

GLOBAL

INDUSTRIAL HIGH SPEED
BLINDSTITCH MACHINE

MODEL : BM 250

INSTRUCTION MANUAL

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1. Unpacking Machine

Unpack machine from its shipping box, making certain that you remove from box all component parts and accessories. Do not discard any packing material without prior scrutiny as to contents.

Clean from machine all greases, dirt, or dust.

Pay particular attention to area around the looper mechanism and looper.

2. Setting - up Machine (Figs. 1 & 2)

Assemble knee lifter lever to machine and place on sewing table so that lever is 1cm. distant from the front edge of the sewing table (The front edge of the machine frame is 5.5cm. distant from the front edge of sewing table).

Line up belt groove in belt pulley of handwheel with belt groove of motor pulley. Mark four screw holes for fastening machine to sewing table and place oil pan and felt pad assembly under machine bed before machine is tightened down.

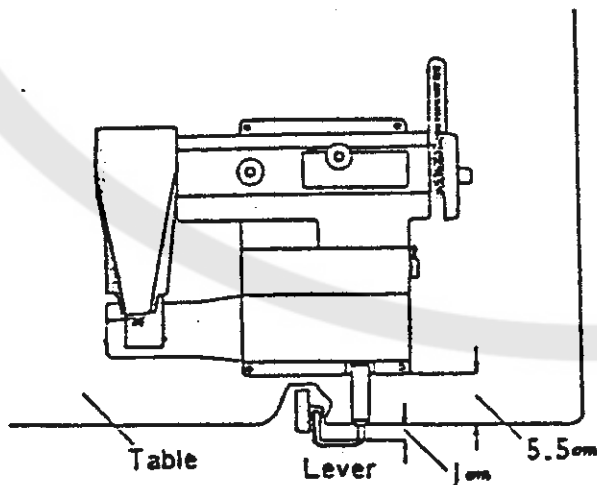


Fig. 1

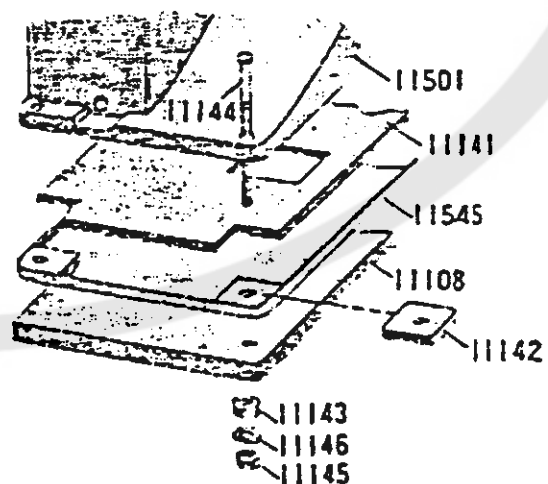


Fig. 2

3. Setting-up Work Plate (Fig. 3)

1. Fasten bracket "A" on machine frame with screw "B".
2. Insert shaft "C" into bracket "A" as Fig. No. 3.
3. Insert latch "D" into underside of work plate "E".
4. Insert shaft "C" into the hole of work plate through collar "F" and tighten screw "G". At this point, adjust collar "F" so that work plate "E" can rotate forward and backward smoothly. Then, tighten screw "H".
5. Place work plate "E" parallel with cylinder bed and tighten shaft set screw "I".
6. The "V" groove of latch "D" should be fixed with spring pin "J" and tighten latch set screw "K".

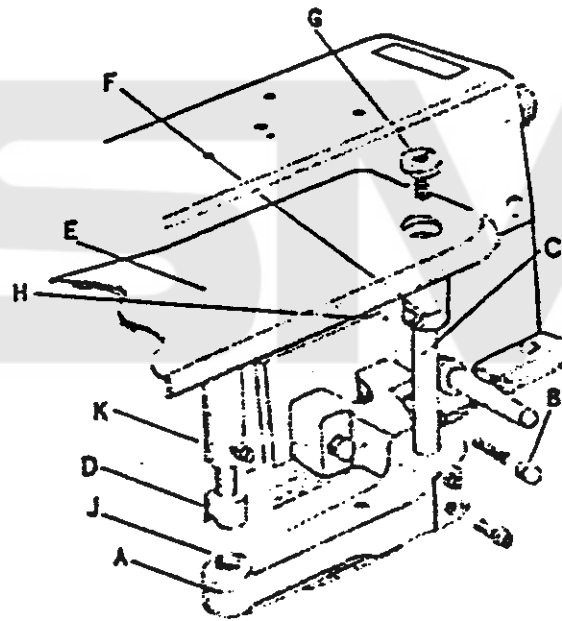


Fig. 3

4. Handwheel Rotation and Speed

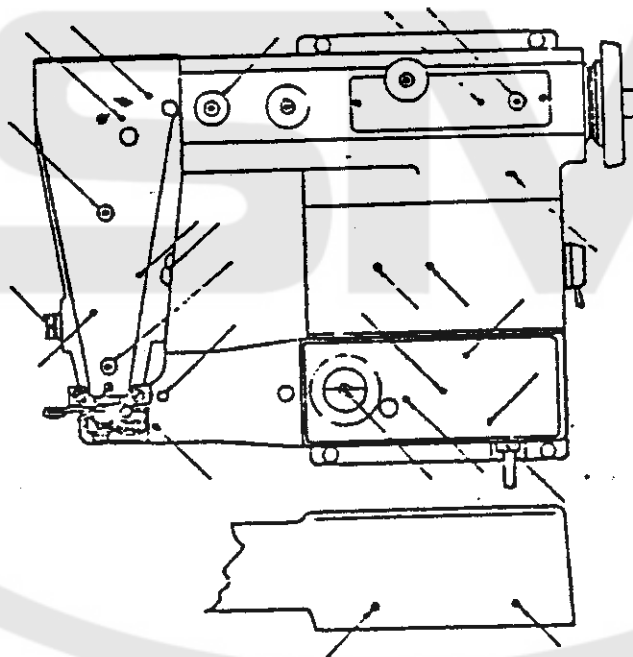
Turn handwheel only in direction away from operator for clockwise rotation. Be sure motor drive is wired up to obtain the same clockwise rotation. However, the recommended operating speed of a brand new machine is 2,000 stitches per minute. After a breaking-in period of several weeks and after the

operator has become skilled in the operation of the machine, the speed can be increased upto 3,000 stitches per minute.

5. Oiling and Maintenance (Fig. 4)

Drop oil of good quality at all points shown on the oiling chart Fig.4 before operating machine every day. After oiling, wipe machine carefully to avoid soiling of the material. Be sure to depress knee lifter lever preventing damage to the needle and the feed dog and to operate machine without material under the presser foot for 2 or 3 minutes.

Fig. 4



6. Needle Recommendation

The recommended needle is system LW×6T blindstitch machine needle. Size range from No.3 to 4.

For best results, thread and fabric must be used as suggested in the table below.

Needle	Thread	Material
Size 3 (11)	No. 80-100	Nylon, Silk and other light weight fabrics
Size 3½ (14)	No. 60-70	Cotton, Woolen and other Med. weight fabrics
Size 4 (16)	No. 50-60	Thick woolen and other thick weight fabrics

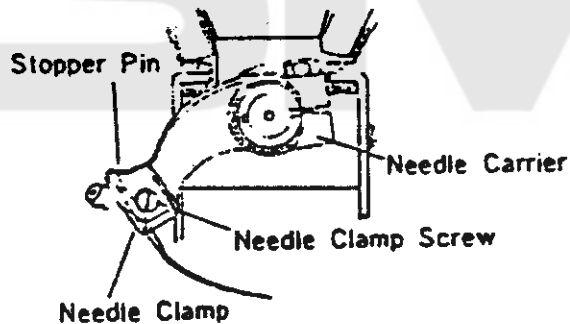
7. Replacing Needle (Fig. 5)

Turn handwheel away from operator (clockwise) until needle reaches the end of its return stroke (Extreme left hand position), adjust penetration dial to least amount of penetration (Turn clockwise toward 1).

Remove old or defective needle by loosening needle clamp screw.

Insert new needle into seat in needle clamp as far as it will go. Now, tighten needle clamp screw.

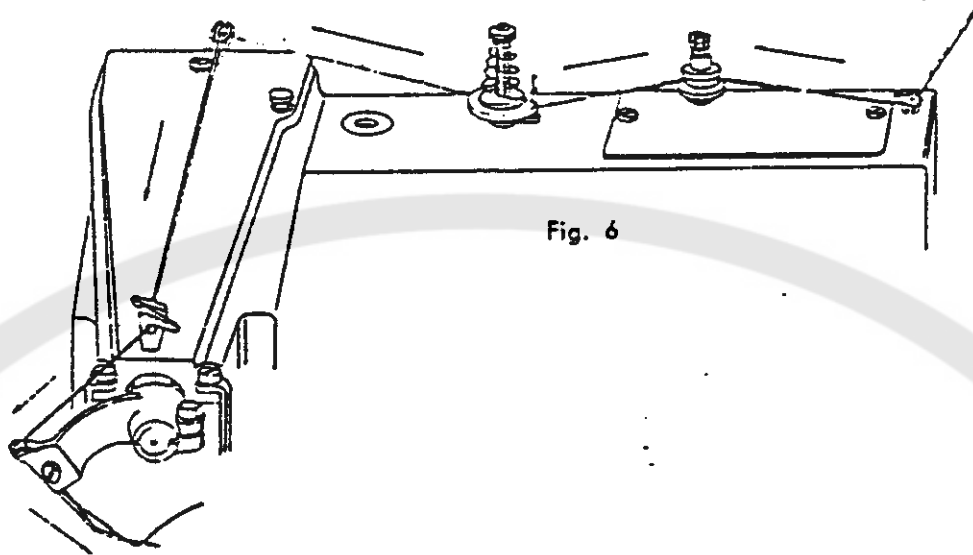
Fig. 5



Turn handwheel slowly away from operator and observe movement of needle. The curved portion of the needle should bear slightly on the needle guide groove in the left hand part of the presser foot. Always replace bent or blunt needles. They affect the satisfactory operation of the machine.

8. Threading Machine (Fig. 6)

See threading chart Fig. 6



9. Stitch Length Regulation (Fig. 7)

To adjust length of stitch, turn handwheel away from operator and at the same time depress the plunger located on top of the machine arm. As operator turns the handwheel, the plunger is felt to drop into a recess within the mechanism inside the machine.

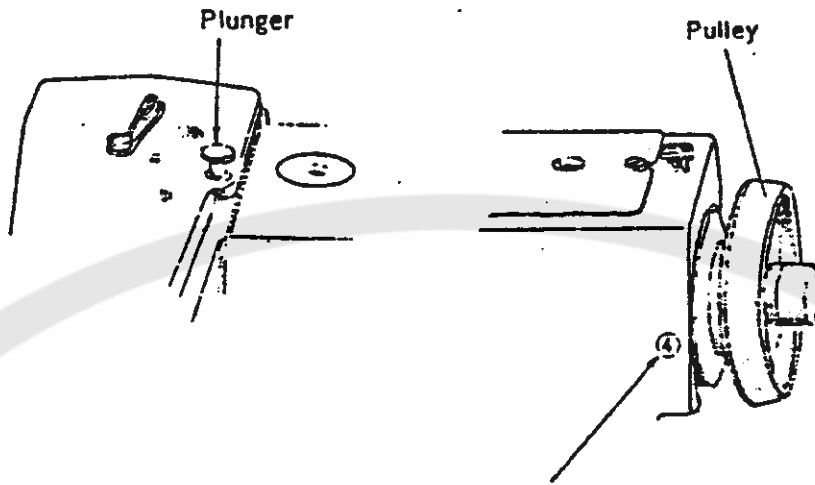
With the plunger remaining depressed into this recess continue turning the handwheel either forward or in reverse until the desired number (1 to 6) will come into view in the small window to the left of the handwheel.

Each number represents a certain stitch as follows.

Number appearing on Indicator :	1	2	3	4	5	6
Stitch Length (m/m) :	3	4	5	6	7	8

A few trials with varied stitch lengths on different kinds of material will prove to be the best method for selection.

Fig. 7



10. Adjustment of Needle Penetration (Fig. 8)

The type of material to be blindstitched governs the degree of needle penetration which is required. It is, therefore, recommended to stitch a few inches as a test and make adjustment for penetration depending on the appearance of the trial stitching.

Turn regulator clockwise for less penetration and counter-clockwise for more penetration.

The dial surrounding regulator shows the direction of turning to obtain the needed degree of needle penetration.

Fig. 8

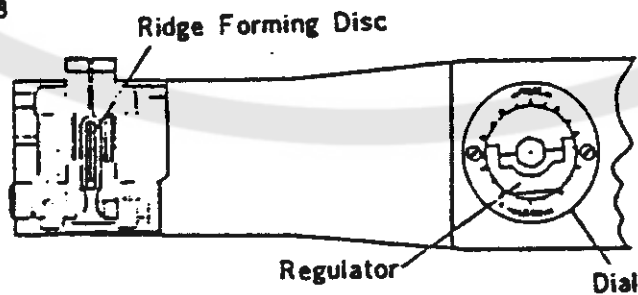
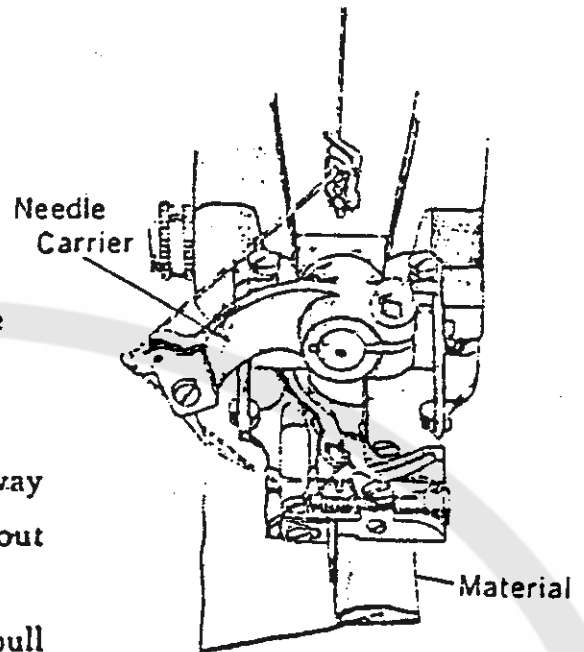


Fig. 10



11. Removal of the work from the machine (Fig. 10)

Stop machine and turn handwheel away from operator until needle is completely out of the material.

Press the knee lifter to the right and pull the work-piece rearward out of the machine with a quick stroke. This will lock the last stitch and break the thread.

12. The Skip Stitch Device (Figs. 11&12)

It is recommended to use Model BM-250 with skip stitch device for rayon, nylon, tricot and similar thin material.

The position of grip at the right side of the machine controls the skip stitch device. Turn this grip marked "SKIP" upward, the needle penetrates the material at every other stitch

Turning mark "NO-SKIP" upward, the needle catches the material at each stitch.

Be sure that grip is pushed completely in either direction and needle penetration readjusted every time operation is changed from skip to nonskip.

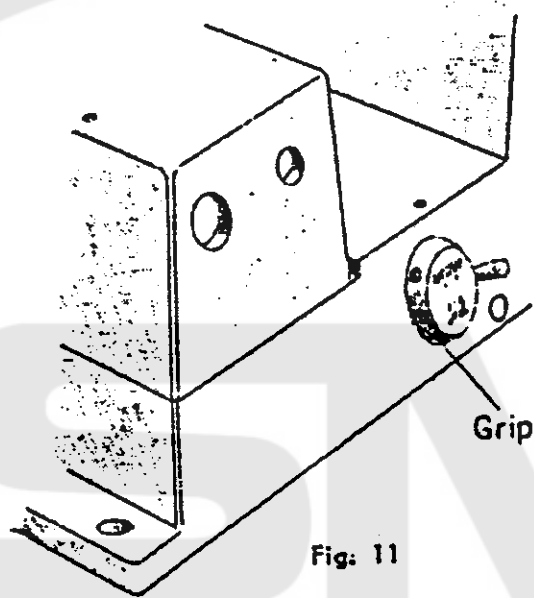
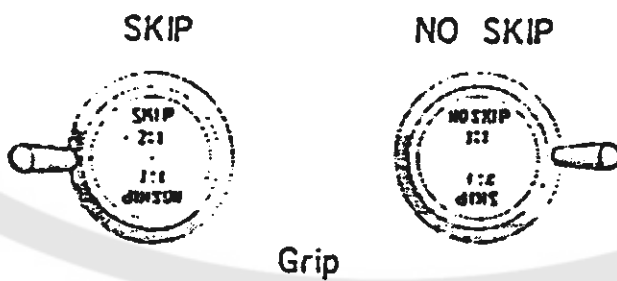


Fig. 11



Grip

Fig. 12

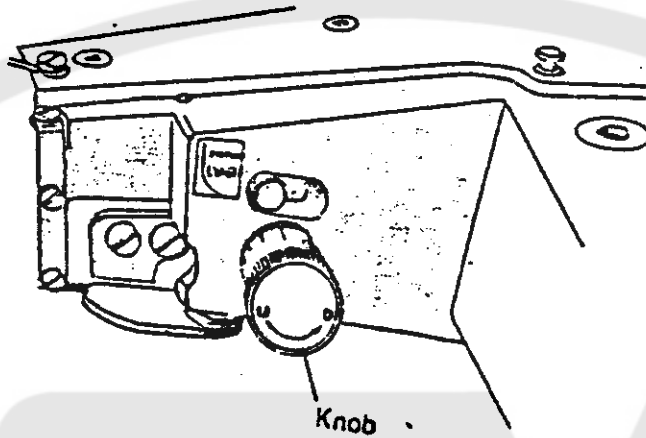
13. Feed Dog Controller (Fig. 13)

BM 250 has the feed dog controller-for adjusting the height of feed dog.

In case of long stitch, turn controller-knob clockwise (towards "U") for raising the feed dog.

In case of short stitch, turn controller-knob counter-clockwise (towards "D") for bringing the feed dog downward.

Fig. 13

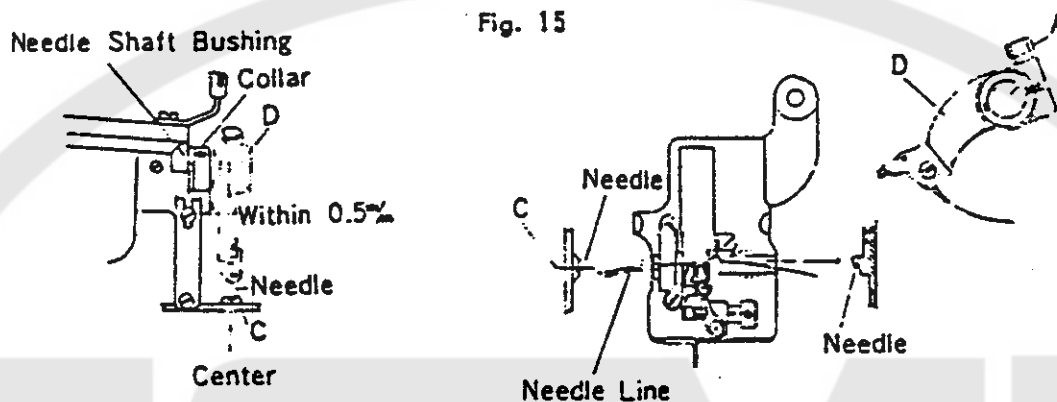


ADJUSTMENT

1. Adjusting Needle to Presser Foot (Figs. 15~20)

Be sure that the needle centers in the needle groove in the presser foot.
The following steps must be taken.

Loosen clamp screw (A) adjust needle carrier (D) to pass the needle through the center of the needle groove (C) in the presser foot and tighten screw (A).



Next, adjust the limit of needle stroke. As the limit of the needle stroke is relative to the timing of the looper, the correct adjustment should be taken. Turn handwheel clockwise by hand until the needle point reaches at the extreme right end of its stroke and adjust needle carrier (Fig. 15-D) so that the needle point (E) should be at 2mm. distant from right end of presser foot. Then, when the needle is at the extreme left end of its stroke, the following steps must be taken so that the needle point will be at the point (F). Loosen ball stud set screw (G) by screwdriver through the hole on machine arm and turn the screwdriver slot in the needle eccentric ball stud by screwdriver from the rear.

As the ratio of this eccentric ball is 1.7mm, when eccentric ball moves toward right, the limit of the needle stroke increases.

Be sure to repeat the above adjustment so that the points (E) & (F) will be settled as per Figs. 16 & 17.

Fig. 16

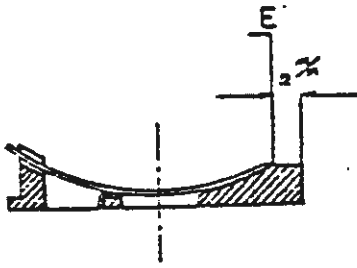


Fig. 17

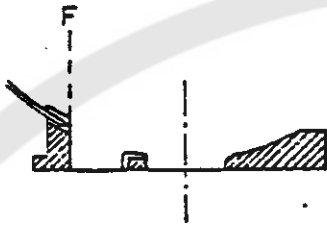
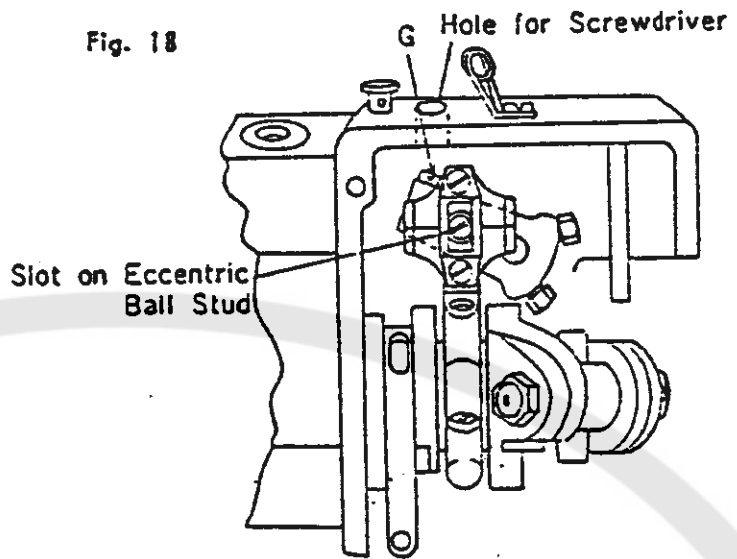


Fig. 18



When getting the satisfactory adjustment on needle, loosen presser foot bracket holding screw (H), and regulate presser foot bracket adjusting screw (I) so that the needle passes through 0.3 mm upper than the center of the needle groove in the presser foot, then needle point touches slightly to the presser foot at the point (J) and touches completely to the presser foot at the point (L) where parts 7 mm. from point (K).

Tighten two presser foot bracket holding screws (H). Furthermore, when the above adjustment is over, tighten clamp screw (A) (Fig. 15).

Fig. 19

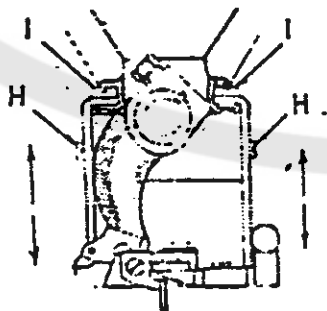
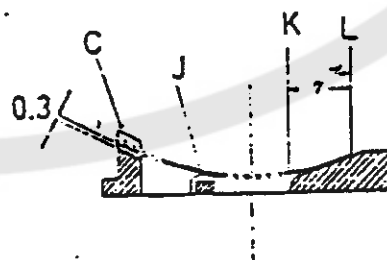


Fig. 20

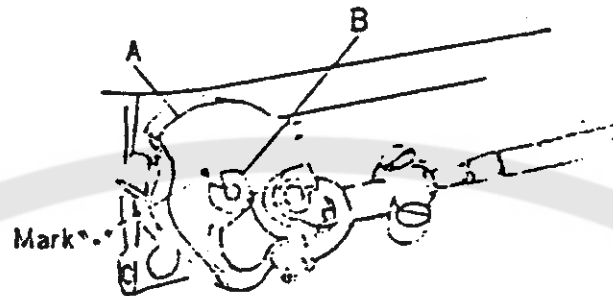


2. Adjusting Looper (Figs. 21~26)

Turning the handwheel clockwise, the following steps must be taken.

- a) Turn the looper drive crank (A) until the timing mark "V" on the crank coincides with the center of "V" groove on the main shaft (B).

Fig. 21



- b) Loosen set screw (E) and move looper ball joint adjusting sleeve (D) rightward and leftward so that the long prong of the looper (C) passes through 2mm. distant from inner end of needle eye. At the same time, loosen looper nut (F) and set screw (H) for looper yoke (G), adjust the point (J) of looper carrier by spanner so that the long prong of the looper passes through the nearest point on the needle.

Fig. 22

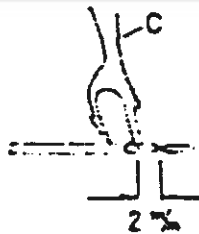


Fig. 23

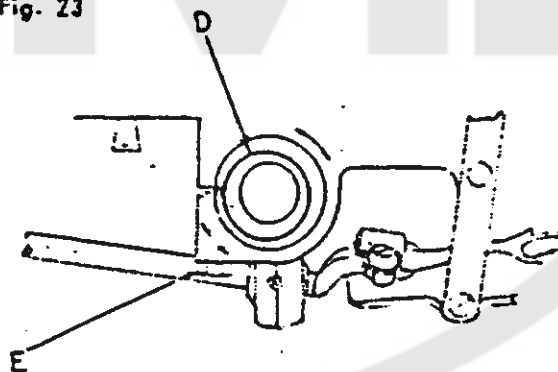
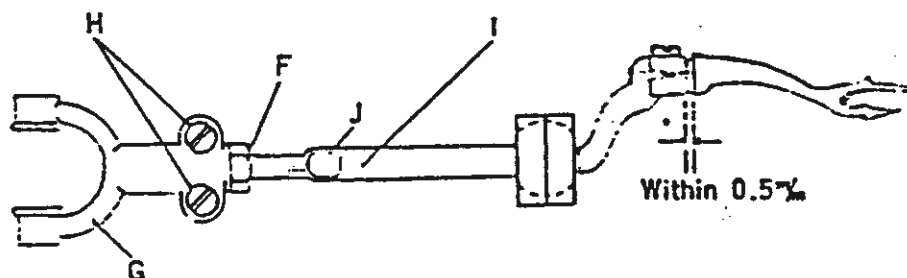
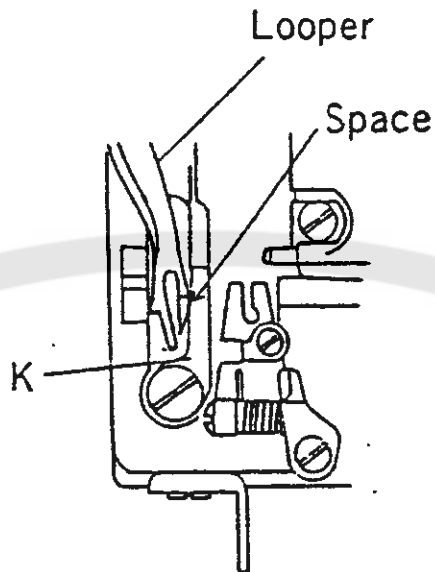


Fig. 24



- c) Be secure that the short prong of looper passes through the nearest point on the needle guide(K) and if it touches to the needle guide (K), adjust looper ball joint adjusting sleeve (Fig. 23-D) rightward and leftward or change the timing of the looper.

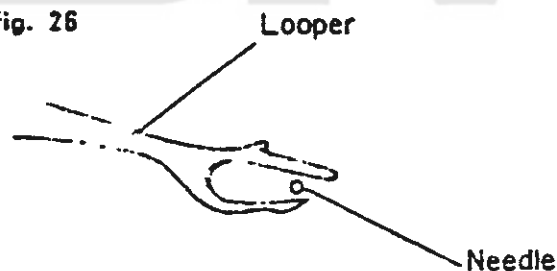
Fig. 25



- d) When the looper is at the looper groove of the presser foot, adjust looper ball joint adjusting sleeve (Fig. 23-D) so that the needle passes between the prongs of looper.

Be sure to repeat the above adjustment until the looper will move in accordance with this manual.

Fig. 26



3. Adjusting the Ridge Forming Disc (Figs. 27~31)

The following steps should be taken so that ridge forming disc will be adjusted as per Figs. 27 & 28 (Will be at the center of the groove on presser foot as per Fig. 27 and coincide with "V" groove of cloth retainer as per

Fig. 28).

Fig. 27

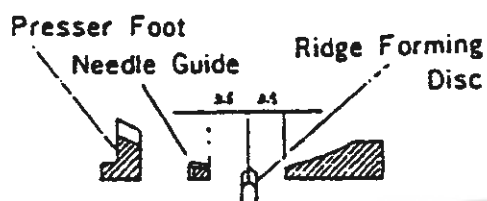
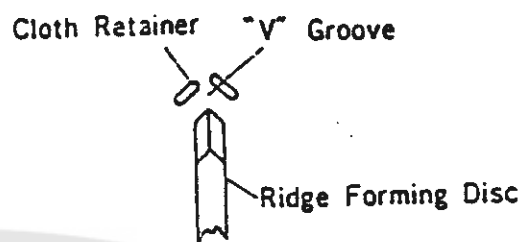


Fig. 28



Adjust the pivot bearing screw (B) to take up all end play in ridge forming disc shaft holder (A) and lock the pivot bearing screw (B) by tightening set screw (C).

Then, loosen ridge forming disc shaft collar set screw (E) and ball joint crank set screw (G) so that ridge forming disc shaft (H) can move on both sides, and set ridge forming disc as shown in Figs. 27 & 28.

Bring ridge forming disc shaft sleeve (I) and collar (D) to the end of ridge forming disc shaft holder (A) by left hand as per Fig. 29 and tighten ridge forming disc shaft collar set screw (E).

Tighten ball joint crank set screw (G) lightly and turn handwheel clockwise until the needle point reaches at the center of slot in the presser foot.

At this time, loosen set screw (G) and adjust ridge forming disc (L) so that the end of this disc will be 3 mm distant from the center of needle, the location of the ridge forming disc is as shown in Fig. 30-2).

Then, tighten set screw (G) to take up all end play in the ridge forming disc shaft.

To remove the ridge forming disc (L), remove the left hand feed plate holder (M), ridge forming disc nut (J) on end of ridge forming disc shaft (H) and remove the washer (K) and ridge forming disc (L).

When reassembling the ridge forming disc (L), care must be taken that the ridge forming disc positioning pin (N) engages the slot in the ridge forming disc.

Assemble the washer (K) and nut (J) and tighten firmly.

NOTE : To tighten nut (J), turn it counter-clockwise

To loosen nut (J), turn it clockwise.

Fig. 29

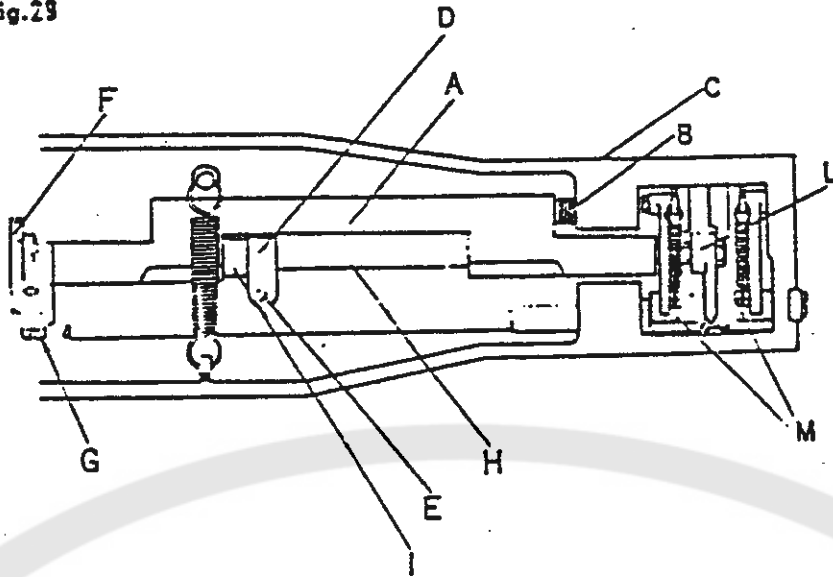


Fig. 30-2

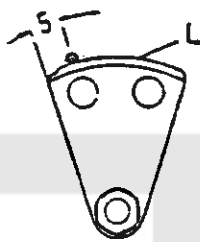
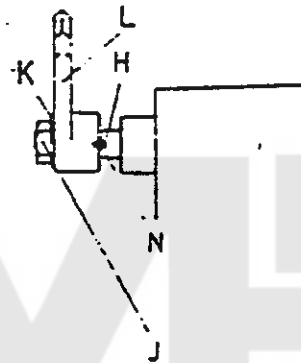


Fig. 31



4. Adjusting Feed Plate (Fig. 32)

The feed plate presses the work against the bottom of the presser foot and feed dog, when on its feeding stroke by two springs.

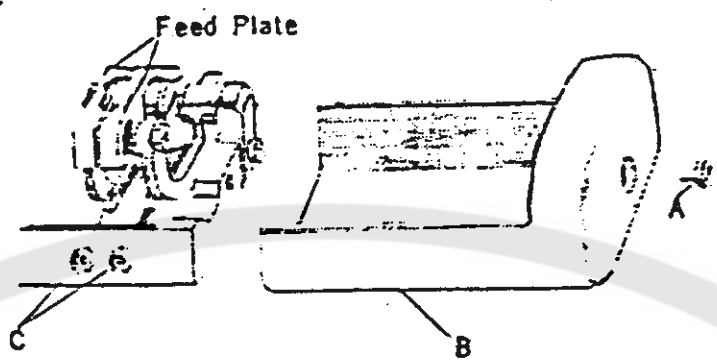
There must be enough pressure applied to hold the work from moving when the needle penetrates the material, for if the material moves with the needle, a loop will not be formed for the looper, resulting in skip stitch.

In this case, loosen the end cover set screw (A) for removing the end cover (B) and adjust the nut (C) to regulate its pressure.

To increase the pressure, turn the nut (C) clockwise.

To decrease the pressure, turn the nut (C) counter clockwise.

Fig. 32



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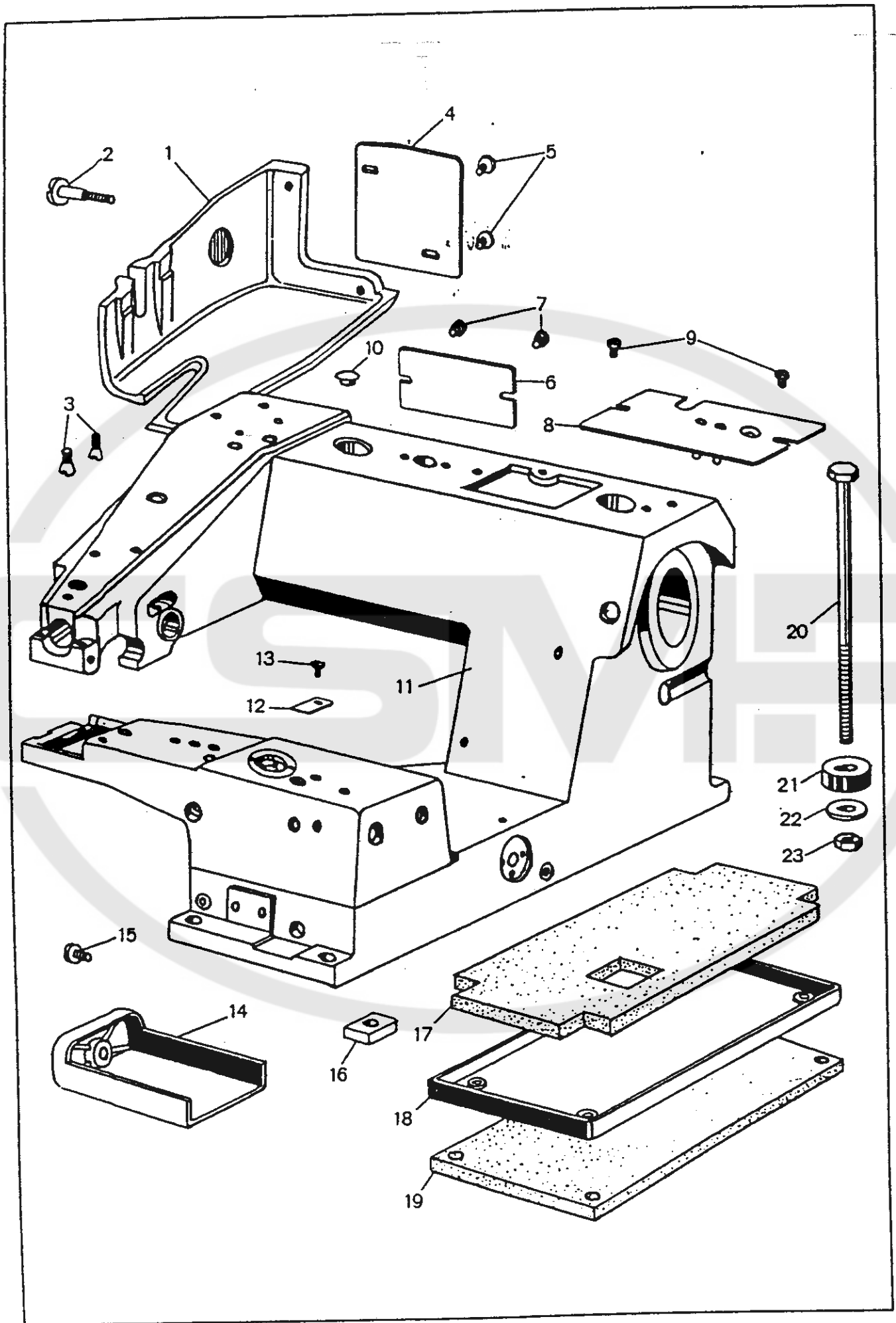
INDUSTRIAL HIGH SPEED
BLINDSTITCH MACHINE

MODEL : BM 250

PARTS LIST

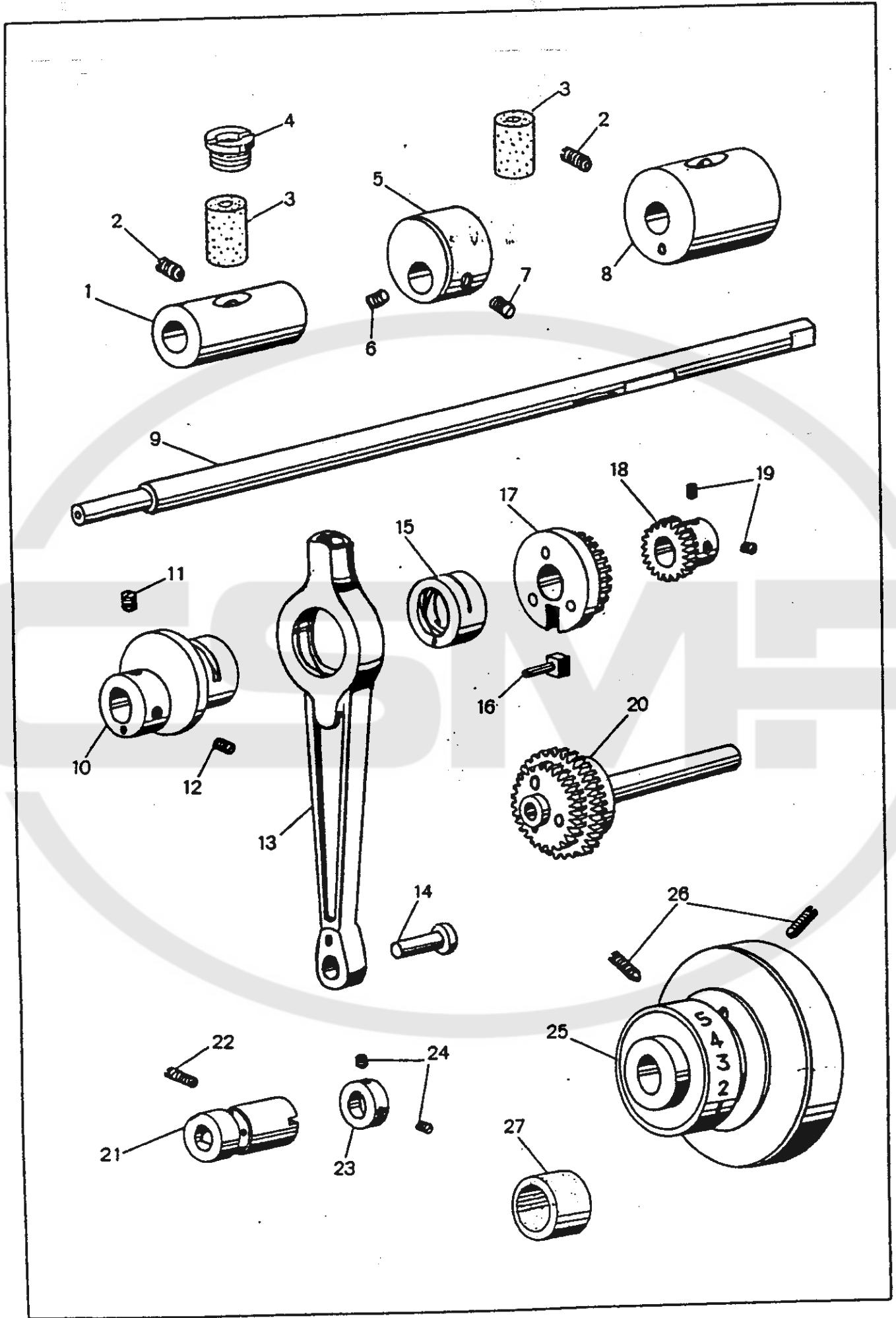
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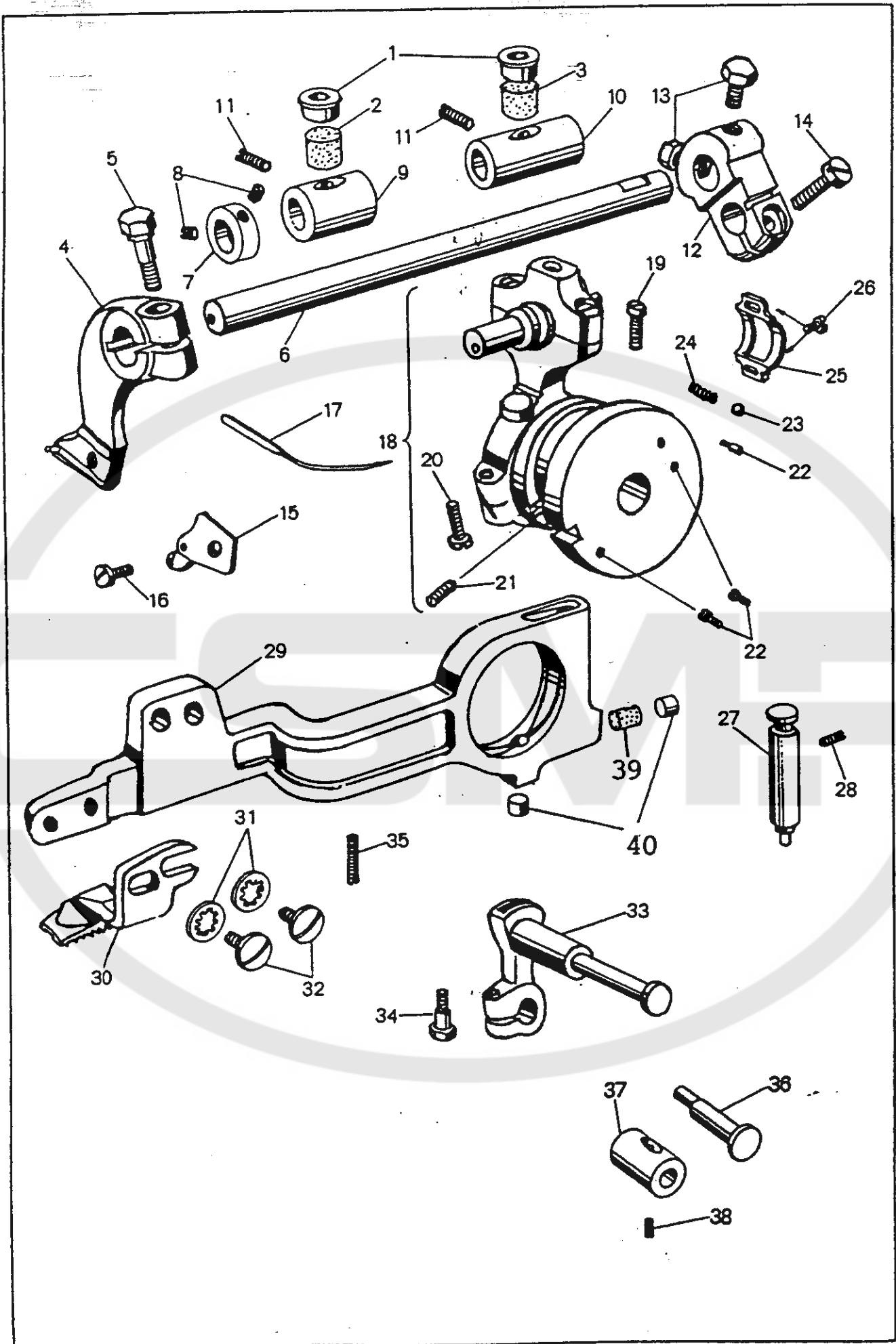
Machine Frame & Covers Components

Ref. No.	Parts No.	Description
1	11089	Arm Side Cover
2	4144	Arm Side Cover Set Screw
3	11128	Arm Side Cover Positioning Screw
4	11090	Arm Side Cover Plate
5	5227	Arm Side Cover Plate Screw
6	11088	Arm Rear Cover Plate
7	5233	Arm Rear Cover Plate Screw
8	11544	Arm Top Cover Plate
9	5233	Arm Top Cover Plate Screw
10	11163	Arm Top Rubber Cap
11	AM800	Machine Frame
12	11546	Arm Small Cover Plate
13	124	Arm Small Cover Plate Screw
14	11091	End Cover
15	11153	End Cover Set Screw
16	11142	Machine Base Rubber
17	11141	Machine Base Oil Felt
18	11545	Machine Base Oil Pan
19	11108	Machine Base Felt Pad
20	11144	Machine Base Clamp Screw
21	11143	Machine Base Rubber Ring
22	11146-A	Machine Base Washer
23	11145	Machine Base Nut



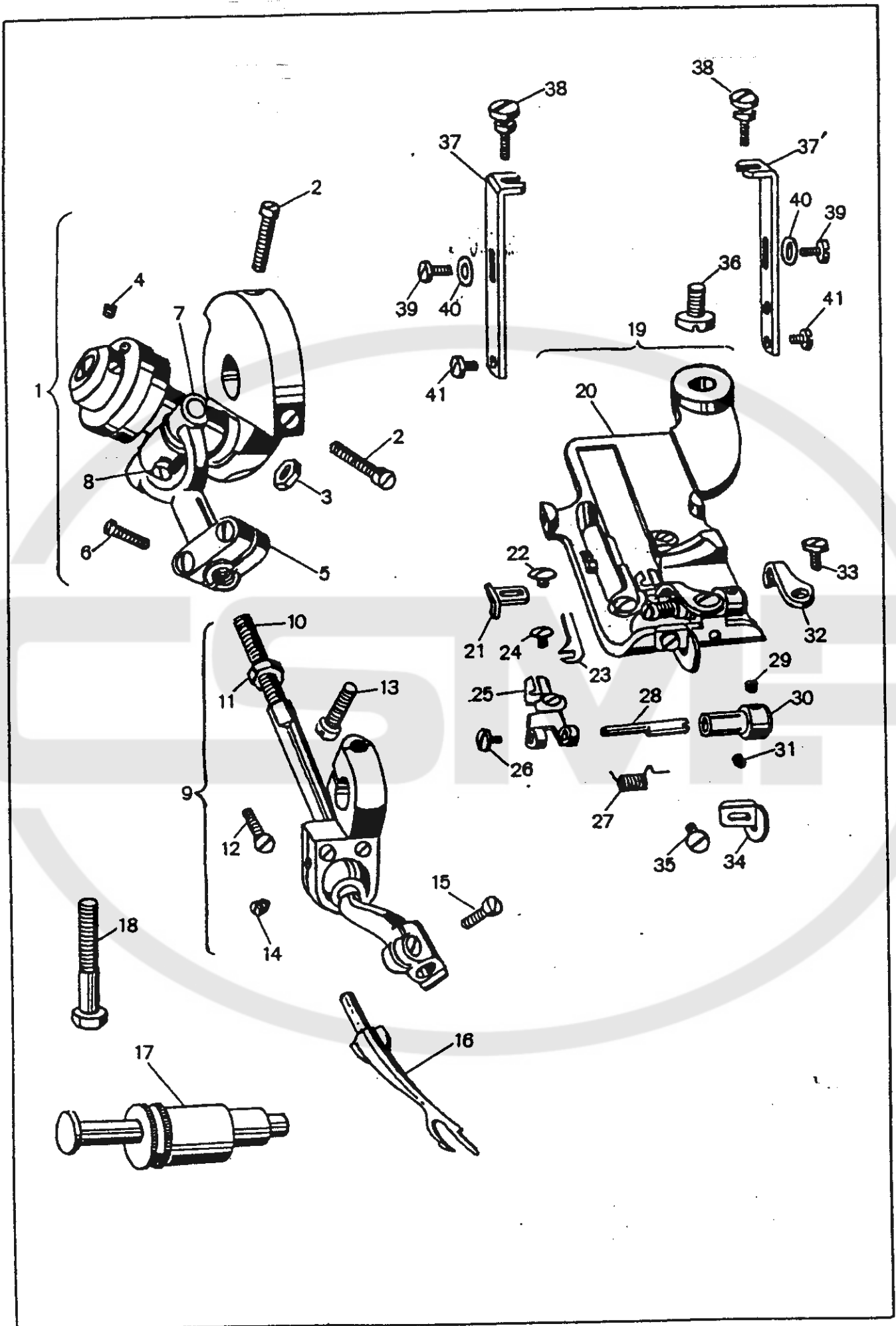
Main Shaft Mechanism Components

Ref. No.	Parts No.	Description
1	11005	Main Shaft Bushing (Front)
2	131	Main Shaft Bushing Set Screw
3	11862-A	Oiling Felt
4	11861-A	Oil Cap (Large)
5	11009	Counterweight
6	5225-C	Counterweight Set Screw (w/Flat Point)
7	11110	Counterweight Set Screw (w/Sharp Point)
8	11006	Main Shaft Bushing (Rear)
9	11504	Main Shaft
10	11200-A	Eccentric Bushing
11	11111	Eccentric Bushing Set Screw (w/Sharp Point)
12	5225-C	Eccentric Bushing Set Screw (w/Flat Point)
13	11505	Connecting Rod
14	11013	Connecting Rod Stud
15	11201	Eccentric Sleeve
16	11206	Eccentric Sleeve Pin
17	1124	Main Shaft Gear (Large)
18	11203	Main Shaft Gear (Small)
19	5225-B	Main Shaft Gear Set Screw
20	1125	Idler Gear & Shaft
21	11212	Idler Gear Shaft Bushing
22	131	Idler Gear Shaft Bushing Set Screw
23	11213	Idler Gear Shaft Collar
24	129-B	Idler Gear Shaft Collar Set Screw
25	11007-A	Hand Wheel (Pulley)
26	131	Hand Wheel Set Screw
27	4207-A	Hand Wheel Rubber Cap



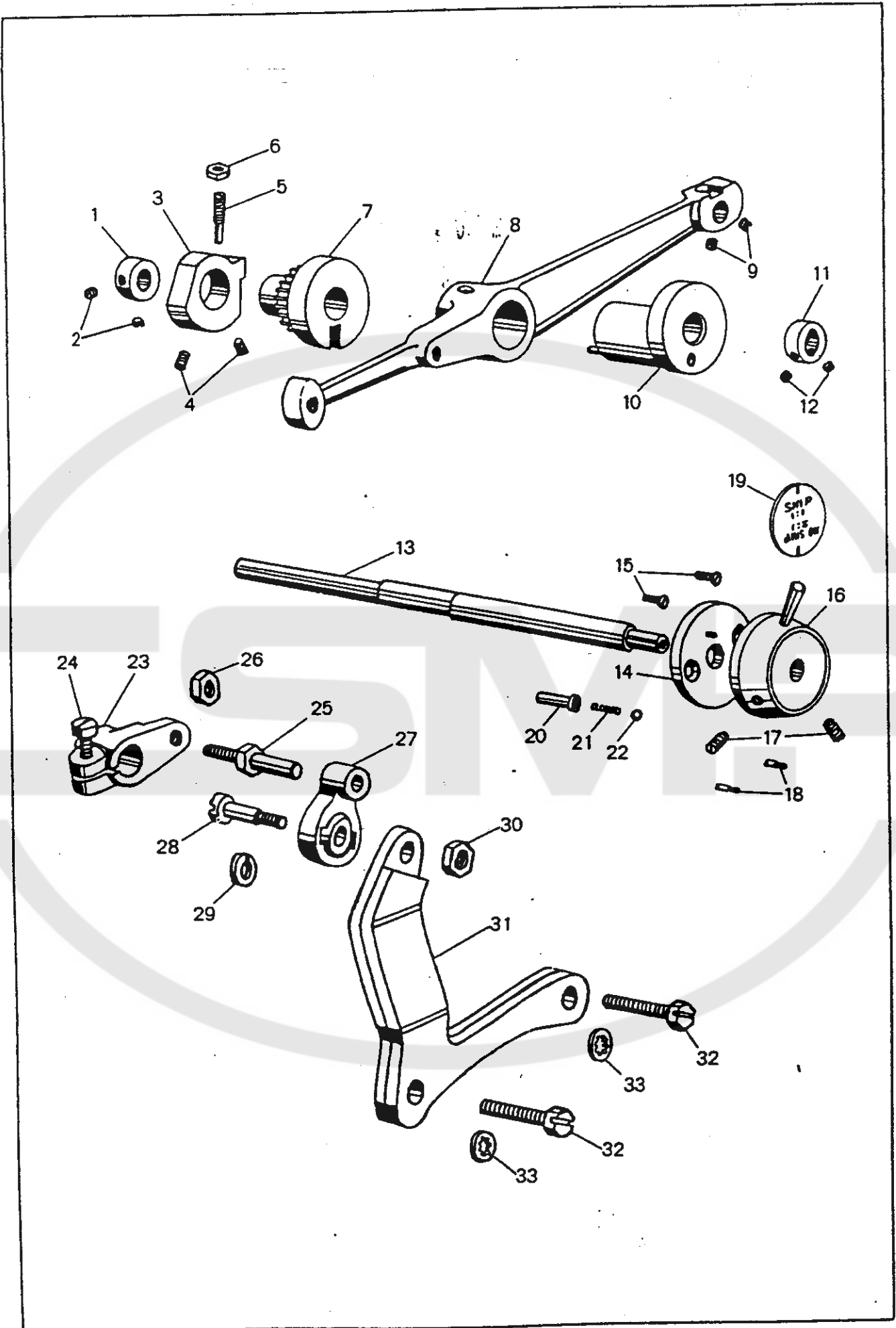
Needle Carrier & Feed Dog Mechanism Components

Ref. No.	Parts No.	Description
1	11119	Arm Top Oil Cap (Small)
2	11124-C	Oiling Felt
3	11124-B	Oiling Felt
4	4023-A	Needle Carrier
5	4024	Needle Carrier Set Screw
6	4019	Needle Carrier Shaft
7	4022	Needle Carrier Shaft Collar
8	129-B	Needle Carrier Shaft Collar Set Screw
9	11032	Needle Carrier Shaft Bushing (Front)
10	11033	Needle Carrier Shaft Bushing (Rear)
11	129-A	Needle Carrier Shaft Bushing Set Screw
12	4017-A	Needle Carrier Shaft Crank
13	4018-A	Needle Carrier Shaft Crank Set Screw
14	114-A	Needle Carrier Shaft Crank Clamp Screw
15	11139	Needle Clamp
16	121	Needle Clamp Set Screw
17	4181	Needle (System LW x6T)
18	1151	Needle Driving Eccentric w/Rod, Regulator & Screws (Ref. Nos. 19-22)
19	4211-C	Ball Connecting Rod Set Screw (Short)
20	4173	Ball Connecting Rod Set Screw (Long)
21	4009-B	Needle Driving Eccentric Set Screw
22	4012-A	Stitch Regulator Screw
23	4010	Stitch Regulator Ball
24	4011-A	Stitch Regulator Spring
25	4014	Ball Connecting Rod Cap
26	4015	Ball Connecting Rod Cap Set Screw
27	1108	Stitch Length Regulating Plunger
28	129-A	Stitch Length Regulating Plunger Set Screw
29	11902	Feed Lever
30	4047-C	Feed Dog
31	2528	Feed Dog Washer
32	4048-A	Feed Dog Set Screw
33	1152-A	Feed Link & Stud
34	4173	Feed Link Clamp Screw
35	4042-A	Feed Link Stud Set Screw
36	4044	Feed Link Eccentric Stud
37	4043	Feed Link Eccentric Stud Bushing
38	129-A	Feed Link Eccentric Stud Bushing Set Screw
39	11124-J	Oiling Felt
40	11121	Feed Lever Cap



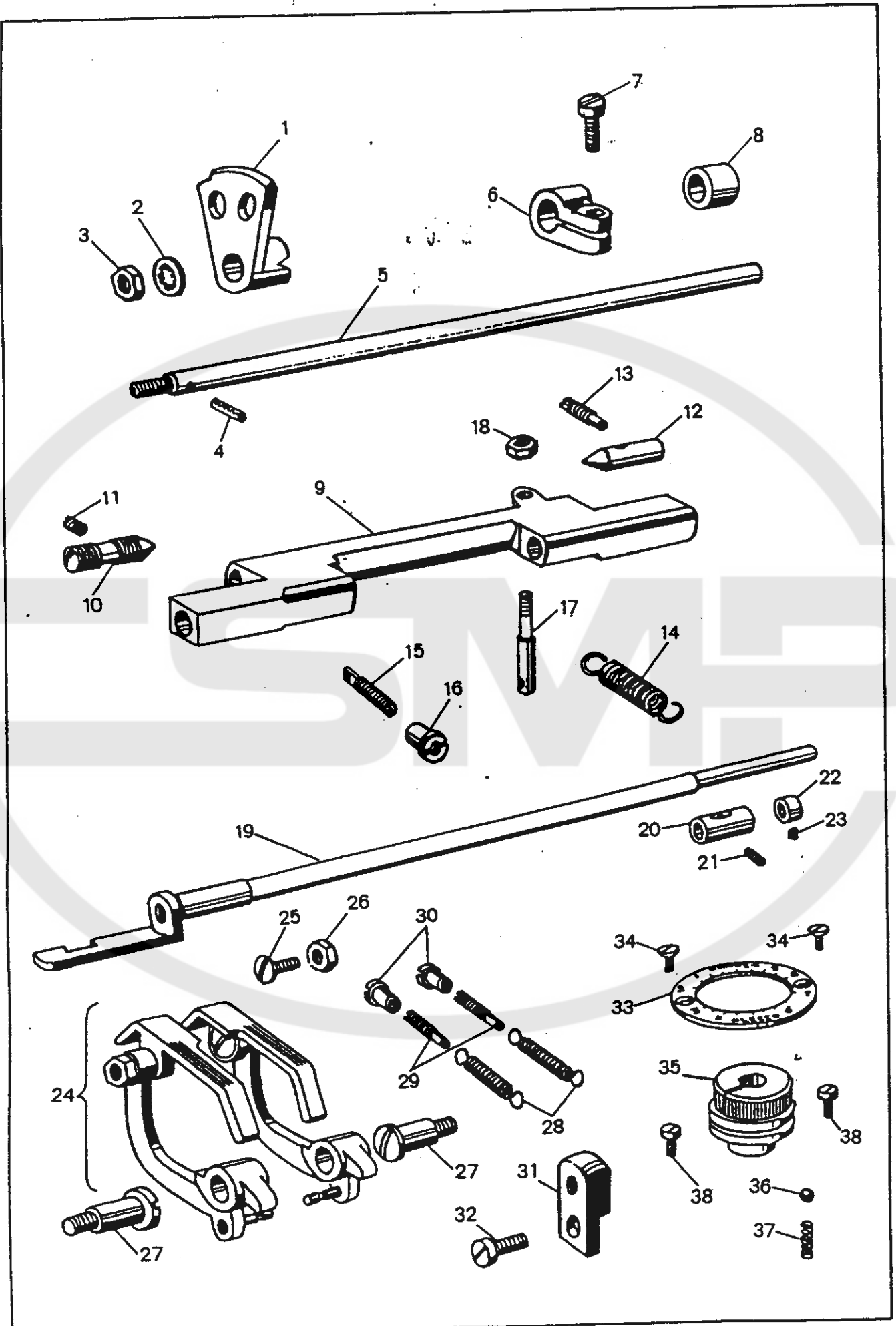
Looper Drive Mechanism & Presser Foot Parts Components

Ref. No.	Parts No.	Description
1	538-A	Looper Drive Crank Complete w/Looper Yoke & Screws (Ref. Nos. 2-8)
2	4191	Looper Drive Crank Set Screw
3	5039-A	Looper Drive Crank Stud Nut
4	129-B	Looper Drive Crank Stud Collar Set Screw
5	4030-A	Looper Yoke
6	4031	Looper Yoke Set Screw
7	4032-A	Looper Yoke Pin
8	8142	Looper Yoke Pin Set Screw
9	539-A	Looper Carrier w/Ball Joint & Screws (Ref. Nos. 10-15)
10	4035-A	Looper Carrier
11	4176	Looper Carrier Nut
12	4216	Looper Carrier Ball Joint Set Screw
13	4213	Looper Carrier Ball Joint Clamp Screw
14	4179-D	Looper Carrier Ball Spot Screw
15	4040	Looper Clamp Screw
16	11837	Looper
17	505-B	Eccentric Sleeve & Pin
18	4038	Eccentric Sleeve Clamp Screw
19	PF100	Presser Foot Complete (Ref. Nos. 20-35)
20	4049-B	Plain Presser Foot
21	4058-A	Chaining Finger
22	4185	Chaining Finger Set Screw
23	11563	Needle Guide
24	4052-B	Needle Guide Set Screw
25	4055CAS	Cloth Retainer
26	4185	Cloth Retainer Screw
27	4056	Cloth Retainer Spring
28	4054	Cloth Retainer Eccentric Stud
29	4183	Cloth Retainer Eccentric Stud Set Screw
30	4053	Cloth Retainer Eccentric Stud Bushing
31	130-B	Cloth Retainer Eccentric Stud Bushing Set Screw
32	4057-C	Cloth Retainer Stopper
33	4182	Cloth Retainer Stopper Set Screw
34	4059	Edge Guide
35	4185	Edge Guide Set Screw
36	4050	Presser Foot Set Screw
37	4061-A	Presser Foot Bracket (Left)
37'	4061-B	Presser Foot Bracket (Right)
38	4062	Presser Foot Bracket Adjusting Screw
39	114-B	Presser Foot Bracket Holding Screw
40	11158	Presser Foot Bracket Washer
41	4186-A	Presser Foot Holding Screw



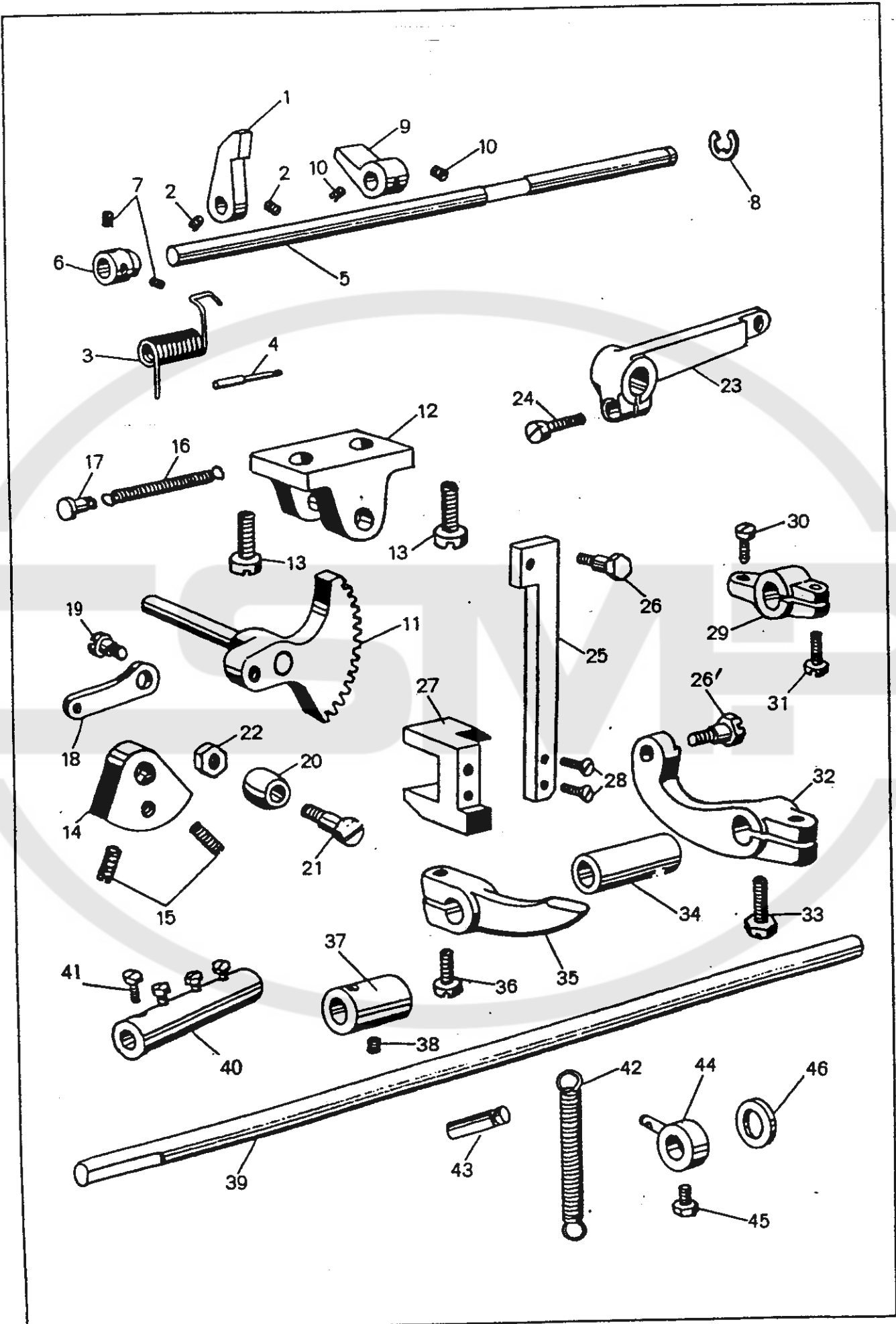
Disc Oscillating Mechanism Components

Ref. No.	Parts No.	Description
1	11513	Disc Oscillating Shaft Collar (Small)
2	132	Disc Oscillating Shaft Collar Set Screw
3	11511	Disc Locking Latch Block
4	98	Disc Locking Latch Block Set Screw
5	11528	Disc Locking Latch Block Stop Screw
6	4068-A	Disc Locking Latch Block Nut
7	1153	Disc Oscillating Gear (Small)
8	11506	Disc Oscillating Rod
9	98	Disc Oscillating Rod Stud Set Screw
10	11507	Disc Oscillating Eccentric Sleeve
11	11512	Disc Oscillating Shaft Collar (Large)
12	132	Disc Oscillating Shaft Collar Set Screw
13	11508	Disc Oscillating Shaft
14	11514	Skip-Stitch Selecting Plate
15	5235-A	Skip-Stitch Selecting Plate Set Screw
16	11515-A	Skip-Stitch Selecting Knob
17	98	Skip-Stitch Selecting Knob Set Screw
18	4012-A	Skip-Stitch Selecting Knob Stop Screw
19	11516	Skip-Stitch Selecting Indicator
20	11517	Skip-Stitch Selecting Spring Holder
21	4011	Skip-Stitch Selecting Spring
22	4010	Skip-Stitch Selecting Ball
23	11522-A	Disc Oscillating Crank
24	113-A	Disc Oscillating Crank Set Screw
25	11521	Disc Oscillating Crank Connecting Pin
26	4070-A	Disc Oscillating Crank Connecting Pin Nut
27	11519	Disc Oscillating Ball Joint
28	11520	Disc Oscillating Ball Joint Stud
29	8179	Disc Oscillating Ball Joint Stud Washer
30	4070-A	Disc Oscillating Ball Joint Stud Nut
31	11518-C	Disc Oscillating Lever
32	10112	Disc Oscillating Lever Clamp Screw
33	5222-B	Disc Oscillating Lever Washer



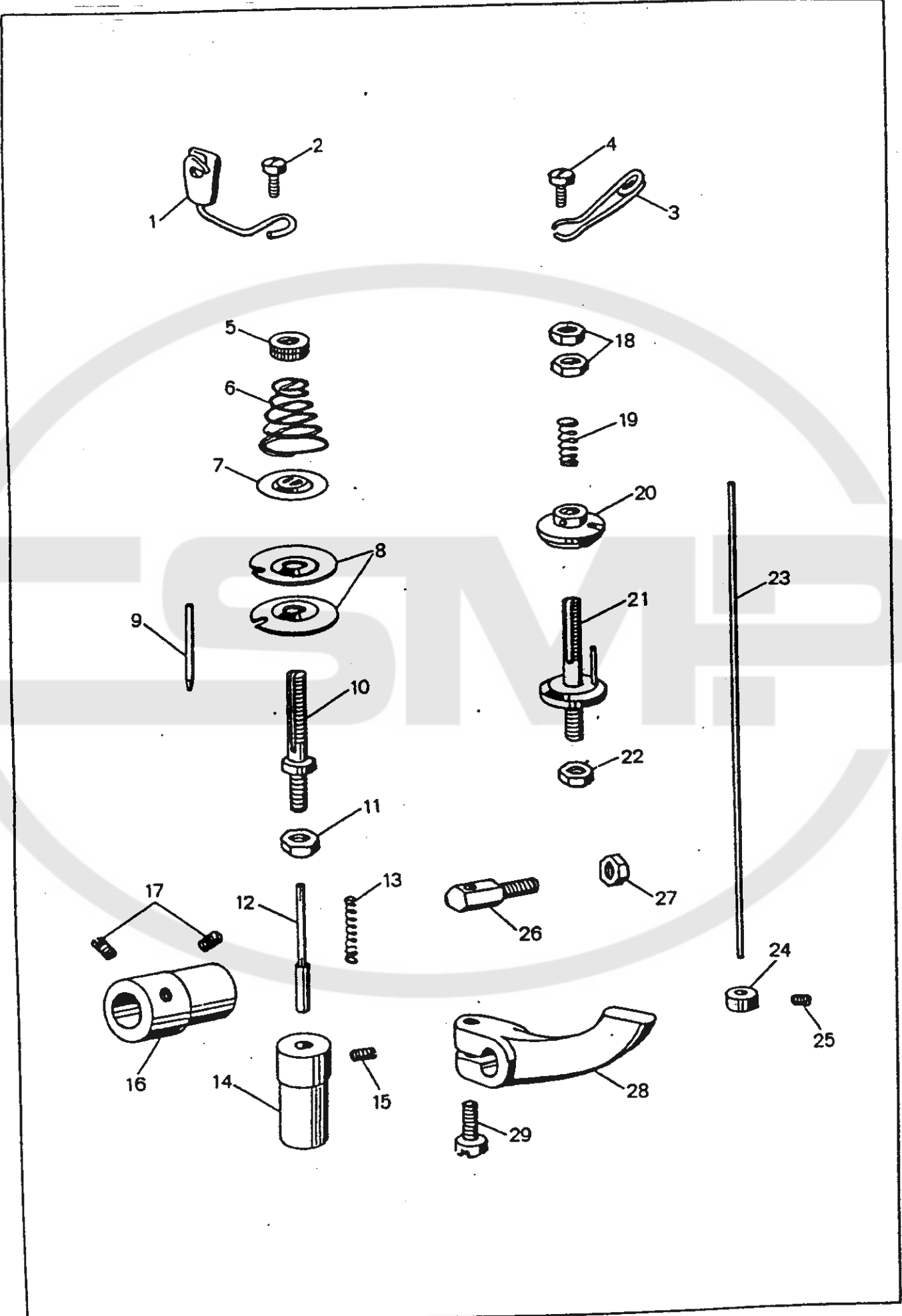
Ridge Forming Disc & Feed Plate Mechanism Components

Ref. No.	Parts No.	Description
1	11220-T	Ridge Forming Disc
2	5222-B	Ridge Forming Disc Washer
3	4208	Ridge Forming Disc Nut
4	8150	Ridge Forming Disc Positioning Pin
5	4109-A	Ridge Forming Disc Shaft
6	10023	Ridge Forming Disc Shaft Collar
7	113-A	Ridge Forming Disc Shaft Collar Set Screw
8	11047	Ridge Forming Disc Shaft Sleeve
9	4102	Disc Adjusting Holder
10	11048	Disc Adjusting Holder Pivot Bearing Screw
11	98	Disc Adjusting Holder Pivot Bearing Screw Set Screw
12	11049	Disc Adjusting Holder Pivot Bearing Pin
13	11050	Disc Adjusting Holder Pivot Bearing Pin Set Screw
14	4104	Disc Adjusting Holder Spring
15	4105	Disc Adjusting Holder Spring Screw
16	4106	Disc Adjusting Holder Spring Nut
17	11051	Disc Adjusting Holder Spring Stud
18	5208	Disc Adjusting Holder Spring Stud Nut
19	11075-A	Feed Plate Shaft
20	4043	Feed Plate Shaft Bushing
21	98	Feed Plate Shaft Bushing Set Screw
22	4090	Feed Plate Shaft Collar
23	129-B	Feed Plate Shaft Collar Set Screw
24	516-B	Feed Plate Complete (Left & Right)
25	4101	Feed Plate Taper Bearing Screw
26	4070	Feed Plate Nut
27	4096	Feed Plate Shoulder Bearing Screw
28	4093-BA	Feed Plate Spring
29	4094	Feed Plate Spring Screw
30	4095	Feed Plate Spring Adjusting Nut
31	11076	Feed Plate Bracket
32	113-B	Feed Plate Bracket Set Screw
33	11062	Disc Adjusting Dial
34	4129	Disc Adjusting Dial Set Screw
35	519-G	Disc Adjusting Regulator Complete
36	4010	Disc Adjusting Regulator Ball
37	4011	Disc Adjusting Regulator Spring
38	115	Disc Adjusting Regulator Base Set Screw



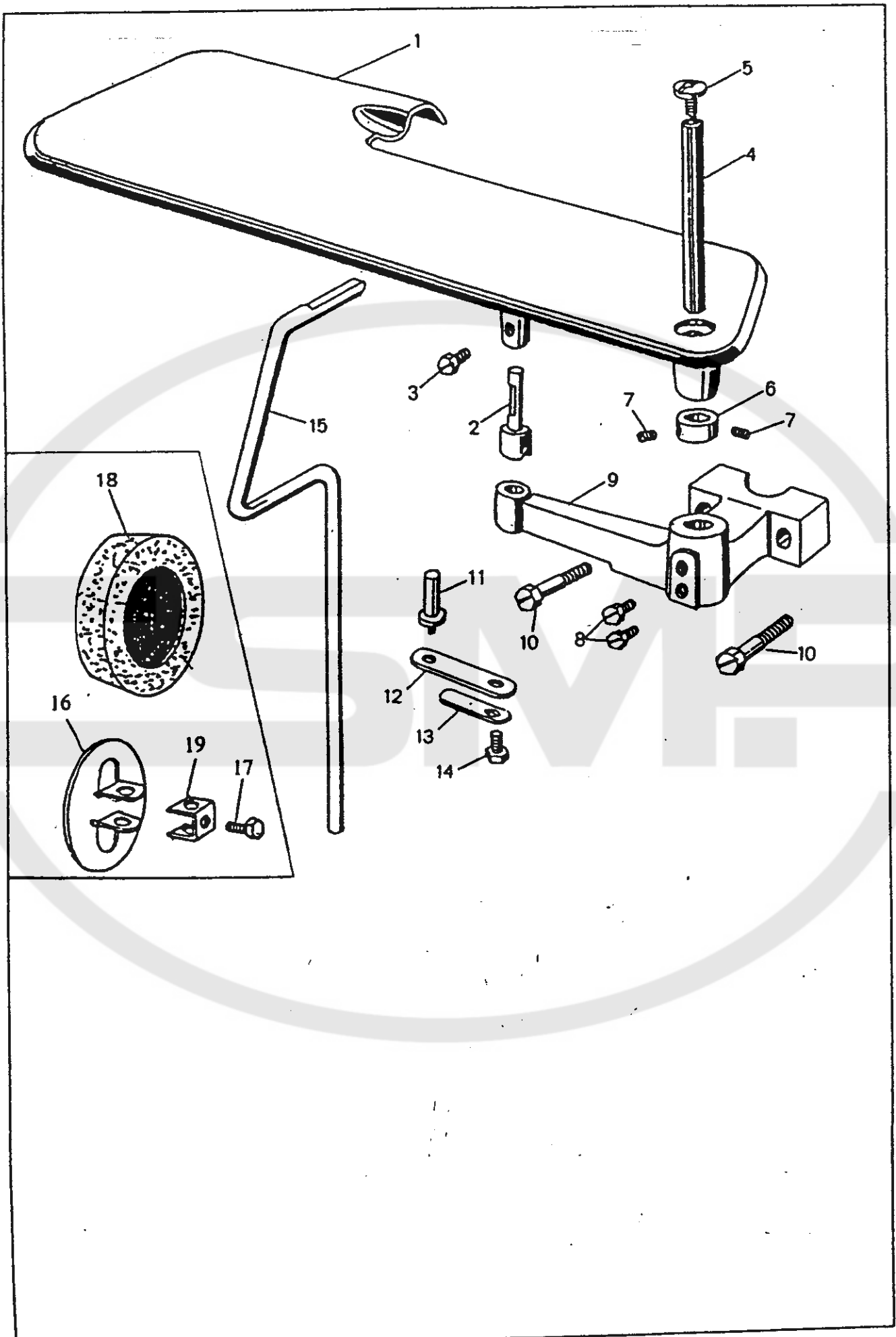
Disc Locking Mechanism & Knee Press Shaft Parts Components

Ref. No.	Parts No.	Description
1	11526	Disc Locking Latch
2	0054004	Disc Locking Latch Set Screw
3	11527	Disc Locking Latch Spring
4	11081	Disc Locking Latch Spring Pin
5	11523-A	Disc Locking Latch Shaft
6	11524	Disc Locking Latch Shaft Collar
7	129-B	Disc Locking Latch Shaft Collar Set Screw
8	11548	Disc Locking Latch Shaft Ring
9	11525	Disc Locking Latch Releasing Lever
10	0054004	Disc Locking Latch Releasing Lever Set Screw
11	S-1154	Disc Oscillating Gear (Large) <i>Assembly</i> (Ref. Nos 12, 14-15, 18-22)
12	11535	Disc Oscillating Gear Bracket
13	8158	Disc Oscillating Gear Bracket Set Screw
14	11536	Disc Oscillating Gear Shaft Collar
15	11113	Disc Oscillating Gear Shaft Collar Set Screw
16	11537-A	Disc Oscillating Gear Shaft Collar Spring
17	11538	Disc Oscillating Gear Shaft Collar Spring Pin
18	11058	Disc Oscillating Gear Shaft Collar Link
19	11059	Disc Oscillating Gear Shaft Collar Link Bearing Screw
20	11055	Disc Oscillating Roller
21	11056-A	Disc Oscillating Roller Shoulder Bearing Screw
22	4070-A	Disc Oscillating Roller Nut
23	11074-T	Feed Plate Depressing Crank
24	11117	Feed Plate Depressing Crank Set Screw
25	11532-T	Feed Plate Depressing Crank Connecting Plate
26	11073	Feed Plate Depressing Crank Connecting Plate Shoulder Screw
26'	11073-A	Feed Plate Depressing Crank Connecting Plate Shoulder Screw
27	11531	Roller Engaging Block
28	7095-B	Roller Engaging Block Set Screw
29	11529-B	Disc Locking Latch Releasing Crank
30	113-AT	Disc Locking Latch Releasing Crank Stop Screw
31	0215014	Disc Locking Latch Releasing Crank Set Screw
32	11530	Knee Press Shaft Crank
33	4084	Knee Press Shaft Crank Set Screw
34	11065-B	Knee Press Shaft Sleeve
35	11068	Knee Press Shaft Stop Lever
36	11117	Knee Press Shaft Stop Lever Set Screw
37	11064	Knee Press Shaft Bushing
38	129-A	Knee Press Shaft Bushing Set Screw
39	11063-A	Knee Press Shaft
40	4146-B	Knee Press Rod Sleeve
41	4147-C	Knee Press Rod Sleeve Set Screw
42	11060	Knee Press Shaft Spring
43	11061-A	Knee Press Shaft Spring Pin
44	11067-A	Knee Press Shaft Spring Collar
45	4184	Knee Press Shaft Spring Collar Set Screw
46	11539	Knee Press Shaft Washer



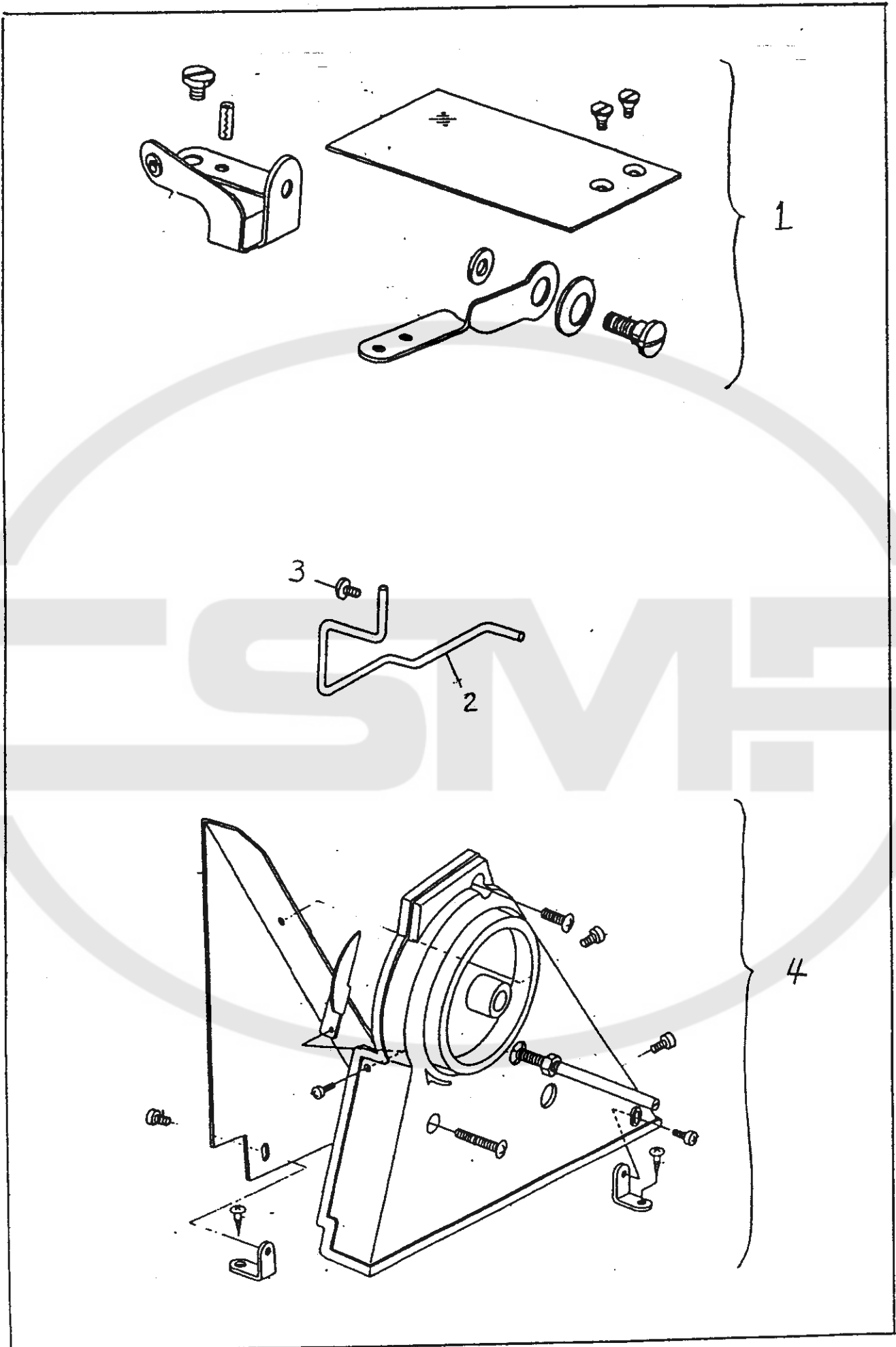
Thread Tension & Nipper Parts Components

Ref. No.	Parts No.	Description
1	11136	Thread Guide with Ceramic
2	113-B	Thread Guide Set Screw
3	4203-A	Thread Guide
4	113-B	Thread Guide Set Screw
5	81	Thread Tension Nut
6	79-B	Thread Tension Spring
7	77	Thread Tension Washer
8	5190-A	Thread Tension Disc
9	11556	Thread Tension Disc Pin
10	4209	Thread Tension Staff
11	4068-A	Thread Tension Staff Nut
12	11543-A	Thread Tension Releasing Pin
13	11547	Thread Tension Releasing Pin Spring
14	11542	Thread Tension Releasing Pin Bushing
15	131	Thread Tension Releasing Pin Bushing Set Screw
16	11541	Thread Tension Releasing Eccentric
17	132	Thread Tension Releasing Eccentric Set Screw
18	4068-A	Thread Nipper Nut
19	4198	Thread Nipper Spring
20	11552	Thread Nipper Disc
21	11551	Thread Nipper Staff
22	4068-A	Thread Nipper Staff Nut
23	11162	Thread Nipper Releasing Pin
24	6053	Thread Nipper Releasing Pin Collar
25	130-B	Thread Nipper Releasing Pin Collar Set Screw
26	11540	Thread Nipper Releasing Pin Prop
27	4068-A	Thread Nipper Releasing Pin Prop Nut
28	11068	Thread Nipper Releasing Pin Lever
29	11117	Thread Nipper Releasing Pin Lever Set Screw



Work Plate, Knee Press

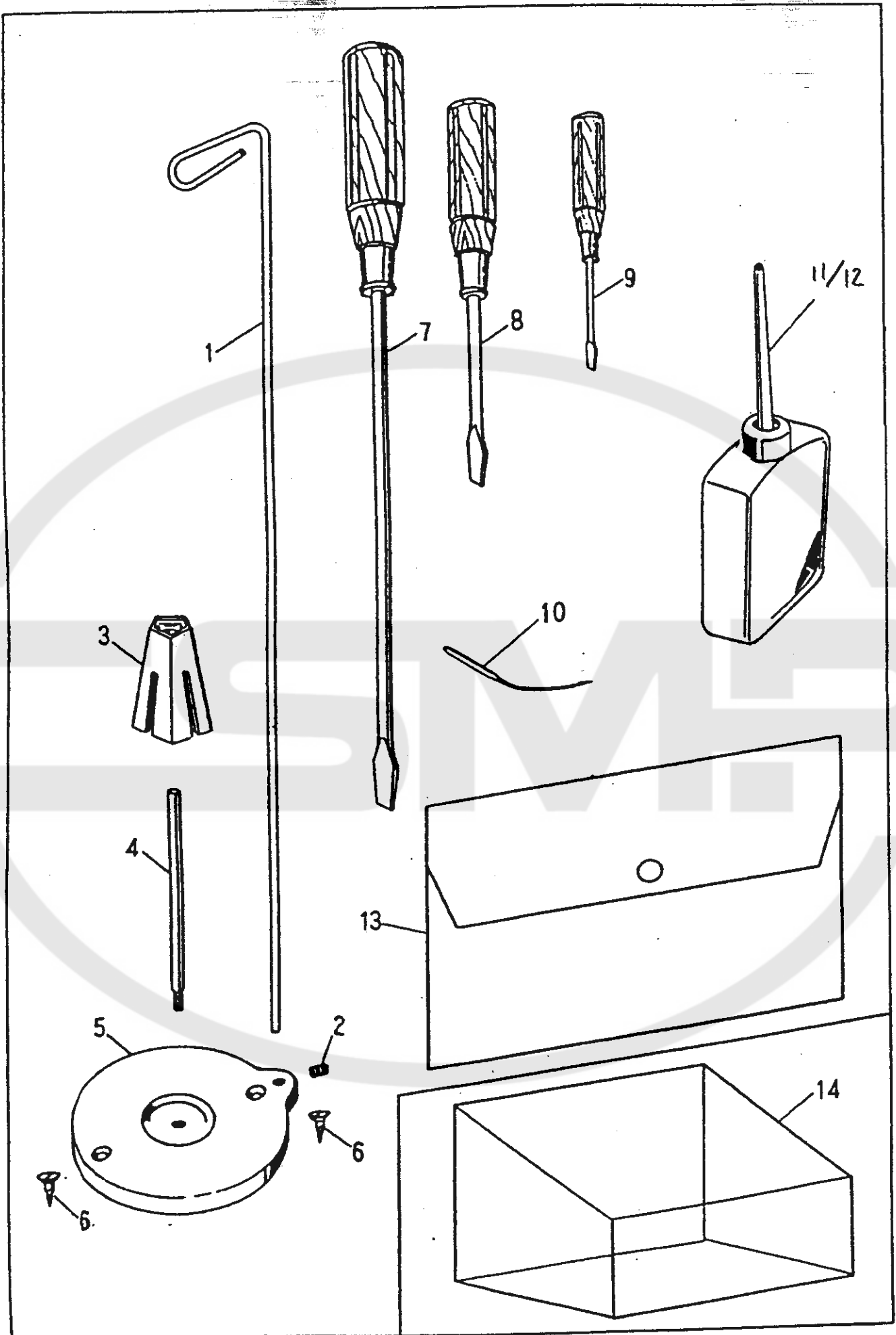
Ref. No.	Parts No.	Description
1	11082	Work Plate
2	11086	Work Plate Latch
3	11156	Work Plate Latch Set Screw
4	11134	Work Plate Shaft
5	99-A	Work Plate Shaft Screwed Cap
6	11008	Work Plate Shaft Collar
7	8137	Work Plate Shaft Collar Set Screw
8	11156	Work Plate Shaft Set Screw
9	11083	Work Plate Bracket
10	11127	Work Plate Bracket Set Screw
11	4159	Work Plate Bracket Spring Pin
12	11084	Work Plate Bracket Leaf Spring (Long)
13	11085	Work Plate Bracket Leaf Spring (Short)
14	11156	Work Plate Bracket Leaf Spring Set Screw
15	4148-B	Knee Press Rod
16	21089	Knee Press Plate
17	21091	Knee Press Plate Set Screw
18	S-21088	Knee Press Pad Assembly (Ref. Nos. 16, 17, 19)
19	21090	Knee Press Plate Bracket



Eye Guard, Finger Guard & Belt Cover Components

Ref.No.	Parts No.	Description
1	S-1170	Eye Guard Complete
2	11566	Finger Guard
3	5233	Set Screw
4	S-10750	Belt Cover Set





Standard Accessories

Ref. No.	Parts No.	Description
1	4152	Thread Guide
2	129-A	Thread Guide Set Screw
3	AC-101	Plastic Cap
4	4151	Spool Pin
5	4150	Cotton Stand Base
6	AC-10	Cotton Stand Base Wood Screw
7	AC-01	Screw Driver (Large)
8	AC-02	Screw Driver (Medium)
9	AC-03	Screw Driver (Small)
10	4181	Needle (System LW x 6T)
11	AC-04A	Oiler
12	AC-05-A	Oil
		} Oil & Oiler Set
13	AC-08-A	Accessory Bag
14	AC-13	Vinyl Cover