

Fig.No.	Part No.	NAME	Pcs.	Remarks
E01	HK612F8001	Screw	1	11/64(40)×35
E02	HK611F8001	Screw	1	
E03	HK613F8001	nut	1	11/64(40)
E04	HK607F8001	stop plate	1	
E05	HA307C0662	Screw	2	1/4(40)×6
E06	HK608F8001	Presser bar guide plate	1	
E07	H3210F0681	Screw	1	M5×6
E08	HK605F8001	Casing pipe	1	
E09	HK604F8001	Spring	1	
E10	HK606F8001	Presser bar	1	
E11	HK610F8001	Presser foot	1	
E12	H415040100	Walking foot	1	M4×10
E13	H7342F8001	Screw	2	M5×8
E14	H7336F8001	Walking foot guard cover plate	1	
E15	H7343F8001	Screw	2	M4×6
E16	H7337F8001	Walking foot guard cover bracket	1	
E17	H7335F8001	Walking foot guard cover	1	
E18	HK609F8001	Oriented rail	1	
E19	H7315F8001	Screw	2	M5×16



# F.NEEDLE BAR MECHANISM

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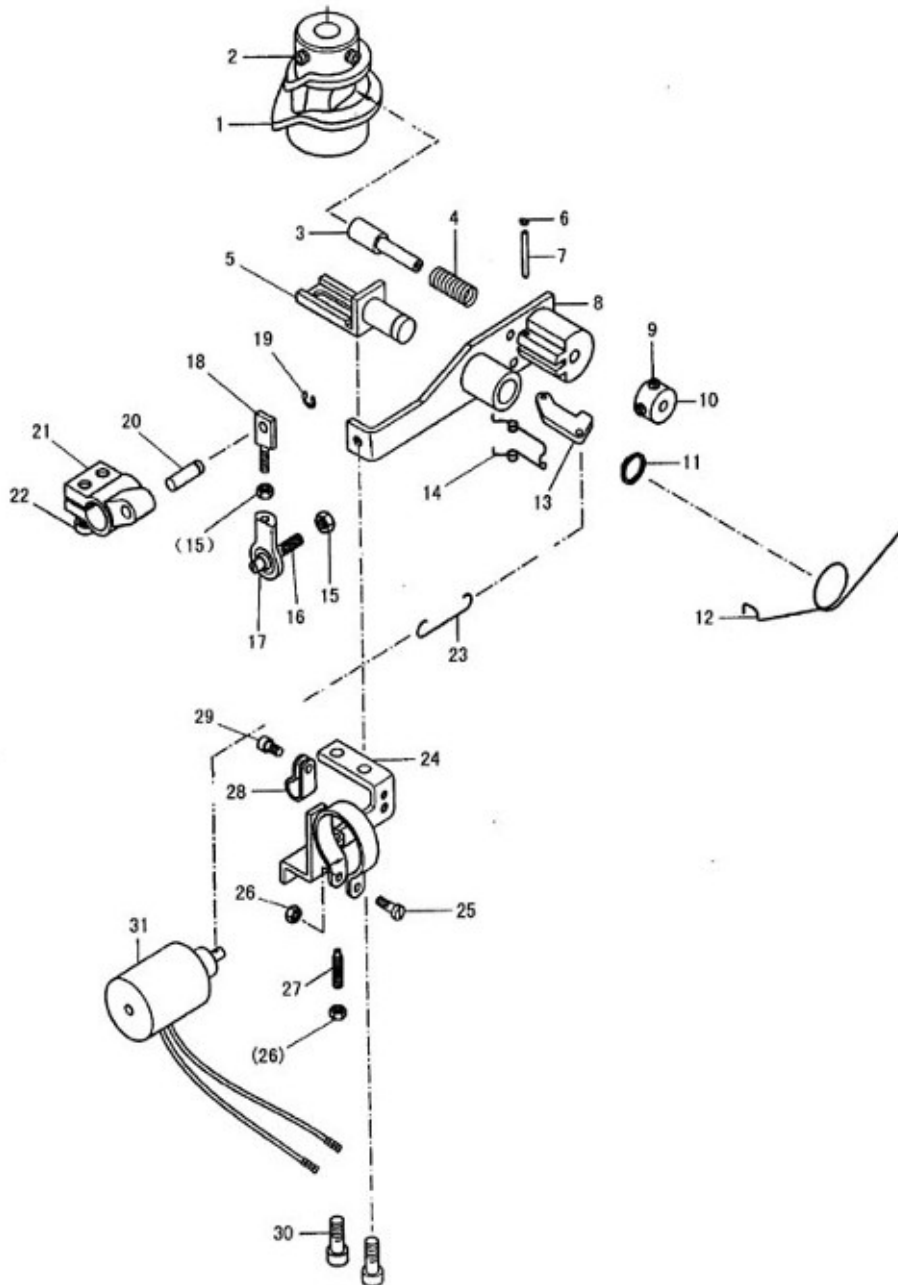


### F. NEEDLE BAR MECHANISM

Fig.No.	Part No.	NAME	Pcs.	Remarks
F01	HK612G8001	Lever for pulley	1	
F02	H415060120	Screw	1	M6×12
F03	H7352G8001	Stop ring	2	
F04	H7353G8001	Washer	2	
F05	H7348G7101	bushing complete	2	
F06	H428060050	Screw	2	M6×5
F07	H7347G8001	Lifting rock shaft	1	
F08	HK613G7101	wheel complete	1	
F09	H7311G8001	Crank	1	
F10	H7312G8001	Screw	2	M5×11.7
F11	H102050100	Screw	1	M5×10
F12	H005001050	Washer	1	5
F13	H7315G8001	Washer	1	
F14	H7313G8001	Pin	1	
F15	H7314G8001	Washer	1	5
F16	H104050080	Screw	1	M5×8
F17	H7309G8001	lifting eccentric connection	1	
F18	HK605G8001	Cam	1	
F19		Screw	2	M6×8
F20	H7322G8001	Pin for rock frame	1	
F21	H428050080	Screw	1	M5×8
F22	H7323G8001	Fast circularity	1	
F23		Screw	2	M3×3
F24	HK609G8001	Needle bar rock frame	1	
F25	HK610G8001	plate	1	
F26	H2404G0658	Screw	1	SM11/64(32)×7.7
F27	H415040140	Screw	2	M4×14
F28	H005001040	Washer	2	4
F29	HK615G8001	Needle bar	1	
F30	H3204D6510	Screw	1	1/8(44)×4
F31		Needle	1	DP×35LR 14#-16#

# G.KNIFE MECHANISM

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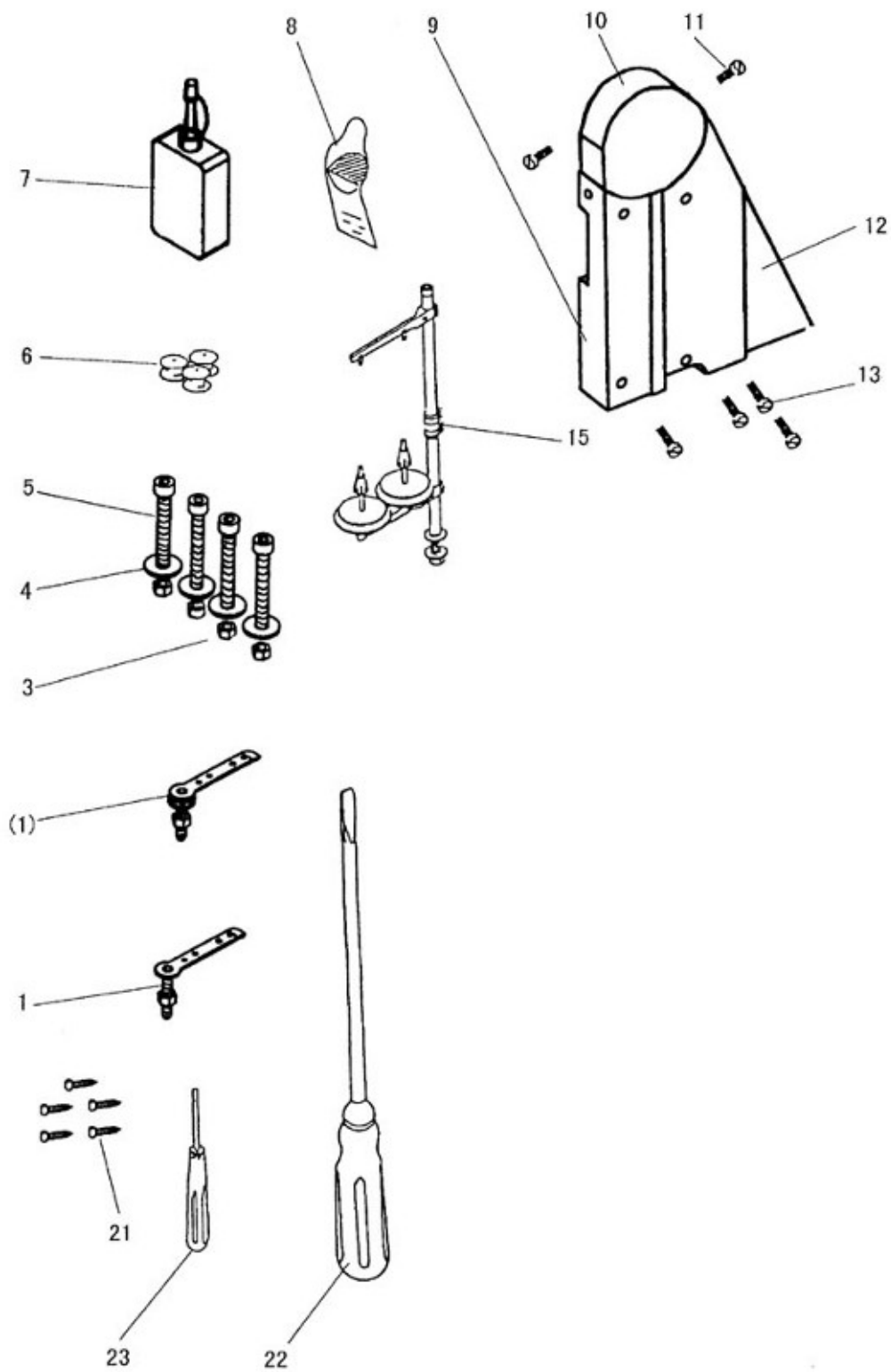


G. KNIFE MECHANISM

Fig. No.	Part No.	NAME	Pcs.	Remarks
G01	HK605H8001	cam	1	
G02	H431060080	Screw	2	M6×8
G03	HK613H8001	pin	1	
G04	HK615H8001	spring	1	
G05	HK620H7101	setting plate complete	1	
G06	H007013015	stop ring	2	1.5
G07	H605020180	pin	1	
G08	HK609H7101	setting plate complete(small)	1	
G09	H428040040	screw	2	M4×4
G10	HK616H8001	collar	1	
G11	H007009100	stop ring	1	10
G12	HK623H8001	spring	1	
G13	HK618H8001	lifter	1	
G14	HK619H8001	spring	1	
G15	H003002050	nut	1	M5
G16	H415050140	screw	1	M5×14
G17	HK632H8001	link	1	JKM5
G18	HK624H8001	nut	1	
G19	H007013030	stop ring	1	3
G20	HK617H8001	pin	1	
G21	HK607H8001	crank	1	
G22	H7312G8001	screw	2	M5×12
G23	HK625H8001	spring hook	1	
G24	HK627H7101	setting plate complete for solenoid	1	
G25	H415040100	screw	1	M4×10
G26	H003002040	nut	1	M4
G27	HK631H8001	Screw	1	
G28	HA700Q0030	nylon clip	1	
G29	H415040050	screw	1	M4×5
G30	H415060140	screw	2	M6×14
G31	HK630H7101	solenoid lead complete	1	

# H.ACCESSORIES

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## H. ACCESSORIES

Fig. No.	Part No.	NAME	Pcs.	Remarks
H01	H7311H7101	bobbin winder assay	2	
H03	H003002080	Nut	4	M8×1.25
H04	H005006080	Washer	4	8
H05	H415080600	Screw	4	M8×60
H06	HK636E8001	Bobbin	3	
H07	H200400069	Oiler	1	
H08		Needle	4	DP×35LR 14#-16#
H09	H7327H8001	Belt cover (right)	1	
H10	H6307L8001	Belt cover (up)	1	
H11	H200000360	Screw	2	
H12	H7328H8001	Belt cover (left)	1	
H13	H409060080	Screw	4	M6×8
H15	HA200J2030	thread guide	1	GXJ-2
H21	H801045200	Wood screw	5	4.5×20
H22	HA300J2070	Screw driver (larger)	1	
H23	HA300J2210	Screw driver (small)	1	

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