

SEWMAQ

SW-767H SERIES

INSTRUCTION MANUAL & PART LIST

CONTENTS

1. PRECAUTIONS BEFORE STARTING OPERATION.....	1
1) Safety precautions.....	1
2) Precaution before Starting Operation.....	1
3) Precaution for Operating Conditions.....	1
2. SPECIFICATIONS.....	1
3. PREPARATION BEFORE STARTING TO OPERATE.....	2
1) Connection of control box.....	2
2) Oil pan.....	3
3) Operation panel.....	3
4) Adjusting the needle stop position.....	3
5) Lubrication.....	4
4. HOW TO USE THE MACHINE.....	5
1) Threading.....	5
2) Adjusting of the thread regulator.....	5
3) Adjusting of upper thread tension.....	5
4) Winding the lower thread.....	5
5) Threading the lower thread.....	6
6) Adjusting the lower thread tension.....	6
7) Installing the needle.....	6
8) Alternating presser foot movement amount.....	6
9) Adjusting the presser foot pressure.....	7
10) Adjusting the stitch length.....	7
11) Using the manual switches.....	7
12) Cleaning.....	8
13) Lubrication.....	8
14) Adjusting the trailing length after thread trimming.....	9
15) Back tacking.....	9
16) Adjusting the feed dog.....	10
17) Adjusting the needle bar height.....	10
18) Adjusting the gap between the needle and the rotary hook tip.....	10
19) Adjusting of the needle and the hook timing.....	11

20) Hook protection	11
21) Adjusting the needle and feed mechanism timing	11
22) Adjusting the opener position	12
23) Adjusting the presser foot height	13
24) Adjusting the alternating presser foot movement amount	13
25) Adjusting the presser foot timing	15
26) Adjusting the fixed knife position	15
27) Adjusting the thread holding spring position	16
28) Adjusting the knife timing position	16
29) Adjusting the driving knife height	16
30) Adjusting the driving knife stop position	16
31) Adjusting the driving knife operating position	17
32) Adjusting the thread trimming timing	18
33) Safety clutch	18

PARTS LIST

A. ARM BED AND ITS ACCESSORIES	20
B. THREAD TENSION REGULATOR MECHANISM	24
C. SEWING MECHANISM	28
D. PRESSER FOOT MECHANISM	32
E. UPPER FEED LIFTING ROCK SHAFT MECHANISM	36
F. STITCH REGULATOR MECHANISM	38
G. FEEDING AND FEED LIFTING & ROTATING HOOK SHAFT MECHANISM	42
H. HOOK SADDLE MECHANISM	46
I. OIL LUBRICATION MECHANISM	50
J. ACCESSORIES	54
K. PNEUMATIC CONTROL UNIT	56

1. PRECAUTIONS BEFORE STARTING OPERATION

1) Safety precautions

- (1) When turning the power on, keep your hands and fingers away from the area around/under the needle and the area around the pulley.
- (2) Power must be turned off when the machine is not used, or when the operator leaves his/her seat.
- (3) The power must be turned off before tilting the machine head, installing or adjusting the machine, or when replacing.
- (4) Avoid placing fingers, hairs, bars etc. nears the pulley, bobbin winder pulley, when the machine is operation. Injury could result.
- (5) Do not insert fingers into the thread take-up cover, under/round the needle, or pulley when the machine is in operation.
- (6) If a mini motor cover, finger guard, and/or eye guard are installed, do not operate the machine without these safety devices.

2) Precaution before starting operation

- (1) If the machine's on pan has an oil sump, never operate the machine before filling it.
- (2) If the machine is lubricated by a drop oiler, never operate the machine before lubricating.
- (3) When a new sewing machine is first turned on, verify the rotational direction of the pulley with the power on. (The pulley should rotate counterclockwise when viewed from the pulley.)
- (4) Verify the voltage and (single or three) phase with those given on the machine nameplate.

3) Precaution for Operating Conditions

- (1) Avoid using the machine at abnormally high temperature (35°C or higher) or low temperatures (5°C or lower). Otherwise, machine failure may result.
- (2) Avoid using the machine in dusty conditions. Avoid using the machine in areas where too much electrical noise, resulted from the high-frequency welder and others, is generated.

2. SPECIFICATIONS

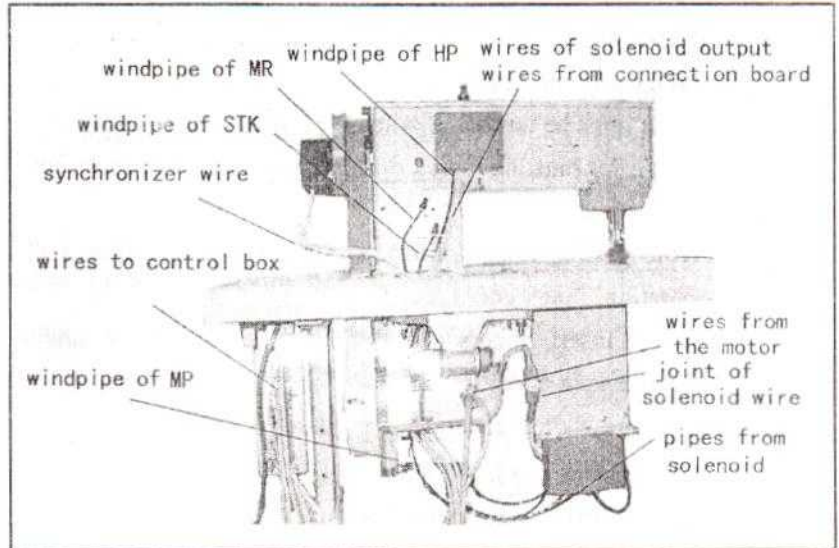
Item	Specifications	
Max. Speed	3,500rpm	
Stitch length	0-9mm	
Needle bar stroke	34mm	
Presser foot clearance	By hand	9mm
	By knee	16mm
Needle	DP × 17 #18-#25	
Rotating hook	Large vertical hook(1.6 times)	
Presser foot alternation	1-7mm	
Auto presser foot lifter	Pneumatic	
Oil lubrication method	Automatic lubrication	
Bed dimensions	300 × 120mm	

3. PREPARATION BEFORE STARTING TO OPERATE

1) Connection of control box

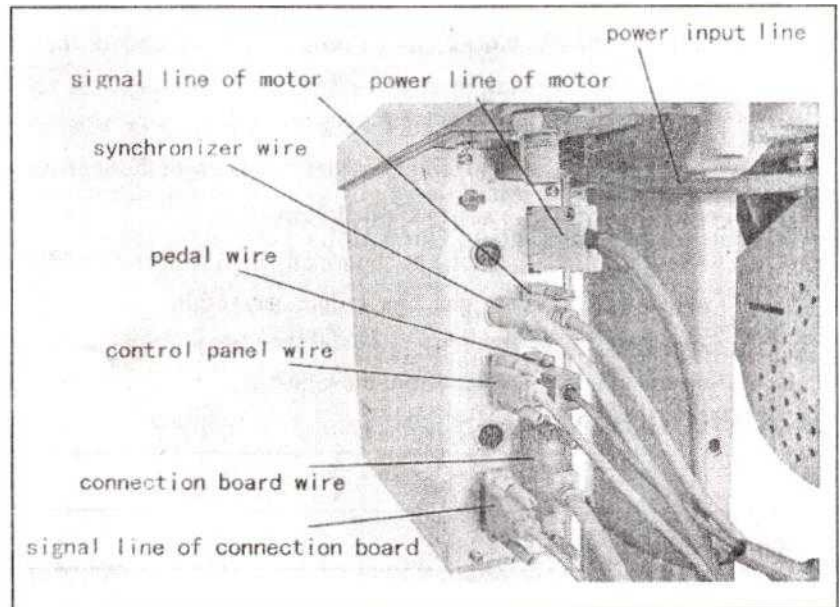
It shows the connection of the electrical wires of the whole machine on the right picture.

When the machine needs to be assembled, each line should be linked to the right joint according to the instruction of the picture.



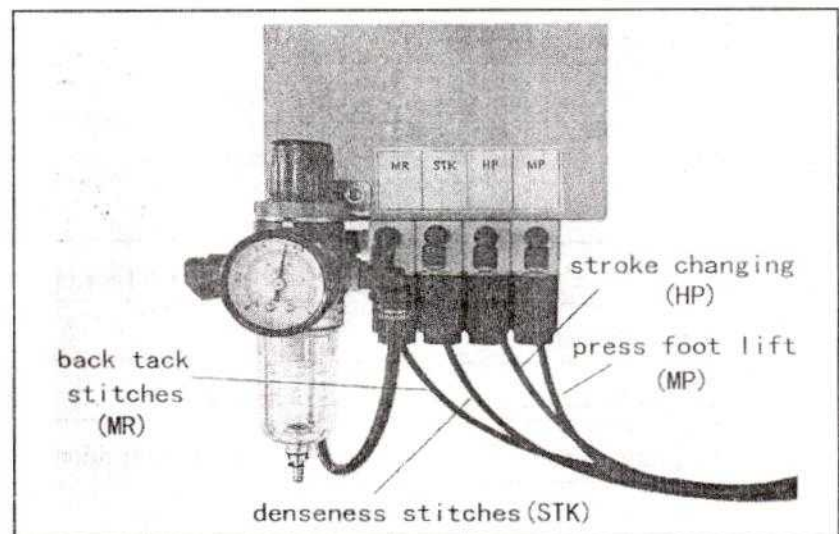
All the pins on the control box have signals of function showing, and usually, different wires have different kinds of joint.

Caution: the pin of synchronizer wire is the same with another two external pins and if there is a misconnection, the synchronizer might be burn.



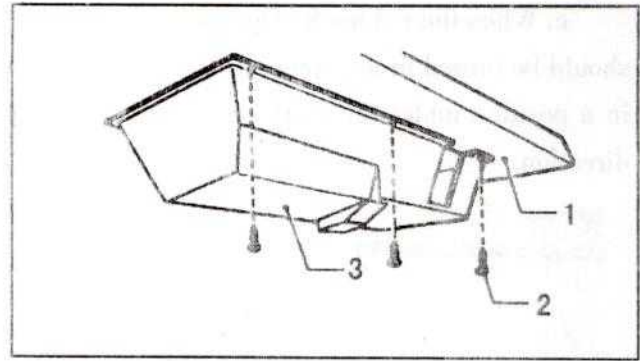
When connecting the pipes, please check the joint at the picture of the whole machine above as reference.

And also there have an instruction mark of each joint of the solenoid at the setting board.

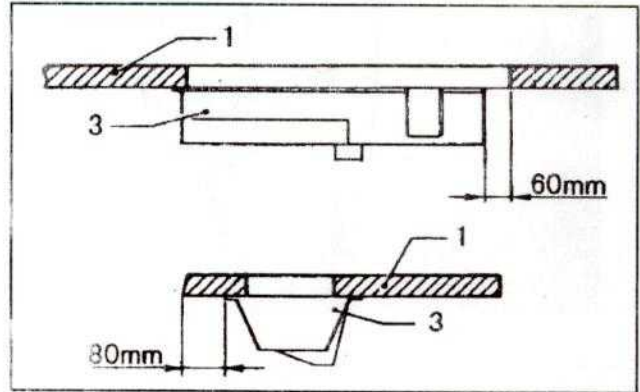


2) Oil pan

(1) Install the oil pan 3 to the underside of the worktable 1 in the place shown in the illustration using the nails 2.



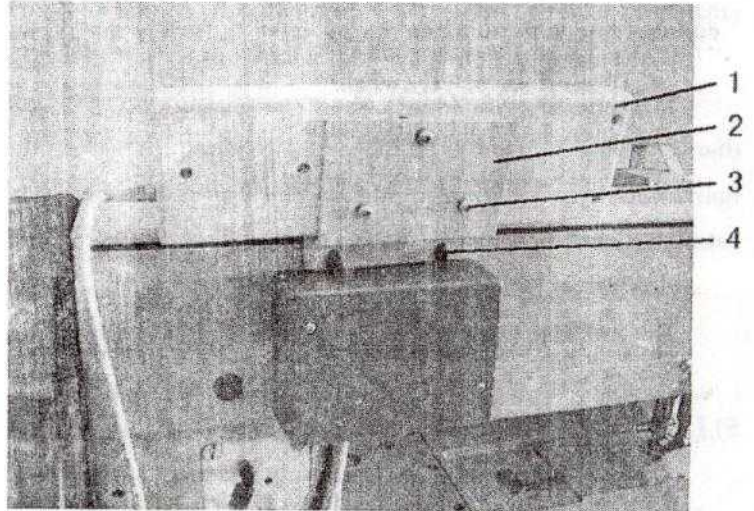
(2) From front view, the oil pan 3 to the side is 60mm; from right view, the oil pan 3 to the side is 80mm.



3) Operation panel

(1) Install the operation panel 1 to the set plate 2 with the three screws 3.

(2) Install the set plate 2 to the back of the machine arm with the two screws 4.



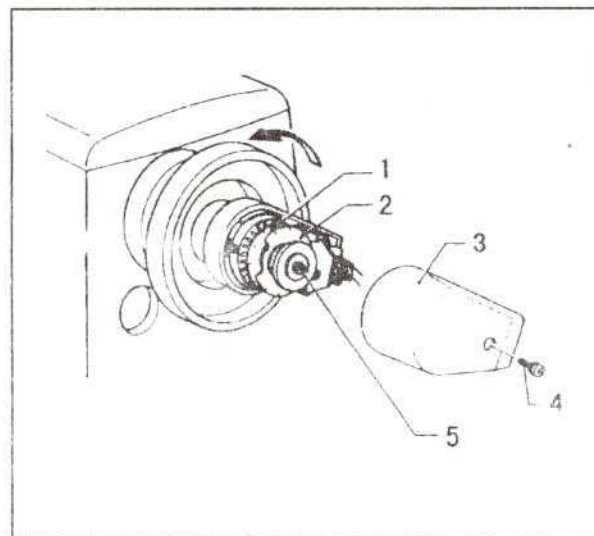
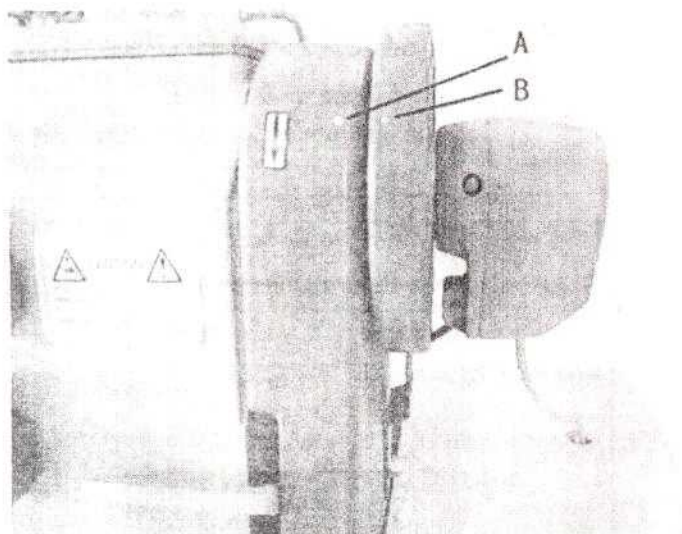
4) Adjusting the needle stop position

(1) Adjusting the needle up stop position

When the sewing machine stops in the needle up stop position (the stop position of trimming) and the treadle is pressed back, the red mark on the pulley should be consistent with the mark on the belt cover A. Adjust as follows:

- a. Turn off the power switch.
- b. Loosen the screw 4. and then remove the cover 3.

c. When the red mark stops in a position over the mark on the belt cover, the needle up stop position disc 1 should be turned in the opposite direction as the direction of machine pulley rotation. When the red mark stops in a position under the mark on the belt cover, Turn the disc 1 in the same direction as the pulley rotation direction.



(2) Adjusting the needle down stop position

When the sewing machine stops in the needle down stop position, the black mark on the pulley should be consistent with the mark on the belt cover A. Adjust as follows:

a. Turn off the power switch.

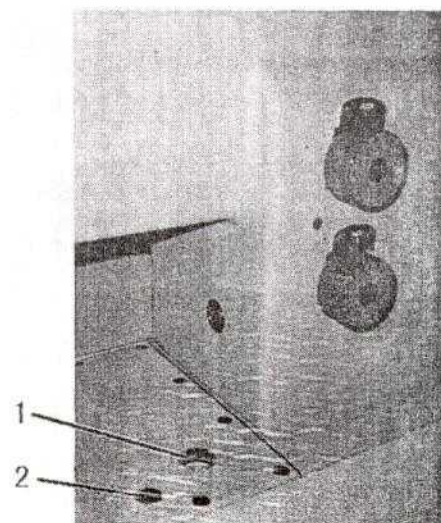
b. When the black mark stops in a position over the mark on the belt cover, the needle down stop position disc 2 should be turned in the opposite direction as the direction of machine pulley rotation. When the black mark stops in a position under the mark on the belt cover, Turn the disc 2 in the same direction as the pulley rotation direction.

c. After adjusting, install the cover 3, with screw 4.

Note: There is no need to loosen the screw 5, when turning the discs.

5) Lubrication

Before the new machine is used, please loosen the screw 2 and full the oil into the oil case. Set the oil level between EMPTY and FULL. Then replace oil-filling screw 2.



4. HOW TO USE THE MACHINE

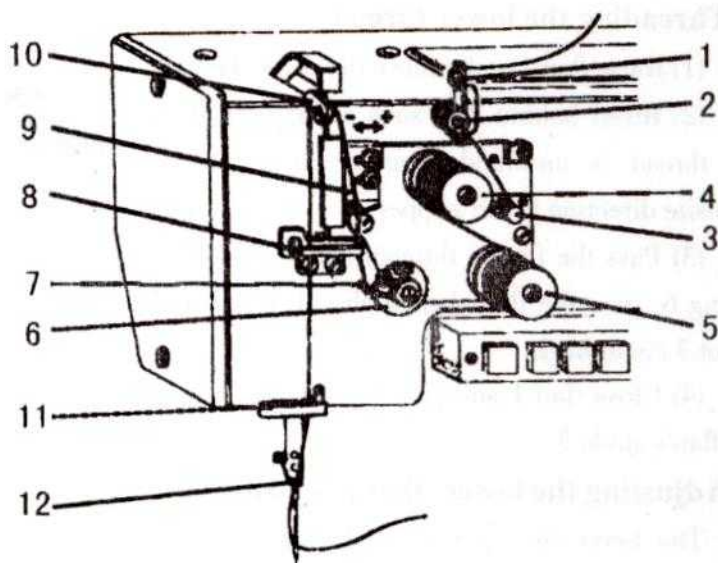
1) Threading

Raise the thread take-up lever to its highest position and thread the upper thread in the following order.

2) Adjusting of the thread regulator

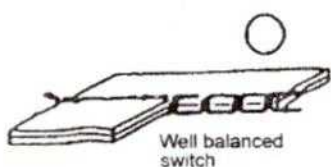
The thread regulator 9 (see the right picture) regulates the amount of needle thread necessary for stitch formation. The setting depends on the following factors: material thickness, yarn characteristics and stitch length.

The thread regulator is fitted with slots for this purpose. Moving in the "+" direction increases the quantity of needle thread; Moving in the "-" direction reduces the quantity of needle thread.

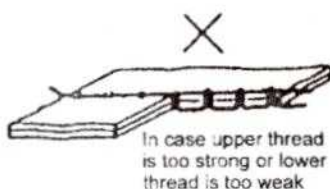


3) Adjusting of upper thread tension

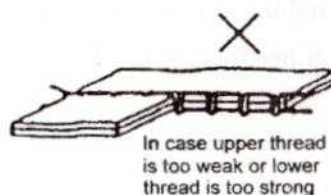
Tension should be as low as possible. The crossover point should be in the center of the material. Upper thread tension can be adjusted by thread tension nut 4 and 5 (see the picture of above). Turn the thread tension nut clockwise to increase the needle thread tension. Turn the thread tension nut counter-clockwise to decrease the needle thread tension.



Well balanced
stitch



In case upper thread
is too strong or lower
thread is too weak



In case upper thread
is too weak or lower
thread is too strong

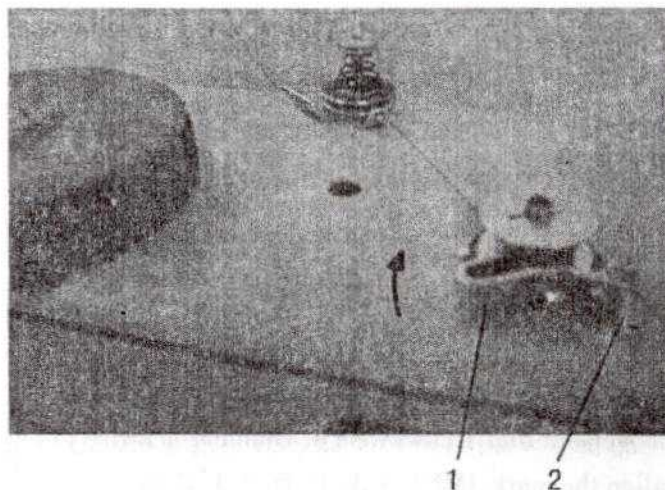
4) Winding the lower thread

(1) Place the bobbin onto the bobbin winder shaft.

(2) Pass the thread for winding thread as shown in the figure, and wind the end of the thread clockwise around the bobbin several times.

(3) Push the bobbin presser 1 toward the bobbin.

(4) The operation will automatically stop when winding is completed. The amount of thread wound onto the bobbin should be a maximum of 80% if the bobbin capacity.



(5) After the thread has been wound on, remove the bobbin and cut the thread with the thread-trimming knife 2.

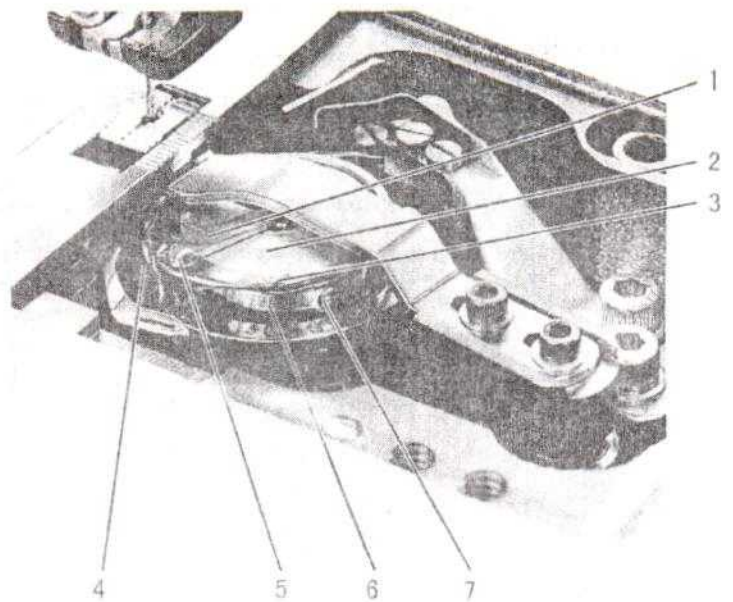
5) Threading the lower thread

(1) Raise flap 1 and remove the empty bobbin.

(2) Insert bobbin 2 in such a way that when the thread is unwound from it moves in the opposite direction to the gripper.

(3) Pass the thread through slit 3 and below spring 6, pass the thread through slit 4 and pull about 3 cm through.

(4) Close flap 1 and pass the thread through the flap's guide 5.



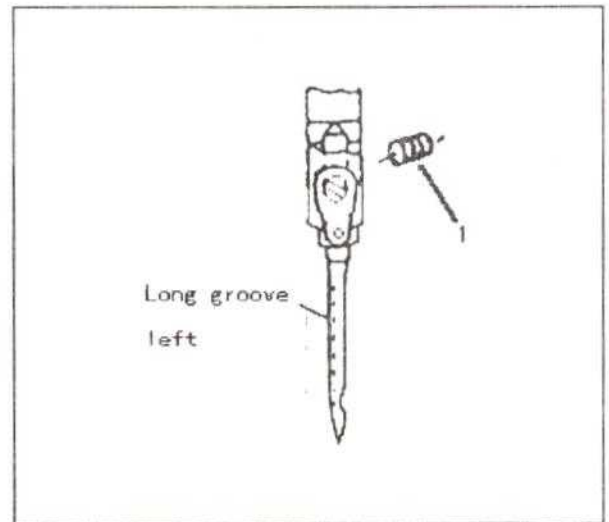
6) Adjusting the lower-thread tension

The lower-thread tension should be set in accordance with the type of seam required. Adjust the tension with screw 7. (See the picture of above)

7) Installing the needle

Note: Before the following adjustment, be sure to turn off the power switch.

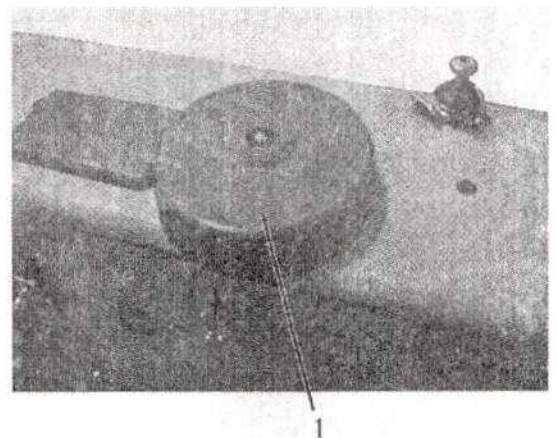
Insert the needle up to the bottom of needle clamp and tighten the screw 1 keeping the long groove side of needle forward the left.



8) Alternating presser foot movement amount

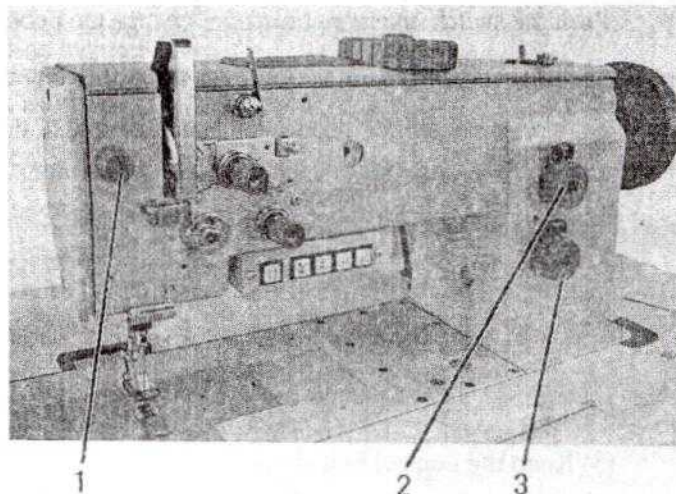
The alternating movement amount for the inner presser foot and the outer presser foot can be adjusted within the range of 1-7 mm using the alternating presser foot movement

dial I. Turn the alternating presser foot movement dial I clockwise or counterclockwise to align the mark. (MIN. A, B, C, D, E, F MAX.)



9) Adjusting the presser foot pressure

The presser foot pressure should be set as weak as possible, but strong enough so that the material does not slip. If the presser-adjusting dial 1 is turned clockwise, the presser foot pressure will become stronger, and if it is turned counterclockwise, the pressure will become weaker.



10) Adjusting the stitch length

The feed adjustment dials 2 and 3 can be used to set two different types of stitch length. (See the picture of above) Use feed adjustment dial 2 to set the big stitch length. Use feed adjustment dial 3 to set the little stitch length. The sewing machine will switch between the two stitch lengths each time the stitch length change switch is pressed.

11) Using the manual switches

(1) Quick reverse switch

Back tacking is carried out during sewing only while the switch 1 is being pressed.

(2) Alternating presser foot movement change switch

The sewing machine can be switched between two different alternating presser foot movement amounts each time when the switch 2 is pressed.

(3) Auto back tacking select switch

If the switch 3 is pressed when either start back tacking or end back tacking has been set to ON at the operation panel, back tacking is canceled for the first time only. Furthermore, if the switch 3 is pressed when neither starting nor end back tacking has been set, back tacking is carried out for the first time only.

(4) Needle up or down switch

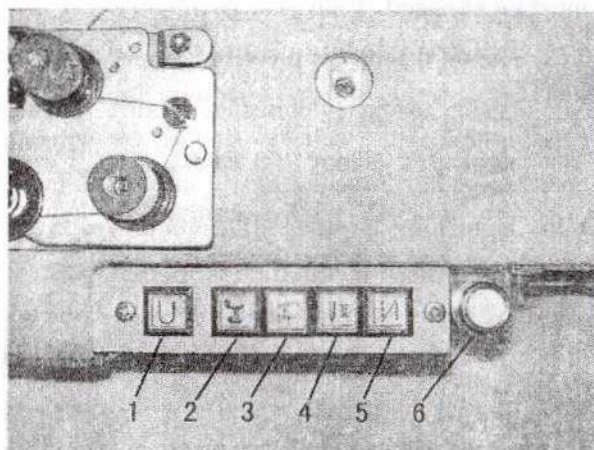
If the switch 4 is pressed, The needle will move up to the needle up stop position from down stop position or move down to the needle down stop position from up stop position.

(5) Stitch length change switch

The stitch length changes alternately between two different stitch length settings each time the switch 5 is pressed. OFF: Sewing is carried out using the big stitch length; ON: Sewing is carried out using the little stitch length.

(6) Stitch counter switch

The orange light on the switch will flash and the machine will stop when the bobbin thread is used up.



Push the switch one more time after change the bobbin. The sewing machine cannot run before the switch be pushed one more time. The stitch count should be set according to the stitch length and the count of the bobbin thread. Notice: the switch is not work until the correlative functions of the control box are set. The functions please read the parameter 42, 43, 44 in the servo motor user manual.

12) Cleaning

(1) The area around the feed dog and the hook should be cleaned every day.

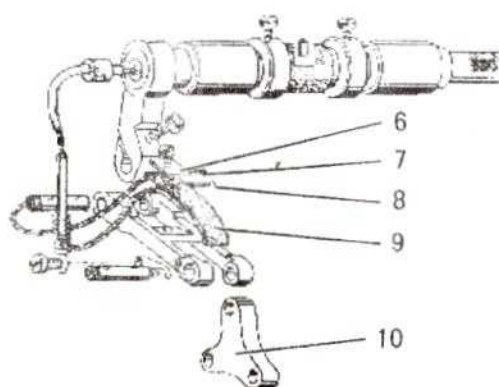
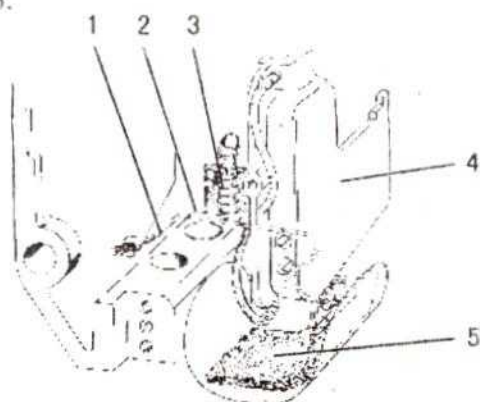
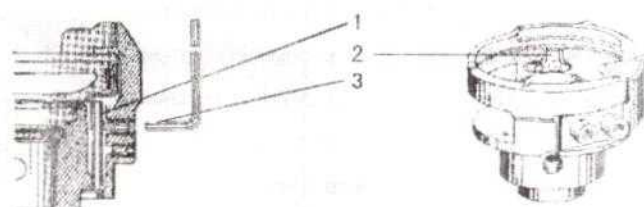
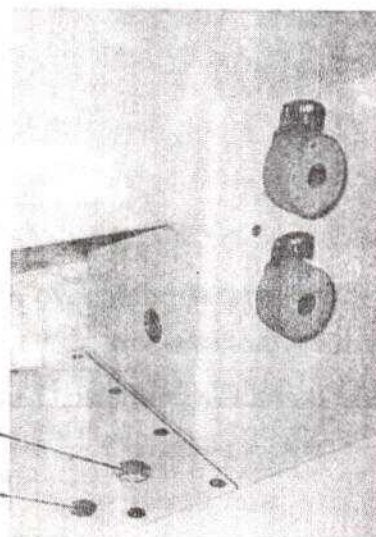
(2) Remove any thread scraps from inside the rotary hook.

(3) Keep the control box clean.

13) Lubrication

(1) Check the oil level at the sight glass 1 every week. If the oil is not enough, remove oil-filling screw 2 and pour in oil. Check oil level at sight glass 2. The oil level must be between "EMPTY" and "FULL". Replace oil-filling screw 2. After running for 500 hours since buying the new sewing machine, the oil must be changed. Then change the oil every two years.

(2) The oil quantity is pre-set at a relatively high level in order to ensure adequate lubrication during running-in. This setting should be checked and corrected after running-in. (approx. 50 hours). The hook is to have positive lubrication with the least possible amount of oil. Let the sewing machine run approx. 2 minutes. And run in intervals. Hold a piece of paper next to the hook and check if sufficient oil is spun onto the paper. Remove cover plate 2. Loosen screw 3 until the tube 1 no longer moves. This is the case when the tube is in the center of the drilled hole. Turn screw 3 in until the tube movement just starts and then a 1/8 turn farther. The hook lubrication is preset. Attach cover plate 2 again. Setting the hook lubrication with screw 3.



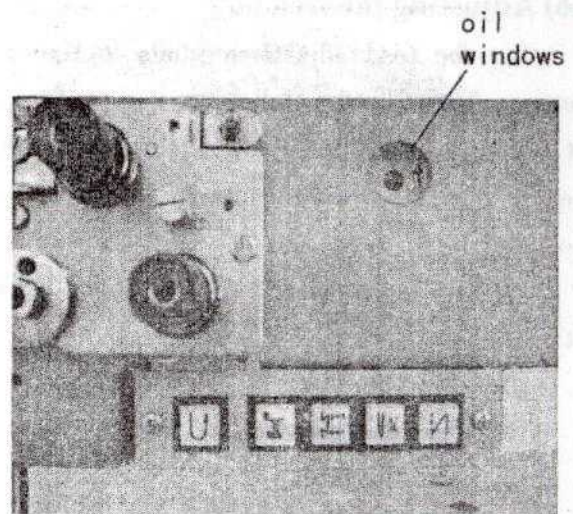
(3) Lubricating wicks and felt (see the picture of above)

a. The wick 1 leading from the oil sump to the oscillating crank 4 must be fixed between the groove 2 in the arm and the spring 3 of the reirculation wick.

b. When the oil satchel is changed, the flock side should be faced to connecting plate 10. The oil wick 7 and 8 should be set between the oil satchel 9 and plate 8.

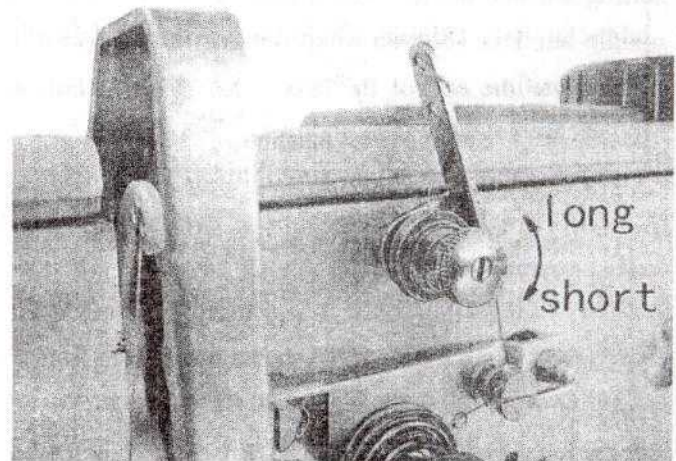
(4) Checking the lubrication oil.

Turn on the power switch. Depress the treadle gently and check that the oil level rises in the oil sight glass.



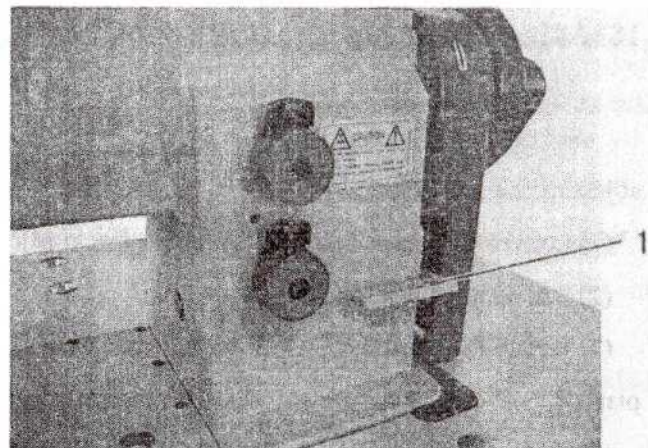
14) Adjusting the trailing length after thread trimmin

Adjust by turning the pre-tensioner 1. If the tension of the pre-tension is increased, the lengths of the threads trailing from the needle tips will be reduced; if the tension is reduced, the lengths will be increased.



15) Back tacking

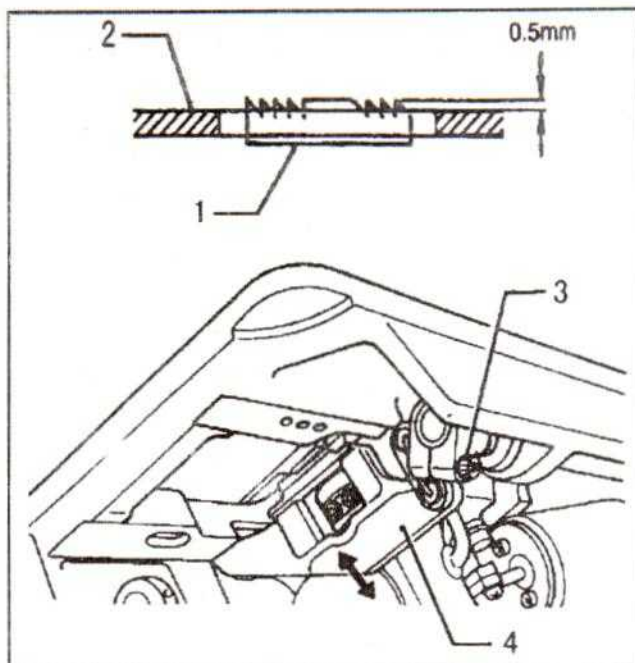
When the reverse lever 1 or the quick reverse switch is pressed during sewing, the feed direction will be reversed. When it is released, the feed direction will return to normal.



16) Adjusting the feed dog

Set the feed adjustment dials to the minimum settings. Then adjust as follows so that the feed dog 1 is at its highest position (0.5mm above the top of the needle plate 2) when the needle bar is at its lowest position.

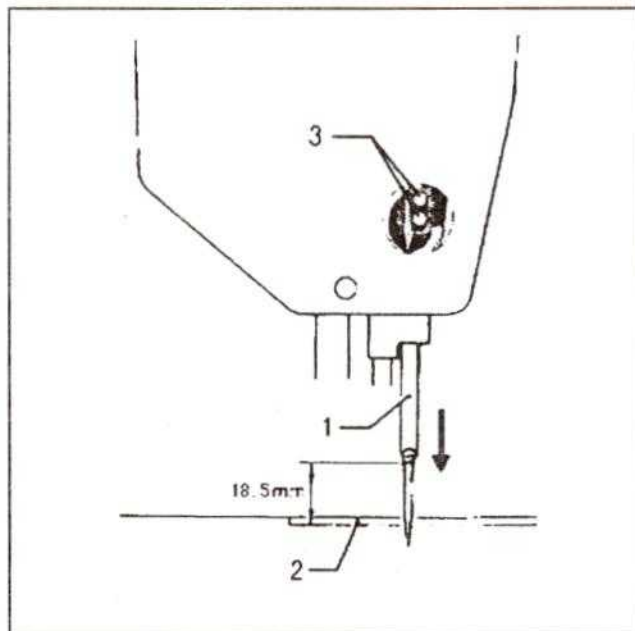
- (1) Turn the machine pulley to set the feed dog 1 is at its highest position.
- (2) Loosen the screw 3.
- (3) Adjust the feed dog's height.
- (4) Tighten the screw 3.



17) Adjusting the needle bar height

Set the feed adjustment dials to the minimum settings. Then adjust so that the distance from the setting surface of the needle plate 2 to the end of the needle bar 1 is 18.5mm when the needle bar 1 is at its lowest position.

- (1) Remove the face plate.
- (2) Set the feed adjustment dials to "0".
- (3) Turn the pulley to set the needle bar 1 to its lowest position.
- (4) Loosen the screw 3 and then move the needle bar 1 up or down to adjust so that the distance from the setting surface of the needle plate 2 to the end of the needle bar 1 is 18.5 mm.
- (5) Tighten the screw 3, install the face plate.

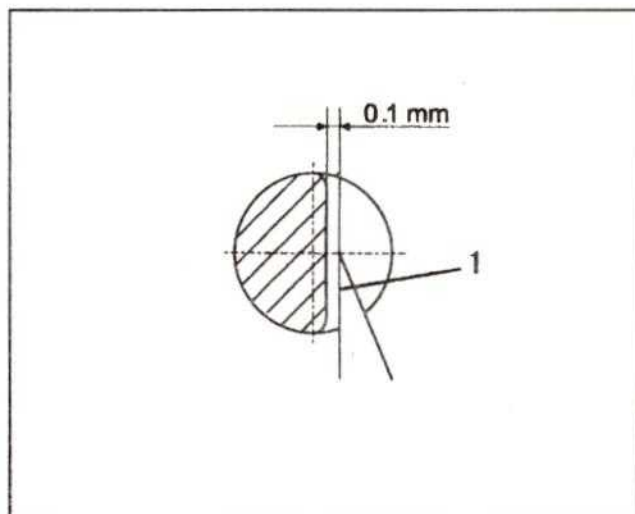


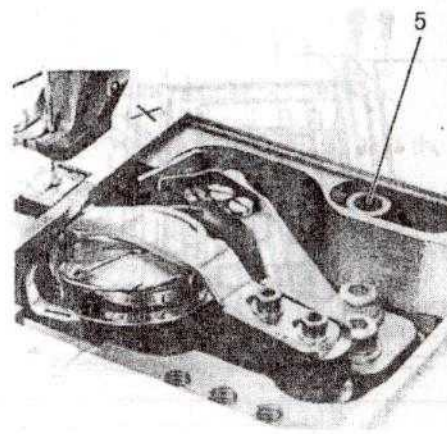
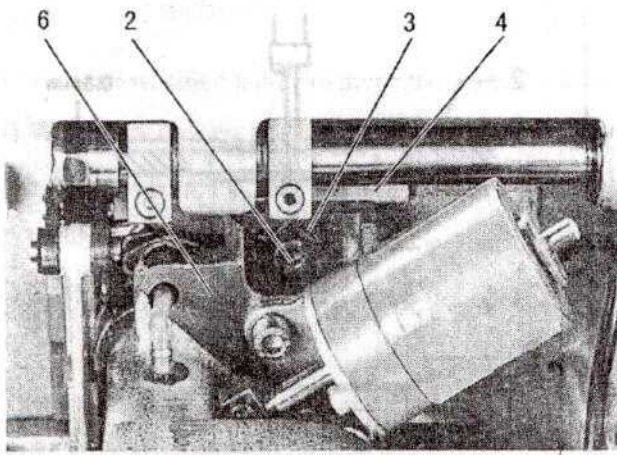
18) Adjusting the gap between the needle and the rotary hook tip

The gap between the needle and the rotary hook tip 1 is 0.1 mm.

Set the rotary hook tip at the level of the middle of the needle. Then adjusting the gap as follow:

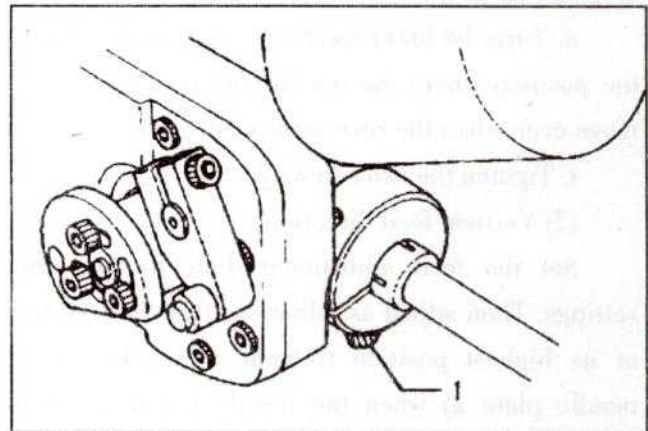
- (1) Loosen the screws 2 and 5 (see the picture of below).
- (2) Set the hook base 6 to the fit position.
- (3) Rotate the adjusting plate 3, let the hook base 6 depend on the bed plate 4.
- (4) Tighten the screws 2 and 5.





19) Adjusting of the needle and the hook timing

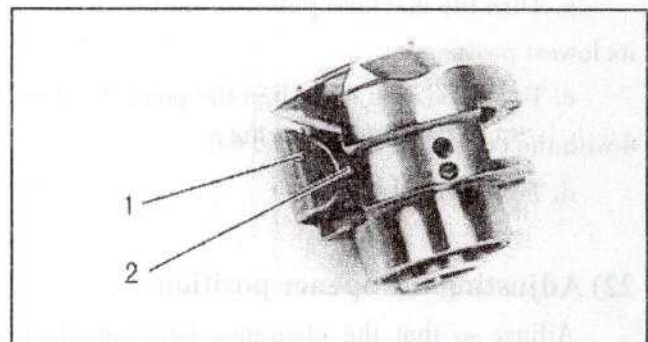
- (1) Set the stitch length to "0" .
- (2) Remove the needle plate.
- (3) Overturn the arm.
- (4) Loosen the screw 1
- (5) Turn the machine pulley to raise the needle bar from its low position to the point that the needle rises 2.4 mm.
- (6) Turn the rotary hook to align the rotary hook tip with the center of the needle.
- (7) Tighten the screw 1.



20) Hook protection

In looping stroke position the needle must abut on the hook protection 1 without being displaced.

Move needle in looping stroke position by pulley. In looping stroke position the hook tip is at the level of the middle of the needle. Press needle against hook protection 1 manually. The needle should not touch the hook tip.

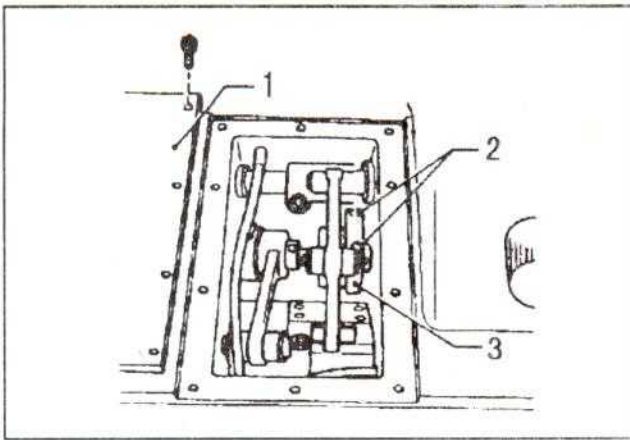


21) Adjusting the needle and feed mechanism timing

(1) Horizontal feed direction

Set the feed adjustment dials to the maximum settings. Then turn the machine pulley until the needle bar is at its lowest position. Then adjust so that the needle and the feed dog do not move even when the reverse lever is moved up and down at this time.

- a. Remove the bed upper cover 1.
- b. Set the feed adjustment dial to the maximum settings.
- c. Loosen the two screws 2.



D. Turn the machine pulley until the needle bar is at its lowest position.

e. Turn the lower feed cam 3 gradually until it is at the position where the needle and the feed dog do not move even when the reverse lever is moved up and down.

f. Tighten the two screws 2.

(2) Vertical feed direction

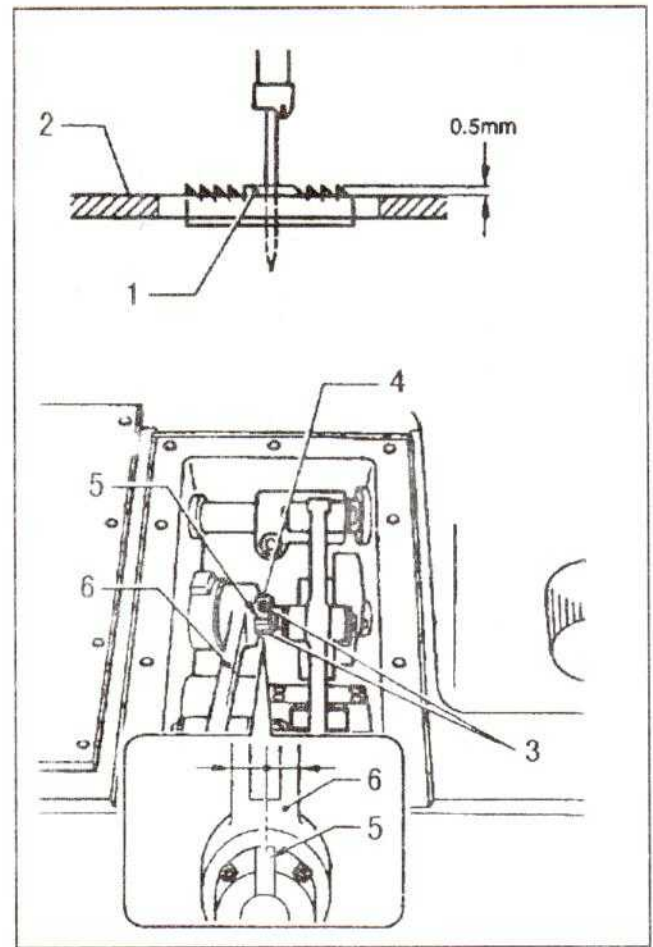
Set the feed adjustment dials to the minimum settings. Then adjust as follows so that the feed dog 1 is at its highest position (0.5mm above the top of the needle plate 2) when the needle bar is at its lowest position.

a. Loosen the two screws 3

b. Turn the machine pulley to set the needle bar to its lowest position.

c. Turn feed cam 4 to align the point 5 of feed cam 4 with the centerline of feed rod 6.

d. Tighten the screws 3.

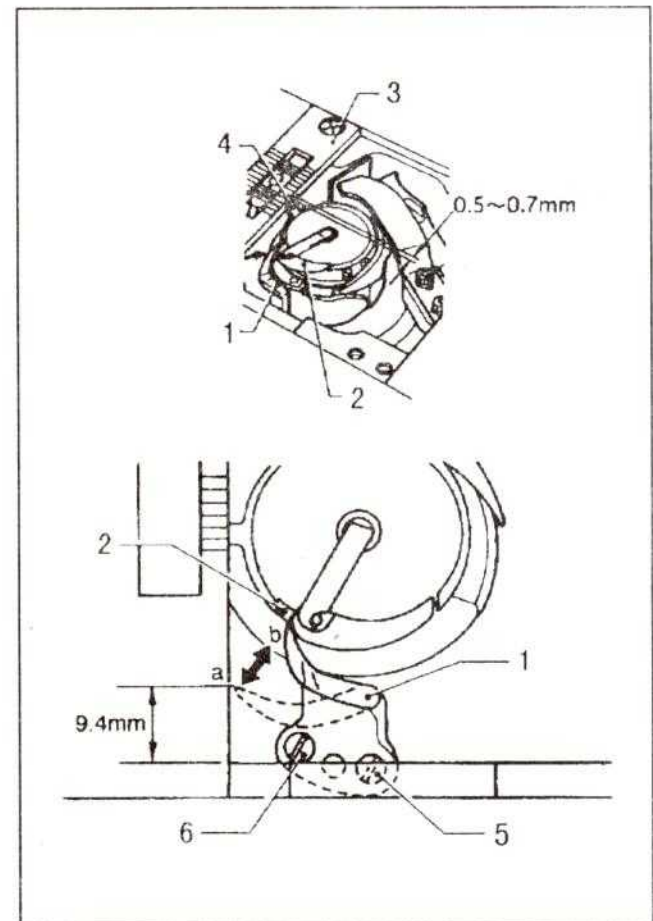


22) Adjusting the opener position

Adjust so that the clearance between the needle plate 3 and the stopper 4 of the inner rotary hook 2 is 0.5-0.7 mm when the opener 1 is at its closest position to the inner rotary hook 2.

(1) Turn the machine pulley to move the opener 1 in direction a (opening direction), and then loosen the screw 5.

(2) Turn the machine pulley to move the opener 1 in direction b (closing direction), and then loosen the screw 6.

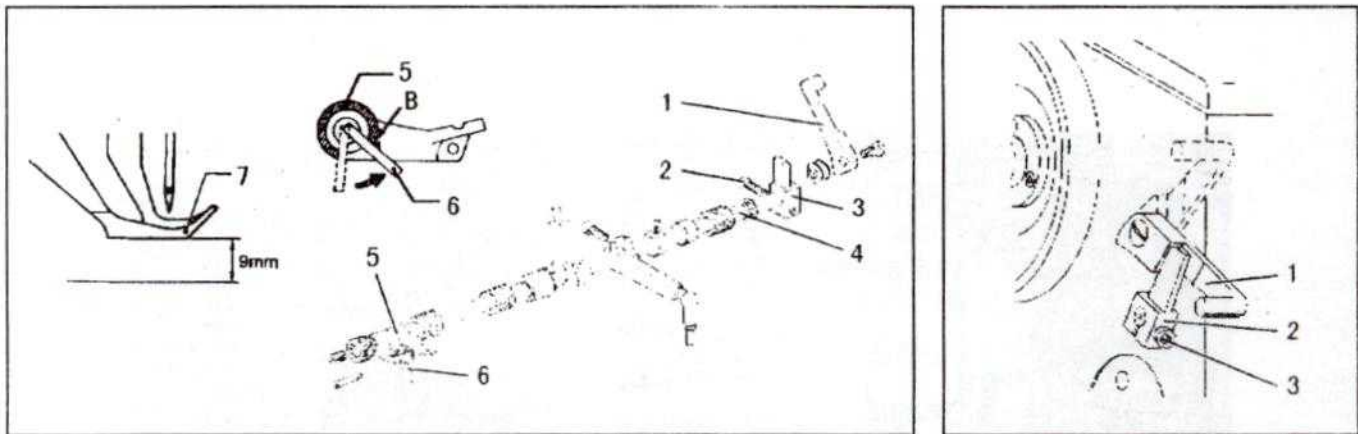


- (3) Turn the machine pulley to move the opener 1 as close to the inner rotary hook 2 as possible.
- (4) While pressing the opener 1 against the inner rotary hook 2 with your finger, adjust so that the clearance between the needle plate 3 and the stopper 4 of the inner rotary hook 2 is 0.5–0.7 mm.
- (5) Tighten the screw 6.
- (6) Turn the machine pulley to move the opener 1 in direction “a” (opening direction), and then tighten the screw 5.

23) Adjusting the presser foot height

The standard height of the outer presser foot 7 is 9 mm when it is raised by the presser lifter bar 1.

- (1) Remove the belt cover.
- (2) Loosen the presser adjusting screw, to release the presser foot pressure.
- (3) Raise the presser lifter bar 1 and then loosen the screw 2.
- (4) Move the outer presser bar up or down to adjust so that the height of the outer presser foot 7 is 9 mm.
- (5) While the stopper pin 6 is touching against the notch B in the presser foot lifter connection 5 and while pushing the presser lifter shaft so that there is no play in the thrust direction, tighten the screw 2.
- (6) Turn the presser adjusting screw to adjust the presser foot pressure.
- (7) Install the belt guards.



24) Adjusting the alternating presser foot movement amount

(1) Maximum alternating presser foot movement amount. Carry out the following adjustment to set the maximum alternating movement amounts for the inner presser foot 1 and outer presser foot 2 to the maximum of 7 mm.

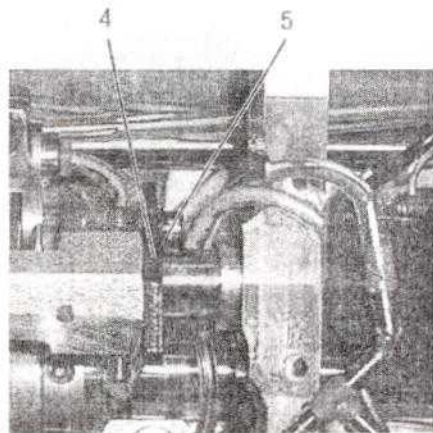
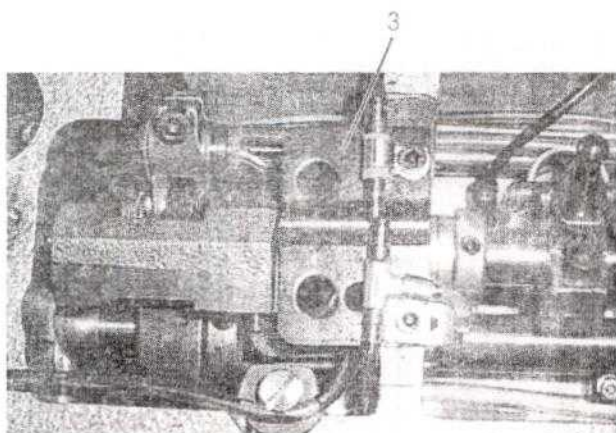
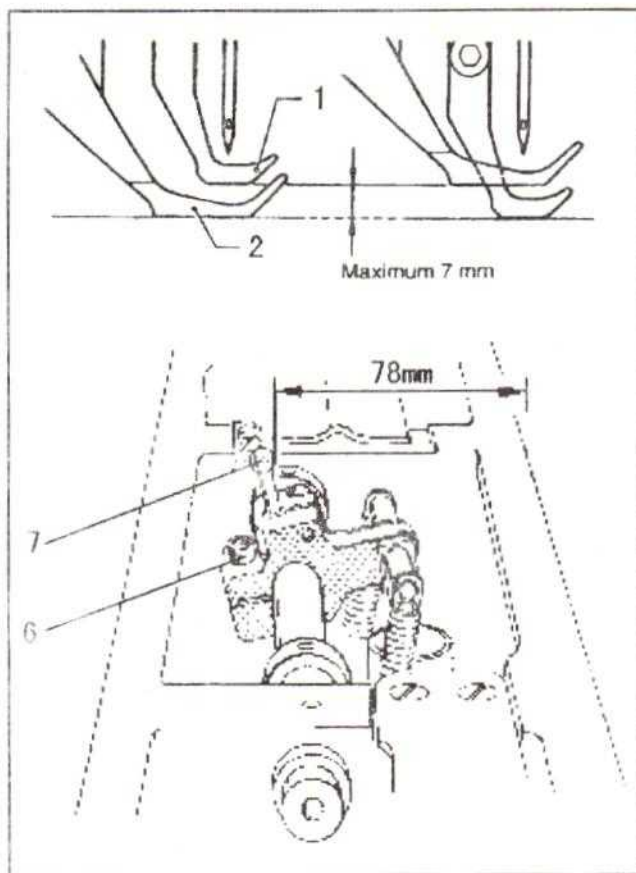
- a. Remove the upper plate.
- b. Remove the adjusting bracket 3.
- c. Loosen screw 5 of adjusting bracket collar 4.

d. Adjust the adjusting bracket collar 4. If the adjusting bracket collar 4 is installed at the highest position, the alternating presser foot movement amount is 1–6mm. If it is at the lowest position, the alternating presser foot movement amount is 1.6–7mm.

e. Tighten the screw 5.

f. Install the adjusting bracket 3.

d. Loosen the bolt 6 and turn connecting lever 7 to adjust so that the distance from the outer edge of the arm to the outer edge of the pin 7 is 78 mm at this time. Then tighten the bolt 6. (When installing the upper plate, set the alternating presser foot movements dial to the "min." position.)



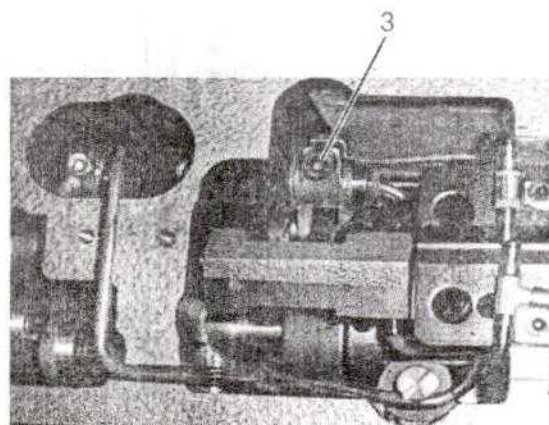
(2) Inner presser foot 1 and outer presser foot 2 movement amounts. Carry out the following adjustment to make the movement amounts for the inner presser foot 1 and outer presser foot 2 equal when the presser feet are lowered and the machine pulley is turned.

a. Set the feed adjustment dials to the maximum settings.

b. Open the cover 4

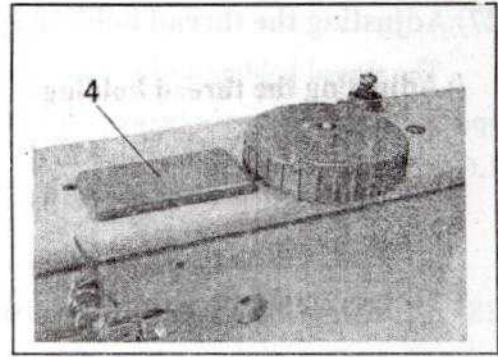
c. Turn the alternating presser foot movement dial to the B position.

d. Loosen the screw 3



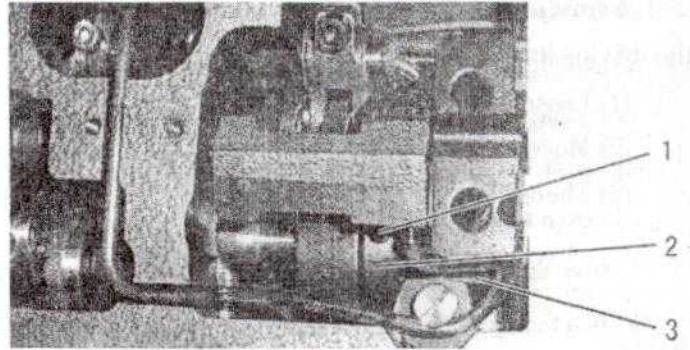
e. Turn the machine pulley toward you to align the tip of the needle and the top of the feed dog with the top of the needle plate.

f. Move the connecting lever to adjust so that both the inner presser foot 2 and outer presser foot 1 are in contact with the top of the needle plate at this time. Then tighten the screw 3.



25) Adjusting the presser foot timing

When the presser feet are lowered and the machine pulley is turned toward you. The inner presser foot should touch the feed dog before the needle arrives at the feed dog. Then when the needle lifts up, the tip of the needle should move away from the feed dog before the inner presser foot moves away.

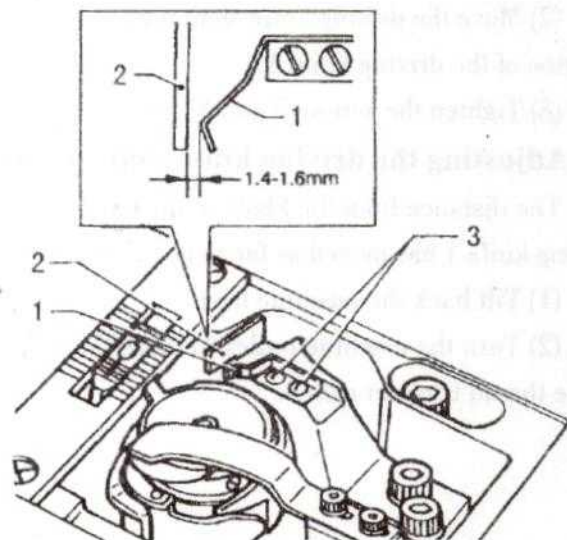
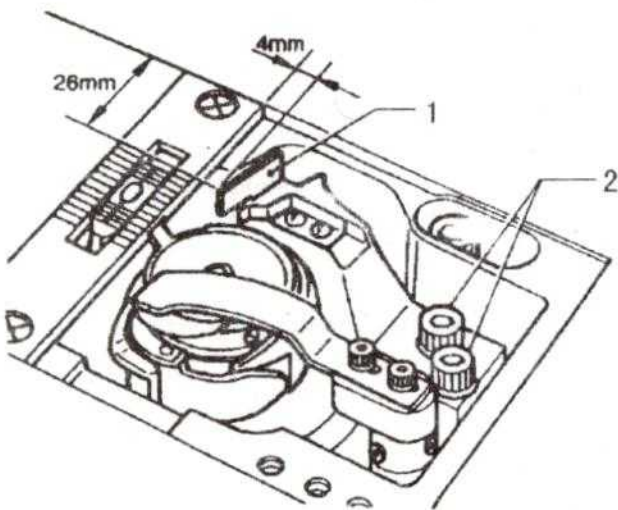


- (1) Remove the upper cover 4.
- (2) Loosen the two screws 1.
- (3) Turn the machine pulley until the needle tip and the feed dog's up face is the same plane.
- (4) Turn inner presser cam to adjust so that the point of inner presser cam is facing straight tip.
- (5) Tighten the screws 2.
- (6) When installing the upper plate, set the alternating presser foot movement dial to the "MIN." position.

26) Adjusting the fixed knife position

The distance from the groove of slide plate to the fixed knife 1 should be 26 mm. Furthermore, the distance from the edge of the needle plate to the left edge of the tip of the fixed knife 1 should be 4 mm.

- (1) Loosen the two bolts 2.
- (2) Adjust the position of the fixed knife 1, and then tighten the bolts 2.



27) Adjusting the thread holding spring position (see the picture of above)

The thread holding spring 1 holds the lower thread after thread trimming to prepare it for the next sewing operation. The clearance between the thread holding spring 1 and the side of the fixed knife 2 should be 1.4–1.6mm.

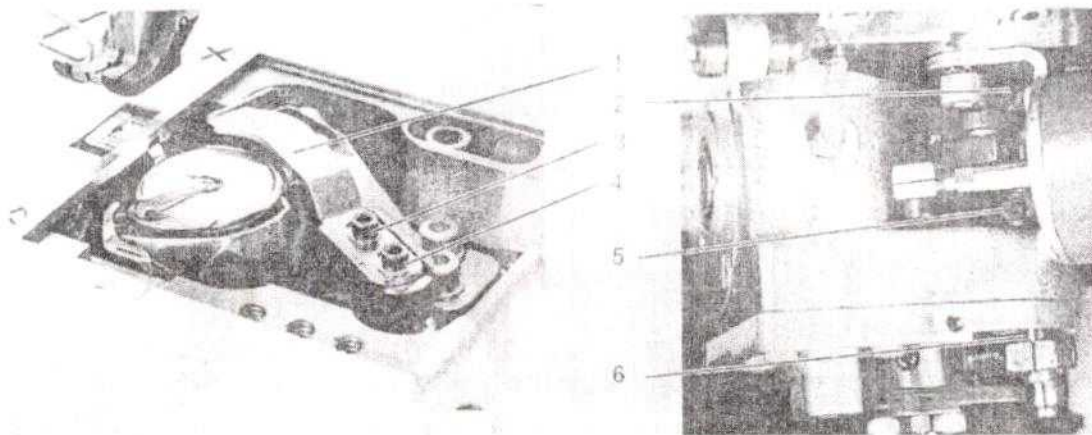
- (1) Loosen the two screws 3.
- (2) Move the thread holding spring 1 to adjust its position, and then tighten the screws 3.

28) Adjusting the knife timing position

After adjusting the position of the fixed knife 1, adjust the knife timing position.

Adjust so that the driving knife 1 starts touching the fixed knife at a position 5.5 mm along the front edge of the driving knife 1.

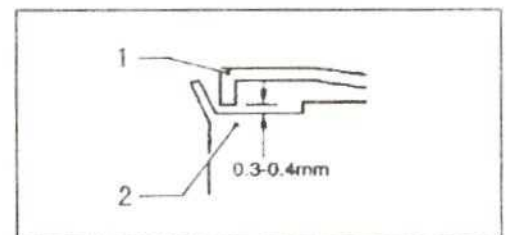
- (1) Loosen the two bolts 3 and 4.
- (2) Move the driving knife 1 to the left or right to adjust its position.
- (3) Then tighten the bolts 3 and 4.



29) Adjusting the driving knife height

The clearance between the lower blade edge of the driving knife 1 and the lower surface of the inner rotary hook should be 0.3–0.4mm.

- (1) Loosen the two screws 2 and 5.
- (2) Move the driving knife shaft 6 up or down to adjust the position of the driving knife 1.
- (3) Tighten the screws 2 and 5 on the setting collars again.



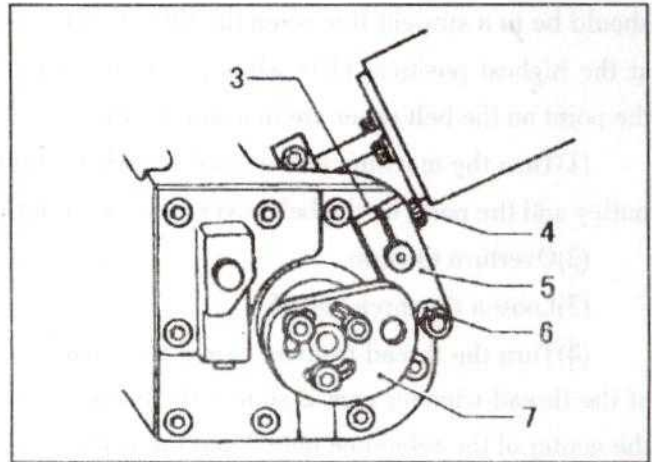
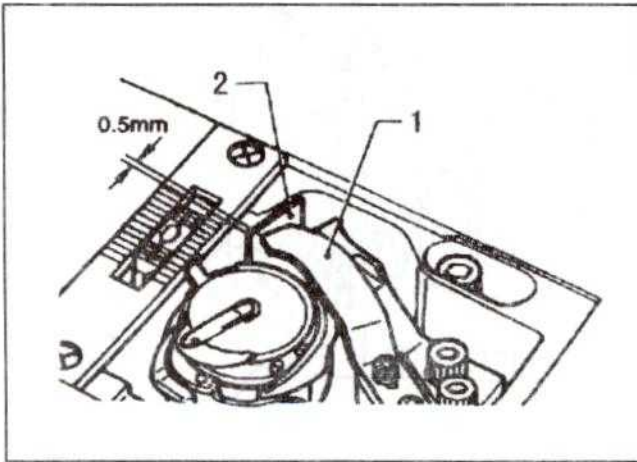
30) Adjusting the driving knife stop position

The distance from the blade of the fixed knife 2 to the end of the driving knife 1 should be 0.5 mm when the driving knife 1 has moved as far as possible toward the fixed knife 2.

- (1) Tilt back the machine head.
- (2) Turn the machine pulley to move the roller 4 of the driving knife arm 3 to the outermost side (right side) of the thread trimmer cam 5.

(3) Loosen the bolt 6.

(4) Move the driving knife 1 so that the distance between the blade of the fixed knife 2 to the end of the driving knife 1 is 0.5 mm, and then tighten the bolt 6.



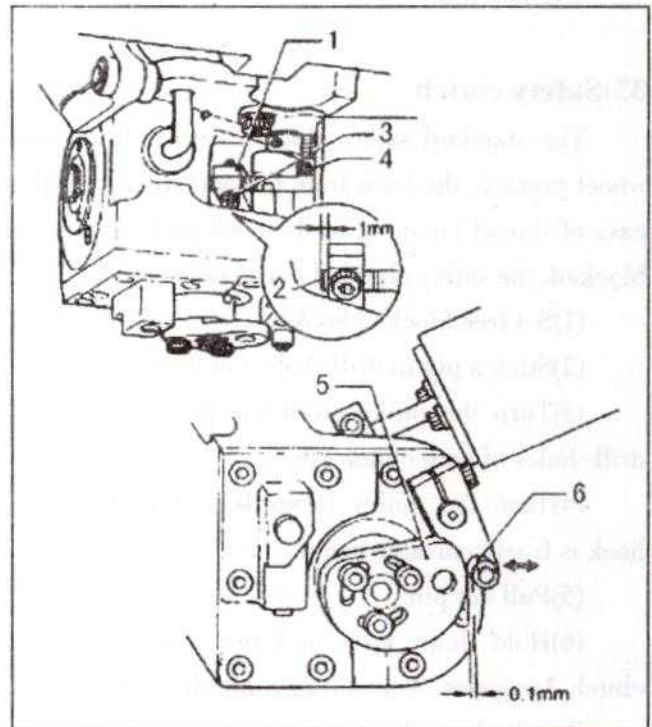
31) Adjusting the driving knife operating position

The standard distance from the left side of driving knife arm 1 to the screw tip on the plunger 2 of the thread trimming solenoid is 1 mm. The clearance between the outermost side (right side) of the thread trimmer cam 5 and the roller 6 of the driving knife arm should be 0.1 mm.

(1) Overturn the arm.

(2) Loosen the bolt 3

(3) Turn the plunger 2 of the thread trimming solenoid so that the distance from the left side of driving knife arm 1 to the screw tip on the plunger 2 of the thread trimming solenoid is 1 mm, and then tighten the bolt 3.



(4) Loosen the bolt 4.

(5) Set the plunger 2 to the position where it projects as far as possible to the left.

(6) Turn the machine pulley to move the roller 6 of the driving knife arm to the outermost side (right side) of the thread trimmer cam 5.

(7) Move the roller 6 so that the clearance between the outermost side (right side) of the thread trimmer cam 5 and the roller 6 is 0.1 mm, and then tighten the bolt 4.

32) Adjusting the thread trimming timing

The center of the pin 1, the center of the reference hole 3 and the center of the roller 4 of the driving knife arm should be in a straight line when the thread take-up lever is at the highest position. (The white point on the pulley and the point on the belt cover are in a straight line.)

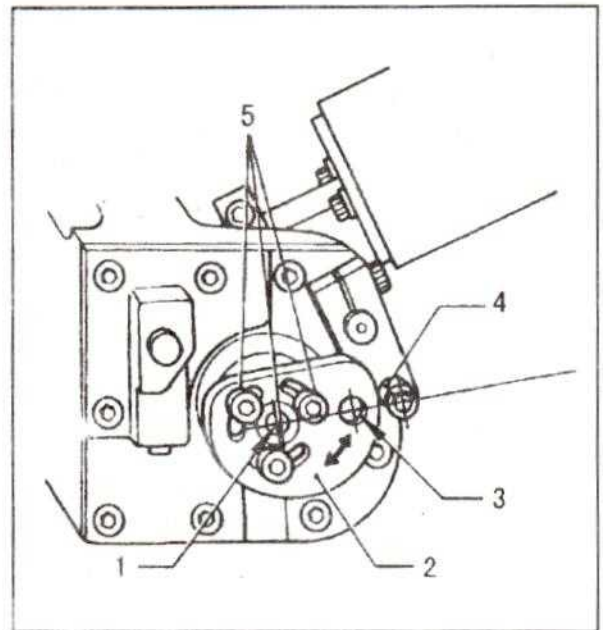
(1) Turn the machine pulley until the white point on the pulley and the point on the belt cover are in a straight line.

(2) Overturn the arm.

(3) Loosen the three bolts 5

(4) Turn the thread trimmer cam 2 to adjust the position of the thread trimmer cam 2 so that the center of the pin 1, the center of the reference hole 3 and the center of the roller 4 of the driving knife arm are in a straight line.

(5) Tighten the bolts 5.



33) Safety clutch

The standard safety clutch 2 in the lower toothed belt wheel protects the hook from being displaced or damaged in case of thread jamming in the hook path. When the hook is blocked, the safety clutch 2 must come out.

(1) Set free blocked hook.

(2) Stick a pin in drill-hole 1 of the outer clutch disc.

(3) Turn the pulley until the pin can be stuck in the drill-holes of both clutch pans.

(4) Turn the pulley forwards and backwards until the hook is freely movable again.

(5) Pull out pin.

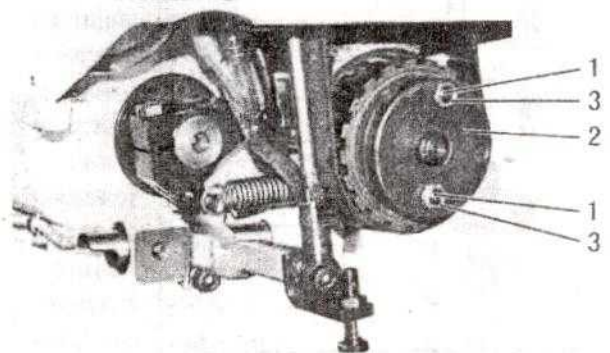
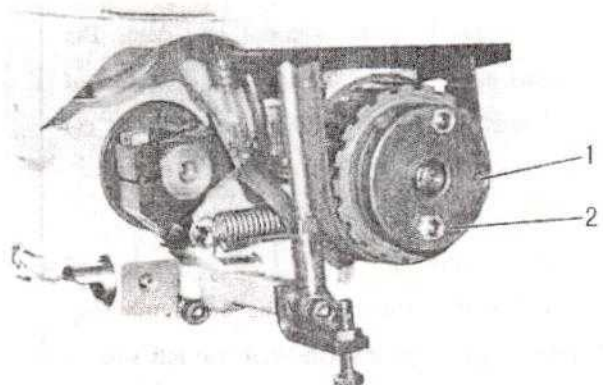
(6) Hold down hook and turn the pulley until safety clutch 2 engages. Adjust transmittable torque

Standard checking

The torque transmittable from safety clutch 4 should be adjusted by the supplier by means of a torque spanner.

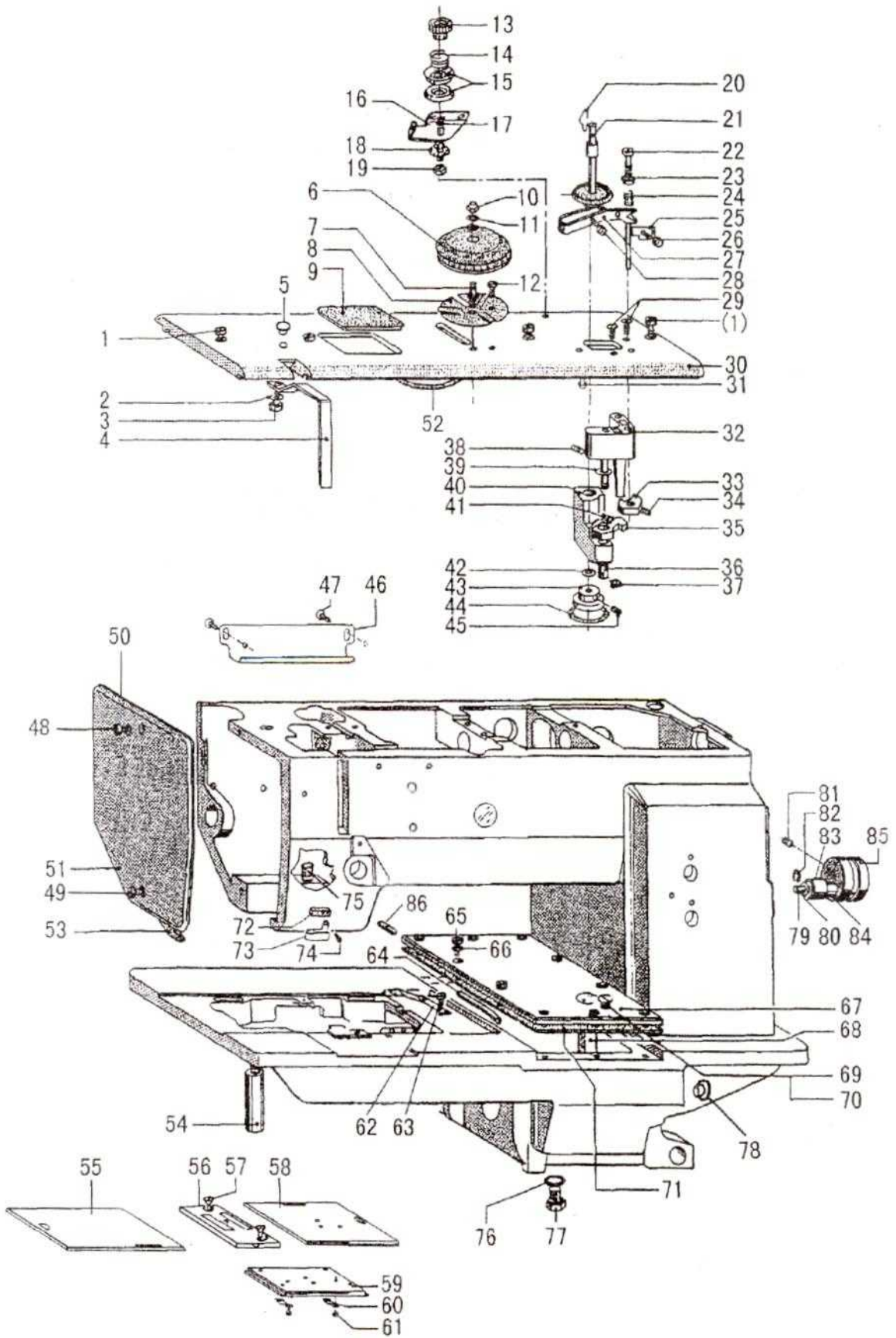
(1) Loosen counter-nuts 3. (2) Adjust torque

(3) Tighten counter-nuts 3 again.



PARTS LIST

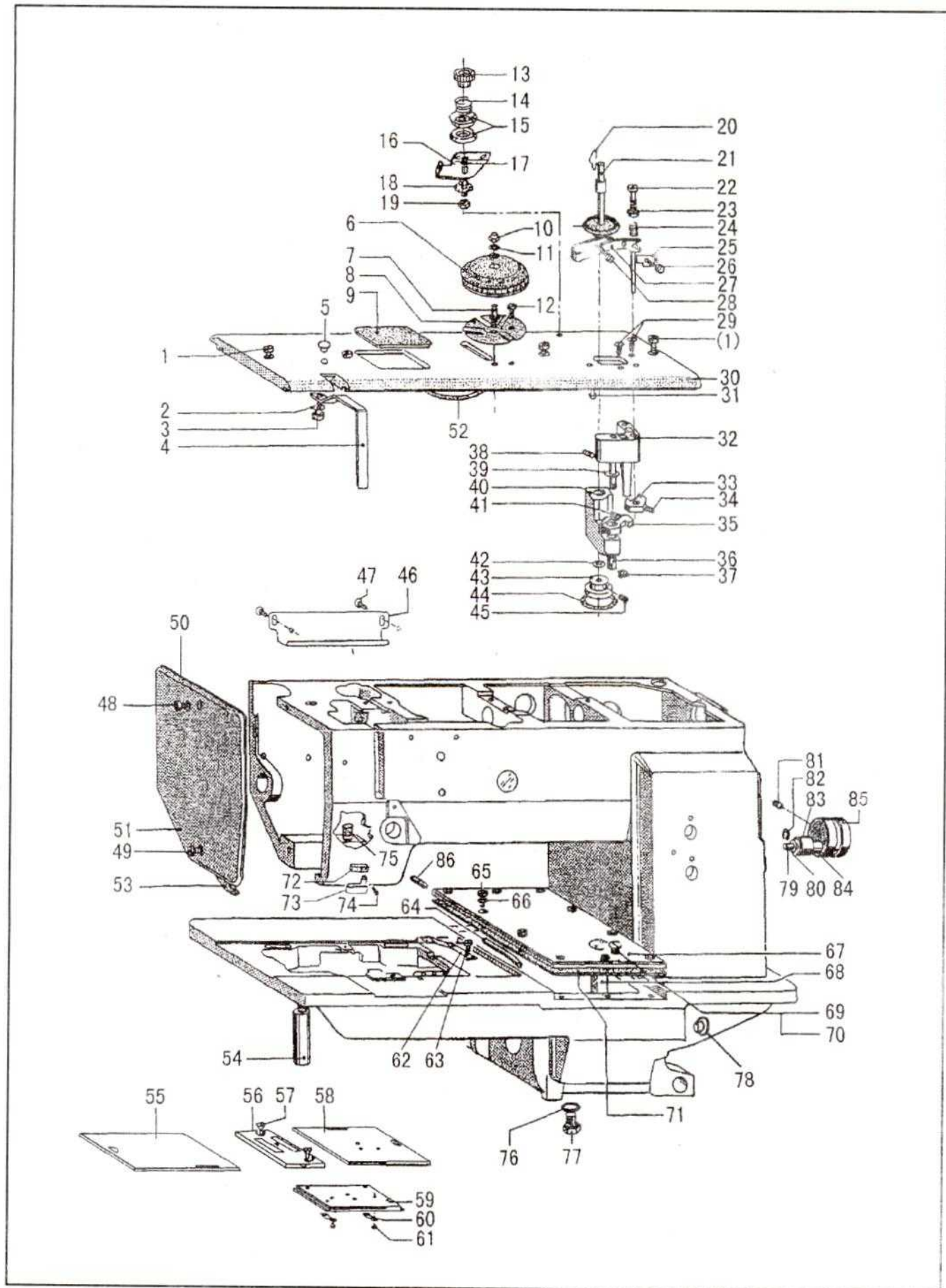
A.ARM BED AND ITS ACCFSSORIES



A.ARM BED AND ITS ACCESSORIES

Fig.No.	Part No.	Description	Pcs.	Remarks
1	53010100000	Screw	4	M5x12
2	WP040805001	Washer	1	
3	T0040800010	Screw	1	M4x8
4	53010400000	Thread take-up cover	1	
5	53010500000	Plug	1	
6	53010600000	Dial	1	
7	53010700000	Dial shaft	1	
8	53010800000	Guard plate	1	
9	53010900000	Cover	1	
10	53011000000	Hexagonal nut	1	
11	WP040805001	Washer	1	φ 4
12	T0040600000	Screw	1	M4x6
13	53011301000	Pre-tension adjusting nut	1	
14	53011302000	Tread tension spring	1	
15	53011303000	Tread tension discs	2	
16	53011304000	Tread guide	1	
17	53011305000	Tread tension stud	1	
18	53011800000	Washer	1	φ 6x φ 13x1.5
19	53011900000	Nut	1	
20	53012001000	Fixing clamp	1	
21	53012002000	Winder shaft	1	
22	T0031200001	Screw	1	M3x12
23	53012003000	Disc	1	
24	53012004000	Presser spring	1	
25	53012005000	Knife	1	
26	T0030400001	Screw	1	M3x4
27	63012006000	Release lever	1	
28	T0031200001	Screw	1	M3x12
29	T0040800081	Screw	2	M4x8
30	53013000000	Arm cover	1	
31	53018800000	Pin	1	
32	53012007000	Winder block	1	
33	53012008000	Release cam	1	
34	T0050600060	Screw	1	M5x6
35	53012009000	Block	1	
36	53012010000	Bus' ing	1	
37	RE350806000	E-type stop ring	1	GB/T888-1986
38	53012011000	Presser spring	1	
39	53012012000	Washer	1	
40	53012013000	Arm	1	
41	53012014000	Presser spring	1	
42	53012015000	Washer	1	
43	53012016000	Winder wheel	1	
44	53012017000	Rubber ring	1	

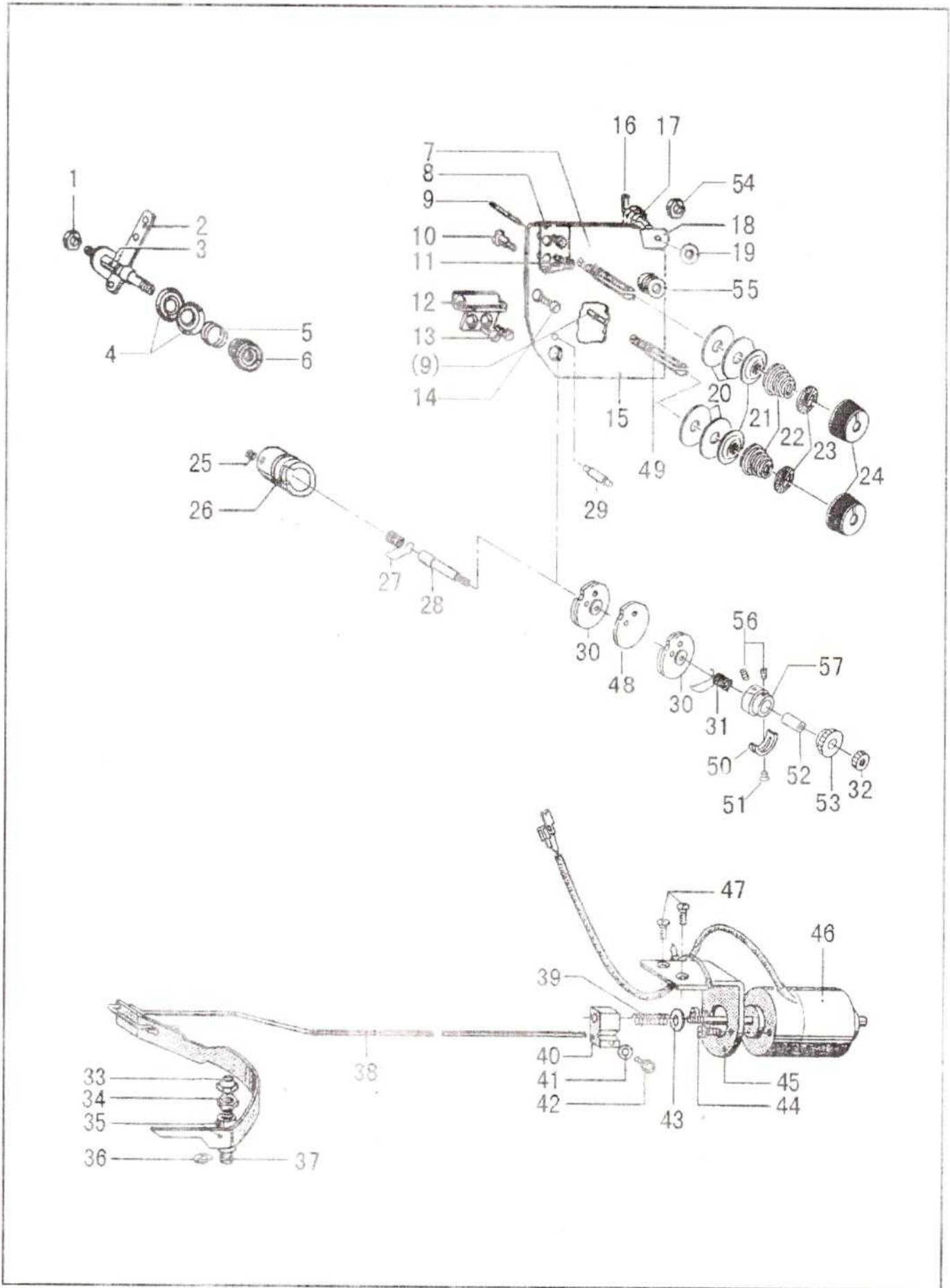
A.ARM BED AND ITS ACCESSORIES



A.ARM BED AND ITS ACCESSORIES

Fig.No.	Part No.	Description	Pcs.	Remarks
45	T0050500060	Screw	1	M5x5
46	53014600000	Cord cover	1	
47	T0041000010	Screw	2	M4x10
48	53010100000	Screw	1	M5x12
49	53014900000	Screw	1	M5x12
50	53018700000	Bar	1	
51	53015100000	Face plate	1	
52	53018600000	Bar	1	
53	53015300000	Oil pillow	1	
54	53015400000	Leg	1	
55	53015500000	Slide plate	1	
56	53015600000	Needle plate	1	
57	53015700000	Screw	2	
58	53015800000	Slide plate	1	
59	53015900000	Slide plate	1	
60	53016000000	Spring for slide plate	2	
61	T0020250000	Screw	2	
62	53016200000	Stopper	1	
63	53016300000	Screw	2	
64	53016400000	Pipe	1	
65	53010100000	Screw	10	M5x12
66	53016600000	Gasket	10	
67	53016700000	Cover	1	
68	53016800000	Oil indicator	1	
69	53016900000	Screw	1	
70	53017000000	Gasket	1	
71	53017100000	Gasket	1	
72	53017200000	Felt	1	
73	53017300000	Thread guide	1	
74	53017400000	Screw	1	
75	53017500000	Rubber plug	1	
76	53017600000	Gasket	1	
77	53017700000	Screw	1	
78	53017800000	Rubber plug	1	
79	53017900000	Pin	1	
80	53018000000	Washer	1	
81	T0101200050	Screw	1	M8x12
82	RE061210000	E-type stop ring	1	E6
83	53018300000	Bearing	2	628-2Z
84	53018400000	Spacer	1	
85	53018500000	Belt tensioner	1	
86	53018800000	Pipe	1	

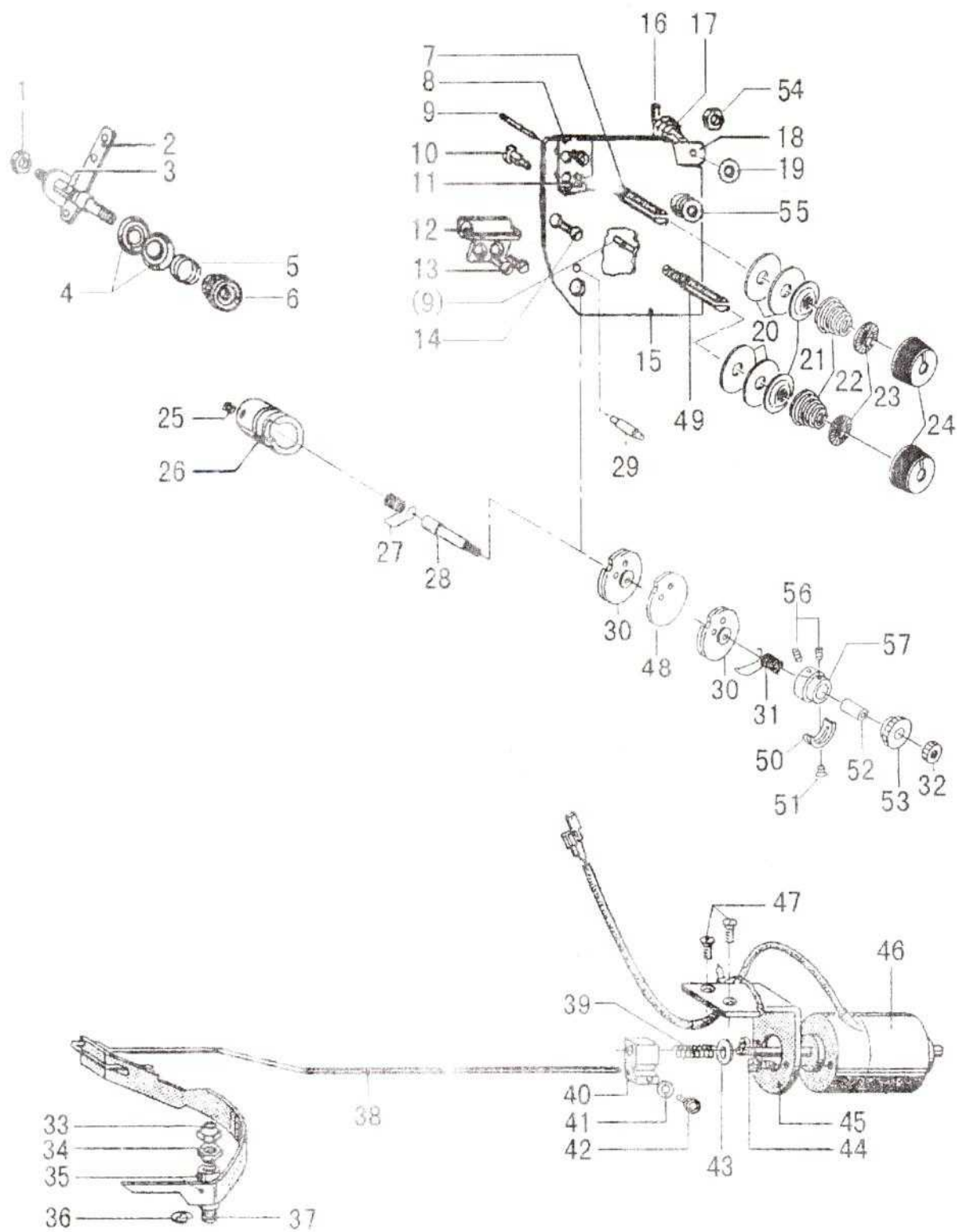
B.THREAD TENSION REGULATOR MECHANISM



B.THREAD TENSION REGULATOR MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	TN080547201	Nut	1	M5
2	53020201000	Thread hook	2	
3	53020202000	Thread tension stud	2	
4	53020203000	Thread tension discs	4	
5	53020204000	Tension spring	2	
6	53011301000	Tension adjusting nut	2	
7	53021400000	Thread tension stud	1	
8	53020301000	Thread guide	1	
9	53020302000	Thread tension releasing pin	2	
10	53020303000	Shoulder screw	2	
11	53020304000	Screw	2	M4
12	53020100000	Thread guide	1	
13	T0040800081	Screw	2	M4x8
14	53020305000	Screw	2	M4X10
15	53020306000	Tension plate	1	
16	53021600000	Rod	1	
17	53021700000	Spring	1	
18	53020307000	Tension release plate	1	
19	53021900000	Nut	1	M4
20	53020308000	tension discs	4	
21	53020309000	tension release discs	2	
22	53020310000	Tension spring	2	
23	53020311000	Stopper	2	
24	53020312000	Tension nut	2	
25	53020313000	Screw	1	M4X4
26	53020314000	Thread tension post	1	
27	53020315000	Thread take-up spring	1	
28	53020316000	Thread tension stud	1	
29	53020317000	take-up spring guide stud	1	
30	53020318000	Plate complete	2	
31	53020319000	Thread take-up spring	1	
32	53020320000	Thread tension nut	1	
33	53023300000	Nut	1	M5
34	TN080547201	Nut	1	M5
35	53023500000	Release lever	1	
36	RE051008000	E-type stop ring	1	E5
37	53023700000	Bolt	1	
38	53023800000	Hook	1	
39	53023900000	Spring	1	
40	53024000000	Block	1	
41	WP040805001	Washer	1	φ 4
42	T0040800010	Screw	1	M4x8
43	53024300000	Washer	1	
44	T0040800010	Screw	2	M4x8

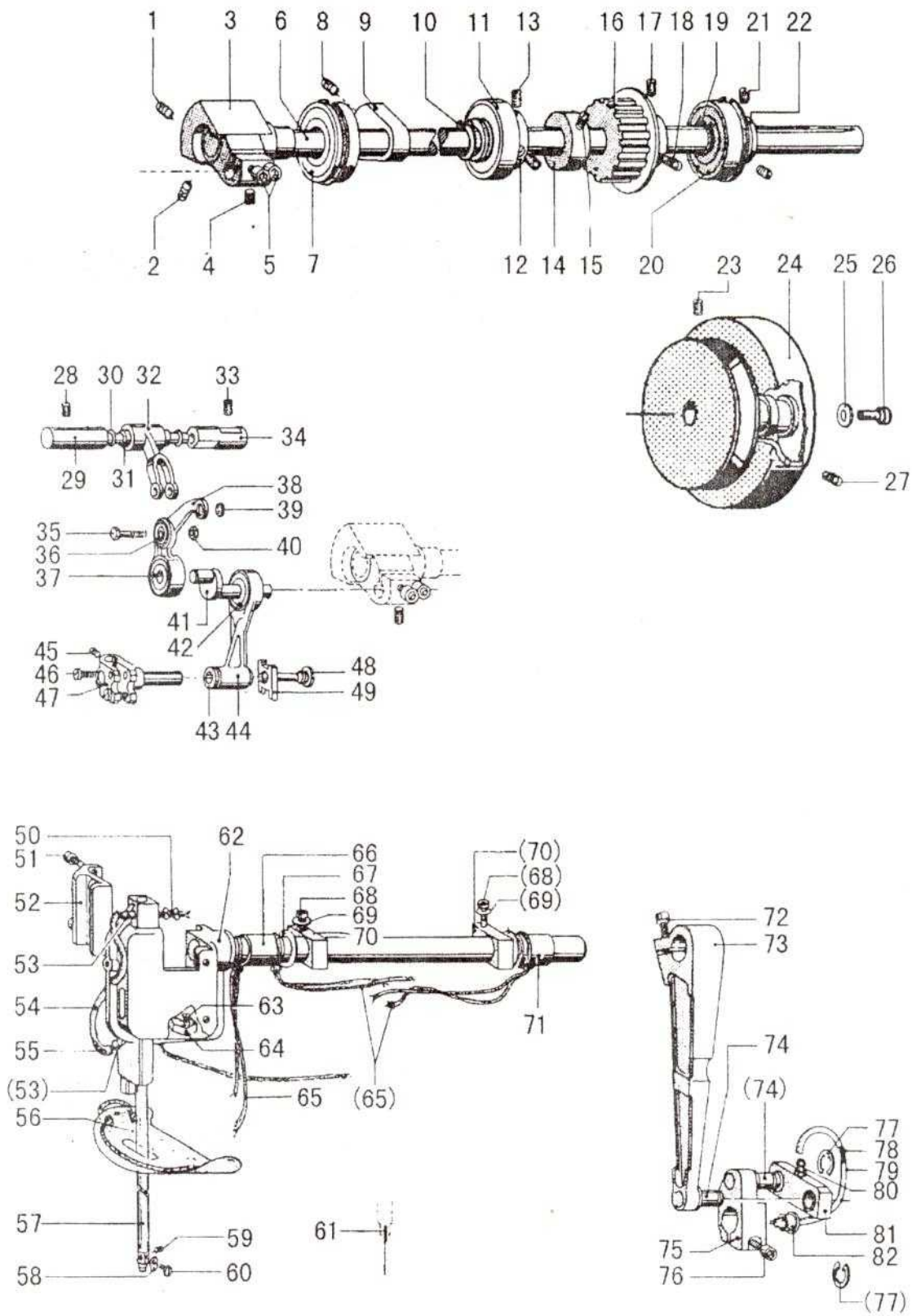
B. THREAD TENSION REGULATOR MECHANISM



B.THREAD TENSION REGULATOR MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
45	53024500000	Magnet support	1	
46	53024600000	Solenoid	1	
47	T0051200081	Screw	2	M5x12
48	53020321000	Take-up spring guide plate	1	
49	53020322000	Thread tension stud	1	
50	53020323000	Adjusting plate	1	
51	53020324000	Screw	1	SM9/64 (3.57) X40
52	53020325000	Presser collar	1	
53	53020326000	Take-up spring guide	1	
54	TN070532201	Nut	1	M4
55	53020327000	Thread stud	1	
56	53020328000	Screw	2	SM1/8 (3.18) X44
57	53020329000	Thread tension post	1	

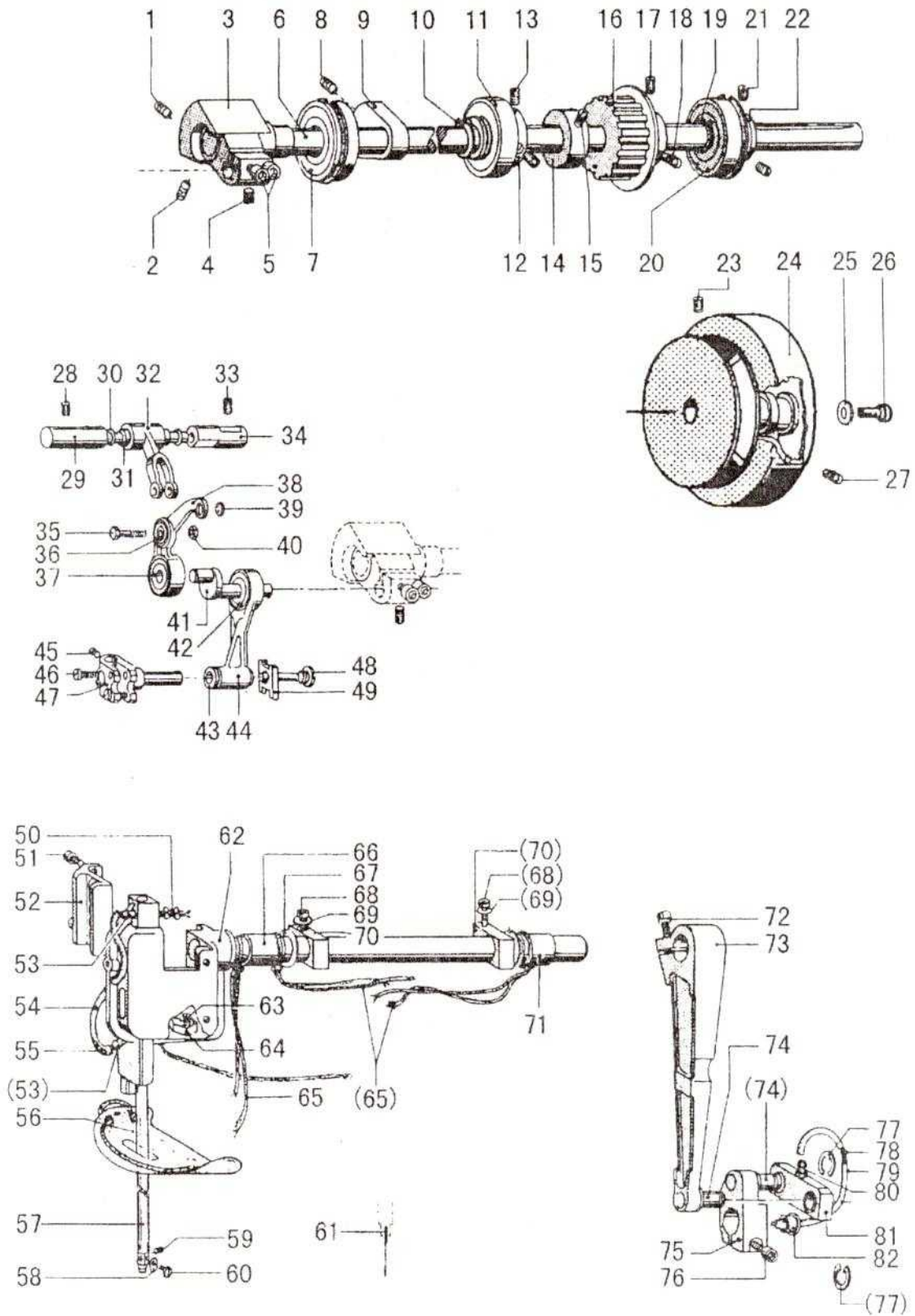
C.SEWING MECHANISM



C.SEWING MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	53030100000	Screw	1	
2	T0060600060	Screw	1	M6x6
3	53030300000	Crank	1	
4	T0060600060	Screw	1	M6x6
5	53010100000	Screw	2	
6	53030600000	Upper shaft	1	
7	53030700000	Ball bearing	1	6204-2ZNR
8	T0081000060	Screw	2	M8x10
9	53030900000	Counterweight	1	
10	RC200000000	Retainer ring	1	C20
11	53031100000	Ball bearing	1	6304-2Z
12	53031200000	Bushing	1	
13	T0060600060	Screw	2	M6x6
14	53031400000	Bobbin winder driving wheel	1	
15	T0061000060	Screw	2	M6x10
16	53031600000	Belt pulley(upper)	1	
17	T0060800060	Screw	1	M6x8
18	T0061000070	Screw	1	M6x10
19	RC200000000	Retainer ring	1	C20
20	53032000000	Ball bearing	1	6304-2ZNR
21	T0060600060	Screw	2	M6x6
22	53032200000	Bushing	1	
23	T0061000060	Screw	1	M6x10
24	53032400000	Pulley	1	
25	WS080000000	Washer	1	φ 8
26	T0082500010	Screw	1	M8X25
27	T0061000070	Screw	1	M6x10
28	T0050600050	Screw	1	M5x6
29	53032900000	Thread take-up pin	1	
30	53033000000	Gasket	2	
31	53033100000	Needle bearing	2	φ 7x φ 10x8
32	53033200000	Thread take-up support	1	
33	T0050600050	Screw	1	M5x6
34	53033400000	Thread take-up pin bushing	1	
35	53033500000	Support screw	1	
36	53033600000	Bearing	1	624-2Z
37	53037000000	Bearing	1	608-2Z
38	53038000000	Thread take-up lever	1	
39	53033900000	Bushing	1	
40	TN070532201	Nut	1	M4
41	53034100000	Thread take-up crank	1	
42	53034200000	Bearing	2	619/9-2Z
43	53034300000	Bushing	1	
44	53034400000	Needle bar link	1	
45	T0030500060	Screw	1	M3x5

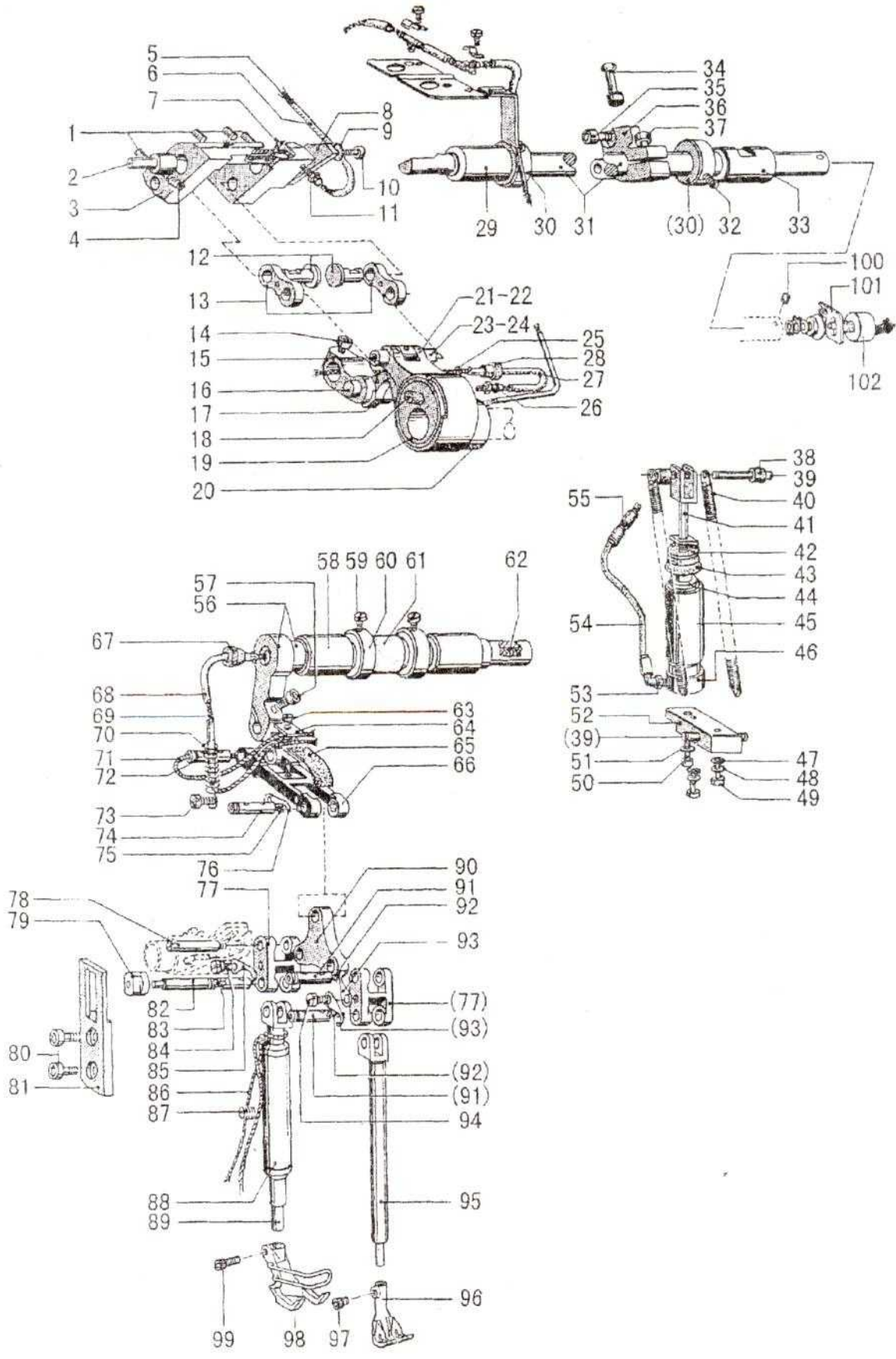
C.SEWING MECHANISM



C.SEWING MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
46	T0041000000	Screw	2	M4x10
47	53034700000	Needle bar holder	1	
48	53034800000	Threaded bold	1	
49	53034900000	Slide block	1	
50	53035000000	Oil wick	1	
51	T0041000010	Screw	2	M4x10
52	53035200000	Slide guide	1	
53	53035300000	Oil feeding pipe	2	
54	53035400000	Oil pipe	1	
55	53035500000	Oil wick	1	
56	53035600000	Rubber	1	
57	53035700000	Needle bar	1	
58	53035800000	Thread guide	1	
59	T0030300050	Screw	1	M3x3
60	53036000000	Screw	1	M2.5x3
61	53036100000	Needle	1	DPx35R # 19
62	53036200000	Needle bar bracket	1	
63	T0041000081	Screw	1	M4x10
64	53036400000	Oil satchel	1	
65	53036500000	Oil wick	3	
66	53036600000	Bushing	1	
67	53036700000	Support disc	2	
68	T0041200010	Screw	2	M4x12
69	53030200000	Washer	2	φ4
70	53037000000	Collar	2	
71	53037100000	Bushing	1	
72	T0062200010	Screw	1	M6x20
73	53037300000	Upper feed connecting rod	1	
74	53037400000	Shoulder screw	2	
75	53037500000	Connecting lever	1	
76	T0061600010	Screw	1	M6x16
77	RE081610000	E-type stop ring	2	E8
78	53037800000	Oil wick	1	
79	53037900000	Oil pipe	1	
80	53038000000	Oil feeding pipe	1	
81	53038101000	Pull rod	1	
82	53038200000	Plug	1	

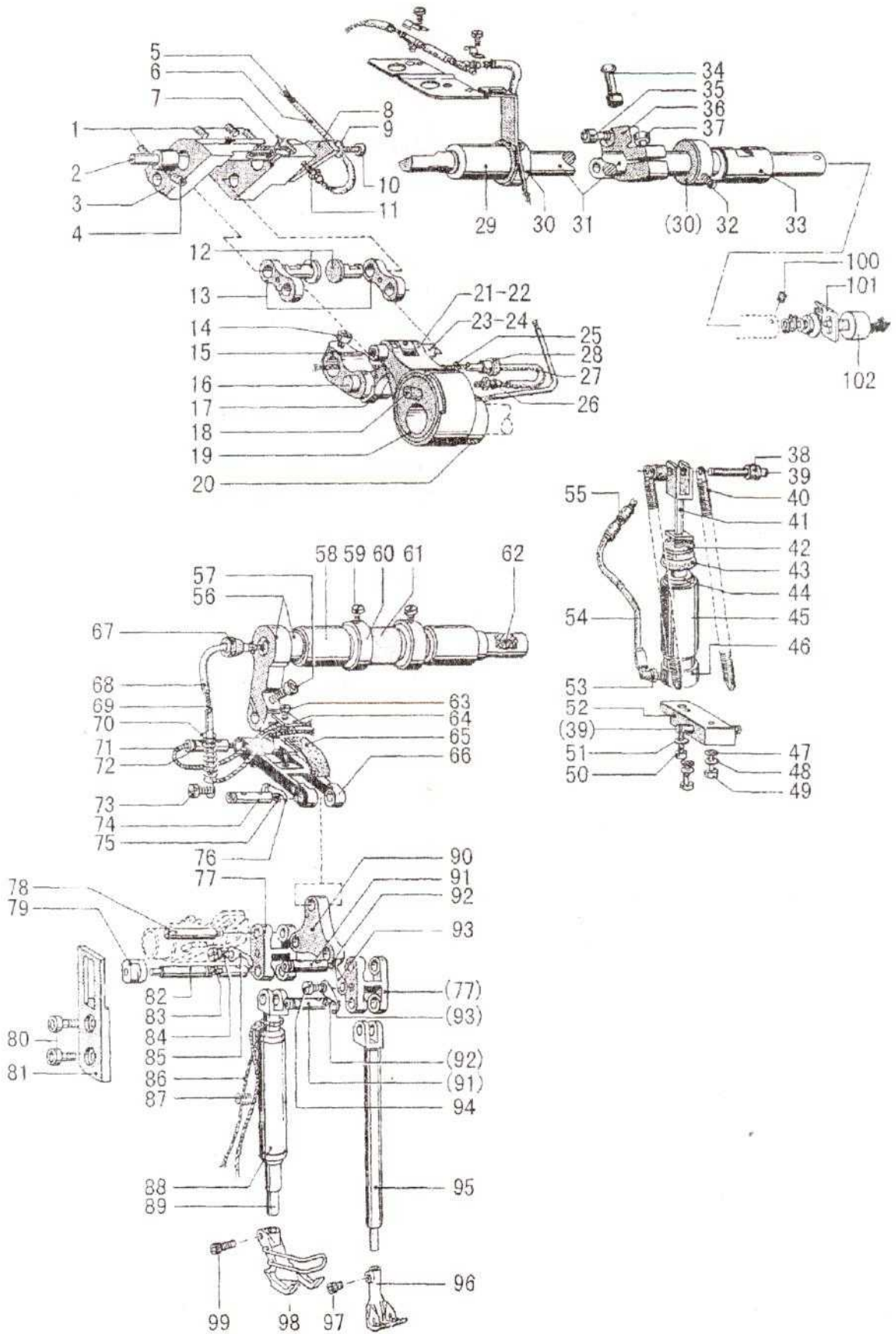
D.PRESSER FOOT MECHANISM



D.PRESSER FOOT MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	T0050800050	Screw	4	M5x8
2	53040200000	Support pin	1	
3	53040300000	Adjusting bracket	1	
4	T0050800050	Screw	1	M5x8
5	53040500000	Oil wick	1	
6	53040600000	Oil pipe	1	
7	53040700000	Oil wick	1	
8	53040800000	Plate	1	
9	WP081516001	Washer	1	M5
10	T0051000010	Screw	1	M5x10
11	53038000000	Oil feeding pipe	1	
12	53041200000	Link pin	2	
13	53041300000	Link	2	
14	T0062000010	Screw	1	M6x20
15	53041500000	Connecting lever	1	
16	53041600000	Pin	1	
17	53041700000	Link	1	
18	53041800000	Plug	1	
19	53041900000	Inner presser cam	1	
20	T0060600050	Screw	2	M6x6
21	53042100000	Inner presser rod	1	
22	53042200000	Bearing	1	$\phi 30 \times \phi 37 \times 16$
23	53042300000	Rod pin	1	
24	53042400000	Oil wick	1	
25	53042500000	Oil wick	1	
26	53042600000	Plug	1	
27	53042700000	Oil pipe	1	
28	53038200000	Oil feeding pipe	1	
29	53037100000	Bushing	1	
30	53043000000	Collar	2	
31	53043100000	Adjusting shaft	1	
32	T0050500060	Screw	2	M5x5
33	53036600000	Bushing	1	
34	53043400000	Ball pin	1	
35	T0051200010	Screw	1	M5x12
36	53043600000	Lever	1	
37	T0062000010	Screw	1	M6x20
38	53043800000	Pipe	2	
39	53043900000	Pin	2	
40	63044000000	Spring	2	
41	53044100000	Draught rod	1	
42	53044200000	Disc	1	
43	53044300000	Gasket	1	
44	53044400000	Piston	1	
45	53044500000	Pipe	1	
46	53044600000	Cylinder base	1	
47	53016600000	Gasket	2	
48	WP051010001	Washer	2	$\phi 5$
49	T0051800010	Screw	2	M5x18
50	T0041600010	Screw	1	M4x16
51	WP040805001	Washer	1	$\phi 4$

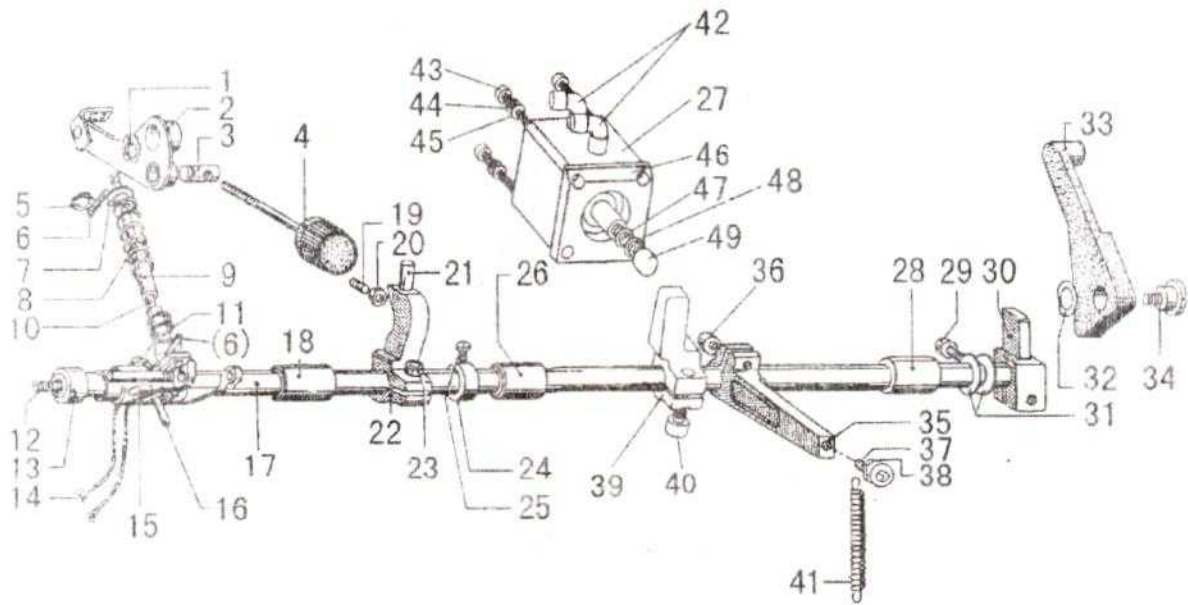
D.PRESSER FOOT MECHANISM



D.PRESSER FOOT MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
52	53045200000	Spacer	1	
53	53045300000	Coupling	1	APL4-M5
54	53045400000	Hose	1	φ 4x240
55	53045500000	Coupling	1	APU4
56	53045600000	Shaft	1	
57	T0041200010	Screw	1	M4x12
58	53037100000	Bushing	2	
59	53045900000	Screw	2	M5x8
60	53043000000	Collar	2	
61	53046100000	Sponge	1	
62	53062000000	Oil wick	1	
63	T0030600010	Screw	1	M3x6
64	53046400000	Plate	1	
65	53046500000	Oil satchel	1	
66	53046600000	Draught rod	1	
67	53042600000	Plug	1	
68	53046800000	Oil pipe	1	
69	53046900000	Oil wick	1	
70	53047000000	Spring	1	
71	53047100000	Oil wick	1	
72	53047200000	Pin	1	
73	T0040400000	Screw	1	M4x4
74	53047200000	Pin	1	
75	53047500000	Oil wick	1	
76	53047600000	Stopper claw	1	
77	53047700000	Joint	2	
78	53047800000	Pin	1	
79	53047900000	Slide block	1	
80	53010100000	Screw	2	M5x12
81	53048100000	Guide	1	
82	53048200000	Pin	1	
83	53048300000	Oil wick	1	
84	53048400000	Screw	1	
85	53047600000	Stopper claw	1	
86	53048600000	Oil wick	1	
87	T0051000060	Screw	1	M5x10
88	53048800000	Bushing	1	
89	53048900000	Outer presser bar	1	
90	53049000000	Presser connecting plate	1	
91	53047200000	Connecting pin	2	
92	53047500000	Oil wick	2	
93	53047600000	Stopper claw	2	
94	T0040400000	Screw	1	M4x4
95	53049500000	Inner presser bar	1	
96	53049600000	Inner presser foot	1	
97	T0040400000	Screw	1	M4x5
98	53049800000	Outer presser foot	1	
99	T0041000000	Screw	1	M4x10
100	T0040400060	Screw	1	M4x4
101	53041010000	Holder	1	
102	53041020000	Potentiometer control	1	

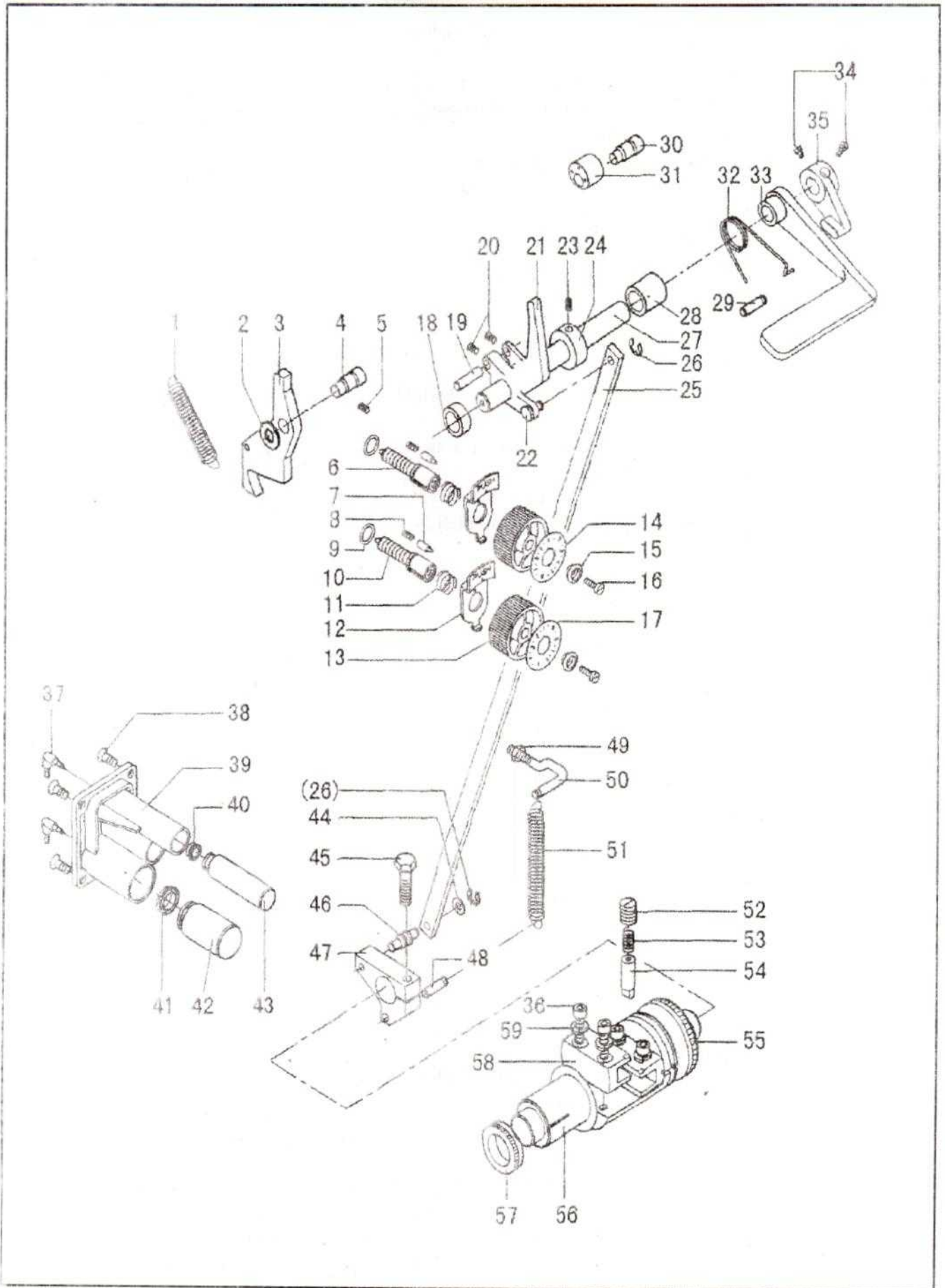
E.UPPER FEED LIFTING ROCK SHAFT MECHANISM



E.UPPER FEED LIFTING ROCK SHAFT MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	RE081610000	E-type retaining ring	1	
2	53050200000	Press adjusting plate assy	1	
3	53050300000	Pin	1	
4	53050400000	Press adjusting dial	1	
5	RE051008000	E-type retaining ring	1	E5
6	53050700000	Spring pin	2	φ 3×8
7	53050700000	Spring support(U)	1	
8	53050800000	Spring	1	
9	53050900000	Hose	1	φ 8×30
10	53051000000	Shaft	1	
11	53051100000	Spring support(D)	1	
12	T0081200050	Bolt	1	M8×12
13	53051300000	Press-foot lifter shaft bush(L)	1	
14	53051400000	Oil wick	1	
15	53051500000	Press-foot lifter connection assy	1	
16	53051600000	Pin	1	
17	53051700000	Press bar lifter shaft	1	
18	53051800000	Spreader shaft bush(L2)	1	
19	T0051600020	Set screw	1	M5×16
20	TN080547201	Nut	1	M5
21	53052100000	Stopper	1	
22	53052200000	Crack	1	
23	T0061600010	Screw	1	M6x16
24	53052400000	Set screw collar	1	
25	53052500000	Screw	1	M5x6
26	53052600000	Bushing(R)	1	
27	TN100652201	Nut	1	M6
28	53052800000	Bushing(R2)	1	
29	T0062000010	Screw	1	M6x20
30	53053000000	Crack	1	
31	53053100000	Washer	2	
32	53053200000	Wave washer	1	φ 8
33	53053300000	Lifter lever	1	
34	53053400000	Screw	1	
35	53053500000	Lever(U)	1	
36	T0061600010	Screw	1	M6x16
37	T0052500010	Screw	2	M5x25
38	TN080547201	Nut	4	M5
39	53053900000	Link ball	2	NHS 5T (THK)
40	53054000000	Knee lifter connecting bar	1	
41	53054100000	Main spring	1	
42	53054200000	Lever(D)	1	
43	53054300000	Shaft	1	
44	RE091810000	E-type retaining ring	1	E9
45	T0061600010	Screw	1	M6x16
46	T0062500090	Screw	1	M6x25
47	53054700000	Knee lifter plate	1	

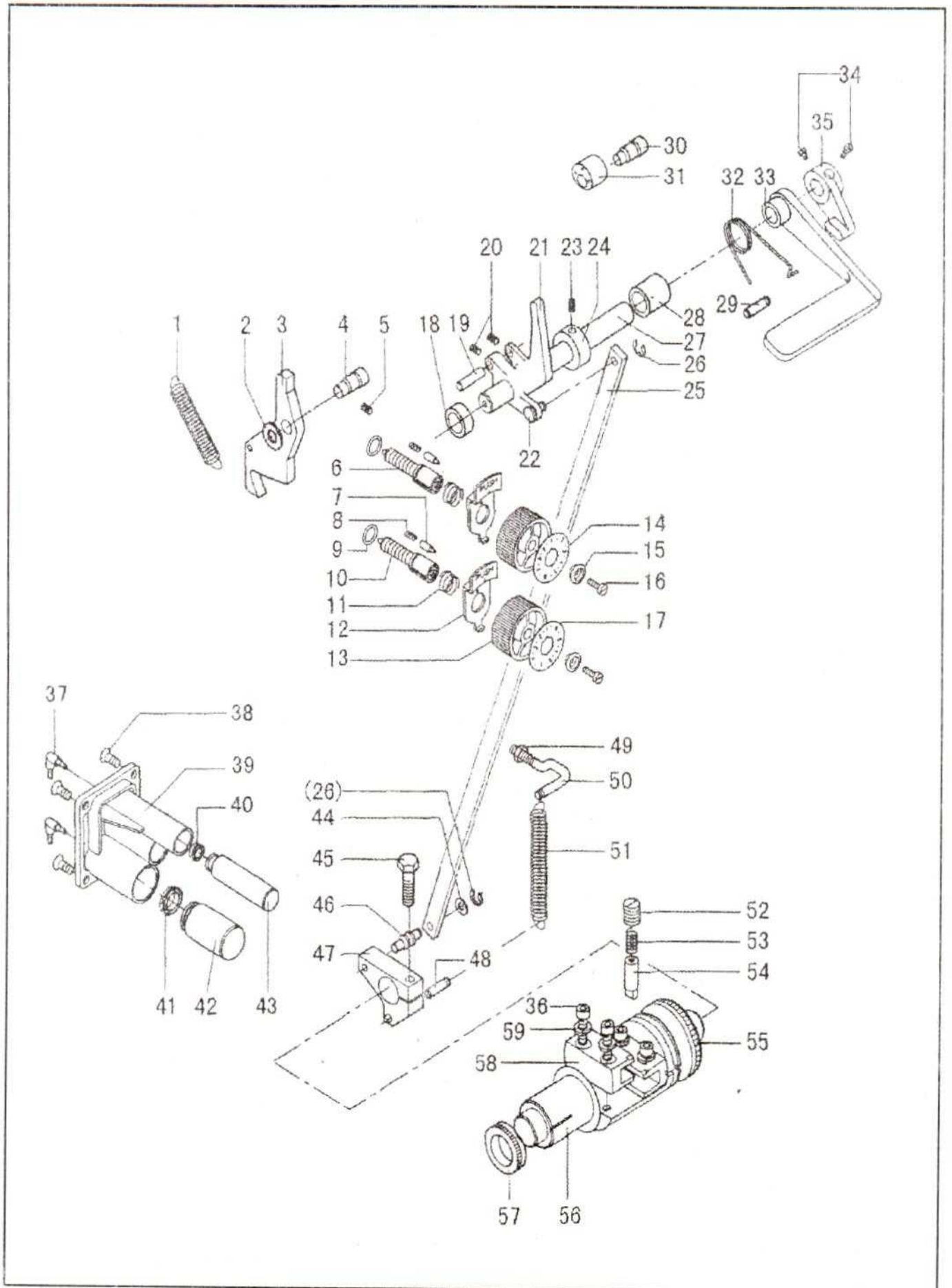
F. STITCH REGULATOR MECHANISM



F.STITCH REGULATOR MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	53060100000	Spring	1	
2	53060200000	Washer	1	
3	53060300000	Feed adjusting arm	1	
4	53060400000	Pin	1	
5	T0050800060	Bolt	1	M5x8
6	53060600000	Feed adjusting screw(long)	1	
7	53060700000	Positioning pin	2	
8	53060800000	Spring	2	
9	53060900000	O ring	2	
10	53061000000	Feed adjusting screw(short)	1	
11	53061100000	Spring	2	
12	53061200000	Support plate	2	
13	53061300000	Feed adjusting dial	2	
14	53061400000	Feed adjusting dial plate(L)	1	
15	53061500000	Bushing	2	
16	53061600000	Screw	2	SM3/16X28 L=14
17	53061700000	Feed adjusting dial plate(S)	1	
18	53061800000	Reverse shaft bushing(L)	1	
19	53061900000	Pin	1	
20	T0060800050	Bolt	2	M6x8
21	53062100000	Reverse stitching arm	1	
22	53062200000	Pin	1	
23	T0060600050	Bolt	1	M6x6
24	53062400000	Collor	1	
25	53062500000	Rod	1	
26	RE051008000	E-type retaining ring	2	E5
27	53062700000	Reverse stitching shaft	1	
28	53062800000	Reverse shaft bushing(R)	1	
29	53062900000	Pin	1	
30	53063000000	Bold	1	
31	53063100000	Rubber ring	1	
32	53063200000	Spring	1	
33	53063300000	Reverse stitching lever	1	
34	53063400000	Bolt	2	
35	53063500000	Reverse stitching lever block	1	
36	T0051600010	Screw	4	M5x16
37	53045300000	Coupling	2	APL4-M5
38	T0061000081	Screw	4	M6x10
39	53063900000	Pump	1	
40	53064000000	Ring	1	
41	53064100000	Ring	1	
42	53064200000	Piston	1	
43	53064300000	Piston	1	
44	WP061216001	Washer	1	φ 6
45	T0062500090	Screw (D)	1	M6x25

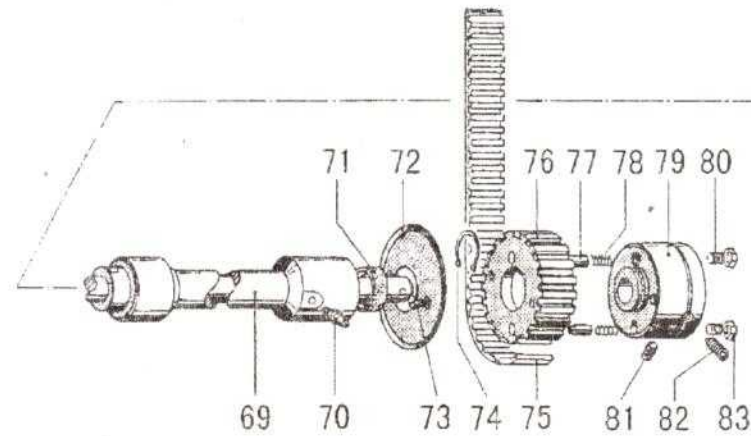
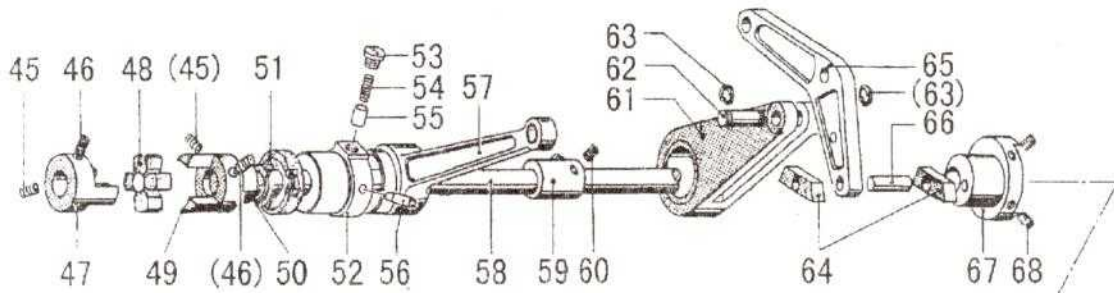
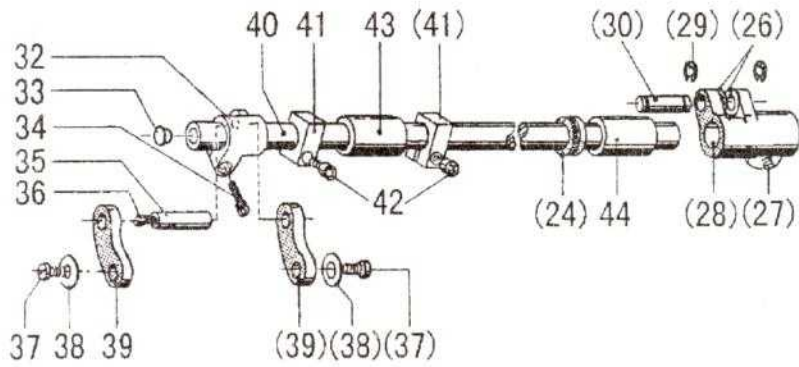
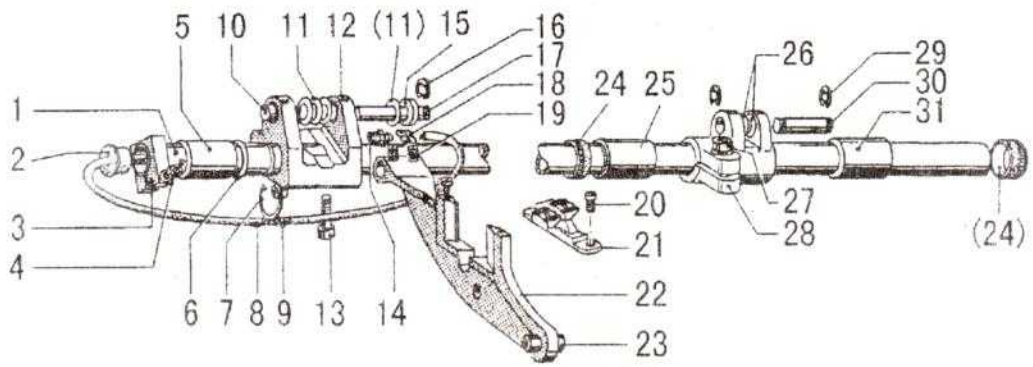
F. STITCH REGULATOR MECHANISM



F.STITCH REGULATOR MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
46	53064600000	Bolt	1	
47	53064700000	Reverse stitching arm(D)	1	
48	53064800000	Spring pin	1	
49	TN100652201	Nut	1	M6
50	53065000000	Rod	1	
51	53065100000	Pull spring	1	
52	T0101000020	Thread pin	1	M10x10
53	53065300000	Presser spring	1	
54	53065400000	Key	1	
55	53065500000	Oil seal	1	
56	53065600000	Shaft	1	
57	53065700000	Oil seal	1	
58	53065800000	Guide	2	
59	WS050000000	Elastic washer	4	φ5

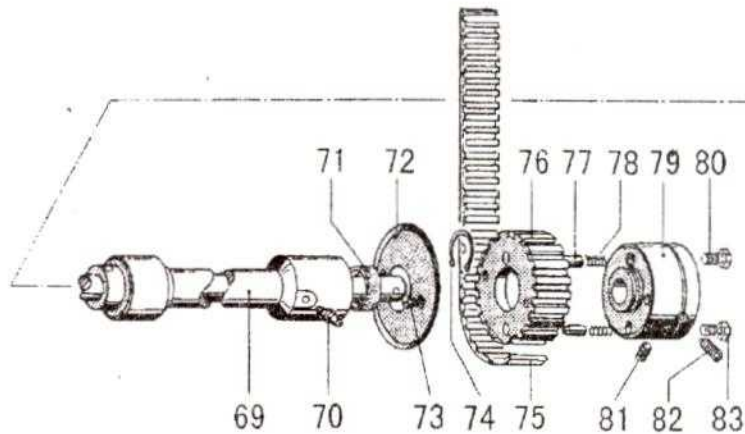
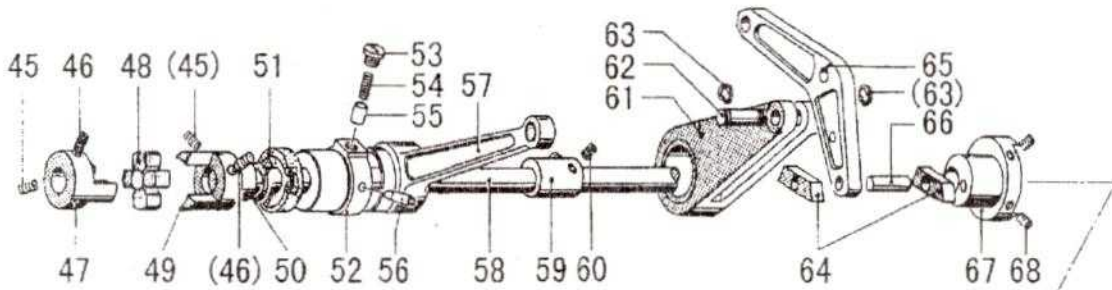
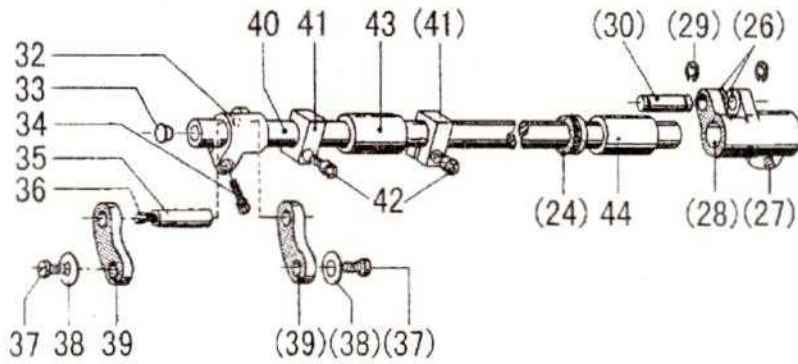
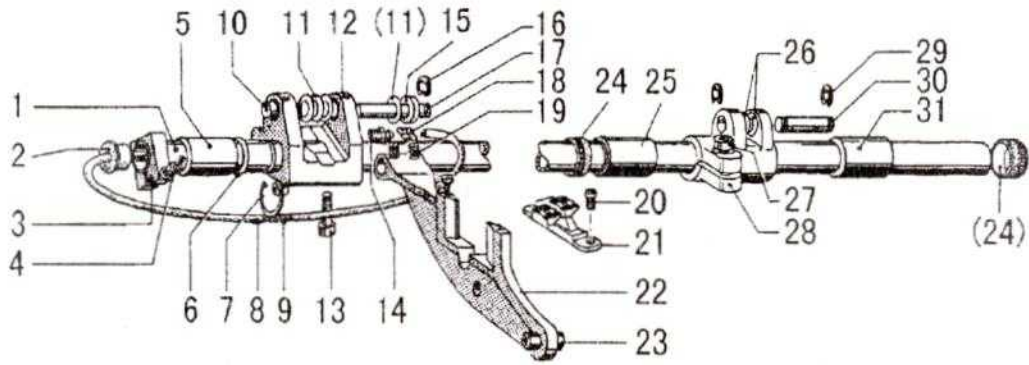
G.FEEDING AND FEED LIFTING & ROTATING HOOK SHAFT MECHANISM



G.FEEDING AND FEED LIFTING & ROTATING HOOK SHAFT MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	53070100000	Feed shaft	1	
2	53038200000	Rubber cap	1	
3	53037000000	Adjusting shaft collar	2	
4	T0041200010	Bolt	1	M4x12
5	53036600000	Bushing(L)	1	
6	53070600000	Thurst ring	1	
7	RC150000000	E-type retaining ring	1	C15
8	53070800000	Tube	1	
9	53070900000	Oil wick	1	
10	53071000000	Bushing	4	
11	53071100000	Washer	3	
12	53071200000	Feed arm(L)	1	
13	53071300000	Bolt(L)	1	M6x20
14	53038000000	Oil joint	1	
15	53071500000	Spring	2	
16	RE051008000	E-type retaining ring	1	E5
17	53071700000	Pin	1	
18	53071800000	Tube support	1	
19	T0050400030	Bolt	2	M5x4
20	53072000000	Screw	2	M4x10
21	53072100000	Feed dog	1	
22	53072200000	Feed bracket	1	
23	53072300000	Pin	1	
24	53072400000	Oil seal	3	
25	53036600000	Feed shaft bushing(L)	1	
26	53071100000	Washer	4	
27	T0061200010	Bolt(R)	2	M6x12
28	53072800000	Feed shaft arm(R)	2	
29	RE051008000	E-type retaining ring	4	E5
30	53073000000	Pin	2	
31	53037100000	Feed shaft bushing(R)	1	
32	53073200000	Feed connecting arm(L)	1	
33	53073300000	Rubber cap	1	
34	T0051600010	Bolt	1	M5x16
35	53073500000	Pin(L)	1	
36	53073600000	Oil wick	1	
37	T0030800000	Bolt	2	M3x8
38	53073800000	Washer	2	
39	53073900000	Feed link	2	
40	53074000000	Shaft	1	
41	53037000000	Adjusting shaft collar	2	
42	T0041200010	Bolt	2	M4x12
43	53036600000	Bushing(L)	1	
44	53037100000	Bushing(R)	1	
45	T0061000050	Bolt	2	M6x10

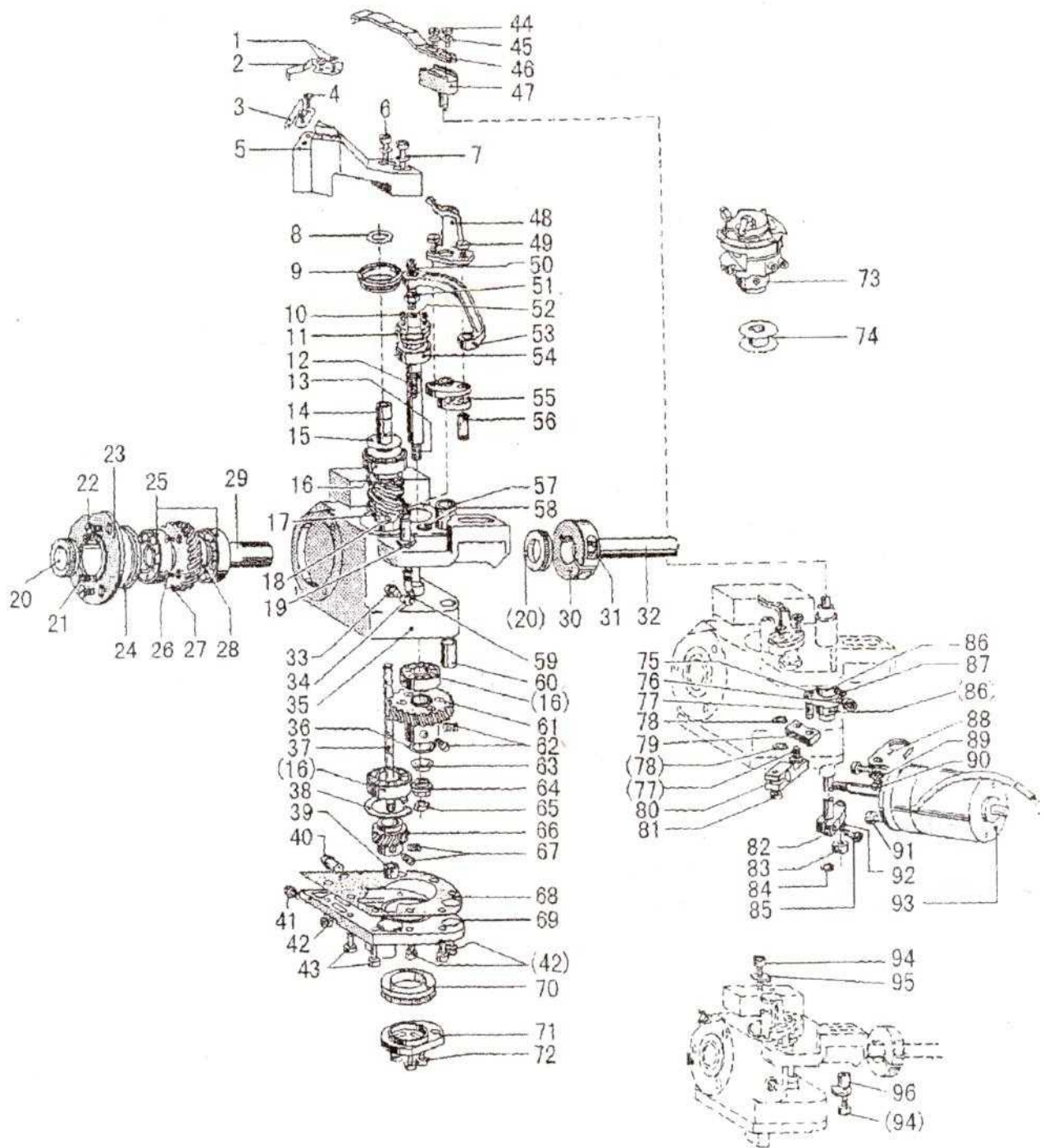
G.FEEDING AND FEED LIFTING & ROTATING HOOK SHAFT MECHANISM



G.FEEDING AND FEED LIFTING & ROTATING HOOK SHAFT MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
46	T0061000070	Bolt	2	M6x10
47	53074700000	Coupling claw(L)	1	
48	53074800000	Toothed wreath	1	
49	53074900000	Coupling claw(R)	1	
50	53075000000	O ring	1	11.8x2.65
51	53075100000	Oil seal	1	
52	53075200000	Bushing(L)	1	
53	53075300000	Bolt	1	
54	53075400000	Plunger spring	1	
55	53075500000	Plunger	1	
56	53075600000	Oil feeding pipe	1	
57	53075700000	Feed rod	1	
58	53075800000	Lower shaft	1	
59	53075900000	Feed cam	1	
60	T0060500050	Molt	2	M6x5
61	53076100000	Lower feed connecting rod assy	1	
62	53073000000	Pin	1	
63	RE051008000	E-type retaining ring	2	E5
64	53076400000	Slide block	2	
65	53076500000	Back cylinder connection	1	
66	53076600000	Pin	1	
67	53076700000	Lower feed cam	1	
68	T0060800050	Bolt	1	M6x8
69	53076900000	Bushing(R)	1	
70	53038000000	Oil joint	1	
71	53077100000	Sealing ring	1	
72	53077200000	Disk	1	
73	53077300000	Stunk screw	2	
74	RC220000000	Retainer ring	1	C22
75	53077500000	Toothed belt	1	
76	53077600000	Belt pulley(D)	1	
77	53077700000	Piston	2	
78	53077800000	Presser spring	2	
79	53077900000	Body	1	
80	T0061200060	Adjusting screw	2	M6 x12
81	T0081200060	Bolt	1	M8 x12
82	T0081200070	Bolt	1	M8 x12
83	TN070432201	Nut	2	M6

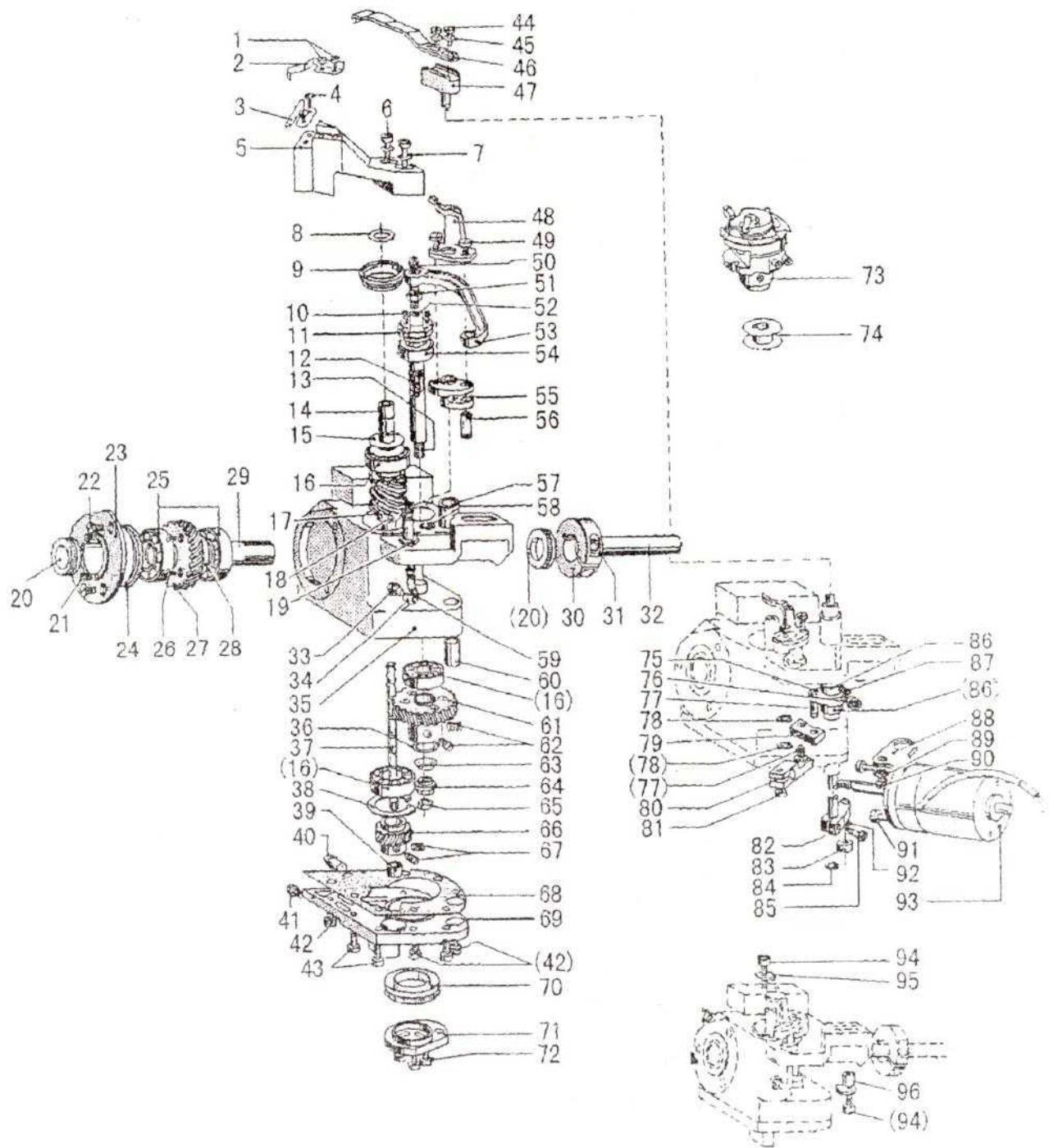
H.HOOK SADDLE MECHANISM



H.HOOK SADDLE MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	T0250600000	Screw	4	M2.5x6
2	53080200000	Thread holding spring	2	
3	53080300000	Fixed knife	2	
4	T0250600000	Screw	4	M2.5x6
5	53080500000	Fixed knife support bracket	2	
6	T0052500010	Bolt	4	M5x25
7	WP050910001	Washer	4	φ 5
8	53080800000	Washer	10	
9	53080900000	Oil drip ring	2	
10	T0030400020	Bolt	4	
11	53081100000	Shaft	2	
12	53081200000	Oil wick	2	
13	T0052000020	Bolt	2	M5x20
14	53081400000	Hook shaft	2	
15	53081500000	Washer	2	
16	53081600000	Ball bearing	6	6000-2Z
17	53081700000	Gear	2	
18	T0050500060	Bolt	4	M5x5
19	53081900000	Pin(L)	2	
20	53082000000	Oil seal	4	
21	T0040400020	Bolt	6	M4x4
22	T0040600081	Screw	6	M4x6
23	53082300000	Lower shaft holder	2	
24	53082400000	O ring	2	38.7x1.8
25	53082500000	Ball bearing	4	6002
26	T0030800081	Screw	3	M3x8
27	53082700000	Lower shaft gear	2	
28	53082800000	Washer	2	
29	53082900000	Driving shaft	2	
30	53083000000	Collor	2	
31	T0061600010	Bolt	2	M6x16
32	53083200000	Shaft	1	
33	53038000000	Oil feeding pipe(S)	1	
34	53083400000	Tube	1	
35	53083500000	Horizontal hook base	1	
36	53083600000	Wave washer	2	
37	53083700000	Lubrication shaft	2	
38	RC260000001	Retainer ring	2	26
39	53083900000	Bushing	2	
40	53084000000	Oil feeding pipe(M)	4	
41	T0030400000	Bolt	2	M3x4
42	T0040800010	Bolt(short)	13	M4x8
43	T0041200010	Bolt(long)	6	M4x12
44	T0030600010	Bolt	4	M3x6
45	WP030705001	Washer	4	φ 3
46	53084600000	Driving knife	2	
47	53084700000	Driving knife shaft	2	
48	53084800000	Opener	2	

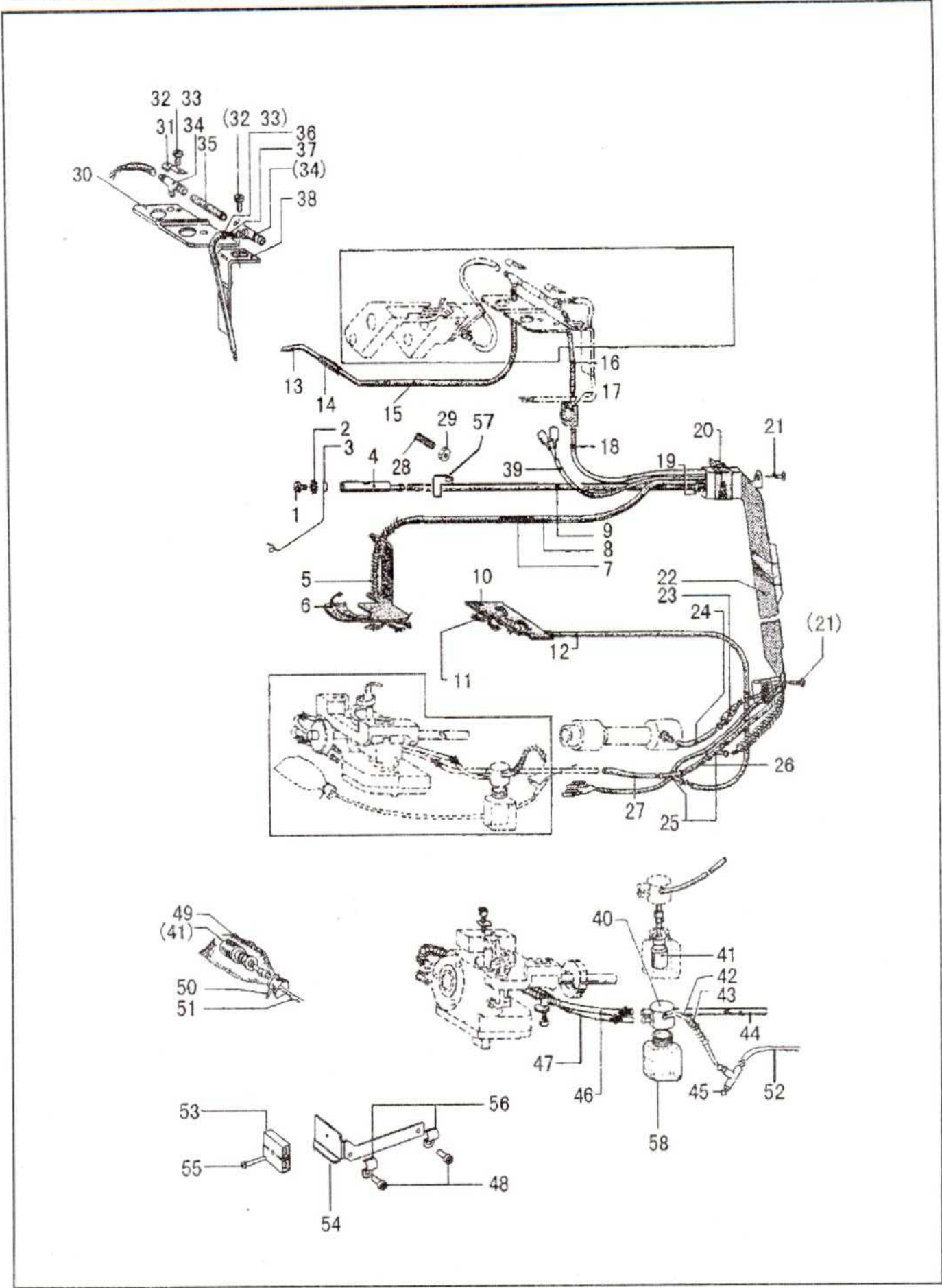
H.HOOK SADDLE MECHANISM



H.HOOK SADDLE MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
49	53084900000	Screw	4	M3.5x8
50	53085000000	Oil wick	2	
51	53085100000	Adjusting pin	2	
52	53085200000	Adjusting guide rail	2	
53	53085300000	Opener shaft	2	
54	53085400000	Bearing	2	6900-2Z
55	53085500000	Opener setting bracket	2	
56	53085600000	Pin	2	
57	53085700000	Bushing	2	
58	RE040908000	E-type retaining ring	3	E4
59	53085900000	Oil wick	1	
60	53086000000	Bushing	2	
61	53086100000	Gear base assy	2	
62	T0050600060	Bolt	4	M5x6
63	53086300000	Belleville spring washer	2	φ 6
64	53086400000	Nut	2	
65	53086500000	Hexagonal nut	2	
66	53086600000	Gear	2	
67	T0050500060	Bolt	4	M5x5
68	53086800000	Sheet packing	2	
69	53086900000	Cover	2	
70	53087000000	Oil seal	2	
71	53087100000	Thread trimmer cam	2	
72	T0040800010	Bolt	6	M4x8
73	53087300000	Horizontal hook	2	
74	53087400000	Bobbin	2	
75	53087500000	Driving knife arm(S)	1	
76	T0041200010	Bolt	2	M4x12
77	53087700000	Pin	6	
78	RE040908000	E-type retaining ring	6	E4
79	53087900000	Driving knife connection	1	
80	53088000000	Soloid setting bracket	1	
81	T0041000010	Bolt	1	M4x10
82	53088200000	Driving knife arm(L)	1	
83	53088300000	Roller	2	
84	RE030706000	E-type retaining ring	2	E3
85	T0041200010	Bolt	1	M4x12
86	53088600000	Collor	2	
87	T0050500050	Bolt	4	M5x5
88	53088800000	Soloid setting plate	1	
89	53088900000	Washer	1	φ 6
90	T0061200010	Bolt	1	M6x12
91	T0041000010	Bolt	6	M4x10
92	53089200000	Pin	2	
93	53089300000	Thread trimmer solinoid	2	
94	T0062200010	Bolt	4	M6x22
95	53089500000	Spacer	2	
96	53089600000	Eccentric collar	2	

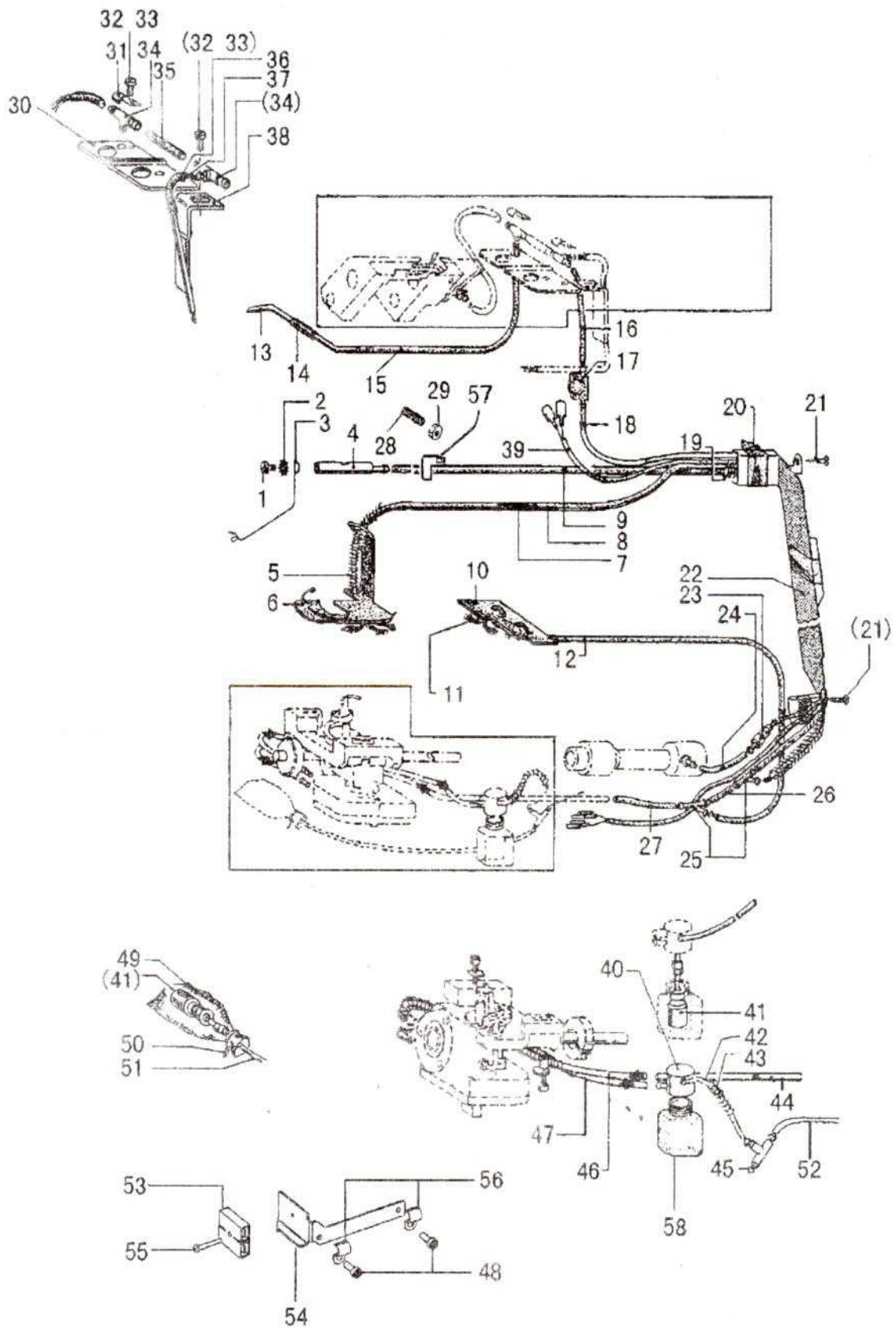
I.OIL LUBRICATION MECHANISM



I. OIL LUBRICATION MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
1	T0050800000	Screw	1	M5x8
2	53090200000	Spacer	1	φ 5
3	53090300000	Oil wick support	1	
4	53090400000	Oil joint	1	
5	53090500000	Tube guide	1	
6	53090600000	Felt	1	
7	53090700000	Oil wick	1	
8	53090800000	Oil tube	1	
9	53090900000	Oil tube	1	
10	53091000000	Felt	1	
11	53091100000	Oil wick	1	
12	53091200000	Oil tube	1	
13	53091300000	Pipe	1	
14	53091400000	Oil tube	1	
15	53091500000	Hose	1	
16	53091600000	Oil pipe	1	
17	53091700000	Oil window	1	
18	53091800000	Oil pipe	1	
19	53091900000	Spring	1	
20	53092000000	Tape	1	
21	53092100000	Screw	2	4x16
22	53092200000	Guard plate	1	
23	53092300000	Valve	1	
24	53092400000	Main oil pipe	1	
25	53092500000	Oil joint	2	
26	53092600000	Oil pipe	1	
27	53092700000	Oil pipe	1	
28	53096300000	Screw	1	M5x16
29	53096400000	Nut	1	M5
30	53093000000	Oil pipe setting plate	1	
31	53093100000	Oil wick setting plate	2	
32	T0041000010	Screw	2	
33	WP040805001	Washer	2	φ 4
34	53093400000	T-joint	2	
35	53093500000	Hose	1	
36	53093600000	Hose	1	
37	53093700000	Oil wick	1	
38	53093800000	Oil pipe plate assy	1	
39	53093900000	Wire assy	1	
40	53094002000	Oil hose assy	1	
41	53094100000	Filter pot assy	2	
42	53094200000	Oil pipe	1	
43	53094300000	Support spring	1	
44	53094400000	Oil pipe	1	
45	53093400000	Oil joint	1	

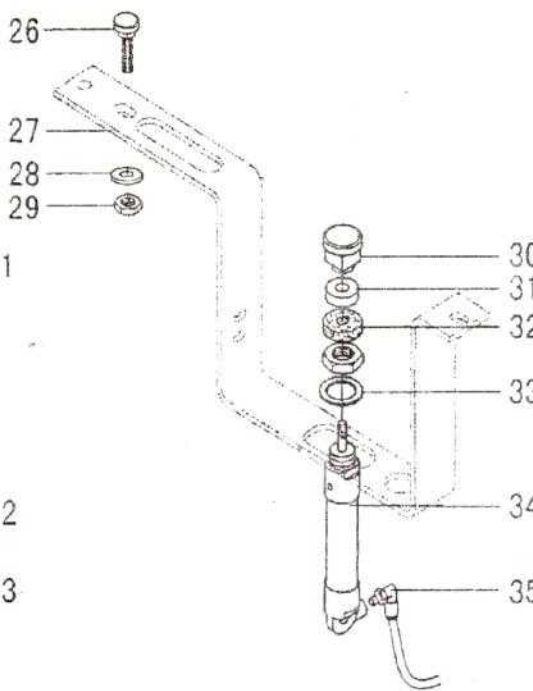
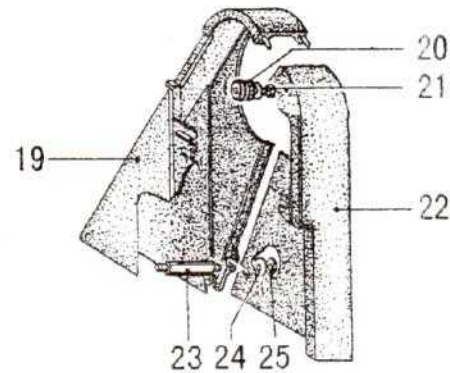
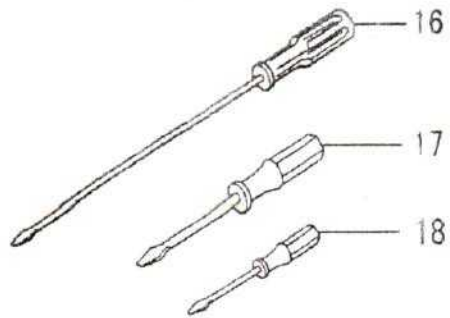
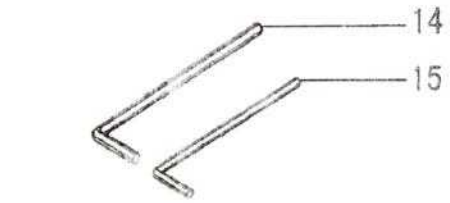
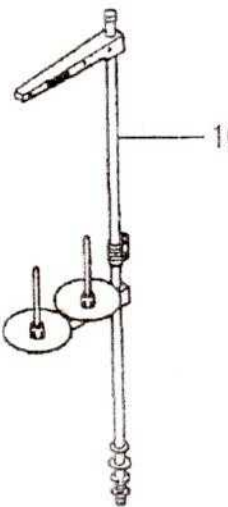
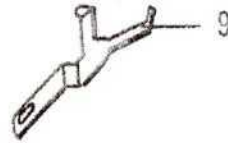
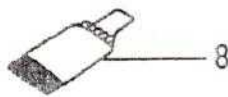
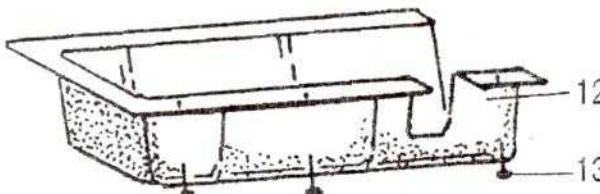
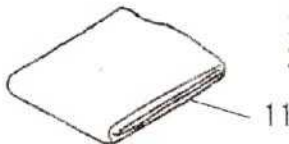
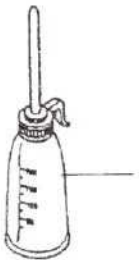
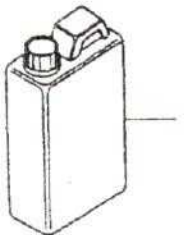
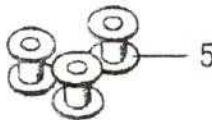
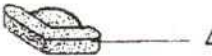
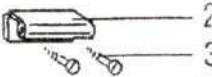
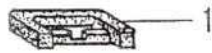
I. OIL LUBRICATION MECHANISM



I. OIL LUBRICATION MECHANISM

Fig.No.	Part No.	Description	Pcs.	Remarks
46	53094600000	Oil pipe	1	
47	53094700000	Oil pipe	1	
48	T0041200010	Screw	2	M4x12
49	53094900000	Felt part	1	
50	53095000000	Cable tie	1	
51	53095100000	Oil pipe	1	
52	53095200000	Oil pipe	1	
53	53095300000	connection assy	1	
54	53095400000	Support plate	1	
55	T0032000000	Screw	1	M3x20
56	53095600000	Wire setting plate	2	
57	53096500000	Oil wick setting plate	1	
58	53096200000	Oil tank	1	

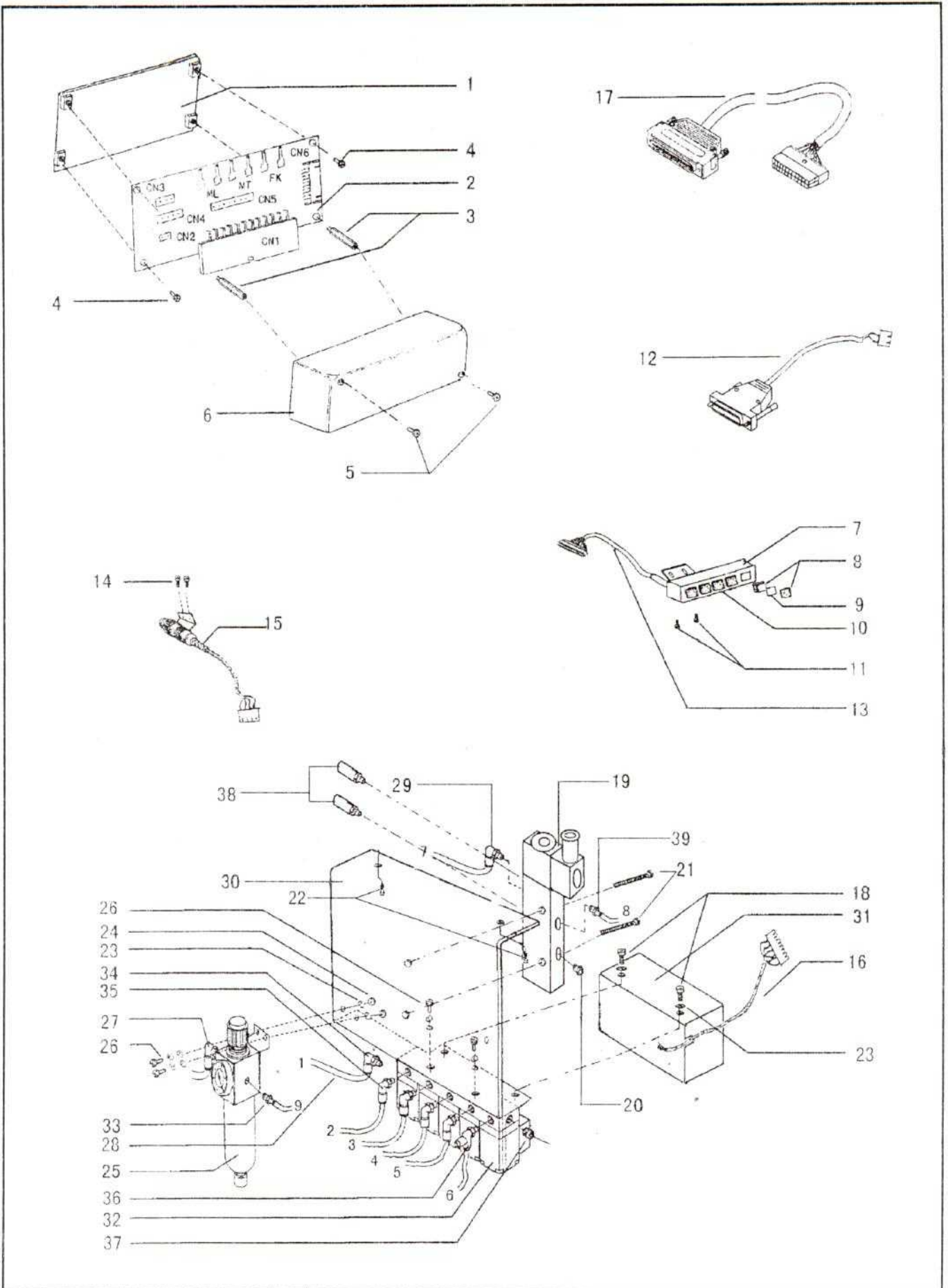
J.ACCESSORIES



J.ACCESSORIES

Fig.No.	Part No.	Description	Pcs.	Remarks
1	53100100000	Hinge support	2	
2	53100200000	Hinge	2	
3	53100300000	Screw	4	M6x10
4	53100400000	Head cushion	1	
5	53087400000	Bobbin	3	
6	53100600000	Oil tank	1	
7	53100700000	Oiler	1	
8	53036100000	Needle	6	DPx35R # 19
9	53100900000	Detector setting plate	1	
10	53101000000	Cotton stand assy	1	
11	53101100000	Cover	1	
12	53101200000	Oil plate	1	
13	53101300000	Nail	8	1.6x25
14	53101400000	Hexagonal wrench	1	2.5
15	53101500000	Hexagonal wrench	1	1.5
16	53101600000	Screw driver(L)	1	
17	53101700000	Screw driver(M)	1	
18	53101800000	Screw driver(S)	1	
19	53101900000	Belt guard(R)	1	
20	53102000000	Rubber washer	1	
21	T0061200000	Bolt	1	M6x12
22	53102200000	Belt guard(L)	1	
23	53102300000	Bolt	1	
24	WP061216001	Washer	1	φ 6
25	TN100652201	Nut	1	M6
26	53102600000	Screw	2	M8x60
27	53102700000	Bow	1	
28	WP081516001	Spacer	2	φ 8
29	TN100879201	Nut	2	M8
30	53103000000	Coupling	1	
31	53103100000	Nylon washer	1	
32	53103200000	Cushion	1	
33	53103300000	Washer	1	φ 20
34	53103400000	Cylinder	1	MSAL25x55-U
35	53103500000	Coupling	1	APL4-01
36	T00608000P1	Screw	2	M6x8.5

K.PNEUMATIC CONTROL UNIT



K.PNEUMATIC CONTROL UNIT

Fig.No.	Part No.	Description	Pcs.	Remarks
1	53110100000	Connecting box base	1	
2	53110200000	PCB board	1	
3	53110300000	Connecting box screw	2	
4	T1041600001	Screw	2	M4x16
5	T0031200010	Screw	2	M3x12
6	53110600000	Connecting box cover	1	
7	53111400000	Button set frame	1	
8	53111600000	Button with light	3	
9	53112500000	Plotting	5	
10	53111500000	Button without light	2	
11	T1041200001	Screw	2	M4x12
12	53112200000	Count to alarm wire assy	1	
13	53111800000	Button wire assy	1	
14	T0040600010	Screw	4	M4x6
15	53112400000	Reset button assy	1	
16	53112100000	Solenoid valve wire assy	1	
17	53112300000	Control box wire assy	1	
18	T1041200001	Screw	2	M4x12
19	53114800000	solenoid valve	1	4V210-08-DC24V
20	53115200000	Plug	1	1/4"
21	T3043000001	Screw	2	M4x30
22	53114500000	Screw	2	5x20
23	53114400000	Washer	6	ϕ 5x ϕ 15x2
24	TN080547201	Nut	2	M5
25	53114100000	Reducing valve	1	GFC2000
26	T1051800001	Screw	4	M5x18
27	53113900000	Windpipe joint	1	APL8-02 ϕ 8-1/4
28	53112800000	Windpipe	1	ϕ 6
29	53115100000	Windpipe joint	1	APL4-02 ϕ 4-1/4
30	53113000000	solenoid valve plate	1	
31	53113100000	solenoid valve box	1	
32	53113200000	solenoid valve	3	3V1-06-DC24V
33	53113800000	Windpipe joint	1	APC6-02 ϕ 6-1/4
34	53113400000	Windpipe joint	2	APL6-01 ϕ 6-1/8
35	53103500000	Windpipe joint	3	APL4-01 ϕ 4-1/8
36	53103600000	Throttle	1	
37	53103700000	Plug	1	
38	53114900000	Muffler	2	PSL-02 1/4
39	53113800000	Windpipe joint	1	APC6-02 ϕ 6-1/4