



4210SW

INDUSTRIAL SEWING MACHINE

INSTRUCTION MANUAL

CONTENT

Operation Instructions

1. Brief introduction.....	1
2. Main specifications.....	1
3. Installation.....	1
4. Installing the oil box.....	2
5. Adjusting the tension of the belt.....	2
6. Installing the belt cover.....	2
7. Lubrication.....	3
8. Installing the needle.....	3
9. Installing the bobbin case.....	4
10. Installing the winding guider.....	4
11. Winding the bobbin thread.....	4
12. Threading	5
13. Adjusting the stitch length.....	5
14. Adjusting the thread tension.....	5
15. Adjusting the thread take-up spring.....	6
16. Presser foot lifter.....	6
17. Adjusting the pressure of the presser foot.....	6
18. Relationship between needle and rotating hook.....	6
19. Adjusting the alternating amount of presser foot.....	7
20. Sewing speed list.....	7
21. Troubleshooting.....	7

Parts Manual

1. Arm and bed.....	8 - 9
2. Upper shaft and thread take-up mechanism.....	10-11
3. Needle bar vibrating parts.....	12-13
4. Upper feed parts.....	14-15
5. Feed mechanism.....	16-17
6. Lower shaft mechanism.....	18-19
7. Thread tension and bobbin thread winder parts.....	20-21
8. Knee lifter mechanism.....	22-23
9. Lubrication.....	24-25
10. Accessories.....	26-27

1. Brief introduction

Machine adopts compound feed and special feeding mechanism, which can ensure smooth feeding, low noise, and beautiful stitch seam. It is constructed with slide link thread take-up, horizontal large rotating hook, and synchronized belt driving system, which ensures high speed, but lower noise.

This machine is suitable for sewing the heavy materials of car seat, sofa, tarpaulins, tents, bag, etc.

3. Installation (Fig.1)

1. Installation of the table connecting hook bracket and rubber cushion.

Fix the connecting hook bracket ① and the rubber cushion ② on the table by screw ③.

2. Installing the oil reservoir.

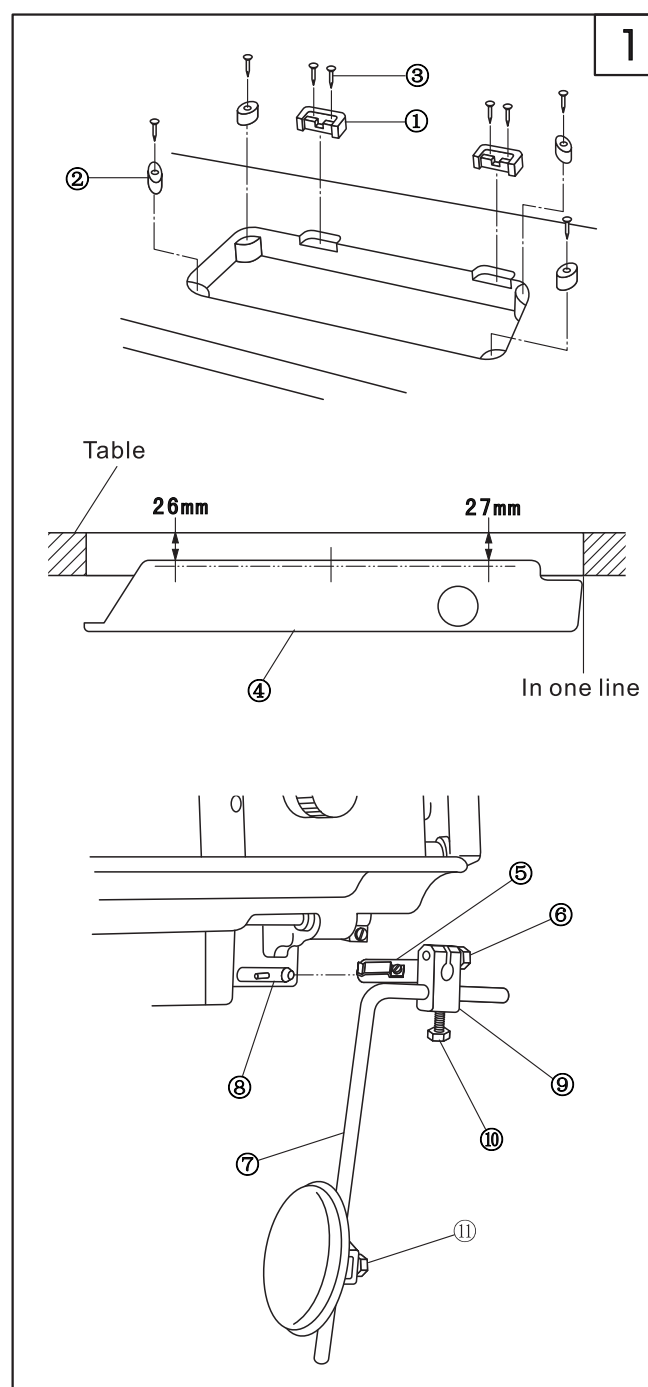
Set the oil reservoir ④ onto the table by six screws as shown in the Fig.1.

3. Install the knee control connector ⑤, knee control lift crank ⑨ and bent bar ⑦ according to the direction of the knee control lift bar shaft ⑧.

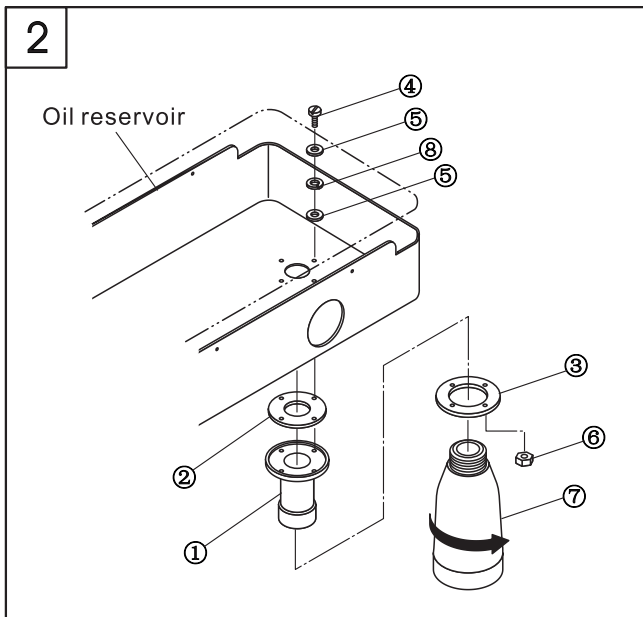
4. Adjust the direction of part ⑥, ⑩, ⑪ by set screw.

2. Main specifications

Application	Medium and heavy duty
Max. sewing speed	2000 s.p.m
Max. stitch length	9mm
Needle bar stroke	36mm
Needle	DP*17 (Nm125-Nm180) standard Nm160 (23#)
Lubrication	Semi-lubrication
Hook	Large hook
Height of presser foot lift	9mm by hand, 16mm by knee
Motor	550W Servo motor



2

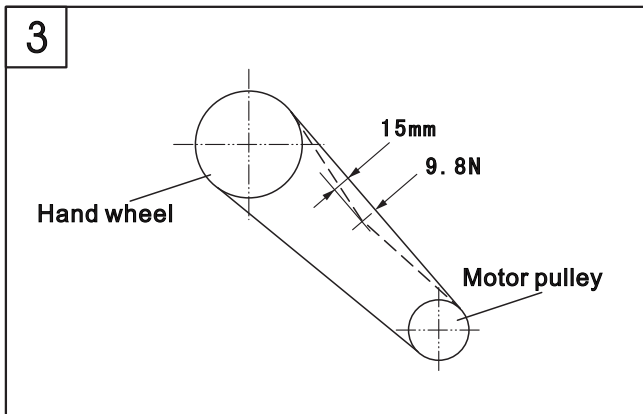


4. Installing the oil pot (Fig. 2)

1. Install the bolt ①, oil seal ② and spacer ③ onto the oil reservoir, and then put the cushion ⑤ and spacer ⑧ into the set screw ④, then set it by nut ⑥.

2. Tighten the oil pot ⑦ onto the bolt ①.

3

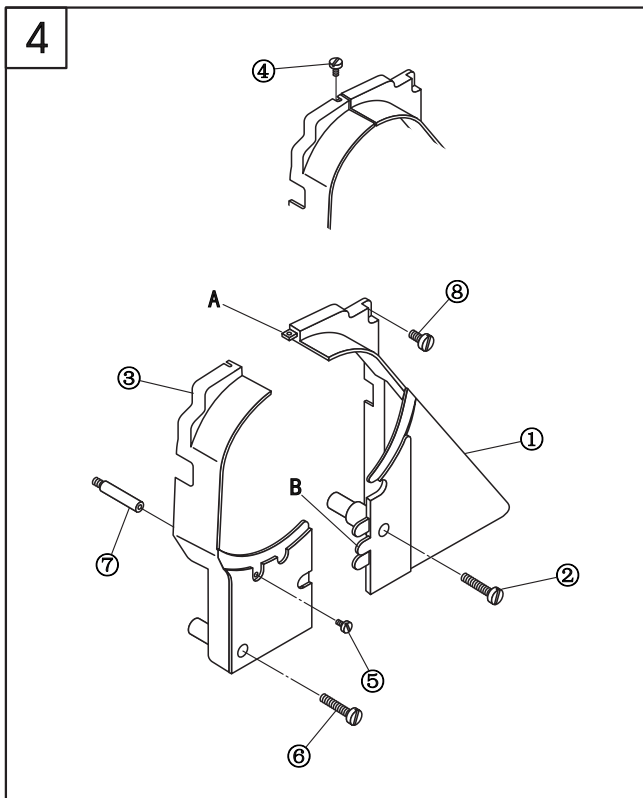


5. Adjusting the tension of the belt (Fig.3)

When adjusting the tension of the belt, please adjust the height of the motor, and press down the middle of the belt with the force of 9.8N. There should be a slack of 15mm.

Note: Please turn off the motor before adjustment.

4



6. Installing the belt cover (Fig.4)

1. Tighten the column ⑦ into the screw hole on the machine head.

2. Install the belt cover (right) ① on the machine head by set screw ② and ⑧.

3. Connect the belt cover (left) ③ to the claw AB of the belt cover (right) ①.

4. Tighten the belt cover (left) ③ by set screws ④, ⑤ and ⑥.

Note: After installing the belt cover, make sure that the belt cover is not touch with the belt and hand wheel.

7. Lubrication (Fig.5)

1.Face plate lubrication

- Loosen the face plate screw;
- Open the face plate ① in the direction of the arrow;
- Lubricate the place as the arrow shows every day;
- Close the face plate;
- Tighten the screw.

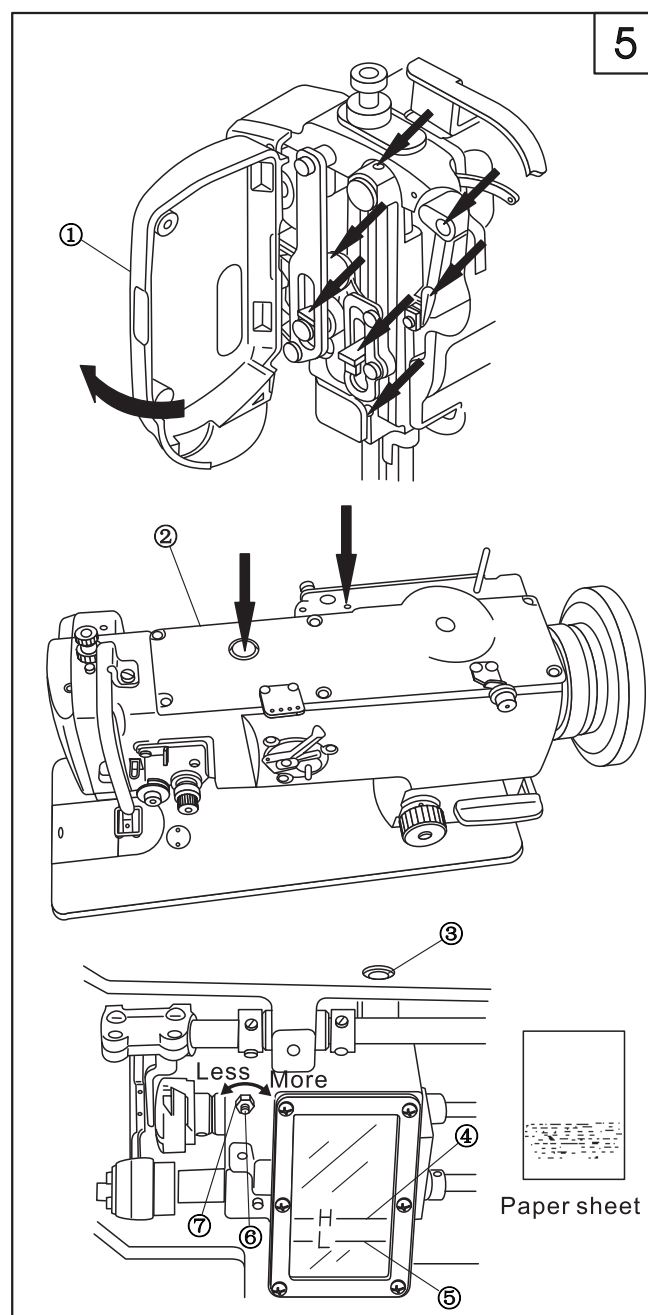
2.Machine body lubrication

- Lubricate the place as the arrows indicate every day;
- When run the machine for the first time or run it again after a long period of non-use, please oil the place as the arrows indicate. Besides, take down the top cover ②, then oil each felt and oil wick.

3.Rotating hook lubrication

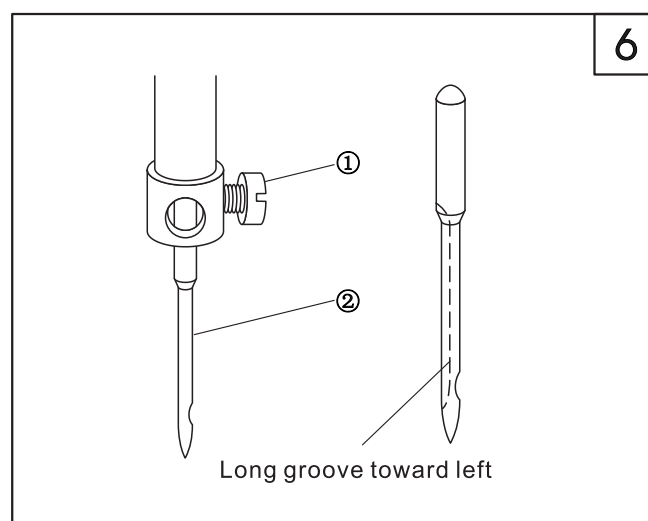
- Add the oil from oil hole ③ until it reaches the red line ④. Check it one time a day. If the oil is under the red line ⑤, it should be refilled.
- When adjusting the oil amount of the rotating hook, loosen the nut ⑦, and then adjust it by adjusting screw ⑥. Turn it rightward, the amount of the oil can be increased; on the contrary, the amount can be reduced.

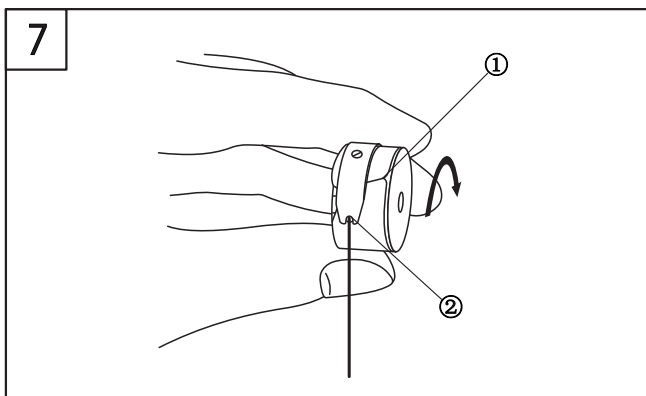
Note: Excess lubrication results in leaking.



8. Installing the needle (Fig.6)

- Turn the balance wheel to raise the needle bar to its highest position;
- Loosen the set screw ② and make the long groove of the needle ① toward leftward;
- Insert the needle into the bottom of the needle bar;
- Tighten the set screw ②.

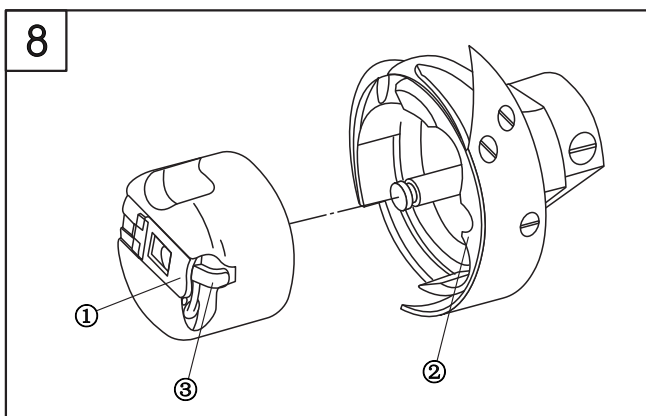




9. Threading the bobbin thread (Fig.7)

1.Insert the bobbin into the hook body, pass the thread through the thread hole ①, then pass down through the thread tension spring ②.

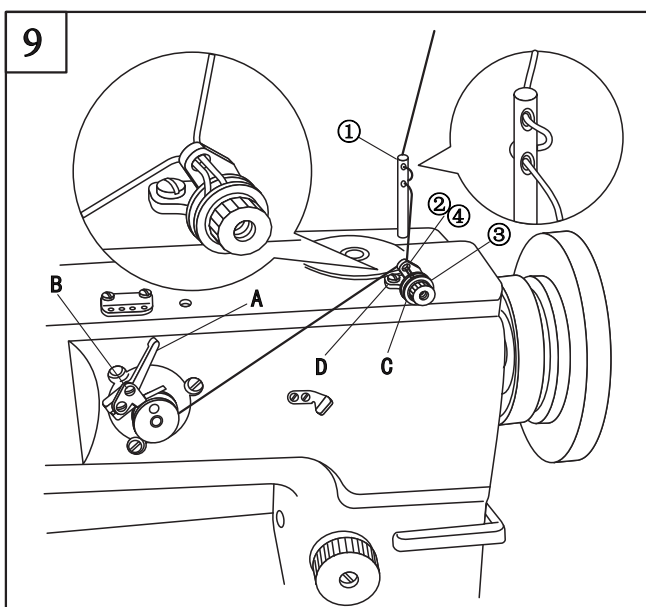
2.Draw the thread downward, then the bobbin will turn in the direction as the figure shows.



10. Installing the bobbin case (Fig. 8)

1.When taking out the bobbin case, open the gib ① and pull it off.

2.Align the bobbin case with the rotating hook shaft and then insert it. Align the inside of the rotating hook ② and the latch ③, then install the bobbin case by pressing it until "crack" occurs.



11. Winding the bobbin thread (Fig.9)

1.Thread in numerical order from ① to ④, then wind the bobbin winder.

2.Press down the bar A.

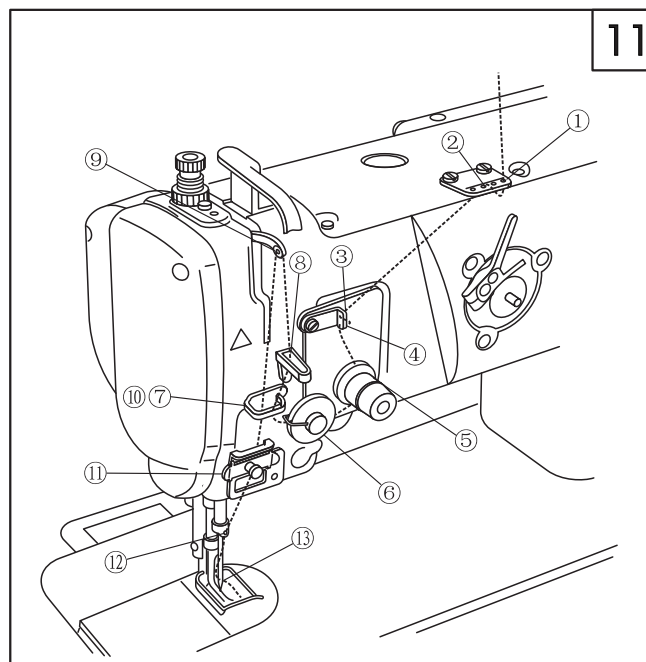
3.Loosen the set screw B and adjust the adjusting plate until the winding amount reaches the 80% of the outside diameter.

4.When the winding is not smooth, move the winding guider C forward and backward, then set it by set screw D.

5. After winding, the winding bar A will separate and stop automatically.

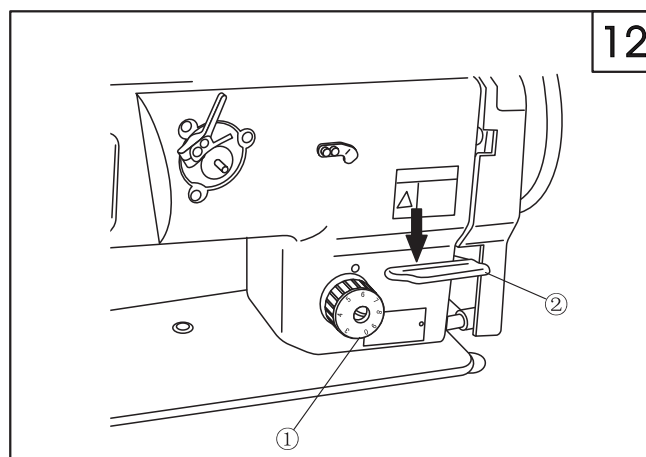
12. Threading (Fig11)

Thread in the order as shown in Fig.



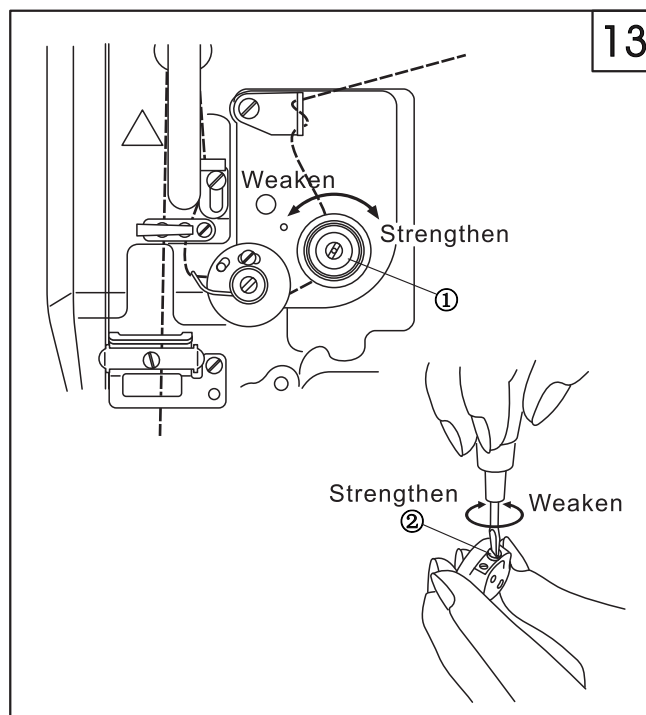
13. Adjusting the stitch length (Fig.12)

Turn the stitch length dial plate ① leftward and rightward to make the marker align with the required figure. Press down the reverse feed lever ② to start backward sewing, and release it to start normal sewing.

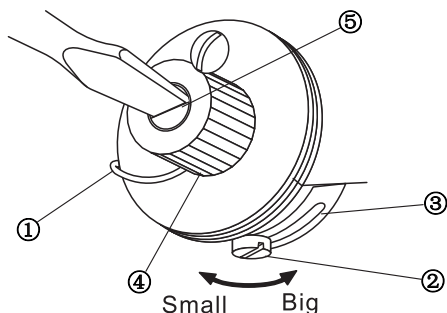


14. Adjusting the thread tension (Fig.13)

1. Adjusting the tension of the needle thread
Turn the nut ① clockwise to increase the tension of the needle thread; on the contrary, to reduce the tension of the needle thread.
2. Adjusting the tension of the bobbin thread.
Turn the screw ② clockwise to increase the tension of the bobbin thread, on the contrary, to reduce the tension of the bobbin thread.



14



15. Adjusting the thread take-up spring (Fig.14)

1. Changing the swing range of the thread take-up spring

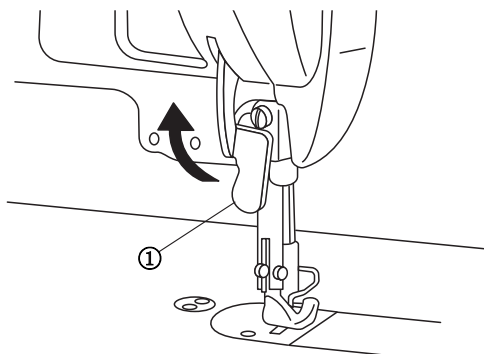
a. Loosen the set screw (2), move the stopper (3) leftward and rightward, then adjust the thread take-up spring (1).

b. Move the stopper rightward to increase the swing range of the thread take-up spring; on the contrary, to reduce the swing range of the thread take-up spring.

2. Changing the tension of the thread take-up spring

Loosen the nut (4), turn the spring shaft (5) counter-clockwise to increase the tension; turn it clockwise to reduce the tension.

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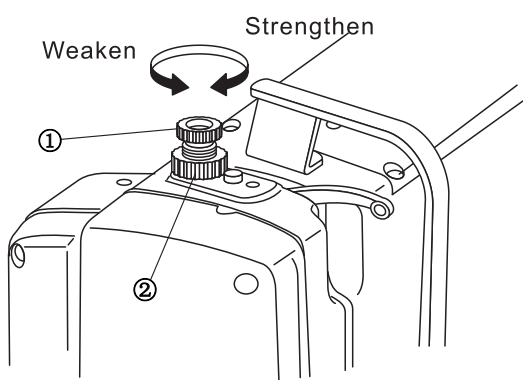


16. Presser foot lifter (Fig.15)

1. Stop the presser foot when it is lifted, lift the lifting bar (1) in the direction of the arrow. When the presser foot is lifted by 9mm, then stop it.

2. When lowering the presser foot, put down the lifting bar (1) to make the presser foot back to its original place.

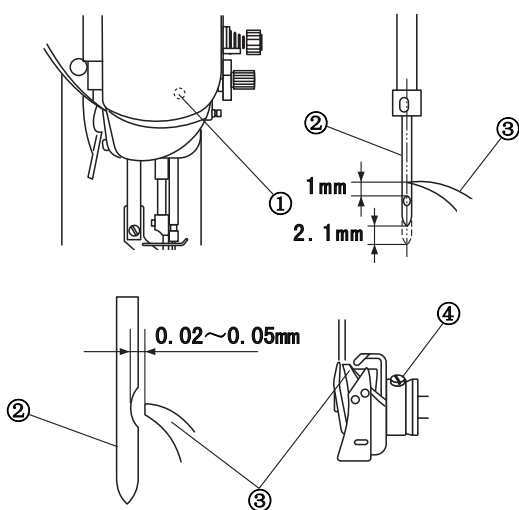
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17. Adjusting the pressure of the presser foot (Fig.16)

Turn the adjusting screw (1) rightward to increase the pressure; turn it leftward to reduce the pressure. After adjustment, tighten the set nut (2).

17



18. Relationship between needle and rotating hook (Fig.17)

1. Adjust the stitch length dial to 0.

2. Turn the balance wheel to lift the needle bar from its lowest position by 2.1mm. Loosen the screw (1), adjust the distance between up end of the eye of needle (2) and rotating hook point (3) to 1mm, then tighten it.

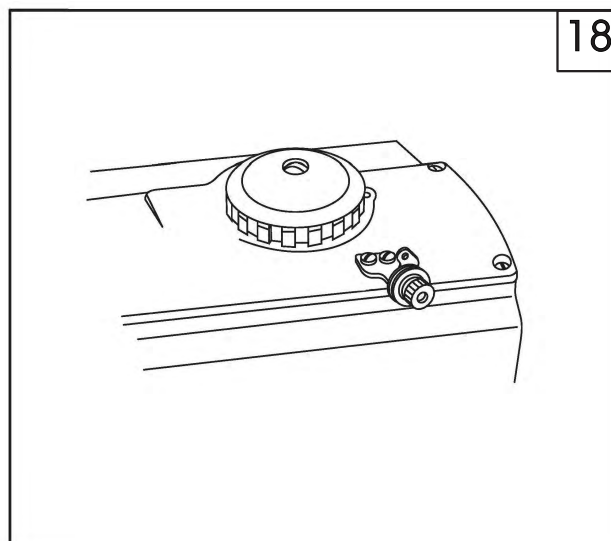
3. Turn the balance wheel to lift the needle bar from its lowest position by 2.1mm. Loosen the two set screws (4), turn the rotating hook, align the rotating hook point (3) with the center of the needle (2), then tighten the two screws (4).

4. Loosen the two set screws (4), move the rotating hook leftward and rightward. Align the rotating hook point (3) and the center of the needle (2), and adjust the clearance between rotating hook point and needle to 0.02-0.05mm, then tighten the screw.

19. Adjusting the alternating amount of presser foot (Fig.18)

Adjust the height of the presser foot for different thicknesses of work.

1. Turn the dial to the left to lower the presser foot.
2. Turn the dial to the right to raise the presser foot.



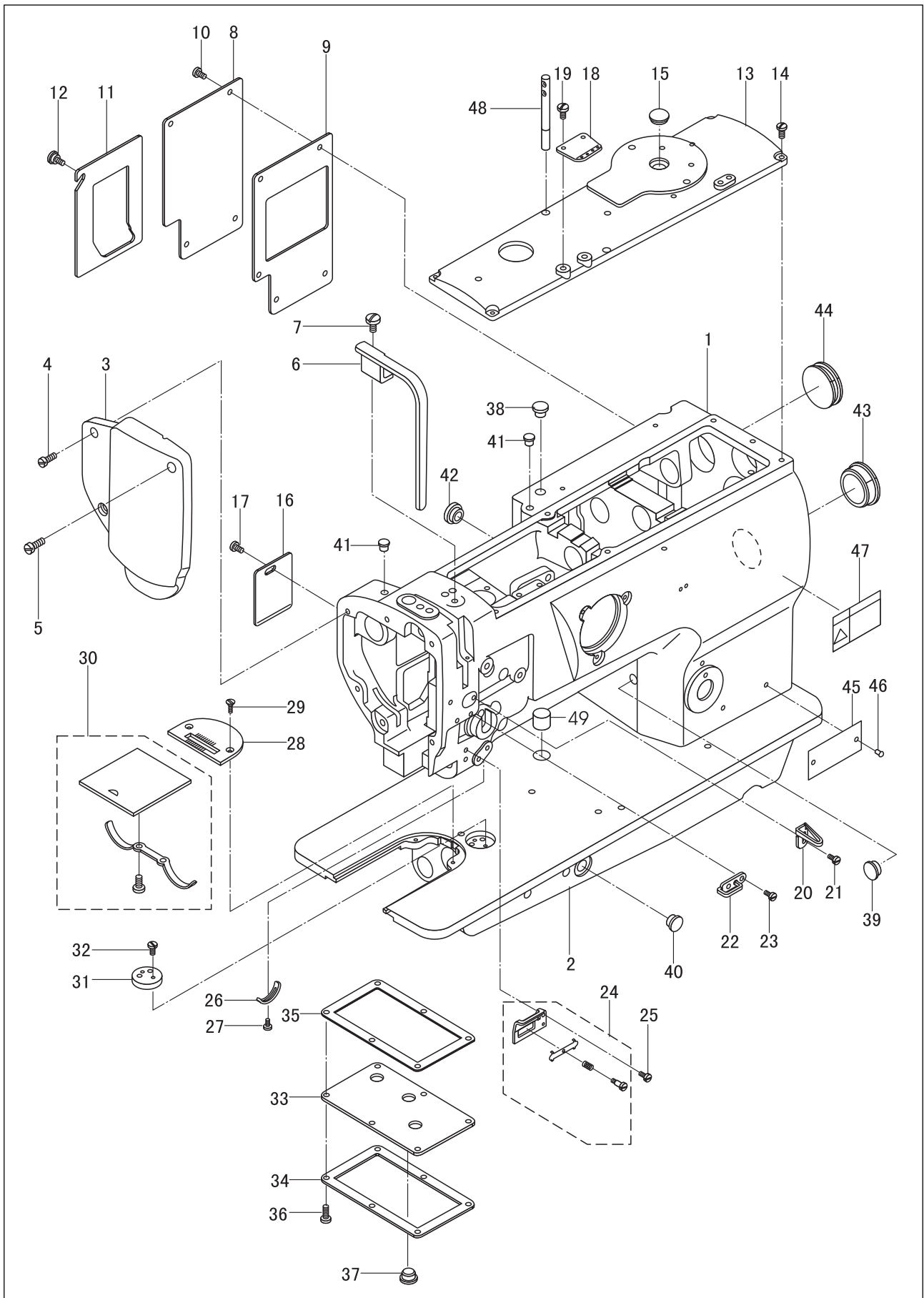
20. Sewing speed list

Altenating amount	Stitch less than 6mm	Stitch length between 6mm-9mm
Less than 3mm	2500s.p.m	2000s.p.m
Between 3~4mm	2000s.p.m	2000s.p.m
Between 4~6.5mm	1600s.p.m	1600s.p.m

21. Troubleshooting

Trouble	Possible cause	Remedy
1. Thread breaking (2-3mm thread left on the cloth)	<ol style="list-style-type: none">1. Damage on the rotating hook set groove of thread way, needle point, rotating hook point and needle plate.2. Too strong the needle thread tension3. Collision between needle and rotating hook.4. Too little the oil of the rotating hook5. Too weak the needle thread tension.6. Too strong the tension of the thread take-up spring7. Over fast or slow the timing between needle and rotating hook	<ol style="list-style-type: none">1. Polish the damaged part with sand paper; rasp the middle rotating hook set groove with file.2. Weaken the needle thread tension.3. Refer to (19.Relationship between needle and rotating hook.)4. Adjust the oil amount (Refer to 7. Lubrication)5. Increase the needle thread tension.6. Weaken the tension of the thread take-up spring.7. Refer to (19. Relationship between needle and rotating hook)
2. Puckering	<ol style="list-style-type: none">1. Over fast or slow the timing between needle and rotating hook.2. Too weak the pressure of the presser foot.3. The clearance between the up end of the needle and the rotating hook is not right.4. Wrong needle.	<ol style="list-style-type: none">1. Refer to (19. Relationship between needle and rotating hook).2. Tighten the pressr foot adjusting screw.3. Refer to (19.Relationship between needle and rotating hook.)4. Replace the needle.
3. Loose stitch	<ol style="list-style-type: none">1. Without threading the bobbin thread under the spring of the thread tension of the rotating hook body.2. Bad work on thread way.3. No movement of bobbin.4. Too weak the bobbin thread tension.5. Too strong the bobbin thread tension.6. Damage of the needle point.	<ol style="list-style-type: none">1. Refer to (9.Threading the bobbin thread)2. Rast with sand paper or file.3. Replace the bobbin or rotating hook4. Increase the bobbin thread tension.5. Reduce the bobbin thread tension.6. Replace the needle.

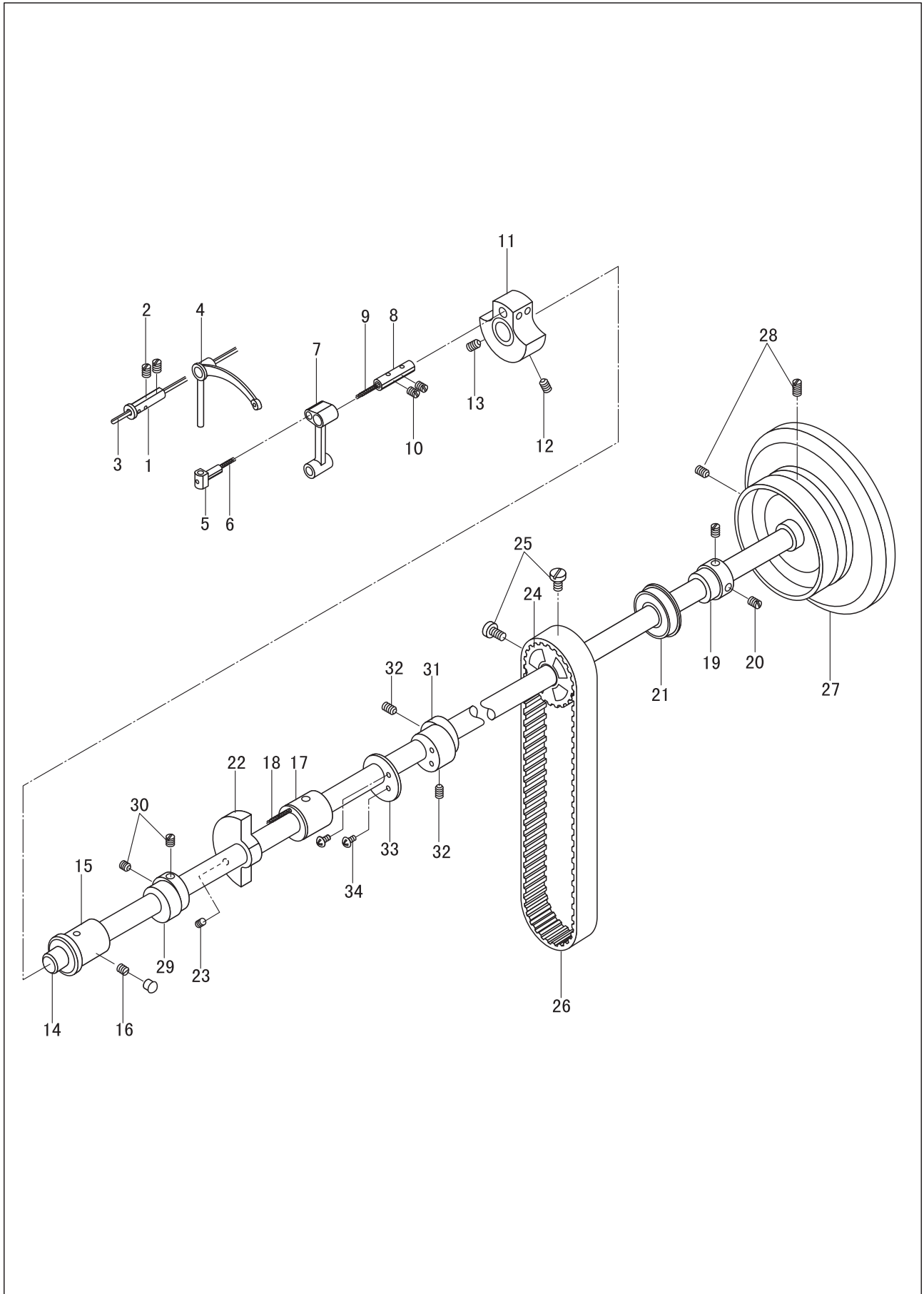
1. Arm and bed



1. Arm and bed

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF2-001	Arm	1	1	
2	110WF2-003	Bed	1	1	
3	92WF2-003	Face plate assembly	1	1	
4	1WF5-039	Screw (1)	2	2	SM11/64"×40
5	37T2-210	Screw (2)	1	1	SM15/64"×28
6	92WF2-004	Safety guard	1	1	
7	13WF2-045	Screw	1	1	SM15/64"×28
8	92WF2-005	Side cover (1)	1	1	
9	92WF2-006	Seal spacer	1	1	
10	1WF1-011	Screw	5	5	SM11/64"×40
11	92WF2-007	Side cover (2)	1	1	
12	92WF2-008	Screw	1	1	SM11/64×40
13	92WF2-009	Upper cover	1	1	
14	1WF1-011	Screw	6	6	SM11/64"×40
15	17WF1-009	Rubber plug	1	1	
16	92WF2-011	Small cover	1	1	
17	1WF1-011	Screw	1	1	SM11/64"×40
18	92WF2-012	Upper thread guide plate	1	1	
19	21WF1-062	Screw	2	2	SM3/16"×32
20	92WF2-013	Upper thread guide	1	1	
21	36WF1-016	Screw	1	1	SM9/64"×40
22	92WF2-014	Middle thread guide	1	1	
23	1WF1-007	Screw	2	2	SM9/64"×40
24	92WF2-015	Lower thread guide assembly	1	1	
25	1WF1-007	Screw	1	1	SM9/64"×40
26	50WF2-022	Position plate	1	1	
27	1WF1-026	Screw	1	1	SM9/64"×40
28	92WF2-016	Needle plate	1	1	
29	36WF3-004	Screw	2	2	SM11/64"×40
30	008035C	Slide plate assembly	1	1	
31	92WF2-017	Clamp holder	1	1	
32	36T5-008E5	Screw	2	2	SM11/64"×40
33	92WF2-022	Oil screen	1	1	
34	92WF2-023	Presser plate	1	1	
35	92WF2-024	Seal spacer	1	1	
36	22T6-008D3	Screw	6	6	SM11/64×40
37	92WF2-028	Rubber plug	3	3	
38	92WF2-028	Rubber plug	1	1	
39	92WF2-028	Rubber plug	1	1	
40	92WF2-028	Rubber plug	1	1	
41	92WF2-029	Rubber plug	2	2	
42	92WF2-030	Rubber plug	1	1	
43	92WF2-031	Rubber plug	1	1	
44	92WF2-032	Rubber plug	1	1	
45	92WF2-034	Model label	1	/	
	110WF2-034	Model label	/	1	
46		Rivet	2	2	GB827 2×5
47	7WF4-019A	Safety caution label	1	1	
48	92WF2-037	Upper thread guide bar	1	1	
49	92WF2-038	plug	1	/	

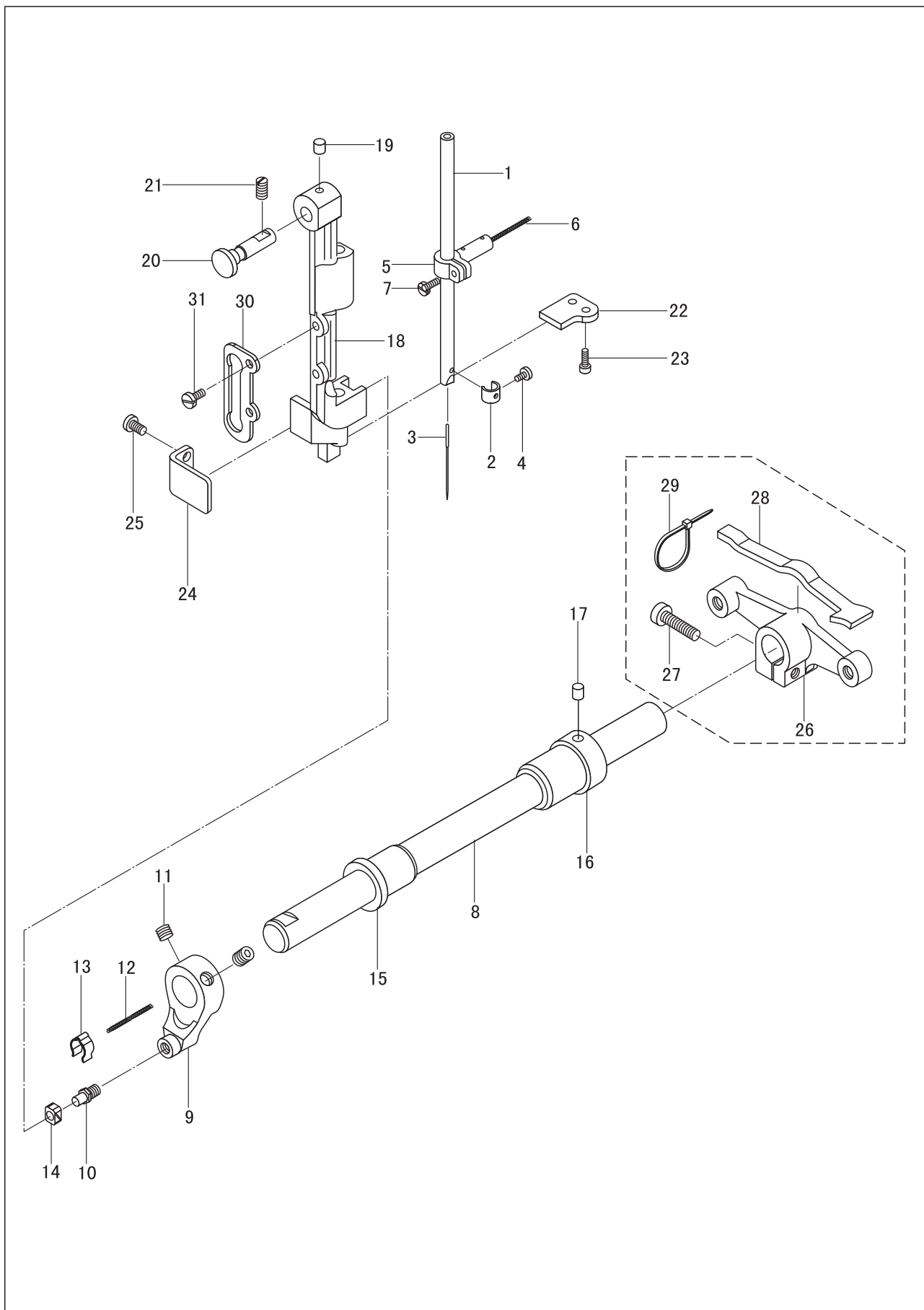
2. Upper shaft and thread take-up mechanism



2. Upper shaft and thread take-up mechanism

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	16WF1-010	Thread take-up lever pin shaft	1	1	103530
2	1WF5-019	Screw	2	2	SM15/64"×28
3		Oil wick	1	1	φ2.5×155
4	92WF1-004	Thread take-up lever	1	1	
5	92WF1-005	Slide block	1	1	
6		Oil wick	1	1	
7	92WF1-006	Needle bar link	1	1	
8	50WF1-008	Needle bar crank pin	1	1	
9		Oil wick	1	1	
10	1WF5-019	Screw	2	2	SM15/64"×28
11	92WF1-007	Needle bar crank	1	1	
12	20T2-007	Screw	1	1	SM9/32"×28
13	50WF1-013	Screw	1	1	SM9/32"×28
14	92WF1-008	Upper shaft	1	1	
15	92WF1-009	Upper shaft front bushing	1	1	
16	1WF5-019	Screw	1	1	SM15/64"×28
17	92WF1-010	Upper shaft middle bushing	1	1	
18		Oil wick	1	1	φ2×120
19	92WF1-011	Bearing bushing	1	1	
20	57WF-009	Screw	2	2	M6
21	36WF3-019A	Upper bearing	1	1	6005-2ZNR
22	92WF1-012	Balance block	1	1	
23	50WF1-004	Screw	2	2	SM15/64"×28
24	92WF1-013	Synchronized pulley assembly	1	1	
25	92WF1-014	Screw	2	2	SM1/4"×40
26	92WF1-034	Synchronized belt	1	1	540-8YU-15
27	92WF1-015	Hand wheel	1	1	
28	1WF5-019	Screw	2	2	SM15/64"×28
29	92WF3-014	Lift eccentric cam	1	1	
30	1WF2-010	Screw	2	2	SM1/4"×40
31	92WF3-029	Feed eccentric cam	1	1	
32	1WF2-010	Screw	2	2	SM1/4"×40
33	92WF3-030	Retaining block	1	1	
34	7WF5-017	Screw	2	2	SM11/64"×40

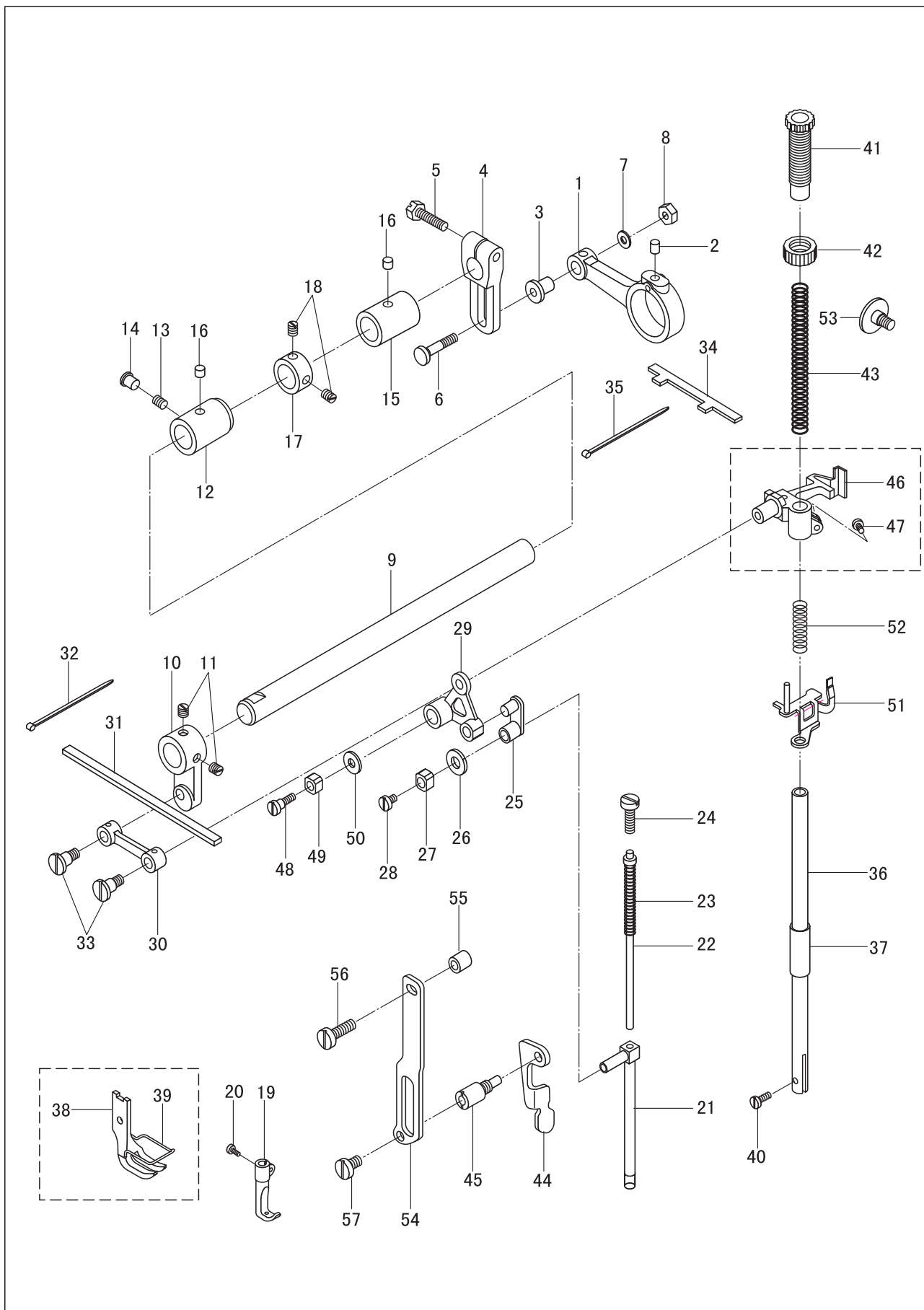
3. Needle bar vibrating parts



3. Needle bar vibrating parts

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	50WF1-001	Needle bar	1	1	
2	92WF1-003	Needle bar thread guide	1	1	
3	92WF1-032	Needle	1	1	
4	22T2-017	Screw	1	1	DP×17
5	50WF1-003	Needle bar adapter	1	1	SM1/8"×44
6		Oil wick	1	1	
7	22WF3-014	Screw	1	1	
8	92WF3-001	Vibrating shaft	1	1	SM9/64"×40
9	92WF3-002A	Crank	1	1	
10	92WF3-002B	Crank pin	1	1	
11	92WF3-070	Screw	2	2	
12		Oil felt	1	1	GB/T80 M8×8
13	92WF3-003	Spring	1	1	Φ1.5 20
14	92WF3-004	Slide block	1	1	
15	92WF3-005	Vibrating shaft front bushing	1	1	
16	92WF3-006	Vibrating shaft rear bushing	1	1	
17	92WF3-007	Oil felt	1	1	
18	92WF3-008	Needle bar vibrating bracket	1	1	
19	92WF3-007	Oil felt	1	1	
20	92WF3-009	Hinge shaft	1	1	
21	1WF2-019	Screw	1	1	
22	92WF3-010	Position plate (1)	1	1	SM15/64"×28
23	21WF1-054	Screw	2	2	
24	92WF3-011	Position plate (2)	1	1	SM9/64"×40
25	1WF1-011	Screw	2	2	
26	92WF3-012	Driven crank	1	1	SM11/64"×40
27	52WF1-050	Screw	1	1	
28	92WF3-013	Oil felt	1	1	SM15/64"×28
29	2KT-001a	Wire	2	2	
30	50WF3-030	Guide rail	1	1	
31	1WF1-011	Screw	2	2	SM11/64"×40

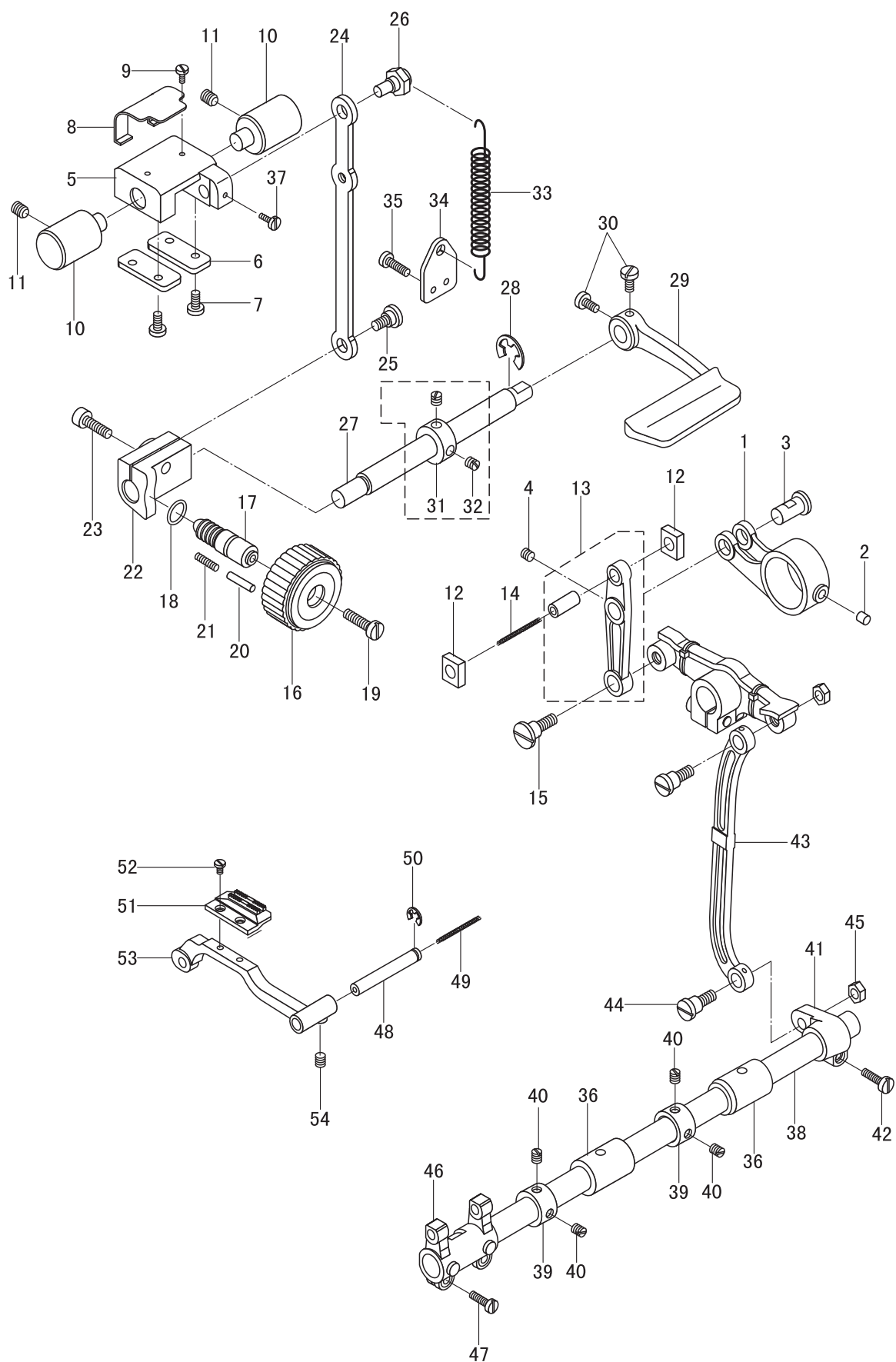
4. Upper feed parts



4. Upper feed parts

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF3-015	Connecting bar	1	1	
2	92WF3-007	Oil felt	1	1	
3	50WF3-037	Connecting pin	1	1	
4	92WF3-016	Adjusting crank	1	1	
5	92WF3-017	Screw	1	1	GB5781-86 M6×22
6	50WF3-040	Screw	1	1	SM11/64"×40
7	50WF3-041	Washer	1	1	
8	50WF3-042	Nut	1	1	SM11/64"×40
9	92WF3-018	Upper feed shaft	1	1	
10	92WF3-019	Upper feed crank	1	1	
11	2KT5-027	Screw	2	2	SM1/4"×40
12	92WF3-020	Upper feed shaft bushing(left)	1	1	
13	1WF5-019	Screw	1	1	SM15/64"×28
14	92WF2-029	Rubber plug	1	1	
15	92WF3-021	Upper feed bushing(right)	1	1	
16		Oil wick	2	2	φ6×10
17	92WF3-022	Collar	1	1	
18	22T3-002B2	Screw	2	2	SM1/4"×40
19	92WF3-023	Walking foot	1	1	
20	50WF3-020	Screw	1	1	SM11/64"×40
21	50WF3-018	Walking foot lifting bar	1	1	
22	92WF3-024	Spring guide assembly	1	1	
23	50WF3-032	Presserspring	1	1	
24	6K1-048	Screw	1	1	SM15/64"×28
25	50WF3-027	Link	1	1	
26	50WF3-028	Oil felt	1	1	
27	50WF3-029	Slide block	1	1	
28	20T4-006	Screw	1	1	SM11/64"×40
29	92WF3-025	Foot lifting plate	1	1	
30	92WF3-026	Foot lifting link	1	1	
31	92WF3-027	Oil felt	1	1	
32	2KT7-001a	Binding cord	2	2	
33	92WF3-028	Screw	2	2	
34	92WF3-069	Oil felt	1	1	
35	2KT7-001a	Binding cord	1	1	
36	22WF3-005	Presser bar	1	1	
37	50WF4-001	Presser bar bushing	1	1	
38	92WF4-001	Presser foot	1	1	
39	92WF4-002	Finger guard	1	1	
40	22WF3-014	Screw	1	1	SM9/64"×40
41	92WF4-003	Screw	1	1	SM1/2"×28
42	1KT4-002	Nut	1	1	SM1/2"×28
43	92WF4-023	Spring	1	1	
44	92WF4-004	Presser foot lifting bar	1	1	
45	92WF4-005	Lifting bar shaft	1	1	
46	92WF4-006	Releasing bracket	1	1	
47	1WF1-011	Screw	1	1	SM11/64"×40
48	92WF4-007	Screw	1	1	
49	50WF3-029	Slide block	1	1	
50	92WF4-008	Washer	1	1	
51	92WF4-009	Releasing plate	1	1	
52	50WF4-013	Spring	1	1	
53	50WF4-014	Screw	1	1	SM1/4"×28
54	92WF4-010	Presser bar guide plate	1	1	
55	92WF4-011	Washer	1	1	
56	60wf4-003	Screw (upper)	1	1	SM15/64"×28
57	52WF3-027	Screw (lower)	1	1	SM15/64"×28

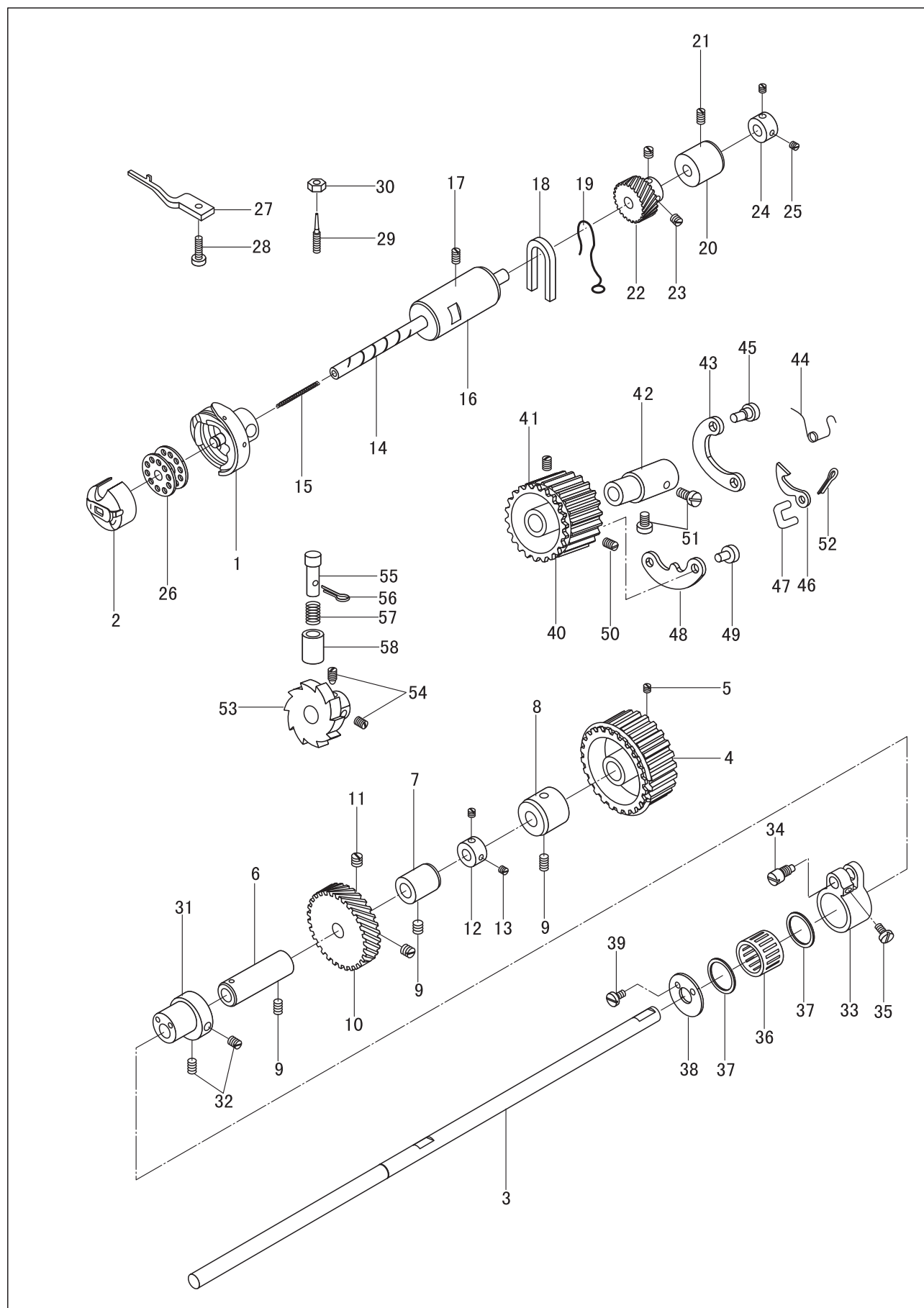
5. Feed parts



5. Feed parts

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF3-031	Feed link	1	1	
2	92WF3-032	Oil felt	1	1	
3	92WF3-033	Link pin	1	1	
4	6K2-043	Screw	1	1	M5
5	92WF3-034	Reverse feed bracket	1	1	
6	92WF3-035	Retaining plate	2	2	
7	1WF1-011	Screw	4	4	SM11/64"×40
8	92WF3-036	Presser plate	1	1	
9	16WF1-059	Screw	2	2	SM11/64"×40
10	92WF3-037	Reverse feed bracket shaft	2	2	
11	1WF5-019	Screw	2	2	SM15/64"×28
12	92WF3-038	Slide block	2	2	
13	92WF3-039	Feed vibrating bar assembly	1	1	
14		Oil wick	1	1	Φ1.5 35
15	92WF3-040	Screw	1	1	
16	92WF3-041	Stitch length adjusting dial	1	1	
17	92WF3-042	Bolt	1	1	
18	92WF3-043	Seal ring	1	1	
19	92WF3-044	Screw	1	1	SM3/16"×28
20	17WF4-035	Stop pin	1	1	
21	50WF3-058	Spring	1	1	
22	92WF3-045	Stitch length holder	1	1	
23	6K2-024	Screw	1	1	M6
24	92WF3-046	Link	1	1	
25	92WF3-047	Screw	1	1	
26	92WF3-048	Eccentric pin	1	1	
27	92WF3-049	Reverse feed lever shaft	1	1	
28	92WF3-071	Retainer	1	1	GB896-86-9
29	92WF3-050	Reverse feed lever	1	1	
30	92WF3-051	Screw	2	2	SM3/16"×28
31	92WF3-052	Collar	1	1	
32	22T3-002B2	Screw	2	2	SM1/4"×40
33	92WF3-053	Spring	1	1	
34	92WF3-054	Spring hook	1	1	
35	1WF3-009	Screw	2	2	SM11/64"×40
36	92WF3-021	Feed shaft bushing	2	2	
37	36WF3-029B	Screw	2	2	
38	92WF3-055	Feed shaft	1	1	
39	92WF3-022	Collar	2	2	
40	22T3-002B2	Screw	4	4	SM1/4"×40
41	92WF3-057	Crank	1	1	
42	41WF3-018	Screw	1	1	SM3/16"×28
43	92WF3-058	Link	1	1	
44	92WF3-059	Screw	2	2	
45	6K2-053	Nut	2	2	SM9/32"×28
46	92WF3-060	Feed crank	1	1	
47	1WF3-009	Screw	2	2	SM11/64"×40
48	92WF3-061	Connecting pin	1	1	
49		Oil wick	1	1	Φ3 50
50	92WF3-072	Retainer	1	1	Gb896 5
51	92WF3-067	Feed dog	1	1	
52	17WF3-002	Screw	2	2	SM1/8"×44
53	92WF3-068	Feed dog support	1	1	
54	80WF6-036	Screw	1	1	M5

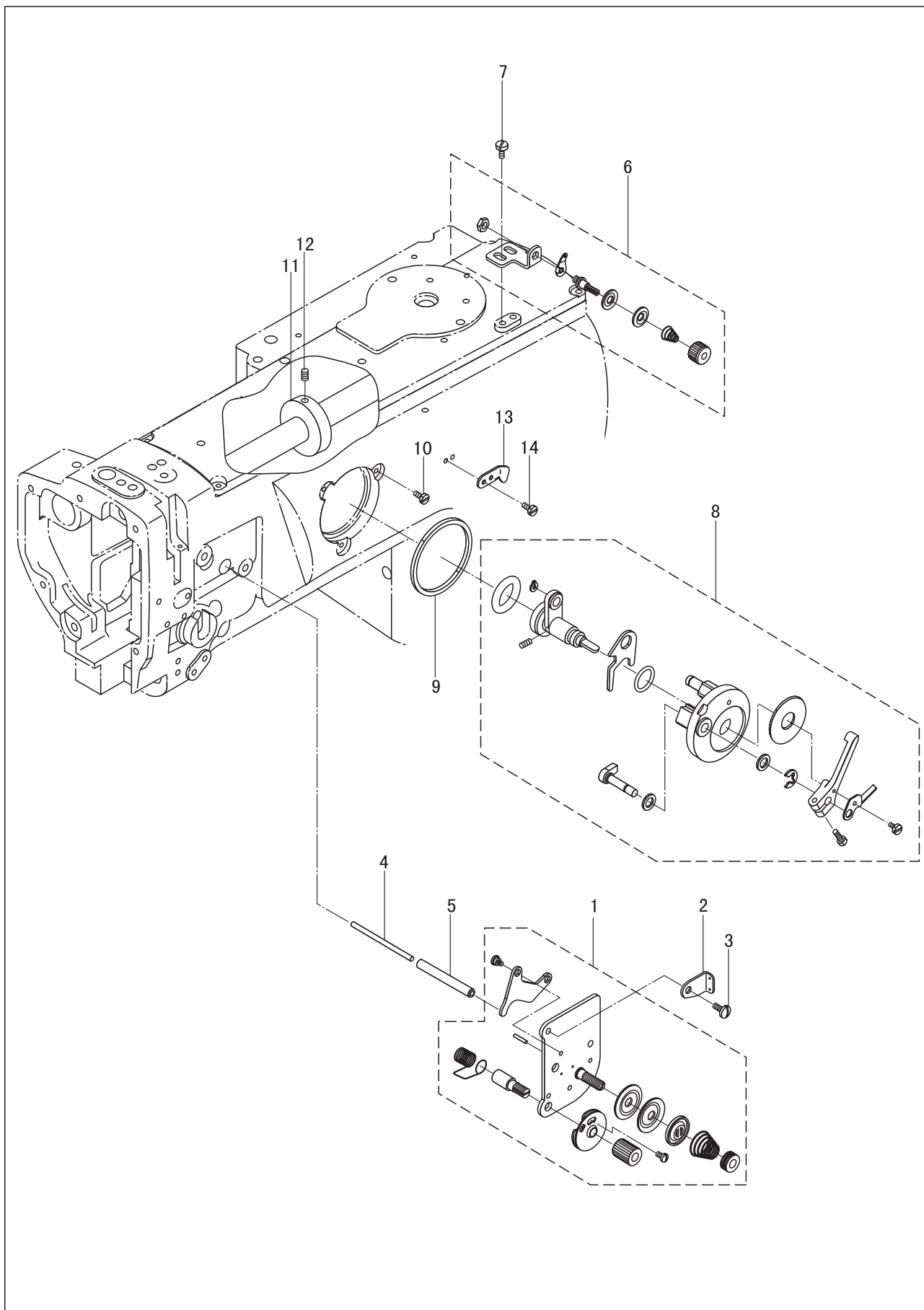
6. Lower shaft mechanism



6. Lower shaft mechanism

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF1-001	Hook CPL	1	1	
2	92WF1-002	Bobbin case CPL	1	1	
3	92WF1-016	Lower shaft	1	1	
4	92WF1-017	Lower shaft synchronized pulley CPL	1	/	
	110WF1-017	Lower shaft synchronized pulley CPL	/	1	
5	92WF1-014	Screw	2	2	SM1/4"×40
6	92WF1-018	Lower shaft bushing (L)	1	1	
7	92WF1-019	Lower shaft bushing (M)	1	1	
8	92WF1-020	Lower shaft bushing (R)	1	1	
9	17T5-016	Screw	3	3	SM15/64"×28
10	92WF1-021	Lower shaft gear	1	1	
11	2KT5-027	Screw	2	2	SM1/4"×40
12	92WF1-022	Collar	1	1	
13	36WF5-012A	Screw	2	2	SM11/16"×40
14	92WF1-023	Hook driving shaft	1	1	
15		Oil wick	1	1	
16	92WF1-024	Hook driving shaft bushing (L)	1	1	
17	42WF3-007	Screw	1	1	SM15/64"×28
18	92WF1-025	Oil felt	1	1	
19	92WF1-026	Spring	1	1	
20	92WF1-027	Hook driving shaft bushing (R)	1	1	
21	42WF3-007	Screw	1	1	SM15/64"×28
22	92WF1-028	Hook driving gear	1	1	
23	22T2-005B3	Screw	2	2	SM1/4"×40
24	92WF1-029	Collar	1	1	
25	18WF3-022	Screw	2	2	SM11/64"×40
26	33T1-027	Bobbin	1	1	
27	145WF-016	Bobbin case opener	1	1	
28	6K1-057	Screw	1	1	SM11/64"×40
29	92WF1-031	Screw	1	1	SM11/64"×40
30	50WF3-042	Nut	1	1	SM11/64"×40
31	92WF3-062	Eccentric cam	1	1	
32	6K1-017	Screw	2	2	SM15/64"×28
33	92WF3-063	Feed dog lift link	1	1	
34	92WF3-064	Eccentric pin	1	1	
35	2KT5-005	Screw	1	1	SM11/64"×40
36	92WF3-073	Bearing	1	1	K202417
37	92WF3-065	Retainer	2	2	
38	92WF3-066	Cover	1	1	
39	16WF1-059	Screw	2	2	SM9/64"×40
40	110WF-017A	Lower shaft synchronized pulley	/	1	
41	16WF1-043	Retain ring	/	1	
42		Pulley bushing	/	1	103614
43	22WF1-013	Spring plate	/	1	
44	22WF1-014	Spring	/	1	
45	22WF1-015	Pin	/	1	
46	22WF1-016	Stop plate	/	1	
47	22WF1-017	Link	/	1	
48	22WF1-018	Clutch plate	/	1	
49	22WF1-019	Clutch plate pin	/	1	
50	22WF1-020	Screw	/	2	
51	22WF1-052	Screw	/	2	
52		Pin	/	1	GB/T991 1.2×8
53	110WF-032	Clutch wheel	/	1	
54	6K2-043	Screw	/	2	
55	22WF1-038	Button	/	1	
56		Pin	/	1	
57	16WF3-046	Spring	/	1	
58	22WF1-040	Button bushing	/	1	

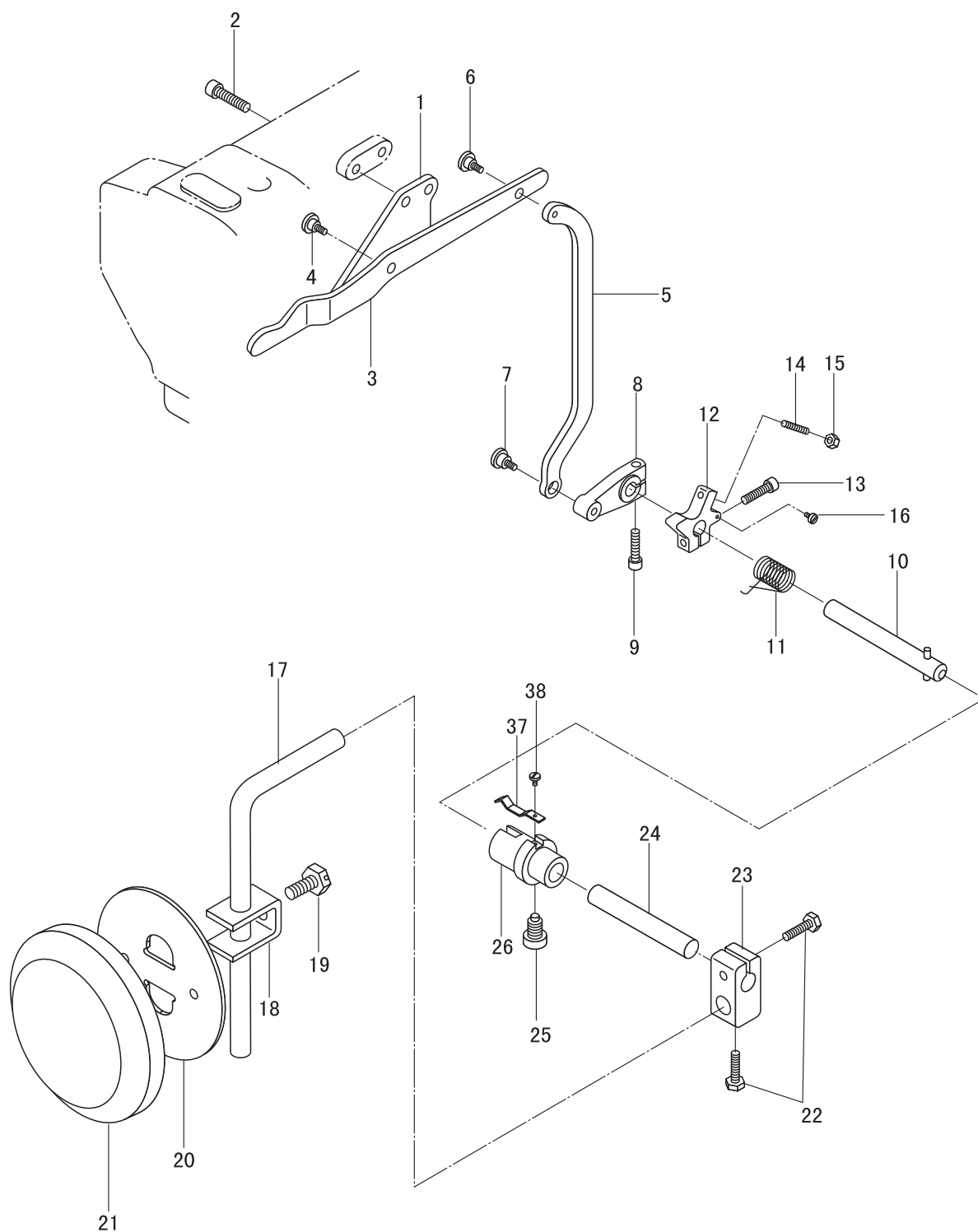
7. Thread tension and bobbin thread winder mechanism



7. Thread tension and bobbin thread winder mechanism

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF2-018	Thread tension plate assembly	1	1	SM11/64"×40
2	92WF2-019	Thread guide plate	1	1	
3	1WF1-011	Screw	2	2	
4	92WF2-020	Thread releasing bar	1	1	GB/T879. 1 6×55
5		Thread releasing bar bushing	1	1	
6	92WF2-021	Bobbin thread tension assembly	1	1	
7	13WF2-040	Screw	1	1	M4
8	92WF2-025	Thread winder assembly	1	1	
9	92WF2-026	Friction ring	1	1	
10	92WF2-027	Screw	3	3	SM11/64"×40
11	92WF2-035	Friction wheel	1	1	
12	6K2-043	Screw	2	2	
13	92WF2-036	Cutter	1	1	
14	36WF2-031	Screw	2	2	

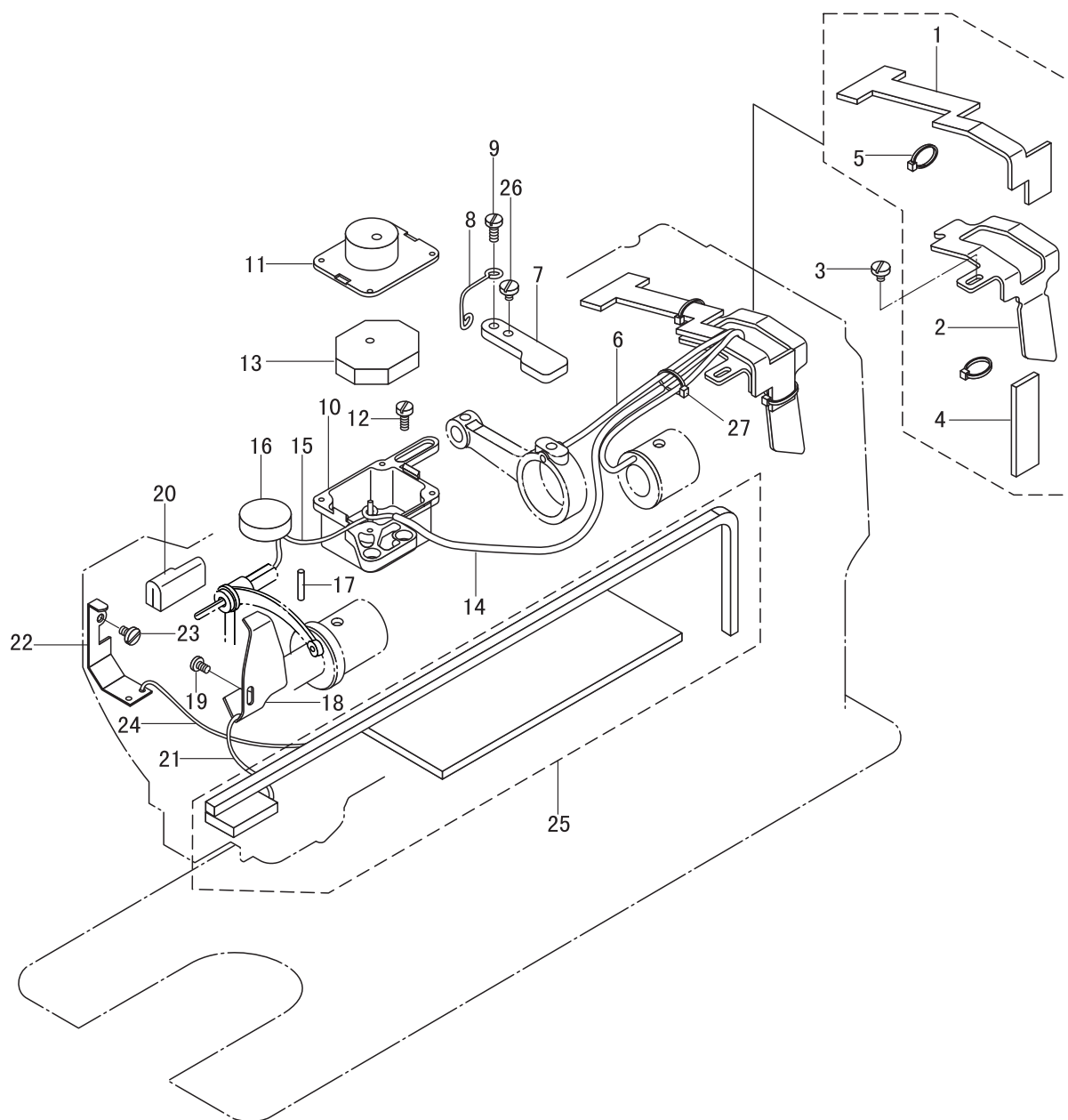
8. Knee lifter mechanism



8. Knee lifter mechanism

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF4-012	Knee control lever support	1	1	
2	72WF2-009	Screw	2	2	M6
3	92WF4-013	Knee control lever	1	1	
4	92WF4-014	Screw	1	1	SM1/4"×40
5	92WF4-015	Knee control connecting rod	1	1	
6	92WF4-016	Screw	1	1	SM11/64"×40
7	92WF4-014	Screw	1	1	SM1/4"×40
8	94WF4-017	Crank	1	1	
9	80WF6-025	Screw	1	1	M5
10	92WF4-018	Knee control revolving shaft	1	1	
11	92WF4-019	Spring	1	1	
12	92WF4-020	Position block	1	1	
13	80WF6-025	Screw	1	1	M5
14	92WF4-022	Screw	1	1	GB/T77 M5×25
15		Nut	1	1	GB/T6172. 1 M5
16	92WF4-021	Screw	1	1	SM9/64"×40
17	22T9-003B2	Knee control bell bent bar	1	1	
18	22T9-003B6	Bell bracket	1	1	
19	22T9-003B7	Screw	1	1	
20	22T9-003B5	Knee control bell	1	1	
21	22T9-003B8	Cushion	1	1	
22	60WF6-007	Screw	2	2	SM5/16"×24
23	60WF6-008	Bell bent bar adapter	1	1	
24	60WF6-009	Knee control connecting bar	1	1	
25	60WF3-007	Screw	1	1	SM5/16"×24
26	60WF6-010	Connecting bushing	1	1	
27	60WF6-011	Spring	1	1	
28	19WF4-002	Screw	1	1	SM9/64"×40

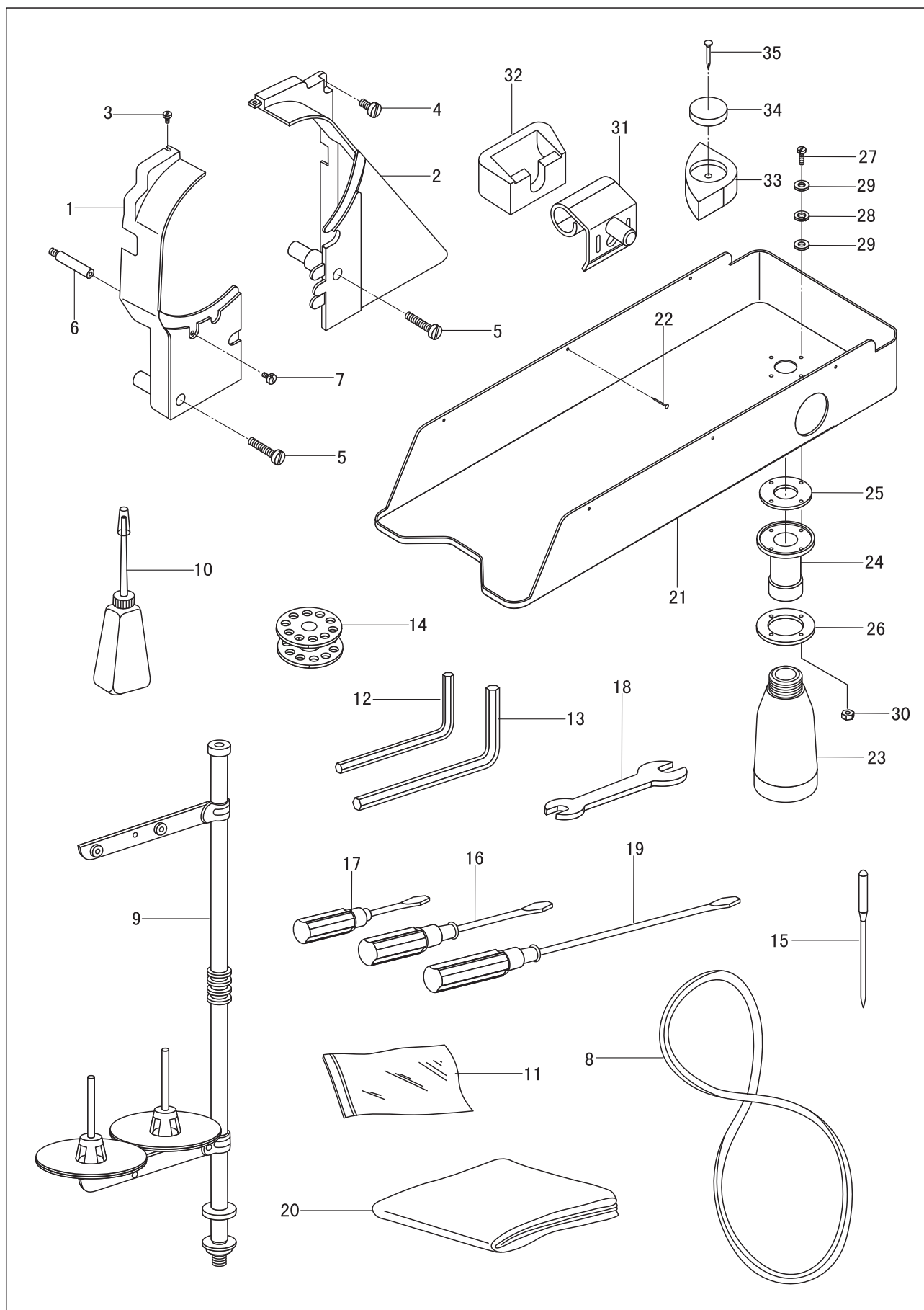
9. Lubrication



9. Lubrication

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF5-001	Oil felt	1	1	SM11/64"×40
2	92WF5-002	Oil felt support	1	1	
3	1WF1-011	Screw	1	1	
4	92WF5-003	Small oil felt	1	1	
5	2KT7-001a	Binding cord	3	3	Φ2×190
6		Oil wick	1	1	
7	92WF5-004	Press plate	1	1	
8	92WF5-005	Hook	1	1	
9	42WF2-008	Screw	1	1	SM11/64"×40
10	92WF5-006	Oil pot	1	1	SM11/64"×40
11	92WF5-007	Oil pot cover	1	1	
12	21WF3-026	Screw	2	2	
13	92WF5-008	Oil felt	2	2	
14		Oil tube	1	1	Φ3×Φ5×180
15		Oil wick	1	1	Φ2×380
16	92WF5-009	Oil felt 1	1	1	SM9/64"×40
17	92WF5-010	Oil felt 2	1	1	
18	92WF5-011	Oil retaining plate	1	1	
19	16WF1-059	Screw	1	1	
20	92WF5-012	Oil felt	1	1	Φ2×250
21		Oil wick	1	1	
22	92WF5-013	Oil retaining plate	1	1	
23	36WF1-031D	Screw	1	1	
24		Oil wick	1	1	Φ2×250
25	92WF5-014	Oil felt assembly	1	1	SM11/64"×40
26	1WF1-011	Screw	1	1	
27	2KT7-001a	Binding cord	1	1	

10. Accessories



10. Accessories

NO.	Part No	Name	Quantity		Remark
			0605	0605A	
1	92WF6-013A	Safety guard 1	1	1	
2	92WF6-013B	Safety guard 2	1	1	
3	2KT6-012	Screw	1	1	SM11/64"×40
4	21WF3-012	Screw 1	1	1	SM15/64"×28
5	1WF2-060	Screw 2	2	2	SM15/64"×28
6	92WF6-016	Column	1	1	
7	42WF2-008	Screw	1	1	SM11/64×40
8		V-belt	1	1	M42
9	33TF-019	Spool stand	1	1	
10	33TF-011	Small oil pot	1	1	
11	33TF-010	Parts bag	2	2	
12		Spanner	1	1	
13		Spanner	1	1	
14	33T1-027	Bobbin	6	6	
15		Needle	3	3	DP×17 23#
16	33TF-013	Screwdriver (medium)	1	1	
17	33TF-014	Screwdriver (small)	1	1	
18		Double ended spanner	1	1	9×10
19	33TF-012	Screwdriver (big)	1	1	
20	13F-002	Machine head cover	1	1	
21	92WF6-017	Oil reservoir	1	1	
22		Screw	6	6	SG162 19
23	92WF6-027	Oil pot	1	1	
24	92WF6-018	Adapter	1	1	
25	92WF6-019	Seal ring	1	1	
26	92WF6-020	Presser plate	1	1	
27		Connecting screw	4	4	GB/T818 M3×14
28		Spacer	4	4	GB/T848 3
29	92WF6-023	Seal spacer	8	8	
30		Connecting nut	4	4	GB/T6170 M3
31	71WF5-009	Connecting hook assembly	2	2	
32	71WF5-010	Rubber cushion	2	2	
33	92WF6-025	Rubber cushion	4	4	
34	92WF6-026	Oil felt	4	4	
35		Screw	4	4	



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