



4500CW

INDUSTRIAL SEWING MACHINE

INSTRUCTION MANUAL

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Operation Instruction

1. Brief introduction

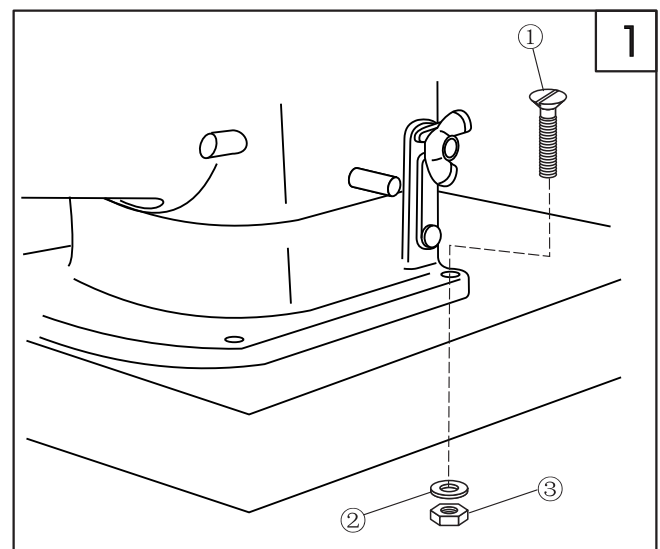
This compound feed sewing machine is designed with unique feed mechanisms, which make sewing of uneven and thick materials easily. Smooth, uniform and neat stitches are promised. The machine runs with high speed and low noise thanks for its' vertical-axis rotating hook, sliding lever take-up and synchronized belt driven mechanisms. It is designed for sewing of shoes, caps, sofa and bag, etc, and specially for sewing cylindrical or arc products.

3. Machine installation (Fig.1)

Fix the base with screw ① washer ② and nut ③ on the four holes of table, then fix the machine head on the base.

2. Main specifications

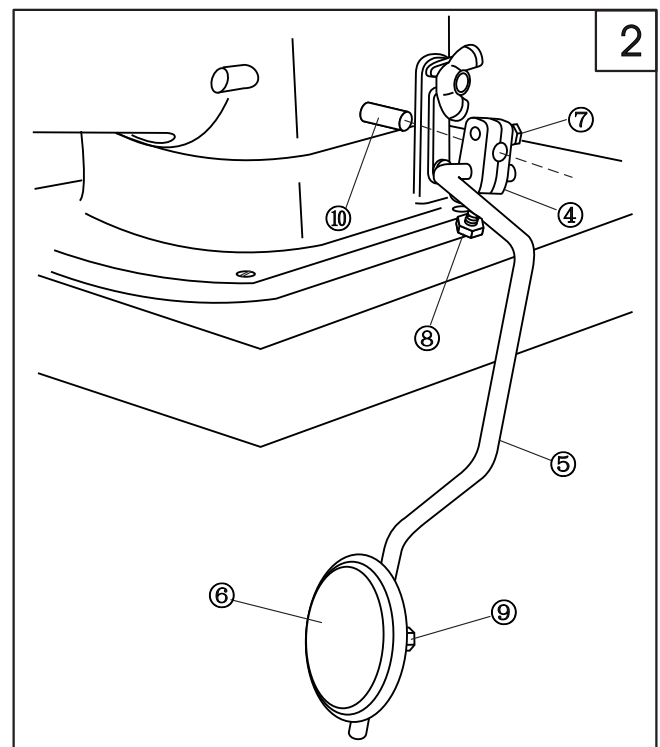
Model	GC2263-1	GC2263-1-D2T3
Applications	Medium & heavy weight materials	
Max sewing speed	2500s.p.m	
Max stitch length	8mm	
Needle bar stroke	36mm	
Needle	DP×17(Nm125~Nm180) 23#	
Lubrication	Automatic	
Rotating hook	Vertical hook	
Presser foot lift height	9mm by hand, 16mm by knee/lifter	
Motor power	370W clutch motor	Servo motor

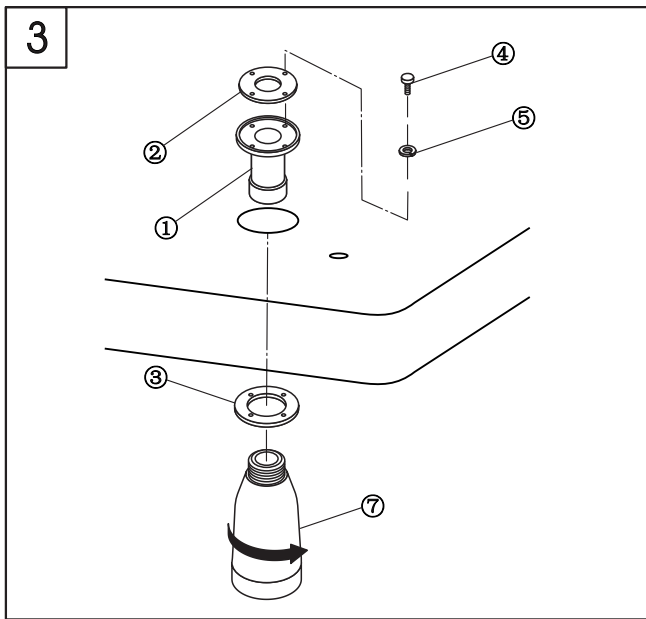


4. Installing the knee lifter (Fig.2)

1. Fix the bar ⑤ and pad ⑥ in the connector ④;
2. Adjust the direction of pad with screws ⑦⑧⑨;
3. Fix the connector ④ on the shaft ⑩.

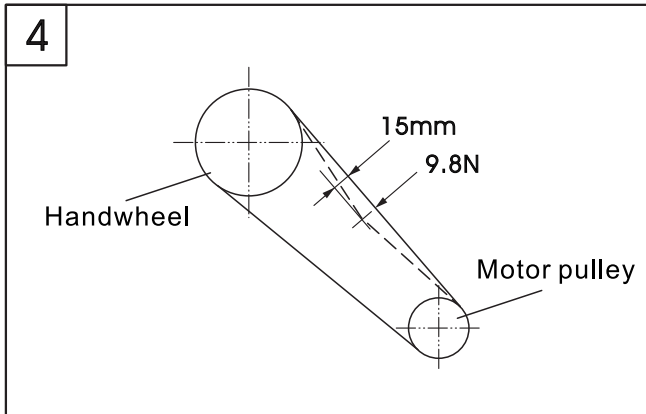
Note: if need to put the machine backward, please first to loosen the screw ⑦ to uninstall the knee lifter





5. Setting the waste oil collector (Fig.3)

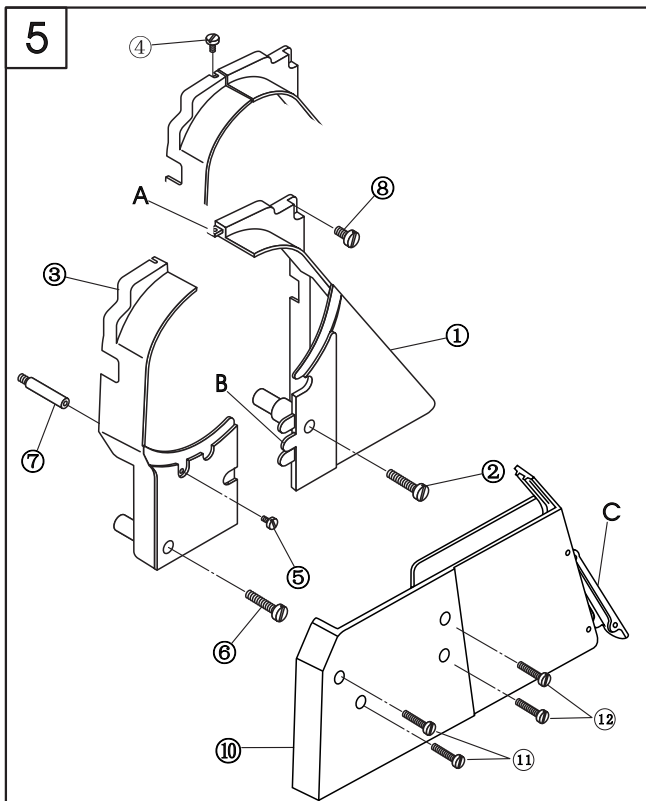
1. Install oil bolt ①, oil seal ② and washer ③ on the table, then fix them.
2. Screw oil pot ⑦ up to the oil bolt ①.



6. Tension of belt (Fig.4)

Adjust the height of motor to regulate the tension of belt. Press the center of belt with a force of 9.8N, displacement should be 15mm, that means tension is proper.

Note: Turn off the power and make sure the motor stopped before adjustment.



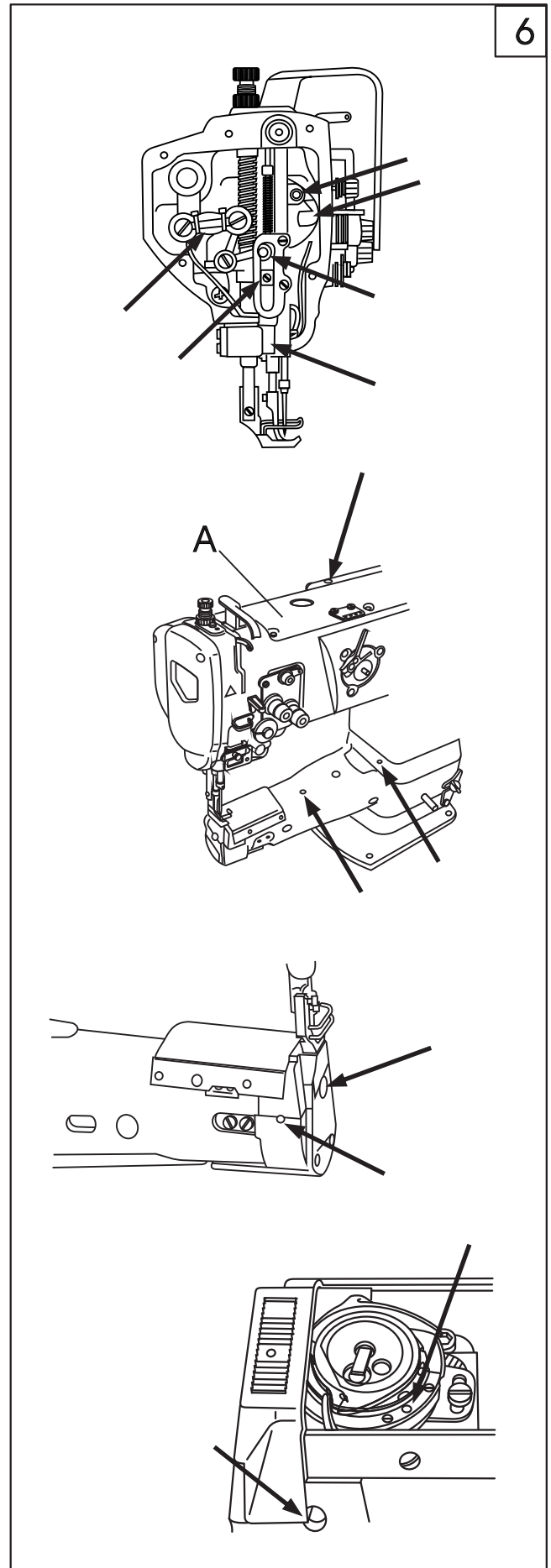
7. Installing the belt cover (Fig.5)

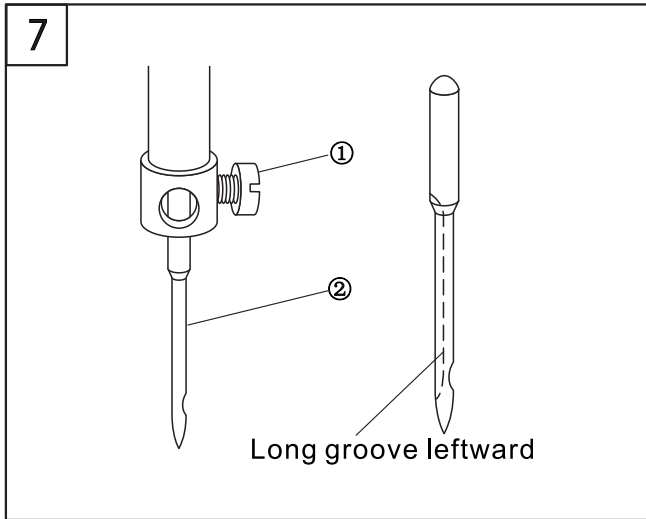
1. Screw the belt cover supporting pole into the screw hole.
2. Install belt cover (R) ① to the machine head by setscrew ② and ⑧.
3. Set belt cover (L) ③ to the pawl A and B of cover ①.
4. Fix belt cover (L) ③ by set screw ④, ⑤ and ⑥.
5. Fix the lower belt cover ⑩ by set screw ⑪ and ⑫.

Note: After installation, make sure the belt cover is not touched with the belt and handwheel.

8. Lubrication (Fig.6)

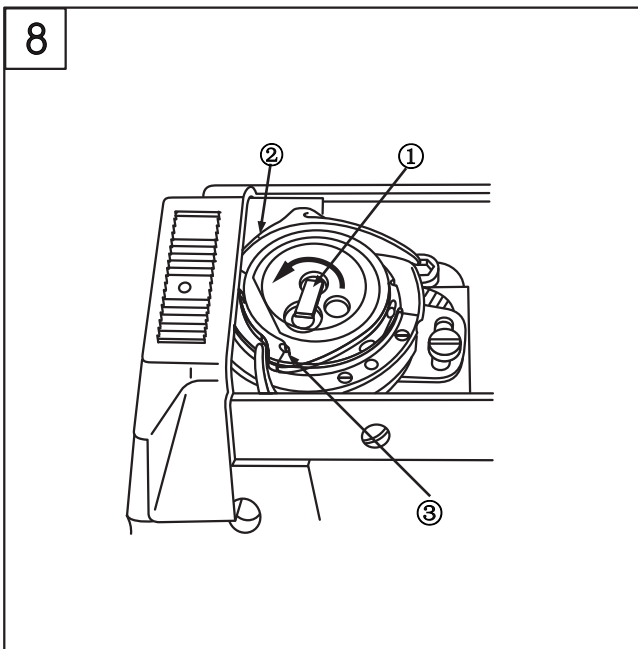
1. Drip oils to the signed position by arrows everyday.
2. Oil the machine before its Initial running or after a long time idle at signed point and, remove top cover A, drip oils to all felts and wicks inside the arm.
3. The hole in read color should be oiled.





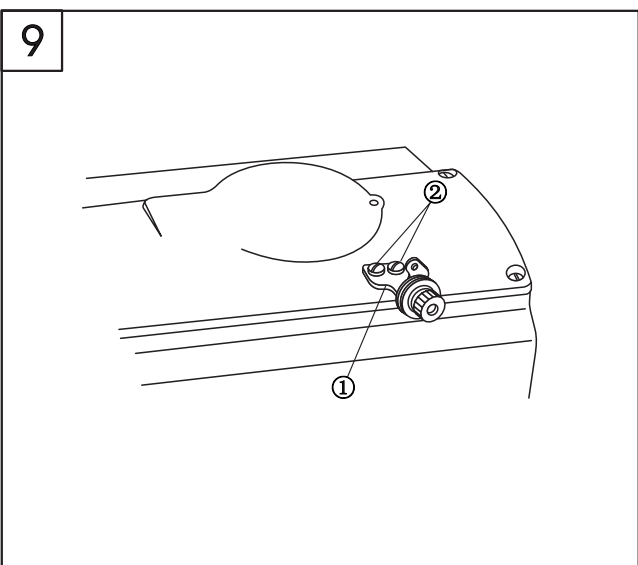
9. Setting the needle (Fig.7)

1. Turn the handwheel to raise the needle bar to its highest point.
2. Loosen needle set screw (2) and have the long groove of the needle (1) face leftward.
3. Insert needle fully.
4. Tighten the set screw (2).



10. Threading the bobbin (Fig.8)

1. Lift the latch (1) and take out the bobbin.
2. Insert bobbin correctly and close the latch.
3. Draw bobbin thread through slot (2), tension spring and hole (3).
4. Bobbin should turn in the direction shown by the arrow when draw the bobbin thread.

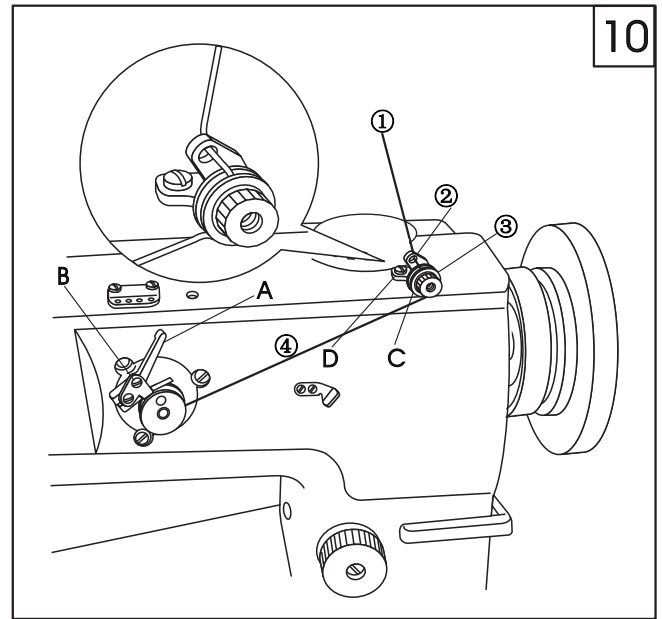


11. Installing the thread tension for bobbin thread winder(Fig.9)

Mount thread tension (1) onto the top cover with set screw (2) .

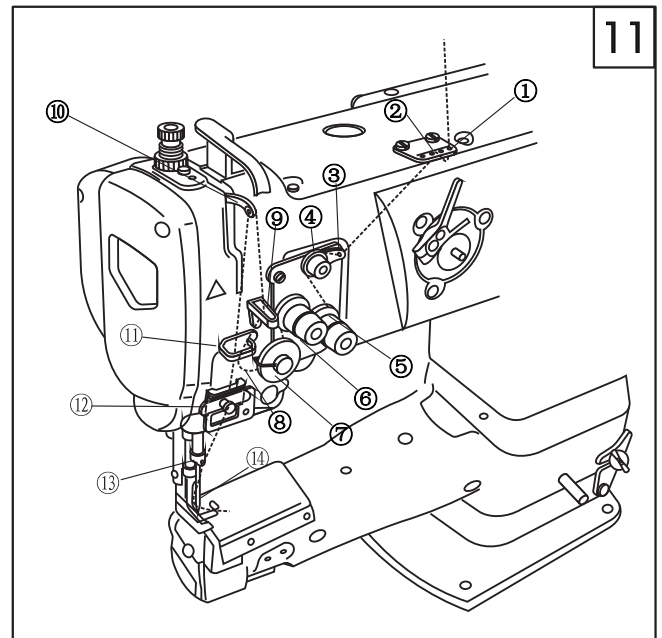
12. Winding bobbin thread (Fig.10)

- 1.Thread in sequence ① ~ ④, then wind thread around the bobbin several circles
- 2.Press latch A.
- 3.Loosen screw B to adjust the latch to get the proper thread amount of 80% of the bobbin capacity.
- 4.If thread wound unevenly, move guide C to regulate and fasten with screw D.
- 5.If the proper thread amount acquired, the latch will disengage automatically.



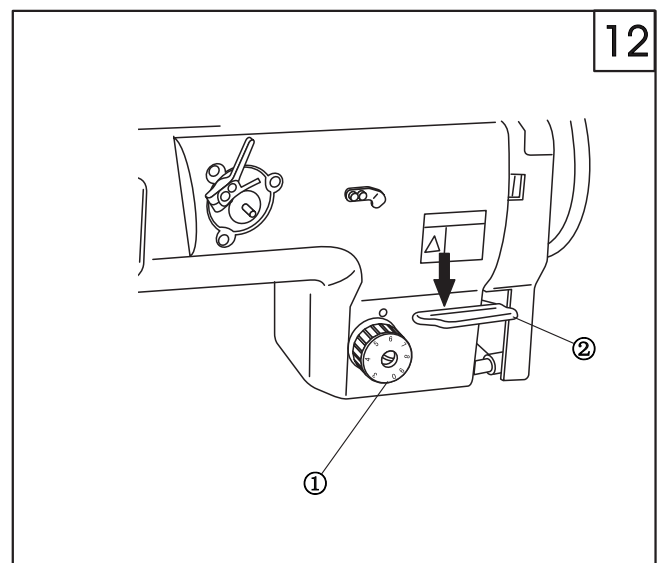
13. Threading the needle thread(Fig.11)

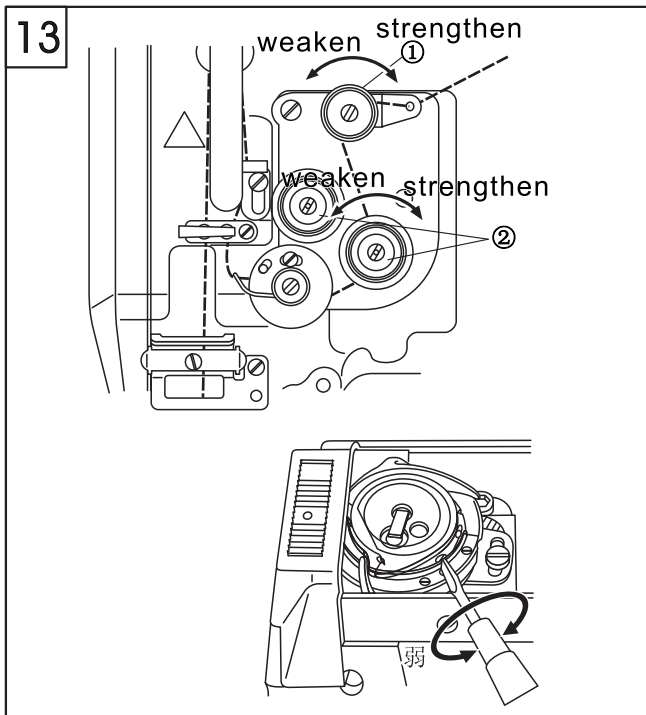
Thread in sequence as shown in the illustration.



14. Stitch length (Fig.12)

- Turn the stitch dial ① leftward or rightward to get your required stitch length.
Press the reverse lever ② to start reverse sewing, loose it to restore normal sewing.





15. Thread tension (Fig.13)

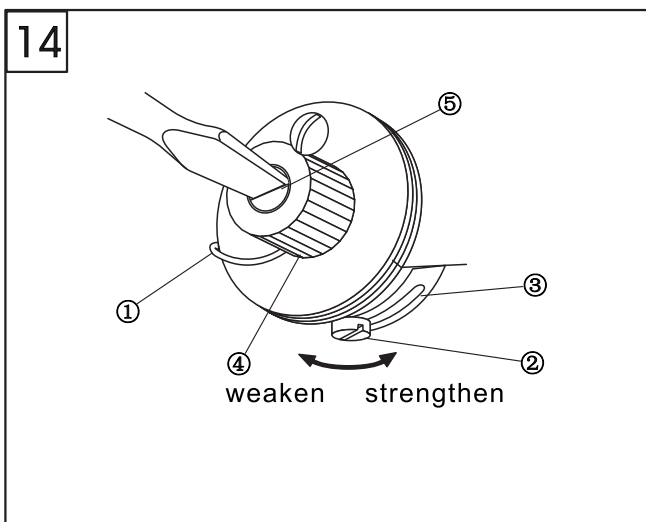
1. Tension of needle thread

Turn the tension nut ① clockwise to shorten the thread remains after cut, turn counterclockwise to lengthen the thread remains.

Turn the tension nut ② clockwise to increase needle thread tension, turn counterclockwise to reduce the tension.

2. Tension of bobbin thread

Turn the tension nut ③ clockwise to increase bobbin thread tension, turn counterclockwise to reduce the tension.



16. Adjusting thread take-up spring (Fig.14)

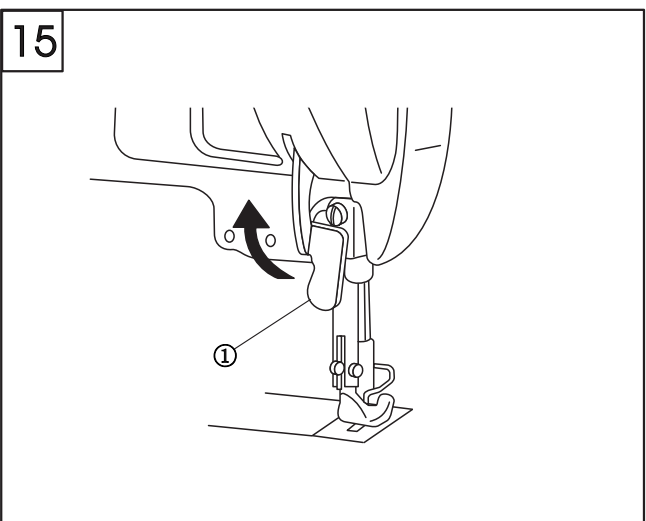
1. To change the take-up spring swing range

a. Loosen set screw ② and move plate ③ to adjust the take-up spring.

b. Move plate ③ rightward to increase take-up spring swing range, move leftward to reduce swing range.

2. To change the tension of take-up spring

Loosen nut ④, turn shaft ⑤ counterclockwise to increase tension, turn clockwise to reduce the tension.



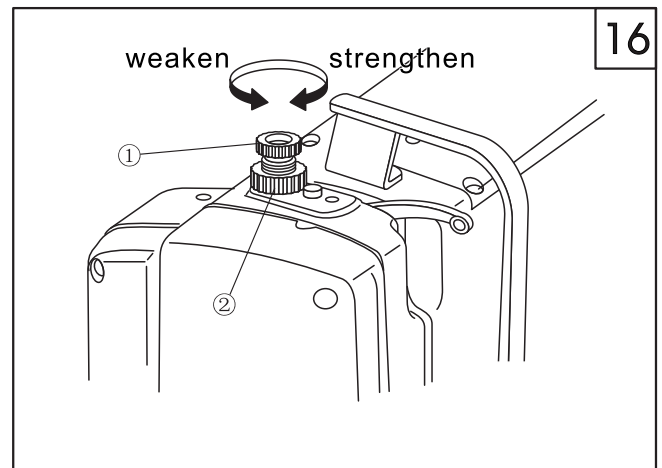
17. Presser foot lift (Fig.15)

1. When the presser foot on the lower resting position, raise the foot lift lever ① as illustration. The presser foot rises 9mm then stop.

2. Lower the lift lever ① to restore the presser foot.

18. Pressure of presser foot (Fig.16)

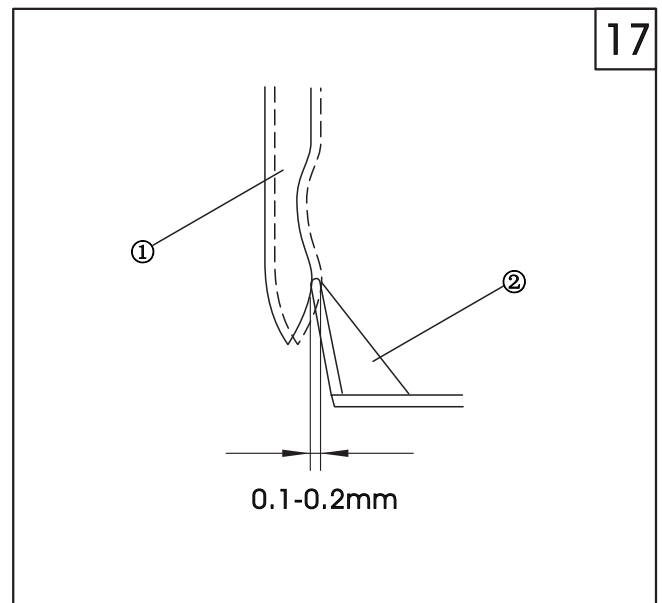
Turn the regulating bolt ① rightward to increase the pressure, turn counterclockwise to reduce the pressure. Tighten nut ② after adjustment.



19. Adjusting needle guard plate (Fig.17)

Check the position of needle guard plate after change the rotating hook. The standard position of the guard plate ② is 0.1~0.2mm against needle ①. If the clearance is not right, bend the guard plate to adjust.

1. To bend the guard plate inward, insert a screwdriver outside.
2. To bend the guard plate outward, insert a screwdriver inside of the plate.

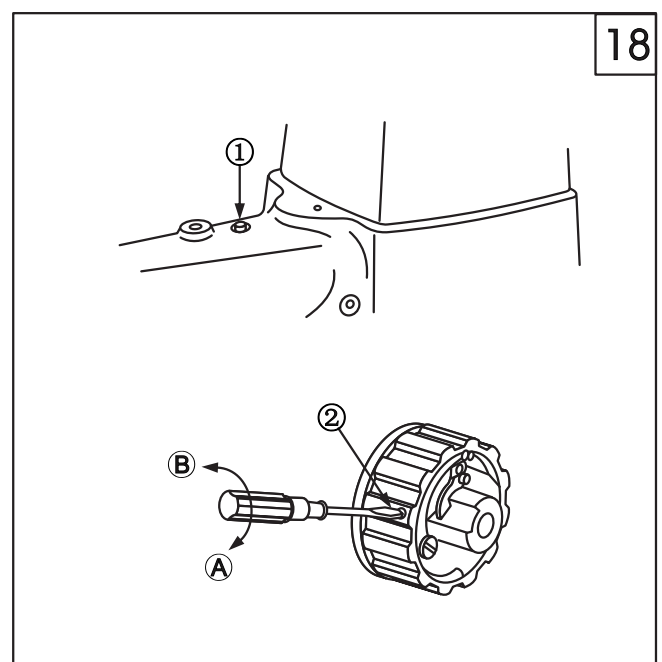


20. Reset of safety clutch (Fig.18)

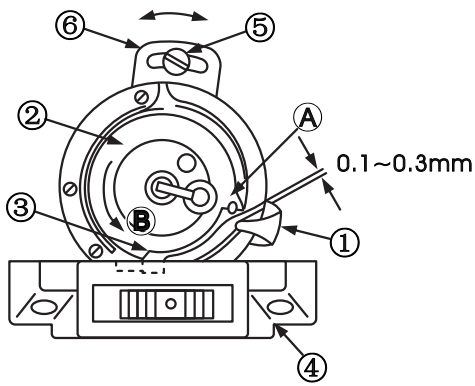
In case the rotating hook is applied with a over strong force during operation, the safety clutch start working. The rotating hook stop turn even the handwheel is still turning.

1. Reset the safety clutch.
 - a. Clean the locked thread in the hook
 - b. Press button ① down on the bed, Firmly turn the handwheel reversely at the same time.
 - c. When a "click" sound is heard, the safety clutch is reset successfully.

2. Adjust the force
Turn the screw ② to Direction A to increase the force of clutch and turn the screw to Direction B to decrease the force.



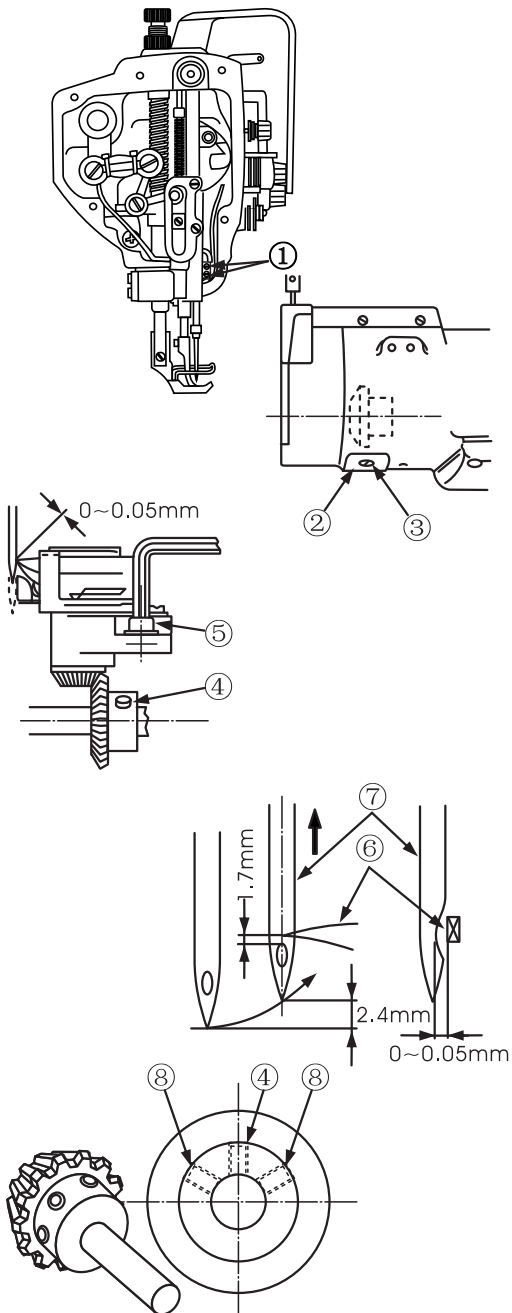
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21. Adjusting hook thread opener (Fig.19)

1. Turn the handwheel in normal direction to move the thread opener ① to its ultimate position.
2. Turn the bobbin cap ② in direction B shown by arrow, to make stopper ③ (the projection part) against the notch under the bottom of the needle plate ④.
3. Loosen the screw ⑤ and move the plate ⑥, adjust the clearance between horn A and the opener to 0.1~0.3mm, tighten the set screw ⑤.

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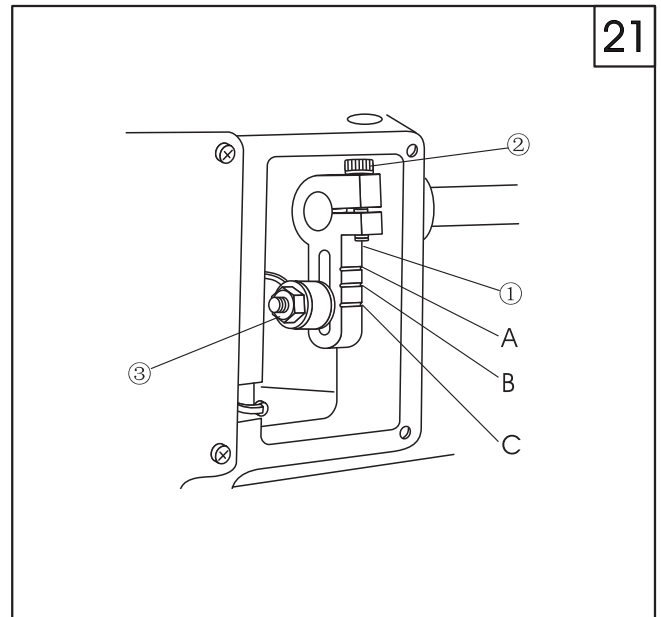
22. Timing between needle and rotating hook (Fig.20)

1. Turn the stitch dial to 0.
2. Turn the handwheel to lower the needle bar to its lowest position and loosen the screw ①
3. The standard height of needle bar: when needle bar is lifted by 2.4mm from its lowest point, the clearance between top of the needle hole and hook tip is 1.7mm.
4. Loosen the screw ③ and move the cover ②, loosen the screw ④ and ⑧
5. Loosen the set screw ⑤, and move the hook saddle leftward or rightward to make the clearance between hook tip and needle ⑦ to 0~0.05mm. Tighten screw ⑥ .
6. Make the hook tip align with the center of the needle bar. Tighten set screws ④
7. Turn the handwheel clockwise and tighten the screw ⑧

23. Alternating lift amount of presser feet (Fig.21)

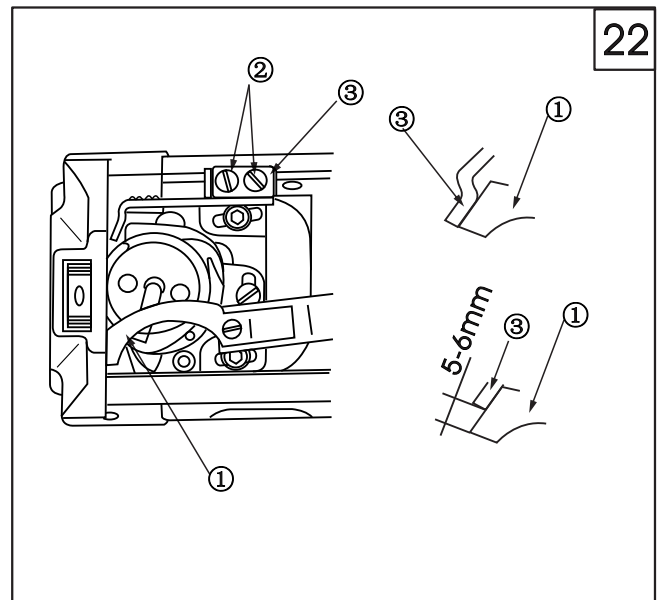
To adjust the lift amount of presser feet by moving upper feed crank ① up or down within the range of the long slot. Move the crank up to increase alternating lift amount, move down to reduce. Tighten nut ③ after adjusting.
 In case the lift amount of the two presser feet is different, move the two feet to align with the needle plate surface, loosen crank set screw ②. Turn the handwheel in normal direction, the lift amount of outer foot is much than that of inner foot. Turn the handwheel reverse, the lift amount of outer foot is less than that of inner foot. Tighten screw ② after adjustment.
 Remove the right side of the window plate, the upper feed crank ① can be observed.

Presser feet alternating lift amount	
Mark A	5mm
Mark B	4mm
Mark C	3mm



24. Adjusting the cutter (Fig.22)

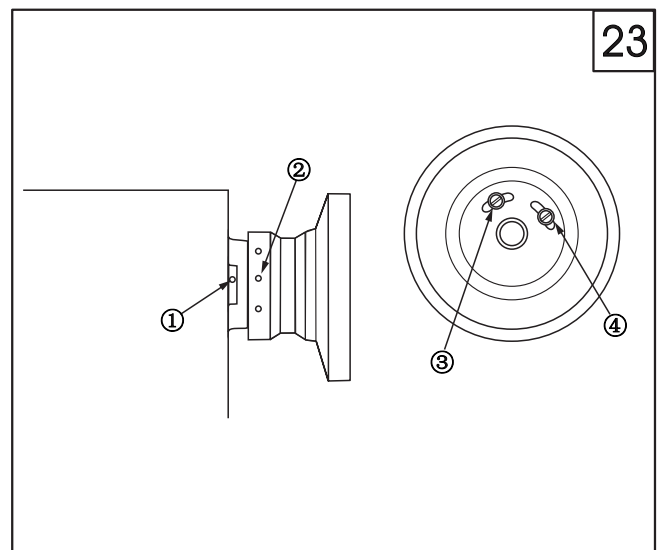
1. Move the movable knife ① to upmost position,
2. Loosen the screw ② to move the fixed knife ③ leftward or rightward to adjust.
3. When the distance between the front tip of move knife and movable knife is 5-6mm, the knife pressure will be impressed.
4. After the movable knife is back, there should be a movement of 0.05-1mm at its contrail.



25. Stop position (Fig.23)

1. Align the mark ① on the casting with the mark ② on the handwheel, the meaning of every stop position, please refer to below table.
2. To adjust the needle up position by screw ③, to adjust the needle down position by screw ④

Mark on the handwheel	
White-white	Needle up
Yellow	Needle down
Red	For adjusting the cutting driven cam
No color	For lifting needle by reverse turn



26. Settings for different speeds

Alternating lift amount	Stitch length < 6mm	6mm < Stitch length < 8mm
Less than 2.5mm	2,500rpm	2,200rpm
2.5~4mm	2,300rpm	2,200rpm
4~5mm	1,900rpm	1,900rpm
5~6.5mm	1,700rpm	1,700rpm

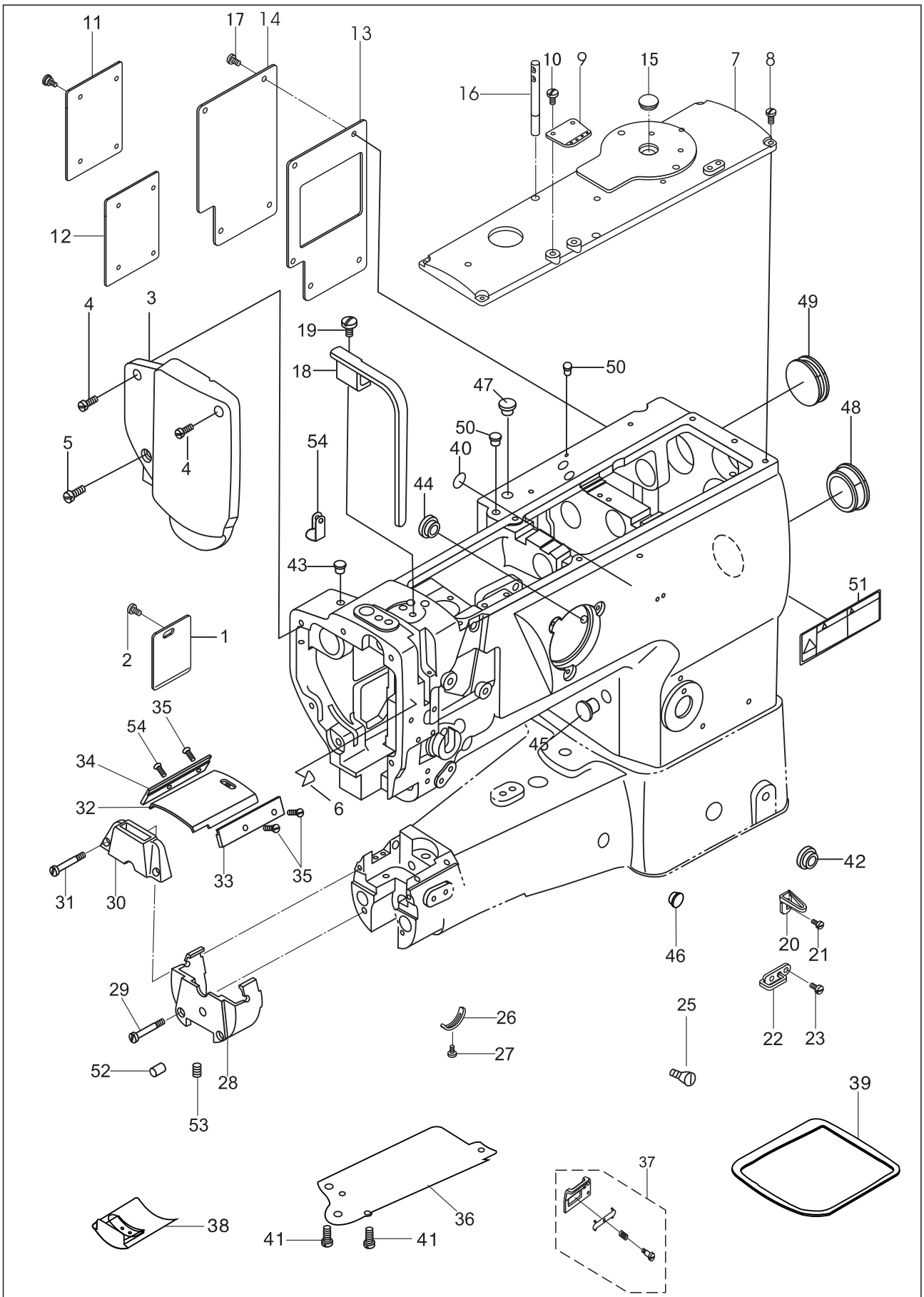
Make proper settings for different speeds accordingly. Do not surpass the standard.

27. Troubleshooting

Trouble	Possible cause	Solution
1. Thread breaking (2~3mm thread left on the cloth)	<ol style="list-style-type: none"> 1. Damage on the rotating hook slots, needle point, hook tip and needle plate 2. Needle thread too tight 3. Collision between needle and rotating hook 4. Rotating hook oiled insufficiently 5. Needle thread too loose 6. Thread take-up spring too rigid 7. Too fast or slow timing of rotating hook and needle 	<ol style="list-style-type: none"> 1. Polish the damaged position, thorns with sand paper or rasp 2. Weaken the needle thread tension 3. Refer to 22. Timing between needle and rotating hook 4. Adjust oil amount (7. Lubrication) 5. Increase the needle thread tension 6. Reduce the rigidity of take-up spring 7. Refer to 22. Timing between needle and rotating hook
2. Skipped stitch	<ol style="list-style-type: none"> 1. Too fast or slow timing of rotating hook and needle 2. Presser foot pressure too weak 3. Clearance between the top of needle hole and the rotating hook tip not proper 4. Wrong needle 	<ol style="list-style-type: none"> 1. Refer to 22. Timing between needle and rotating hook 2. Tighten the pressure adjusting bolt 3. Refer to 22. Timing between needle and rotating hook 4. Replace the needle with correct one
3. Loose stitch	<ol style="list-style-type: none"> 1. Bobbin thread doesn't pass under the tension spring of the bobbin case 2. Roughness on the rotating hook 3. Bobbin stop rotating 4. Bobbin thread too loose 5. Bobbin thread too tight 6. Damage of the needle point 	<ol style="list-style-type: none"> 1. Refer to 10. Threading the bobbin 2. Polish with sand paper or rasp 3. Replace bobbin or rotating hook 4. Increase the bobbin thread tension 5. Reduce the bobbin thread tension 6. Replace the needle

Parts Manual

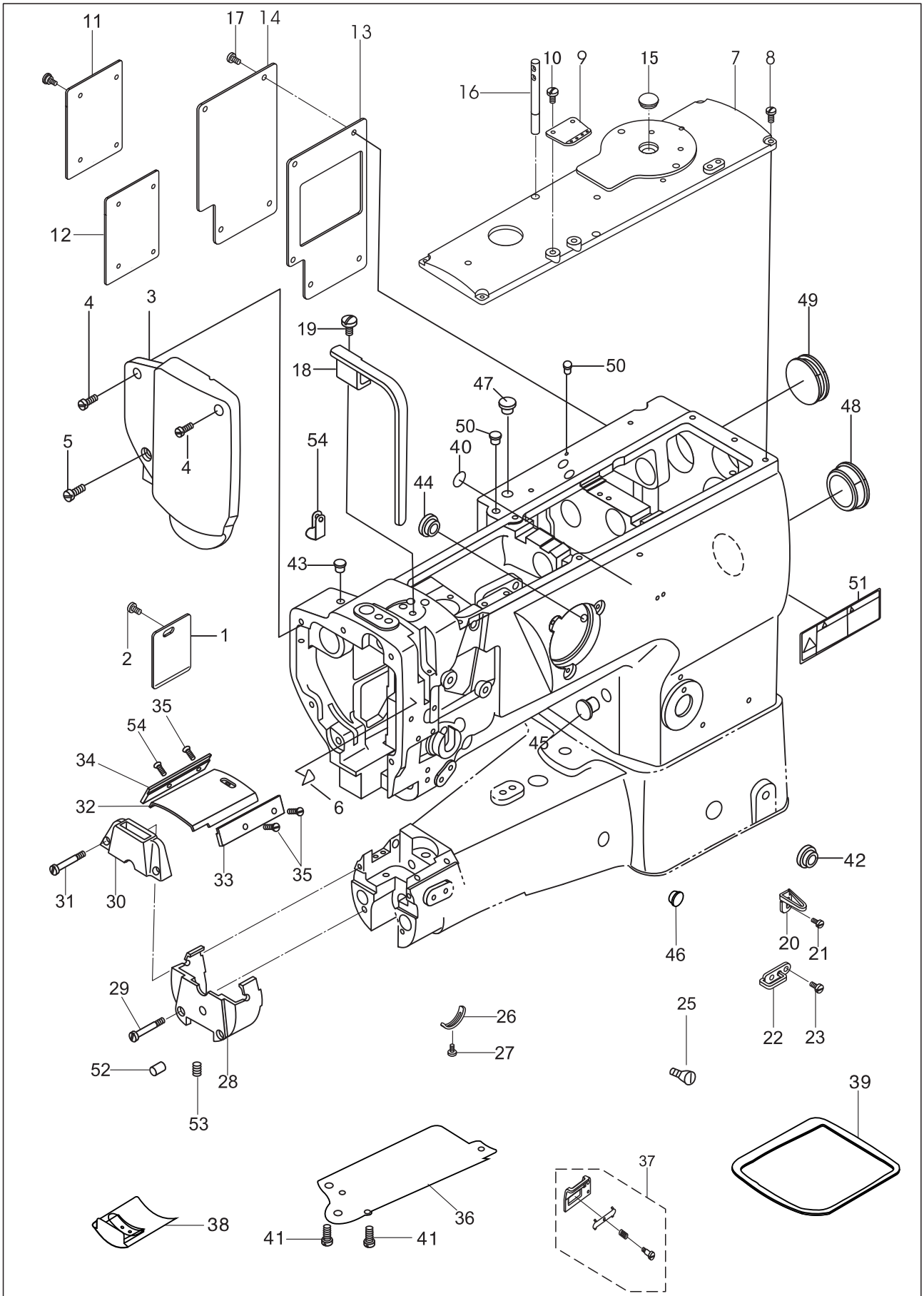
1. Casting mechanism



1. Casting mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
1	92WF2-011	Cover	1		
2	1WF1-011	Screw	1		
3	92WF2-003	Face plate	1		
4	1WF5-039	Screw (1)	2		
5	37T2-210	Screw (2)	1		
6	6KT4-041	Caution label	1		
7	92WF2-009	Upper cover	1		
8	21WF4-047	Screw	6		
9	199WF2-017	Thread guide	1		
10	21WF1-062	Screw	2		
11	92WF2-007	Back cover (R)	1		
12	92WF2-008	Packing (R)	1		
13	92WF2-006	Packing (1)	1		
	259WF1-002	Packing (1)	—		
14	92WF2-005	Back cover(1)	1		
	295WF1-001	Back cover (1)	—		
15	92WF2-010	Rubber plug	1		
16	17WF2-037	Thread guide	1		
17	1WF1-011	Screw	9		
18	92WF2-004	Thread take up lever cover	1		
19	13WF2-045	Screw	1		
20	238WF1-003	Thread guide	1		
21	36WF1-016	Screw	1		
22	238WF1-004	Thread guide	1		
23	1WF1-007	Screw	2		
25	1WF1-007	Screw	1		
26	50WF2-022	Stopper	1		
27	1WF1-026	Screw	1		
28	248WF1-004	Needle plate base	1		
29	50WF2-024	Screw	1		
30	291WF1-002	Needle plate	1		
	349WF1-001	Needle plate	—		
31	50WF2-028	Screw	2		
32	50WF2-032	Slide plate	1		
33	50WF2-030	Cover plate(front)	1		
34	248WF1-007	Cover plate(rear)	1		
35	50WF2-031	Screw	4		
36	291WF1-004	Bottom cover	1		
37	199WF2-024	Lower thread assy.	1		
38	248WF1-012A	Lower slide plate assy.	1		
39	248WF11-012	Seal	1		

1. Casting mechanism



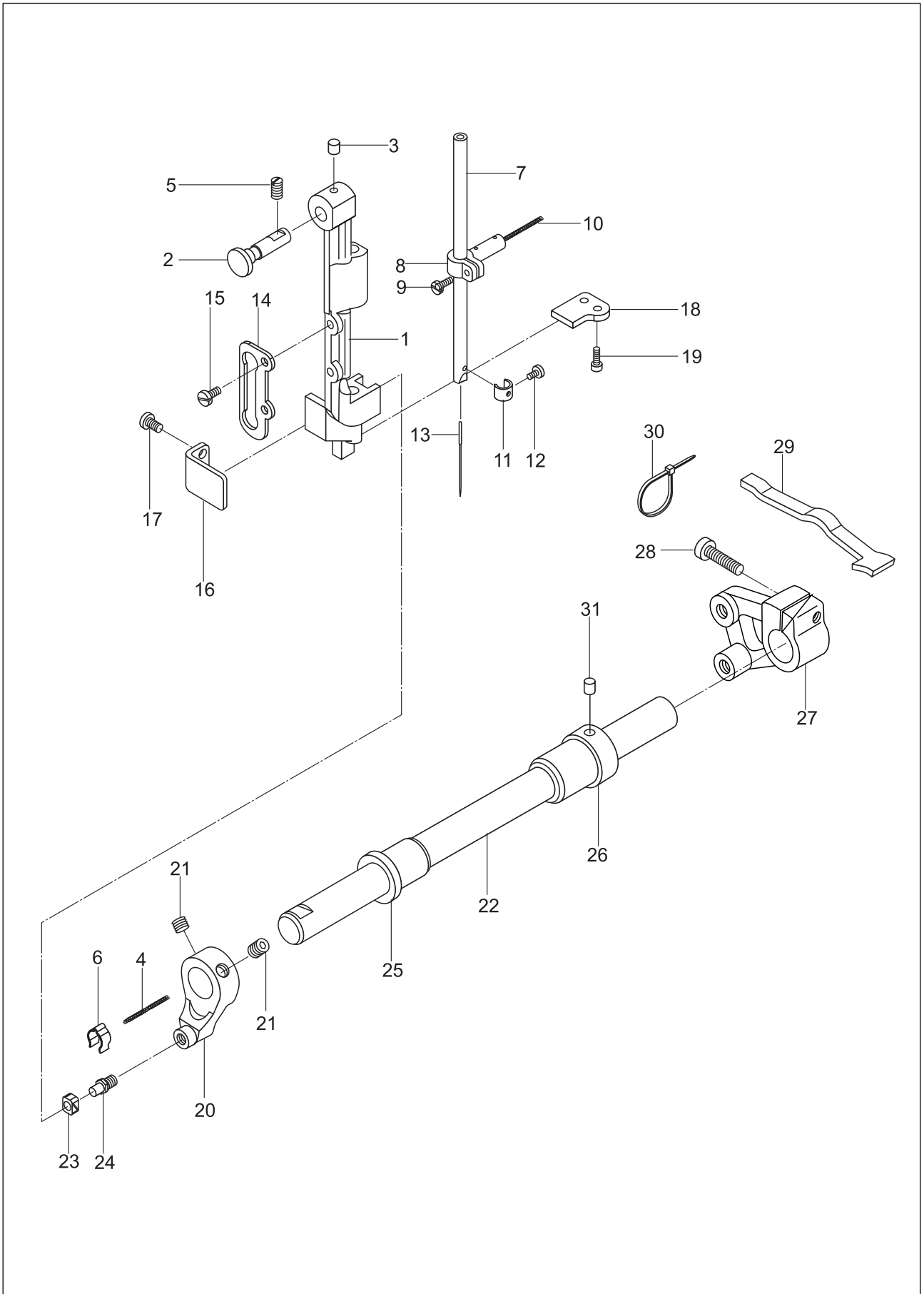
1. Casting mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
40	21WF4-056	Ground wire assy.	1		
41	50WF2-026	Screw	2		
42	21WF4-049	Rubber plug	1		
43	92WF2-029	Rubber plug	2		
44	92WF2-030	Rubber plug	1		
45	92WF2-028	Rubber plug	1		
46	92WF2-028	Rubber plug	1		
47	92WF2-028	Rubber plug	1		
48	92WF2-031	Rubber plug	1		
49	92WF2-032	Rubber plug	1		
50	199WF2-015	Rubber plug	2		
51	7WF4-031	Caution label	1		
52	248WF1-005	Pin	1		
53	123WF3-033	Screw	1		
54	248WF1-017	Screw	-		

2. Arm shaft & thread take-up mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
1	199WF1-051	Arm shaft	1		
2	92WF1-009	Front bushing, arm shaft	1		
3	92WF1-004	Thread take-up lever	1		
4	199WF1-002	Synchronized pulley assy. U	1		
5	16WF1-010	Pin shaft	1		
6	92WF1-005	Slide block	1		
7	42WF3-007	Screw	2		
8	92WF1-006	Needle bar link	1		
9	199WF1-003	Oil wick	1		Φ2.5 × 450
10	199WF1-004	Oil wick	1		L=30
11	50WF1-008	Pin	1		
12	199WF1-005	Oil wick	1		Φ7 × 30
13	92WF1-007	Needle bar crank	1		
14	1WF5-019	Screw	2		
15	50WF1-013	Screw	1		
16	17050	Screw	1		
17	92WF3-014	Upper feed cam	1		
18	199WF3-010	Screw	2		
19	92WF1-010	Middle bushing, arm shaft	1		
20	199WF1-006	Oil wick	1		Φ2 × 150
21	92WF3-029	Feed eccentric cam	1		
22	199WF3-010	Screw	2		
23	92WF3-030	Retaining block	2		
24	7WF5-017	Screw	1		
25	21WF1-022	Screw	2		
26	36WF3-019A	Bearing, arm shaft	1		50105 25×47×12
27	92WF1-011	Bushing	1		
28	57WF-009	Screw	2		M6
29	92WF1-015	Hand wheel	1		
30	17WF4-016	Screw	2		
31	92WF1-012	Washer	1		
32	50WF1-004	Screw	2		
33	1WF5-019	Screw	2		
34	92WF2-029	Rubber plug	1		
35	248WF2-001	Timing belt	1		
36	119WF10-001	Synchronizer assy.	-		
37	119WF10-002	Screw	-		
38	119WF10-003	Magnet assy.	-		
39	228WF1-010	Hand heel	-		
40	2KT7-009	Washer	-		
41	1WF3-009	Screw	-		

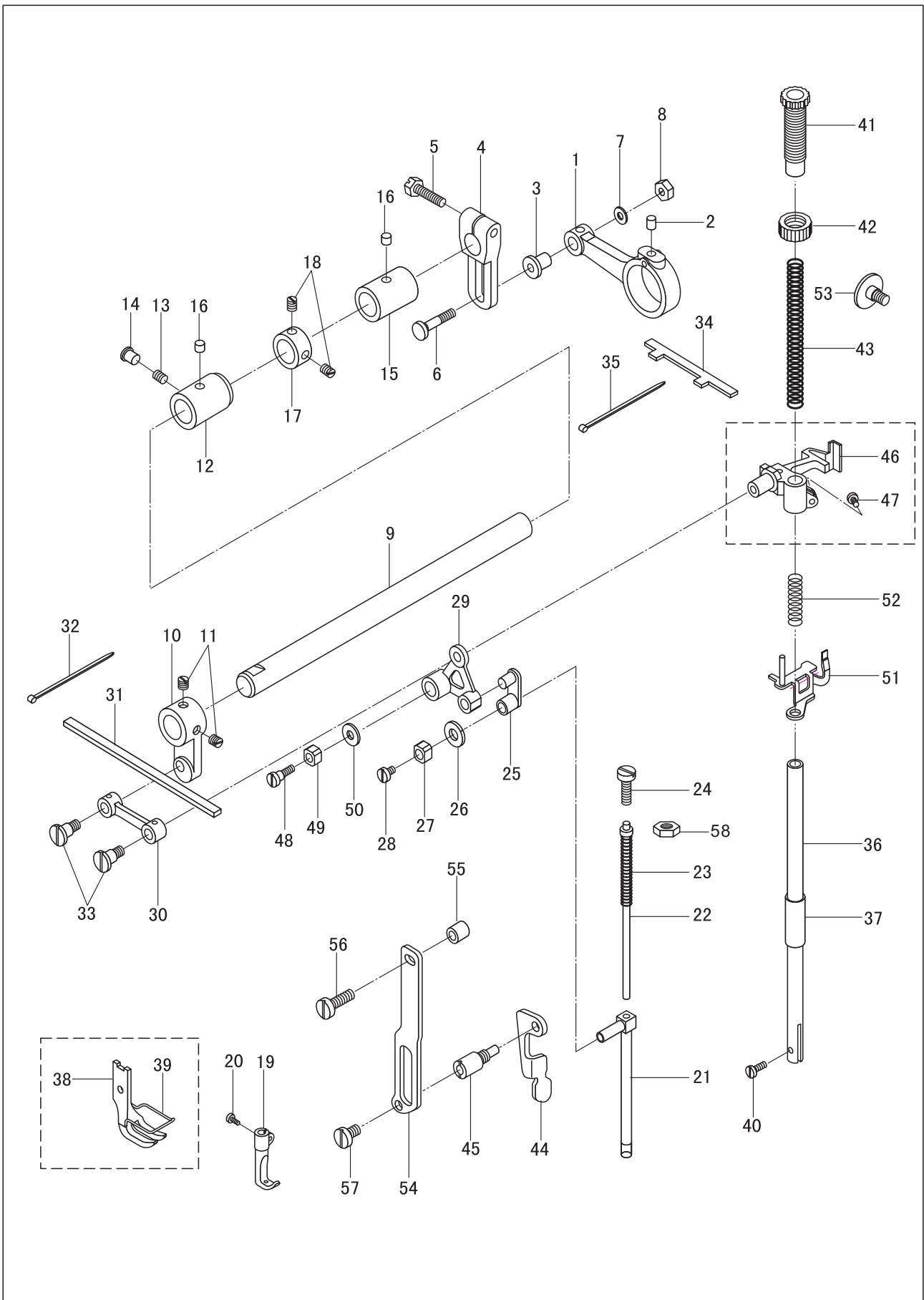
3. Needle bar rocking frame mechanism



3. Needle bar rocking frame mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
1	92WF3-008	Needle bar rocking frame	1		
2	92WF3-009	Pin	1		
3	92WF3-007	Oil felt	1		
4	199WF3-001	Oil wick	1		Φ2 × 160
5	42WF3-007	Screw	1		
6	92WF3-003	Leaf spring	1		
7	50WF1-001	Needle bar	1		
8	50WF1-003	Needle bar joint	1		
9	17WF3-008	Screw	2		
10	199WF3-002	Oil wick	1		Φ6 × 20
11	92WF1-003	Needle bar thread guide	1		
12	22T2-017	Screw	1		
13		Needle	1		DP × 17 23#
14	50WF3-030	Guide rail	1		
15	1WF1-011	Screw	2		
16	92WF3-011	Position plate (2)	1		
17	1WF5-010	Screw	2		
18	92WF3-010	Position plate (1)	1		
19	21WF1-054	Screw	2		
20	92WF3-002A	Crank	1		
21	92WF3-070	Screw	2		
22	92WF3-001	Rocking shaft	1		
23	92WF3-004	Slide block	1		
24	92WF3-002B	Pin	1		
25	92WF3-005	Bushing , L	1		
26	92WF3-006	Bushing, R	1		
27	248WF3-005	Crank	1		
28	52WF1-050	Screw	1		
29	92WF3-013	Oil felt	1		
30	2KT7-001A	Band	2		
31	92WF3-007	Oil felt	1		

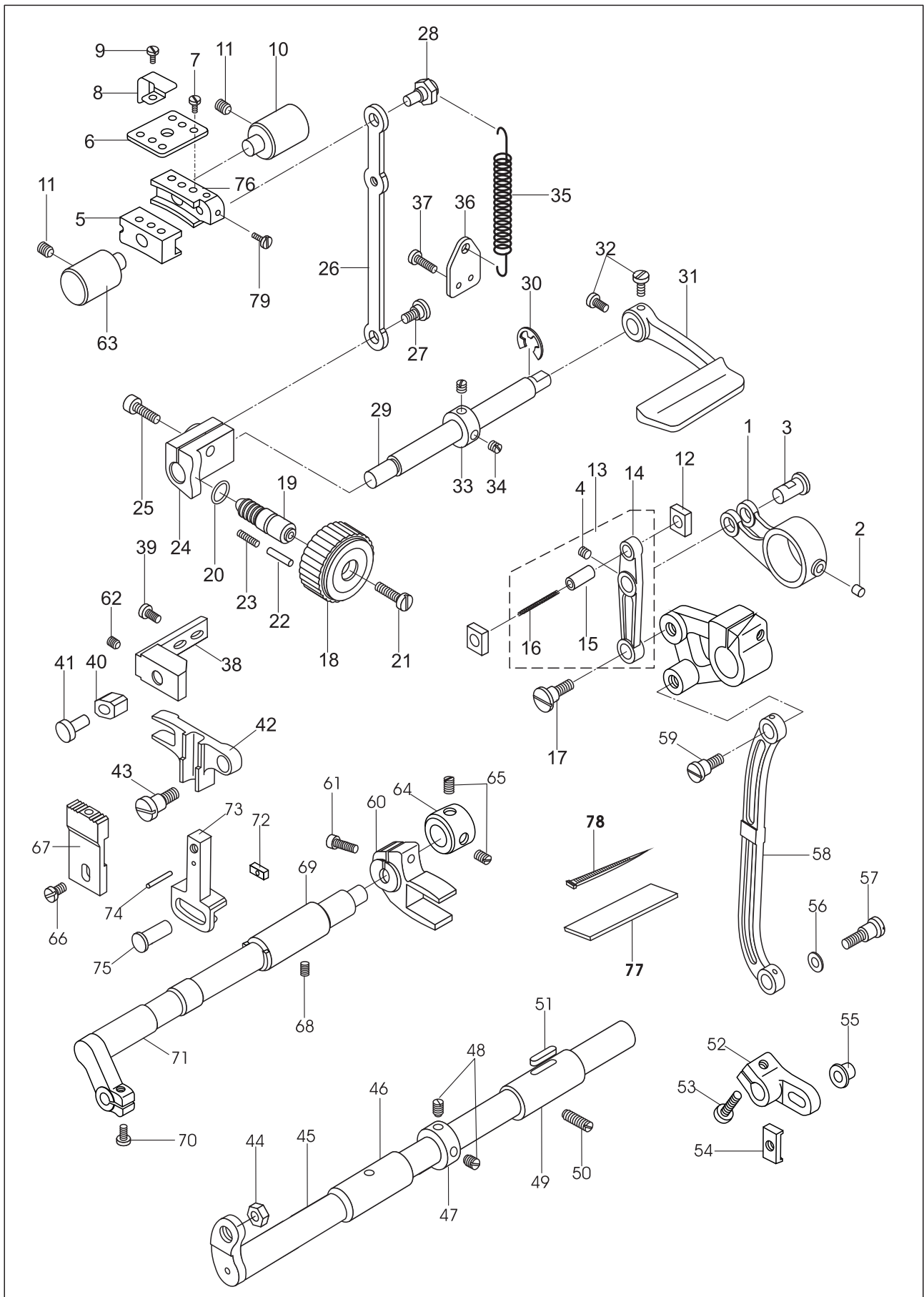
4. Upper feed mechanism (GC2263-1)



4. Upper feed mechanism (GC2263-1)

No.	Part Number	Name	Qt.	Remark
1	92WF3-015	Link	1	
2	92WF3-007	Oil felt	1	
3	50WF3-037	Link pin	1	
4	92WF3-016	Crank	1	
5	92WF3-017	Screw	1	GB5781-86 M6×22
6	50WF3-040	Screw	1	SM11/64"×40
7	50WF3-041	Washer	1	
8	50WF3-042	Nut	1	SM11/64"×40
9	92WF3-018	Upper feed shaft	1	
10	92WF3-019	Crank	1	
11	2KT5-027	Screw	2	SM1/4"×40
12	199WF4-001	Bush (L)	1	
13	1WF5-019	Screw	1	SM15/64"×28
14	92WF2-029	Rubber plug	1	
15	92WF3-021	Bush (R)	1	
16		Oil felt	2	φ6×10
17	92WF3-022	Collar	1	
18	22T3-002B2	Screw	2	SM1/4"×40
19	92WF3-023	Walking foot	1	
20	50WF3-020	Screw	1	SM11/64"×40
21	199WF4-003	Walking foot bar	1	
22	92WF3-024	Guide bar assy.	1	
23	50WF3-032	Spring	1	
24	60WF4-003	Screw	1	SM15/64"×28
25	50WF3-027	Link	1	
26	50WF3-028	Oil felt	1	
27	50WF3-029	Slide block	1	
28	20T4-006	Screw	1	SM11/64"×40
29	92WF3-025	Swing plate	1	
30	92WF3-026	Link	1	
31	92WF3-027	Oil felt	1	
32	2KT7-001a	Band	2	
33	92WF3-028	Screw	2	
34	92WF3-069	Oil felt	1	
35	2KT7-001a	Band	1	
36	22WF3-005	Presser bar	1	
37	50WF4-001	Bush	1	
38	92WF4-001	Presser foot	1	
39	92WF4-002	Finger guard	1	
40	22WF3-014	Screw	1	SM9/64"×40
41	92WF4-003	Adjusting screw	1	SM1/2"×28
42	1KT4-002	Nut	1	SM1/2"×28
43	92WF4-023	Presser bar spring	1	
44	92WF4-004	Lifting bar	1	
45	92WF4-005	Lifting bar shaft	1	
46	92WF4-006	Bracket	1	
47	1WF1-011	Screw	1	SM11/64"×40
48	92WF4-007	Screw	1	
49	50WF3-029	Slide block	1	
50	92WF4-008	Washer	1	
51	92WF4-009	Release plate	1	
52	50WF4-013	Spring	1	
53	50WF4-014	Screw	1	SM1/4"×28
54	92WF4-010	Plate	1	
55	92WF4-011	Washer	1	
56	60WF4-003	Screw	1	SM15/64"×28
57	52WF3-027	Screw	1	SM15/64"×28
58	36WF5-008	Nut	1	

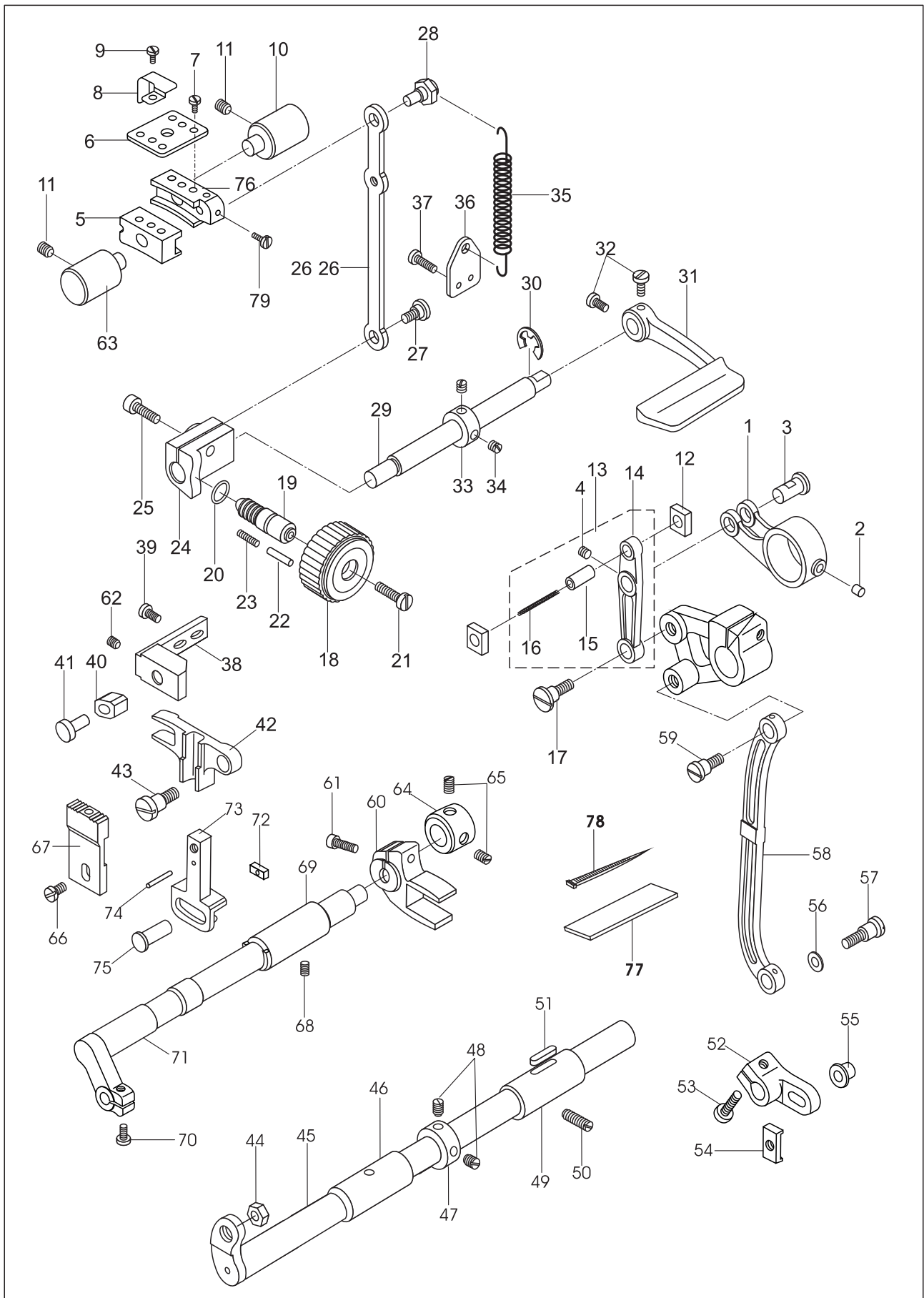
5. Lower feed and reverse feed regulating mechanism



5. Lower feed and reverse feed regulating mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
1	92WF3-031	Feed link	1		
2	92WF3-032	Oil felt	1		
3	92WF3-033	Pin	1		
4	6K2-043	Screw	1		M5
5	238WF3-002	Reverse feed bracket(L)	1		
6	238WF3-005	Retaining plate	1		
7	1WF1-011	Screw	4		
8	238WF3-007	Presser plate	1		
9	33T3-006	Screw	1		
10	92WF3-074	Shaft(Long)	1		
11	17WF4-016	Screw	2		
12	238WF3-004	Slide block	2		
13	92WF3-039	Feed rocking bar assy.	1		
14	92WF3-039A	Feed rocking bar	1		
15	92WF3-039B	Pin	1		
16	199WF3-003	Oil wick	1		Φ1.5×35
17	92WF3-040	Screw	1		
18	291WF5-006	Stitch regulating dial	1		
19	92WF3-042	Screw bar	1		
20	92WF3-043	Seal ring	1		
21	92WF3-044	Screw	1		
22	92WF3-072	Stop pin	1		
23	50WF3-058	Spring	1		
24	291WF5-007	Holder	1		
25	6K2-024	Screw	1		M6
26	92WF3-046	Link	1		
27	92WF3-047	Screw	1		
28	92WF3-048	Eccentric pin	1		
29	92WF3-049	Reverse feed lever shaft	1		
30	92WF3-071	Retaining ring	1		GB896 9
31	92WF3-050	Reverse feed lever	1		
32	92WF3-051	Screw	2		
33	92WF3-052	Collar	1		
34	22T3-002B2	Screw	2		
35	92WF3-053	Spring	1		
36	92WF3-054	Spring hook	1		
37	1WF3-009	Screw	2		
38	291WF5-003	Positioning plate	1		
39	42WF2-008	Screw	2		

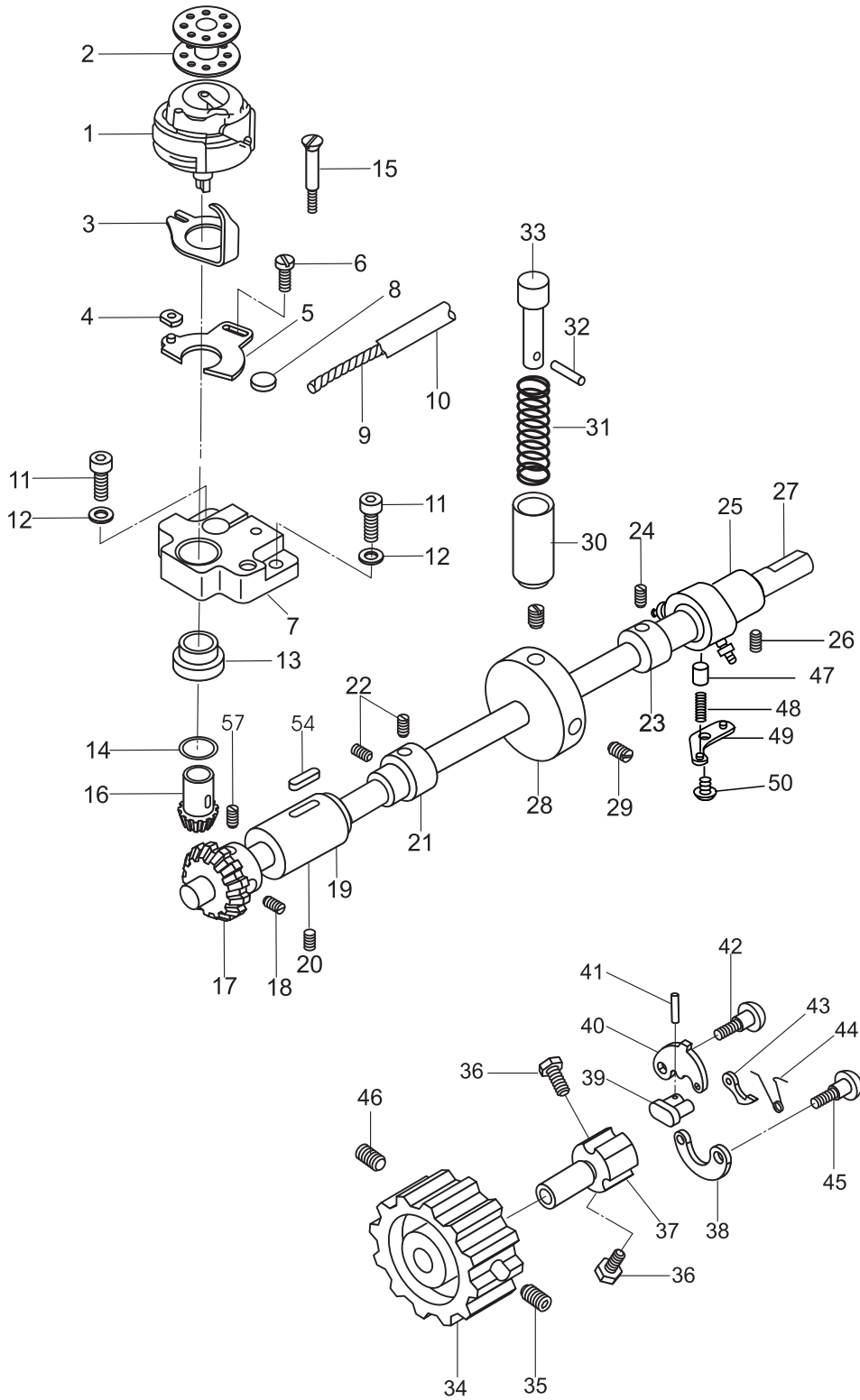
5. Lower feed and reverse feed regulating mechanism



5. Lower feed and reverse feed regulating mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
40	291WF5-002	Slide block	1		
41	291WF5-004	Pin	1		
42	248WF5-015	Guide	1		
43	50WF3-083	Screw	1		
44	50WF3-083	Nut	1		
45	248WF5-016	Feed shaft	1		
46	50WF3-075	Bush, L	1		
47	50WF3-079	Feed shaft collar	1		
48	22T2-005B5	Screw	2		
49	248WF5-017	Bush, R	1		
50	50WF3-017	Screw	1		
51	50WF3-077	Oil felt	1		
52	248WF5-018	Crank	1		
53	41WF3-018	Screw	1		
54	248WF5-019	Plate	1		
55	248WF5-023	Bush	1		
56	42WF1-009	Washer	1		
57	50WF3-010	Screw	1		
58	92WF3-058	Link	1		
59	248WF5-024	Screw	1		
60	291WF5-005	Feed dog lifting fork	1		
61	72WF5-021	Screw	1		
62	365WF5-021	Screw	1		
63	248WF5-020	Shaft	1		
64	248WF5-008	Collar	1		
65	80WF6-036	Screw	2		
66	36WF4-017	Screw	1		
67	106WF3-002	Feed dog	1		
	291WF5-008	Feed dog	—		
68	41WF3-005	Screw	1		
69	248WF5-006	Bush	1		
70	22T6-001A1B	Screw	1		
71	248WF5-005	Lifting shaft	1		
72	291WF5-001	Slide block	1		
73	248WF5-002	Feed dog carrier	1		
74		Pin	1		
75	248WF5-003	Shaft	1		
76	238WF3-003	Reverse feed bracket(R)	1		
77	92WF3-071	Stopper	1		
78	36T5-011	Spring	1		
79	36WF3-029B	Screw	1		
80	50WF3-013	Screw	1		

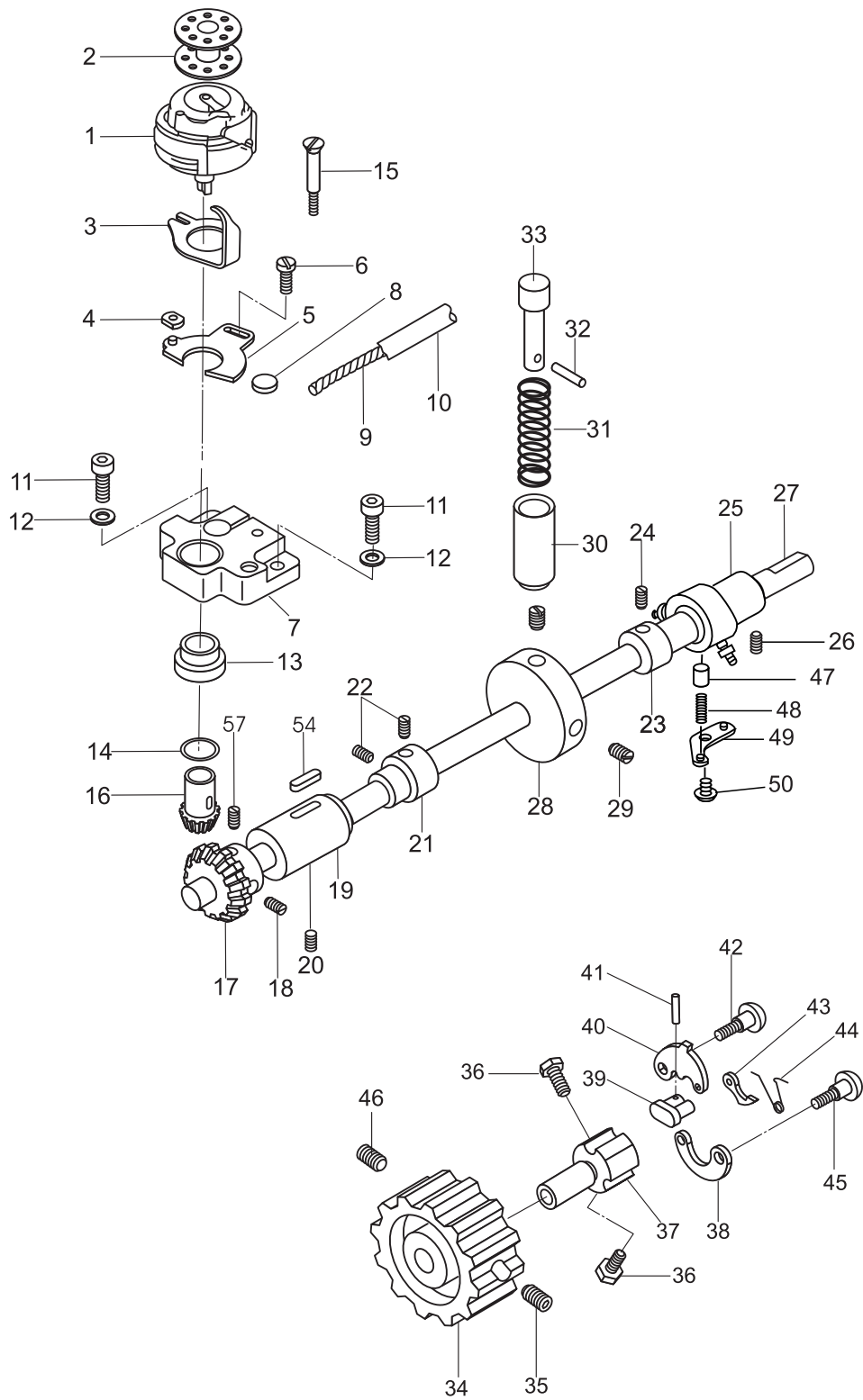
6. Lower shaft mechanism



6. Lower shaft mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
1	SKRT341-NR	Hook	1		
	248WF6-012	Hook	-		
2	33T1-027	Bobbin	1		
	994539	Bobbin	-		
3	50WF1-047	Bobbin thread opener	1		
	248WF6-002	Bobbin thread opener	-		
4	50WF1-048	Slide block	1		
	453WF2-002	Slide block	-		
5	50WF1-049	Adjust plate	1		
	248WF6-001	Adjust plate	-		
6	16WF2-017	Screw	1		
7	106WF1-001	Hook saddle	1		
	453WF2-003	Hook saddle	-		
8		Oil felt	1		φ 10X4
9		Oil wick	1		
10		Oil pipe	1		φ 3 L=60
11	93WF1-026	Screw	2		
		Screw	-		GB/T70.1 M5×10
12		Washer	2		GB/T95 5
13	50WF1-045	Bush	1		
	248WF6-006	Bush	-		
14	50WF1-044	Washer	1		
15	50WF1-046	Screw	1		
16	50WF1-043	Hook gear	1		
	248WF6-005	Hook gear	-		
17	50WF1-040	Gear, lower shaft	1		
	248WF6-007	Gear, lower shaft	-		
18	50WF1-041	Screw	3		
19	50WF1-036	Bush, lower shaft	1		
20	18WF3-022	Screw	1		
21	291WF6-001	Feed dog lifting cam	1		
22	21WF3-010	Screw	2		
23	291WF6-003	Collar	1		
24	2KT5-036B	Screw	2		
25	291WF6-002	Bush, lower shaft	1		
26	6K1-008	Screw	1		
27	248WF6-010	Lower shaft	1		
28	50WF1-012	Stop wheel	1		
29	J0.0.40	Screw	2		
30	50WF1-053	Bush	1		
31	16WF3-046	Spring	1		
32		Pin	1		GB/T879.1 2x10
33	50WF1-051	Button	1		

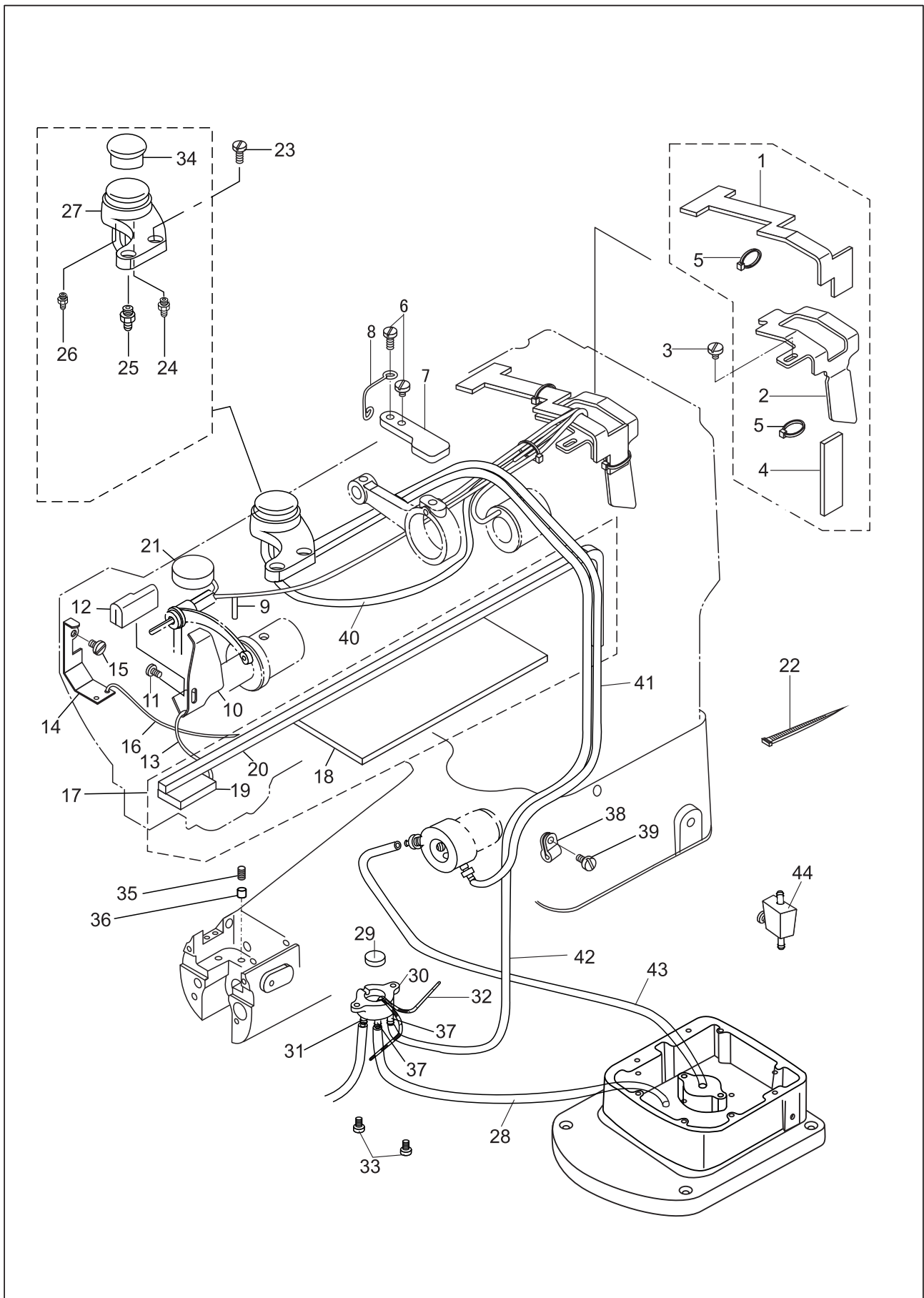
6. Lower shaft mechanism



6. Lower shaft mechanism

No.	Part Number	Name	Qt.		Remark
			2263-1		
34	110WF1-017	Synchronized pulley assy.	1		
35	22WF1-020	Screw	2		
36	199WF1-054	Screw	2		
37	199WF1-053	Bush	1		
38	22WF1-013	Spring plate	1		
39	22WF1-017	Link	1		
40	22WF1-018	Plate	1		
41		Pin	1		GB/T91 1.2X8
42	22WF1-019	Screw bar	1		
43	22WF1-016	Stopper	1		
44	22WF1-014	Spring	1		
45	22WF1-015	Eccentric pin	1		
46	6KT5-028	Screw	1		
47	1WF6-025	Plunger	1		
48	1WF6-024	Spring	1		
49	1WF6-023	Retaining plate	1		
50	1WF6-026	Screw	1		

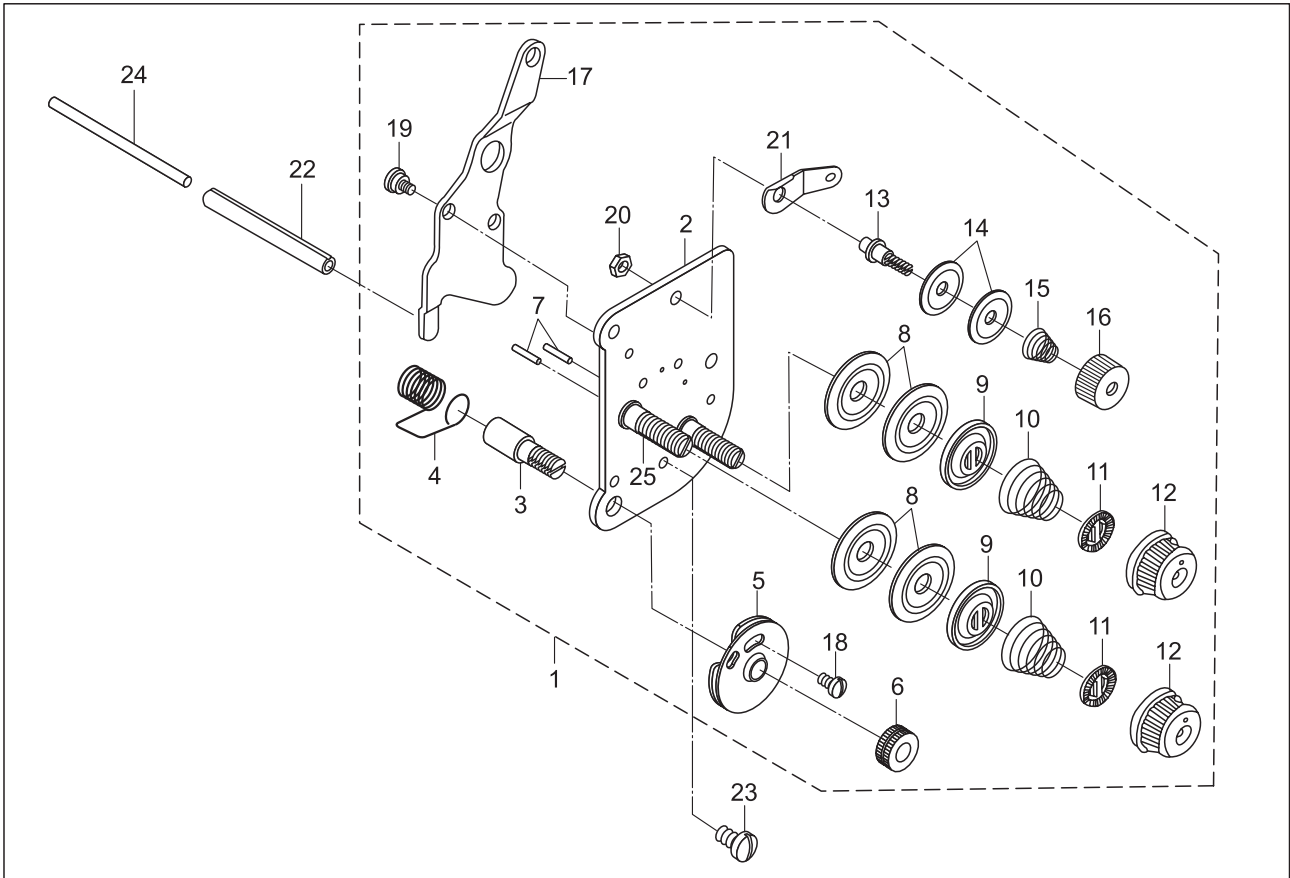
7. Lubrication mechanism



7.Lubrication mechanism

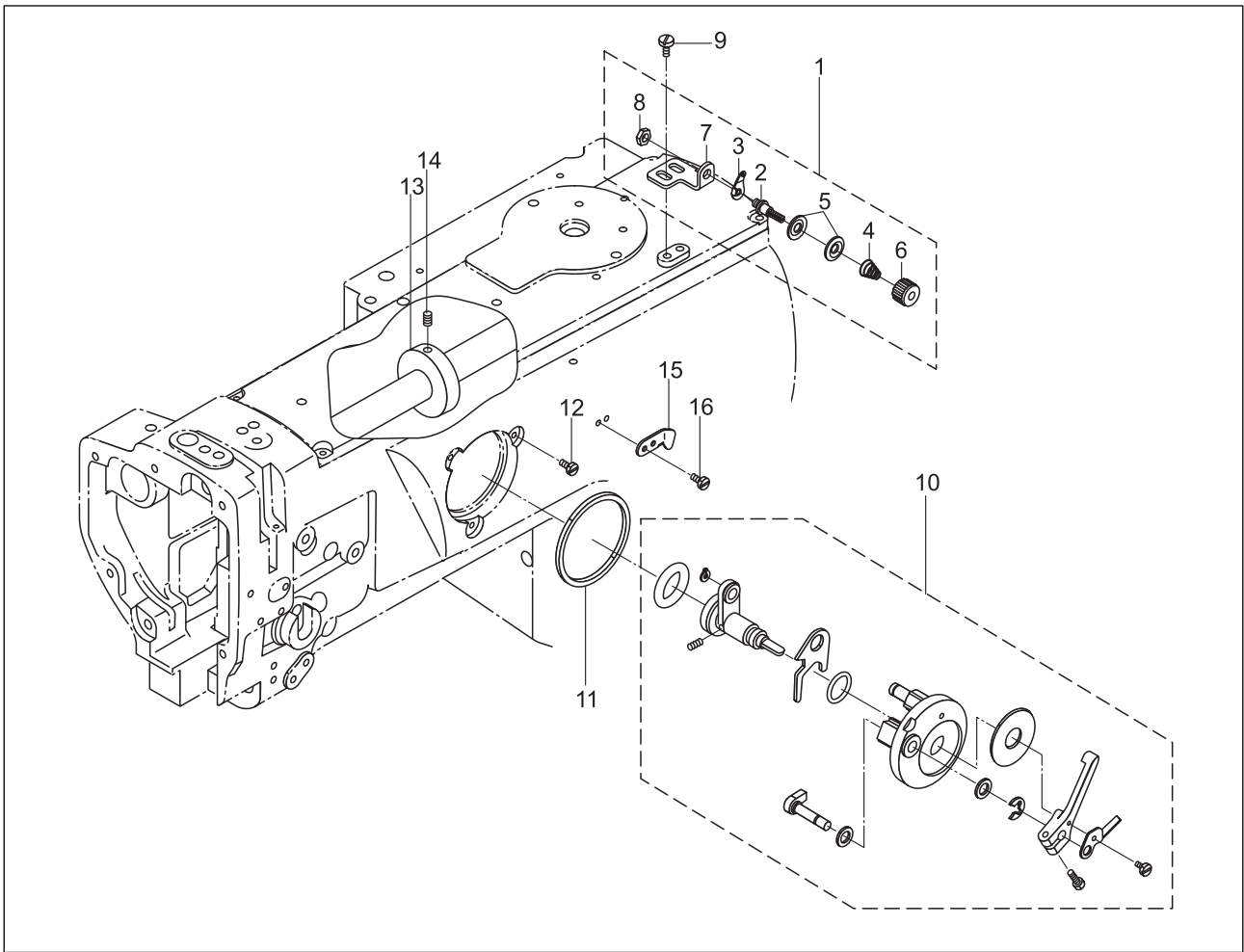
No.	Part Number	Name	Qt.		Remark
			2263-1		
1	92WF5-001	Oil felt	1		
2	92WF5-002	Bracket	1		
3	1WF1-011	Screw	1		
4	92WF5-003	Oil felt	1		
5	2KT7-001A	Band	2		
6	1WF1-011	Screw	2		
7	92WF5-004	Plate	1		
8	92WF5-005	Fixed hook	1		
9	92WF5-010	Oil felt	1		
10	92WF5-011	Oil shield	1		
11	16WF1-059	Screw	1		
12	92WF5-012	Oil felt	1		
13		Oil wick	1		Φ2 × 250
14	92WF5-013	Oil shield	1		
15	36WF1-031D	Screw	1		
16		Oil wick	1		Φ2 × 250
17	92WF5-014	Oil felt assy.	1		
18	92WF5-014A	Felt	1		
19	92WF5-014B	Felt	1		
20	92WF5-014C	Oil wick	1		
21	92WF5-009	Felt	1		
22	2KT7-001A	Band	1		
23	1WF1-011	Screw	2		
24	199WF1-048	Nozzle	1		
25	199WF6-002	Nozzle	1		
26	199WF6-021	Nozzle	1		
27	199WF6-001B	Oil box assy.	1		
28		Oil tube	1		φ 3X φ 5X100
29	248WF10-002	Oil felt	1		
30	291WF10-001	Oil box	1		
31	291WF6-006	Nozzle	1		
32		Oil wick	2		Φ2 × 160
33	13WF2-047	Screw	2		L=9.5
34	199WF6-001A	Oil window	1		
35	36WF5-021	Screw	1		
36	16KT4-014	Washer	1		
37	22T4-007C2	Nozzle	2		
38	1WF6-031	Clamp	1		
39	17WF1-020	Screw	1		
40		Oil tube	1		φ 3X φ 5X180
41		Oil tube	1		φ 3X φ 5X450
42		Oil tube	1		φ 3X φ 5X520
43		Oil tube	1		φ 3X φ 5X150
44	291WF8-001	Oil amount adjusting assy.	1		
			1		

8. Thread tension components



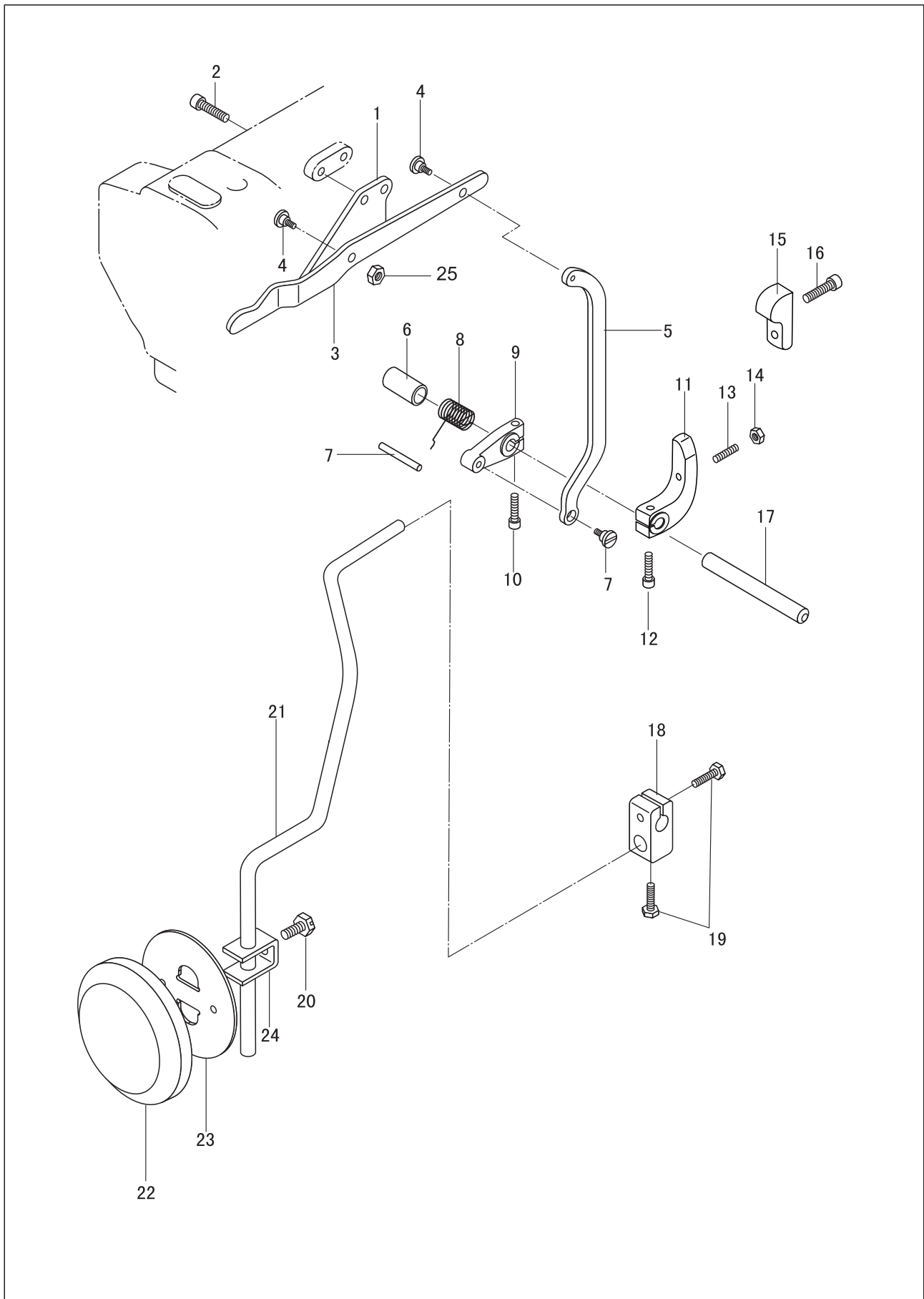
No.	Part Number	Name	Qt.		Remark
			2263-1		
1	119WF2-005	Thread tension assy.	1		
2	119WF2-005A	Setting plate	1		
3	92WF2-018C	Thread take-up spring pin	1		
4	92WF2-018B	Thread take-up spring	1		
5	16WF2-046A8	Thread control plate	1		
6	16WF2-046A11	Thumb nut	1		
7	21WF4-024	Tension release pin	1		
8	22T1-012F5	Tension disc	2		
9	22T1-012F4	Tension release disc	2		
10	21WF4-031	Thread tension spring	1		
11	153209	Retainer	1		
12	21WF4-030	Nut	1		
13	92WF2-021A1	Bolt	1		
14	50WF2-035A4	Tension disc	2		
15	50WF2-035A3	Spring	1		
16	50WF2-035A5	Thumb nut	1		
17	119WF2-005B	Plate	1		
18	16WF2-046A9	Screw	1		
19	16WF2-046A15	Screw	2		
20	13WF2-052	Nut	1		
21	50WF2-035A2	Thread guide	1		
22	92WF2-039	Pin	1		
23	1WF1-011	Screw	1		
24	92WF2-020	Tension release bar	1		
25	21WF4-020	Bolt	1		

9. Bobbin winder components



No.	Part Number	Name	Qt.		Remark
			2263-1		
1	258WF1-007	Bobbin thread tension assy.	1		
2	92WF2-021A	Screw shaft	1		
3	50WF2-035A2	Thread guide	1		
4	50WF2-035A3	Spring	1		
5	50WF2-035A4	Tension disc	2		
6	50WF2-035A5	Thumb nut	1		
7	92WF2-021B	Setting plate	1		
8	2KT5-026	Nut	1		
9	13WF2-040	Screw	2		
10	92WF2-025	Thread winder assy.	1		
11	92WF2-026	Seal ring	1		
12	92WF2-027	Screw	3		
13	92WF2-035	Friction wheel	1		
14	6K2-043	Screw	2		
15	92WF2-036	Cutter	1		
16	36WF2-031	Screw	2		

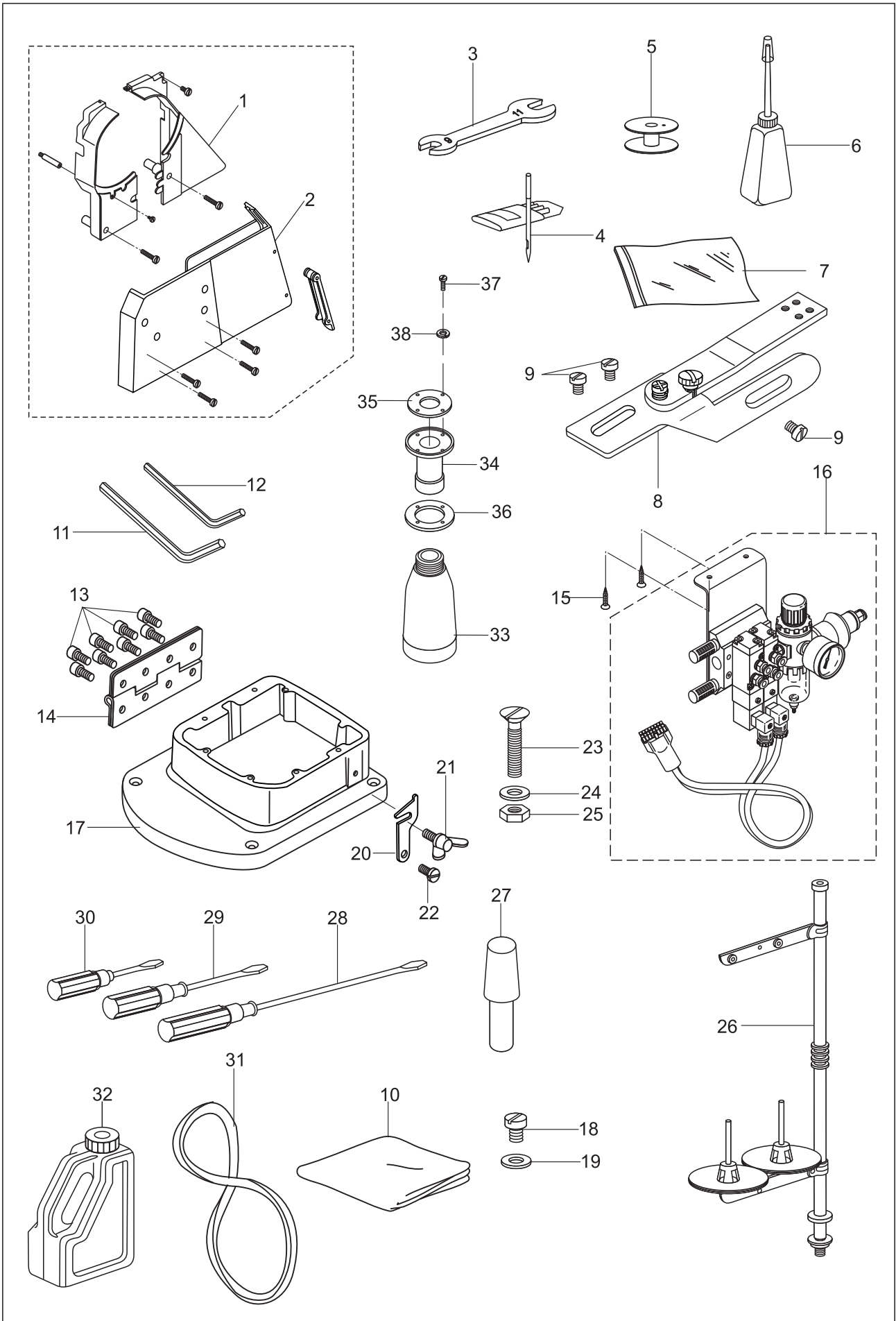
10. Knee lifter components (GC2263-1)



10. Knee lifter components (GC2263-1)

No.	Part Number	Name	Qt.	Remark
1	248WF9-002	Knee lifter lever bracket	1	
2	72WF2-009	Screw	2	
3	248WF9-001	Knee lifter lever	1	
4	92WF4-014	Screw	1	
5	248WF9-003	Link	1	
6	248WF9-004	Bush	1	GB/T879.1 4X20
7		Pin	1	
8	248WF9-005	Spring	1	
9	92WF4-017	Crank	1	
10	80WF6-025	Screw	1	
11	248WF9-006	Crank	1	
12	80WF6-025	Screw	1	
13	199WF5-008	Screw	1	
14	72WF5-022	Nut	1	
15	248WF9-007	Positioning block	1	
16	6K2-030	Screw	2	
17	248WF9-008	Shaft	1	
18	22T9-003B3	Connector	1	
19		Screw	1	
20	22T9-003B7	Screw	2	
21	248WF9-009	Knee lifter bar	1	
22	22T9-003B8	Knee lifter pad	1	
23	22T9-003B5	Knee lifter plate	1	
24	22T9-003B6	Knee lifter bracket	1	
25	50WF3-024	Nut	1	

15. Accessories



15. Accessories

No.	Part Number	Name	Qt.		Remark
			2263-1		
1	92WF6-013	Belt cover (U)	1		
2	248WF11-005	Belt cover (L)	1		
3	92WF6-028	Wrench(two head)	1		9X10
4		Needle	4		DPX17 23#
5	33T1-027	Bobbin	3		
	994539	Bobbin	-		
6	33TF-011	Small oil pot	1		
7	33TF-010	Accessories bag	1		170X200
8	291WF9-001/002	Binding plate assy.	1		
9	7KT1-042	Screw	3		
10	13F-002	Machine head cover	1		500X700
11		Wrench	1		S=3
12		Wrench	1		S=2.5
13		Screw	8		GB/T70.1 M8x16
14	248WF11-007	Hinge	1		
15	GB100 3X16	Screw	-		
16	93WF22-	Integrator assy.	-		
17	248WF11-008	Base	1		
18	22T9-001A2	Screw	1		
19	22T9-001A3	Washer	1		
20	50WF2-010	Connecting hook	1		
21	50WF2-012	Swing-screw	1		
22	50WF2-011	Screw	1		
23	50WF5-010	Screw	4		
24		Washer	4		GB/T5287 6
25		Nut	4		GB/T41 M6
26	14F0-00	Thread stand assy.	1		
27	14KT7-008	Supporting pole	1		
28	33TF-012	Screwdriver (B)	1		
29	33TF-013	Screwdriver (M)	1		
30	33TF-014	Screwdriver(S)	1		
31		V-belt	1		M55
32	1F-012	Big oil pot	1		
33	92WF6-027	Waste oil pot	1		
34	92WF6-018	Oil bolt	1		
35	92WF6-019	Seal	1		
36	92WF6-020	Spacer	1		
37		Screw	4		GB/T845 ST2.9x19
38	92WF6-023	Washer	4		GB848-85 M3