

GALONTIRA

Sun Special[®]

SS32500 – 1364

1. Introduction

Model 32500 interlock stitch sewing machine is special equipment suitable for trades of knitwear, underwear, 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: Max. 6500r. p. m.

Gauge of needles: 1.4 – 3.6mm/s

Needle: Model GK16 or UK128 DVx63 B – 63 (65 – 90)

Needle Bar Stroke: 31mm

Presser Foot Raising Height: 6mm (with upper ornamental thread)

8mm (without upper ornament thread)

Adjusting Form of Differential: Lever Type (IT can also be regulated at any time during operation)

Adjusting form of Variational Feeding: Button Type

Differential Ratio: Max. Positive Ratio 1: 2 Max. Reverse Ratio 1: 0.7

Lubrication: With Oil Pump Automatic Oil Supply

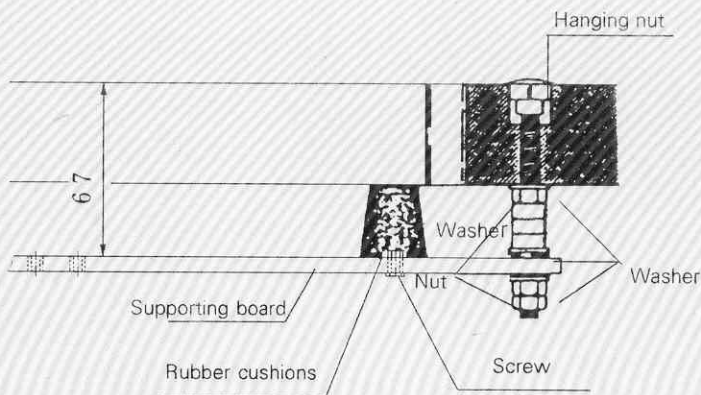
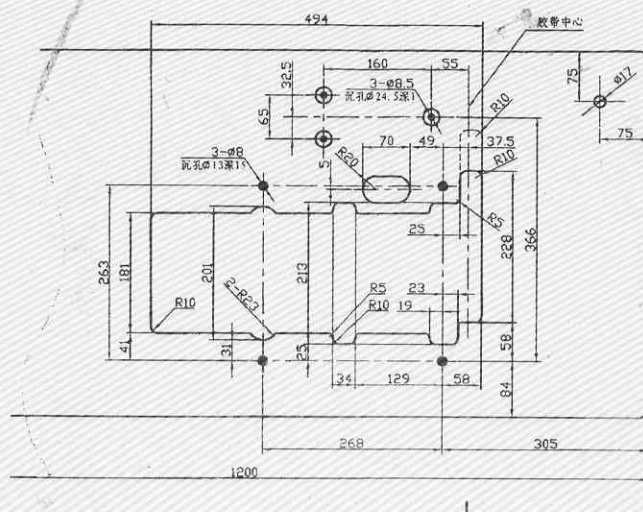
Lubricant: NO. 18 Sewing Machine Oil

To position the motor, make both centerlines of motor pulley and machine pulley is aligned when motor

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

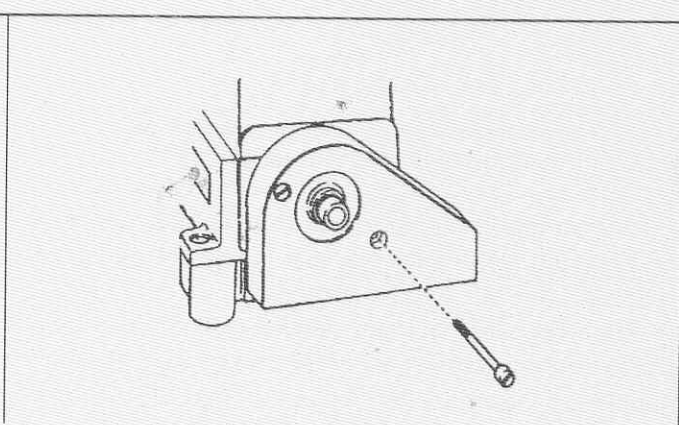
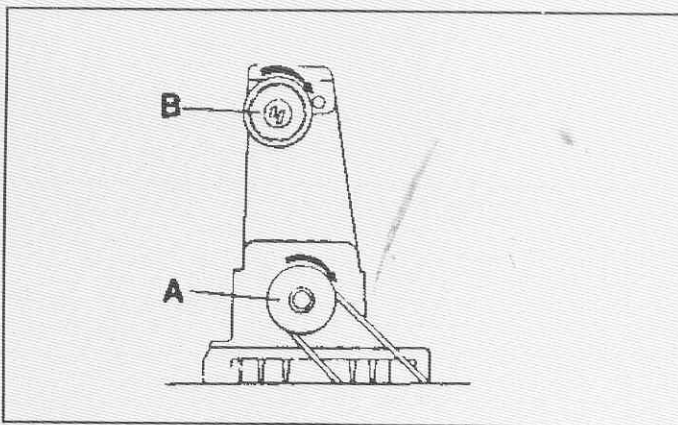
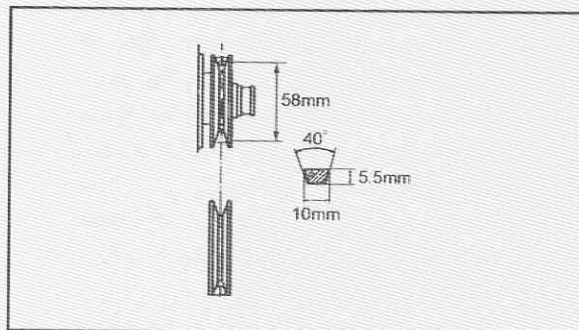
The highest sewing speed is 6500r. p. m. and ordinary one is 5300r. p. m.

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.

Turing directing of pulley (A) is clockwise as well as handwheel (B). pulley is shifted to left side while pedaling.

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

Dia of motor (d) / Pulley	Sewing speed	
	50Hz	60Hz
80mm	3600r. p. m	4320r. p. m
90mm	4100r. p. m	5000r. p. m
118mm	5300r. p. m	



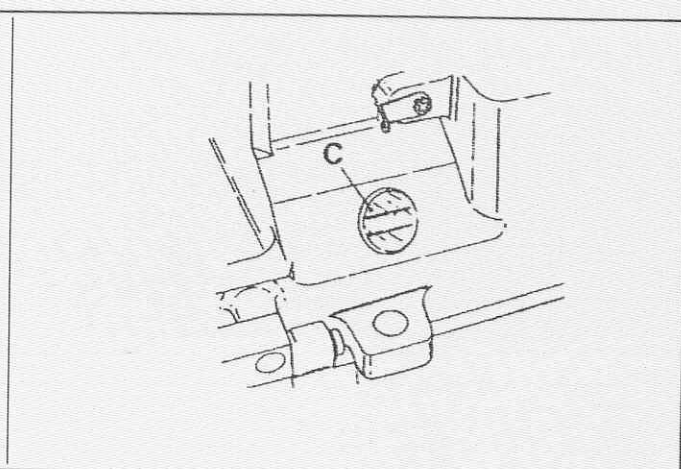
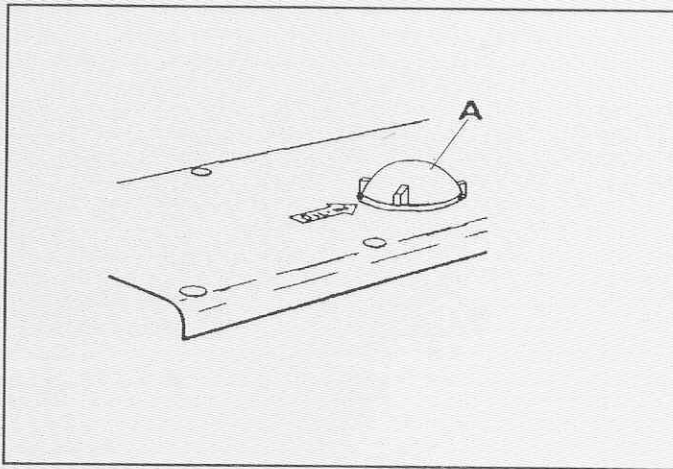
5. Lubrication

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

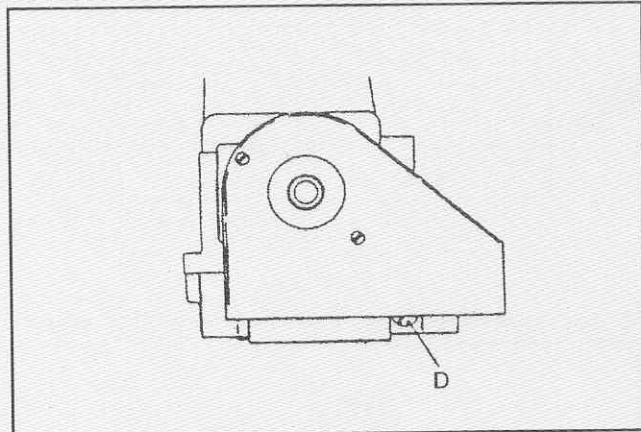
Caution must be made that this regulating screw slot must be positioned between marks. Usually it has been adjusted properly before shipment.

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.

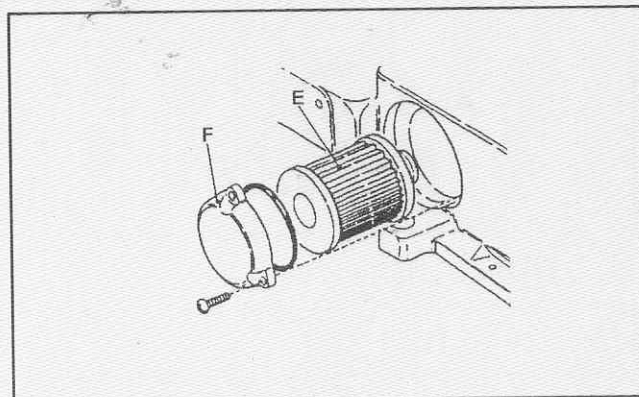
Change of oil shall be made according to the following order:

- Remove V belt from motor pulley, then remove machine head from supporting board.
- Remove belt guard.
- Remove drain screw (D) and drain oil.
- 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.

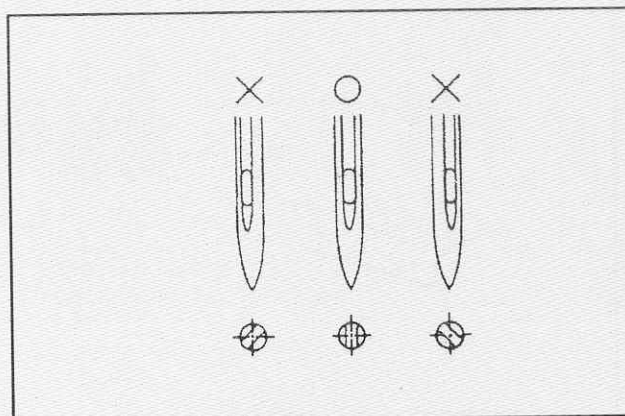


6. Proper Operation

6.1 Needle to Be Used, Fitting Of Needle and "SP" and "HR" Device.

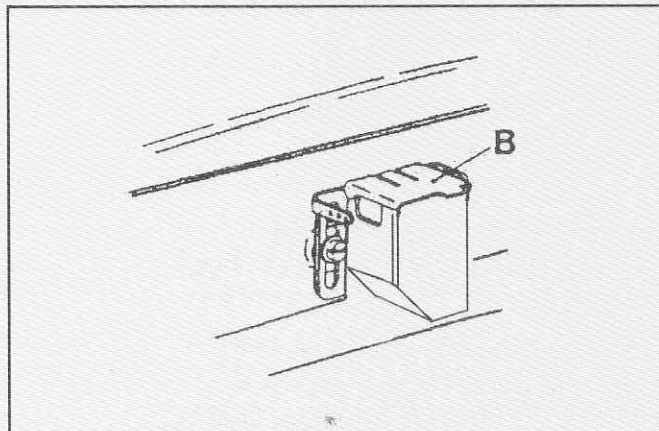
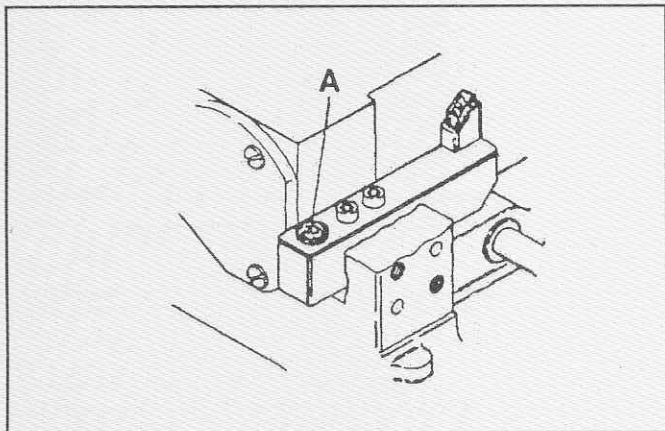
The machine uses needles of Model GK16, DVx63, B-63, or type of UY128 GAS. These are many sizes of needles, so that suitable size to the nature of sewing materials must be select. Generally, needle of #65 - 90 is the standard size for lightweight, medium weight and medium heavy fabrics and #90 for heavy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

Dv x 63	9	10	11	12	13	14
B-63	65	70	75	80	85	90
K16						



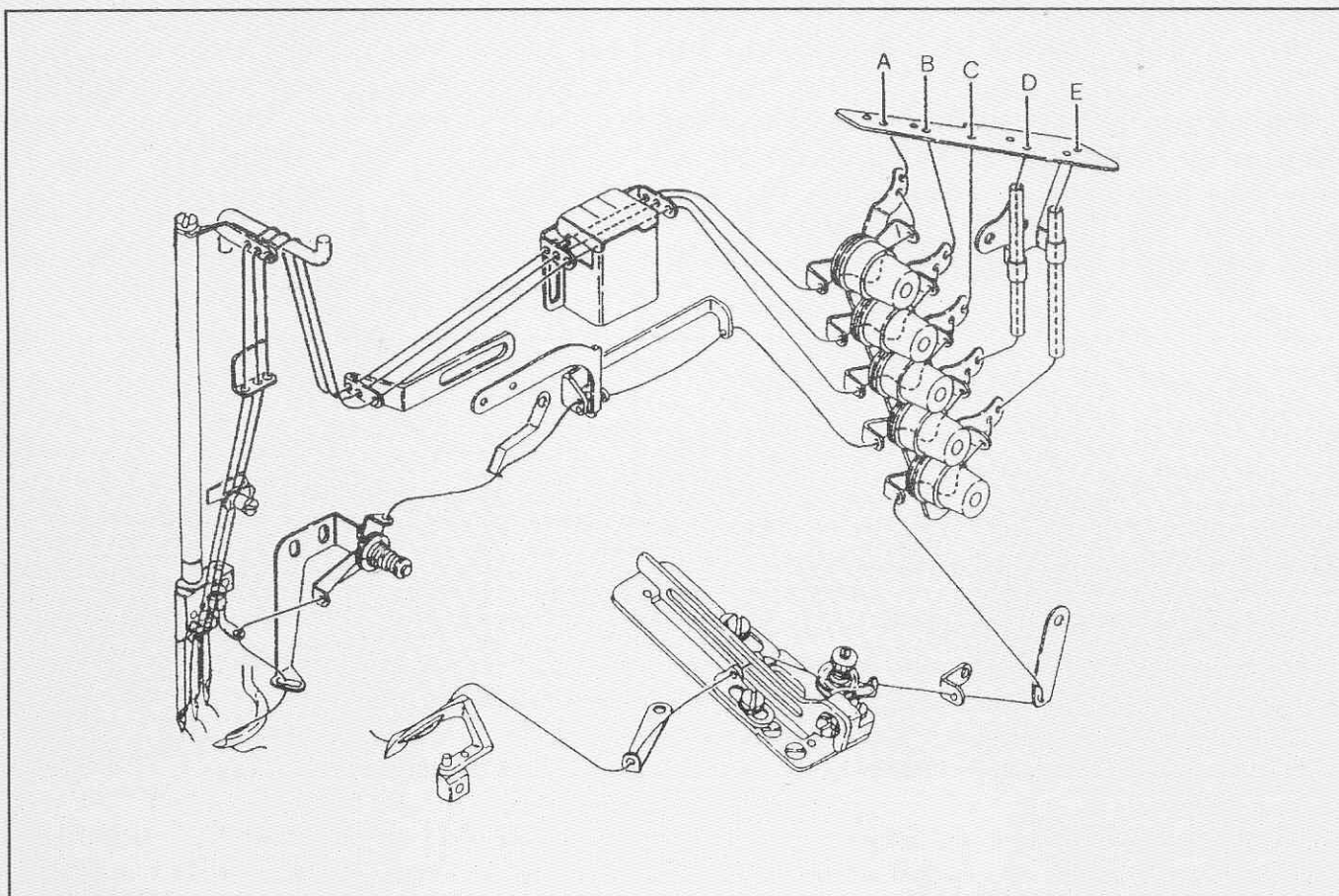
Needle should be set correctly facing their long slot towards operator; mark (X) in fig. 12 shows incorrect setting of needle. While operating machine in high speed, due to the friction occurred between needle and fabric causing stitch skipping, thread broken and the penetrated hole on the fabric will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

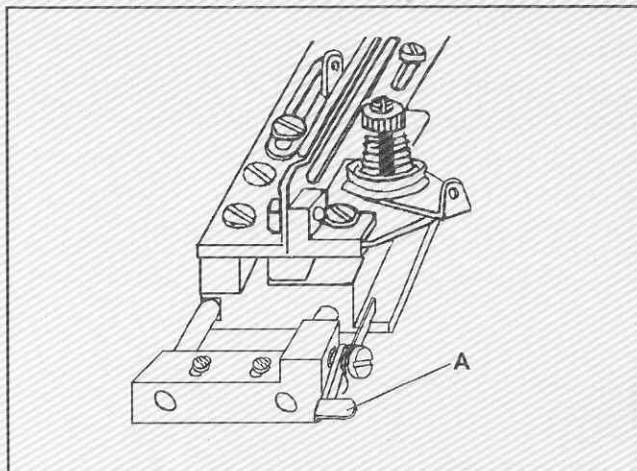
Threading the machine as shown in fig. A. B. C. indicate needle thread, D stand for upper ornamental thread, E presents looper thread.



6.3 Operation of Spring –out Type Bobbin Thread Guide

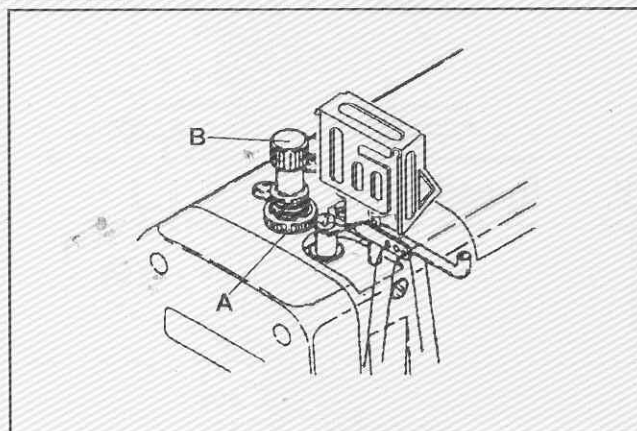
In order to make bobbin threading easy, the machine designs to be equipped with spring –out type bobbin thread guide. Its operation procedure is as follows.

Set needle bar to the highest position by turning handwheel. Bracket of thread guide will spring out and threading is easy as long as press down the lever (A). When push in the bobbin thread guide, the processing will be done.

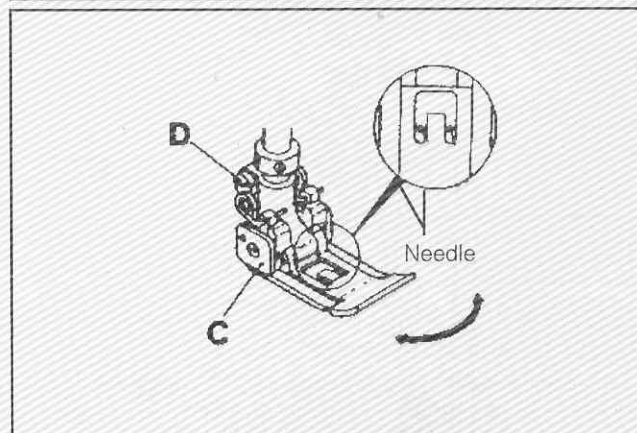


6.4 Pressure of Presser Foot and Its Adjustment

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.



6.5 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.

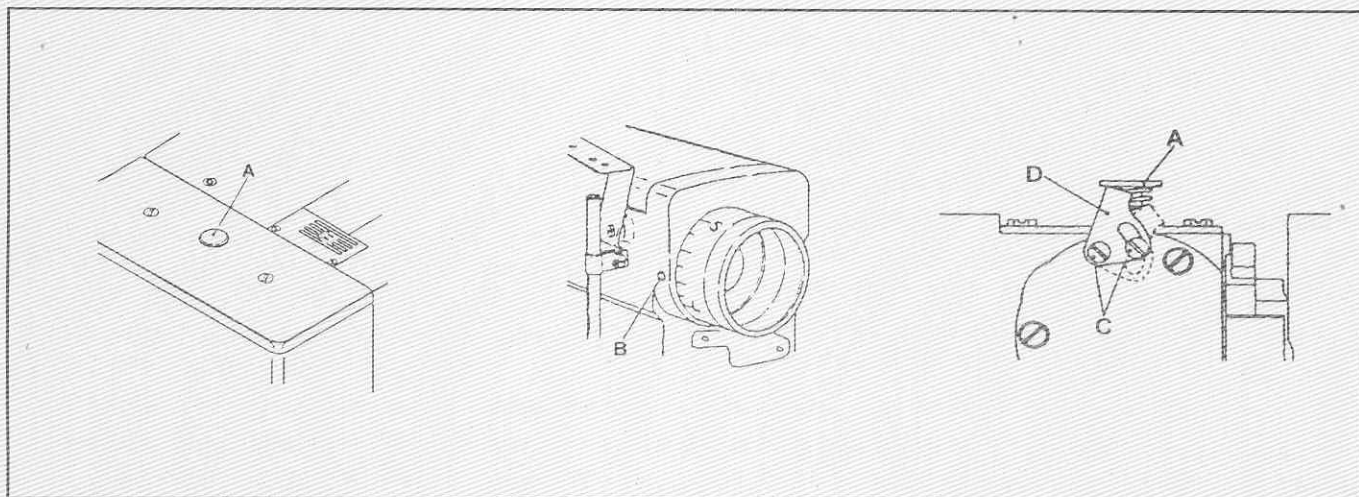
(2) Graduation on the circumference of handwheel shows a stitch length in mm.

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.

(3) There maybe a little difference owing to kind, thickness of materials and/or the ration of differential feeding, in such case, the graduation of handwheel must be readjust correctly.

(4) Lock of stitch length regulation button:

After the stitch length is set, if you don't want the operator to change it, lock device can be used. Firstly, to loosen fixing screw (C) turn the lock plate (D) upwards and make it touch the bottom of button, after that, retighten fixing screw (C), and the button will be locked.



6.6 Adjusting of Differential Feeding

(1) Normal differential feeding

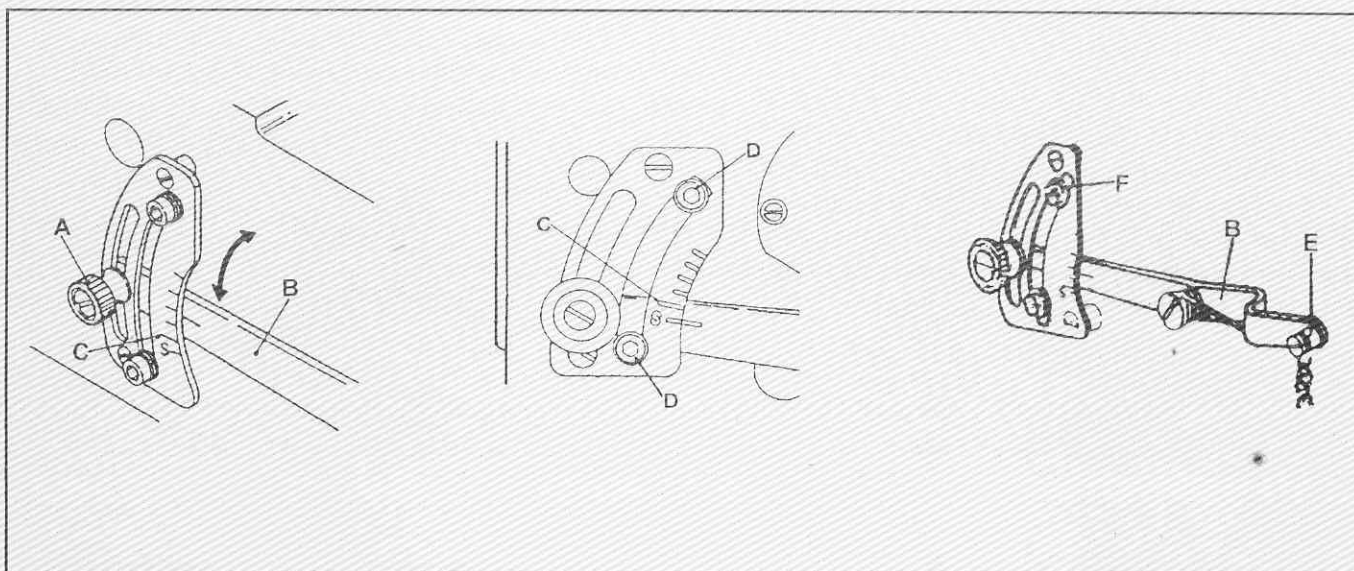
To make normal differential feeding, loosen screw (A), and set the link lever (B) up and down and fix it at proper position, then retighten screw (A).

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, form "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 grauation "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

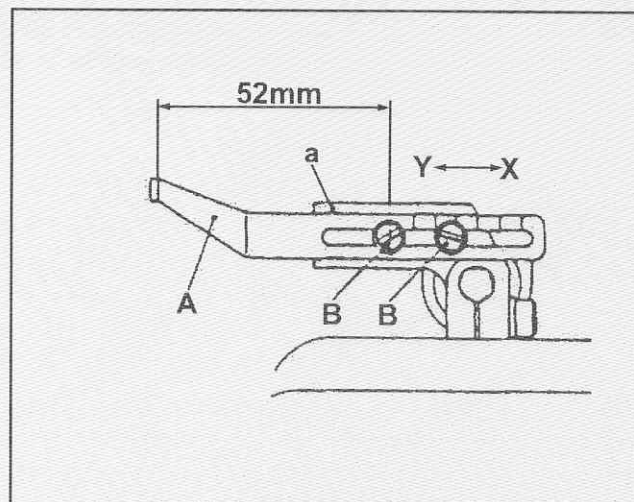
To make adjustment of differential ratio during sewing, the hanger chain can be linked with pedal. When the pedal is treaded after linkage, the differential ratio can be regulated at any time. After loosen screw (F), the range of random differential ratio can be adjusted.



7. Proper Adjusting

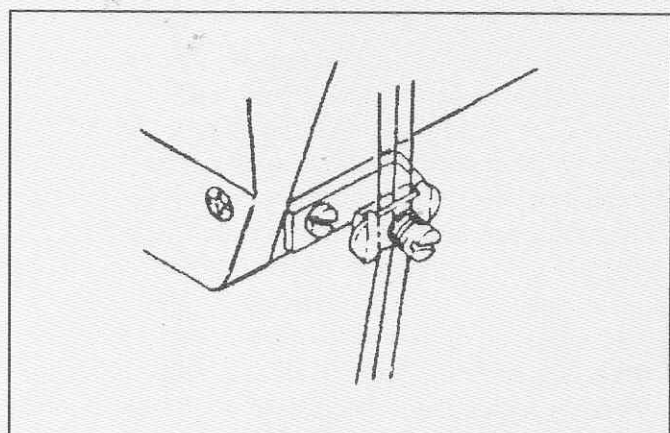
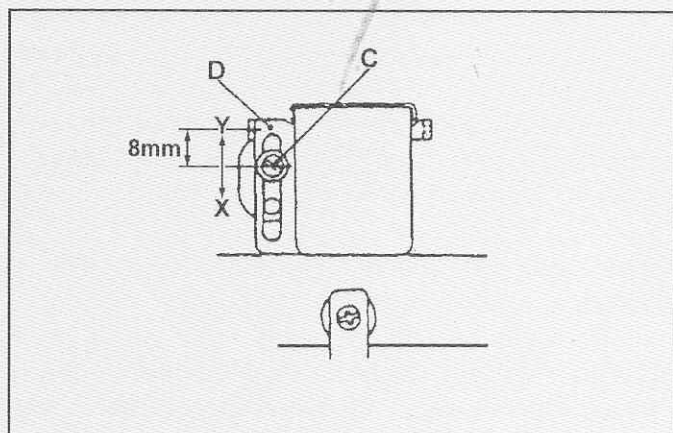
7.1 Tension of Needle thread

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.



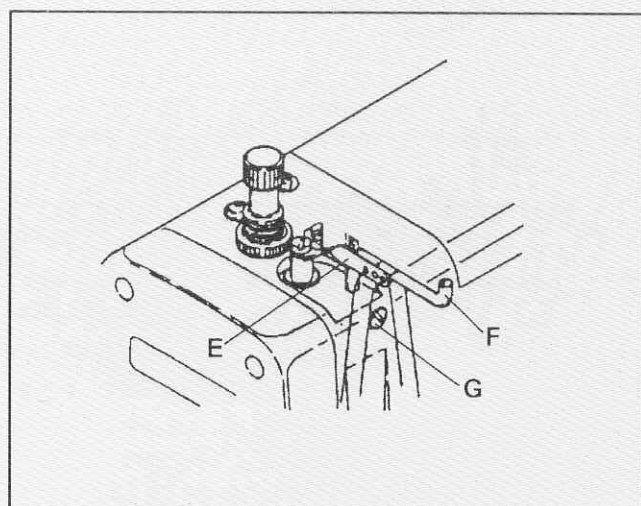
In case of general sewing condition, the distance between the center of screw and thread eyelet of thread guide should be 8mm.

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.



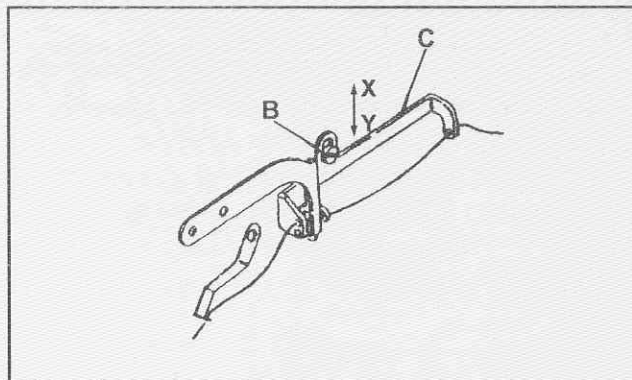
7.2 Adjusting of Needle Thread Retainer Device

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

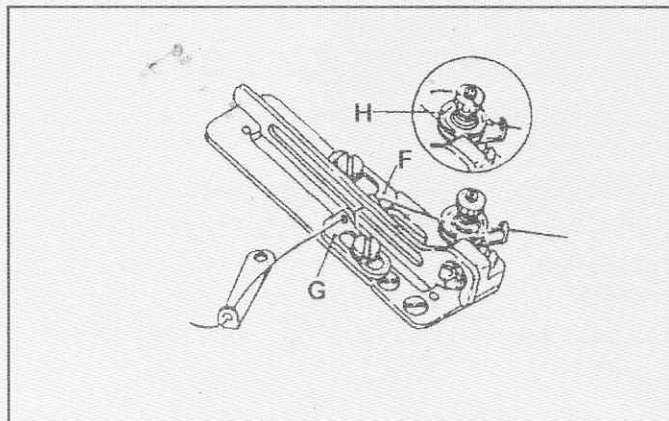
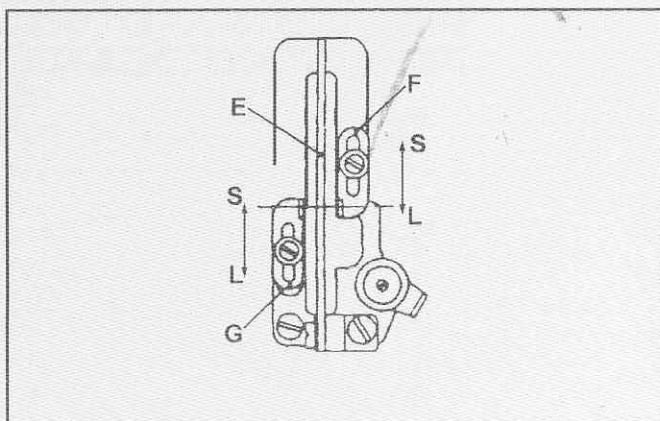


7.4 Adjusting of Tension of Looper Thread

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.

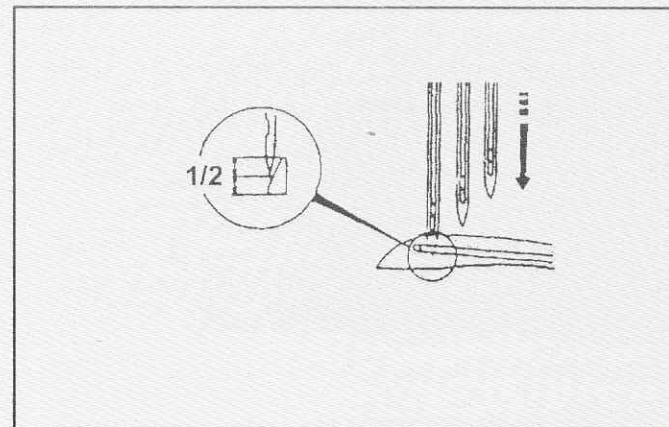
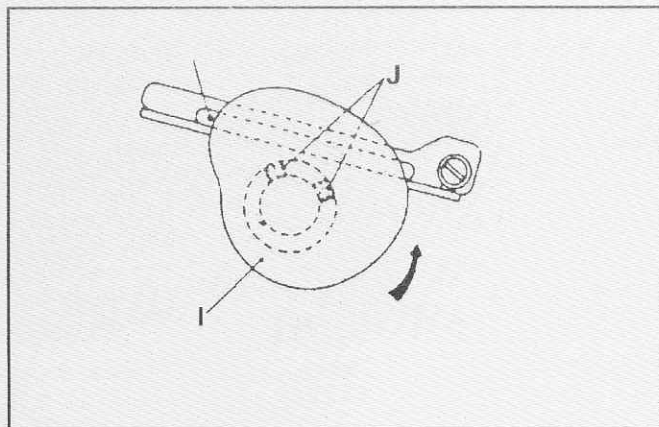
To get plenty of casting thread, loosen fixing screw of eyelets (F) and (G) move them towards direction (L), otherwise move them towards direction (S) and retighten the fixing screws in time.

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).

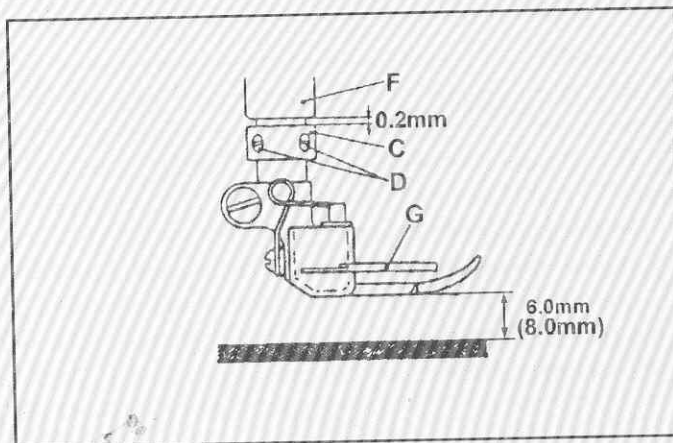
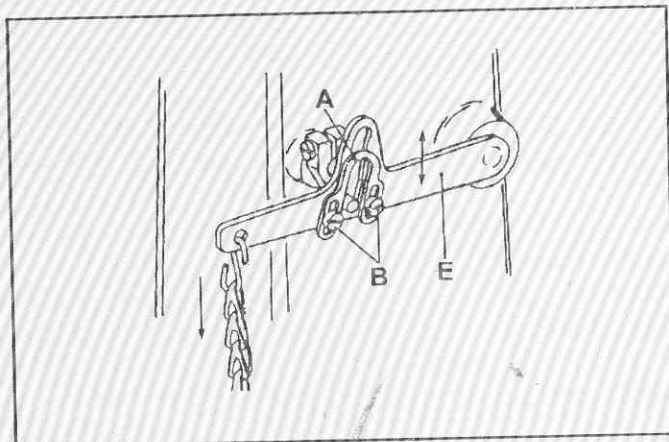


7.6 Removal and Fitting of Presser Foot

To remove presser foot:

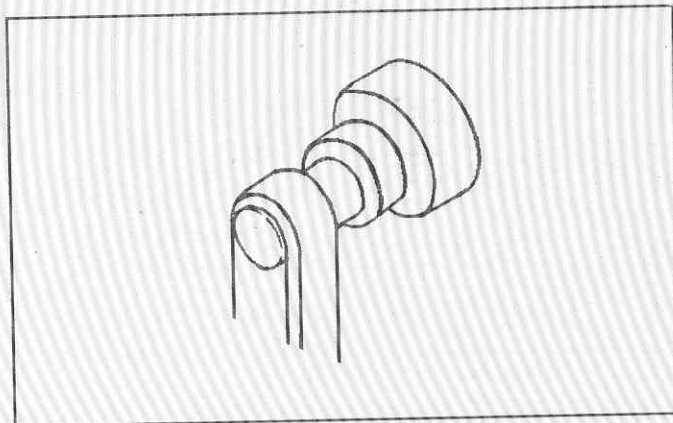
- Loosen regulating screw (B) and fixing screw (D) of foot stopper collar (C).
- Push the presser foot lever (E) towards, then presser foot can be removed.
- Keep a distance of 6mm between bottom face of presser foot and top of needle plate. Then fix the press foot and retighten presser foot stopper 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.



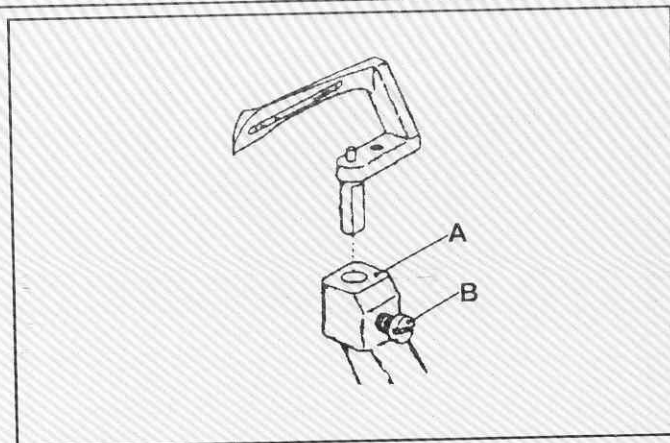
7.7 Timing of Needle with Looper Moving Right/Left

When needle 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.



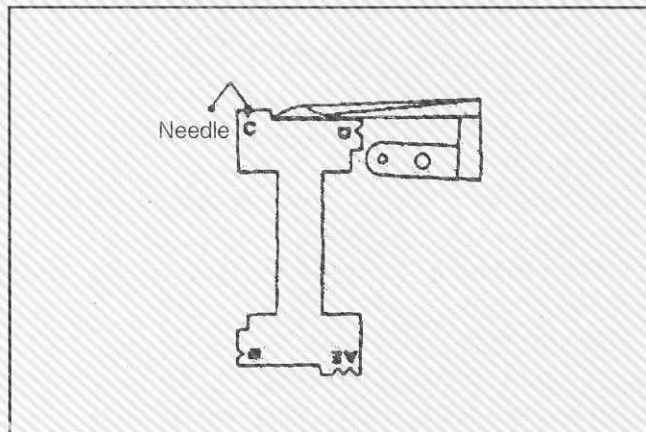
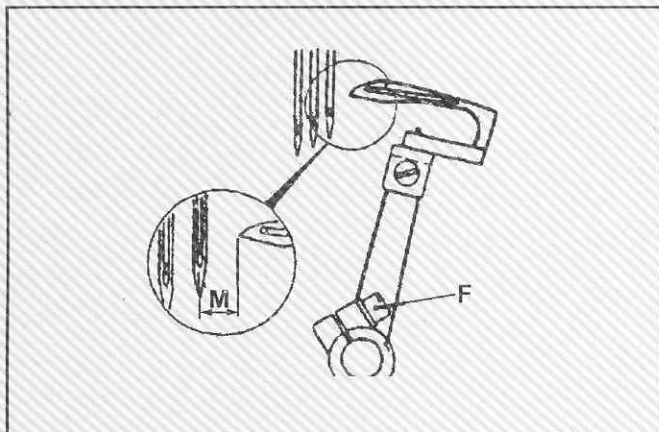
7.8 Fitting Angle and Height of Looper

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



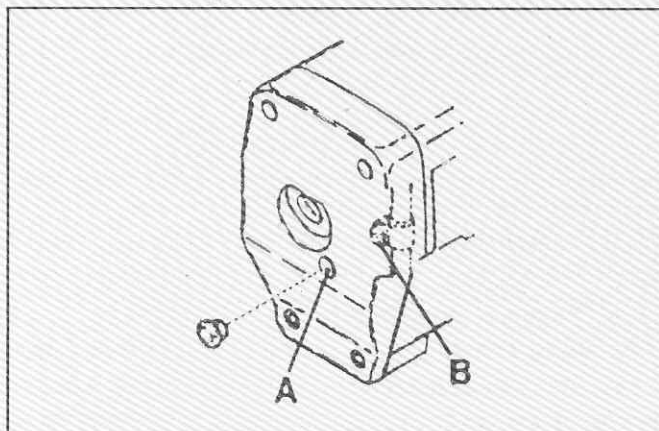
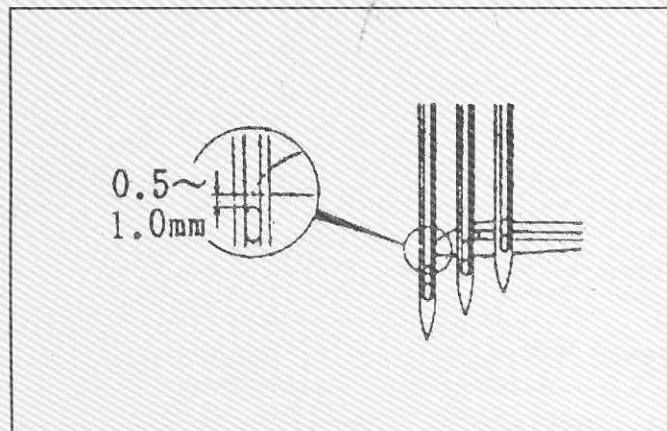
7.9 Distance (M) between Needle and Looper at Its Right End

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, $A = 5.6$, $M = 3.2$.



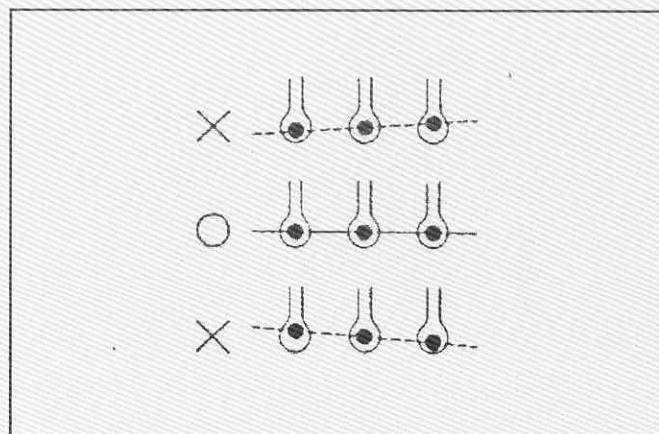
7.10 Height of Needle Bar

When looper tip swing to the center of left needle, the looper tip should be at position above left needle eye, with a distance of 0.5 - 1.0mm to the top edge of left needle eye, the height of needle bar is on the reference basis of looper. The height of needle bar can be set by loosening the screw (B) of needle bar linking shaft with the help of a screw driver inserted into hole (A) of face plate. After adjustment, retighten the screw (B). Above case is under the condition that both needle and looper must be inserted as far as it will go.



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

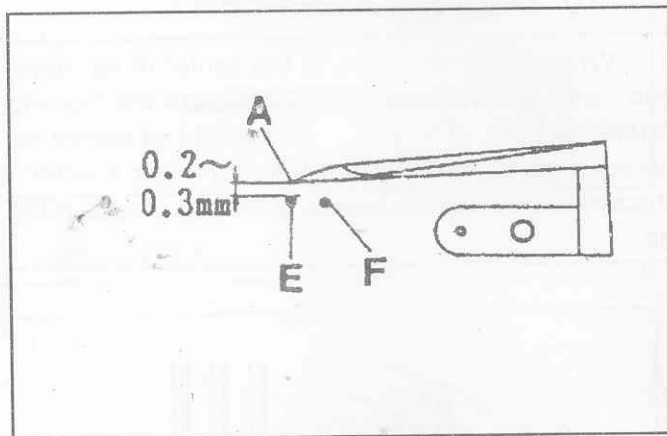
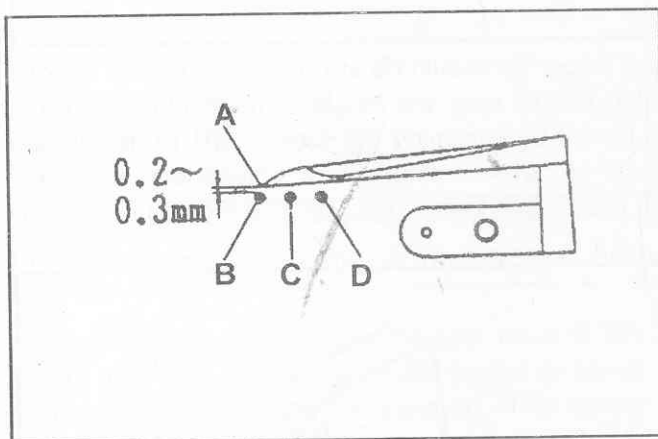
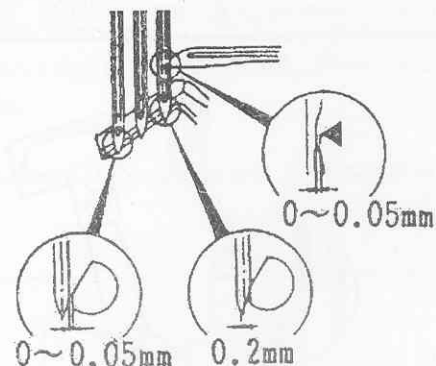
When looper tip swings to the relative position of left needle, a clearance of 0.2 – 0.3mm must be kept.

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 clearance 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.

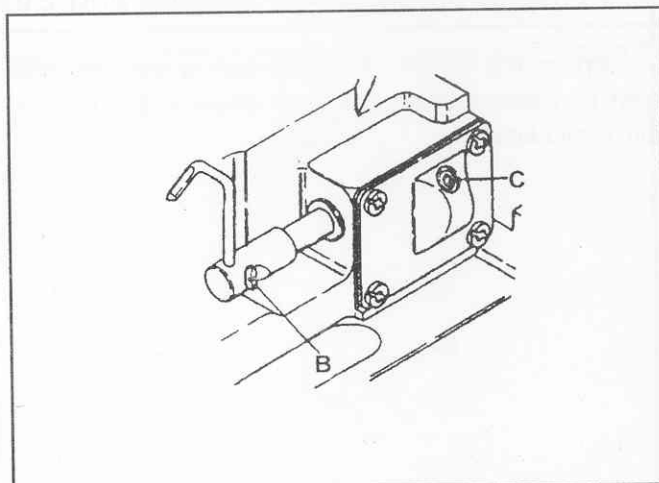
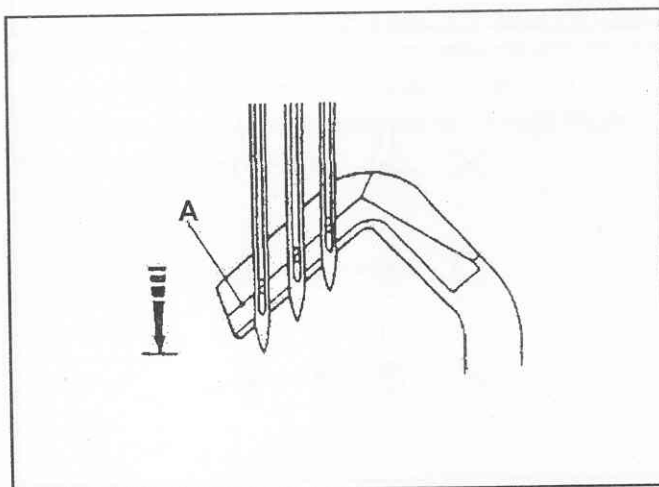


7.13 Adjusting of Needle Guard (rear)

a. Height of needle guard (rear)

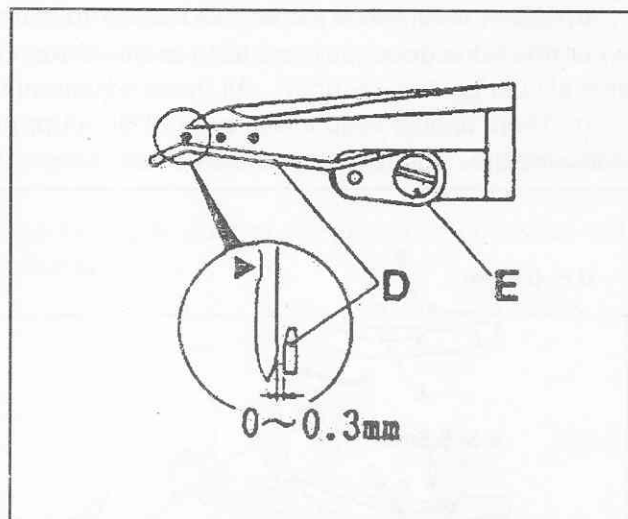
To adjust the edge (A) of needle guard (rear) to be even with the center of needle eye.

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



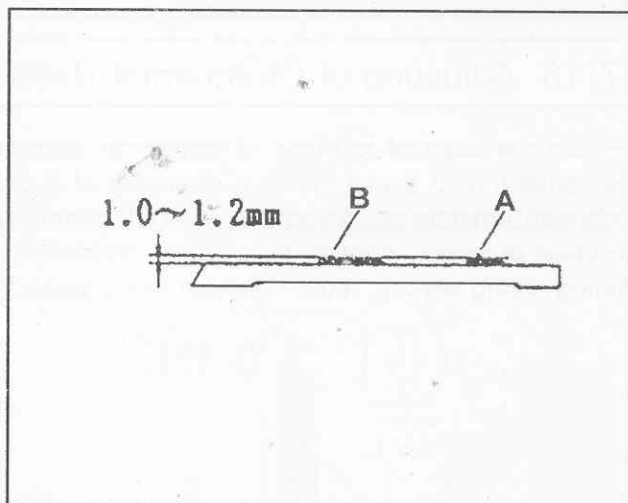
7. 14 Adjusting of Needle Guard (front)

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.



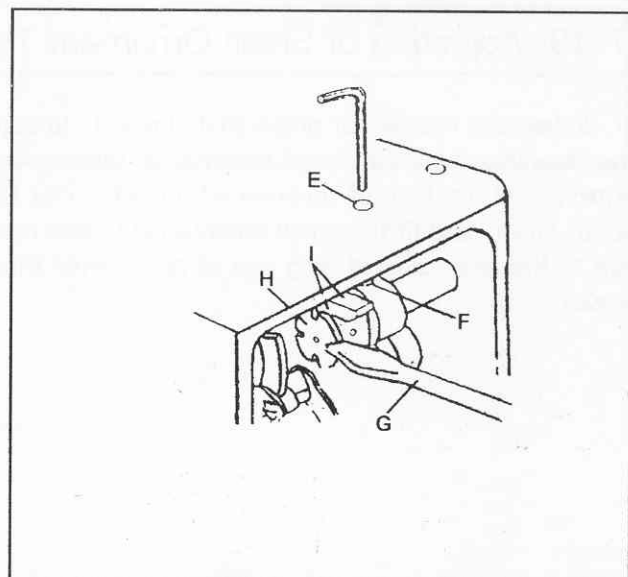
7. 15 Height of Feeding Dogs

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

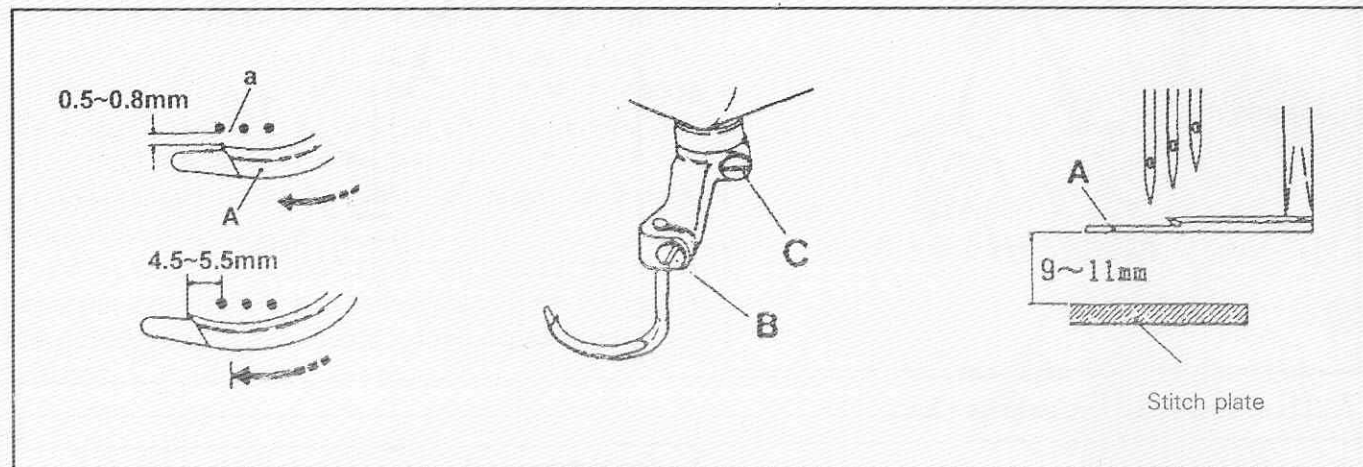
Remove cloth plate (small) and rear cover, then to loosen the screw (F) with a screw driver passing through hole (E) of machine body and insert a screw driver into eccentric pin (H) to turn the eccentric pin and make the feeding dog and stitch plate parallel as required.



7.17 Fitting of Ornamental Looper and Its Adjusting

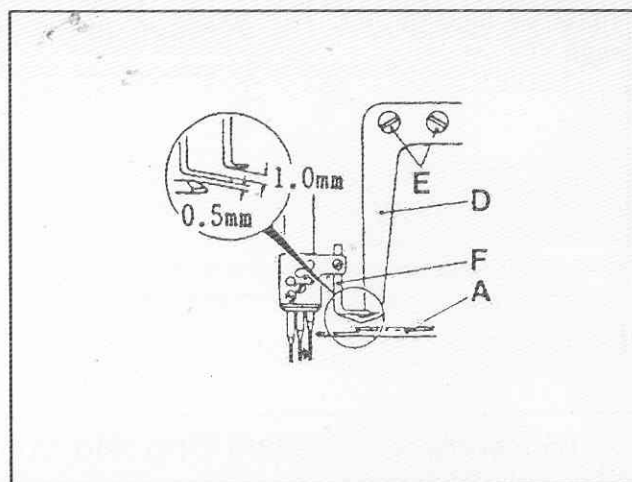
a. When ornamental looper (A) move towards left, there should keep a clearance of 0.5 – 0.8mm between the hook point (a) and left needle. When it goes on moving to the left end above – mentioned clearance should be 4.5 – 5.5mm. All these adjustment can be made through the screw (C).

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).



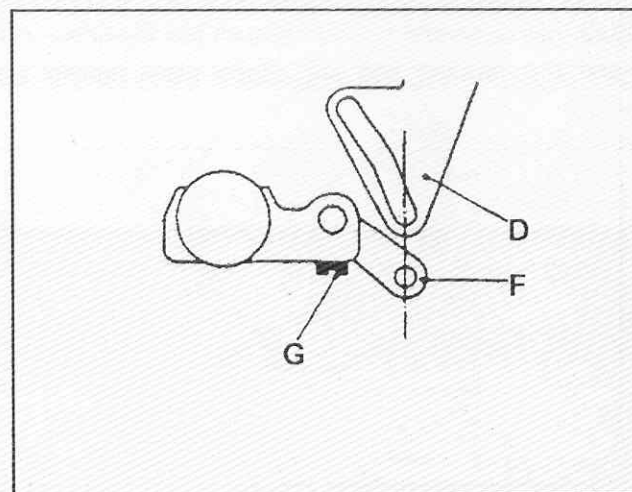
7.18 Adjusting of Ornamental Thread Eyelet

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.

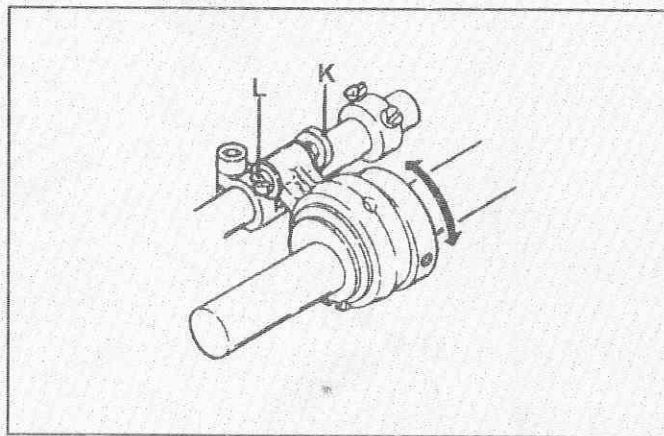
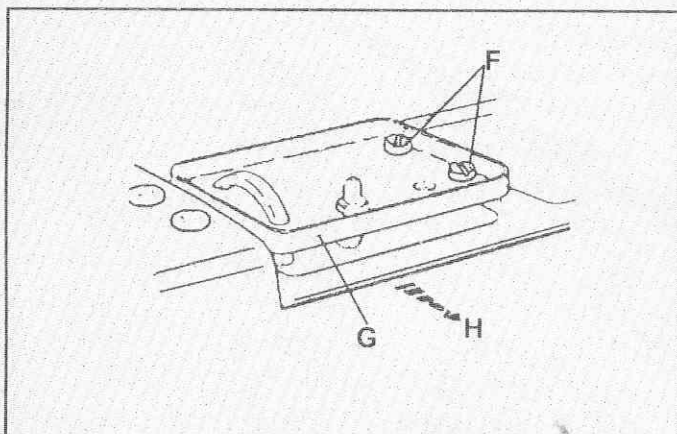


7.20 Adjusting of Swing Scope of Ornamental Looper

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:

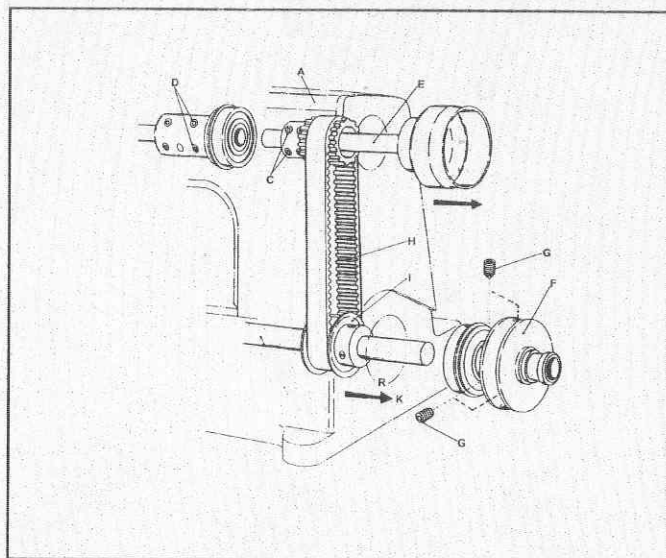
- Remove top cover.
- Remove screw (F) and move the oil reservoir out towards (H).
- Loosen nut (K); otherwise, to move the screw (L) down, to increase swing scope, then retighten the nut (K); otherwise, to move the screw (L) up.

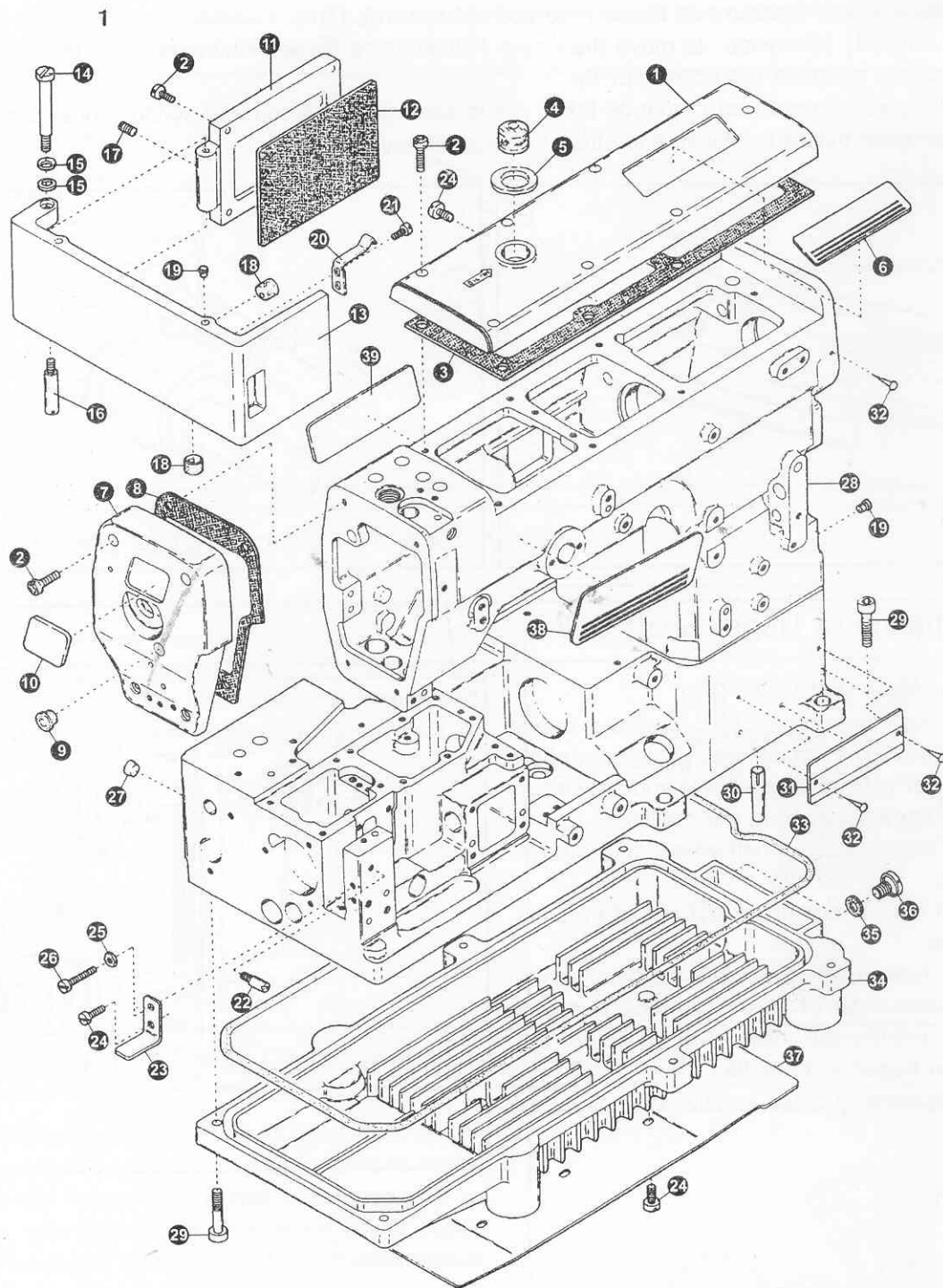
NOTE: During adjustment, care must be taken not to keep too big amount of swing scope, otherwise will cause the ornamental thread too loose and stitch loose and uneven.



7.21 Exchange of Upper Shaft Belt

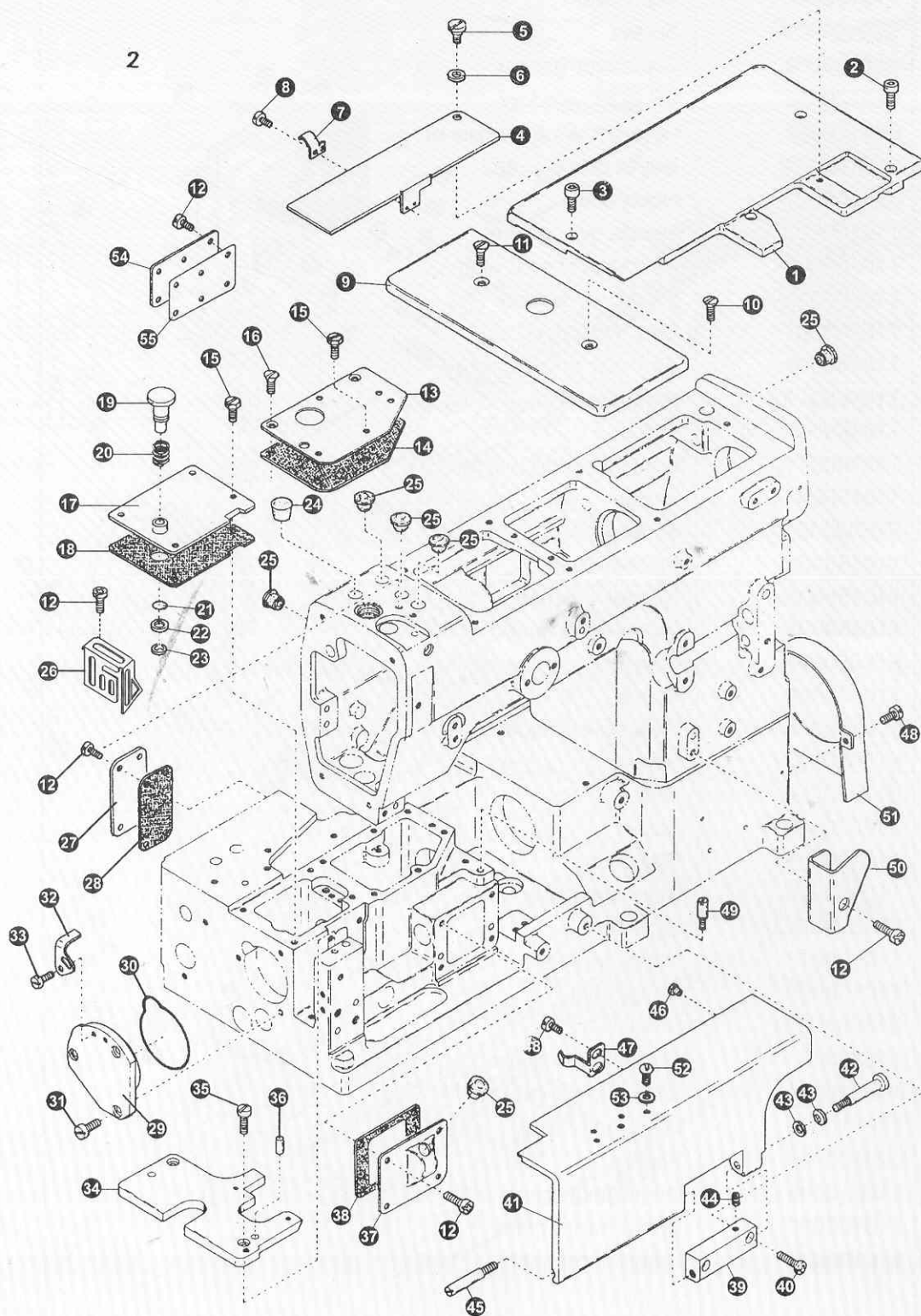
- Remove top cover (A).
- After loosening screw (D), pull out upper shaft (E) while holding handwheel; pull upper shaft driving belt out of main shaft sprocket and as well as to remove the upper shaft from the machine.
- Loosen screw (G) on belt wheel and remove the belt wheel.
- Pull belt toward direction (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.





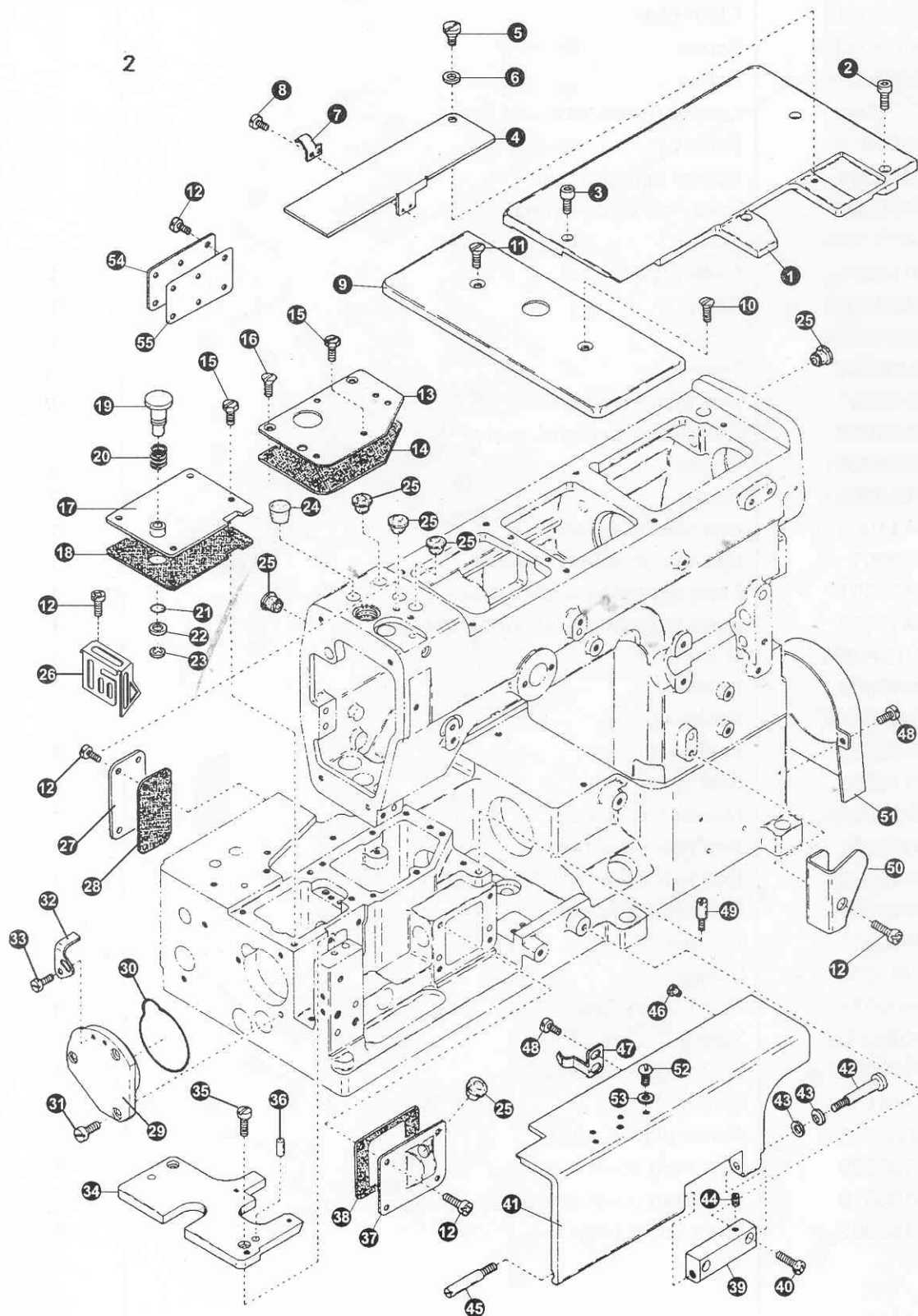
1. MISCELLANEOUS COVERS(1)

No	Ret. No.	Description	Qt
1	110130001	Top cover	1
2	B60401412	Screw	15
3	110130002	Top cover gasket	1
4	043120002	Oil sight window	1
5	043120003	Oil sight window gasket	1
6	110100021	Brand name plate	1
7	110100001	Head cover	1
8	110100002	Head cover gasket	1
9	110100003	Head cover seal plug	9
10	110100020	Brand name plate	1
11	110160002	Bed rear cover	1
12	110160003	Bed rear cover gasket	1
13	110160001	Side cover	1
14	110150003	Screw	1
15	142100014	Conical spring washer	2
16	110150004	Screw	1
17	S150224001	Screw	1
18	110160004	Rubber cush	2
19	110150005	Rubber cushion	2
20	110160005	Cover latch spring	1
21	S120203031	Screw	2
22	110500022	Screw	1
23	110100004	Side cover holder	1
24	S120203037	Screw	5
25	S120503041	Nut	1
26	S120203041	Screw	1
27	110100026	Seal plug	1
28	110110000	Machine frame unit	1
29	S150225001	Screw	6
30	110100013	Machine frame supporting bar	4
31	110100028	Model plate	1
32	S150340001	Rivet	3
33	11030002	Oil reservoir gasket	1
34	110310001	Oil reservoir gasket	1
35	110310004	Drain hole seal	1
36	028700026	Screw	1
37	110310005	Wind guide plate	1
38	110100022	Brand name plate	1
39	110100023	Brand name plate	1



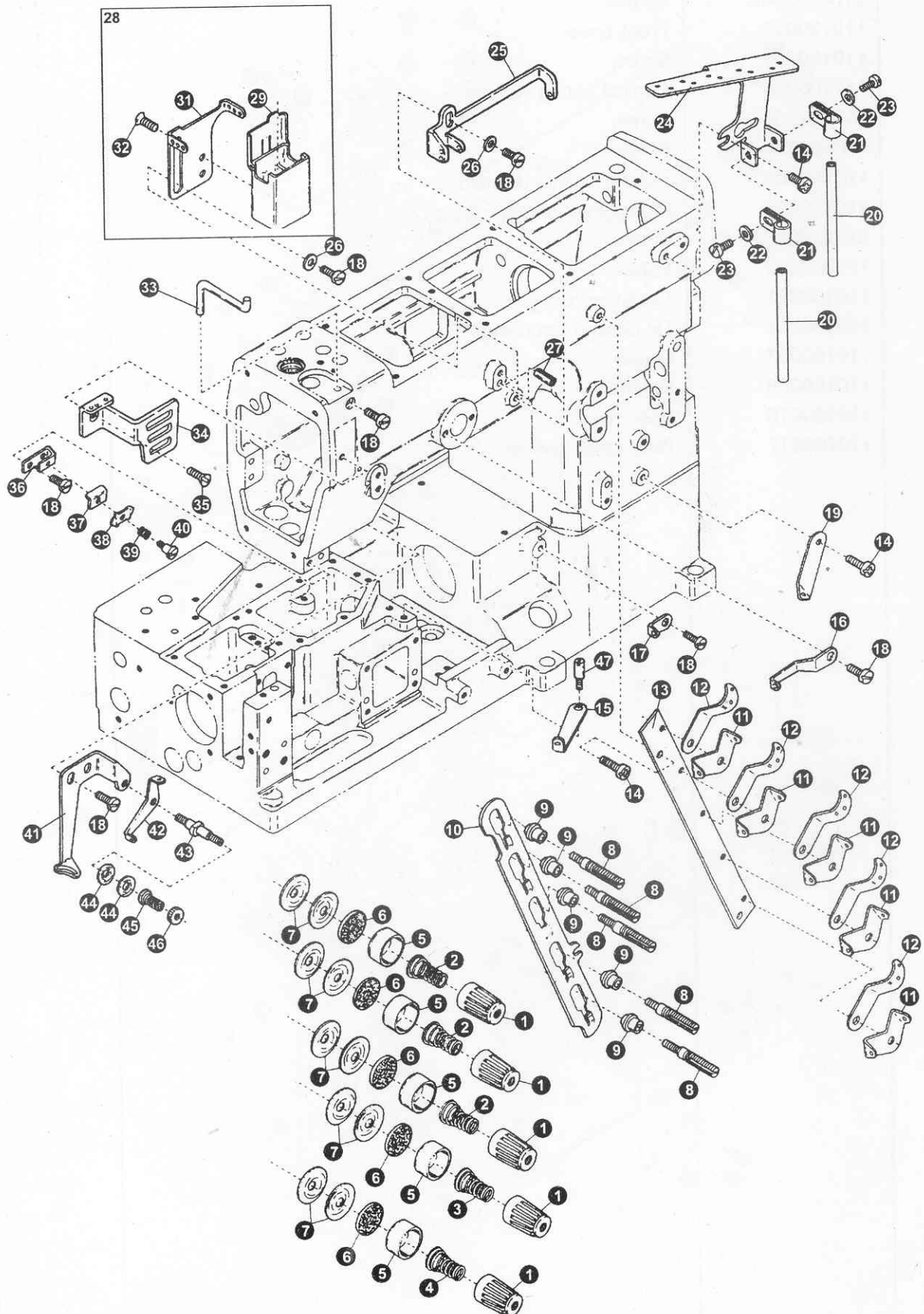
2. MISCELLANEOUS COVERS(2)

No	Ret. No.	Description	Qt
1	1101000015	Cloth plate	1
2	S150220003	Screw	3
3	S150220010	Screw	1
4	110170001	Looper thread take – up cover	1
5	110100019	Screw	1
6	142100014	conical spring washer	1
7	110170002	Take – up cover spring	1
8	S150217005	Screw	2
9	110100005	Cloth plate(small)	1
10	S150218005	Screw	1
11	S150218004	Screw	1
12	B62400812	Screw	17
13	110100007	bed top cover(right)	1
14	110100008	bed top cover(right) gasket	1
15	S150204001	Screw	8
16	S120205003	Screw	2
17	110411000	bed top cover(left)	1
18	11040001	bed top cover(left) gasket	1
19	110410001	Feed regulating pushbutton	1
20	110410002	Feed regulating pushbutton spring	1
21	S4A0604005	O – ring	1
22	110410003	Washer	1
23	S4B1202008	Retaining ring	1
24	110100026	Seal plug	1
25	110100003	Seal plug	6
26	110200025	Needle bar guard	1
27	110100011	Bed rear cover(small)	1
28	110100012	Bed rear cover(small) gasket	1
29	110500012	Ball bearing housing	1
30	110500013	O – ring	1
31	B62401012	Screw	3
32	110500014	Pushbutton stop	1
33	S120203031	Screw	2
34	11010006	Stitch plate support	1
35	B62401012	Screw	2
36	S150435001	Knock pin(A5 × 12)	2
37	110100009	Bed front cover	1
38	110100010	Bed front cover gasket	1
39	110150002	Front cover hinge	1



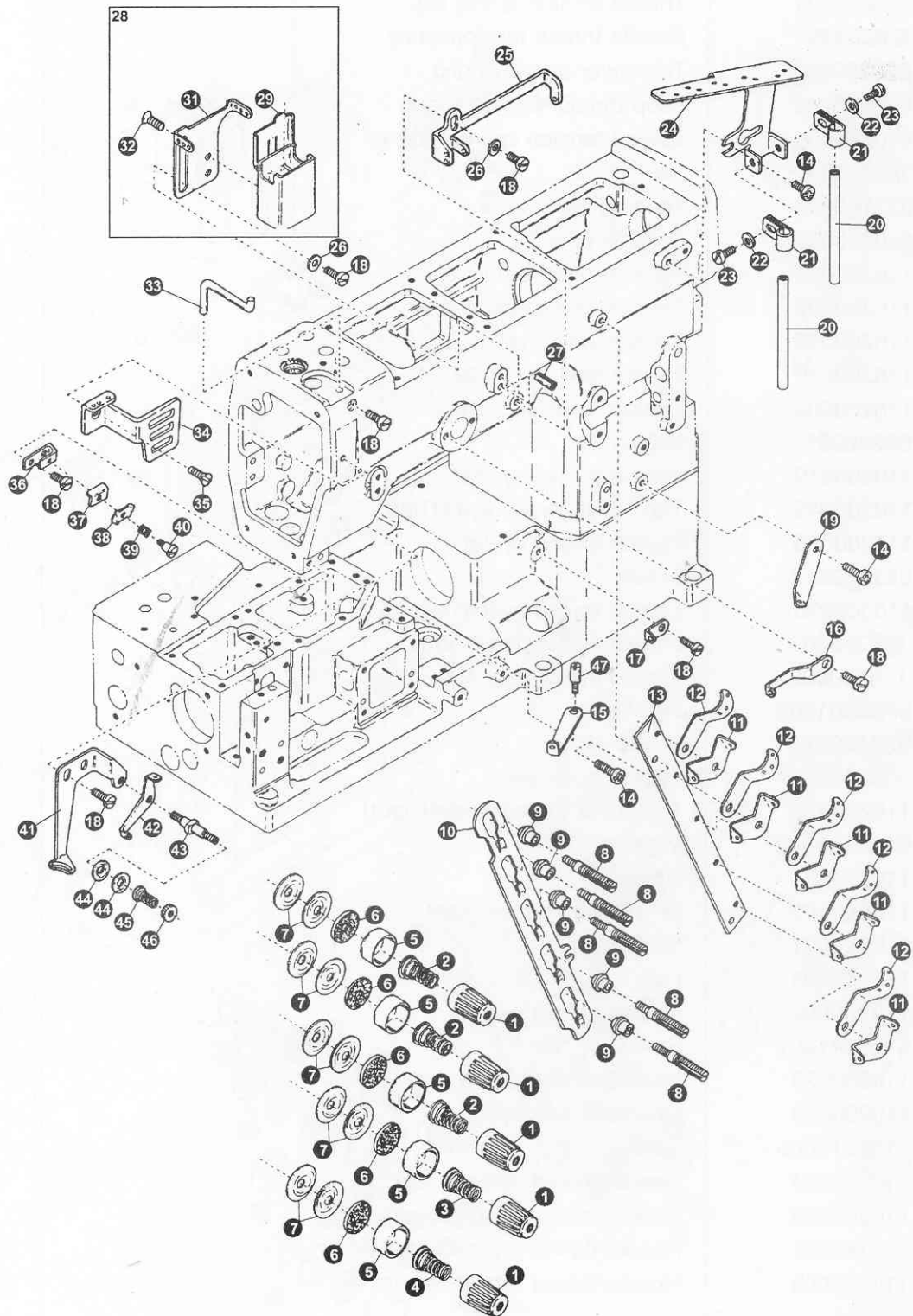
2. MISCELLANEOUS COVERS(2)

No	Ret. No.	Description	Qt
40	S150237004	Screw	2
41	110150001	Front cover	1
42	110150003	Screw	1
43	142100014	Conical spring washer	2
44	S150224001	Screw	1
45	110150004	Screw	1
46	110150005	Rubber cushion (small)	2
47	110150006	Front cover spring	1
48	S120203031	Screw	4
49	110500022	Screw	1
50	110100021	Eyelet cover	1
51	110100014	Oil cooling fan cover	1
52	110150007	Screw	2
53	110150008	Washer	2
54	110100016	Rear cover	1
55	110100017	Rear cover gasket	1



3. MISCELLANEOUS THREAD EYELETS

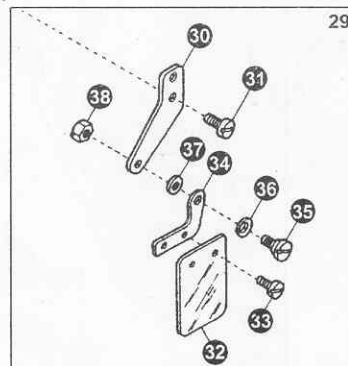
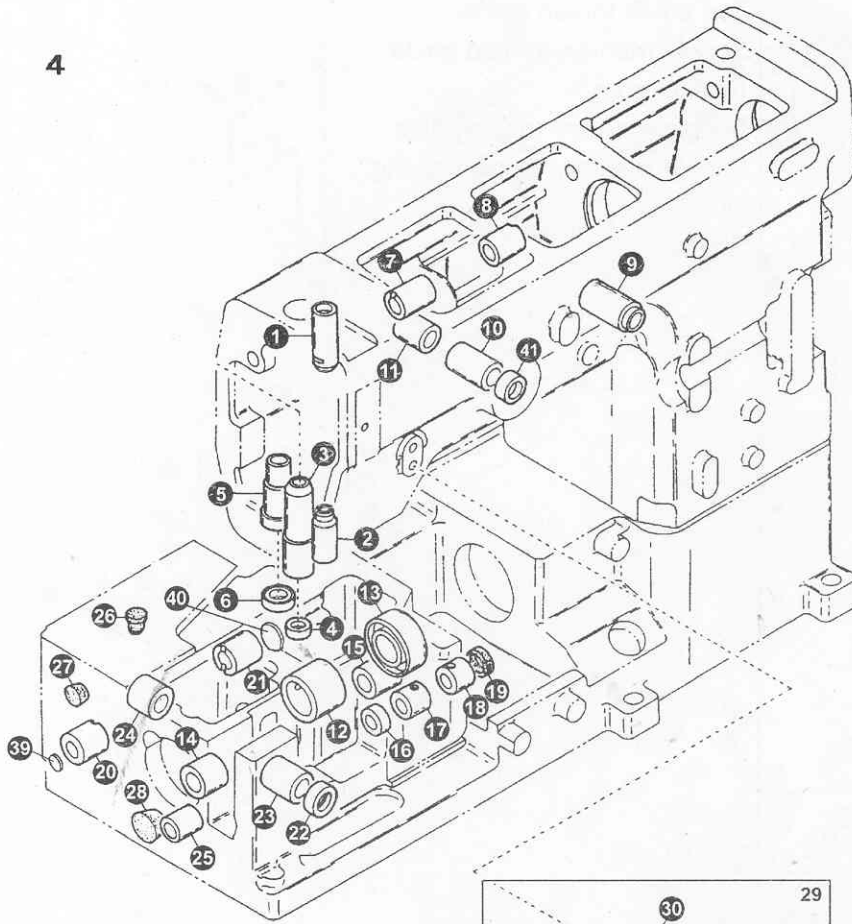
No	Ret. No.	Description	Qt
1	028283005	Thread tension spring cap	5
2	028283001	Needle thread tensionspring	2
3	028283002	Top cover thread spring	1
4	028283002	Loop thread tension spring	1
5	1102h0005	Thread tension spring retainer	5
6	028283007	Felt	5
7	022160005	Tension disc	8
8	1102h0003	Tension post	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	5
15	110500019	Looper thread eyelet	1
16	110200019	Top cover thread eyelet(left)	1
17	116200006	Looper thread eyelet	1
18	B62400812	Screw	9
19	110500020	Looper thread eyelet(long)	1
20	116250003	Thread eyelet pipe(short)	2
21	116250002	Thread eyelet pipe stay	2
22	SFB0601008	Washer	2
23	B62400812	Screw	2
24	116250001	Thread guide plate	1
25	110200027	Top cover thread eyelet(right)	1
26	S8A3103003	Washer	2
27	110100027	Guide pin	1
28	1102K0000	SP Device complete set	1
29	1102K0001	SP Container	1
30	1102K0004	Felt	1
31	1102K0002	Needle thread eyelet	1
32	S150241001	Screw	2
33	110200026	Needle thread guade	1
34	110200009	Needle thread eyelet	1
35	S150218005	Screw	1
36	110260004	Needle thread retainer suppoat	1
37	110260003	Thread retainer disc support	1
38	110260001	Needle thread retaine rdicer	1
39	110260005	Needle thread retaine spring	1



3. MISCELLANEOUS THREAD EYELETS

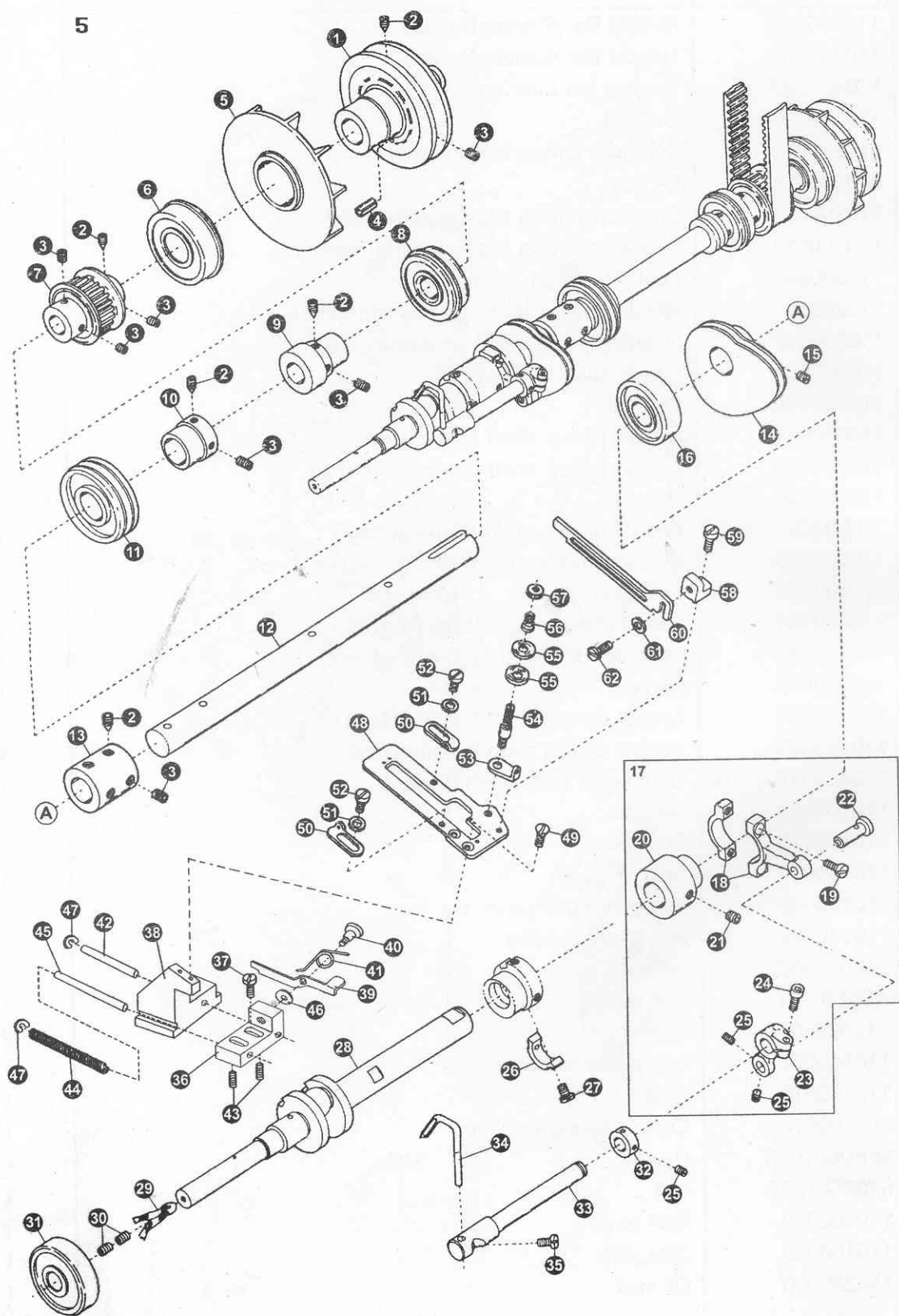
No	Ret. No.	Description	Qt
40	110260002	Screw	1
41	1102C0001	Top cover thread guide	1
42	1102C0002	Supple mentary thread guide	1
43	116200018	tension post	1
44	008200068	Supple mentary tension disc	2
45	008200067	Supple mentary tension spring	1
46	008200088	Nut	1
47	110500022	Screw	1

4



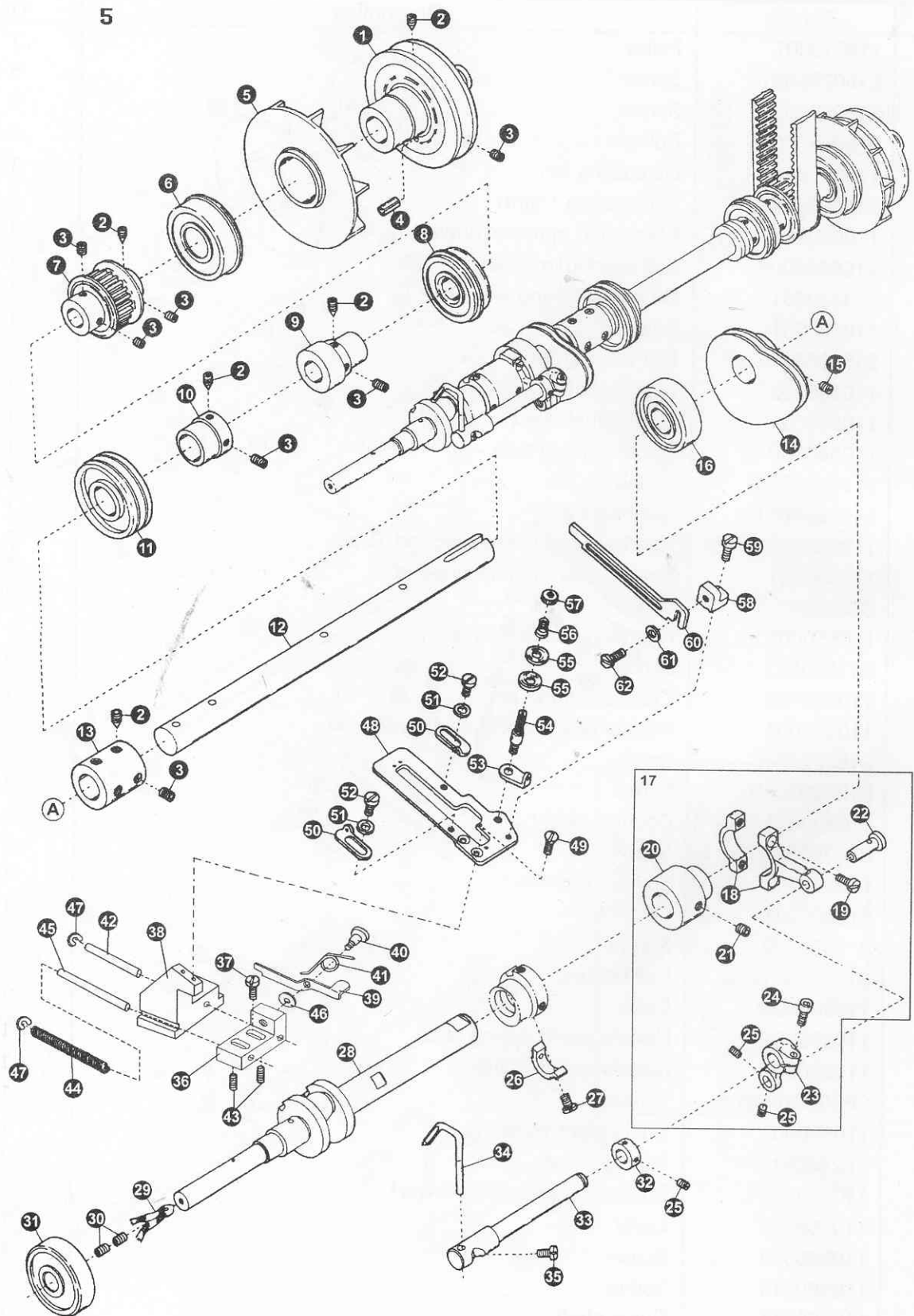
4. MISCELLANEOUS BUSHINGS & EYE GUARD

No	Ret. No.	Description	Qt
1	110200002	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	110600009	Foot lifter lever bushing	1
10	110200008	Needle thread take – up bushing(front)	1
11	110200007	Needle thread take – up bushing(rear)	1
12	110500004	Lower shaft bushing(left)	1
13	1105E0000	Oil seal	1
14	110500017	Looper rocker shaft bushing(left)	1
15	110500016	Looper rocker shaft bushing(right)	1
16	110500024	Oil seal	1
17	110500008	Looper driving shaft bushing(front)	1
18	110500009	Looper driving shaft bushing(rear)	1
19	110500025	Seal plug	1
20	110400004	Feed bar driving shaft bushing(left)	1
21	110400003	Feed bar driving shaft bushing(right)	1
22	110500023	Oil seal	1
23	110400004	Looper driving shaft bushing(front)	1
24	110400003	Looper driving shaft bushing(read)	1
25	110400017	Differential lever shaft bushing	1
26	110100003	Seal plug	1
27	110100026	Seal plug	1
28	110100031	Seal plug	1
29	110140000	Eye guard gocomplete set	1
30	110140002	Eye guard support	1
31	S150215002	Screw	1
32	116120001	Eye guard	1
33	S120203013	Screw	2
34	110140001	Eye guard holder	1
35	110100019	Screw	1
36	142100014	Conical spring washer	1
37	SFB0601008	Washer	1
38	S120501003	Nut	1
39	110100029	Seal plug	1
40	110100030	Seal plug	1
41	110280000	Oil seal	1



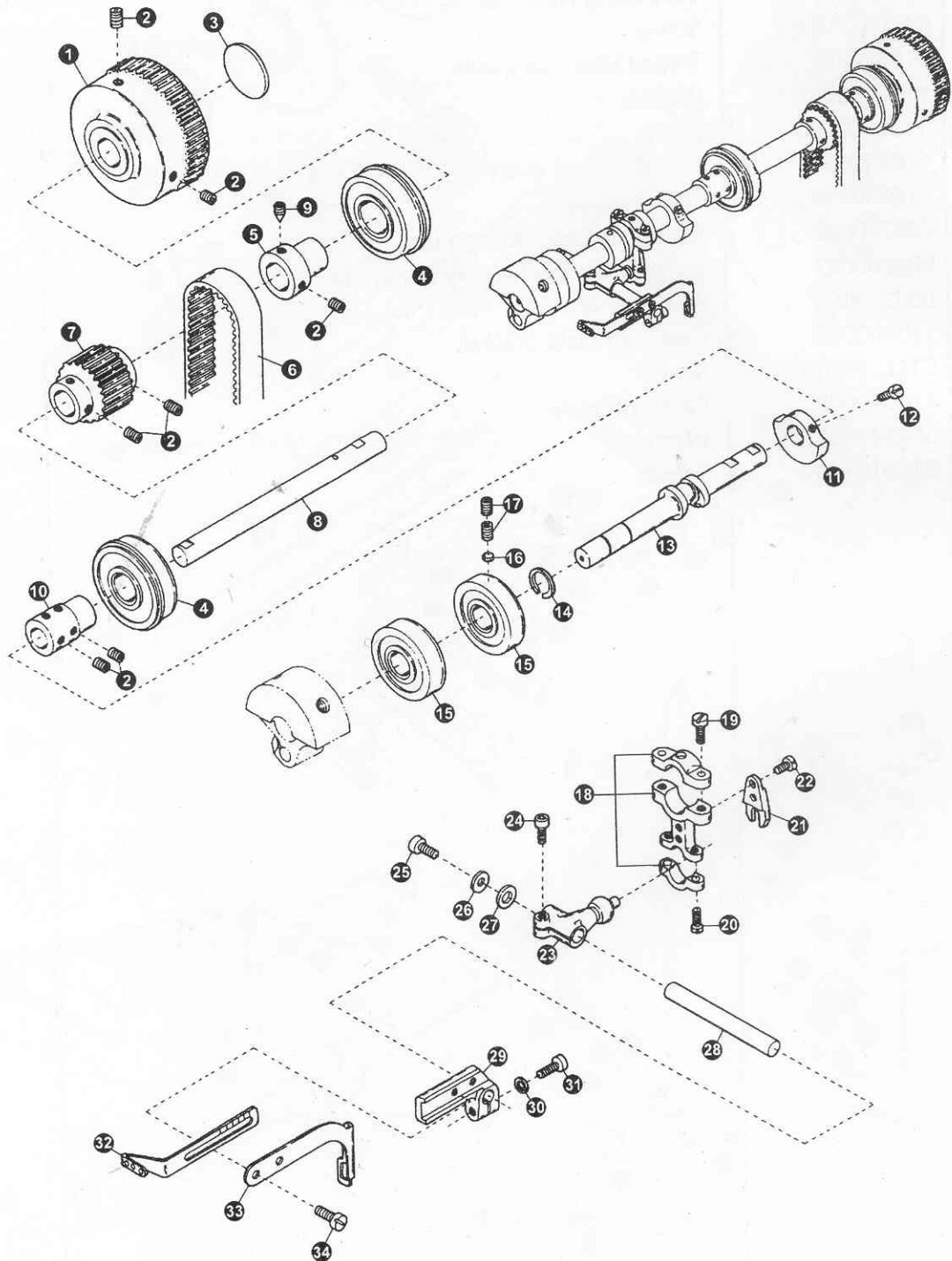
5. MAIN SHAFT DRIVING MECHANISM

No	Ret. No.	Description	Qt
1	110510001	Pulley	1
2	S150225001	Screw	5
3	S150224003	Screw	9
4	S150446008	Roll pin	1
5	110500001	Oil cooling fan	1
6	S150866007	Ball bearing (right)	1
7	110520000	Main shaft sprocket(lower)	1
8	S150866006	Ball bearing(middle)	1
9	110320001	Oil pump driving worm	1
10	1102F0001	Adapter	1
11	S150866013	Ball bearing(left)	1
12	110500002	Lower shaft(right)	1
13	110530001	Lower shaft joint	1
14	110540000	Looper thread take - up	1
15	S120210035	Screw	2
16	S150866011	Ball bearing	1
17	110550000	Needle guard connecting rod, C. set	1
18	110550001	Needle guard connecting rod	1
19	BS30007	Screw	2
20	110550002	Needle guard eccentric	1
21	B12500532	Screw	2
22	110550003	Connecting rod pin	1
23	110550004	Needle guard diving shaft arm	1
24	S150220015	Screw	1
25	S120203015	Screw	4
26	110500011	Counterweight	1
27	B60300612	Screw	2
28	110500003	Lower crankshaft	1
29	110300001	Oil wick	1
30	B12400432	Screw	2
31	S150866012	Ball bearing	1
32	110500006	Collar	1
33	110500005	Needle guard driving shaft	1
34	110500007	Needle guard(rear)	1
35	SFB0201002	Screw	1
36	110560007	Guide shaft holder	1
37	B62400612	Screw	2
38	110560006	Supporting plate stay(lower)	1
39	110560008	Lever	1
40	110560009	Screw	1
41	110560010	Spring	1
42	110560011	Guide shaft	1
43	S120210017	Screw	2
44	110560012	Spring	1



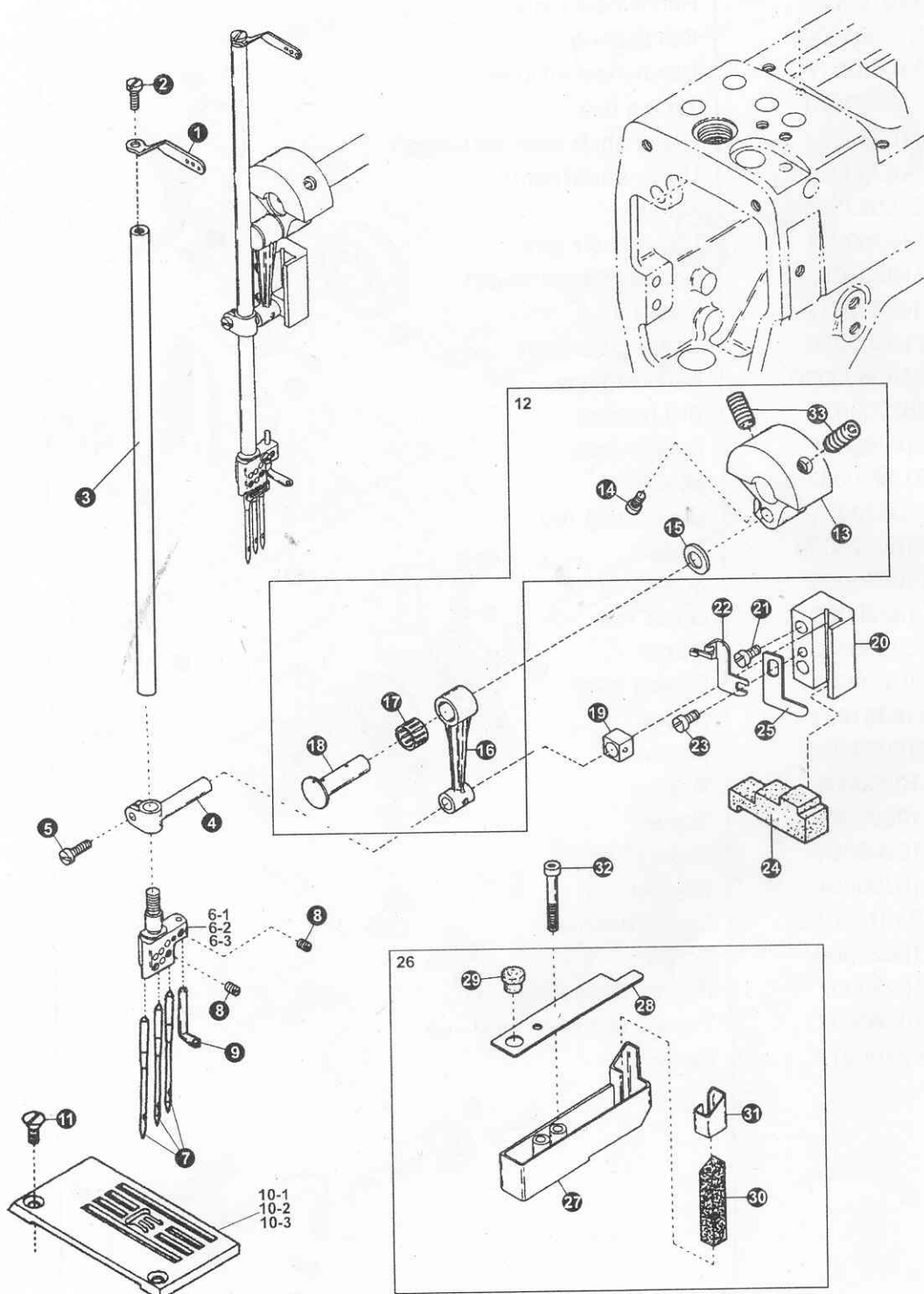
5. MAIN SHAFT DRIVING MECHANISM

No	Ret. No.	Description	Qt
45	110560013	Guide shaft	1
46	SFB0601025	Washer	1
47	S4B1202008	Split retaining ring	2
48	110560001	Supporting plate	1
49	S150218006	Screw	2
50	110560004	Thread take – up eyelet	2
51	110560005	Washer	2
52	S120203003	Screw	2
53	116200006	Looper thread every	1
54	116200018	Tension post	1
55	008200068	Supple mentary tension disc	2
56	008200067	Supple mentary tension spring	1
57	008200088	Adjusting nut	1
58	110560002	Cast – off plate bracket	1
59	S120203013	Screw	1
60	110560003	Cast – off plate	1
61	008540001	Washer	1
62	S120104004	Screw	1



6. UPPER SHAFT & NEEDLE THREAD TAKE - UP MECHANISM

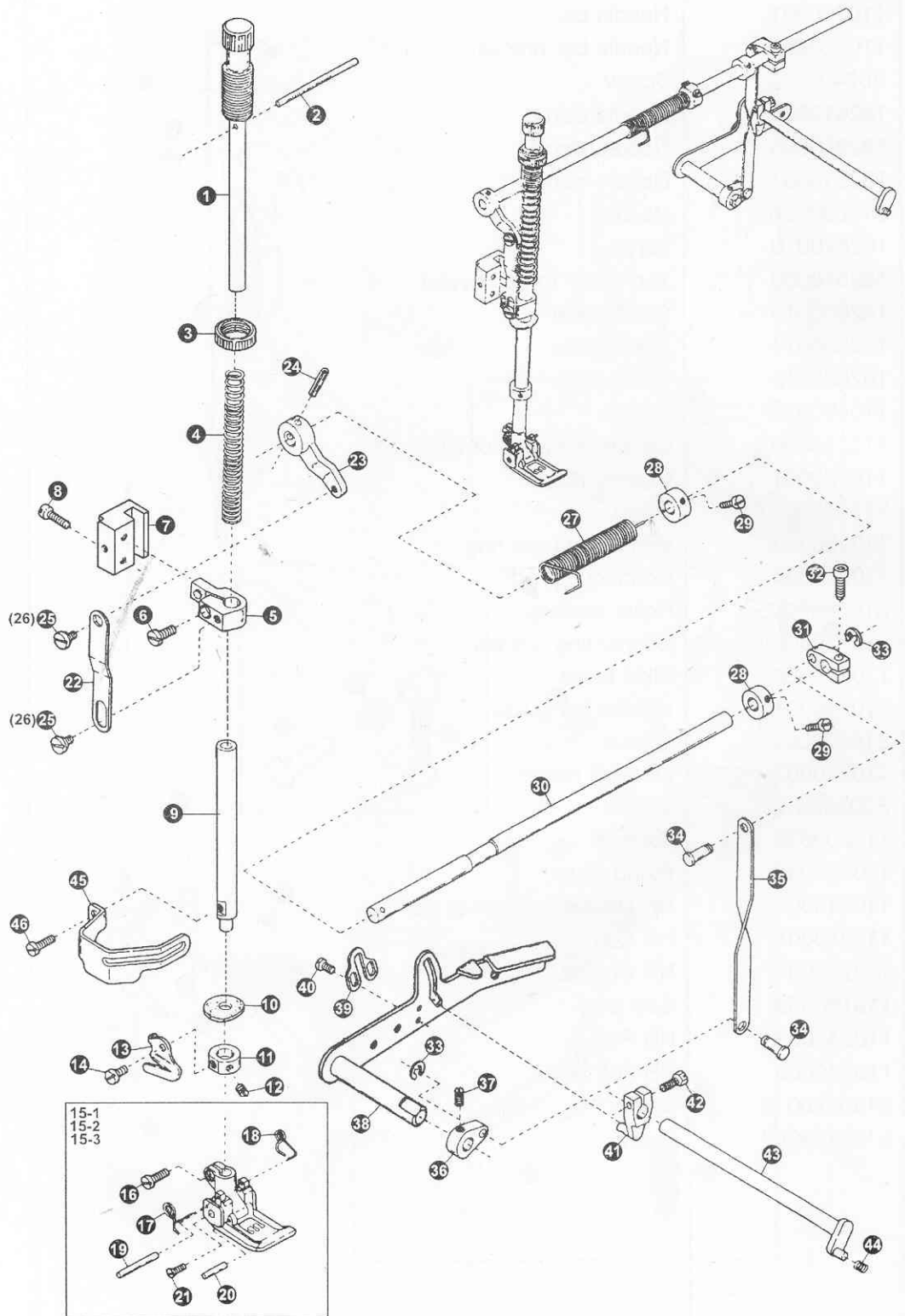
No	Ret. No.	Description	Qt
1	1102e0001	Handwheel	1
2	B12060632	Screw	11
3	110100025	Handwheel mark	1
4	S150866006	Ball bearing	2
5	1102f0001	Handwheel adapter	2
6	110200023	Timing belt	1
7	1102g0001	Upper shaft sprocket (upper)	1
8	110200021	Upper shaft (right)	1
9	S150225001	Screw	1
10	1102d0001	Upper shaft joint	1
11	110200022	Counterweight (small)	1
12	B62400812	Screw	2
13	110200020	Upper crankshaft	1
14	S4A0500010	Retaining ring	1
15	052200036	Ball bearing	2
16	110200024	Rubber seat	1
17	B12060632	Screw	2
18	110270001	Connecting rod	1
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	110290002	Needle thread take - up	1
33	110290003	Top cover thread take - up	1
34	B62400812	Screw	2



7. NEEDLE BAR MECHANISM

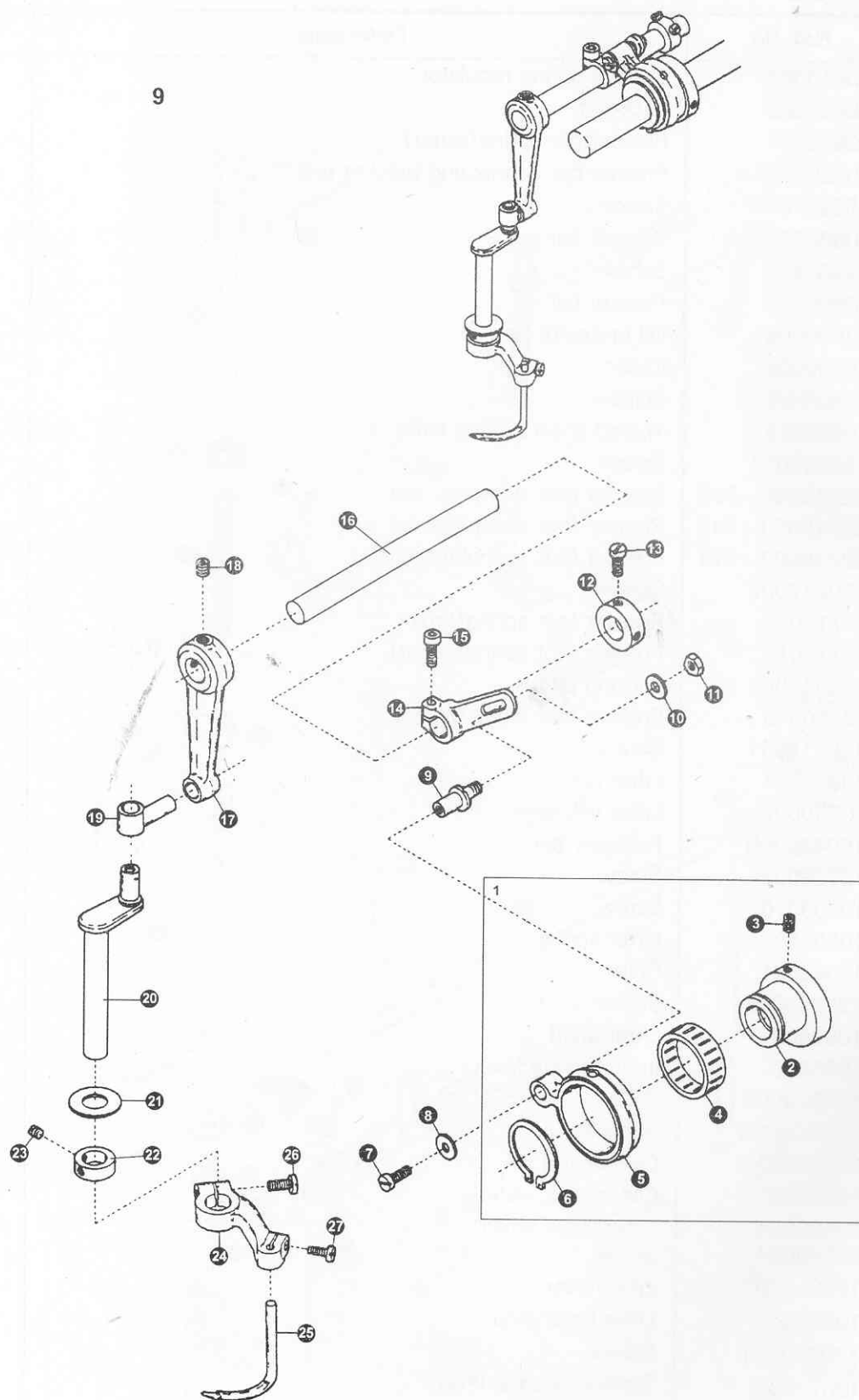
No	Ret. No.	Description	Qt
1	116240002	Needle bar thread eyelet	1
2	116240003	Screw	1
3	110200001	Needle bar	1
4	110220005	Needle bar bracket	1
5	B62401012	Screw	1
6 - 1	182610006	Needle clamp	1
6 - 2	182610005	Needle clamp	1
6 - 3	182610007	Needle clamp	1
7	S150901001	Needle	3
8	182610010	Screw	4
9	182610009	Top cover thread eyelet	1
10 - 1	182600013	Stitch plate	1
10 - 2	182600014	Stitch plate	1
10 - 3	182600012	Stitch plate	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	S150220011	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



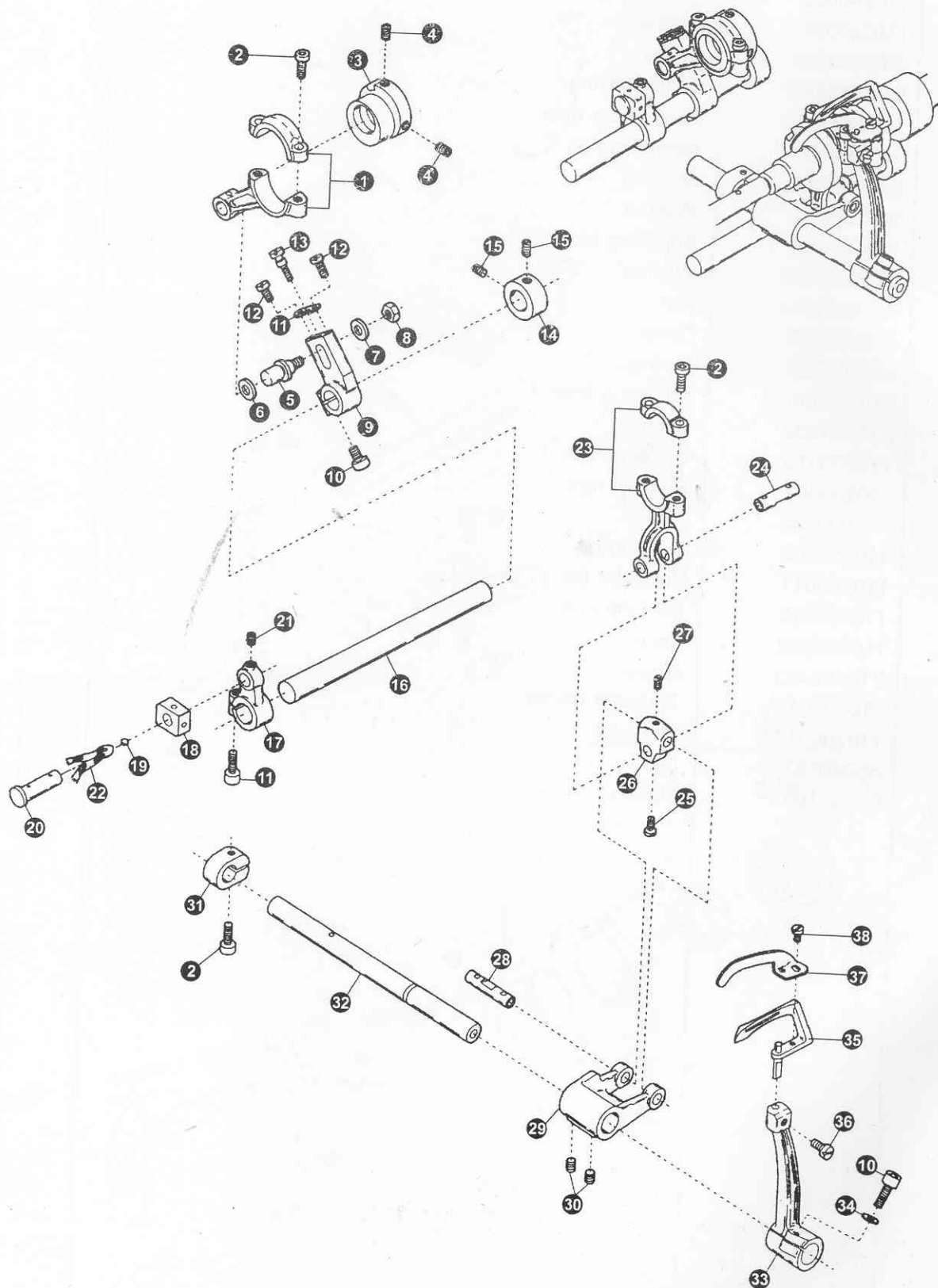
8. PRESSER FOOT MECHANISM

No	Ret. No.	Description	Qt
1	110610001	Presser spring regulator	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	043600005	Oil protector ring	1
11	110600006	Collar	1
12	B12400432	Screw	2
13	110600013	Thread chain cutting knife	1
14	S120203013	Screw	1
15 - 1	182710000 -356	Presser foot, complete set	1
15 - 2	182710000 -348	Presser foot, complete set	1
15 - 3	182710000 -364	Presser foot, complete set	1
16	S150217007	Screw	1
17	182710012	Presser foot spring(left)	1
18	182710013	Presser foot spring(Right)	1
19	S150446005	Locking pin	1
20	182710015	Presser foot hinge pin	1
21	S150218001	Screw	2
22	110630004	Lifter link	1
23	110630002	Lifter link lever	1
24	S150446009	Fastener pin	1
25	110630003	Screw	2
26	110600010	Screw	2
27	110600008	Lifter spring	1
28	110640001	Collar	2
29	S120203033	Screw	4
30	110630001	Lifter shaft	1
31	110650002	Intermediate lever	1
32	S150220009	Screw	1
33	S4A0105006	Retaining ring	2
34	110650003	Connecting pin	2
35	110650001	Connecting plate	1
36	110650004	Lifter lever(small)	1
37	022540004	Screw	1
38	110681000	Lifter lever	1
39	110680001	Lifter lever stop	1
40	S120203031	Screw	2
41	110671000	Tension release lever	1
42	S120104019	Screw	1
43	110660000	Tension release shaft	1
44	110200034	Swing - proof spring	1
45	110600012	Finger guard	1
46	B62400812	Screw	1



9. SPREADER MECHANISM

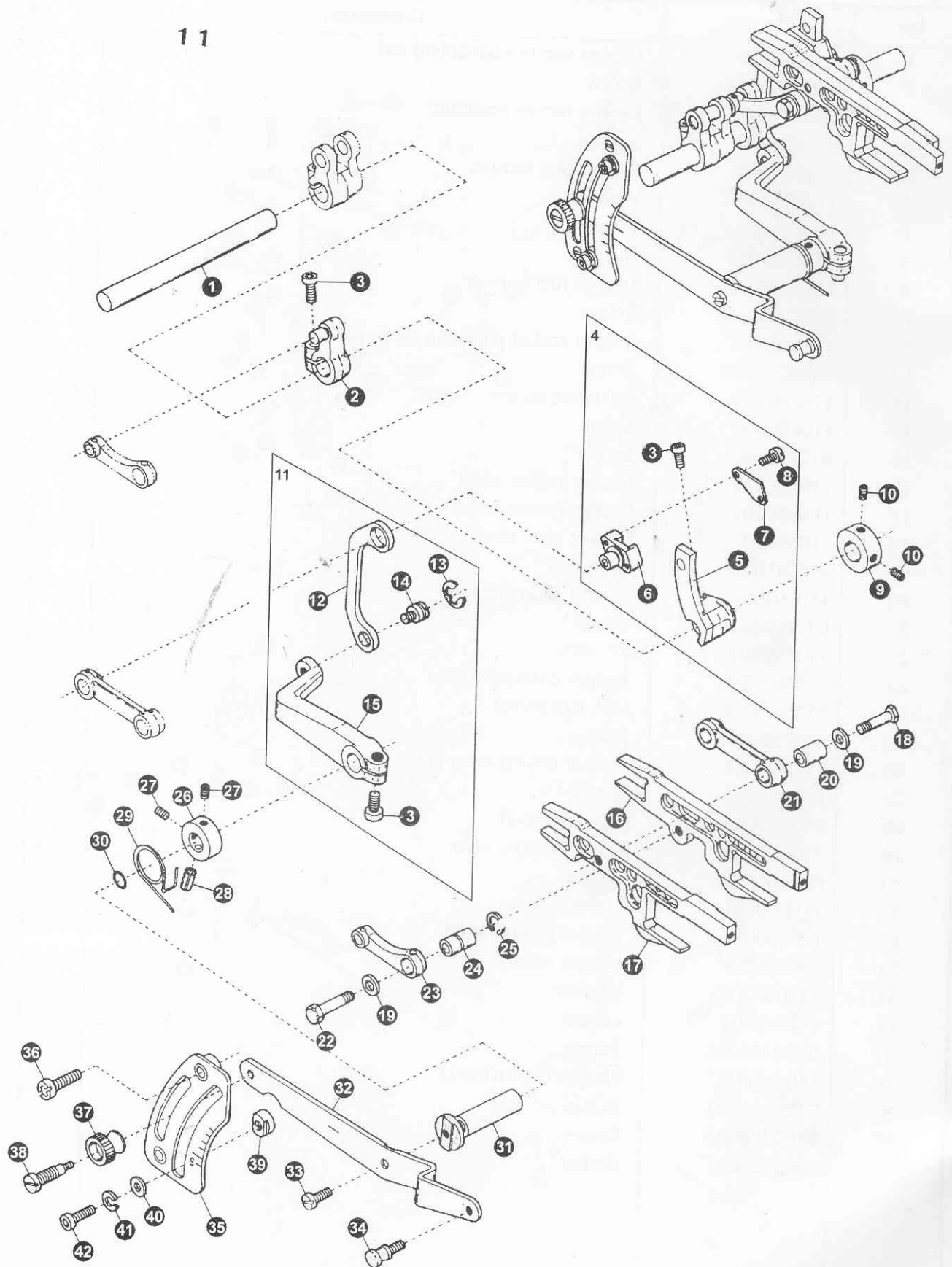
No	Ret. No.	Description	Qt
1	1102a0000	Connecting rod complete set	1
2	1102a0001	Eccentric	1
3	B12500532	screw	2
4	S150866002	Roller bearing	1
5	1102a0002	Connecting rod	1
6	S150649001	Retaining ring	1
7	B62400812	Screw	1
8	1102a0004	Washer	1
9	1102a0003	Adjusting lever pin	1
10	S150633001	Washer	1
11	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	1102b0011	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	B62401012	SCrew	1



10. LOOPER DRIVING MECHANISM

No	Ret. No.	Description	Qt
1	110570000	Looper rocker connecting rod	1
2	B18401622	Screw	5
3	110590001	Looper rocker eccentric	1
4	B12500532	Screw	2
5	110580004	Connecting rod pin	1
6	110580006	Washer	1
7	110580005	Washer	1
8	S120503010	Nut	1
9	110580001	Looper rocker lever	1
10	S150220015	Screw	3
11	110580002	Looper rocker adjusting guide plate	1
12	S150215006	Screw	2
13	110580003	Adjusting screw	1
14	110400006	Collar	1
15	B12400432	Screw	2
16	110500015	Looper rocker shaft	1
17	110500001	Looper rocker arm	1
18	110500002	Looper slide block	1
19	1105a1002	Seal plug	1
20	110501001	Looper slide block pin	1
21	B12500532	Screw	1
22	110300001	Oil wick	1
23	1105C1000	Looper connecting rod	1
24	1105C0004	Link pin(short)	1
25	022723001	Screw	1
26	1105C0002	Looper driving lever link	1
27	1105C0005	Screw	1
28	1105C0003	Link pin(long)	1
29	1105C0001	Looper driving lever	1
30	B12060632	Screw	1
31	1105b0001	Collar	1
32	110500018	Looper driving shaft	1
33	1105d0001	Looper holder	1
34	S150667001	Washer	1
35	1105d0003	Looper	1
36	SFB0201046	Screw	1
37	1105d0002	Needle guard(front)	1
38	S120203003	Screw	1
39	S150220004	Screw	2
40	S150225001	Screw	1

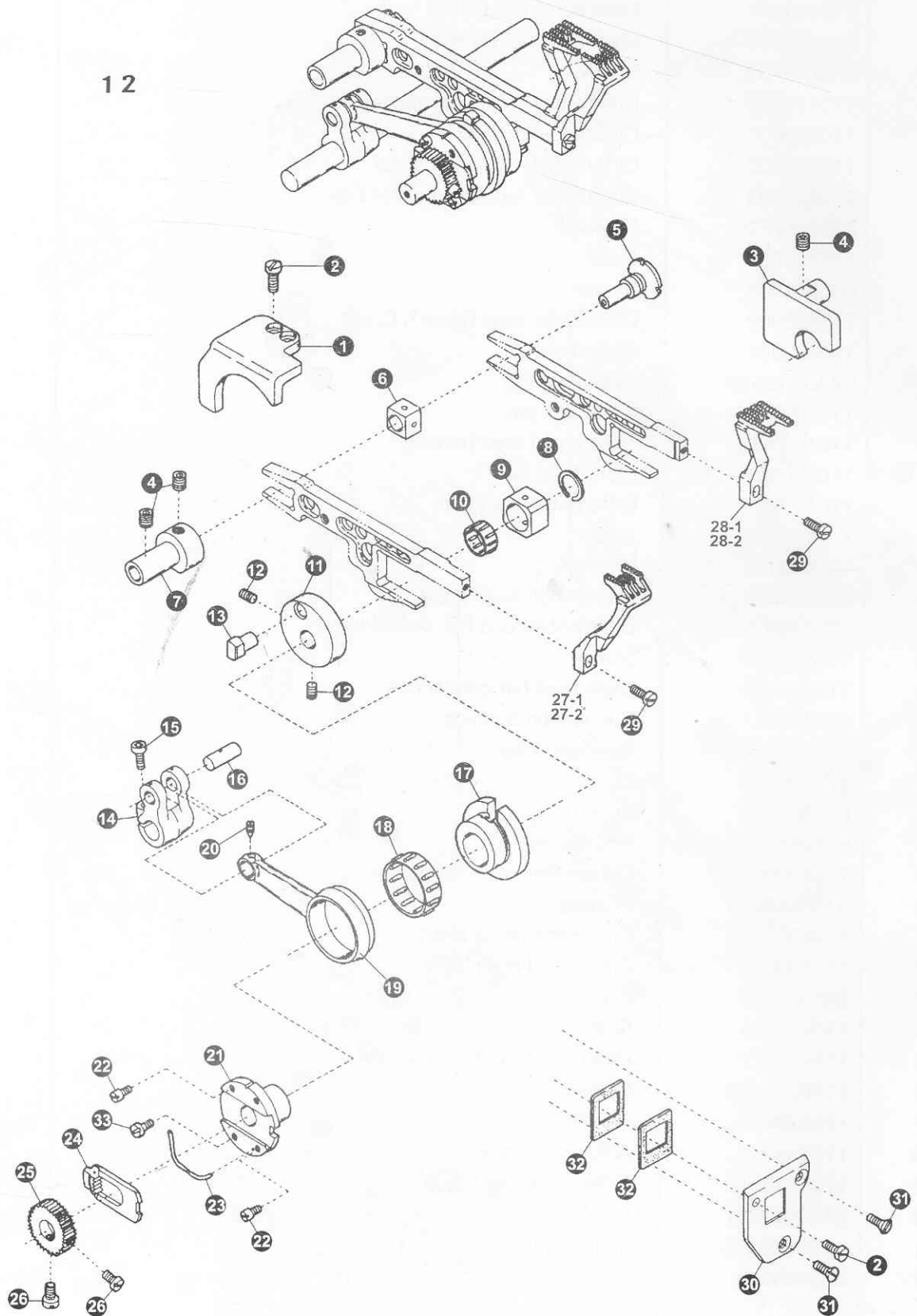
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11. FEED DRIVING CONTROL MECHANISM

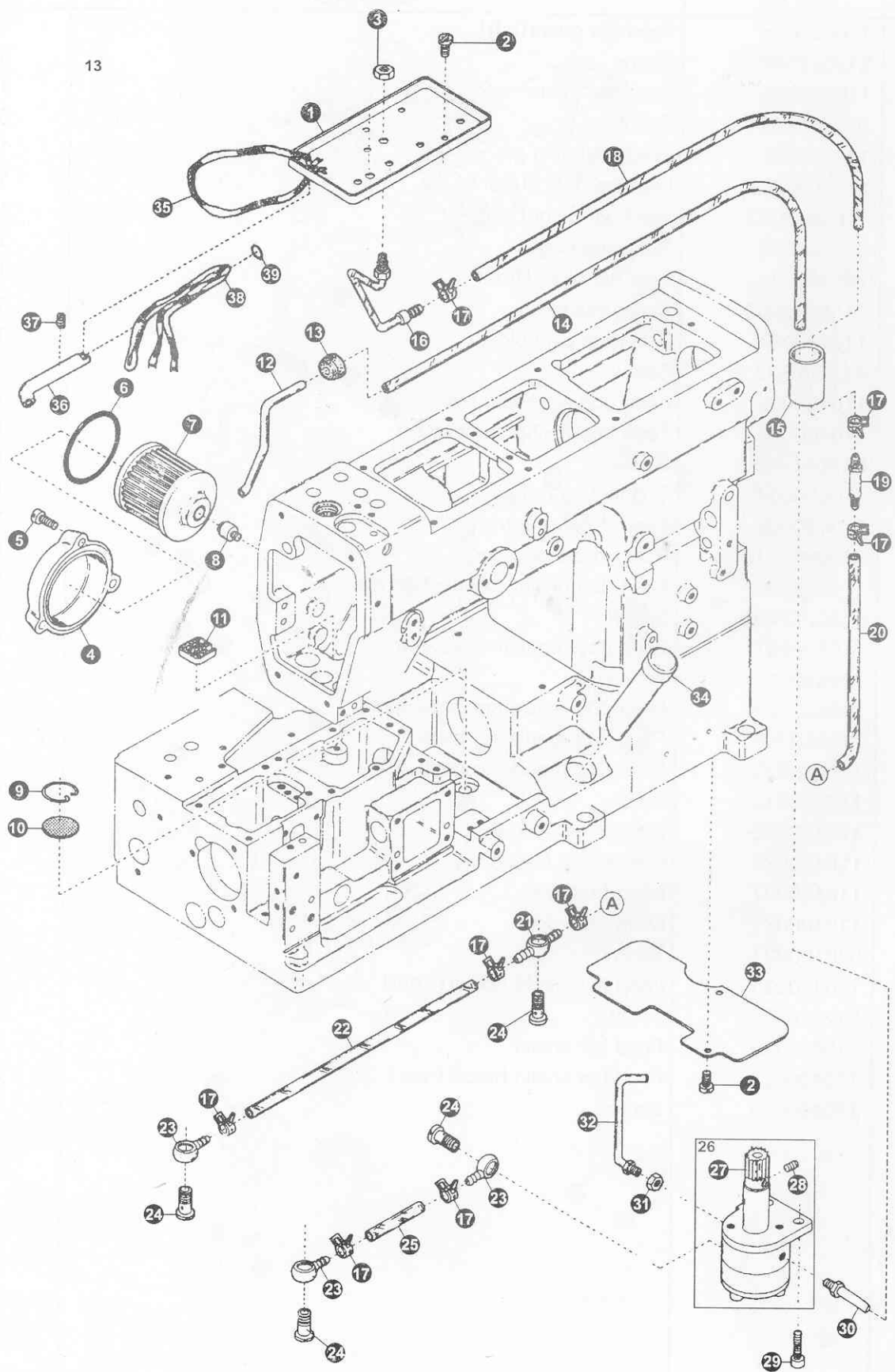
No	Ret. No.	Description	Qt
1	110400002	Feed bar driving shaft	1
2	110400005	Main feed bar lever	1
3	B18061432	Screw	3
4	110420000	Differential rocker complete	1
5	110420001	Differential rocker	1
6	110420002	Differential regulating slider	1
7	110420003	Differential regulating slider cap	1
8	B60300612	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	110400003	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	110100014	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

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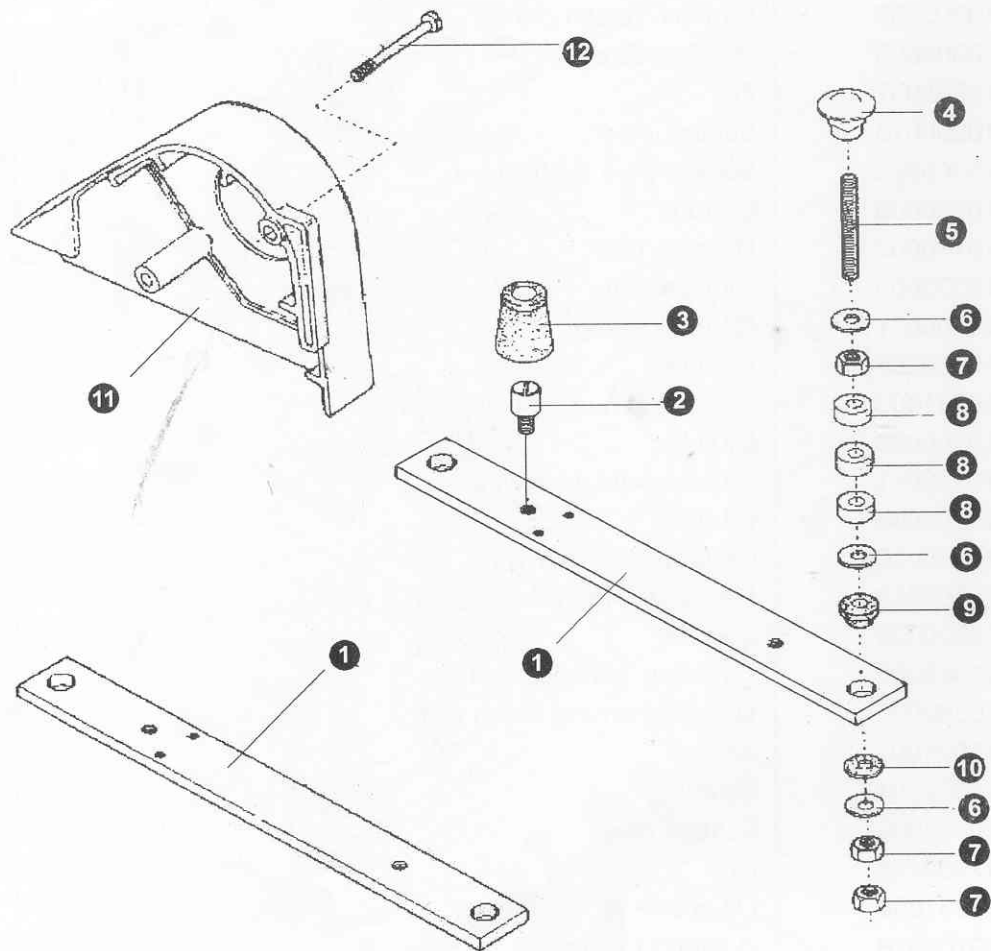
12. FEED DRIVING MECHANISM

No	Ret. No.	Description	Qt
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	1104000022	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	110460005	Feed dog eccentric	1
18	S150866010	Roller bearing	1
19	110460006	Feed dog driving connection rod	1
20	S150225002	Screw	1
21	110460007	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	110460010	Feed dog regulating gear	1
26	110460012	Screw	2
27 - 1	110400008	Differential feed dog	1
27 - 2	110400032	Differential feed dog	1
28 - 1	110400007	Main feed dog	1
28 - 2	110400031	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

No	Ret. No.	Description	Qt
1	110300003	Oil receiver	1
2	S120203031	Screw	5
3	S120501011	Nut	1
4	028700023	Oil filter cap	1
5	B60401412	Screw	3
6	S8A3107004	O – ring	1
7	028770001	Oil filter	1
8	028700022	Oil filter connector	1
9	110300006	Oil filter screen clamp	1
10	110300005	Oil filter screen	1
11	110300007	Felt	1
12	110300010	Suction pipe	1
13	110300011	Suction pipe bushing	1
14	110300008	Oil tube	1
15	110110003	Draining pipe	1
16	110330000	Oil pipe unit	1
17	028700011	Oil tube clamp	8
18	110300008	Oil tube	1
19	110341000	Non – return valve unit	1
20	110300008	Oil tube	1
21	110340001	Oil tube joint, two way	1
22	110300008	Oil tube	1
23	028700010	Oil tube joint, one way	3
24	028700012	Fitting stub(short)	4
25	110300008	Oil tube	1
26	110360000	Oil pump, complete set	1
27	110360001	Oil pump driving worm gear	1
28	S120210021	Screw	2
29	S150220014	Screw	2
30	110362000	Suction pipe	1
31	S120501011	Nut	1
32	110361000	Oil nozzle for worm gear	1
33	110100018	Dustproof plate	1
34	110300002	Oil sight gauge	1
35	110200029	Oil wick	1
36	110200028	Needle bar connecting rod oil pi	1
37	B12400432	Screw	3
38	110200030	Oil wick	1
39	S4A0604005	O – ring	1



14. ACCESSORIES

No	Ret. No.	Description	Qt
1	110F10001	Supporting board	2
2	110F10003	Setting screw	4
3	110F10002	Oil reservoir rubber cushion	4
4	110F10005	Hanging nut	4
5	110F10004	Hanging bolt	4
6	GB96 - 85	Washer	12
7	GB6170 - 86	Nut	12
8	110F10006	Spacer (see the table below)	12
9	110F10007	Supporting board rubber cushion	4
10	110F10008	Supporting board rubber cushion (lower)	4
11	110F00001	Belt cover	1
12	GB65 - 85	Screw	2