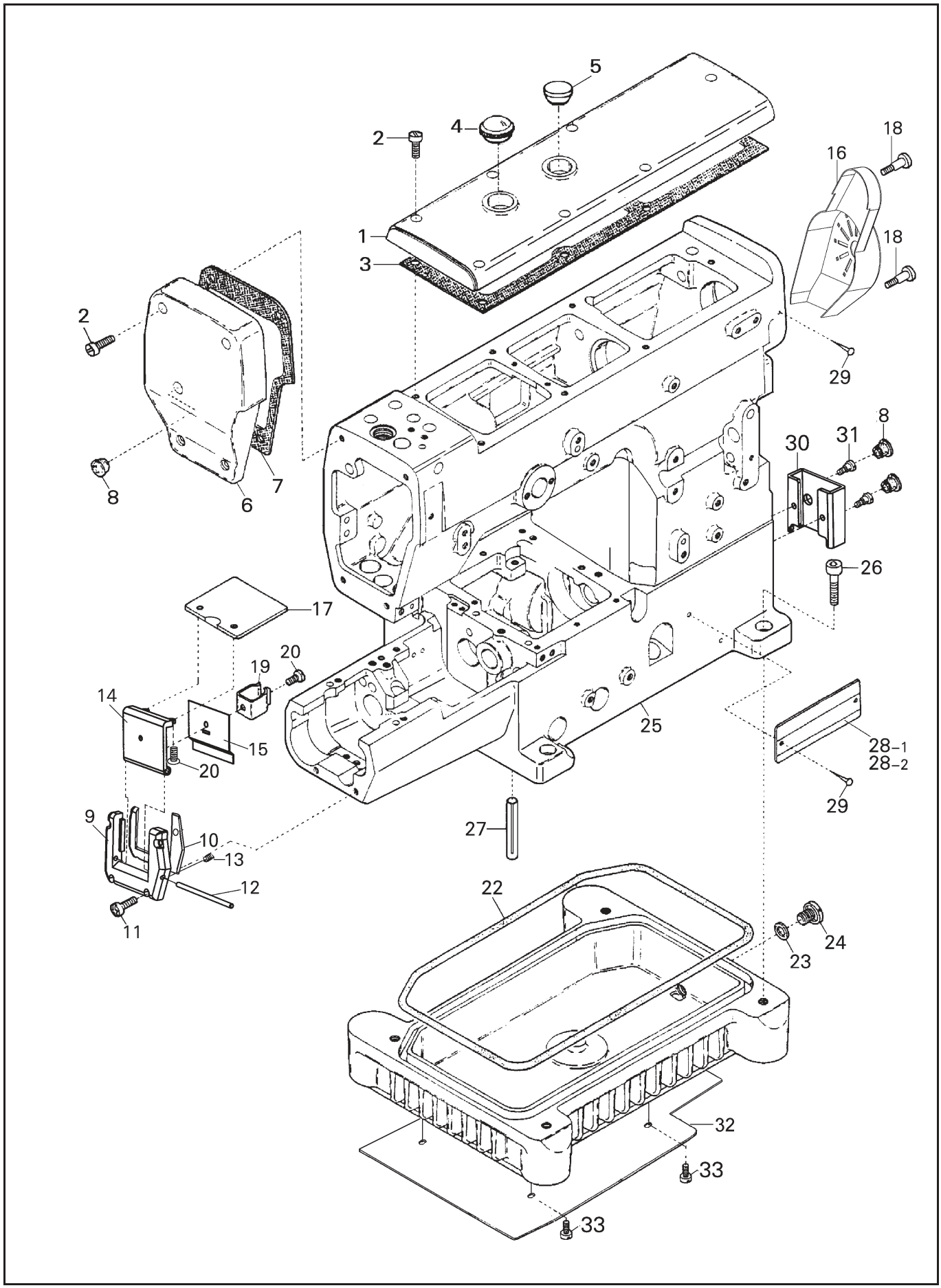
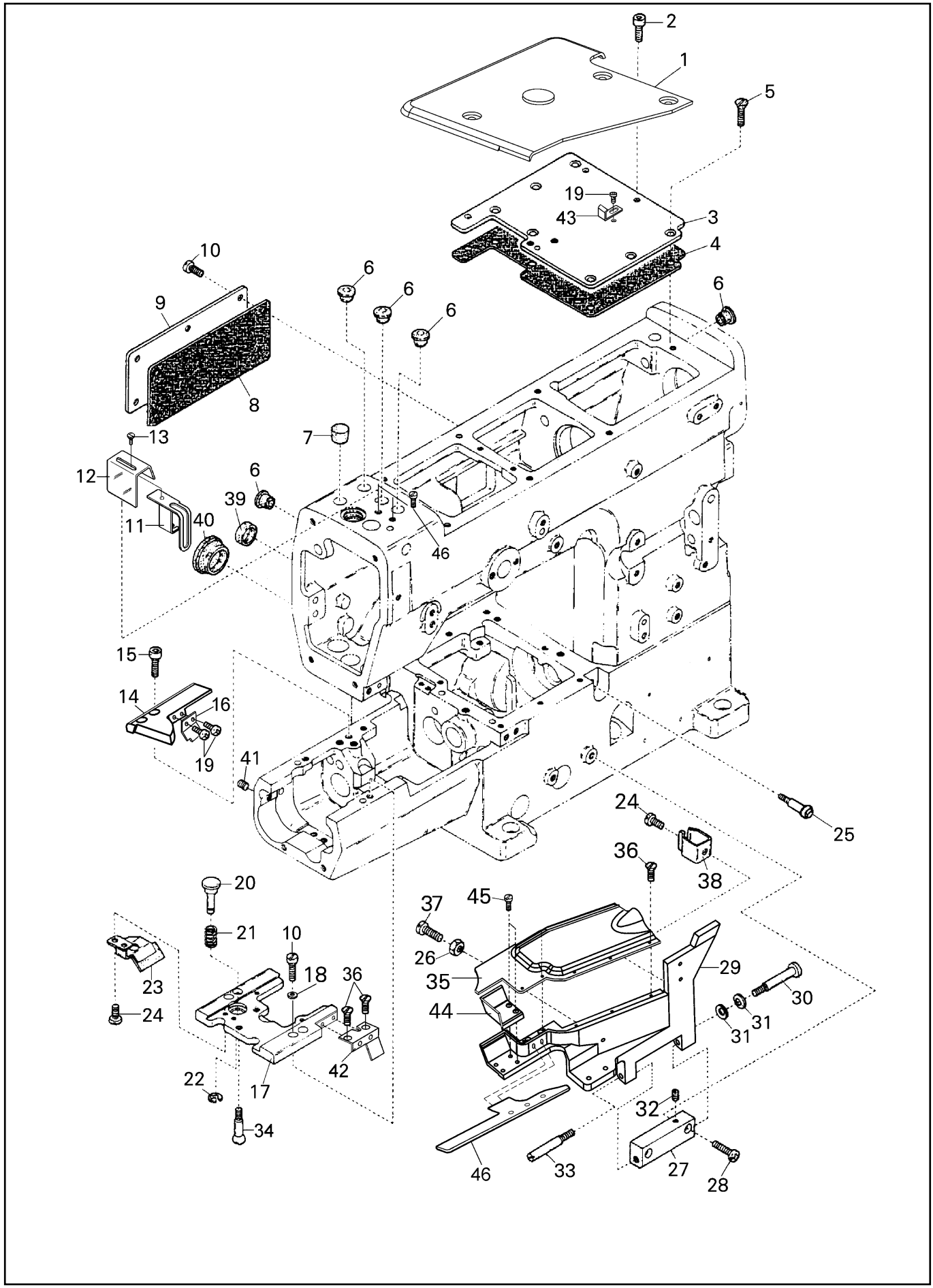
1. MISCELLANEOUS COVERS (1)



1. MISCELLANEOUS COVERS (1)

No	Ret. No.	Description	Qt	Note
1	110130001--W	Top cover	1	
2	S150299023	Screw M4×14	11	
3	110130002	Top cover gasket	1	
4	022180001--V	Oil sight window	1	
5	182100038--V	Rubber plug	1	
6	110100035--W	Head cover	1	
7	110100002	Head cover gasket	1	
8	110100003--V	Head cover seal plug	1	
9	222100002--W	Bed rear cover	1	
10	222100007	Bed rear cover gasket	1	
11	S150299031	Screw GB818–85 M4×10	4	
12	222100004	Pin	1	
13	S150299027	Screw GB77–85 M4×4	1	
14	222100001--W	Side cover	1	
15	222100003	Retaining plate	1	
16	222100046	Belt cover	1	
17	222100006	Cloth plate	1	
18	S150299002	Screw GB70–85 M5×14	2	
19	222100005	Cover latch spring	1	
20	S150216017	Screw GB818–85 M4×5	3	
21	182100008	Oil reservoir	1	
22	182100009	Oil reservoir gasket	1	
23	182100012	Oil reservoir gasket	1	
24	182100013	Screw 3/8–24×8	1	
25	1821A0000	Machine frame unite	1	
26	S150209060	Screw GB70–85 M8×20	4	
27	182100015	Machine frame supporting bar	4	
28–1	198000020	Model plate	1	
28–2	198000021	Model plate	1	
29	BXF8899009	Rivet	3	
30	182100054	Wind screen	1	
31	S150216017	Screw GB818–85 M4×5	2	
32	182100053	Wind guide plate	1	
33	S150203001	Screw GB68–76 M3×6	5	

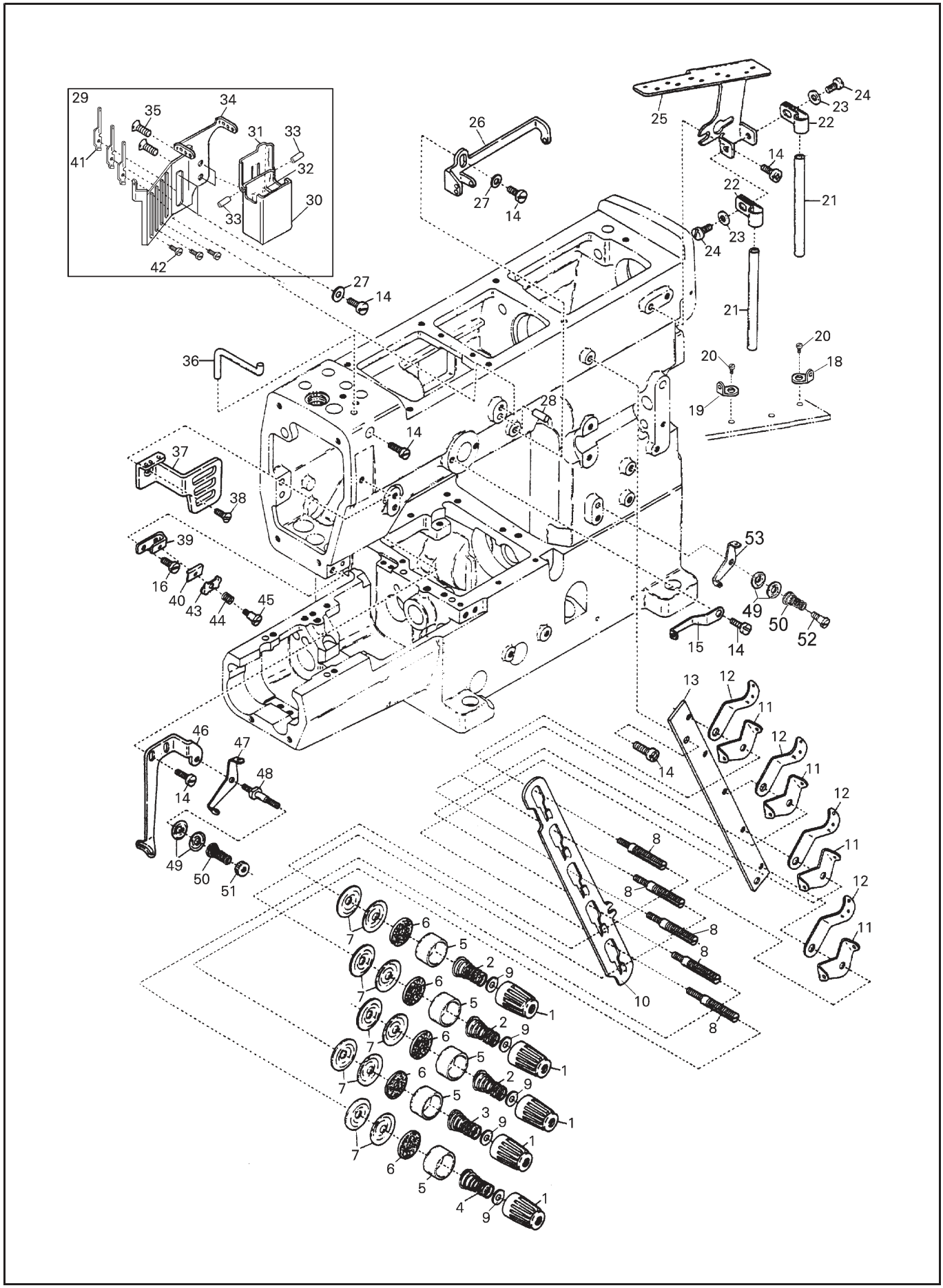
2. MISCELLANEOUS COVERS (2)



2. MISCELLANEOUS COVERS (2)

No	Ret. No.	Description	Qt	Note
1	222160000--W	Cloth plate assy	1	
2	S150299001	Screw GB70–85 M4×12	3	
3	182100021	Crank chamber cover gasket	1	
4	182100022	Gasket	1	
5	S150217002	Screw GB819–85 4×8	7	
6	110100003--V	Seal plug	5	
7	110100026--V	Seal plug	1	
8	110100017	Gasket	1	
9	110100016--W	Rear cover	1	
10	S150299035	Screw GB818–85 M4×8	10	
11	197120001	Needle bar protection cover	1	
12	197120002	Needle bar protection board	1	
13	197120003	Screw	1	
14	222100019--W	Supplementary slide cover	1	
15	S150299005	Screw 70–85 M4×10	2	
16	182100049	Retaining plate	1	
17	182100030	Stitch plate support	1	
18	182100045	Pin	2	
19	S150216029	Screw GB818–76 M3×4	4	
20	182100031	Feed regulating pushbutton	2	
21	182100032	Spring	1	
22	S150620004	Cover latch spring GB896–76 φ4	1	
23	182170000	Retaining plate	1	
24	S150216017	Screw GB818–76 M4×5	3	
25	222100038	Screw M4×8	1	
26	S150503003	Nut GB52–76 M4	1	
27	222100037--W	Front cover hinge	1	
28	S150216006	Screw GB818–2000 M4×25	1	
29	222100045	Front cover	2	
30	110150003	Screw	1	
31	S150603002	Washer GB860–87 φ5	2	
32	S150299008	Screw GB80–85 M3×3	2	
33	110150004	Screw	1	
34	182100035	Screw	1	
35	222100020	Front cover(upper)	1	
36	S150203001	Screw GB68–76 M3×6	6	
37	S150299031	Screw GB818–85 M4×10	1	
38	182140005	Spring	1	
39	182100037--V	Seal plug	3	
40	182100038--V	Seal plug	1	
41	S150299029	Screw GB77–85 M6×6	2	
42	222191000	Stitch plate support cover	1	
43	222100057	Retaining part	1	
44	222100041	dust cap	1	
45	S150216017	Screw GB818–76 M4×5	2	
46	222100048	Attachment plate	1	

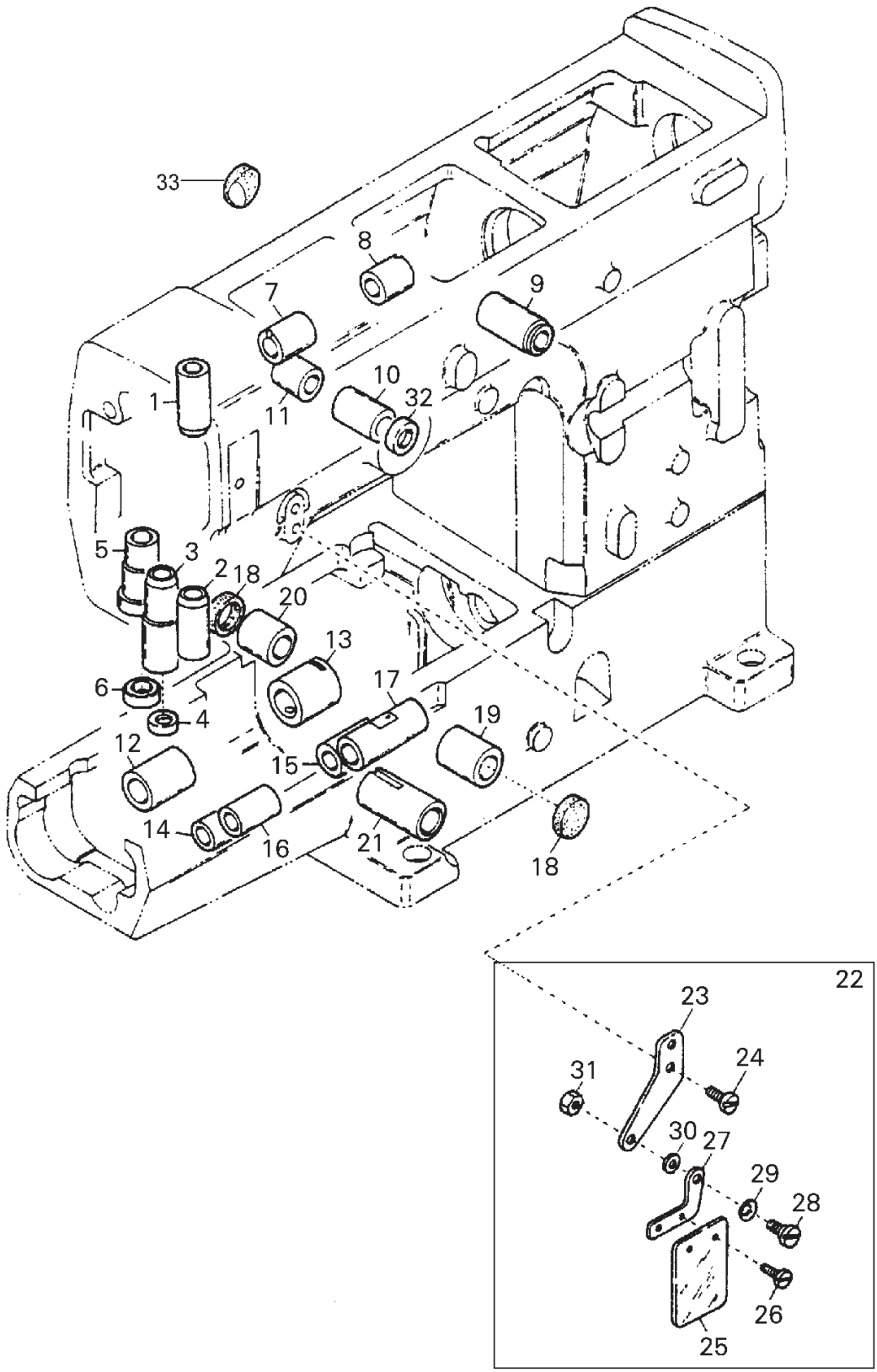
3. MISCELLANEOUS THREAD EYELETS



3. MISCELLANEOUS THREAD EYELETS

No	Ret. No.	Description	Qt	Note
1	155A10009	Thread tension spring cap	5	
2	BXF7695009	Needle thread tension spring	3	
3	155A10004	Top cover thread spring	1	
4	155A10004	Top cover thread spring	1	
5	1102H0003	Thread tension spring retainer	5	
6	028283007	Felt	5	
7	022160005	Tension disc	10	
8	1102H0003	Tension post	5	
9	155A10007	Collar	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	S150299035	Screw GB818–85 M4×8	10	
15	110200019	Top cover thread eyelet (left)	1	
16	S150216017	Screw GB818–76 M4×5	1	
18	222100050	looper thread eyelet(right)	1	
19	222100051	looper thread eyelet(left)	1	
20	S150216029	Screw GB818–76 M3×4	2	
21	116250003	Thread eyelet pipe	2	
22	116250002	Thread eyelet pipe stay	2	
23	S150607008	Washer GB97–76 φ4	2	
24	S150299035	Screw GB818–85 M4×8	2	
25	116250001	Thread guide plate	1	
26	110200027	Top cover thread eyelet(right)	1	
27	008230003	Washer	2	
28	110100027	Pin	1	
29	1102K0000	SP Device complete set	1	
30	1102K0001	SP Container	1	
31	1102K0003	SP container cover	1	
32	1102K0004	Felt	1	
33	S150405005	Pin GB879–76 2×6	2	
34	221100015	Needle thread eyelet	1	
35	S150221003	Screw GB845–85 2.9×6.5–F–H	2	
36	110200035	Needle thread guide	1	
37	110200009	Needle thread eyelet	1	
38	S150203013	Screw GB68–85 M4×6	1	
39	110260004	Needle thread retainer support	1	
40	110260003	Thread retainer disc support	1	
41	221100014	Looper thread disc	3	
42	S150216029	Screw GB818–76 M3×4	3	
43	110260001	Needle thread retainer disc	1	
44	110260005	Spring	1	
45	110260002	Screw M3	1	
46	182230001	Top cover thread guide	1	
47	1102C0002	Supplementary thread guide	1	
48	116200018	Screw	1	
49	008200068	Supplementary tension disc	4	
50	008200067	Supplementary tension spring	2	
51	008200088	Nut	1	
52	221290002	Screw	1	
53	221290001	Looper thread eyelet	1	

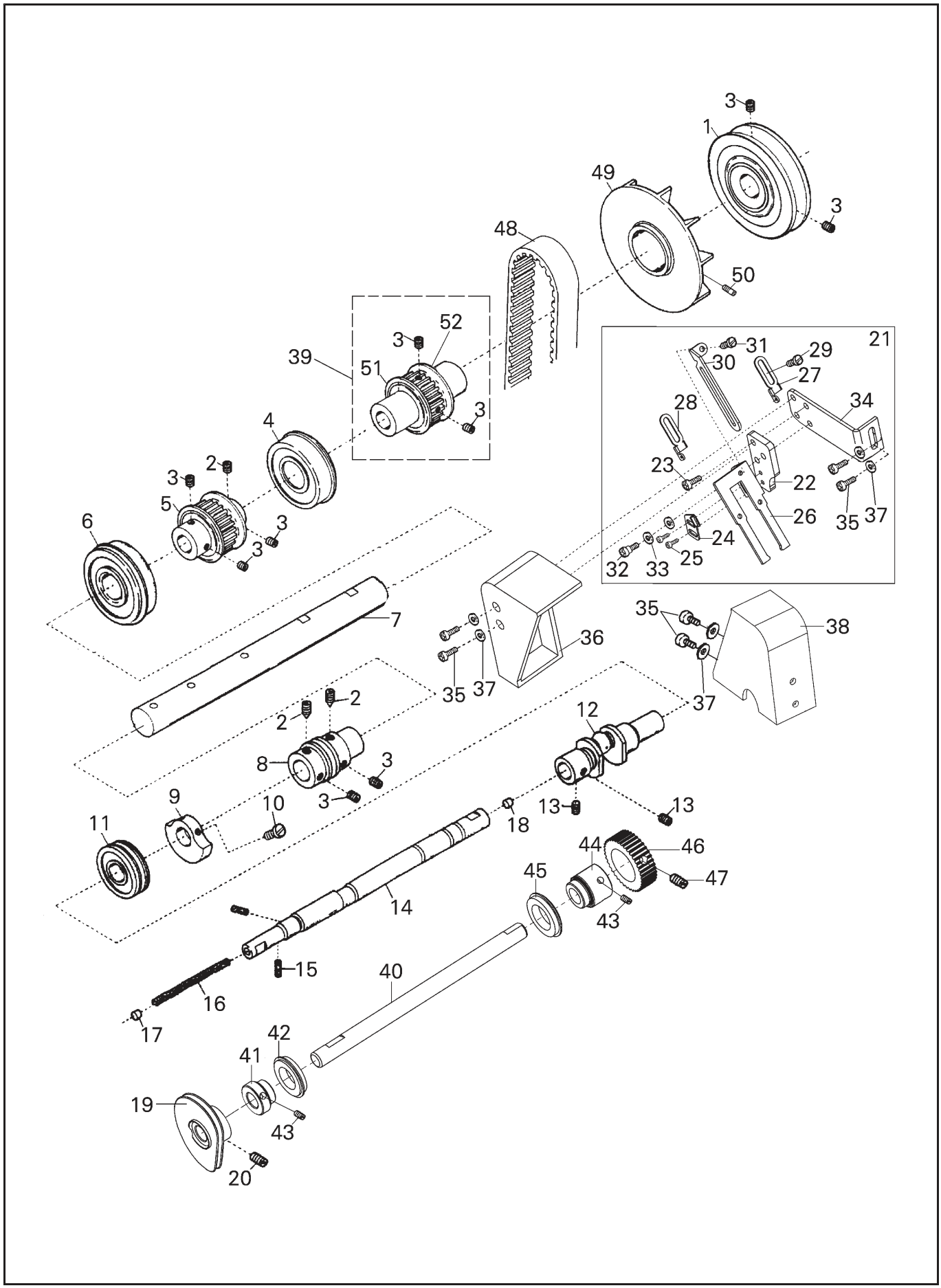
4. MISCELLANEOUS BUSHINGS



4. MISCELLANEOUS BUSHINGS

No	Ret. No.	Description	Qt	Note
1	110200002	Needle bar bushing(upper)	1	
2	222100052	Needle bar bushing(lower)	1	
3	110600007	Presser bar bushing	1	
4	110600005	Oil ring	1	
5	110200018	Bush	1	
6	008600015	seal ring	1	
7	110200016	Bush (left)	1	
8	110200017	Bush (right)	1	
9	110600009	Foot lifter lever bushing	1	
10	110200008	Bush (front)	1	
11	110200007	Bush (back)	1	
12	182300013	Bush (left)	1	
13	182300014	Bush (right)	1	
14	182300015	Differential shaft left bush	1	
15	182300016	Differential shaft right bush	1	
16	182300017	Raising tooth shaft left bush	1	
17	182300018	Raising tooth shaft right bush	1	
18	182100037--V	Seal plug	2	
19	182300019	Bush (front)	1	
20	182300020	Bush (back)	1	
21	182300021	Adjusting screw bushing	1	
22	110140000	Eye guard support	1	
23	110140001	Eye guard holder	1	
24	S150215002	Screw GB65–76 M6×10	1	
25	116120001	Eye guard	1	
26	S120203013	Screw GB818–76 M3×4	2	
27	110140002	Eye guard support	1	
28	110100019	Screw 11/64–40X9.7	1	
29	S150643002	Washer GB860–87 φ6	1	
30	008230003	Washer	1	
31	S120501003	Nut GB6170–86 M4	1	
32	110280000	Oil seal	1	
33	110200029	Seal plug	1	

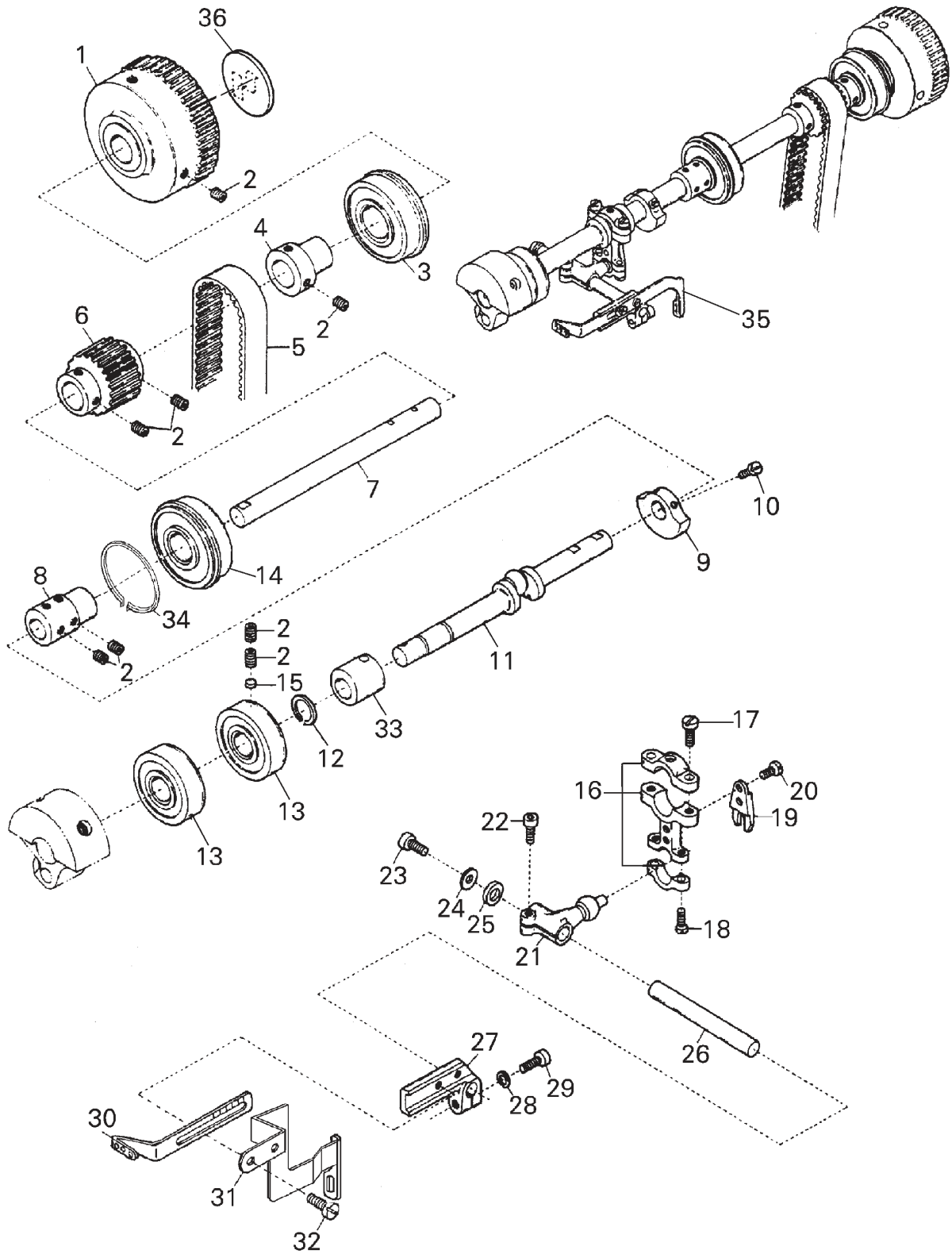
5. MAIN SHAFT DRIVING MECHANISM



5. MAIN SHAFT DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	221100039	Pulley	1	
2	S150299016	Screw GB78–85 M6×8	3	
3	S150299029	Screw GB77–85 M6×6	9	
4	S150801018	Bearing GB/T307–2005 6205ZZNR	1	
5	110520000	Main shaft sprocket	1	
6	S150801148	Bearing STK 6204ZZNR	1	
7	222100026	Lower shaft	1	
8	182400004	Oil pump driving worm	1	
9	110200022	Balance block	1	
10	S150299035	Screw GB818–85 M4×8	2	
11	S150801007	Bearing GB/T307–2005 6004ZZN	1	
12	182400006	Lower crank shaft	1	
13	S150212039	Screw GB77–85 M6×4 Z.H	2	
14	182440001	Lower shaft(left)	1	
15	182400010	Wick	2	
16	182400011	Wick	1	
17	S150299027	Screw GB77–85 M4×4	2	
18	182440003	Seal plug	1	
19	222120000	Looper thread take–up	1	
20	S150299028	Screw GB77–85 M5×5	2	
21	222130000	Looper thread supporting	1	
22	222130005	Hold down	1	
23	S150299035	Screw GB818–85 M4×8	2	
24	222130002	Snap fastener	1	
25	S150216029	Screw GB818–76 M3×4	2	
26	222130003	Supporting plate	1	
27	222130006	Thread guide plate (lift)	1	
28	222130006	Thread guide plate (right)	1	
29	S150216029	Screw GB818–76 M3×4	2	
30	222100049	Thread guide plate	1	
31	S150216029	Screw GB818–76 M3×4	1	
32	221250005	Screw	1	
33	S150603002	Washer GB860–87 φ5	2	
34	222130004	Linked plank	1	
35	S150299035	Screw GB818–85 M4×8	4	
36	S150607008	Cover GB97–76 φ4	6	
37	S150299035	Screw GB818–85 M4×8	2	
38	222100043	Cover(front)	1	
39	221240000	Synchronous belt wheel assy	1	
40	222180010	Guide shaft	1	
41	222140002	Ball bearing holder(left)	1	
42	S150801101	Bearing 61802–2ZNR	1	
43	S150299027	Screw GB77–85 M4×4	4	
44	222180002	Ball bearing holder(right)	1	
45	S150801102	Bearing 61803–2ZNR	1	
46	222100042	Timing belt pulley (front)	1	
47	S150299028	Screw GB77–85 M5×5	2	
48	222180016	Timing belt	1	
49	110500001	Wind turbine cooling	1	
50	S150299036	Screw GB818–85 M3×8	1	
51	221240001	Timing belt pulley assy	1	
52	221240002	Retaining ring	1	

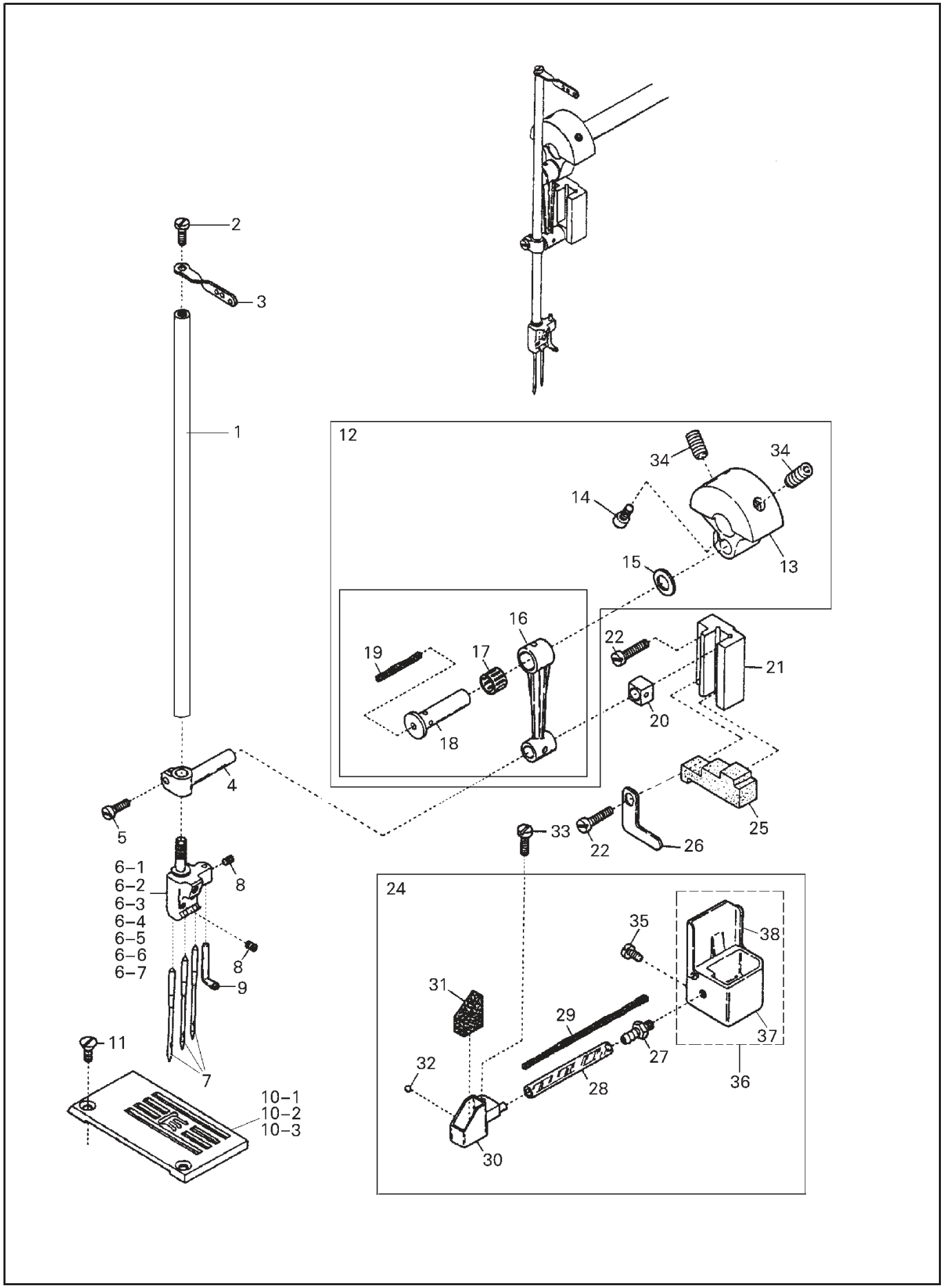
6. UPPER SHAFT & NEEDLE THREAD TAKE–UP MECHANISM



6. UPPER SHAFT & NEEDLE THREAD TAKE–UP MECHANISM

No	Ret. No.	Description	Qt	Note
1	182520001	Handwheel	1	
2	S150299029	Screw GB77–85 M6×6	12	
3	S150801148	Bearing STK 6204ZZNR	1	
4	1102F0001	Handwheel adapter	1	
5	110200023	Timing belt	1	
6	1102G0001	Upper shaft sprocket (upper)	1	
7	110200021	Upper shaft	1	
8	1102D0001	Upper shaft joint	1	
9	110200022	Counterweight	1	
10	S150299035	Screw GB818–85 M4×8	2	
11	110G30001	Upper crank shaft	1	
12	S150617006	Retain ring GB894–76 φ15	1	
13	S150801147	Bearing STK 6202ZZ	2	
14	S150801149	Bearing STK 62042ZN	1	
15	110200024	Rubber seat	1	
16	110270000	Link	1	
17	S150209049	Screw GB70–85 M4×14	2	
18	110550005	Screw M3.5×10	2	
19	110270002	Guide fork	1	
20	S150299036	Screw GB818–85 M3×8	2	
21	110270003	Driving lever	1	
22	S150299025	Screw GB70–85 M6×16	1	
23	S150299006	Screw GB70–85 M6×10	1	
24	110200005	Washer	1	
25	110200006	Spacer	1	
26	110200004	Driving shaft	1	
27	110290001	Lever	1	
28	S150602006	Washer GB859–76 φ5	1	
29	S150299002	Screw GB70–85 M5×14	1	
30	110290005	Needle thread take–up	1	
31	110290004	Top cover thread take–up	1	
32	S150299035	Screw GB818–85 M4×8	2	
33	110G00006	Feed oil bush	1	
34	110G00009	Bearing ring	1	
35	110G30000	Transmission connecting rod Accessories	1	
36	110100036	Hand wheel attached plate	1	

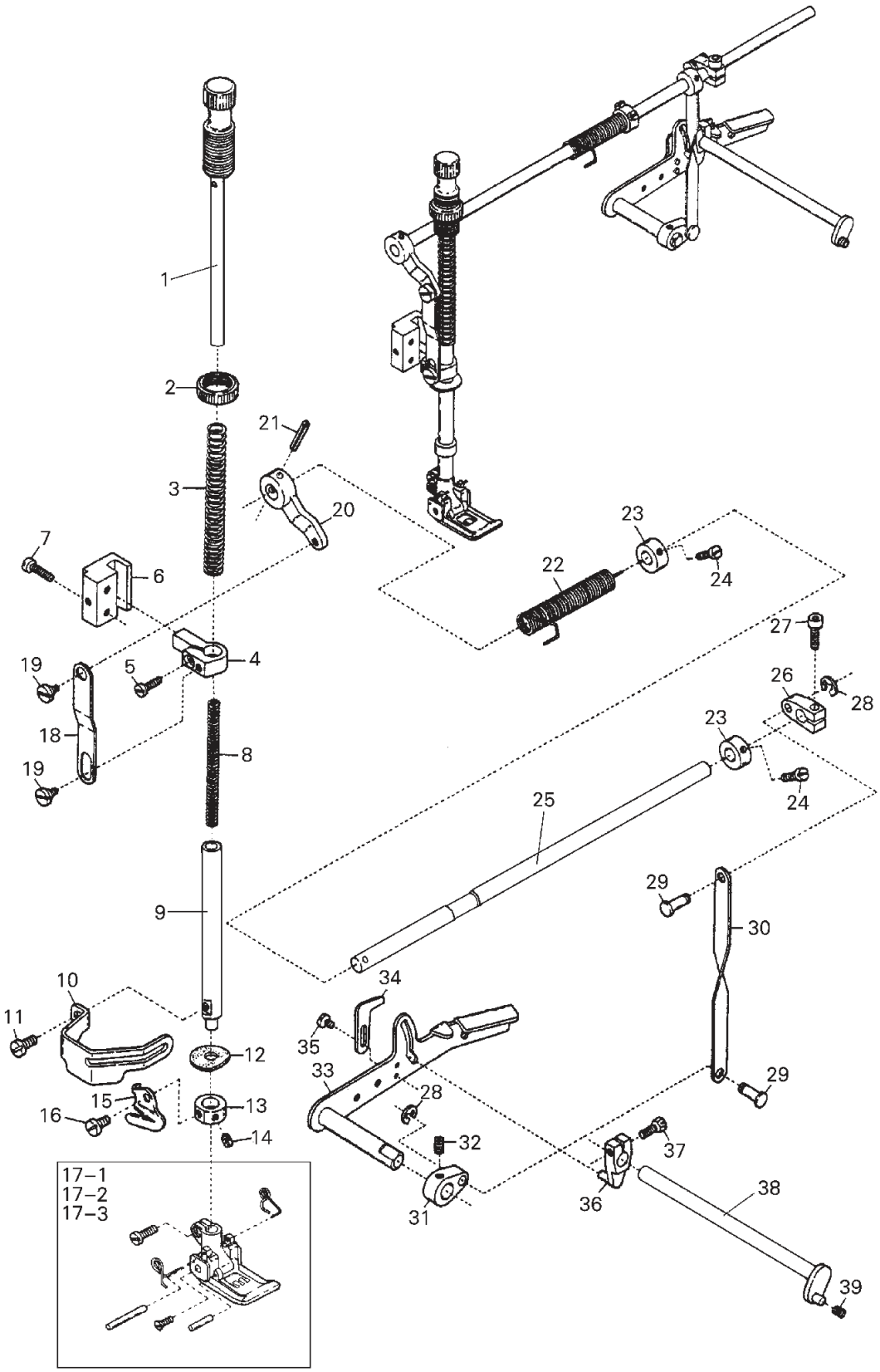
7. NEEDLE BAR MECHANISM



7. NEEDLE BAR MECHANISM

No	Ret. No.	Description	Qt	Note
1	182600019	Needle bar	1	
2	116240003	Screw M5×5	1	
3	116240002	Needle bar thread eyelet	1	
4	110220005	Needle bar bracket	1	
5	022100006	Screw SM11/64	1	
6–1	182610001	Needle punching (232)	1	
6–2	182610002	Needle punching (240)	1	
6–3	182610003	Needle punching (248)	1	
6–4	182610004	Needle punching (256)	1	
6–5	182610005	Needle punching (348)	1	
6–6	182610006	Needle punching (356)	1	
6–7	182610007	Needle punching (364)	1	
7	S150901012	Needle UY128 (12)	2 (3)	
8	182610010	Screw	3 (4)	
9	182610009	Top cover thread eyelet	1	
10–1	110400038	Stitch plate (4.8)	1	
10–2	110400039	Stitch plate (5.6)	1	
10–3	110G00003	Stitch plate (6.4)	1	
11	110400023	Screw	2	
12	110220000	Counterweight complete set	1	
13	110220001	Counterweight	1	
14	S150299003	Screw GB70–85 M5×10	1	
15	110220003	Washer	1	
16	110220004	Connecting rod	1	
17	S150801028	Bearing GB/T307–2005 K081113	1	
18	110220002	Needle bar crank shaft	1	
19	182620001	Wick	1	
20	110220006	Slide block	1	
21	110230001	Needle bar guide	1	
22	S150299033	Screw GB818–85 M4×16	2	
24	182630000	HR device, complete set	1	
25	110200032	Absorbent pad	1	
26	110200033	Absorbent pad baffle	1	
27	182630001	Pipe joint	1	
28	182630002	Oil tube	1	
29	182630003	Wick	1	
30	182630004	Silicone oil box	1	
31	182630005	Felt	1	
32	S151301002	Seal plug GB308–76 S=3	1	
33	S150216017	Screw GB818–76 M4×5	1	
34	S150299009	Screw GB77–85 M8×16	2	
35	S150299035	Screw GB818–85 M4×8	2	
36	182631000	HR container	1	
37	182631001	Silicon oil tank	1	
38	182631002	Silicone oil box cover	1	

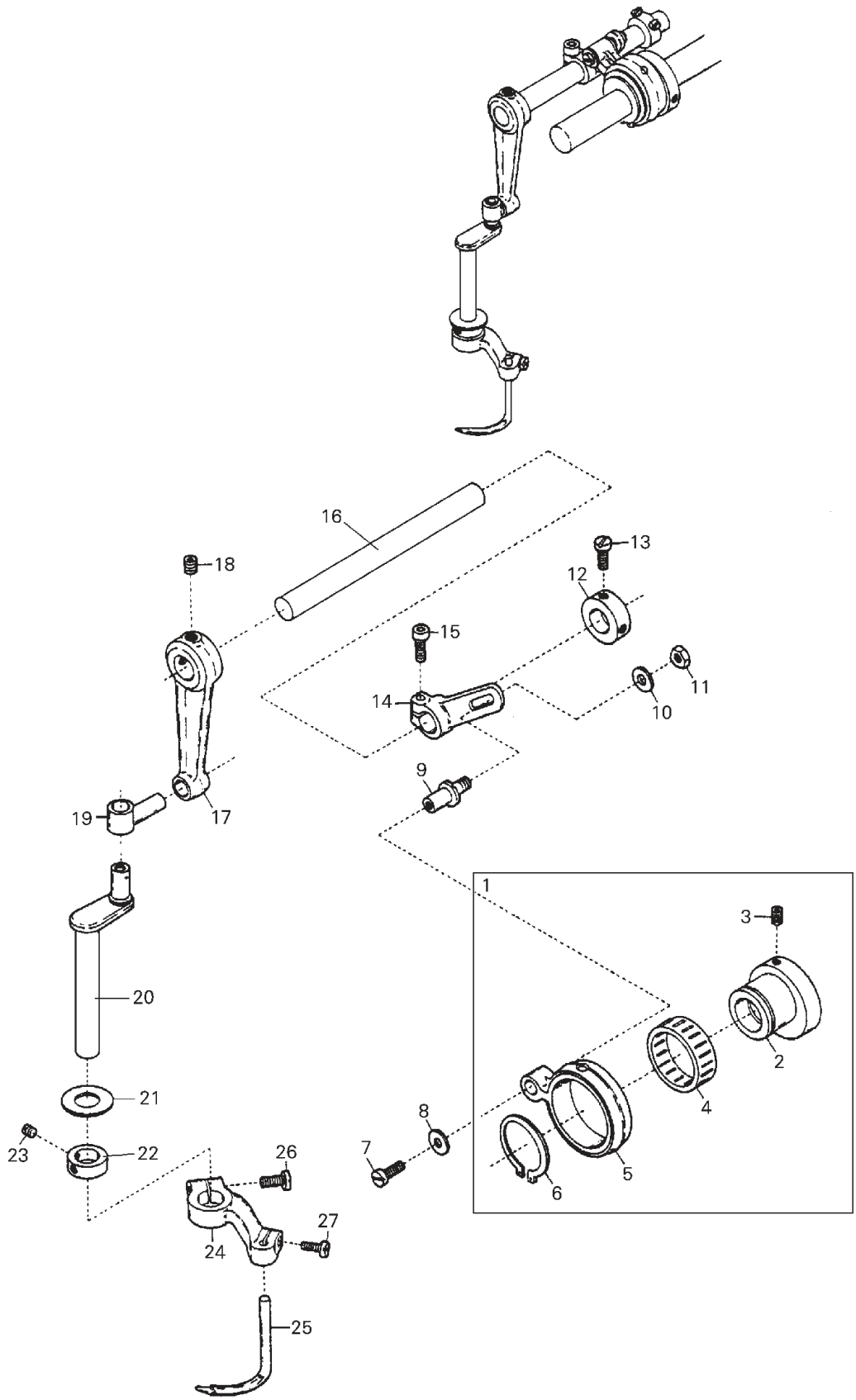
8. PRESSER FOOT MECHANISM



8. PRESSER FOOT MECHANISM

No	Ret. No.	Description	Qt	Note
1	110610001	Presser spring regulator	1	
2	110610002	Lock nut	1	
3	110600001	Presser bar spring	1	
4	110620000	Presser bar connecting bracket unit	1	
5	S150216013	Screw GB818–85 M4×12	1	
6	110600004	Presser bar guide	1	
7	S150299033	Screw GB818–85 M4×16	2	
8	182700009	Spring	1	
9	182700005	Presser bar	1	
10	110600012	Finger guard	1	
11	S150299035	Screw GB818–85 M4×8	1	
12	043600005	Oil protector ring	1	
13	110600006	Collar (9×15×7)	1	
14	S150299027	Screw GB77–85 M4×4	2	
15	110600013	Thread chain cutting knife	1	
16	S150405017	Screw GB879–86 φ4×16	1	
17–1	110693000	Presser foot assy (4.8)	1	
17–2	110691000	Presser foot assy (5.6)	1	
17–3	110692000	Presser foot assy (6.4)	1	
18	110630004	Lifter link	1	
19	110630003	Screw M4–0.7×5	2	
20	110630002	Intermediate lever	1	
21	S150405017	Pin GB879–86 φ4×16	1	
22	110600008	Spring	1	
23	110640001	Collar (8×16×8)	2	
24	S150216031	Screw GB818–76 M4×6 ZH	4	
25	110630001	Lifter shaft	1	
26	110650002	Intermediate lever	1	
27	S150209049	Screw GB70–85 M4×14	1	
28	S150620001	Retaining ring GB896–76 φ3	2	
29	110650003	Pin	2	
30	110650001	Link	1	
31	110650004	Lever	1	
32	022540004	Screw	1	
33	110681000	Lifter lever	1	
34	110680001	Lifter lever stop	1	
35	S150216017	Screw GB818–76 M4×5	2	
36	110671000	Tension release lever	1	
37	S150103007	Screw GB29–76 M4×12	1	
38	110660000	Tension release shaft	1	
39	110200034	Spring	1	

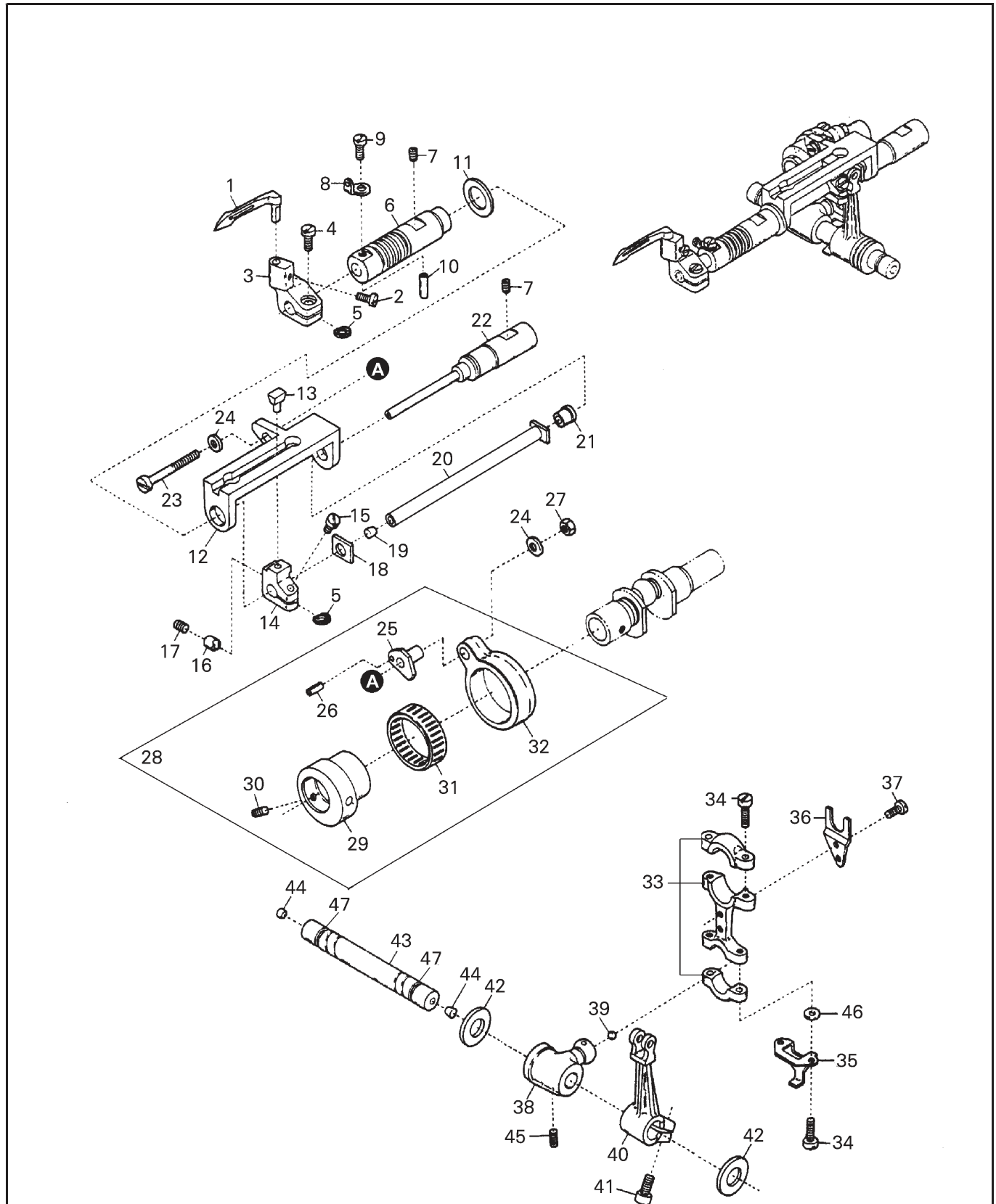
9. SPREADER MECHANISM



9. SPREADER MECHANISM

No	Ret. No.	Description	Qt	Note
1	1102A0000	Connecting rod complete set	1	
2	1102A0001	Cam	1	
3	S150299028	Screw GB77–85 M5×5	2	
4	S150801036	Roller bearing GB/T307–2005 K222613	1	
5	1102A0002	Link	1	
6	S150617004	Retaining ring GB894.1–86 φ22	1	
7	S150299035	Screw GB818–85 M4×8	1	
8	1102A0004	Washer	1	
9	1102A0003	Pin	1	
10	1102A0006	Washer	1	
11	S150503005	Nut GB52–76 M6	1	
12	028200026	Ring	1	
13	028100068	Screw	2	
14	1102A0005	Right lever	1	
15	S150299025	Screw GB70–85 M6×16	1	
16	110200010	Spreader shaft	1	
17	1102B0001	Left lever	1	
18	S150299029	Screw GB77–85 M6×6	2	
19	1102B0002	Rocking pin	1	
20	110200011	Spreader bar	1	
21	110200012	Bushing ring	1	
22	110400006	Ring	1	
23	S150299027	Screw GB77–85 M4×4	2	
24	110200013	Spreader holder	1	
25	110200014	Spreader	1	
26	B62401612	Screw GB818–85 M4×16	1	
27	S150216013	Screw GB818–85 M4×12	1	

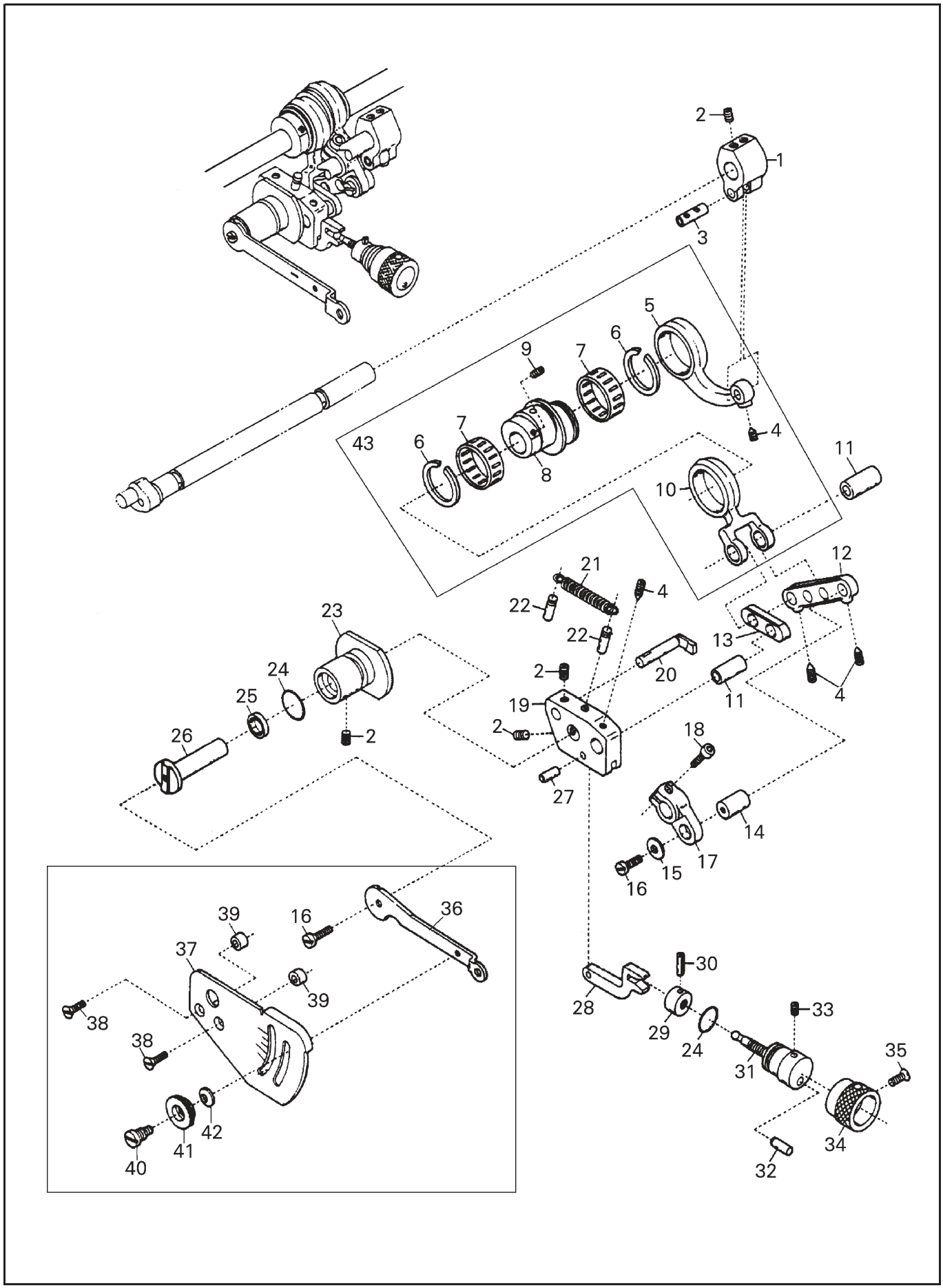
10. LOOPER DRIVING MECHANISM



10. LOOPER DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	182900001	Looper	1	
2	182900006	Screw M3×6	1	
3	182900002	Looper holder	1	
4	S150299005	Screw 70–85 M4×10	1	
5	182900003	Washer (red)	2	
6	182900004	Looper bar bushing	1	
7	S150299029	Screw GB77–85 M6×6	2	
8	182900005	Looper thread eyelet	1	
9	S150216029	Screw GB818–76 M3×4	1	
10	S150405009	Pin GB879–76 4×14	1	
11	182900007	Washer	1	
12	182900008	Looper bar guide	1	
13	182900009	Slider	1	
14	182900010	Slider holder	1	
15	S150299001	Screw GB70–85 M4×12	1	
16	182900011	Slider presser	1	
17	S150299027	Screw GB77–85 M4×4	1	
18	182900012	Washer	1	
19	182910001	Seal plug	1	
20	182910002	Looper bar	1	
21	182910003	Guide shaft bushing	1	
22	182900013	Looper bar guide shaft	1	
23	S150216034	Screw GB818–85 M5×30	1	
24	0084A0001	Washer	2	
25	182920001	Looper rocker adjusting rod	1	
26	S150405002	Pin GB879–76 1.5×4	1	
27	S150503004	Nut GB52–76 M5	1	
28	182930000	Looper rocker connecting rod	1	
29	182930001	Looper rocker regulating disc	1	
30	S150299028	Screw GB77–85 M5×5	1	
31	S150801041	Bearing GB/T307–2005 K263013	1	
32	182930002	Looper rocker connecting rod	1	
33	182940001	Looper connecting rod	1	
34	S150299023	Screw GB67–85 M4×14	4	
35	182940003	Oil splasher	1	
36	182940002	Guide fork	1	
37	S150299035	Screw GB818–85 M4×8	2	
38	182941001	Looper driving lever	1	
39	182941002	Seal plug	1	
40	182900016	Looper rocker arm	1	
41	S150299025	Screw GB70–85 M6×16	1	
42	S150801031	Bearing GB/T307–2005 K1226087.3	2	
43	182950001	Looer shaft	1	
44	182950002	Seal plug	2	
45	S150299006	Screw GB70–85 M6×10	2	
46	S150613003	Washer GB848––76 φ4	2	
47	S150651006	O – ring GB3452.1– 82 φ11.8×2.65	2	

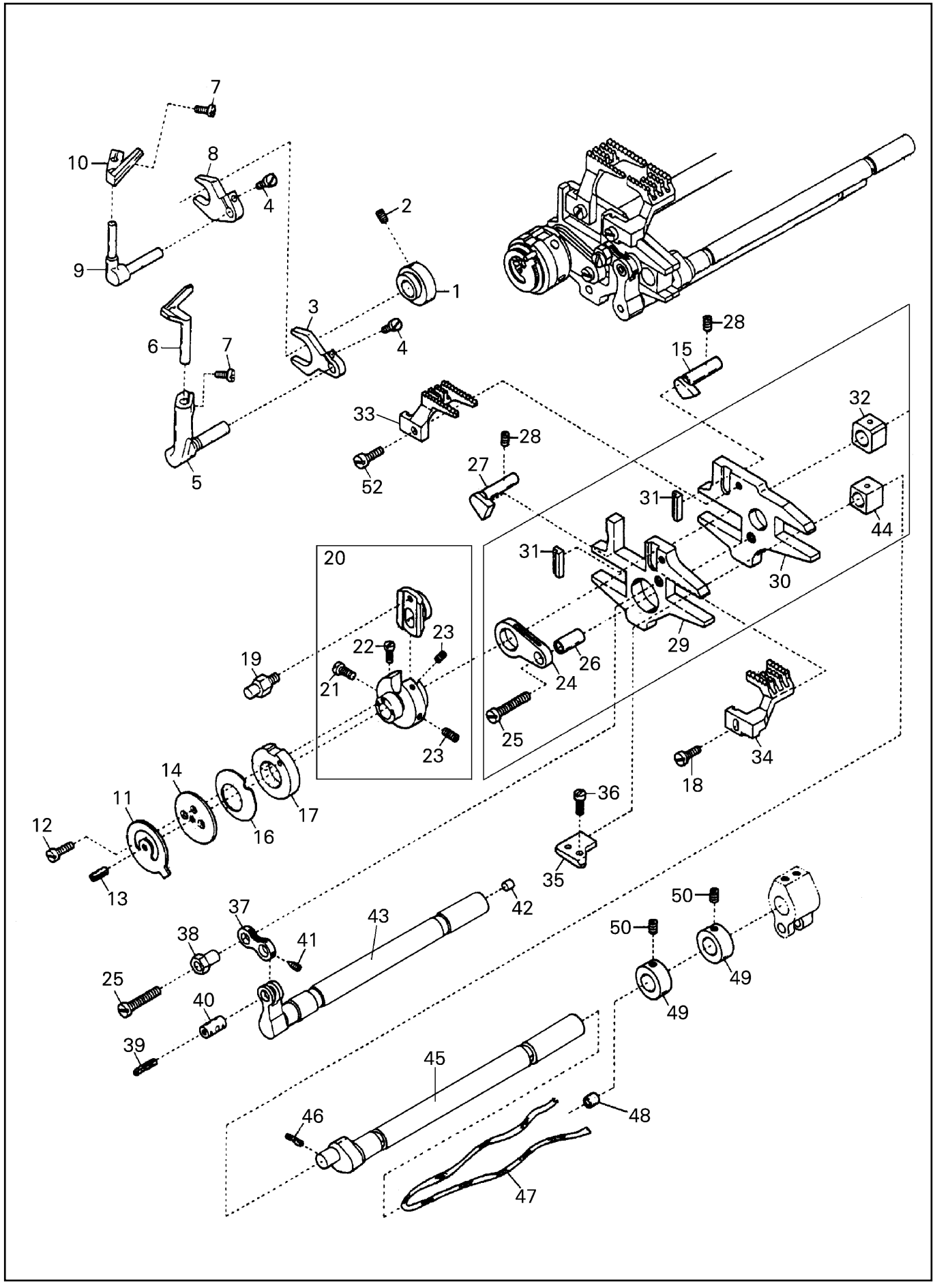
11. FEED DRIVING MECHANISM



11. FEED DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	182A00001	Feed lift lever	1	
2	S150299029	Screw GB77–85 M6×6	5	
3	182A00002	Connecting rod pin	1	
4	S150299017	Screw GB78–85 M4×4	4	
5	182A10001	Feed lift connecting rod	1	
6	S150617007	Retaining ring GB894–76 φ25	2	
7	S150801038	Bearing GB/T307–2005 K252910	2	
8	182A10002	Differential feed eccentric	1	
9	S150299028	Screw GB77–85 M5×5	2	
10	182A10003	Differential feed connecting rod	1	
11	182A00028	Pin	2	
12	182A00004	Link (long)	1	
13	182A00005	Link (short)	1	
14	182A00006	Pin	1	
15	182A00029	Washer	1	
16	S150299035	Screw GB818–85 M4×8	2	
17	182A00007	Differential feed shaft lever	1	
18	S150299001	Screw GB70–85 M4×12	1	
19	182A00008	Control bracket	1	
20	182A00009	Connecting rod guide	1	
21	182A00010	Control bracket spring	1	
22	182A00011	Pin	2	
23	182A00012	Control lever shaft bushing	1	
24	S150651006	O – ring	2	
25	110280000	Oil seal	1	
26	182A00014	Control lever shaft	1	
27	182A00015	Control link pin	1	
28	182A00016	Control link	1	
29	182A20001	Nut	1	
30	S150405015	Roll pin GB879–86 2×5	1	
31	182A00017	Adjusting screw	1	
32	S150403008	Roll pin GB119–86 5×12	1	
33	S150299027	Screw GB77–85 M4×4	1	
34	182A00021	Adjusting bar	1	
35	S150203001	Screw GB68–76 M3×6	1	
36	182A00022	Differential feed control lever	1	
37	182A00023	Differential feed graduations	1	
38	S150299031	Screw GB818–85 M4×10	2	
39	182A00024	Washer	2	
40	182A00026	Screw	1	
41	182A00027	Nut	1	
42	S150603003	Washer GB860–87 φ6	1	
43	182A10000	Feed lift connecting rod, C . set	1	

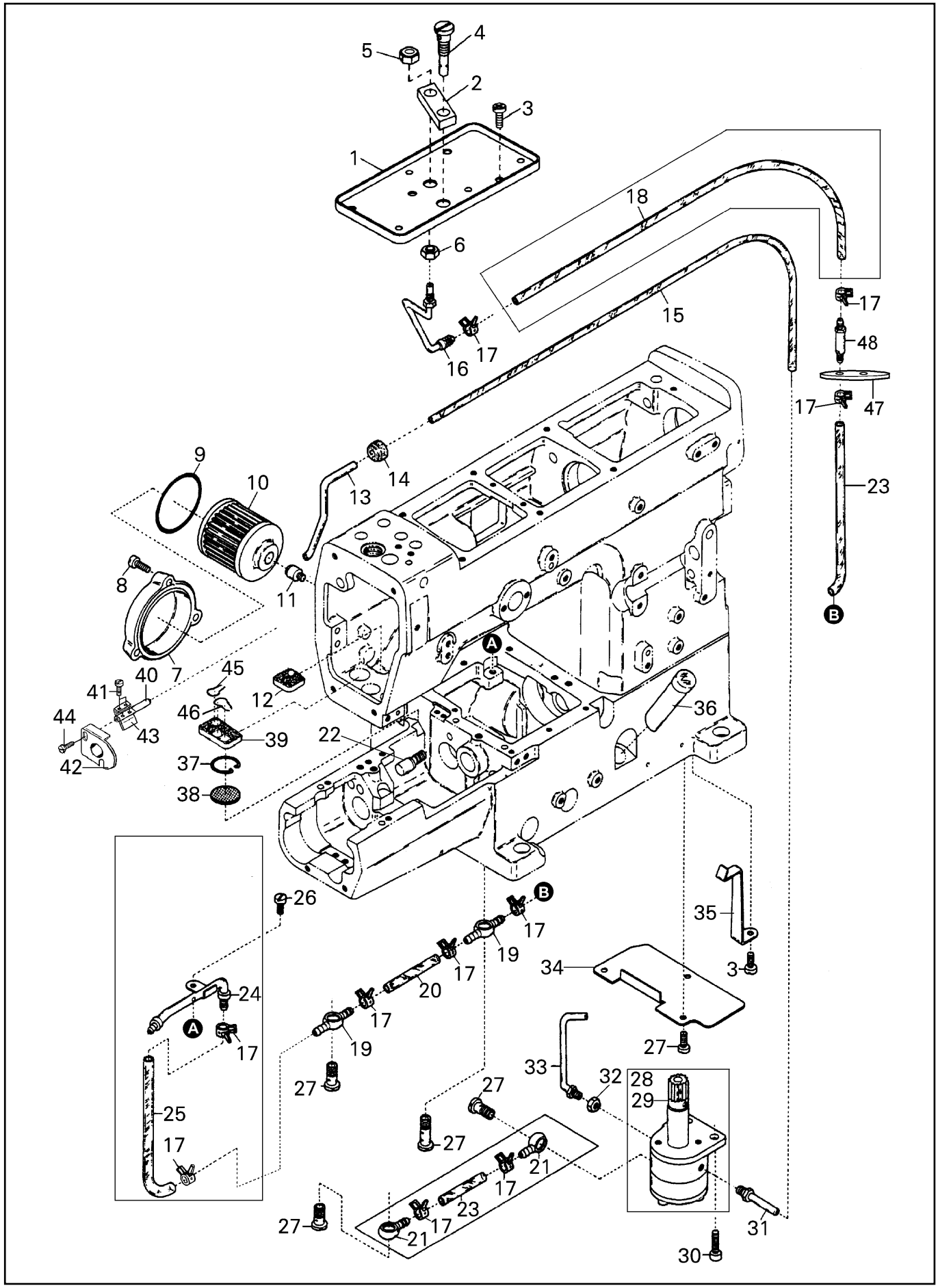
12. FEED DRIVING MECHANISM



12. FEED DRIVING MECHANISM

No	Ret. No.	Description	Qt	Note
1	182C00001	Needle guard eccentric	1	
2	S150299028	Screw GB77- 85 M5×5	2	
3	182C00002	Needle guard lever	1	
4	S150299036	Screw GB818- 85 M3×8	2	
5	182C00003	Needle guard holder	1	
6	182C00004	Needle guard	1	
7	S150299030	Screw GB818- 85 M3×6	2	
8	182C00005	Needle guard lever	1	
9	182C00006	Needle guard holder	1	
10	182C00007	Needle guard	1	
11	182C10007	Feed regulating stop	1	
12	043300022	Screw M3- 0.5× 8	1	
13	S150405002	Roll pin GB879- 76 1.5×4	1	
14	182C10006	Conical spring presser	1	
15	182C00032	Feed bar guide	1	
16	182C10005	Washer	1	
17	182C10004	Eccentric cam	1	
18	S150299035	Screw GB818- 85 M4×8	2	
19	182C10003	Eccentric pin	1	
20	182C10000	Main feed bar driving connection	1	
21	S150299030	Screw GB818- 85 M3×6	1	
22	S150299013	Screw GB77- 85 M2×4	1	
23	S150299027	Screw GB77- 85 M4×4	2	
24	182C00014	Feed dog driving connection rod	1	
25	S150216018	Screw GB818- 85 M5×18	2	
26	182C00015	connecting rod pin	1	
27	182C00016	limiting stopper	1	
28	S150299029	Screw GB77- 85 M6×6	2	
29	182C00017	Differential feed bar	1	
30	182C00018	Main feed bar	1	
31	182C00019	Feed dog key	2	
32	182C00020	Feed lift block	1	
33	182C00033	Main feed dog	1	
34	182C00034	Differential feed dog	1	
35	182C00023	Feed bar guide	1	
36	S150299031	Screw GB818- 85 M4×10	2	
37	182C00024	Differential feed bar driving cor	1	
38	182C00025	Oscillation adjusting eccentric	1	
39	182C00027	Wick	1	
40	182C00026	Driving connection pin	1	
41	S150299008	Screw GB80- 85 M3×3	1	
42	182C20002	Set plug	1	
43	182C20001	Differential feed shaft	1	
44	182C00028	Feed bar block	1	
45	182C30001	Feed lift shaft	1	
46	182C00029	Wick	1	
47	182C00030	Wick (280mm)	1	
48	182C30002	Seal plug	1	
49	182C00031	Ring (11× 18× 11mm)	2	
50	S150299029	Screw GB77- 85 M6×6	2	

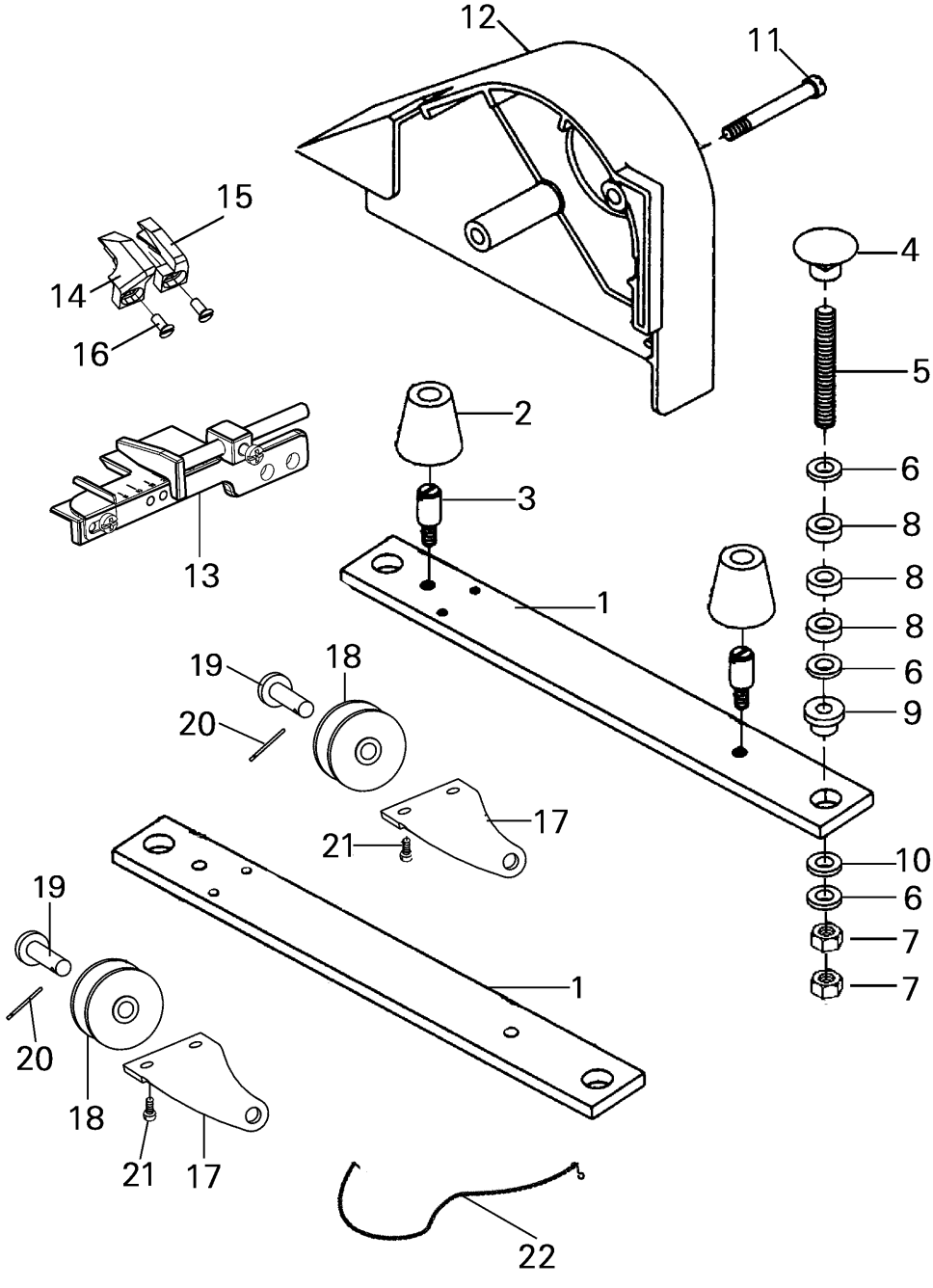
13. LUBRICATING MECHANISM



13. LUBRICATING MECHANISM

No	Ret. No.	Description	Qt	Note
1	110G10001	Oil reservoir	1	
2	110G10002	Regulate oil block	1	
3	S150216017	Screw GB818- 76 M4×5	6	
4	110G10003	Regulate oil screw	1	
5	S150503005	Nut GB52- 76 M6	1	
6	S150503004	Nut GB52- 76 M5	1	
7	028700023	Oil filter cap	1	
8	S150299023	Screw GB67- 85 M4×14	3	
9	S150650003	O- ring GB1235- 76 φ45×3.1	1	
10	028770001	Oil filter	1	
11	028700022	Oil filter connector	1	
12	110300007	Felt	1	
13	110300010	Suction pipe	1	
14	110300011	Suction pipe bushing	1	
15	110300008	Oil tube 3× 5× 440mm	1	
16	110G20000	Oil pipe unit	1	
17	110300012	Oil tube clamp	14	
18	182D00011	Oil tube 4× 6× 290mm	1	
19	110340001	Oil tube join ,two way	2	
20	182D00014	Oil tube 4× 6× 37mm	1	
21	028700010	Oil splashing joint	2	
22	182D00027	Lower shaft oiling outlet	1	
23	110300008	Oil tube	1	
24	182D20000	Lower shaft oiling shower	1	
25	182D00018	Oil tube 4× 6× 110mm	1	
26	S150299035	Screw GB818- 85 M4×8	2	
27	028700012	Screw	4	
28	110360000	Oil pump complete set	8	
29	110360001	Oil pump driving worm gear	1	
30	S150299025	Screw GB70- 85 M6×16	2	
31	110362000	Suction pipe	1	
32	S150503005	Nut GB52- 76 M6	1	
33	110361000	Oil nozzle for worm gear	1	
34	182D00026	Oil guard plate	1	
35	182D00025	Oil case	1	
36	182D00029	Oil sight gauge	1	
37	110300006	Oil filter screen clamp	1	
38	110300005	Oil filter screen	1	
39	110G00014	Felt	1	
40	110G00011	Oil pipe fixed bar	1	
41	S150299027	Screw GB77- 85 M4×4	1	
42	110G00012	Bed front plate	1	
43	110G00013	Bed right plate	1	
44	S150216017	Screw GB818- 76 M4×5	2	
45	110G00015	Felt clip (1)	1	
46	110G00016	Felt clip (2)	1	
47	110300014	Oil tube clamp	2	
48	110341000	Non- return valve unit	1	

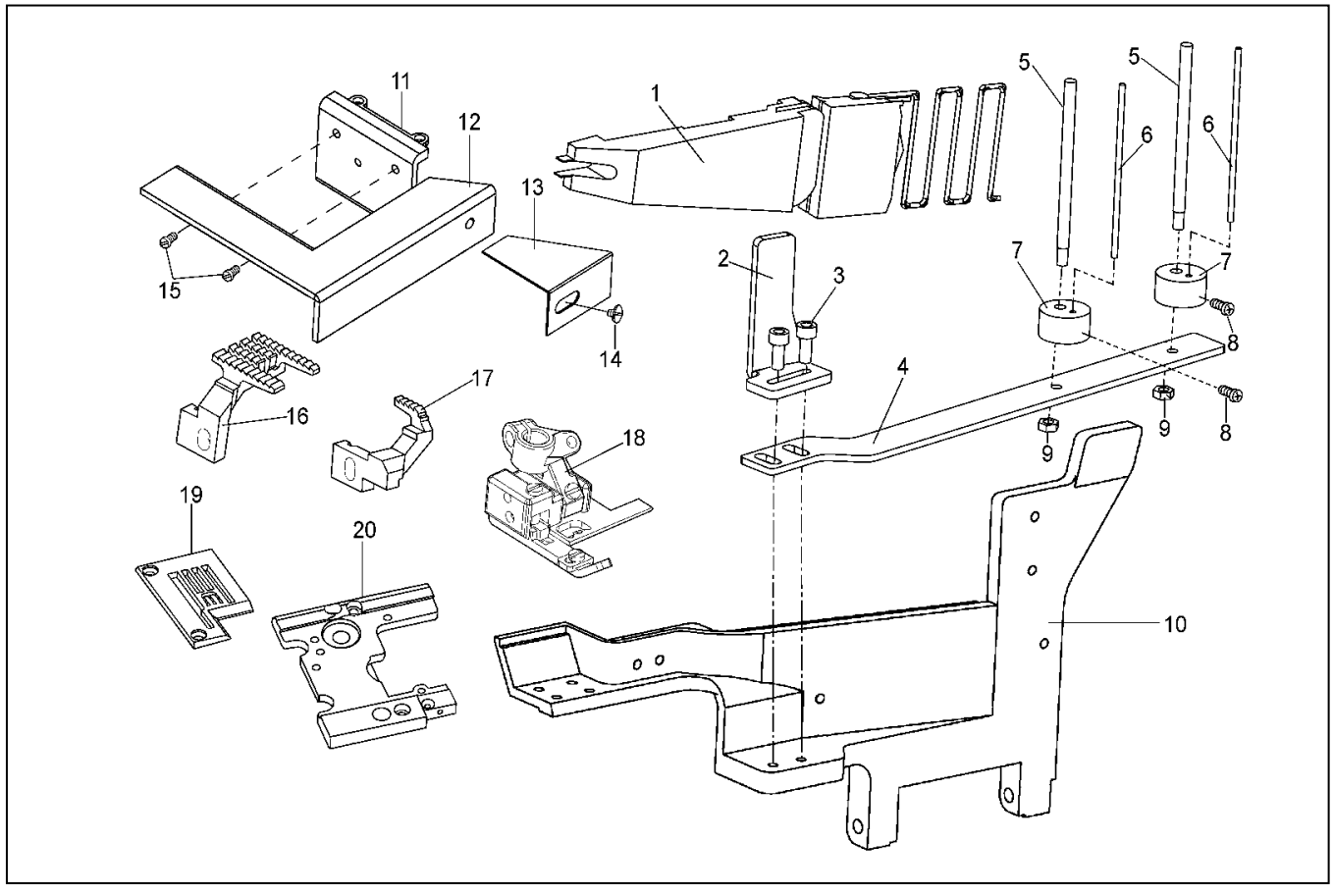
14. ACCESSORIES



14. ACCESSORIES

No	Ret. No.	Description	Qt	Note
1	182F00005	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	S150610008	Washer 8	12	
7	S150503007	Nut GB52- 76 M8	8	
8	110F10006	Spacer ring	12	
9	110F10007	Supporting board rubber seat	4	
10	110F10008	Supporting board rubber pad	4	
11	S150201001	Screw GB65- 85 M6×45	2	
12	222F00012	Belt cover	1	
13	222F01000	Folding device assy	1	
14	182100051	L material guide	1	
15	182100048	R material guide	1	
16	S150202007	Screw GB66- 76 M3×6	2	
17	221F00014	Fixed plate	2	
18	221F00015	Roller	2	
19	221F00016	Pin	2	
20	S150401002	Split pin	2	
21	S150209033	Screws	4	
22	W060401052	Chains 1050mm	1	

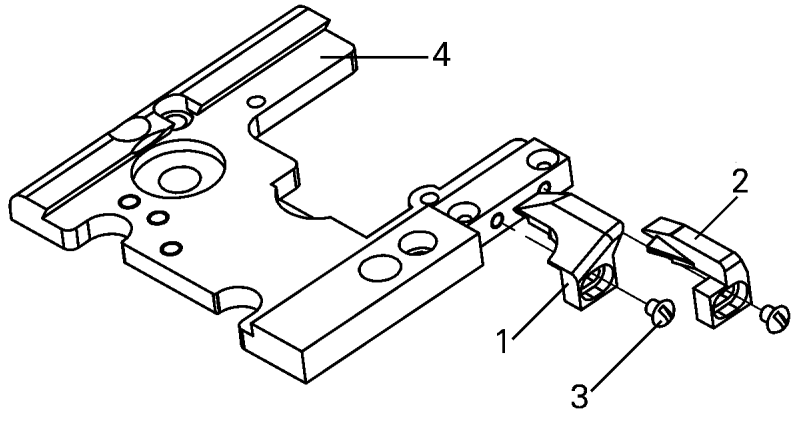
Collar Special- use parts for 337



Collar Special- use parts for 337

No	Ret. No.	Description	Qt	Note
1	110A11000	Binding	1	
2	222F00009	Tape binding	1	
3	S150299001	Screw GB70- 85 M4×12	2	
4	221F00012	Binder plug	1	
5	118110002	Tape guide (thick)	2	
6	118110004	Tape guide (short)	2	
7	118110003	Tape guide adjusting holder	2	
8	011100006	Screw	4	
9	S150503017	Nut GB6170- 86 M4	2	
10	222100045	Front cover plate	1	
11	222100001	Left cover plate	1	
12	222100056	Connecting plate	1	
13	182F10016	plate	1	
14	110A10006	Screw	1	
15	S150216031	Screw GB818- 76 M4×6	2	
16	182F10024	Feed dog	1	
17	182F10023	Differential feed dog	1	
18	110A41000	Presser foot complete set	1	
19	222100053	Needle clamp	1	
20	222100055	Stitch plate support	1	

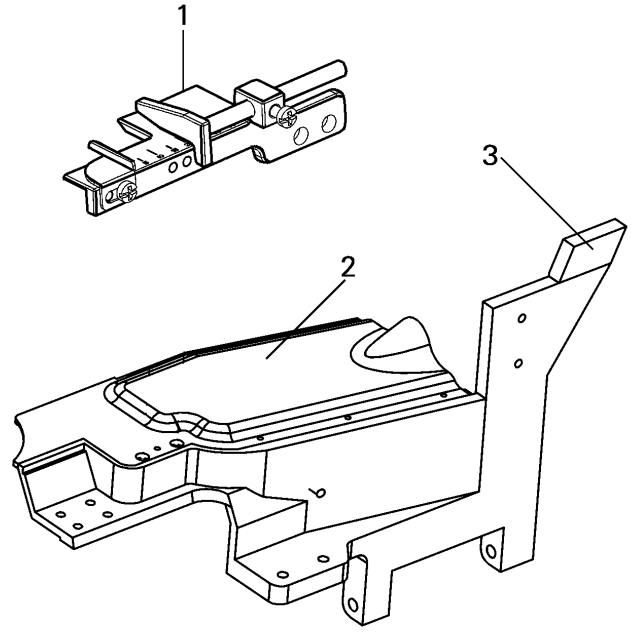
Seam Special- use parts for 337



Seam Special- use parts for 337

No	Ret. No.	Description	Qt	Note
1	182100051	L material guide	1	
2	182100048	R material guide	1	
3	S150202007	Screw GB66- 76 M3×6	2	
4	182100030	Stitch plate support	1	

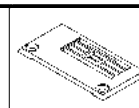
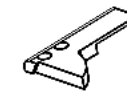
Fold hem Special- use parts for 337



Fold hem Special- use parts for 337

No	Ret. No.	Description	Qt	Note
1	222F01000	Folding device assy	1	
2	222100045	Front cover Plate	1	
3	222100020	Front cover(upper)	1	

337 SERIES GAUGE PARTS LIST

								
YPE	NO.OF NEEDLE	NEEDLE GAUGE	NEEDLE CLAMP	PRESSER FOOT	NEEDLE PLATE	FEED DOG	DIFFERENTIAL FEED DOG	LOOPER THREAD TAKE-UP COVER
337-1348	3	4.8	182610005	110693000	110400038	182C00021	182C00022	182100028
337-1356	3	5.6	182610006	110691000	110400039	182C00021	182C00022	182100028
337-1364	3	6.4	182610007	110692000	110G00003	182C00033	182C00034	182100042
337-1460	4	6.0	182610008	182710018	182600026	182C00033	182C00034	182100042
337-1356-1	3	5.6	182610006	110A41000	182F10007	182F10024	182F10023	182F10020
337-1364-1	3	6.4	182610007	110A42000	182F10029	182F10024	182F10023	182F10020
337-1356-2	3	5.6	182610006	182F28000	182600013	182C00021	182C00022	182100028
337-1356-7	3	5.6	182610006	110691000	182F70005	182F70006	182F70007	182100028

1.Instruction

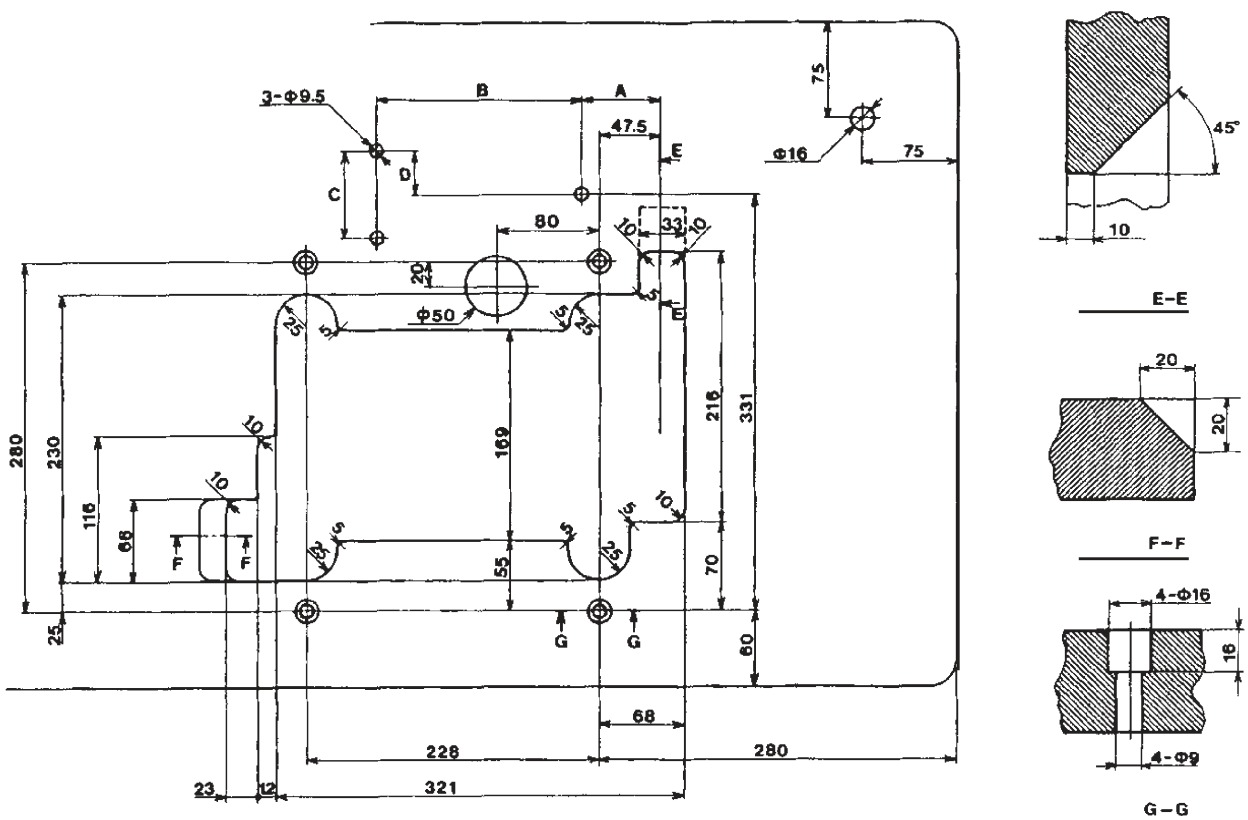
Model 337 interlock stitch sewing machine is special equipment suitable for trades of knitwear, under–wear, etc. This series of products is capable of sewing many stitches, for example, plain interlock stitch, fell interlock stitch, collar and band binding stitch.

2.Specification

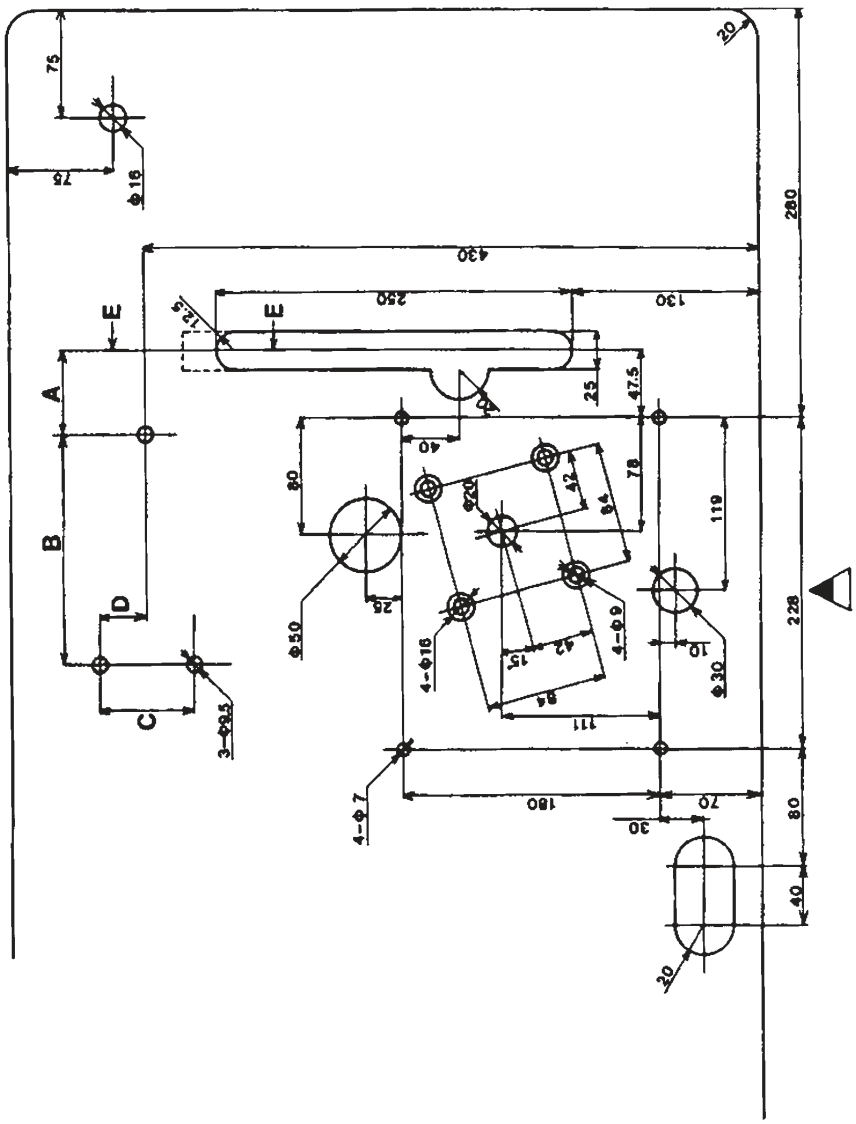
Sewing speed	Gauge of needles	Needle bar stroke	Adjusting form of differen-tial	Adjusting form of variational feeding	Differential ratio	Lubrication	Needle
6000 r/min	1.4–4.5mm	31(mm)	Lever type	Button type	Max. positive ratio 1:2.9 Max. reverse ration1:0.7	With oil pump automatic oil supply	GK16 or UY1 28 DV×63

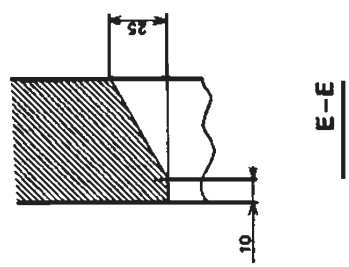
3.Installation

3–1 Table top installation (Type A:standard)

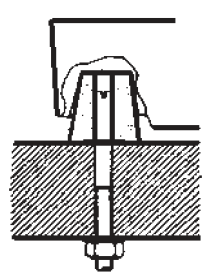


3–2 Table top installation (Type B)

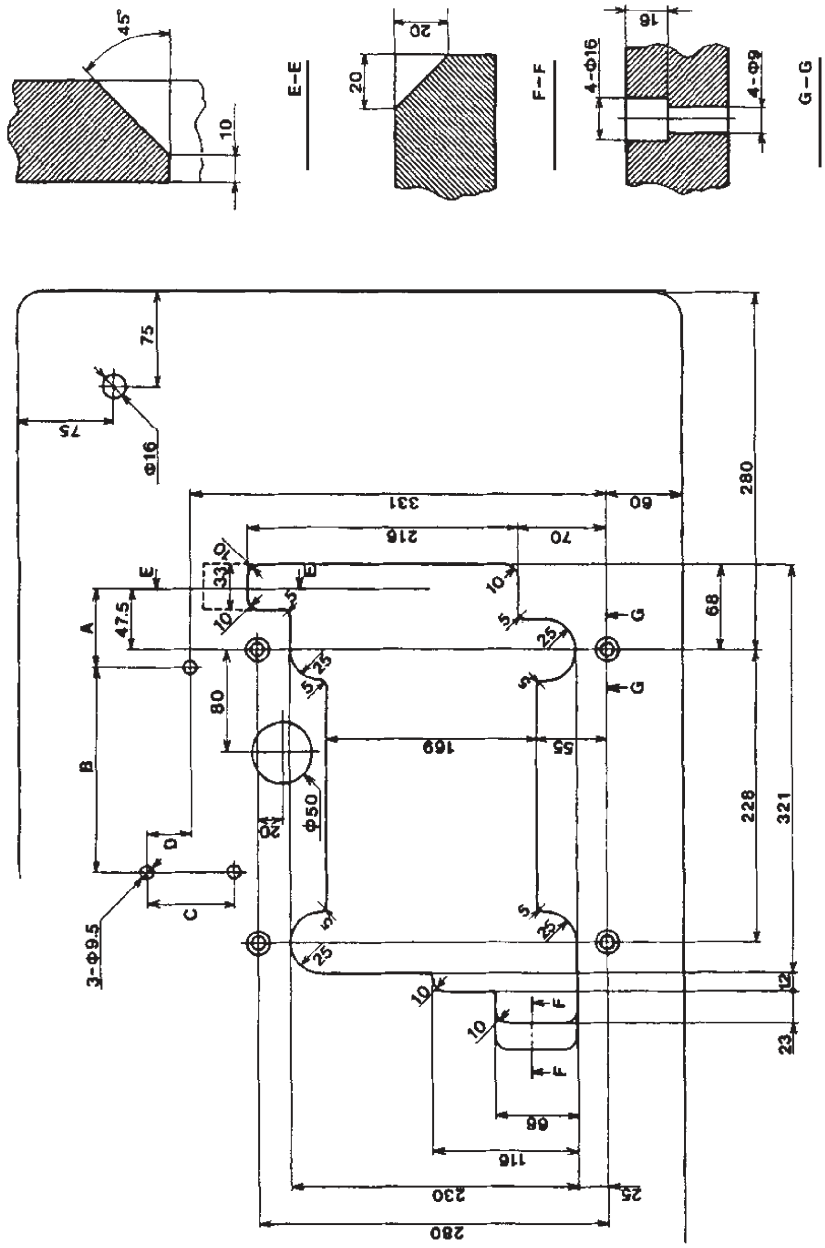


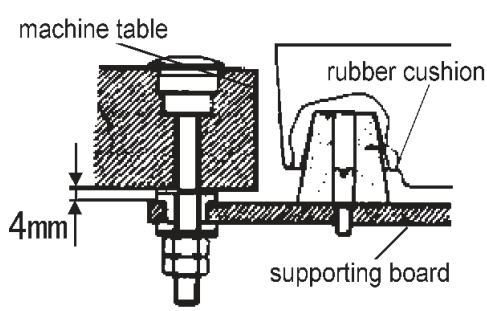


E–E



3–3 Semi–submerged installation





4. Sewing Speed and Setting Up of Pulley

The highest sewing speed is 6000r.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.

Turing directing of pulley (A) is clockwise as well as handwheel (B).

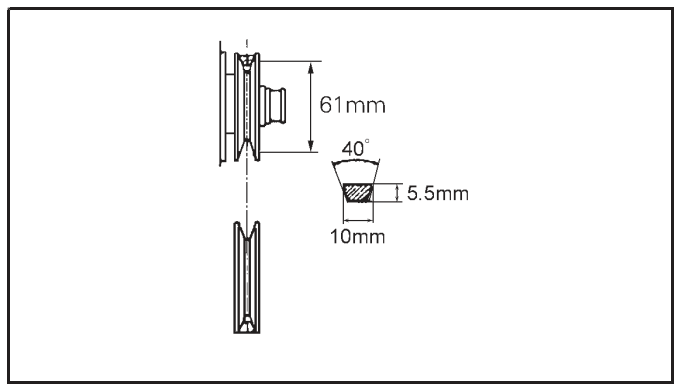
The transmission belt is V type, M series triangle belt.

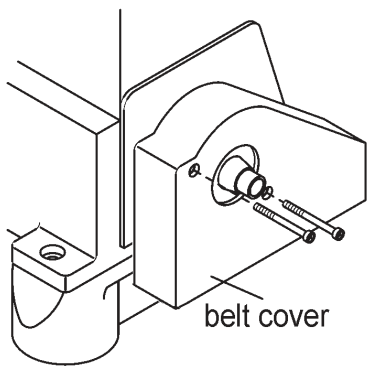
After putting belt, please recheck the elasticity of belt, there should be 2CM elasticity when pressing the middle of belt lightly.

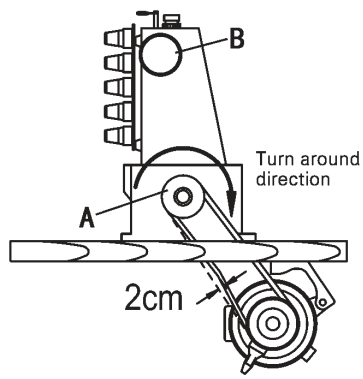
Pulleyis shifted to left sicle while pedaling.

After fixing of moter in correct poston, 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	5000r.p.m
111mm	5000 r.p.m	







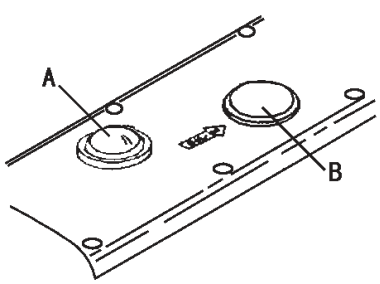
5.Lubrication

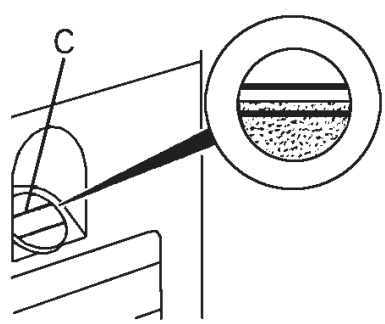
5–1 Oil to Be Used

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.

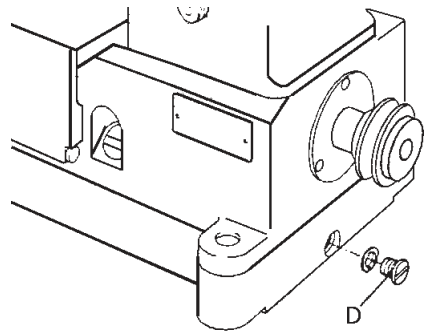
Check oil sight gauge everyday before operation and replenish oil if its face is below underline of the gauge. Looking through oil sight top nozzle before operation, observe the flowing of oil
Caution must be made that this regulating screw slot must be positioned between marks. Usually it has been adjusted 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 4 or 6 times yearly.

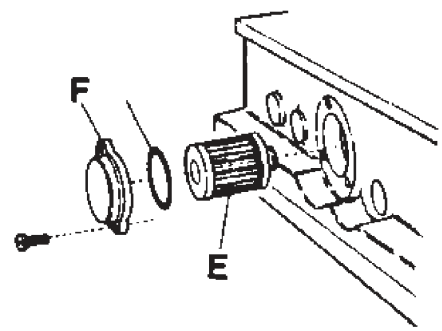
Change of oil shall be made according to the following order:

a. Remove V belt from motor pulley, then re–move 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.

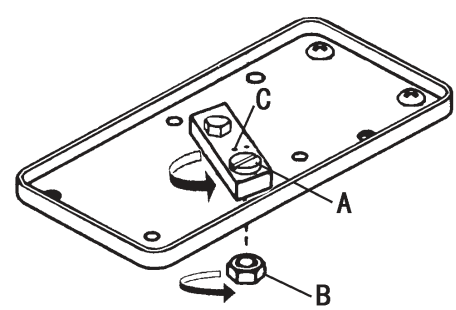
When the filter id blocked up, the oil supply will be affected. Although there is sufficient oil in oil reservoir, no oil could be spreaded form the nozzle. In the case, the operator should turn off the ma –chine immediately, clean or exchange the filter. It should be cleaned every four months. As for 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.

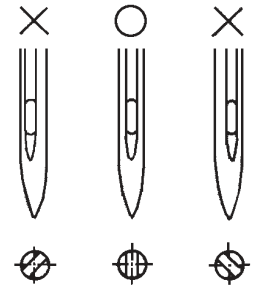


6. Proper Operation

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

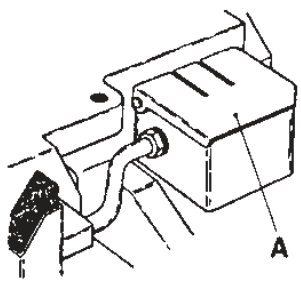
The machine uses needles of Model GK16, DVx63, B–63, or type of UY128 GAS. These are many sizes of needles, so that suitable size to the nature of sewing materials must be select. Generally, needle of #65 –90 is the standard size for lightweight, medium weight and medium heavy fabrics and #90 for heavy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

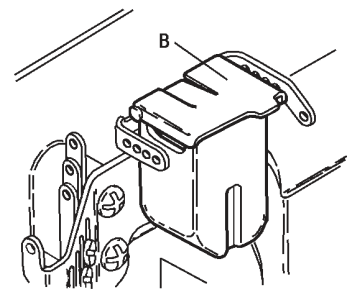
DV×63	9	10	11	12	13	14
B–63	65	70	75	80	85	90
GK16						



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.

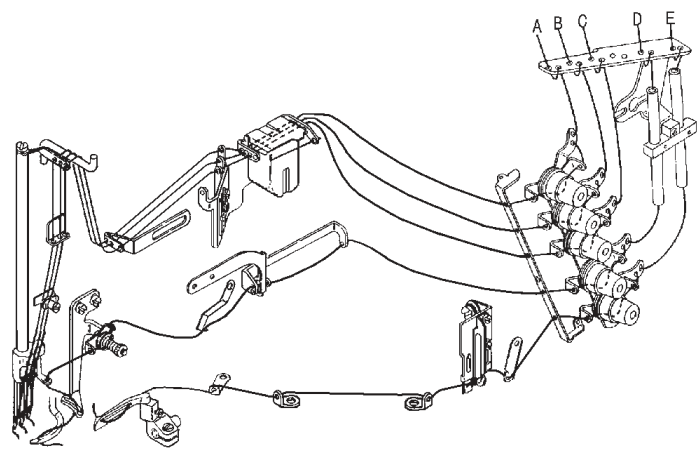
To prevent from occurring above case, the machine is equipped device of needle lubrication. To achieve most efficient effect of these devices, silicon oil should be used. Generally, we suggest using these devices as much as possible and often open the covers of them, checking the oil amount and making 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.





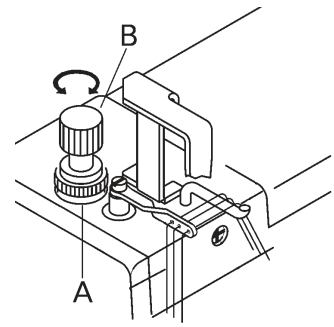
6–2 Threading

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

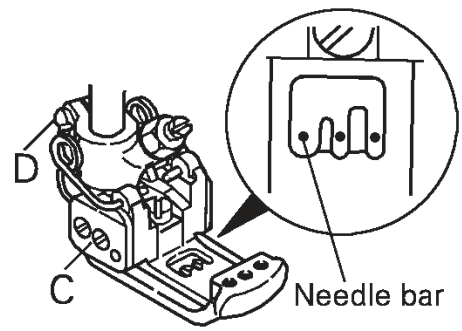


6 –3 Pressure of Presser Foot and Its Adjustment

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 drop–ping 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 cor–rectly. Then tighten screw (D) again.



6–4 Adjusting Stitch Length

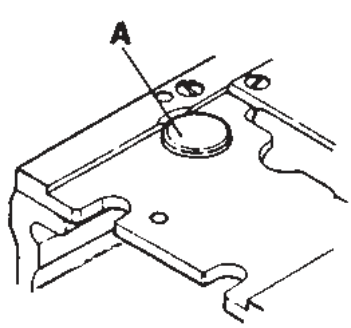
Change of stitch length

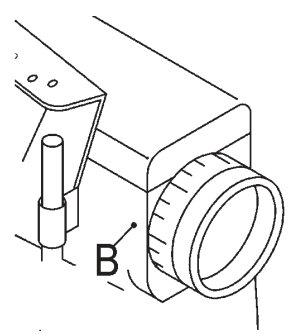
Press push button (A) with left hand lightly till the tip of which contact to a part inside.

Keep pressing,turn handwheel with right hand till push button gets In.At this point,press in push button strongly and turn handwheel.

A graduation on the circumference of handwheel indicates a stitch length (mm). Which should be aligned with the Mark (B) , then release hand.

Note.In case of machine with UT device (lower thread trimmer) which is epuipped with a motor with auto-matic needle positioning system,Motor switch must be turned off without fail when changing stitch length.





6–5 Adjusting Differential Feed

Normal differential feed or reverse differential feed can be set freely by turning Knob (C).

As differential feed and main feed is driven individually, when main feed amount (stitch length) is changed, the differential ratio changes accordingly. In this case readjustment is necessary.

The graduation shows the amount of differential feed. For instance,in Case the desired feed amount (stitch length) is “2” and if the graduation is set at “2” by turning knonb (c) .the differential ratio becomes 1: 1.

※When setting the graduation over “2”, it becomes normal differential and setting it under “2”, it becomes reverse differential.

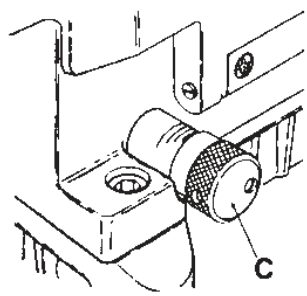
For the main feed amount the upper limit is “4”.

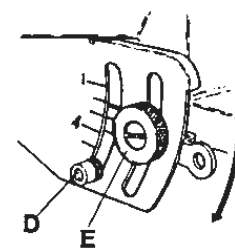
When using differential feed control lever .

Fix differential feed control lever at the desired position with nut (E) within the range from the position of graduation on lever when turning knob (C) to stopper (D).

At the time of using max. differential feed. Turn knob (C) and set lever at graduation “1”. For adjusting feed amount during operation, attach a chain to the lever.

※The range of differential ratio varies according to the stitch length.Refer to the table below rande differential.





7. Proper Adjusting

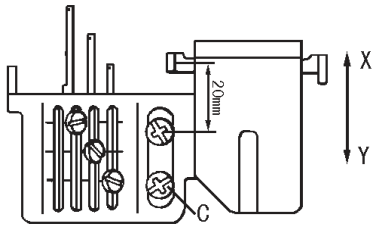
Each setting is on the standard position of the machine and no need to be adjusted. Under certain special situation, like to change different needles and hooks, or make some inner adjustment to sew special

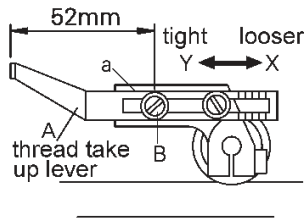
7–1 Tension of Needle thread

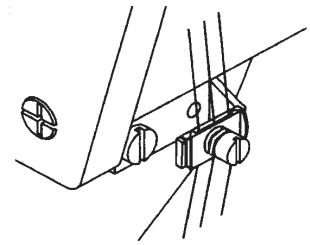
The distance between needle thread take–up (A) and center of fixing screw (B) is 52mm. When needle lever is at its highest position, edge (A) of needle thread take–up should be horizontal. This is the standard posi–tion of the needle thread take–up. After loosen screw (B), move the needle thread take–up towards (Y) di–rection, tighten needle thread; move it towards (X) di–rection, 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. Gener–ally, 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.

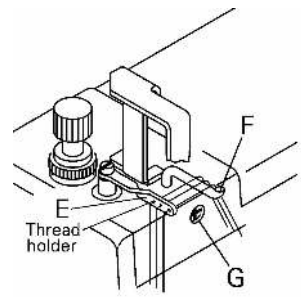






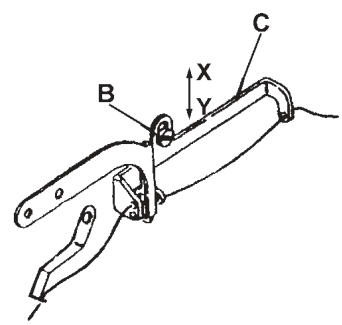
7–2 Adjusting of Needle Thread Retainer Device

In case of stretchable thread such as synthetic thread is used, needle thread loop will be unsteadia–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).

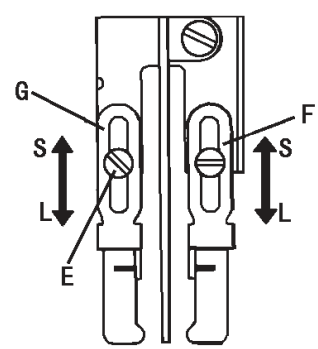


7–4 Adjusting of Tension of Looper Thread

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 Removal and Fitting of Presser Foot

To remove presser foot:

a. Loosen regulating screw (B) and fixing screw (D) of foot stopper collar(C).

b. Push the presser foot lever (E) towards, then presser foot can be removed.

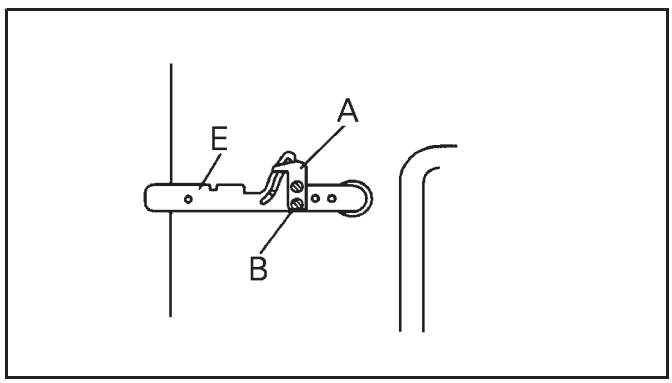
To fit presser foot :

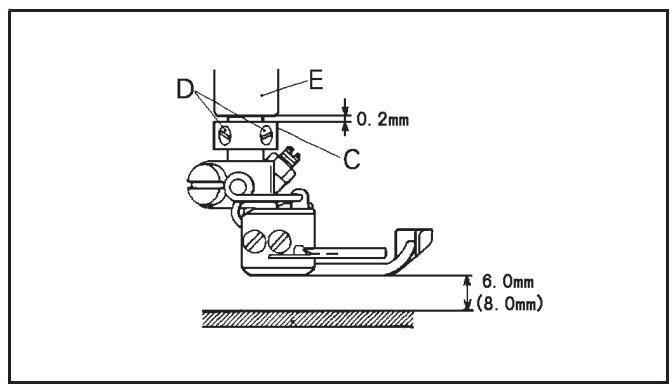
c. Keep a distance of 6mm between bottom face of presser foot and top of needle plate. Then fix the press foot and retighten presser foot stopper collar(C) as show in the fig.

d. 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.

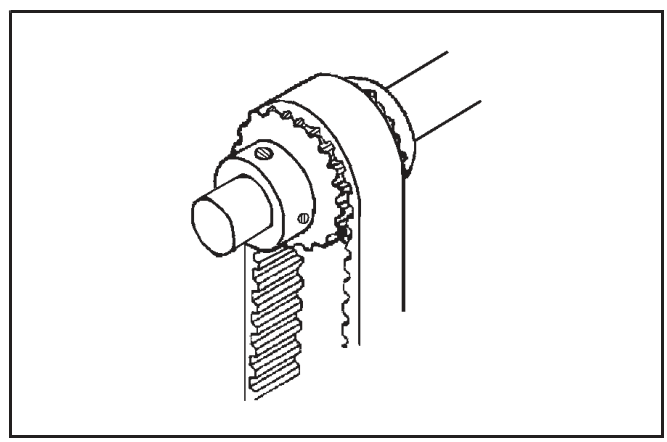
And it is not necessary to use the stopper collar.





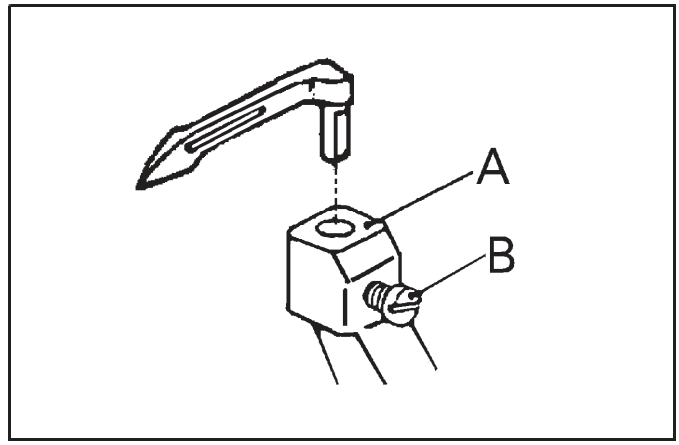
7–6 Timing of Needle with Looper Moving Right/Left

When needle bat 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.



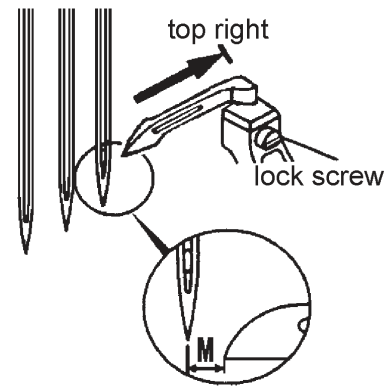
7–7 Fitting Angle and Height of Looper

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



7–8 Distance (M) between Needle and Looperat Its Right End

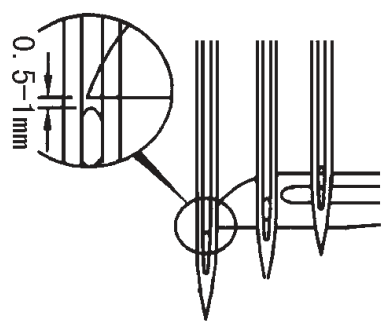
When needle are at their lowest position and looper is at its right end, distance (M) between center of right needle and point of looper shall be M =6 –A/2, for 2 –needle or 3 –needle machine which the two sides distance of needle is A, for example, A=5.6 ,M=3.2.

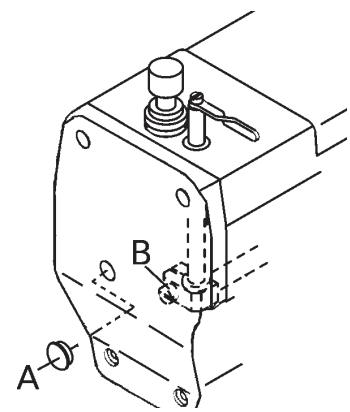


7–9 Height of Needle Bar

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

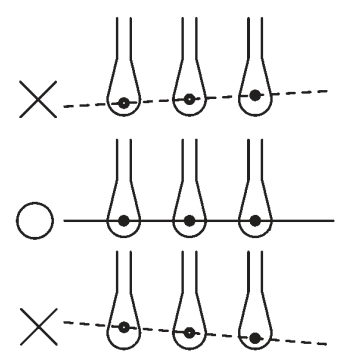
To adjust the height of needle bar, to open rubber plug A, and loose screw B. When needlepoint of looper move to the center of left needle, this needlepoint should be located 0.5–1mm above the needle





7–10 Relation between Needle and Stitch Plate

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



7–11 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.

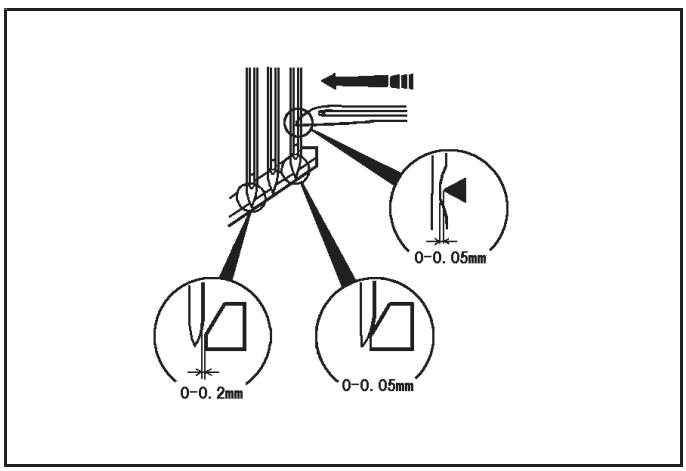
When it swings to at the relative opposition of middle needle,a clearance of 0.05–0.1mm must be kept.

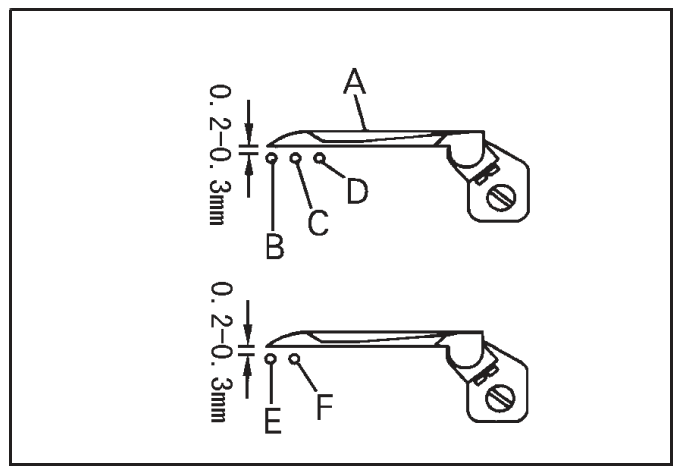
When looper tip is at the opposition of right needle, there will appear a soft touch. It is necessary to push the needle a little forward (0.1–0.2mm) through needle guard (rear) let it keep a clearance of 0–0.05mm.

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.

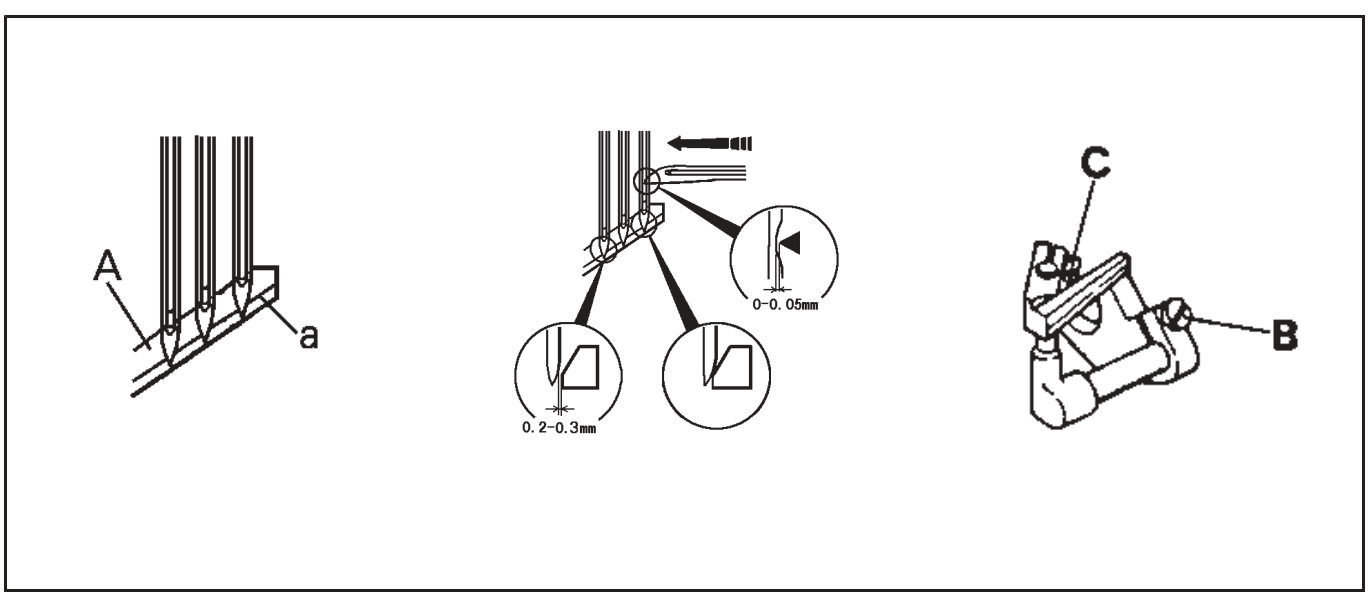




7–12 Adjusting of needle guard (rear)

Height of needle guard (rear) with needle bar at the lowest position, Align the centers of needles with the line (a) of needle guard (rear) (A).

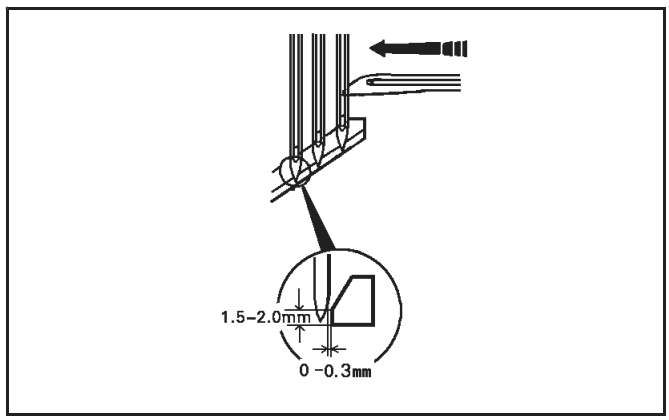
Front/rear position of needle guard (rear) when the tip of looper comes to the center of right needle,adjust the clearance between needle and looper to 0~0.5mm by pressing needle guard (rear),At this time,provide a clearance of 0~0.5mm between left needle and needle guard (rear). These adjustments are made by looseing screw (B) and (C).

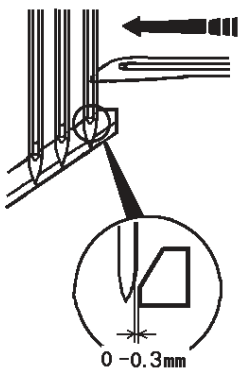


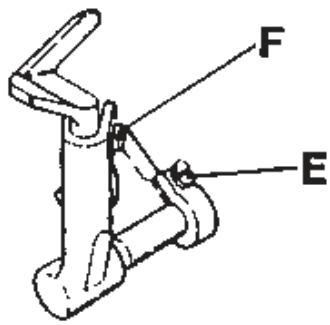
7–13 Adjusting of needle guard (front)

When the tip of looper comes to the center of left needle,Make it 1.5~2mm higher than the needle.At this time, Provide a clearance of 0~0.3mm between the needle and needle guard (Front) (D).

And when the tip of looper is returned to the right needle,provide a clearance of 0~0.3mm between the needle and needle guard (Front).These adjustments are made by loosening screw (E) and (F).

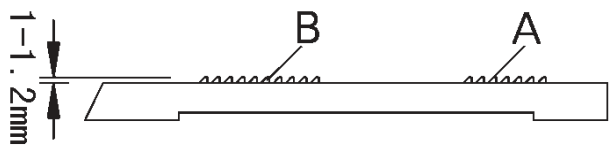






7–14 Height of Feeding Dogs

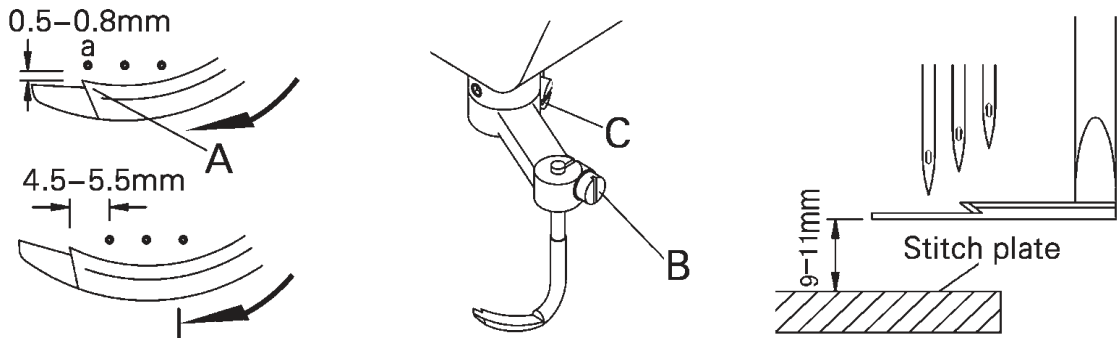
When feeding dogs move to its highest, the surface of feeding dogs tooth should be paralleled to the top face of stitch plate and main feeding dog (B) and differential feeding dog (A) should be at the same height of 1–1.2mm.



7–15 Fitting of Ornamental Looper and Its Adjusting

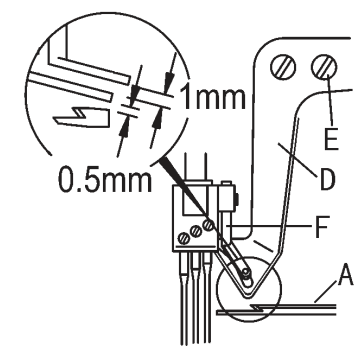
a. When ornamental looper (A) move towards left, there should keep a clearance of 0.5–0.8mm be–tween the hook point (a) and left needle. When it goes on moving to the left end above–mentioned clear–ance should be 4.5–5.5mm. All these adjustment can be made through the screw(C).

b. 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).



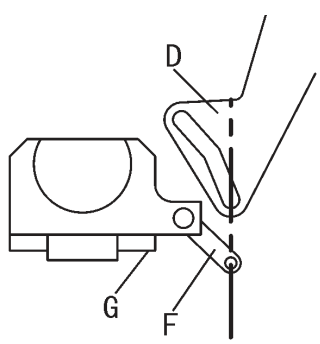
7–16 Adjusting of Ornamental Thread Eyelet

On the basis of top face of looper, to adjust or–namental 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 –17 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.

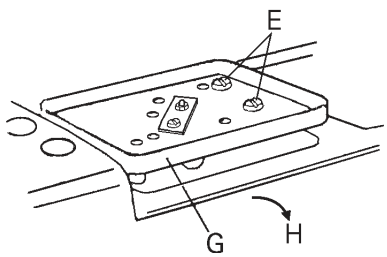


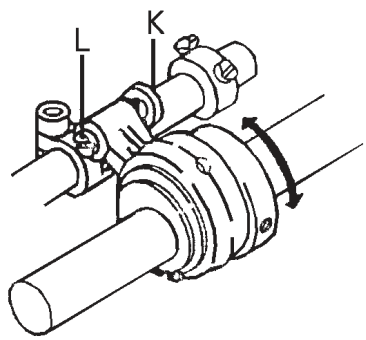
7 –18 Adjusting of Swing Scope of Ornamental Looper

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:

a. Remove top cover.
b. Removes screw (F) and move the oil reservoir out towards (H).
c. 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.

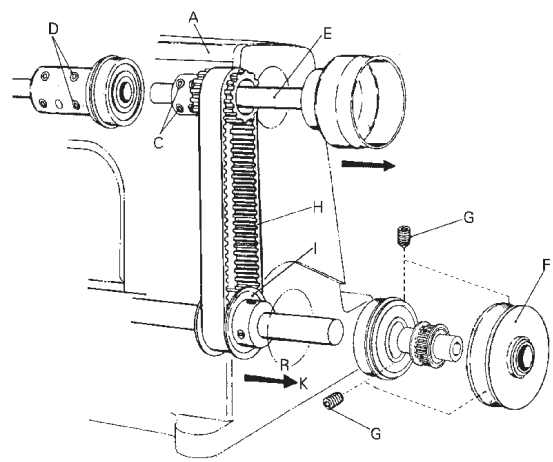
NOTE: During adjustment, care must be taken not to keep too big amount of swing scope, otherwise will cause the ornamental thread too loose and stitch loose and uneven.





7 –19 Exchange of Upper Shaft

a. Remove top cover(A)
b. 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.
c. Loosen screw (G) on belt wheel and remove the belt wheel.
d. Pull belt toward direction (K) out of the hole (R) of machine.
e. To set new upper shaft driving belt, make assembling by the order of d–c–b–a in the oppo–site of above–mentioned. After setting,adjust the timing between looper and needle.
f. After adjusting, tighten screw (D) of pulley steadily.



● Besides adjusting stitch,please laypeople don´t debug or maintaine.

● Parts are subject to changes in design without prior notice.

XI´AN TYPICAL INDUSTRIES CO.,LTD.

Add: No.355 Taibai South Road,
Xi´an,P.R.China–710068
Tel :+86–29–88279091 88279150
Fax :+86–29–88249715 88245215
E–mail:typical@chinatypical.com
Http:www.chinatypical.com
Http:www.globalsources.com

2015. 04. 10 ①

TYPICAL

GK337 SERIES

SUPER HIGH SPEED CYLINDER BED INTERLOCK MACHINE
INSTRUCTION BOOK/PARTS CATALOGUE

XI'AN TYPICAL INDUSTRIES CO.,LTD.