

HIGHLEAD

GK0058-AC

High Speed Chain With Edge Cutter Machine

Instruction Manual
Parts Catalog

SHANGHAI BIAOZHUN HAILING SEWING MACHINERY CO., LTD.

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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 in use, or when the operator leaves the seat.

(3) Power must be turned off when tilting the machine head, installing or removing the “V” belt, adjusting the machine, or when replacing.

(4) Avoid placing fingers, hairs, bars etc., near the pulley, “V” belt, bobbin winder pulley, or motor when the machine is in operation.

(5) Do not insert fingers into the thread take-up cover, under/around the needle, or pulley when the machine is in operation.

(6) If a belt cover, finger guard, eye guard are installed, do not operate the machine without these safety devices.

2) Precautions before starting operation

(1) If the machine’s oil 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 phase (single or three) with those given on the machine nameplate.

3) Precautions for operating conditions

(1) Avoid using the machine at abnormally high temperatures (35°C or higher) or low temperatures (5°C or lower) .

(2) Avoid using the machine in dusty conditions.

2. SPECIFICATIONS

MODEL	GK0058-AC
MAX. SPEED (s. p. m.)	4500
STITCH (mm)	1.4-4
MAX. LIFT OF FOOT (mm)	By hand 4, By knee 10
NEEDLE	DB×1 9#-14#
LUBRICATION SYSTEM	Automatic
THREAD TAKE-UP TYPE	Needle bar thread take up
MOTOR	370W Speed adj. motor

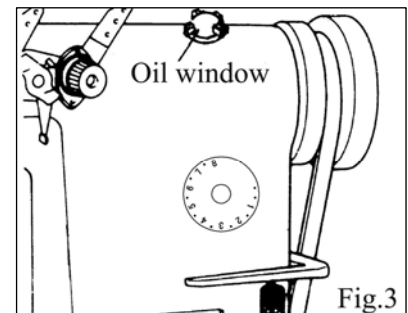
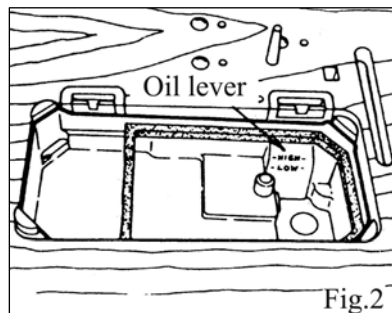
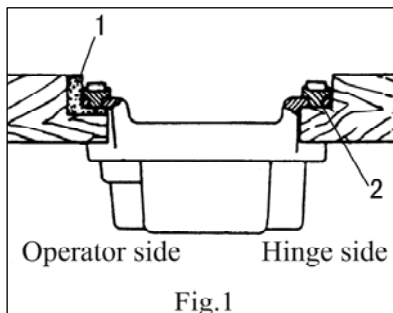
3. INSTALLING THE MACHINE (Fig.1)

Installing the oil reservoir:

Put the oil reservoir rubber cushion (1) and oil reservoir felt cushion (2) on four corners of the opening of the table, fix them with wood screws, then install the oil reservoir.

Installing the machine:

Put the machine connecting hooks into the holes to engage respectively two hinges seated in the table, then place the machine on the four cushions.

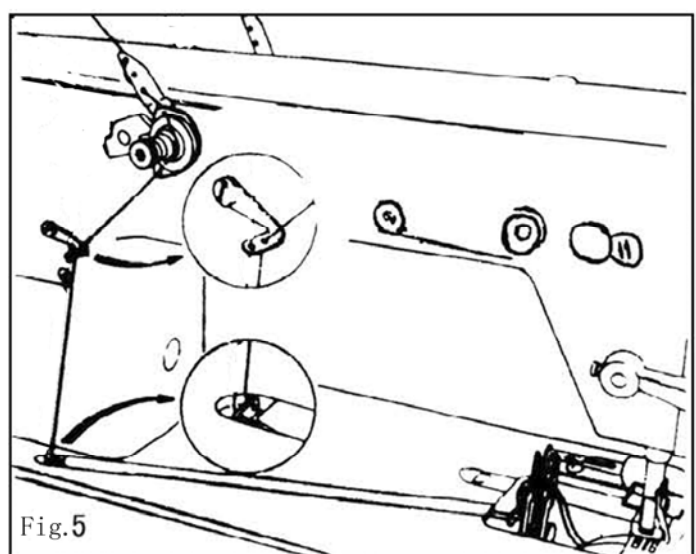
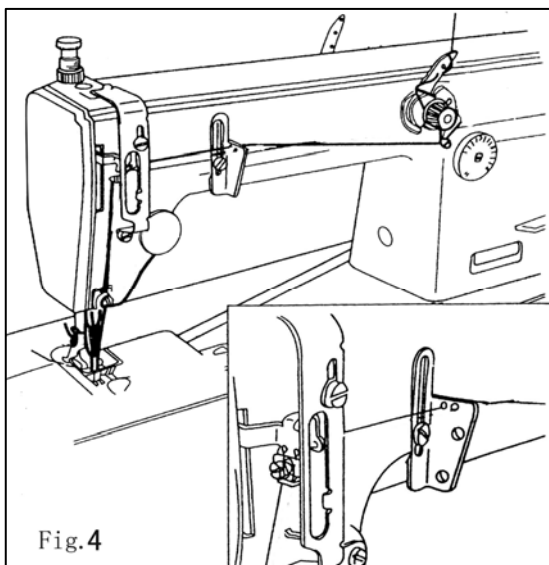


4. OILING (Figs.2, 3)

The machine should be oiled before starting operation. Oil should be in the lever "High". It should be oiled when the oil below the lever "Low". The normal condition of lubrication is that the oil spray onto the oil window. The amount of oil spray onto the oil window is no relation to the total amount of oil in the oil reservoir. Nothing to worry about. When change the oil, loosen the drain screw, the oil drain out then clean the oil reservoir and supply new oil. When operate new machine or after place for long time, presser foot shall be lifed and run idle in 1800-2000 s.p.m about ten minutes.

5. THREADING NEEDLE THREAD (Fig.4)

Pass the thread in the order as shown in Fig. 4 when the needle bar in high position. To make thread go through



the eye of the needles outwards (view from the operator's side) .To pull out 100mm of the remaining thread after needle thread going through the eye of the needles.

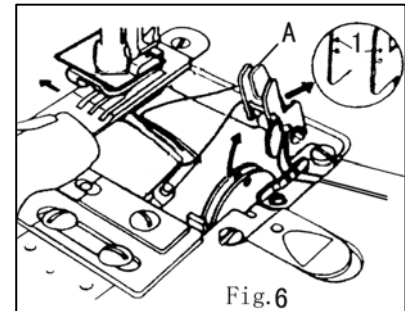
6. THREADING BOBBIN THREAD (Figs.5,6)

To make bobbin thread go through in the order as shown in(Figs. 5,6):

(1)Make the bobbin thread go through the needle tension regulator guide plate(single side);go through the two holes when thread of harder twist fiber is used or feed gauge is wider than usual.

(2)Pull the spring toward the operator,as shown in Fig.6 and part A will rise upwards.

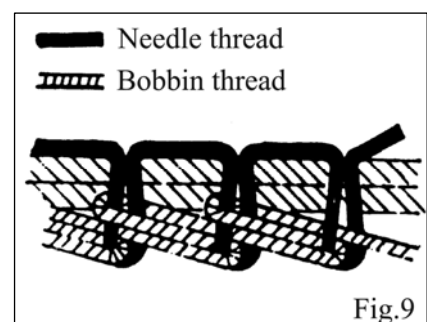
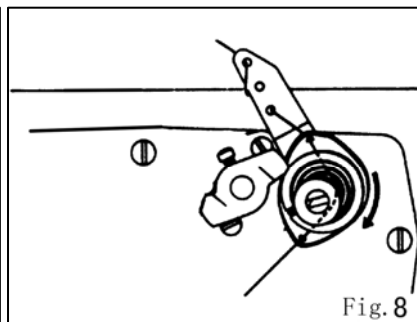
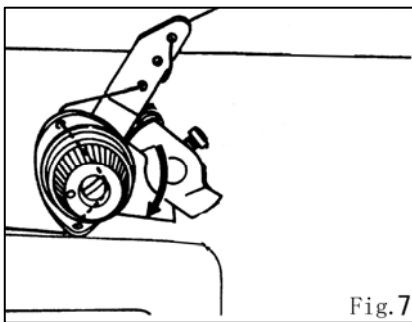
(3)When threading the looper,the thread shall be made go through the eye of the needle with a tweezer as shown in Fig.6 and 50mm of remaining thread be pulled out.



7. THREAD TENSION (Figs.7,8 and 9)

Needle thread tension is in accordance with sewing working condition,we can adjust needle thread tension by tension spring.Turn the tension nut clockwise to increase the tension;turn counter-clockwise to decrease the tension.

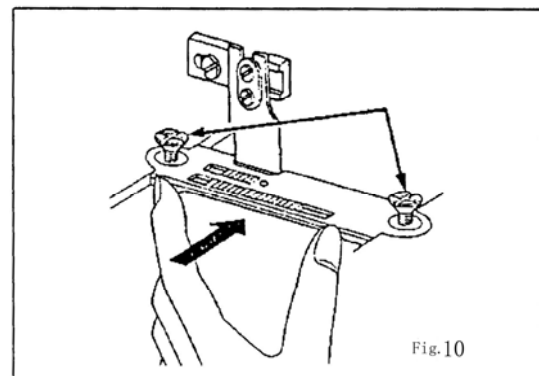
Bobbin thread tension is also in accordance with sewing working condition,we can adjust needle thread tension by tension spring.Turn tension screw clockwise to increase the tension;turn tension screw counter-clockwise to decrease the tension.The relation between the needle thread and the bobbin thread as shown in Fig. 9 depicts the forming of chain stitch.



8. INSTALLING OF

THE NEEDLE PLATE (Fig.10)

To attach the needle plate,bring the cloth-cutting knife to its lowest position,and gradually tighually tighten the two set screws alternately while lightly pressing the needle plate plate onto the cloth-cutting knife.



9. CLOTH CUTTING KNIFE (Fig.11)

(1) Operation of the cloth cutting knife

① To actuate the cloth-cutting knife, press down knife setting plate 1

② To stop the cloth-cutting knife and reset the machine to the normal lockstitching mode, pull knob 2 in the direction of the arrow.

(2) Adjust the cloth cutting knife

① Raise or lower the cloth-cutting knife so that section A of the cloth-cutting knife is positioned 0-0.5 mm below the top face of the needle plate when the knife is in its lowest position

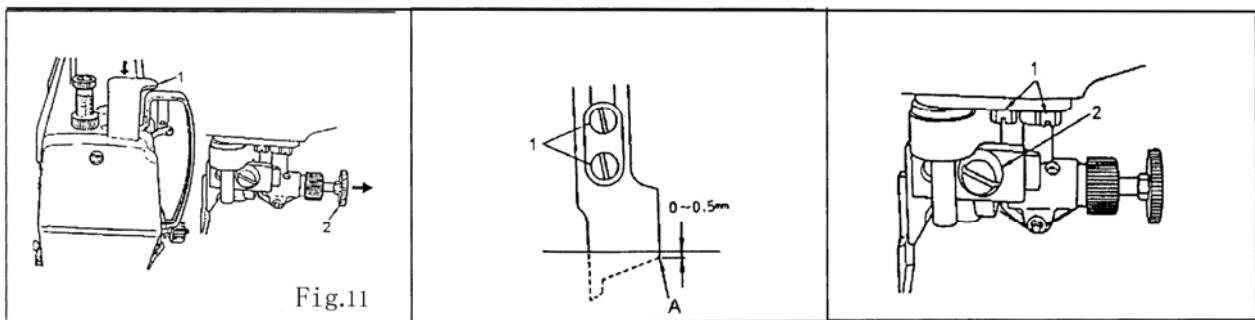
② Loosen two knife set screws 1, and replace the cloth-cutting knife.

(3) Changing the cutting width

① The needle plate decides the cutting width when the needle plate is replaced, loosen knife guiding shaft set screw 1 so that proper parallelism is obtained and sharpness of the knife blade is increased as shown in the figure.

② When the position of the knife is changed in accordance with the change of the needle plate size, loosen set screw 2, and position the knife so that the blade of the needle plate comes in contact with the knife blade. Then tighten set screw 2.

③ For the standard machine, a 3.2mm wide needle plate is installed at the time of delivery.



10. ADJUSTING THE STITCH LENGTH (Fig.13)

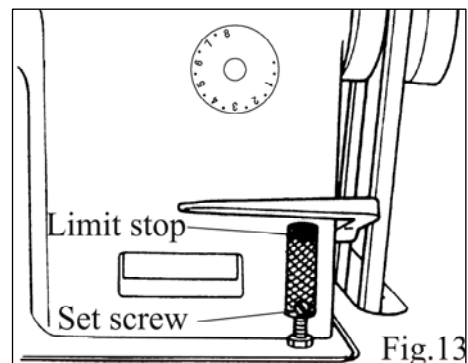
(1) To adjust the stitch length, turn the stitch dial to the number. The value of graduation is shown in millimeter (mm) .

(2) If need to change the stitch length, press down the reverse feed lever while turning the dial.

(3) Max. stitch length is 8mm; Min. stitch length is 1.4mm.

(4) When press down the reverse feed lever, the stitch become tight-needle stitch (1.4mm). This function often be used in beginning and seaming or reinforce sewing.

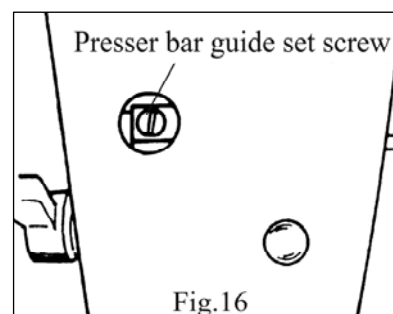
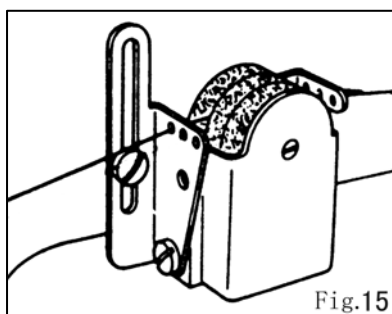
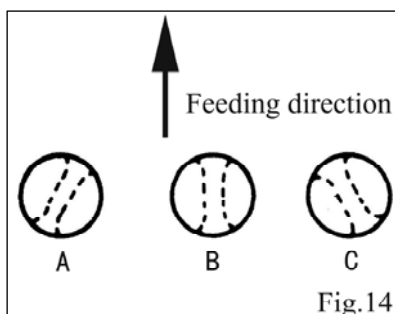
(5) **The machine can not reverse stitching.**



11. INSTALLING THE NEEDLE(Figs.14,15)

When the thread is chemical fibre thread,the direction of the needle eye should not be in that one,as shown in Fig.14(C).

GK0318 series machines are set up to use standard needle of TV×5 18#-23#.The size of needle to be used should be determined by the size of thread, type and thickness of the sewing materials.Oil tank shall be custom-made when thread of chemical fibre is used; silicone oil can be placed as shown in Fig.15.



12. ADJUSTING THE HEIGHT OF PRESSER FOOT(Fig.16)

For the requirements of either replacing the presser foot or changing the height and angle of presser foot,the following shall be observed.

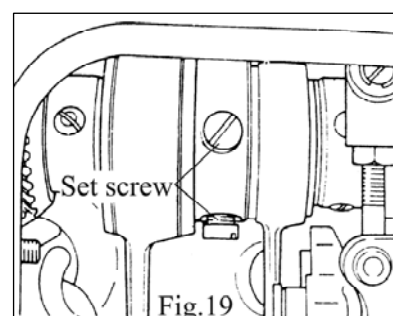
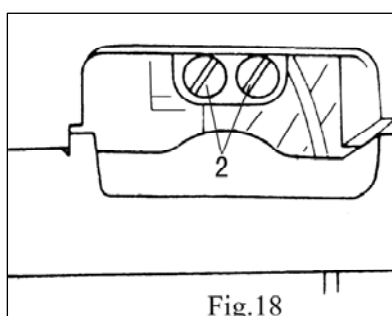
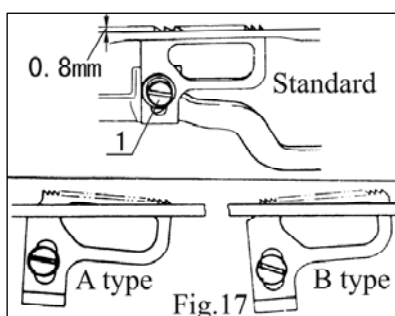
Take off the rubber plug in the hole from the face plate,as shown in Fig.16.

Loosen the presser bar guide bracket set screw.

After adjusting,tighten the screw.

13. ADJUSTING THE HEIGHT OF FEED DOG(Figs.17,18)

Loosen the set screw as shown in Fig.18,the angle of the feed dog can be adjusted to the specified one of standard ,A type and B type.The Max.height of the feed dog 0.8mm is adjustable by the adjusting screw as shown in Fig.17.



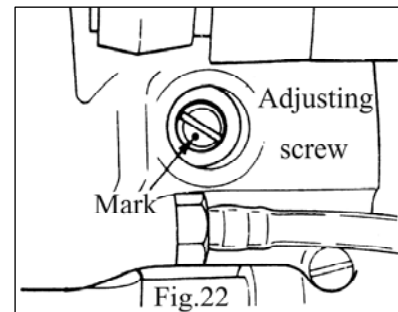
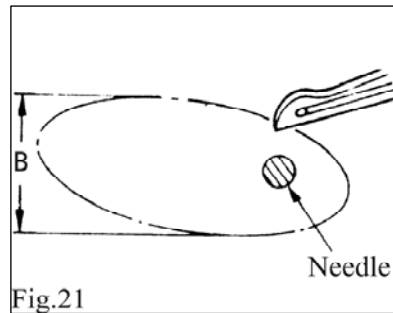
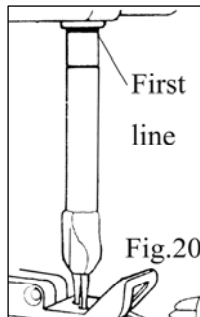
14. TIMING OF FEED DOG AND NEEDLE(Fig.19)

When the point of needle fall down to the location of 3mm from the upper surface of the needle plate, the feed dog is right at the position below the upper surface of needle plate, the motion of feed dog being well regulated

relation to the motion of needle.

15. ADJUSTING THE HEIGHT OF NEEDLE BAR(Fig.20)

When the needle of TV×5 is used,if the needle bar at the bottom dead point,the first line on the needle bar shall be in line with the low end of the needle bar bushing,as indicated in Fig.20.



16. ADJUSTING THE NEEDLE AND THE LOOPER(Figs.21,22)

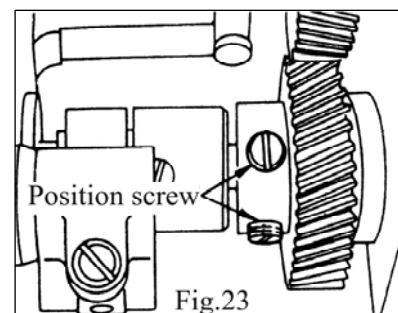
Adjustment of forward & backward motion of the looper:The dimension B is the looper in an elliptic motion can be measured(refer to Fig.21).The Max.dimension of part B is usually 3.7mm,suitable for sewing operation of needle of all kinds of sizes.

The adjusting procedure is as follows:

- (1) Take off the rubber plug on the crank case of the looper.
- (2) Turn the balance wheel by hand.
- (3) First loosen set screw and position screw, and then adjust marked screw.
- (4) Turn clockwise the adjustable screw on which punch mark is printed,and the dimension of part B will be increased in value.Otherwise also.
- (5) Tighten set screw and position screw.

17. TIMING OF LOOPER AND NEEDLE(Fig.23)

The looper shall be moved backward to the lowest position while the needle is at the bottom dead point;loosen the screw on the gear and make timing adjustment of the looper in relation to the needle(refer to Fig.23)



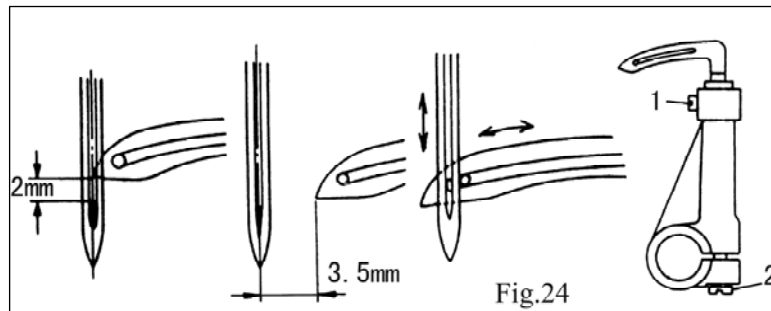
18. LOOPER TAKE-UP THREAD(Fig.24)

(1)The standard value of the vertical distance of the point of the looper away from the upper end of the needle eye is 2mm,then the graduation mark on the lower part of the needle bar shall be in line with the lower end of the needle bar bushing.

- (2) The value of the stroke moved backward by the looper is about 3.5mm.

(3) The relation between the eye of the needle and the eye of the looper is indicated in Fig.24.

(Note: That the left looper and the right one can be separately adjusted.)

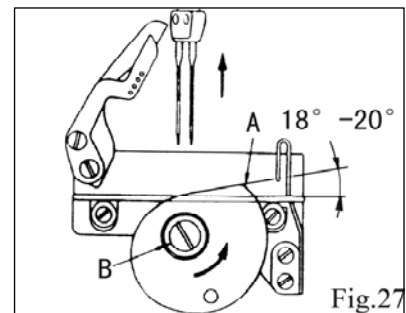
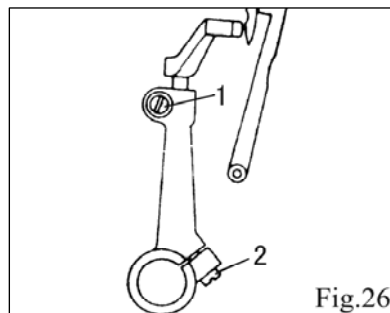
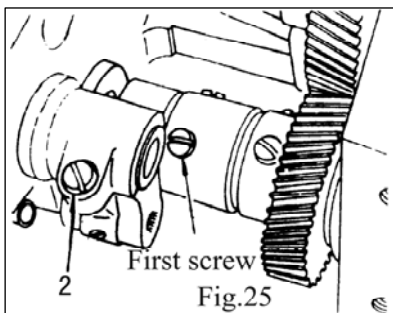


19. CLEARANCE BETWEEN LOOPER AND NEEDLE

After adjusting the looper guard, the clearance of a given value between the needle and looper shall be kept unchanged; the needle shall not touch at the point of the looper when it is pressed down softly. If the clearance is narrower than usual, the side of the needle and the point of the looper are apt to incur breakage due to the impact of the needle side against the looper point.

20. TIMING OF LOOPER GUARD (Fig.25)

The timing of the looper guard depends on the condition of the surface on the rock shaft of the looper when first screw has been screwed into this rock shaft.



21. POSITION OF LOOPER GUARD (Fig.26)

Oscillating the looper guard to make the needle tip contact with needle gauge slightly.

It is recommended that the height adjustment shall not fall within the area of the looper guard; loosen screws (1) (2) then adjust. The relation between looper guard and the swing looper guard is as represented in Fig.26. The clearance is about 0.1 to 0.2mm between the needle and looper guard.

(Note: That the forced clamp of the needle shall be prohibited when the machine is in motion.)

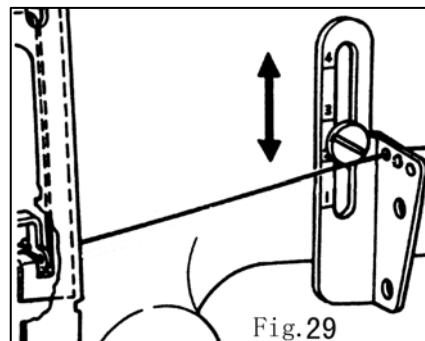
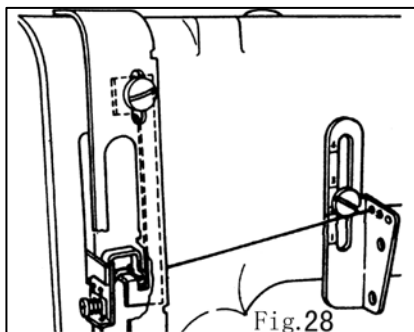
22. BOBBIN THREAD TAKE-UP CAM (Fig.27)

Its position can be seen as shown in Fig.27 when the needle bar is at the top dead point, the surface of the cam and the steel wire at the angle of 18° to 20° ; first loosen screw B, then make adjustment, finally

tighten the screw firmly. Pay close attention to the following: Bobbin thread take off from the projecting part (A) of the cam, the needle tip shall entirely come into the bobbin thread loop.

23. THE POSITION OF THE THREAD-AMOUNT ADJUSTING PLATE OF THE THREAD TAKE-UP LEVER (Fig.28)

The thread-amount adjusting plate will retain the bobbin thread when the needle bar at the bottom dead point; in such a way the loop of the needle thread is to become bigger when the needle thread is hooked. In addition, there is a function of the tight pulling of the needle thread loop. The thread-amount adjusting plate usually reduces to the lowest point when a thread thinner than normal is used.



24. THREAD GUIDE HOOK (Fig.29)

The improper-position of the frame thread eyelet may be the cause of occurrence of skipping stitch.

The following location are generally regarded as criteria.

Cotton	thread # 80 ~ # 50	Graduation on thread guide	2-3
Thread of chemical fibre	# 80 ~ # 50	Graduation on thread guide	1-2

25. MAINTAIN THE MACHINE

The following shall be adhered to in order to keep the machine in good working condition:

Daily checking:

- (1) The oil shall spray onto the oil window when the machine is running.
- (2) Repairman shall be sent for when abnormal sound is heard during the operation of the machine.

Weekly checking:

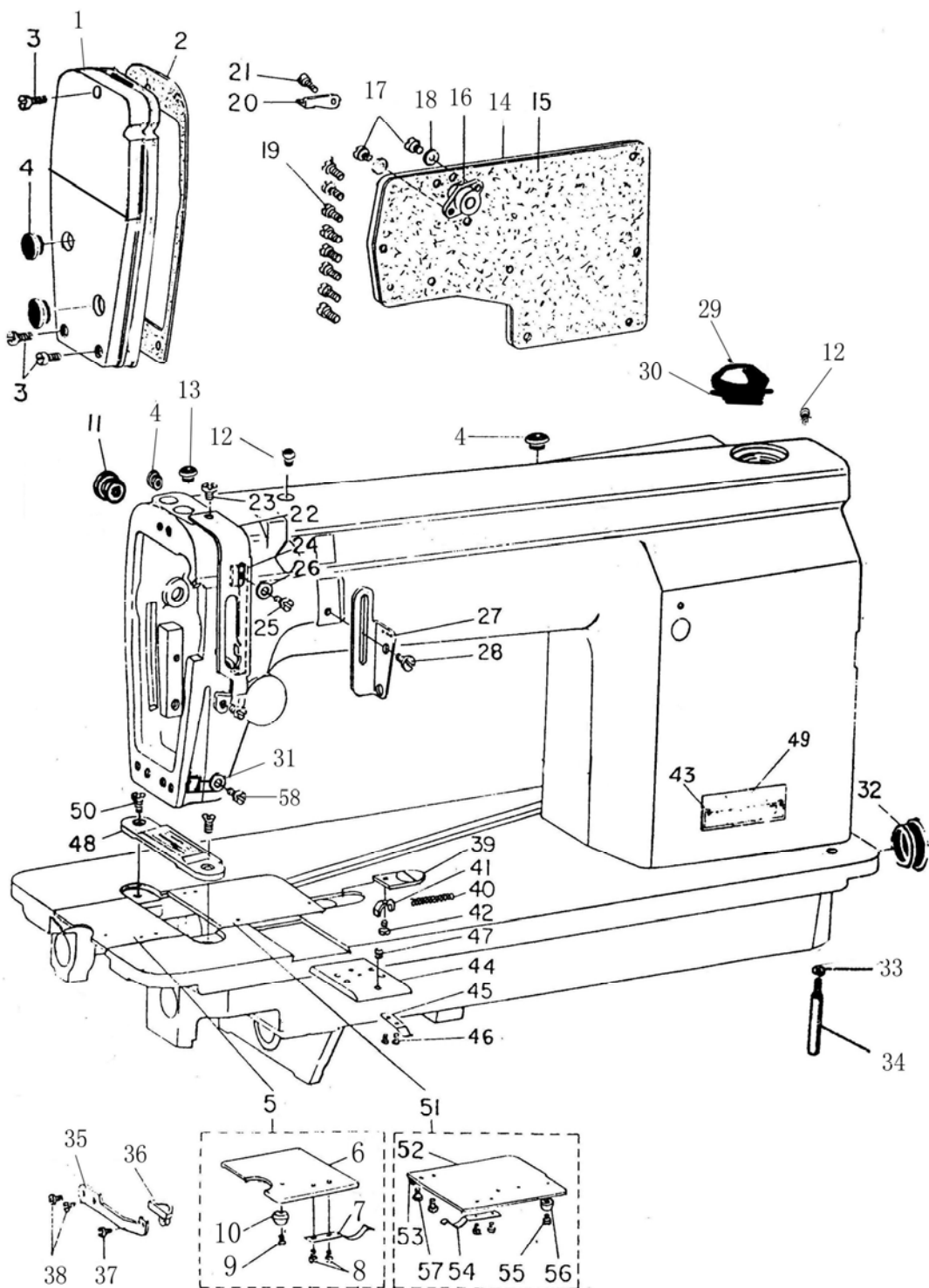
- (1) Remove needle plate, slide plate, and cam cover; to clean dust of the the slotted feed dog with a brush.
 - (2) To turn over the head to rid both the oil filter on the oil pump and the interior of the oil reservoir of oil stain and dust.
 - (3) Loosen drain screw and take it off; drain all the dirty oil from the oil reservoir and reoil it.
 - (4) Oil lever must be above the lowest oil-lever-indicating line marked "Low".
 - (5) The black powder, adhering to the magnet in the oil reservoir shall be wiped with sponge cloth.
-

26. MEASURES OF COMMON TROUBLES

No.	Troubles	Cause	Measures to be taken
1	Thread breakage	<ol style="list-style-type: none"> 1.Poor thread quality 2.Thread being too thick 3.Fusing thread due to high temperature of needle 4.Thread's tension too higher 5.Breakage of needle,looper,and looper guard at the location of thread guide 6.Failure to adjust thread amount 	<ol style="list-style-type: none"> 1.Using quality thread 2.Replacement to be made by an appropriate thread 3.Silicone oil to be used and speed to be reduced 4.The tension nut to be loosened 5.First grinding with oil stone and then polishing 6.Adjusting the thread amount adjusting plate
2	Skipping stitch	<ol style="list-style-type: none"> 1.Skipping stitch of needle thread(leaking of two stitches due to the loopers failure to hook the needle thread) 	<ol style="list-style-type: none"> 1.Adjusting thread-hooking amount of looper 2.Adjusting clearance between looper and needle 3.The timing of needle in reference to looper 4.Adjusting the thread-amount adjusting plate on thread amount changing conditions 5.Adjusting the frame thread eyelet 6.Checking whether the mounting position of thr needle is proper or not 7.Checking if the location of looper guard is in an appropriate way and the timing of it is well 8.Checking if the needle thread threading is in a proper way
		<ol style="list-style-type: none"> 2.Skipping stitch of bobbin thread (leaking of one stitch,needle's failure to enter the looper eyelet) 	<ol style="list-style-type: none"> 1.Reference to the above cases 1 and 2,as to skipping stitch of the needle thread 2.Checking if the timing of the bobbin thread cam has been well regulated 3.Increasing tension os bobbin thread a bit higher 4.Checking if the threading of bobbin thread is in a correct way
		<ol style="list-style-type: none"> 3.Skipping stitch when thread of chemical fiber being in use 	<ol style="list-style-type: none"> 1.Using silicone oil 2.Reducing speed 3.Using needle for thread of chemical fibre
		<ol style="list-style-type: none"> 4.Skipping stitch when thread of polyester fiber being in use 	<ol style="list-style-type: none"> 1.Reducig speed 2.Silicone oil to be used

3	Twisted stitches	<ol style="list-style-type: none"> 1. Needle thread tension being too low 2. Bobbin thread tension being too low 3. Sewing thread being too thick 4. Improper position of the frame thread eyelet 5. Improper position of thread take-up tension plate 6. Needle plate 	<ol style="list-style-type: none"> 1. Tightening tension nut of needle thread 2. Tightening tension nut of bobbin thread 3. Needle of large size to be used 4. Readjusting it to a proper position 5. Readjusting its position in an appropriate way 6. The eyelet of needle plate to be used being bigger than normal one
4	Breakage of needle	<ol style="list-style-type: none"> 1. Needle being bent 2. The operation of feed dog being not well regulated in reference to the motion of needle 3. Setting-up of the presser foot 4. The problem of the timing of looper guard remaining unsolved 5. Needle thread tension being too high 6. Needle being too thick 	<ol style="list-style-type: none"> 1. Needle to be replaced by another of proper size 2. Readjusting the timing to feed dog on respect to the needle 3. To make both the centre of the hole of the presser foot and the centre of the eyelet of the needle plate be in line with that of the eye of the needle 4. The position & the timing of the looper guard to be taken into account 5. Relaxing needle thread 6. Appropriate needle to be used
5	Puckering	<ol style="list-style-type: none"> 1. Thread tension being too high 2. The problem of the timing of the bobbin thread cam for thread guiding failing 3. The problem of surface finish arising from bobbin thread going through the parts on the thread guide 4. The force on the presser foot being too high 	<ol style="list-style-type: none"> 1. Decreasing thread tension, esp. tension of bobbin thread 2. Readjusting the timing of the cam 3. Surface finishing all the parts on the thread guide 4. Loosen the pressure-regulating screw

A. ARM BED AND IT'S ACCESSORIES



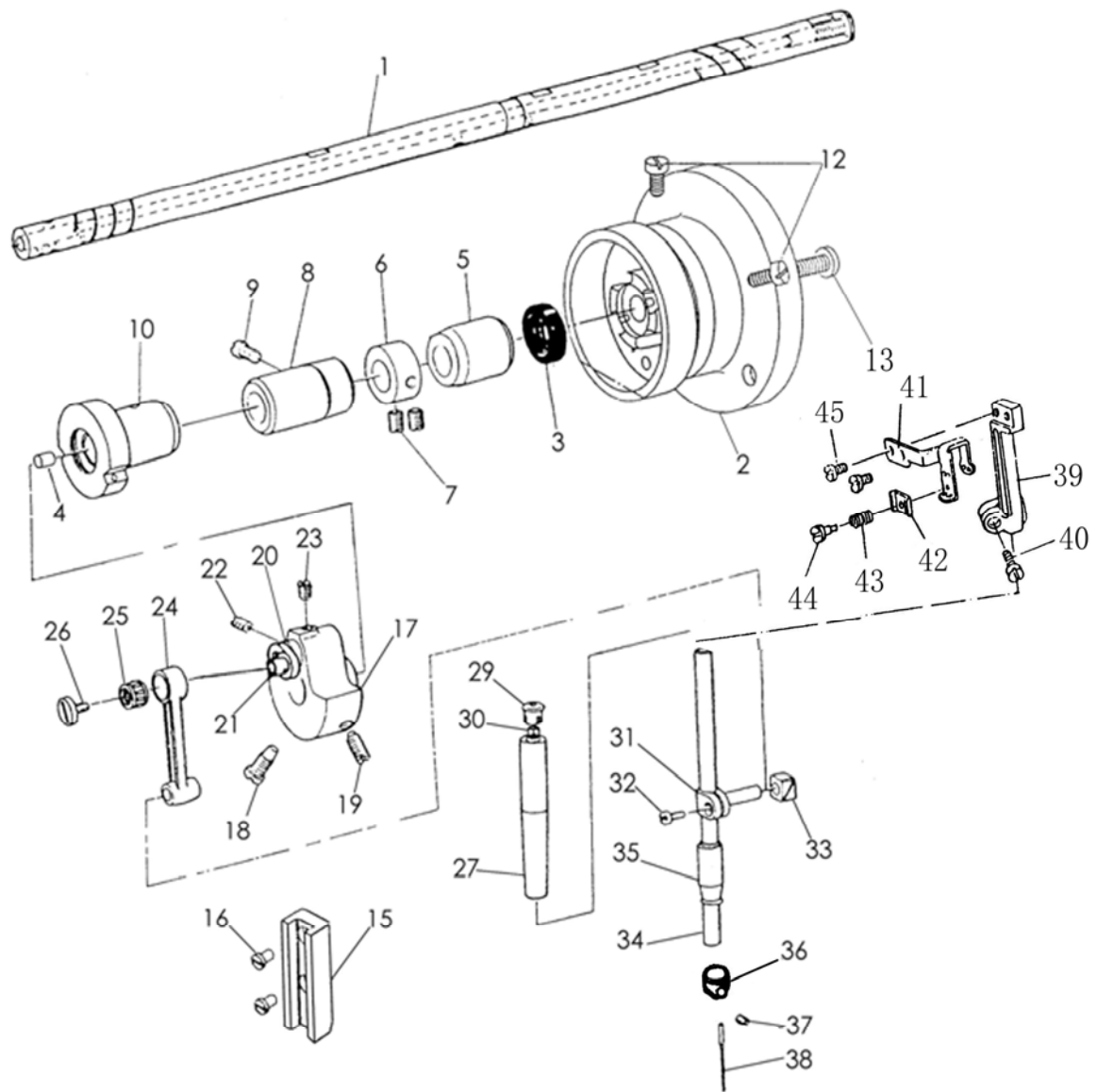
A. ARM BED AND IT'S ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Notes
A01	57H01-010P01	Face plate	1	
A02	57H01-026P01	Face plate gasket	1	
A03	72T1-016	Screw	3	
A04	72T1-004C4	Rubber plug	5	φ 11.8
A05	5S1-11C	Slide plate complete	1	
A06	5S1-11C1	Slide plate	1	
A07	5S1-11C2	Spring	1	
A08	J9. 0. 3	Screw	2	
A09	5S1-11C3	Guiding wheel	1	
A10	61-04-01/B7/Z1	Screw	1	
A11	72T1-003C4	Rubber plug	1	φ 19
A12	72T1-011	Rubber plug	2	φ 5. 7
A13	72T1-009	Rubber plug	2	φ 5. 7
A14	259H01-017P01	Back cover plate	1	
A15	259H01-018P01	Gasket	1	
A16	5S1-27E	Thread releasing shaft bushing	1	
A17	5S1-28	Screw	2	
A18	5S1-29	Washer	2	
A19	72T1-017	Screw	8	
A20	5S1-21	Thread guide hook	1	
A21	22T2-004	Screw	1	
A22	5S1-15	Thread take-up lever guard	1	
A23	22T2-004	Screw	2	
A24	5S1-14	Thread adjusting disc	1	
A25	22T2-004	Screw	1	
A26	22T2-007	Washer	1	
A27	5S1-16	Thread guide hook	2	
A28	22T2-019	Screw	1	
A29	12H1-007C1	Oil window	1	
A30	12H1-007C2	O-ring	1	
A31	22T1-014	Thread guide	1	
A32	5S1-32	Rubber plug	1	
A33	GB/T93 6	Washer	1	
A34	7WF4-013	Machine supporting bolt	1	
A35	5S1-24	Lock spring	1	
A36	5S1-23	Handle	1	
A37	6A2-14	Screw	1	
A38	22T2-004	Screw	2	
A39	5S1-02	Cam cover plate	1	
A40	5S1-03	Spring	1	
A41	5S1-05	Spring block	1	
A42	5S1-04	Screw	1	
A43	GB/T 827 2. 5×5	Rivet	2	
A44	5S1-06	Bracket	1	

A. ARM BED AND IT' S ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Notes
A45	5S1-08	Lock spring	1	
A46	J9. 0. 3	Screw	2	
A47	5S1-07	Screw	1	
A48	259H01-014P01	Needle plate	1	
A49	259H01-005P01	Name plate	1	
A50	72T1-019	Screw	2	
A51	5S1-09B	Cam cover complete	1	
A52	259H01-007P01	Cam cover	1	
A53	5S1-09B4	Supporting plate	1	
A54	5S1-09B3	Spring	1	
A55	61. 04. 01/B7/Z1	Screw	1	
A56	5S1-09B2	Guiding wheel	1	
A57	J9. 0. 3	Screw	4	
A58	22T1-003C6	Screw	2	

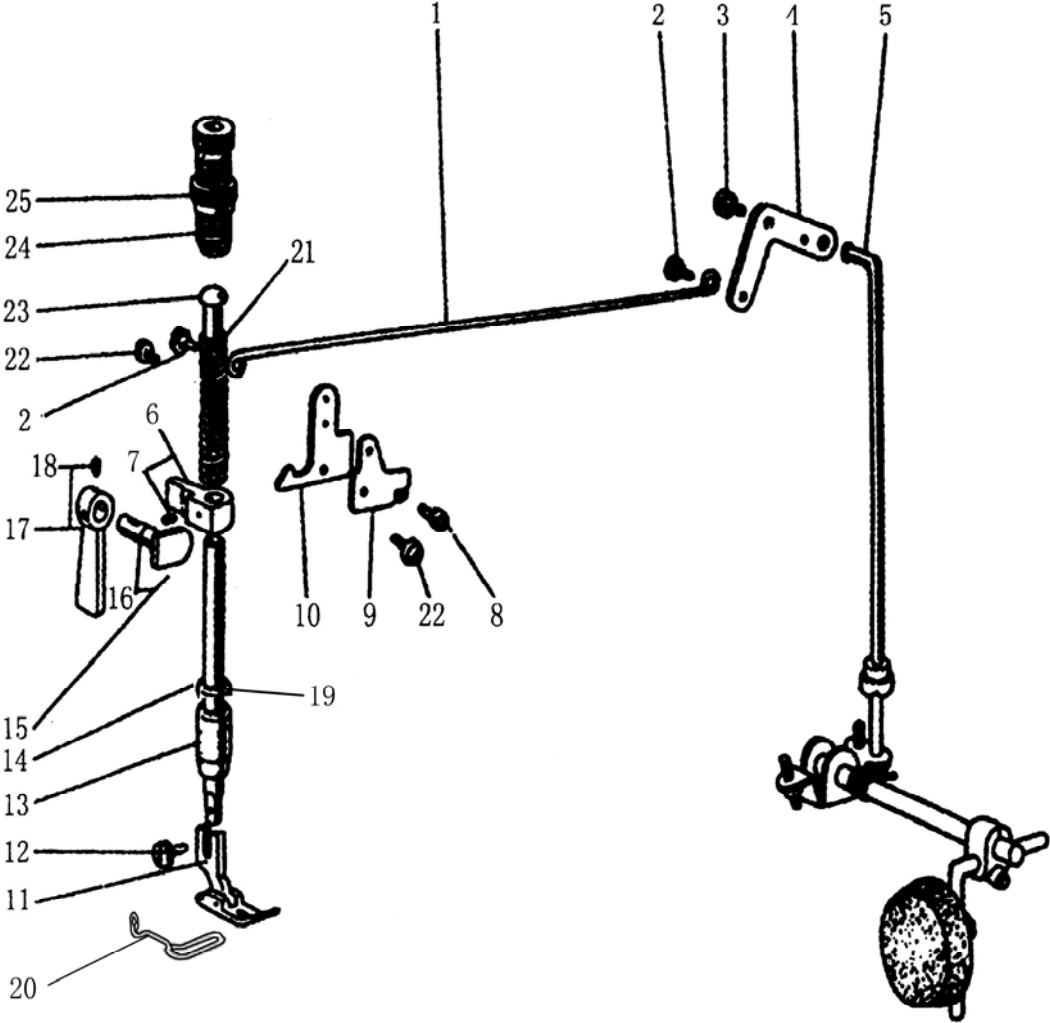
B. ARM SHAFT AND NEEDLE BAR MECHANISM



B. ARM SHAFT AND NEEDLE BAR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
B01	57H02-008G01	Arm shaft	1	
B02	72T3-004C1	Machine pulley	1	
B03	72T3-003B	Oil seal	1	
B04	22T3-001A2	Rubber plug	2	
B05	72T3-002	Arm shaft bushing(back)	1	
B06	22T6-005B	Collar for arm shaft	1	
B07	22T3-002B2	Screw	2	
B08	22T3-004	Arm shaft bushing(center)	1	
B09	22T2-002	Screw	1	
B10	22T3-003	Arm shaft bushing(front)	1	
B12	22T3-007C2	Screw	2	
B13	22T3-008	Screw	1	
B15	22T2-018	Guide for slide block	1	
B16	22T2-019	Screw	2	
B17	57H02-002G01	Needle bar crank	1	
B18	22T2-007	Position screw	1	
B19	22T2-006	Screw	1	
B20	GR1838	Stop ring	1	
B21	22T2-001A4	Thread take-up crank	1	
B22	72T2-004B2	Position screw	1	
B23	72T2-004B2	Screw	1	
B24	22T2-001A2	Needle bar link	1	
B25	22T2-001A5	Needle bearing	1	
B26	22T2-001A6	Screw(left hand)	1	
B27	22T2-008	Needle bar bushing(upper)	1	
B29	72T2-005	Rubber plug $\phi 8.8$	1	
B30	22T2-010	Felt	1	
B31	22T2-001A8	Needle bar joint	1	
B32	22T1-003C6	Screw	1	
B33	22T2-020	Slide block	1	
B34	57H02-006P01	Needle bar	1	
B35	72T2-006	Needle bar bushing(lower)	1	
B36	57H02-007P01	Thread guide	1	
B37	22T2-017	Screw	1	
B38	JZDB1000G1403	Needle	1	DB×1 #14
B39	5S2-25	Thread take-up lever link	1	
B40	5S2-26	Screw	1	
B41	5S2-24	Thread take-up lever	1	
B42	5S2-28	Thread tension disc	1	
B43	5S2-27	Thread tension spring	1	
B44	5S2-29	Screw	1	
B45	22T2-001A9	Set screw	1	

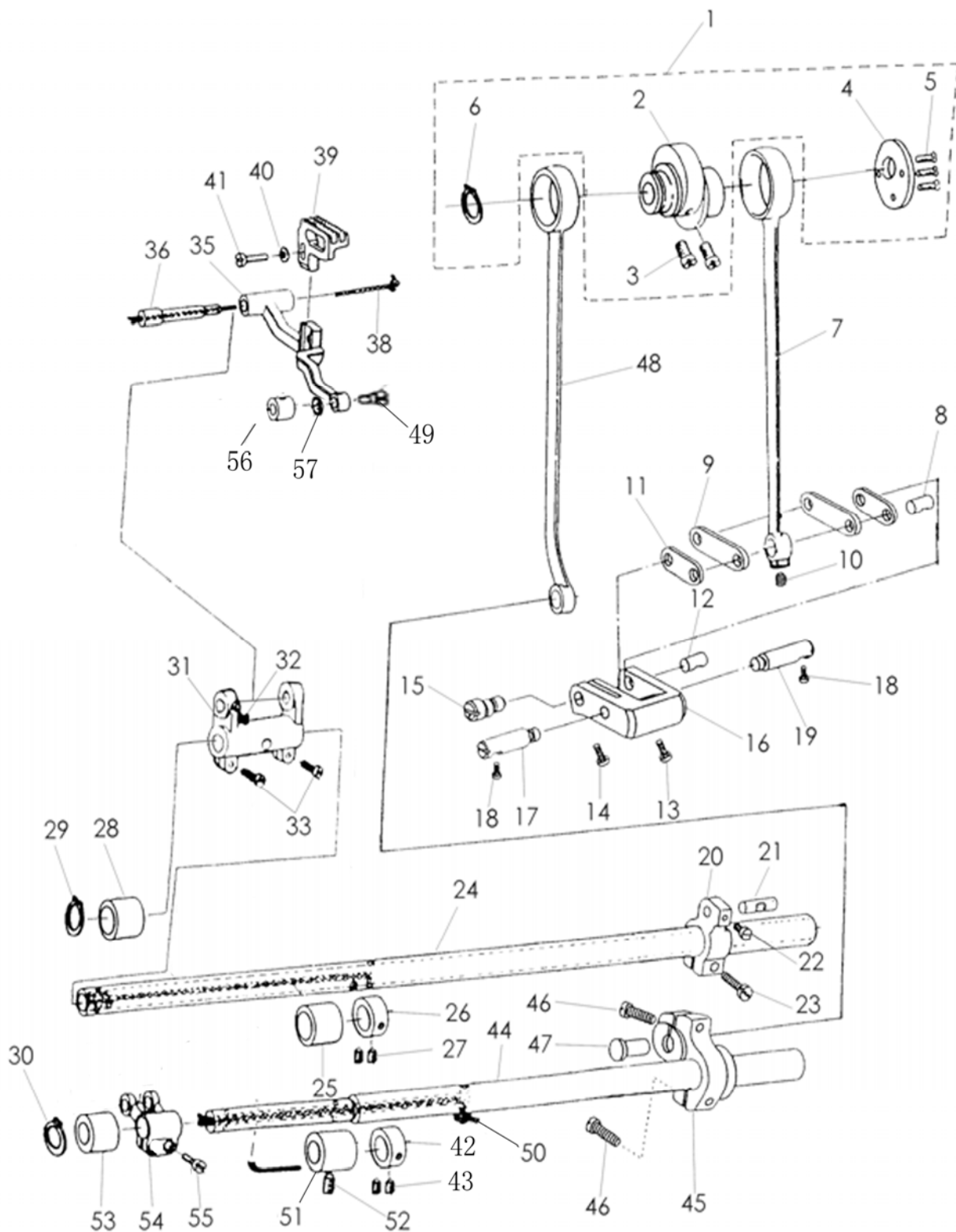
C. PRESSER FOOT MECHANISM



C. PRESSER FOOT MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
C01	22T7-004B3	Knee lifter rod	1	
C02	22T7-004B2	Hinged screw	2	
C03	22T7-005	Screw	1	
C04	72T7-003C	Knee lifter lever(right)	1	
C05	72T7-003C1	Knee lifter connecting rod	1	
C06	259H01-020P01	Presser bar bracket	1	
C07	72T3-005D1a3	Screw	1	
C08	22T7-005	Set screw	1	
C09	72T7-002B1-1	Tensin releasing cam	1	
C10	22T7-004B1a	Knee lifter lever(left)	1	
C11	72T7-013F	Presser foot complete	1	
C12	22T7-015	Set screw	1	
C13	82T1-001A1	Presser bar bushing	1	
C14	72T7-011	Presser bar	1	
C15	12H5-002B1	Presser bar lifter cam	1	
C16	72T7-008	O-ring	1	
C17	12H5-001A1	Presser bar lifter	1	
C18	72T1-017	Set screw	1	
C19	5S3-21	O-ring	1	
C20	20G13-010P01	Presser foot guard	1	
C21	22T7-013	Presser spring	1	
C22	22T7-004B2	Screw	1	
C23	22T7-012	Presser bar guide	1	
C24	72T7-006D1	Presser regulating thumb screw	1	
C25	22T7-014E2	Lock nut	1	

D. FEEDING AND FEED LIFTING MECHANISM



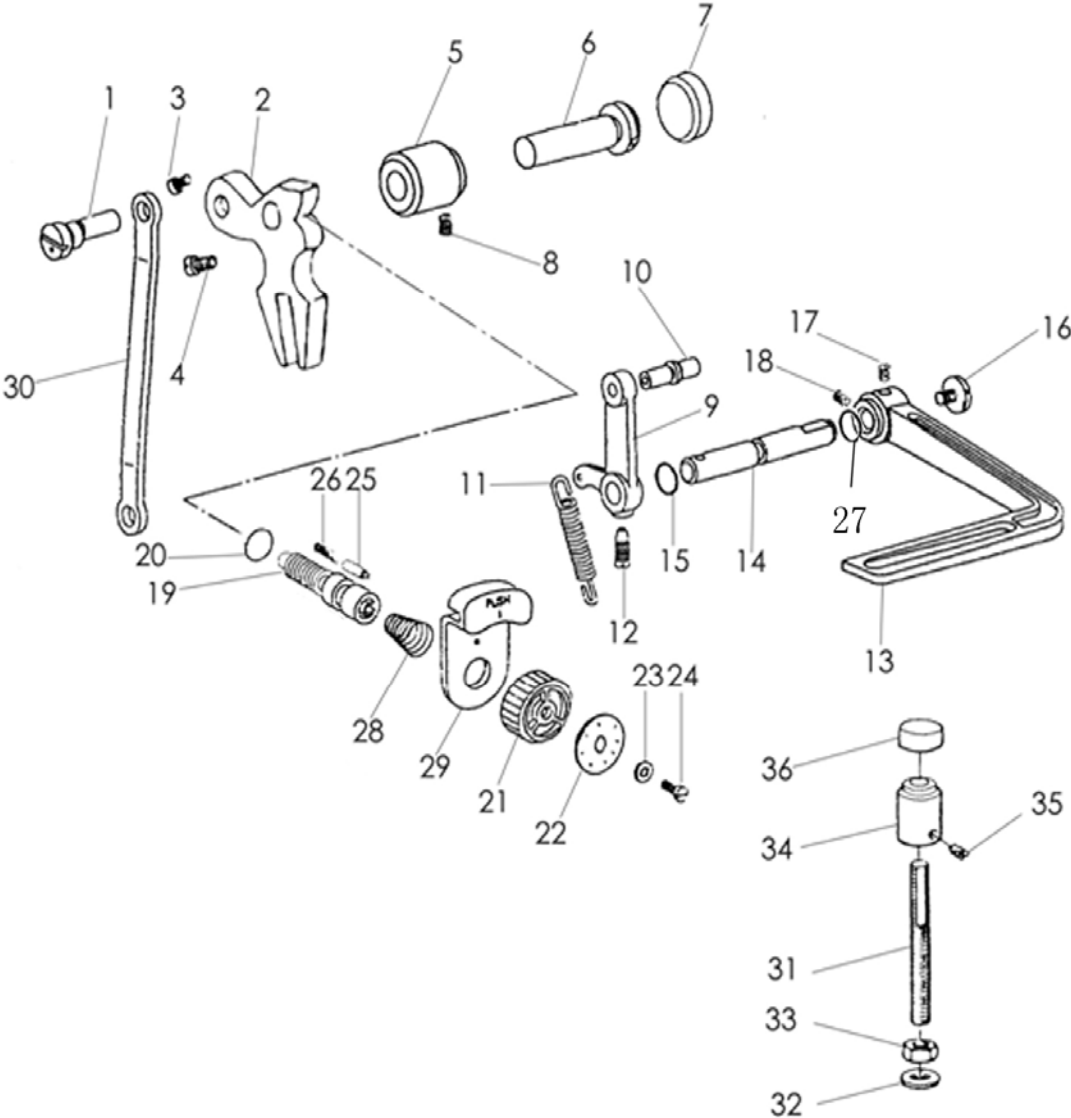
D. FEEDING AND FEED LIFTING MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
D01	57H02-014G01	Feed cam complete	1	
D02	82T2-003C1a1	Feed cam	1	
D03	22T2-002	Screw	2	
D04	82T2-003C1a2	Feed cam cover plate	1	
D05	82T2-003C1a3	Screw	3	
D06	22T3-009D1b	C-type retaining ring	1	
D07	82T2-003C1a5	Feed link	1	
D08	82T2-003C1a10-1	Link stud	1	
D09	82T2-003C1a9-2	Link(long)	2	
D10	82T2-003C1a6	Screw	1	
D11	82T2-003C1a9-1	Link(short)	2	
D12	82T2-003C1a10-2	Link stud	1	
D13	82T2-003C1a12	Screw	1	
D14	82T2-003C1a11	Screw	1	
D15	82T2-003C1a14	Eccentric shaft	1	
D16	82T2-003C1a15	Feed regulator crank	1	
D17	82T2-005	Position pin(left)	1	
D18	22T6-008D3	Screw	2	
D19	82T2-004	Position pin(right)	1	
D20	82T2-003C1a7	Feed rock shaft crank (right)	1	
D21	82T2-003C1a10	Hinge pin	1	
D22	82T2-003C1a8	Screw	1	
D23	82T2-003C1a6	Screw	1	
D24	7WF-004	Feed shaft	1	
D25	7WF2-003	Feed shaft bushing(center)	1	
D26	22T6-005B1	C-type retaining ring	1	
D27	22T3-002B2	Screw	2	
D28	7WF2-002	Feed shaft bushing(front)	1	
D29	GB/T894.1 15	C-type retaining ring	1	
D30	GB/T 894.1 15	C-type retaining ring	1	
D31	22T6-001A1a	Feed lifting rock shaft fork	1	
D32	22T2-019	Screw	1	
D33	72T6-001A6	Screw	2	
D35	5S4-02	Feed bar assay	1	
D36	5S-37P01	Pin	1	
D38	5S4-37P2	Oil braid	1	
D39	259H01-016	Feed dog	1	
D40	5S4-08	Washer	1	
D41	5S4-09	Screw	1	
D42	22T6-005B1	C-type retaining ring	1	
D43	22T3-002B2	Screw	2	
D44	5S4-39	Feed dog lifting shaft	1	
D45	82T10-002B	Feed dog lifting crank	1	

D. FEEDING AND FEED LIFTING MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
D46	22T6-001A1b	Screw	2	
D47	22T6-007	Hinge pin	1	
D48	22T3-009D1	Feed lifting rod	1	
D49	72T6-002B1b	Oil braid for feed bar rod	1	
D50	5S4-38	Oil braid	1	
D51	5S4-10	Feed dog lifting shaft bushing	1	
D52	22T2-002	Screw	1	
D53	5S4-10	Feed dog lifting shaft bushing	1	
D54	82T10-001A1a1	Feed dog lifting shaft crank(f	1	
D55	22T6-008D3	Screw	1	
D56	72T6-007D1a	Slide block	1	
D57	72T6-007D1b	Washer	1	

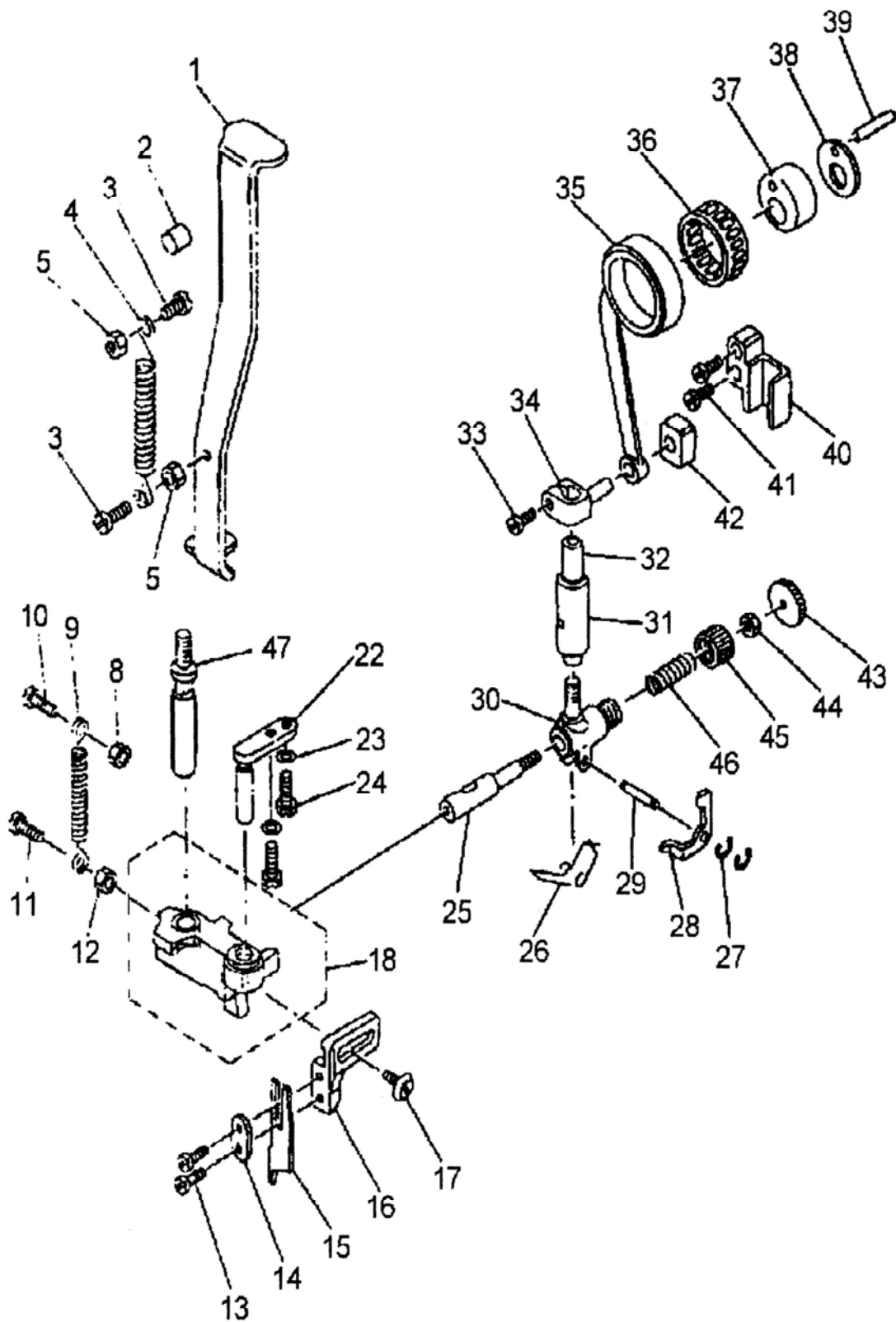
E. STITCH REGULATOR MECHANISM



E. STITCH REGULATOR MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
E01	12H4-001A2	Hinge pin	1	
E02	14H4-001A1	Feed regulator	1	
E03	22T6-008D3	Screw(long)	1	
E04	22T5-010D4	Screw(short)	1	
E05	82T1-001A5	Feed regulator bushing	1	
E06	22T5-004	Hinge pin	1	
E07	82T1-012	Rubber plug	1	
E08	22T2-002	Set screw	1	
E09	22T5-012E	Reverse feed crank	1	
E10	22T5-012E1a	Roller shaft assy	1	
E11	22T5-012E2	Spring for feed crank	1	
E12	22T5-013	Screw	1	
E13	72T5-006C1	Reverse feed lever	1	
E14	22T5-010D2a	Reverse feed lever shaft	1	
E15	22T5-010D2b	O-ring	1	
E16	22T5-010D3	Screw	1	
E17	22T5-001A4	Screw	1	
E18	22T5-001A4	Screw	1	
E19	82T5-017D1	Feed regulator screw bar	1	
E20	22T5-006C4	O-ring	1	
E21	82T5-017D2a1	Stitch pan	1	
E22	82T5-017D4	Dail	1	
E23	82T5-017D5	Bushing	1	
E24	82T5-017D6	Screw	1	
E25	82T5-003	Stop pin	1	
E26	22T5-009	Spring for stop pin	1	
E27	22T5-011	Washer	1	
E28	82T5-017D7	Spring	1	
E29	82T5-017D3	Keystoke	1	
E30	82T2-003C1a4	Connecting rod stud	1	
E31	5S4-32M3	Screw bar	1	
E32	5S4-34	Washer	1	
E33	5S4-33	Nut	1	
E34	5S4-32M2	Reverse feed block	1	
E35	21T3-003	Screw	1	
E36	5S4-32M1	Rubber mat	1	

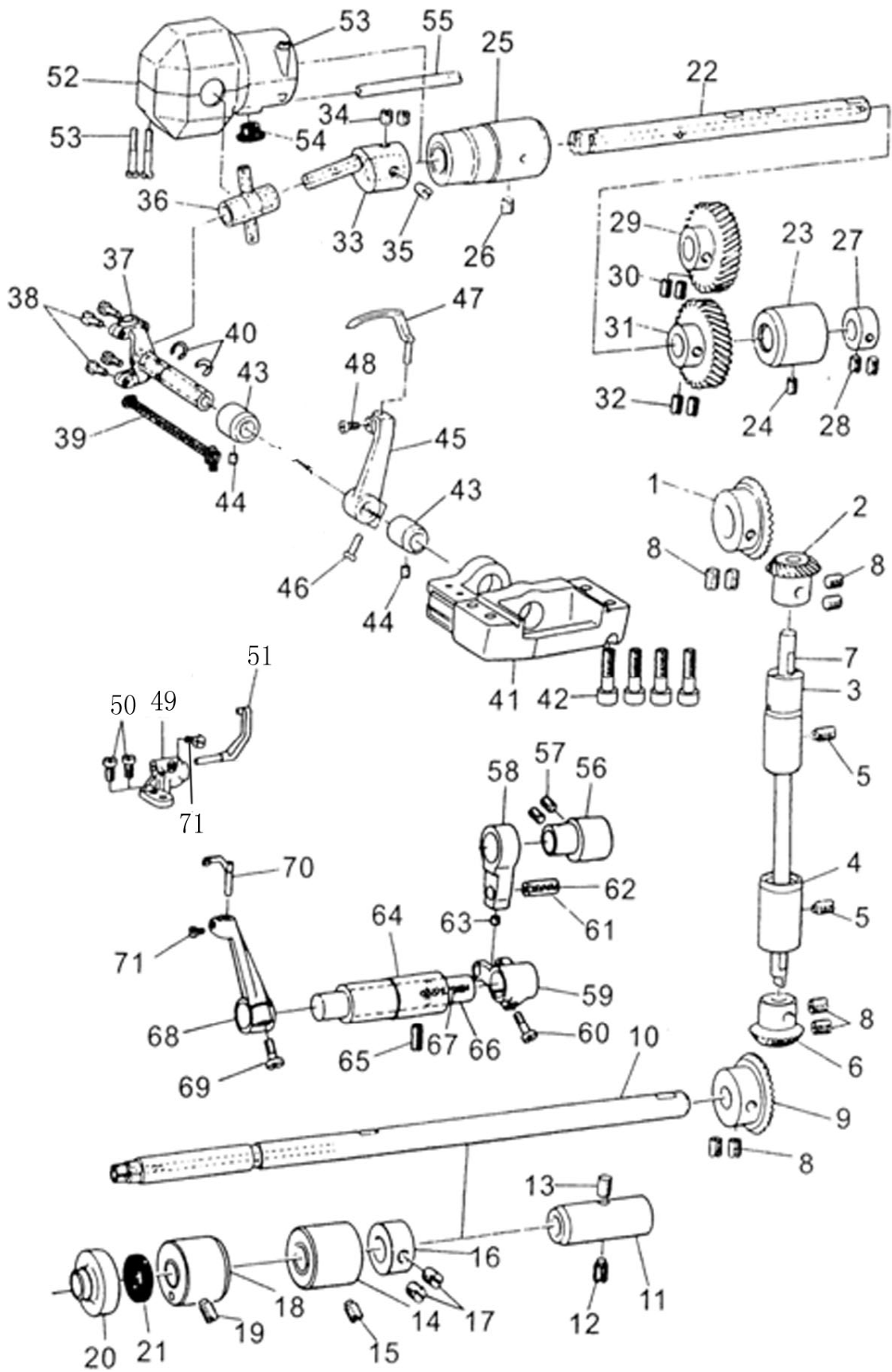
F. KNIFE MECHANISM



F. KNIFE MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
F01	57H05-001P01	Knife positioning plate	1	
F02	57H05-002P01	Felt	1	
F03	20H9-001C	Screw	2	
F04	57H05-003P01	Spring	1	
F05	57H05-031P01	Nut	2	
F08	22T9-001A10	Nut	1	
F09	57H05-004P01	Spring	1	
F10	22T5-001A4	Screw	1	
F11	22T4-015	Screw	1	
F12	57H05-026P01	Nut	1	
F13	22T2-017	Screw	2	
F14	57H05-006P01	Washer	1	
F15	57H05-007P01	Knife	1	
F16	57H05-008P01	Knife holder	1	
F17	57H05-030P01	Screw	1	
F18	57H05-009P01	Knife driving block Asm	1	
F22	57H05-010P01	Guide stud for knife driving	1	
F23	GB/T848 5	Washer	2	
F24	57H05-032P01	Screw	2	
F25	57H05-012P01	Knife driving rod clutch pin	1	
F26	57H05-013P01	Spring	1	
F27	GB/T896 1.5	Stop ring	2	
F28	57H05-014P01	Knife release lever	1	
F29	57H05-015P01	Pin	1	
F30	57H05-016P01	Knife driving rod clutch pin guide	1	
F31	57H05-017P01	Bushing	1	
F32	57H05-018P01	Knife driving stud	1	
F33	22T2-001A9	Screw	1	
F34	57H05-019P01	Knife driving stud connection	1	
F35	57H05-020P01	Knife driving rod	1	
F36	30H2-003B1a2	Knife needle bearing	1	
F37	57H05-021P01	Knife cam	1	
F38	57H05-022P01	Thrust plate	1	
F39	57H05-023P01	Pin	1	
F40	57H05-024P01	Slide block guide	1	
F41	22T2-019	Screw	2	
F42	22T2-020	Slide block	1	
F43	57H05-025P01	knob	1	
F44	57H05-026P01	Nut	1	
F45	57H05-027P01	Cap	1	
F46	57H05-028P01	Spring	1	
F47	57H05-029P01	Knife driving block stud	1	

G. LOOPER MECHANISM



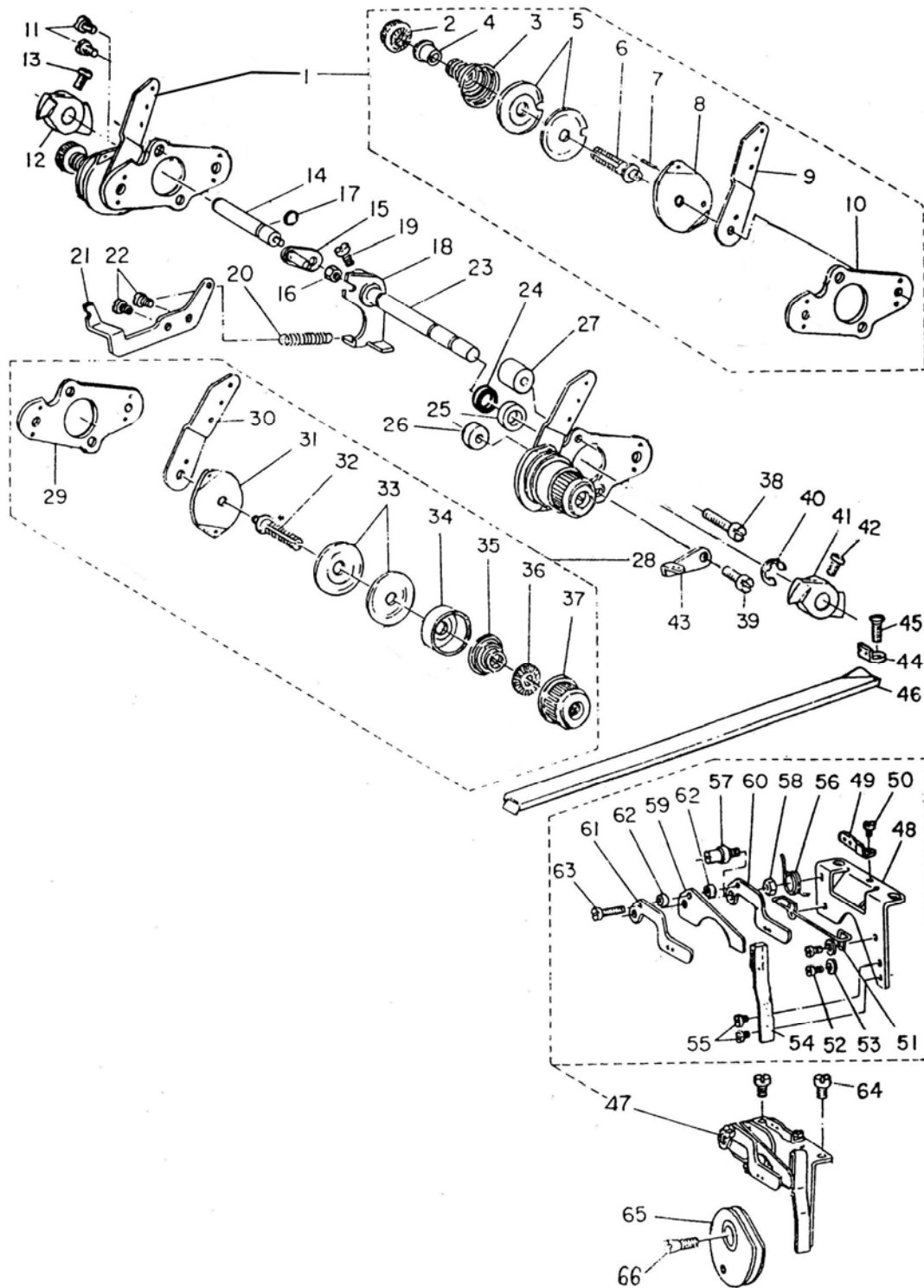
G. LOOPER MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
G01	22T3-010E2a1	Bevel gear for arm shaft	1	
G02	22T3-010E2a2	Bevel gear for vertical shaft(upper)	1	
G03	22T3-011	Vertical shaft bushing(upper)	1	
G04	22T3-011-1	Vertical shaft bushing(lower)	1	
G05	22T2-002	Screw	2	
G06	22T3-010E2a1	Bevel gear for vertical shaft(lower)	1	
G07	259H01-019P01	Vertical shaft	1	
G08	22T2-005B3	Screw	8	
G09	22T3-010E2a1	Bevel gear for hook shaft	1	
G10	5S3-34	Hook shaft	1	
G11	5S3-26	Hook shaft bushing(back)	1	
G12	22T2-002	Screw	1	
G13	5S3-26	Felt	1	
G14	5S3-30	Hook shaft bushing(back)	1	
G15	22T2-002	Screw	1	
G16	GR1848	Hook shaft collar	1	
G17	22T2-005B-3	Screw	2	
G18	5S3-31	Hook shaft bushing(front)	1	
G19	22T2-002	Screw	1	
G20	5S3-33	Oil seal bushing	1	
G21	5S3-32	Oil seal	1	
G22	5S5-11	Looper shaft	1	
G23	5S5-13	Looper shaft bushing(back)	1	
G24	61-04-01/B9	Screw	1	
G25	5S5-12	Looper shaft bushing(front)	1	
G26	61-04-01/B9	Screw	1	
G27	5S5-14	Looper shaft collar	1	
G28	6A6-08A	Screw	2	
G29	5S5-20	Initiative looper gear	1	
G30	6A6-08A	Screw	2	
G31	5S5-19	Passivity looper gear	1	
G32	6A6-08A	Screw	2	
G33	5S5-09	Lopper crank	1	
G34	6A6-08A	Screw	2	
G35	5S5-10	Adjusting screw	1	
G36	5S5-08	Looper cross joint	1	
G37	5S5-03A	Looper swing shaft	1	
G38	6A3-23	Screw	1	
G39	∅40×140	Oil braid	1	
G40	GB894-2-86	Looper swing shaft collar	2	
G41	5S5-01	Looper bracket	1	
G42	5S5-02	Screw	4	
G43	5S5-04	Lopper swing shaft bushing	2	
G44	61-04-01/B4/Z1	Screw	2	
G45	5S5-28	Looper crank(left)	1	

G. LOOPER MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
G46	J0.0.71	Screw	1	
G47	5S5-30	Looper(left)	1	
G48	61-04-01/B3	Screw	2	
G49	5S5-27	Looper guard rod bracket	1	
G50	22T2-190	Screw	2	
G51	5S5-25	Looper guard rod(left)	1	
G52	5S5-05B	Looper crank cover	1	
G53	5S5-05B2	Screw	3	
G54	22T1-003C4	Plug	1	
G55	∅3/∅5×82	Oil drain pipe	1	
G56	5S5-18	Looper guard cam	1	
G57	6A6-08A	Screw	2	
G58	5S5-17	Looper guard rod	1	
G59	5S5-15	Looper guard furcation crank	1	
G60	22T6-008D3	Screw	1	
G61	5S5-16	Looper guard crank pin	1	
G62	∅3×35	Oil braid	1	
G63	61-04-01/B4/Z1	Screw	1	
G64	5S5-21	Looper guard shaft bushing	1	
G65	61-04-01/B3	Screw	1	
G66	5S5-22	Looper guard shaft	1	
G67	∅4×200	Oil braid	1	
G68	5S5-23	Looper guard crank	1	
G69	22T6-001A16	Screw	1	
G70	5S5-24	Looper guard swing rod	1	
G71	61-04-01/B3	Screw	2	

H. THREAD TENSION MECHANISM



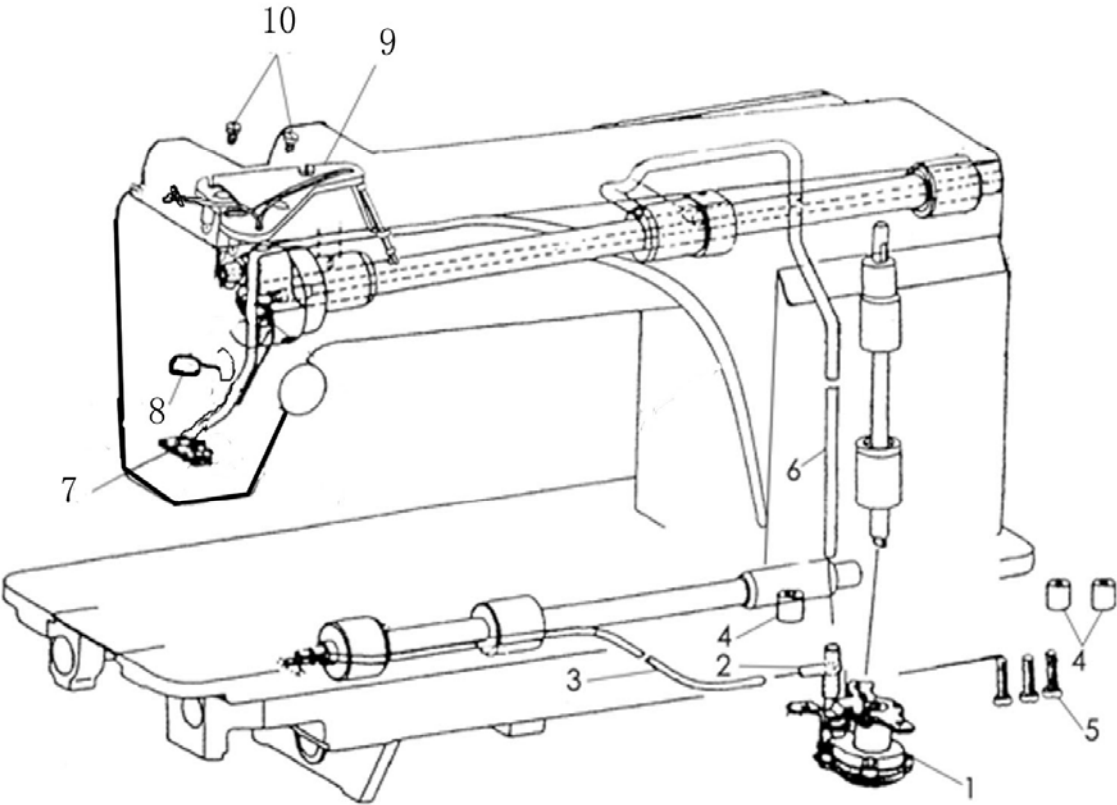
H. THREAD TENSION MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
H01	5S6-01A-1	Rear thread tension assy	1	
H02	5S6-01A8	Bobbin thread tension nut	2	
H03	5S6-01A6	Bobbin thread tension spring	2	
H04	5S6-01A7	Bobbin thread tension stop ring	2	
H05	5S6-01A5	Bobbin thread tension plate	4	
H06	5S6-01A1	Thread tension nut	2	
H07	GB879-86	Bobbin thread tension stop pin	2	∅2×10
H08	5S6-01A4a1	Bobbin thread guide plate(double side)	2	
H09	5S6-01A3	Bobbin thread guide plate(single side)	2	
H10	5S6-01A2-1	Installation plate	1	
H11	36T5-008E5	Screw	2	
H12	5S6-02-1	Bobbin thread releasing claw	1	
H13	6A3-18	Screw	1	
H14	5S6-03B1	Bobbin thread releasing shaft	1	
H15	5S6-03B2, B4	Bobbin thread releasing shaft crank	1	
H16	5S6-03B3	Nut	1	
H17	GB3452.1-82	O-type ring	1	7.1×1.8
H18	5S6-04C2	Needle thread releasing crank	1	
H19	36T-008E5H01	Screw	1	
H20	5S6-15	Spring	1	
H21	5S6-14	Bracket	1	
H22	22T1-004	Screw	2	
H23	5S6-05	Thread releasing shaft	1	
H24	GB3452.1-82	Oil seal	1	10×1.8
H25	5S6-10	Thread releasing shaft ring	1	
H26	5S6-06	Thread tension regulator mat(upper)	1	
H27	5S6-08	Thread tension regulator mat(lower)	1	
H28	5S6-13D-1	Front thread tension assy	1	
H29	5S6-01A2-1	Installation plate	1	
H30	5S6-13D1	Needle thread guide plate(single side)	2	
H31	5S6-13D2	Needle thread guide plate(double side)	2	
H32	5S6-01A1	Thread tension screw	2	
H33	5S6-13D3	Needle thread tension plate	4	
H34	5S6-13D4	Needle thread tension bushing	2	
H35	5S6-13D5	Needle thread tension spring	2	
H36	5S6-13D6	Needle thread stop plate	2	
H37	5S6-13D7a	Needle thread tension nut	2	
H38	5S6-09	Screw	1	
H39	5S6-07	Screw	1	
H40	5S6-11	Thread releasing shaft collar	1	
H41	5S6-12-1	Needle thread releasing claw	1	
H42	6A3-18	Screw	1	
H43	5S1-021	Thread guide hook	1	
H44	5S6-16	Bobbin thread guide hook	1	
H45	5S6-17	Screw	1	

H. THREAD TENSION MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
H46	5S6-18	Bobbin thread guide tube	1	
H47	5S6-21F	Thread guide hook	1	
H48	5S6-21F9	Thread guide bracket	1	
H49	5S6-21F7	Bobbin double-thread guide hook	1	
H50	5S6-21F8	Screw	1	
H51	5S6-21F10	Bobbin thread take off steel wire	1	
H52	6A6-14	Screw	2	
H53	GB97.2-85	Washer	2	
H54	5S6-21F11	Bobbin thread guide stop spring	1	
H55	5S6-21F8	Screw	2	
H56	5S6-21F6	Bobbin thread guide spring	1	
H57	5S6-21F3	Screw	1	
H58	5S6-03F3	Nut	1	
H59	5S6-21F4	Thread slippage claw	1	
H60	5S6-21F5	Thread guide hook(right)	1	
H61	5S6-21F1	Thread guide hook(left)	1	
H62	5S6-21F1	Thread guide loop	2	
H63	22T8-004	Screw	1	
H64	N3-7-27	Screw	2	
H65	5S6-20E	Bobbin thread take-up cam	1	
H66	5S6-19	Set screw	1	

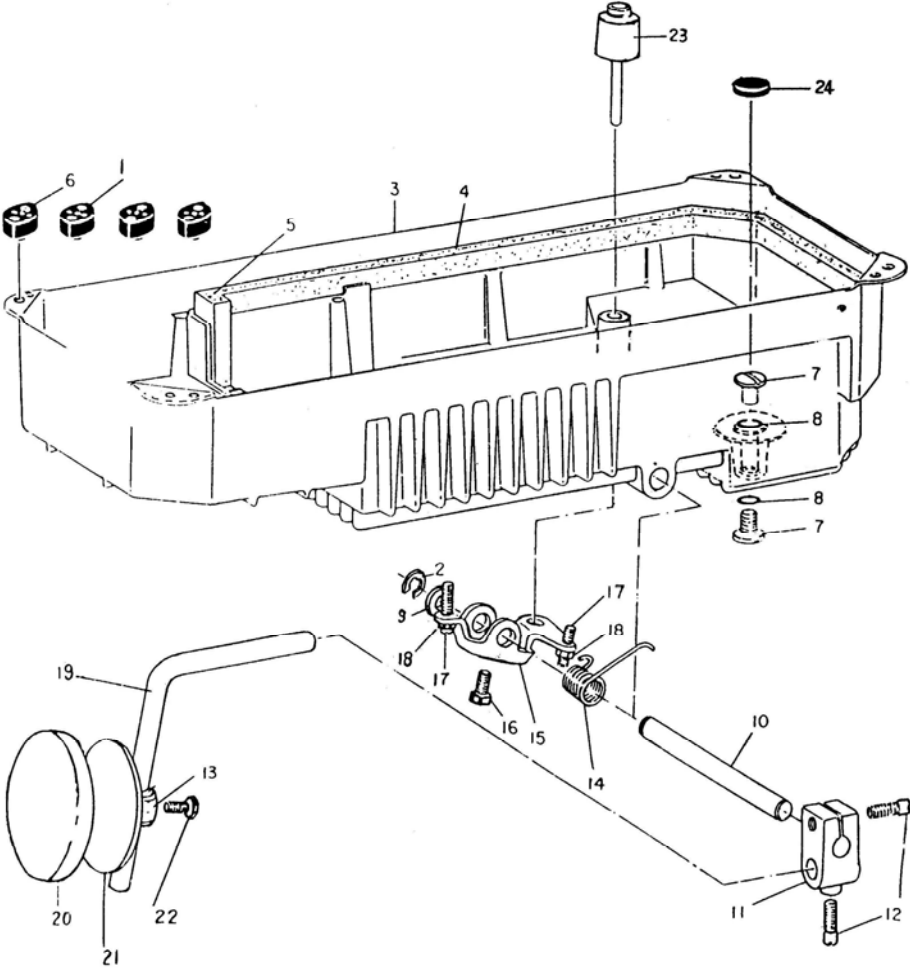
I. LUBRICATION MECHANSISM



I. LUBRICATION MECHAINS

Fig. No.	Part No.	Description	Pcs.	Notes
I01	GR1899/21-1	Oil pump complete	1	
I02	GR1903	Rubber joint for oil supply pi	1	
I03	GR1909	Oil pipe for hook shaft	1	
I04	GR1901	Washer for oil pump	3	
I05	GS0109	Screw	3	
I06	GR1902	Oil pipe for arm shaft	1	
I07	30H11-003A	Oil return tube complete	1	
I08	30H11-002	Oil filter holder	1	
I09	57H07-002G01	Oil braid fitting plate	1	
I10	22T7-015	Screw	2	

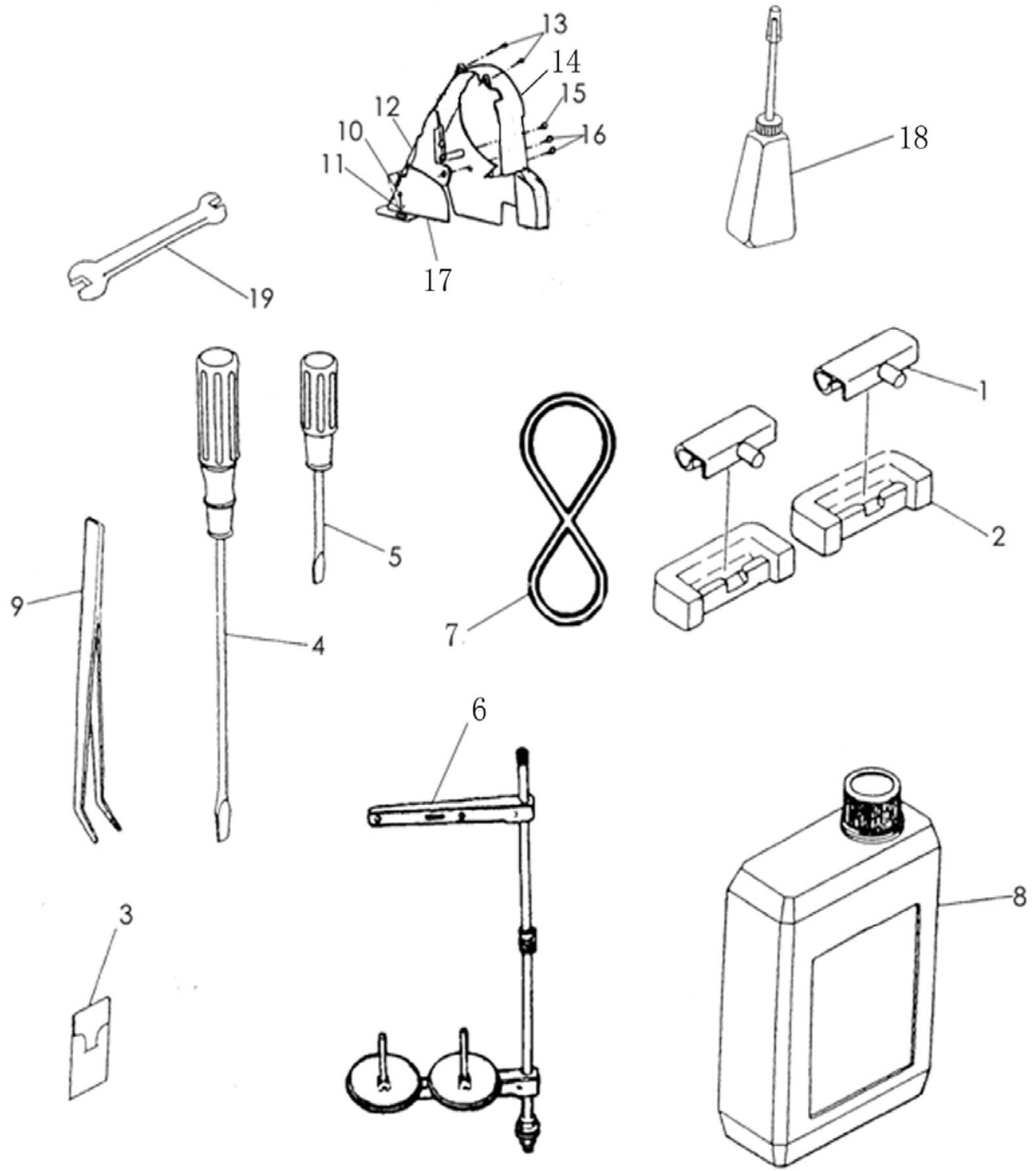
J. OIL PAN AND KNEE CONTROL MECHANISM



J. OIL PAN AND KNEE CONTROL MECHANISM

Fig. No.	Part No.	Description	Pcs.	Notes
J01	22T9-010	Rubber cushion(big)	2	
J02	GB894-76	E ring	1	
J03	GR1911	Oil pan	1	
J04	5S8-2	Gasket for oil pan (A)	2	
J05	5S8-7	Gasket for oil pan (B)	1	
J06	22T9-009	Rubber cushion(small)	2	
J07	5S8-5	Screw	2	
J08	GB3452.1-82	Oil drain screw washer	2	
J09	GB95-85	Washer10	1	
J10	5S8-3	Shaft for knee lifter	1	
J11	22T9-003B3	Joint for knee lifter	1	
J12	22T9-003B4	Screw	2	
J13	22T9-003B6	Joint for knee lifter rod	1	
J14	5S8-6	Spring	1	
J15	22T9-001A8	Knee lifter stop bracket	1	
J16	36T7-008D2	Screw	1	
J17	22T9-001A9	Adjustment bolt	2	
J18	22T9-001A10	Lock nut	2	
J19	22T9-003B2	Knee lifter rod	1	
J20	22T9-003B8	Pad for knee lifter plate	1	
J21	22T9-003B5	Knee lifter plate	1	
J22	22T9-003B7	Screw	1	
J23	22T9-003B1	Knee lifter lifting rod	1	
J24	5S8-4	Oil magnet	1	

K. ACCESSORIES



K. ACCESSORIES

Fig. No.	Part No.	Description	Pcs.	Notes
K01	GR1590/2	Bed hinge	2	
K02	GR1593	Rubber socket for hinge	2	
K03	JZDB1000G1403	Needle	3	
K04	GR1601	Screw drive(large)	1	
K05	GR1602	Screw drive(middle)	1	
K06	54T9-003	Thread stand	1	
K07	GB/T 11544 M42	Belt	1	
K08	GR1604/3	Oil container	1	
K09	GR558/2	Tweezer	1	
K10	GB/T 99 4.5×20	Screw	2	
K11	72T9-023	Washer	2	
K12	72T9-040	Belt cover(upper)	1	
K13	72T1-017	Screw	2	
K14	72T9-002B1	Belt cover(lower)	1	
K15	72T9-025	Screw	1	
K16	72T9-028	Screw	2	
K17	72T9-002B2	Belt cover complete	1	
K18	GR1799	Oiler	1	
K19	72T9-022	Double head wrench	1	

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The description covered in this manual is subject to change for improvement of the commodity without notice

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