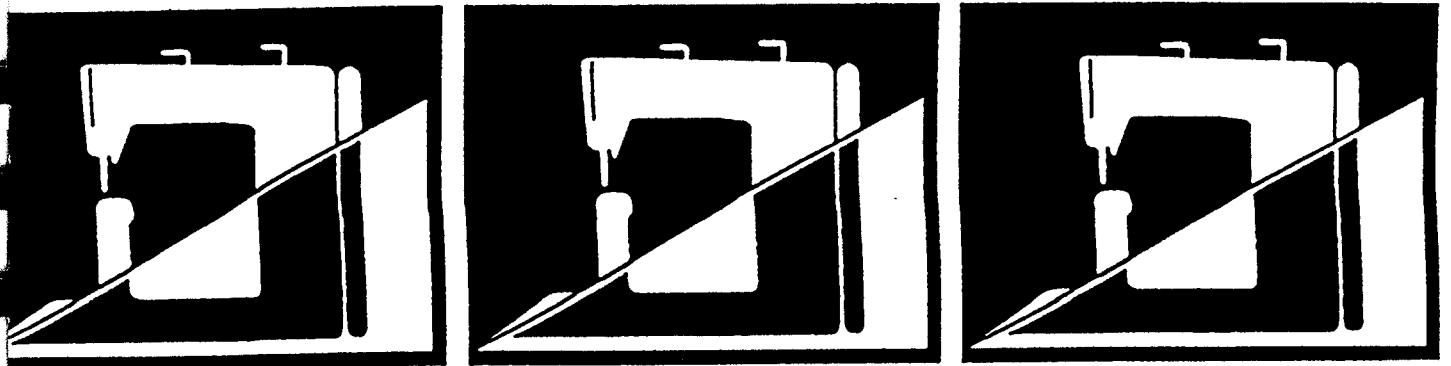


GLOBAL

®

DN 2220

DN 2220 LH



**INSTRUCTIONS FOR ADJUSTMENT AND SERVICING
AND LIST OF SPARE PARTS FOR TWO - NEEDLE
FLAT - BED INDUSTRIAL SEWING MACHINE WITH
LOWER DROP AND NEEDLE FEED**

DN2220 2220 LH

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 his/her seat.
3. Power must be turned off before 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. Injury could result.
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, and/or 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 (single or three) phase with those given on the machine nameplate.

3 Precautions for Operating Conditions

1. Avoid using the machine at abnormally high temperature (35°C or higher) or low temperatures (5°C or lower). Otherwise, machine failure may result.
2. Avoid using the machine in dusty conditions.

DN 2220 / DN 2220 LH

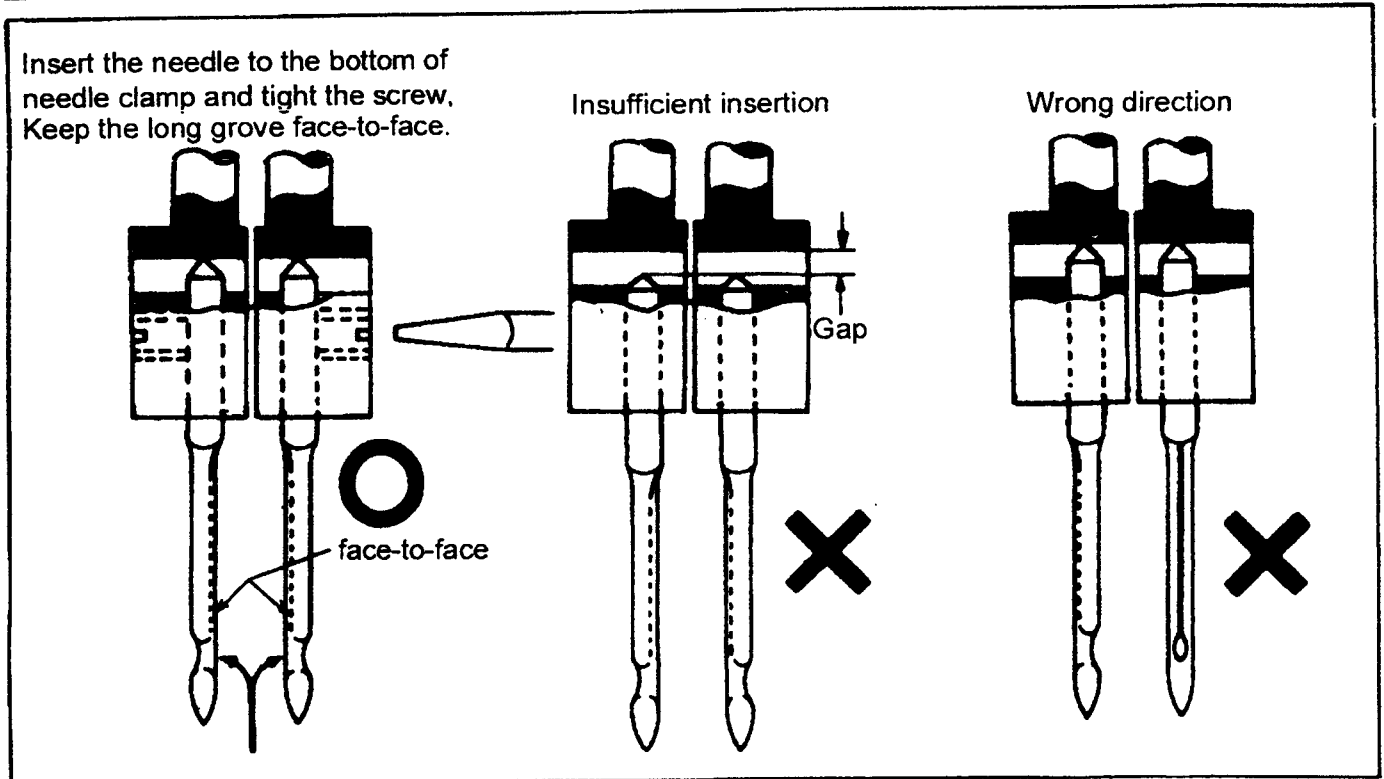
Global® DN 2200 series - two needle lockstitch machines

Specification

Specification	Model	DN 2220	DN2220 LH
material weight			
Max speed		2800spm	2800spm
Stitch length		0 ~ 4mm	0 ~ 7mm
Needle bar stroke		33.4mm	35mm
Presser foot clearance		kneel lifter 13mm Hand 7mm	
Needle		DP×5 (Standard #14)	DP×5 (Standard#18)
Rotating hook		Rotary automatic lubrication horizontal rotating hook (Standard rotating hook)	Rotary automatic lubrication horizontal rotating hook (Twice rotating hook)
Take-up lever		Slide type	
Adjustment of stitch		Dial type	
Lubrication		Automatic lubrication	
Motor		Clutch motor 370W	
Gap of two needles	Standard	3.2, 4.8, 6.4mm	
	Special	2.4, 4, 5.6, 8, 9.5, 12.7, 16, 19, 25.4, 28.5, 31.8, 38.1	

1 How to attach needle

Note: Before attach needle, be sure to switch off the power source.



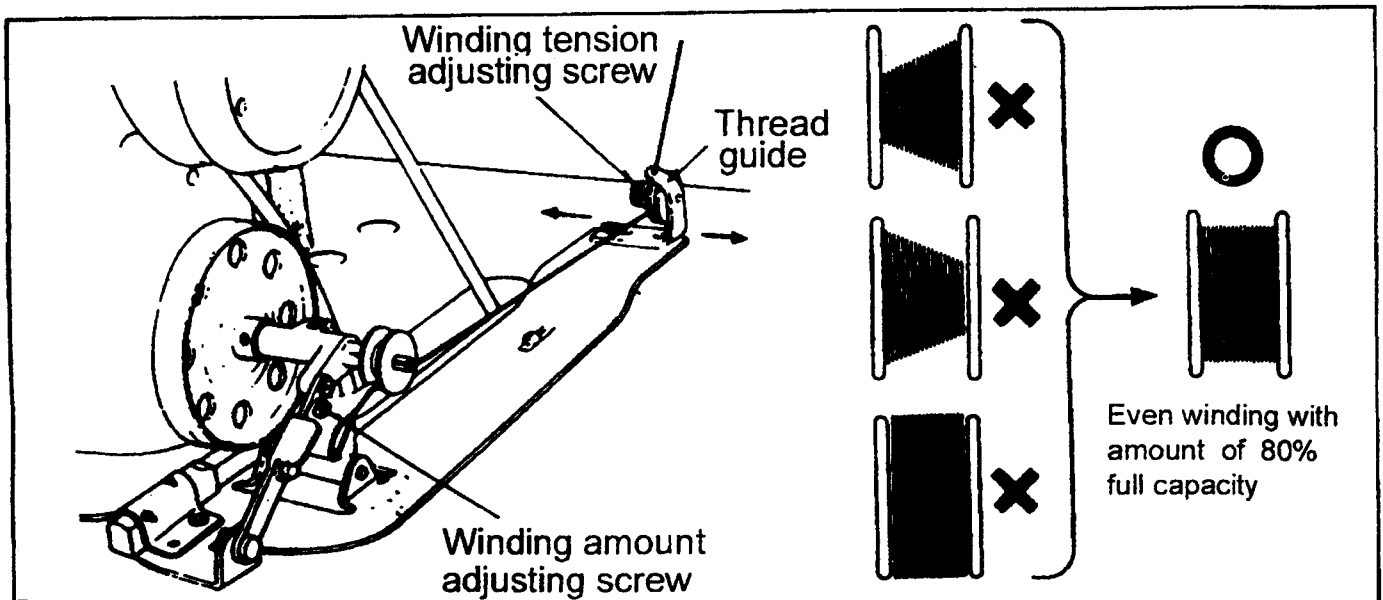
2 How to wind the lower thread on the bobbin

Note: Raise the presser foot while the sewing machine left out of use.

Strength of winding: Particularly in the case of nylon or polyester thread, it is desirable that the bobbin is wound loosely enough.

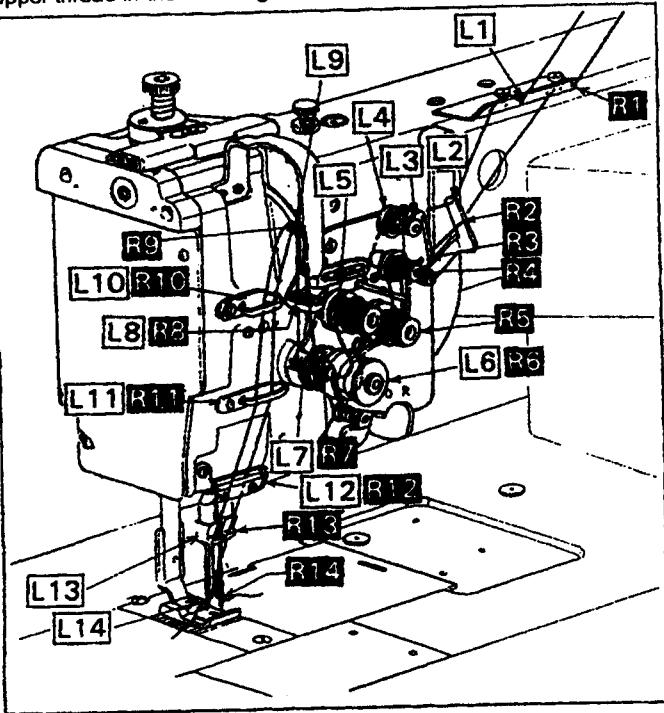
Uneven winding: In the case of uneven winding, adjust the thread guide slightly toward the less wound part of bobbin to obtain even winding.

Winding amount of thread: When the winding amount of thread is excessive, loosen the adjusting screw and tighten when insufficient.



3 Threading

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

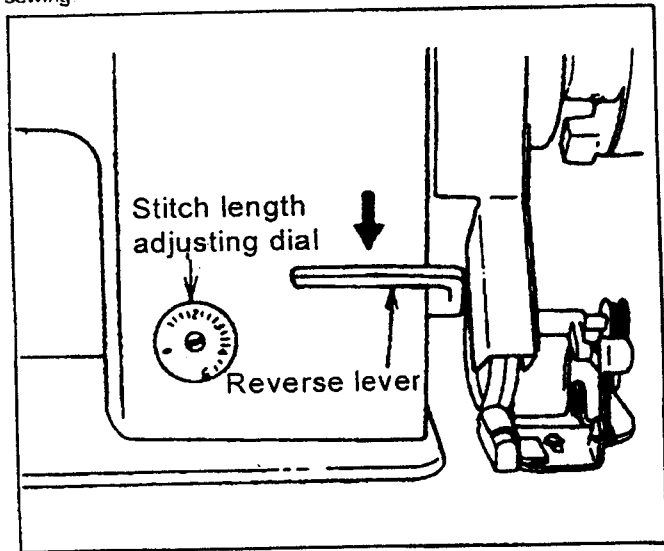


4 Adjusting of stitch length & reverse lever

For desired stitch length, push the reverse lever downward and adjust by stitch length dial.

Push the reverse lever downward, reverse sewing can be continued.

When the reverse lever is released, reverse sewing return to forward sewing

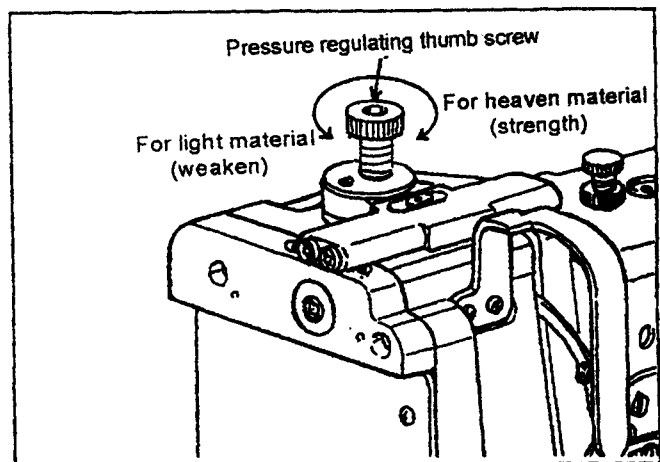


5 Adjusting of thread guide

Adjusting the thread guide according to the sewing materials conditions.

Thread guide position	Left	Middle	Right
Materials	Heavy	M } Standard B }	Light
Upper thread	Increase	Standard	Decrease

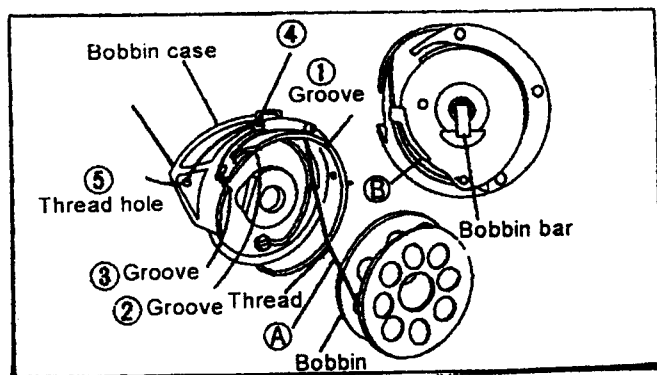
6 Adjusting pressure of presser foot



7 Install the bobbin

leading the lower thread and install the bobbin

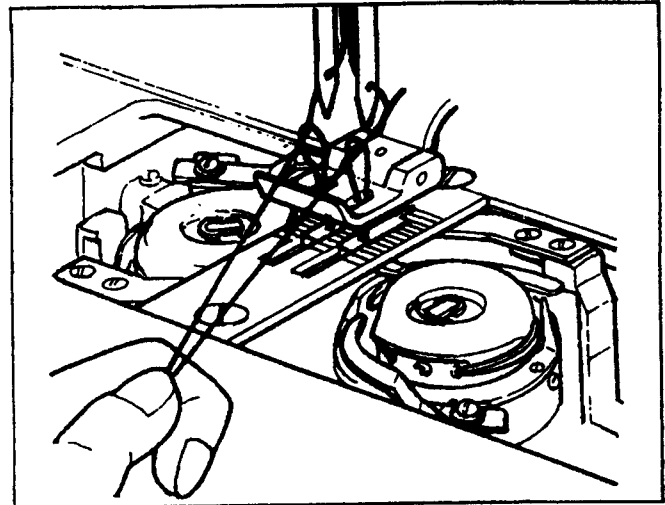
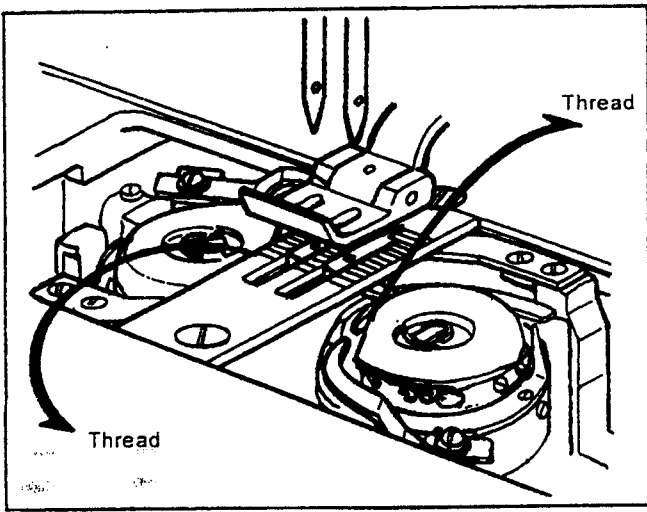
- ① Pull out thread from side A, then install the bobbin case.
- ② Threading following (1) ~ (5):
- ③ Put the bobbin case to rotating hook, then replace hook shaft
- ④ Press the bobbin bar
- ⑤ Leading the lower thread over bed plate



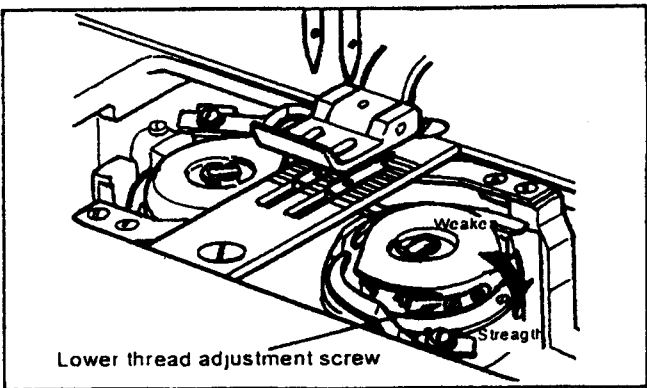
- (2) Hold up upper thread by left hand, rotate the wheel by right hand, lower thread be led while upper thread pull out, make the length of upper thread and lower thread uniform, lead thread under the presser foot.

8 Leading the lower thread

(1) Pull the lower thread from bed plate

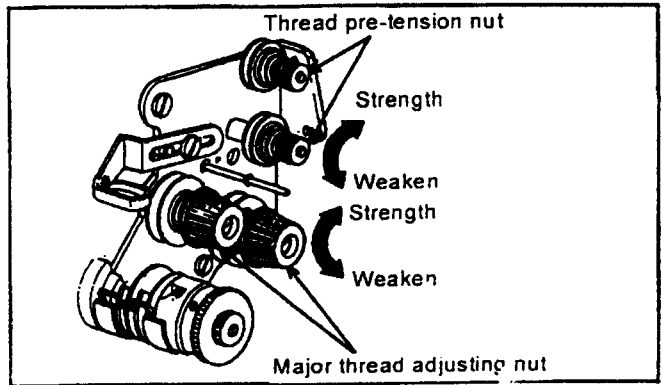


9 Adjusting the lower thread



10 Adjusting the upper thread

Turn the upper thread adjusting stud left or right



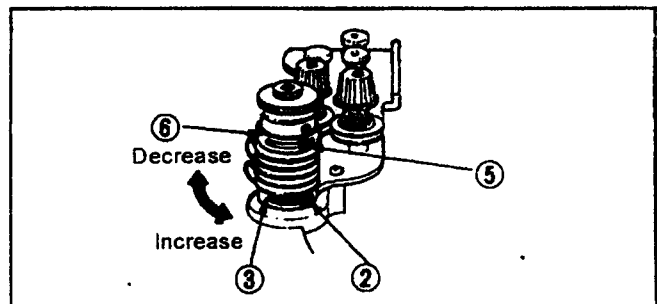
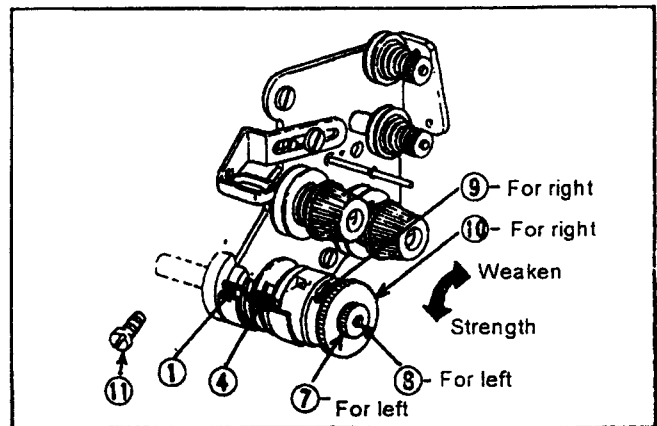
11 Adjusting thread take-up spring

1 . Adjusting the thread take-up spring stroke

- 1. Thread take-up spring for left upper thread: Loosen the stop screw (2) ,adjusting the stopper block(3) .
- 2. Thread take-up spring for right upper thread: Loosen the stop screw (5) ,adjusting the stopper block(6) .

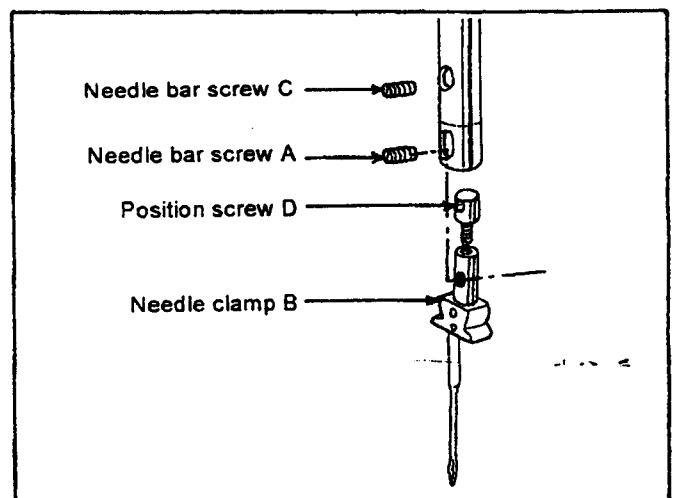
2 . Adjusting the thread take-up spring tension

- 1. Thread take-up spring tension for left upper thread: Loosen the Nut(7)and Screw (11),then adjusting the tension screw.After adjustment,tighten the Nut(7) and Screw (11).
- 2. Thread take-up spring tension for right upper thread: Loosen the Screw(9) , adjusting the nut (10) .After adjustment ,tighten Screw(9) .



12 Adjustment the needle stop position

- (1) Loosen the needle bar screw A
- (2) Rotate the needle clamp B one circuit (amount of adjustment is 0.6mm), or loosen the needle bar screw C, rotate position screw D half a circuit (amount of adjustment is 0.3mm),
- (3) Be sure to make the needle clamp facing left side, tighten needle bar screw C and A.

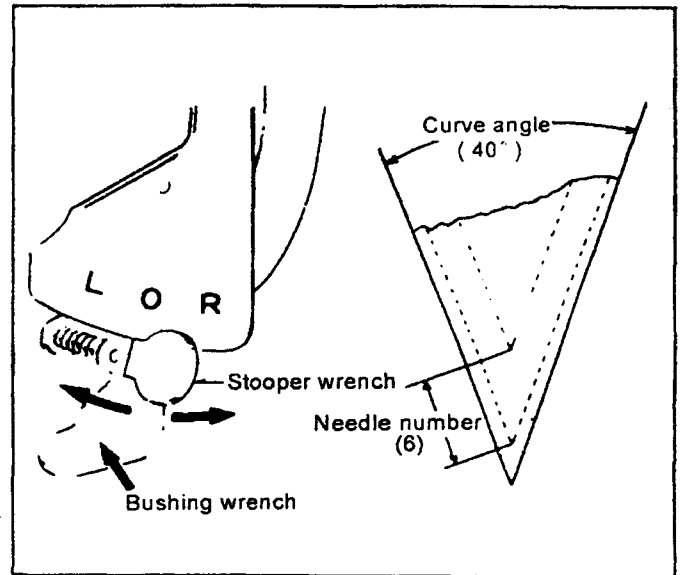


13 Needle bar stop position (left & right)

- Stop the stopper wrench at position L & R.

Note: The stopper wrench can be operated while the sewing machine running, but the best way is to adjust while take-up lever stopping at its highest position:

- ① Stop the motion of left-side needle bar:
Make the stopper wrench to the position L.
- ② Stop the motion of right-side needle bar:
Make the stopper wrench to the position R.
- ③ Two needles running at the same time:
Return the needle bar of left or right from standstill to running:
Press down restore plate, stopper wrench restore to 0 position automatically.



The relations between needle stitch and needle number (while the gap between two needles is 1/4)

needle number / curve angle	2	3	4	5	6	7	8
30°				4.8	4.0	3.7	3.0
40°			4.4	3.5	2.9	2.5	2.2
50°		4.6	3.4	2.7	2.3	2.0	1.7
60°	5.5	3.7	2.8	2.2	1.9	1.6	
70°	4.6	3.0	2.3	1.8	1.5		
80°	3.8	2.5	1.9	1.5	1.3		
90°	3.2	2.1	1.6	1.3			
100°	2.7	1.8	1.3				
110°	2.2	1.5					
120°	1.8	1.2					
130°	1.5						
140°	1.1						

14 Relations between curve angle and stitch length

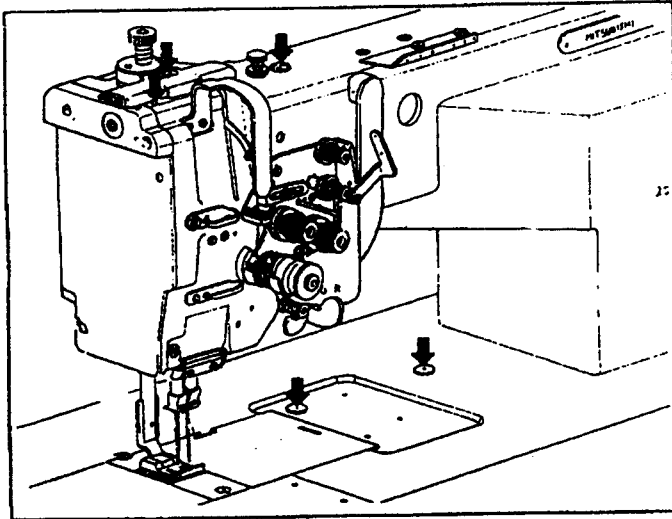
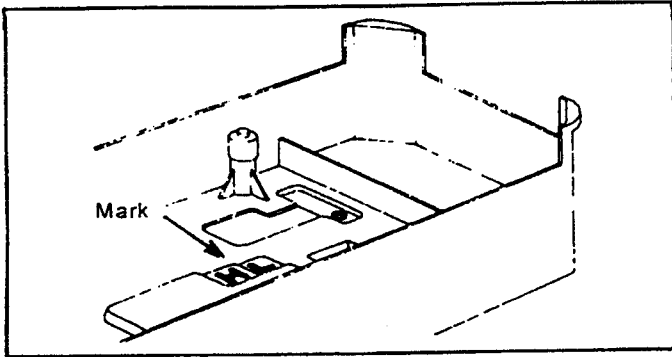
- ① Determine the stitch length according to the form to obtain various angles.
- ② The needle number of another outside needle can be obtained while the angle be determined.
- ③ Example: While the angle is 40°, if the stitch is 2.9mm, then the outside needle number is 6.

1 Lubrication (1)

Pour oil up to the position H of oil tank.

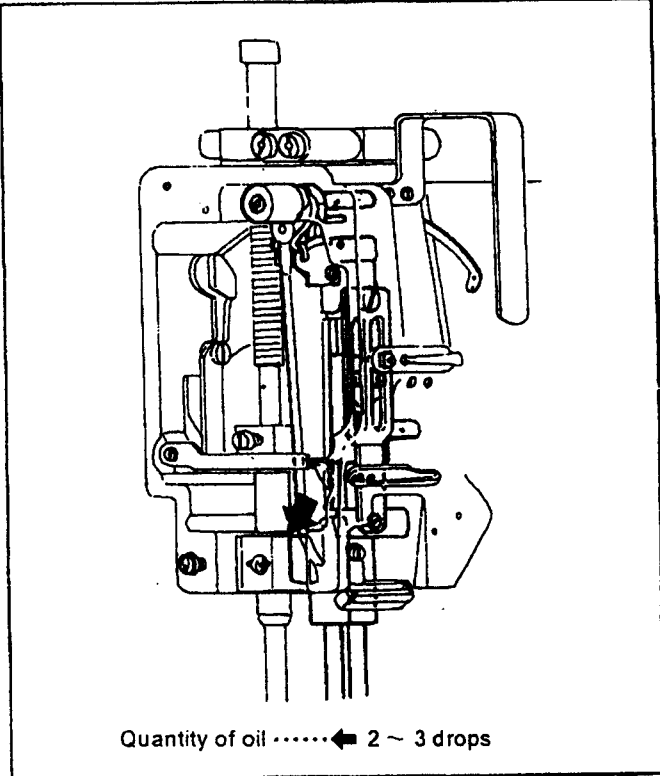
During operation, check the oil volume periodically, if oil lever is below the position L, replenish oil up to the position H.

Please use the Sewing Machine oil.



2 Lubrication (2)

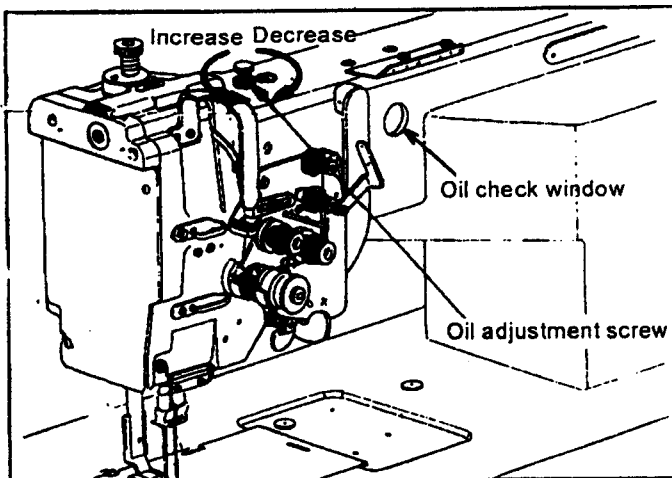
While a new sewing machine is first operated, or when a sewing machine left out of use for a long period of time is operated, it will be necessary to oil.



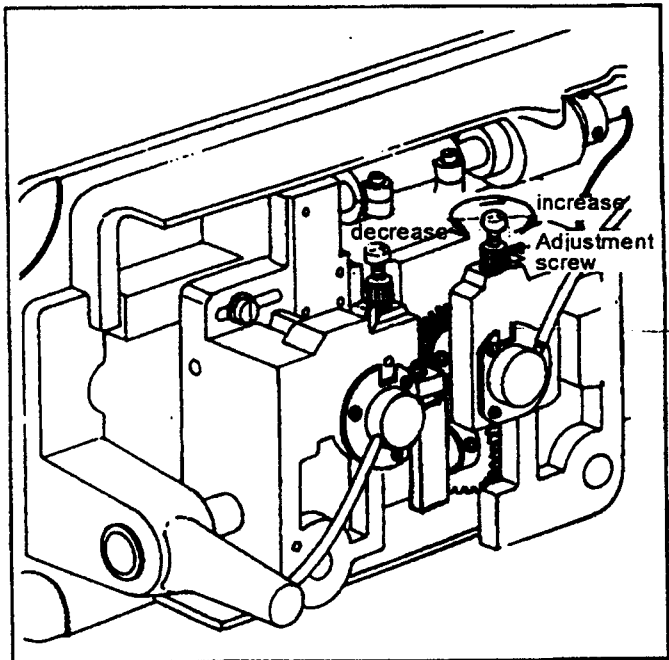
3 Condition of oil lubrication & adjusting take-up lever lubrication

(1) Be sure to the oil is splashing through the oil check window while sewing machine is operating.

(2) Adjusting the oil adjustmet screw

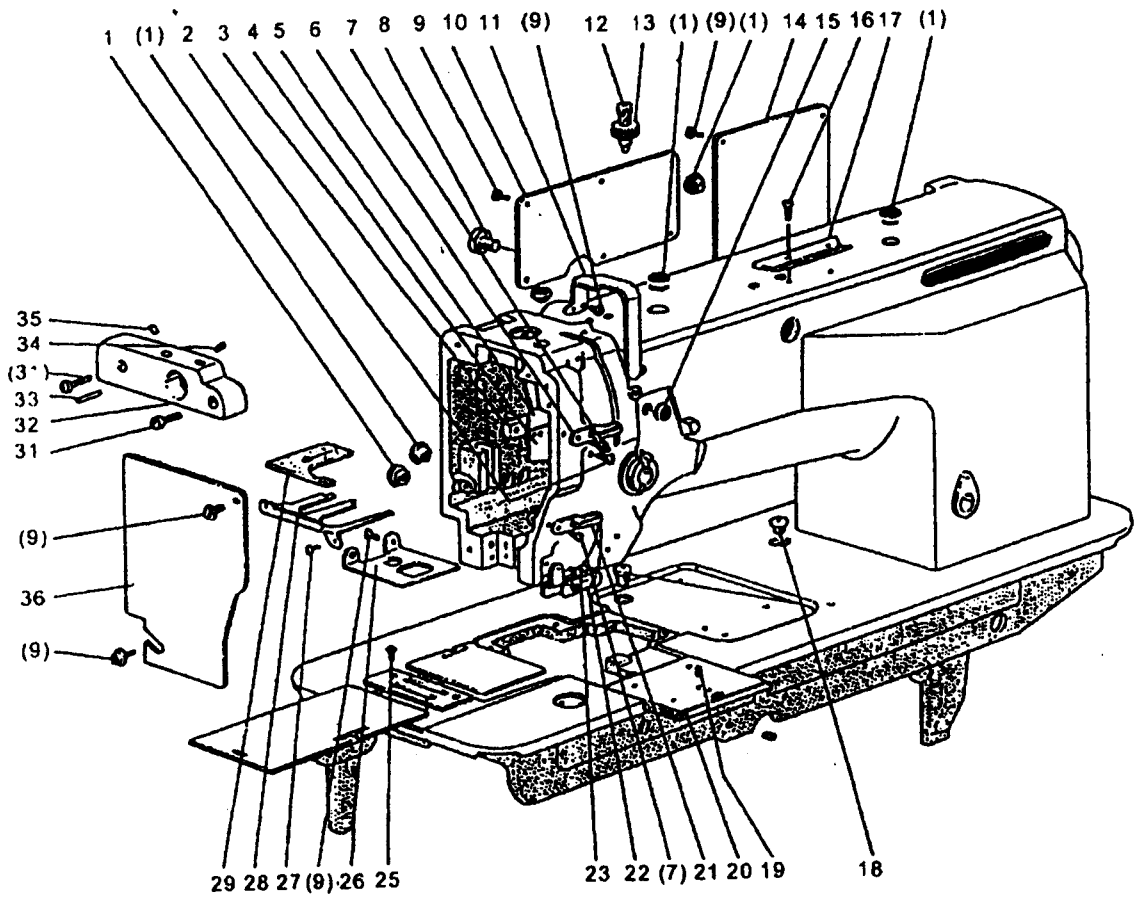


4 Adjustment of hook lubrication



TABLES OF PARTS

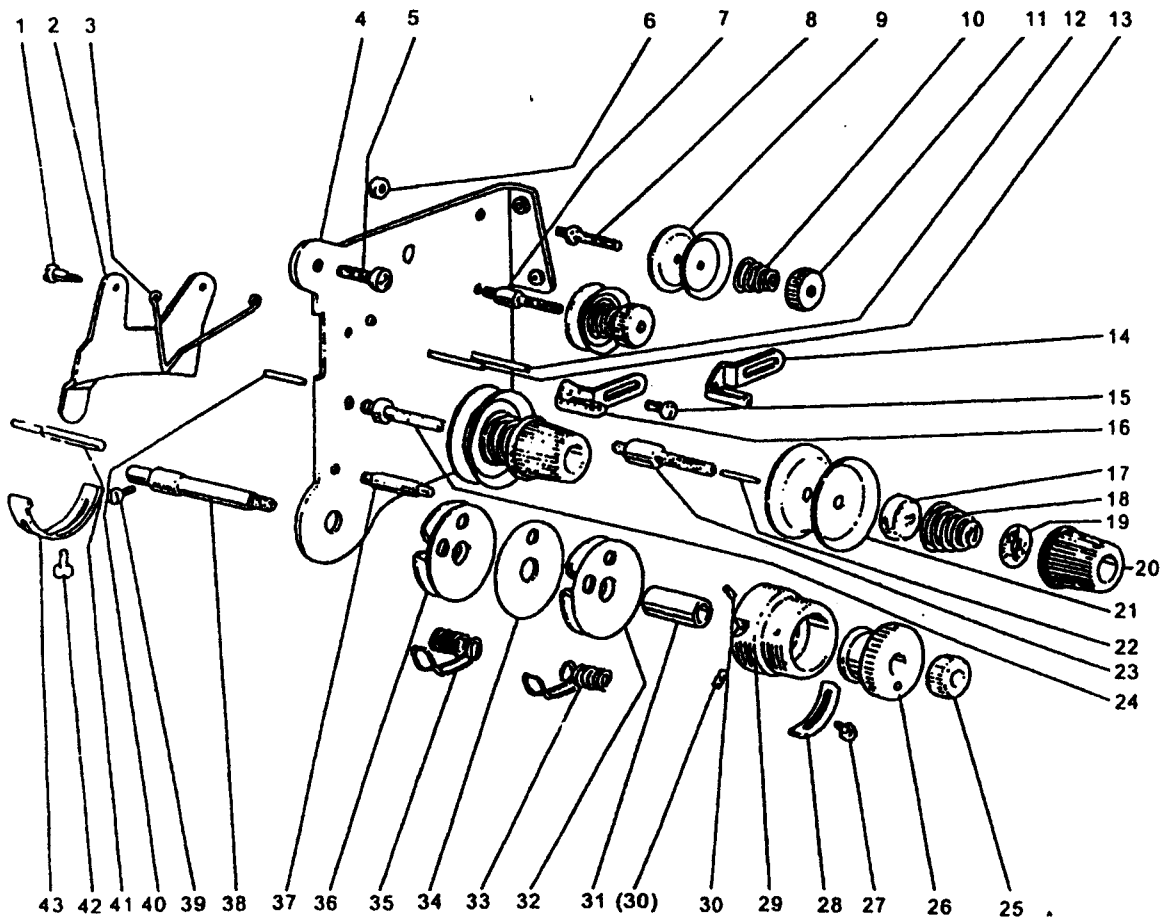
1



ARM BELL AND ITS ACCESSORIES

No.	Ref. No.	Description	M	B
1	32H1-019	Rubber plug	5	5
2	24H1-008	Screw	2	2
3	24H1-006	Spacer	1	1
4	32H1-006	Oil guide plate	1	1
5	24H1-005	Oil guide plate cover	1	1
6	32H1-007	Thread guide (upper)	1	1
7	30H3-016	Screw	2	2
8	GB818-85-M6×8	Screw	1	1
9	72T1-017	Screw	15	15
10	32H1-003	Arm side cover (left)	1	1
11	34H11-004	Thread take-up cover	1	1
12	32H10-021	Screw	1	1
13	32H10-022	Special nut	1	1
14	32H1-004	Arm side cover (right)	1	1
15	20H1-001	Rubber plug	1	1
16	82T1-006	Screw	2	2
17	24H1-010	Thread guide	1	1
18	20H12-008	Cap	2	2
19	32H1-017	Screw	1	1
20	32H1-016C	Slide plate complete	1	1
21	32H1-008	Thread guide (middle)	1	1
22	32H1-009B	Thread guide (lower) complete	1	1
23	32H1-010	Screw	1	1
24	72T1-019	Screw	1	1
25	32H1-012	Screw	1	1
26	34H10-002	cover	1	1
27	20H9-001C	Screw	2	2
28	34H10-003A1	Oil guide plate	1	1
29	34H10-003A2	Felt	1	1
30	34H11-003	Face plate	1	1
31	34H11-008	Screw	2	2
32	34H11-007	Shaft supporter	1	1
33	GB117-86 A2.8×20	Pin	2	2
34	22T1-011	Screw	2	2
35	20H8-008	Screw	1	1

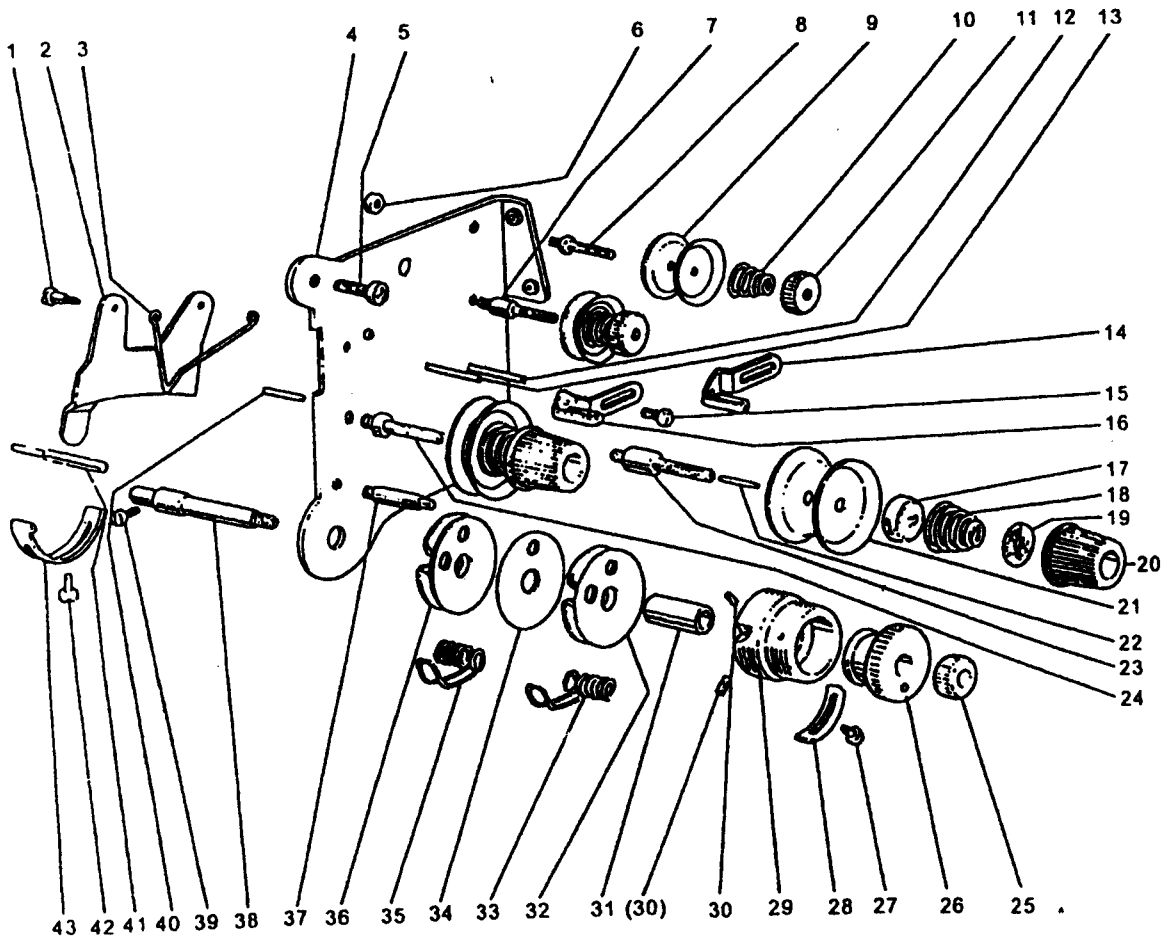
2



2. THREAD TENSION REGULATOR MECHANISM

No.	Ref. No.	Description	M	B
1	25H2-001A10	Screw	2	2
2	32H1-018D14b	Tension releasing plate	1	1
3	25H2-001A11	Tension releasing spring	1	1
4	32H1-018D20	Mounting plate	1	1
5	72T2-002	Screw	2	2
6	32H1-018D10	Nut	2	2
7	32H1-018D5	Thread tension stud	1	1
8	32H1-018D3	Thread tension stud	1	1
9	22T1-009E3	Thread tension disc	4	4
10	32H1-018D4	Thread tension spring	2	2
11	82T1-007C1	Thumb nut	2	2
12	32H1-018D2	Pin	1	1
13	25H2-001A1b	Pin	1	1
14	33H1-004B1	Thread guide		1
15	22T1-003C6	Screw	1	1
16	32H1-018D7	Thread guide	1	
17	72T1-007F2	Thread tension releasing disc	2	2
18	32H1-018D4	Thread tension spring	2	
18	33H1-004	Thread tension spring		2
19	22T1-012F10	Thumb nut revolution stopper	2	2
20	72T1-007F1-2	Thumb nut	2	2
21	72T1-007F5	Thread tension disc	4	4
22	32H1-018D17	Pin	1	1
23	32H1-018D9	Thread tension stud	1	1
24	32H1-018D6	Thread tension stud	1	1
25	32H1-018D8a7	Nut	1	1
26	32H1-018D8a6	Take-up spring guide	1	1
27	34H2-007D1u	Screw	1	1
28	32H1-018D8a10	Stopper	1	1
29	32H1-018D8a9	Thread tension post	1	1

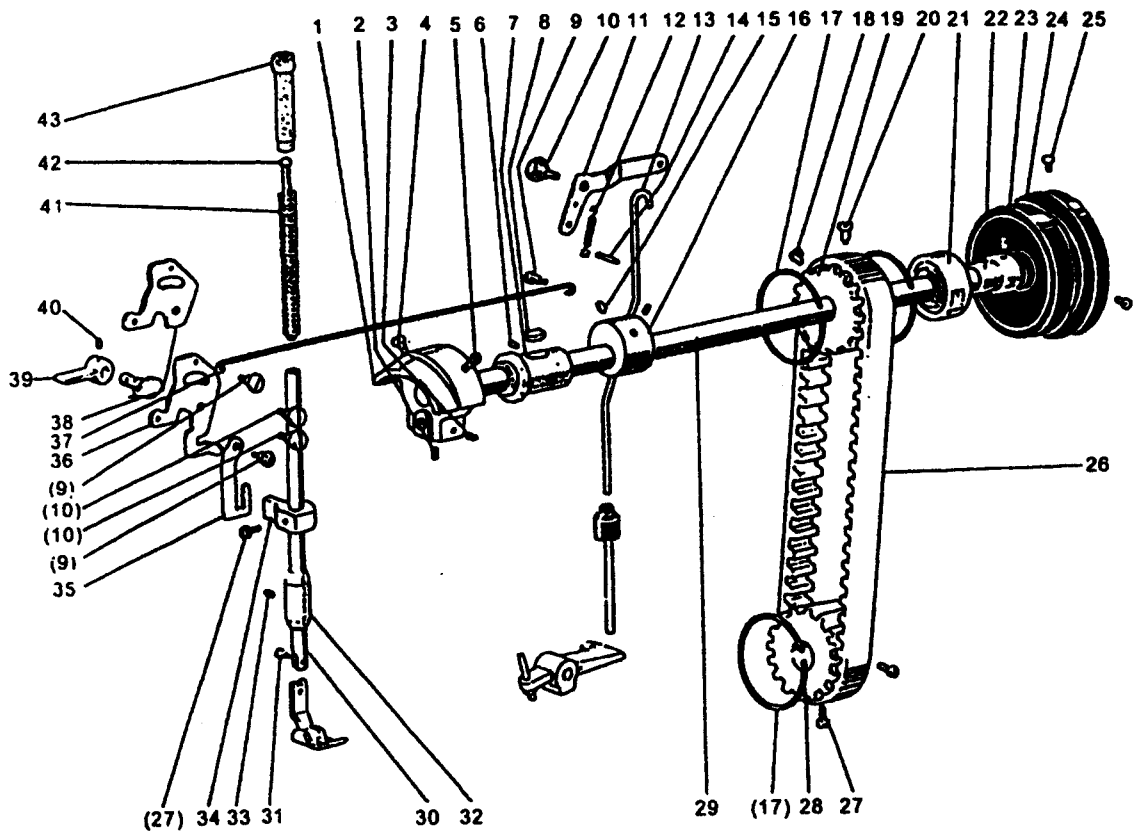
2



2. THREAD TENSION REGULATOR MECHANISM

No.	Ref. No.	Description	M	B
30	32H1-018D8a5	Screw	2	2
31	32H1-018D8a8	Bushing	1	1
32	32H1-018D8a14	Plate complete	1	1
33	32H1-018D8a3	Thread take-up spring	1	1
34	32H1-018D8a13	Plate	1	1
35	32H1-018D8a2	Thread take-up spring	1	1
36	32H1-018D8a12	Plate complete	1	1
37	32H1-018D8a4	Screw	1	1
38	32H1-018D8a1	Thread tension stud	1	1
39	20H9-001C	Screw	1	1
40	32H1-018D16	Pin	1	1
41	32H1-018D18	Tension releasing pin	1	1
42	32H1-010	Screw	1	1
43	32H1-018D19	Stopper	1	1

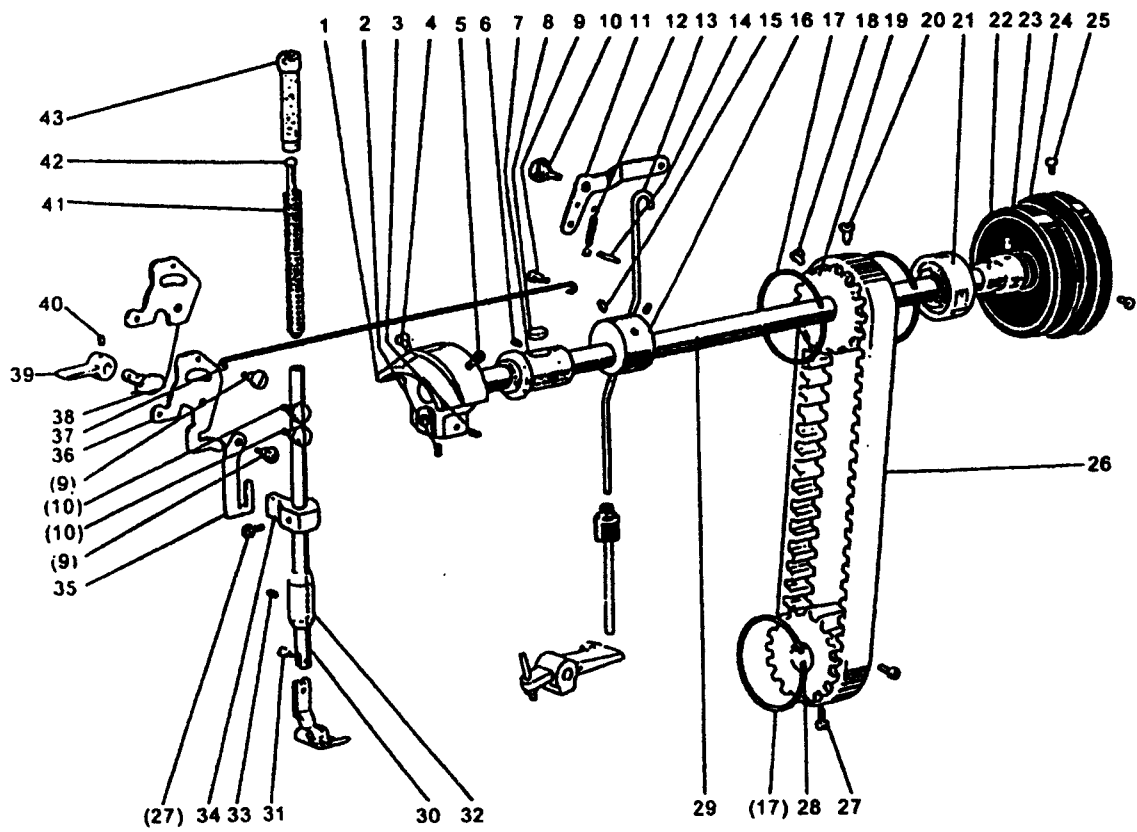
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3. UPPER SHAFT & PRESSER FOOT MECHANISM

No.	Ref. No.	Description	M	B
1	34H1-001A1	Needle bar crank complete	1	1
2	22T3-002B2	Screw	1	1
3	72T2-004B2	Screw	1	1
4	22T2-006	Screw	1	1
5	22T2-007	Screw	1	1
6	24H3-002B4	Screw	1	1
7	32H1-001A1a	Arm shaft bushing (left) complete	1	1
8	32H1-001A1a1	Felt	1	1
9	22T7-004B2	Screw	3	3
10	22T7-005	Screw	3	3
11	32H4-008E1	Knee lifter lever (right)	1	1
12	32H4-008E2	Knee lifter lever (right) spring	1	1
13	32H4-008E3	Knee lifter connecting rod	1	1
14	32H4-009	Spring pin	1	1
15	22T2-002	Screw	1	1
16	34H1-003C1	Balance weight	1	1
17	32H2-002B1	Spring flange	3	3
18	22T5-010D4	Screw	1	1
19	32H2-002B2a	Pulley	1	1
20	22T5-013	Screw	1	1
21	32H9-002B2	Ball bearing 6204ZZNR/5K	1	1
22	32H9-002B1	Bushing	1	1
23	22T5-010D4	Screw	2	2
24	32H9-001A2	Pulley	1	1
25	22T3-007C2	Screw	2	2
26	32H2-003	Cog belt	1	1
27	22T5-001A4	Screw	3	3
28	32H2-004C	Pulley complete	1	1
29	32H2-001A1	Arm shaft	1	1

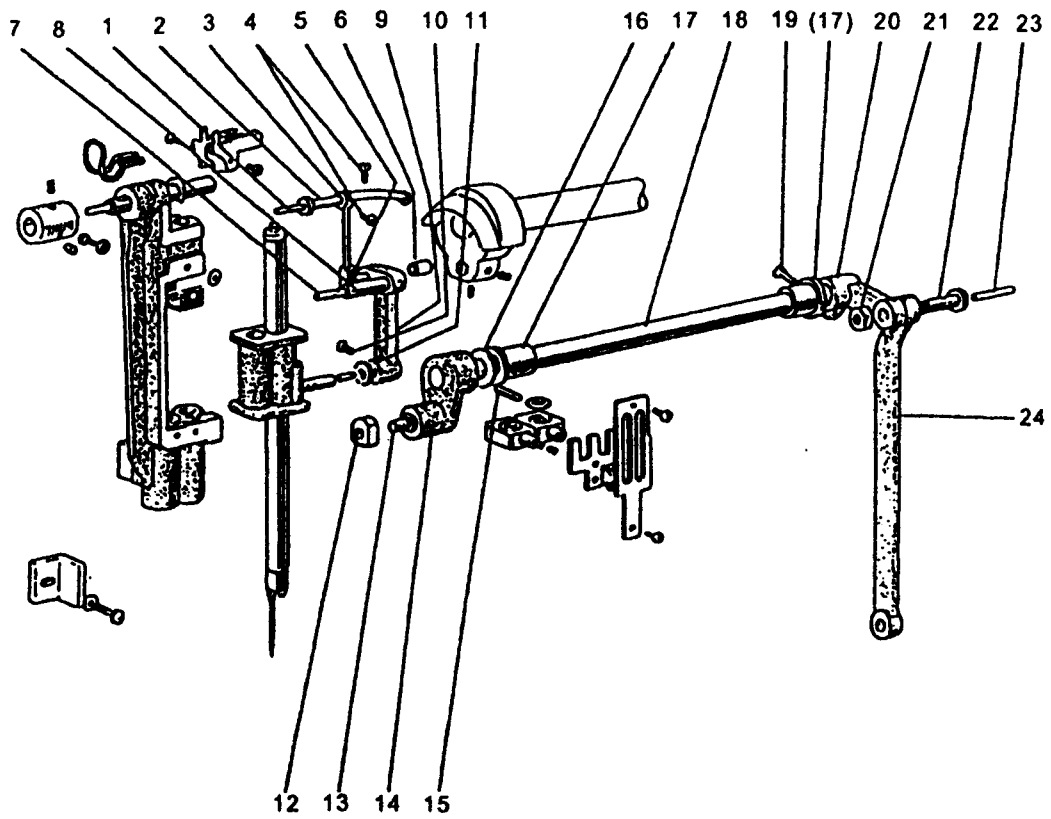
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3、 UPPER SHAFT & PRESSER FOOT MECHANISM

No.	Ref. No.	Description	M	B
30	32H4-001	Presser bar	1	1
31	32H4-002	Screw	1	1
32	82T1-001A1	Presser bar bushing	1	1
33	22T2-002	Screw	1	1
34	32H4-004B1	Presser bar guide bracket	1	1
35	32H4-007D3	Operation plate	1	1
36	32H4-007D2	Knee lifter lever (left)	1	1
37	32H4-007D1	Knee lifter rod	1	1
38	32H4-006	Presser bar lifting cam	1	1
39	32H4-005C	Presser bar lifter complete	1	1
40	22T1-011	Screw	2	2
41	32H4-010	Presser bar spring	1	1
42	22T7-012	Presser bar spring guide	1	1
43	72T7-006D1	Screw	1	1

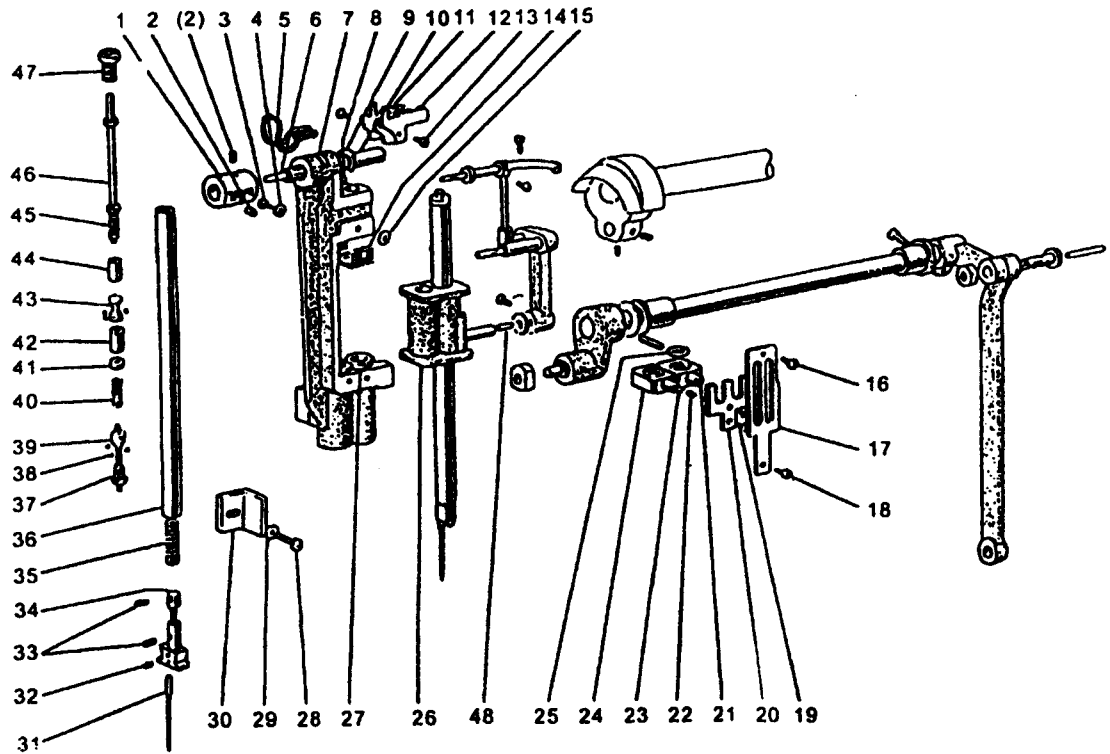
4



4. THREAD TAKE-UP LEVER & NEEDLE BAR ROCK MOTION MECHANISM

No.	Ref. No.	Description	M	B
1	24H3-002B1a2-2	Oil wick	1	1
2	32H2-005D2b1	Thread take-up guide barcket pin	1	1
3	34H1-002B1a2	Thread take-up lever	1	
3	35H1-001A1	Thread take-up lever		1
4	22T3-007C2	Screw	3	3
5	24H3-002B1a1-2	Thread take-up lever link	1	1
6	24H3-002B1a3	Plug	1	1
7	24H3-002B3	Oil wick	1	1
8	24H3-002B2	Needle bar crank pin	1	1
9	34H2-006C1	Connecting link	1	1
10	22T7-015	Screw	1	1
11	34H2-006C2	Bushing	1	1
12	34H2-007D1x	Square block	1	1
13	34H2-003C1	Connecting stud	1	1
14	34H2-003C2	Needle bar rocking shaft crank (left)	1	1
15	GB-117-79	Pin	1	1
16	34H2-005	Washer	1	1
17	32H1-001A2	Bushing	2	2
18	34H2-003C3	Needle bar rocking shaft	1	1
19	20H13-009A2	Screw	1	1
20	34H2-004B1	Needle bar rocking shaft crank (right)	1	1
21	32H3-003C1a5	Nut	1	1
22	32H3-003C1a3	Screw	1	1
23	32H3-003C1a4	Oil wick	1	1
24	34H2-004B2	Rocking shaft connecting rod	1	1

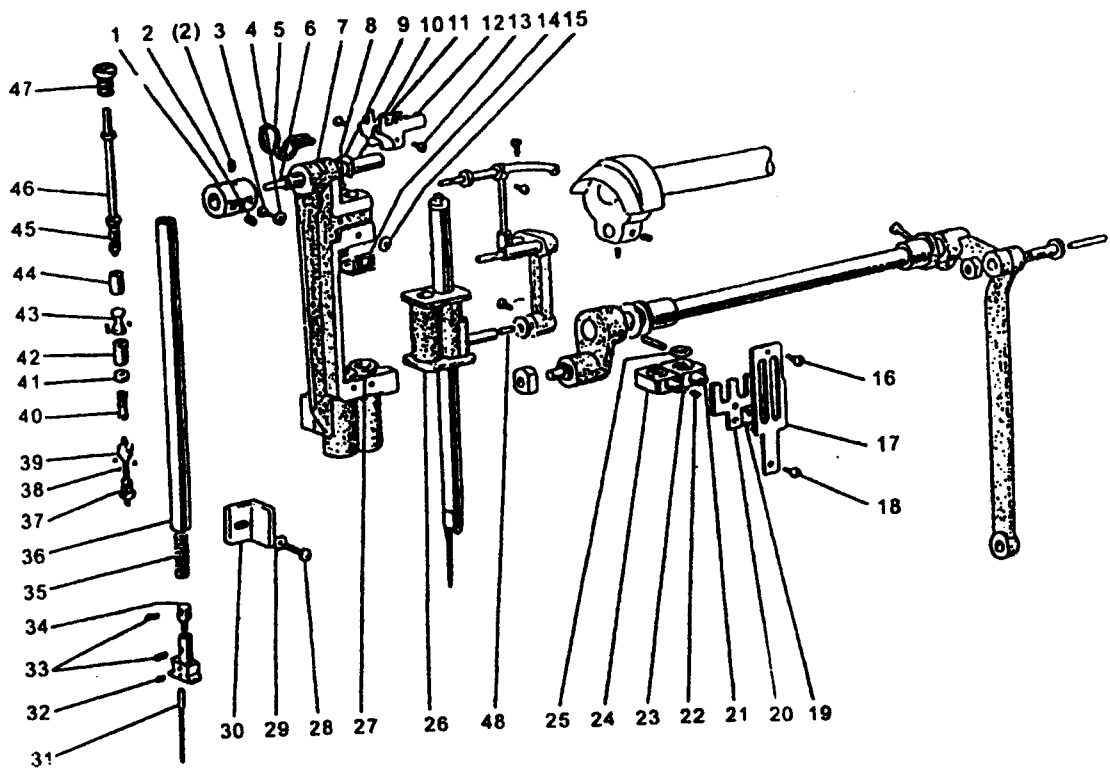
5



5. NEEDLE BAR MECHANISM

No.	Ref. No.	Description	M	B
1	34H2-007D2e	Bushing	1	1
2	72T4-002B2	Screw	2	2
3	32H1-018D8a11	Screw	1	1
4	34H2-007D1r	Spring	1	1
5	34H2-007D1w	Oil wick	1	1
6	34H2-007D2c	Oil wick	1	1
7	34H2-007D1a1	Needle bar supporter	1	1
8	34H2-007D1v	Pin	1	1
9	GB896-86	E-type ring	1	1
10	34H2-007D2b	Needle bar supporter guide pin	1	1
11	34H2-007D1p	Holder	1	1
12	34H2-007D1y	Holder	1	1
13	34H2-007D1t	Screw	2	2
14	34H2-007D1m	Stopper	1	1
15	82T17-000C	Washer	1	1
16	34H2-007D1s	Screw	1	1
17	34H2-007D1l	Guide plate	1	1
18	32H10-012E3	Screw	1	1
19	34H2-007D1k	Screw	1	1
20	34H2-007D1j	Needle bar supporter	1	1
21	34H2-007D1e	Needle bar holder	1	1
22	34H2-007D1i	Screw	2	2
23	34H2-007D1h	Needle bar holding stopper	2	2
24	34H2-007D1g	Needle bar holder	1	1
25	34H2-007D1f	Washer	4	4
26	34H2-007D1d	Needle bar holder	1	1
27	34H2-007D1a2	Needle bar bushing	2	2
28	34H2-002	Bolt	1	1
29	32H8-003	Washer	1	1

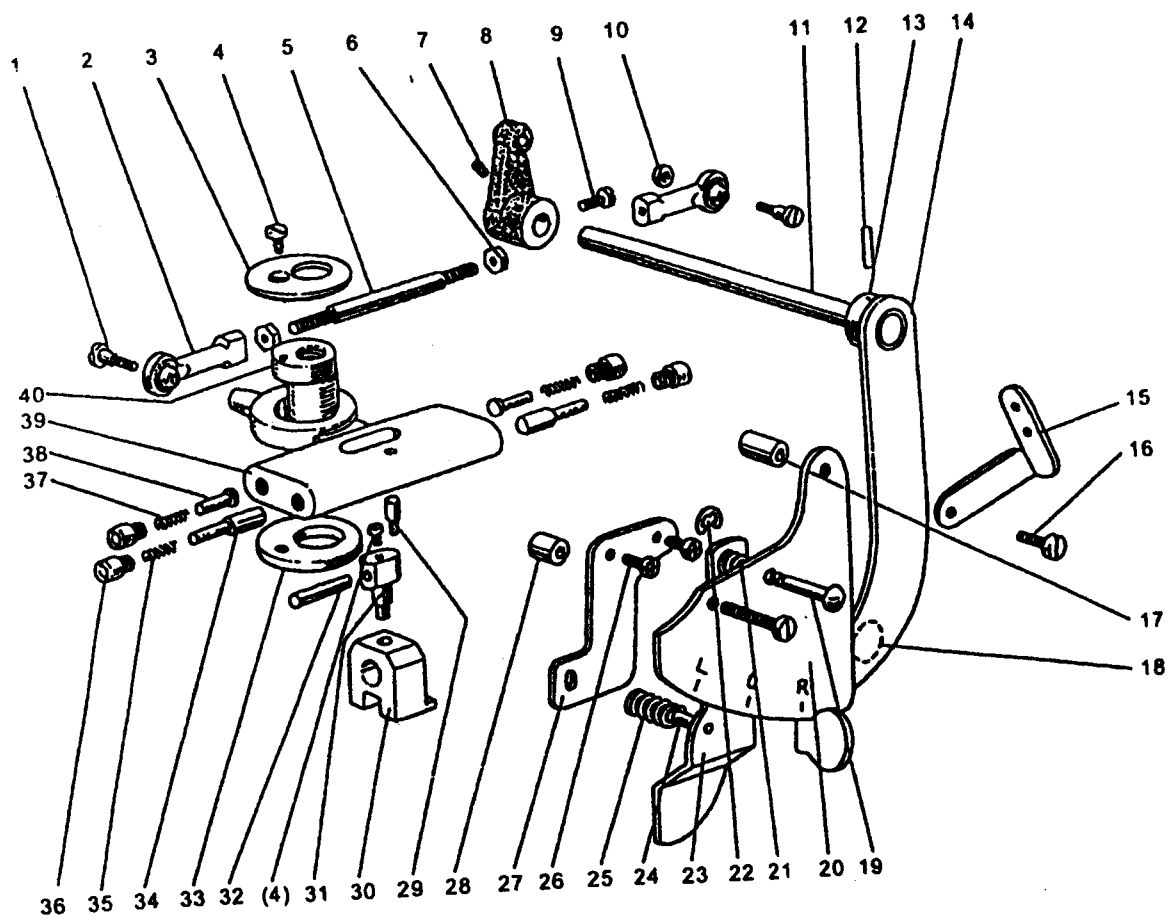
5



5、 NEEDLE BAR MECHANISM

No.	Ref. No.	Description	M	B
30	34H2-001	Needle bar guide	1	1
31	32H3-001A8	Needle DP×5-14	2	
31	33H3-001A1	Needle DP×5-18		2
32	32H1-018D8a5	Screw	2	2
33	34H2-007D1n	Screw	4	4
34	34H2-007D1b9	Stopper for needle clamp	2	2
35	34H2-007D1b4	Spring	2	2
36	35H2-001A1a1	Needle bar	2	2
37	34H2-007D1b6-4	Triangle pin	2	2
38	34H2-007D1q	Steel ball 3/32"	12	12
39	34H2-007D1b6-3	Stud	2	2
40	34H2-007D1b6-5	Spring	2	2
41	34H2-007D1b6-2	Nut	2	2
42	34H2-007D1b6-1	Nut	2	2
43	34H2-007D1b3	Pin	2	2
44	34H2-007D1b2	Bushing	2	2
45	34H2-007D1b1	Spring	2	2
46	34H2-007D1b5	Pin	2	2
47	34H2-007D1b8	Screw	2	2
48	32H3-001A13	Felt	1	1

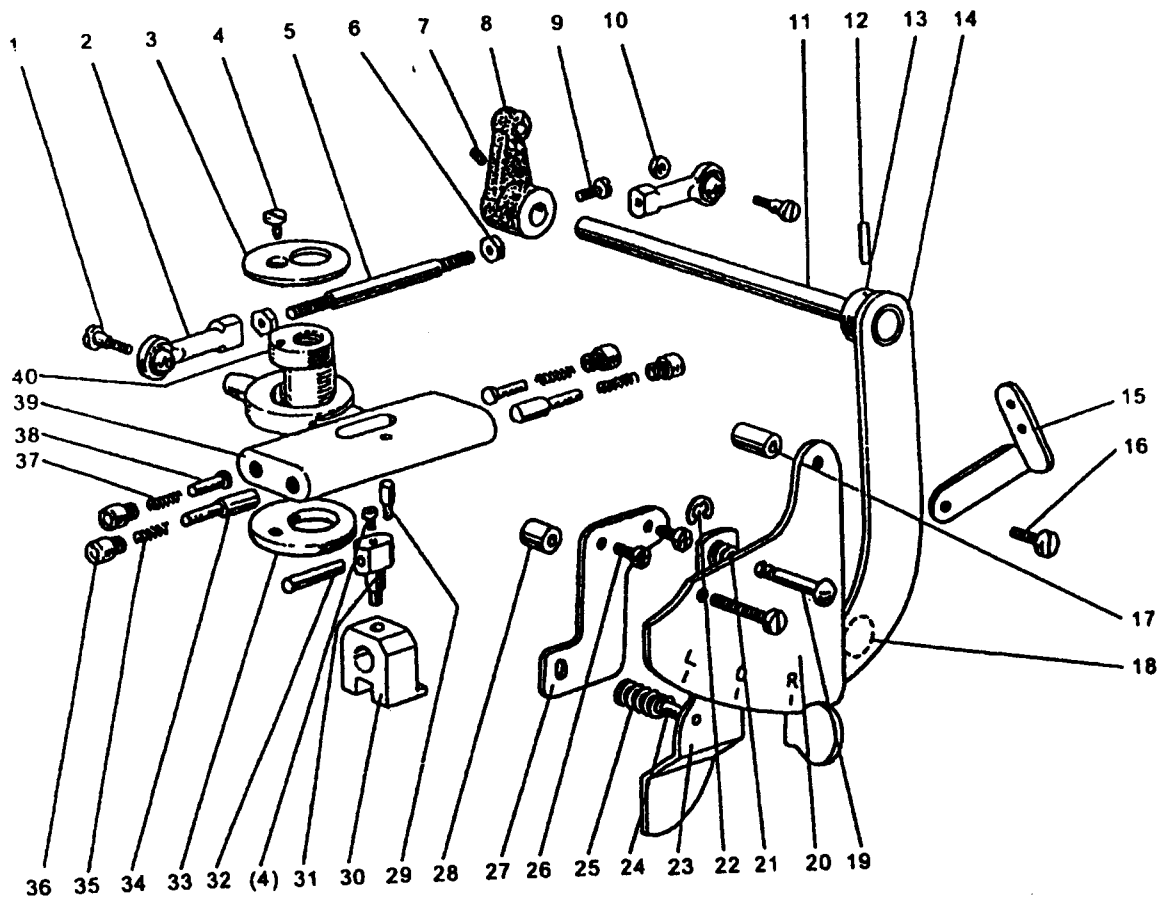
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6、 NEEDLE BAR CONTROL MECHANISM

No.	Ref. No.	Description	M	B
1	34H3-003	Screw	2	2
2	GB9161-88	Ball joint	2	2
3	34H3-012	Cover	1	1
4	82T2-003C1a11	Screw	2	2
5	34H3-002B1	Connecting rod	1	1
6	GB41-86-M5	Nut	2	2
7	22T1-011	Screw	1	1
8	34H3-013E1	Link crank	1	1
9	34H3-013E2	Screw	1	1
10	32H1-018D10	Nut	1	1
11	34H3-004C2a4	Shaft	1	1
12	GB879-86	Spring pin	1	1
13	34H3-004C2a2	Bushing	1	1
14	34H3-004C2a1	Stop motion control lever	1	1
15	34H11-005	Thread guide	1	1
16	20H9-001C	Screw	2	2
17	34H3-006	Pipe	1	1
18	34H3-004C1	Pin	1	1
19	34H3-005D1	Pin	1	1
20	34H3-005D6	Lever position plate	1	1
21	34H3-005D2	Spring	1	1
22	GB896-86	E-type ring	1	1
23	34H3-005D4	Lever	1	1
24	34H3-005D5	Pin	1	1
25	34H3-010	Spring	1	1
26	72T2-002	Screw	2	2
27	34H3-009	Mounting plate	1	1
28	34H3-008	Short pipe	1	1
29	34H3-011	Screw	1	1

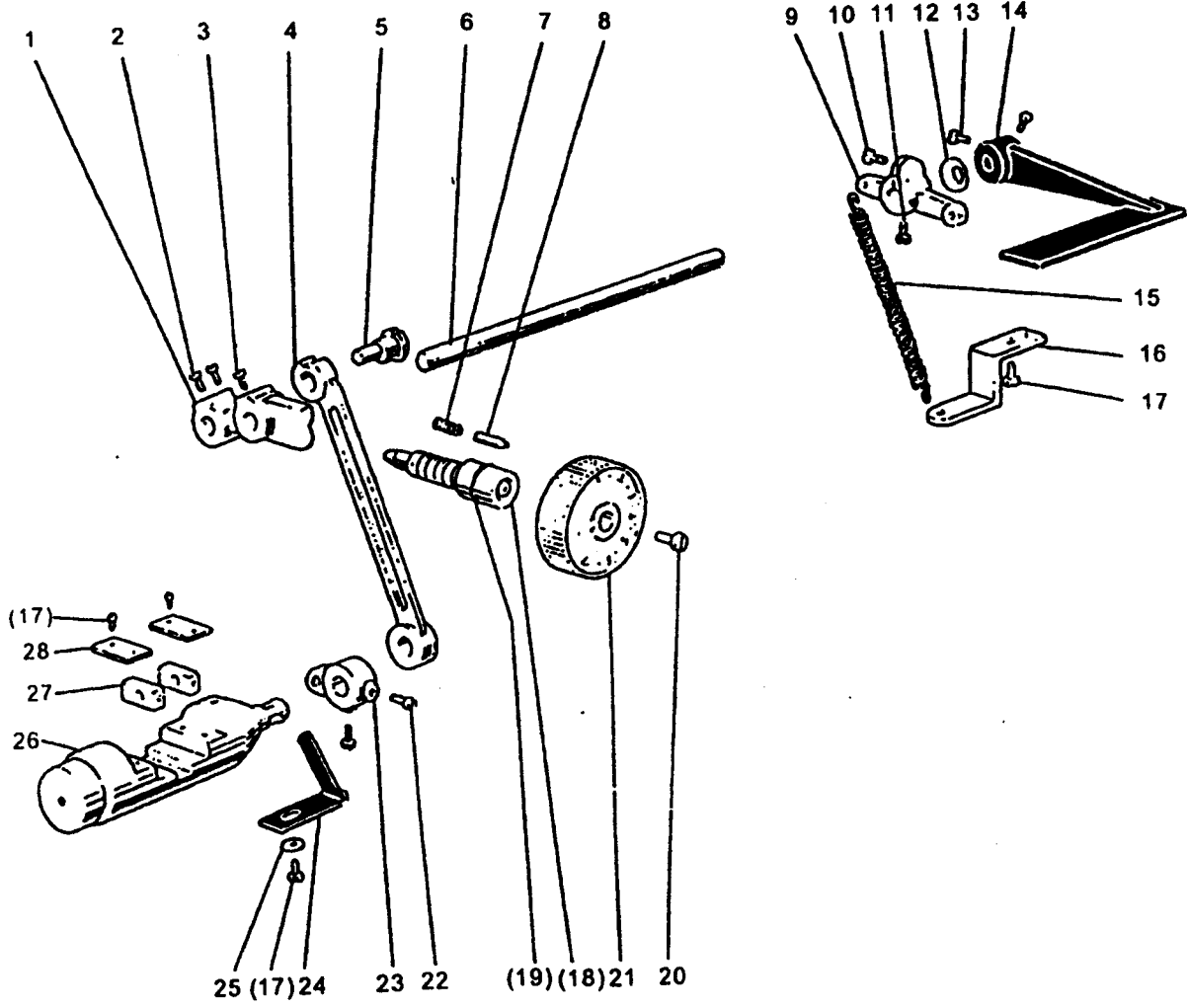
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6、 NEEDLE BAR CONTROL MECHANISM

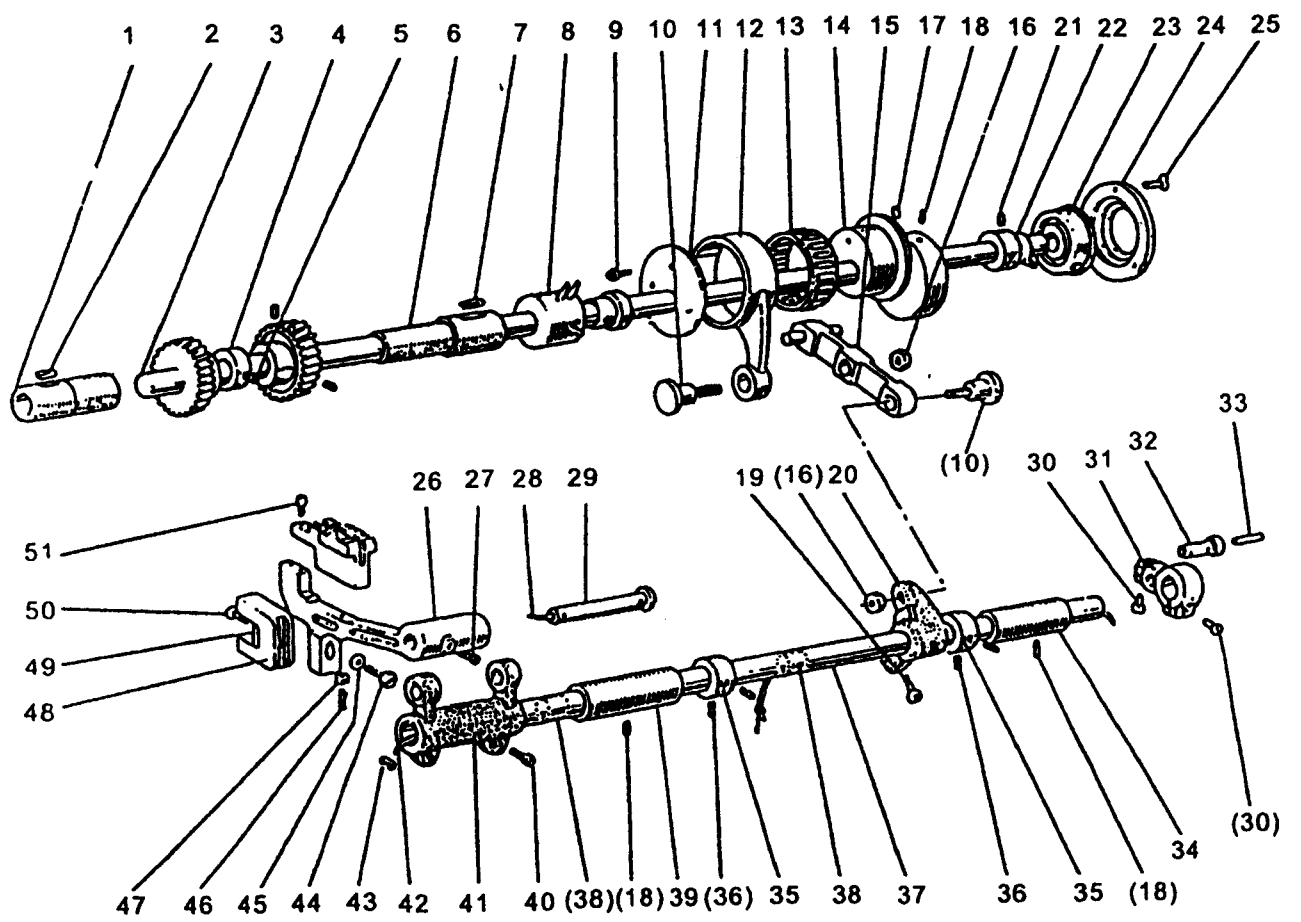
No.	Ref. No.	Description	M	B
30	34H2-007D2a	Cam	1	1
31	34H3-001A2	Guide pin	1	1
32	34H3-001A3	Pin	1	1
33	34H11-001A3	Washer	1	1
34	34H3-001A5	Pin	2	2
35	34H3-001A7	Spring	2	2
36	34H3-001A6	Screw	4	4
37	34H3-001A8	Spring	2	2
38	34H3-001A4	Pin	2	2
39	34H3-001A1	Guide	1	1
40	34H11-001A2	Presser bar bushing	1	1

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7. STITCH REGULATOR MECHANISM

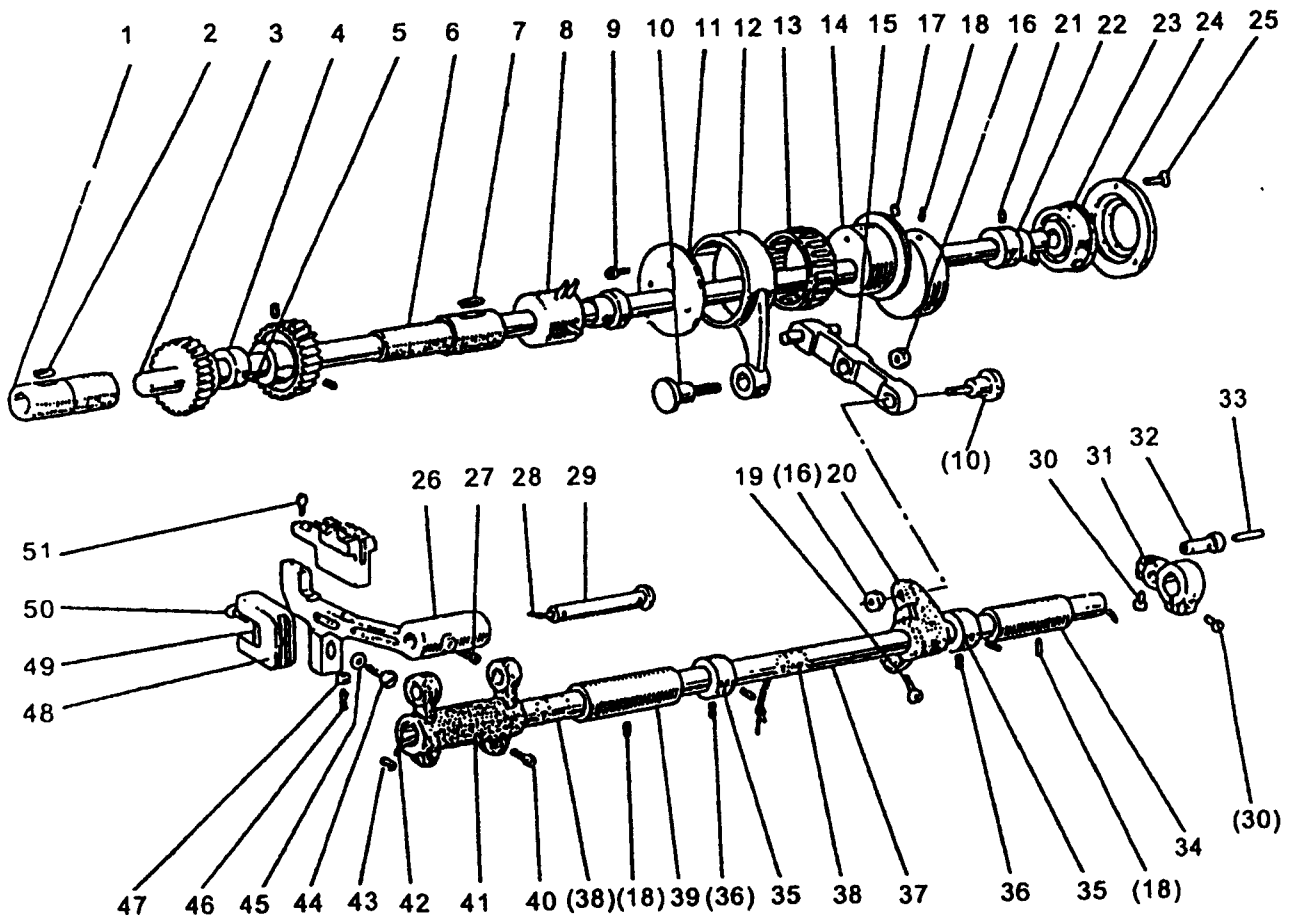
No.	Ref. No.	Description	M	B
1	32H5-001A	Feed regulator complete	1	1
2	22T5-010D4	Screw	2	2
3	32H5-002	Screw	1	1
4	32H5-003B1	Connecting link	1	1
5	32H5-003B2	Eccentric shaft	1	1
6	32H5-006	Reverse stitch shaft (upper)	1	1
7	32H5-011	Spring	1	1
8	22T5-008	Pin	1	1
9	32H5-004C1	Reverse feed lever feed crank	1	1
10	83T5-002	Screw	1	1
11	32H5-004C2	Screw	1	1
12	22T5-011	Washer	1	1
13	22T5-010D4	Screw	2	2
14	32H5-013G	Reverse feed lever complete	1	1
15	32H5-004C3	Spring	1	1
16	32H5-005	Spring bracket	1	1
17	72T2-002	Screw	6	6
18	22T5-006C1	Screw bar	1	1
19	22T5-006C4	O-ring	1	1
20	22T5-006C3	Screw	1	1
21	34H5-001A1	Dial	1	
21	33H5-001A1	Dial		1
22	22T5-001A4	Screw	2	2
23	32H5-007D3	Stitch regulator crank (lower)	1	1
24	32H5-008	Holding plate	1	1
25	82T17-000C	Washer	1	1
26	32H5-009E	Reverse bar complete	1	1
27	32H6-005C2	Square block	2	2
28	32H5-009E1	Guide plate	2	2



8. HOOK SHAFT & FEED ROCK SHAFT MECHANISM

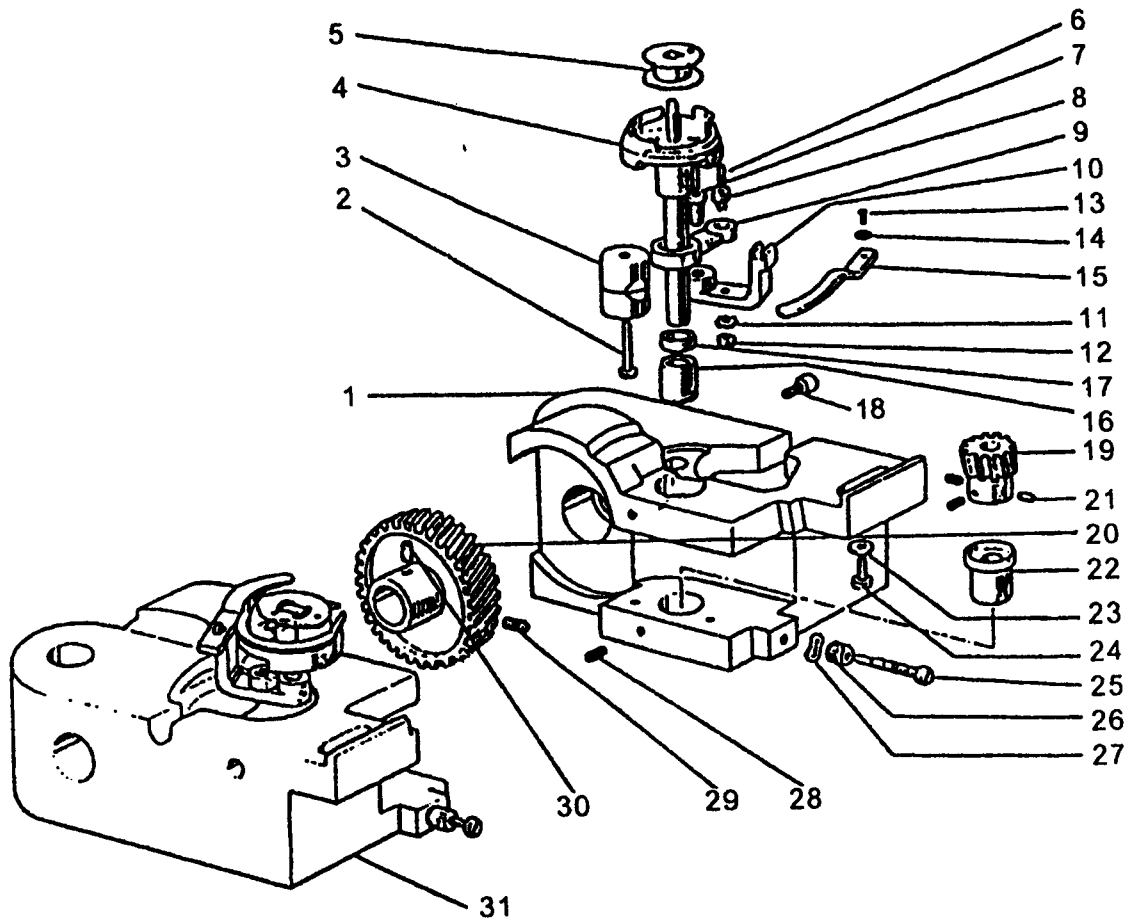
No.	Ref. No.	Description	M	B
1	32H1-001A3b	Hook shaft bushing complete (left)	1	1
2	32H1-001A3b2	Oil wick	1	1
3	32H7-001	Hook shaft	1	1
4	32H7-002A5	Feed lifting cam	1	1
5	32H7-002A4	Screw	1	1
6	32H1-001A4c	Hook shaft bushing complete (right)	1	1
7	32H1-001A3b2	Oil wick	1	1
8	32H1-001A5d	Hook shaft bushing complete (middle)	1	1
9	82T5-010	Screw	3	3
10	32H6-005C4	Screw	2	2
11	32H6-005C7b2	Washer	1	1
12	32H6-005C7b4	Feed connecting rod	1	1
13	32H6-005C7b3	Needle bearing K32×37×17	1	1
14	32H6-005C7b1	Lever feed connecting cam	1	1
14	33H6-002B1a	Lever feed connecting cam		1
15	32H6-005C1a	Link complete	1	1
16	32H6-005C5	Nut	2	2
17	22T2-002	Screw	1	1
18	24H3-002B4	Screw	3	3
19	32H6-005C6	Screw	1	1
20	32H6-005C3	Connecting rod crank (middle)	1	1
21	22T3-002B2	Screw	2	2
22	32H7-005B2	Bushing	1	1
23	32H7-005B1	Ball bearing 6004ZZNR/5K	1	1
24	32H7-006	Bearing holder	1	1
25	82T2-003C1a3	Screw	3	3
26	32H6-002B1a1-1	Feed bar	1	1
27	GB78-85	Screw	1	1
28	32H6-002B2	Oil wick	1	1
29	32H6-002B4c2	Feed bar shaft	1	1

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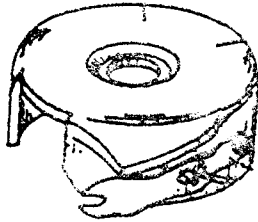
8. HOOK SHAFT & FEED ROCK SHAFT MECHANISM

No.	Ref. No.	Description	M	B
30	20H13-009A2	Screw	2	2
31	34H2-004B3	Feed rock shaft crank	1	1
32	34H2-004B4	Pin	1	1
33	24H3-002B1a4	Oil wick	1	1
34	32H1-001A6	Feed rock shaft bushing	1	1
35	22T6-005B	Collar complete	2	2
36	22T3-002B2	Screw	4	4
37	32H6-001A1	Feed rock shaft	1	1
38	32H6-001A2	Felt	2	2
39	22T6-012	Feed rock shaft bushing	1	1
40	22T6-001B1b	Screw	2	2
41	32H6-002B3b	Feed rock shaft crank	1	1
42	32H6-001A3a	Oil wick	1	1
43	32H6-003	Holder	1	1
44	32H7-004	Bolt	1	1
45	20H9-010A	Washer	2	2
46	GB78-85	Screw	1	1
47	GB6170-86	Nut	1	1
48	32H7-002A1	Feed bar connecting fork	1	1
49	32H7-002A2	Felt	1	1
50	32H7-002A3	Screw	1	1
51	32H6-002B1a2	Bolt	2	2



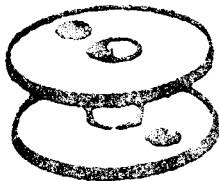
OUR DN 2220 & DN 2242 ARE ALL DELIVERED WITH THE FOLLOWING HOOKS :

32G8-002A11 = CAP FOR STANDARD HOOK
33G8-002A3B = CAP FOR LARGE HOOK
32G8-001A11 = STANDARD HOOK
33G8-001A3B = LARGE HOOK



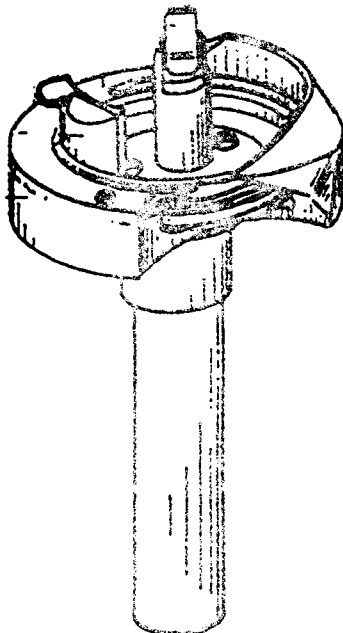
32G8-002A11 = CAP FOR DN 2220 / 2242
STANDARD HOOK

33G8-002A3B = CAP FOR DN 2220 / 2242
LARGE HOOK



24G8-002 = BOBBIN FOR DN 2220 / 2242
STANDARD HOOK

33G8-003C = BOBBIN FOR DN 2220 / 2242
LARGE HOOK

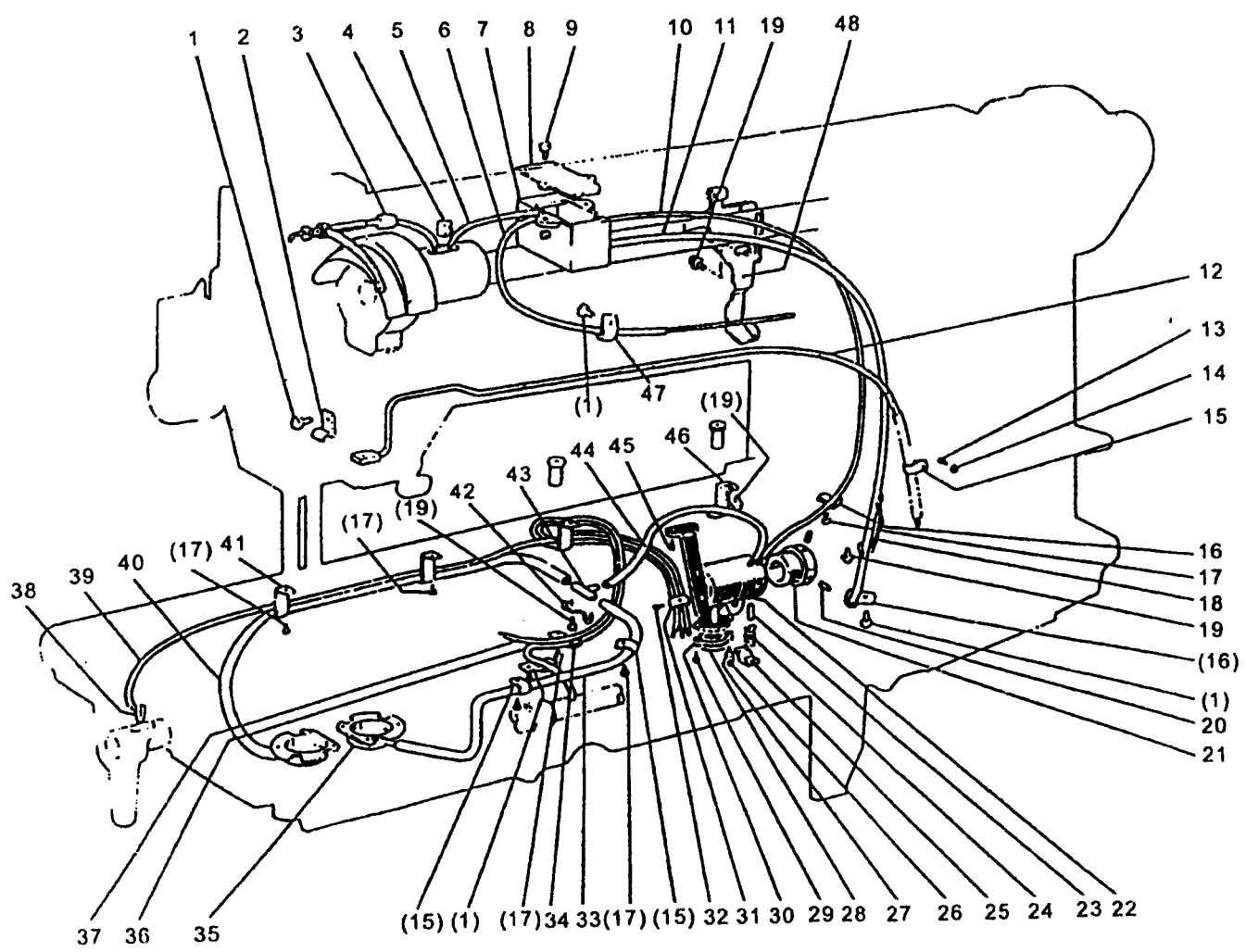


33G8-001A11 = STANDARD HOOK FOR
DN 2220 / 2242

33G8-001A3B = LARGE HOOK FOR
DN 2220 / 2242

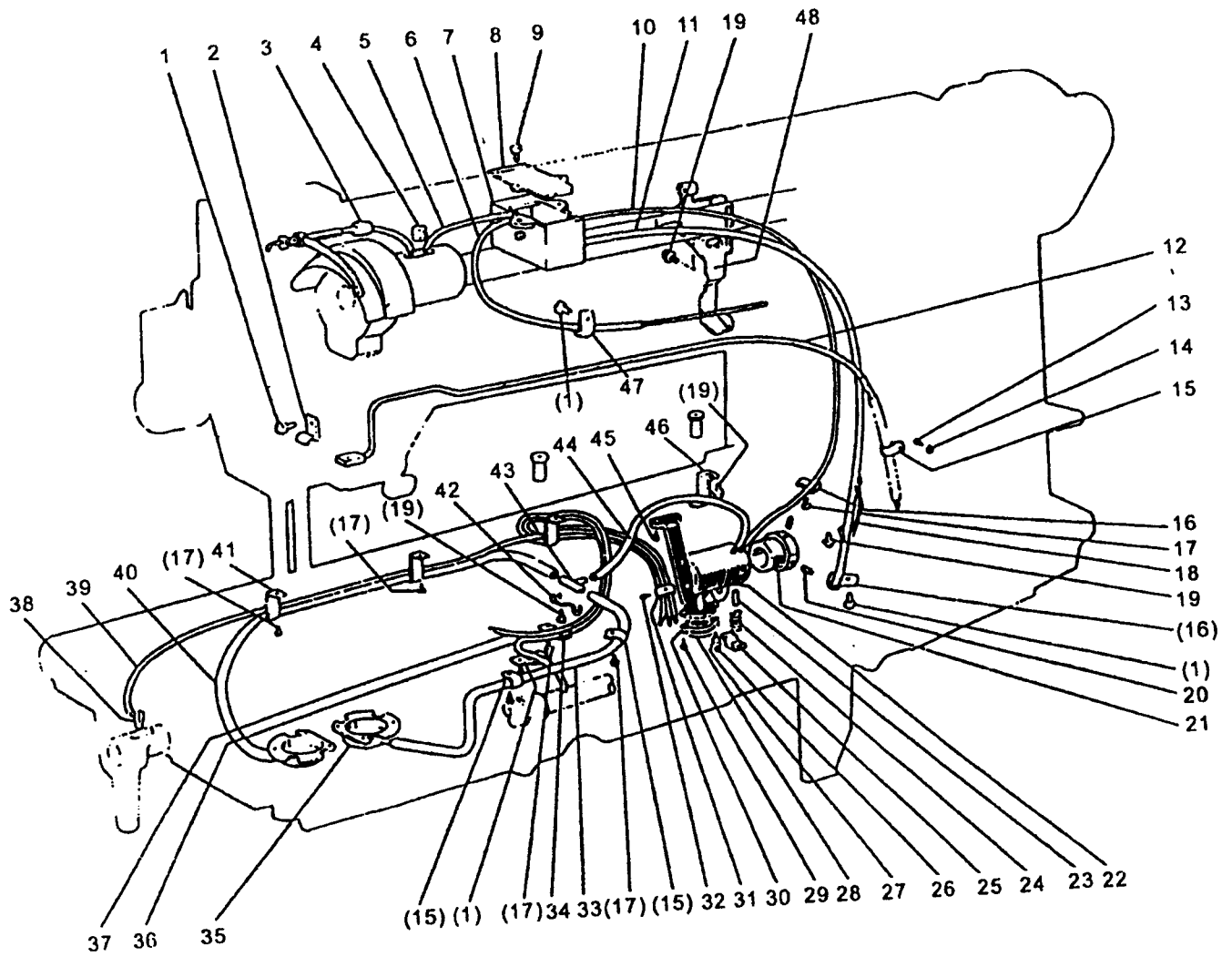
9. HOOK SADDLE MECHANISM

No.	Ref. No.	Description	M	B
1	32H8-001A1	Hook saddle (right)	1	
1	33H8-001A1	Hook saddle (right)		1
2	32H8-004B1	Screw	2	2
3	32H8-004B	Bushing complete	2	2
4	34H8-001A2	Rotating hook complete	2	
4	35H8-002	Rotating hook complete		2
5	24H8-002	Bobbin	2	
5	33H8-003C	Bobbin		2
6	32H8-001A6	Oil wick	2	2
7	32H8-001A5c5	Bobbin case opener holder pin	2	2
8	32H8-001A5c2	Special screw	2	2
9	32H8-001A5c3	Link	2	
9	33H8-001A3a2	Link		2
10	32H8-001A5c1	Bobbin case opener holder	2	
10	33H8-001A3a1	Bobbin case opener holder		2
11	GB93-87	Spring washer	2	2
12	22T6-001A8	Nut	2	2
13	20H9-001C	Screw	2	2
14	32H8-003	Washer	2	2
15	22H8-002	Opener	2	
15	33H8-002B	Opener		2
16	34H8-001A1a	Rotating hook shaft bushing (upper)	2	
16	33H8-001A2a1	Rotating hook shaft bushing (upper)		2
17	32H8-003	Washer	2	
17	33H8-001A2a2	Washer		2
18	32H8-001A7	Bolt	2	2
19	32H8-001A4b2	Gear (small)	2	2
20	32H8-001A4b1	Gear (large)	2	2
21	22T3-002B2	Screw	6	6
22	32H8-001A3	Rotating hook shaft bushing (lower)	2	2
23	20H9-010A	Washer	2	2
24	32H8-005	Screw	2	2
25	32H8-001A8	Screw	2	2
26	32H8-001A9	Nut	2	2
27	GB860-87	Spring washer	2	2
28	72T4-002B2	Screw	2	2
29	72T2-004B2	Screw	2	2
30	32H8-001A10	Screw	2	2
31	32H8-006C1	Hook saddle (left)	1	
31	33H8-004D1	Hook saddle (left)		1



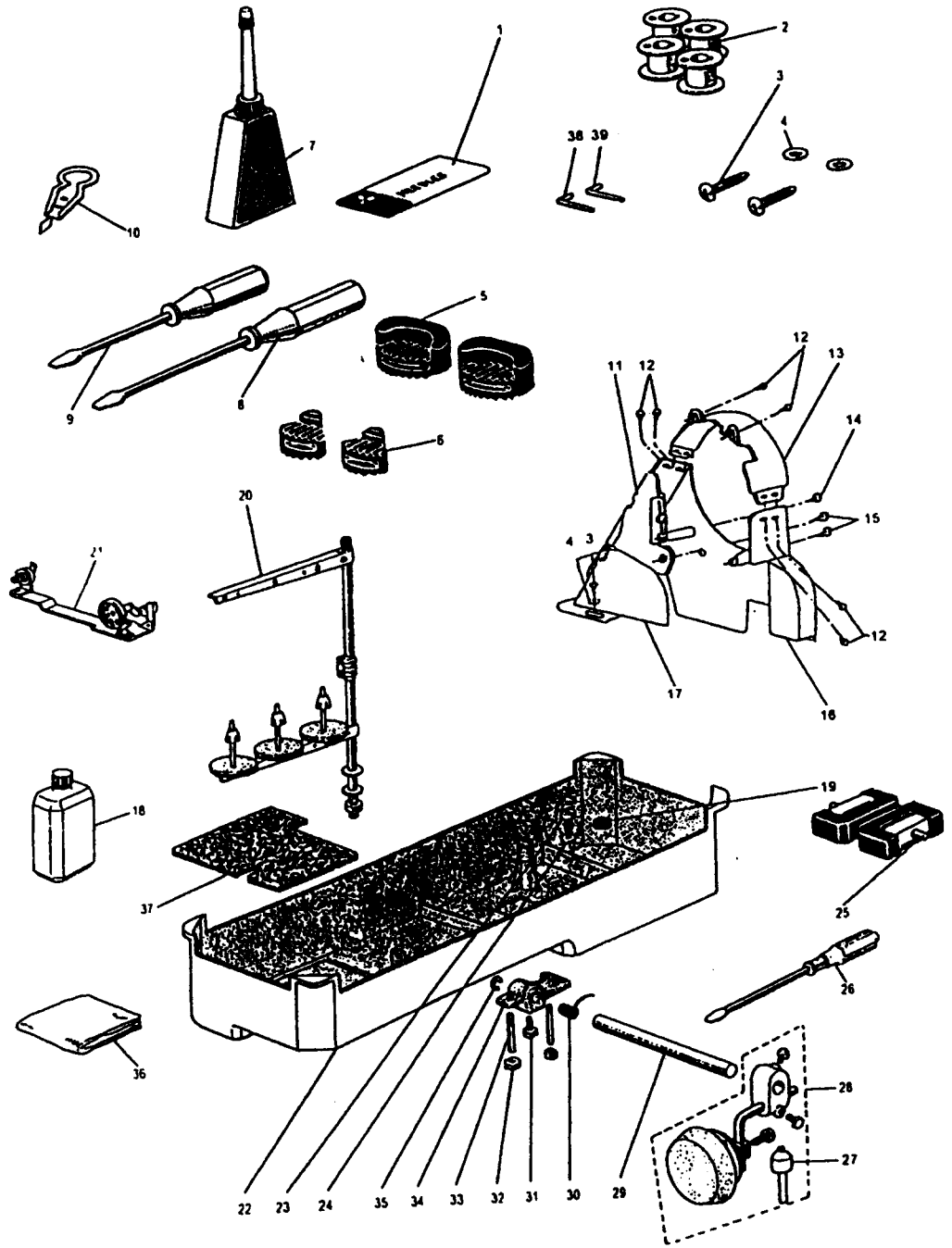
10. OIL LUBRICATION MECHANISM

No.	Ref. No.	Description	M	B
1	72T2-002	Screw	4	4
2	32H10-005	Holder	1	1
3	32H2-005D2b2	Pipe	1	1
4	32H1-001A7e3	Felt	1	1
5	32H10-001A3b	Oil pipe complete	1	1
6	32H10-001A4c	Oil pipe complete	1	1
7	32H10-001A1a	Oil tank complete	1	1
8	32H10-001A9	Gasket	1	1
9	GB819-85	Screw M4×16	2	2
10	32H10-001A5	Pipe $\phi 5 \times 1 \times 480$	1	1
11	32H10-001A6	Pipe $\phi 7 \times 1 \times 360$	1	1
12	32H10-006B	Pipe complete	1	1
13	82T2-003C1a11	Screw	1	1
14	22T8-005	Spring washer	4	4
15	20H12-011	Holder	2	2
16	32H10-019	Holder	7	7
17	72T1-013	Screw	1	1
18	32H10-020	Holder	3	3
19	72T1-017	Washer	2	2
20	32H10-027K1	Screw	1	1
21	32H10-027K2	Bushing	1	1
22	32H10-012E6	Pipe	1	1
23	32H10-009	Plunger	1	1
24	11H8-009	Plunger spring	1	1
25	11H8-011	Spring holder	1	1
26	32H3-001A10	Screw	1	1
27	32H10-012E3	Screw	1	1
28	32H10-012E2	Filter	1	1
29	32H10-012E4	Screw	1	1



10. OIL LUBRICATION MECHANISM

No.	Ref. No.	Description	M	E
30	32H10-012E1a	Base plate complete	1	1
31	32H10-012E5	Holder	1	1
32	22T8-011C4	Screw	1	1
33	32H10-007C2	Oil pipe	1	1
34	32H10-017	Holder	1	1
35	32H10-008D	Cover complete	2	2
36	32H10-015H	Oil pipe complete	1	1
37	32H10-014G	Oil pipe complete	1	1
38	32H10-018	Oil wick	3	3
39	32H10-013F	Oil pipe complete	1	1
40	32H10-001A5	Oil pipe	1	1
41	32H10-016	Holder	3	3
42	32H10-007C5	Holder	1	1
43	58T7-004B1a	Oil pipe connector	1	1
44	32H10-007C3	Oil pipe	1	1
45	22T4-015	Screw	2	2
46	32H10-025	Plate	1	1
47	32H10-003	Holder	1	1
48	32H10-004	Holder	1	1



11. ACCESSORIES

No.	Ref. No.	Description	M	B
1	32H3-001A8	Needle DP×5 #14	6	
1	33H3-001A1	Needle DP×5 #18		6
2	24H8-002	Bobbin	4	4
3	GB99-76	Screw	4	4
4	72T9-023	Washer	4	4
5	32H11-002	Vibration preventing rubber	2	2
6	32H11-003	Vibration preventing rubber	2	2
7	22T9-011	Oiler	1	1
8	22T9-014	Screw driver (middle)	1	1
9	22T9-015	Screw driver (small)	1	1
10	32H11-004A	Thread needle kit	1	1
11	20H14-005F	Belt cover	1	1
12	72T2-017	Screw	6	6
13	20H14-005D	Belt cover (upper)	1	1
14	GB65-85	Screw	1	1
15	72T9-028	Screw	2	2
16	20H14-005C	Belt cover (lower)	1	1
17	72T9-002B6	Belt cover bracket	1	1
18	32H11-013	Oil can	1	1
19	22T9-012	Magnet	1	1
20		Cotton stand	1	1
21	82T18-003C	Bobbin winder	1	
21	84T18-002B	Bobbin winder		1
22	32H11-010B1	Oil reservoir	1	1
23	22T9-001A2	Screw	1	1
24	22T9-001A3	Washer	1	1
25	72T9-004C	Hinge complete	2	2
26	72T9-007	Screw driver (large)	1	1
27	32H11-011C1a	Knee lift pin	1	1
28	32H11-011C	Small parts	1	1
29	32H11-010B2	Knee lift shaft	1	1
30	22T9-001A7	Spring	1	1
31	22T9-003B4	Screw	1	1
32	22T9-001A10	Nut	2	2
33	22T9-001A9	Screw	2	2
34	32H11-010B4	Knee lifter crank	1	1
35	GB896-86-9	E-type ring	1	1
36	22T9-018	Vinyl cover	1	1
37	32H11-015D1	Felt	1	1
38		Socket wrench 2.5mm	1	1
39		Socket wrench 3mm	1	1