

Sun Special[®]

SSTC445_{SERIES}

SS-32500

SSTC-43500

Chalonera

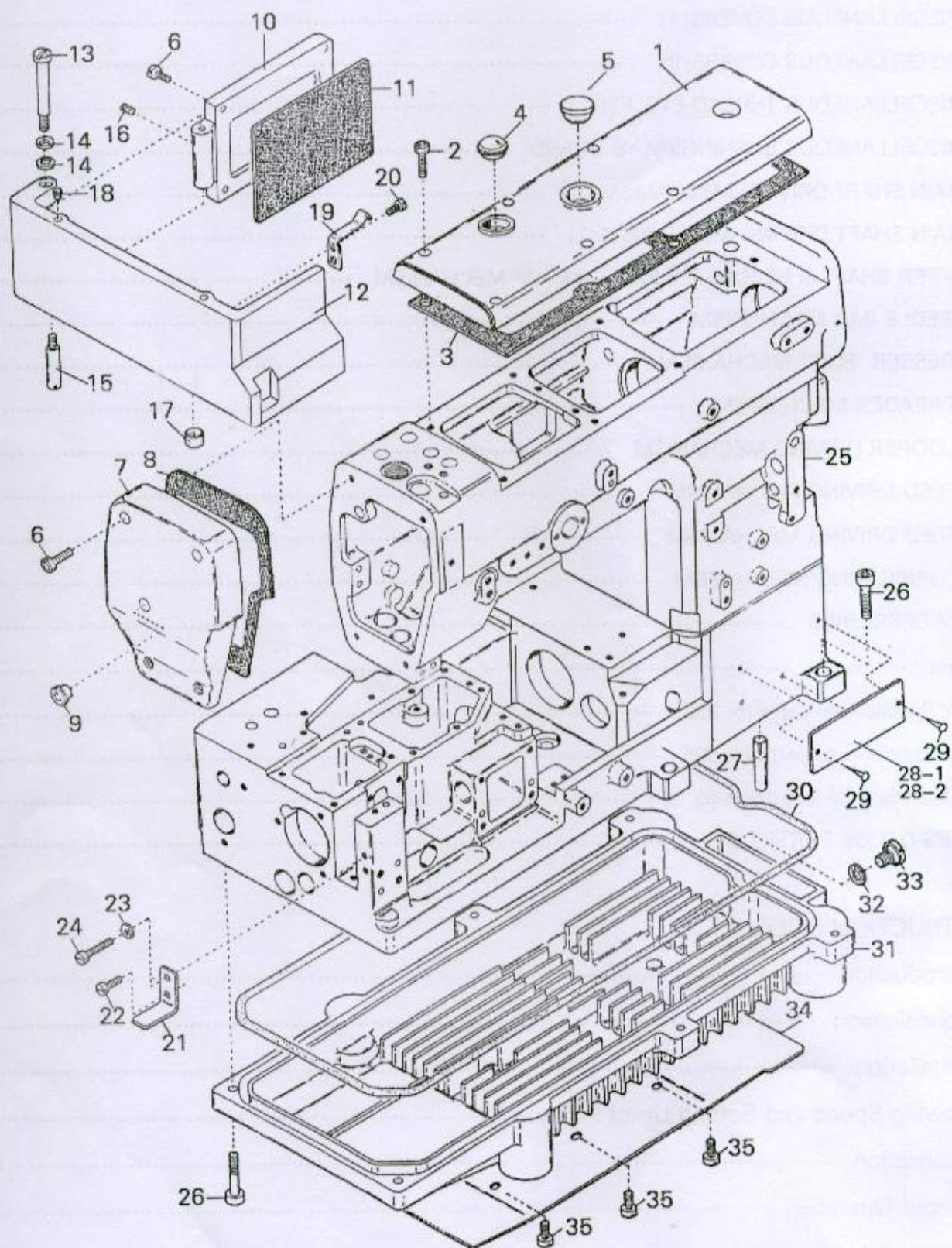
PARTS CATALOGUE

1. MISCELLANEOUS COVERS(1)	2
2. MISCELLANEOUS COVERS(2)	4
3. MISCELLANEOUS THREAD EYELETS	6
4. MISCELLANEOUS BUSHINGS&EYE GUARD	8
5. MAIN SHAFT DRIVING MECHANISM(1)	10
5. MAIN SHAFT DRIVING MECHANISM(2)	12
6. UPPER SHAFT & NEEDLE THREAD TAKE-UP MECHANISM	14
7. NEEDLE BAR MECHANISM	16
8. PRESSER FOOT MECHANISM	18
9. SPREADER MECHANISM	20
10. LOOPER DRIVING MECHANISM	22
11. FEED DRIVING MECHANISM	24
12. FEED DRIVING MECHANISM	26
13. LUBRICATING MECHANISM	28
14. ACCESSORIES	30
Index	32
Collar Special-use parts for 335	35
Seam Special-use parts for 335	36
Fold hem Special-use parts for 335	37
SERIES GAUGE PARTS LIST	38

INSTRUCTION BOOK

1. Introduction	39
2. Specification	39
3. Installation	39
4. Sewing Speed and Setting Up of Pulley	40
5. Lubrication	40
6. Proper Operation	42
7. Proper Adjusting	44

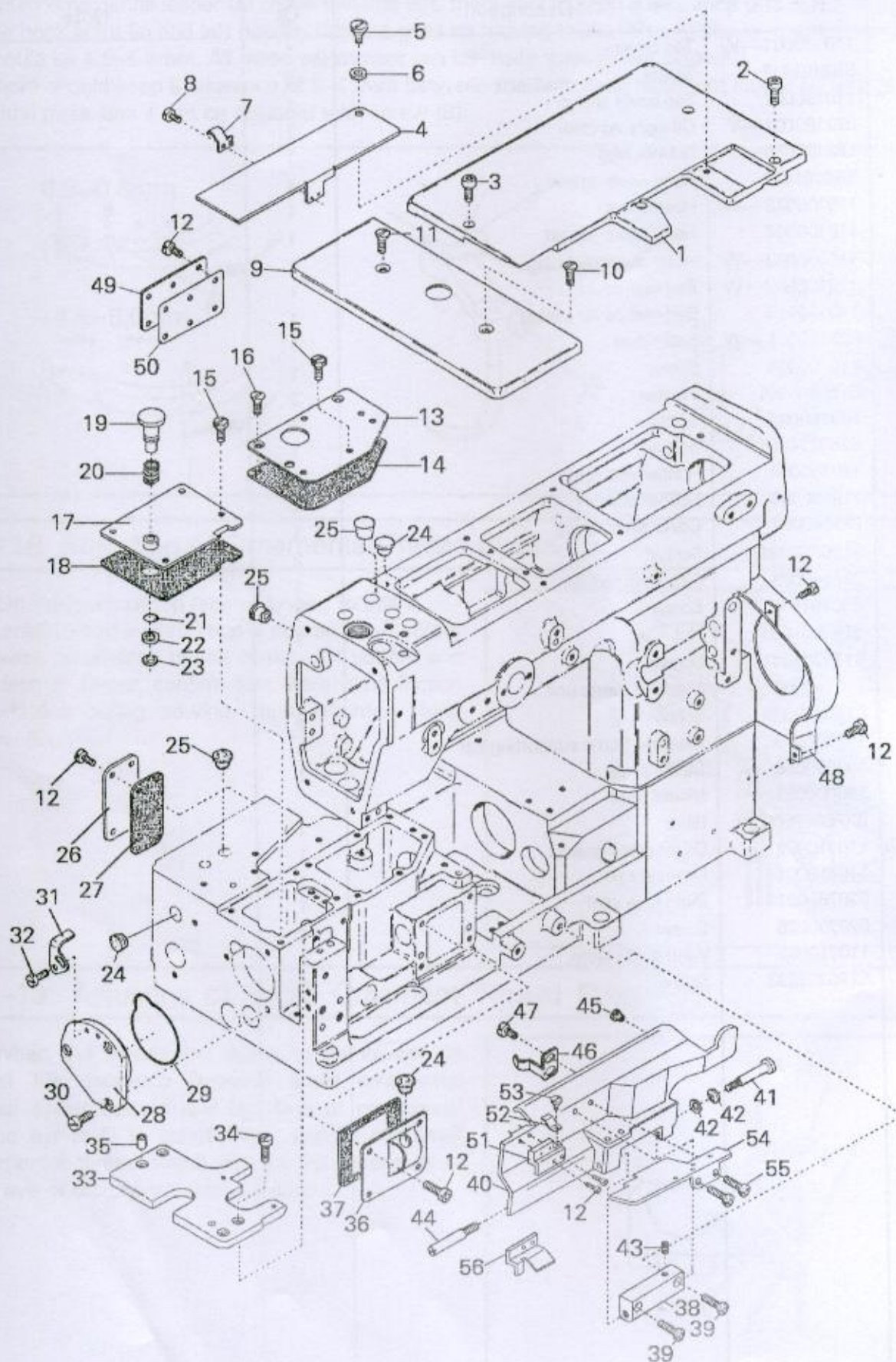
1. MISCELLANEOUS COVERS (1)



1. MISCELLANEOUS COVERS (1)

No	Ret. No.	Description	Qt	Note
1	110130001—W	Top cover	1	
2	B62401412	Screw	7	
3	110130002	Top cover gasket	1	
4	022180001—V	Oil sight window	1	
5	182100038—V	Rubber plug	1	
6	B60401412	Head cover screw	4	
7	110100035—W	Head cover	1	
8	110100002	Head cover gasket	1	
9	110100003—W	Head cover seal plug	1	
10	110160002—W	Bed rear cover	1	
11	110160003	Bed rear cover gasket	1	
12	221140001—W	Side cover	1	
13	110150003	Screw	1	
14	S150643001	Washer	2	
15	110150004	Screw	1	
16	S150224001	Screw	1	
17	110160004	Rubber cushion	1	
18	110150005	Rubber cushion	2	
19	221140002	Cover latch spring	1	
20	S120203031	Screw	2	
21	221140003	Side cover holder	1	
22	B62401012	Screw	1	
23	S120501003	Nut	1	
24	S120203041	Screw	1	
25	110190000	Machine frame unit	1	
26	S150220013	Screw	6	
27	110100013	Machine frame supporting bar	4	
28-1	198000020	Model plate	1	
28-2	198000021	Model plate		
29	BXF8899009	Rivet	2	
30	110310002	Oil reservoir gasket	1	
31	110310001	Oil reservoir	1	
32	028780001	Drain hole seal	1	
33	028700026	Screw	1	
34	110310005	Wind guide plate	1	
35	S120203033	Screw	3	

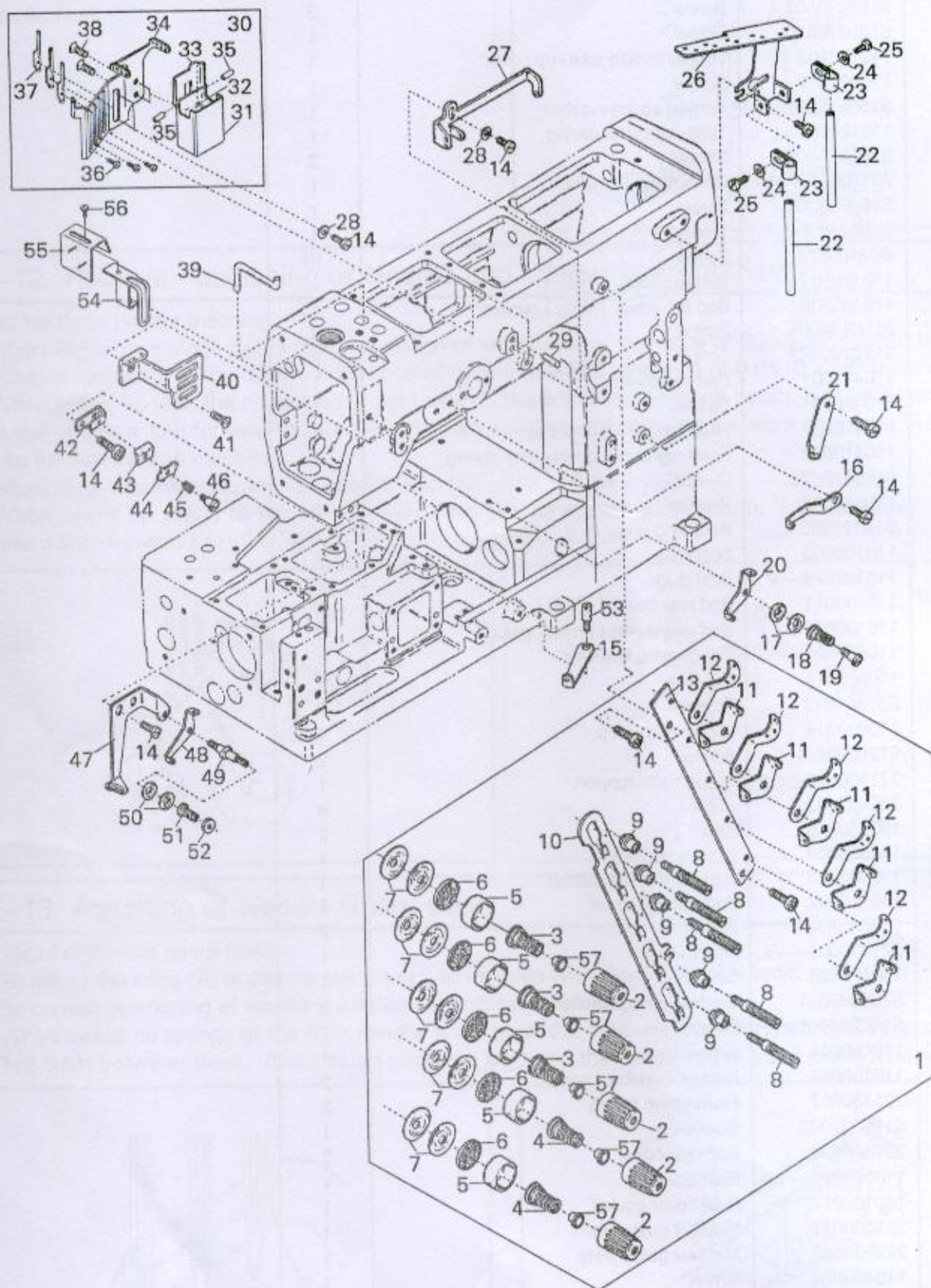
2. MISCELLANEOUS COVERS (2)



2. MISCELLANEOUS COVERS (2)

No	Ret. No.	Description	Qt	Note
1	110100015---W	Cloth plate	1	
2	S150220003	Screw	3	
3	S150220010	Screw	1	
4	110170003	Looper thread take-up cover	1	
5	110100019	Screw	1	
6	S150643002	Conical spring washer	1	
7	110170002	Take-up cover spring	1	
8	S150217005	Screw	2	
9	221100029---W	Cloth plate (small)	1	
10	S150218005	Screw	1	
11	S150218004	Screw	1	
12	B62400812	Screw	19	
13	110100007	Bed top cover (right)	1	
14	110100008	Bed top cover (right) gasket	1	
15	S150204001	Screw	8	
16	S120205003	Screw	2	
17	110411001	Bed top cover	1	
18	110400001	Gasket	1	
19	110410001	Feed regulating pushbutton	1	
20	110410002	Feed regulating pushbutton spring	1	
21	S150656021	O-ring	1	
22	110410003	Washer	1	
23	S4B1202008	Retaining ring	1	
24	110100003	Seal plug	4	
25	110100026---V	Seal plug	2	
26	110100011	Bed rear cover (small)	1	
27	110100012	Bed rear cover (small) gasket	1	
28	110500012	Ball bearing housing	1	
29	110500013	Oil-ring	1	
30	B62401012	Screw	3	
31	110500014	Pushbutton stop	1	
32	S120203031	Screw	2	
33	221100028	Stitch plate support	1	
34	B62401012	Screw	4	
35	182100045	Knock pin	2	
36	110100009	Bed front cover	1	
37	110100010	Bed front cover gasket	1	
38	110150002	Front cover hinge	1	
39	S150237004	Screw	2	
40	221130001---W	Front cover	1	
41	110150003	Screw	1	
42	S150643001	Conical spring washer	2	
43	S150224001	Screw	2	
44	110150004	Screw	1	
45	110150005	Rubber cushion (small)	2	
46	221130002	Front cover spring	2	
47	S150237002	Screw	1	
48	221100030	Bed rear cover	2	
49	110100016---W	Rear cover	1	
50	110100017	Rear cover gasket	1	
51	221100042	Material guide piece	1	
52	221100043	Material guide plate	1	
53	110400023	Screw	1	
54	221130004	Front cover plate	1	
55	S120203049	Screw	2	
56	221E00001	Fixing plate	1	

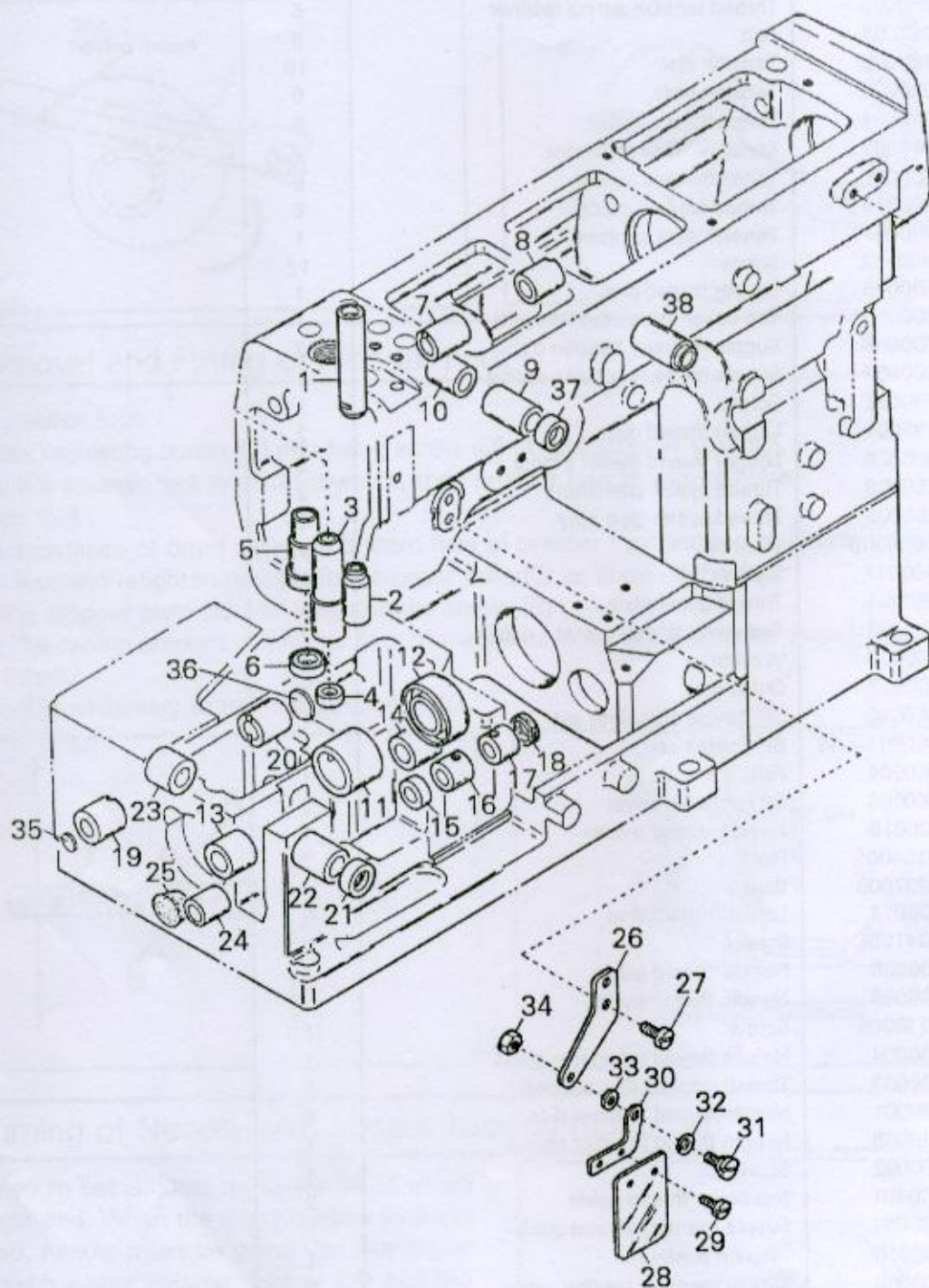
3. MISCELLANEOUS THREAD EYELETS



3. MISCELLANEOUS THREAD EYELETS

No	Ret. No.	Description	Qt	Note
1	1102h0000--W	Looper thread retainer	1	
2	028283005	Thread tension spring cap	5	
3	155A10005	Needle thread tension spring	3	
4	155A10004	Top cover thread spring	2	
5	1102h0005	Thread tension spring retainer	5	
6	028283007	Felt	5	
7	022160005	Tension disc	10	
8	1102h0003	Tension post	5	
9	1102h0004	Tension post ferrule	5	
10	1102h0002	Tension disc separator	1	
11	116200016	Tension disc eyelet	5	
12	116200015	Thread lead-in guide	5	
13	1102h0001	Tension post support	1	
14	B62400812	Screw	12	
15	110500019	Looper thread disc	1	
16	110200019	Top cover thread eyelet (left)	1	
17	008200068	Supple mentary tension disc	2	
18	008200067	Supple mentary tension spring	1	
19	221290002	Screw	1	
20	221290001	Looper thread disc	2	
21	110500020	Looper thread eyelet (long)	5	
22	116250003	Thread eyelet pipe(short)	2	
23	116250002	Thread eyelet pipe stay	2	
24	SFB0601008	Washer	2	
25	B62400812	Screw	2	
26	116250001	Thread guide plate	1	
27	110200027	Top cover thread eyelet (right)	1	
28	008230003	Washer	2	
29	110100027	Guide pin	1	
30	1102K0000	SP Device complete set	1	
31	1102K0001--W	SP Container	1	
32	1102K0004	Felt	1	
33	1102K0003	SP container cover	1	
34	221100015	Needle thread eyelet	1	
35	S8A3104002	Pin	2	
36	S150237008	Screw	3	
37	221100014	Looper thread disc	3	
38	S150241001	Screw	2	
39	110200026	Needle thread guide	1	
40	110200009	Needle thread eyelet	1	
41	S150218005	Screw	1	
42	110260004	Needle thread retainer support	1	
43	110260003	Thread retainer disc support	1	
44	110260001	Needle thread retainer disc	1	
45	110260005	Needle thread retainer spring	1	
46	110260002	Screw	1	
47	1102C0001	Top cover thread guide	2	
48	1102C0002	Supple mentary thread guide	1	
49	116200018	Tension post	1	
50	008200068	Supple mentary tension disc	2	
51	008200067	Supple mentary tension spring	1	
52	008200088	Nut	1	
53	110500022	Screw	1	
54	197120001	Needle bar protection cover	1	
55	197120002	Needle bar protection board	1	
56	197120003	Screw	1	
57	155A10007	Collar	5	

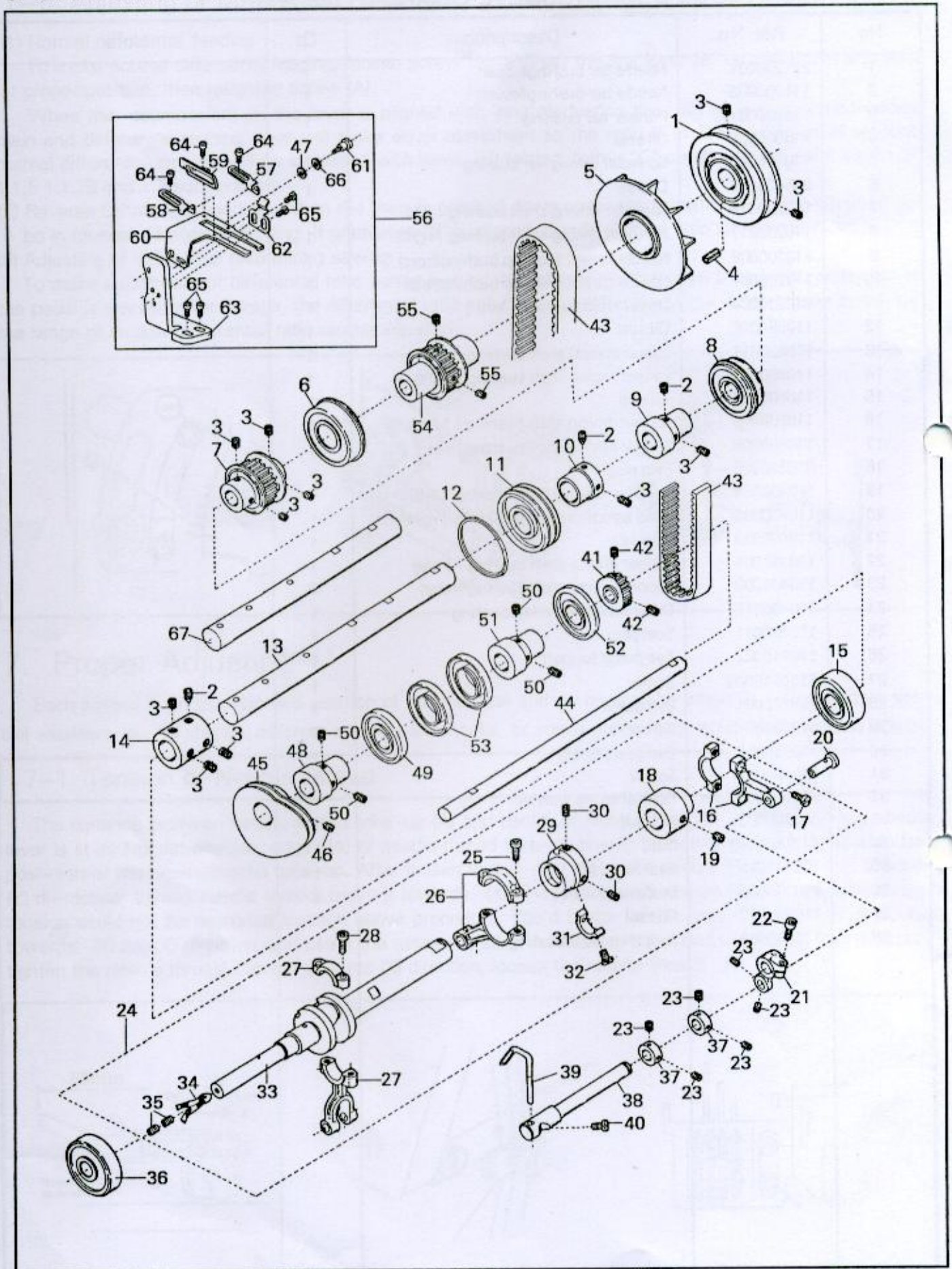
4. MISCELLANEOUS BUSHINGS&EYE GUARD



4. MISCELLANEOUS BUSHINGS&EYE GUARD

No	Ret. No.	Description	Qt	Note
1	221200001	Needle bar bushing(upper)	1	
2	110200003	Needle bar bushing(lower)	1	
3	110600007	Presser bar bushing	1	
4	110600005	Oil seal	1	
5	110200018	Spreader driving bar bushing	1	
6	008600015	Oil seal	1	
7	110200016	Spreader driving shaft bushing (left)	1	
8	110200017	Spreader driving shaft bushing (right)	1	
9	110200008	Needle thread take-up bushing(front)	1	
10	110200007	Needle thread take-up bushing(rear)	1	
11	110500004	Lower shaft bushing (left)	1	
12	1105E0000	Oil seal	1	
13	110500017	Looper rocker shaft bushing (left)	1	
14	110500016	Looper rocker shaft bushing (right)	1	
15	110500024	Oil seal	1	
16	110500008	Looper driving shaft bushing (front)	1	
17	110500009	Looper driving shaft bushing (rear)	1	
18	110500025—V	Seal plug	1	
19	110400004	Feed bar driving shaft bushing (left)	1	
20	110400003	Feed bar driving shaft bushing (right)	1	
21	110500023	Oil seal	1	
22	110400004	Looper driving shaft bushing (front)	1	
23	110400003	Looper driving shaft bushing (rear)	1	
24	110400017	Differential lever shaft bushing	1	
25	110100031	Seal plug	1	
26	110140002	Eye guard support	1	
27	S150215002	Screw	1	
28	116120001	Eye guard	1	
29	S120203013	Screw	2	
30	110140001	Eye guard holder	1	
31	110100019	Screw	1	
32	S150643002	Conical spring washer	1	
33	008230003	Washer	1	
34	S120501003	Nut	1	
35	110100029	Seal plug (left)	1	
36	110100030	Seal plug (right)	1	
37	110280000	Oil seal	1	
38	110600009	Foot lifter lever bushing	1	

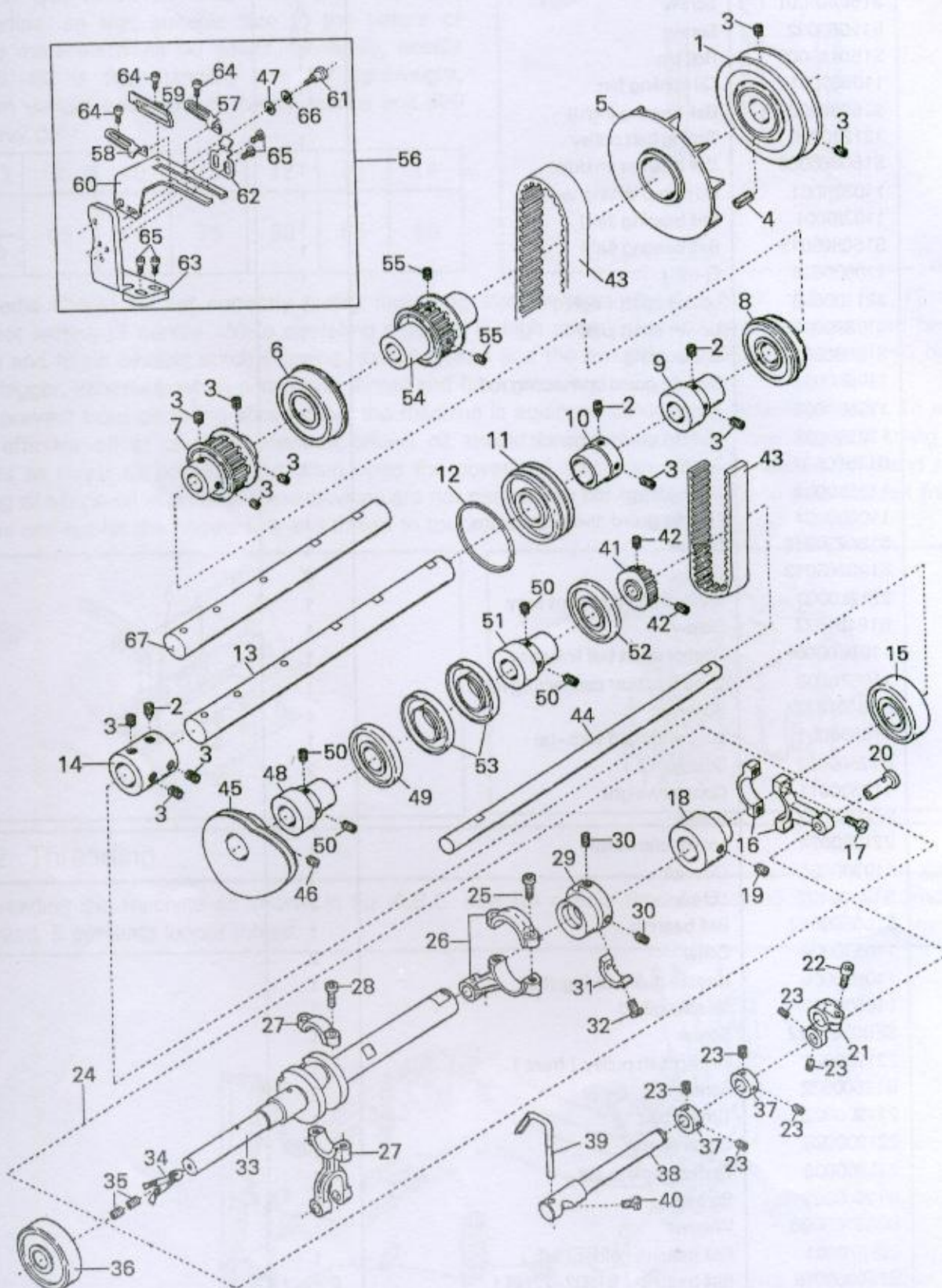
5. MAIN SHAFT DRIVING MECHANISM (1)



5. MAIN SHAFT DRIVING MECHANISM (1)

No	Ret. No.	Description	Qt	Note
1	221100039	Pulley	1	
2	S150225001	Screw	3	
3	B12060632	Screw	12	
4	S150446008	Roll pin	1	
5	110500001	Oil cooling fan	1	
6	S150866007	Ball bearing (right)	1	
7	221200020	Timing belt pulley	1	
8	S150866006	Ball bearing (middle)	1	
9	110320001	Oil pump driving worm	1	
10	1102f0001	Ball bearing (left)	1	
11	S150866013	Ball bearing (left)	1	
12	110500026	O-ring	1	
13	221100036	Lower shaft (right)	1	
14	110530001	Lower shaft joint	1	
15	S150866011	Ball bearing	1	
16	110550001	Needle guard connecting rod	1	
17	110550005	Screw	2	
18	110550002	Needle guard eccentric	1	
19	B12500532	Screw	2	
20	110550003	Connecting rod pin	1	
21	110550004	Needle guard diving shaft arm	1	
22	S150220015	Screw	1	
23	S120203013	Screw	6	
24	2212a0000	Main shaft front joint assy	1	
25	B18401622	Screw	1	
26	1105C0000	Looper shaft ball link assy	1	
27	110570000	Looper rocker connecting rod	1	
28	B18401622	Screw	4	
29	110590001	Looper thread take-up	1	
30	B12500532	Screw	2	
31	110500011	Counterweight	1	
32	B60300612	Screw	2	
33	221200024	Lower crankshaft	1	
34	110300001	Oil wick	1	
35	B12400432	Screw	2	
36	S150866012	Ball bearing	1	
37	110500006	Collar	2	
38	110500005	Needle guard diving shaft	1	
39	110500027	Needle guard	1	
40	SFB0201002	Screw	1	
41	221200021	Timing belt pulley (front)	1	
42	B12500532	Screw	2	
43	221200022	Timing belt	1	
44	221200023	Guide shaft	1	
45	221260000	Cam complete set	1	
46	B12500532	Screw	2	
47	S8A3103006	Washer	1	
48	221270001	Ball bearing holder (left)	1	
49	S150866059	Ball bearing (61802-2ZNR)	1	
50	B12400432	Screw	4	

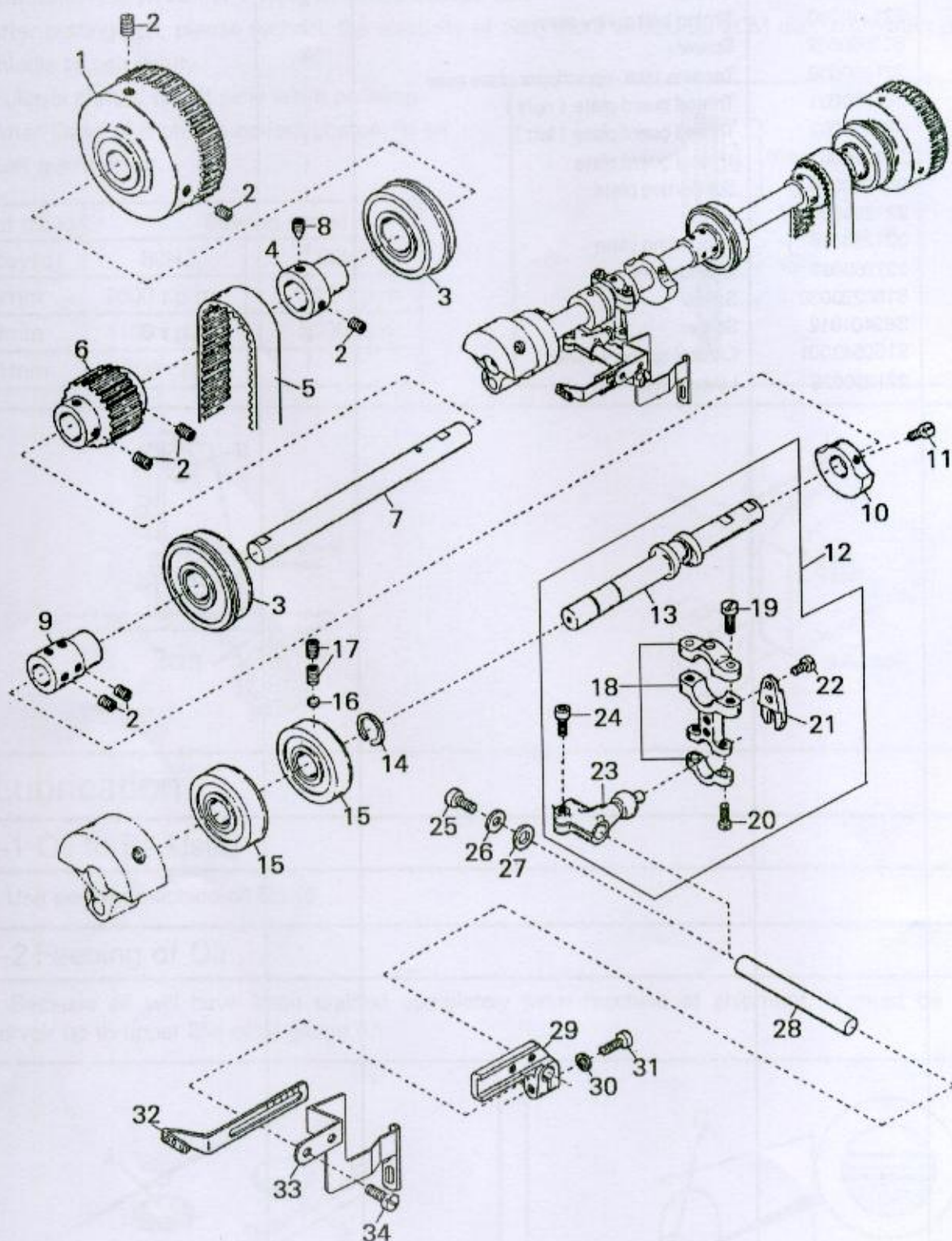
5. MAIN SHAFT DRIVING MECHANISM (2)



5. MAIN SHAFT DRIVING MECHANISM (2)

No	Ret. No.	Description	Qt	Note
51	221280001	Ball bearing holder (right)	1	
52	S150866060	Ball bearing (61803-2ZNR)	1	
53	S150685001	Oil seal	2	
54	221240000	Timing belt pulley assy	1	
55	B12500532	Screw	2	
56	221250000	Tension take-up stripper plate assy	1	
57	221250001	Thread guard plate (right)	1	
58	221250002	Thread guard plate (left)	1	
59	221250003	Thread guard plate	1	
60	221250004	Supporting plate	1	
61	221250005	Screw	1	
62	221250006	Supporting plate	1	
63	221250007	Linked plank	1	
64	S150220030	Screw	5	
65	B62401012	Screw	2	
66	S150643001	Conical spring washer	1	
67	221200025	Lower shaft	1	

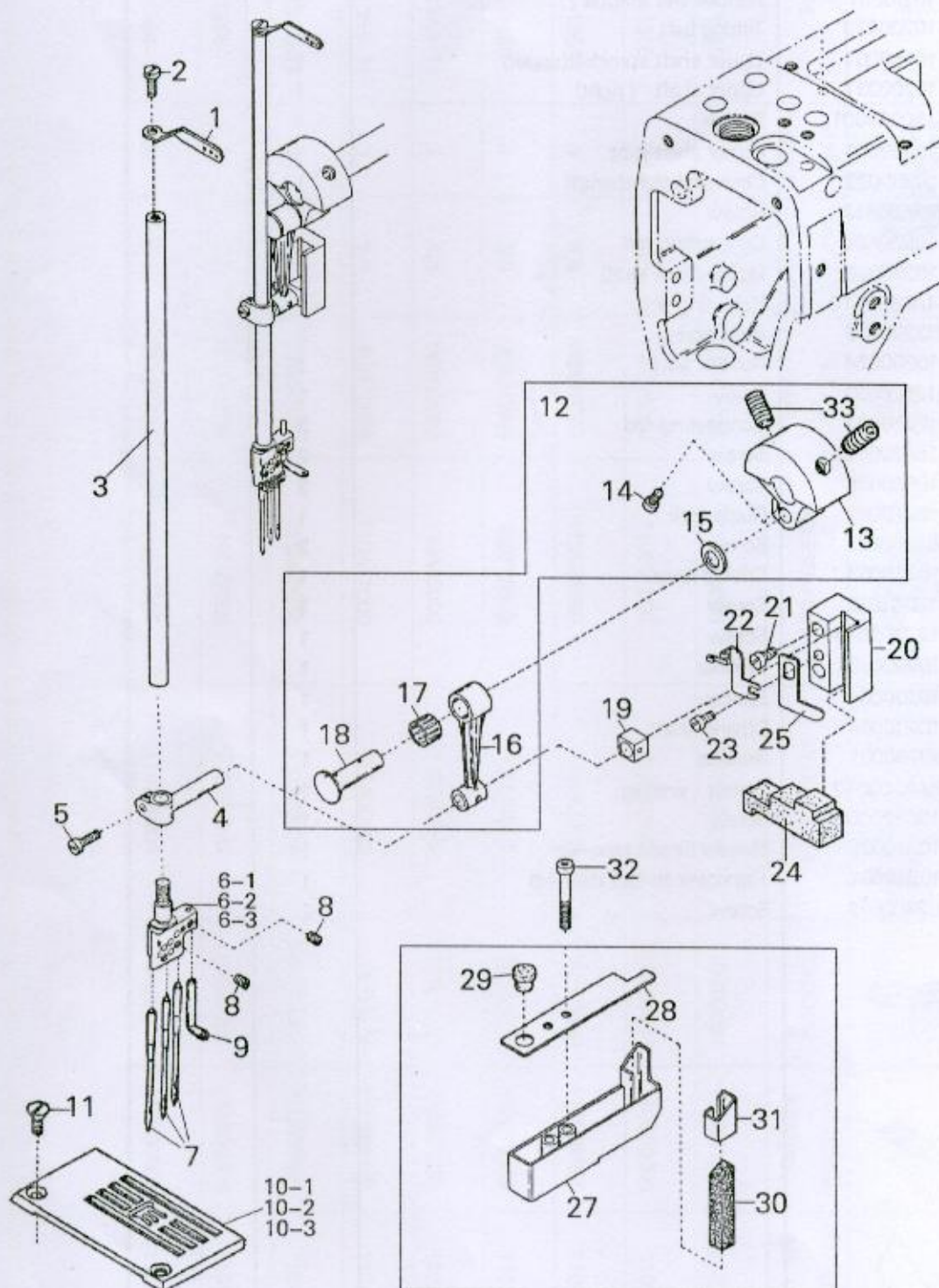
6. UPPER SHAFT & NEEDLE THREAD TAKE-UP MECHANISM



6. UPPER SHAFT & NEEDLE THREAD TAKE-UP MECHANISM

No	Ret. No.	Description	Qt	Note
1	1102e0003	Handwheel	1	
2	B12060632	Screw	11	
3	S150866006	Ball bearing	2	
4	1102f0001	Handwheel adapter	2	
5	110200023	Timing belt	1	
6	1102g0001	Upper shaft sprocket(upper)	1	
7	110200021	Upper shaft (right)	1	
8	S150225001	Screw	1	
9	1102d0001	Upper shaft joint	1	
10	110200022	Counterweight(small)	1	
11	B62400812	Screw	2	
12	110G30000	Connecting rod	1	
13	110200020	Upper crank shaft	1	
14	S4A0500010	Retaining ring	1	
15	052200036	Ball bearing	2	
16	110200024	Rubber seat	1	
17	B12060632	Screw	1	
18	110270001	Connecting rod	2	
19	S150220009	Screw	2	
20	110550005	Screw	2	
21	110270002	Guide fork	1	
22	B62300812	Screw	2	
23	110270003	Driving lever	1	
24	B18061632	Screw	1	
25	S120203049	Screw	1	
26	110200005	Washer	1	
27	110200006	Spacer	1	
28	110200004	Driving shaft	1	
29	110290001	Bracket	1	
30	S8A3103012	Spring washer	1	
31	S150220004	Screw	1	
32	110290005	Needle thread take-up	1	
33	110290004	Top cover thread take-up	1	
34	B62400812	Screw	2	

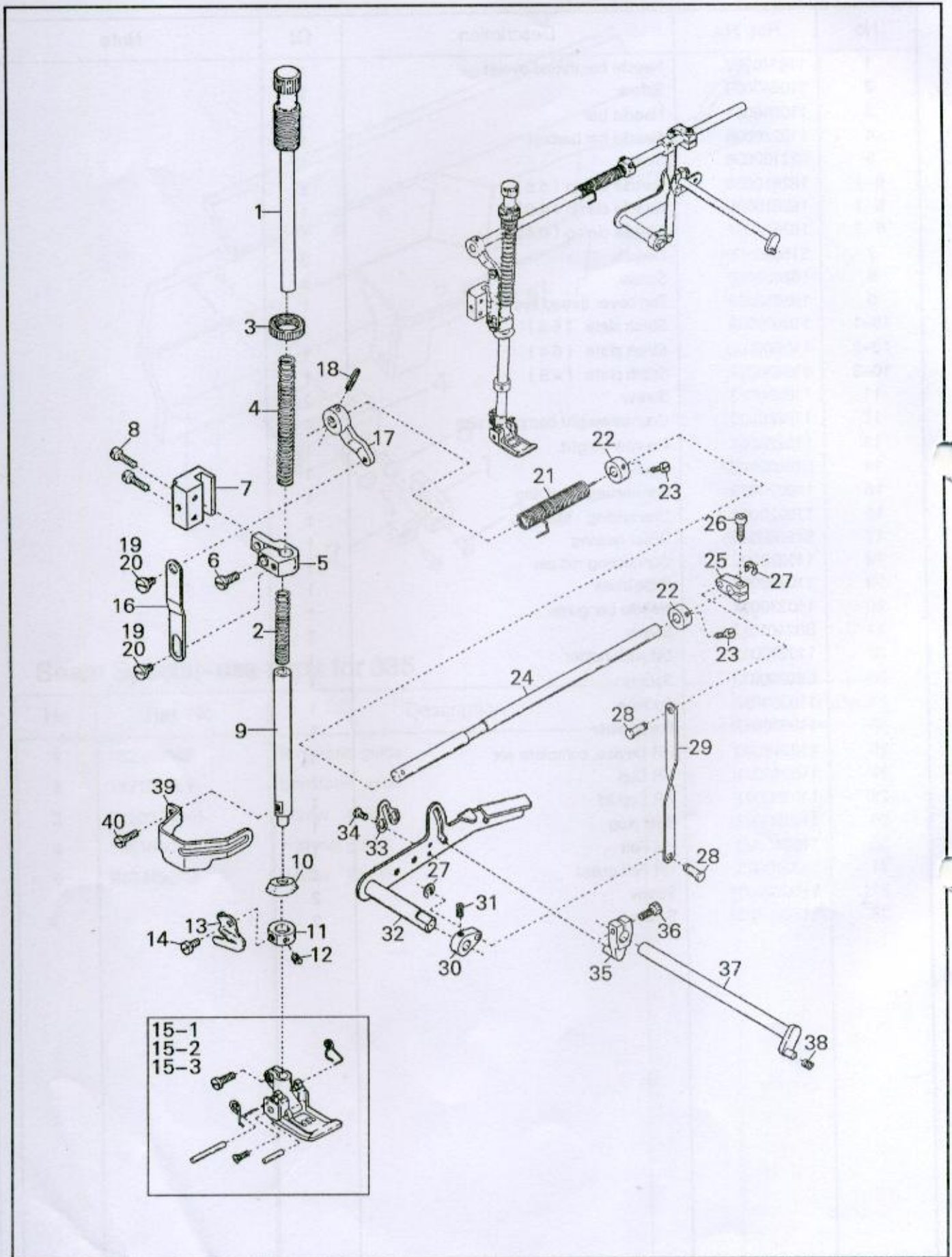
7. NEEDLE BAR MECHANISM



7. NEEDLE BAR MECHANISM

No	Ret. No.	Description	Qt	Note
1	116240002	Needle bar thread eyelet	1	
2	110240003	Screw	1	
3	110200001	Needle bar	1	
4	110220005	Needle bar bracket	1	
5	022100006	Screw	1	
6-1	182610006	Needle clamp (5.6)	1	
6-2	182610005	Needle clamp (4.8)	1	
6-3	182610007	Needle clamp (6.4)	1	
7	S150901001	Needle	3	
8	182610010	Screw	4	
9	182610009	Top cover thread eyelet	1	
10-1	110400039	Stitch plate (5.6)	1	
10-2	110G00003	Stitch plate (6.4)	1	
10-3	110400038	Stitch plate (4.8)	1	
11	110400023	Screw	2	
12	110220000	Counterweight complete set	1	
13	110220001	Counterweight	1	
14	S150220007	Screw	1	
15	110220003	Connecting rod ring	1	
16	110220004	Connecting rod	1	
17	S150866005	Roller bearing	1	
18	110220002	Connecting rod pin	1	
19	110220006	Slide block	1	
20	110230001	Needle bar guide	1	
21	B62401612	Screw	2	
22	110230002	Oil wick holder	1	
23	B60300612	Screw	1	
24	110200032	Sponge	1	
25	110200033	Fixing plate	1	
26	110240000	HR Device, complete set	1	
27	110240001	HR Cup	1	
28	110250001	HR Cup lid	1	
29	110100003	Seal plug	1	
30	110240002	HR Felt	1	
31	110240003	HR Felt guard	1	
32	S150220012	Screw	2	
33	S150224002	Screw	2	

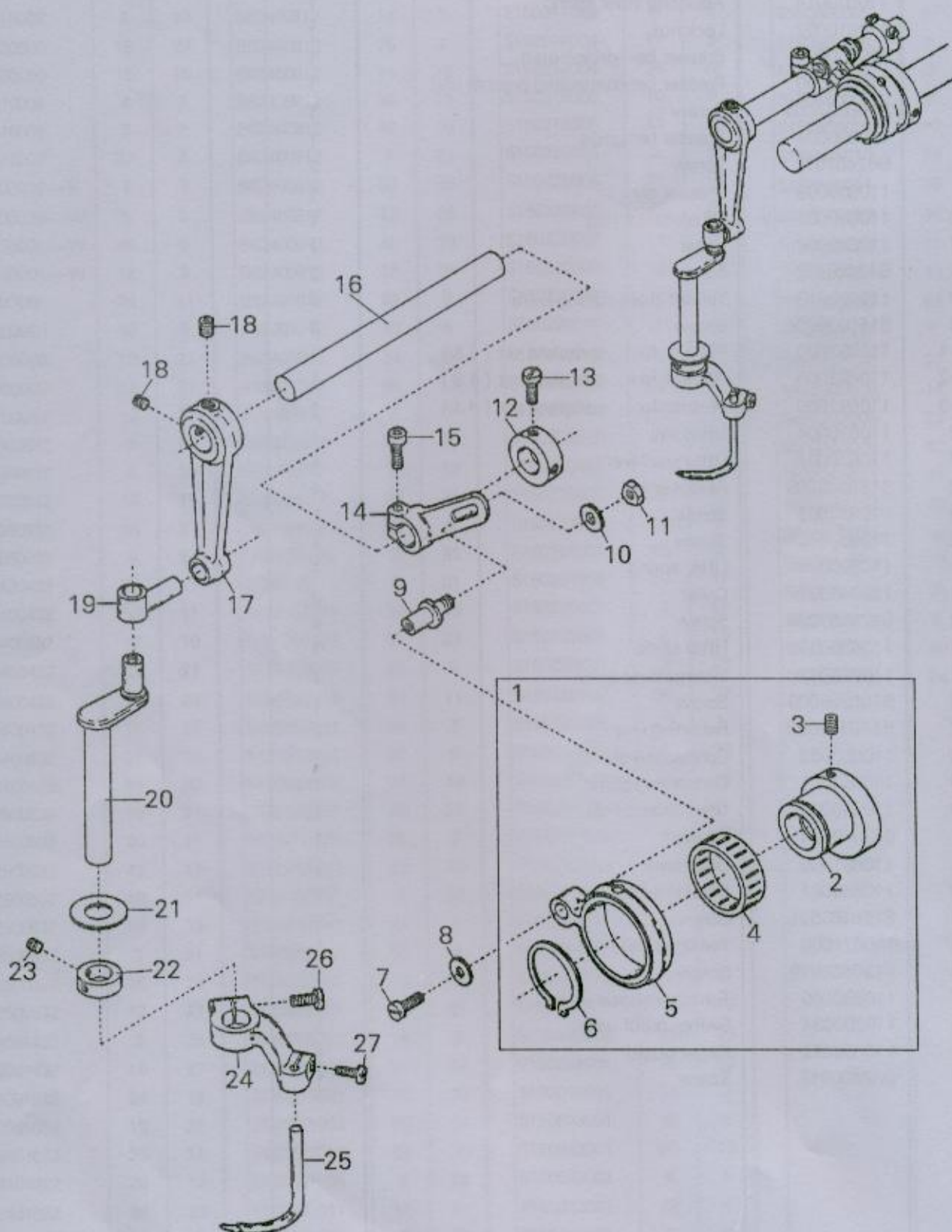
8. PRESSER FOOT MECHANISM



8. PRESSER FOOT MECHANISM

No	Ret. No.	Description	Qt	Note
1	110610001	Presser spring regulator	1	
2	110600014	Adjusting inner spring	1	
3	110610002	Lock nut	1	
4	110600001	Presser bar spring(outer)	1	
5	110620000	Presser bar connecting bracket unit	1	
6	S150237004	Screw	1	
7	110600004	Presser bar guide	1	
8	B62401612	Screw	2	
9	110600003	Presser bar	1	
10	110600005—V	Oil protector ring	1	
11	110600006	Collar	1	
12	B12400432	Screw	2	
13	110600013	Thread chain cutting knife	1	
14	S150239001	Screw	1	
15-1	110697000	Presser foot, complete set (5.6)	1	
15-2	110693000	Presser foot, complete set (4.8)	1	
15-3	110692000	Presser foot, complete set (6.4)	1	
16	110630004	Lifter link	1	
17	110630002	Lifter link lever	1	
18	S150446009	Fastener pin	1	
19	110630003	Screw	1	
20	110600010	Screw	1	
21	110600008	Lifter spring	1	
22	110640001	Collar	2	
23	S120203033	Screw	4	
24	110630001	Lifter shaft	1	
25	110650002	Intermediate lever	1	
26	S150220009	Screw	1	
27	S4A0105006	Retaining ring	2	
28	110650003	Connecting pin	2	
29	110650001	Connecting plate	1	
30	110650004	Lifter lever(small)	1	
31	022540004	Screw	1	
32	110681000	Lifter lever	1	
33	110680001	Lifter lever stop	1	
34	S120203031	Screw	2	
35	110671000	Tension release lever	1	
36	S120104019	Screw	1	
37	110660000	Tension release shaft	1	
38	110200034	Swing-proof spring	1	
39	110600012	Finger guard	1	
40	B62400812	Screw	1	

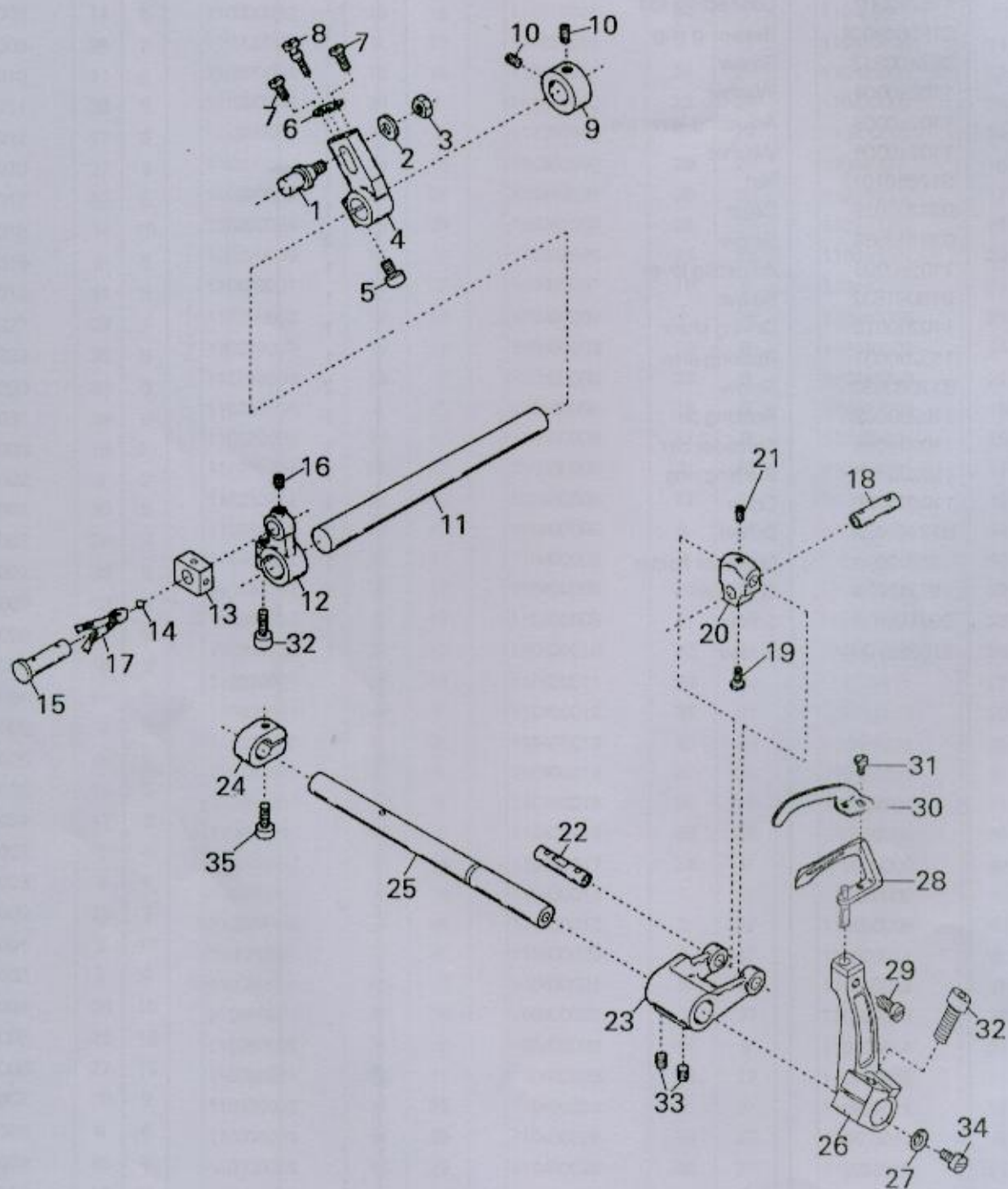
9. SPREADER MECHANISM



9. SPREADER MECHANISM

No	Ret. No.	Description	Qt	Note
1	1102a0000	Connecting rod complete set	1	
2	1102a0001	Eccentric	1	
3	B12500532	Screw	2	
4	S150866002	Roller bearing	1	
5	1102a0002	Connecting rod	1	
6	S150649001	Retaining ring	1	
7	B62400812	Screw	1	
8	1102a0004	Washer	1	
9	1102a0003	Adjusting lever pin	1	
10	1102a0006	Washer	1	
11	S120501011	Nut	1	
12	028200026	Collar	1	
13	028100068	Screw	2	
14	1102a0005	Adjusting lever	1	
15	B18061632	Screw	1	
16	110200010	Driving shaft	1	
17	1102b0001	Rocking arm	1	
18	B12060632	Screw	2	
19	1102b0002	Rocking pin	1	
20	110200011	Spreader bar	1	
21	110200012	Bushing ring	1	
22	110400006	Collar	1	
23	B12400432	Screw	2	
24	110200013	Spreader holder	1	
25	110200014	Spreader	1	
26	B62401612	Screw	1	
27	S150237004	Screw	1	

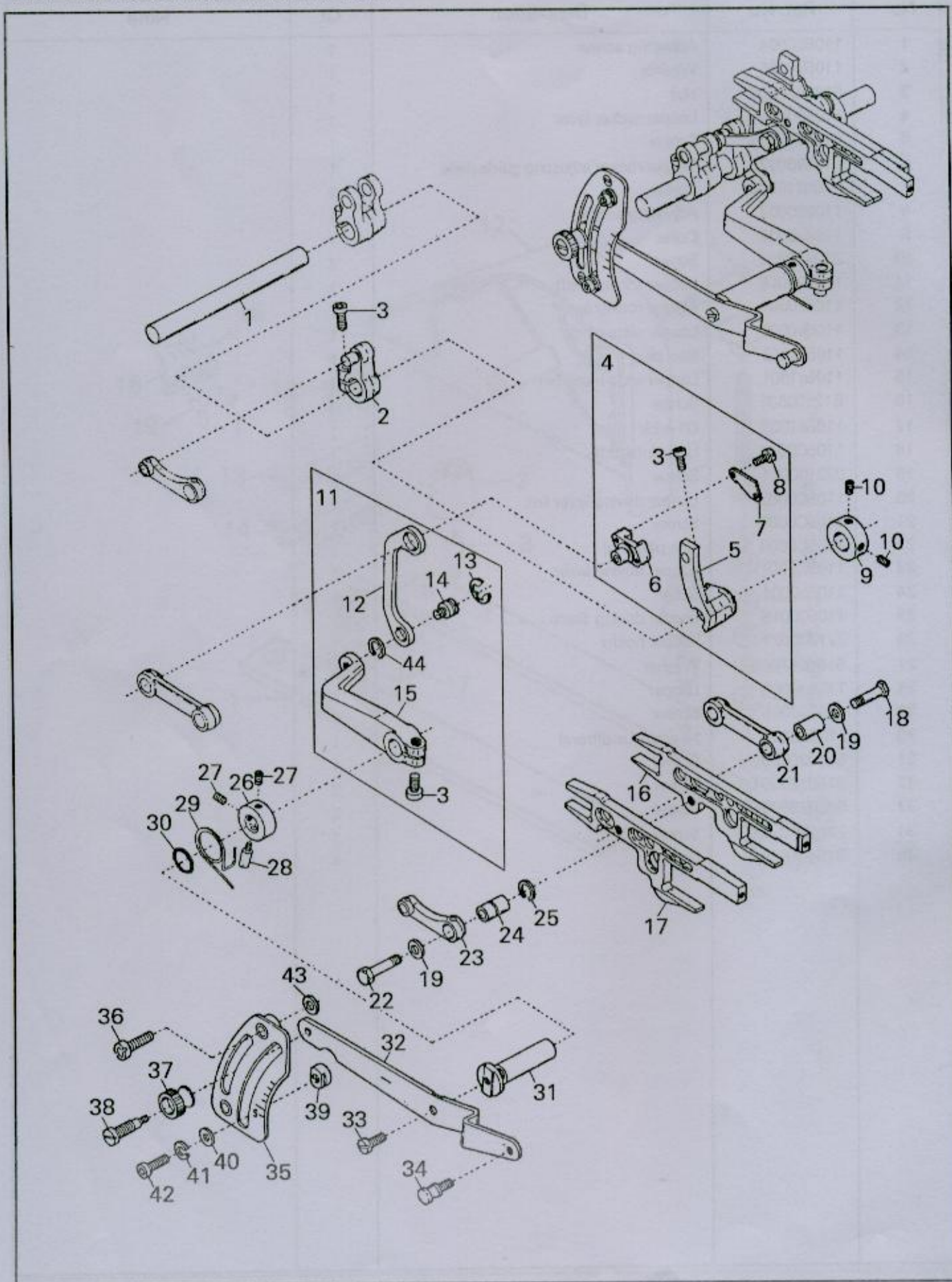
10. LOOPER DRIVING MECHANISM



10. LOOPER DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	110580004	Adjusting screw	1	
2	110580005	Washer	1	
3	S120501005	Nut	1	
4	110580001	Looper rocker lever	1	
5	S150220015	Screw	1	
6	110580002	Looper rocker adjusting guide plate	1	
7	S150215006	Screw	2	
8	110580003	Adjusting screw	1	
9	110400006	Collar	1	
10	B12400432	Screw	2	
11	110500015	Looper rocker shaft	1	
12	1105a0001	Looper rocker arm	1	
13	1105a0002	Looper slide block	1	
14	1105a1002	Seal plug	1	
15	1105a1001	Looper slide block pin	1	
16	B12500532	Screw	1	
17	1105a1003	Oil wick	1	
18	1105C0004	Link pin(short)	1	
19	022100011	Screw	1	
20	1105C0002	Looper driving lever link	1	
21	1105C0005	Screw	1	
22	1105C0003	Link pin(long)	1	
23	1105C0001	Looper driving lever	1	
24	1105b0001	Collar	1	
25	110500018	Looper driving shaft	1	
26	221200027	Looper holder	1	
27	S150667001	Washer	1	
28	1105d0003	Looper	1	
29	1105d0005	Screw	1	
30	1105d0002	Needle guard(front)	1	
31	S120203003	Screw	1	
32	S150220004	Screw	2	
33	S150225001	Screw	2	
34	221200028	Screw	1	
35	B18401622	Screw	1	

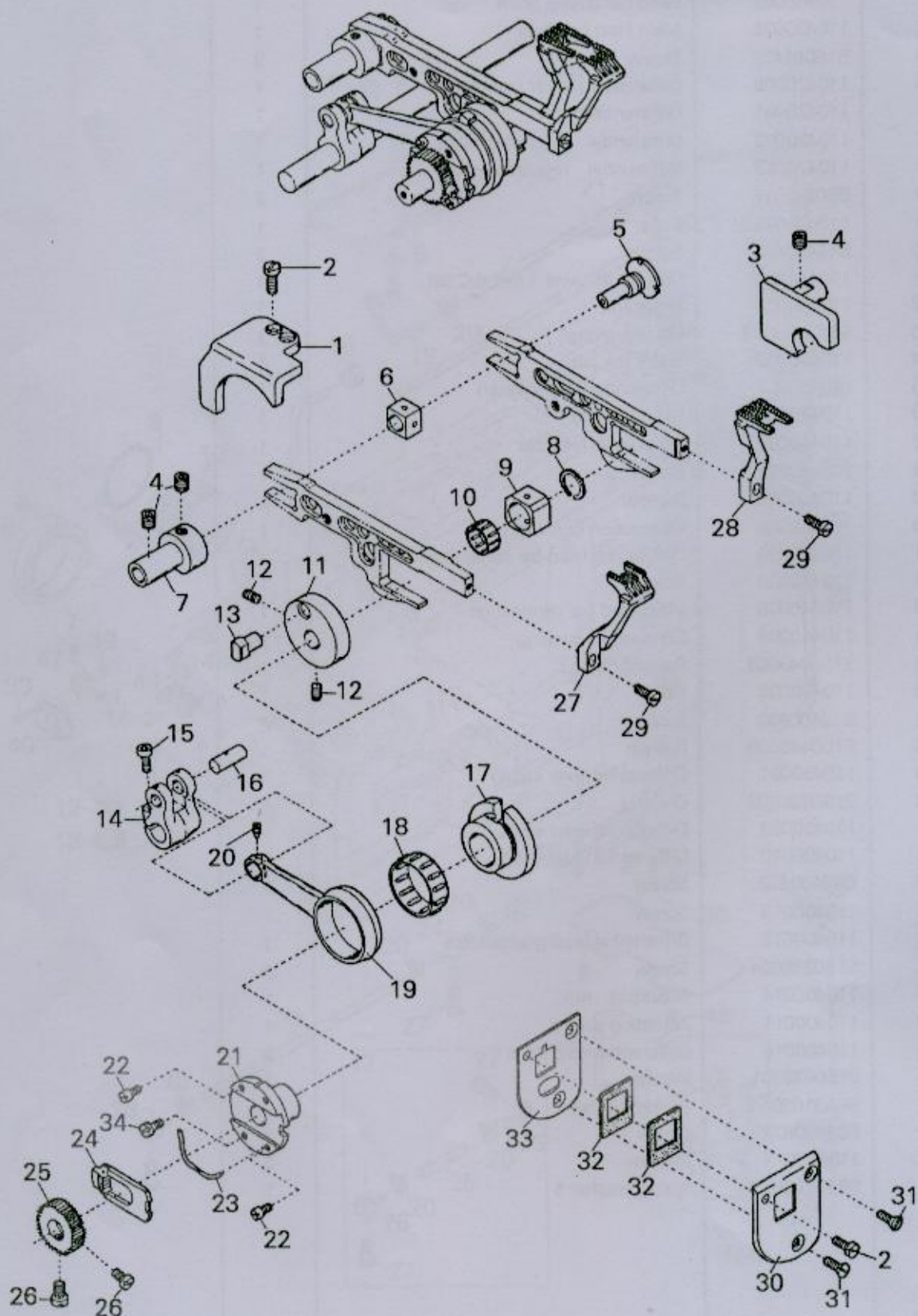
11. FEED DRIVING MECHANISM



11. FEED DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	110400002	Feed bar driving shaft	1	
2	110400005	Main feed bar lever	1	
3	B18061432	Screw	3	
4	110420000	Differential rocker complete	1	
5	110420001	Differential rocker	1	
6	110420002	Differential regulating slider	1	
7	110420003	Differential regulating slider cap	1	
8	B60300612	Screw	2	
9	110400006	Collar	1	
10	B12400432	Screw	2	
11	110430000	Differential lever (inner),C.set	1	
12	110430001	Slider link	1	
13	S8A3103018	Retaining ring	1	
14	110430003	Slider link pin	1	
15	110430002	Differential lever (inner)	1	
16	110440001	Main feed bar	1	
17	110440002	Differential feed bar	1	
18	110440003	Screw	1	
19	110440009	Washer	2	
20	110440004	Connection bushing	1	
21	110440005	Differential feed bar connection	1	
22	110440008	Screw	1	
23	110440006	Main feed bar connection	1	
24	110440007	Connection bushing	1	
25	S150649003	Retaining ring	1	
26	110400006	Collar	1	
27	B12400432	Screw	2	
28	S150446009	Roll pin	1	
29	110450001	Differential lever spring	1	
30	S150656003	O - ring	1	
31	110400009	Differential lever shaft	1	
32	110400010	Differential lever (left)	1	
33	B62400812	Screw	1	
34	110400015	Screw	1	
35	110400012	Differential feed graduation	1	
36	S150218004	Screw	2	
37	110400014	Adjusting nut	1	
38	110400011	Adjusting screw	1	
39	110400016	Differential lever stop	2	
40	S150632001	Washer	2	
41	S8A3103011	Spring washer	2	
42	B62400812	Screw	2	
43	110400013	Washer	2	
44	S8A3103012	Spring washer 5	1	

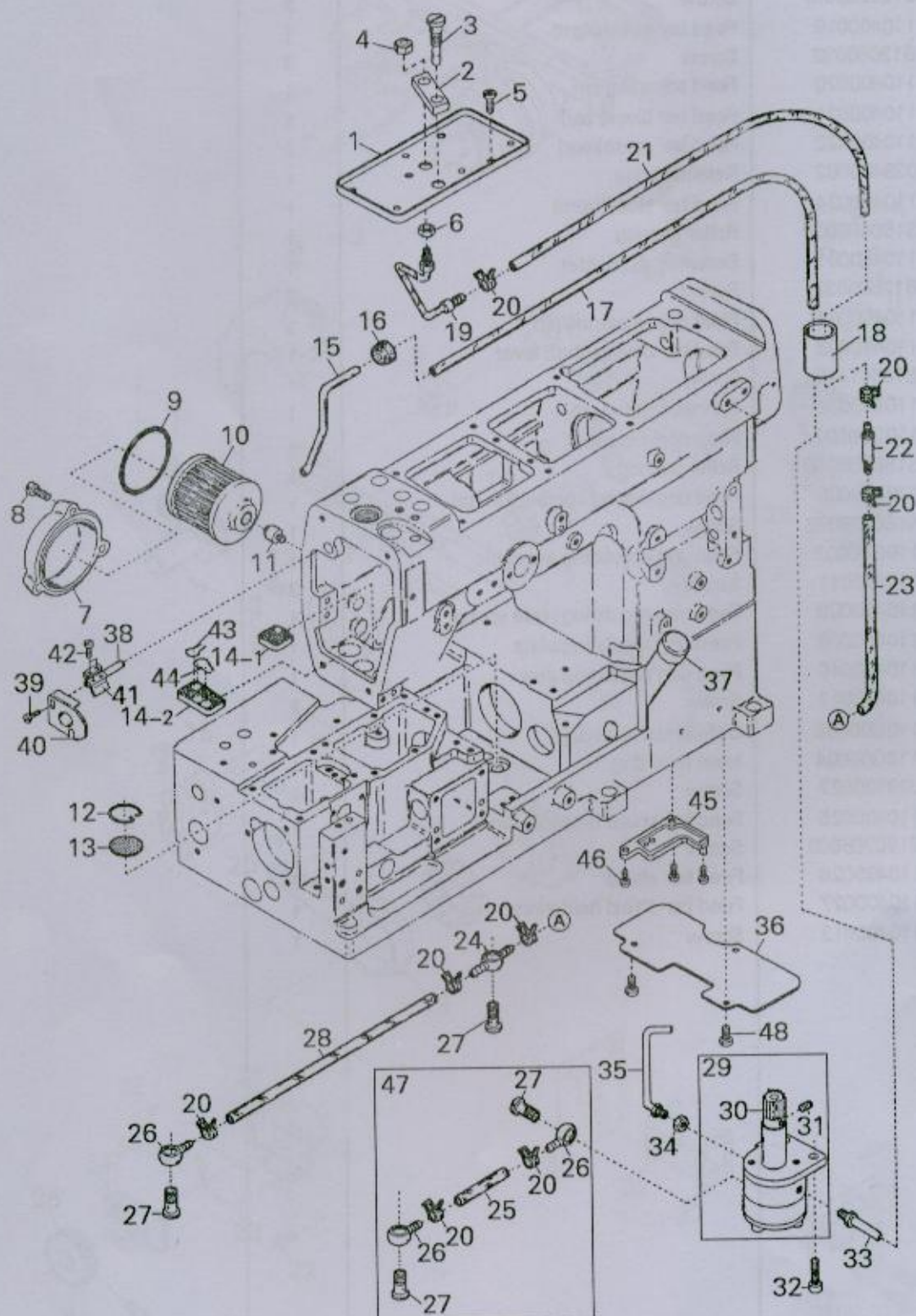
12. FEED DRIVING MECHANISM



12. FEED DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	110400018	Feed bar guide(left)	1	
2	S120203037	Screw	3	
3	110400019	Feed bar guide(right)	1	
4	B12060632	Screw	3	
5	110400020	Feed adjusting pin	1	
6	110400021	Feed bar block(rear)	1	
7	110400022	Feed bar guide(rear)	1	
8	028400062	Retaining ring	1	
9	110400024	Feed bar block(front)	1	
10	S150866009	Roller bearing	1	
11	110460001	Eccentric pin holder	1	
12	B12500532	Screw	2	
13	110460002	Feed dog eccentric pin	1	
14	110460003	Feed bar driving shaft lever	1	
15	B18061432	Screw	1	
16	110460004	Connecting rod pin	1	
17	110G00001	Feed dog eccentric	1	
18	S150866010	Roller bearing	1	
19	110460006	Feed dog driving connection rod	1	
20	S150225002	Screw	1	
21	110G00002	Feed dog regulating eccentric	1	
22	110460011	Screw	3	
23	110460008	Feed dog regulating plate spring	1	
24	110460009	Feed dog regulating plate	1	
25	110400040	Feed dog regulating gear	1	
26	110460012	Screw	2	
27	110G00005	Differential feed dog	1	
28	110G00004	Main feed dog	1	
29	028100027	Screw	2	
30	110400025	Feed bar shield holder(front)	1	
31	S120205003	Screw	2	
32	110400026	Feed bar shield	2	
33	110400027	Feed bar shield holder(rear)	1	
34	110460013	Screw	1	

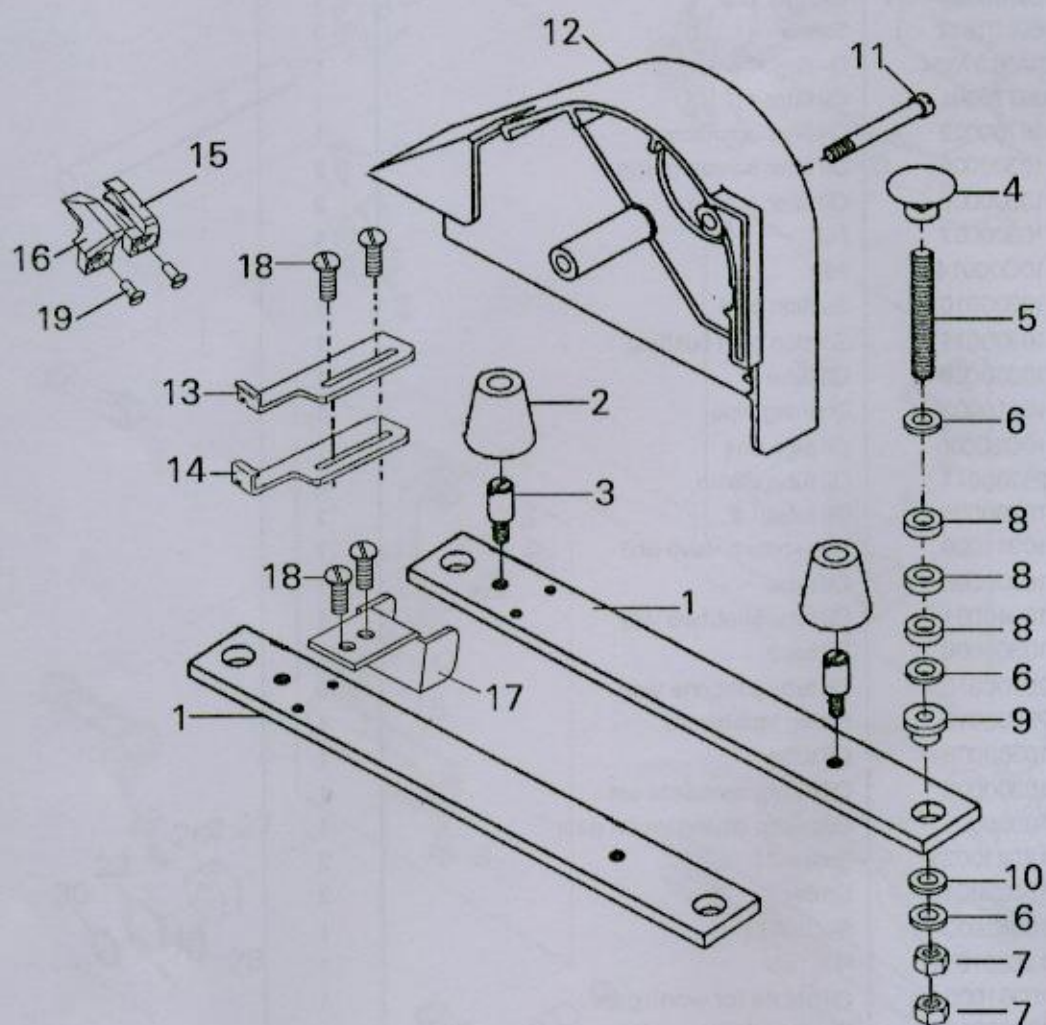
13. LUBRICATING MECHANISM



13. LUBRICATING MECHANISM

No	Ret. No.	Description	Qt	Note
1	110G10001	Oil reservoir	1	
2	110G10002	Regulate oil block	1	
3	221200029	Regulate oil screw	1	
4	S120501011	Nut	1	
5	S150237002	Screw	2	
6	S120503010	Nut	1	
7	028700023—W	Oil filter cap	1	
8	B60401412	Screw	3	
9	S8A3107004	O-ring	1	
10	028770001	Oil filter	1	
11	028700022	Oil filter connector	1	
12	110300006	Oil filter screen clamp	2	
13	110300005	Oil filter screen	2	
14-1	110300007	Felt	1	
14-2	110G00014	Felt	1	
15	110300010	Suction pipe	1	
16	110300011	Suction pipe bushing	1	
17	110300008	Oil tube	1	
18	110110003	Draining pipe	1	
19	110G20000	Oil pipe unit	1	
20	028700011	Oil tube clamp	8	
21	110300008	Oil tube	1	
22	110341000	Non-return valve unit	1	
23	110300008	Oil tube	1	
24	110340001	Oil tube joint, two way	1	
25	110300008	Oil tube	1	
26	028700010	Oil tube joint, one way	3	
27	028700012	Fitting stub(short)	4	
28	110300008	Oil tube	1	
29	110360000	Oil pump complete set	1	
30	110360001	Oil pump driving worm gear	1	
31	S120210021	Screw	2	
32	S150220014	Screw	2	
33	110362000	Suction pipe	1	
34	S120501011	Nut	1	
35	110361000	Oil nozzle for worm gear	1	
36	110100018	Dustproof plate	1	
37	110300002	Oil sight gauge	1	
38	110G00011	Oil pipe fixed bar	1	
39	B12400432	Screw	1	
40	110G00012	Bed front plate	1	
41	110G00013	Bed right plate	1	
42	S150237002	Screw	2	
43	110G00015	Felt clip (1)	1	
44	110G00016	Felt clip (2)	1	
45	110300004	Oil case	1	
46	B62400812	Screw	2	
47	110350000	Oil pump, fittings (short)	1	
48	S120203031	Screw	3	

14. ACCESSORIES



14. ACCESSORIES

No	Ret. No.	Description	Qt	Note
1	110F10001	Supporting board	2	
2	110F10002	Oil reservoir rubber cushion	4	
3	110F10003	Setting screw	4	
4	110F10005	Hanging nut	4	
5	110F10004	Hanging bolt	4	
6	GB96-85	Washer	12	
7	GB6170-86	Nut	8	
8	110F10006	Spacer(see the table below)	12	
9	110F10007	Supporting board rubber cushion	4	
10	110F10008	Supporting board rubber cushion(lower)	4	
11	S150215016	Screw	2	
12	221F00013	Belt cover	1	
13	221F00008	Upper folding device	1	
14	221F00009	Lower folding device	1	
15	182100048	R material guide	1	
16	182100051	L material guide	2	
17	110F01001	Guide plate	1	
18	B62400812	Screw	4	
19	S120205001	Screw		

Index

Code	No.	Page
110100002	8	3
110100003	24	5
110100003	29	17
110100007	13	5
110100008	14	5
110100009	36	5
110100010	37	5
110100011	26	5
110100012	27	5
110100013	27	3
110100017	50	5
110100018	36	29
110100019	5	5
110100019	31	9
110100027	29	7
110100029	35	9
110100030	36	9
110100031	25	9
110110003	18	29
110130002	3	3
110140001	30	9
110140002	26	9
110150002	38	5
110150003	13	3
110150003	41	5
110150004	15	3
110150004	44	5
110150005	18	3
110150005	45	5
110160003	11	3
110160004	17	3
110170002	7	5
110170003	4	5
110190000	25	3
110200001	3	17
110200003	2	9
110200004	28	15
110200005	26	15
110200006	27	15
110200007	10	9
110200008	9	9
110200009	40	7
110200010	16	21
110200011	20	21
110200012	21	21
110200013	24	21
110200014	25	21
110200016	7	9
110200017	8	9

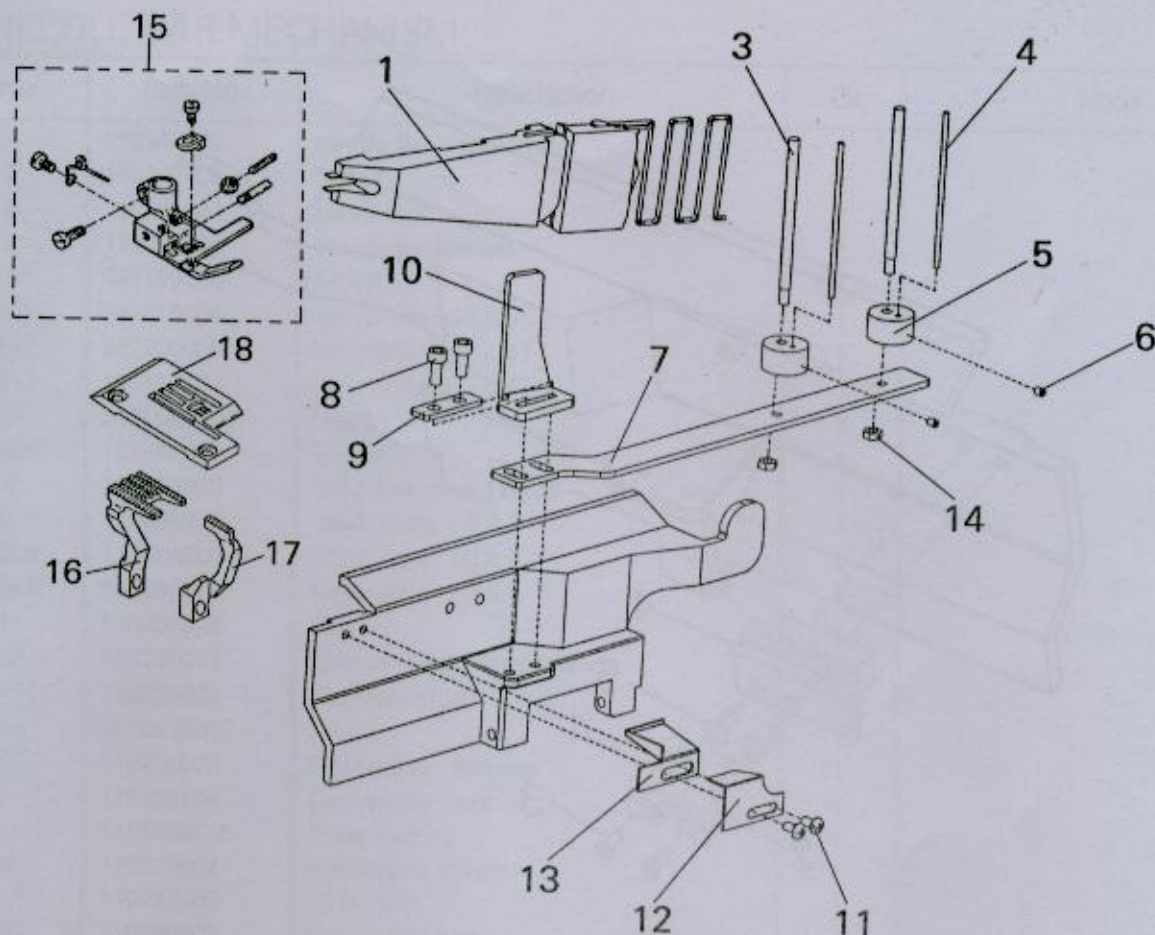
Code	No.	Page
110200018	5	9
110200019	16	7
110200020	13	15
110200021	7	15
110200022	10	15
110200023	5	15
110200024	16	15
110200026	39	7
110200027	27	7
110200032	24	17
110200033	25	17
110200034	38	19
110220000	12	17
110220001	13	17
110220002	18	17
110220003	15	17
110220004	16	17
110220005	4	17
110220006	19	17
110230001	20	17
110230002	22	17
110240000	26	17
110240001	27	17
110240002	30	17
110240003	2	17
110240003	31	17
110250001	28	17
110260001	44	7
110260002	46	7
110260003	43	7
110260004	42	7
110260005	45	7
110270001	18	15
110270002	21	15
110270003	23	15
110280000	37	9
110290001	29	15
110290004	33	15
110290005	32	15
110300001	34	11
110300002	37	29
110300004	45	29
110300005	13	29
110300006	12	29
110300007	14-1	29
110300008	17	29
110300008	21	29
110300008	23	29
110300008	25	29
110300008	28	29

Code	No.	Page
110300010	15	29
110300011	16	29
110310001	31	3
110310002	30	3
110310005	34	3
110320001	9	11
110340001	24	29
110341000	22	29
110350000	47	29
110360000	29	29
110360001	30	29
110361000	35	29
110362000	33	29
110400001	18	5
110400002	1	25
110400003	20	9
110400003	23	9
110400004	19	9
110400004	22	9
110400005	2	25
110400006	22	21
110400006	9	23
110400006	9	25
110400006	26	25
110400009	31	25
110400010	32	25
110400011	38	25
110400012	35	25
110400013	43	25
110400014	37	25
110400015	34	25
110400016	39	25
110400017	24	9
110400018	1	27
110400019	3	27
110400020	5	27
110400021	6	27
110400022	7	27
110400023	53	5
110400023	11	17
110400024	9	27
110400025	30	27
110400026	32	27
110400027	33	27
110400038	10-3	17
110400039	10-1	17
110400040	25	27
110410001	19	5
110410002	20	5
110410003	22	5

Code	No.	Page
110411001	17	5
110420000	4	25
110420001	5	25
110420002	6	25
110420003	7	25
110430000	11	25
110430001	12	25
110430002	15	25
110430003	14	25
110440001	16	25
110440002	17	25
110440003	18	25
110440004	20	25
110440005	21	25
110440006	23	25
110440007	24	25
110440008	22	25
110440009	19	25
110450001	29	25
110460001	11	27
110460002	13	27
110460003	14	27
110460004	16	27
110460006	19	27
110460008	23	27
110460009	24	27
110460011	22	27
110460012	26	27
110460013	34	27
110500001	5	11
110500004	11	9
110500005	38	11
110500006	37	11
110500008	16	9
110500009	17	9
110500011	31	11
110500012	28	5
110500013	29	5
110500014	31	5
110500015	11	23
110500016	14	9
110500017	13	9
110500018	25	23
110500019	15	7
110500020	21	7
110500022	53	7
110500023	21	9
110500024	15	9
110500026	12	11
110500027	39	11

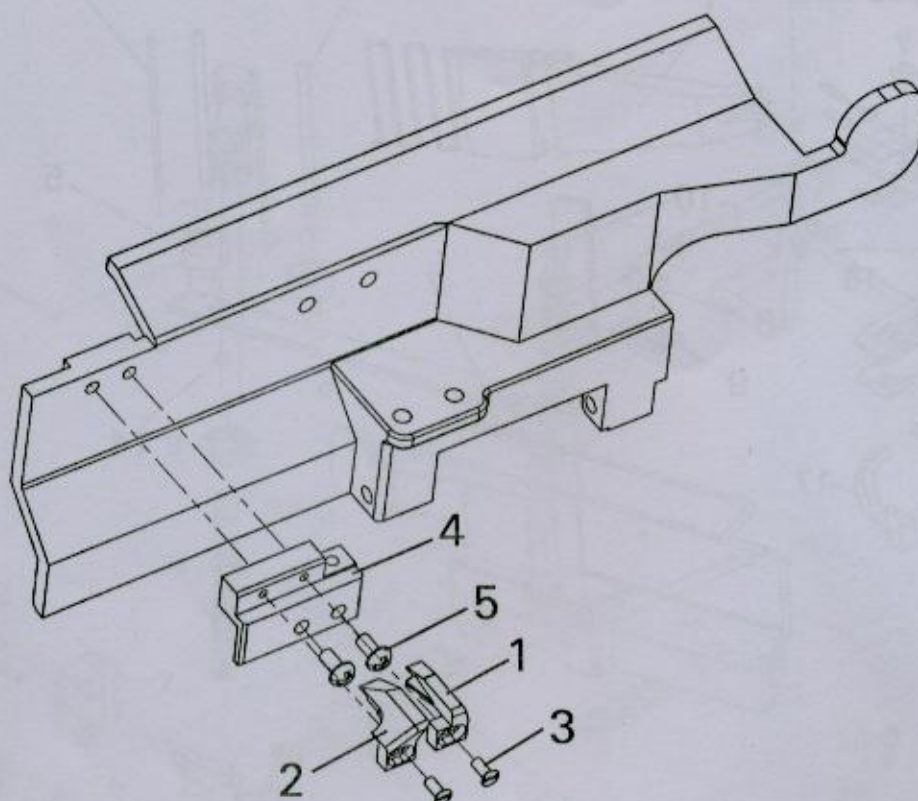
Code	No.	Page	Code	No.	Page	Code	No.	Page	Code	No.	Page
110530001	14	11	116250001	26	7	221290001	20	7	1102f0001	10	11
110550001	16	11	116250002	23	7	221290002	19	7	1102f0001	4	15
110550002	18	11	116250003	22	7	008200067	18	7	1102g0001	6	15
110550003	20	11	182100045	35	5	008200067	51	7	1102h0000--W	1	7
110550004	21	11	182100048	15	31	008200068	17	7	1102h0001	13	7
110550005	17	11	182100051	16	31	008200068	50	7	1102h0002	10	7
110550005	20	15	182610005	6-2	17	008200088	52	7	1102h0003	8	7
110570000	27	11	182610006	6-1	17	008230003	28	7	1102h0004	9	7
110580001	4	23	182610007	6-3	17	008230003	33	9	1102h0005	5	7
110580002	6	23	182610009	9	17	008600015	6	9	1102K0000	30	7
110580003	8	23	182610010	8	17	022100006	5	17	1102K0001--W	31	7
110580004	1	23	197120001	54	7	022100011	19	23	1102K0003	33	7
110580005	2	23	197120002	55	7	022160005	7	7	1102K0004	32	7
110590001	29	11	197120003	56	7	022180001--V	4	3	110500025--V	18	9
110600001	4	19	198000020	28-1	3	022540004	31	19	1105a0001	12	23
110600003	9	19	198000021	28-2	3	028100027	29	27	1105a0002	13	23
110600004	7	19	221100014	37	7	028100068	13	21	1105a1001	15	23
110600005	4	9	221100015	34	7	028200026	12	21	1105a1002	14	23
110600006	11	19	221100028	33	5	028283005	2	7	1105a1003	17	23
110600007	3	9	221100030	48	5	028283007	6	7	1105b0001	24	23
110600008	21	19	221100036	13	11	028400062	8	27	1105C0000	26	11
110600009	38	9	221100039	1	11	028700010	26	29	1105C0001	23	23
110600010	20	19	221100042	51	5	028700011	20	29	1105C0002	20	23
110600012	39	19	221100043	52	5	028700012	27	29	1105C0003	22	23
110600013	13	19	221130002	46	5	028700022	11	29	1105C0004	18	23
110600014	2	19	221130004	54	5	028700023--W	7	29	1105C0005	21	23
110610001	1	19	221140002	19	3	028700026	33	3	1105d0002	30	23
110610002	3	19	221140003	21	3	028770001	10	29	1105d0003	28	23
110620000	5	19	221200001	1	9	028780001	32	3	1105d0005	29	23
110630001	24	19	221200020	7	11	052200036	15	15	1105E0000	12	9
110630002	17	19	221200021	41	11	110100003--W	9	3	110600005--V	10	19
110630003	19	19	221200022	43	11	110100015--W	1	5	110F01001	17	31
110630004	16	19	221200023	44	11	110100016--W	49	5	110F10001	1	31
110640001	22	19	221200024	33	11	110100026--V	25	5	110F10002	2	31
110650001	29	19	221200025	67	13	110100035--W	7	3	110F10003	3	31
110650002	25	19	221200027	26	23	110130001--W	1	3	110F10004	5	31
110650003	28	19	221200028	34	23	110160002--W	10	3	110F10005	4	31
110650004	30	19	221200029	3	29	1102a0000	1	21	110F10006	8	31
110660000	37	19	221240000	54	13	1102a0001	2	21	110F10007	9	31
110671000	35	19	221250000	56	13	1102a0002	5	21	110F10008	10	31
110680001	33	19	221250001	57	13	1102a0003	9	21	110G00001	17	27
110681000	32	19	221250002	58	13	1102a0004	8	21	110G00002	21	27
110692000	15-3	19	221250003	59	13	1102a0005	14	21	110G00003	10-2	17
110693000	15-2	19	221250004	60	13	1102a0006	10	21	110G00004	28	27
110697000	15-1	19	221250005	61	13	1102b0001	17	21	110G00005	27	27
116120001	28	9	221250006	62	13	1102b0002	19	21	110G00011	38	29
116200015	12	7	221250007	63	13	1102C0001	47	7	110G00012	40	29
116200016	11	7	221260000	45	11	1102C0002	48	7	110G00013	41	29
116200018	49	7	221270001	48	11	1102d0001	9	15	110G00014	14-2	29
116240002	1	17	221280001	51	13	1102e0003	1	15	110G00015	43	29

Code	No.	Page	Code	No.	Page	Code	No.	Page	Code	No.	Page
110G00016	44	29	B62300812	22	15	S150215006	7	23	S150685001	53	13
110G10001	1	29	B62400812	12	5	S150215016	11	31	S150866002	4	21
110G10002	2	29	B62400812	14	7	S150217005	8	5	S150866005	17	17
110G20000	19	29	B62400812	25	7	S150218004	11	5	S150866006	8	11
110G30000	12	15	B62400812	11	15	S150218004	36	25	S150866006	3	15
155A10004	4	7	B62400812	34	15	S150218005	10	5	S150866007	6	11
155A10005	3	7	B62400812	40	19	S150218005	41	7	S150866009	10	27
155A10007	57	7	B62400812	7	21	S150220003	2	5	S150866010	18	27
182100038--V	5	3	B62400812	33	25	S150220004	31	15	S150866011	15	11
221100029--W	9	5	B62400812	42	25	S150220004	32	23	S150866012	36	11
221130001--W	40	5	B62400812	46	29	S150220007	14	17	S150866013	11	11
221140001--W	12	3	B62400812	18	31	S150220009	19	15	S150866059	49	11
2212a0000	24	11	B62401012	22	3	S150220009	26	19	S150866060	52	13
221E00001	56	5	B62401012	30	5	S150220010	3	5	S150901001	7	17
221F00008	13	31	B62401012	34	5	S150220012	32	17	S4A0105006	27	19
221F00009	14	31	B62401012	65	13	S150220013	26	3	S4A0500010	14	15
221F00013	12	31	B62401412	2	3	S150220014	32	29	S4B1202008	23	5
B12060632	3	11	B62401612	21	17	S150220015	22	11	S8A3103006	47	11
B12060632	2	15	B62401612	8	19	S150220015	5	23	S8A3103011	41	25
B12060632	17	15	B62401612	26	21	S150220030	64	13	S8A3103012	30	15
B12060632	18	21	BXF8899009	29	3	S150224001	16	3	S8A3103012	44	25
B12060632	4	27	GB6170-86	7	31	S150224001	43	5	S8A3103018	13	25
B12400432	35	11	GB96-85	6	31	S150224002	33	17	S8A3104002	35	7
B12400432	50	11	S120104019	36	19	S150225001	2	11	S8A3107004	9	29
B12400432	12	19	S120203003	31	23	S150225001	8	15	SFB0201002	40	11
B12400432	23	21	S120203013	29	9	S150225001	33	23	SFB0601008	24	7
B12400432	10	23	S120203013	23	11	S150225002	20	27			
B12400432	10	25	S120203031	20	3	S150237002	47	5			
B12400432	27	25	S120203031	32	5	S150237002	5	29			
B12400432	39	29	S120203031	34	19	S150237002	42	29			
B12500532	19	11	S120203031	48	29	S150237004	39	5			
B12500532	30	11	S120203033	35	3	S150237004	6	19			
B12500532	42	11	S120203033	23	19	S150237004	27	21			
B12500532	46	11	S120203037	2	27	S150237008	36	7			
B12500532	55	13	S120203041	24	3	S150239001	14	19			
B12500532	3	21	S120203049	55	5	S150241001	38	7			
B12500532	16	23	S120203049	25	15	S150446008	4	11			
B12500532	12	27	S120205001	19	31	S150446009	18	19			
B18061432	3	25	S120205003	16	5	S150446009	28	25			
B18061432	15	27	S120205003	31	27	S150632001	40	25			
B18061632	24	15	S120210021	31	29	S150643001	14	3			
B18061632	15	21	S120501003	23	3	S150643001	42	5			
B18401622	25	11	S120501003	34	9	S150643001	66	13			
B18401622	28	11	S120501005	3	23	S150643002	6	5			
B18401622	35	23	S120501011	11	21	S150643002	32	9			
B60300612	32	11	S120501011	4	29	S150649001	6	21			
B60300612	23	17	S120501011	34	29	S150649003	25	25			
B60300612	8	25	S120503010	6	29	S150656003	30	25			
B60401412	6	3	S150204001	15	5	S150656021	21	5			
B60401412	8	29	S150215002	27	9	S150667001	27	23			



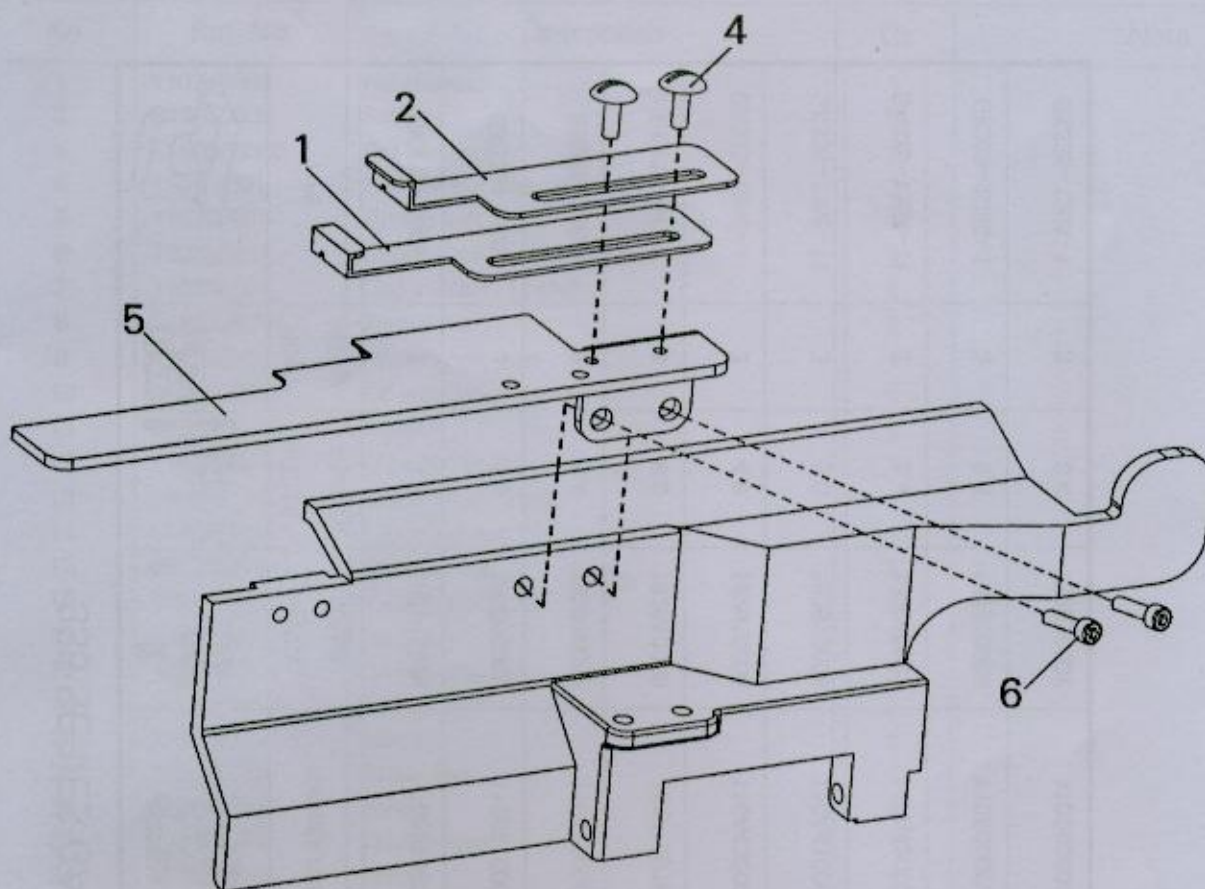
Collar Special-use parts for 335

No	Ret. No.	Description	Qt	Note
1	110A11000	Binding	1	
3	118110002	Tape guide	2	
4	118110004	Tape guide(short)	2	
5	118110003	Tape guide adjusting holder	2	
6	B12400432	Screw M4x4	2	
7	221F00012	Binder plug	1	
8	S150220040	Screw	2	
9	110A00013	Folder support fixing plate	1	
10	110A00012	Tape binding	1	
11	B62400812	Screw	2	
12	110150010	Fabric slide plate	1	
13	110150011	Dust cover	1	
14	S150559004	Nut M4	2	
15	110A41000	Presser foot, complete set	1	
16	110A00001	Main feed dog	1	
17	110A00002	Differential feed dog	1	
18	110A00003	Needle clamp (5.6)	1	



Seam Special-use parts for 335

No	Ret. No.	Description	Qt	Note
1	182100048	R material guide	1	
2	182100051	L material guide	1	
3	S120205001	Screw M3X6	2	
4	221100042	material guide	1	
5	B62400812	Screw M4x8	2	



Fold hem Special-use parts for 335

No	Ret. No.	Description	Qt	Note
1	221F00009	Upper folding device	1	
2	221F00008	Lower folding device	1	
4	B62400812	Screw M4X8	2	
5	221130004	Front cover plate	1	
6	S120203049	Screw M5X10	2	

335 SERIES GAUGE PARTS LIST

TYPE	NO. OF NEEDLE	NEEDLE GAUGE	NEEDLE CLAMP	PRESSER FOOT	NEEDLE PLATE	FEED DOG	DIFFERENTIAL FEED DOG	LOOPER THREAD TAKE-UP COVER
								
GK335-1348	3	4.8	182610005	110693000	110400038	110G00004	110G00005	110170003
GK335-1356	3	5.6	182610006	110691000	110400039	110G00004	110G00005	110170003
GK335-1364	3	6.4	182610007	110692000	110G00003	110G00004	110G00005	110170003
GK335-1460	4	6.0	182610008	182710018	182600026	110400031	110400032	110170003
GK335-1348-11	3	4.8	182610005	110A43000	110A00005	110A00001	110A00002	110A30001
GK335-1356-11	3	5.6	182610006	110A41000	110A00003	110A00001	110A00002	110A30001
GK335-1364-11	3	6.4	182610007	110A42000	110A00004	110A00001	110A00002	110A30001
GK335-1356-1	3	5.6	182610006	110E60000	110E00003	110E00005	110E00006	110E31001
GK335-1364-1	3	6.4	182610007	110E90000	110E00004	110E00005	110E00006	110E31001

1.Introduction

Model 335 interlock stitch sewing machine is special equipment suitable for trades of knitwear, under-wear, etc. This series of products is capable of sewing many stitches, for example, plain interlock stitch, fell interlock stitch, collar and band binding stitch.

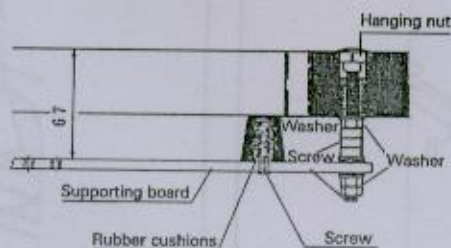
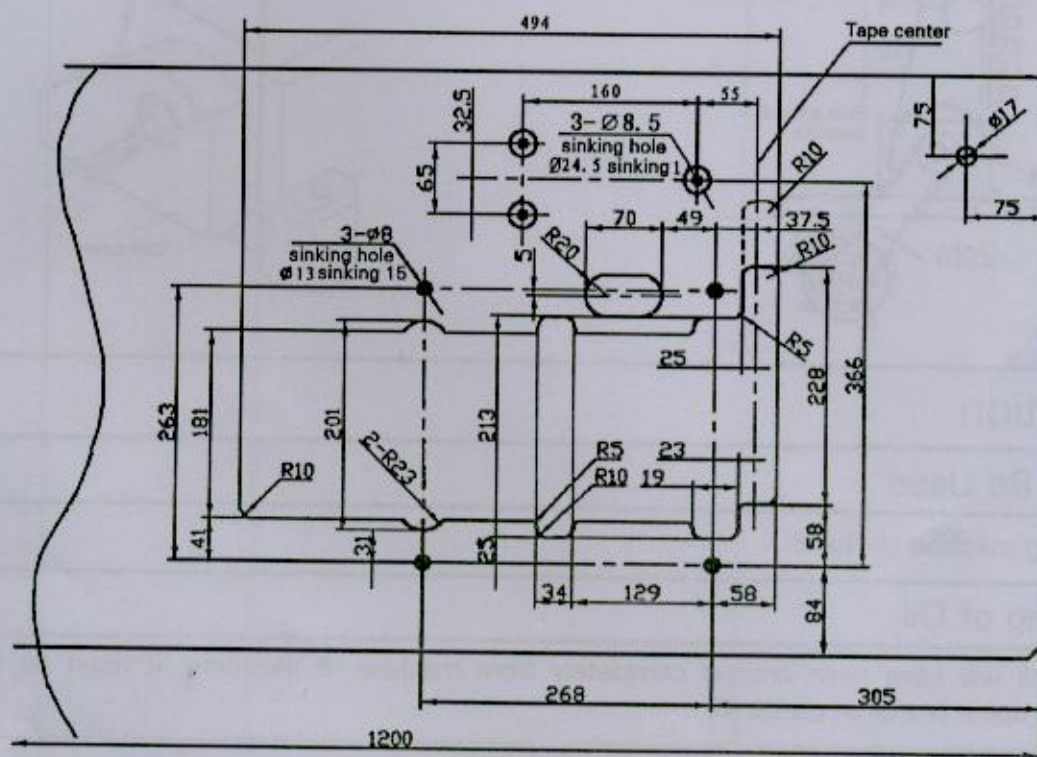
2.Specification

Sewing speed	Gauge of needles	Needle bar stroke	Adjusting form of differential	Adjusting form of variational feeding	Differential ratio	Lubrication	Needle
6000 r/min	1.4-4.5mm	31 (mm)	Lever type	Button type	Max. positive ratio 1:2 Min. reverse ratio 1:0.7	With oil pump automatic oil supply	GK16 or UY1 28 DVx63

3.Installation

Referring to the illustration install the machine correctly.

Fix two pieces of supporting board and upper surface of table by increasing or decreasing nut washers.



4. Sewing Speed and Setting Up of Pulley

The highest sewing speed is 6500r.p.m. and ordinary one is 5300r.p.m. However, it is preferable to operate the new machine at 4000r.p.m. in about 200 hours, after which at 4600r.p.m. ordinary speed. This manner will help life of machine to be much longer. Turning direction of pulley (A) is clockwise as well as handwheel (B).

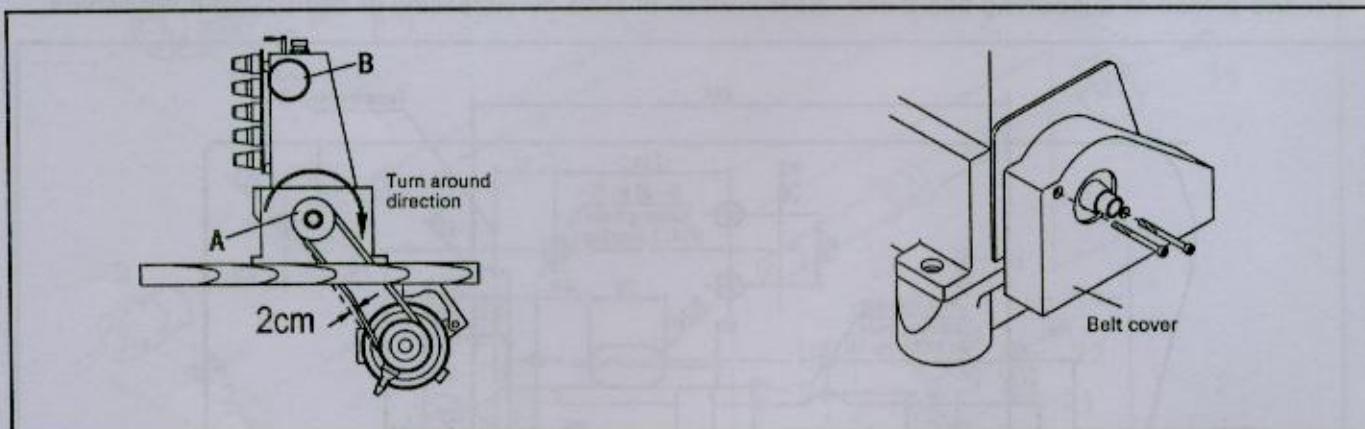
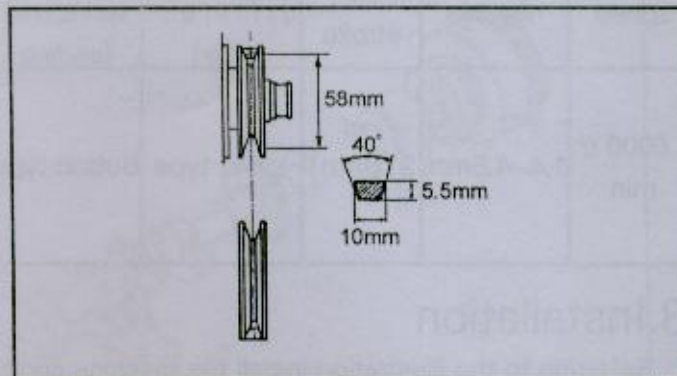
The transmission belt is V type, M series triangle belt.

After putting belt, please recheck the elasticity of belt, there should be 2CM elasticity when pressing the middle of belt lightly.

Pulley is shifted to left side while pedaling.

After fixing of motor in correct position, fit on belt guard cover.

Dia of motor	Sewing speed	
Pulley (d)	50HZ	60HZ
80mm	3600 r.p.m	4320 r.p.m
90mm	4100 r.p.m	5000 r.p.m
111mm	5000 r.p.m	



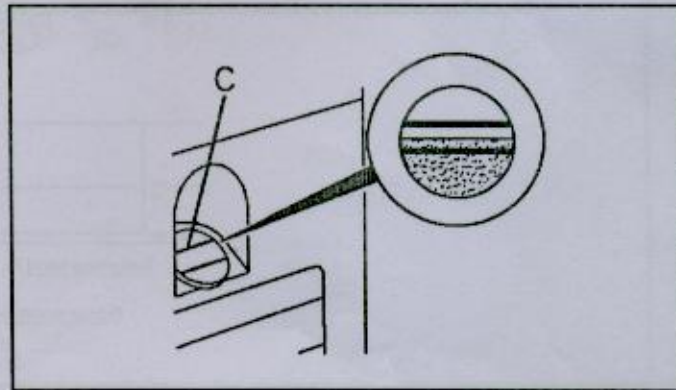
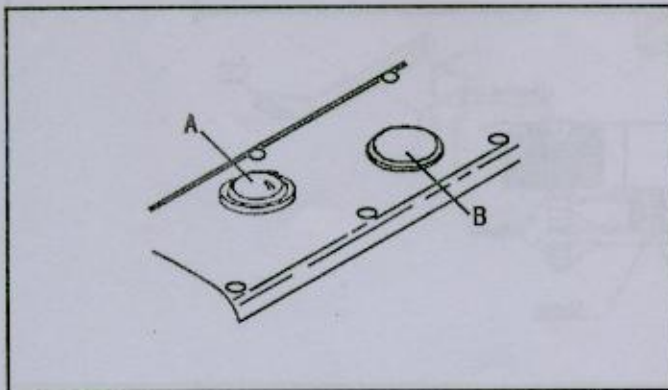
5. Lubrication

5-1 Oil to Be Used

Use sewing machine oil No.18

5-2 Feeding of Oil

Because oil will have been drained completely from machine at shipment, it must be filled in reservoir up to upper line of oil gauge (C).



5-3 Oil Sight Gauge and Check Procedure of Oil Cycling.

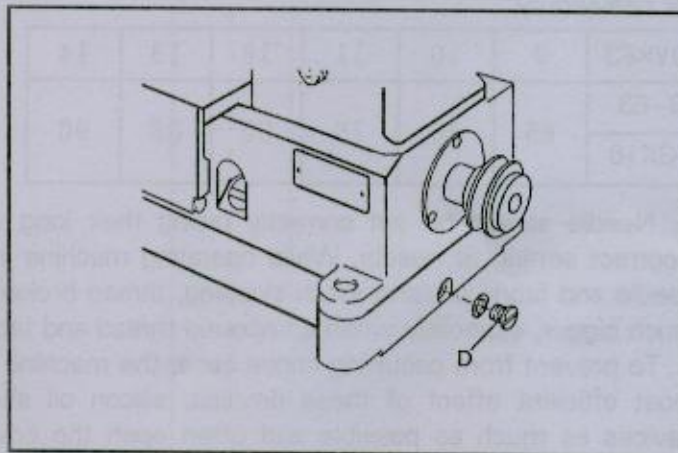
Check oil sight gauge everyday before operation and replenish oil if its face is below underline of the gauge. Looking through oil sight top nozzle before operation, observe the flowing of oil. Caution must be made that this regulating screw slot must be positioned between marks. Usually it has been adjusted properly before shipment.

5-4 Exchange of Oil

To keep the machine longer life, oil should be changed completely after the initial use around 200 hours, then change oil 2 or 3 times yearly.

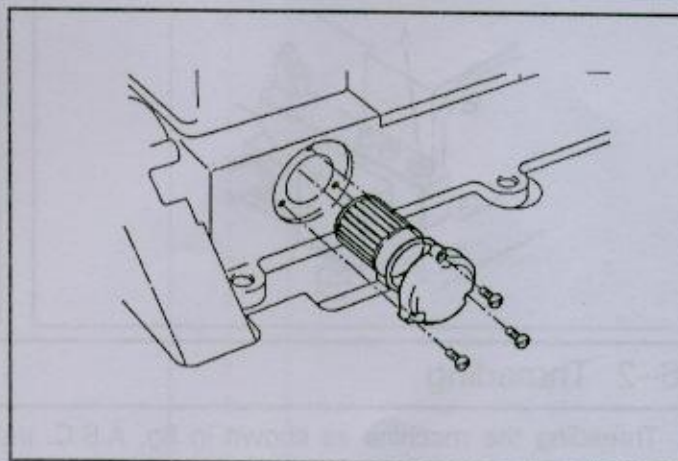
Change of oil shall be made according to the following order:

- a. Remove V belt from motor pulley, then remove machine head from supporting board.
- b. Remove belt guard.
- c. Remove drain screw (D) and drain oil.
- e. As for replenishment of oil, refer to "Feeding of Oil".



5-5 Cleaning of Filter and Screen.

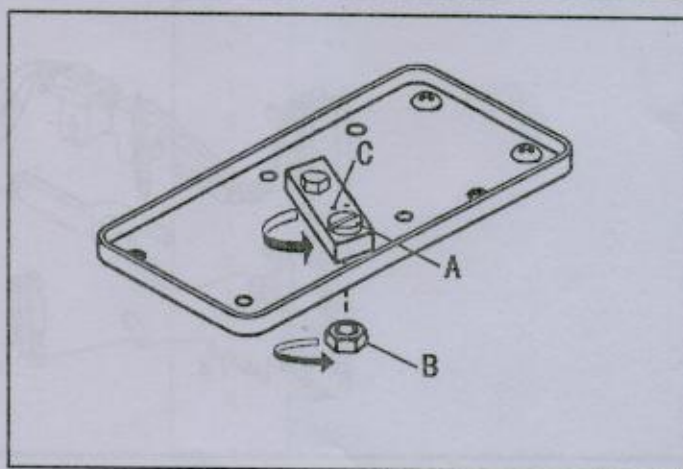
When the filter is blocked up, the oil supply will be affected. Although there is sufficient oil in oil reservoir, no oil could be spread from the nozzle. In the case, the operator should turn off the machine immediately, clean or exchange the filter. It should be cleaned every four months. As for the remove procedure of oil filter.



5-6 Oil amount adjustment

Open the faceplate, observe the oil baffle plate, it is normal when it drips between 5 seconds and 10 seconds, if it is not normal, please adjust the oil amount as below step:

1. Remove the top cover.
2. Release the nut B.
3. Adjust the direction of Screw A, when the slot of the screw A parallel with the point C, it is the max oil amount, and rotate the screw A in clockwise, until the oil amount is suitable, and lock the nut B.

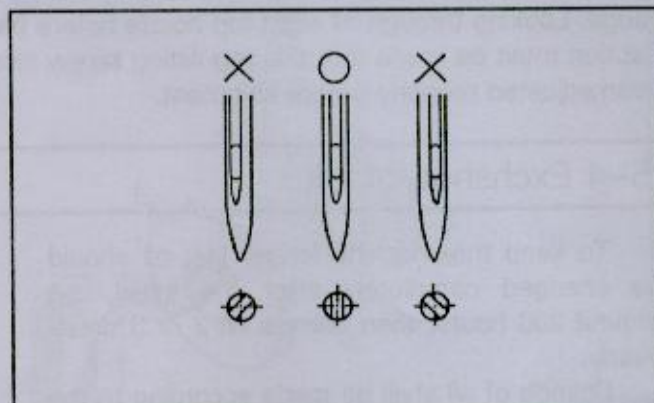


6. Proper Operation

6-1 Needle to Be Used, Fitting Of Needle and "SP" and "HR" Device.

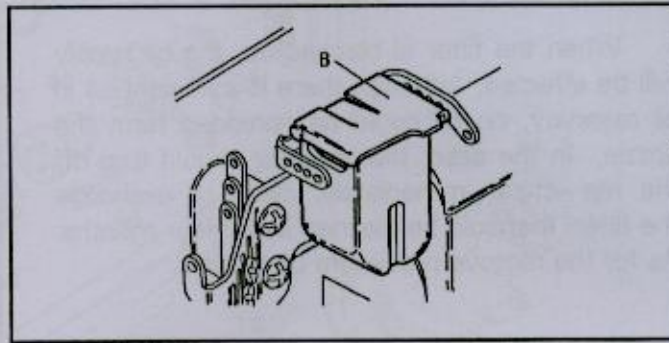
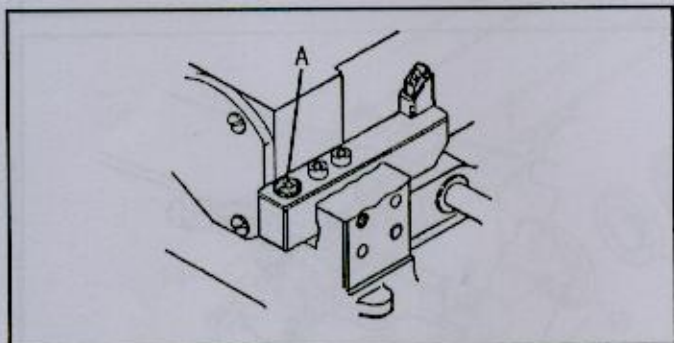
The machine uses needles of Model GK16, DVx63, B-63, or type of UY128 GAS. These are many sizes of needles, so that suitable size to the nature of sewing materials must be select. Generally, needle of #65 -90 is the standard size for lightweight, medium weight and medium heavy fabrics and #90 for heavy duty.

DVx63	9	10	11	12	13	14
B-63	65	70	75	80	85	90
GK16						



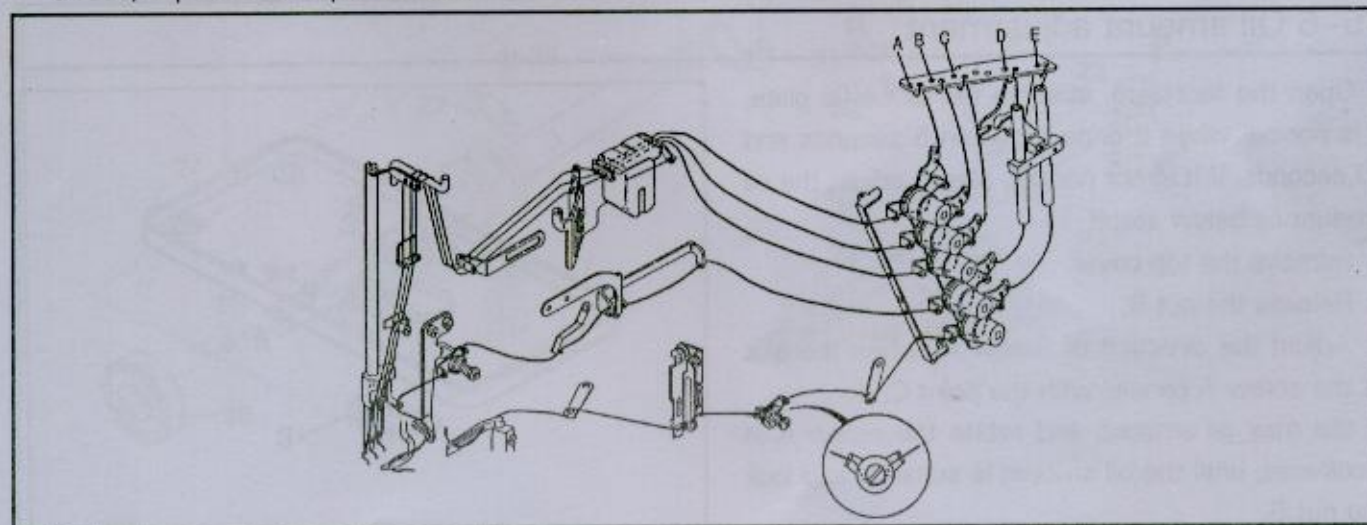
Needle should be set correctly facing their long slot towards operator; mark (X) in fig. 12 shows incorrect setting of needle. While operating machine in high speed, due to the friction occurred between needle and fabric causing stitch skipping, thread broken and the penetrated hole on the fabric will become much bigger, especially when compound thread and fabric are used.

To prevent from occurring above case, the machine is equipped device of needle lubrication. To achieve most efficient effect of these devices, silicon oil should be used. Generally, we suggest using these devices as much as possible and often open the covers of them, checking the oil amount and making feeding of silicon oil in time. If these devices are not necessary, it's better for you to take out felt from the devices and not let the needle tips and thread to touch them.



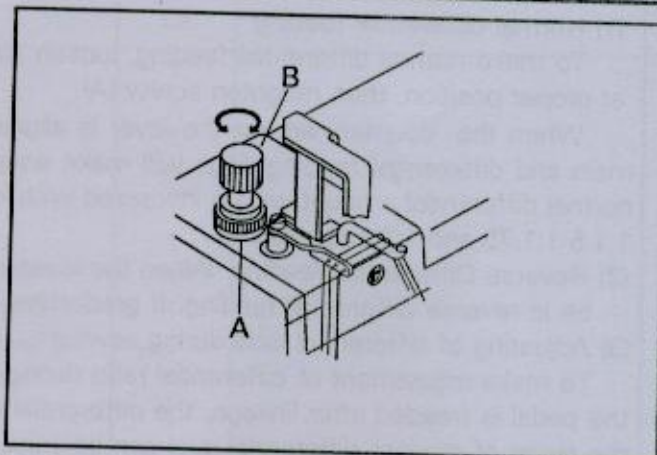
6-2 Threading

Threading the machine as shown in fig. A.B.C. indicate needle thread, D stand for upper ornamental thread, E presents looper thread.

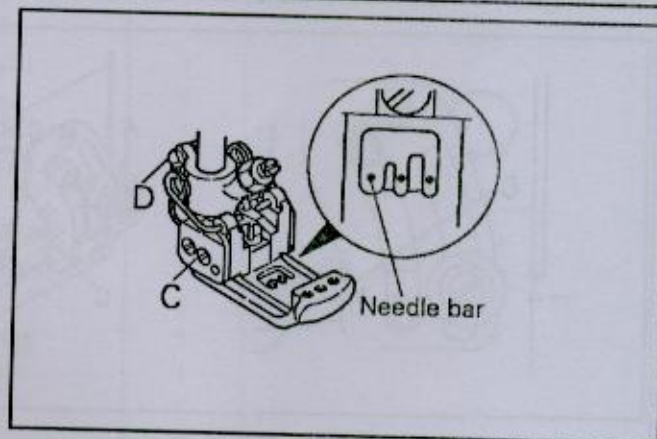


6-3 Pressure of Presser Foot and Its Adjustment

When pressure regulating screw (B) is turned clockwise, increase the pressure of presser foot; otherwise decrease it. Imperfect feeding or poor stitch will be caused if the pressure of presser foot is not set properly, so that, to keep the pressure of presser foot as weakly as possible under the condition that stitch is uniform.



If the needle doesn't drop into the center of dropping space as the illustration shows, it is necessary to make adjustment. Firstly, to loosen screw (D), and move presser foot (C), to assure the needle drop correctly. Then tighten screw (D) again.



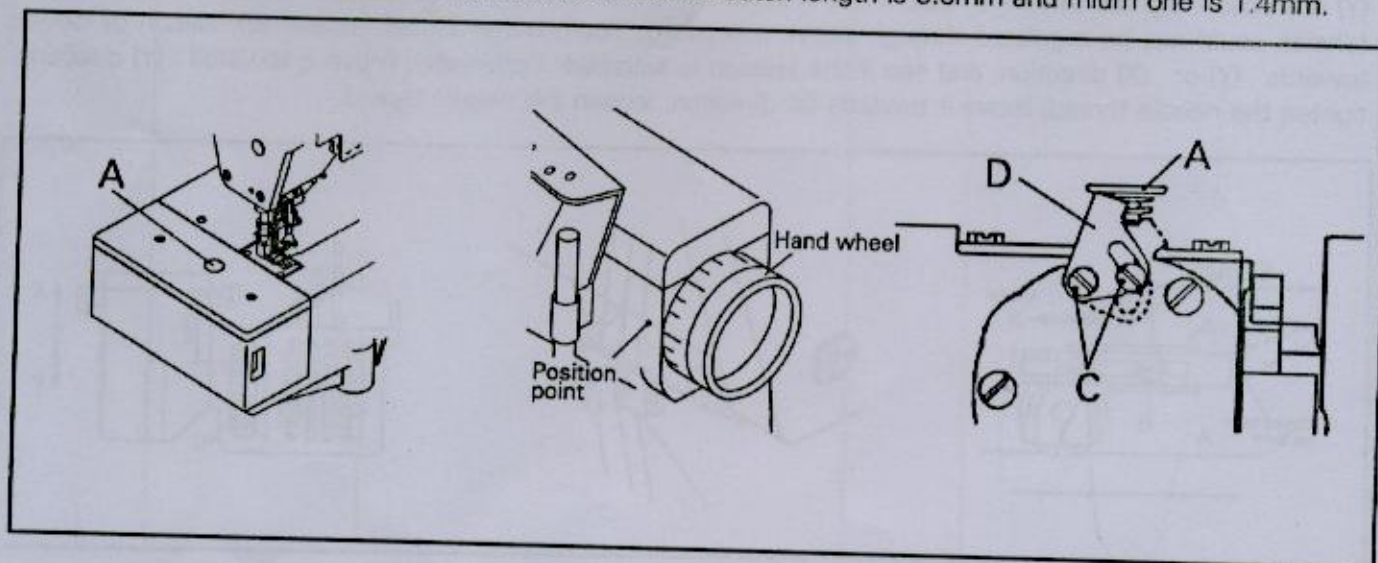
6-4 How to Change Stitch Length

(1) Switch off the Motor Power.

To change the stitch length, press pushbutton (A) softly by left hand until finger feels button top touch parts of machine inside, then turn handwheel by right hand until pushbutton falls in. At this moment, press the pushbutton more strongly and continue to turn handwheel.

(2) Graduation on the circumference of handwheel shows a stitch length in mm.

Turn handwheel by right hand and set any of graduation as desire, the more the graduation "L" close to the orientation-point on arm, the longer the stitch length will be, the more the graduation "S" close to orientation-point, the less stitch length will be the Max. Stitch length is 3.6mm and mium one is 1.4mm.



6-5 Adjusting of Differential Feeding

(1) Normal differential feeding

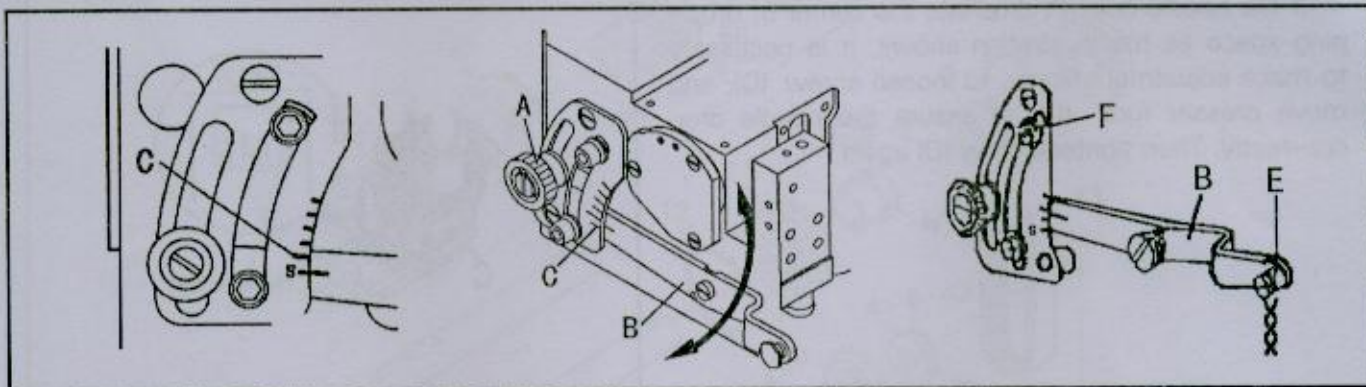
To make normal differential feeding, loosen screw (A), and set the link lever (B) up and down and fix it at proper position, then retighten screw (A).

When the countermark on the lever is aligned with long graduation line (C) on the graduation plate, main and differential feeding dogs will make equal movement as the ratio is in 1:1 in differential amount, normal differential amount will be increased with lever (B) raising, from "C" above, the ratio will be 1:1.25 1:1.5 1:1.75 and 1:2 successively.

(2) Reverse Differential Feeding When the lever is pressed down under the graduation "C", the machine will be in reverse differential feeding. If graduation "S" is aligned, the differential ratio will be 1:0.7.

(3) Adjusting of differential ratio during sewing

To make adjustment of differential ratio during sewing, the hanger chain can be linked with pedal. When the pedal is treaded after linkage, the differential ratio can be regulated at any time. After loosen screw (F), the range of random differential ratio can be adjusted.

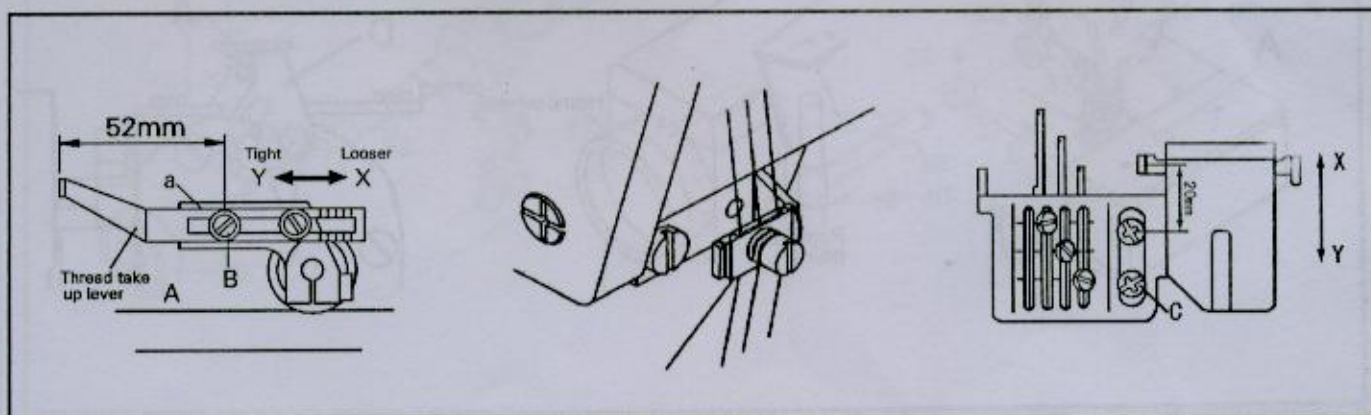


7. Proper Adjusting

Each setting is on the standard position of the machine and no need to be adjusted. Under certain special situation, like to change different needles and hooks, or make some inner adjustment to sew special

7-1 Tension of Needle thread

The distance between needle thread take-up (A) and center of fixing screw (B) is 52mm. When needle lever is at its highest position, edge (A) of needle thread take-up should be horizontal. This is the standard position of the needle thread take-up. After loosen screw (B), move the needle thread take-up towards (Y) direction, tighten needle thread; move it towards (X) direction, loose needle thread. If needle thread tension could not be regulated through above procedure. You'd better loosen screw (C), silicon oil device towards (Y) or (X) direction, and see if the tension is satisfied. Generally, move it towards (Y) direction, tighten the needle thread; move it towards (X) direction, loosen the needle thread.

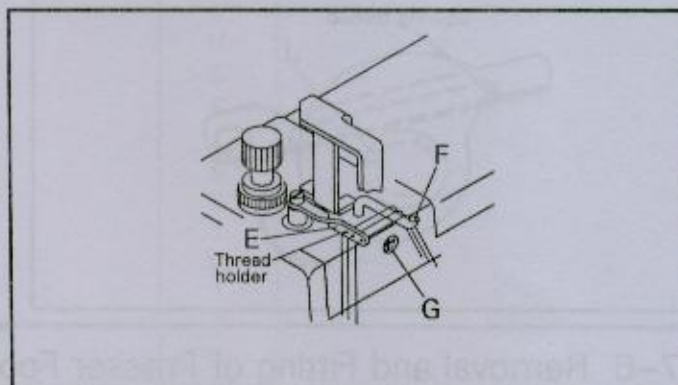


In case of general sewing condition, the distance between the center of screw and thread eyelet of thread guide should be 8mm.

Sometimes, owing to the different kind of thread nature, it is hard to form thread loop, causing skip of stitch; it's better for you to press the needle thread under small thread pressing plate. Sometimes, the thread loop of left needle is formed too big; it can also be pressed under the small pressing plate.

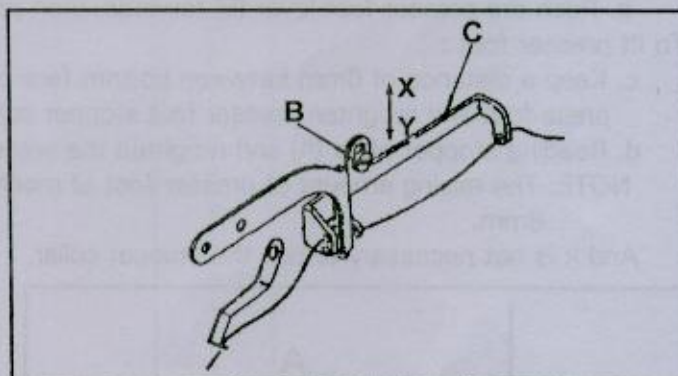
7-2 Adjusting of Needle Thread Retainer Device

In case of stretchable thread such as synthetic thread is used, needle thread loop will be unsteady-ble, at this moment, loosen screw (G) and adjust device (F). To adjust the retainer device, when needle bar is at its lowest position, let the eye of eyelet (E) be even with the surface of thread retainer device (F).



7-3 Tension of Ornament Thread

To get plenty of ornamental running, lower the eyelet (C), by loosening screw (B) and otherwise to get little of thread running. Then, retighten the screw (B).

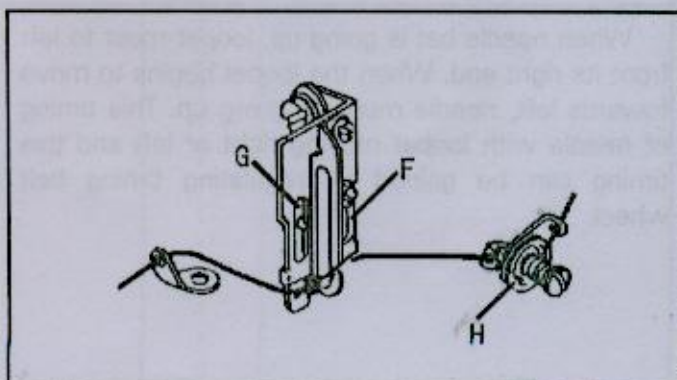
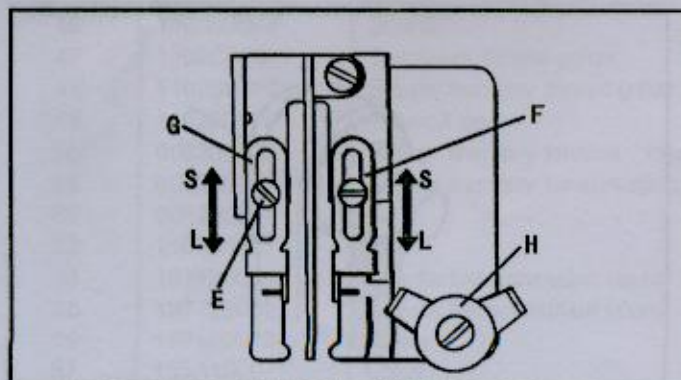


7-4 Adjusting of Tension of Looper Thread

The standard position is that the tighten screw (E) is in the middle of eyelet (F) and (G), and eyes of eyelet (F) and (G) must be aligned.

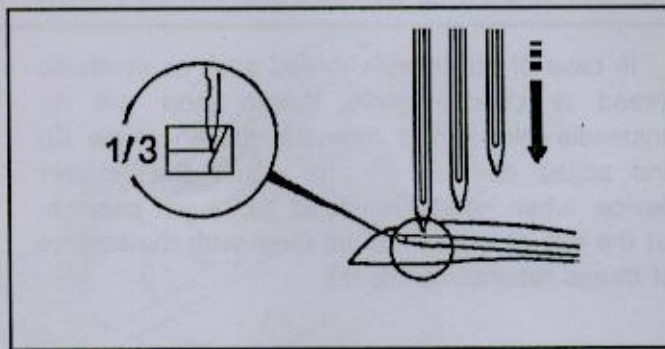
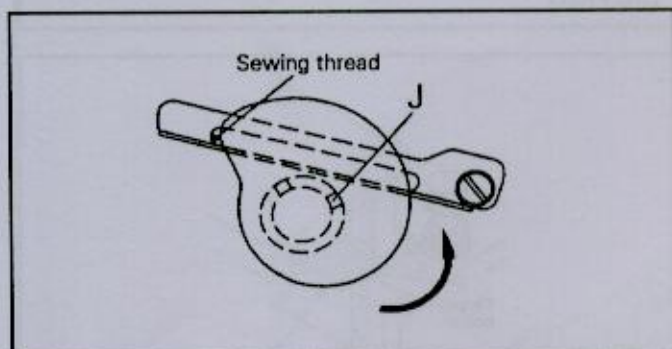
To get plenty of casting thread, loosen fixing screw of eyelets (F) and (G) move them towards direction (L), otherwise move them towards direction (S) and retighten the fixing screws in time.

Please pay attention to that, too much plenty of casting thread will cause skip of stitch. In case of wolly thread used, thread eyelet (F) and (G) must be set fully towards direction (L) and thread should not be pressed under small thread pressing plate (H).



7-5 Positioning of Looper Thread Take-up

Lower the needle bar from the highest position by turning handwheel. When the needle bar is at the half position of looper, let the looper thread cast off from the top of looper take-up cam (I), for chemical fiber. (The needle bar should be put the bottom of looper for the cotton thread. And the needle bar should be at the one third of looper for the woolen thread.) Then retighten screw (J).



7-6 Removal and Fitting of Presser Foot

To remove presser foot:

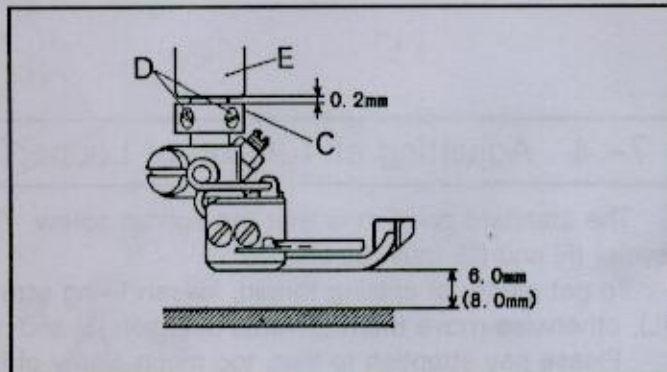
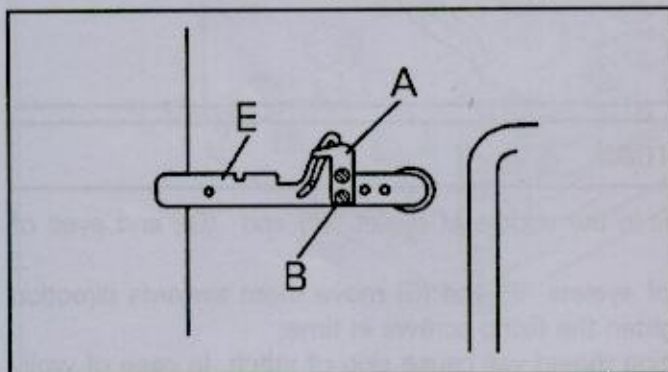
- Loosen regulating screw (B) and fixing screw (D) of foot stopper collar (C).
- Push the presser foot lever (E) towards, then presser foot can be removed.

To fit presser foot :

- Keep a distance of 6mm between bottom face of presser foot and top of needle plate. Then fix the press foot and retighten presser foot stopper collar (C) as show in the fig.
- Reading stopper plate (A) and retighten the screw (B).

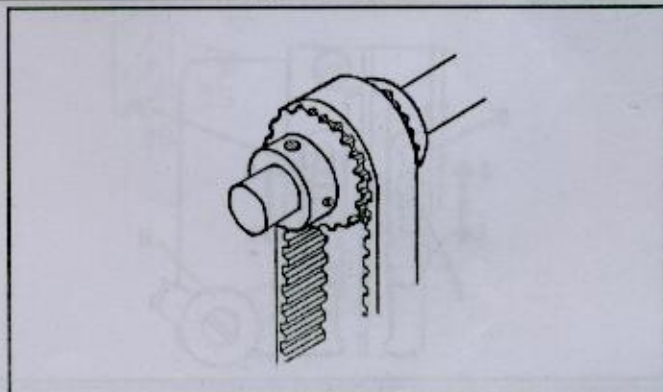
NOTE: The raising amount of presser foot of machines without ornamental thread looper is about 8mm.

And it is not necessary to use the stopper collar.



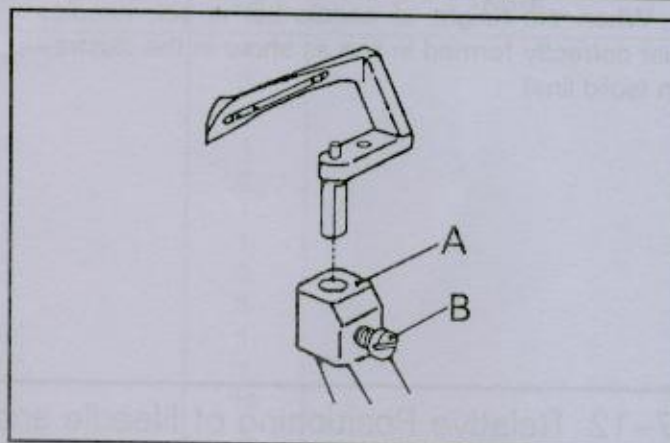
7-7 Timing of Needle with Looper Moving Right/Left

When needle bar is going up, looper must to left from its right end. When the looper begins to move towards left, needle must be going up. This timing of needle with looper moving right or left and this timing can be gained by regulating timing belt wheel.



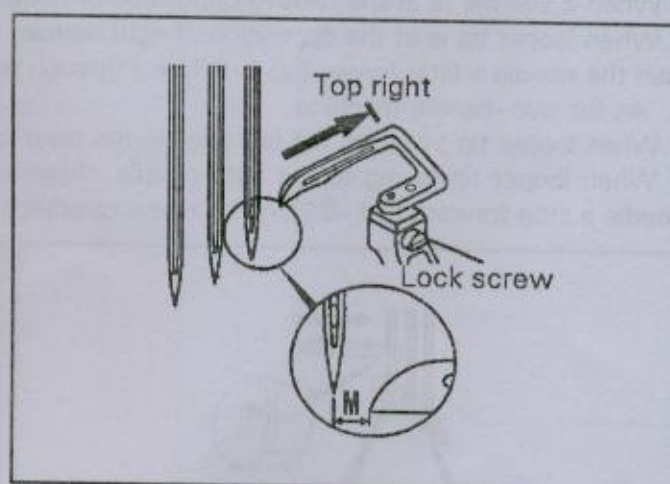
7-8 Fitting Angle and Height of Looper

Insert looper into looper holder as far as it will go and tighten screw (B), meanwhile, fitting angle (3°) will be decided naturally.



7-9 Distance (M) between Needle and Looper at Its Right End

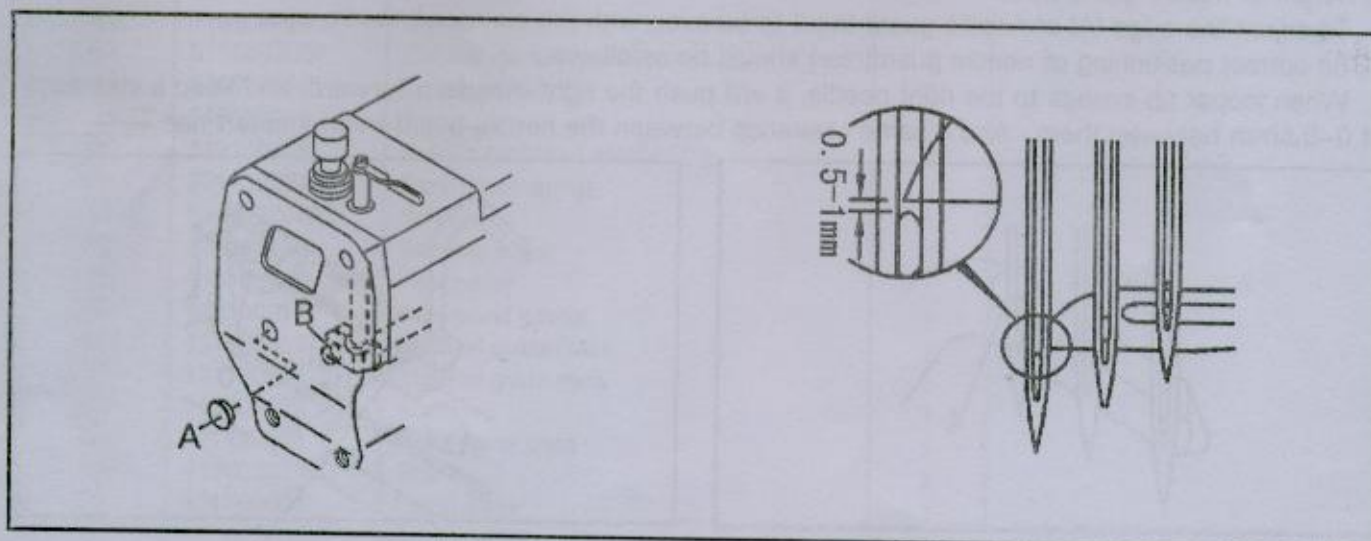
When needle are at their lowest position and looper is at its right end, distance (M) between center of right needle and point of looper shall be $M = 6 - A/2$, for 2-needle or 3-needle machine which the two sides distance of needle is A, for example, $A=5.6, M=3.2$.



7-10 Height of Needle

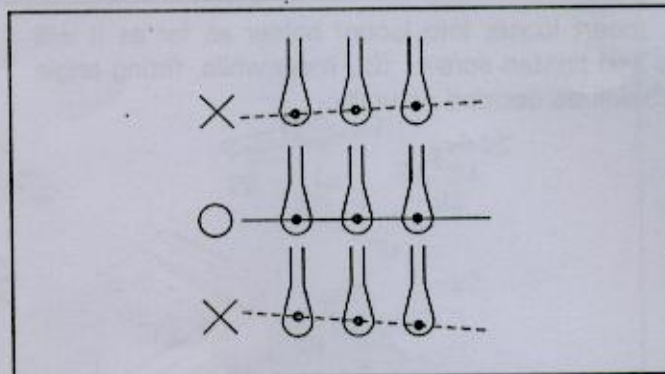
With special threads, please make adjustment as per below methods.

To adjust the height of needle bar, to open rubber plug A, and loose screw B. When needlepoint of looper move to the center of left needle, this needlepoint should be located 0.5-1mm above the needle



7-11 Relation between Needle and Stitch Plate

When the height of needle bar is set, needles must correctly formed in line as show in the illustration (solid line).



7-12 Relative Positioning of Needle and Looper in Front/Rear

a. As for three needle machine

When looper tip swings to the relative position of left needle, a clearance of 0.2–0.3mm must be kept.

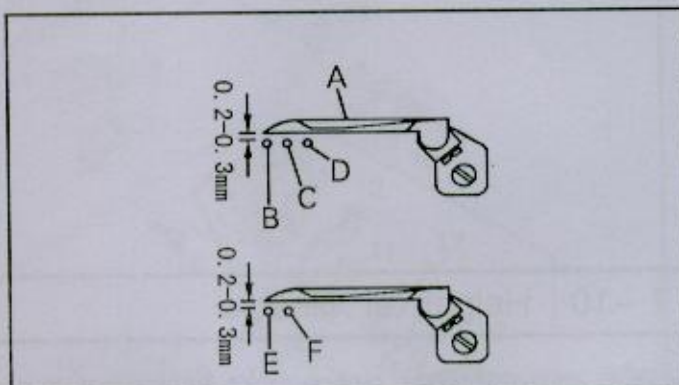
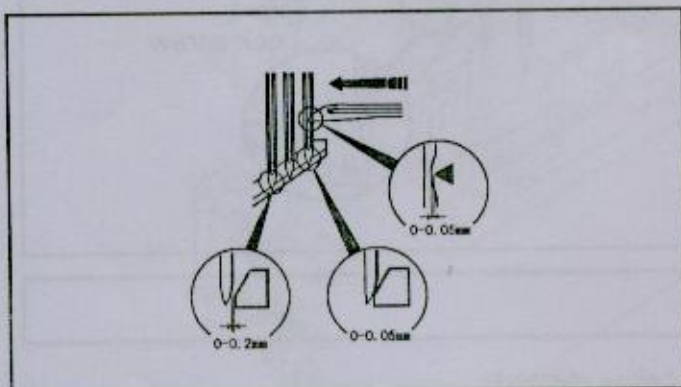
When it swings to at the relative opposition of middle needle, a clearance of 0.05–0.1mm must be kept.

When looper tip is at the opposition of right needle, there will appear a soft touch. It is necessary to push the needle a little forward (0.1–0.2mm) through needle guard (rear) let it keep a clearance of 0–0.05mm.

b. As for two-needle machine

When looper tip swing to the left needle, the clear-ance will be 0.2–0.3.

When looper tip swing to the right needle, there will be appear a soft touch, it is necessary to push the needle a little forward (0.1–0.2), let it keep a clearance of 0–0.05mm.



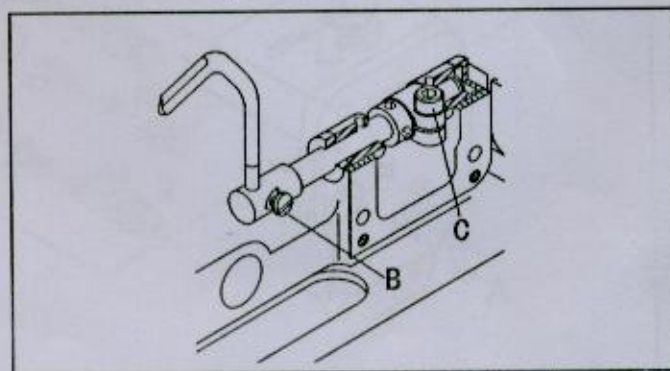
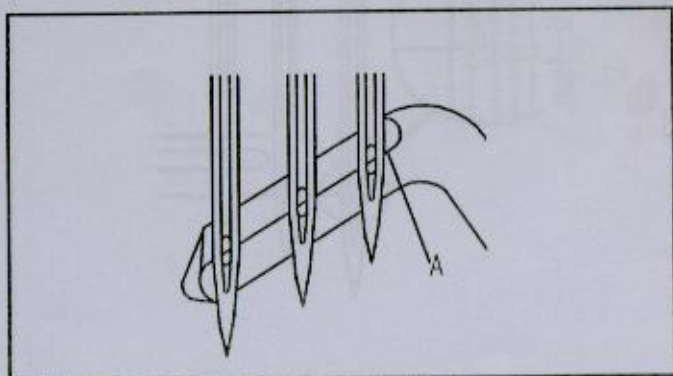
7-13 Adjusting of Needle Guard (rear)

a. Height of needle guard (rear)

To adjust the edge (A) of needle guard (rear) to be even with the center of needle eye.

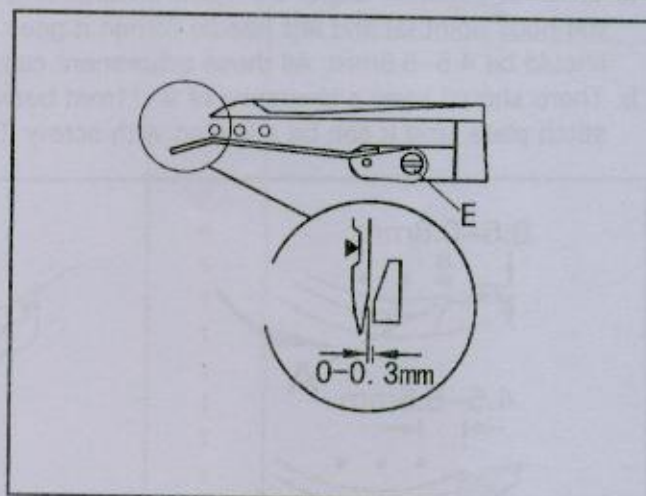
b. The correct positioning of needle guard(rear) should be as follows.

When looper tip swings to the right needle, it will push the right-needle a forward, and keep a clearance of 0–0.5mm between them. And a same clearance between the needle guard (rear) and left needle



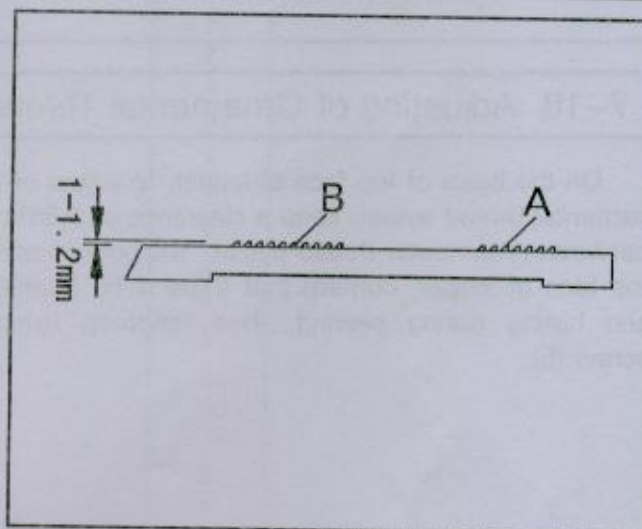
7-14 Adjusting of Needle Guard (front)

When needle guard (front) swing to the left needle, to loosen the screw (E), let the needle guard (front) keep a clearance of 0-0.3mm with left needle.



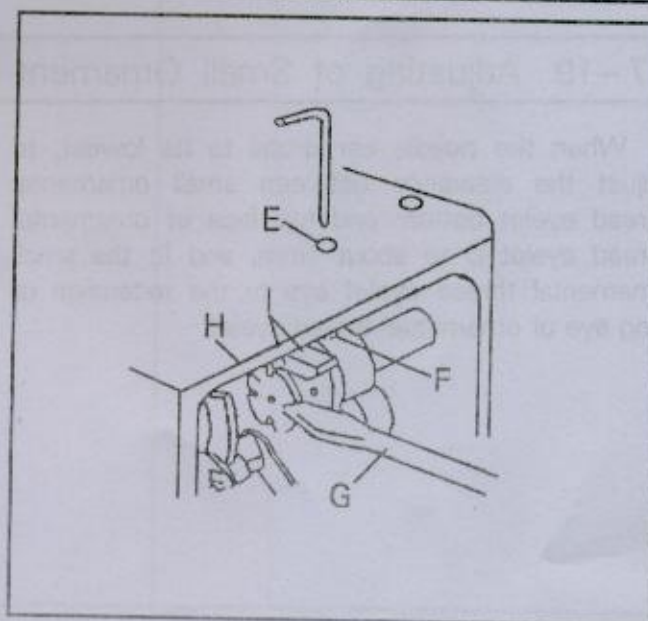
7-15 Height of Feeding Dogs

When feeding dogs move to its highest, the surface of feeding dogs tooth should be paralleled to the top face of stitch plate and main feeding dog (B) and differential feeding dog (A) should be at the same height of 1-1.2mm.



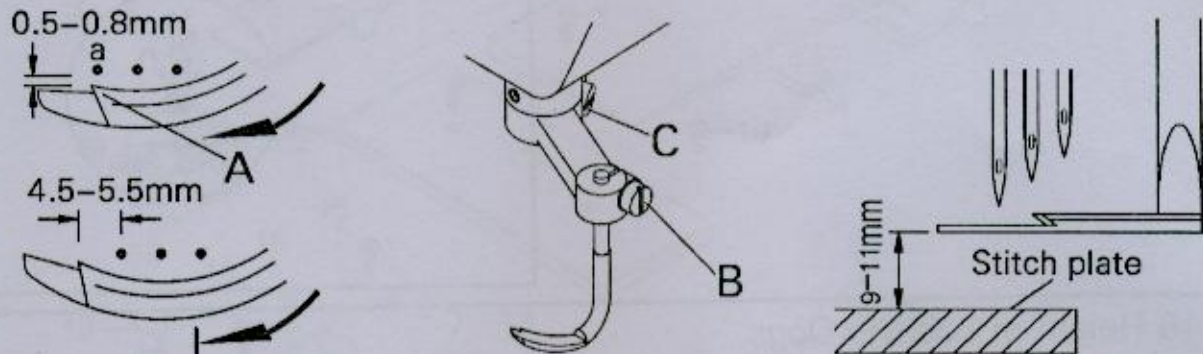
7-16 Parallel of Feeding Dog and Stitch Plate

Remove cloth plate (small) and rear cover, then to loosen the screw (F) with a screw driver passing through hole (E) of machine body and insert a screw driver into eccentric pin (H) to turn the eccentric pin and make the feeding dog and stitch plate parallel as re-quired.



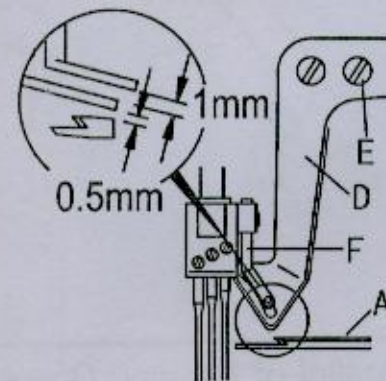
7-17 Fitting of Ornamental Looper and Its Adjusting

- When ornamental looper (A) move towards left, there should keep a clearance of 0.5–0.8mm between the hook point (a) and left needle. When it goes on moving to the left end above-mentioned clearance should be 4.5–5.5mm. All these adjustment can be made through the screw (C).
- There should keep a clearance of 9–11mm between the bottom of ornament looper (A) and top face of stitch plate, and it can be adjusted with screw (B).



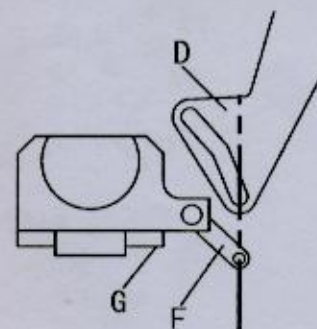
7-18 Adjusting of Ornamental Thread Eyelet

On the basis of top face of looper, to adjust ornamental thread eyelet, keep a clearance of 0.5mm between ornamental thread eyelet (D) bottom and top face of looper, confirm that there is no friction and hitting during sewing, then retighten fixing screw (E).



7-19 Adjusting of Small Ornament Thread Eyelet (F)

When the needle bar drops to its lowest, to adjust the clearance between small ornamental thread eyelet bottom and top face of ornamental thread eyelet D to about 1mm, and fit the small ornamental thread eyelet eye to the extension of long eye of ornamental thread eyelet.

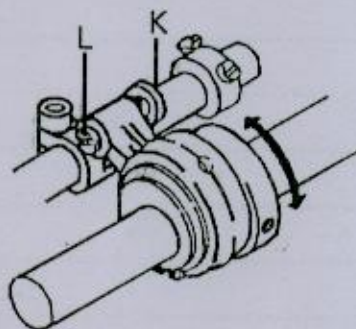
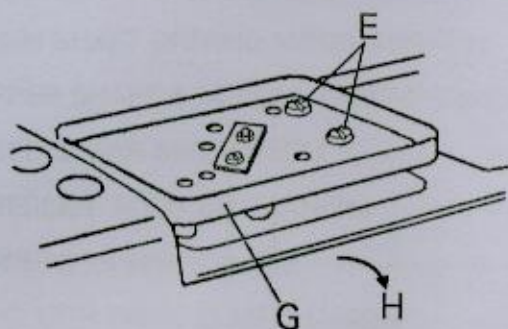


7-20 Adjusting of Swing Scope of Ornamental Looper

In ordinary case, the swing scope of ornamental looper is set proper before shipment. But sometimes, owing to different sewing fabric or process requirement it is necessary to make readjustment as follows:

- Remove top cover.
- Remove screw (F) and move the oil reservoir out towards (H).
- Loosen nut (K); otherwise, to move the screw (L) down, to increase swing scope, then retighten the nut (K); otherwise, to move the screw (L) up.

NOTE: During adjustment, care must be taken not to keep too big amount of swing scope, otherwise will cause the ornamental thread too loose and stitch loose and uneven.



7-21 Exchange of Upper Shaft Belt

- Remove top cover(A)
 - After loosening screw (D), pull out upper shaft(E) while holding handwheel; pull upper shaft driving belt out of main shaft sprocket and as well as to remove the upper shaft from the machine.
 - Loosen screw (G) on belt wheel and remove the belt wheel.
 - Pull belt toward direction (K) out of the hole (R) of machine.
- To set new upper shaft driving belt, make assembling by the order of d-c-b-a in the opposite of above-mentioned. After setting, adjust the timing between looper and needle.
- After adjusting, tighten screw (D) of pulley steadily.

