

SUNSHINE®

Industrial Sewing Machines.

※※※ PARTS BOOK /
INSTRUCTION MANUAL ※※※

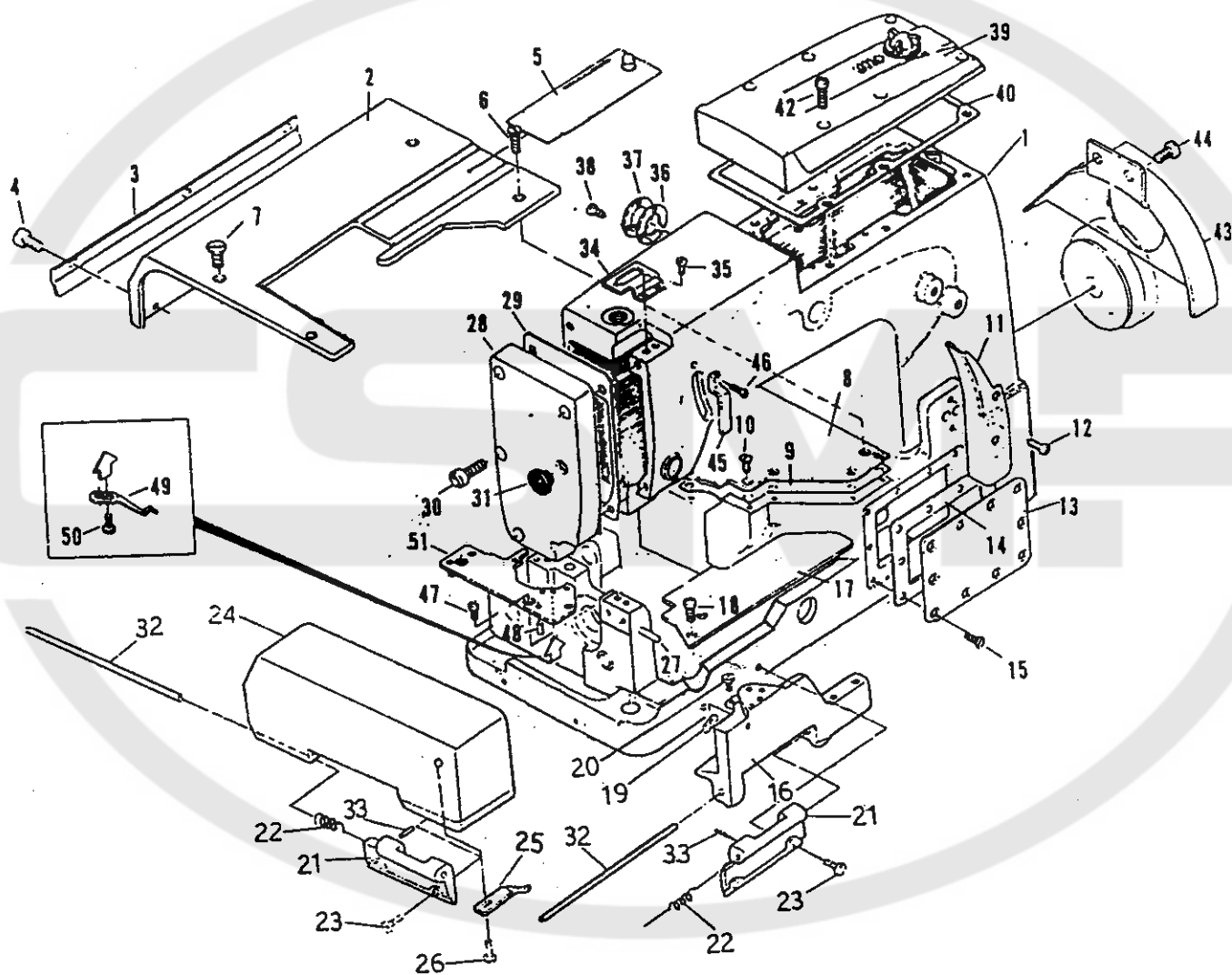
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MOD. 5302W

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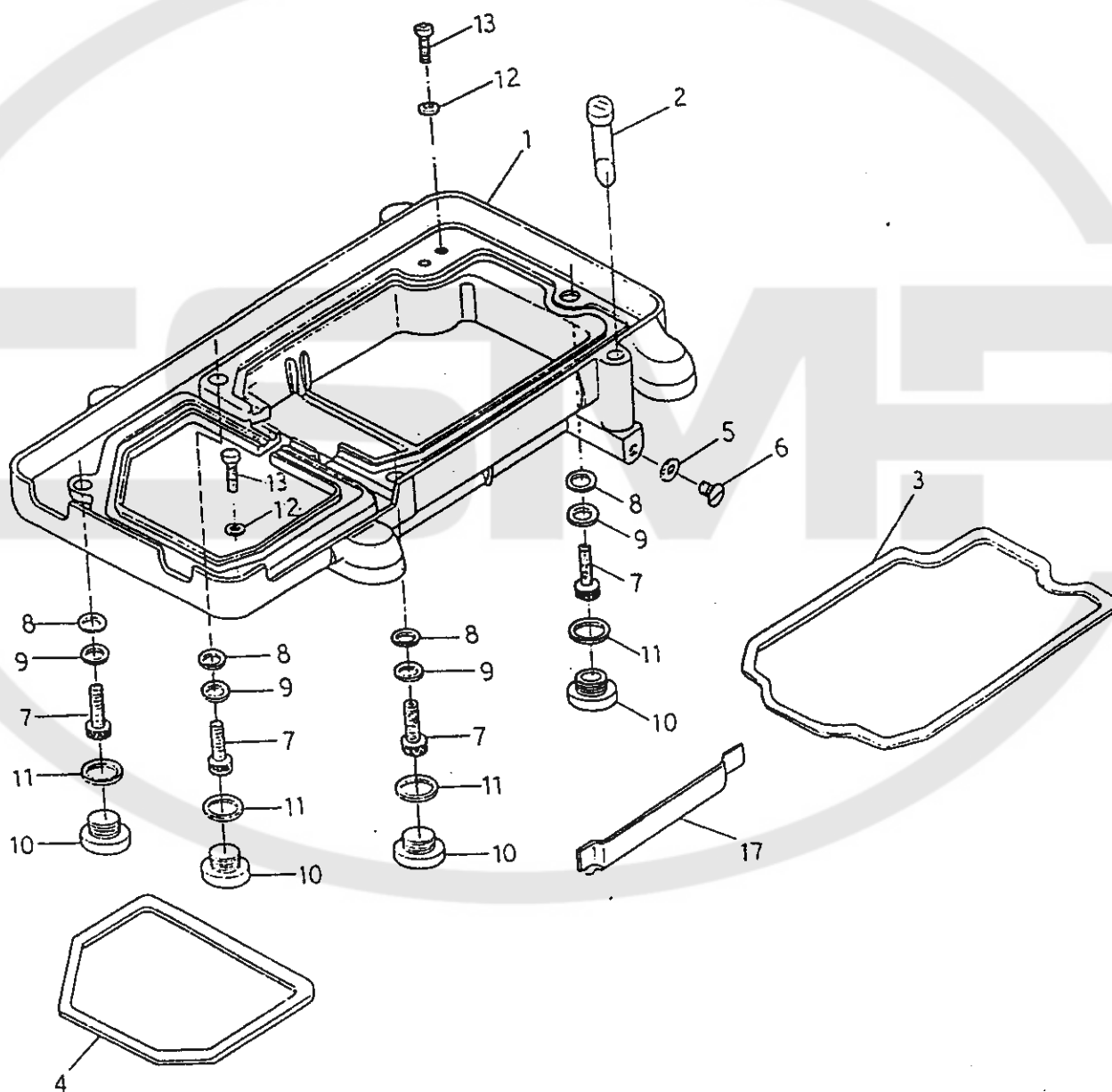
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1. Housing components



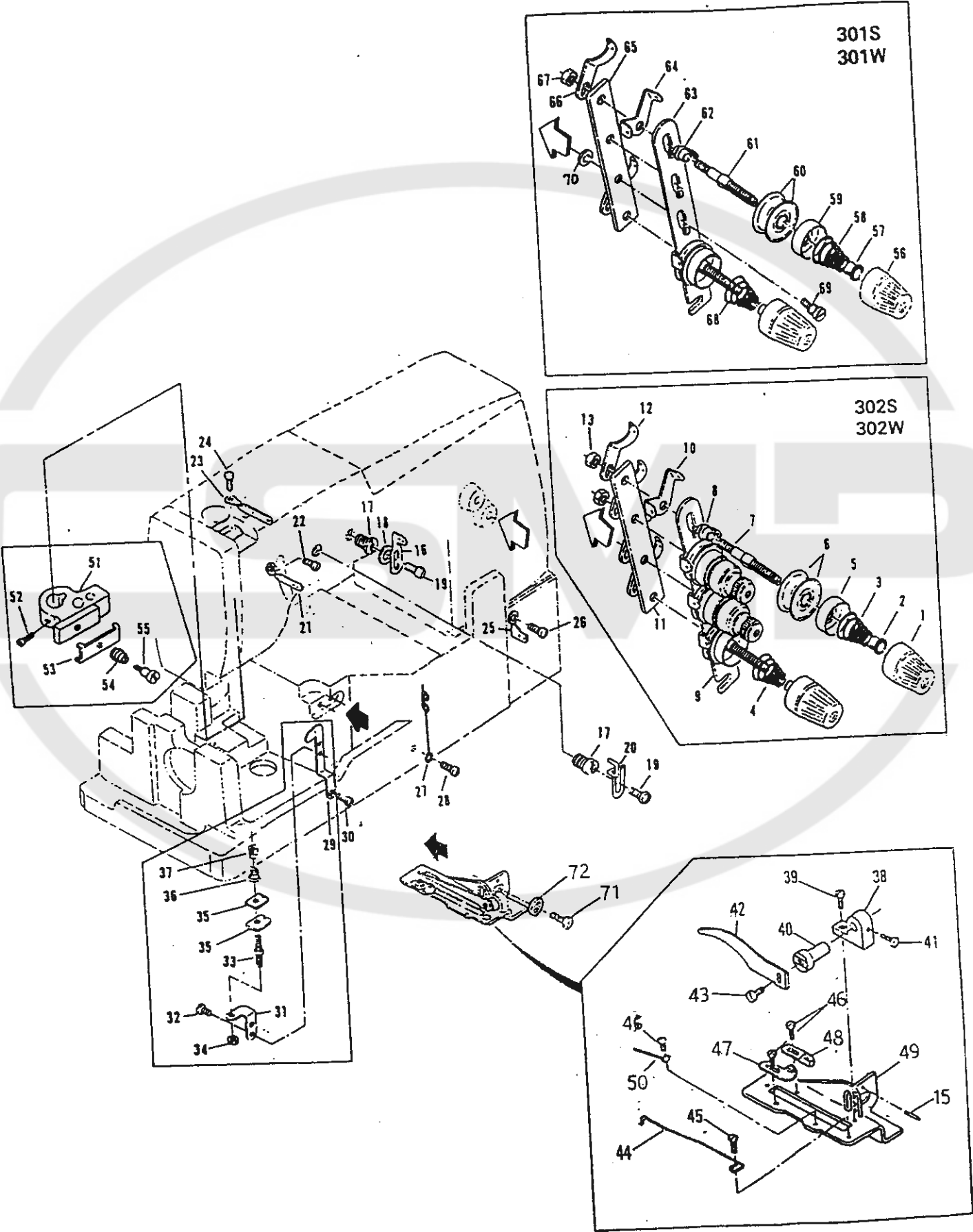
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	P30101	Arm bed.....	1	26	B60123	Screw.....	1
2	P30102	Upper cloth plate.....	1	27	W80136	Side cloth plate spring pin.....	1
3	W80103	Supporting cover.....	1	28	P30128	Head cover.....	1
4	W80107	Screw.....	3	29	P30129	Head cover gasket.....	1
5	W80104	Slide plate.....	1	30	B60123	Screw.....	4
6	B60157	Screw.....	2	31	B60129	Head cover oil seal cover.....	1
7	B60158	Screw.....	2	32	W80150	Hinge lever.....	2
8	B60136	Oil reservoir top cover.....	1	33	B80744	Screw.....	4
9	B60137	Oil reservoir top cover.....	1	34	P30134	cover.....	1
10	B60138	Screw.....	7	35	B60154	Screw.....	2
11	B60131	Tension post cover.....	1	36	B60142	Oil seal plate gasket.....	1
12	B60132	Screw.....	1	37	B60143	Oil seal plate B.....	1
13	B60139	Oil reservoir front cover.....	1	38	B60144	Screw.....	3
14	B60140	Oil reservoir front cover gasket.....	1	39	P30139	Crank chamber oil cover.....	1
15	B60141	Screw.....	9	40	B60122	Crank chamber oil cover gasket.....	1
16	W80112	Ruler holder.....	1	41			
17	P30117	Puller plate.....	1	42	B60123	Screw.....	6
18	B60106	Screw.....	2	43	B60133	Pulley cover.....	1
19	W80117	Puller holder back spring rod.....	1	44	B60123	Screw.....	2
20	B60229	Screw.....	1	45	B60146	Needle lever eyelet safety plate.....	1
21	W80109	Hinge.....	2	46	B60132	Screw.....	1
22	W80149	Spring.....	2	47	B60160	Screw.....	2
23	B60123	Screw.....	4	48	B60161	Needle plate support knock pin.....	2
24	W80108	Side cover.....	1	49	W80134	Ruler plate spring.....	1
25	W80110	Side cloth plate spring.....	1	50	B80157	Screw.....	2
				51	P30151	Needle plate support.....	1

2. Oil tank and lubrication system



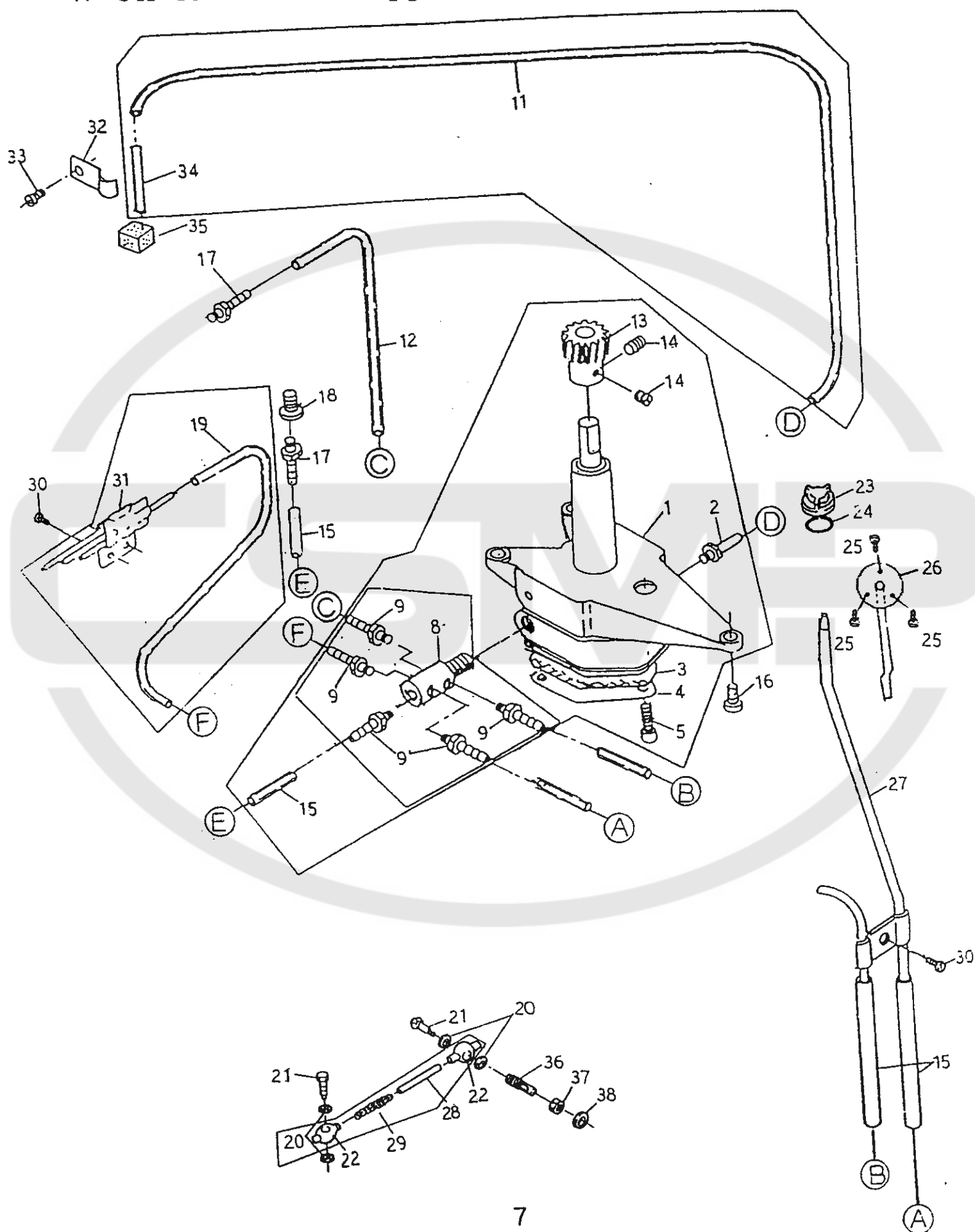
Ref. No.	Part No.	Part Name	Type D	Type DE	Type F	Type EMK
1	B60102	Oil reservior.	1	1	1	1
2	B60116	Oil gauge.	1	1	1	1
3	B60118	Oil reservior gasket (large).....	1	1	1	1
4	B60117	Oil reservior gasket (small).....	1	1	1	1
5	B60108	Gasket.	1	1	1	1
6	B60109	Screw.	4	4	4	4
7	B60113	Screw.	4	4	4	4
8	B60112	Seal gasket.....	4	4	4	4
9	B60111	Washer.	4	4	4	4
10	B60115	Screw.	4	4	4	4
11	B60114	O-ring.	2	2	2	2
12	B60111	Washer.	2	2	2	2
13	B60110	Screw.				
14						
15						
16			1	1	1	1
17	W80217	Oil fence.				

3. Thread eyelet components



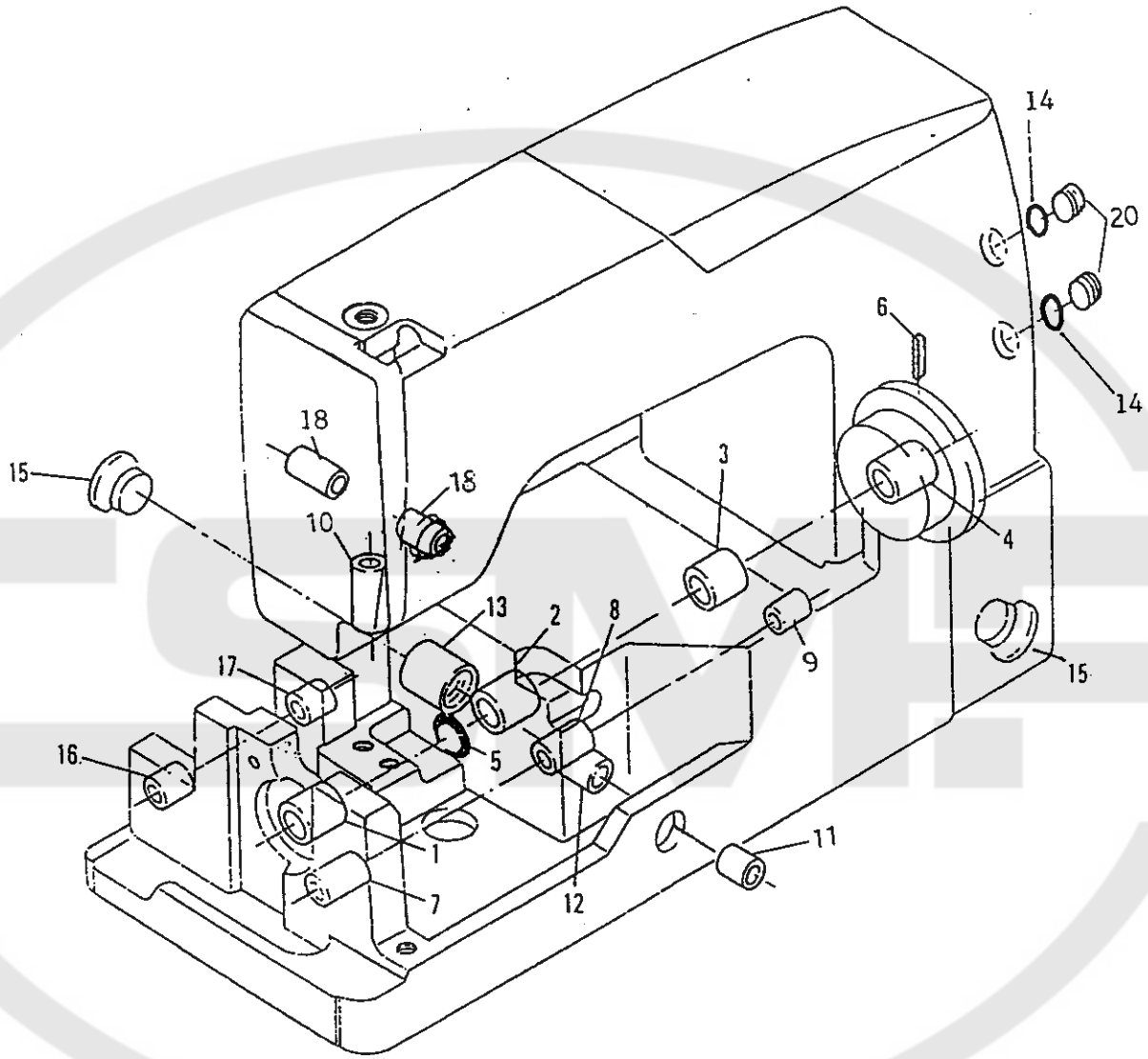
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	B60201	Tension regulating nut.....	4	37	P30337	Nut.....	1
2	B60202	Tension disc ratchet.....	4	38	B60238	Retainer support bracket.....	1
3	B60203	Needle thread tension spring.....	2	39	B60239	Screw.....	1
4	B60204	Looper thread tension spring.....	2	40	P30340	Pin for looper thread retainer.....	1
5	B60205	Tension disc cover.....	4	41	B60241	Screw.....	1
6	B60206	Tension disc.....	8	42	P30342	Looper thread retainer.....	1
7	B60207	Tension post.....	4	43	B60132	Screw.....	1
8	B60208	Tension post collar A.....	4	44	B60244	Looper thread cast-off pin.....	1
9	B60209	Tension post support.....	1	45	B60233	Screw.....	2
10	B60210	Tension post thread eyelet.....	4	46	B60233	Screw.....	2
11	B60211	Tension post holder.....	1	47	B60235	Looper thread guide eyelet (left).....	1
12	B60212	Lead in thread eyelet.....	4	48	B60234	Looper thread guide eyelet (right).....	1
13	B60213	Nut.....	2	49	B60236	Cast-off support plate.....	1
14				50	P30350	Guide pin.....	1
15	B60216	Pin.....	2	51	P30351	Thread nipper base.....	1
16	B60219	Needle thread eyelet.....	1	52	B80159	Screw.....	1
17	B60418	Fixing base.....	2	53	W80308	thread nipper.....	1
18	B60105	Washer.....	1	54	W80309	Spring.....	1
19	B60123	Screw.....	2	55	W80310	Screw.....	1
20	P30320	Needle thread adjusting eyelet.....	1	56	B60201	Tension regulating nut.....	2
21	B60222	Needle lever thread eyelet.....	1	57	B60202	Tension disc ratchet.....	2
22	B60132	Screw.....	1	58	B60203	Needle thread tension spring.....	1
23	B60226	Needle bar thread eyelet.....	1	59	B60205	Tension disc cover.....	2
24	B60132	Screw.....	1	60	B60206	Tension disc.....	4
25	B60230	Thread eyelet 2.....	1	61	B60207	Tension post.....	2
26	B60231	Screw.....	1	62	B60208	Tension post collar A.....	2
27	P30327	Looper thread guide.....	1	63	B60209	Tension post support.....	1
28	B60132	Screw.....	1	64	B60210	Tension post thread eyelet.....	2
29	P30329	Looper thread guide eyelet.....	1	65	B60211	Tension post holder.....	1
30	B60132	Screw.....	1	66	B60212	Lead in thread eyelet.....	2
31	P30331	Small tension disc holder.....	1	67	B60213	Nut.....	1
32	B60233	Screw.....	2	68	B60204	Looper thread tension spring.....	1
33	P30333	Small tension disc rod.....	1	69	B61333	Screw.....	1
34	P30334	Nut.....	1	70	B60111	Washer.....	1
35	P30335	Small tension disc.....	2	71	B60107	Screw.....	1
36	W80309	Small tension disc spring.....	1	72	B60217	Washer.....	1

4. Oil lubrication apparatus



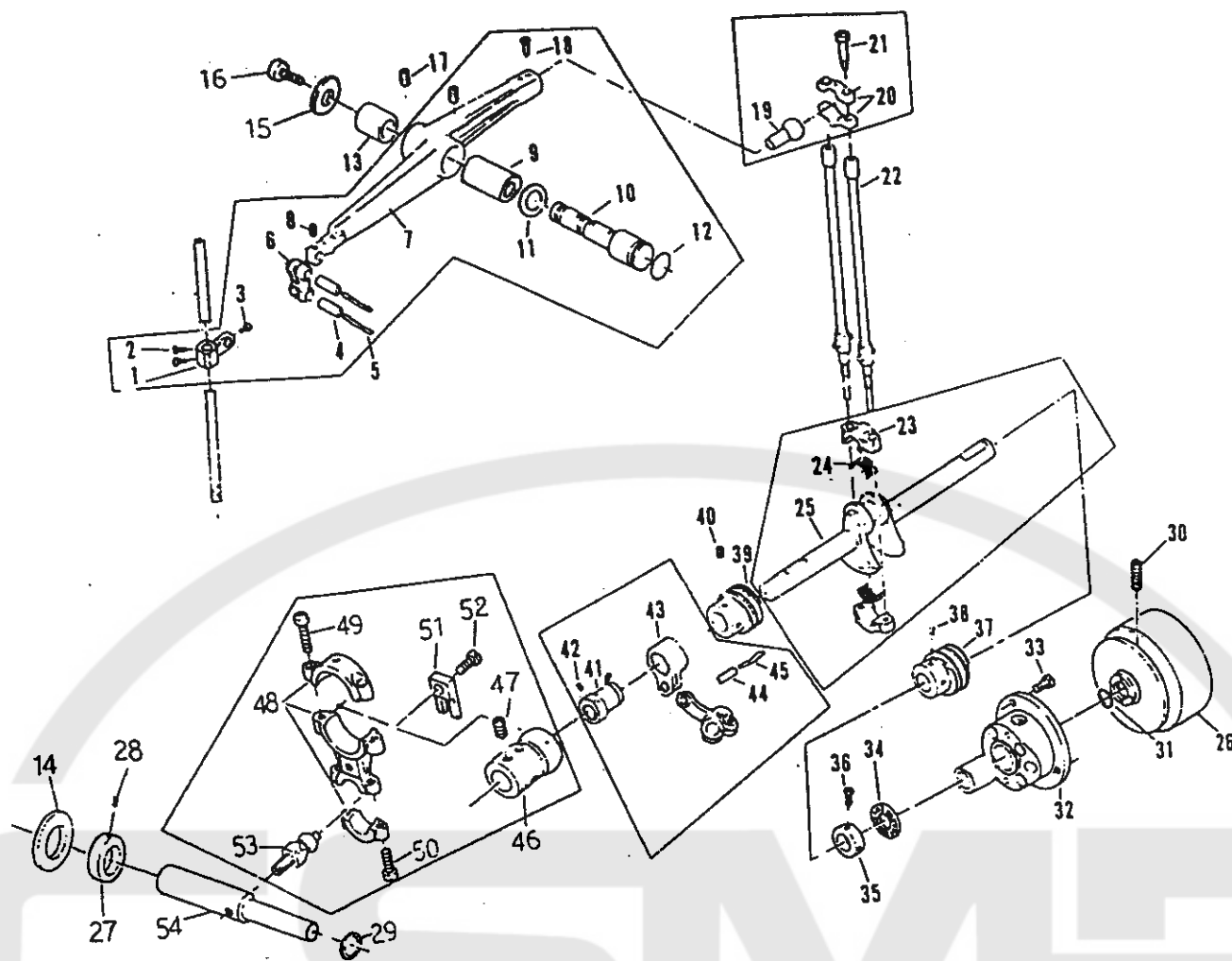
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	B60401	Oil pump body.....	1	20	B60420	Packing.....	4
2	B60402	Pipe joint.....	1	21	B60421	Oil guide screw.....	2
3	B60403	Pump mesh.....	1	22	B60422	Tube coupling.....	2
4	B60404	Mesh clamp plate.....	1	23	B60423	Oil pot lid.....	1
5	B60405	Screw.....	3	24	B60424	O-ring.....	1
6				25	B60239	Screw.....	3
7				26	P30426	Pipe support.....	1
8	B60408	Oil tube joint.....	1	27	B60427	Pipe.....	1
9	B60409	Pipe joint.....	5	28	B60428	Vinyl pipe.....	1
10				29	B60446	Felt.....	1
11	B60411	Vinyl pipe.....	1	30	B60231	Screw.....	3
12	B60412	Vinyl pipe.....	1	31	B60431	Pipe.....	1
13	B60413	Gear.....	1	32	B60432	Support.....	1
14	B60149	Screw.....	2	33	B60433	Screw.....	1
15	B60415	Vinyl pipe.....	1	34	B60434	Pipe.....	1
16	B60123	Screw.....	3	35	B60435	Felt.....	1
17	B60409	Pipe joint.....	2	36	B60436	Oil flow screw.....	1
18	B60418	Fixing screw.....	1	37	B60437	Nut.....	1
19	B60419	Vinyl pipe.....	1	38	B60438	Packing.....	1

5. Bushings



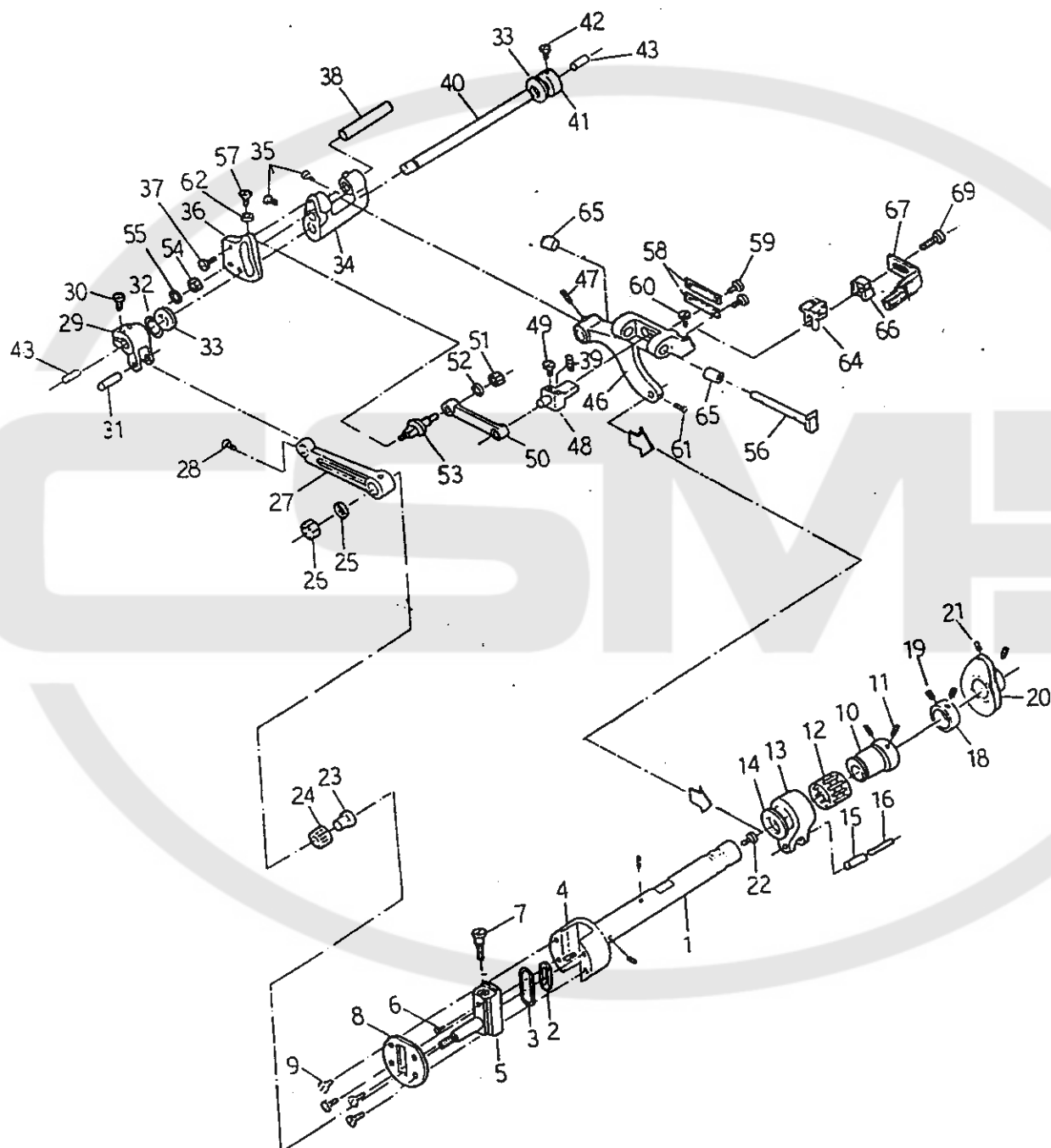
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	B60301	Main shaft bushing.....	1	11	W80507	Looper drive lever shaft bushing..	1
2	B60302	Main shaft bushing.....	1	12	B60312	Looper drive lever shaft bushing..	1
3	B60303	Main shaft bushing.....	1	13	B60313	Looper drive lever shaft bushing..	1
4	B60304	Flange bushing.....	1	14	B60305	O-ring	2
5	W80535	Oil seal	1	15	B60315	Seal cap.....	2
6	B60435	Felt.....	1	16	B60316	Feed rocker shaft bushing.....	1
7	B60307	Looper rocker shaft bushing.....	1	17	B60317	Feed rocker shaft bushing.....	1
8	B60308	Looper rocker shaft bushing.....	1	18	P30518	Needle bar frame shaft bushing..	2
9	B80409	Looper rocker shaft bushing.....	1	19			
10	B60322	Looper rocker shaft bushing.....	1	20	P30520	Screw.....	2

6. Needle lever crank



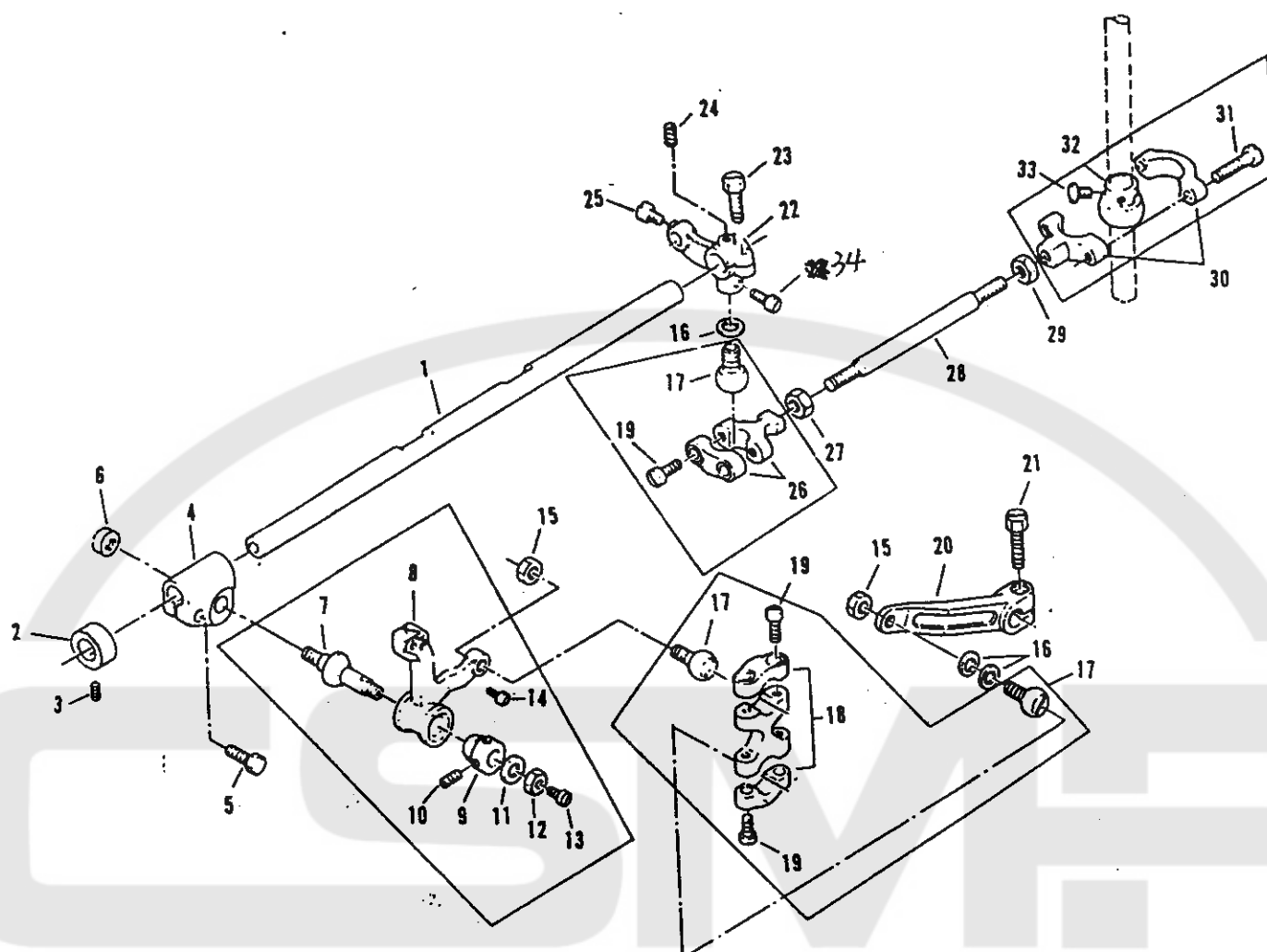
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	P30601	Needle bar holder.....	1	28	B60564	Screw.....	2
2	B60738	Screw.....	2	29	B60519	Washer.....	1
3	B60515	Screw.....	1	30	B60534	Screw.....	2
4	B60512	Needle bar connection link pin.....	2	31	B60305	O-ring.....	1
5	B60446	Felt.....	2	32	B60536	Flange.....	1
6	B60511	Needle bar connection link.....	1	33	B60123	Screw.....	1
7	B60501	Needle lever.....	1	34	B60538	Bearing.....	1
8	B60510	Screw.....	1	35	B60540	Crank shaft collar.....	1
9	B60504	Needle lever bushing.....	1	36	B60539	Screw.....	2
10	B60503	Needle lever stud.....	1	37	P30637	Worm wheel.....	1
11	B60519	Washer.....	1	38	B60532	Screw.....	2
12	B60305	O-ring.....	1	39	B60531	Worm gear.....	1
13	B60505	Needle lever stud bushing.....	1	40	B60532	Screw.....	2
14	W80767	Washer.....	1	41	P30641	Looper avoid eccentric.....	1
15	B60420	Gasket.....	1	42	B60564	Screw.....	2
16	B60509	Screw.....	1	43	P30643	Eccentric link.....	1
17	B60506	Screw.....	2	44	B60512	Eccentric link pin.....	1
18	B60520	Screw.....	2	45	B60446	Felt.....	1
19	B60521	Needle lever connecting rod.....	1	46	P30646	Looper driving eccentric.....	1
20	B60523	Ball-joint for connecting rod.....	1	47	B60549	Screw.....	6
21	B60522	Screw.....	2	48	B60553	Looper driving ball joint.....	1
22	B60524	Connecting bar.....	2	49	B60552	Screw.....	2
23	B60529	Ball-joint for crank shaft, large.....	1	50	B60554	Screw.....	2
24	B60530	Needle roller for crank shaft.....	28	51	B60550	Guide fork.....	1
25	P30625	Crank shaft 3MB.....	1	52	B60551	Screw.....	1
26	B60533	Pulley.....	1	53	B60555	Looper driving connecting rod.....	1
27	B60563	Collar.....	1	54	W80764	Looper driving shaft.....	1

7. Main shaft and feed rocker



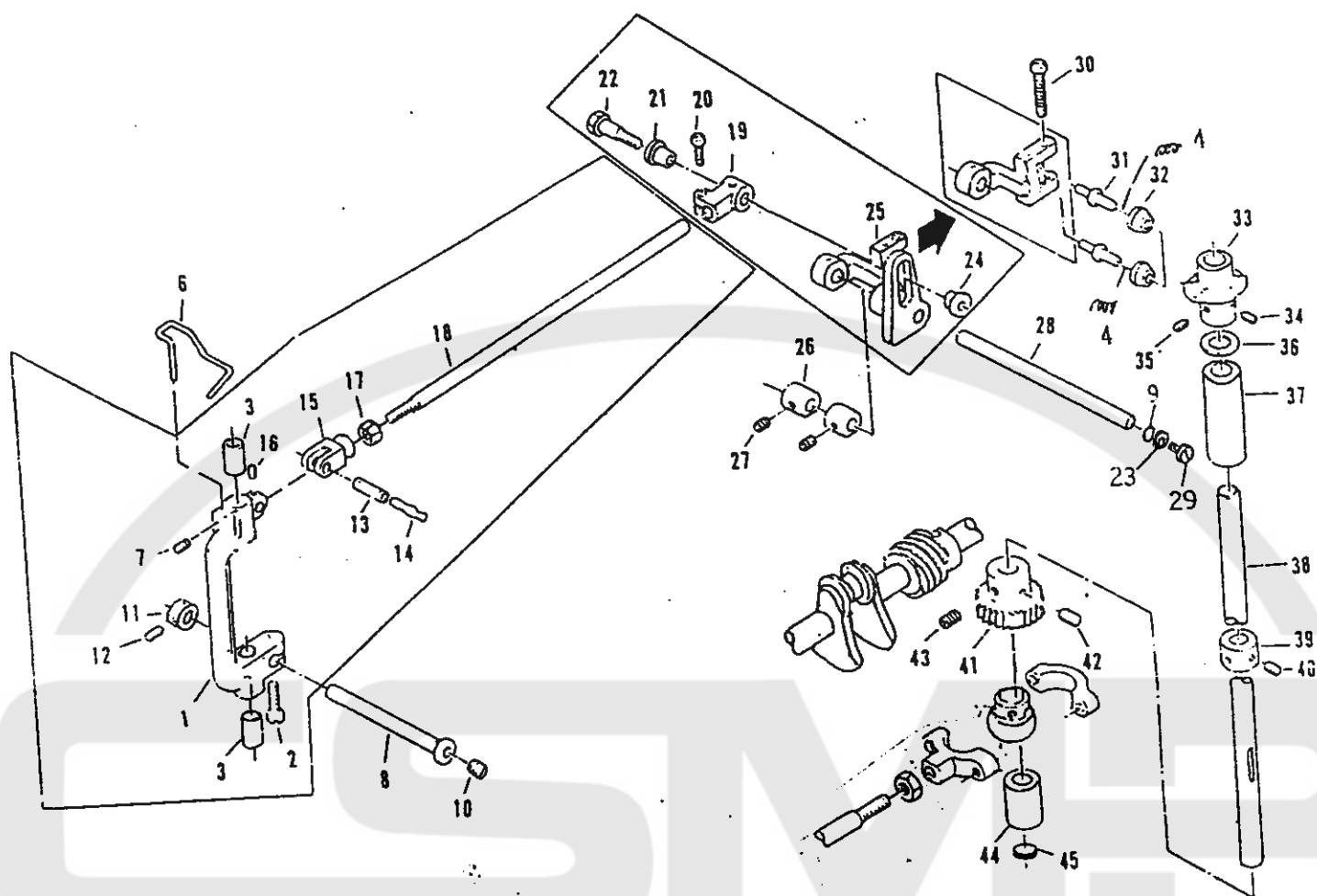
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	P30701	Main shaft	1	41	B60640	Collar	1
2	B60608	Silitch regulating stud cup	1	42	B60160	Screw	1
3	B60607	O-ring	1	43	B60650	Pin	2
4	B60446	Felt	1	44			
5	B60604	Feed crank adjusting post	1	45			
6	B60605	Screw	1	46	W80846	Main differential feed	1
7	B60606	Screw	1	47	B60532	Screw	1
8	B60603	Main shaft plate	1	48	W80848	Differential feed bar guide	1
9	B60138	Screw	4	49	B80754	Screw	2
10	W80817	Looper avoid eccentric 0.7	1	50	W80850	Feed crank link	1
11	B60564	Screw	2	51	B60932	Nut	1
12	B60614	Bearing	1	52	B60105	Washer	1
13	B60613	Eccentric link	1	53	W80853	Crank set pin	1
14	B60612	Snap ring	1	54	B60111	Washer	1
15	B60617	Eccentric link pin	1	55	B60213	Nut	1
16	B60446	Felt	1	56	W80856	Feed dog holder bracket	1
17				57	W80857	Screw	1
18	B60658	Collar	1	58	W80858	Differential feed bar guide	2
19	B60659	Screw	2	59	B60162	Screw	4
20	B60661	Looper double disc take-up	1	60	W80860	Screw	1
21	B60660	Screw	2	61	B60510	Screw	1
22	B60611	Screw	1	62	W80862	Nut	1
23	B60634	Feed crank link roller	1	63			
24	B60626	Bearing	1	64	W80864	Rear feed dog holder	1
25	B60627	Washer	1	65	W80865	Bushing	2
26	B60628	Nut	1	66	W80866	Needle guard holder	1
27	W80827	Feed rocker arm	1	67	P30767	Needle guard	1
28	B60632	Screw	1	68			
29	W80829	Feed rocker link	1	69	W80869	Screw	1
30	B60516	Screw	1				
31	B60512	Feed rocker link pin	1				
32	W80832	Snap link	1				
33	B60639	Washer	2				
34	W80834	Differential feed rocker	1				
35	B60106	Screw	2				
36	W80836	Feed rock segment plate	1				
37	B60231	Screw	3				
38	B60636	Shaft	1				
39	B61022	Screw	1				
40	W80840	Feed rocker arm shaft	1				

8. Looper



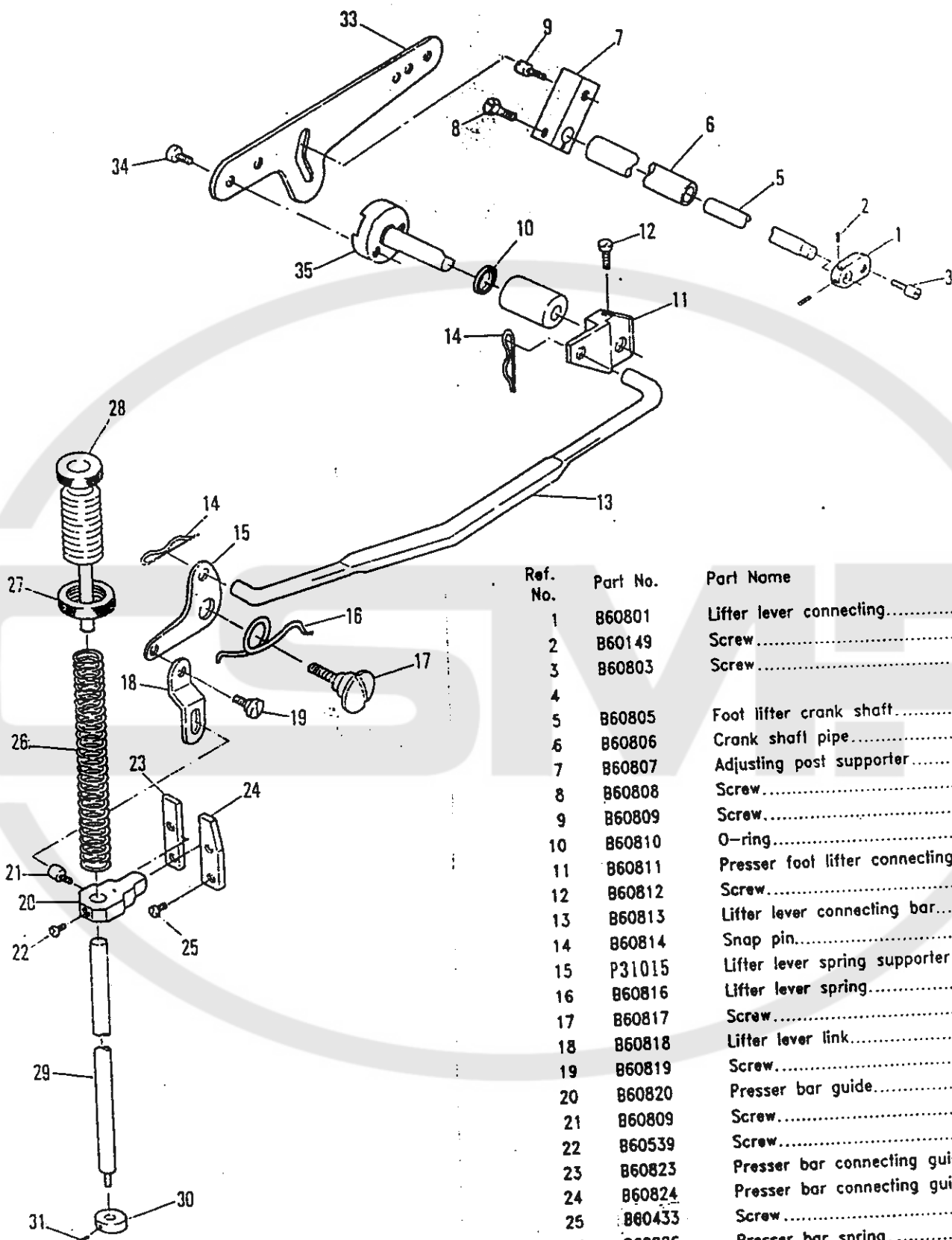
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	P30801	Looper rocker shaft.....	1	18	P30818	Looper connecting ball joint.....	1
2	P30802	Collar.....	1	19	P30819	Screw.....	6
3	B60539	Screw.....	1	20	P30820	Looper connecting lever.....	1
4	P30804	Looper rocker base.....	1	21	B60719	Screw.....	1
5	B60808	Screw.....	1	22	P30822	Looper side step arm.....	1
6	B60644	Nut.....	1	23	B62027	Screw.....	1
7	B60730	Looper rocker tapered pin.....	1	24	B60539	Screw.....	1
8	P30808	Looper rocker.....	1	25	B62021	Screw.....	1
9	B60733	Tapered pin bushing.....	1	26	B60701	Looper connecting ball joint, left.....	1
10	B60149	Screw.....	2	27	B60628	Nut.....	1
11	B60735	Washer.....	1	28	P30828	Looper side step connection.....	1
12	B60644	Nut.....	1	29	B60213	Nut.....	1
13	B60132	Screw.....	1	30	P30830	Looper side step ball joint.....	1
14	B60738	Screw.....	2	31	B60552	Screw.....	2
15	B60213	Nut.....	2	32	P30832	Looper side step eccentric.....	1
16	B60718	Washer.....	3	33	B60149	Screw.....	2
17	B60717	Looper driving connecting rod.....	3	34	B60532	Screw.....	1

9. Needle reciprocating mechanism



Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name	Q'ty
1	P30901	Needle bar frame.....	1	24	P30924	Nut.....	1
2	P30902	Screw.....	1	25	P30925	Driving cam. cam roller arm.....	1
3	P30903	Bushing.....	2	26	P30926	Collar.....	2
4	P30904	Spring.....	2	27	P30927	Screw.....	2
5				28	P30928	Shaft.....	1
6	P30906	Needle thread take-up wire.....	1	29	W80107	Screw.....	2
7	B60149	Screw.....	1	30	P30930	Screw.....	1
8	P30908	Needle bar frame shaft.....	1	31	P30931	Roller fixing stud.....	2
9	P30909	O-ring.....	2	32	P30932	Roller.....	2
10	P30910	Screw.....	1	33	P30933	Cam.....	1
11	B60830	Collar.....	1	34	B60564	Screw.....	1
12	B60149	Screw.....	2	35	P30935	Screw.....	1
13	B60512	Needle bar connecting link pin.....	1	36	B60639	Washer.....	1
14	B60446	Felt.....	1	37	P30937	Bushing, upper.....	1
15	B61201	Connecting link.....	1	38	P30938	Cam drive shaft.....	1
16	B80744	Screw.....	1	39	P30939	Collar.....	1
17	P30917	Nut.....	1	40	B60520	Screw.....	2
18	P30918	Needle bar connecting.....	1	41	P30941	Worm gear.....	1
19	P30919	Needle bar connecting link.....	1	42	B60564	Screw.....	1
20	K60516	Screw.....	1	43	P30935	Screw.....	1
21	P30921	Link roller.....	1	44	P30944	Bushing, lower.....	1
22	P30922	Screw.....	1	45	P30945	Screw.....	1
23	P30923	Washer.....	2				

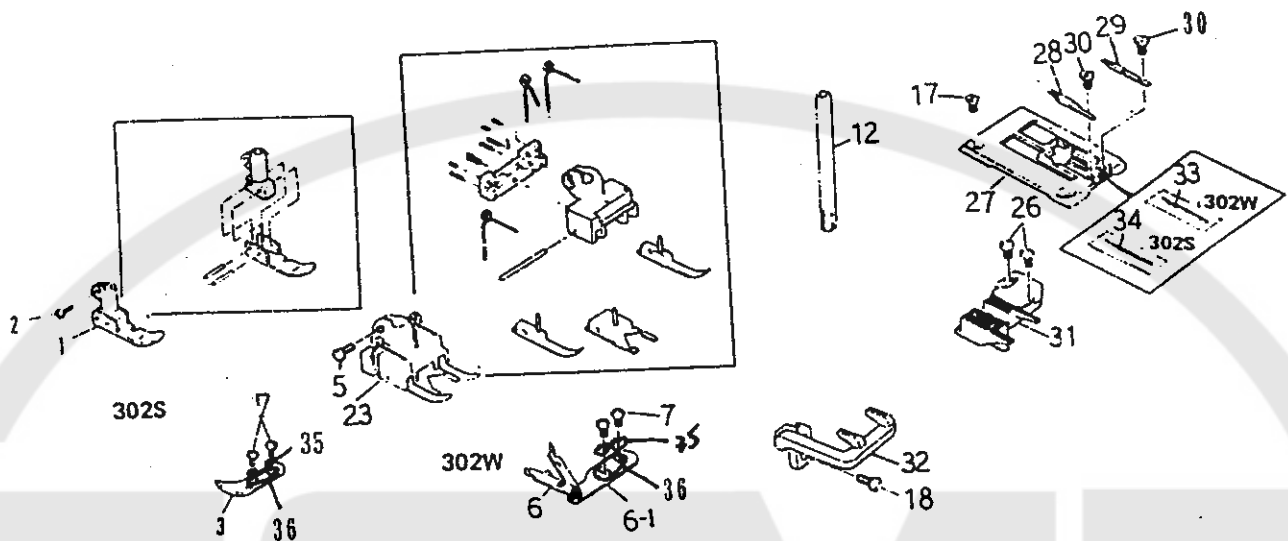
10. Foot lifter components



Ref. No.	Part No.	Part Name	Q'ty
1	B60801	Lifter lever connecting.....	1
2	B60149	Screw.....	2
3	B60803	Screw.....	1
4			
5	B60805	Foot lifter crank shaft.....	1
6	B60806	Crank shaft pipe.....	1
7	B60807	Adjusting post supporter.....	1
8	B60808	Screw.....	1
9	B60809	Screw.....	1
10	B60810	O-ring.....	1
11	B60811	Presser foot lifter connecting plate.....	1
12	B60812	Screw.....	1
13	B60813	Lifter lever connecting bar.....	1
14	B60814	Snap pin.....	2
15	P31015	Lifter lever spring supporter.....	1
16	B60816	Lifter lever spring.....	1
17	B60817	Screw.....	1
18	B60818	Lifter lever link.....	1
19	B60819	Screw.....	1
20	B60820	Presser bar guide.....	1
21	B60809	Screw.....	1
22	B60539	Screw.....	1
23	B60823	Presser bar connecting guide left.....	1
24	B60824	Presser bar connecting guide right.....	1
25	B60433	Screw.....	4
26	B60826	Presser bar spring.....	1
27	B60827	Nut.....	1
28	B60828	Presser bar screw.....	1
29	B60829	Presser bar (small).....	1
30	B60830	Collar.....	1
31	B60149	Screw.....	1
32			
33	B60833	Presser foot lifter lever.....	1
34	B60123	Screw.....	2
35	B60835	Presser foot lifter lever post.....	1

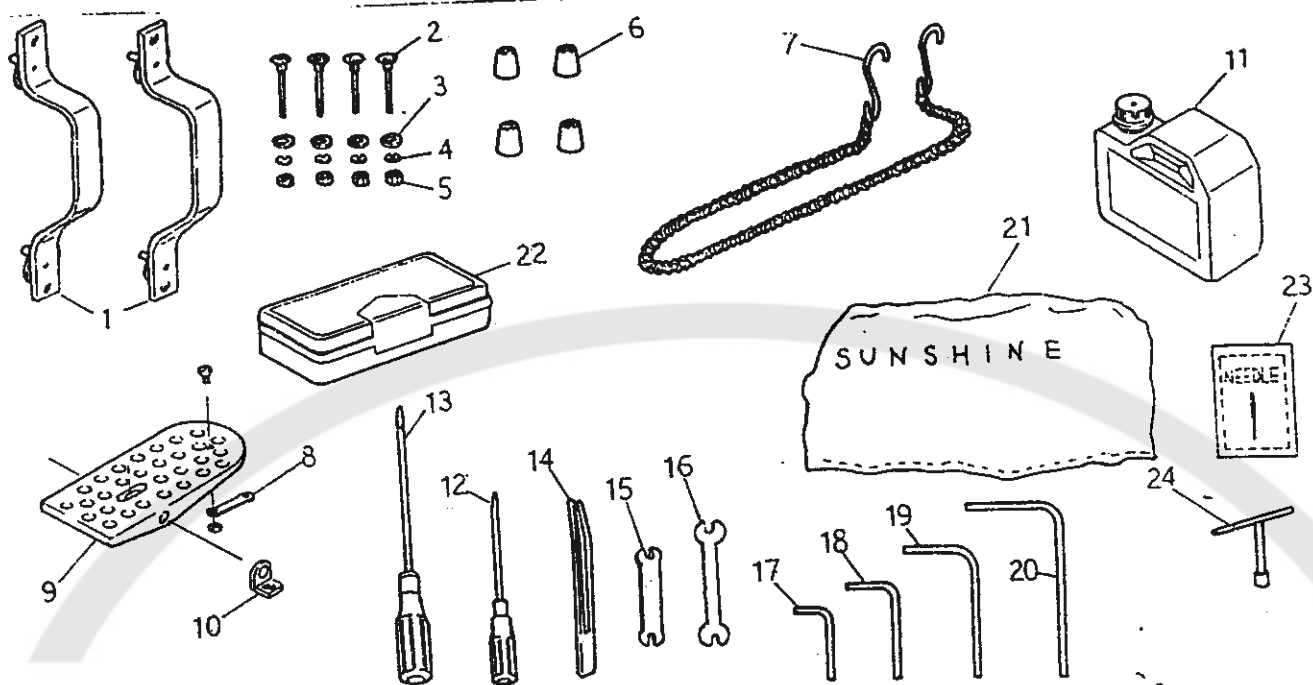
11. Gauge parts

DP-302



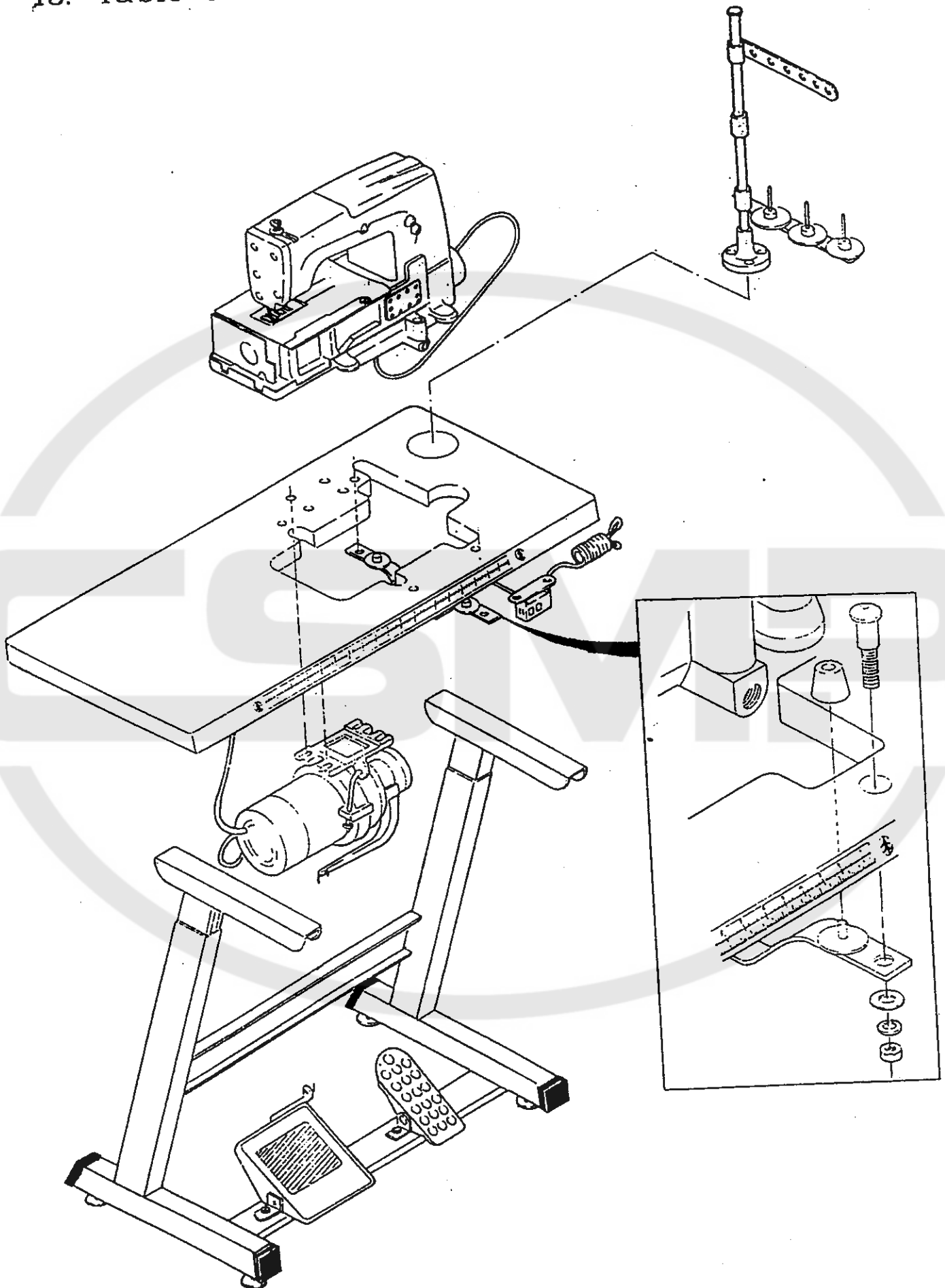
Ref. No.	Part No.	Part Name	Q'ty	Ref. No.	Part No.	Part Name
1	P31101	Presser foot.....	1	21		
2	B61013	Screw.....	1	22		
3	P31103	Ruler.....	1	23	P31130	Presser foot.....
4				24	P31131	Thread retaining spring.....
5	B60551	Screw.....	1	25	P31132	Rear looper.....
6	P31108	Ruler.....	1	26	B81140	Screw.....
7	B60509	Screw.....	4	27	P31134	Needle plate.....
8	P31115	Front looper.....	1	28	P31135	Left nail.....
9	P31116	Thread retaining spring.....	1	29	P31136	Right nail.....
10	B60154	Screw.....	1	30	P31112	Screw.....
11				31	P31138	Rear feed dog.....
12	B61020 (S)	Needle bar.....	1	32	P31139	Front feed dog.....
13				33	P31140	Center nail.....
14				34	P31141	Center nail.....
15				35	B60105	Washer.....
16				36	B80163	Folder mounting bracket.....
17	B60229 (S)	Screw.....	2			
18	B60132	Screw.....	1			
19						
20						

12. Accessories



Ref. No.	Part No.	Part Name	Q'ty
1	B62420	Machine mount bracket.....	2
2	B62422	Screw.....	4
3	B62423	Washer M8.....	4
4	B62424	Spring washer.....	4
5	B62425	Nut.....	4
6	B62426	Cushion rubber.....	4
7	B62428	Tie-rod joint.....	1
8	B62432	Coupling.....	1
9	B62433	Pedal.....	1
10	B62434	Pedal stopper.....	2
11	B62435	Oil.....	1
12	B62436	Screw driver small.....	1
13	B62437	Screw driver large.....	1
14	B62438	Tweezers.....	1
15	B62439	Spanner small.....	1
16	B62440	Spanner large.....	1
17	B62441	Wrench A.....	1
18	B62442	Wrench B.....	1
19	B62443	Wrench C.....	1
20	B62444	Wrench D.....	1
21	B62445	Machine cover.....	1
22	B62446	Accessory box.....	1
23	B62447	Needle.....	1
24	B62448	Wrench T.....	1

13. Table stand installation diagram



INSTRUCTION MANUAL

MODEL DP-300 SERIES

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1) Feature

Seam type	Multi Zig-Zag Picoetta, fagotting
needles	2 or 1
Usable needle	UY x 163 No.65-90
needle bar stroke	31 m/m
feed mechanism	differential
Max. R.P.M.	2500 R.P.M.

2) Selection of motor pulley

Remark: Operational rotation of hand wheel should toward the operator(counter clockwise)

R.P.M.	Diameter of motor pulley m/m	
	50 Hz	60 Hz
2500	75	60
2000	65	55

Table 1

3) Supplying/Draining oil (Fig.1)

Recommended oil is "TELESSO 33"

- Remove oil viewer A and supply oil until oil is being filled up to the line B of oil gauge C. The oil level should be checked and kept between line B and D while machine is in use.
- Draining oil can be done with removing screw E. It is recommended that oil change once in first one month and once in every 6 months afterward.

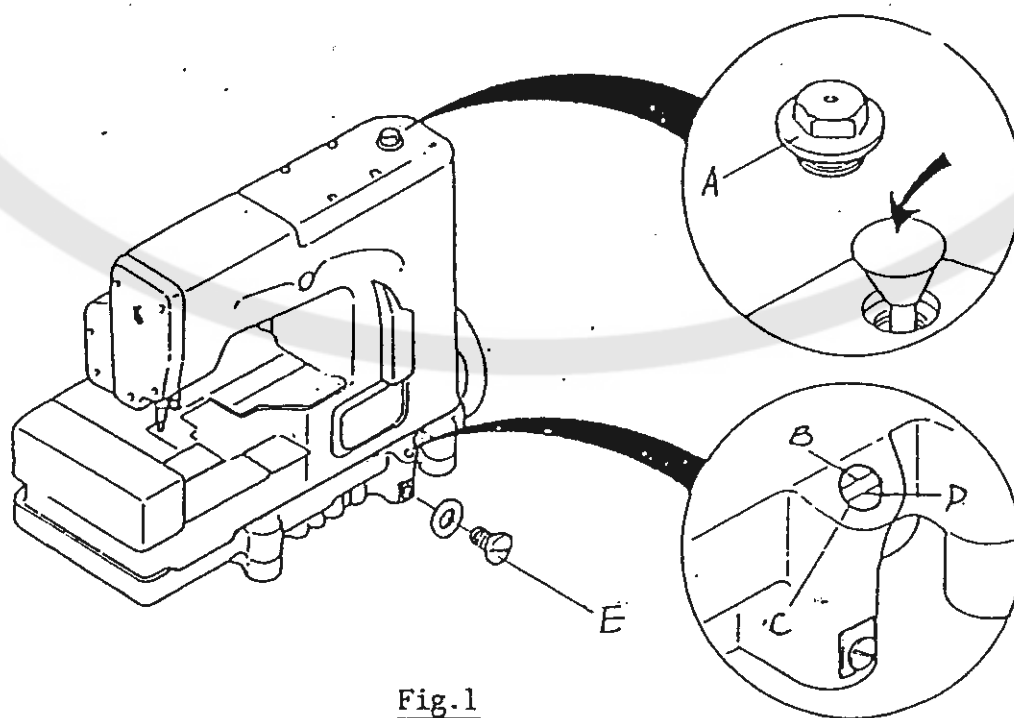


Fig.1

4). Setting needle (Fig.2)

Loosen screw A place needle of which strait groove faces toward the operator so that scarf of the needle can be placed exactly parallel against the looper motion.

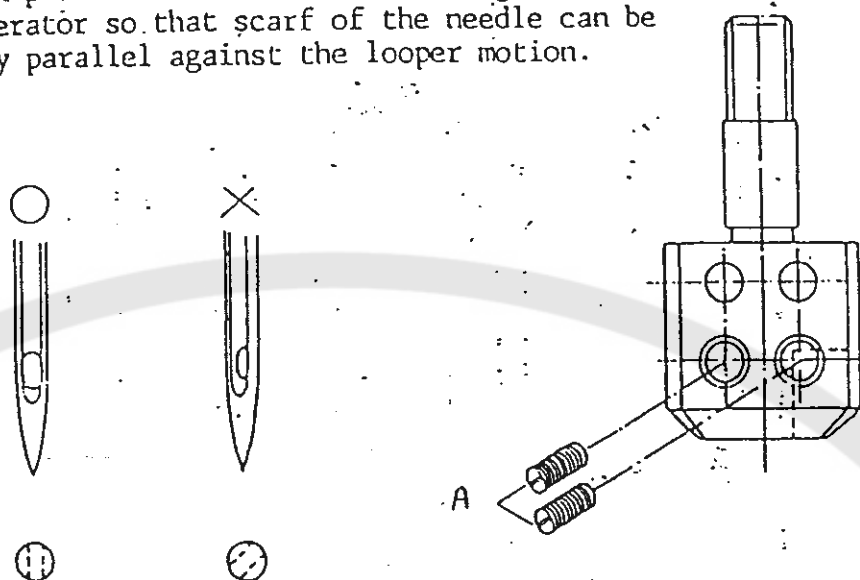


Fig.2

5) Threading (Fig. 3)

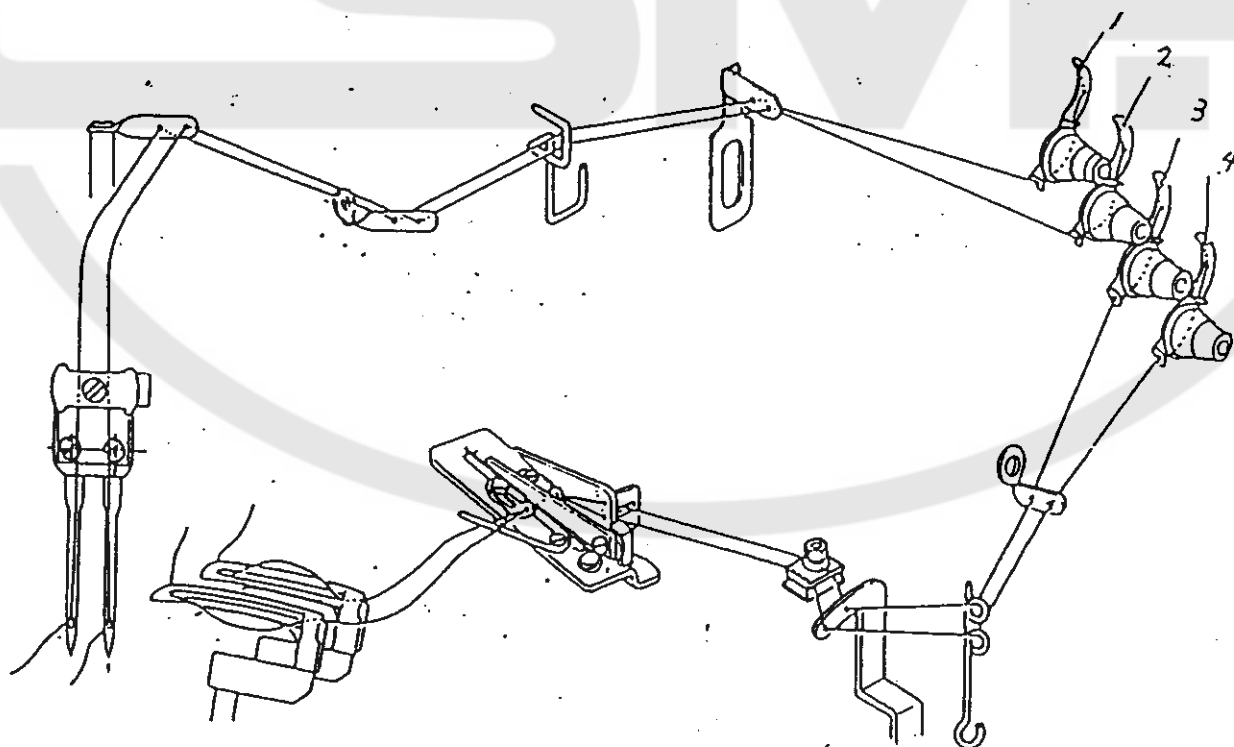


Fig.3

6) Needle bar height (Fig. 4)

The distance A between the point of needle and the surface of needle plate should be 9.5 mm when the needle bar is at the highest of its stroke.

Loosen screw B very slightly but rigid enough to retain its position while rotating hand wheel and attain 9.5 mm. Refer Fig. 5.

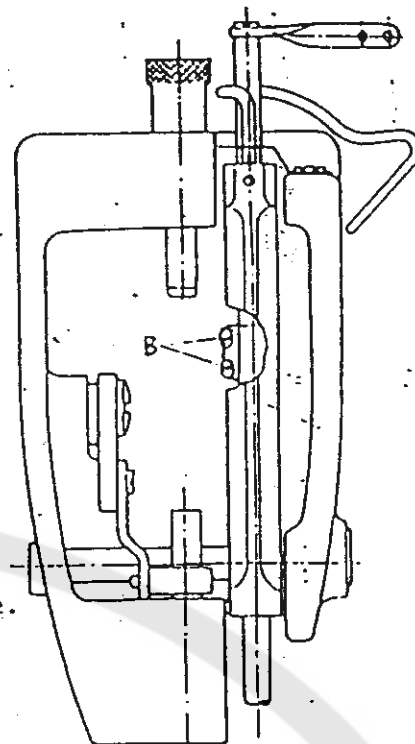
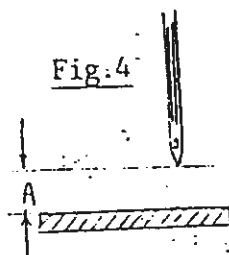


Fig. 5

7) Adjustment of Zig-Zag ratio (Fig. 6)

The proper Zig-Zag width is 5.7 mm.

To adjust Zig-Zag width loosen screw A move connecting link B in the cam bracket C upwardly to acquire more width, downwardly acts the reverse. After proper width is attained check the needle drop.

If needle drop is not correct, loosen screw D on worm gear and turn hand wheel to attain correct needle drop.

Retighten screw A, D securely.

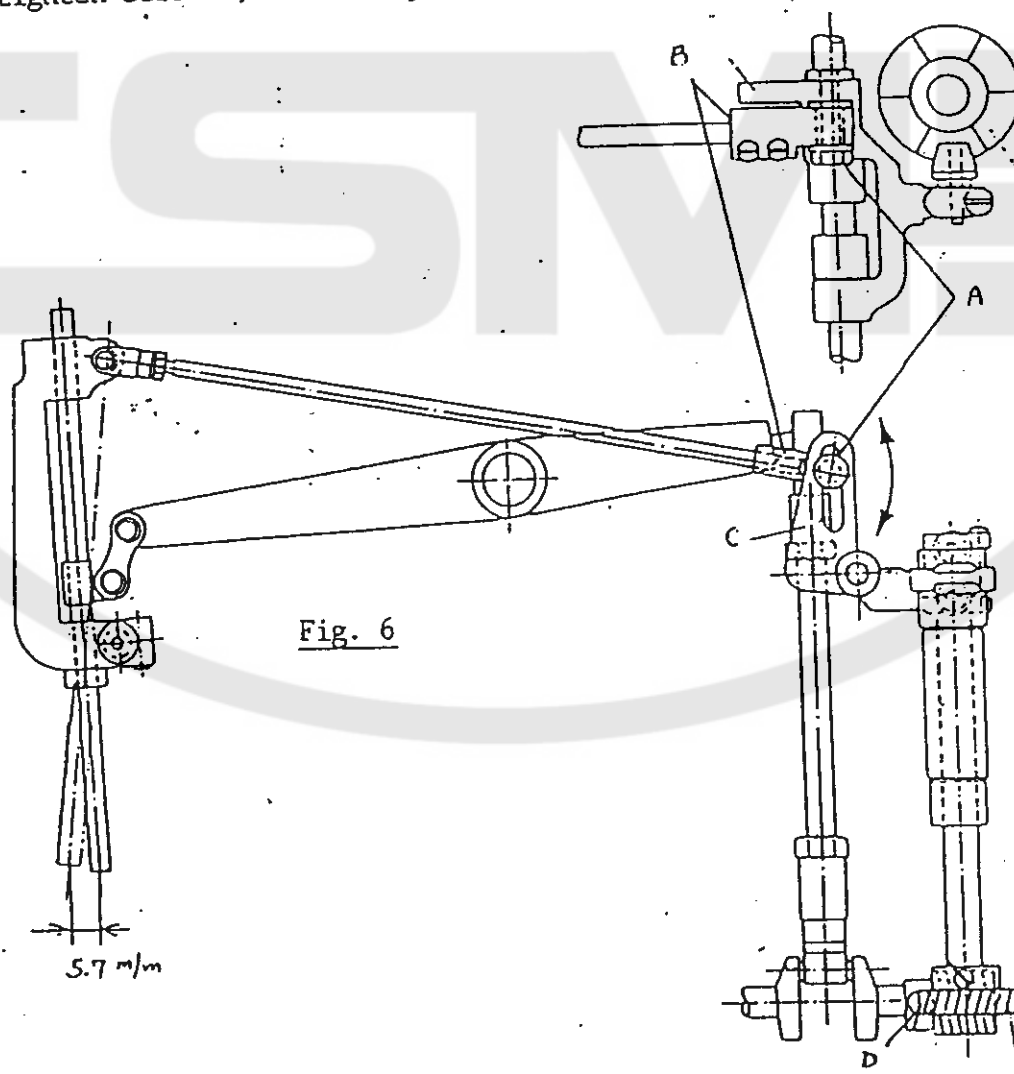


Fig. 6

8) Adjusting retaining spring (Fig.7)

Set the looper so that the polished surface of retaining spring is evenly touched against underside of the looper and gives tension of 30-40g to the thread.

To adjust, loosen screw A move base portion of retaining spring upwardly to acquire more tension.

Retighten screw A

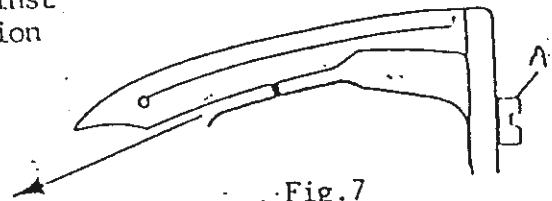


Fig. 7

9) Distance of looper to needle (Fig.8)

Set the looper so that the distance from the point of looper to the needle is 5 m/m.

To adjust, loosen screw A Fig. 9 and B slightly, move looper bracket C to attain the distance, while needle is at the bottom position. Check its distance when the needle is in the location of 0 and 2.

Set the looper so that the clearance of 0-0.01 m/m between needle when the point of looper passes back of needle.

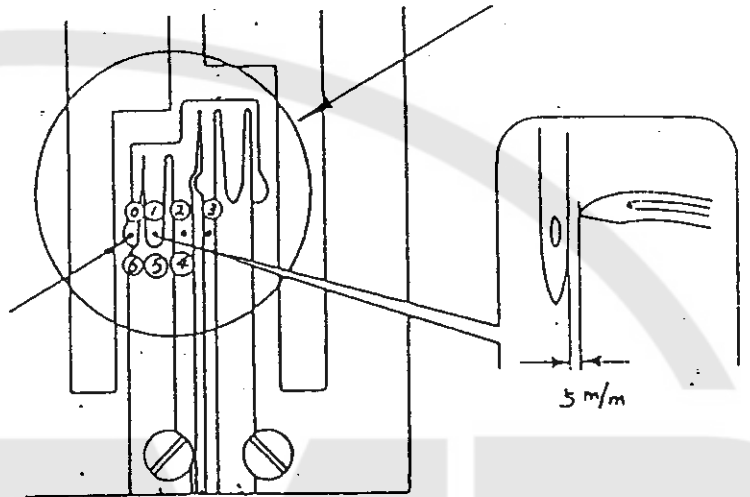


Fig. 9A

10) Synchronizing looper and needle. (Fig. 9A)

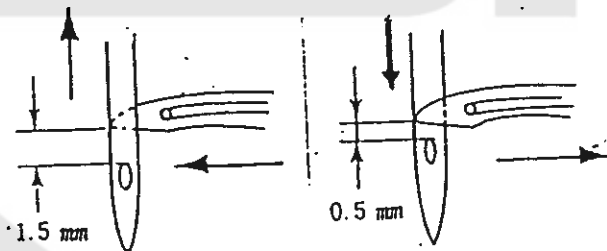


Fig. 9A

When the looper is in leftward motion, the point of looper should locate at the left end of needle with height of 1.5 m/m from upper end of needle eye.

In the reverse direction of looper motion, the point of looper and upper end of needle eye of which distance should be 0.5 m/m at the left side of needle.

To adjust, loosen screw D on eccentric turn hand wheel while holding the eccentric to attain its synchronizing. Retighten screw D securely.

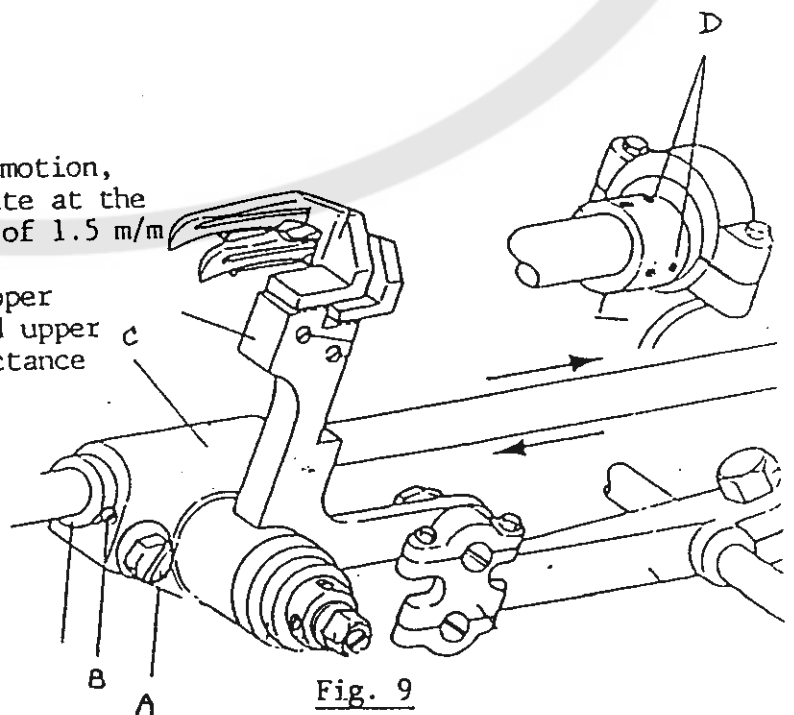


Fig. 9

11) The height of feed dog (Fig.10)

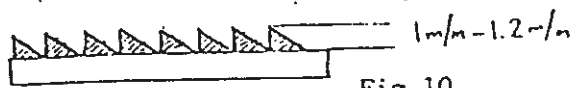


Fig.10

Set the feed dog so that the height of the peak of feed dog from surface of needle plate is 1-1.2 m/m, when the needle bar is at the top of its stroke.

To adjust, loosen screw A, B Fig.10A level front and rear feed dog. Retighten screw A, B securely.

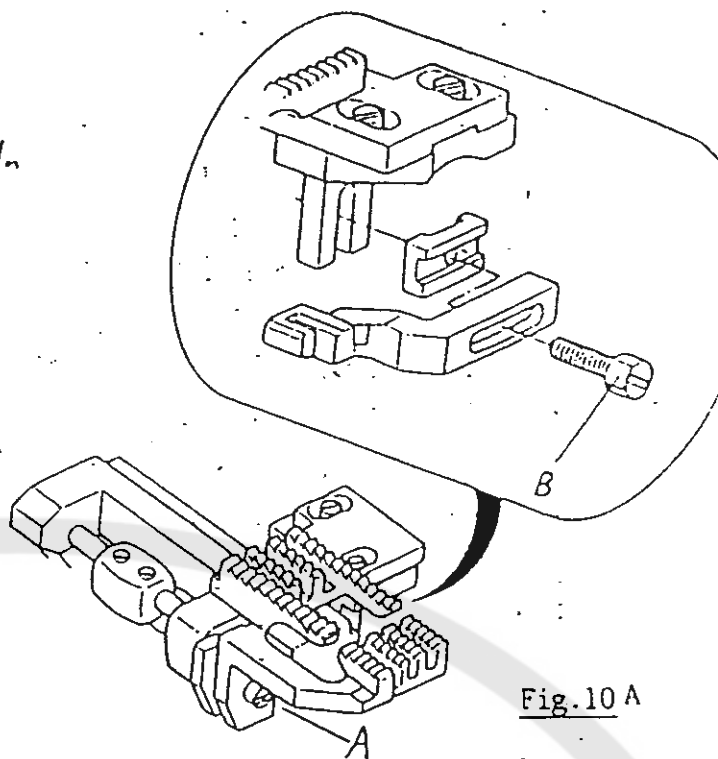


Fig.10 A

12) Changing stitch length (Fig. 11)

- a) When change in stitch length is required, loosen nut B clockwise and turn adjusting screw C counter-clockwise to acquire longer stitch length, clockwise acts the reverse.

=CAUTION= Readjust the needle guard whenever stitch length is changed.

- b) Differential control

Loosen nut A move crank rod D upwardly to acquire more differential ratio, downwardly acts the reverse. Retighten nut A securely.

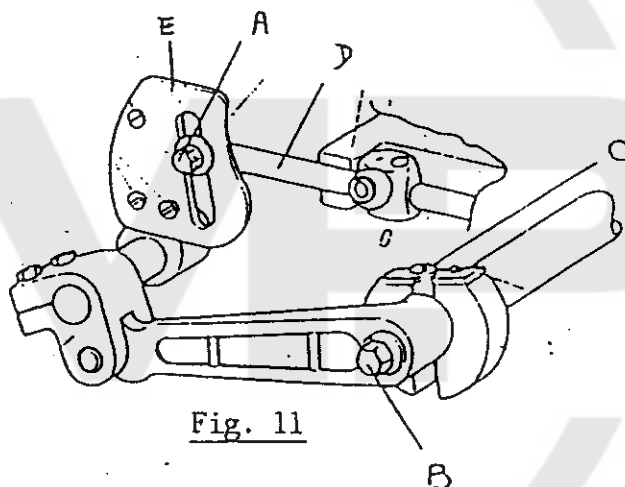


Fig. 11

13) Setting needle guard (Fig. 12)

Set the needle guard horizontally so that it barely contacts the needle when at its extreme forward position. It should be set vertically as low as possible, yet have its top of guarding surface is 0.8-1.0 m/m higher than the point of needle, when the point of looper meets needle on its way of leftward motion.

To adjust loosen screw A to attain proper position. Retighten screw A

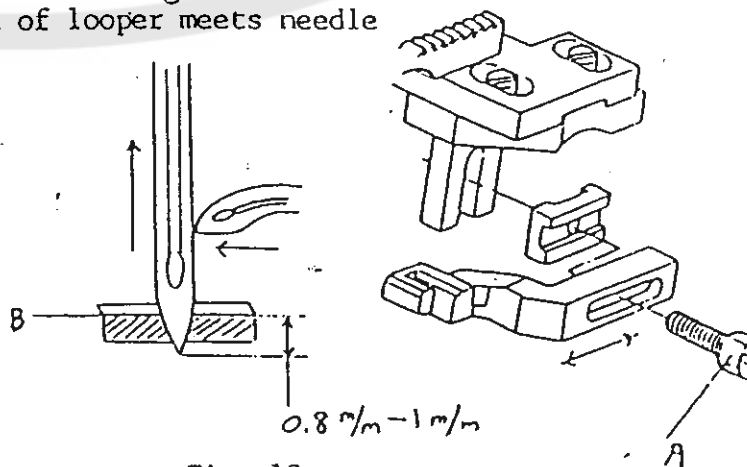


Fig. 12

14) Setting of looper thread take-up

a) proper location of thread take-up eyelet D (Fig. 13)

Set the take up eyelet E so that eye is vertically in line with the center of main shaft.
Loosen set screw A move eyelet to attain its position.
Retighten set screw A securely.

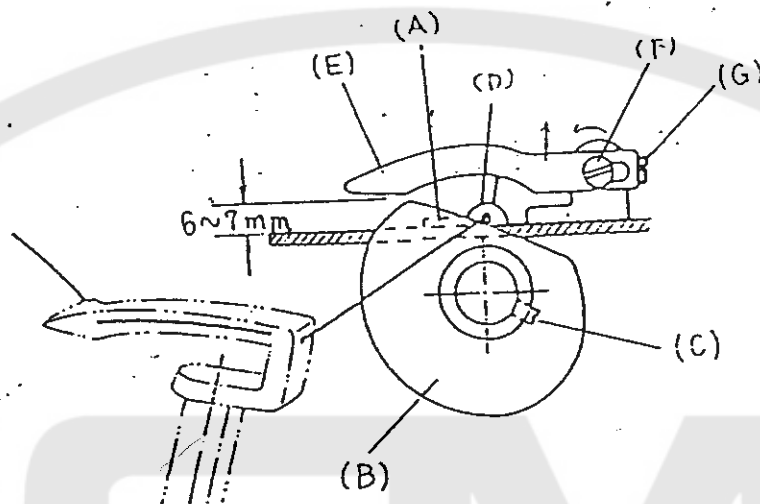


Fig. 13

b) Setting looper thread retainer E (Fig. 13)

Set the looper thread retainer E so that the distance from its underside to the surface of needle plate is 6-7 m/m.
To adjust loosen screw G move thread retainer E vertically to attain its height.
Retighten screw G.

c) Amount of thread take-up

It can be done with the location of retainer E, loosen screw F move retainer E horizontally toward left to acquire more thread is being taken, toward right acts reverse.
Retighten screw F after adjustment is made.

d) Adjusting take-up cam (Fig. 14) (Fig.13)

The looper thread should begin to be released when the blade of looper and the point of the needle are at horizontally the same height, in its motion toward right.
To adjust, loosen screw C SLIGHTLY but rigid enough to retain its position, move take-up cam B to attain proper position.
Retighten screw C securely.

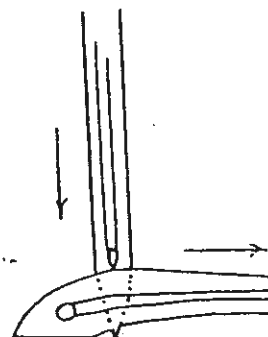


Fig. 14

15) Setting table (Fig.15)

