



LP 9971 - TD

LP 9974 - TD

LP 9971 - TD / AUT

**1 - NEEDLE / 2 - NEEDLE, POST-BED
INDUSTRIAL SEWING
MACHINE**

INSTRUCTION MANUAL SPARE PARTS LIST

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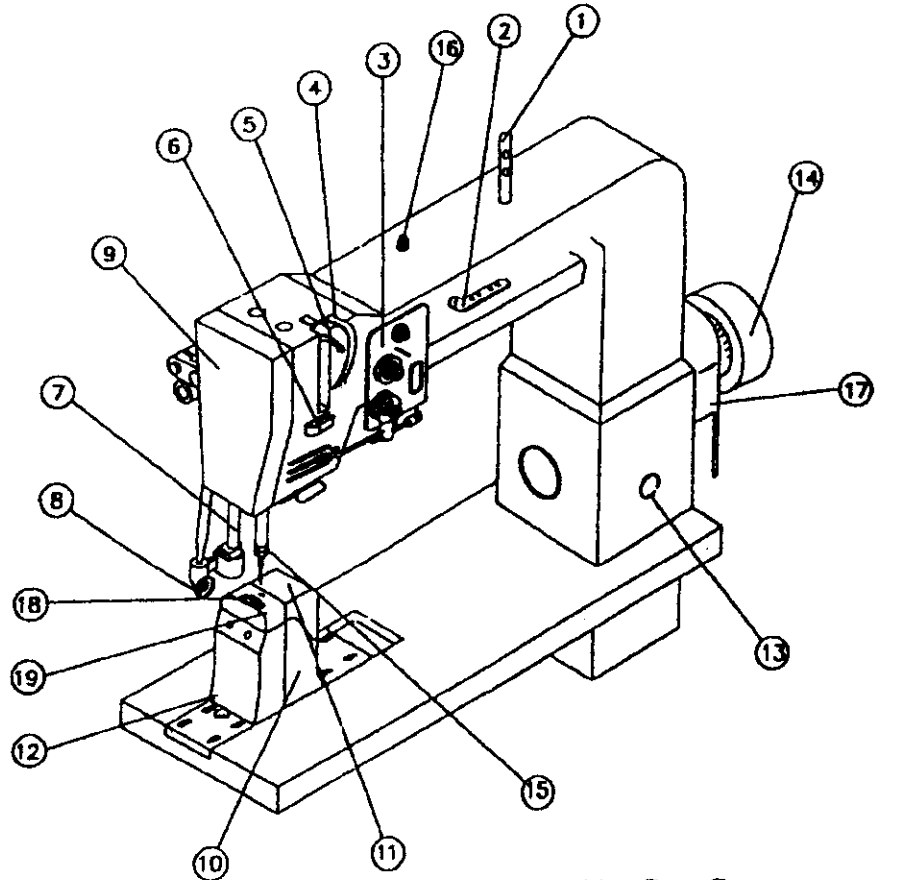
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MAIN PARTS / NAME OF MACHINE

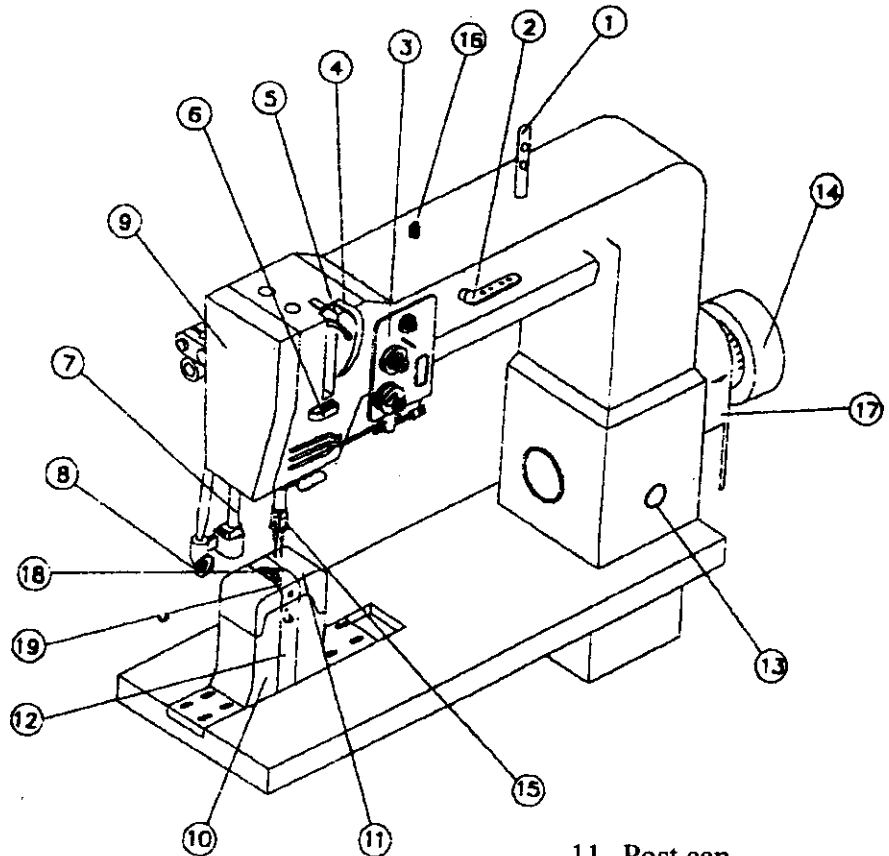
LP 9971 TD; LP 9971 TD-AUT Series / Single needle post-bed driven roller sewing machine



1. Spool pin
2. 4 Holes thread retainer
3. Thread tension regulator assembly
4. Thread take-up guard
5. Thread take-up lever
6. Thread retainer
7. Presser bar
8. Upper feeding roller
9. Face plate
10. Side bracket

11. Post Cap
12. Needle plate bracket
13. Stitch regulator
14. Balance wheel
15. Thread guide
16. Adjustment screw
17. Belt guard
18. Lower feeding roller
19. Needle plate

2. LP 9974 TD / Double needles post-bed driven roller sewing machine



1. Spool pin
2. 4 Holes thread retainer
3. Thread tension regulator assembly
4. Thread take-up guard
5. Thread take-up lever
6. Thread retainer
7. Presser bar
8. Upper feeding roller
9. Face plate
10. Side bracket

11. Post cap
12. Needle plate bracket
13. Stitch regulator
14. Balance wheel
15. Needle lamp
16. Adjustment screw
17. Belt Guard
18. Lower feeding roller
19. Needle plate

1. Working table

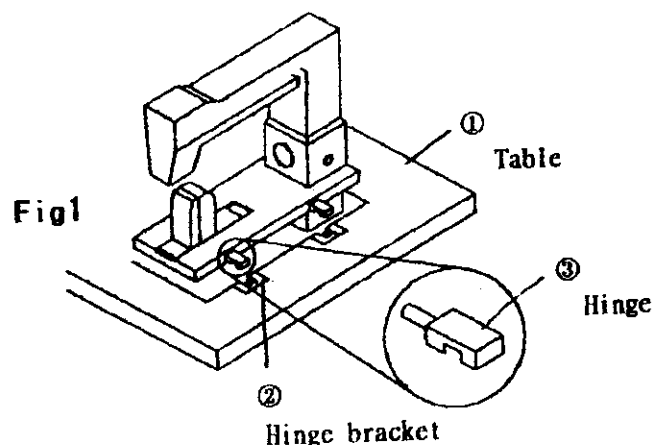


-
- Diagram illustrating the components of the working table:
- ① Hinge bracket
 - ② Hinge pin
 - ③ Working table
- A
- Fig A



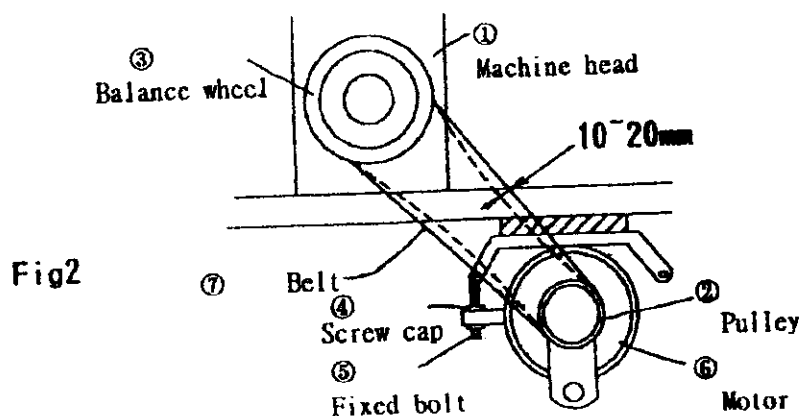
3. How to mount the machine head on to the table

- 1) Fit the hinges (3) into the holes on the machine head base.
- 2) Set the machine head on to the working table (1)
- 3) The groove of the hinge must aim at the hinge pin of bracket (2)
- 4) The machine head must be identical into the hinge bracket and anti-vibration rubber



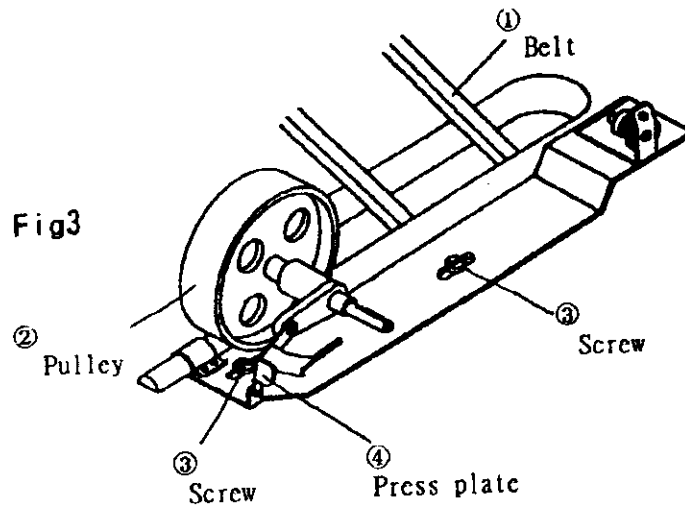
4. How to adjust the belt

- 1) The machine turns anti-clock wise
- 2) Fit the belt on the pulley (2) of the motor (6) and the balance wheel (3) of the machine head (1)
- 3) Adjust the belt tension by press the belt (7) and adjust the screw cap (4) off the motor fixed bolt (5)
- 4) Then press the belt again (as fig.2) the pressed depth about 10mm-20mm is the best situation.



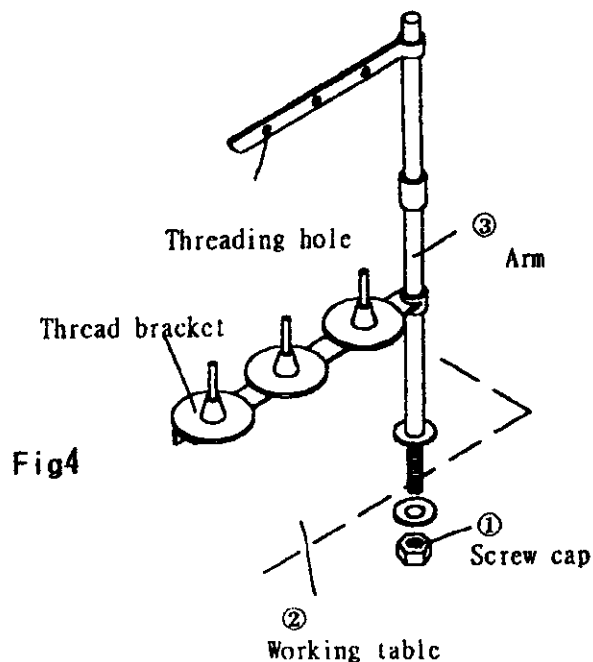
5. How to mount the bobbin winder

- 1) The bobbin winder assembly is installed on the table under the balance wheel of the machine head
- 2) Push the press plate (4) to check the pulley (2) contact with the belt (1) of not
- 3) Use 2 pieces of the screw (3) to fix the bobbin winder on the working table



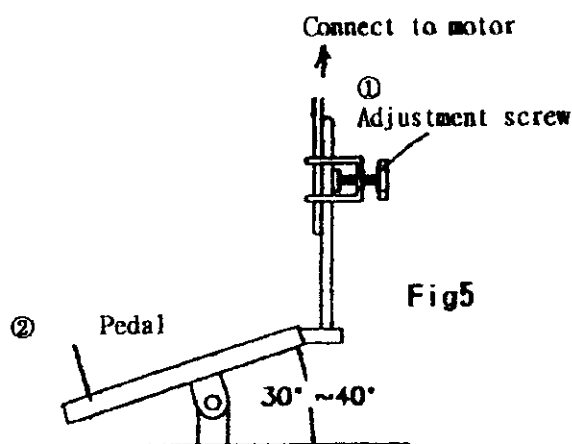
6. How to mount the thread stand assembly

- 1) The thread stand is fitted on the working table (2) in the right rear end of the machine head
- 2) The screw end of the arm (3) is inserted into the hole on the working plate
- 3) Then tight the screw cap (1) on the arm



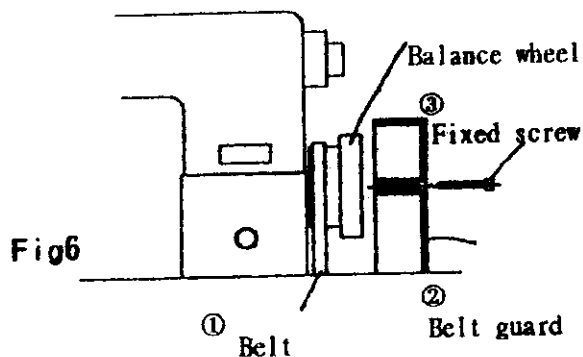
7 How to connect the foot pedal and motor lever.

- 1) The foot pedal operation likes the start switch of the motor, forward is in sewing and back ward is in thread cutting (please refer to the motor operation manual)
- 2) The best angle of the foot pedal (2) installation is 30-40
- 3) The angle of the foot pedal can be adjusted by loosening the adjustment screw (1), as shown in fig.5



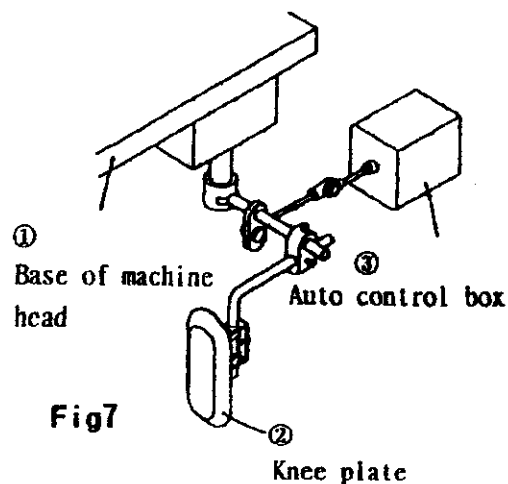
8. How to mount the belt guard

- 1) The belt guard (2) prevent the operator from hurting by the belt (1) during operation
- 2) Fix the belt guard on the machine head by 2 pieces of screws (3)



9. How to mount the foot lifter mechanism

- 1) Please refer to the parts drawing for the assembly of the foot lifter mechanism
- 2) Mount the foot lifter mechanism under the machine head base right end, as shown in fig. 7
- 3) Push the knee plate (2) to right side to lift the press foot or push the foot pedal backward slightly to carry the auto control box (3) for foot lifter



PREPARATION FOR OPERATION

1. Thread selection

For best result, use the high quality sewing thread.
Suggest use the left-twist thread/

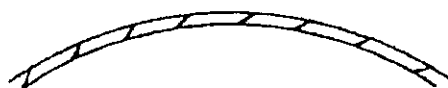


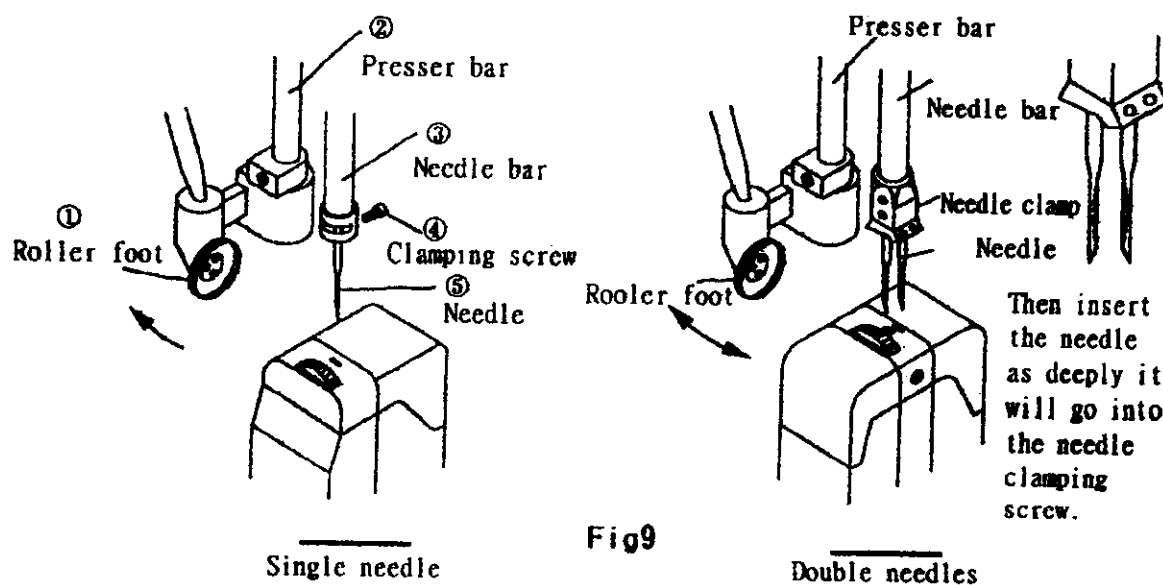
Fig8

2. How to attach the needle

The needle type DP x 5 (135x5) is recommendable for general usage

- 1) Turn the balance wheel to raise the needle bar (3) to its highest position
- 2) Move the roller foot (1) to upon and left finally
- 3) Loosen the needle clamping screw (4)
- 4) Hold the needle to its sides with the long groove side and insert onto the needle clamp
- 5) Tighten the needle clamping screw (4)

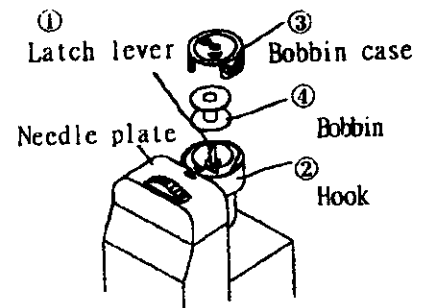
- If the stitch jump or wrap happens by using the silk thread or nylon thread, then slope the needle hole slightly to solve it.



3. How to remove the bobbin from the hook

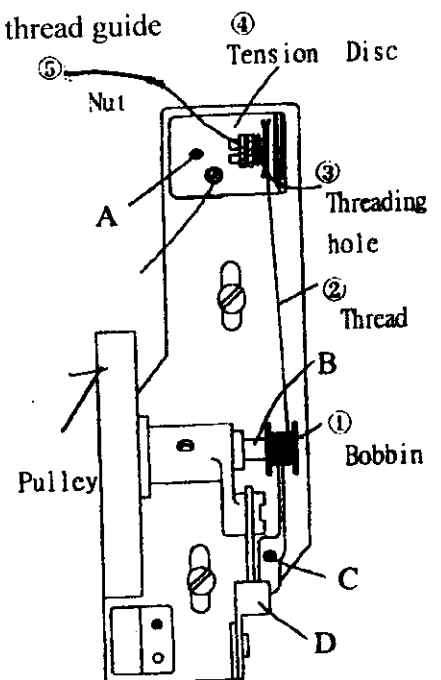
- 1) Turn the balance wheel to raise the needle bar to its highest position
- 2) Move the roller foot to the left
- 3) Open the post cap
- 4) Turn up the latch lever (1)
- 5) Remove the bobbin case (3) and bobbin (4) from the hook (2)

Fig10



4. How to wind the lower thread on the bobbin

- 1) Fit the bobbin (1) into the bobbin pin B
- 2) Push the lever D down ward
- 3) The thread (2) from the spool through the hole (3) of the thread guide to the intension disc (4). Wind the end of the thread through the tension disc on the bobbin (1) 2-3 times.
- 4) If the thread winded uneven then loosen the screw A to adjust the thread guide



5. How to adjust bobbin winder assembly

- 1) In the event of uneven winding toward the left, loosen the screw (A) of the thread guide and adjust it moving the thread guide slightly to the right
- 2) In the event of uneven winding toward the right, adjust it moving the guide to the left
- 3) When the thread (particularly nylon thread) is winded too tightly, adjust the pressure of the tension disc with nut (5) so that thread can be pulled out smoothly.
- 4) In the event of excessive winding, turn the screw (5) to the left, and to the right when insufficient.
- 5) It is desirable that the bobbin is winded evenly with thread and improper winding in Fig. 12

Fig11

Fig12



Correct

Error

Error

6. How to place the bobbin into the hook

- 1) Turn the balance wheel to raise the needle bar to its highest position
- 2) Move the roller to the left
- 3) Open the post cap
- 4) Turn up the latch lever (3)
- 5) Place the bobbin (2) into the hook (4)
- 6) Set the bobbin case (1) and flap down the latch lever
- 7) Close the post cap in fig 13

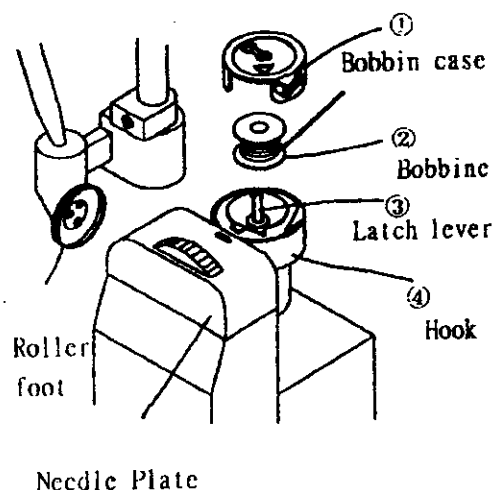
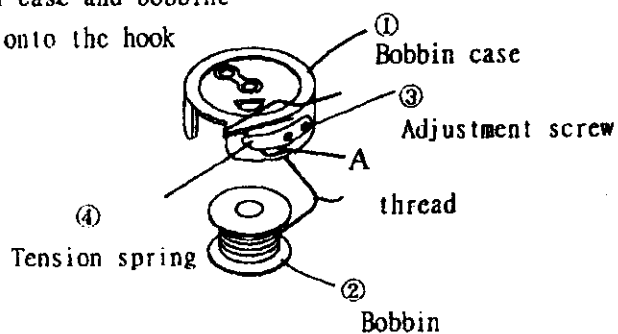
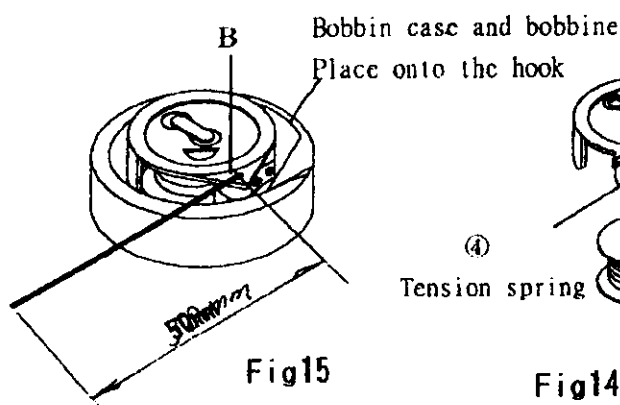


Fig13

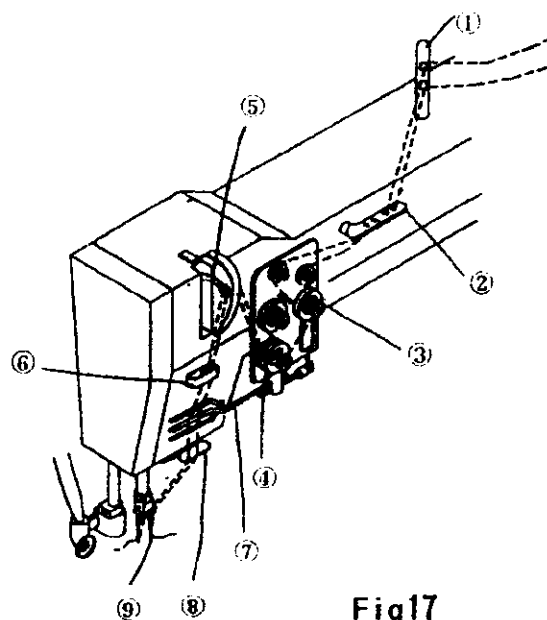
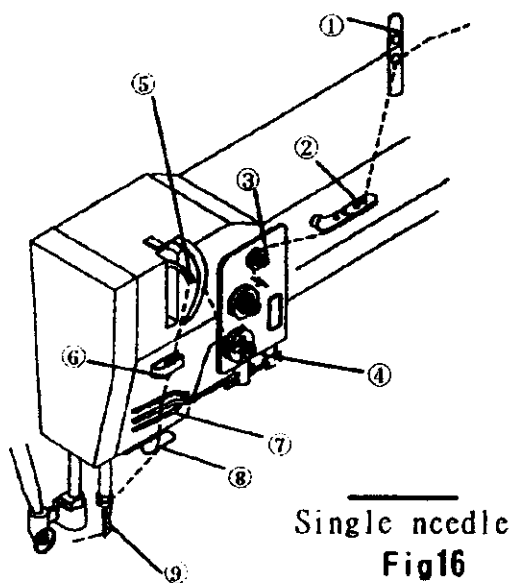
7. How to lead the lower thread

- 1) Fit the bobbin (2) into the bobbin case (1)
- 2) Insert the pulled out thread through the slit (A)
- 3) Loosen the adjustment screw (3) and the thread will pass through tension spring (4) as shown in fig. 14
- 4) The thread is inserted through the hole (B) and pulled out about 50mm in length as shown in fig.15



8. How to lead the upper thread (Fig 16, 17)

- 1) Turn the balance wheel to raise the thread take-up lever to its highest position
- 2) Raise the presser bar and turn the roller foot to left
- 3) Thread in the following process
- 4) The thread pass through the spool pin (1) first
- 5) 4 holes thread retainer (2)
- 6) Thread tension regulator assembly
- 7) Tension spring (4)
- 8) Thread take -up lever (5)
- 9) Thread guide (6)
- 10) Thread tension bar (7)
- 11) Thread Guide (8)
- 12) Needle (9)

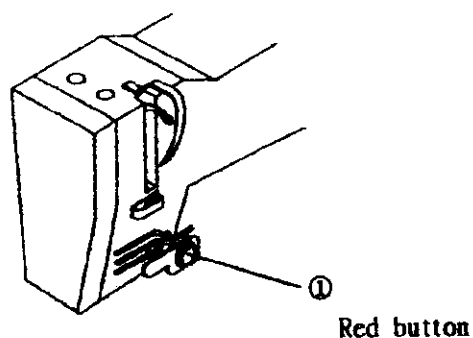


Double Needles

9. Back tacking operation

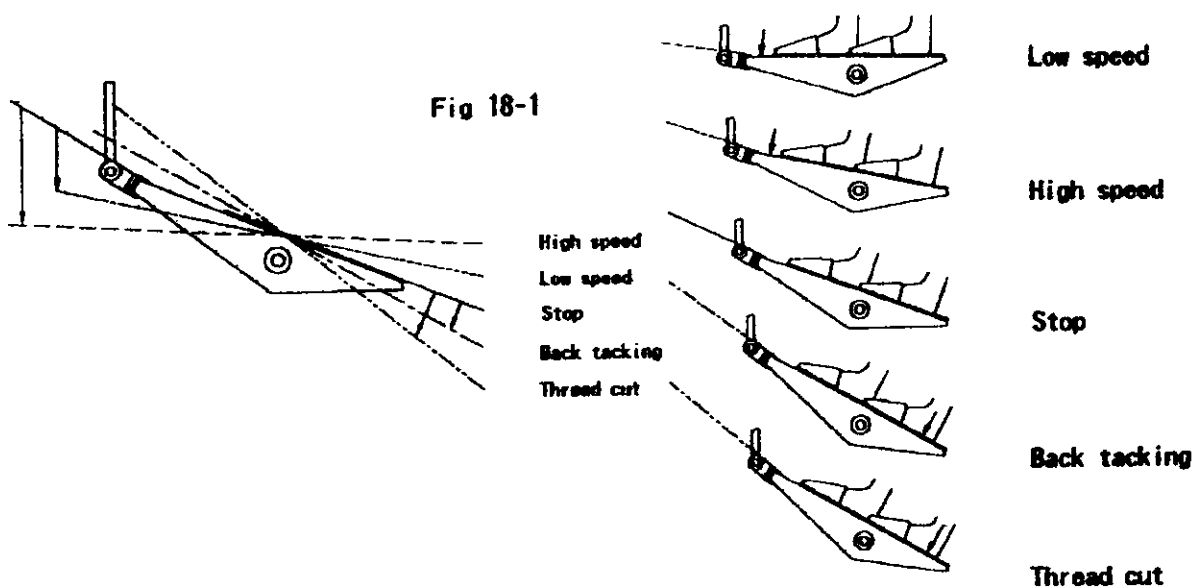
- 1) Push on the red button (6) to start the back tacking processing as the fig. 18 shows
- 2) It is also operated by the foot paddle to process the back tacking as the fig (18-1) shows.

Fig 18



Red button

Fig 18-1



ADJUSTMENT

1. Adjustment of stitch length

- 1) The balance wheel (1) had the stitch scale (3)
- 2) Push on the stitch regulator (2) and turn the balance wheel
- 3) Turn the stitch scale required to the arrow mark (4)
- 4) Lose the stitch regulator to complete the stitch adjustment

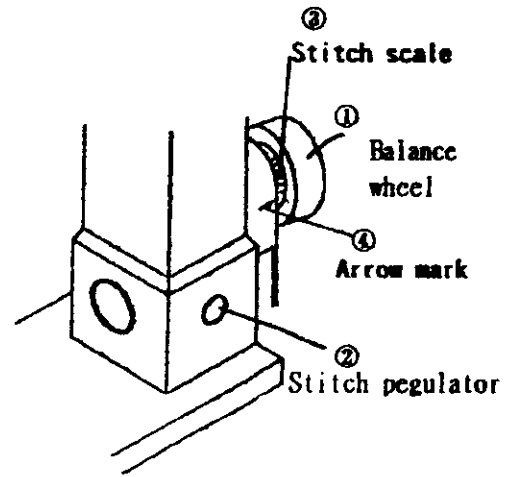
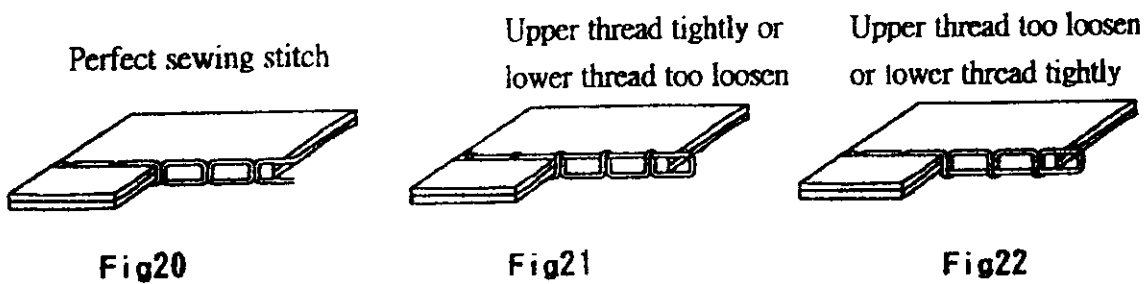


Fig19

2. Thread tension



3. Adjustment the pressure of presser foot

- 1) The thickness of the sewed material affect the presser foot pressure
- 2) The pressure of presser foot adjustment by the adjustment screw on the machine lead

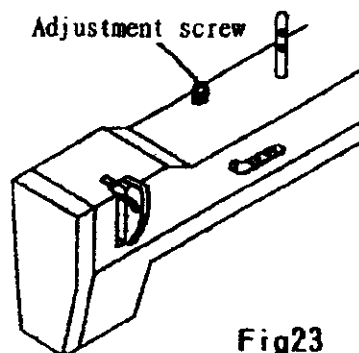


Fig23

4. Thread tension adjustment

- 1) Turn the nut of the thread tension regulator (1) to adjust. The upper thread tension if necessary during sewing as shown in fig. 26
- 2) The lower thread tension is affected by the thread type and sewed material, so turn the adjustment screws (2), as shown in fig. 25 to meet the requirement
- 3) The spring (3) adjustment limit is about 5mm-10mm as shown in fig. 26. The spring tension is adjusted by the tension nut (5)
- 4) Adjustment spring pin (6) should be on the centre for the standard adjustment. Lose the screw (2) and turn the adjustment spring pin (6) to adjust the tension as show in fig. 27

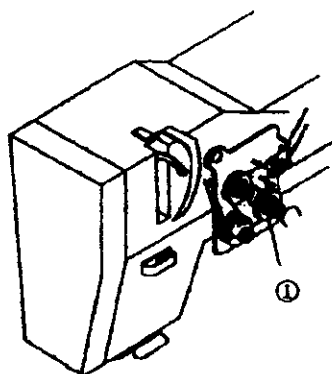


Fig24



Fig25

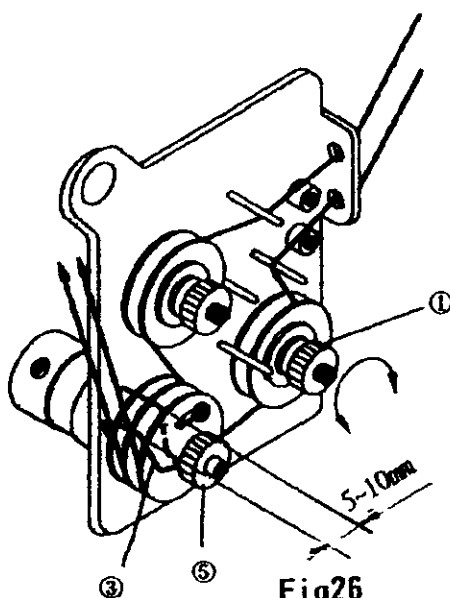


Fig26

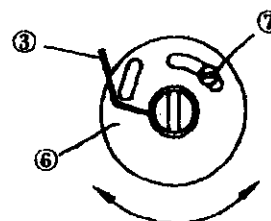


Fig27

5. The roller foot height adjustment

- 1) Lose screw
- 2) Remove the face plate
- 3) Turn the presser foot lever (2) to raise the presser foot
- 4) Lose screw (1) to lift up or down the presser bar for presser foot (3) adjustment. The highness is above the needle plate 11mm, as fig. 28 shows.

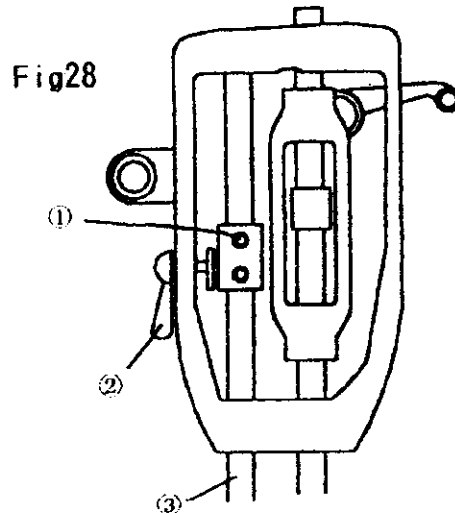


Fig28

6. Lower feeding roller adjustment

- 1) For single needle, lose the set screws (2). Use the flat screw driver to turn the cam shaft (1) for the roller highness adjustment shown in fig. 29.
- 2) For double needle lose the screw (3) to adjust the highness of roller, shown in fig.30
 - a) The highness for thin material sewed is 0.8 mm in normal. The material will be damaged if the roller was too high
 - b) The highness for thick material sewed is 1.2 mm. The stitch will be uneven if the roller was too low
 - c) The highness for general material sewed is 1mm

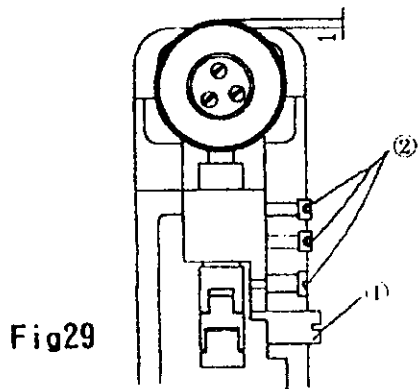


Fig29

Single needle feeding gear

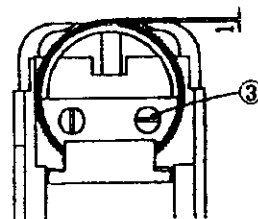


Fig30

Double Needle feeding gear

7. Feeding speed adjustment

The speed of upper roller and feed dog is not synchronous will cause the uneven stitch between the upper and lower thread.

Adjust the upper roller to improve

- 1) Lose screw (1) and turn the link (2) up for fast and down for slow to adjust the roller speed.

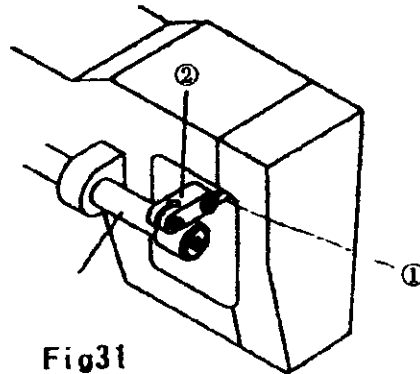


Fig31

8. The position of the needle and hook adjustment

The quality of stitches is based on the synchronous position of the tip of hook and the needles as fig. 32, 32 shows.

- 1) To lose the needle bar to make the lowest of needle position. The distance is 3.0 mm between the upper side of needle hole and the tip of hook, and tighten the needle bar, as fig 32 (A)
- 2) To rise the needle bar from the lowest of needle position, the distance is 2.5 mm tighten it when it is on the position of tip of hook and the centre line of needle
- 3) The clearance is within 0.05mm between the needle and tip of hook. The clearance is 0.05-0.1mm between the needle and the needle guard washer. Must adjust it again when change needles.

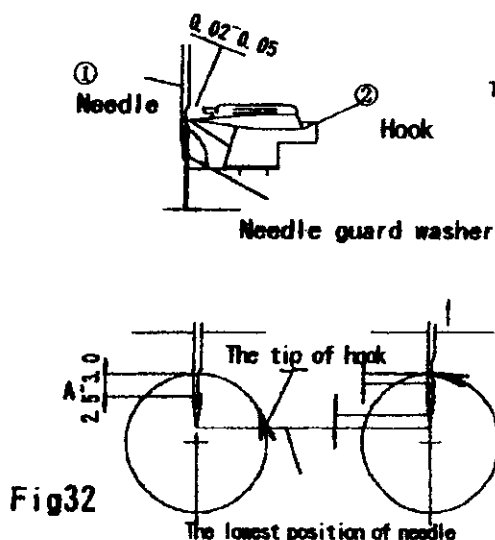


Fig32

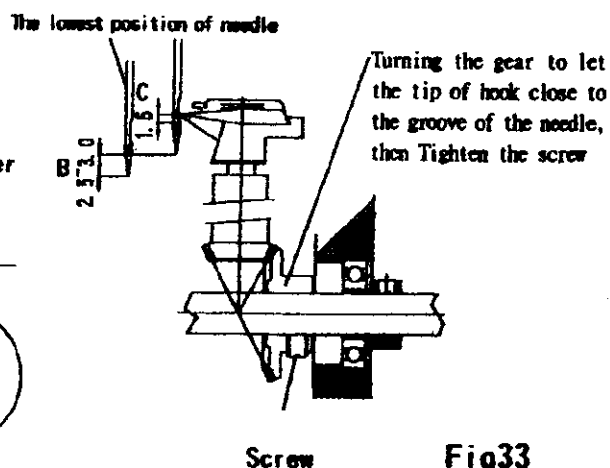


Fig33

9. Adjustment of the fillister of needle plate and projection of bobbin case

- 1) The fixed groove under the needle plate (1) is used to fix the bobbin case (2) to prevent its rotation
- 2) The fitting position between the fillister of needle plate and the projection of bobbin case is 1.4 mm

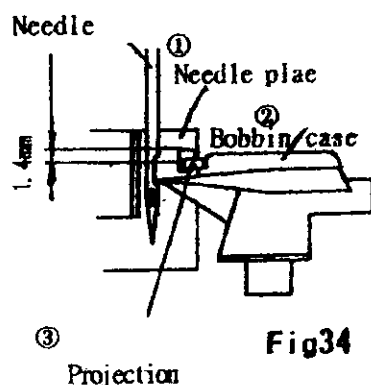


Fig34

10. Adjustment the position of the fixed knife

- 1) Set the fixed knife (3) on the knife holder (2)
- 2) Lose screw (1) and place the thread cutting knife (4) on the fixed knife carefully
- 3) Adjust the distance between the fixed knife and needle hole to 5mm.
- 4) Turn the balance wheel to check the knife is contacted by the fixed knife or not when it came to the ready position for thread cutting.

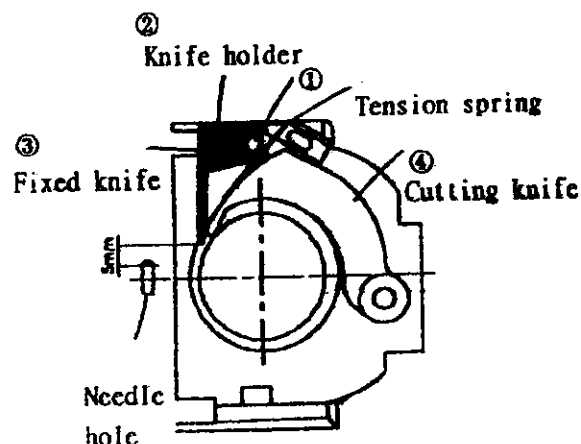


Fig35

11. Adjustment of the thread cutting knife position

- 1) Place the cutting knife (1) on the ready position
- 2) As shown in fig.36 the distance between the top of the knife and the end of fixed knife is about 1.5mm
- 3) Tighten the screw

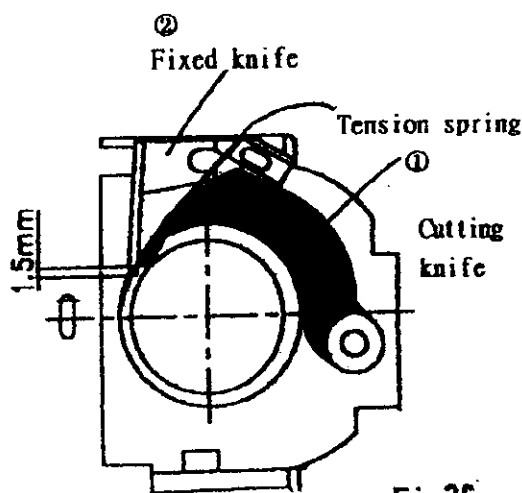
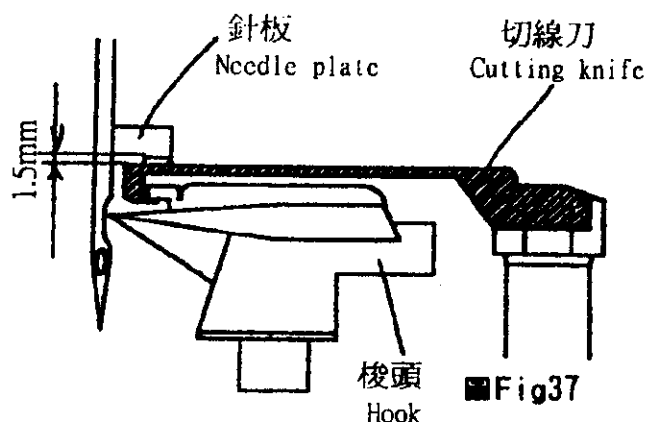


Fig36

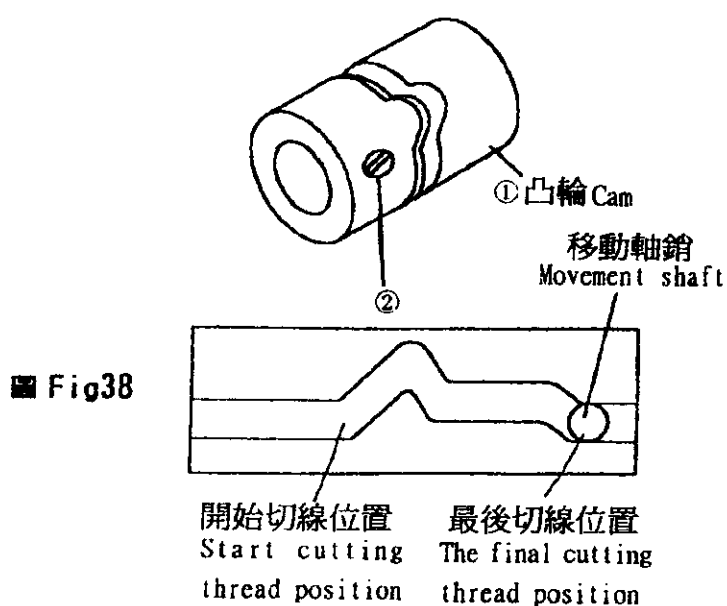
12. The position of the thread cutting knife and needle plate

- 1) Adjust the highness of the cutting knife
- 2) Lose screw to move the highness of cutting knife shaft.
- 3) The gap between the cutting knife and needle plate is about 1.5mm



13. Adjustment of the came of the thread cutting knife

- 1) The cam (1) is used for cutting knife timing adjustment
 - 2) Lose the set screw and turn the cam to adjust the thread cut time.
 - 3) Fix the cam and turn the shaft to watch the thread cut status
- Please check does the knife contact the slide plate when it rotates to the bottom.



MAINTENANCE AND TROUBLE INSPECTION

1. Cleaning

The teeth of feed dog, hook, upper thread tension regulator disc and thread controller discs are often covered by dust and lint causing improper operation and uneven stitching. Therefore, clean as often as necessary.

2. Lubrication

- 1) Suggest use Mobil #10, Esso #32 or same grade lubricate oil
- 2) Lubricate the machine 2-3 times a week
- 3) Lubricate the portion as the arrow indicated on the fig.39

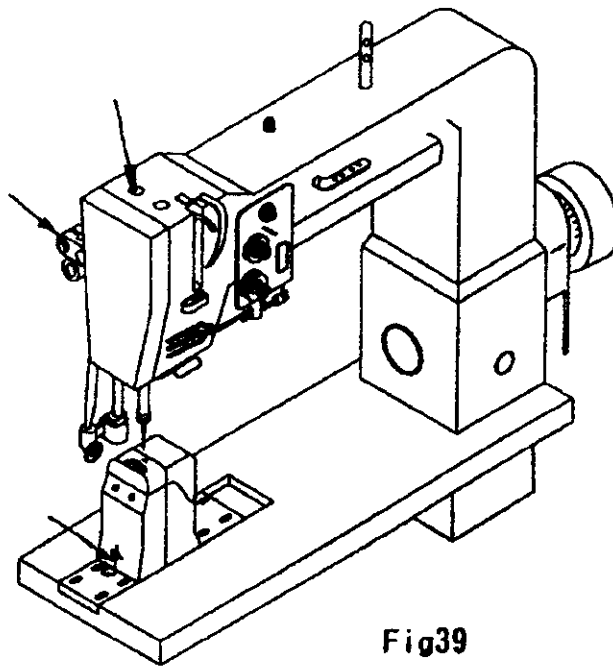


Fig39

3. Trouble examination

- 1) Balance wheel can not turn 1. Power unconnected 2. The pulse of brake failed
 - 2) Upper or lower thread cut; 1. Needle end bend 2. Needle blunt 3. Improper needle attachment 4. Improper threads lead 5. Rotating hook needs lubrication 6. Rotating hook is covered by dust or thread.
 - 3) Uneven stitch: 1. press foot pressure is too weak 2. Feeding roller is too low 3. bobbin case broken
 - 4) Stitch jump 1. Needle head bend 2. Improper needle attachment 3. Presser foot pressure is too weak 4. Improper threading 5. Needles blunt 6. Sewing speed is too fast.
 - 5) Thread tension is not enough: 1. adjustment spring lost 2. Bobbin case broke 3. improper threading
 - 6) Needle broken: 1. needles blend 2. needle does not properly pass through the centre of the hole on the feeding roller
- If you are unable to solve the trouble in accordance with the above-mention methods, then switch off the power and contact with the local distributors.



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1 - NEEDLE / 2 - NEEDLE, POST-BED
INDUSTRIAL SEWING
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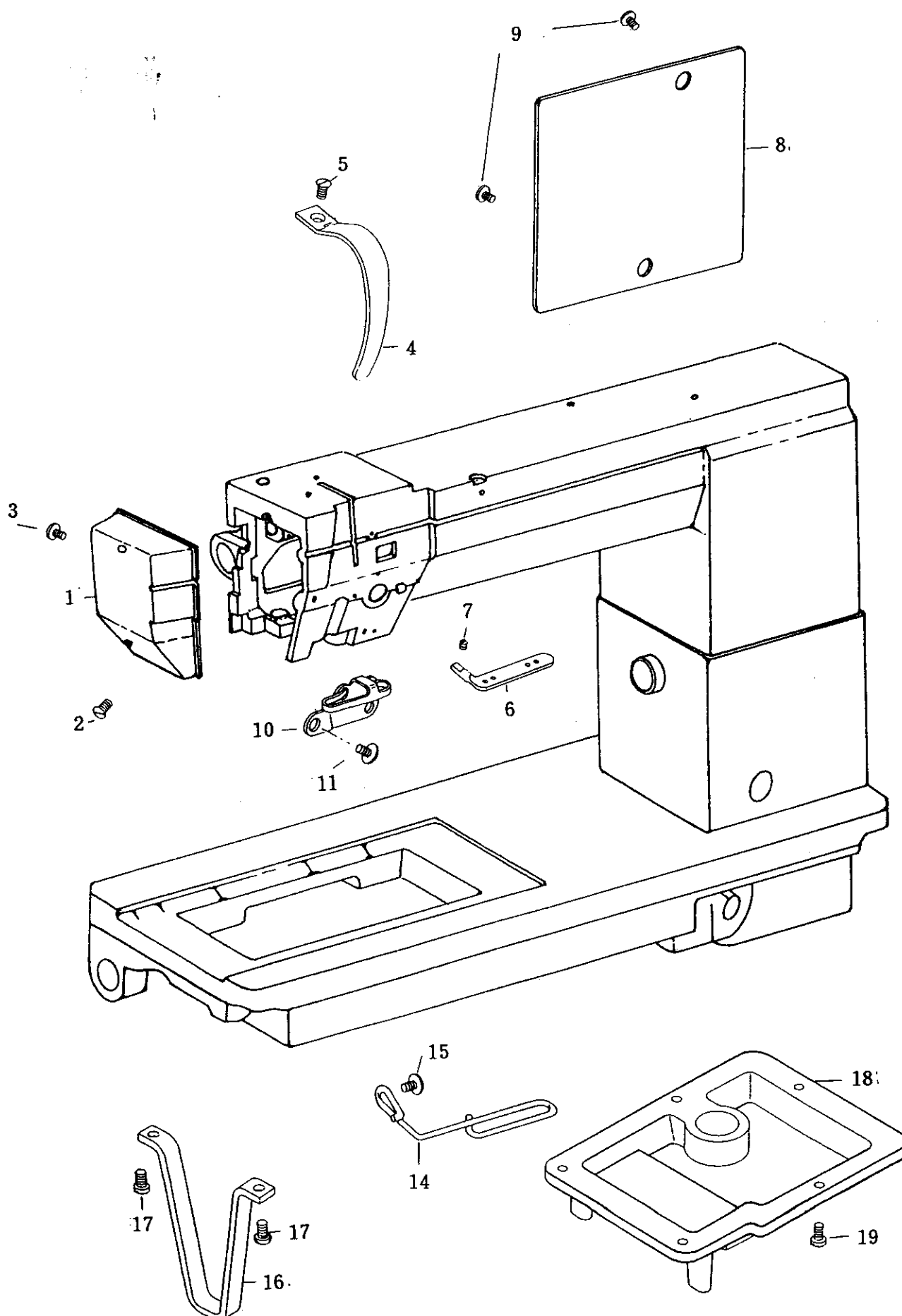
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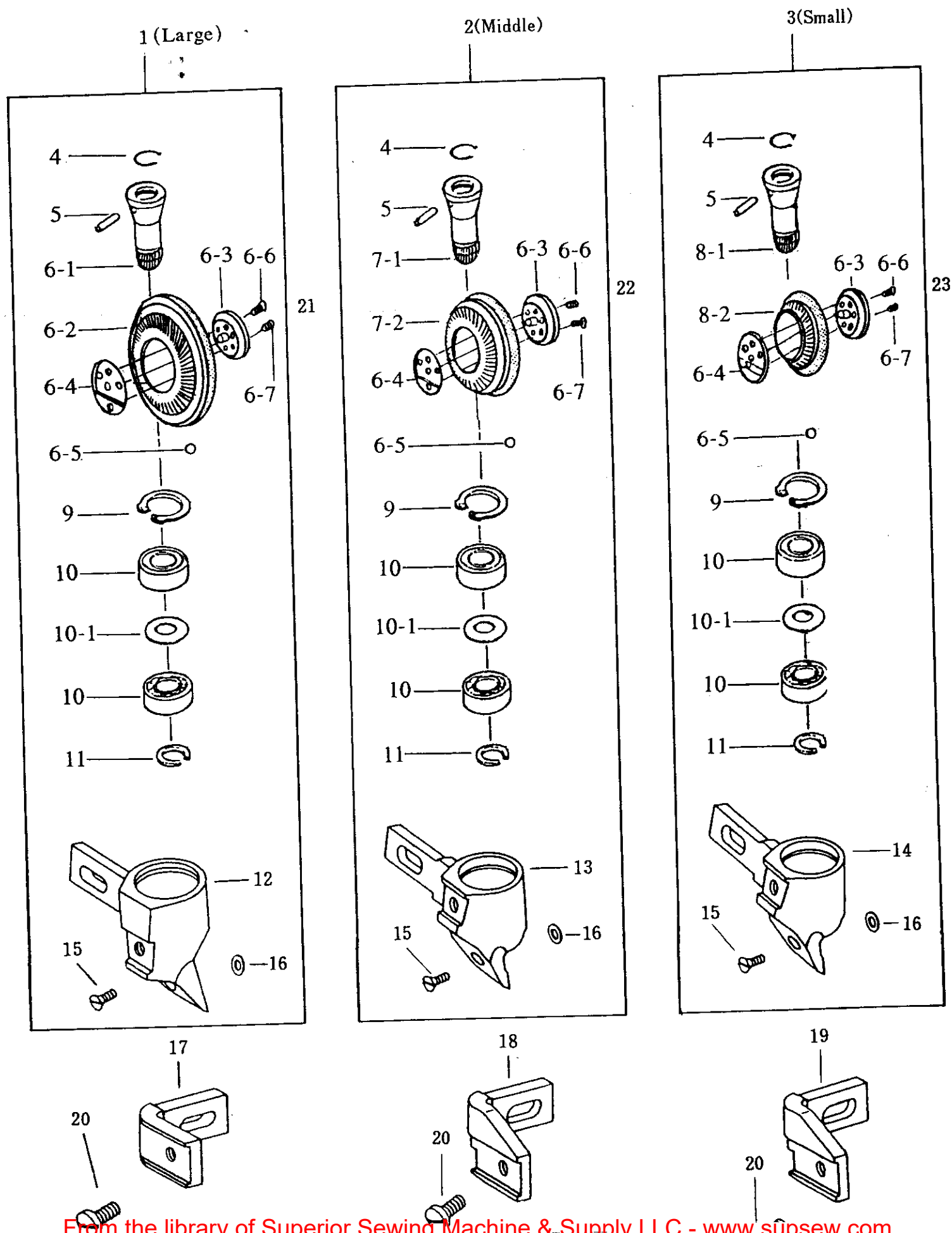
MAIN FRAME AND COVER PARTS



MAIN FRAME AND COVER PARTS

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119687	Face Plate	1	1	
2	MS-108246	Screw	1	1	
3	MS-108234	Screw	1	1	
4	MS-168061	Thread Take-up Cover	1	1	
5	MS-210210	Screw	1	1	
6	MS-119027	4 Hole Thread Retainer	1	1	
7	MS-314946	Screw	1	1	
8	MS-119039	Arm Side Cover	1	1	
9	MS-700335	Screw	2	2	
10	MS-118430	Thread Guide Wire	1	1	
11	MS-700335	Screw	1	1	
14	MS-119686	Thread Guide Wire	1	1	
15	MS-700335	Screw	1	1	
16	MS-119092	Bracket	1	1	
17	MS-108285-1	Screw	2	2	
18	MS-119091	Bottom Cover	1	1	
19	MS-108225	Screw	5	5	

ROLLER PRESSER FOOT MECHANISM FOR 9971 9974 輪錢組機構

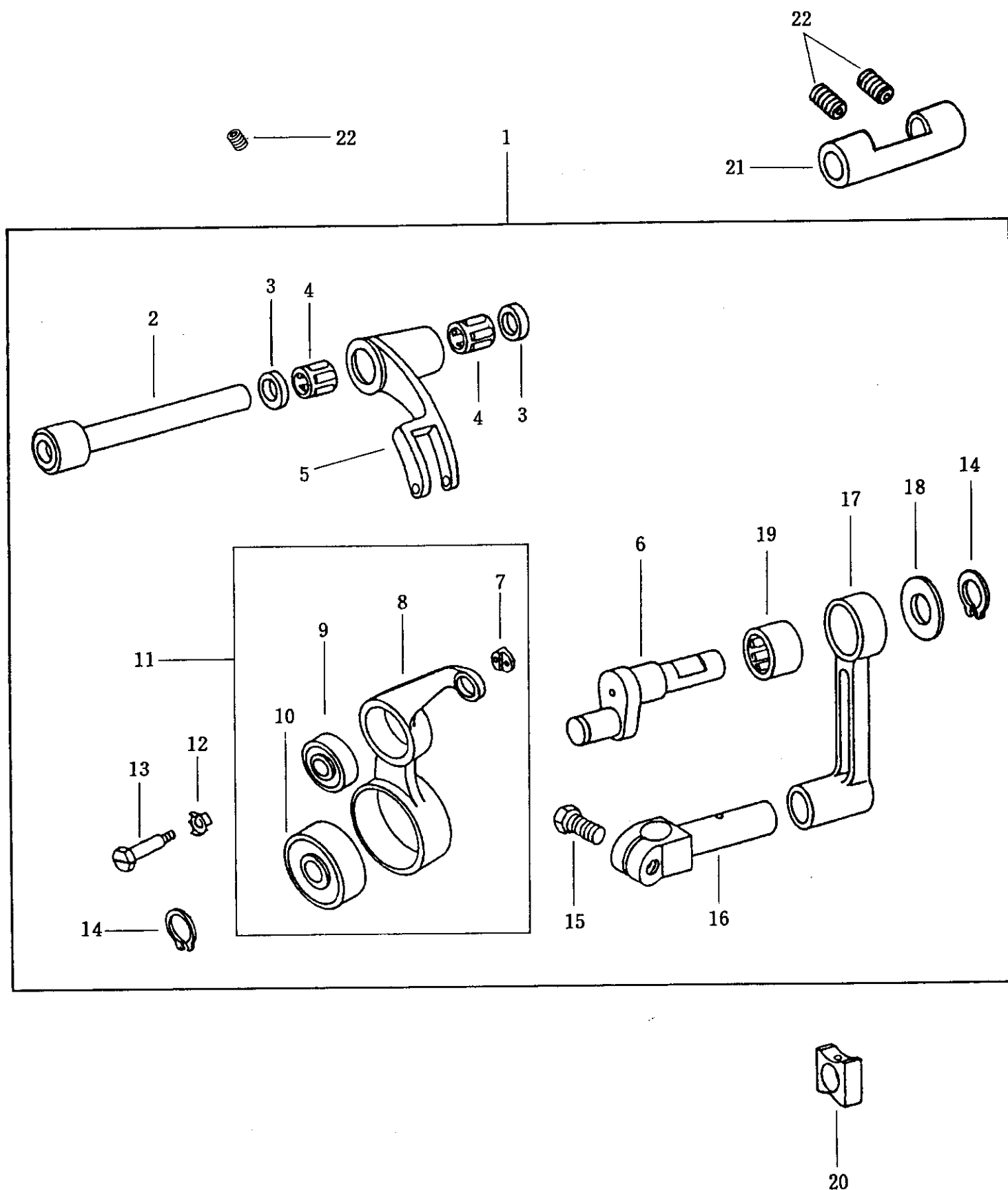


ROLLER PRESSER FOOT MECHANISM FOR 9971 9974

輪錢組機構

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119803	Roller Presser Assy. (Large)	1	1	
2	MS-119803-1	Roller Presser Assy. (Middle)	1	1	
3	MS-119802	Roller Presser Assy. (Small)	1	1	
4	MS-119469	Spring Washer	1	1	
5	MS-033145	Pin	1	1	
6	MS-175109	Gear	1	1	
6-1	MS-175109-1	Gear Presser Shaft	1	1	
6-2	MS-175109-2	Gear	1	1	
6-3	MS-175109-3	Gear Presser Shaft Seat (Front)	1	1	
6-4	MS-175109-4	Gear Presser Shaft Seat	1	1	
6-5	MS-175109-5	Ball	1	1	
6-6	MS-175109-6	Screw	1	1	
6-7	MS-175109-7	Screw	1	1	
7	MS-175107	Gear	1	1	
7-1	MS-175107-1	Gear Presser Shaft	1	1	
7-2	MS-175107-2	Gear	1	1	
7-3	MS-175107-3	Gear Presser Shaft Seat	1	1	
8	MS-175108	Gear	1	1	
8-1	MS-175108-1	Gear Presser Shaft	1	1	
8-2	MS-175108-2	Gear	1	1	
8-	MS-175108-3	Gear Presser Shaft Seat	1	1	
9	MS-664290	Retaining Ring	1	1	
10	MS-133116	Ball Bearing	1	2	
10-1	MS-133116-1	Washer	1	1	
11	MS-518210	Retaining Ring	1	1	
12	MS-119953	Roller Presser Bracket	1	1	
13	MS-119943	Roller Presser Bracket	1	1	
14	MS-119956	Roller Presser Bracket	1	1	
15	MS-210043	Screw	1	1	
16	MS-119491	Washer	1	1	
17	MS-119807	Guide Seat	1	1	
18	MS-119955	Guide Seat	1	1	
19	MS-119954	Guide Seat	1	1	
20	MS-173174	Screw	2	1	

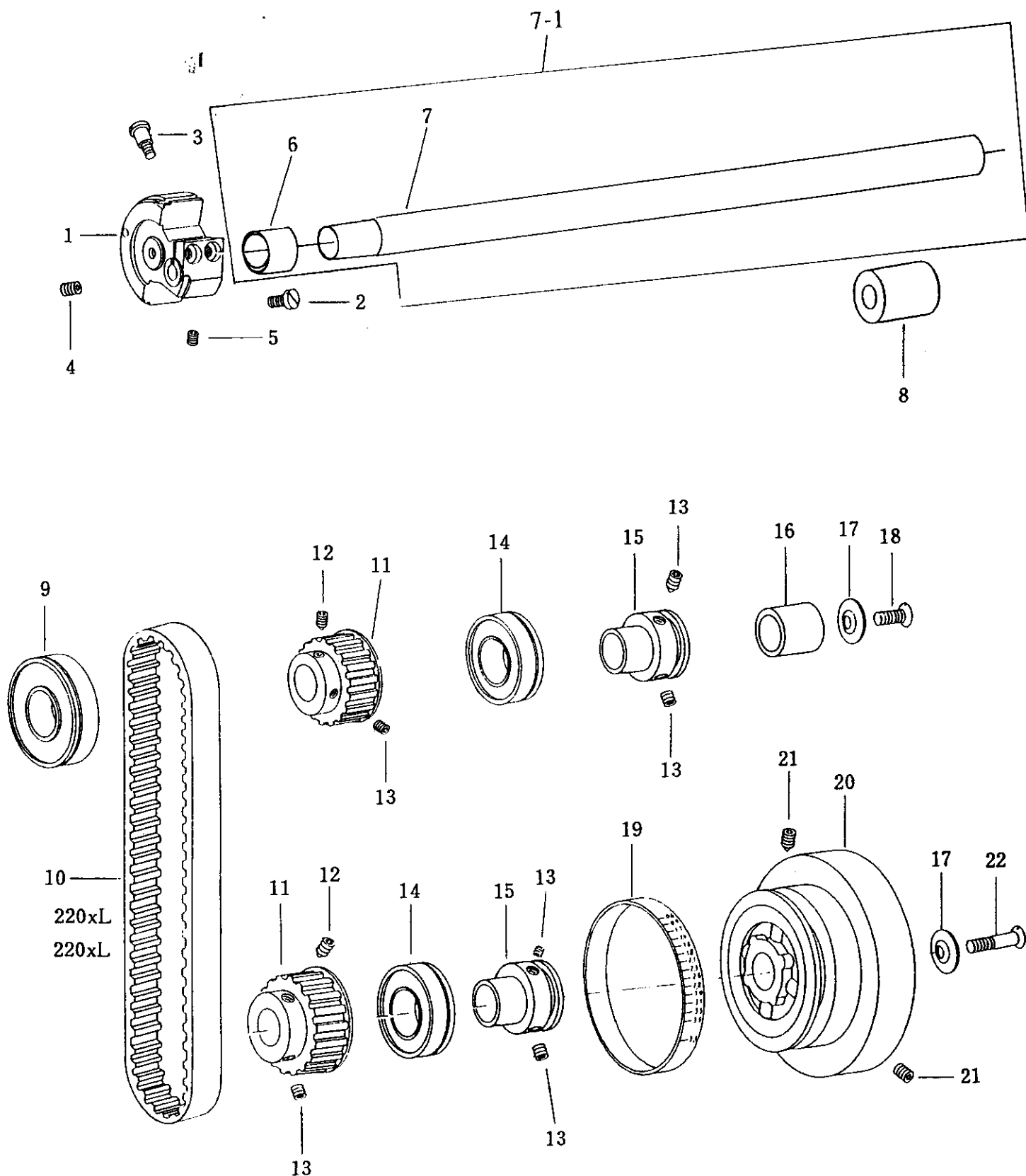
THREAD TAKE- UP LEVER MECHANISM



THREAD TAKE- UP LEVER MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-118084	Thread Take-up Assy	1	1	(2~19)
2	MS-119009	Take-up Lever Support Stud	1	1	
3	MS-168039	Washer	2	2	
4	MS-215022	Needle Bearing	2	2	
5	MS-119008	Take-up Frame	1	1	
6	MS-119762	Take-up Crank Pin	1	1	
7	MS-119049	Bushing	1	1	
8	MS-119007	Take-up Lever	1	1	
9	MS-167569	Ball Bearing	1	1	
10	MS-167570	Ball Bearing	1	1	
11	MS-119006	Take-up Lever	1	1	(7~10)
12	MS-168046	Washer	1	1	
13	MS-168047	Screw	1	1	
14	MS-610210	Retaining Ring	2	2	
15	MS-039177	Screw	1	1	
16	MS-119013	Needle Bar Connecting Stud	1	1	
17	MS-119765	Needle Bar Connecting Crank Rod	1	1	
18	MS-119763	Washer	1	1	
19	MS-218080	Needle Bearing	1	1	
20	MS-118518	Needle Bar Guide Slide Block	1	1	
21	MS-168041	Bushing	1	1	
22	MS-314220	Screw	3	3	

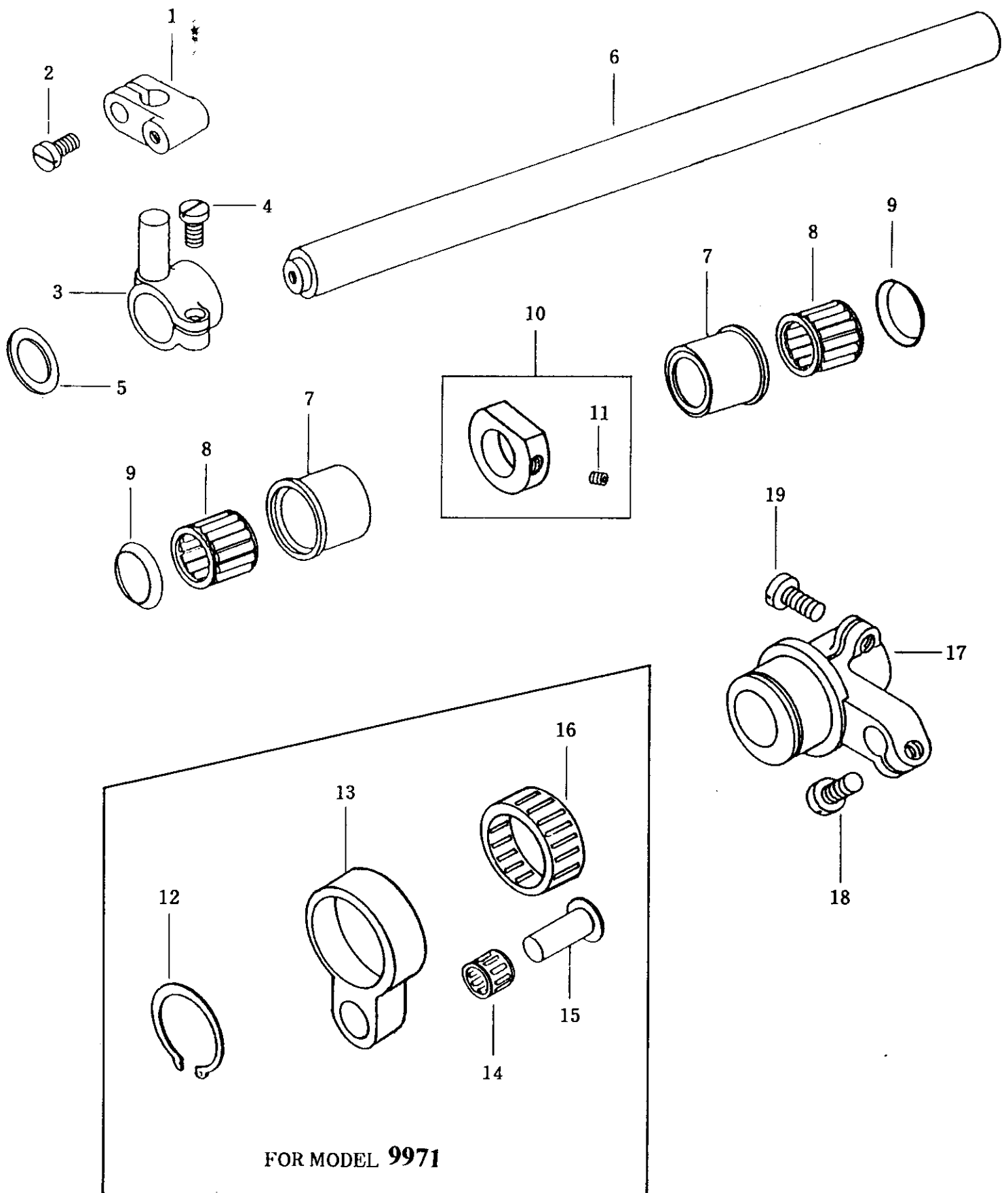
UPPER SHAFT AND BALANCE WHEEL MECHANISM



UPPER SHAFT AND BALANCE WHEEL MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119702-2	Crank Cam	1	1	
2	MS-130224	Screw	2	2	
3	MS-119702-3	Screw	1	1	
4	MS-119702-4	Screw	1	1	
5	MS-700510	Screw	1	1	
6	MS-119702-5	Bushing	1	1	
7	MS-119702-1	Upper Shaft	1	1	
7-1	MS-119702 A	Upper Shaft Assy	1	1	
8	MS-119702-6	Bushing	0	1	
9	MS-018643	Ball Bearing	1	1	
10	MS-069160	Timing Belt	1	1	
10-1	MS-069160-1	Timing Belt	1	1	
11	MS-119707	Timing Belt Wheel	2	2	
12	MS-335902	Screw	2	2	
13	MS-335902-1	Screw	6	6	
14	MS-016153	Ball Bearing	2	2	
15	MS-119705	Upper Shaft Bushing	2	2	
16	MS-069746	bushing	1	1	
17	MS-168480	Washer	2	2	
18	MS-210265	Screw	1	1	
19	MS-175048	Feed Regulator Scale	1	1	
20	MS-170913	Pulley Balance Wheel	1	1	
21	MS-341902	Screw	2	2	
22	MS-210287	Screw	1	1	

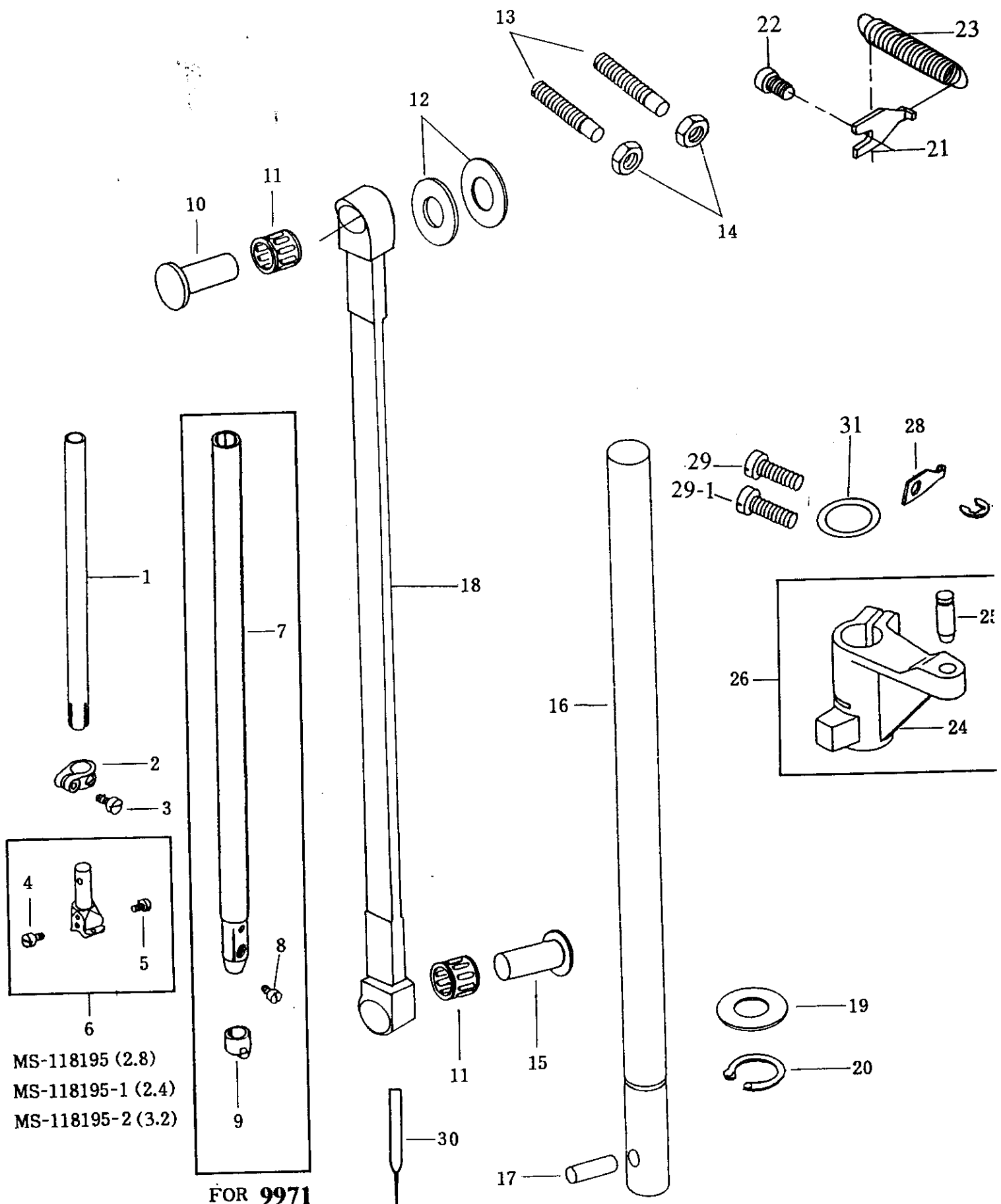
UPPER SIDE SHAFT MECHANISM



UPPER SIDE SHAFT MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119164	Clamp	1	1	(11)
2	MS-108177	Screw	1	1	
3	MS-119163	Crank	1	1	
4	MS-108225	Screw	1	1	
5	MS-119085	Washer	1	1	
6	MS-119511	Upper Side Shaft	1	1	
7	MS-118600	Bushing	2	2	
8	MS-215124	Needle Bearing	2	2	
9	MS-133283	Washer	2	2	
10	MS-118504	Collar	1	1	
11	MS-118503	Screw	1	1	
12	MS-610370	Retaining ring	1	0	
13	MS-119042-2	Eccentric With Rod	1	0	
14	MS-215028	Needle Bearing	1	0	
15	MS-175150	Pin	1	0	
16	MS-242810	Needle Bearing	1	0	
17	MS-119042	Crank With Eccentric	1	1	
18	MS-108225-2	Screw	1	1	
19	MS-130224	Screw	1	1	

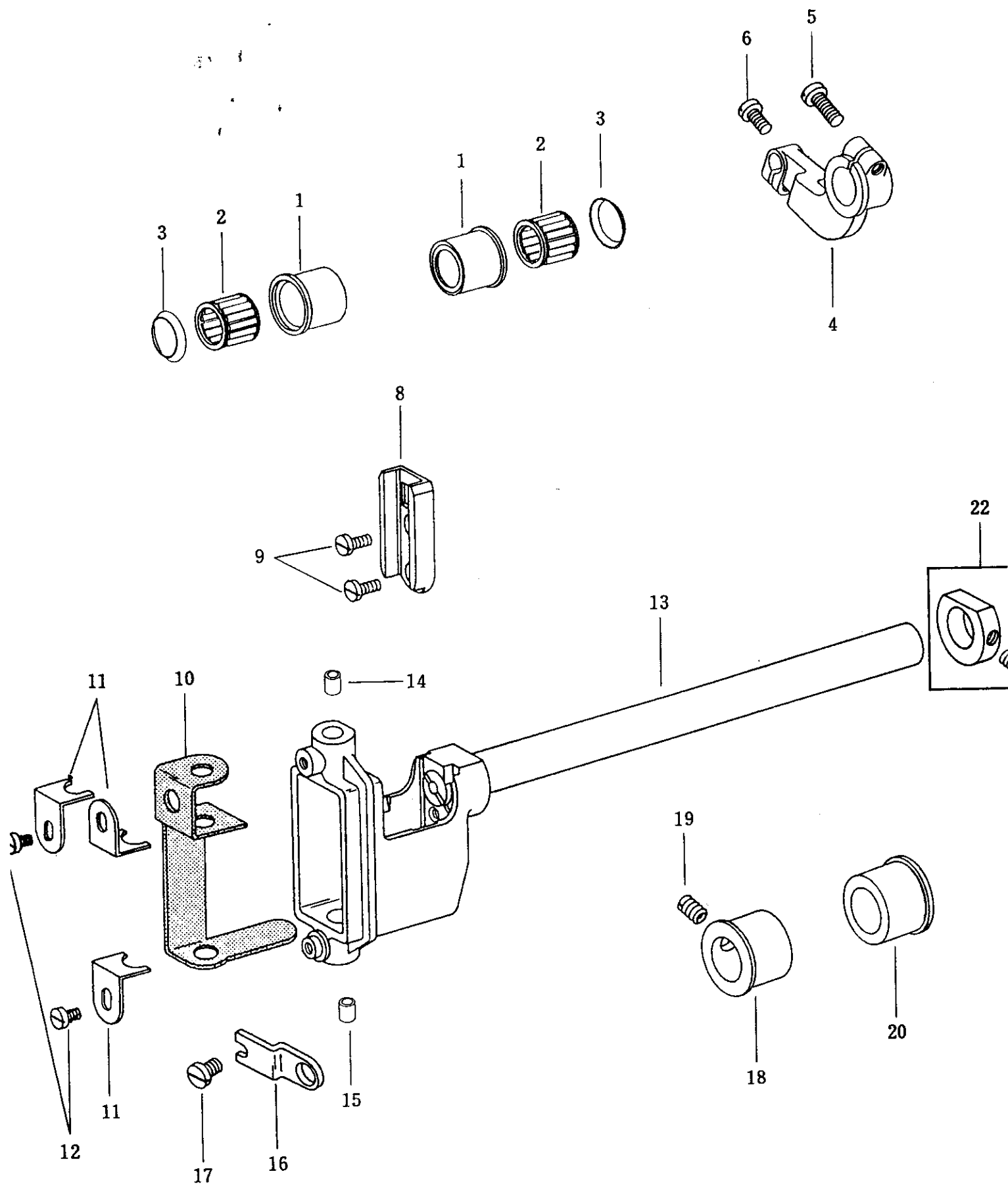
NEEDLE BAR MECHANISM



NEEDLE BAR MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-118197	Needle Bar	0	1	
2	MS-118196	Ring Clamp	0	1	
3	MS-108174-1	Screw	0	1	
4	MS-700868	Screw	0	1	
5	MS-700868-1	Screw	0	1	
6	MS-118195	Needle Holder (2,8)	0	1	(4, 5)
	MS-118195-1	Needle Holder (2.4)	0	1	(4, 5)
	MS-118195-2	Needle Holder (3.2)	0	1	
7	MS-175096	Needle Bar	1	0	
8	MS-174173	Screw	1	0	
9	MS-175096-2	Thread Guide	1	0	
10	MS-175150	Pin	1	1	
11	MS-215028	Needle Bearing	2	2	
12	MS-169137	Washer	2	2	
13	MS-305305	Screw	2	2	
14	MS-024191	Nut	2	2	
15	MS-118612	Pin	1	1	
16	MS-119718	Shaft	1	1	
17	MS-030310	Pin	1	1	
18	MS-119046	Connecting Rod	1	1	
19	MS-119525-2	Washer	1	1	
20	MS-119718-2	Retaining Ring	1	1	
21	MS-118858	Spring Plate	1	1	
22	MS-108285	Screw	1	1	
23	MS-118857	Spring	1	1	
24	MS-118543	Crank	1	1	
25	MS-118544	Pin	1	1	(24, 25)
26	MS-118543A	Crank Shaft	1	1	
27	MS-640150	E-Ring	1	1	
28	MS-020490	Spring Plate	1	1	
29	MS-130224	Screw	2	2	
29-1	MS-130224-1	Screw	1	1	
30	MS-134356	Needle	1	1	
31	MS-118545	Washer	1	1	

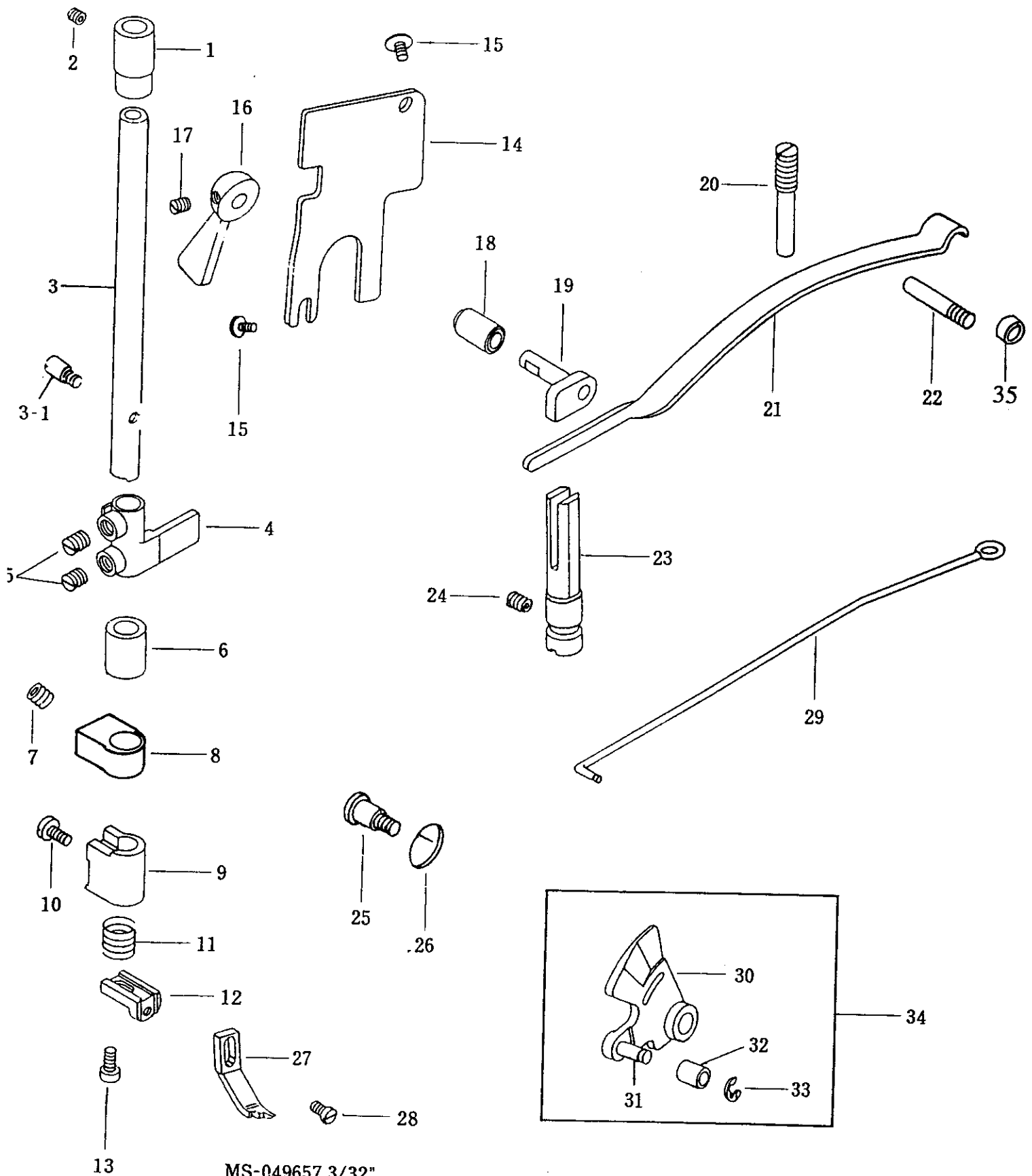
NEEDLE BAR FEED MECHANISM



NEEDLE BAR FEED MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-118600	Bushing	2	0	(21)
2	MS-215124	Needle Bearing	2	0	
3	MS-133283	Washer	4	0	
4	MS-118610	Crank	1	0	
5	MS-108285-1	Screw	1	0	
6	MS-130224	Screw	1	0	
8	MS-118594	Needle Bar Connecting Link Guide	1	1	
9	MS-100355	Screw	2	2	
10	MS-119014	Oil Felt	1	1	
11	MS-119015	Holder	3	3	
12	MS-706169	Screw	2	2	
13	MS-119940	Needle Bar Holder	1	1	
14	MS-119940-5	Needle Bar Bushing	1	1	
15	MS-119940-4	Needle Bar Bushing	1	1	
16	MS-118521	Needle Bar Support Frame Retainer	0	1	
17	MS-108219	Screw	0	1	
18	MS-118520	Bushing	0	1	
19	MS-314286	Screw	0	1	
20	MS-118520-1	Bushing	0	1	
21	MS-118503	Screw	1	1	
22	MS-118504	Collar	1	1	

PRESSER FOOT BAR MECHANISM



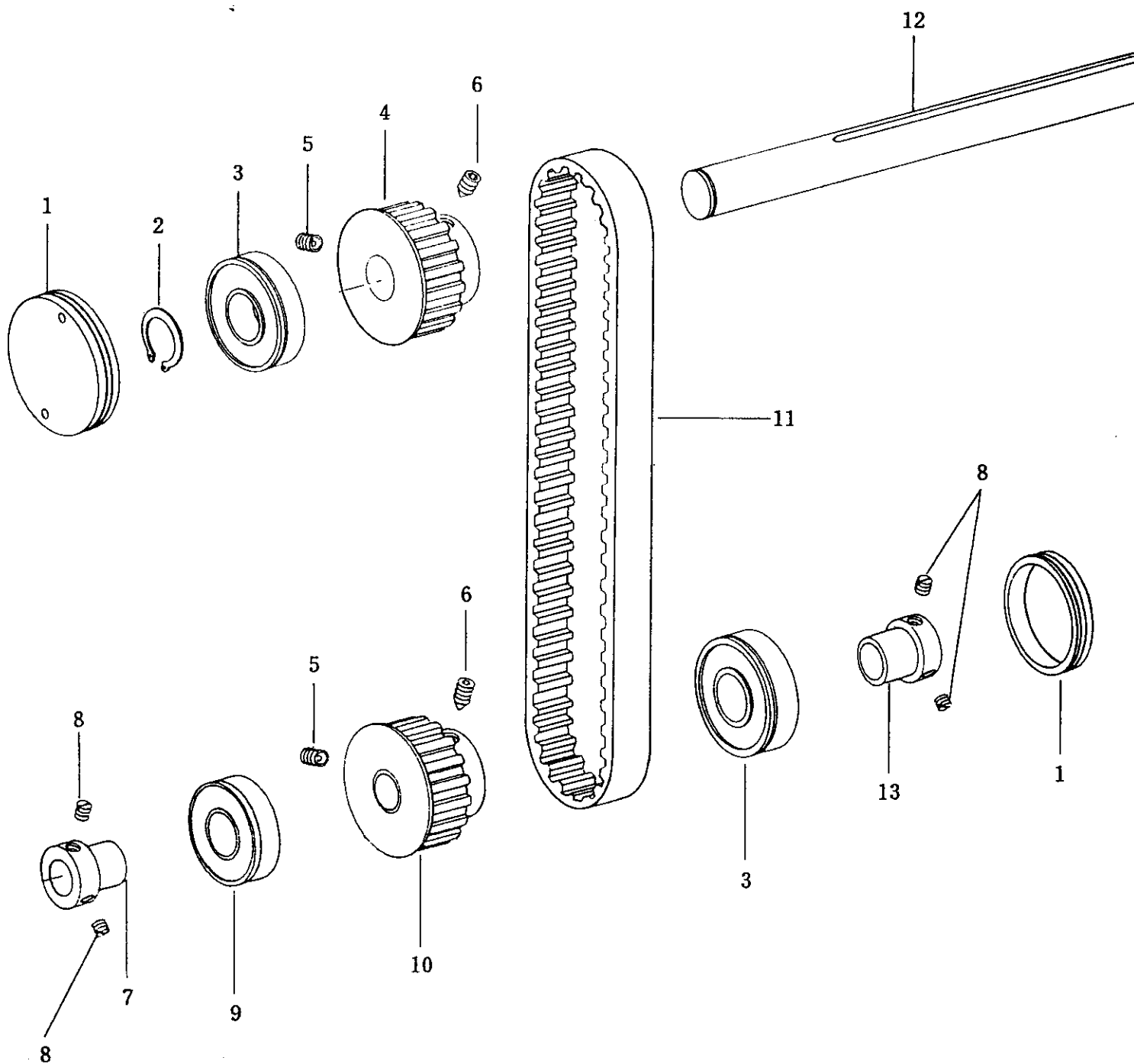
MS-049657 3/32"

MS-049657-1 1/16"

PRESSER FOOT BAR MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119019	Presser Bar Bushing (Upper)	1	1	
2	MS-700785	Screw	1	1	
3	MS-119018	Presser Bar	1	1	
3-1	MS-119018-1	Pin	1	1	
4	MS-118530	Presser Bar Holder	1	1	
5	MS-700510	Screw	2	2	
6	MS-119019-1	Presser Bar Bushing (Lower)	1	1	
7	MS-700510-1	Screw	1	1	
8	MS-119165-1	Roller Presser Holder	1	1	
9	MS-119165	Roller Presser Holder	1	1	
10	MS-173174	Screw	1	1	
11	MS-025874	Spring	1	1	
12	MS-054876	Angle	1	1	
13	MS-130173	Screw	1	1	
14	MS-175135	Cover	1	1	
15	MS-700335	Screw	2	2	
16	MS-069079	Presser Foot Lifter	1	1	
17	MS-317950	Screw	1	1	
18	MS-119004	Bushing	1	1	
19	MS-118577	Cam shaft	1	1	
20	MS-100331	Screw	1	1	
21	MS-118535	Presser Plate Spring	1	1	
22	MS-343901	Screw	1	1	
23	MS-118105	Stud	1	1	
24	MS-314286	Screw	1	1	
25	MS-700017	Screw	1	1	
26	MS-119016	Spring	1	1	
27	MS-049657	Presser Foot	0	1	
	MS-049657-1	Presser Foot	0	1	
28	MS-108171	Screw	0	1	
29	MS-118542	Knee Lifter Connecting Lever	1	1	
30	MS-118536	Spring Plate	1	1	
31	MS-118536-1	Pin	1	1	
32	MS-118539	Bushing	1	1	
33	MS-640150	E-Ring	1	1	
34	MS-118536A	Lifting Lever Assy	1	1	(30~33)
35	MS-343902	Bushing	1	1	

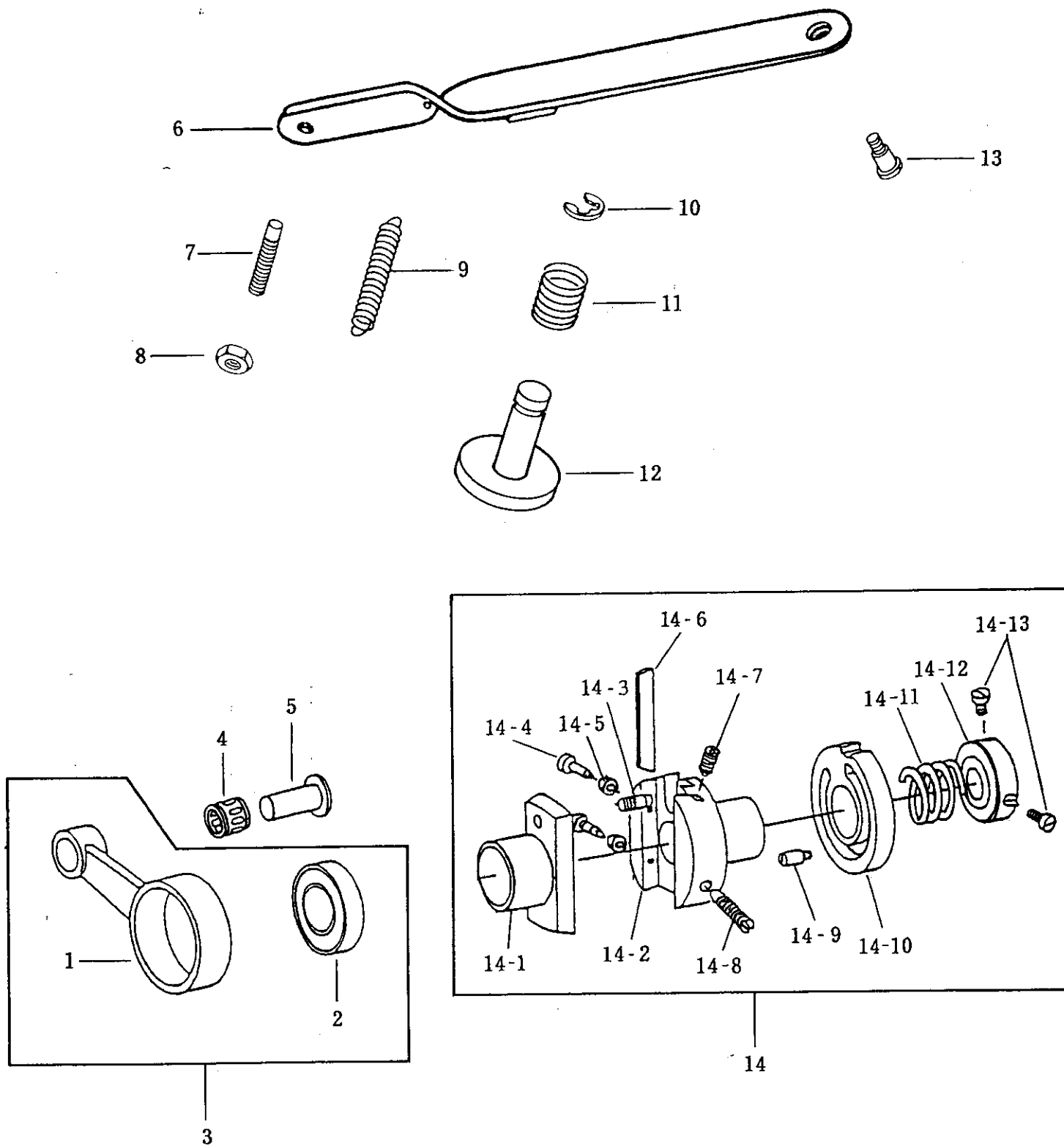
TIMING BELT DRIVING MECHANISM FOR 9971 9974



TIMING BELT DRIVING MECHANISM FOR 9971 9974

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119097	Plug	2	2	
2	MS-610300	Retaining Ring	1	1	
3	MS-018624	Ball Bearing	2	2	
4	MS-119707	Timing Belt Wheel	1	1	
5	MS-335902-1	Screw	2	2	
6	MS-335902	Screw	2	2	
7	MS-119121	Collar (Left)	1	1	
8	MS-700689	Screw	4	4	
9	MS-018613	Ball Bearing	1	1	
10	MS-119708	Timing Belt Wheel	1	1	
11	MS-069161	Timing Belt	1	1	
	MS-069161-1	Timing Belt	1	1	
12	MS-119706	Shaft	1	1	
13	MS-118726	Collar (Right)	1	1	

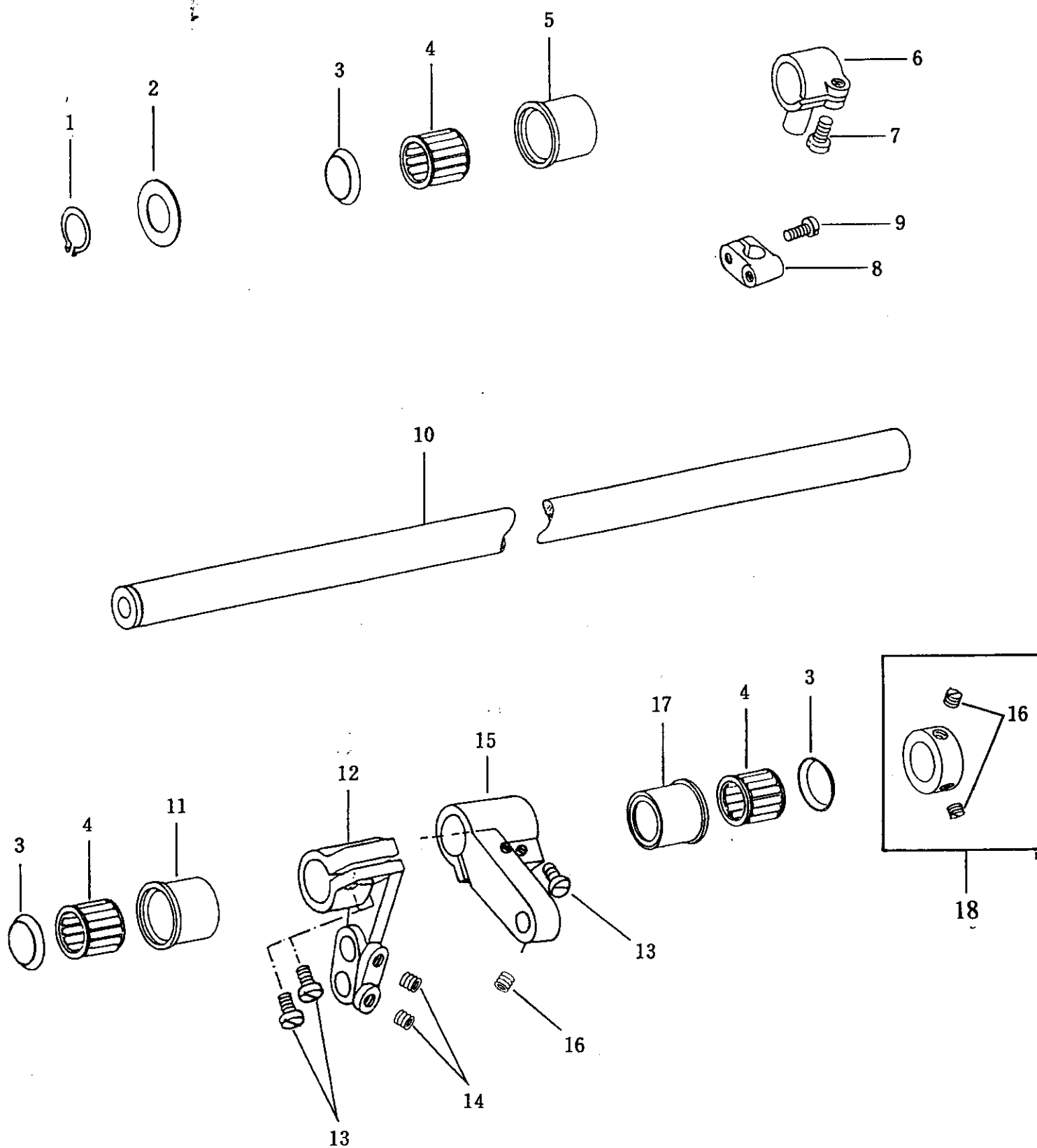
STITCH ADJUSTER MECHANISM



STITCH ADJUSTER MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-175038	Connecting Rod	1	1	(1,2)
2	MS-6906	Ball Bearing	1	1	
3	MS-175038A	Crank Rod Set	1	1	
4	MS-215028	Needle Bearing	1	1	
5	MS-118612	Bearing Stud	1	1	
6	MS-165356	Feeding Adjusting Plate	1	1	
7	MS-165356-1	Screw	1	1	
8	MS-165356-8	Nut	1	1	
9	MS-165356-5	Spring	1	1	
10	MS-165356-7	E-ring	1	1	
11	MS-165356-6	Spring	1	1	
12	MS-165356-2	Pin	1	1	
13	MS-165356-3	Screw	1	1	
14	MS-175029	Cam Assy	1	1	
14-1	MS-175029-1	Stitch Regulating Seat	1	1	
14-2	MS-175029-2	Stitch Regulating Fix Seat	1	1	
14-3	MS-175029-3	Feed Adjusting Screw	1	1	
14-4	MS-175029-4	Screw	1	1	
14-5	MS-175029-5	Nut	1	1	
14-6	MS-175029-6	Friction Plate	1	1	
14-7	MS-175029-7	Screw	1	1	
14-8	MS-175029-8	Screw	1	1	
14-9	MS-175029-9	Screw	1	1	
14-10	MS-175029-10	Eccentric wheel	1	1	
14-11	MS-175029-11	Spring	1	1	
14-12	MS-175029-12	Collar	1	1	
14-13	MS-175029-13	Screw	2	2	

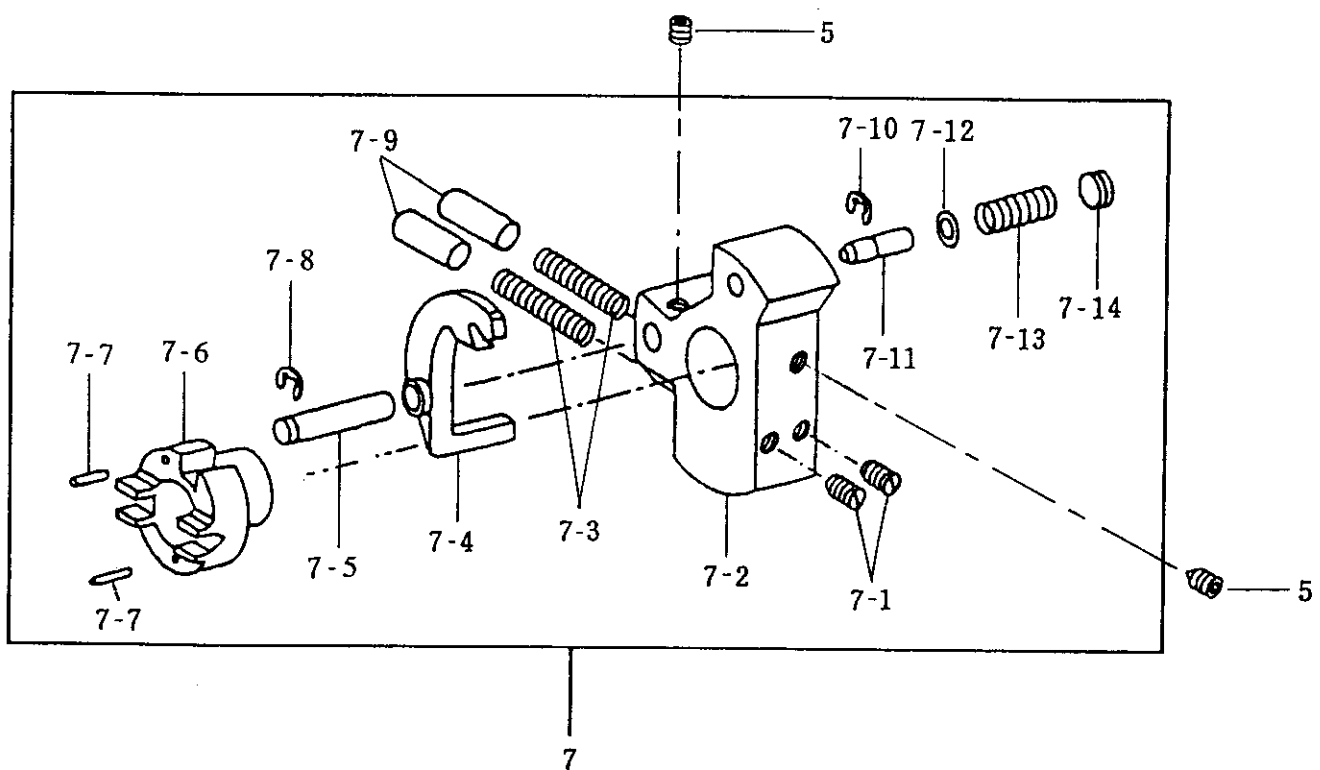
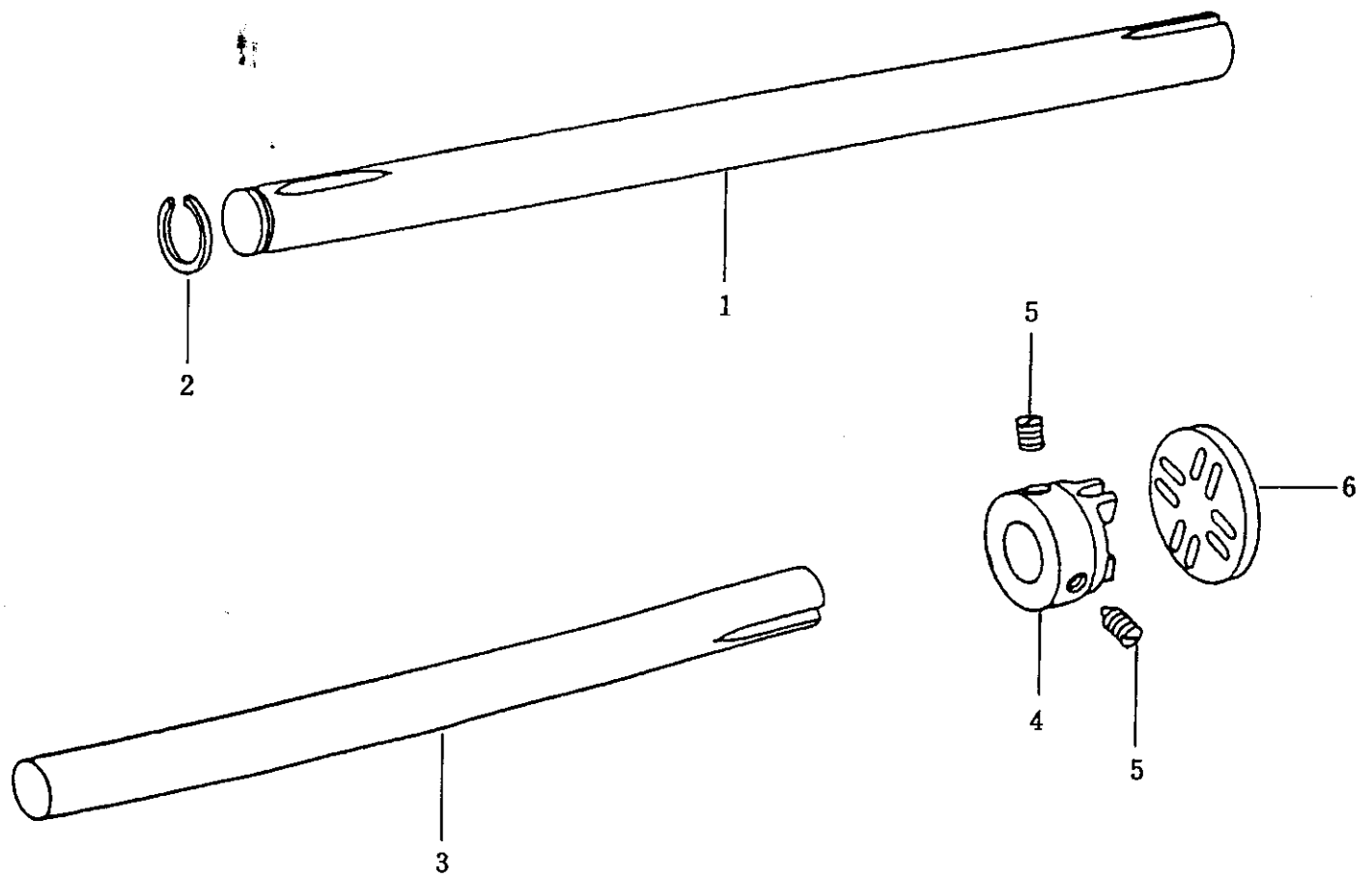
FEED SHAFT MECHANISM



FEED SHAFT MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-610280	Retaining Ring	1	1	(16)
2	MS-119085	Washer	1	1	
3	MS-133283	Washer	6	6	
4	MS-215124	Needle Bearing	3	3	
5	MS-118600	Bushing	1	1	
6	MS-119163	Crank	1	1	
7	MS-108225	Screw	1	1	
8	MS-119164	Clamp	1	1	
9	MS-108177	Screw	1	1	
10	MS-119084	Shaft	1	1	
11	MS-118601	Bushing	1	1	
12	MS-119521	Crank	1	1	
13	MS-130224	Screw	3	3	
14	MS-335902-1	Screw	2	2	
15	MS-119521-1	Crank	1	1	
16	MS-700689	Screw	3	3	
17	MS-118603	Bushing	1	1	
18	MS-118893	Collar	1	1	

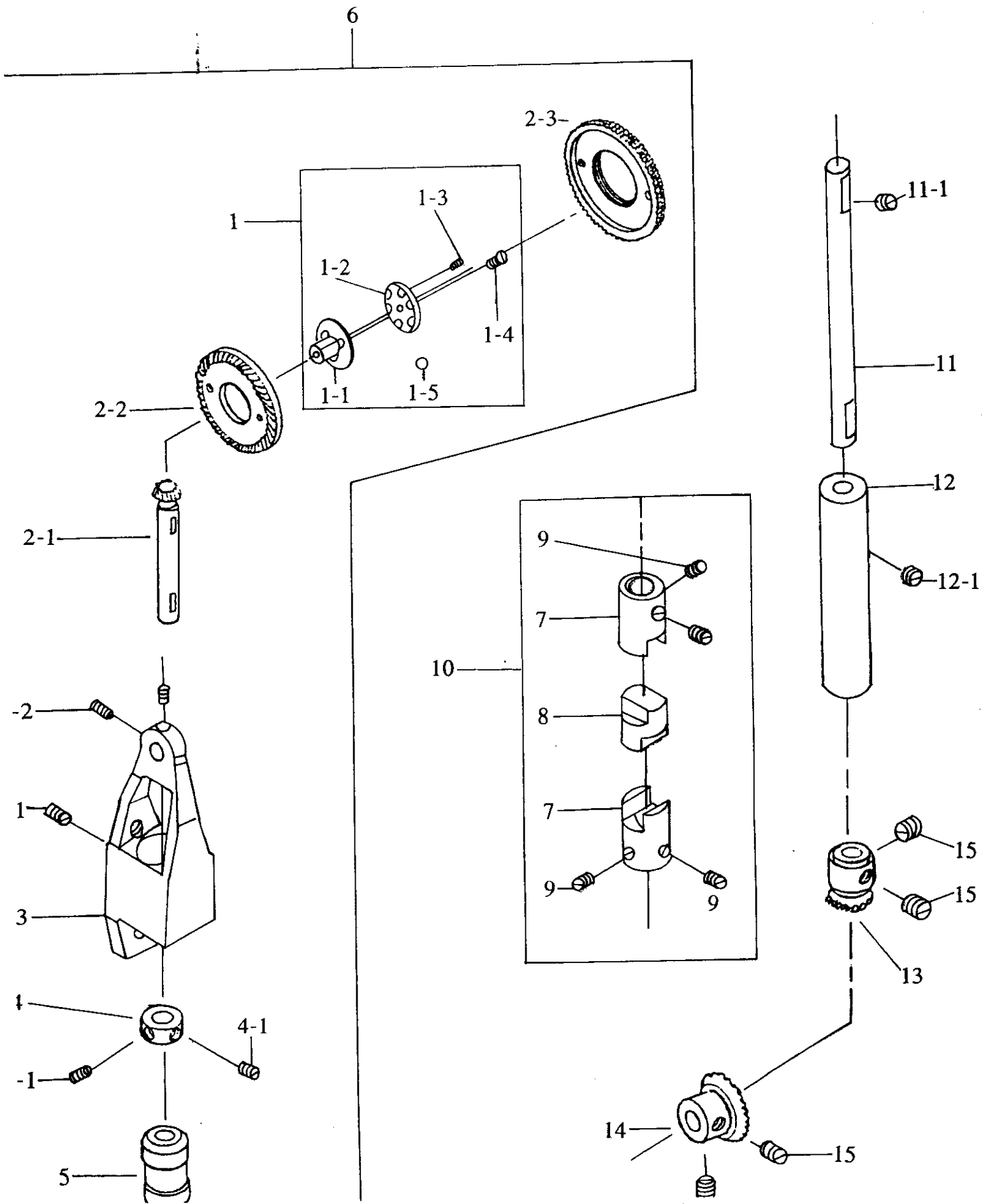
CLUTCH SET MECHANISM



CLUTCH SET MECHANISM

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-175025	Shaft	1	1	(7-1 ~7-14)
2	MS-518250	Retaining Ring	1	1	
3	MS-119711	Shaft	1	1	
4	MS-175019	Coupler	1	1	
5	MS-341901	Screw	4	4	
6	MS-133109	Connecting Plate	1	1	
7	MS-119081A	Safety Clutch	1	1	
7-1	MS-700510	Screw	2	2	
7-2	MS-173263	Safety Clutch Seat	1	1	
7-3	MS-013153	Spring	2	2	
7-4	MS-173261	Latch	1	1	
7-5	MS-009408	Hinge Stud	1	1	
7-6	MS-173264	Coupler (right)	1	1	
7-7	MS-065052	Pin	2	2	
7-8	MS-640150	E - Ring	1	1	
7-9	MS-175023	Stud	2	2	
7-10	MS-640130	E- ring	1	1	
7-11	MS-013076	Drop - In Pin	1	1	
7-12	MS-069037	Washer	1	1	
7-13	MS-009343	Spring	1	1	
7-14	MS-175126	Ring	1	1	

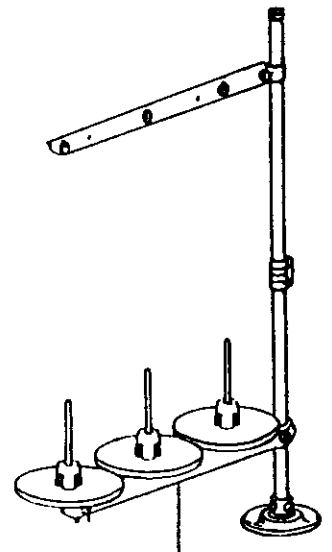
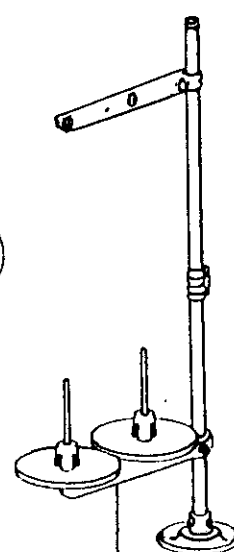
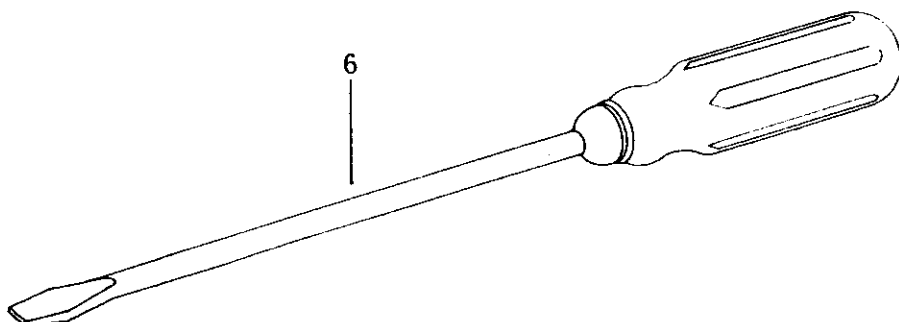
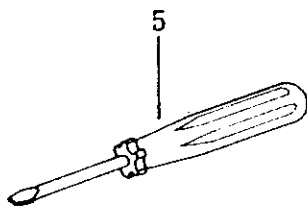
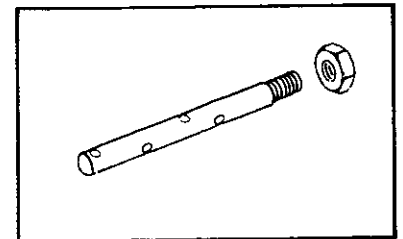
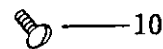
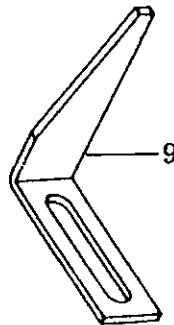
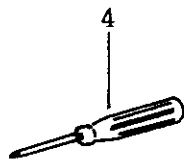
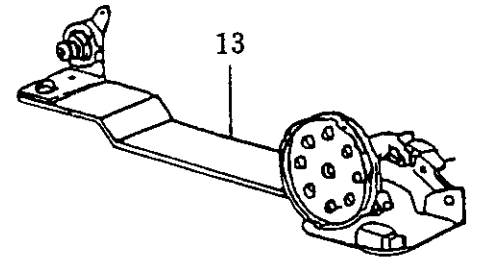
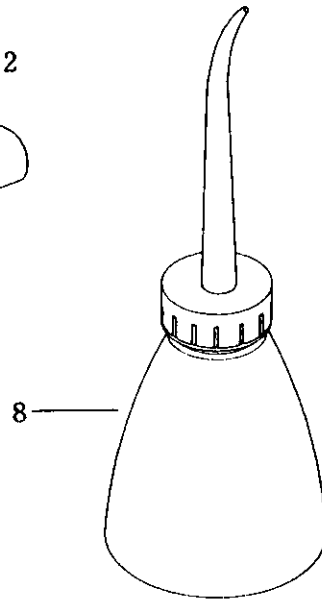
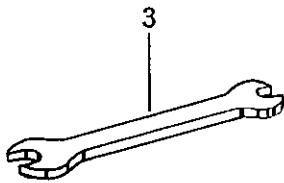
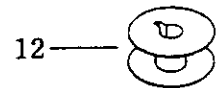
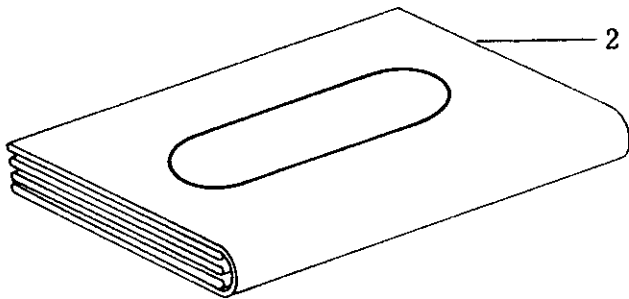
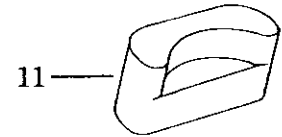
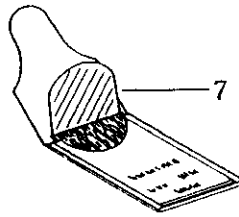
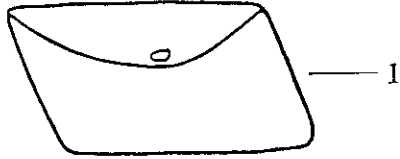
BEDPLATE GEAR FEED MECHANISM FOR 9971



BEDPLATE GEAR FEED MECHANISM FOR 9971

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-119795	Roller Bracker	1	0	
1-1	MS-119795-1	Roller Bracket (Upper)	1	0	
1-2	MS-119795-2	Roller Bracket (Lower)	1	0	
1-3	MS-119795-3	Screw	1	0	
1-4	MS-119795-4	Screw	1	0	
1-5	MS-119795-5	Ball	24	0	
2	MS-119737	Bevel Gear	1	0	
2-1	MS-119737-1	Roller Bracker	1	1	
2-2	MS-119737-2	Roller Bracker	1	1	
2-3	MS-119737-3	Feed Wheel	1	0	
3	MS-119723	Bracket	1	0	
3-1	MS-119723-1	Screw	1	0	
3-2	MS-119723-2	Screw	2	0	
4	MS-119670	Collar	1	0	
4-1	MS-119670-1	Screw	2	0	
5	MS-119724	Bushing	1	0	(1~5)
6	MS-119723A	Bevel Gear Assy	1	0	
7	MS-119535	Bushing	2	0	
8	MS-119534	Clutch	1	0	
9	MS-119535-1	Screw	4	0	(7~(9)
10	MS-119535A		1	0	
11	MS-119532	Shaft	1	0	
11-1	MS-119535-1	Screw	2	0	
12	MS-119533	Bushing	1	0	
13	MS-5045	Bevel Gear (Small)	1	0	
14	MS-5046	Bevel Gear (Medium)	1	0	
15	MS-700689	Screw	4	0	(13~15)
16	MS-175113		1	0	

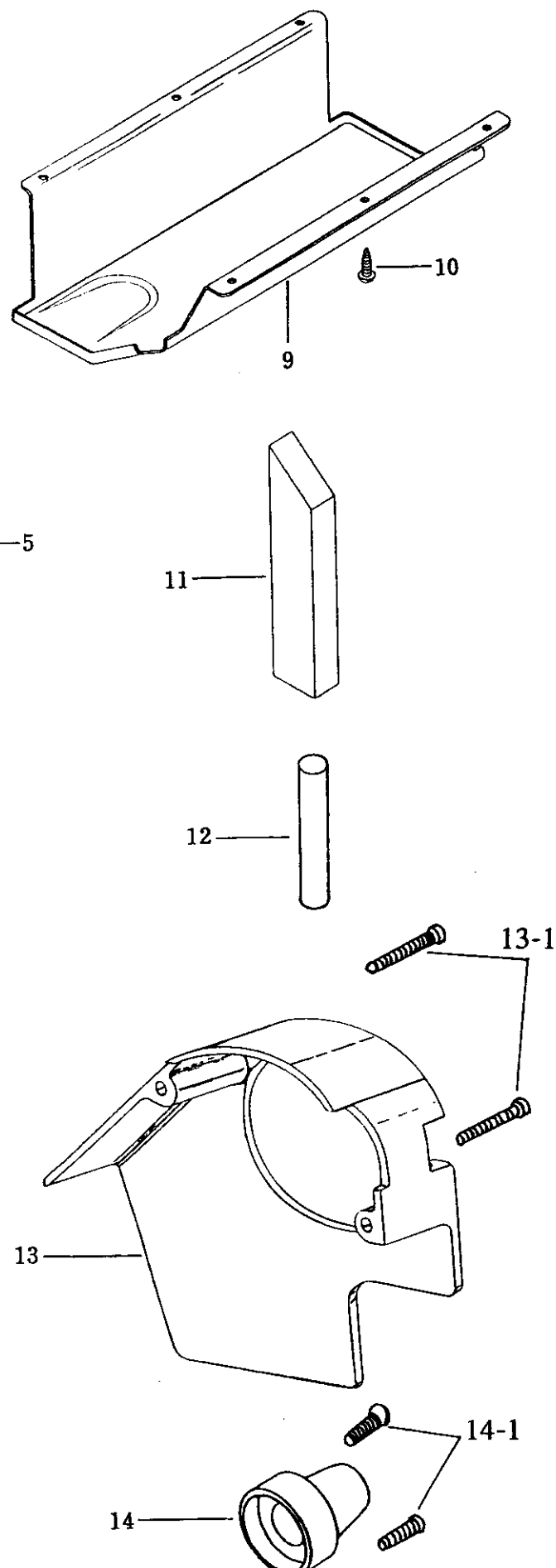
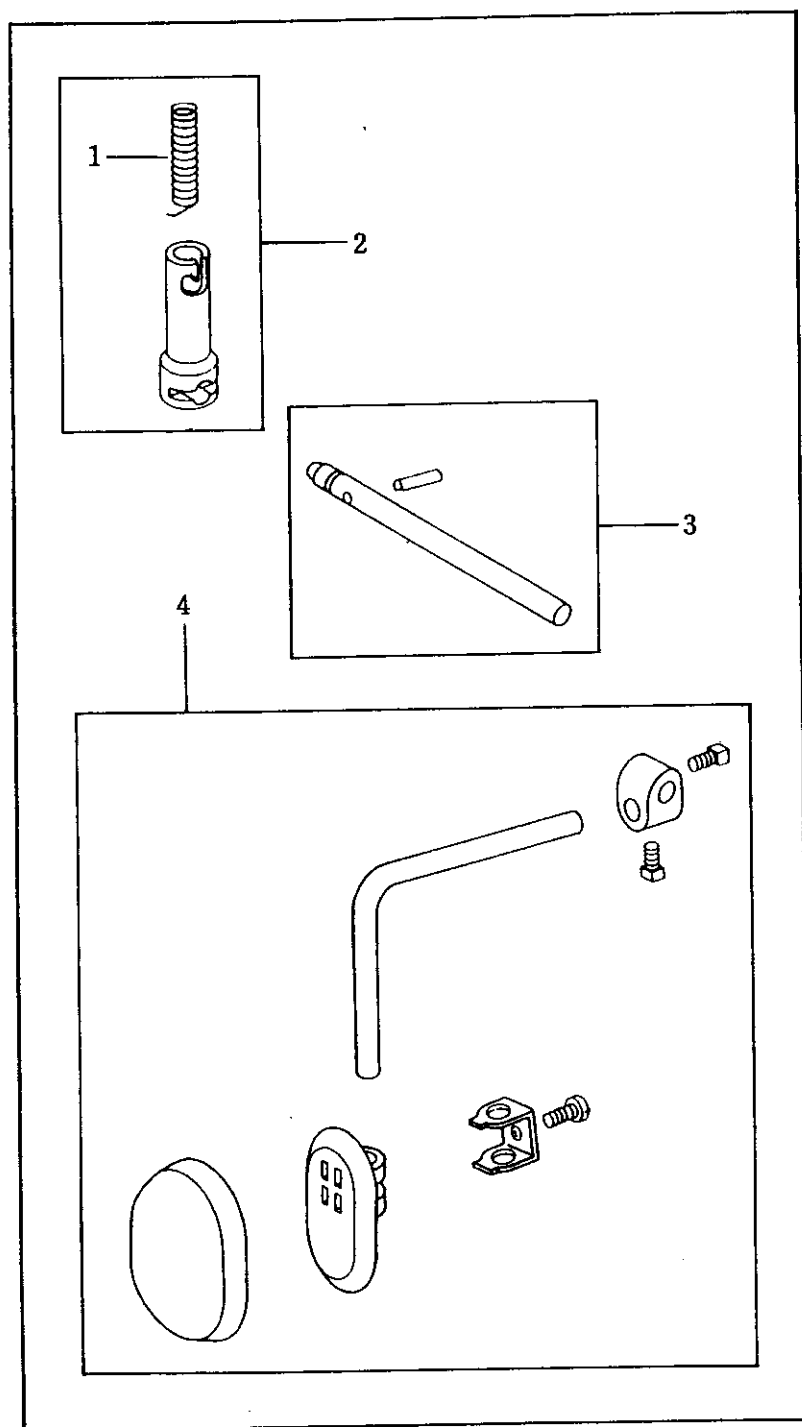
SPECIAL PARTS



SPECIAL PARTS

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-123456	Accessory Bag	1	1	
2	MS-029836	Vinyl Cover	1	1	
3	MS-800110	Spanner	1	1	
4	MS-129915	Screw Driver (Small)	1	1	
5	MS-029946	Screw Driver (Middle)	1	1	
6	MS-029007	Screw Driver (Large)	1	1	
7	MS-134356	Needle	10	10	
8	MS-029394	Oiler	1	1	
9	MS-119089-1	Stitching Length Indicator	1	1	
10	MS-100355	Screw	1	1	
11	MS-032808	Head Cushion	2	2	
12	MS-010079	Bobbin	4	4	
13	MS-259431	Bobbin Winder	1	1	
14	MS-119026	Spool Pin	1	1	
15	MS-FPL2	Thread Stand (2-Pole)	1	0	
16	MS-FPL3	Thread Stand (3-Pole)	0	1	

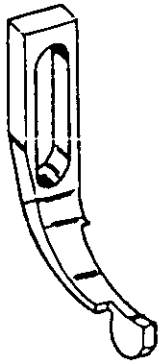
ACCESSORIES FOR 9971 9974



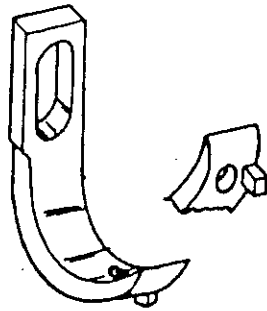
ACCESSORIES FOR 9971 9974

ef. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-171543	Spring	1	1	(2~4)
2	MS-171542	Knee Lever Coupling	1	1	
3	MS-171413	Knee Lever Rod	1	1	
4	MS-171412	Knee Lever Assy	1	1	
5	MS-171411	Knee Lever Rod Assy	1	1	
6	MS-029934	Hinge Connection Seat	2	2	
7	MS-030341	Pin	2	2	
8	MS-029450	Hinge Pin	2	2	
9	MS-118636	Oil Pan	1	1	
10	MS-460157	Screw	6	6	
11	MS-032717	Head Rest Wood	1	1	
12	MS-032717-1	Housing Support Stud	1	1	
13	MS-119078	Belt Cover Set (Large)	1	1	
13-1	MS-119089-2	Screw	2	2	
14	MS-119088	Belt Cover Set (Small)	1	1	
14-1	MS-119078-1	Screw	2	2	

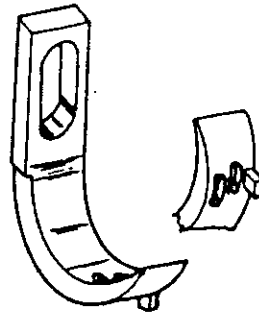
FOR 9974PRESSER FEET



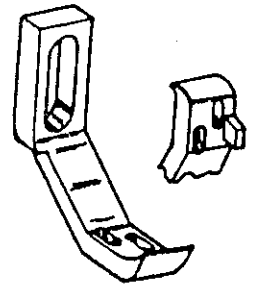
474-1



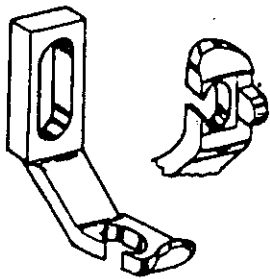
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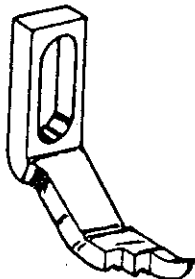
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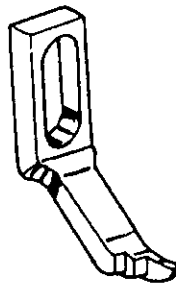
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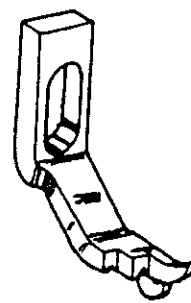
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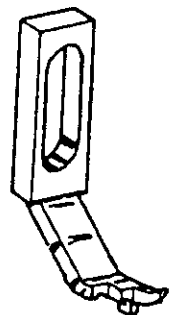
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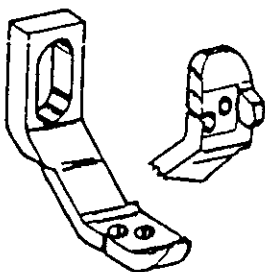
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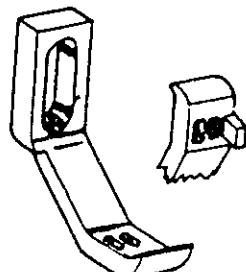
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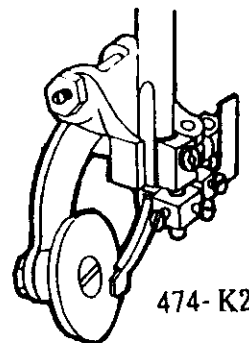
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474-10

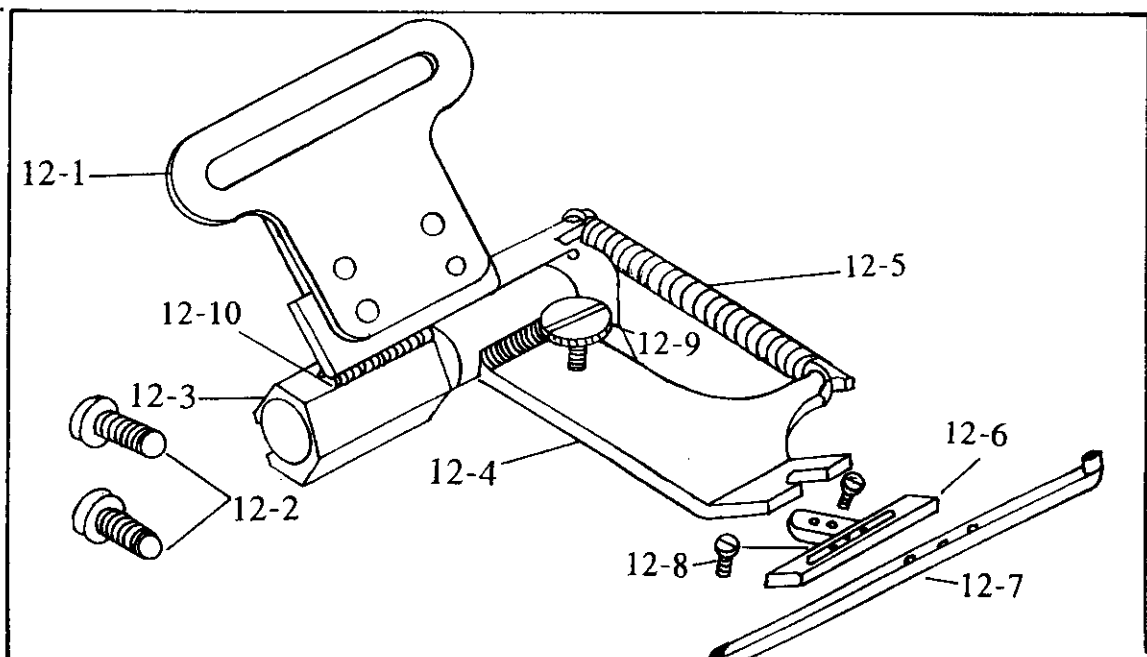


474-11



474- K2

474-12
474 Garge



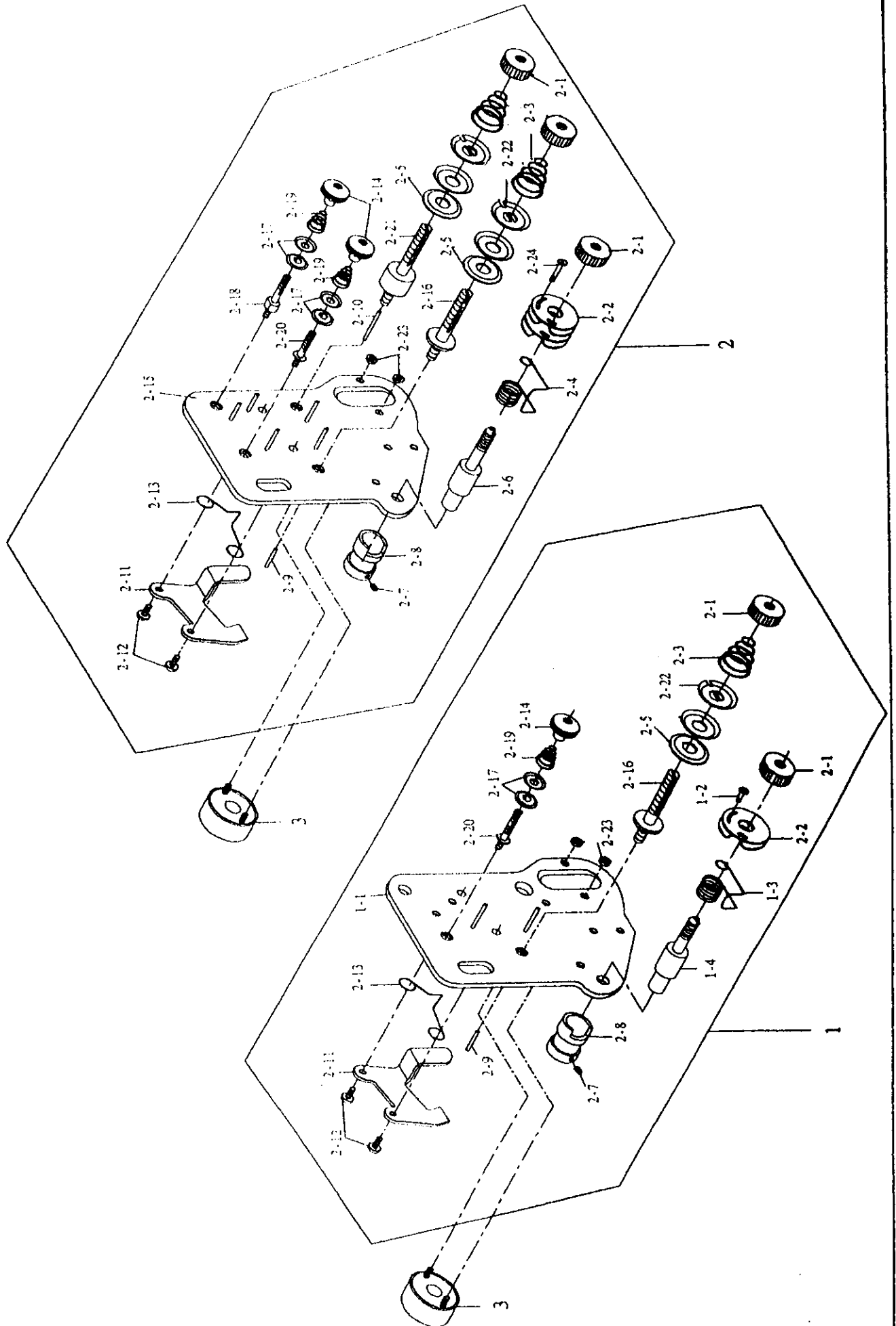
LP 9971 TD

&

LP 9974 TD

SPARE PARTS BOOK FOR TRIMMER DEVICE

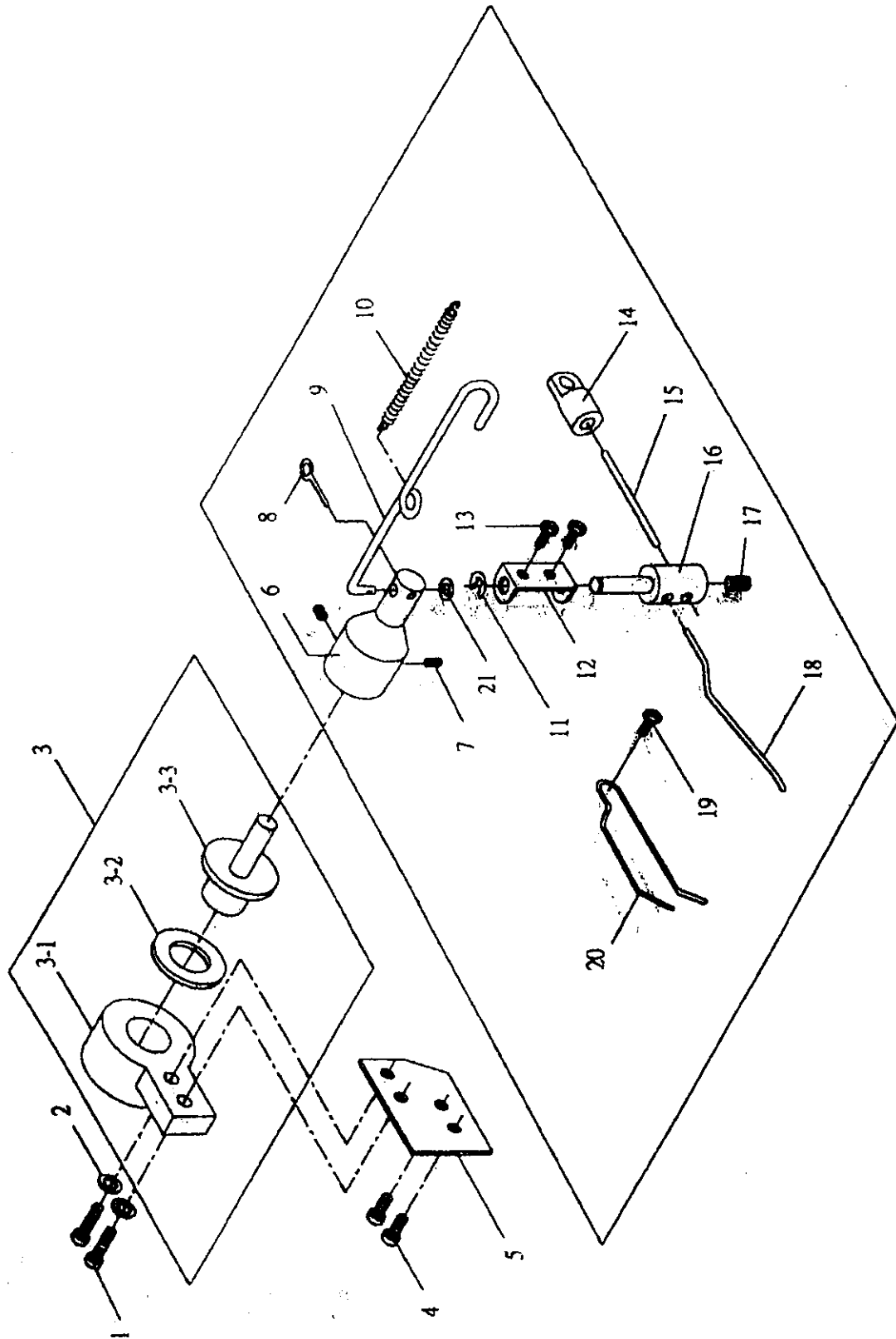
(TENSION REGULATOR MECHANISM)



B1

Ref. No	Part No.	Name of Part	Amt. Req		Remarks
			9971	9974	
1	MS-119766-2	Thread Tension Regulator Assy	1		
2	MS-119171-25	Thread Tension Regulator Assy		1	
3	MS-101022	Rotary Solenoid	1	1	
1-1	MS-119766-21	Upper Thread Tension Plate	1		
1-2	MS-119171-23	Screw	1		
1-3	MS-119766-1	Thread Take-up Spring	2		
1-4	MS-119766-22	Thread Tension Stud	1	1	
2-1	MS-119171-1	Nut	1	2	
2-2	MS-119171-2	Spring Guide Assy	1	2	
2-3	MS-119171-3	Tension Spring	1	2	
2-4	MS-119171-4	Thread Take-up Spring	2	1	
2-5	MS-119171-5	Tension Disc		4	
2-6	MS-119171-6	Thread Tension Stud	1	1	
2-7	MS-119171-7	Screw	1	1	
2-8	MS-119171-8	Thread Tension Regulator Bushing	1	1	
2-9	MS-119171-9	Tension Regulator Pin	1	1	
2-10	MS-119171-10	Tension Regulator Pin	1	1	
2-11	MS-119171-26	Tension Regulator Plate	2	2	
2-12	MS-119171-27	Screw	1	1	
2-13	MS-119171-13	Tension Release Spring	1	2	
2-14	MS-119171-28	Screw		1	
2-15	MS-119171-29	Upper Thread Tension Plate	1	1	
2-16	MS-119171-16	Thread Tension Stud	2	4	
2-17	MS-119171-30	Tension Disc		1	
2-18	MS-119171-31	Thread Tension Stud		2	
2-19	MS-119171-32	Spring	1	1	
2-20	MS-119171-33	Thread Tension Stud		1	
2-21	MS-119171-34	Thread Tension Stud	1	2	
2-22	MS-119171-22	Tension Spring	2	2	
2-23	MS-119171-35	Nut	1	1	
2-24	MS-119171-24	Screw			

B2



B2

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-101001	Screw	2	2	
2	MS-101002	Washer	2	2	
3	MS-101003	Rotary Solenoid Seat Assy	1	1	3-1~3-3
3-1	MS-101003-1	Rotary Solenoid Seat	2	2	
3-2	MS-101003-2	Cusion	1	1	
3-3	MS-101003-3		1	1	
4	MS-101004	Screw	2	2	
5	MS-101005	Frame Plate	1	1	
6	MS-101006	Lever Shaft	1	1	
7	MS-101007	Screw	2	2	
8	MS-101008	Pin	1	1	
9	MS-101009	Lever Shaft	1	1	
10	MS-101010	Spring	1	1	
11	MS-101011	E- Ring	1	1	
12	MS-101012	Frame Plate	1	1	
13	MS-101013	Screw	2	2	
14	MS-101014	Lever Shaft	1	1	
15	MS-101015	Lever Shaft	1	1	
16	MS-101016	Lever Shaft	1	1	
17	MS-101017	Screw	1	1	
18	MS-101018		1	1	
19	MS-101019	Screw	1	1	
20	MS-101020	Thread Retainer	1	1	
21	MS-101021	Washer	1	1	

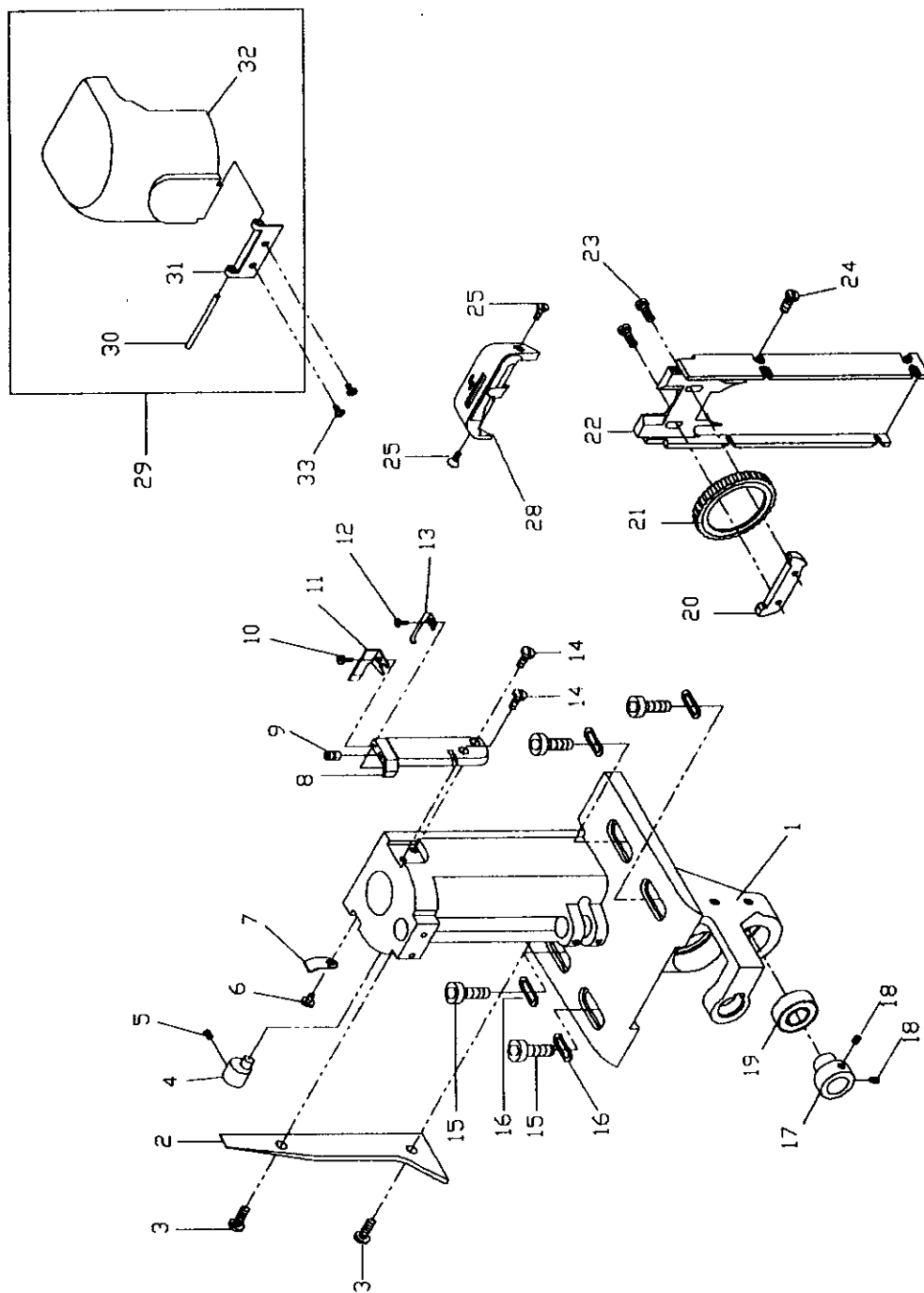
This technical drawing is an exploded view of a mechanical assembly, showing the relationship between various components. The parts are numbered 1 through 33. The assembly includes a main housing (1) with a flange (2) and a central shaft (11). A lever arm (16) is pivoted to the housing and connected to a long rod (25) via a pin (13). The rod is secured by a spring (30) and a nut (26). A cylindrical component (19) is mounted on the rod, featuring a flange (21) and a pin (20). Other components include a bracket (3) with a pin (4) and a nut (5), a small cylinder (10) with a pin (9), a pin (8), a pin (7), a pin (6), a pin (12), a pin (14), a pin (15), a pin (17), a pin (18), a pin (22), a pin (23), a pin (24), a pin (27), a pin (28), a pin (29), a pin (31), a pin (32), and a pin (33). Dashed lines indicate the assembly path and alignment of the parts.

N1

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-101023	Frame Seat	1	1	
2	MS-101024	Screw	2	2	
3	MS-101025	Thread Trimming Solenoid Lever	1	1	
4	MS-101026	Screw	1	1	
5	MS-101027	Nut	1	1	
6	MS-101028	Screw	1	1	
7	MS-101029	Supporting Rod	1	1	
8	MS-101030	E-Ring	2	2	
9	MS-101031	Screw	4	4	
10	MS-101032	Rotary	1	1	
11	MS-101033	Knife Main Lever Shaft	1	1	
12	MS-101034	Spring	1	1	
13	MS-101035	Screw	1	1	
14	MS-101036	Cusion	2	2	
15	MS-101037	Nut	1	1	
16	MS-101038	Knife Main Lever Shaft	1	1	
17	MS-101039	Roller	1	1	
18	MS-101040	Screw	1	1	
19	MS-101041	Thread Trimming Cam	1	1	
20	MS-101042	Screw	2	2	
21	MS-101043	Washer	1	1	
22	MS-101044	Screw	1	1	
23	MS-101045	Rod end Bearing	2	2	
24	MS-101037	Nut	2	2	
25	MS-101046	Length Adjust Connecting Rod	1	1	
26	MS-101047	Frame Plate	1	1	
27	MS-101048	Screw	1	1	
28	MS-101049	Screw	1	1	
29	MS-101050	Thread Trimming Lever	1	1	
30	MS-101051	Spring	1	1	
31	MS-101052	Screw	2	2	
32	MS-101053	Positioning Block	1	1	
33	MS-101054	Frame Plate	1	1	

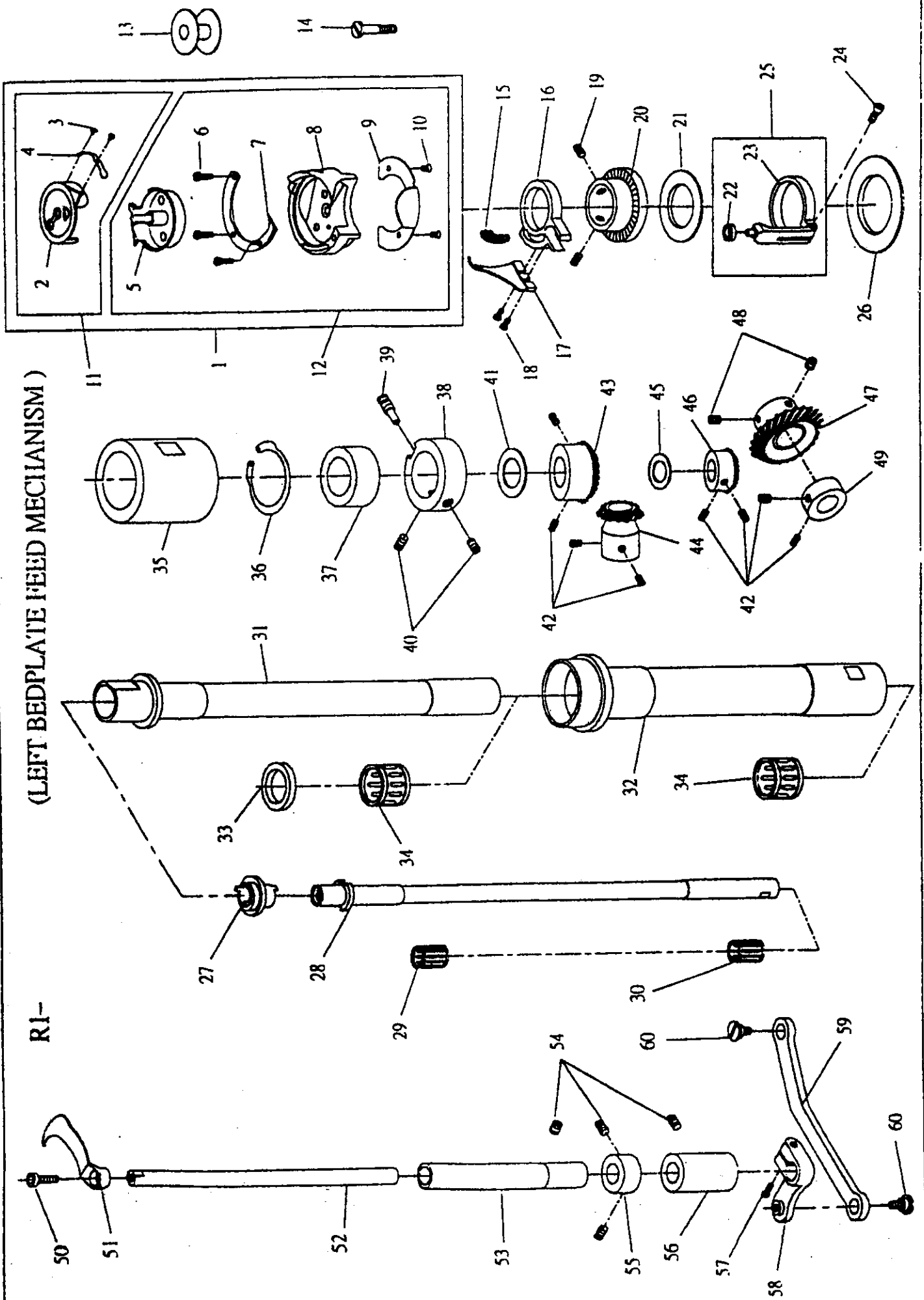
O1		Name of Parts			Amt. Req.		Remarks
Ref. No.	Parts No.				9971	9974	
1	MS-119145	Cover Plate			1	0	
2	MS-250084	Screw			4	0	
3	MS-119721	Support Plate			1	0	
4	MS-119144	Washer			2	0	
5	MS-130224	Screw			2	0	
6	MS-182451	Screw			1	0	
7	MS-119725	Stud			1	0	
8	MS-317170	Screw			4	0	
9	MS-135292	Screw			4	0	
10	MS-305174	Washer			1	0	
11	MS-168351	Plug			1	0	
12	MS-016120	Ball Bearing			1	0	
13	MS-119121	Collar			2	0	
14	MS-700689	Screw			1	0	
15	MS-305144	Cover Plate			2	0	
16	MS-101055	Screw			1	0	SM4-16
17	MS-101056	Needle Plate			1	0	SM4-13
18	MS-101057A	Needle Plate Bracket			2	0	
19	MS-210168	Screw					

LEFT SIDE BRACKET MECHANISM



Q1. LEFT SIDE BRACKET MECHANISM						
Item No.	Parts No.	Name of Parts	Amt. Req.	Remarks	Item No.	Name of Parts
			9971	9974		
1	MS-101081	Side Bracket	0	1 SM3-2	30	MS-101076-1 PIN
2	MS-119499	Cover Plate	0	1	31	MS-101076-2 Hinge
3	MS-250084	Screw	0	2	32	MS-101076-3 Post Cap
4	MS-175318	Stud	0	1	33	MS-108093 Screw
5	MS-330217	Screw	0	1		MS-108086 Electric Wire
6	MS-108093	Screw	0	1		
7	MS-119143	Spring Plate	0	1		
8	MS-101073	Frame Plate	0	1 SM4-1		
9	MS-101070	Screw	0	1 SM4-24		
10	MS-101068	Screw	0	1 SM4-25		
11	MS-101069	Fixed Knife	0	1 SM4-4		
12	MS-101071	Screw	0	1		
13	MS-101072	Spring Plate	0	1 SM4-2		
14	MS-101074	Screw	0	2		
15	MS-135292	Screw	0	4		
16	MS-305174	Washer	0	4		
17	MS-119121	Collar	0	1		
18	MS-700689	Screw	0	2		
19	MS-016120	Ball Bearing	0	1		
20	MS-119138-1	Bearing Plate	0	1		
21	MS-119136-4	Feed Wheel	0	1		
22	MS-119296	Support Plate	0	1		
23	MS-108174-1	Screw	0	2		
24	MS-108174-1	Screw	0	8		
25	MS-100296	Screw	0	2		
26	MS-101082	Needle Plate SET(2.0)	0	2		
27	MS-101083	Needle Plate	0	1 SM3-17		
28	MS-101084	Needle Plate Bracket	0	1 SM3-12		
29	MS-101076	Post Cap Assy	0	1		
			9971	9974		
			0	1		
			0	1		
			0	1		
			0	1		
			0	1		

R1- (LEFT BEDPLATE FEED MECHANISM)



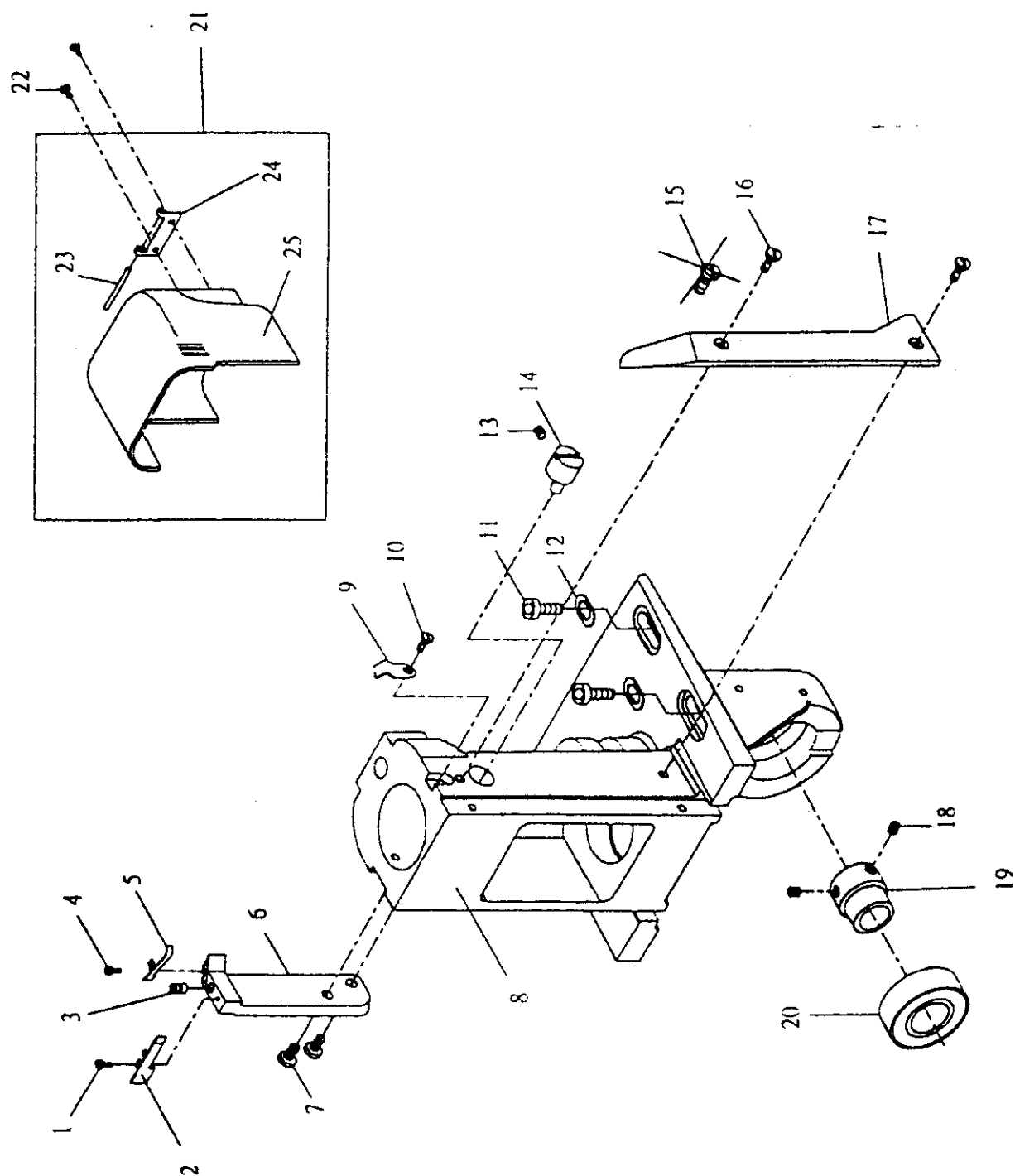
RI

Ref. No	Part No.	Name of Part	Amt. req. 9971	Remarks 9974
15	MS-101058A	Hook Assy	1	
2	MS-101058-1	Bobbin Case	1	
3	MS-101058-2	Screw	2	
4	MS-101058-3	Spring	1	
5	MS-101058-4	B/C Base	1	
6	MS-101058-5	Screw	2	
7	MS-101058-6	Hook Gid	1	
8	MS-101058-7	Hook	1	
9	MS-101058-8	Noodle Guard Washer	1	
10	MS-101058-9	Screw	2	
11	MS-101058-10	Bobbin Case Assy	1	
12	MS-101058-11	Hook	1	
13	MS-101059	Bobbin	1	
14	MS-100205	Screw	2	
15	MS-119128	Oil Felt	1	
16	MS-119127	Rotating Hook Opener Bracket	1	
17	MS-101060	Rotating Hook Opener	1	
18	MS-108093	Screw	2	
19	MS-700689	Screw	2	
20	MS-119494	Driving Wheel	1	
21	MS-119105	Washer	1	
22	MS-694ZZ	Ball Bearing	1	
23	MS-119106-1	Driver	1	
24	MS-108177	Screw	1	
25	MS-119106	Driver	1	
26	MS-119105	Washer	1	
27	MS-119525-1	Hook Driver	1	
28	MS-119525	Hook Shaft	1	
29	MS-215031	Needle Bearing	2	
30	MS-215028	Needle Bearing	2	

Ref. No	Part No.	Name of Part	Amt. req. 9971	Remarks 9974
31	MS-119108	Feed Wheel Shaft	1	
32	MS-119104	Pull-Off Shaft	1	
33	MS-119108-1	Washer	1	
34	MS-141710	Needle Bearing	2	
35	MS-119979	Bushing	1	
36	MS-664390	Retaining Ring	1	
37	MS-175138	Bushing	1	
38	MS-119107-1	Bushing	1	
39	MS-119950-1	Screw	1	
40	MS-341901	Screw	2	
41	MS-119947	Washer	1	
42	MS-700689	Screw	10	
43	MS-119109-1	Bevel Gear	1	
44	MS-119109-2	Bevel Gear	1	
45	MS-125010	Washer	1	
46	MS-119133-1	Bevel Gear	1	
47	MS-119133-2	Bevel Gear	1	
48	MS-341901-1	Screw	2	
49	MS-123778	Collar	1	
50	MS-101061	Screw	1	
51	MS-101062	Movable Knife	1	
52	MS-101063	Shaft	1	
53	MS-101064	Bushing(upper)	1	
54	MS-101065	Screw	4	
55	MS-101066	Collar	1	
56	MS-101067	Bushing(Lower)	1	
57	MS-101077	Screw	1	
58	MS-101078	Thread Trimming Lever	1	
59	MS-101079	Connecting Rod	1	
60	MS-101080	Screw	1	

SI

(RIGHT SIDE BRACKET MECHISM)

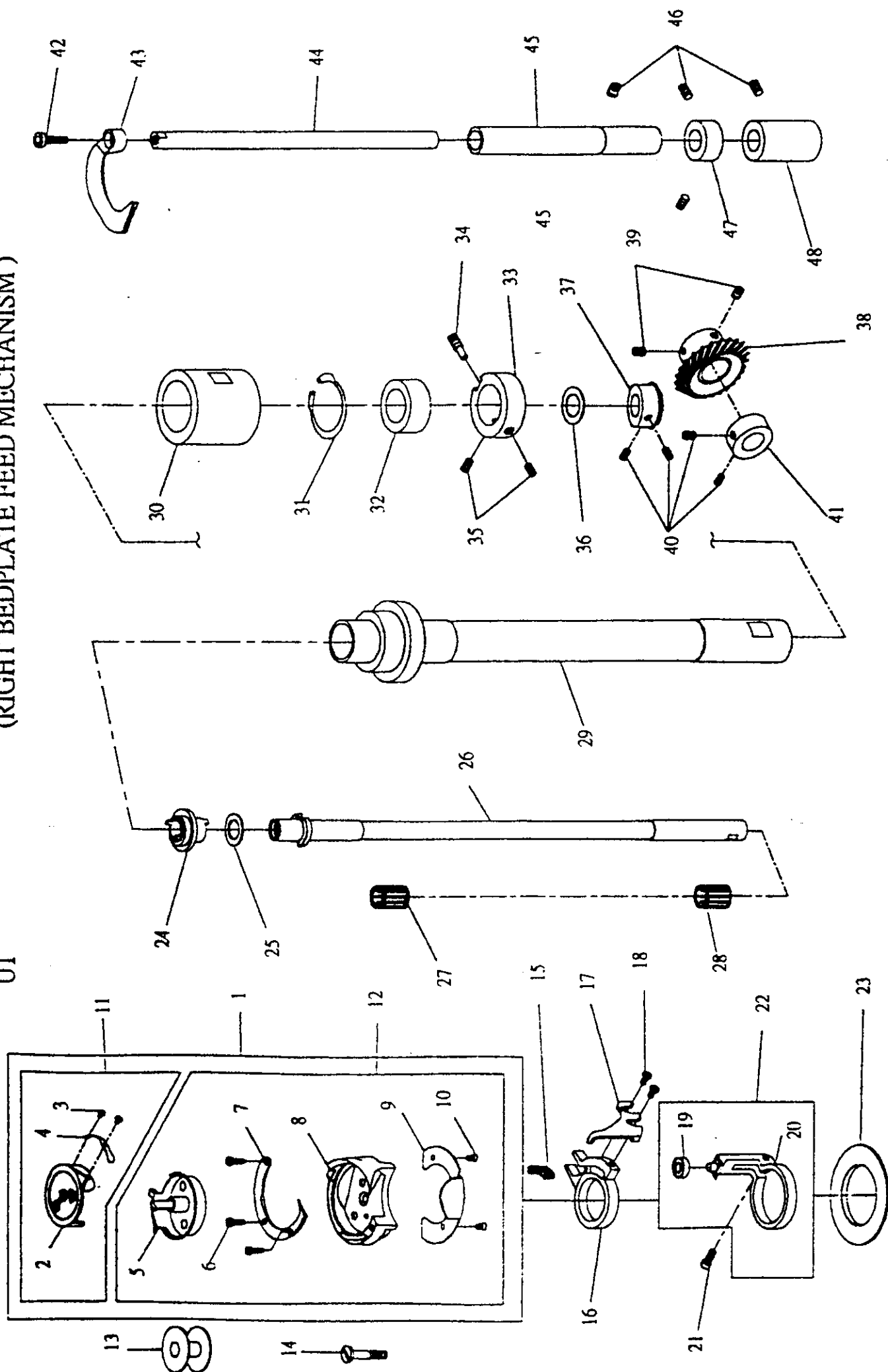


SI

Ref. No	Part No.	Name of Part	Ant. req.		Remarks
			9971	9974	
1	MS-101068	Screw	1	1	
2	MS-101069	Fixed Knife	1	1	
3	MS-101070	Screw	1	1	
4	MS-101071	Screw	1	1	
5	MS-101072	Spring Plate	1	1	
6	MS-101073	Frame Plate	1	1	
7	MS-101074	Screw	2	2	
8	MS-101075	Side Bracket	1	1	
9	MS-119143	Spring Plate	1	1	
10	MS-108093	Screw	1	1	
11	MS-135292	Screw	4	4	
12	MS-305174	Washer	4	4	
13	MS-330217	Screw	1	1	
14	MS-175318	Stud	1	1	
15	MS-700336	Screw	1	1	
16	MS-250084	Screw	2	2	
17	MS-175234	Screw	1	1	
18	MS-700689	Screw	2	2	
19	MS-119121	Collar	1	1	
20	MS-016120	Ball Bearing	1	1	
21	MS-101076	Post Cap Assy	1	1	
22	MS-108093	Screw	2	2	
23	MS-101076-1	Pin	1	1	
24	MS-101076-2	Hinge	1	1	
25	MS-101076-3		1	1	

(RIGHT BEDPLATE FEED MECHANISM)

U1

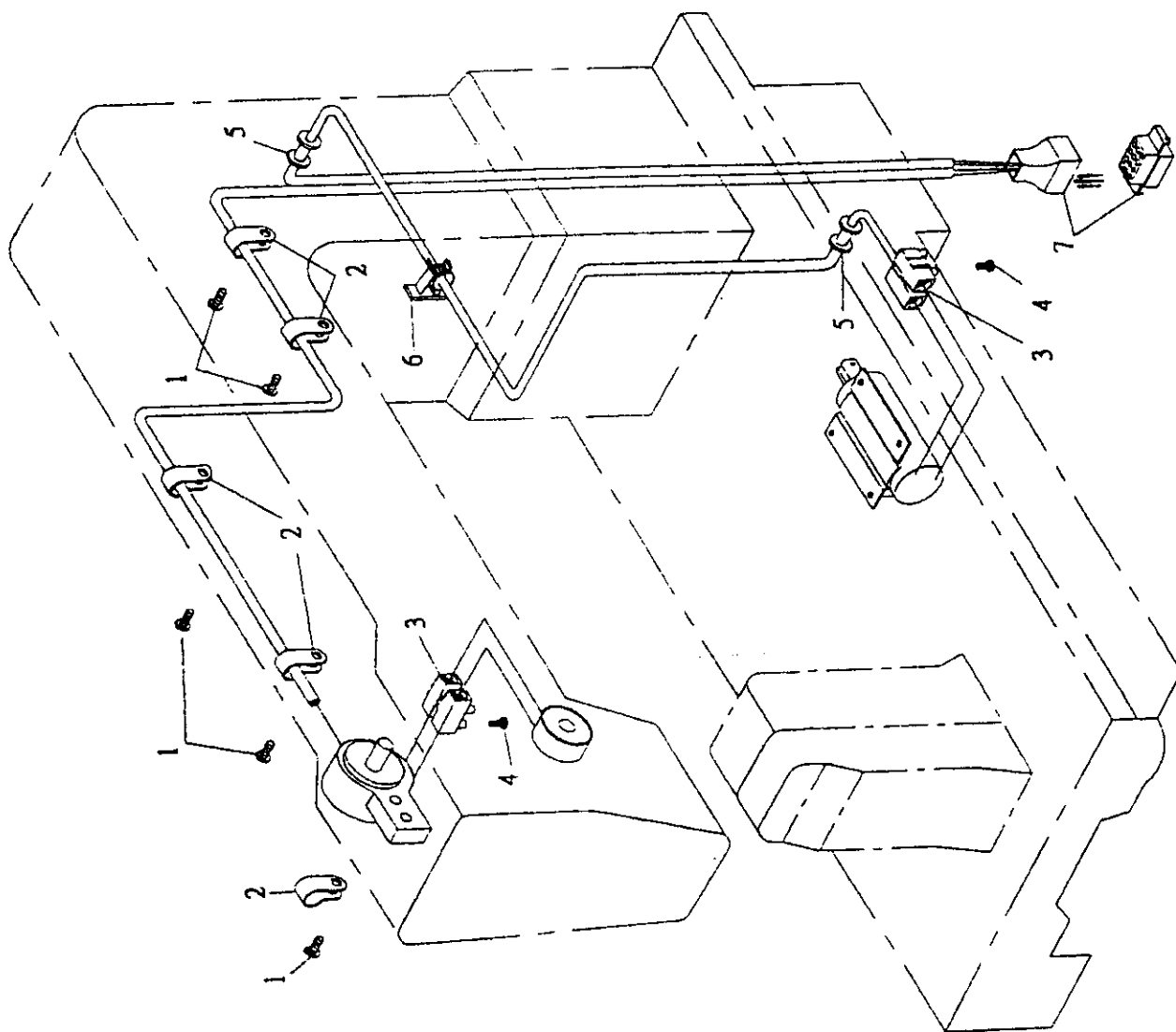


U1

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-101058A	Hook Assy	1	1	
2	MS-101058-1	Bobbin Case	1	1	
3	MS-101058-2	Screw	2	2	
4	MS-101058-3	Spring	1	1	
5	MS-101058-4	B/C Base	1	1	
6	MS-101058-5	Screw	2	2	
7	MS-101058-6	Hook Gid	1	1	
8	MS-101058-7	Hook	1	1	
9	MS-101058-8	Noodle Guard Washer	1	1	
10	MS-101058-9	Screw	2	2	
11	MS-101058-10	Bobbin Case Assy	1	1	
12	MS-101058-11	Hook	1	1	
13	MS-101059	Bobbin	1	1	
14	MS-100205	Screw	1	1	
15	MS-119128	Oil Felt	1	1	
16	MS-119127	Rotating Hook Opener Brack	1	1	
17	MS-101060	Rotating Hook Opener	1	1	SM2-3.18
18	MS-108093	Screw	2	2	
19	MS-694ZZ	Ball Bearing	1	1	
20	MS-119106-1	Driver	1	1	
21	MS-108177	Screw	1	1	
22	MS-119106	Driver	1	1	
23	MS-119105	Washer	1	1	
24	MS-119525-1	Hook Driver	1	1	
25	MS-125010	Washer	1	1	
26	MS-119525	Hook Shaft	1	1	
27	MS-215031	Needle Bearing	2	2	
28	MS-215028	Needle Bearing	2	2	

Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
29	MS-119524	Feed Wheel Shaft	1	1	
30	MS-119979	Bushing	1	1	
31	MS-664390	Retaining Ring	1	1	
32	MS-175138	Bushing	1	1	
33	MS-119107-1	Bushing	1	1	SM2-3.14
34	MS-119950-1	Screw	1	1	SM2-3.2
35	MS-341901	Screw	2	2	
36	MS-119947	Washer	1	1	
37	MS-119133-1	Bevel Gear (Small)	1	1	
38	MS-119133-2	Bevel Gear (Large)	1	1	
39	MS-341901-1	Screw	2	2	
40	MS-700689	Screw	4	4	
41	MS-123778	Collar	1	1	
42	MS-101061	Screw	1	1	
43	MS-101062	Movable Knife	1	1	SM4-5
44	MS-101063	Shaft	1	1	SM2-3.3
45	MS-101064	Bushing(upper)	1	1	SM2-3.6
46	MS-101065	Screw	4	4	
47	MS-101066	Collar	1	1	SM2-3.5
48	MS-101067	Bushing(Lower)	1	1	SM2-3.4

ELECTRIC WARE ASSEMBLING CHART

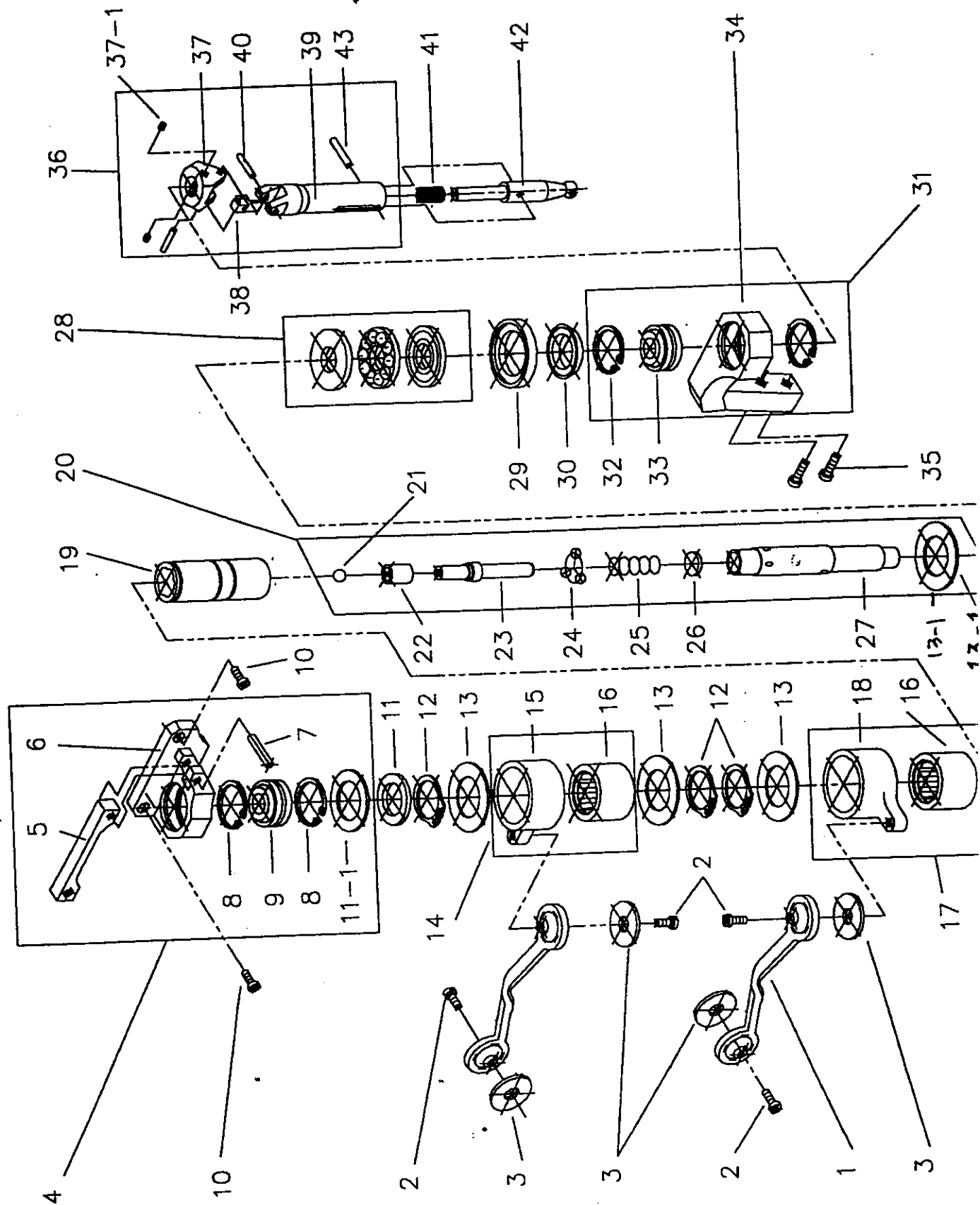


Ref. No	Part No.	Name of Part	Amt. req.		Remarks
			9971	9974	
1	MS-101087	Screw	5	5	
2	MS-101088	Fix Clip For Power Cable	5	5	
3	MS-101089	Power Live Connector	2	2	
4	MS-101090	Screw	2	2	
5	MS-101091	Protect Cover For Power Cable	2	2	
6	MS-101092	Fix Braket For Power Cable	1	1	
7	MS-101093	Power Plug	1	1	

LP 9971 AUT

SPARE PARTS BOOK FOR BACKTACKING DEVICE

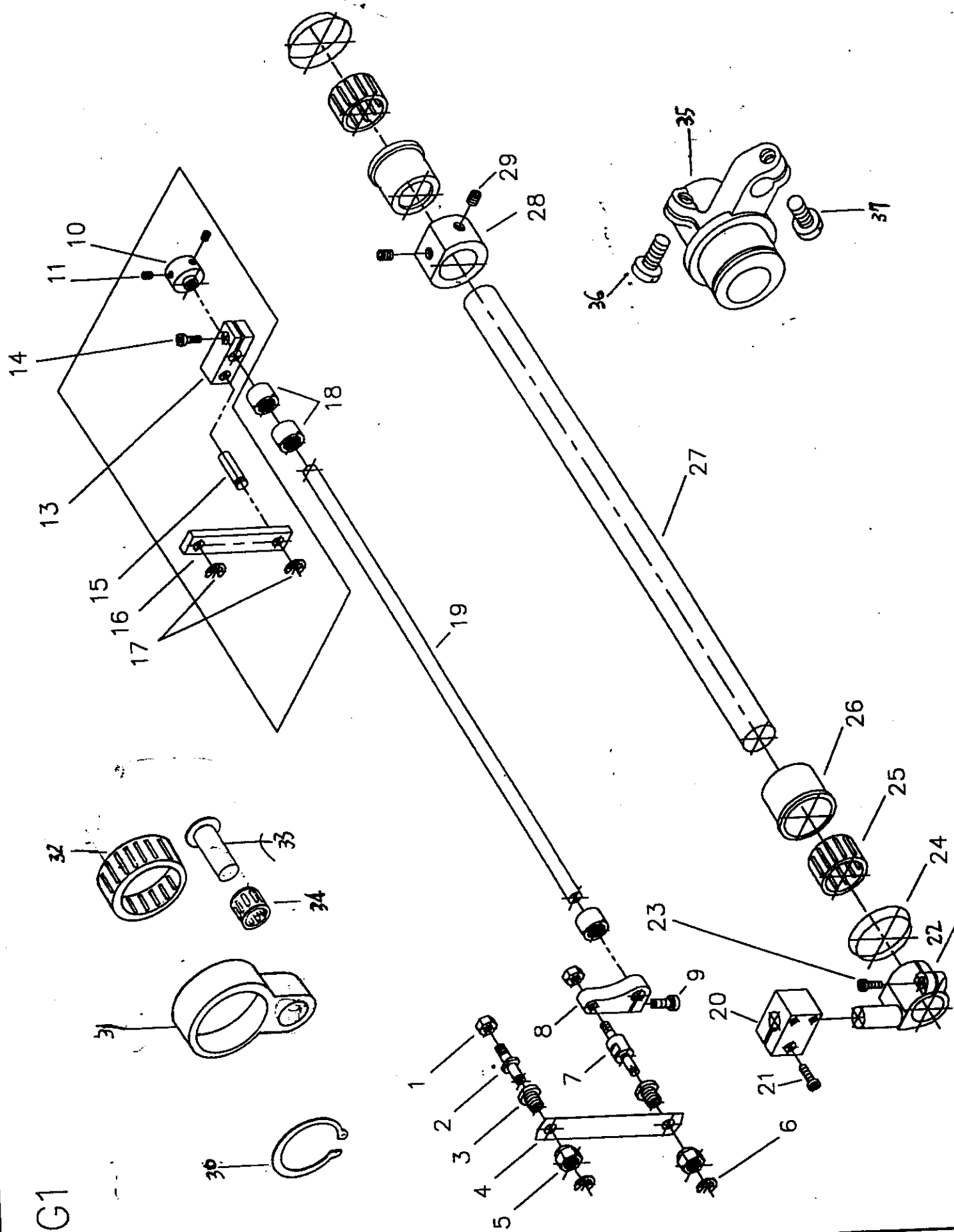
C1



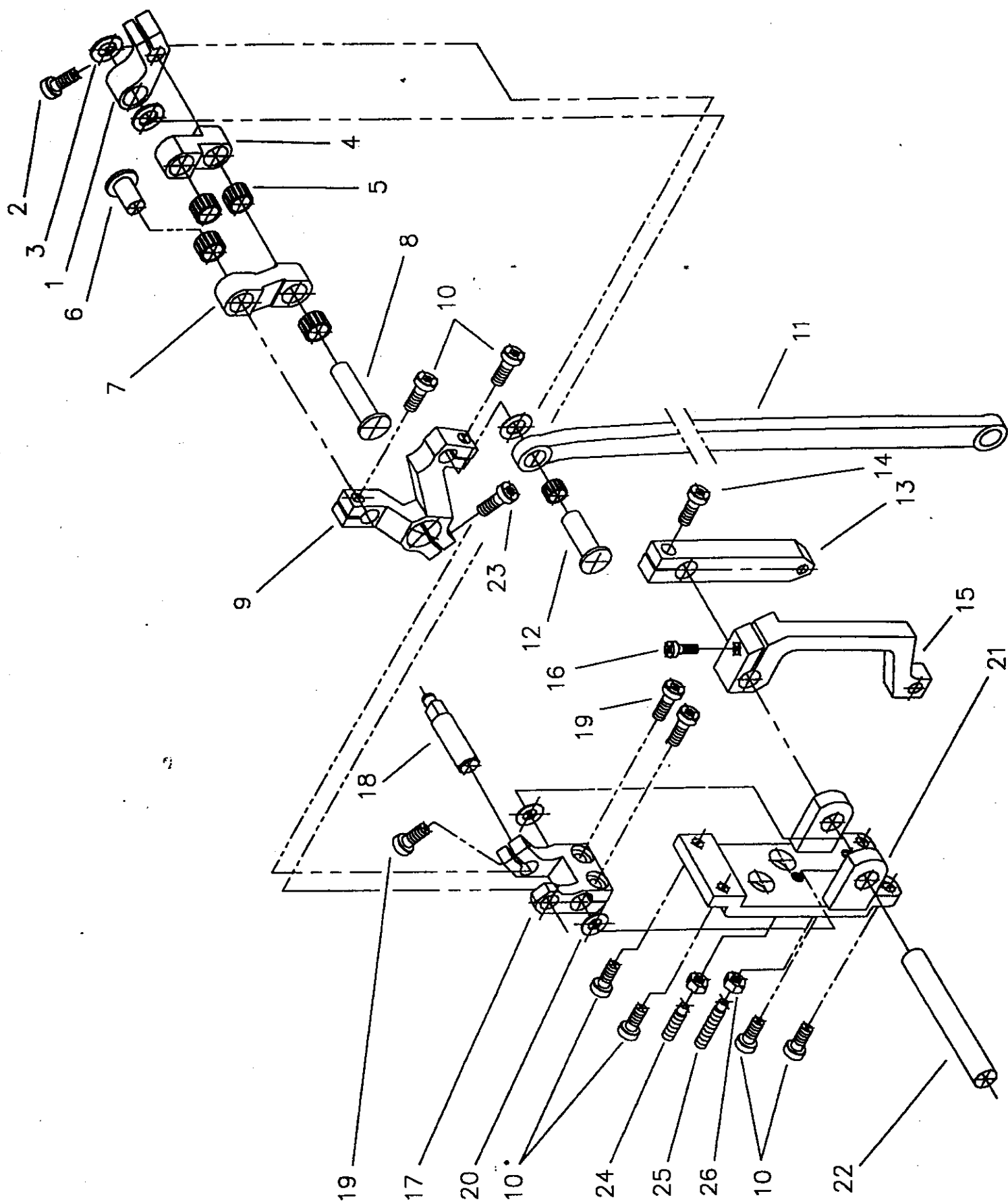
Ref No	Part No.	Name of Part	Amt. Req. 9971-TD/aut	Remarks
CI-30	MS-102026	Bearing Bracket	1	
CI-31	MS-102027	Bearing Set	1	
CI-32	MS-102005	Ring	2	
CI-33	MS-102006	Rod End Bearing	1	
CI-34	MS-102028	Bearing Bracket	1	
CI-35	MS-130224	Screw	2	
CI-36	MS-102029	Connection Rod Set	1	
CI-37	MS-102030	Clamp(Upper)	1	
CI-37-1	MS-174173	Screw	1	
CI-38	MS-102031	Connection Block	1	
CI-39	MS-102032	Clamp(Lower)	1	
CI-40	MS-102033	Pin	2	
CI-41	MS-102034	Spring	1	
CI-42	MS-102035	Shaft	1	
CI-43	MS-102033-1	Pin	1	

Ref No	Part No.	Name of Part	Amt. Req. 9971-TD/aut	Remarks
CI-1	MS-119507	Link	2	3-9
CI-2	MS-174176	Screw	4	3-10
CI-3	MS-119087	Oil Felt	4	3-11
CI-4	MS-102001	Bearing Set	1	
CI-5	MS-102002	Fixed Seat	1	
CI-6	MS-102003	Bearing Bracket	1	
CI-7	MS-102004	Pin	1	
CI-8	MS-102005	Ring	2	
CI-9	MS-102006	Rod End Bearing	1	
CI-10	MS-130224	Screw	2	
CI-11	MS-102007	Washer	1	
CI-11-1	MS-102007-1	Washer	1	
CI-12	MS-102008	Ring	3	
CI-13	MS-102009	Washer	3	
CI-13-1	MS-102009-1	Washer	1	
CI-14	MS-102010	Free Bearing	1	
CI-15	MS-102011	Free -Wheeling	1	
CI-16	MS-102012	Needle Bearing	1	
CI-17	MS-102013	Free Bearing	1	
CI-18	MS-102014	Free -Wheeling	1	
CI-19	MS-102015	Bushing	1	
CI-20	MS-102016	Shaft Set	1	
CI-21	MS-102017	Ball	1	3.5
CI-22	MS-102018	Bushing	1	
CI-23	MS-102019	Shaft	1	
CI-24	MS-102020	Ball	3	2
CI-25	MS-102021	Spring	1	
CI-26	MS-102022	Washer	1	
CI-27	MS-102023	Shaft	1	
CI-28	MS-102024	Bearing	1	51100A
CI-29	MS-102025	Bearing Bracket	1	

G1

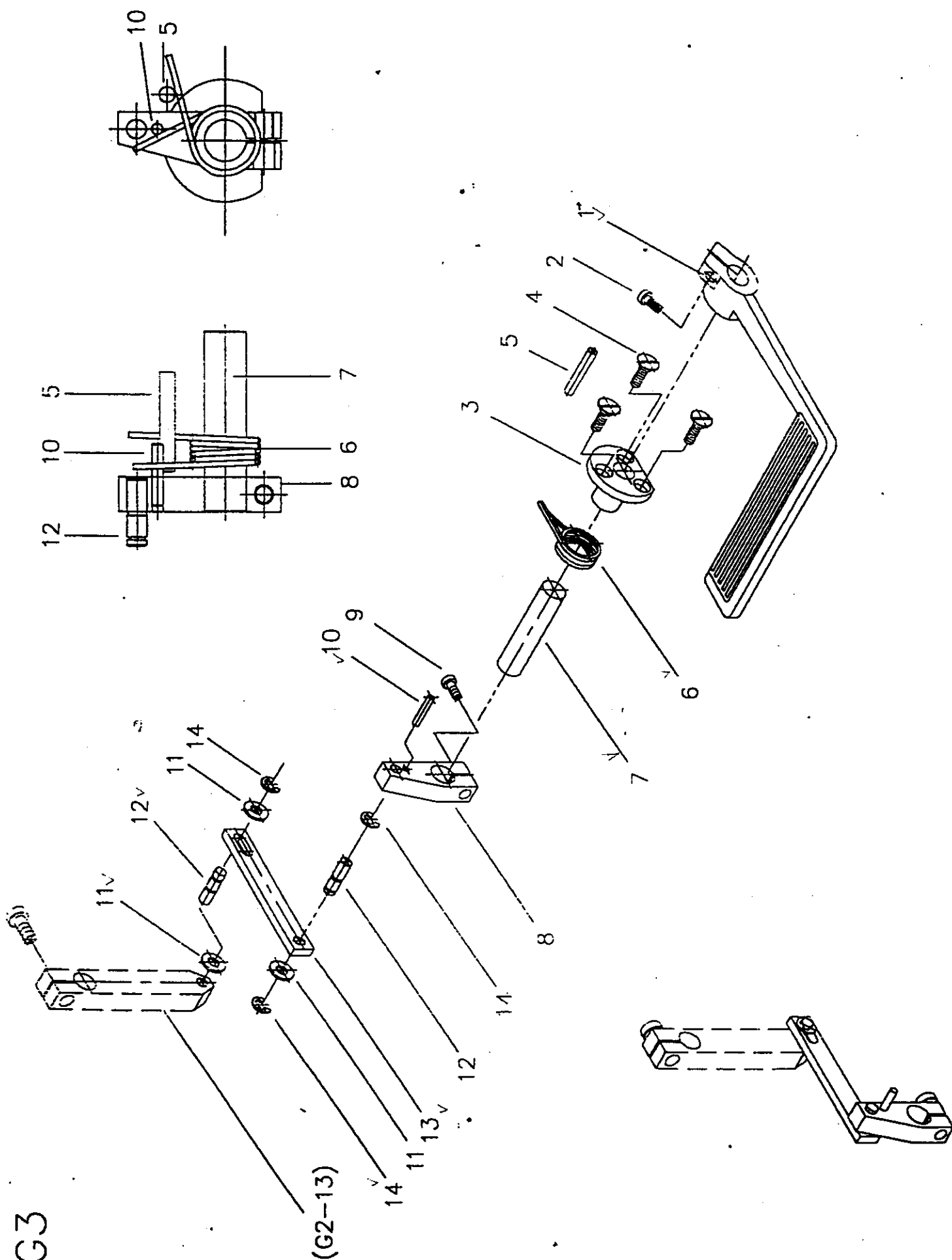


Ref No	Part No.	Name of Part	Amt. Req. 9971-TD/aut	Remarks
G1-1	MS-102036	Nut	2	
G1-2	MS-102037	Screw	1	
G1-3	MS-102038	Bushing	2	
G1-4	MS-102039	Spring Plate	1	
G1-5	MS-102040	Nut	2	
G1-6	MS-102041	E-Ring	2	
G1-7	MS-102042	Stud	1	
G1-8	MS-102043	Screw	1	
G1-9	MS-174176	Screw	1	
G1-10	MS-102044	Collar	1	
G1-11	MS-314946	Screw	2	
G1-13	MS-102046	Connection Rod	1	
G1-14	MS-108225	Screw	1	
G1-15	MS-102047	Pin	1	
G1-16	MS-102048	Connection Plate	1	
G1-17	MS-102049	E-Ring	2	
G1-18	MS-102050	Needle Bearing	3	
G1-19	MS-102051	Shaft	1	
G1-20	MS-102052	Fixed Seat	1	
G1-21	MS-130224	Screw	1	
G1-22	MS-119163	Crank	1	
G1-23	MS-108225	Screw	1	
G1-24	MS-133283	Washer	2	
G1-25	MS-215124	Needle Bearing	2	
G1-26	MS-118600	Bushing	2	
G1-27	MS-119511-1	Under Shaft	1	
G1-28	MS-118504	Collar	1	
G1-29	MS-118503	Screw	2	
G1-30	MS-610370	C-Ring	1	
G1-31	MS-119042-2	Eccentric With Rod	1	
G1-32	MS-215028	Needle Bearing	1	
G1-33	MS-175150	Pin	1	
G1-34	MS-242810	Needle Bearing	1	
G1-35	MS-119042	Crank With Eccentric	1	
G1-36	MS-108225-2	Screw	1	
G1-37	MS-130224	Screw	1	



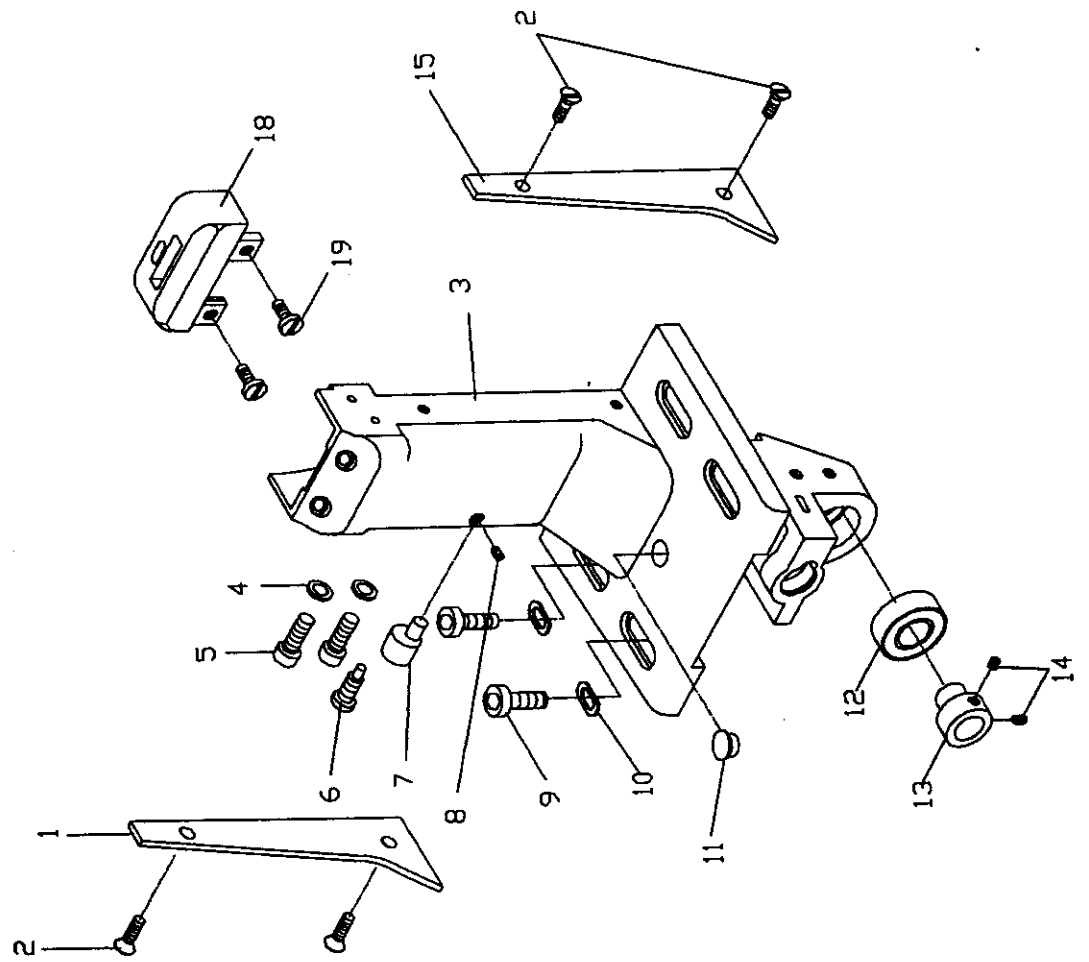
Ref No	Part No.	Name of Part	9971-TD/aut	Amt. Req.	Remarks
G2-1	MS-102053	Crank	1	1	
G2-2	MS-130224	Screw	1	1	
G2-3	MS-102054	Washer	2	2	
G2-4	MS-102055	Connection Rod	1	1	
G2-5	MS-215028	Needle Bearing	4	4	
G2-6	MS-102116	Pin	1	1	
G2-7	MS-102056	Connection Rod	1	1	
G2-8	MS-102118	Pin	1	1	
G2-9	MS-102057	Waving Seat	1	1	
G2-10	MS-130224-1	Screw	6	6	
G2-11	MS-119046	Connecting Rod	1	1	
G2-12	MS-102117	Pin	1	1	
G2-13	MS-102058	Connecting Rod	1	1	
G2-14	MS-108294	Screw	1	1	
G2-15	MS-102059	Top Rod Seat	1	1	
G2-16	MS-119078-1	Screw	1	1	
G2-17	MS-102060	Waving Arm	1	1	
G2-18	MS-102061	Rod	1	1	
G2-19	MS-130224	Screw	1	1	
G2-20	MS-102062	Washer	2	2	
G2-21	MS-102063	Support Plate	1	1	
G2-22	MS-102064	Shaft	1	1	
G2-23		Screw	1	1	
G2-24	MS-165356-1B	Screw	1	1	
G2-25	MS-305305-1	Screw	1	1	
G2-26	MS-165356-8	Nut	2	2	

G3

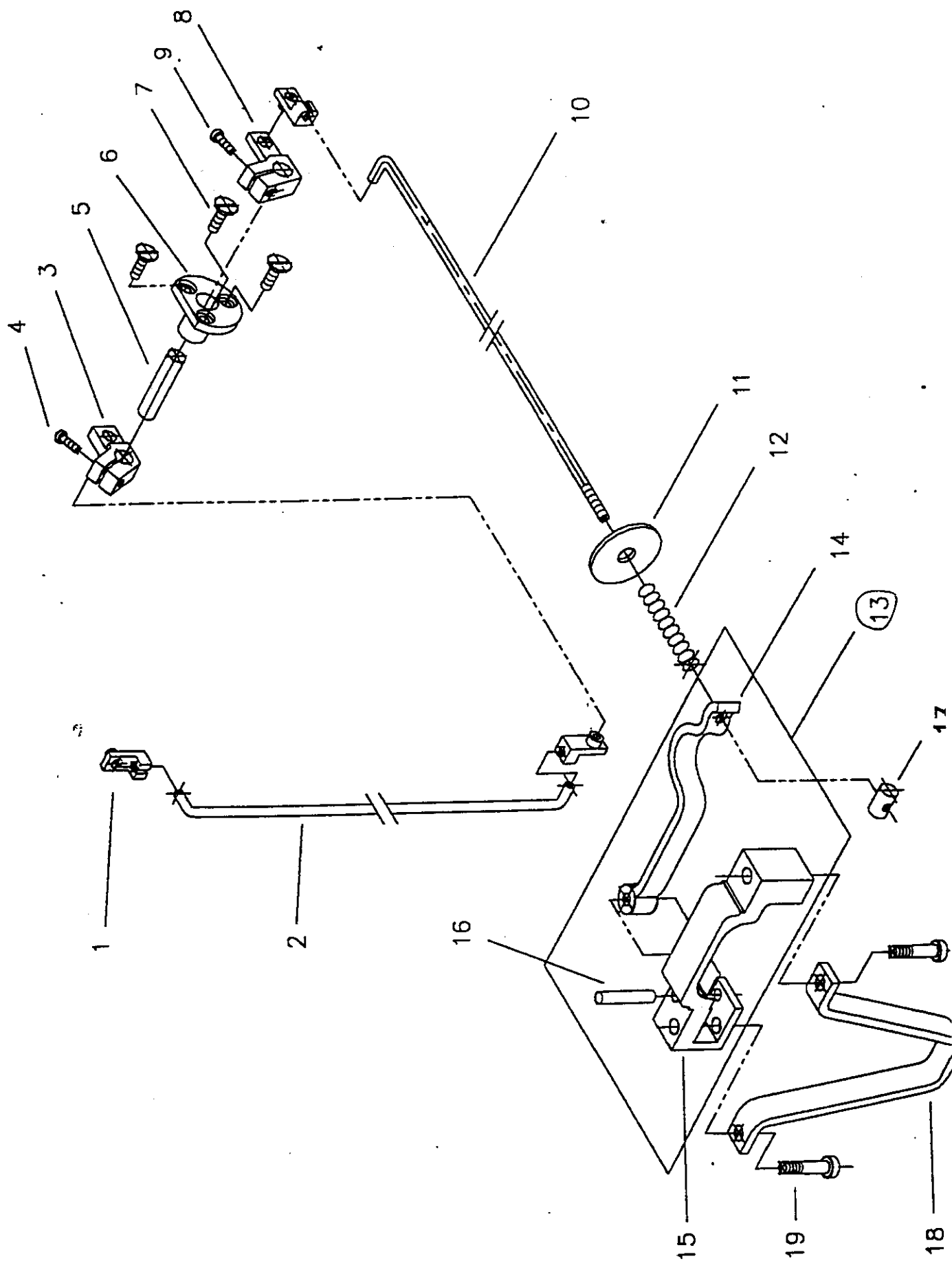


Ref No	Part No.	Name of Part	9971-TD/aut	Amt. Req. TD/aut	Remarks
13-1	MS-102065	Reverse Sewing Lever		1	
13-2	MS-700689	Screw		2	
13-3	MS-102066	Fixed Bushing		1	
13-4	MS-102066-1	Screw		3	
13-5	MS-102067	Shaft		1	
13-6	MS-102068	Spring		1	
13-7	MS-102069	Shaft		1	
13-8	MS-102070	Fixed Seat		1	
13-9	MS-130224	Screw		1	
13-10	MS-102071	Pin		1	
13-11	MS-102072	Washer		3	
13-12	MS-102073	A Djusting Stud		2	
13-13	MS-102074	Waving Plate		1	
13-14	MS-102049	Ring		3	G1-17

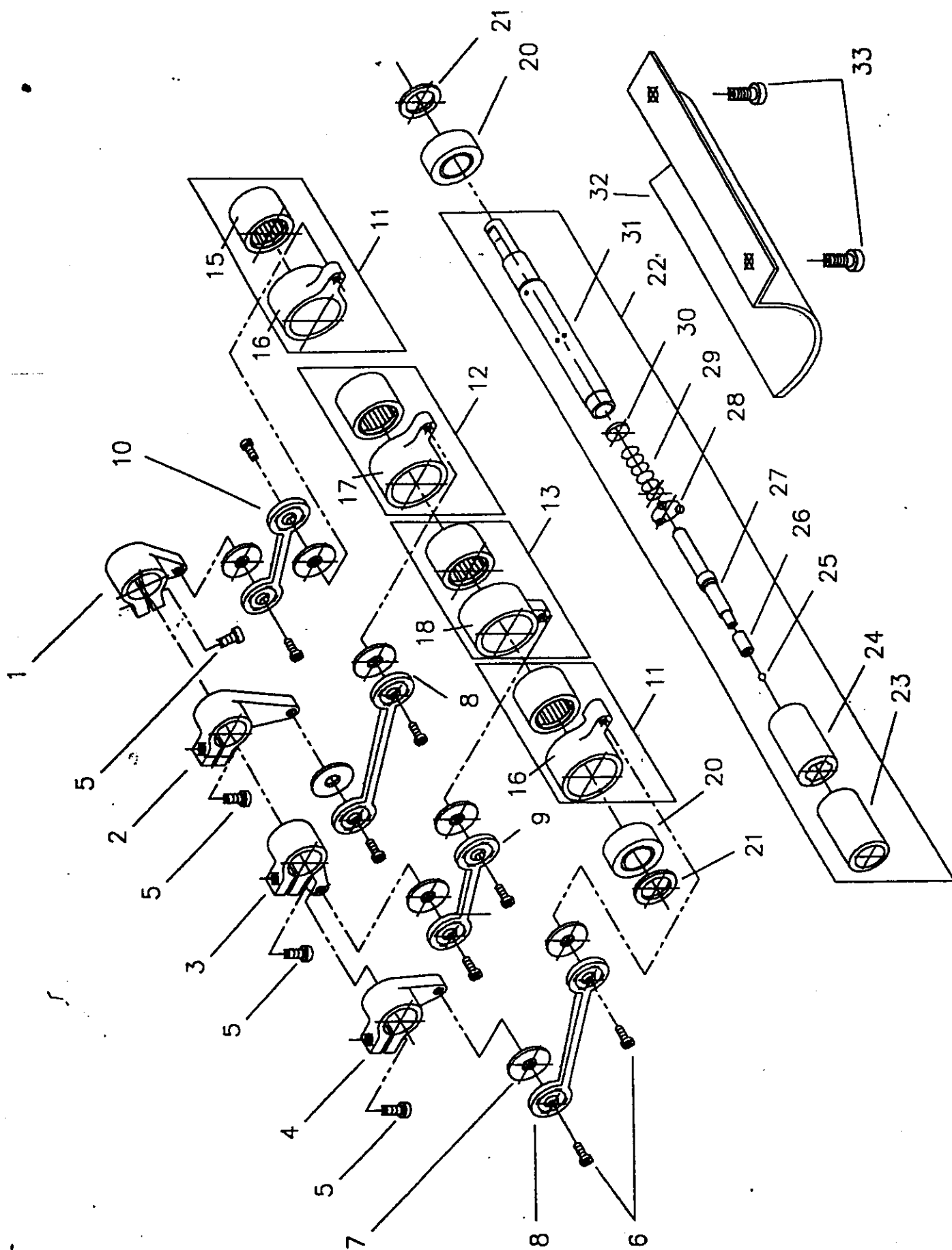
01 BEDPLATE₂ FEED MECHANISM



O1. NEEDLE PLATE FRAME MECHANISM					
Ref. No.	Parts No.	Name of Parts	Amt. Req.		Remarks
			9971-TD/aut		
O1-1	MS-119145	Cover Plate	1	0	
O1-2	MS-250084	Screw	4	0	
O1-3	MS-119721	Support Plate	1	0	
O1-4	MS-119144	Washer	2	0	
O1-5	MS-130224	Screw	2	0	
O1-6	MS-182451	Screw	1	0	
O1-7	MS-119725	Stud	1	0	
O1-8	MS-317170	Screw	1	0	
O1-9	MS-135292	Screw	4	0	
O1-10	MS-305174	Washer	4	0	
O1-11	MS-168351	Plug	1	0	
O1-12	MS-016120	Ball Bearing	1	0	
O1-13	MS-119121	Collar	1	0	
O1-14	MS-700689	Screw	2	0	
O1-15	MS-305144	Cover Plate	1	0	
O1-16	MS-101055	Screw	2	0	
O1-17	MS-101056	Needle Plate	1	0	
O1-18	MS-101057A	Needle Plate Bracket	1	0	
O1-19	MS-210168	Screw	2	0	



Ref No		Part No.	Name of Part	9971-TD/aut	Amt. Req.	Remarks
O3-1		MS-102095	Connection Seat		3	
O3-2		MS-102096	Connection Rod		1	
O3-3		MS-102097	Waving Arm		1	
O3-4		MS-130224	Screw		1	
O3-5		MS-102098	Rod		1	
O3-6		MS-102099	Fixed Bushing		3	
O3-7		MS-102066-1	Screw		1	
O3-8		MS-102100	Waving Arm		1	
O3-9		MS-130224	Screw		1	
O3-10		MS-102101	Connection Rod		1	
O3-11		MS-102102	Washer		1	
O3-12		MS-102103	Spring		1	
O3-13		MS-102104	Fixed Plate Set		1	
O3-14		MS-102105	Presser Plate		1	
O3-15		MS-102106	Fixed Seat		1	
O3-16		MS-102107	Pin		1	
O3-17		MS-102109	Adjusting Stud		1	
O3-18		MS-119092-1	Bracket		1	
O3-19		MS-119092-2	Screw		2	



Ref No	Part No.	Name of Part	Amt. Req. 9971-TD/aut	Remarks
O2-32	MS-119216-1	Housing Front Section	1	
O2-33	MS-119216-2	Screw	2	

Ref No	Part No.	Name of Part	Amt. Req. 9971-TD/aut	Remarks
O2-1	MS-102075	Suppling Waving Arm	1	
O2-2	MS-102076	Suppling Waving Arm	1	
O2-3	MS-101077	Suppling Waving Arm	1	
O2-4	MS-102078	Suppling Waving Arm	1	
O2-5	MS-130224	Screw	4	
O2-6	MS-174176	Screw	8	
O2-7	MS-119087	Oil Felt	8	
O2-8	MS-102079	Link	2	
O2-9	MS-102080	Link	1	
O2-10	MS-102081	Link	2	
O2-11	MS-102082	Free Bearing	2	
O2-12	MS-102083	Free Bearing	1	
O2-13	MS-102084	Free Bearing	1	
O2-15	MS-102012	Needle Bearing	4	
O2-16	MS-102086	Free- Wheeling	2	
O2-17	MS-102087	Free- Wheeling	1	
O2-18	MS-102088	Free- Wheeling	1	
O2-20	MS-102089	Bearing	2	
O2-21	MS-102090	Washer	2	
O2-22	MS-102091	Shaft Set	1	
O2-23	MS-102092	Bushing	1	
O2-24	MS-102092	Bushing	1	
O2-25	MS	Ball MS-102017	1	
O2-26	MS-102018	Bushing	1	
O2-27	MS-102093	Shaft	1	
O2-28	MS-102020	Ball	3	
O2-29	MS-102021	Spring	1	
O2-30	MS-102022	Washer	1	
O2-31	MS-102094	Shaft	1	