

ARTISAN®



618-1

Series
Sewing Machines

Operators Manual
and
Spare Parts List

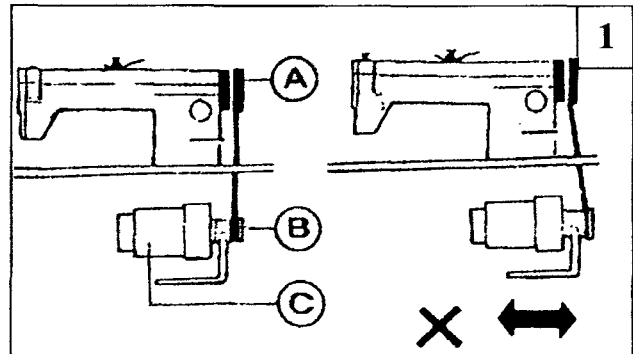
1. MAIN SPECIFICATION

Sewing speed	2000s.p.m.
Stitch length	0 – 9mm
Needle bar stroke	33.2mm
Presser foot lift	8mm (Manual) 15mm (Knee)

Needle	DP×17	22 [#]
Lubrication	Automatic	
Reverse feeding mechanism	Have	

2. INSTALL THE MOTOR (Fig.1)

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



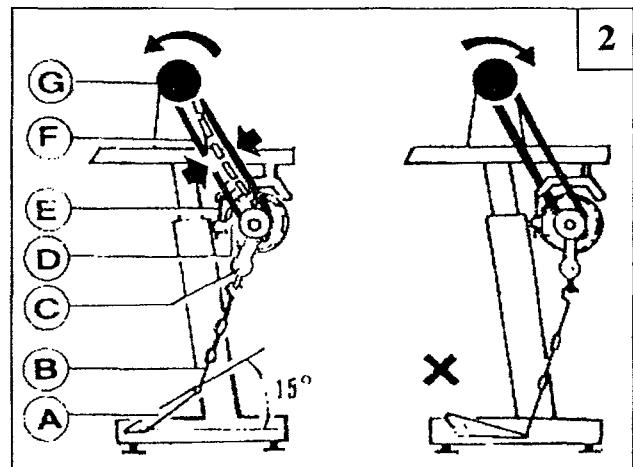
3. CONNECT THE CLUTCHLEVER WITH THE PEDAL (Fig.2)

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

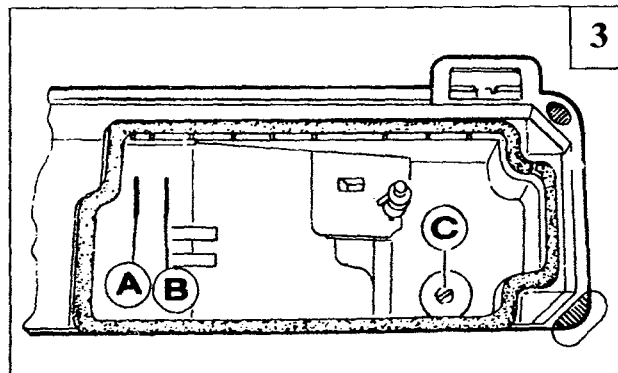
If oil level goes down under Line (B), oil cannot be distributed to each part of the machine, thus causing the parts a seizure.

(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.

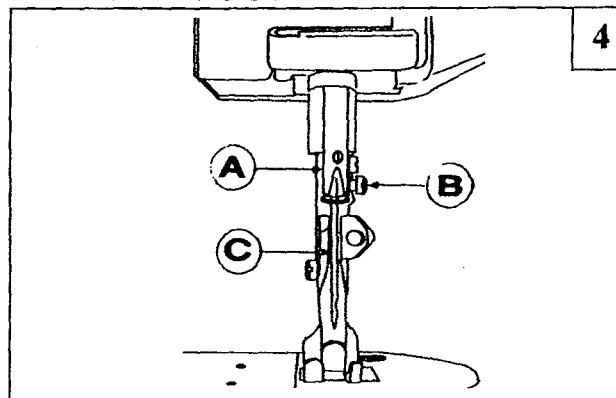
(3) Replacing oil

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 (A) 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)

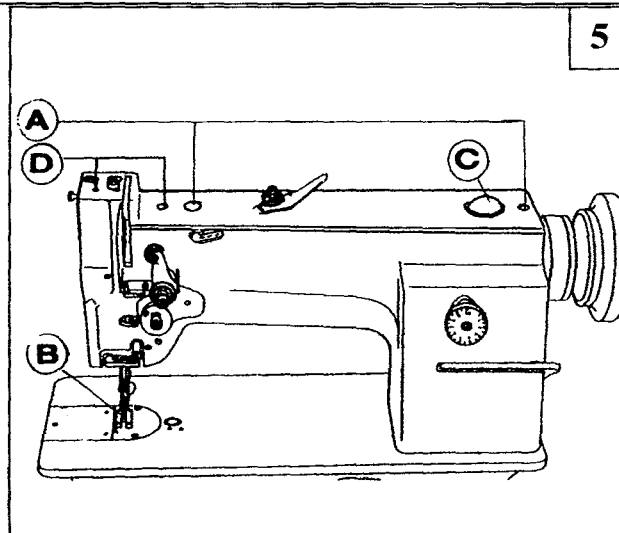
Run-in operation is required for a new sewing machine, or a sewing machine left out of operation for a considerable length of time.

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).

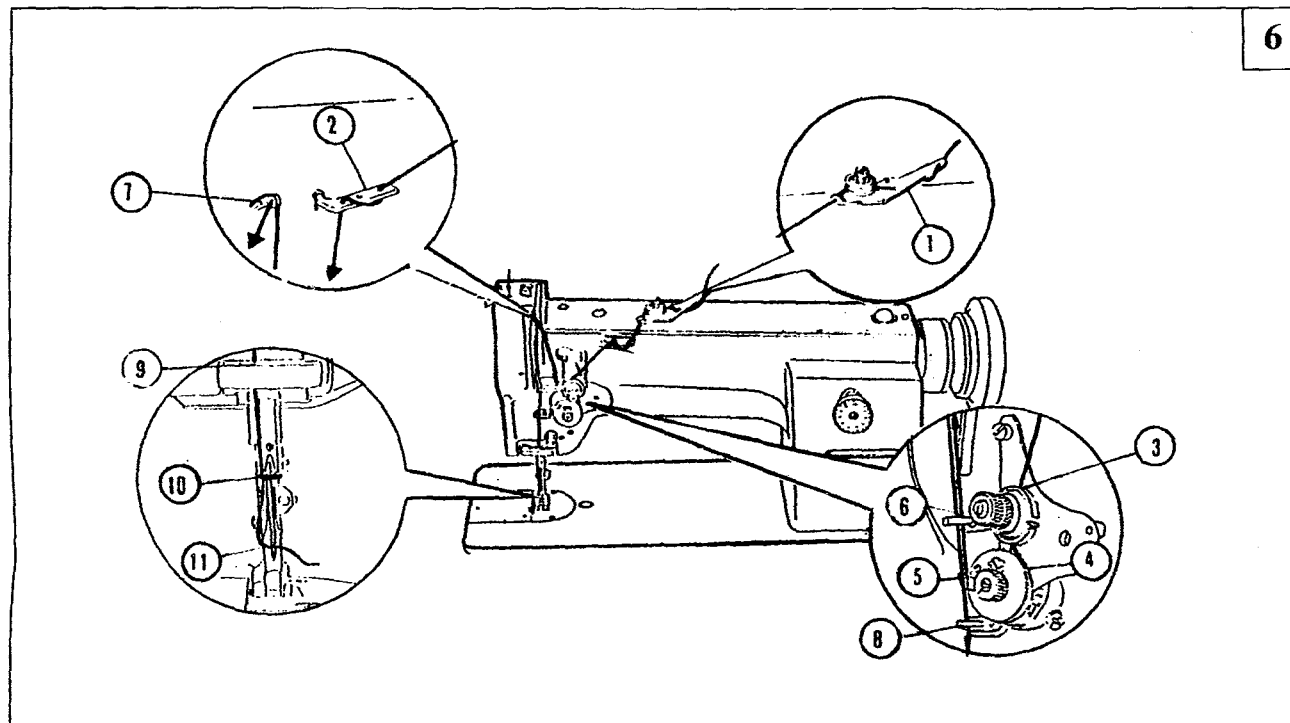
4) Perform run-in operation at 1000-1500spm for 30 minutes. After a lapse of one month of service during which the working speed is increased gradually and the machine runs sufficiently well, the high speed 2000spm can be adopted according to the nature of the work.



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)

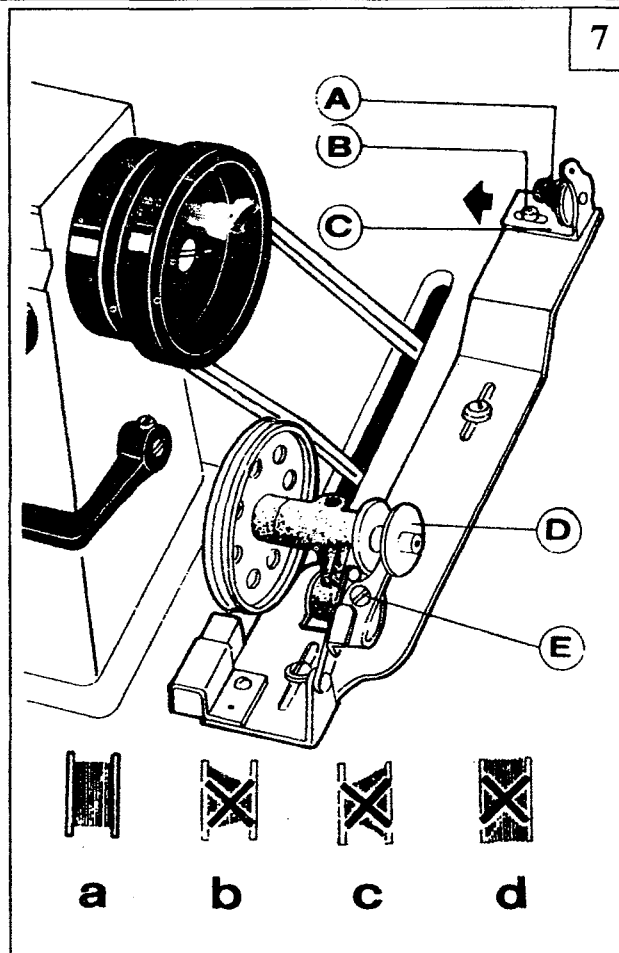
1) The wound bobbin thread should be neat and tight, if not, adjust the winding tension by turning Tension Stud Nut (A) of bobbin winder tension bracket.

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.

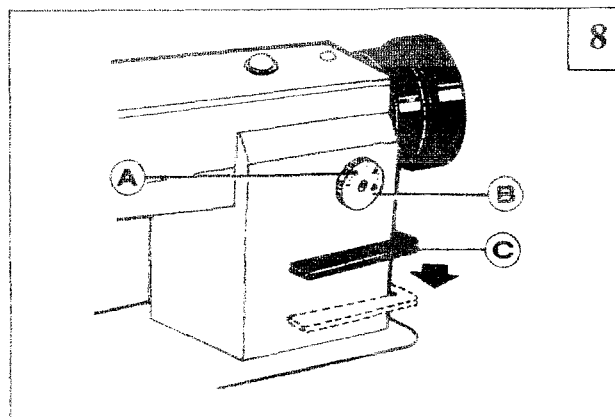
After adequately positioning the bracket, tighten Set Screw (B).

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.



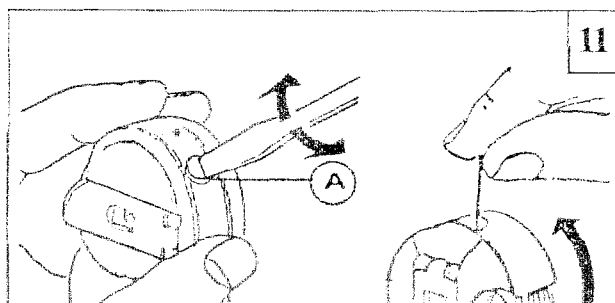
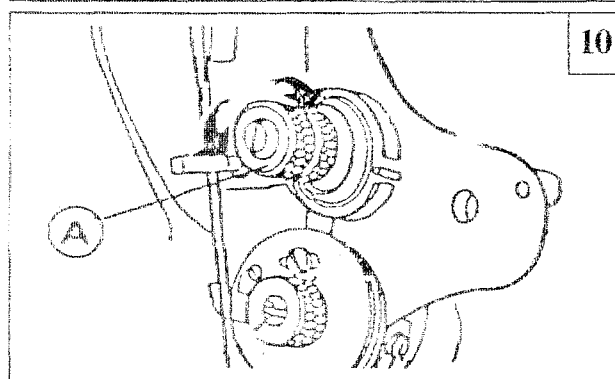
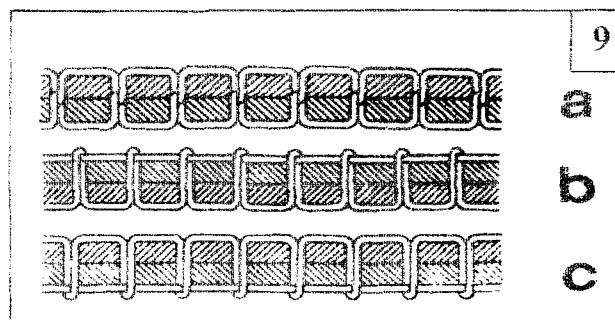
10. ADJUST THREAD TENSION (Fig.9,10,11)

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.



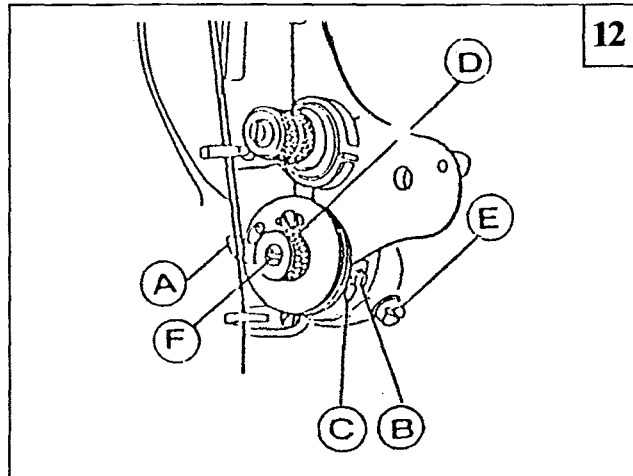
11. ADJUST THREAD TAKE-UP SPRING (Fig.12)

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

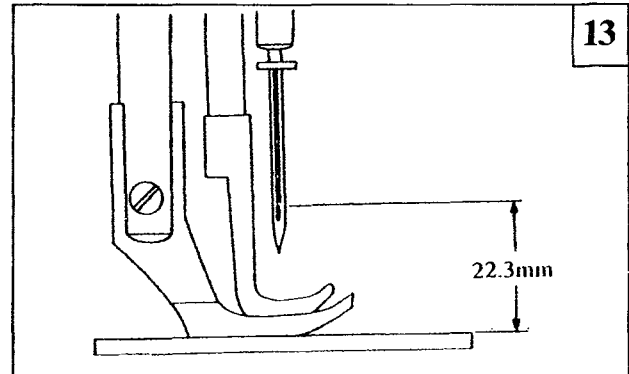
Loosen the nut (D) and screw (E) and turn the regulating screw (F) clockwise to decrease the tension of the thread take-up spring, or turn the regulating screw (F) counterclockwise to increase the tension. Then tighten the nut (D) and the screw (E).



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

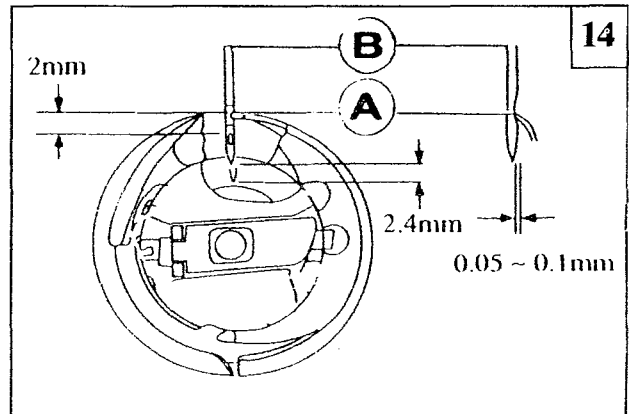
1. Adjusting the height of the needle bar (Fig. 13)

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 22.3mm.



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 2.4mm 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 2mm, 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)

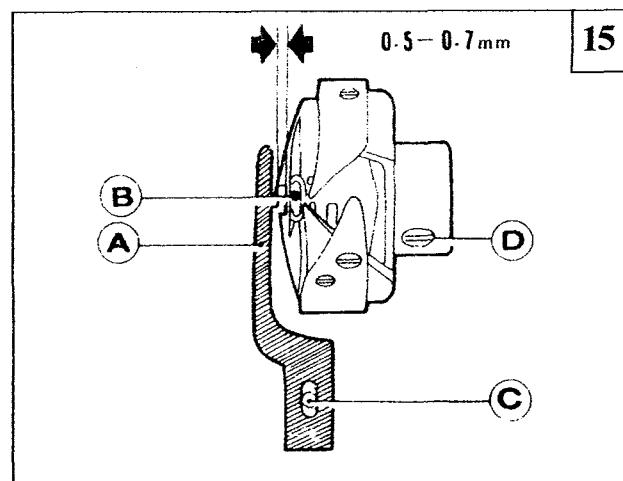
1) Lift needle bar to the highest position of its stroke.

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.

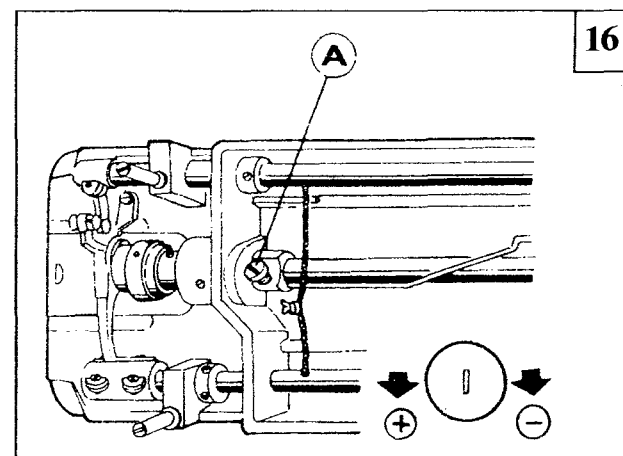


14. LUBRICATION ADJUSTMENT (Fig.16)

The lubrication of the rotating hook can be adjusted by Oil Adjusting Screw (A) as follows:

1) Turn Oil Adjusting Screw (A) clockwise to increase oil and turn Oil Adjusting Screw (A) counterclockwise to decrease oil

2) To adjust the amount of oil by turning the Screw (A) within 5 turns. When the Screw (A) is fully tightened, the oil amount is Maximum. When the Screw (A) is fully loosened, the oil amount is Minimum.



15. ADJUST PRESSER FOOT (Fig.17,18)

1. Lift adjustment of presser foot (Fig.17)

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.17)

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.17)

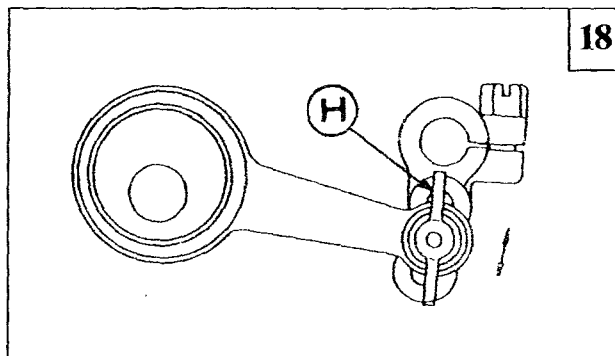
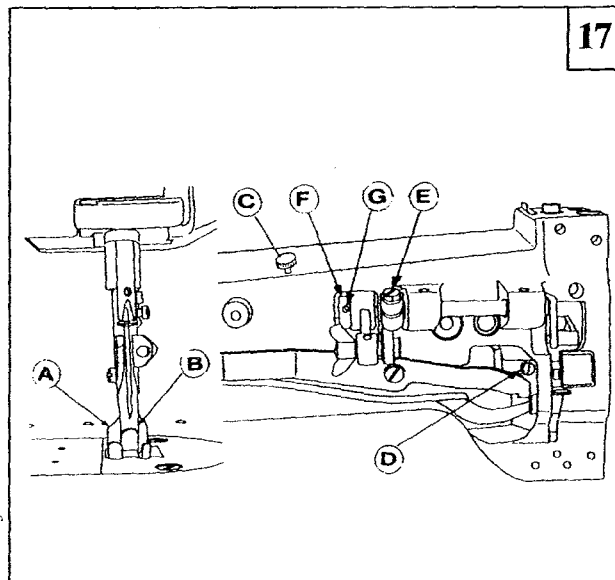
The presser foot (A) and the walking foot (B) vibrate alternately with equal height when machine is in operation, but it can be adjusted according to actual requirements. To increase vibrating height of the walking foot (B) and decrease vibrating height of the presser foot (A), adjust as follows: Down 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 (Fig.18)

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 (Fig.17)

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).



16. ADJUST FEED DOG (Fig.19,20,21,22,23,24)

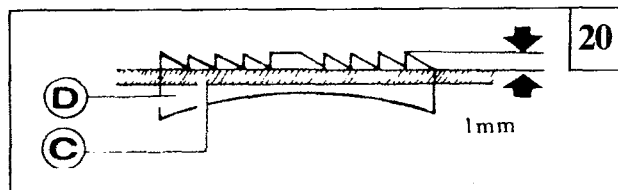
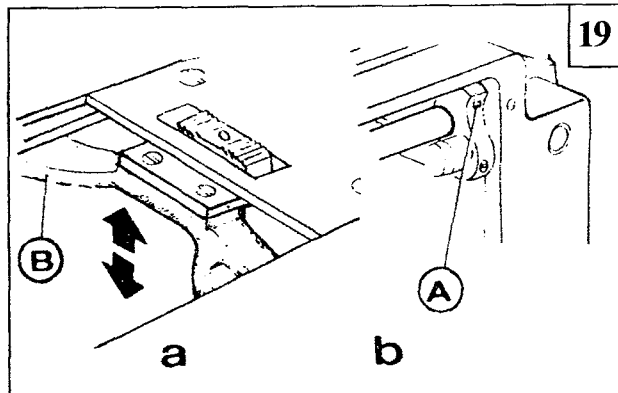
1. Adjustment of the height of feed dog (Fig.19,20)

1) Turn balance wheel until feed dog is lifted to its highest position.

2) Loosen the screw (A) of the feed lifting rock shaft crank (right).

3) Move the feed bar (B) in the direction shown by the arrow in Fig.19a to fix the height of the feed dog (C). the standard height of the feed dog (C) is that top of the feed dog is 1mm above the needle plate surface (D).

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

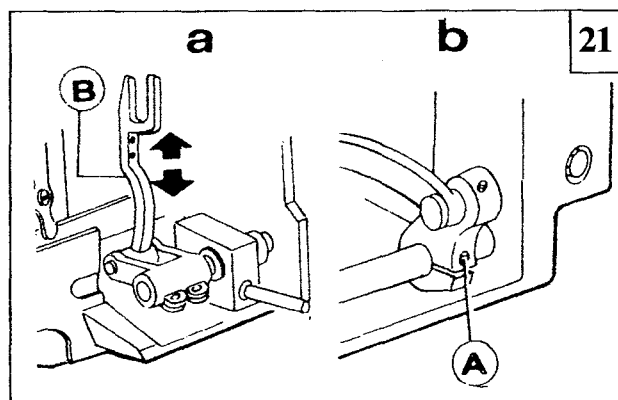


2. Adjustment of the position of feed dog (Fig.21,22)

1) Minimize stitch length

2) Turn balance wheel to lift feed dog to its highest position.

3) Loosen the screw (A) of feed rock shaft crank and move the feed bar (B) in the direction shown in Fig.21a to fix the position of the feed dog. The standard position of the feed dog (C) is that the distance between the center of the needle hole on the feed dog (C) and the edge of the needle plate is 32.1mm.

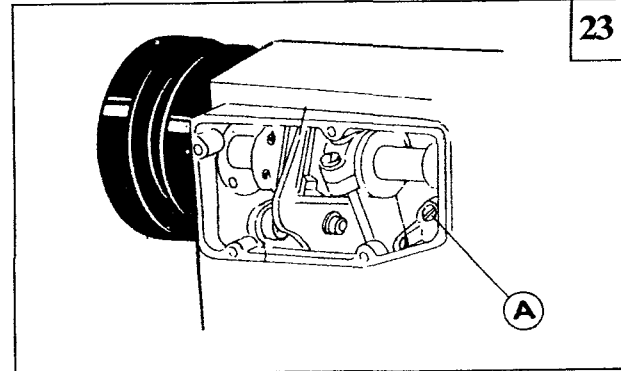
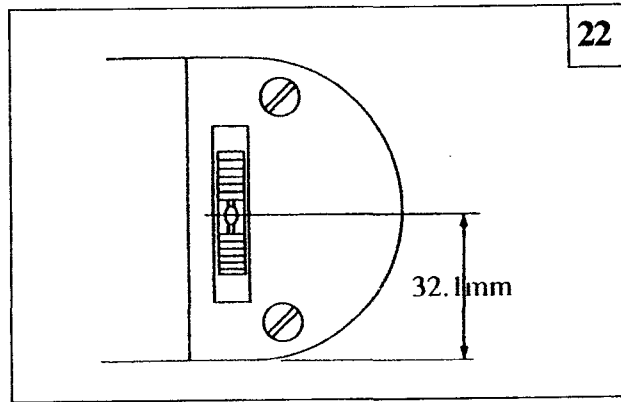


4) After the adjustment, be sure to tighten the screw (A).

3. Relative position adjustment between needle and the needle hole in the feed dog.(Fig.23)

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



4. Time feed motion to needle motion (Fig.24)

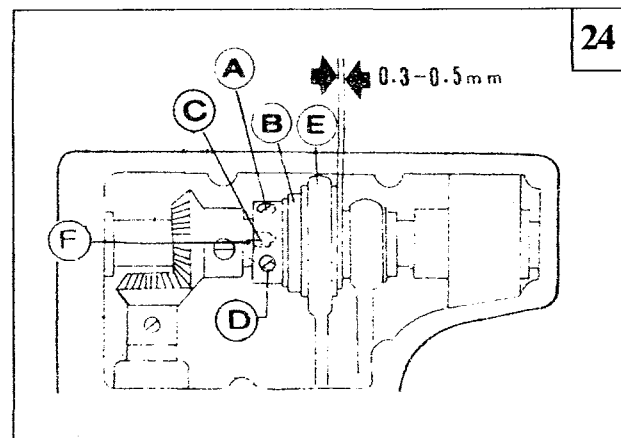
The standard timing of feed motion to needle motion is that the feed dog starts moving forward when the needlepoint reaches the needle plate surface.

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).



(17. REGULAR CLEANING (Fig.25,26,27))

1.Cleaning feed dog

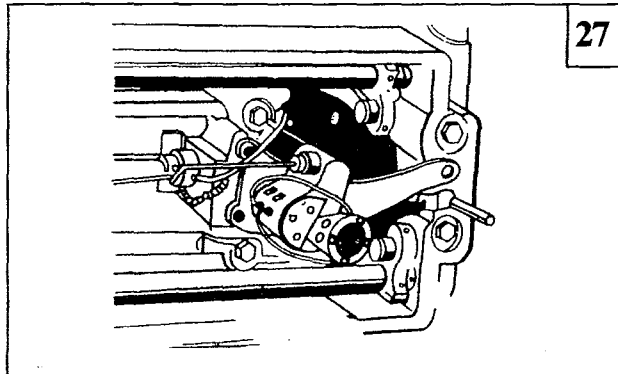
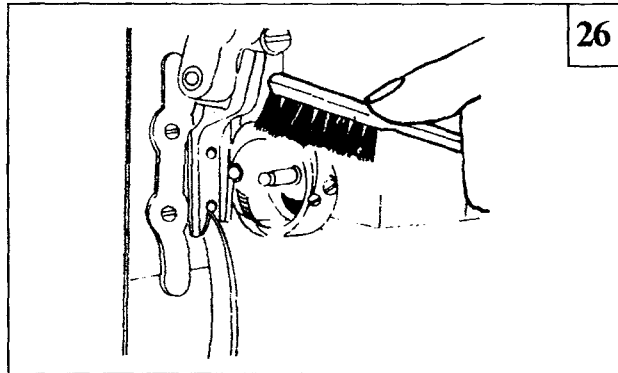
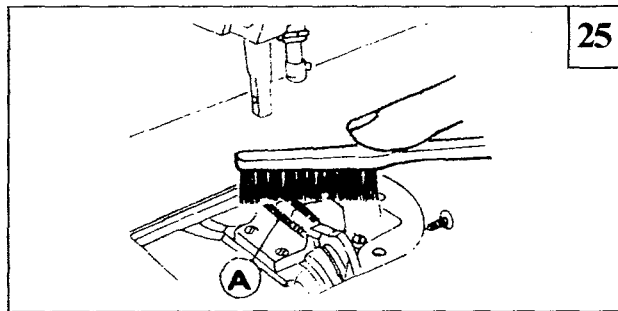
Remove the throat plate and clear off the dust and lint between the feed and teeth slots.

2.Cleaning rotating hook

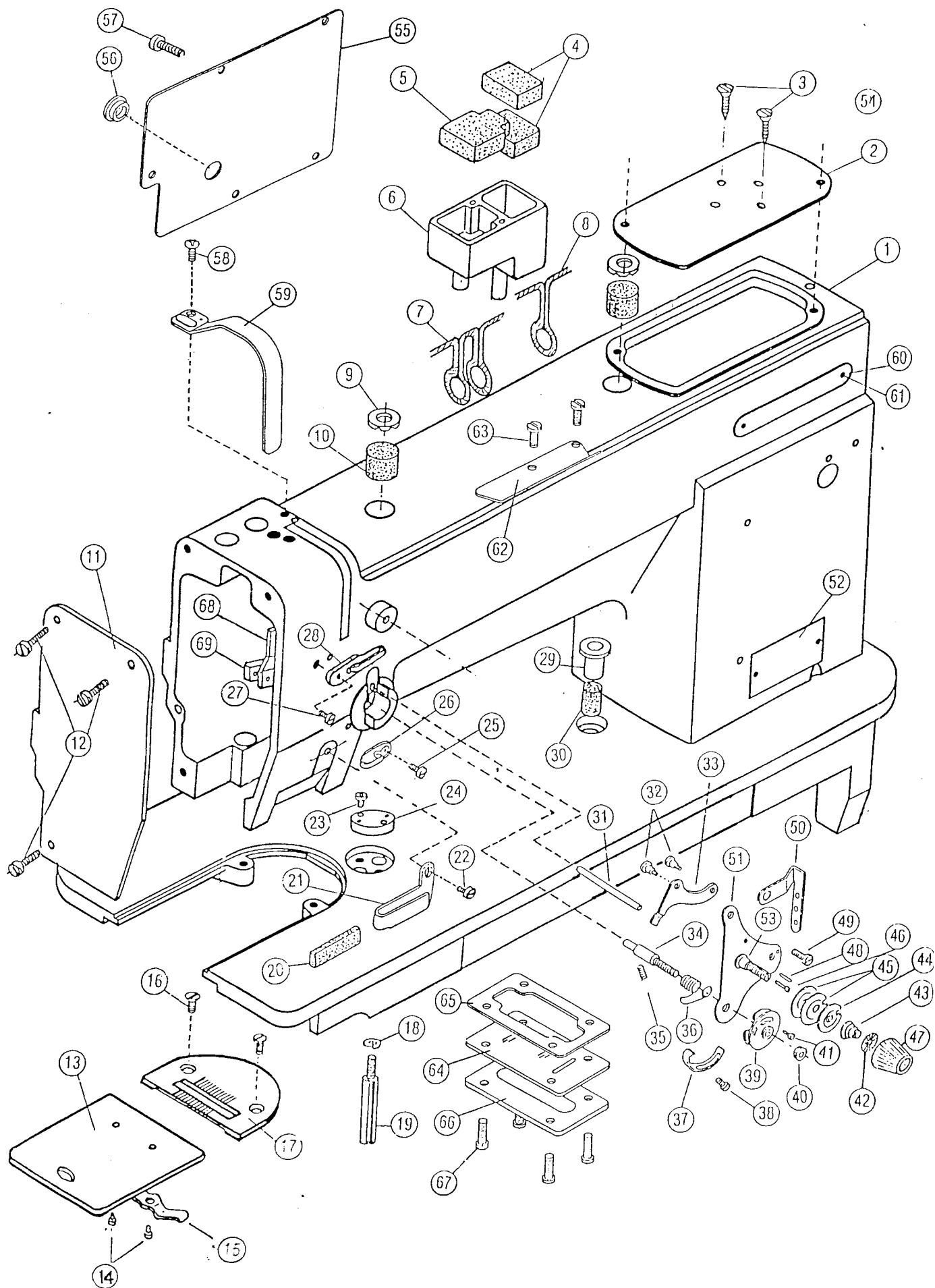
Swing out the machine head and clean the hook. Wipe the bobbin case with soft cloth.

3.Cleaning oil pump screen

Swing out the machine head and clean the dirt on the oil pump screen.



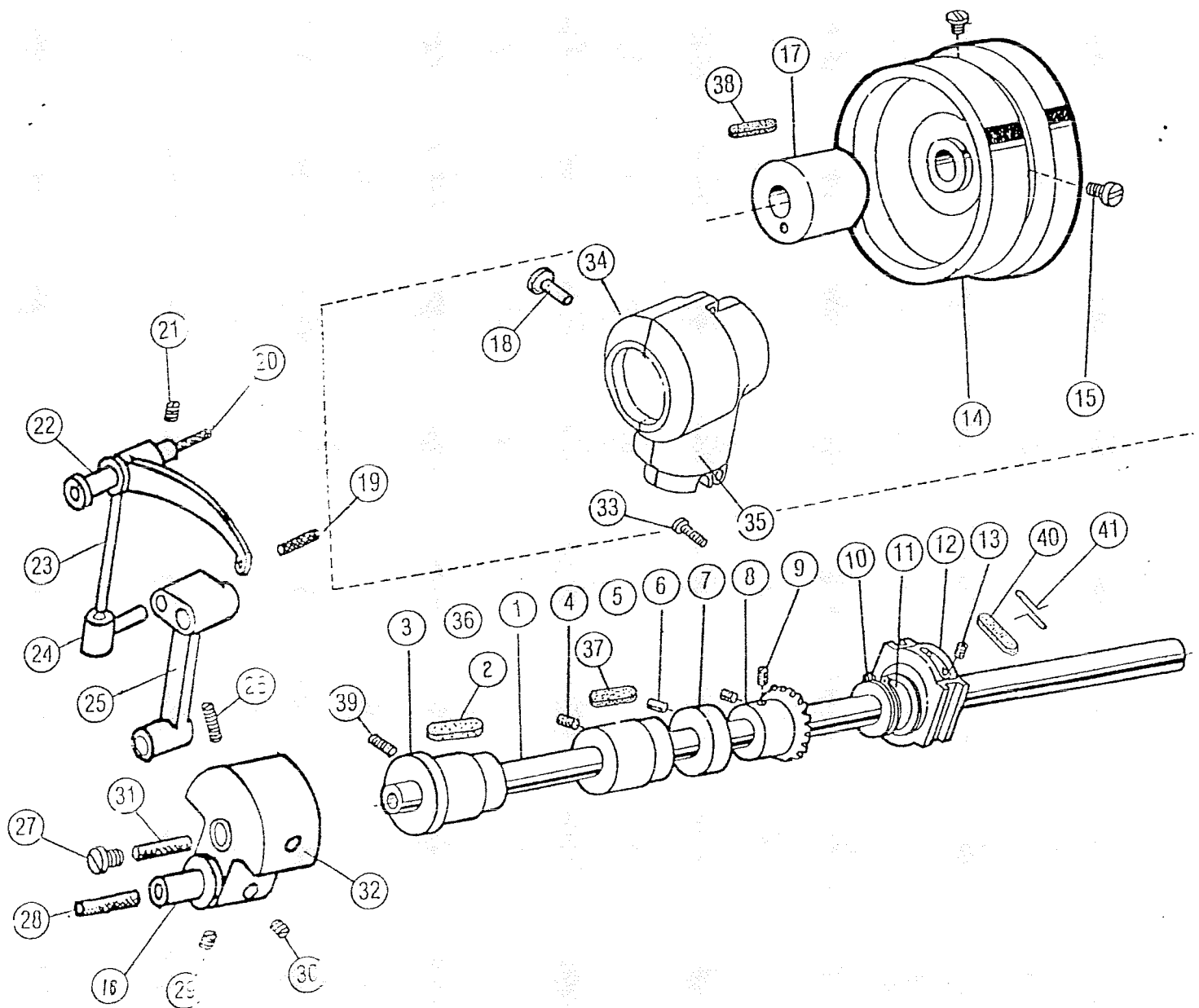
A: ARM BED AND THEIR ACCESSORIES



A: ARM BED AND THEIR ACCESSORIES

Fig.No.	Part No.	Name of part	quantity
A01	31H1-001A1a2	arm Assy	1
A02	31H1-012H1	arm cap	1
A03	GB847-76	wood screw	2
A04	20H12-017E	oiling felt	1
A05	20H12-017C	oiling felt	2
A06	20H12-017B	oil tank	1
A07	20H12-017D	oil wick	1
A08	20H12-017D	oil wick	1
A09	24H9-001	oil cap	1
A10	24H9-002	oiling felt	1
A11	31H1-003C1	face plate	1
A12	72T1-017	face plate set screw	2
A13	22T1-021G1	bed slide	1
A14	22T1-021G3	set screw for bed slide spring	2
A15	22T1-021G2	bed slide spring	1
A16	20H1-005	set screw for needle plate	2
A17	31H1-009	needle plate	1
A18	GB93-76	spring washer	1
A19	20H1-006A3	leg	1
A20	31H1-005E2	felt for thread guide	1
A21	31H1-005E1	thread guide (lower)	1
A22	73T2-007	set screw for thread guide	1
A23	72T1-013	cloth guide plate screw	2
A24	20H1-004	cloth guide plate	1
A25	22T1-003C6	thread guide (middle) screw	1
A26	22T1-003C5	thread guide (middle)	1
A27	24H1-008	thread guide (up) screw	1
A28	24H1-007	thread guide (up)	1
A29	20H12-009	oil cap	1
A30	20H12-008	oiling felt	2
A31	31H6-023	tension release lever rod	1
A32	25H2-001A10	tension release lever screw	2
A33	31H1-008F4	tension release lever	1
A34	25H2-001A2	thread controller stud	1
A35	72T1-008	tension stud screw	1
A36	31H1-008F2	thread controller spring	1
A37	32H1-018D8a19	thread controller spring stop	1
A38	32H1-018D8a11	set screw for spring stop	1
A39	25H2-001A4	thread controller disc	1
A40	25H2-001A8	tension thumb nut	1
A41	31H1-008F3	thread controller disc screw	1
A42	22T1-012F10	stop disc	1
A43	74T1-004D	tension release spring	1
A44	25H2-001A7	tension release washer	1
A45	25H2-001A6	thread disc	2
A46	25H2-001A12b	tension release plunger	1
A47	72T1-007F1	thumb nut	1
A48	25H2-001A1b	tension bracket pin	1
A49	82T2-003C1a6	set screw for tension bracket	1
A50	31H1-007	thread retainer	1
A51	31H1-008F1a1	tension bracket	1
A52	31H1-002B1	the name of machine	1
A53	25H2-001A2	tension stud	1
A54	72T1-017	set screw for tank	2
A55	31H1-004D1	arm side cover	1
A56	20H1-001	rubber plug	1
A57	72T1-017	set screw for arm side cover	5
A58	72T1-016	set screw for thread take-up guard	1
A59	31H1-006	thread take-up guard	1
A60	24H1-001B2	brand	1
A61	GB827-86	rivet	6
A62	24H1-010	thread guide	1
A63	82T1-006	set screw for thread guide	2
A64	20H12-018	oil window	1
A65	20H12-019	sealing washer	1
A66	20H12-020	gland	1
A67	72T1-017	set screw for gland	5
A68	24H1-005	oil guard	1
A69	24H1-006	plate for oil guard	1

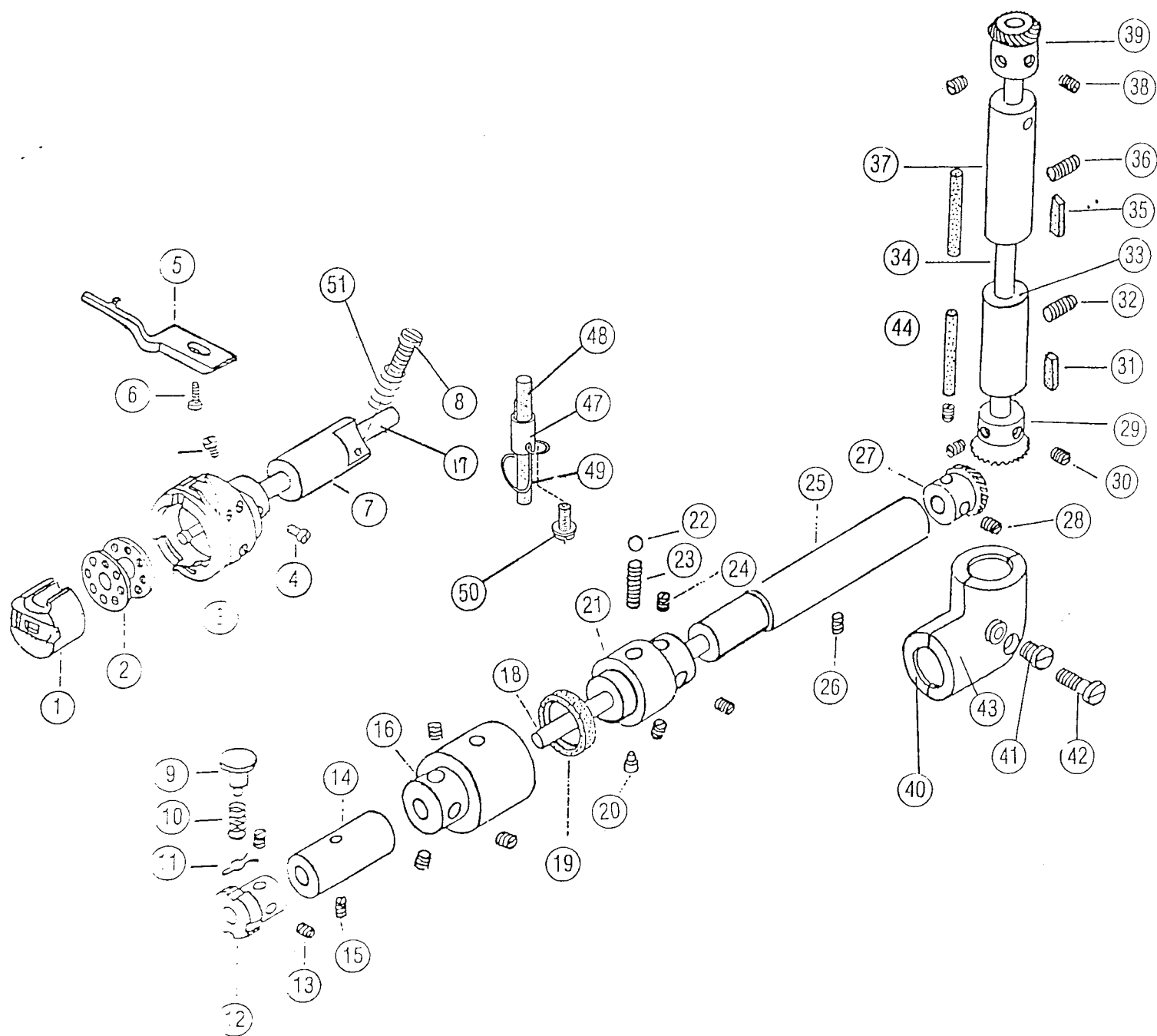
B: ARM SHAFT, TAKE UP LEVER



B: ARM SHAFT, TAKE UP LEVER

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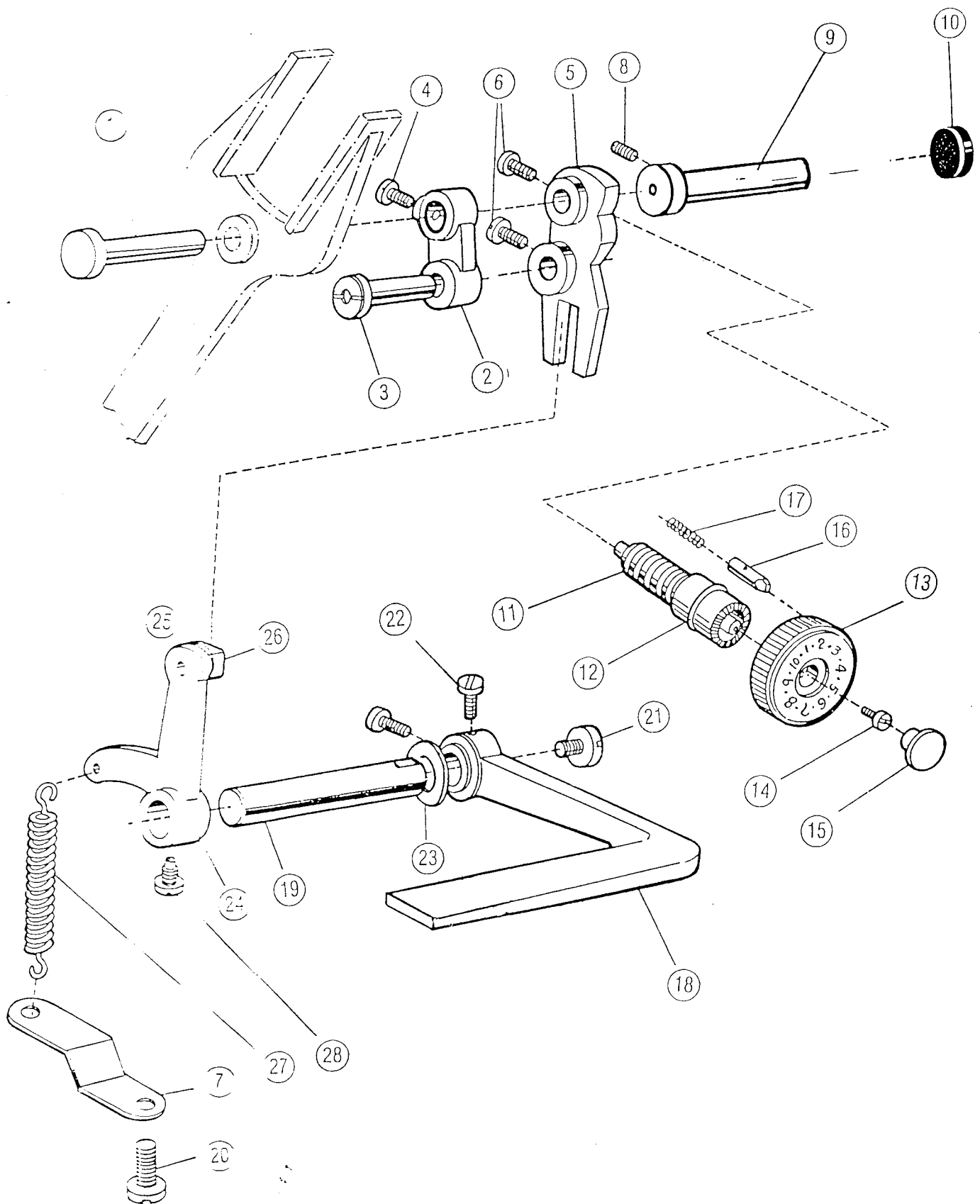
C: ARM SHAFT (UPRIGHT), LOWER SHAFT



C: ARM SHAFT (UPRIGHT), LOWER SHAFT

Fig.No.	Part No.	Name of part	quantity
C01	74T4-008	bobbin case complete	1
C02	74T4-006	bobbin	1
C03	23H4-001	rotating hook complete	1
C04	23H4-001-1	set screw for rotating hook	2
C05	74T4-004	rotating hook positioner	1
C06	22T4-015	set screw for rotating hook positioner	1
C07	20H1-006M2	hook shaft bushing (left)	1
C08	20H12-007	oil adjusting screw	1
C09	31H3-006	push button	1
C10	31H3-009	push button spring	1
C11	31H3-007	clip for push button	1
C12	31H3-008	hook shaft lock ratchet	1
C13	22T2-005B2	set screw for hook shaft lock ratchet	2
C14	31H1-001A7d1	hook shaft bushing (middle)	1
C15	20H8-008	set screw for hook shaft bushing (middle)	1
C16	31H3-003B1	safety clutch (left)	1
C17	31H3-005	hook shaft	1
C18	31H3-002	lower shaft	1
C19	31H3-004	oil wick for safety clutch (left)	1
C20	31H3-003B4	set screw for safety clutch (right) spring	1
C21	31H3-003B2	safety clutch (right)	1
C22		steel ball	1
C23	31H3-003B5	spring for safety clutch (right)	1
C24	22T2-005B2	set screw for safety clutch	6
C25	31H1-001A8e1	lower shaft bushing	1
C26	20H8-008	set screw for lower shaft bushing	1
C27	22T3-010E2b1-2	lower shaft gear (spiral)	1
C28	22T2-005B3	set screw for lower shaft gear	2
C29	22T3-010E2b2-2	arm shaft (upright) gear (lower)	1
C30	22T2-005B3	set screw for arm shaft (upright) gear (lower)	2
C31	20H1-006G1	oiling felt for arm shaft (upright) bushing	1
C32	22T2-002	set screw for arm shaft (upright) bushing (lower)	1
C33	20H1-006H1	arm shaft (upright) bushing (lower)	1
C34	31H3-001A1	arm shaft (upright)	1
C35	20H1-006G1	oiling felt for arm shaft (upright) bushing (upper)	1
C36	22T2-002	set screw for arm shaft (upright) bushing (upper)	1
C37	31H1-001A9f1	arm shaft (upright) bushing (upper)	1
C38	22T2-005B3	set screw for gear (spiral)	2
C39	22T3-010E2a2-2	arm shaft (upright) gear (upper)	1
C40	20H12-015B	lower shaft gear cover (back)	1
C41	72T1-011	oil cap for lower shaft gear cover	2
C42	GB65-85	set screw for lower shaft gear cover	1
C43	20H12-015A	lower shaft gear cover (front)	1
C44	20H1-006G2	oil wick for arm shaft (upright) bushing	2
C45	31H1-001A7d2	oiling felt for hook shaft bushing (middle)	1
C46	31H1-001A8e2	oiling felt for lower shaft bushing	1
C47	20H12-005A	oil pipe	1
C48	20H12-005B	oiling felt for hook	1
C49	20H12-005C	oiling felt spring	1
C50	72T1-017	set screw for oiling felt spring	1
C51	20H12-007	spring for oil adjusting screw	1

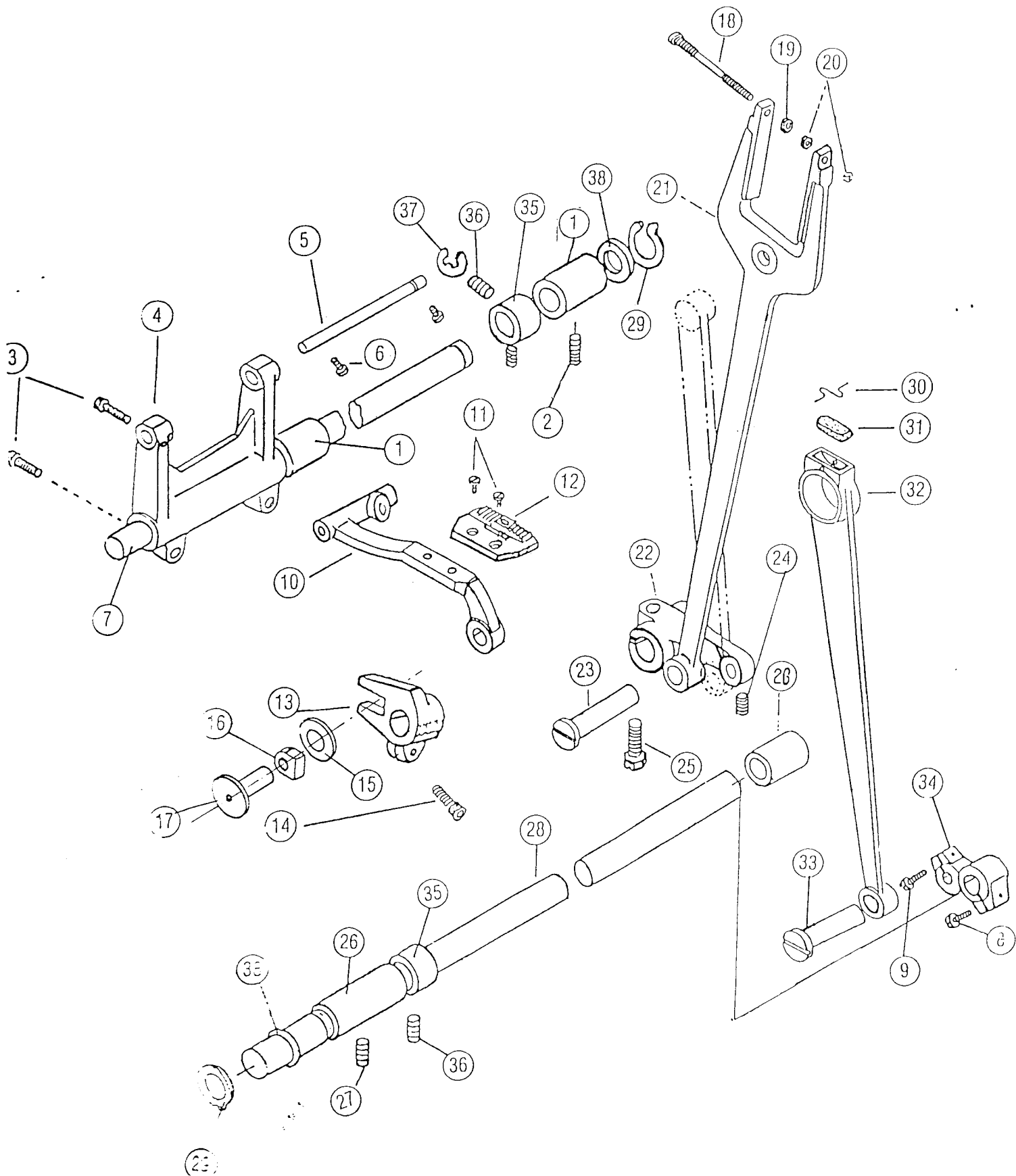
D: STITCH LENGTH REGULATING MECHANISM



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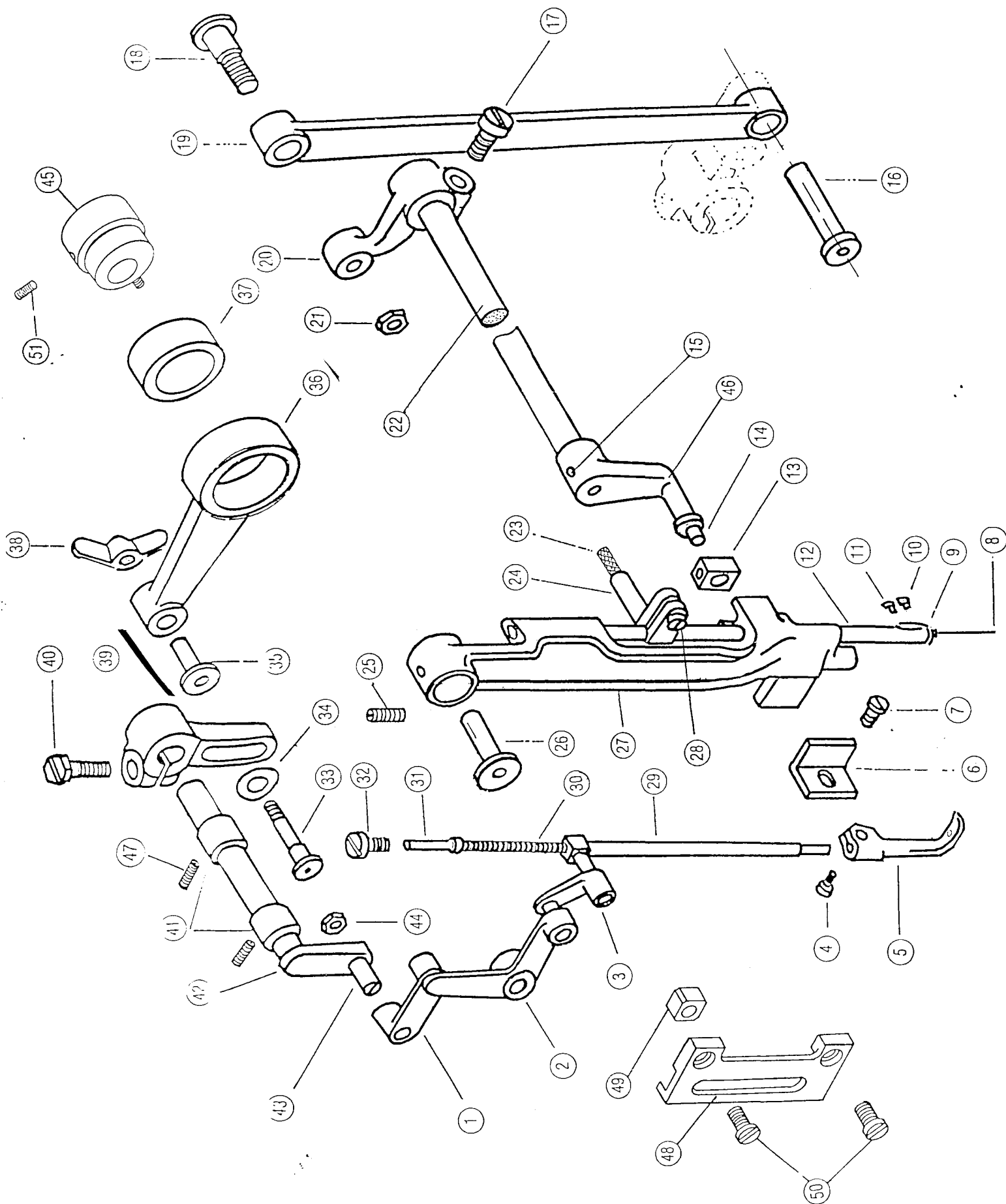
E: LOWER FEEDING MECHANISM



E: LOWER FEEDING MECHANISM

Fig.No.	Part No.	Name of part	quantity
E01	20H1-006E	bushing for feed rock shaft	2
E02	22T2-002	set screw for feed rock shaft bushing	2
E03	72T6-001A6	set screw for feed rock shaft base	2
E04	31H4-011	feed rock shaft base	1
E05	31H4-012	feed base supporting pin	1
E07	20H11-002A	feed rock shaft	1
E08	22T6-001A1b	screw for bell crank	1
E09	22T6-001A2b	set screw for hinge pin	1
E10	31H4-013B1	feed base	1
E11	22T6-001A4	screw feed dog	2
E12	31H4-016	feed dog (standard type)	1
E13	31H4-014	feed lifting rock shaft crank (left)	1
E14	GB70-76	set screw for feed lifting rock shaft crank (left)	2
E15	72T6-007D1b	washer	1
E16	72T6-007D1a	feed lifting rock shaft slide block	1
E17	72T6-002B1b	pin for feed lifting rock shaft slide block	1
E18	31H4-005	set screw for feed forked connection	1
E19	31H4-018	nut (M4) for set screw	1
E20	31H4-019	nut (M3) for set screw	2
E21	31H4-004	feed forked connection	1
E22	31H4-009	feed rock shaft bell crank (right)	1
E23	22T6-007	hinge pin for feed forked connection	2
E24	22T5-001A4	set screw for hinge pin	3
E25	31H4-010	pinch screw for feed rock shaft bell crank	1
E26	20H1-006E	feed lifting rock shaft bushing	2
E27	22T2-002	set screw for feed lifting rock shaft bushing	2
E28	20H10-001A	reed rock shaft	1
E29	GB894-76	stop ring	2
E30	20H2-003A1a1	oiling felt presser pin	1
E31	20H2-003A1a2	oiling felt for crank connection rod	1
E32	31H4-003	crank connecting rod	1
E33	22T6-007	hinge pin for crank connection rod	1
E34	72T6-003C1	feed lifting rock shaft bell crank (right)	1
E35	22T6-005B1	collar for feed rock shaft	2
E36	22T3-002B2	set screw for feed rock shaft collar	4
E37	GB896-86	stop ring	1
E38	22T6-013	washer for shaft bushing	2

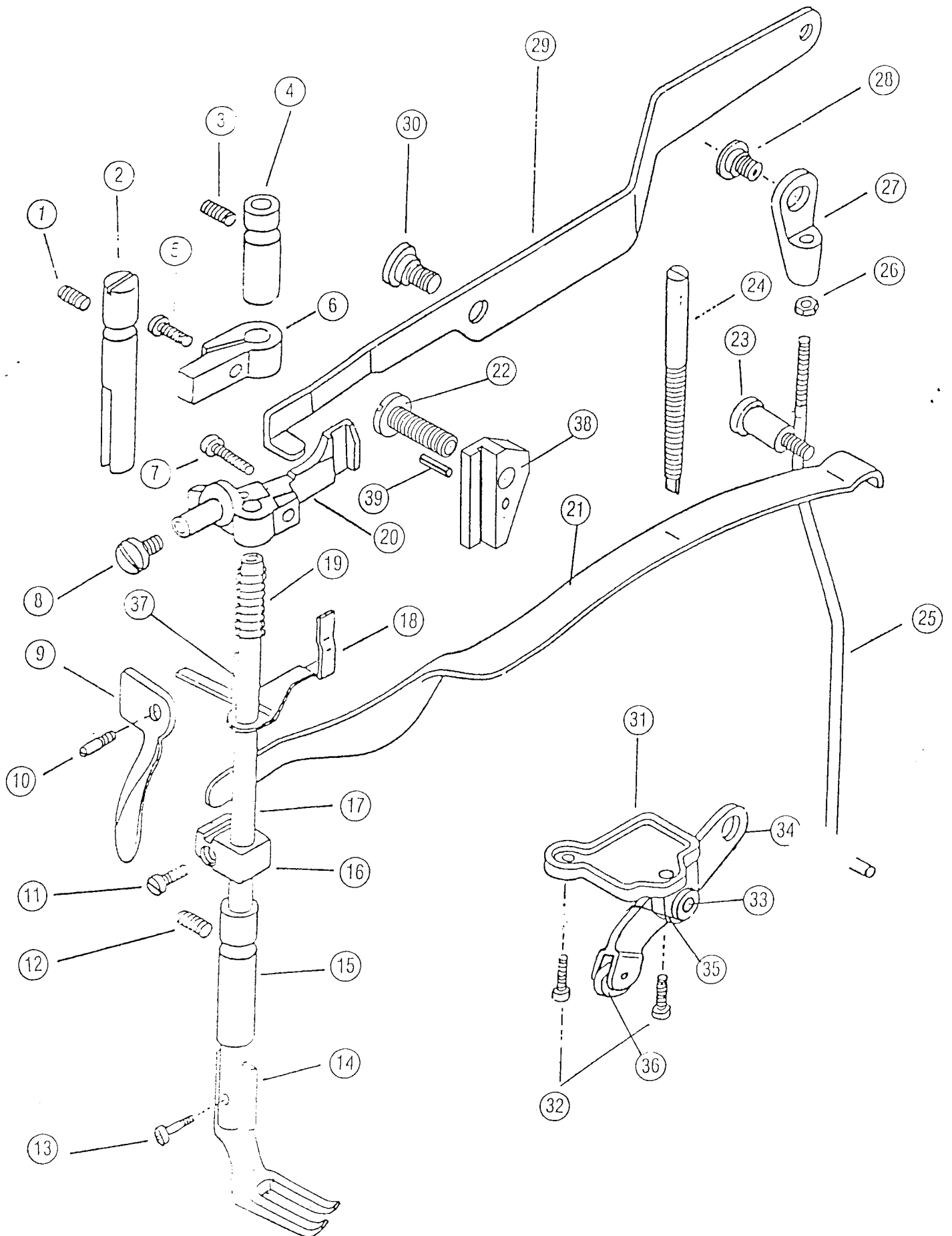
F: NEEDLE BAR, FEEDING MECHANISM



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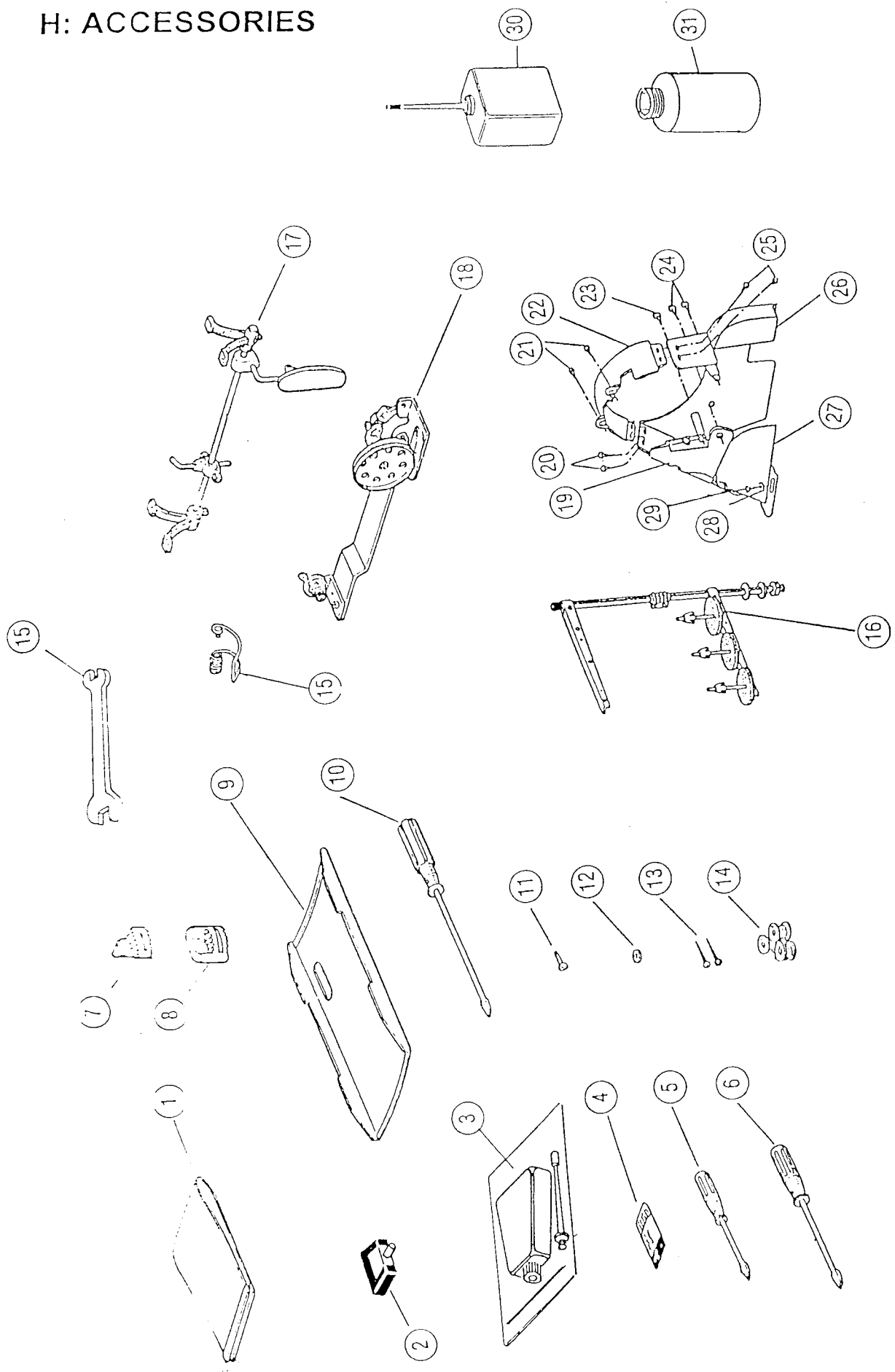
G: PRESSER BAR



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H: ACCESSORIES



H: ACCESSORIES

Fig.No.	Part No.	Name of part	quantity
H01	72T9-019	vinyl cover	1
H02	22T9-007F1	bed hinge connection	2
H02	72T9-004C1	rubber cushion	2
H03	20H14-001E	oiler	1
H04	DPx17 22#	needle set	1
H05	72T9-021	screw driver (small)	1
H06	72T9-020	screw driver (middle)	1
H07	20H14-001B	rubber cushion (small)	2
H08	20H14-001A	rubber cushion (large)	2
H09	20H14-002	oil pan assy	1
H10	72T9-007	screw driver (large)	1
H11	GB99-76	wood screw	2
H12	GB848-76	washer	2
H13		nail	10
H14	74T4-006	bobbin	4
H15	22T9-017	spanner	1
H16	BZ009	thread stand	1
H17	31H7-001A	knee lifter assy	1
H18	BZ015	bobbin winder mechanism	1
H19	20H14-005F	belt cover	1
H20	72T1-017	set screw	2
H21	72T1-017	set screw	2
H22	20H14-005C1	belt cover with label	1
H23	72T9-025	screw	1
H24	72T9-028	set screw for belt cover	2
H25	72T1-017	set screw	2
H26	20H14-005C	belt cover	1
H27	72T9-002B5	belt cover assy.	1
H28	GB848-76	washer	2
H29	GB99-76	wood screw	2
H30	20H4-001E	oiler	1
H31	74T9-003	oiler	1