

Sun Special

SS3-S335VB

1-NEEDLE CYLINDER BED WALKING FOOT SEWING MACHINE

OPERATION INSTRUCTION/PARTS MANUAL

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Operation Instruction

1. Brief introduction

This machine is designed with sliding lever to take up thread and horizontal hook to catch thread, which produce lockstitch type. Upper and lower shaft are driven by bevel gears, lever type stitch regulator, with the features of compound feed by feed dog, needle and walking foot, high presser foot stroke and lifting height, long stitch length, cylinder bed, lower running noise, it works well whatever the surface of materials is smooth or roughness. It's easy for sewing multi-layer leather and materials.

It's widely used for binding sewing medium and heavy weight materials (such as: handbags, shoes and other cylindric products)

Unison feed by binder, feed dog, presser feet and needle, which assures fully binding operation.

3. Machine installation

1. Location of the machine

The machine must be located on the rigid and flat floor for ensuring its smooth operation and reducing its vibration. Meanwhile, a rubber mat should be inserted between the machine stand and the floor for further reducing the running noise.

2. Install the base and oil pan (Fig.1)

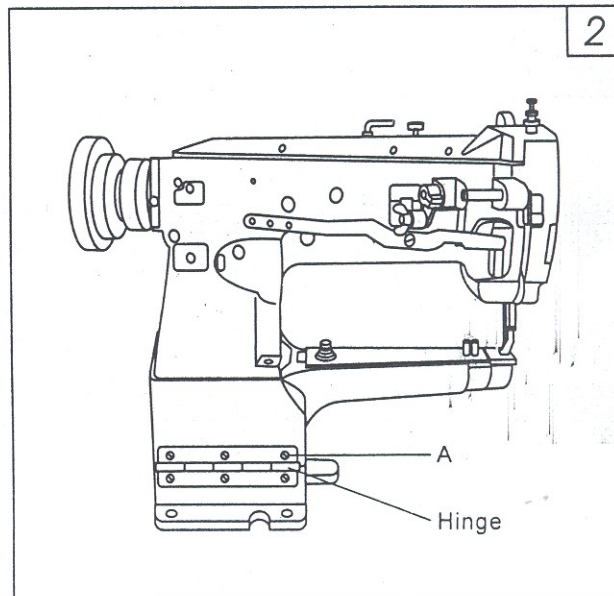
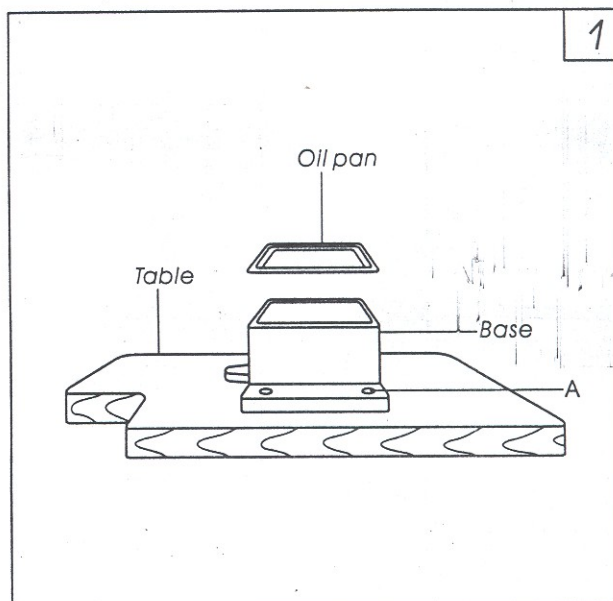
First, align the four screw holes of the machine base with the ones of table, insert the four bolts A and tighten the nuts, then put the oil pan on the machine base smoothly.

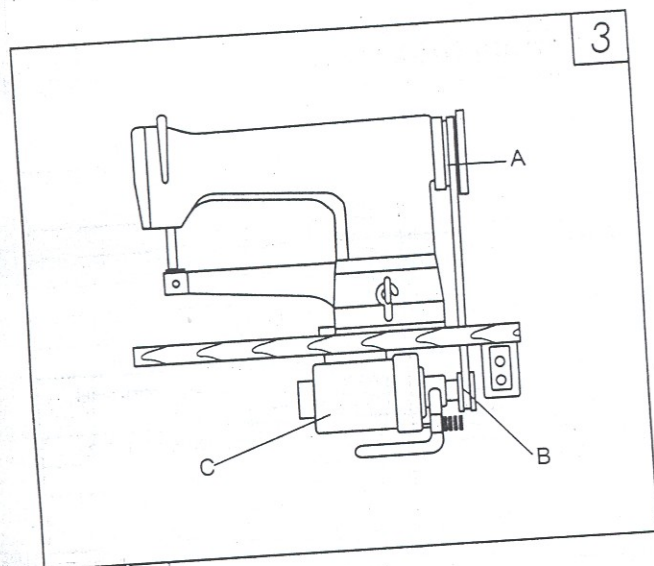
3. Install the machine head (Fig.2)

First, half of the hinge should be made to engage with the machine base, then put the machine head lightly on the machine base, move it slightly to align the three screw holes of head with the ones of hinge, insert the three screws A and tighten them

2. Main specifications

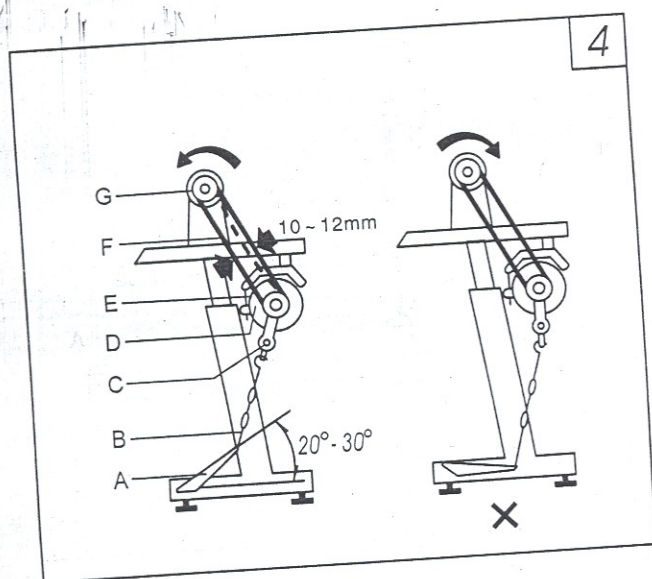
Model	TW3-S335V	TW3-S335VB
Applications	Medium and heavy weight materials	
Max. Sewing speed	2500s.p.m	
Max. Stitch length	6mm	7mm
Needle bar stroke	33.2mm	
Presser foot lift height	8mm by hand 13mm by knee	
Hook	Small horizontal hook	Big horizontal hook
Needle	DP×17 16'~18'	DP×17 18'~22'
Lubrication	Oiled by hand	
Motor power	370W	
Cylinder dia.	46mm	50mm





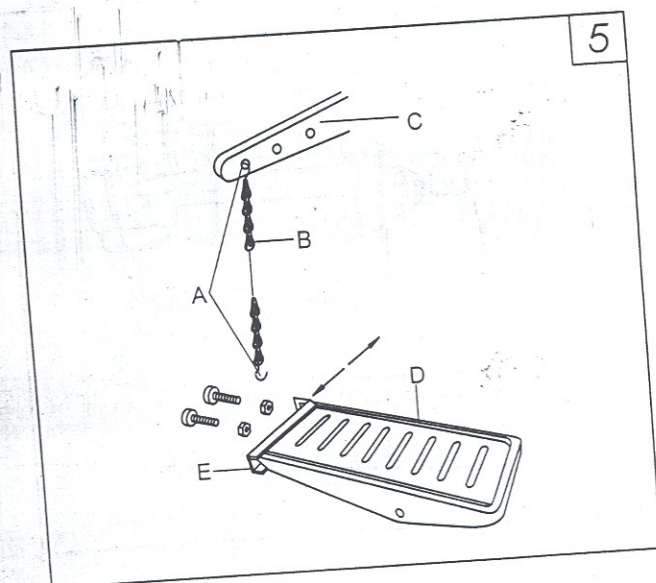
4. Installing the motor(Fig. 3)

Align machine hand wheel belt groove A with motor pulley belt groove B by moving motor C leftward or rightward, Be sure that the belt is not toughed with the table.



5. Connecting the pedal with clutch lever(Fig. 4)

1. The optimum tilt angle of pedal A against floor is approx. $20^{\circ} \sim 30^{\circ}$.
2. Adjust the clutch of motor E so that the clutch lever C and draw bar B run in line.
3. The machine hand wheel G should rotate counter-clockwise for normal sewing when view from opposite side of balance wheel. The motor D should rotate in the same direction. The rotation can be reversed by reversing the plug of motor (turn over 180°).
4. Adjust the tension of V-belt F by moving the motor up and down. The proper tension of V-belt is a slack of 10-12mm when the belt is depressed by forefinger. Release the forefinger, the belt will resume.

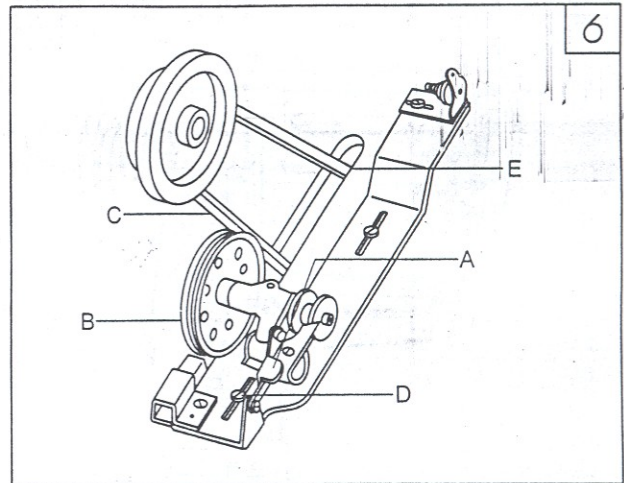


6. Installing the presser foot lift control plate (Fig 5)

First, the chain hook A should be connected to the presser foot lift lever C, then put the pedal assembly D on the stand, move the control plate E leftward or rightward until the chain becomes on one line, tighten the bolts and nuts, finally, connect the chain hook to the control plate.

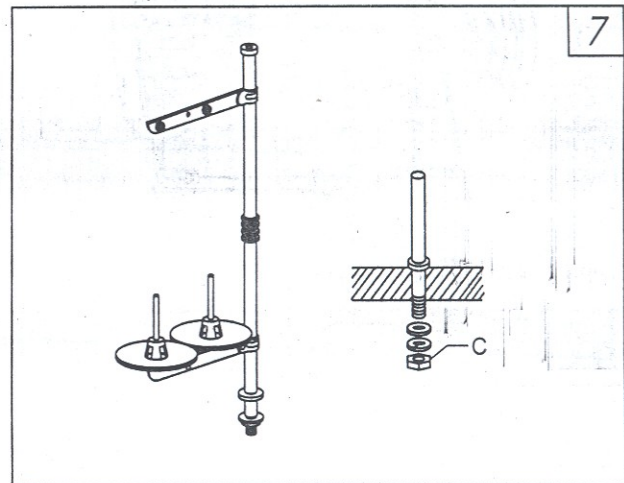
7. Installing the bobbin winder(Fig.6)

Align pulley B of the bobbin winder with the outside of the V-belt C, and there should be a proper clearance between them, so that pulley B can be touched with the V-belt when latch thumb lever A is depressed, thereby the V-belt can drive the pulley B while the machine running. The bobbin winder should be parallel with belt slit E of the table, finally fasten two wooden screws D.



8. Installing the thread stand (Fig.7)

The thread stand should be located on the right backside of the table. Threading should be smooth when sewing. When the machine head is turned backward, it should not be touched with the thread stand, then tighten the nut C.



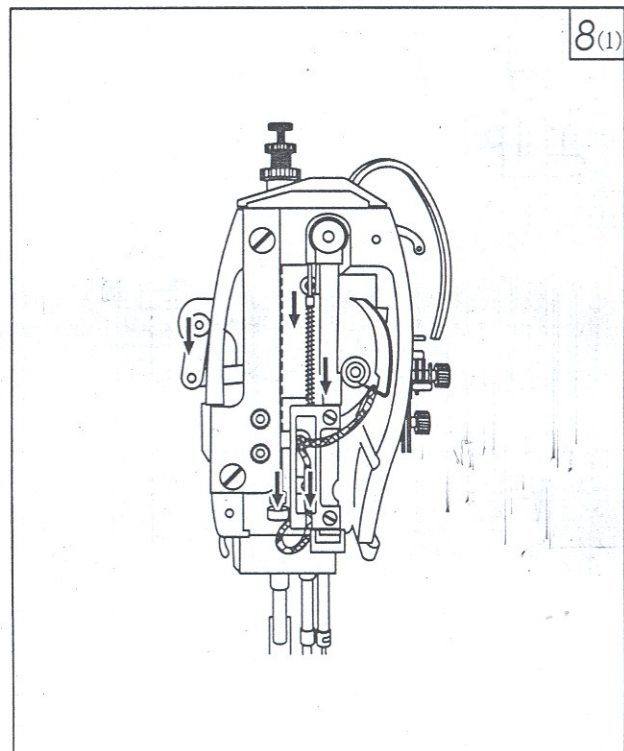
9. Operation preparation

1. Clearing the machine

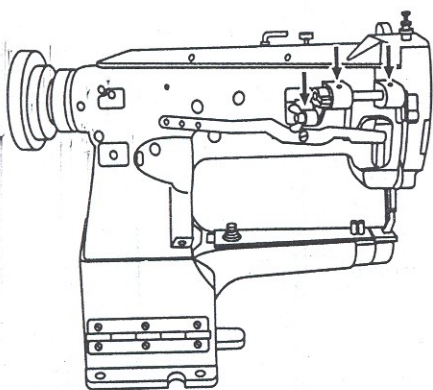
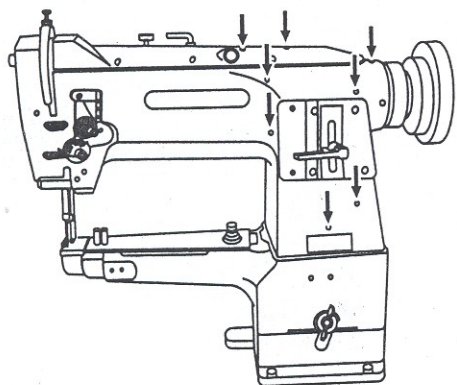
Before the head is packed, all of the parts of the machine are coated with anti-rust grease, meanwhile the grease can harden and the dust can cover the machine surface during long time storage and shipment, so, the dust and grease must be cleared by clean cloth with gasoline.

2. Examination

Although every machine is conformed by strict inspection and test before delivery, the parts of the machine may be loose and deformed after long distance transportation with jolt. A thorough examination must be performed. Turn the balance wheel slightly by hand to check if there is running obstruction, parts collision, uneven resistance and abnormal noise. If any of these exist, adjustment must be made accordingly before running.



8(2)



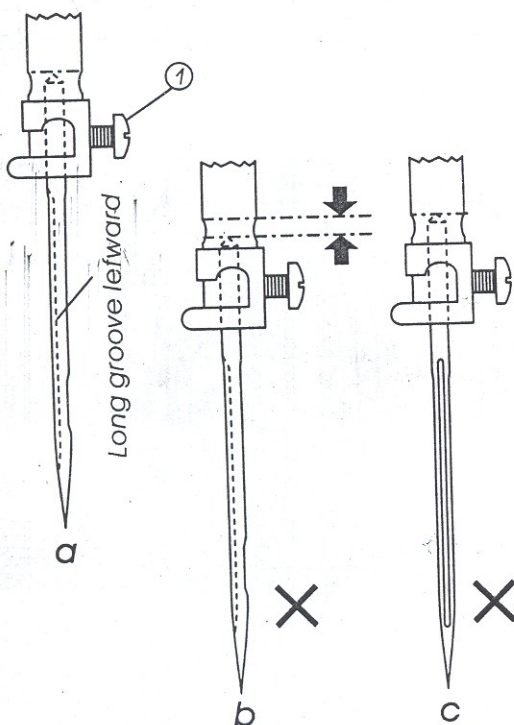
10. Lubrication (Fig. 8)

Before running, the machine must be oiled at the places by arrow shown. If the machine continues in operation, it should be oiled not less two times per shift. Please use HA-8 sewing machine oil or TJ-70 machine oil.

11. Trial running

Trial running is required when new machine is put into use or use again after storing quite long time. Please lift the presser foot and run the machine at a low speed of 1000~1500s.p.m for 30 minutes, then increase the speed gradually.

9



12. Installing the needle (Fig. 9)

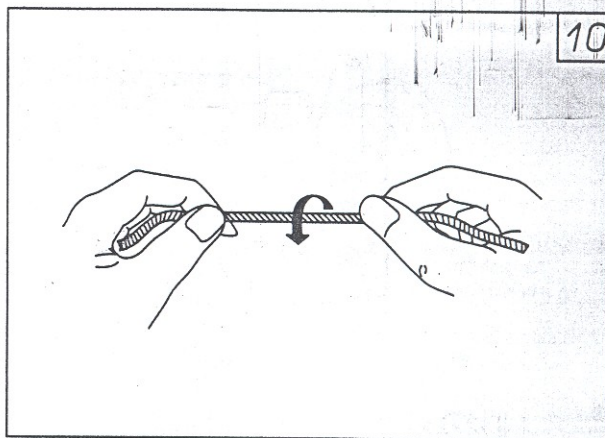
Turn the balance wheel to lift the needle bar to its highest position, loosen the needle set screw, and make the needle groove to the left side of the operator, then fully insert the needle shank until to the bottom of the needle bar socket, tighten the set screw. (Fig.9a)

Note: Insufficient insertion (Fig. b) or the needle groove facing to the operator (Fig. c) is incorrect.

13. Coordination among the needle, thread and materials

The needle thread should be left-twist, holding the thread by left hand, twist it by right hand at certain direction (shown as Fig.10), if it changes into tight, it's left-twist, contrary, it's right-twist

The needle size should depend on the materials to be sewn. If the thin needle is used for sewing heavy materials, the needle will be broken easily, and will also cause skip and thread broken. On the contrary, the materials will be destroyed for the big needle hole, so please select proper needle and thread according to the materials.

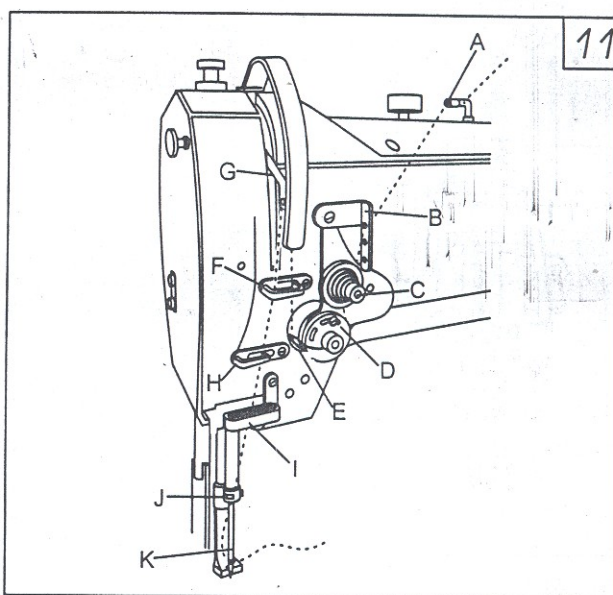


14. Threading the needle thread (Fig.11)

Turn the hand wheel to lift the needle bar to its highest position, then threading as following sequence shown in the Fig. 11 after drawing the thread from the thread stand.

Upper cover thread guide A → three-eye thread guide B → thread tension disc C → spring guide disc D → spring E → thread guide (upper) F → thread take-up lever G → thread guide (upper) F → thread guide (middle) H → thread guide (lower) I → needle bar thread guide J → needle K.

When drawing the bobbin thread, hold the tip of needle thread by hand; turn the hand wheel to lower the needle bar, then lift it to its highest position, pull the needle thread and the bobbin thread will be drawn up accordingly, finally put the tip of needle thread and bobbin thread toward front under the presser foot.



15. Adjusting the tension of bobbin thread and needle thread (Fig.12)

The tension of needle thread and bobbin thread should be suitable. The stitch form shown as ① is the best, if the tension is tight or loose, the abnormal stitch form will be caused shown as ②, ③

1. Adjust the tension of bobbin thread

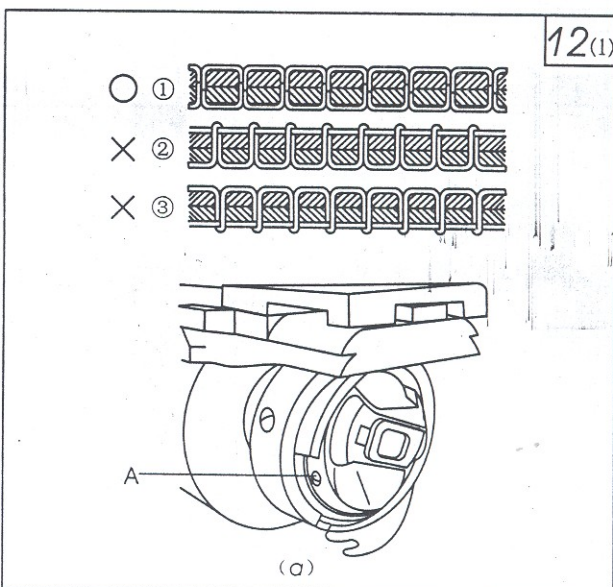
The tension of bobbin thread should be adjusted according to the materials;

①. Turn the hand wheel by hand to lift the thread take-up lever to its highest position;

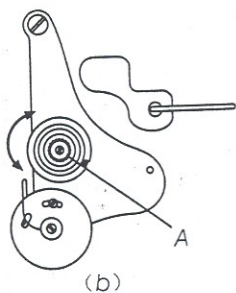
②. Take down the sliding plate, the screw A is shown as Fig. 12 (a)

③. Turn the screw A clockwise to increase the tension of bobbin thread;

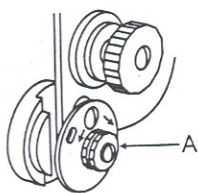
④. Turn the screw A counter-clockwise to decrease the tension of bobbin thread.



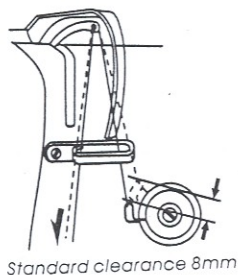
12(2)



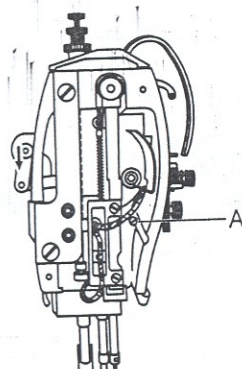
(b)



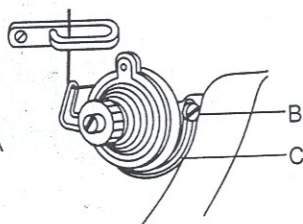
(c)



Standard clearance 8mm



(d)



2. Adjust the tension of needle thread
 (1) Adjust the pressure on the thread tension disc
 Adjusting the pressure on the thread tension disc to change the tension of needle thread, as shown in the Fig. (2): turn the nut A clockwise to increase the pressure, on the contrary, to decrease the pressure

(2) Adjust the tension of thread take-up spring

Light materials 20g

Normal materials 25g

Heavy materials 30g

The method of adjustment as Fig. (c) shown
 Loosen the nut A, turn the spring shaft C counter-clockwise to increase the tension, contrary, to decrease the tension. Please use a screwdriver to rotate the spring shaft to get the required tension.

(2) The swing range of the spring

The spring must be able to swing, when the thread take-up lever is at its highest position, the normal swing range of the thread take-up spring should be:

Light materials over 8mm

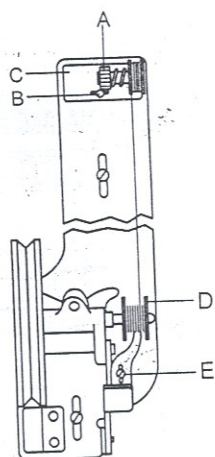
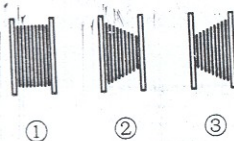
Normal materials about 8mm

Heavy materials less 8mm

The method of adjusting swing range: (Fig. d)

- ① Lay down the presser foot lifter;
- ② Loosen the screw A;
- ③ Turn the disc B counter-clockwise to increase the swing range, contrary, the swing range decrease.
- ④ Tighten the screw B.

13



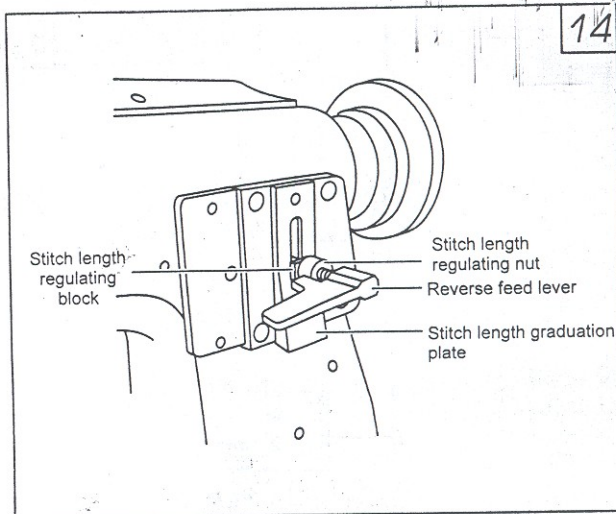
16. Winding the bobbin thread and adjustment(Fig. 13)

Bobbin thread should be neat and tight. If loose, please increase the tension of tension disc A; if not neat, please move the winder bracket C to adjust. When adjust, first loosen the screw B, then move the bracket C rightward if the thread is wound to one side as Fig ② shown; or move the bracket C leftward if the thread is wound to one side as Fig ③ shown until the thread is wound neatly as Fig. ① shown, finally fix the bracket.

Note: Nylon or polyester thread should be wound under light tension in particular; otherwise bobbin D might be broken or deformed. Please don't overfill the bobbin thread; otherwise the thread will loosen down from the bobbin. The optimum capacity of thread is filled about 80% of bobbin outside diameter and this can be adjusted by screw E.

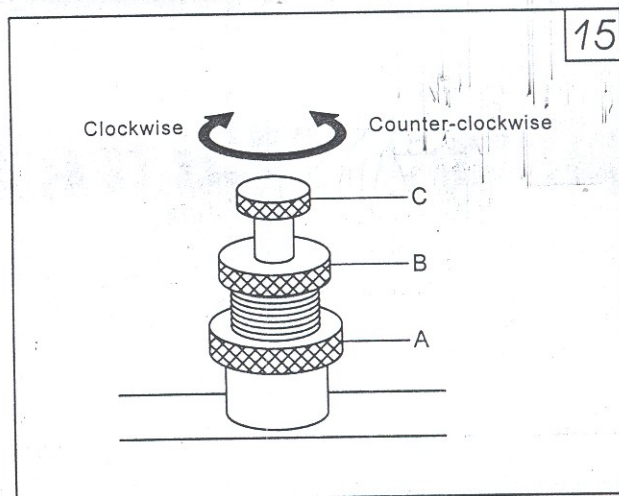
17. Stitch length, forward and backward feed (Fig.14)

Turn the stitch length regulating nut to adjust the stitch length. When the graduation on the stitch length regulating block aligns with the number on the stitch length graduation plate, the number is the stitch length in mm. The reverse feed is obtained if lift the feed lever, release the lever, the machine recovers normal feed again.



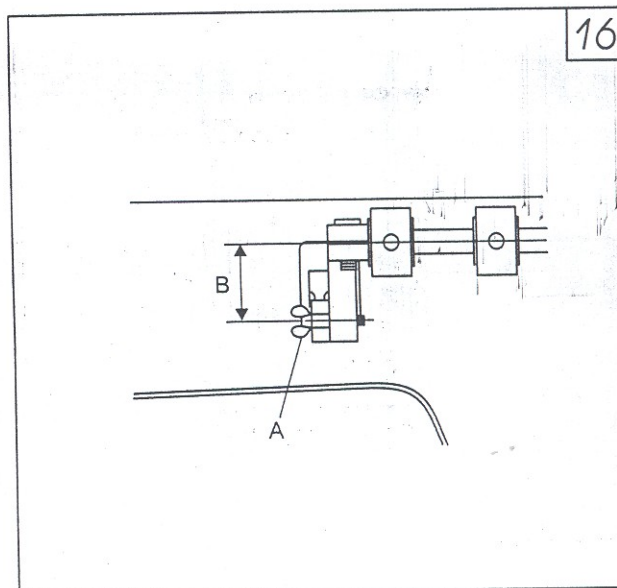
18. Adjusting the pressure of presser foot (Fig.15)

Adjust the pressure of presser foot according to the materials, please increase the pressure when sewing heavy weight materials. Adjusting as shown in the Fig 15, first loosen the nut A, then turn the screw B clockwise to increase the pressure, on the contrary, to decrease the pressure, after the proper pressure is obtained, tighten the nut A. Turn the small screw C, the pressure can be fine adjusted.

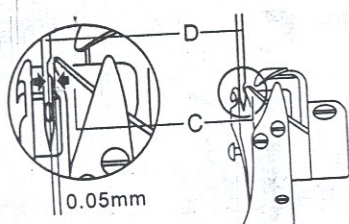
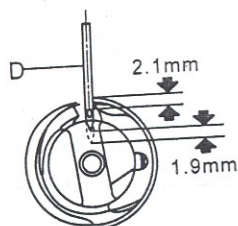
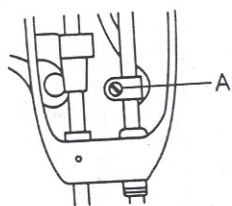


19. Adjusting the lifting amount of presser foot (Fig.16)

The method of adjusting the lifting amount of presser foot is: first, loosen the screw A, adjust the central distance B between the screw and upper feed shaft, adjust the distance B short to increase the lifting amount of presser foot, on the contrary, to decrease the amount, The amount should be adjusted within a certain range, and should not be adjusted too large. After adjustment, tighten the screw, turn the upper shaft to check if there is any collision, begin to use when everything goes well.



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20. Adjusting the timing of feed

1. Standard position

The needle should aim at the center of needle hole on the feed dog, which can be adjusted through the installation position of upper feed shaft crank.

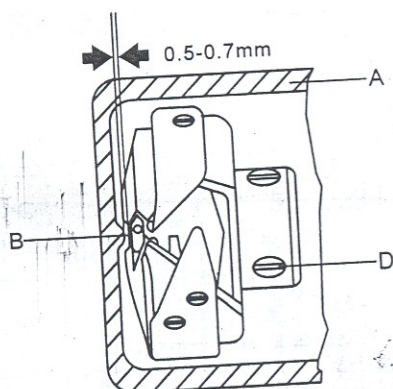
2. Install the feed cam

First, adjust the stitch length to zero, open the upper cover, turn the hand wheel counter-clockwise by right hand, the second screw on the feed cam should align with the groove on the upper shaft.

21. Adjusting the timing between the needle and hook (Fig. 17)

According to the looping relationship between hook and needle, adjust the lowest point of needle bar: when the needle is lifted up to 1.9 mm from its lowest position, the tip of hook should be straight to the needle center line, and there is a distance of 2.1mm between the tip of hook and upside of needle hole. If the position is wrong, please loosen the screw A, move the needle bar up and down until to the proper position, then tighten the screw. When adjustment, also please notice the lateral clearance between the tip of hook and needle, the proper clearance between the bottom of needle gap D and the tip of hook C is 0~0.5 mm.

18



22. Installing the hook positioning bracket and hook (Fig.18)

1. Install the hook positioning bracket

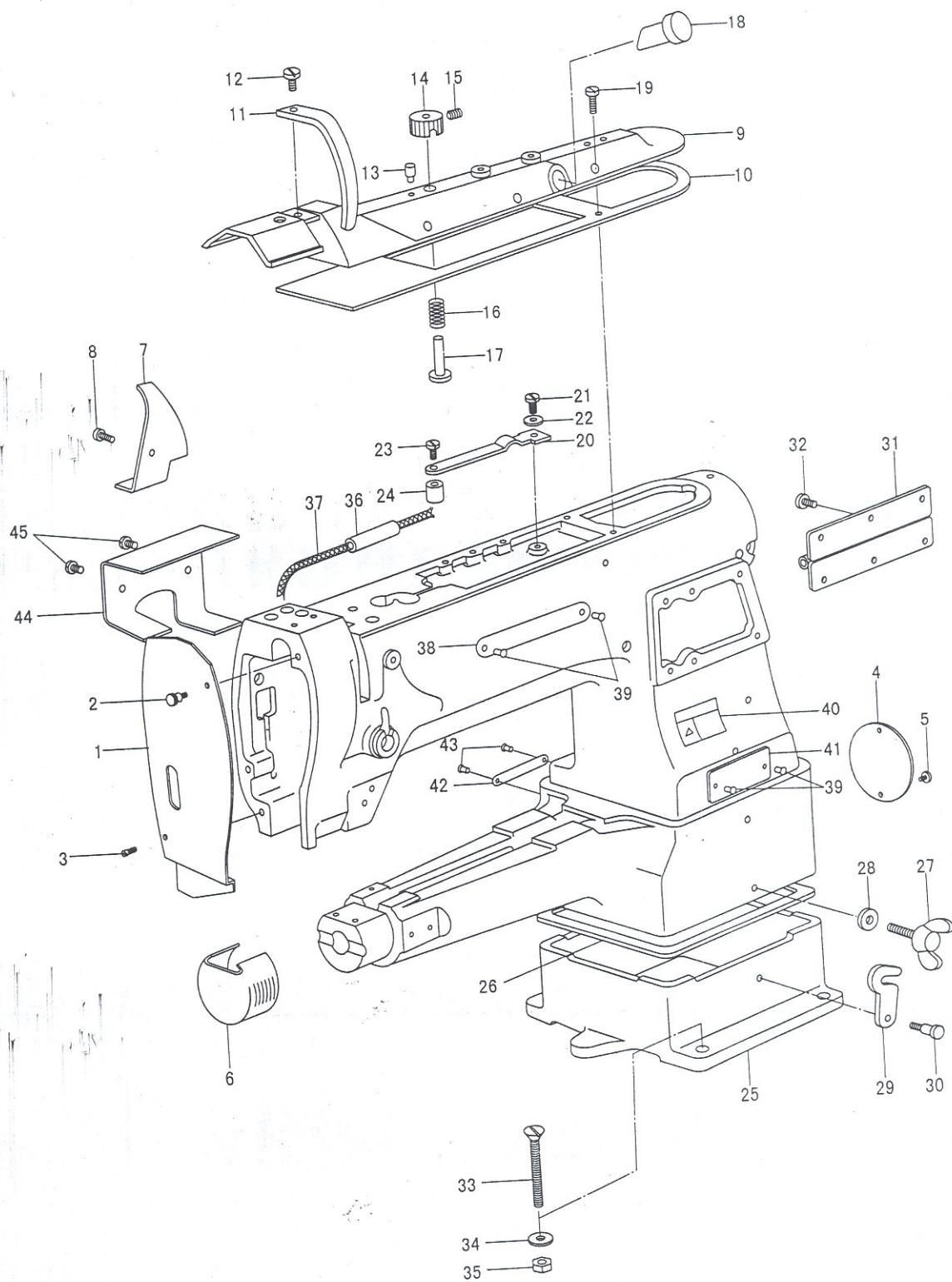
When install the hook positioning bracket A, the flange of bracket should enter into the hollowness of hook inner head B, and there is a clearance of 0.5~0.7mm

2. Install the hook

Lift the presser foot and the needle bar to its highest position, open the bed cover, unscrew the four screws of hook positioning bracket, then turn the hand wheel and loosen the two set screw D, finally, pull the hook out slowly, together with the positioning bracket. Install the hook in the reverse order that the hook is taken down.

Parts Manual

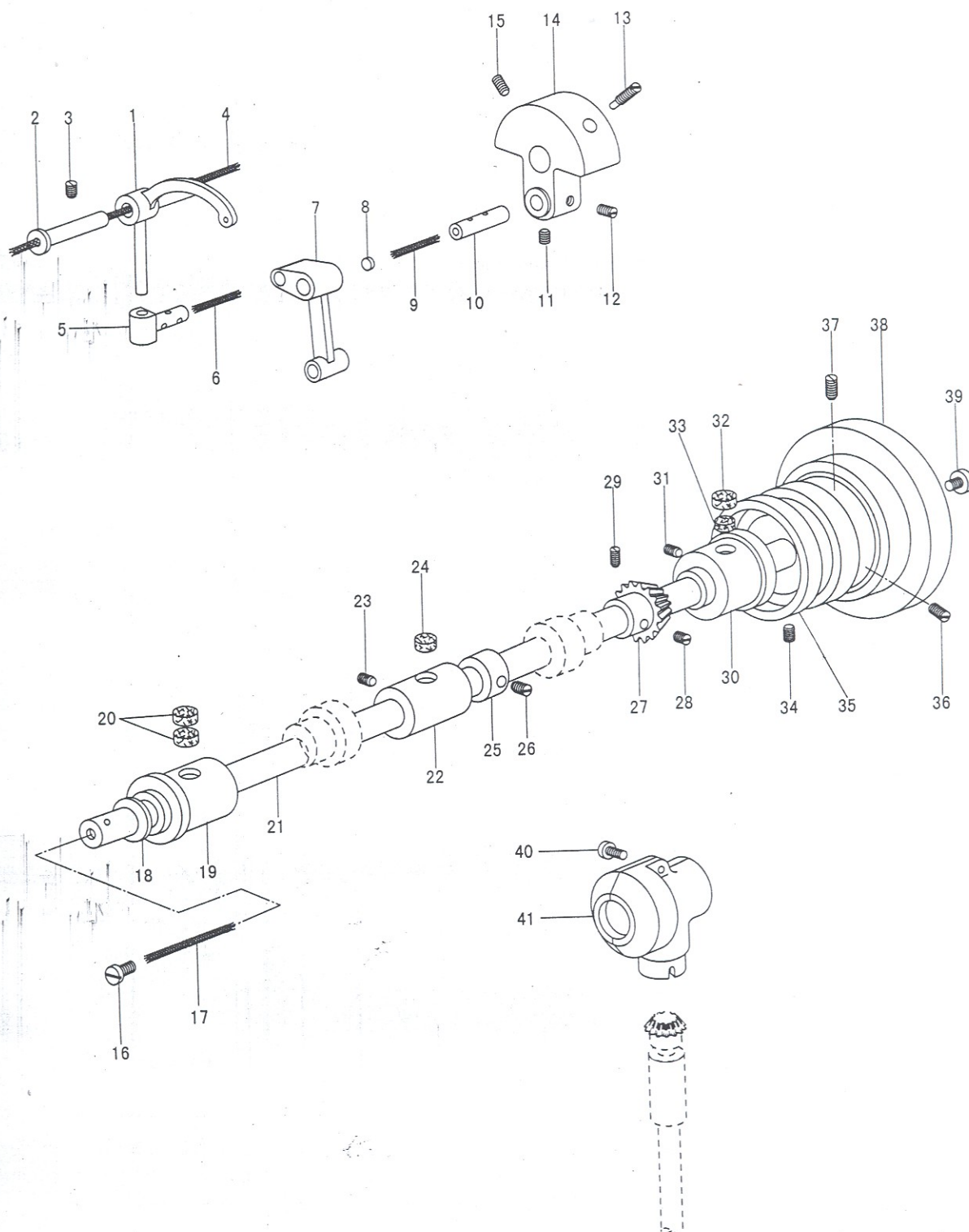
1、Machine casting components



1、Machine casting components

No.	Parts No .	Name of parts	Qty.	Remarks
1	49WF2-004	Face plate	1	
2	49WF2-005	Screw for face plate	1	
3	49WF2-006	Pin for face plate	1	
4	37T4-422	Back cover	1	
5	13WF2-010	Screw	2	
6	49WF2-023	Cylinder	1	(TW3-S335V)
	66WF2-003	Cylinder	1	(TW3-S335VB)
7	16WF2-038	Oil stopper plate	1	
8	16WF1-059	Screw	1	SM9/64" × 40
9	49WF2-011	Upper plate	1	
10	49WF2-013	Upper sheet plate packing	1	
11	49WF2-008	Thread take-up cover	1	(TW3-S335V)
	66WF2-002	Thread take-up cover	1	(TW3-S335VB)
12	49WF2-009	Screw	1	SM11/64" × 40
13	49WF2-020	Pin	1	
14	49WF2-019	Lubrication dial	1	
15	17T5-016	Set screw	1	SM15/64" × 28
16	49WF2-018	Spring	1	
17	49WF2-017	Lubrication dial stud	1	
18	49WF2-014	Oil gauge window	1	
19	49WF2-012	Screw	7	SM9/64" × 40
20	49WF2-015	Spring plate	1	
21	49WF2-012	Screw	1	
22	7KT2-020	Washer	1	
23	16WF3-014	Screw	1	SM1/8"40
24	49WF2-016	Oil adjusteing collar	1	
25	49WF2-003	Base	1	
26	49WF2-010	Oil pan	1	
27	22WF2-006	Screw assembly	1	
28	37T4-411	Spring washer	1	
29	37T4-409	Connectiong hook	1	
30	22WF2-020	Screw	1	SM1/4" × 28
31	37T4-407	Hinge	1	
32	22WF2-004	Screw	6	M6 × 1
33		Screw	4	M8 × 75 GB68-85
34		Washer	4	GB96-85
35		Nut	4	GB41-86-8M
36	49WF2-021	Oil pipe	1	
37		Oil wick	1	
38	16WF2-053	Logo label	1	
39		Rivet	4	GB827-86
40	1KT1-005	Warning label	1	
41	49WF2-034	Model label	1	(TW3-S335V)
	66WF2-005	Model label	1	(TW3-S335VB)
42	4KT1-005	Serial number label	1	
43	35WF1-054	Rivet	2	
44	49WF2-036	Safety cover	1	
45	13WF1-045	Screw	2	

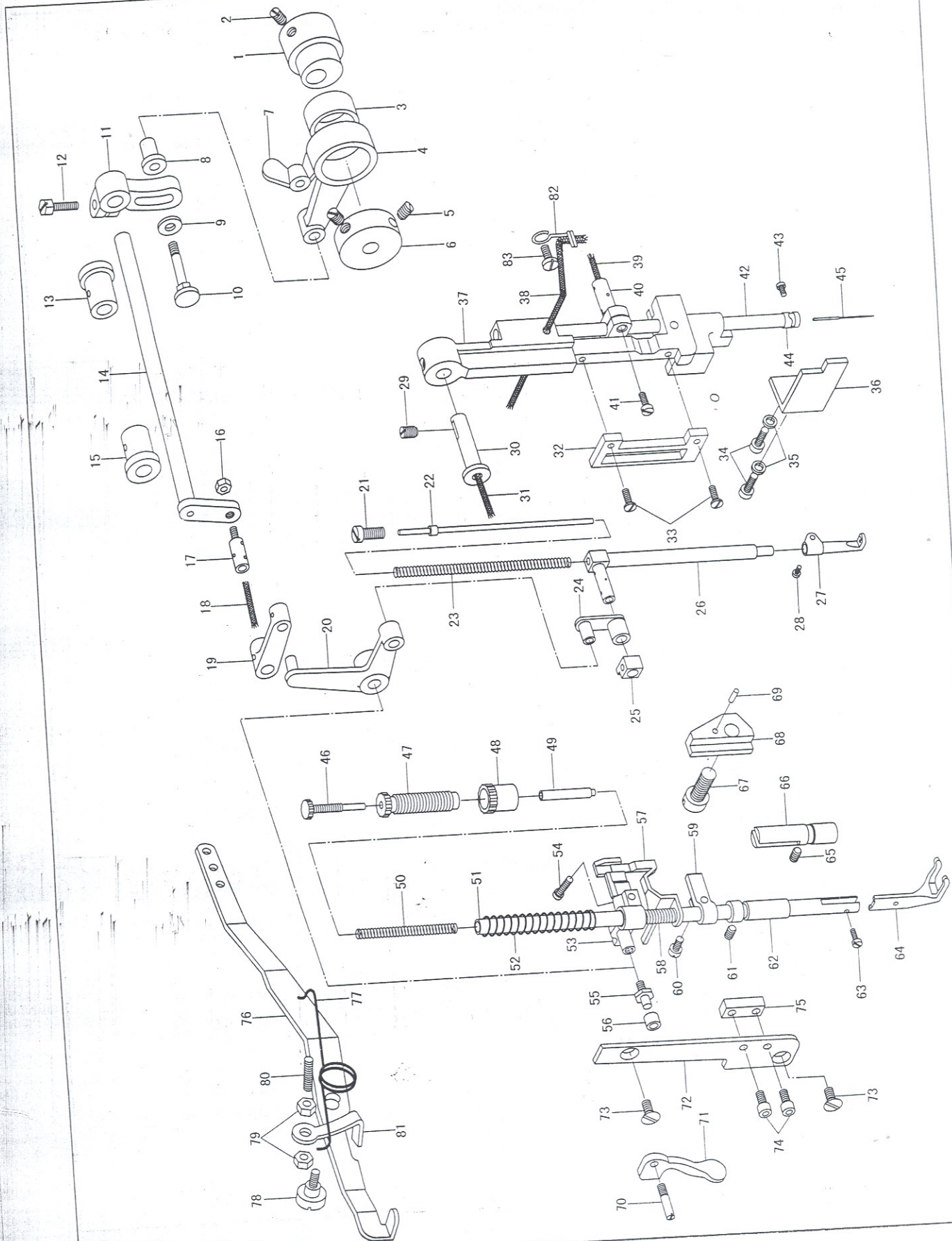
2、Upper shaft and thread take-up mechanism



2、Upper shaft and thread take-up mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
1	49WF1-005	Thread take-up lever	1	(TW3-S335V)
	66WF1-001	Thread take-up lever	1	(TW3-S335VB)
2	49WF1-003	Thread take-up pin	1	
3	49WF1-004	Screw	1	SM9/64" × 32
4		Oil wick	1	
5	16WF1-013	Thread take-up slide block	1	(TW3-S335V)
	66WF1-002	Thread take-up slide block	1	(TW3-S335VB)
6		Oil wick	1	
7	16WF1-014	Needle crank rod	1	
8	49WF1-006	Rubber cap	1	
9		Oil wick	1	
10	16WF1-015	Needle bar crank pin	1	
11	16WF1-016	Screw	1	SM1/4" × 28
12	16WF1-017	Screw	1	SM1/4" × 28
13	16WF1-019	Screw	1	SM1/4" × 28
14	16WF1-018	Needle bar crand	1	
15	16WF1-020	Screw	1	SM1/4" × 28
16	22WF2-049	Screw	1	SM5/16" × 28
17		Oil wick	1	
18	16WF1-021	Washer	1	
19	22WF1-053	Upper shaft bush(L)	1	
20	16WF1-025	Felt	2	
21	49WF1-007	Upper shaft	1	
22	49WF1-008	Upper shaft bush(M)	1	
23	16WF1-004	Screw	1	SM17/64"32
24	16WF1-025	Felt	1	
25	49WF1-012	Upper shaft collar	1	
26	22WF1-048	Screw	2	SM1/4" × 28
27	49WF1-013	Upper shaft bevel gear	1	
28	49WF1-014	Screw	1	SM1/4" × 40
29	49WF1-015	Set screw	1	SM1/4" × 40
30	49WF1-009	Upper shaft bush (rear)	1	
31	16WF1-004	Screw	1	SM17/64" × 32
32	49WF1-010	Felt	1	
33	49WF1-011	Small felt	1	SM1/4" × 32
34	16WF1-056	Screw	1	
35	22WF1-008	Ring	1	
36	13WF1-077	Screw	1	SM15/64" × 28
37	13WF1-078	Screw	1	SM15/64" × 28
38	16WF1-035	Hand wheel	1	
39	16WF1-040	Screw	1	SM11/32" × 28
40	49WF1-017	Screw	1	SM9/64" × 40
41	49WF1-016	Gear cover(U)	1	

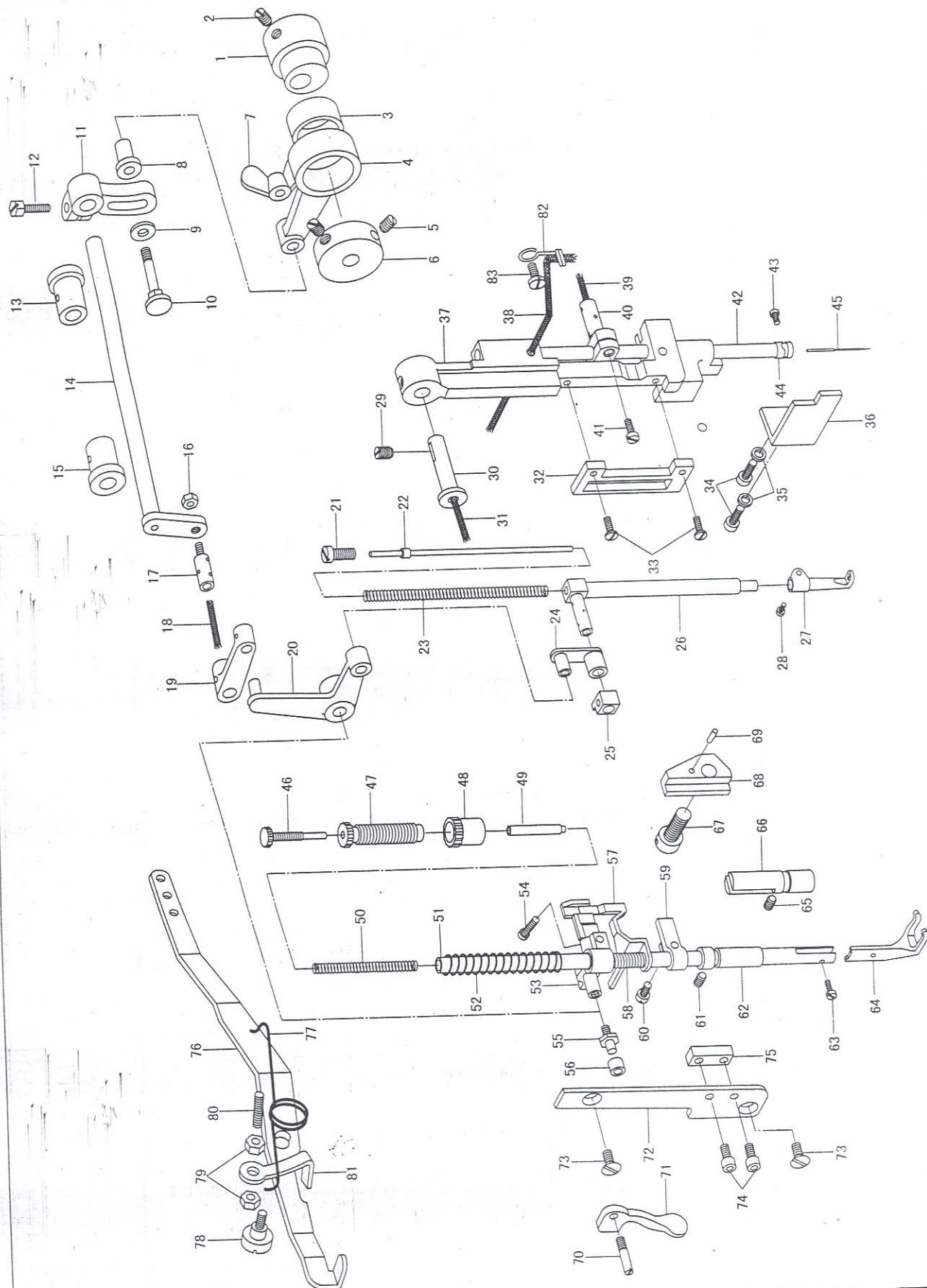
3、Needle bar rocking frame, presser foot mechanism



3、 Needle bar rocking frame, presser foot mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
1	49WF5-006	Inner presser foot vertical cam	1	
2	22WF5-002	Screw	2	SM1/4" × 40
3		Needle bearing	1	
4	22WF5-021	Eccentric wheel connecting rod	1	
5	22WF5-025	Screw	2	SM7/32" × 32
6	22WF5-024	Collar	1	
7	22WF5-020	Nut	1	
8	22WF5-019	Collar	1	
9	16WF2-023	Washer	1	
10	22WF5-018	Stud screw	1	
11	22WF5-017	Crank	1	SM1/4" × 28
12	16WF3-030	Clamping screw	1	
13	22WF5-013	Upper feed shaft bushing	1	
14	22WF5-012	Upper feed shaft	1	
15	22WF5-013	Upper feed shaft bushing	1	
16	22WF5-016	Nut	1	
17	22WF5-015	Pin screw	1	
18		Oil wick	1	
19	22WF5-014	Link	1	
20	22WF5-026	Swing plate	1	
21	49WF5-009	Pressure adjustment screw	1	SM5/16" × 24
22	22WF5-031	Spring rod	1	
23	49WF5-007	Spring	1	
24	22WF5-028	Link	1	
25	22WF5-009	Slide block	1	
26	22WF5-029	Inner presser foot bar	1	
27	49WF5-008	Inner presser foot	1	
28	22WF5-033	Screw	1	SM5/32" × 40
29	16WF1-011	Screw	1	SM17/64" × 32
30	22WF5-002	Rocking frame shaft	1	
31		Oil wick	1	
32	22WF5-003	Bridging plate	1	
33	16WF1-059	Screw	2	SM9/64" × 40
34	6K2-019	Screw	2	M4 × 0.7
35	22T1-007	Washer	2	
36	49WF5-001	Guide plate	1	
37	22WF5-001	Needle bar rocking frame	1	
38		Oil wick	1	
39		Oil wick	1	
40	22WF1-004	Connecting stud	1	
41	16WF1-009	Screw	1	M4 × 0.7

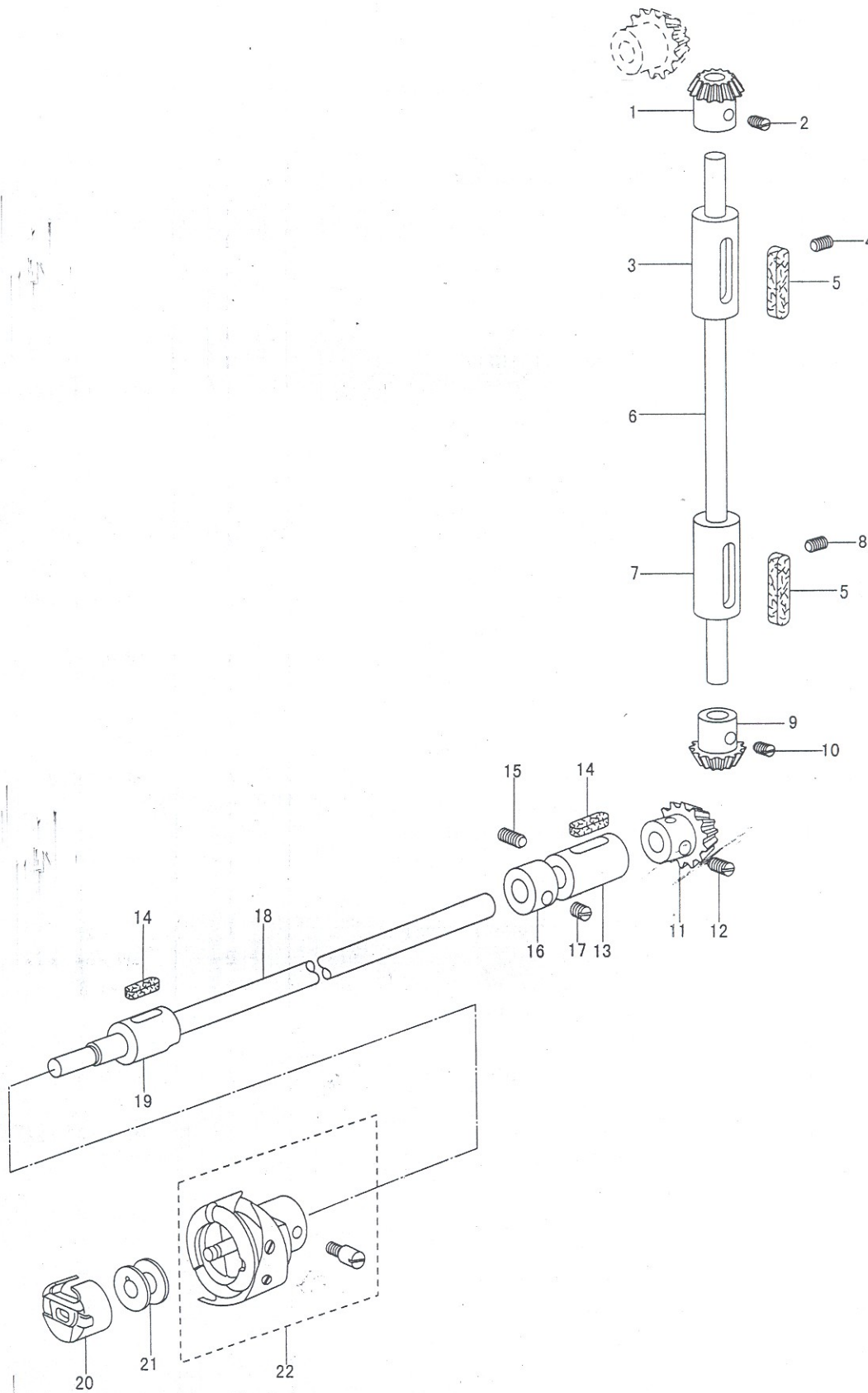
3、Needle bar rocking frame, presser foot mechanism



3、Needle bar rocking frame, presser foot mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
42	49WF1-001	Needle bar	1	
43	22WF1-003	Screw	1	SM1/8" × 40
44	49WF1-002	Needle bar thread guide	1	
45		Needle	1	DP × 17 16#
46	49WF3-004	Pressure adjustment screw(small)	1	
47	49WF3-001	Pressure adjustment screw(big)	1	
48	49WF3-002	Screw	1	
49	49WF3-006	Spring pin	1	
50	49WF3-005	Spring	1	
51	22WF3-005	Presser bar	1	
52	49WF3-003	Spring	1	
53	22WF3-007	Presser bar lifter	1	
54	16WF2-033	Screw	1	SM11/64" × 40
55	49WF3-009	Roller screw	1	
56	49WF3-010	Roller	1	
57	22WF3-009	Thread release plate	1	
58	22WF3-008	Thread release spring	1	
59	16WF4-021	Presser bar guide	1	
60	16WF4-022	Screw	1	SM9/64" × 40
61	16WF3-025	Screw	1	SM17/64" × 32
62	49WF3-007	Presser bar bush	1	
63	22WF3-014	Screw	1	SM9/64" × 40
64	49WF3-015	Outer presser foot	1	
65	6K2-042	Screw	1	M6 × 1
66	49WF3-008	Presser bar guide shaft	1	
67	22WF3-011	Screw	1	SM1/4" × 28
68	22WF3-010	Presser plate	1	
69	22WF3-012	Pin	1	
70	16WF4-001	Pin screw	1	
71	16WF4-002	Presser foot lifter	1	
72	49WF3-011	Thread release guiding plate	1	
73	49WF3-012	Screw	2	SM15/64" × 28
74	49WF3-014	Screw	2	M5 × 0.8
75	49WF3-013	Stopper block	1	
76	22WF3-002	Presser foot lifter lever	1	
77	22WF3-001	Presser spring	1	SM1/4" × 28
78	16WF3-059	Screw	2	
79	22WF3-004	Nut	1	SM15/64" × 28
80	22WF3-003	Set screw	1	
81	22WF3-015	Stopper	1	
82	49WF5-010	Oil wick set ring	1	
83	49WF2-012	Set screw		

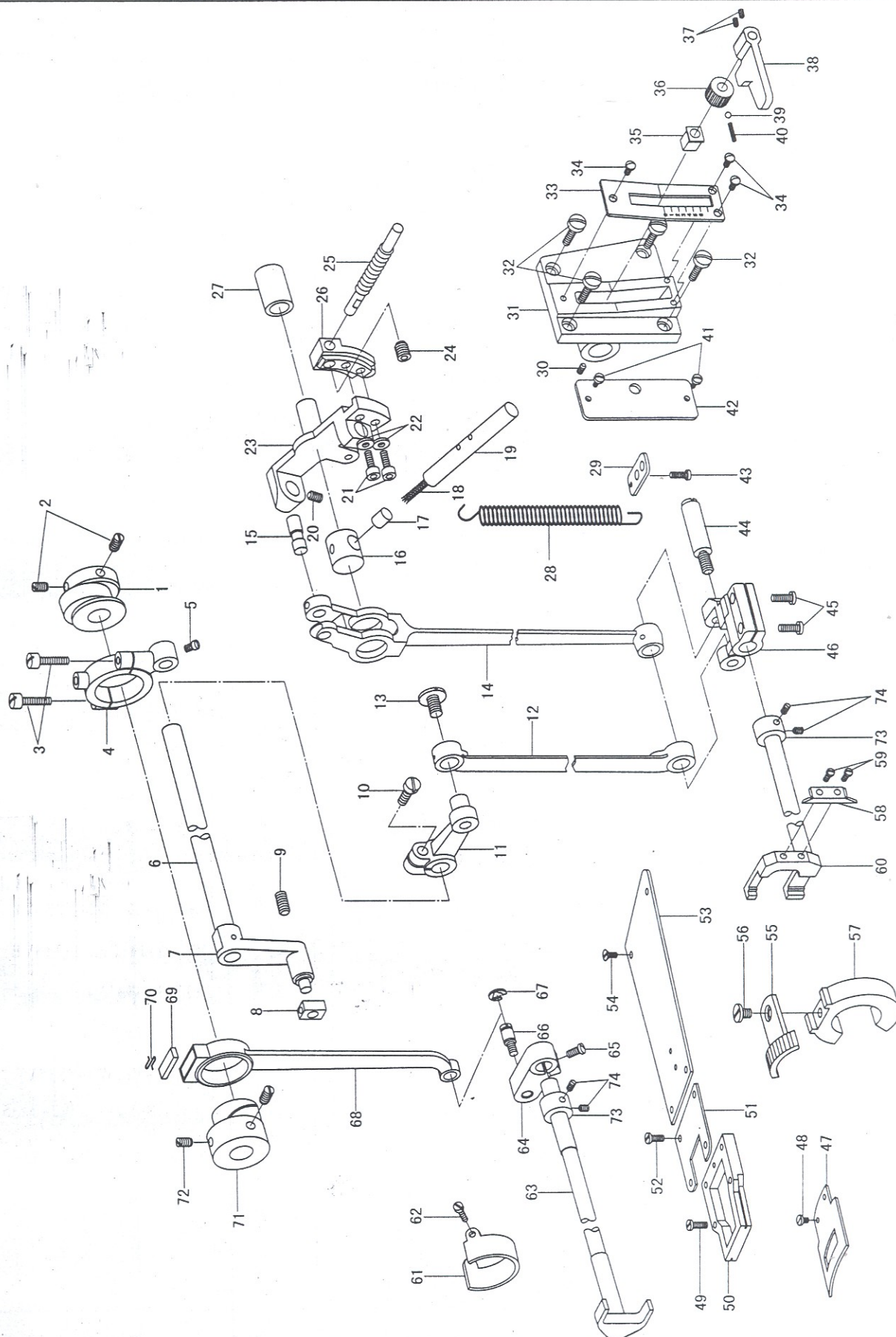
4、 Vertical shaft, lower shaft mechanism



4、Vertical shaft, lower shaft mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
1	49WF1-019	Vertical shaft gear(U)	1	
2	49WF1-020	Set screw	2	SM1/4" × 40
3	49WF1-023	Vertical shaft bushing(U)	1	
4	16WF3-025	Set screw	1	SM17/64" × 32
5	49WF1-025	Felt	2	
6	49WF1-018	Vertical shaft	1	
7	49WF1-024	Vertical shaft bush(L)	1	
8	16WF1-004	Set screw	1	SM17/64"32
9	49WF1-021	Vertical shaft gear(L)	1	
10	49WF1-020	Set screw	2	SM1/4" × 40
11	49WF1-027	Lower shaft gear	1	
12	49WF1-015	Set screw	2	SM1/4" × 40
13	49WF1-030	Lower shaft bush(rear)	1	
14	49WF1-031	Felt	1	
15	16WF1-004	Screw	1	SM17/64" × 32
16	49WF1-032	Lower shaft collar	1	
17	7KT3-026	Screw	2	SM1/4" × 32
18	49WF1-026	Lower shaft	1	
19	49WF1-029	Lower shaft bush (front)	1	(TW3-S335V)
	66WF1-004	Lower shaft bush (front)	1	(TW3-S335VB)
20		Bobbin case	1	SC39-14(TW3-S335V)
		Bobbin case	2	SC39-14(TW3-S335VB)
21	49WF1-033	Bobbin	1	(TW3-S335V)
	33T1-027	Bobbin	1	(TW3-S335VB)
22		Rotary hook	1	KR69-V(TW3-S335V)
		Rotary hook	1	KHS20-GIVG(TW3-S335VB)

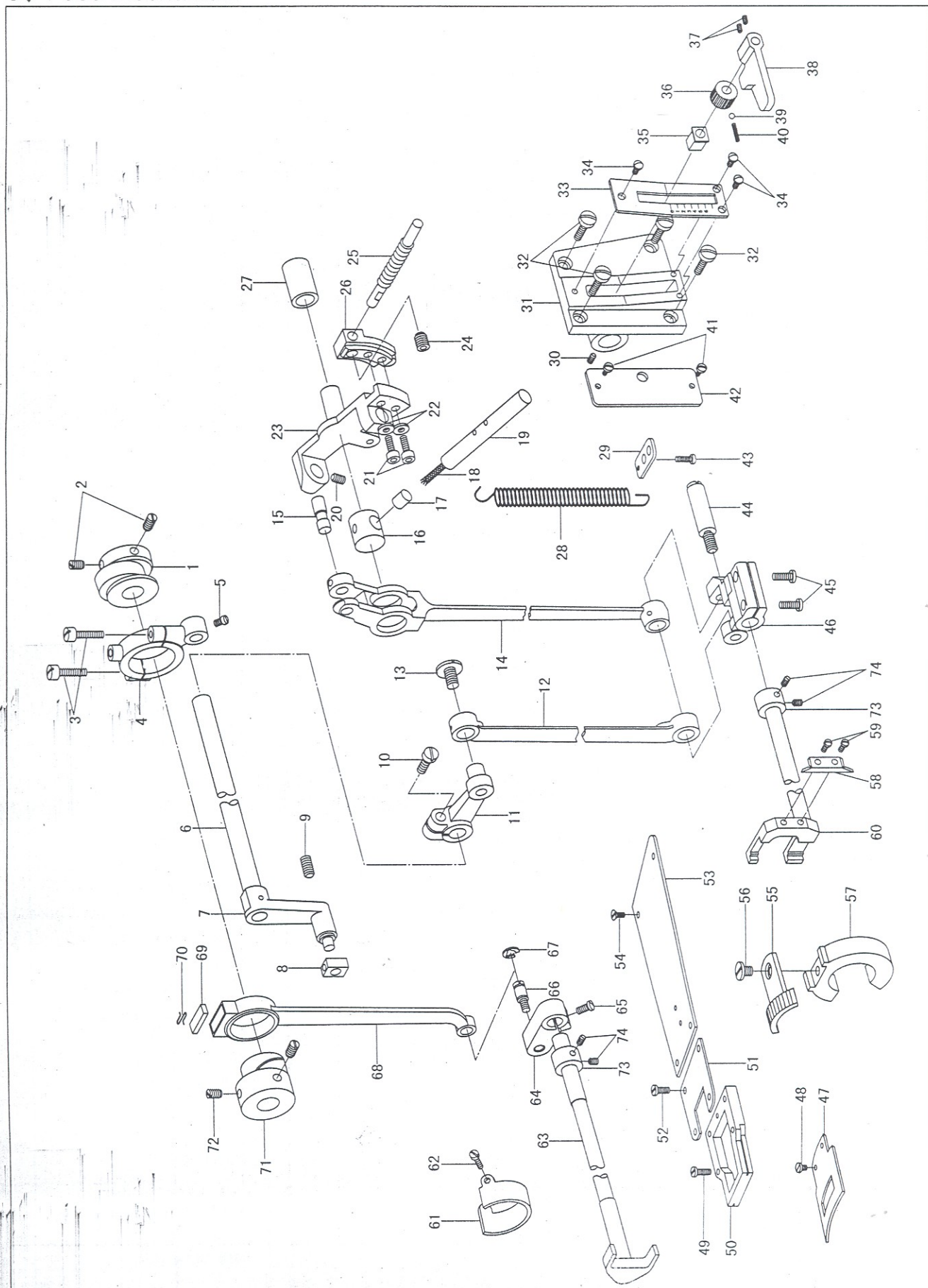
5、Feed mechanism



5、Feed mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
1	49WF4-001	Feed eccentric cam	1	
2	7KT3-033	Screw	2	SM1/4" × 40
3	49WF4-003	Screw	2	M5 × 0.8
4	49WF4-002	Feed upper crank	1	
5	1WF3-025	Screw	1	SM11/64" × 40
6	49WF5-002	Needle bar rocking shaft	1	
7	22WF5-006	Slide block shaft	1	
8	22WF5-005	Slide block	1	
9	22WF1-020	Screw	1	SM7/32" × 32
10	22WF3-011	Screw	1	SM1/4" × 28
11	49WF5-003	Crank	1	(TW3-S335V)
	66WF4-001	Crank	1	(TW3-S335VB)
12	49WF5-004	Needle bar rocking link	1	(TW3-S335V)
	66WF4-002	Needle bar rocking link	1	(TW3-S335VB)
13	49WF5-005	Screw	1	SM17/64" × 32
14	49WF4-004	Feed link	1	(TW3-S335V)
	66WF3-001	Feed link	1	(TW3-S335VB)
15	49WF4-005	Feed link pin	1	
16	49WF1-009	Stitch length regulating shaft	1	
17	49WF1-006	Rubber plug	1	
18		Oil wick	1	
19	49WF4-008	Reverse stitching control rod	1	
20	21WF3-010	Screw	1	SM3/16" × 32
21	6K2-019	Screw	2	M4 × 0.7
22	22T1-007	Washer	2	
23	49WF4-006	Stitch length regulating bracket	1	
24	49WF4-014	Screw	1	SM15/64" × 32
25	49WF4-013	Pin screw	1	
26	49WF4-010	Bracket	1	
27	49WF4-007	Bush	1	
28	49WF4-011	Reset spring	1	
29	49WF4-012	Spring plate	1	
30	1WF4-016	Screw	1	SM15/64" × 28
31	49WF4-015	Feed adjusteing bracket	1	
32	49WF4-016	Screw	4	SM15/64" × 32
33	49WF4-017	Stitch length graduation plate	1	(TW3-S335V)
	66WF3-002	Stitch length graduation plate	1	(TW3-S335VB)
34	49WF2-026	Screw	3	SM9/64" × 40
35	22WF4-026	Stitch length regulating block	1	
36	22WF4-027	Nut	1	
37	13WF4-027	Screw	2	M5 × 0.8
38	22WF4-028	Feed lever	1	
39		Ball	1	Φ3.17
40	22WF4-030	Spring	1	
41	37T4-416	Screw	2	SM9/64" × 40

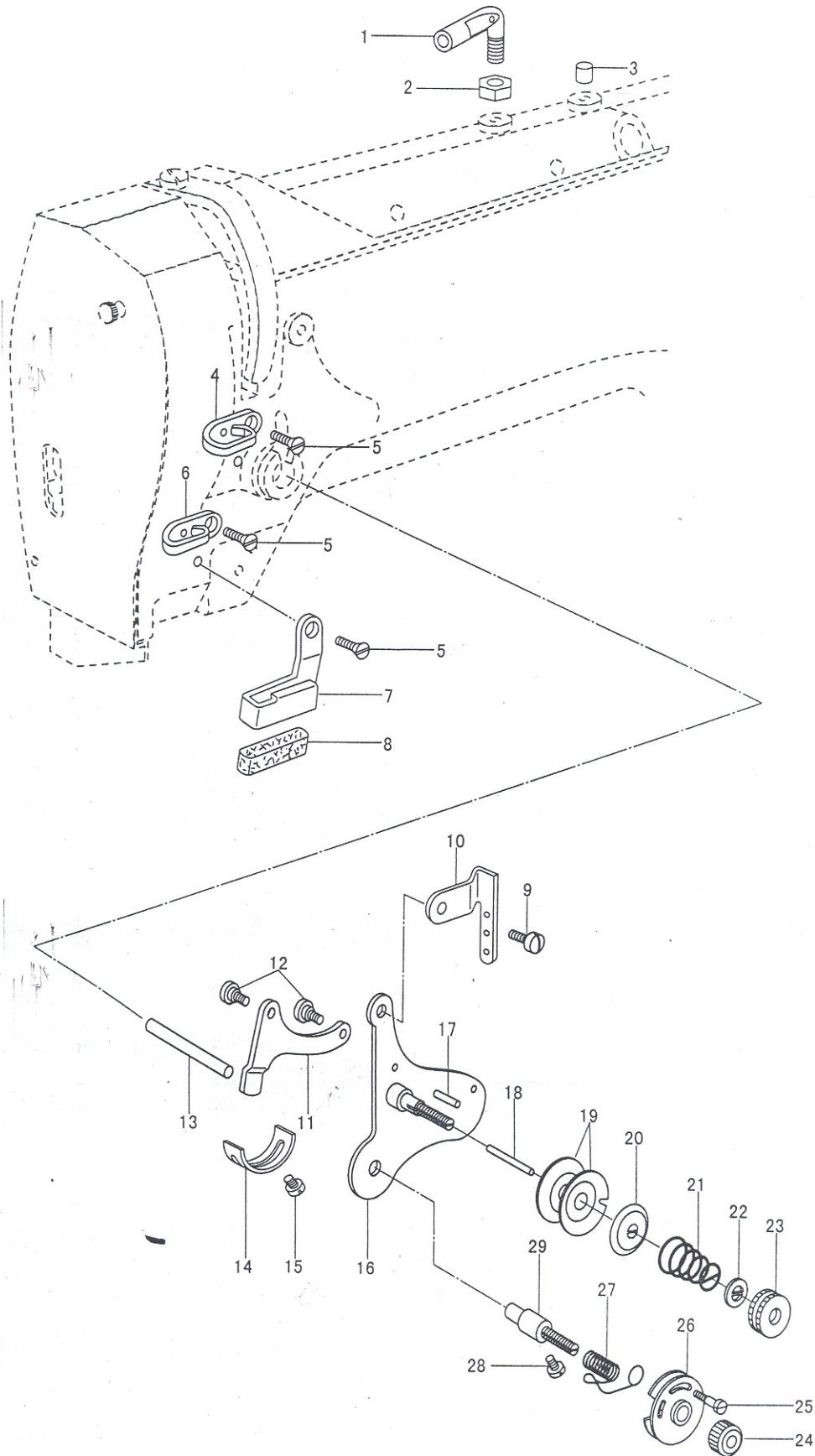
5、Feed mechanism



5、Feed mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
42	49WF2-033	Back cover	1	
43	13WF1-045	Screw	1	M5 × 0.8
44	49WF4-021	Lower feed crank link shaft	1	
45	49WF4-020	Screw	2	M6 × 1
46	49WF4-019	Lower feed crank	1	(TW3-S335V)
	66WF3-003	Lower feed crank	1	(TW3-S335VB)
47	7KT3-039	Screw	1	
48	49WF4-018	Feed shaft	1	
49	7KT5-024	Screw	2	SM15/64" × 28
50	49WF4-029	Screw	2	SM11/64" × 32
51	49WF2-030	Screw	1	SM9/64" × 40
52	49WF4-024	Collar	1	
53	49WF4-023	Link shaft	1	
54		Oil wick	1	
55	49WF4-022	Feed shaft crank(front)	1	(TW3-S335V)
	66WF3-004	Feed shaft crank(front)	1	(TW3-S335VB)
56	49WF2-028	Feed arm bracket	1	
57	22WF4-014	Screw	2	SM11/64" × 40
58	49WF4-028	Pin screw	1	
59	49WF4-027	Feed arm	1	
60	49WF4-026	Screw	2	SM1/8" × 44
61	49WF4-025	Feed dog	1	(TW3-S335V)
	66WF3-005	Feed dog	1	(TW3-S335VB)
62	49WF2-025	Hook setting bracket	1	(TW3-S335V)
	66WF2-004	Hook setting bracket	1	(TW3-S335VB)
63	49WF2-026	Screw	4	SM9/64" × 40
64	49WF2-024	Needle plate	1	
65	7KT4-035	Screw	2	SM11/64" × 40
66	49WF2-027	Bed cover	1	
67	49WF2-029	Spring	1	
68	49WF2-031	Washer	1	
69	49WF2-030	Screw	1	SM9/64" × 40
70	49WF2-032	Tape guide	1	
71	22WF4-014	Screw	1	SM11/64" × 40
72	7KT2-020	Washer	1	
73	28WF2-008	Set screw	2	

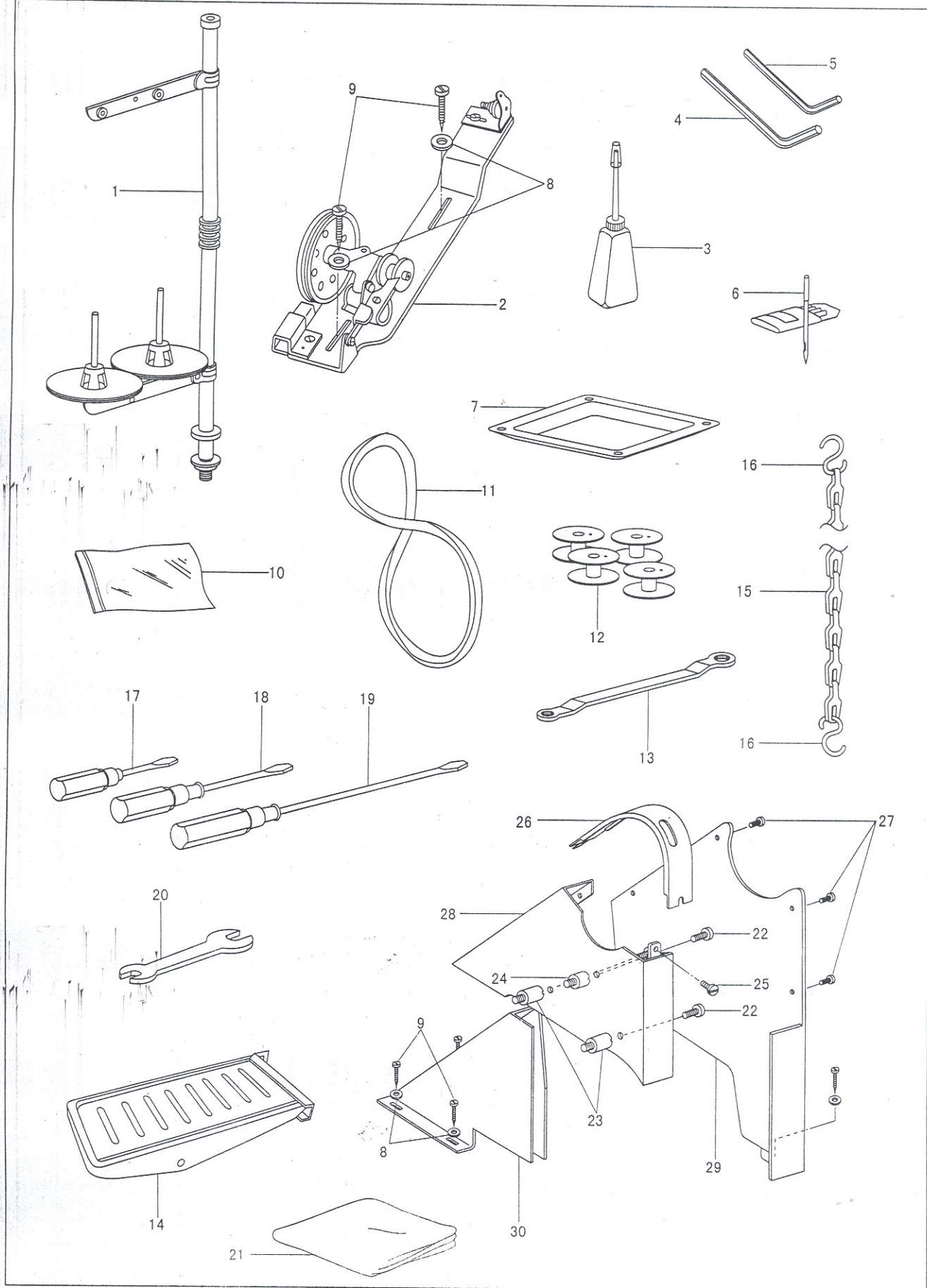
6、Threading mechanism



6、Threading mechanism

No.	Parts No .	Name of parts	Qty.	Remarks
1	13WF2-066	Upper cover thread guide	1	
2	13WF2-067	Nut	1	
3	49WF1-006	Rubber plug	1	
4	16WF2-011	Thread guide (upper)	1	SM9/64" × 40
5	16WF2-015	Screw	3	
6	1WF1-006	Thread guide(middle)	1	
7	16WF2-013	Thread guide (lower)	1	
8	16WF2-014	Felt	1	
9	49WF2-022	Screw	1	
10	13WF2-047	Thread guide	1	SM11/64" × 32
11	16WF2-046A14	Thread release plate	1	
12	16WF2-046A15	Screw	2	SM9/64" × 40
13	16WF2-047	Thread release shaft	1	
14	16WF2-049	Spring stopper	1	
15	16WF2-050	Screw	1	SM9/64"40
16	16WF2-046A1	Upper thread tension board	1	
17	16WF2-046A12	Pin	1	
18	16WF2-046A13	Tension release pin	1	
19	16WF2-046A6	Thread tension disc	2	
20	16WF2-046A5	Tension release dic	1	
21	16WF2-046A4	Thread tension spring	1	
22	153029	Stopper disc	1	
23	16WF2-046A3	Thread tension nut	1	
24	16WF2-046A11	Nut	1	
25	16WF2-046A9	Screw	1	SM3/32" × 56
26	1WF1-010J	Spring guide assembly	1	
27	16WF2-046A7	Thread take-up spring	1	
28	49WF2-012	Screw	1	SM9/64" × 40
29	16WF2-046A10	Thread tension stud	1	

7. Accessories



7、Accessories

No.	Parts No .	Name of parts	Qty.	Remarks
1	33TF-019	Stand assembly	1	
2	S14420020	Bobbin winder assembly	1	
3	33TF-011	Oil pot	1	
4	1F-010	Hexagonal wrench	1	2.5mm
5	1F-011	Hexagonal wrench	1	3mm
6		Needle	4	DP × 17
7	22WF2-008	Oil pan	1	
8	33TF-018	Washer	6	
9	33TF-017	Screw	6	5 × 20 GB99-86
10	33TF-010	Parts bag	1	
11	33TF-005	V-belt	1	O-type 1380mm
12	49WF1-033	Bobbin	4	(TW3-S335V)
	33T1-027	Bobbin	4	(TW3-S335VB)
13		Wrench	1	11-12
14	18WF1-013	Pedal assembly	1	
15	18WF1-017	Chain	1	1000mm
16	18WF1-016	Chain hook	2	
17	33TF-014	Screw driver(L)	1	
18	33FT-013	Screw driver(M)	1	
19	33TF-012	Screw driver(B)	1	
20		Wrench	1	8 × 10
21		Machine cover	1	
22	1WF5-032	Screw	3	SM11/64" × 40
23	49WF6-003	Support screw(2)	2	
24	49WF6-002	Support screw(1)	1	
25	22WF4-007	Connecting screw(1)	1	SM7/32" × 32
26	22WF6-015	Belt guard(1)	1	
27	13WF3-018	Connecting screw(2)	4	M4 × 0.7
28	22WF6-009	Belt guard(2)	1	
29	49WF6-001	Belt guard(3)	1	
30	49WF6-004	Belt guard(4)	1	