

ZJ2628

**CYLINDER BED COMPOUND FEED LOCKSTITCH
SEWING MACHINE**

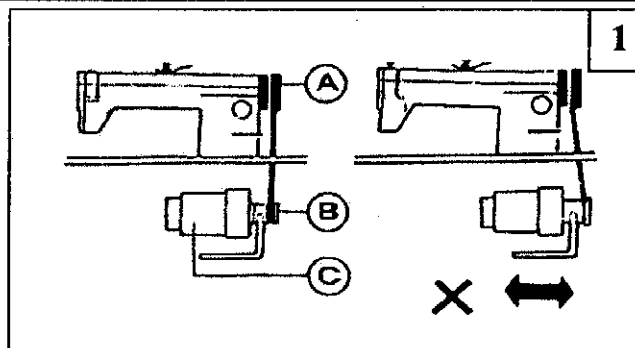
OPERATING INSTRUCTIONS

1. MAIN SPECIFICATION

Sewing speed	2000s.p.m.	Needle	DP×17 18#-22#
Stitch length	0 – 5mm	Lubrication	Automatic
Needle bar stroke	33.2mm	Reverse feeding mechanism	Have
Presser foot lift	7mm (Manual) 14mm (Knee)		

2. INSTALL THE MOTOR (Fig.1)

Align Motor Pulley Groove (B) and Balance Wheel Groove (A) by moving the Motor (C) leftward or rightward.



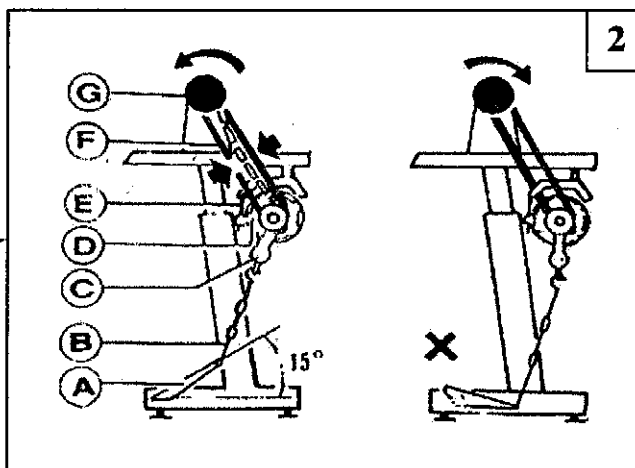
3. CONNECT THE CLUTCH LEVER WITH THE PEDAL (Fig.2)

1. The optimum tilt angle of Pedal (A) is approximately 15 degree.

2. Adjust Clutch Cover (D) so that Clutch Lever (C) and Draw Bar (B) run the line.

3. The balance wheel should rotate counter-clockwise when viewed from the outside of Balance Wheel (G). The direction of the motor pulley rotation can be reversed by reversing (turning over 180 degree) the power plug of the motor.

4. Adjust the tension of V-belt (F) by turning Motor Vertical Position Screw (E). The proper tension of the V-belt is a slack of 10-20mm when the belt is depressed at the center of the belt by finger.



4. PREPARATION AND LUBRICATION (Fig.3)

1) Cleaning the machine

Before leaving the factory, the machine parts are coated with rust-preventive grease, which may be hardened and contaminated by dust during storage and shipment. This grease must be removed with gasoline.

2) Examination

Although each machine is confirmed strictly and test before leaving the factory, the machine parts may be loose or deformed after long distance transportation with jolt. A thorough examination must be performed after cleaning the machine. Turn the balance wheel to see if there is running obstruction, parts collision, uneven resistance or abnormal noise. If these exist, adjustment must be made accordingly before run in operation.

3) Oiling

(1) Required amount of oil

Line (A) on the oil reservoir: Max. oil level

Line (B) on the oil reservoir: Min. oil level

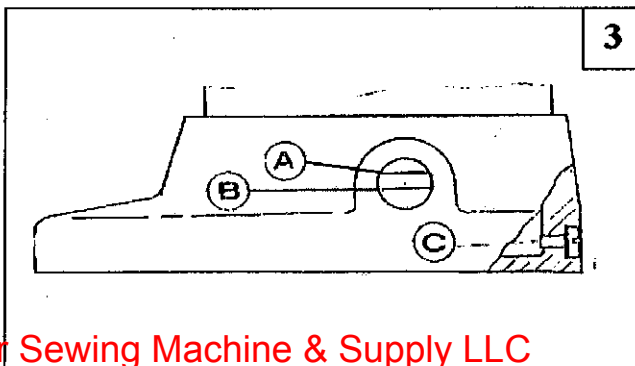
If oil level goes down under Line (B), oil cannot be distributed to each part of the machine, thus causing the parts a seizure.

(2) Replenishing

Always use only No.18 special machine oil for high speed sewing. Be sure to replenish oil to Line (A) before starting operation.

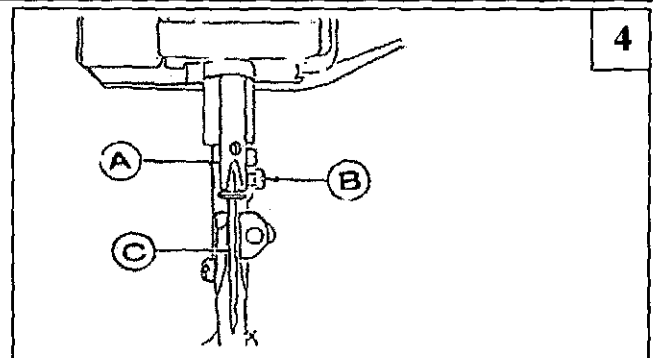
(3) Replacing oil

To replace oil, remove Screw (C) to drain oil. After completely draining off oil, clean the oil reservoir and securely tighten Screw (C), then fill the reservoir with fresh oil



5. REPLACE NEEDLE (Fig.4)

Turn the balance wheel to lift needle bar to the upper end of its stroke. Loosen Needle Clamp Screw (B) while keeping the long groove of the needle(C) leftward, fully insert the needle shank up to the bottom of the needle socket. Then tighten Needle Clamp Screw (B).



6.RUN IN OPERATION (Fig.5)

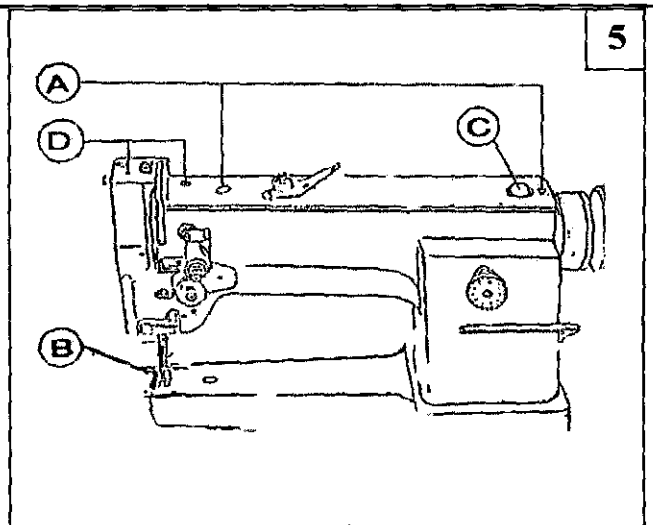
Run-in operation is required for a new sewing machine, or a sewing machine left out of operation for a considerable length of time.

1) Remove Rubber Plugs (A) on the top of the arm and replenish sufficient amount of oil, and also to the red oil hole (D).

2) Lift Presser Foot (B).

3) Run the machine at a low speed (1000-1500spm) to check oil distributing condition through Oil Check Window (C).

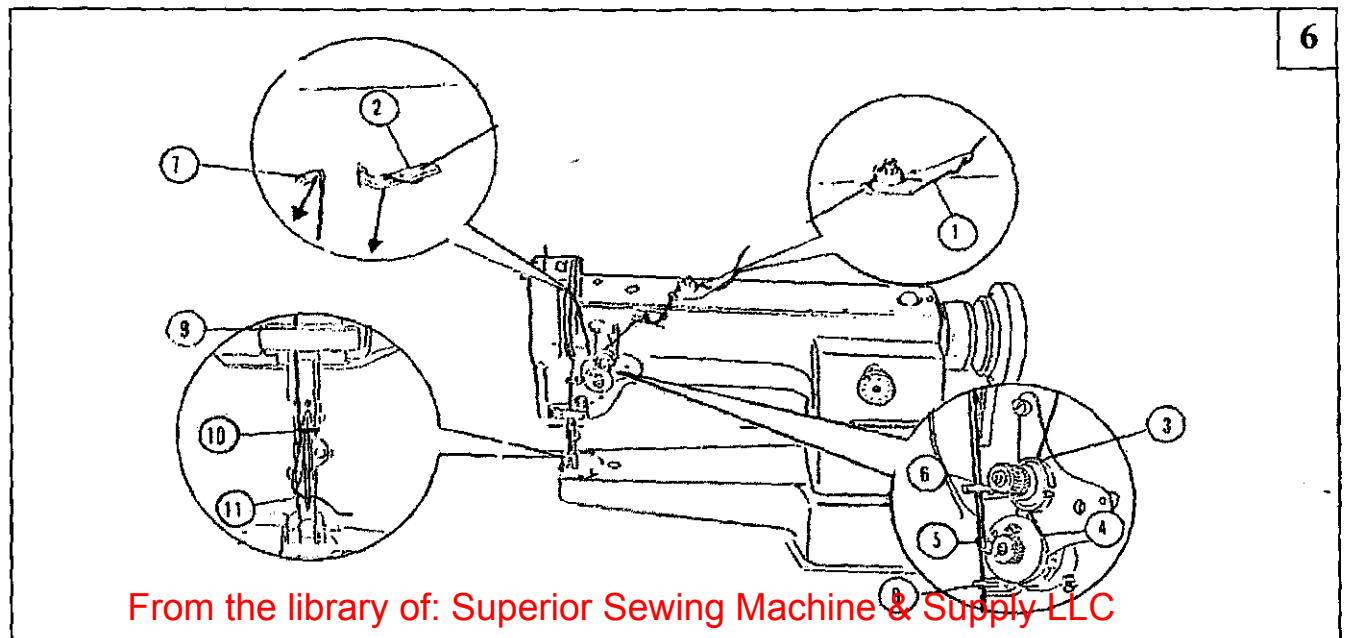
4) Perform run-in operation at 1000-1500spm for 30 minutes. After a lapse of one month of service during which the working speed is increased gradually and the machine runs sufficiently well, the high speed 2000spm can be adopted according to the nature of the work.



7. THREADING (Fig.6)

To thread the needle thread, raise needle bar to the upper end of its stroke, lead the thread from spool and perform threading as shown in Fig.6. To draw the bobbin thread, hold the end of the needle thread and turn the balance wheel to lower the needle bar and

then to lift it to its highest position. Pull the needle thread and the bobbin thread is drawn up. Put the ends of needle thread and bobbin thread frontward under presser foot.



8. WINDING ADJUSTMENT (Fig.7)

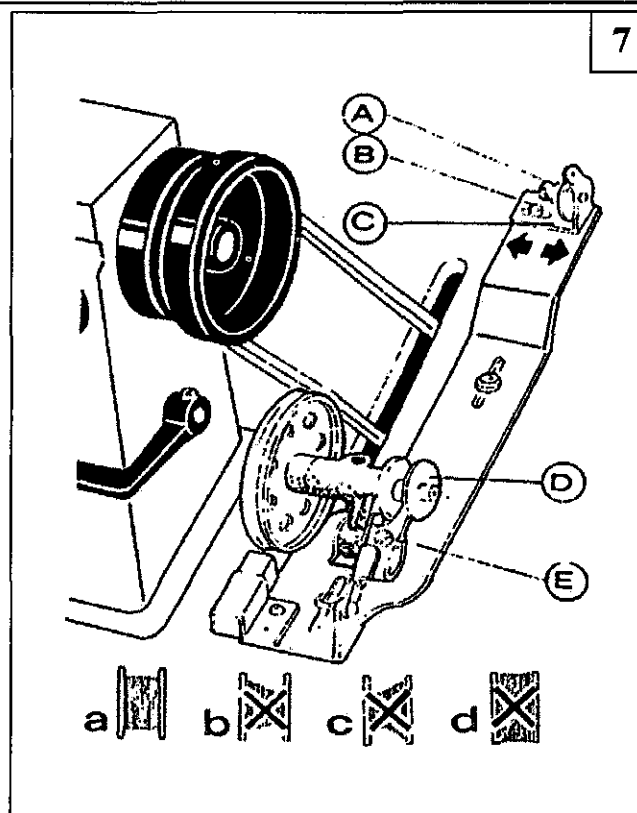
1) The wound bobbin thread should be neat and tight, if not, adjust the winding tension by turning Tension Stud Nut (A) of bobbin winder tension bracket.

Note: nylon or polyester thread should be wound with little tension, otherwise, Bobbin (D) might break or deform.

2) When the wound thread layer does not present a cylindrical shape as shown in Fig.7 (a), loosen Set Screw (B) of bobbin winder tension bracket and slide Bracket (C) leftward or rightward. If thread is wound as shown in Fig.7 (b), move the bracket rightward, but if thread is wound as shown in Fig.7 (c), move the bracket leftward.

After adequately positioning the bracket, tighten Set Screw (B).

3) Do not overfill the bobbin. The optimum length of thread will fill about 80% of bobbin capacity. This can be adjusted by adjusting Screw (E) of bobbin winder stop latch.

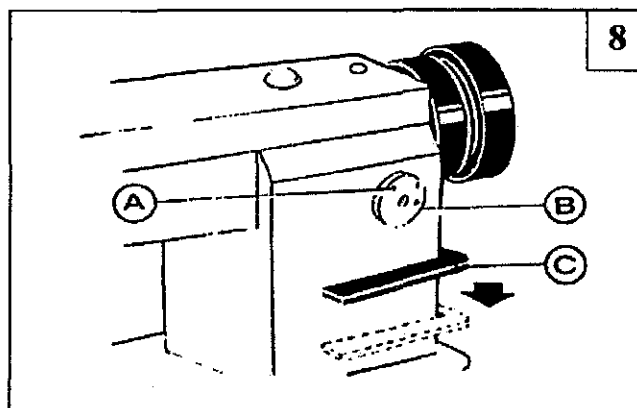


9. SET STITCH LENGTH AND REVERSE FEEDING (Fig.8)

1) Stitch length can be set by turning Dial (A).

2) The figures on face (B) of dial show stitch length in mm.

3) Reverse feeding starts when Reverse Feed Lever (C) is depressed, and the machine will feed forward again if Reverse Feed Lever (C) is released.



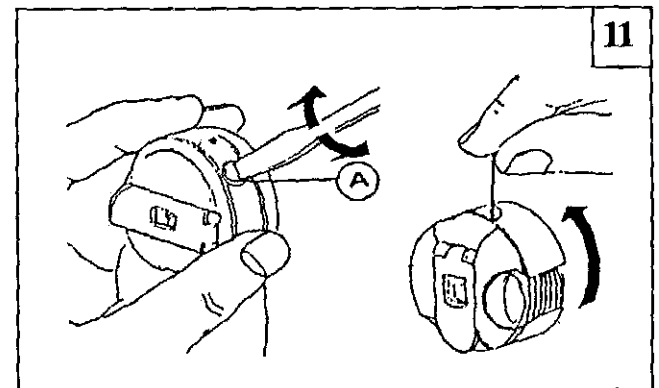
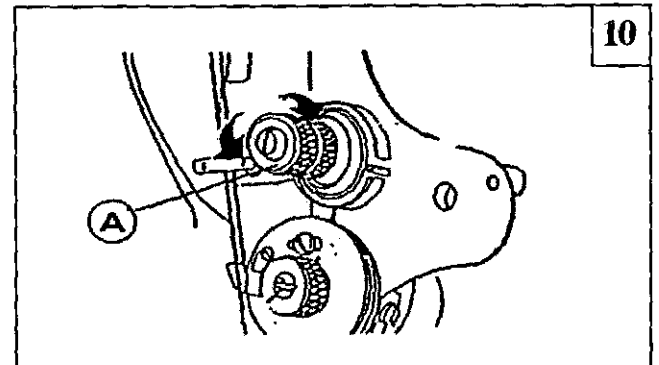
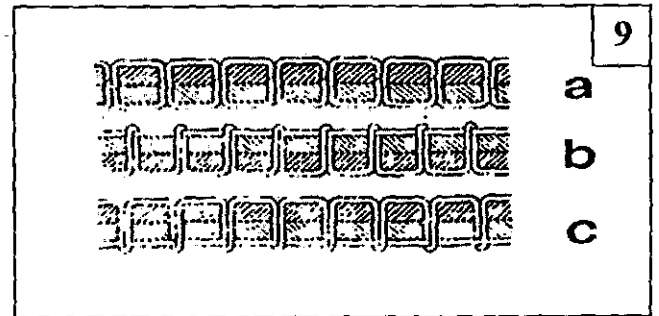
10. ADJUST THREAD TENSION (Fig.9,10,11)

Generally, the thread tension is to be adjusted according to the sewing materials and sewing conditions.

Fig.9 shows different stitch forms. Normal stitch form should be as shown in Fig.9 (a). When abnormal stitches cause puckering and thread break-age, the tension of needle thread and bobbin thread must be adjusted accordingly.

In case needle thread tension is too strong or bobbin thread tension is too weak, as shown in Fig.9 (b), turn the thumb nut counterclockwise to decrease the needle thread tension, or tighten the tension spring regulating screw of bobbin case to increase the bobbin thread tension (See Fig. 10,11)

In case needle thread tension is too weak or bobbin thread tension is too strong, as shown in Fig.9 (c), turn the thumb nut clockwise to increase the needle thread tension, or loosen the tension spring regulating screw of bobbin case to decrease the bobbin thread tension.



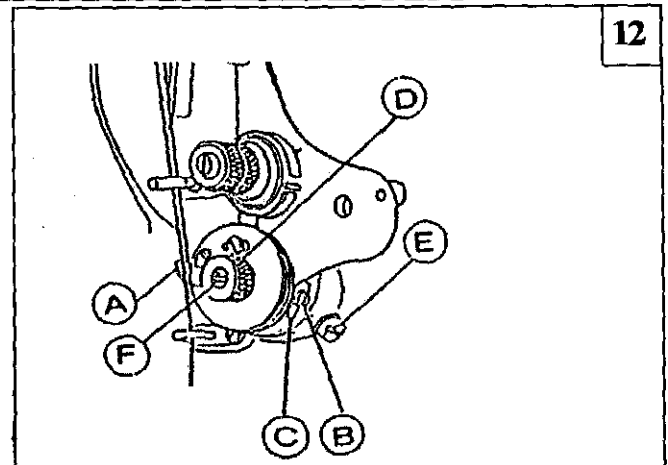
11. ADJUST THREAD TAKE-UP SPRING (Fig.12)

1. Adjustment of the thread take-up spring stroke

Loosen the stopper screw (B) and move the regulating ring (C) leftwards to decrease the stroke of the thread take-up spring, or move the regulating ring (C) rightwards to increase the stroke. After the adjustment, tighten the screw (B).

2. Adjustment of the thread take-up spring tension

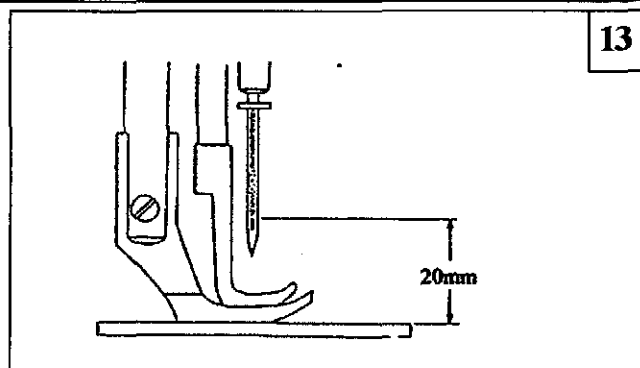
Loosen the nut (D) and screw (E) and turn the regulating screw (F) clockwise to decrease the tension of the thread take-up spring, or turn the regulating screw (F) counterclockwise to increase the tension. Then tighten the nut (D) and the screw (E).



12. TIME NEEDLE MOTION TO HOOK MOTION (Fig.13,14)

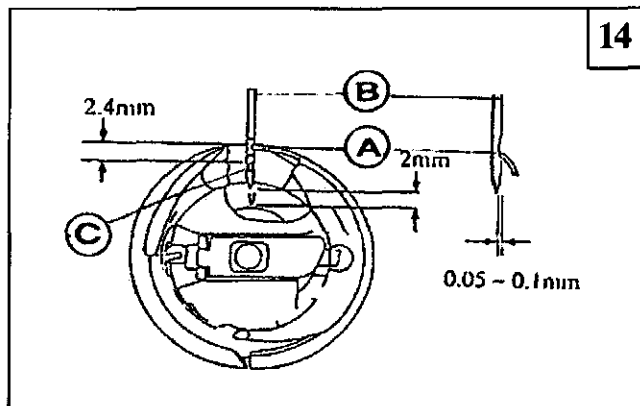
1. Adjusting the height of the needle bar (Fig. 13)

When the needle bar is at its highest point, normally the measurement between the surface of the needle plate and the upper end of the needle eye is 20mm.



2. Time needle motion to hook motion

Before adjustment, set stitch length to minimum, then turn the balance wheel toward you until the needle bar reaches its lowest point. Continue turning and allow the needle bar to raise about 2mm while on its upward stroke. With needle bar in this position, the hook point (A) should be at the center of the needle (B), and normally the measurement between the hook point and the upper end of the needle eye (C) should be 2-2.4mm, further the clearance between the hook point and the needle hollow should be about 0.05 to 0.1mm.



13. REPLACE ROTATING HOOK (Fig.15)

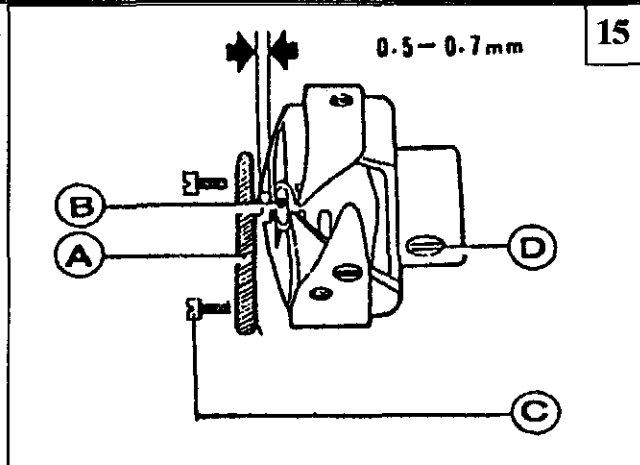
1) Lift needle bar to the highest position of its stroke.

2) Remove the throat plate and feed dog, take down needle and bobbin case

3) Loosen Screw (C) of hook positioner and take down Hook Positioner (A).

4) Loosen Screw (D) of rotating hook, then take down the rotating hook

5) Installing the hook can be done in reverse sequence. Note that Needle (B) and the convex surface of Hook Positioner (A) should align with a clearance of 0.5-0.7mm between them.



14. ADJUST PRESSER FOOT (Fig.16,17)

1. Lift adjustment of presser foot (Fig.16)

The normal height of the presser foot (A) should be 8mm, yet it can be adjusted, if necessary, according to actual requirement. Loosen the pressure regulating screw (C) and lift the presser bar lifter to raise the presser foot, loosen the screw (D) and move presser bar upwards and downwards to change the lift of the presser foot.

NOTE: The changeable lift of the presser foot (A) will result in the alternate movement height of the presser foot (A) and the walking foot (B), therefore, adjustment must be made to it accordingly. See procedure 3 stated below for proper way.

2. Pressure adjustment of the presser foot (A)(Fig.16)

Turn pressure regulating screw (C) clockwise to increase the pressure of the presser foot (A), and counterclockwise to decrease it if you desire.

3. Adjustment of the alternate vibrating height of the presser foot (A) and the walking foot (B) (Fig.16)

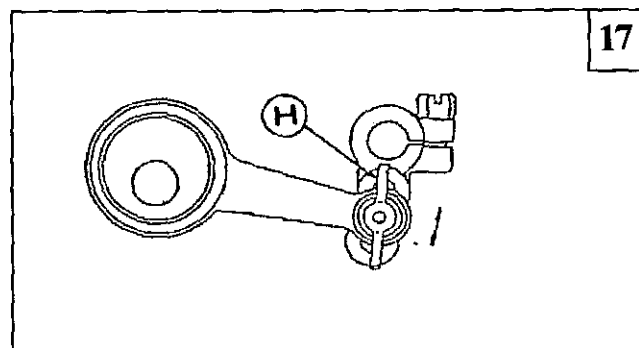
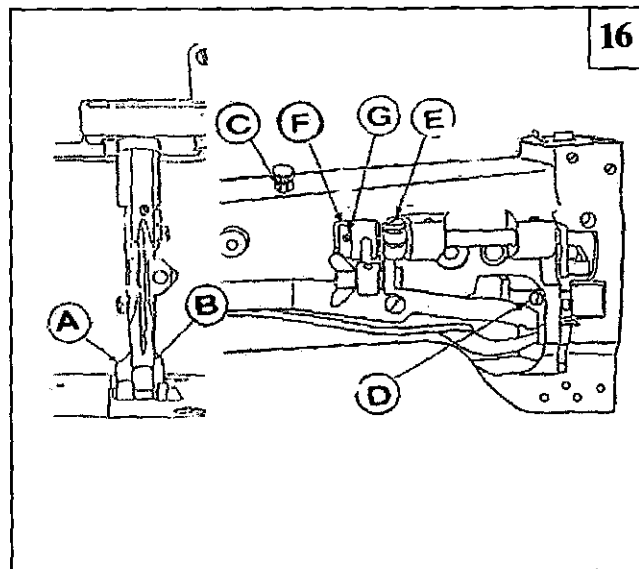
The presser foot (A) and the walking foot (B) vibrate alternately with equal height when machine is in operation, but it can be adjusted according to actual requirements. To increase vibrating height of the walking foot (B) and decrease vibrating height of the presser foot (A), adjust as follows: Down the presser bar lifter and turn balance wheel until the presser foot (A) is slightly separate from the needle plate, loosen screw (E) and depress the presser foot (A) to reach needle plate and then tighten the screw (E). To decrease vibrating height of the walking foot (B) and increase vibrating height of the presser foot (A): Turn balance wheel until the walking foot (B) is slightly separate from the needle plate, loosen screw (E) and depress the walking foot (B) to reach needle plate and then tighten the screw (E).

4. Movement height adjustment of presser foot and walking foot (Fig17)

The thickness of the material sewn should control the height of the lift of the presser foot and walking foot. The lift should be just enough for clearance of the material. To adjust, loosen the nut (H) move the crank rod upwards to increase the up and down movement, and downwards to decrease it, then tighten nut (H).

5. Time walking foot (B) to needle (Fig16)

This is the normal timing when turn the balance wheel toward you, after lowering the presser bar lifter, the walking foot (B) should reach the feeder earlier than the needle eye comes to, and when the needle raises, the walking foot (B) should leave the feeder after the needle eye has left the feeder. This is due the reason that the walking foot (B) must tightly hold the goods while the needle is passing the goods for avoiding irregular stitches. To adjust this, loosen the two screws (G) and adjust the rotating position of the cam (F) faster or slower as may be desired, and tighten the screws (G).

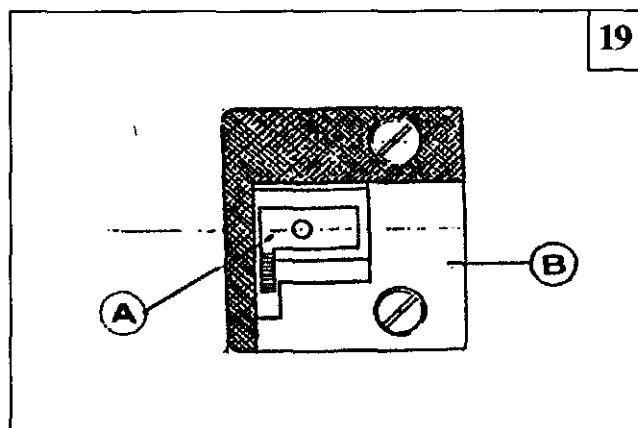
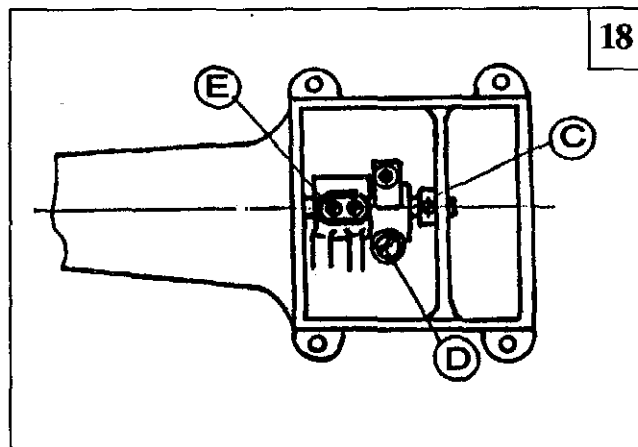


15. ADJUST FEED DOG (Fig. 18, 19, 20, 21)

1. Adjustment of the position of feed dog (Fig. 18, 19)

Generally, the position of the feed dog should be:
When minimizing the stitch length, the center of the needle hole on the Feed Dog (A) should align the center of the Needle Plate (B). If necessary, adjust as follow:

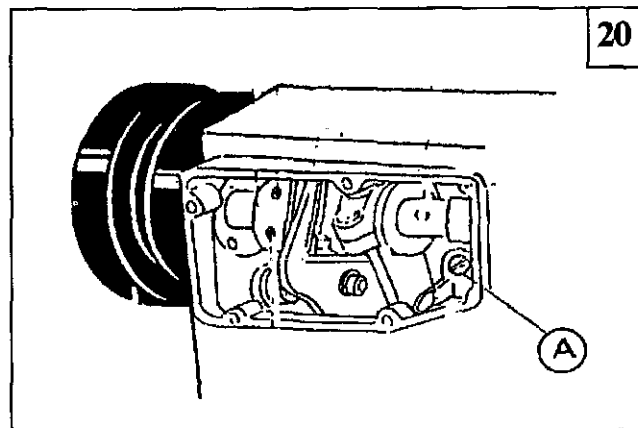
- 1) Minimize stitch length
- 2) Loosen the Screw (D) of the Feed Rock Shaft Crank (Right) and move the two Screw (E) of Crank.
- 3) Turn Feed Rock Shaft (C) and align the center of the Needle Hole on the feed dog and the center of the Needle Plate (B).
- 4) After the adjustment, be sure to tighten the screw (D), (E).



2. Relative position adjustment between needle and the needle hole in the feed dog. (Fig. 20)

Make sure that needle can be descended to the center of the needle hole, if not, adjust it as follows:

- 1) Remove the arm side cover and loosen the screw (A).
- 2) Holding the needle bar and move it to the center of the needle hole in the feed dog, the tighten screw (A) and replace the arm side cover



3. Time feed motion to needle motion (Fig. 21)

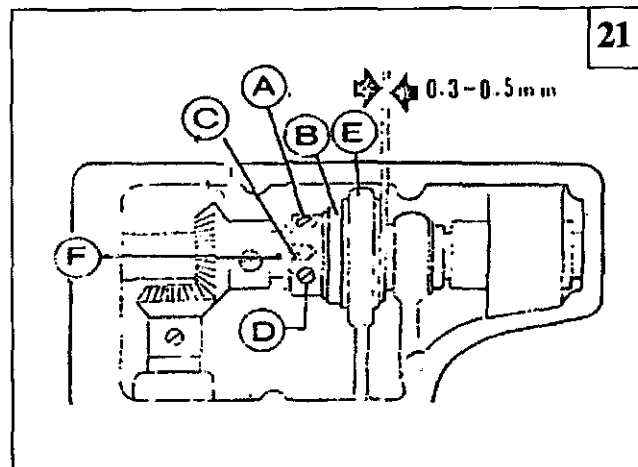
The standard timing of feed motion to needle motion is that the feed dog starts moving forward when the needlepoint reaches the needle plate surface.

If feed motion is not timed to needle motion, adjust as follows:

- 1) Remove the arm side cover and loosen the screw (A), (D) of the feed and feed lifting eccentric.
- 2) Holding feed and feed lifting eccentric (B) and turn balance wheel slowly until the reference hole (C) on the feed and feed lifting eccentric aligns with mark (F).

When adjusting, the clearance between feed and feed lifting eccentric (B) and eccentric sleeve (E) should be 0.3-0.5mm.

After the adjustment, be sure to tighten the screw (A), (D).



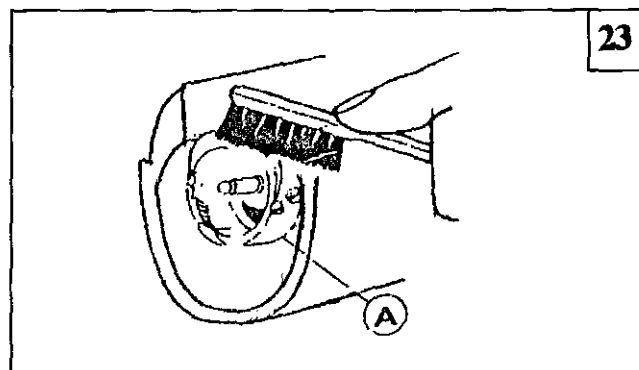
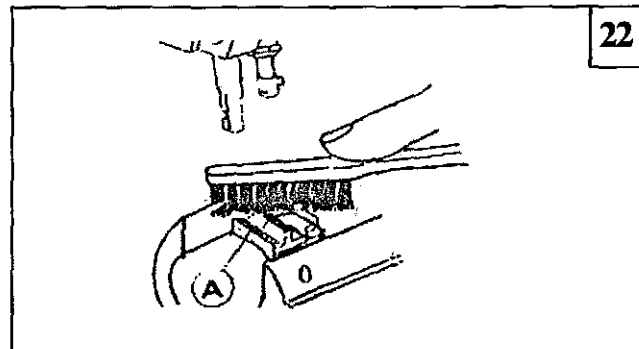
16. REGULAR CLEANING (Fig.22,23)

1.Cleaning feed dog

Remove the throat plate and clear off the dust and lint between the feed and teeth slots.

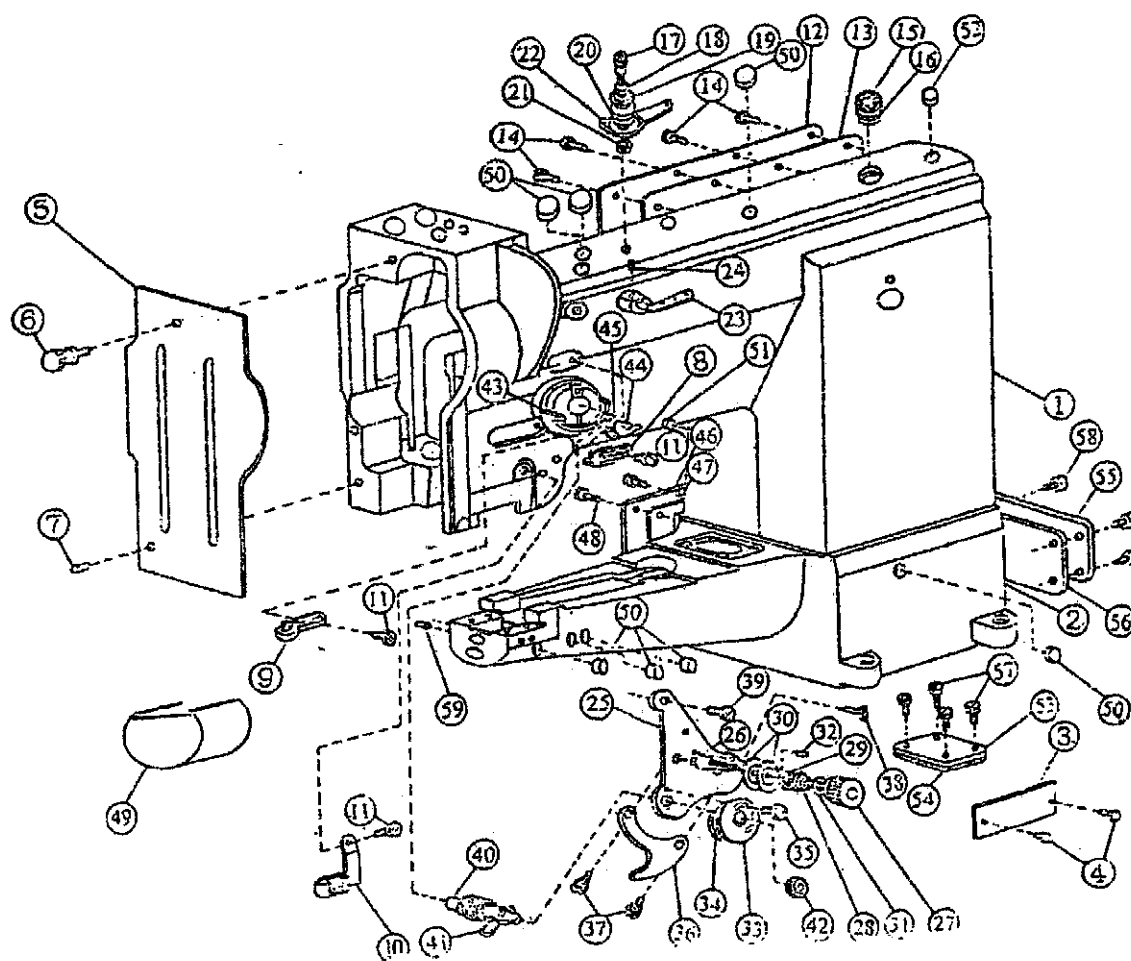
2.Cleaning rotating hook

Swing out the machine head and clean the hook. Wipe the bobbin case with soft cloth.



PARTS LIST

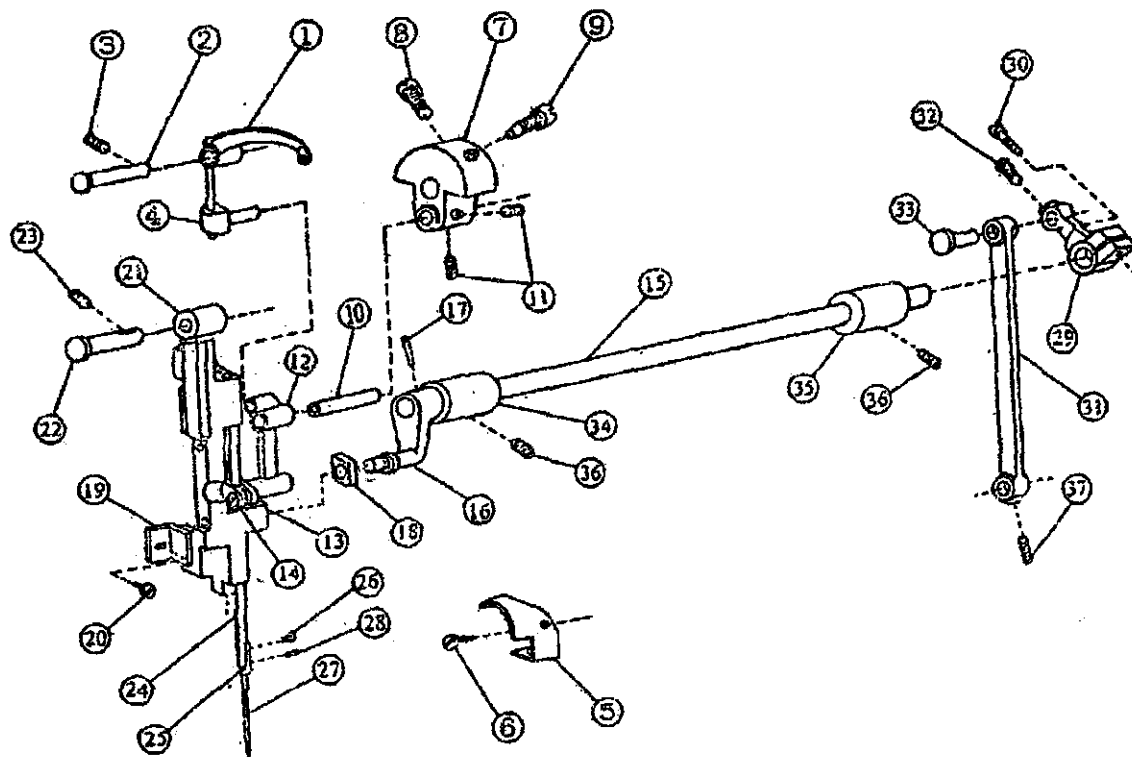
1. ARM BED AND ITS ACCESSORIES



1. ARM BED AND ITS ACCESSORIES

No.	Ref. No.	Description	Pcs	Remarks
1.	05-01-001A2	Arm	1	
2.	09-01-001B2	Arm bed	1	
3.	09-01-002	Trade mark plate	1	
4.	GB827-86	Trade mark plate rivet	2	
5.	05-01-003	Face plate	1	
6.	05-01-004	Set screw	1	
7.	05-01-005	Knock pin	1	
8.	05-01-006	Thread guide (Up)	1	
9.	22T1-003C5	Thread guide (Middle)	1	
10.	05-01-013	Thread guide (Lower)	1	
11.	22T1-003C6	Set screw	3	
12.	05-01-014	Arm side cover	1	
13.	05-01-015	Gasket for arm side cover	1	
14.	72T1-017	Set screw	8	
15.	12H1-007C1	Oil check window	1	
16.	12H1-007C2	O-ring	1	
17.	22T1-009E1	Screw type tension stud	1	
18.	22T1-009E2	Spring for pretension	1	
19.	22T1-009E3	Disc for pretension	2	
20.	22T1-009E4	Space for pretension	1	
21.	GB896	Stop ring	1	
22.	22T1-009E5	Pretension thread guide	1	
23.	22T1-010	Three-hole thread guide	1	
24.	22T1-011	Set screw	1	
25.	05-01-007C1	Thread tension bracket	1	
26.	05-01-007C2	Thread tension stud	1	
27.	05-01-007C3	Tension regulating nut	1	
28.	73T1-002C1	Thread tension spring	1	
29.	05-01-007C4	Thread tension releasing disc	1	
30.	05-01-007C5	Thread tension disc	2	
31.	05-01-007C6	Stop disc	1	
32.	05-01-007C7	Pin	1	
33.	05-01-007C8-1	Thread controller disc	1	
34.	05-01-007C8-2	Thread controller plate	1	
35.	05-01-007C9	Screw	1	
36.	05-01-007C10	Thread tension release plate	1	
37.	05-01-007C11	Screw	2	
38.	05-01-007C12	Thread tension release pin	1	
39.	72T1-013	Screw	1	
40.	05-01-008	Thread controller stud	1	
41.	05-01-009	Thread take-up spring	1	
42.	05-01-010	Tension thumb nut	1	
43.	05-01-011	Thread take-up spring stop	1	
44.	05-01-016	Screw	1	
45.	22T1-011	Screw	1	
46.	01-01-006	Bed side cover	1	
47.	01-01-007	Gasket for bed side cover	1	
48.	72T1-017	Set screw	6	
49.	09-01-003	Cap for bed face plate	1	
50.	72T1-004C4	Rubber plug	8	
51.	72T1-009	Rubber plug	1	
52.	72T1-011	Rubber plug	1	
53.	09-01-004	Bed cover	1	
54.	09-01-005	Gasket for bed cover	1	
55.	09-01-006	Bed rear cover	1	
56.	09-01-007	Gasket for bed rear cover	1	
57.	72T1-017	Set screw	4	
58.	72T1-017	Set screw	4	
59.	22T1-011	Screw	1	

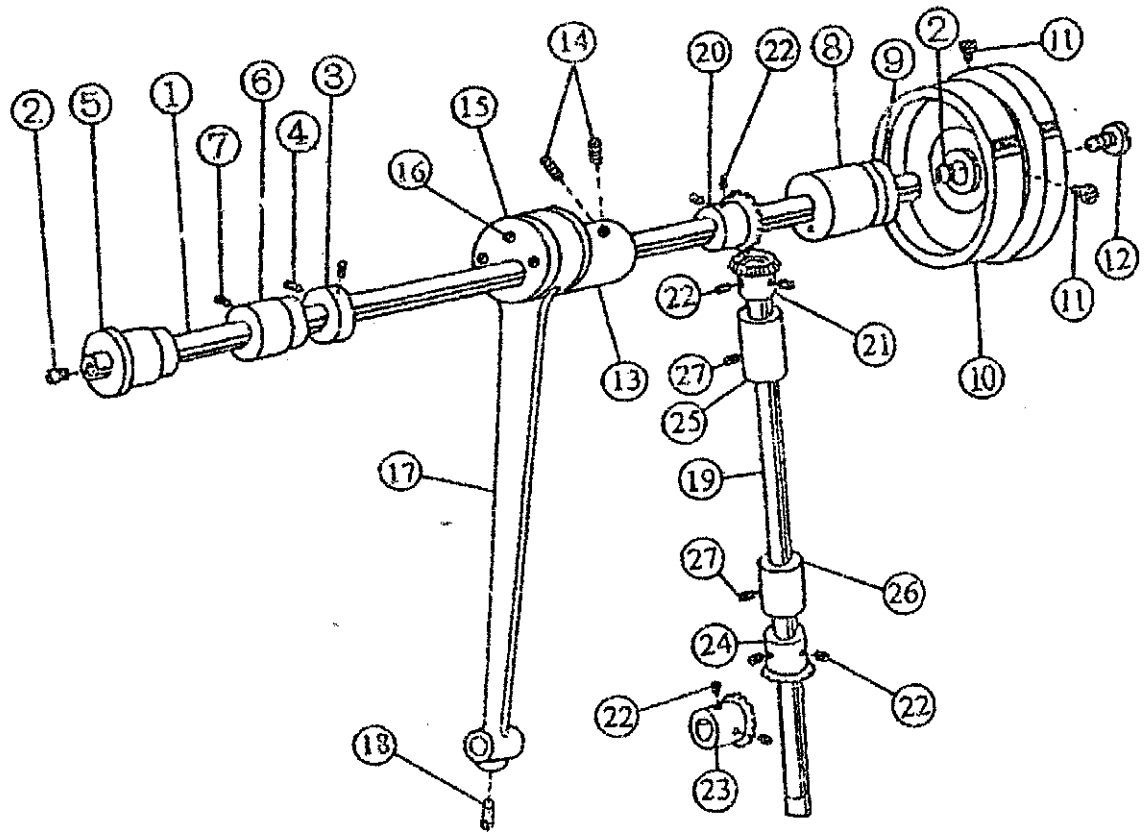
2. NEEDLE BAR AND TAKE-UP MECHANISM



2. NEEDLE BAR AND TAKE-UP MECHANISM

No.	Ref. No.	Description	Pcs1	Remarks
1.	05-02-001	Thread take-up lever	1	
2.	05-02-002	Hinge pin	1	
3.	22T2-002	Set screw	1	
4.	05-02-003	Thread take-up lever driving stud	1	
5.	05-02-004	Oil guard	1	
6.	22T8-011C4	Set screw	1	
7.	05-02-005A1	Needle bar crank	1	
8.	22T2-006	Set screw	1	
9.	22T2-007	Set screw	1	
10.	05-02-006	Hinge pin	2	
11.	72T2-004B2	Set screw	1	
12.	05-02-007	Needle bar link	1	
13.	05-02-008	Needle bar adaptor	1	
14.	22T7-015	Set screw	1	
15.	05-02-009B1	Needle bar rock frame rock shaft	1	
16.	05-02-009B2	Crank (Left)	1	
17.	GB117	Pin for crank	1	
18.	05-02-009B3	Slide block for needle bar rock frame	1	
19.	05-02-009B4	Position bracket	1	
20.	72T2-003	Screw	1	
21.	05-02-010	Needle bar rock frame	1	
22.	05-02-011	Hinge pin	1	
23.	22T2-002	Screw	1	
24.	05-02-012	Needle bar	1	
25.	04-02-004	Thread guide for needle bar	1	
26.	04-02-005	Screw	1	
27.		Needle	1	
28.	22T2-017	Needle clamp screw	1	
29.	05-02-014C1	Crank (Right)	1	
30.	02-08-007	Screw	1	
31.	09-02-001C2	Crank level link	1	
32.	22T5-001A4	Screw (Right)	1	
33.	05-05-003	Hinge pin (Upper)	1	
34.	05-02-015	Bushing for rock shaft (Left)	1	
35.	05-02-016	Bushing for rock shaft (Right)	2	
36.	22T2-002	Screw	1	
37.	22T1-011	Screw		

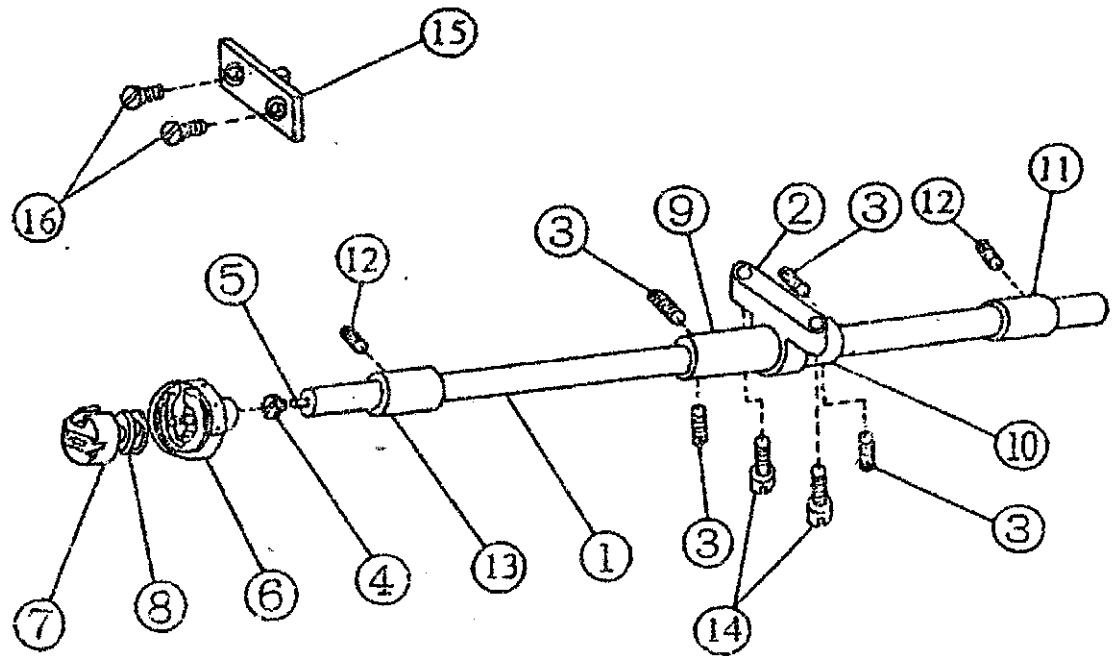
3. ARM SHAFT AND VERTICAL SHAFT MECHANISM



3. ARM SHAFT AND VERTICAL SHAFT MECHANISM

No.	Ref. No.	Description	Pcs1	Remarks
1.	05-03-001A1	Arm shaft	2	
2.	22T3-001A2	Rubber plug	1	
3.	22T6-005B1	Collar for arm shaft	2	
4.	22T3-002B2	Set screw	1	
5.	22T3-003	Arm shaft bushing (Left)	1	
6.	05-03-007	Arm shaft bushing (Middle)	1	
7.	22T7-002	Set screw	1	
8.	05-03-006	Arm shaft bushing (Right)	1	
9.	22T3-006F	Oil seal	1	
10.	02-03-001	Balance wheel	2	
11.	22T3-007C2	Set screw	1	
12.	22T3-008	Set screw	1	
13.	09-03-001B1	Feed lifting eccentric	2	
14.	22T2-002	Set screw	1	
15.	09-03-001B3	Baffle plate	3	
16.	04-01-017	Set screw	1	
17.	09-03-001B2	Feed link lever	1	
18.	22T1-011	Screw	1	
19.	05-03-003	Vertical shaft	1	
20.	22T3-010E2a1-2	Bevel gear for arm shaft	1	
21.	22T3-010E2a2-2	Bevel gear for vertical shaft (Upper)	8	
22.	22T2-005B3	Set screw	1	
23.	22T3-010E2b1-2	Bevel gear for hook shaft	1	
24.	22T3-010E2b2-2	Bevel gear for vertical shaft (Lower)	1	
25.	05-03-004	Vertical shaft bushing (Upper)	1	
26.	05-03-005	Vertical shaft bushing (Lower)	2	
27.	22T2-002	Set screw		

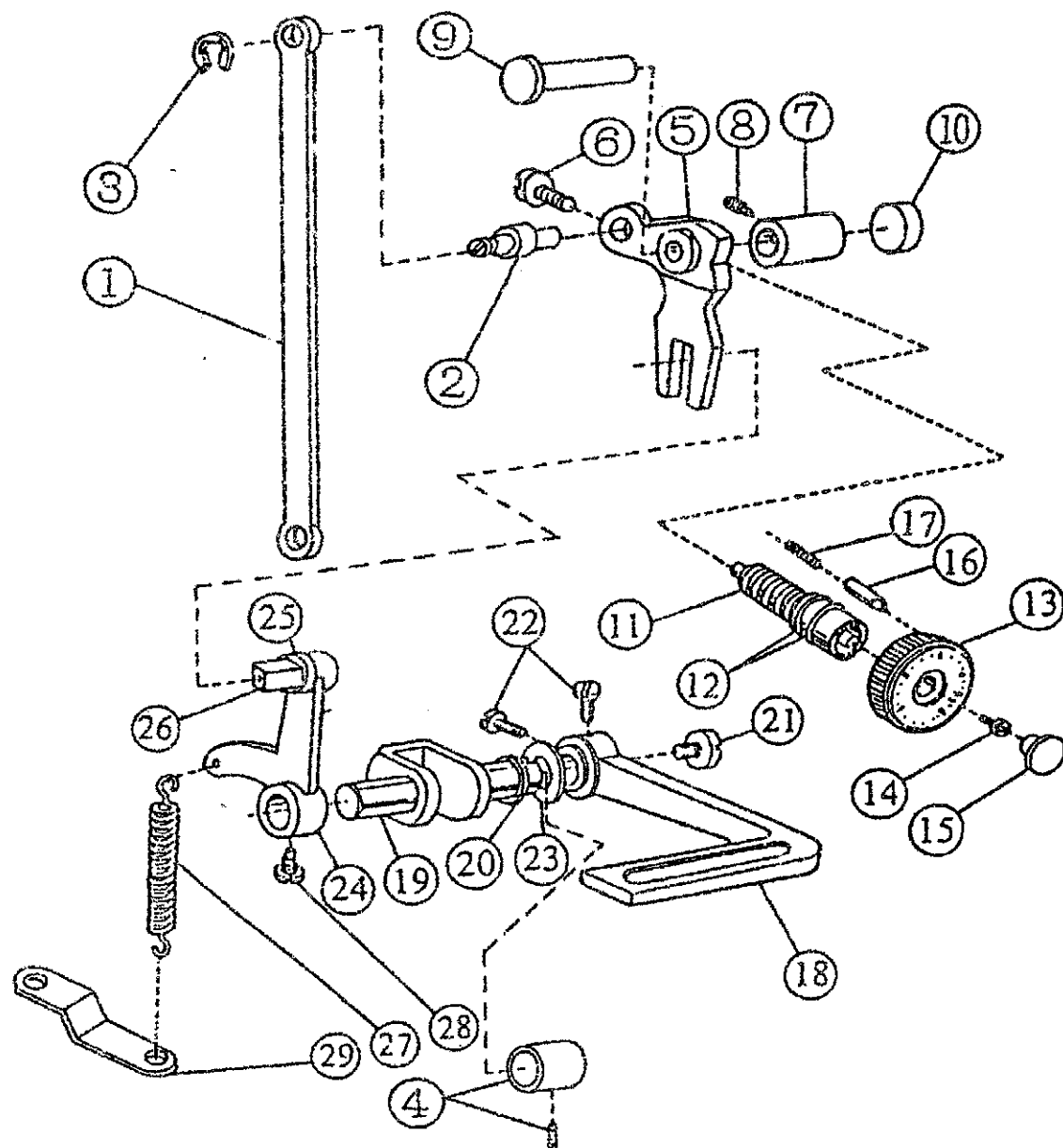
4. HOOK SHAFT MECHANISM



4. HOOK SHAFT MECHANISM

No.	Ref. No.	Description	Pcs	Remarks
1.	09-04-001	Rotating hook shaft	1	
2.	09-04-007	Bearing block	1	
3.	09-04-008	Set screw	4	
4.	22T4-001A1a1	Filter screw	1	
5.	22T4-001A1a2	Filter	1	
6.	05-04-003	Rotating hook complete	1	
7.		Bobbin case	1	
8.	22T4-017	Bobbin	1	
9.	09-04-004	Collar for hook shaft (Left)	1	
10.	09-04-002A1	Collar for hook shaft (Right)	1	
11.	09-04-009	Hook shaft bushing (Right)	1	
12.	22T1-011	Set screw	2	
13.	09-04-006	Hook shaft bushing (Left)	1	
14.	22T6-001A1b	Set screw	2	
15.	09-04-003	Rotating hook positioner	1	
16.	09-04-005	Set screw	2	

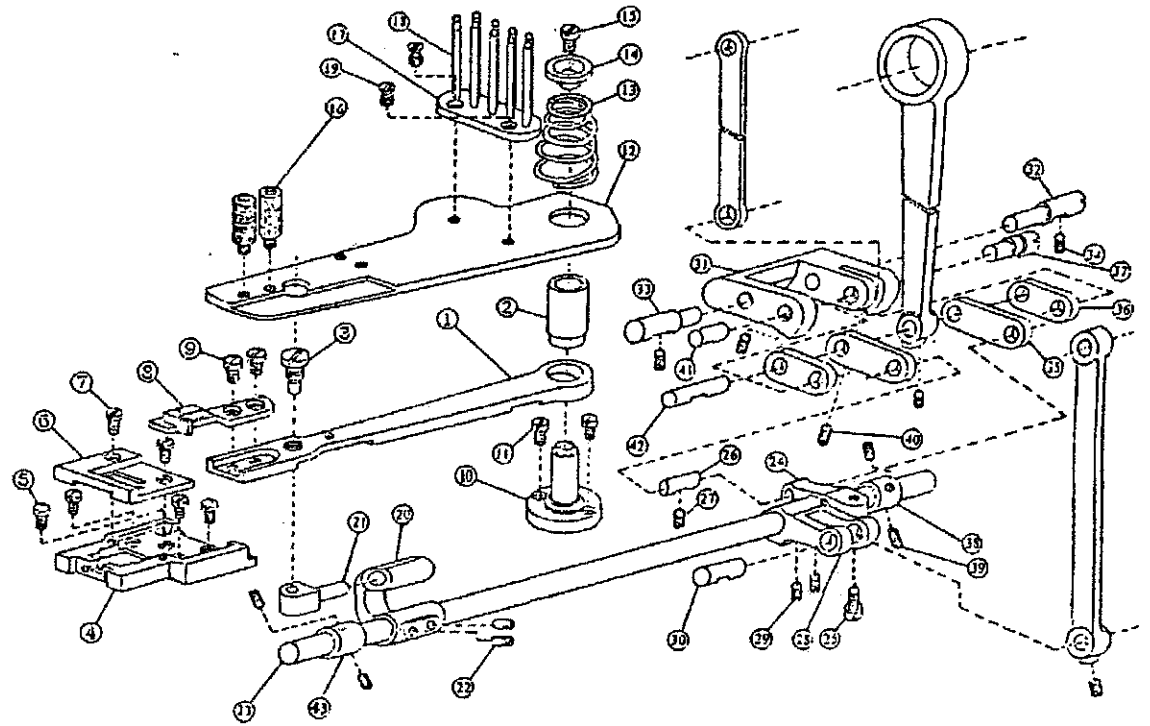
5. STITCH LENGTH REGULATING MECHANISM



5. STITCH LENGTH REGULATING MECHANISM

No.	Ref. No.	Description	Pcs	Remarks
1.	09-05-003	Reverse feed link lever	1	
2.	09-05-001	Hinge pin	1	
3.	GB896	Retaining ring	1	
4.	-05-06-003	Bushing for reverse feed lever shaft	1	
	22T1-011	Set screw	1	
5.	08-05-002B1	Feed regulator	1	
6.	22T2-019	Set screw	1	
7.	05-06-001	Feed regulator bushing	1	
8.	05-06-005	Set screw	1	
9.	09-05-002	Hinge pin for feed regulator	1	
10.	72T5-003	Rubber plug	1	
11.	04-06-002	Feed regulator screw bar	1	
12.	22T5-006C4	O-ring	2	
13.	22T5-006C2	Dial	1	
14.	22T5-006C3	Screw	1	
15.	72T5-005	Rubber plug	1	
16.	22T5-008	Stopper pin	1	
17.	22T5-009	Spring for stopper pin	1	
18.	72T5-006C1	Reverse feed lever	1	
19.	05-06-002D1	Reverse feed lever shaft	1	
20.	22T5-010D2b	O-ring	1	
21.	22T5-010D3	Screw	1	
22.	22T5-001A4	Screw	2	
23.	22T5-011	Washer	1	
24.	22T5-012E1	Reverse feed crank	1	
25.	22T5-012E1a1	Slide block pin	1	
26.	22T5-012E1a2	Slide block	1	
27.	22T5-012E2	Spring for reverse feed crank	1	
28.	22T5-013	Screw	1	
29.	22T5-014	Bracket for spring	1	

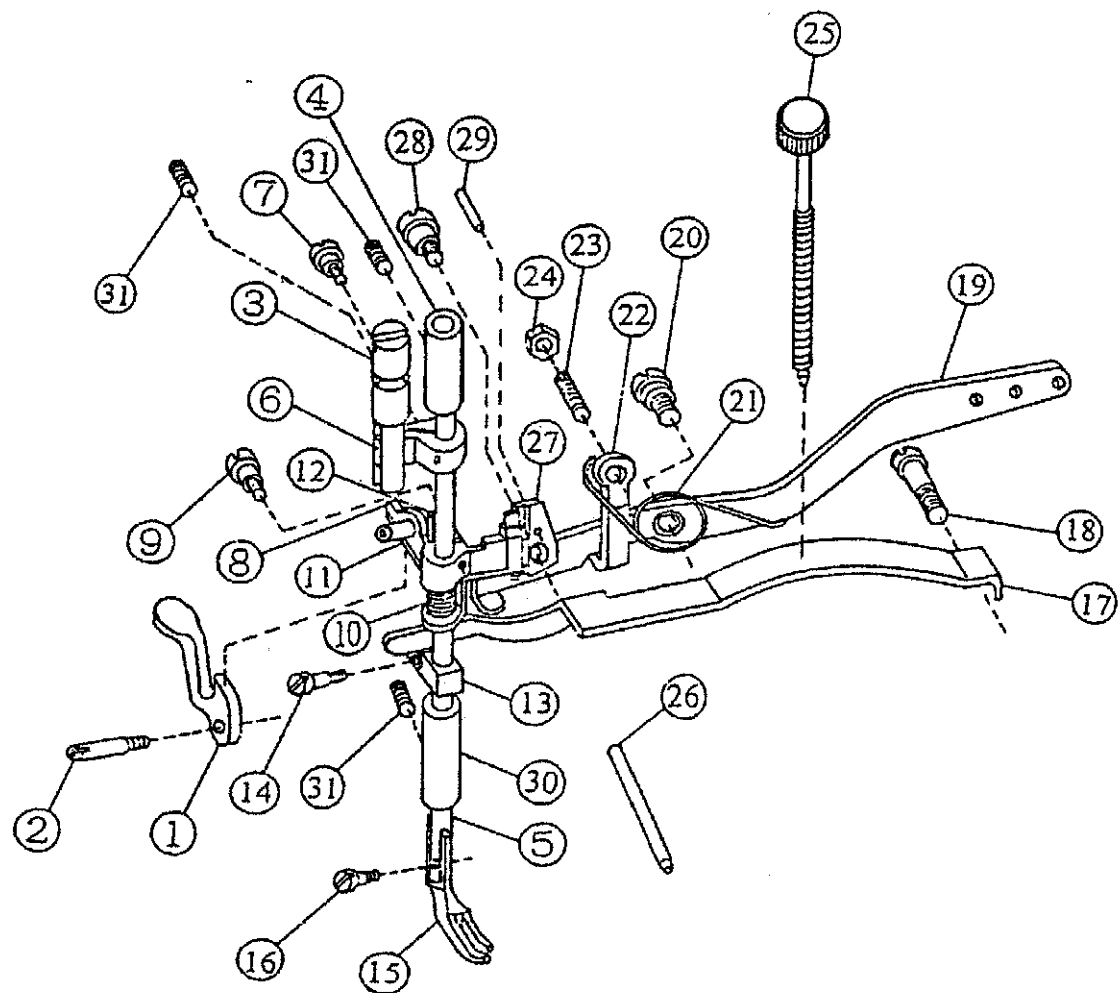
6. FEED LIFTING MECHANISM



6.FEED LIFTING MECHANISM

No.	Ref. No.	Description	Pcs	Remarks
1.	09-06-001A1	Feed bar bracket	1	
2.	09-06-001A2	Stud bushing	1	
3.	09-06-002	Set screw	1	
4.	09-06-003B1	Needle plate bracket	1	
5.	09-06-003B2	Screw	4	
6.	09-06-004	Needle plate	1	
7.	04-01-017	Screw	2	
8.	09-06-005	Feed dog	1	
9.	09-06-019	Screw	2	
10.	09-06-006	Hinge pin	1	
11.	09-06-020	Screw	2	
12.	09-06-007	Piping unit bracket	1	
13.	09-06-008	Spring for piping unit bracket	1	
14.	09-06-009	Washer	1	
15.	22T5-010D3	Screw	1	
16.	09-06-010	Binder positioner	2	
17.	09-06-011C1	Piping unit base-plate	1	
18.	09-06-011C2	Pin for belt	9	
19.	09-06-011C3	Screw	2	
20.	09-06-012	Feed rock shaft crank (Left)	1	
21.	09-06-013	Slide bar	1	
22.	22T1-011	Screw	2	
23.	09-06-014	Feed rock shaft	1	
24.	09-06-015	Feed rock shaft crank (Right)	1	
25.	22T6-001A1b	Screw	1	
26.	08-03-004D14	Short pin for crank link lever	1	
27.	22T1-011	Screw	1	
28.	09-06-016	Crank (Lower)	1	
29.	22T1-011	Set screw	2	
30.	09-06-018	Hinge pin	1	
31.	08-03-004D7	Feed regulator crank	1	
32.	09-06-022	Hinge pin (Long)	1	
33.	09-06-021	Hinge pin (Short)	1	
34.	22T1-011	Screw	2	
35.	08-03-004D12	Crank link lever (Long)	2	
36.	08-03-004D9	Crank link lever (Short)	2	
37.	08-03-004D8	Eccentric shaft	1	
38.	09-06-023	Collar for feed rock shaft (Left)	1	
39.	01-04-002B2	Screw	4	
40.	22T1-001A9	Screw	2	
41.	08-03-004D10	Pin for crank link lever (Short)	1	
42.	08-03-004D11	Pin for crank link lever	1	
43.	09-06-017	Collar for feed rock shaft (Right)	1	

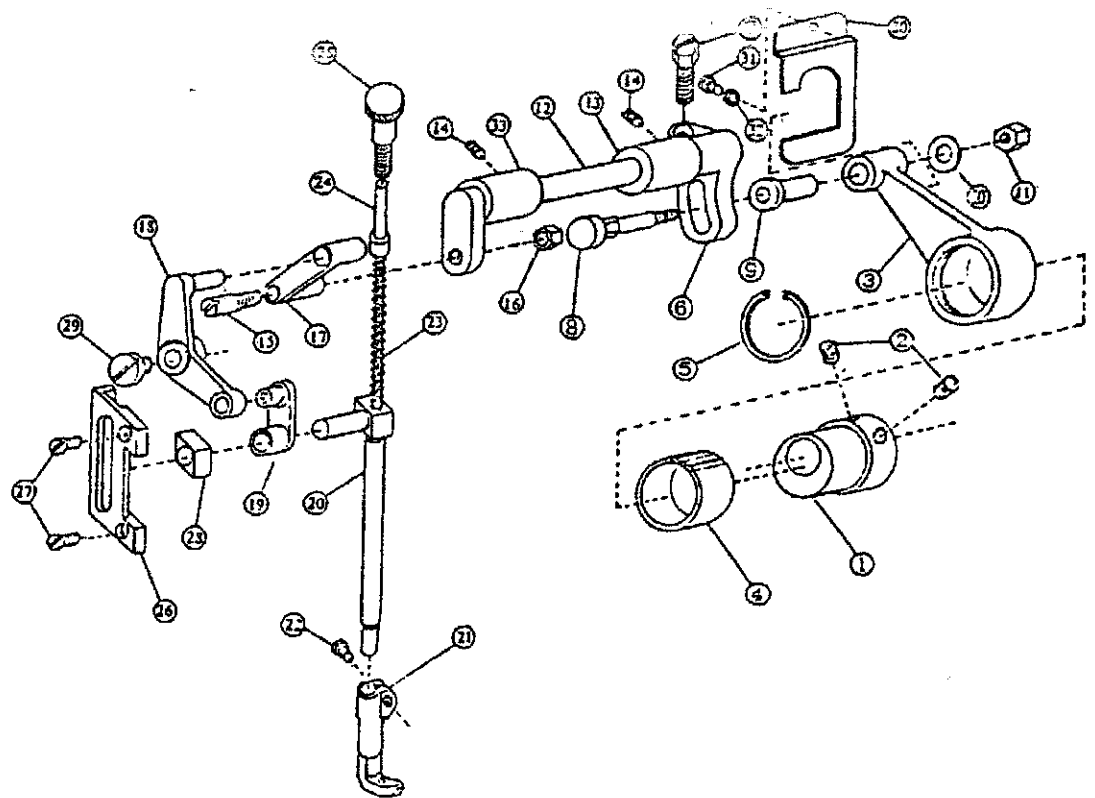
7. PRESSER FOOT MECHANISM



7.PRESSER FOOT MECHANISM

No.	Ref. No.	Description	Pcs.	Remarks
1.	05-07-001	Presser foot lifter	1	
2.	05-07-002	Set screw	1	
3.	05-07-003	Presser bar position guide	1	
4.	05-07-004	Presser bar bushing (Upper)	1	
5.	05-07-005	Presser bar	1	
6.	05-07-006	Presser bar position guide bracket	1	
7.	22T2-001A9	Screw	1	
8.	05-07-007	Presser bar lifting bracket	1	
9.	22T6-008-D3	Screw	1	
10.	05-07-008	Presser bar spring	1	
11.	05-07-009A1	Thread tension release slide	1	
12.	05-07-009A2	Pin for thread tension release slide	1	
13.	05-07-010	Bracket for presser bar spring	1	
14.	05-07-021	Screw	1	
15.	09-07-001	Out presser foot	1	
16.	05-07-013	Screw	1	
17.	05-07-014	Presser bar spring (Flat)	1	
18.	05-07-015	Screw	1	
19.	05-07-016	Knee lifter lifting lever	1	
20.	22T7-005-001	Screw	1	
21.	05-07-017	Retracting spring for lever	1	
22.	05-07-018	Retracting spring bracket	1	
23.	22T9-001A9	Screw	1	
24.	22T9-001A10	Nut	1	
25.	05-07-019	Pressure regulating screw	1	
26.	05-07-020	Thread tension release pin	1	
27.	05-07-022	Presser bar lifting bracket guide	1	
28.	02-08-007	Screw	1	
29.	05-07-023	Pin	1	
30.	05-07-011	Presser bar bushing (Lower)	1	
31.	22T2-002	Screw	3	

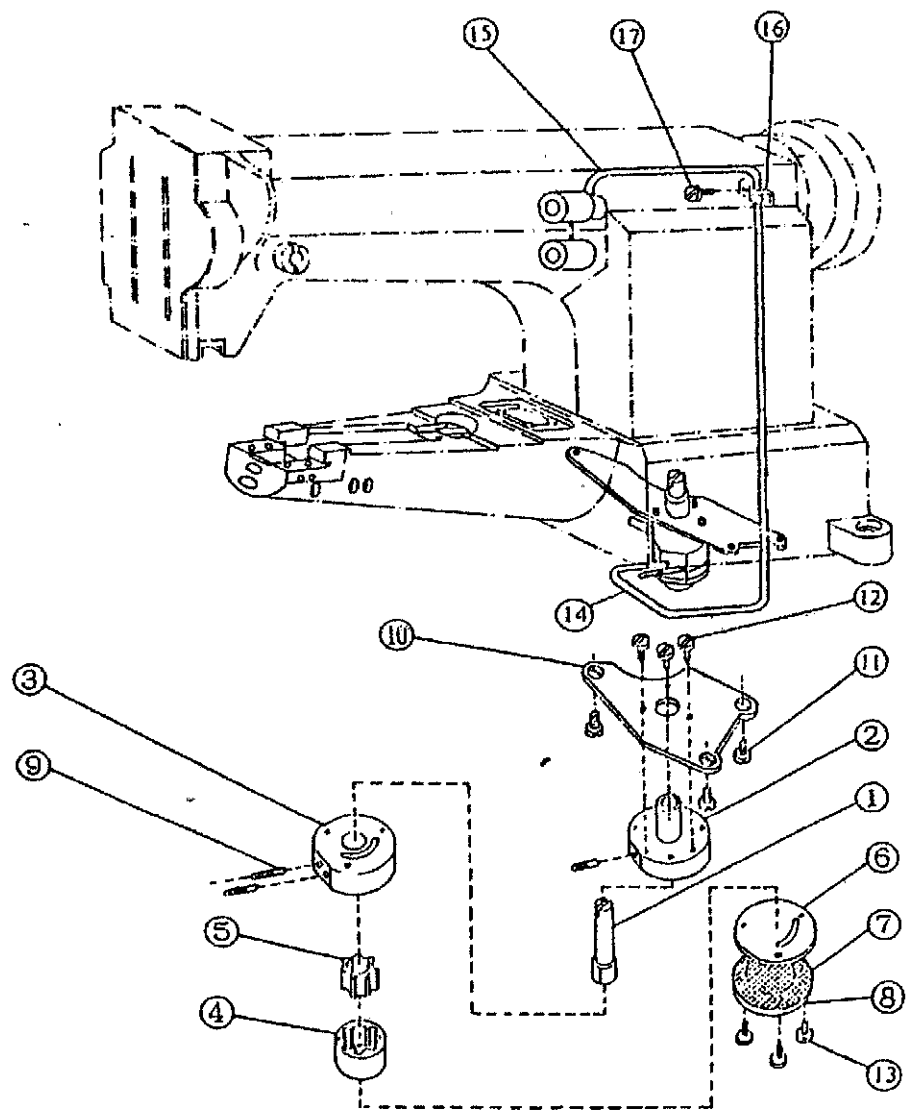
8. PRESSER LIFTING MECHANISM



8. PRESSER LIFTING MECHANISM

No.	Ref. No.	Description	Pcs	Remarks
1.	05-08-001A1	Lifting eccentric	1	
2.	22T3-002B2	Screw	2	
3.	05-08-001A2	Lifting eccentric connection	1	
4.	05-08-001A3	Needle bearing	1	
5.	GB893	Retaining ring	1	
6.	05-08-002B1	Adjusting crank for eccentric connection	1	
7.	05-08-002B2	Set screw	1	
8.	05-08-003	Screw for lifting eccentric connecting collar	1	
9.	05-08-004	Lifting eccentric connecting collar	1	
10.	05-08-005	Washer	1	
11.	05-08-006	Nut	1	
12.	05-08-007	Lifting rock shaft	1	
13.	02-08-004	Lifting rock shaft bushing (Right)	1	
14.	22T1-011	Screw	2	
15.	05-08-008	Hinge pin	1	
16.	05-08-009	Hinge pin nut	1	
17.	05-08-010	Lifting bell crank link	1	
18.	05-08-011	Lifting bell crank	1	
19.	05-08-012	Presser lifting link	1	
20.	05-08-013	Vibrating presser bar	1	
21.	09-08-001	Vibrating presser foot	1	
22.	22T2-004	Screw	1	
23.	05-08-015	Vibrating presser bar spring	1	
24.	05-08-016	Spring guide rod	1	
25.	05-08-017	Adjusting bolt	1	
26.	05-08-018	Guide for slide block	1	
27.	22T2-001A9	Screw	2	
28.	05-08-019	Slide block for vibrating presser bar	1	
29.	05-08-020	Screw	1	
30.	05-08-021	Oil seal plate	1	
31.	22T2-004	Screw	1	
32.	GB97	Washer	1	
33.	05-08-022	Lifting rock shaft bushing (Left)	1	

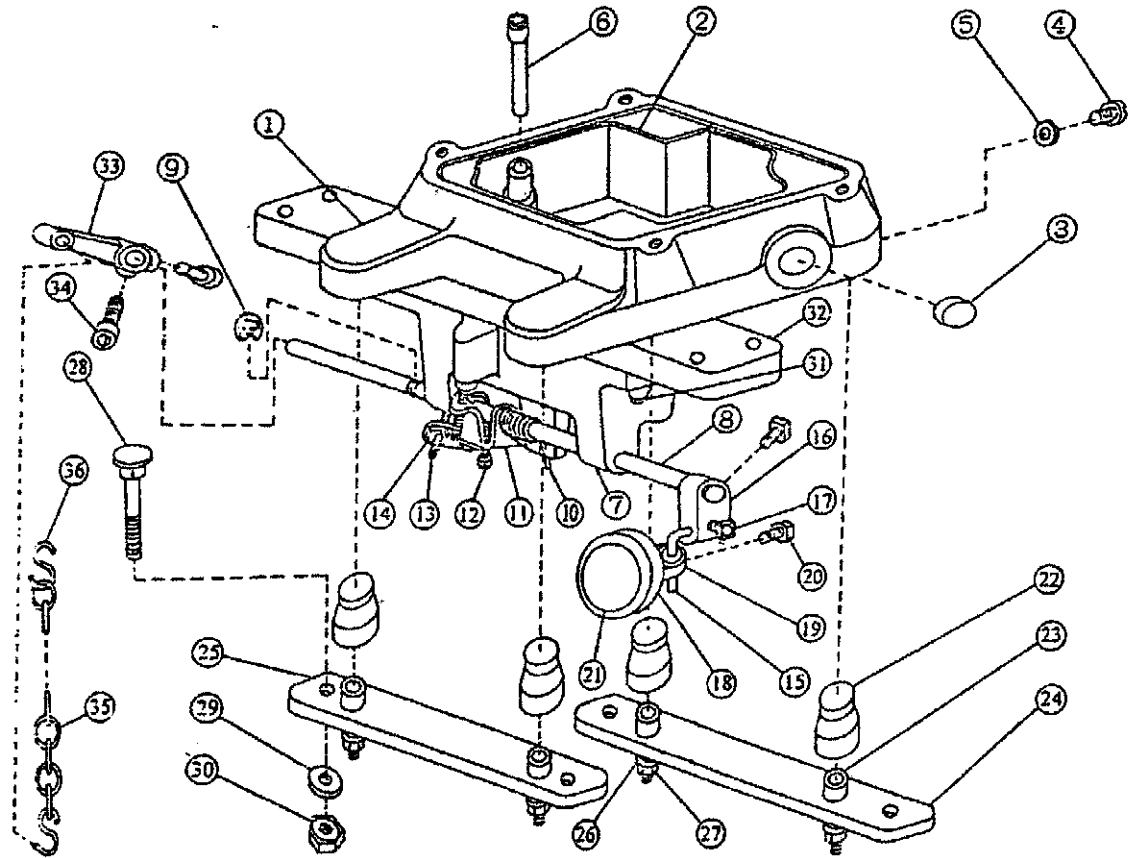
9. LUBRICATING MECHANISM



9.LUBRICATING MECHANISM

No.	Ref. No.	Description	Pcs	Remarks
1.	01-08-001A2	Oil pump shaft	1	
2.	01-08-001A3	Oil pump body (I)	1	
3.	01-08-001A4	Oil pump body (II)	1	
4.	01-08-001A5	Gear for oil pump (I)	1	
5.	01-08-001A6	Gear for oil pump (II)	1	
6.	01-08-001A7	Oil pump cover	1	
7.	11H8-008B	Oil pump screen	1	
8.	11H8-010	Set screw	3	
9.	22T4-007C2	Pipe connection	3	
10.	01-08-002	Oil pump body plate	1	
11.	22T2-019	Screw	3	
12.	22T2-019	Set screw	3	
13.	GB70	Set screw	3	
14.	72T8-002B1	Oil pipe	1	
15.	05-09-001	Oil pipe for arm shaft	1	
16.	01-08-004	Pipe holder for arm shaft	1	
17.	72T2-003	Set screw	1	

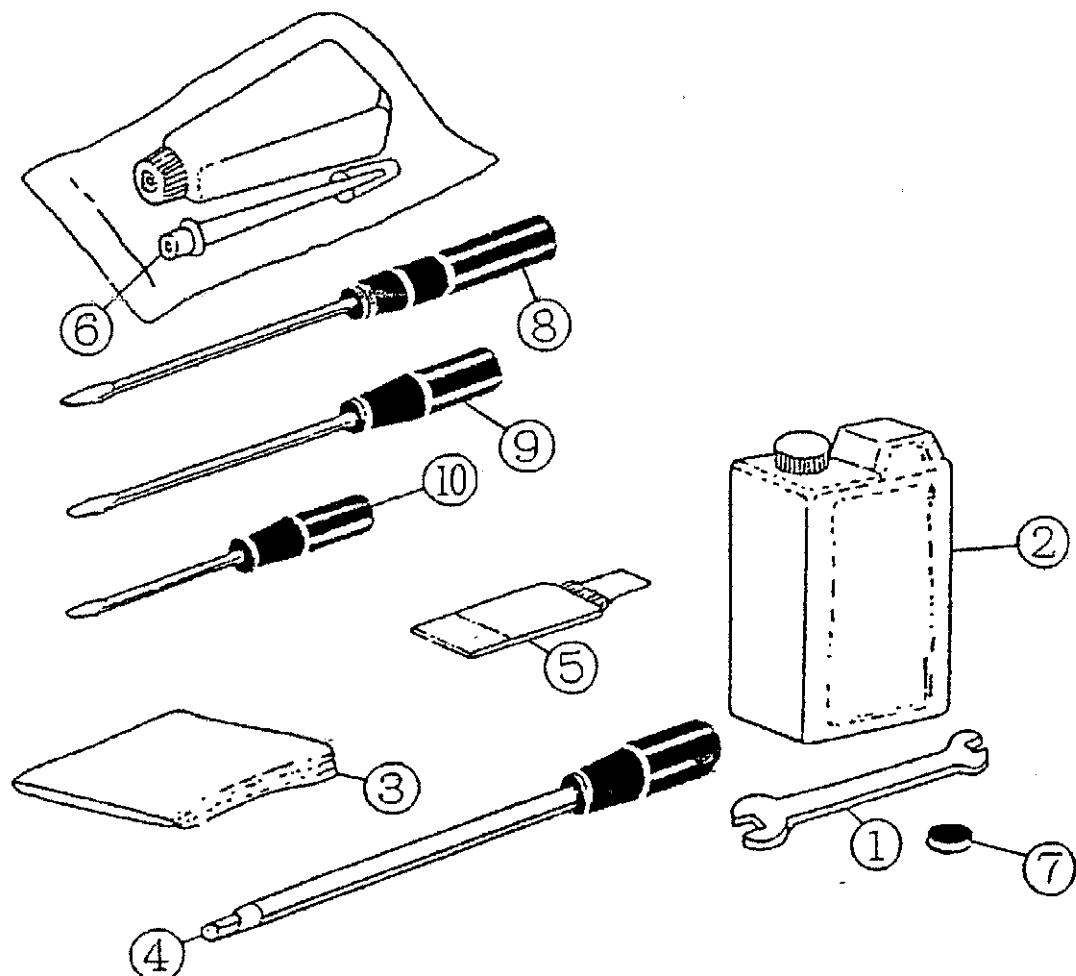
10. OIL RESERVOIR AND OTHER ACCESSORIES



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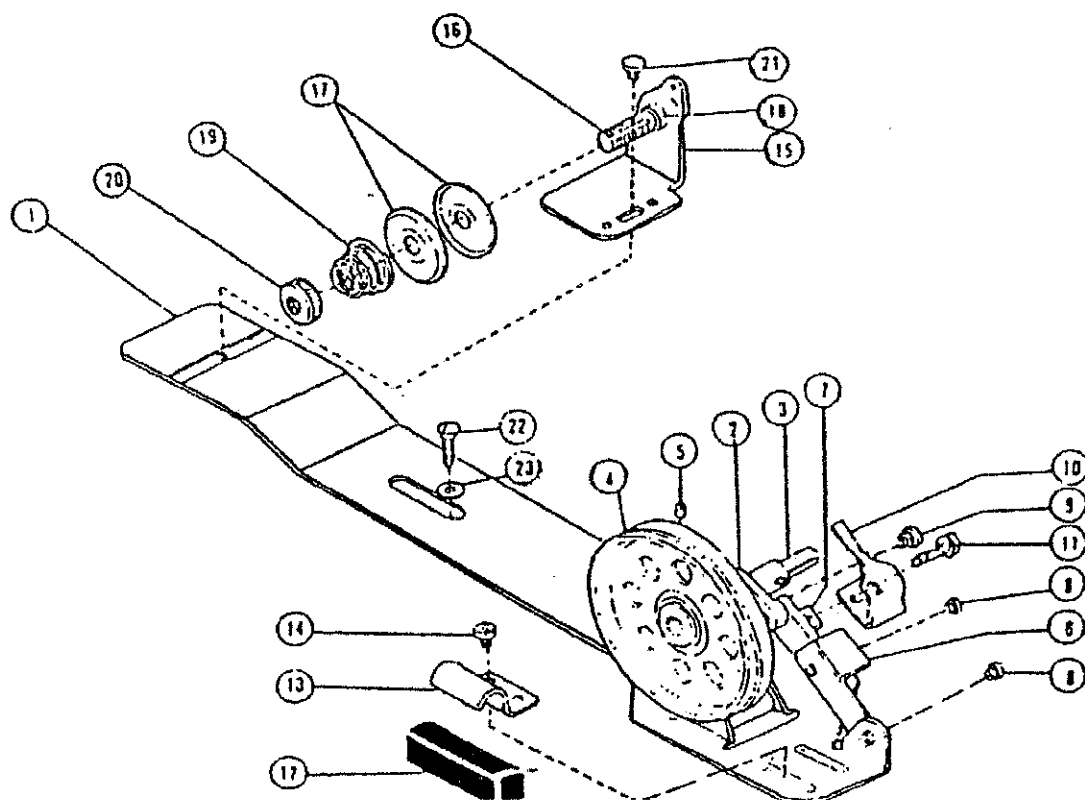
No.	Ref. No.	Description	Pcs	Remarks
1.	01-09-001	Oil reservoir	1	
	GB70	Screw	4	
2.	01-09-002	Gasket for oil reservoir	1	
3.	01-09-003	Oil window	1	
4.	22T9-001A2	Oil drain screw	1	
5.	22T9-001A3	Washer	1	
6.	22T9-003B1	Oil-proof cover	1	
7.	01-09-005	Knee lifter bracket	1	
8.	05-10-001	Hinge pin for knee lifter	1	
9.	GB896	Stop ring	1	
10.	22T9-001A7	Retracting spring for knee lifter	1	
11.	22T9-001A8	Knee lifter stop bracket	1	
12.	22T3-007C2	Screw	1	
13.	22T9-001A9	Adjusting screw	2	
14.	22T9-001A10	Lock nut	2	
15.	22T9-003B2	Knee lifter bell crank	1	
16.	22T9-003B3	Joint for knee lifter bell crank	1	
17.	72T9-018	Set screw	2	
18.	22T9-003B5	Knee lifter plate	1	
19.	22T9-003B6	Bracket for knee lifter plate	1	
20.	22T9-003B7	Set screw	1	
21.	22T9-003B8	Pad for knee lifter plate	1	
22.	01-09-006	Rubber cushion	4	
23.	01-09-007	Pin	4	
24.	01-09-008	Bracket (324)	1	
25.	01-09-008	Bracket (294)	1	
26.	GB93	Washer	4	
27.	GB52	Nut	4	
28.	GB12	Screw	4	
29.	GB93	Washer	4	
30.	GB52	Nut	4	
31.	GB70	Screw	4	
32.	05-10-003	Plate for knee lifter bracket	1	
33.	05-10-002	Knee lifter rod crank	1	
34.	GB84-88	Set screw	2	
35.		Chain	1	
36.	05-10-004a	Chain hook (Upper)	1	
	05-10-004	Chain hook	1	

11. ACCESSORIES



No.	Ref. No.	Description	Pcs	Remarks
1.	72T9-022	Double-end wrench	1	
2.	22T9-017	Oil container	1	
3.	22T9-018	Vinyl cover	1	
4.	01-09-009	Wrench	1	
5.		Needle	4	
6.	22T9-011	Oiler	1	
7.	22T9-012	Magnet	1	
8.	72T9-007	Screw driver (Long)	1	
9.	72T9-020	Screw driver (Medium)	1	
10.	72T9-021	Screw driver (Short)	1	

12. BOBBIN WINDER MECHANISM



No.	Ref. No.	Description	Pcs	Remarks
1.	22T9-006D1	Bobbin winder base	1	
2.	22T9-006D2	Bobbin winder arm	1	
	22T9-006D3	Shaft for bobbin winder arm	1	
	22T9-006D4	Spring	1	
3.	22T9-006D5	Bobbin winder spindle	1	
4.	22T9-006D6	Bobbin winder pulley	1	
5.	22T9-006D7	Screw	1	
6.	22T9-006D8	Bobbin winder stop latch lever	1	
7.	22T9-006D9	Bobbin winder connecting bar	1	
8.	22T9-006D10	Rivet	2	
9.	22T9-006D11	Screw	1	
10.	22T9-006D12	Bobbin winder stop latch	1	
11.	22T9-006D13	Adjusting screw	1	
12.	22T9-006D14	Stopper block	1	
13.	22T9-006D15	Fixture for stopper block	1	
14.	22T9-006D16	Set screw	1	
15.	22T9-006D17	Bobbin winder tension bracket	1	
16.	22T9-006D18	Bobbin winder tension stud	1	
17.	22T9-006D19	Bobbin winder tension disc	2	
18.	22T9-006D20	Tension stud bushing	1	
19.	22T9-006D21	Bobbin winder tension spring	1	
20.	22T9-006D22	Tension stud nut	1	
21.	22T9-006D23	Tension bracket screw	1	
22.		Wood screw	2	
23.		Washer	2	