

# **CONSEW<sup>®</sup>**

OPERATION INSTRUCTION & PARTS LIST

FOR

# **277RFS-3**



CONSOLIDATED SEWING MACHINE CORP.

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# OPERATION INSTRUCTION

## 1. Brief introduction

This machine is designed with sliding lever to take up thread and horizontal hook catch thread, which product lockstitch. Upper and lower shafts are driven by bevel gears; lever type stitch regulator, compound feed by feed dog, needle and walking foot; high presser foot stroke and lifter, and long stitch length, cylinder bed, Little 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 on the medium and heavy weight materials. (such as: handbag, shoes and other cylinder type materials binding sewing)

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

## 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)

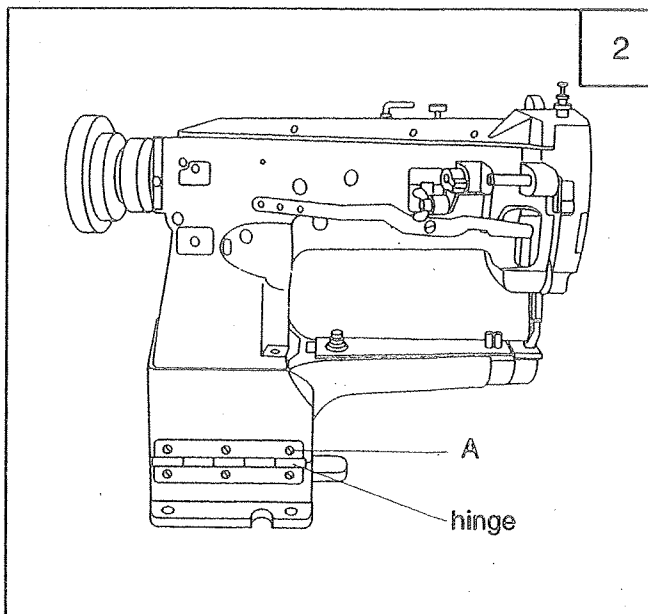
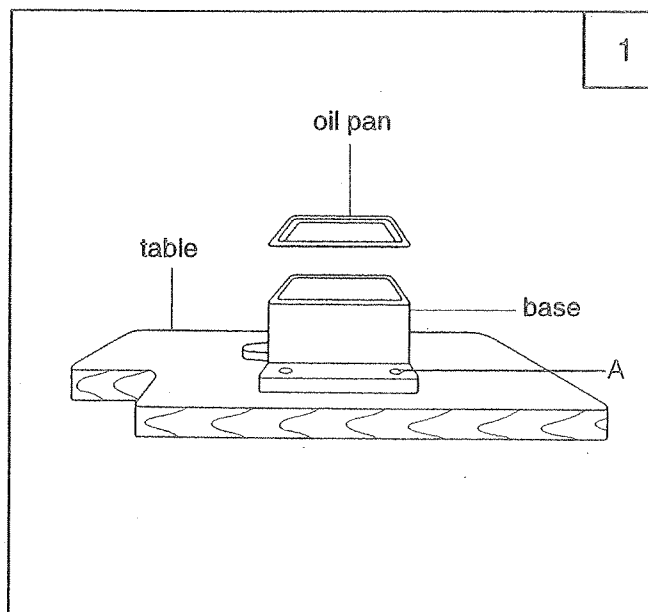
First, Align the four screw holes of the machine base with the ones of the table and plunge four bolts A and tighten the nuts. Then put the oil pan on the machine base smoothly.

### 3. Install the machine head (Fig. 2)

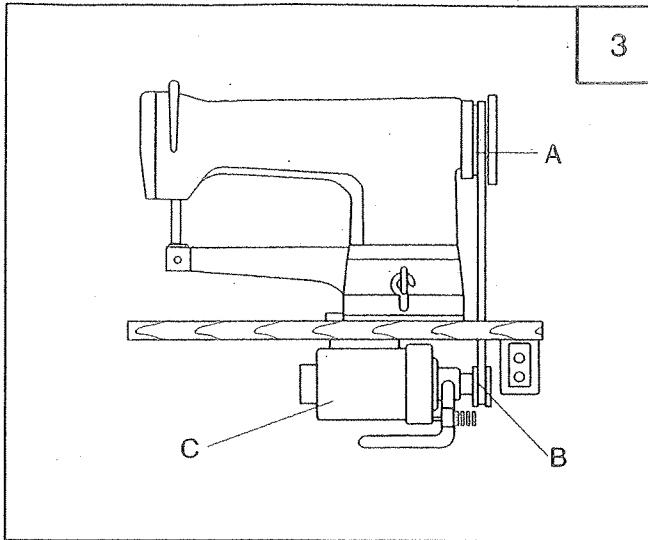
First, half of the hinge should be made to engage with the machine base, then put the machine head lightly on the machine base, move it slightly to align the three screw holes of the head with the ones of the hinge, insert three screws A and tighten them.

## 2. Main specifications

Application	Medium and heavy weight materials
Max.sewing speed	2500s.p.m
Stitch length	0~6mm
Needle bar stroke	33.2mm
Presser foot lift height	8mm by hand 13mm by pedal
Hook	Horizontal hook
Needle	DP × 17 16 <sup>#</sup> ~18 <sup>#</sup>
Lubrication	Oiled by hand
Motor power	370W
Cylinder dia.	46mm

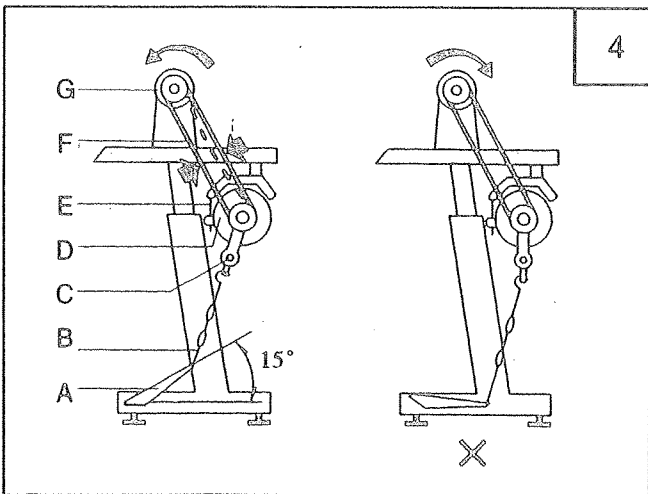


#### 4. Installing the motor (Fig.3)



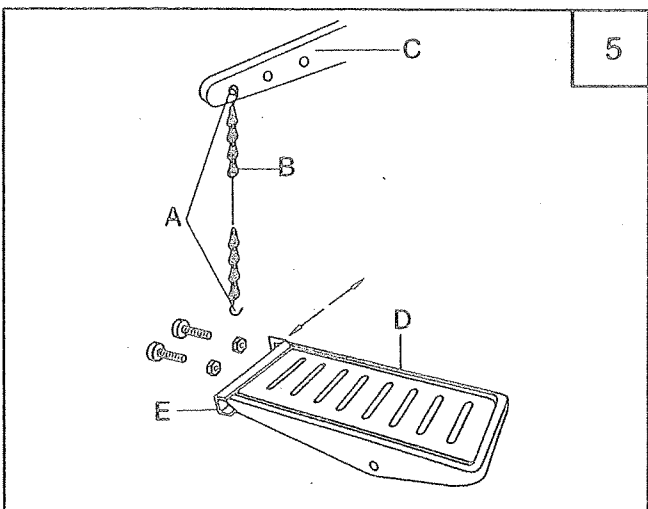
Align machine balance wheel belt groove A with motor pulley belt groove B by moving motor C leftward or rightward. Be sure that the belt is not touched with the table.

#### 5. Connecting between the pedal and the clutch lever (Fig.4)



1. The optimum tilt angle of pedal A against floor is approx. 15° .
2. Adjust the clutch of motor E so that the rod B and the clutch lever C run in one line.
3. When running, the machine balance wheel G should rotate counter-clockwise observed from opposite side of the balance wheel. The motor D rotates in the same direction. The rotation of motor can change by reversing the plug of the motor.
4. Adjust the tension of V-belt by moving motor upward or downward, The proper tension of V-belt is a slack of 10-12mm when the V-belt is depressed by forefinger.

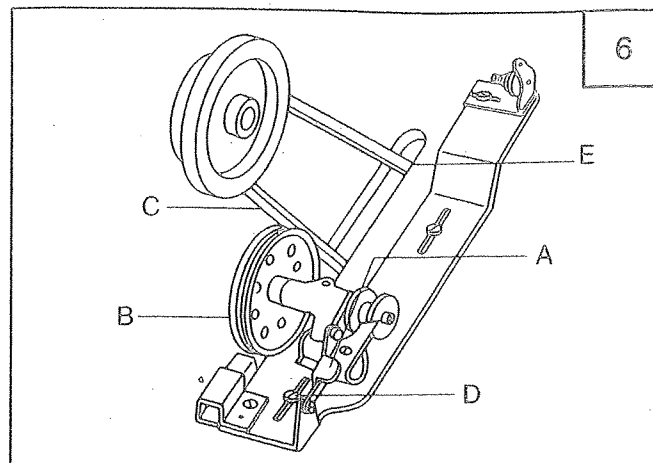
#### 6. Installing the presser foot lift control plate (Fig.5)



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.

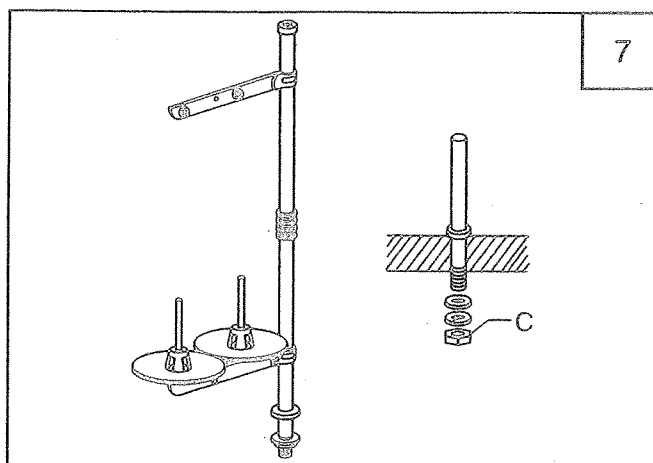
## 7. Installing the bobbin winder (Fig.6)

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, then 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.



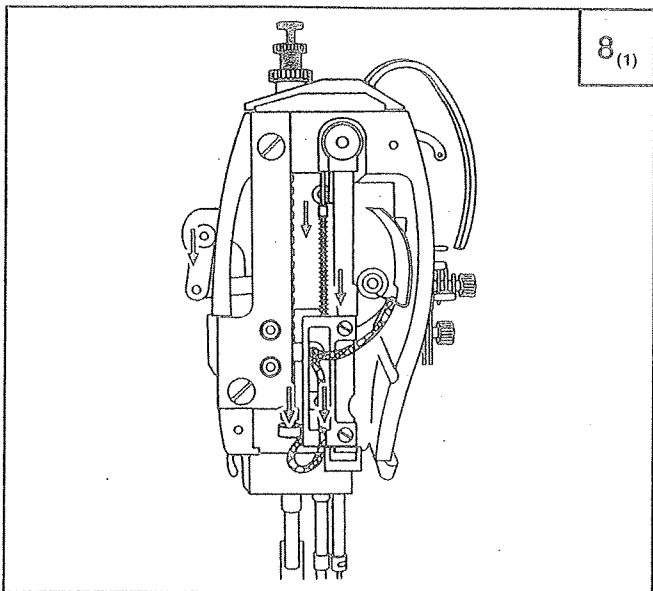
## 9. Operation preparation

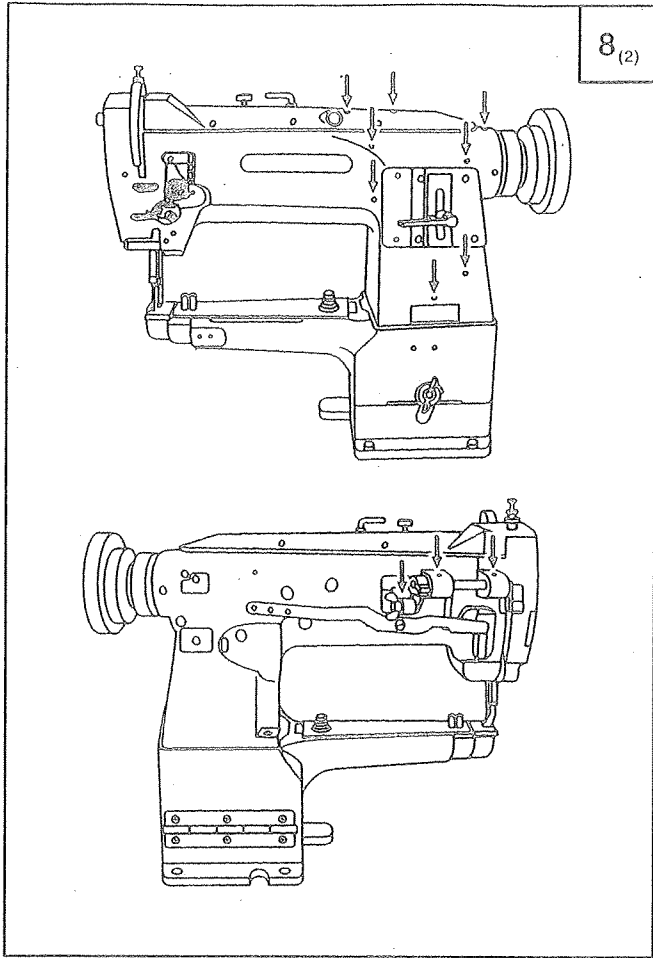
### 1. Clearing the machine

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.



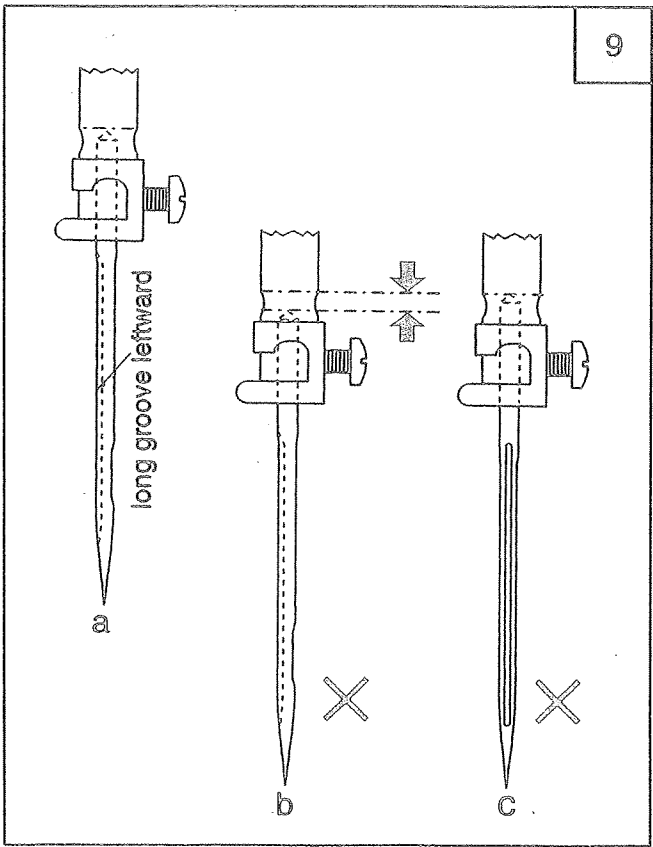


### 10. Lubrication (Fig.8)

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 1000~1500 s.p.m for 30 minutes, then increase the speed gradually.



### 12. Installing the needle (Fig.9)

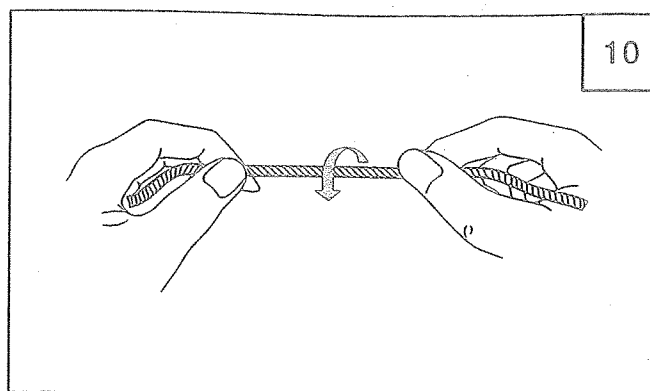
Turn the balance wheel to lift the needle bar to its highest position, loosen the needle set screw, and make the needle groove to the left side of the operator, then fully insert the needle shank until to the bottom of the needle bar socket, tighten the set screw. (Fig 9a)

Note: Insufficient insertion (Fig. 9b) or the needle groove facing to the operator (Fig. 9c) 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.

Please use DP × 17 16<sup>#</sup>~18<sup>#</sup> needle, 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.



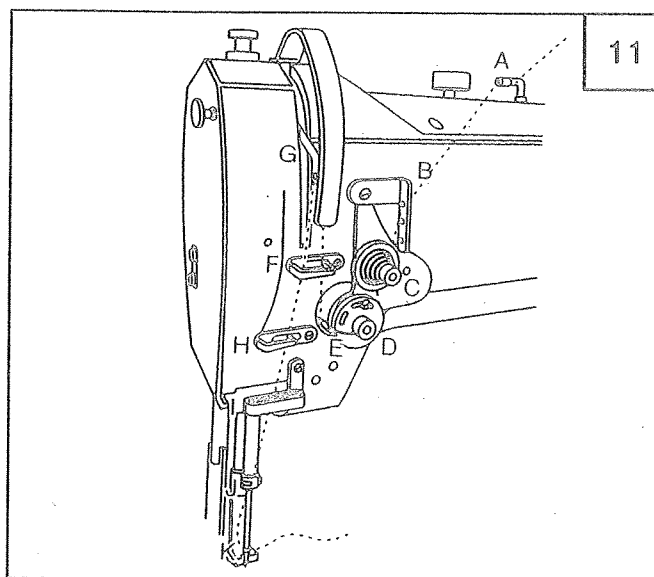
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### 14. Threading the needle thread (Fig.11)

Turn the balance wheel to lift the thread take-up to its highest position, then threading the thread from the thread stand.

Threading order as Fig.11: upper cover thread guide A→three-hole thread guide B→thread tension disc C→spring guide disc D→spring E→thread guide (upper) F→thread take-up 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, holding the tip of the needle thread by hand, thru the balance 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 the needle thread and bobbin thread toward front under the persser foot.



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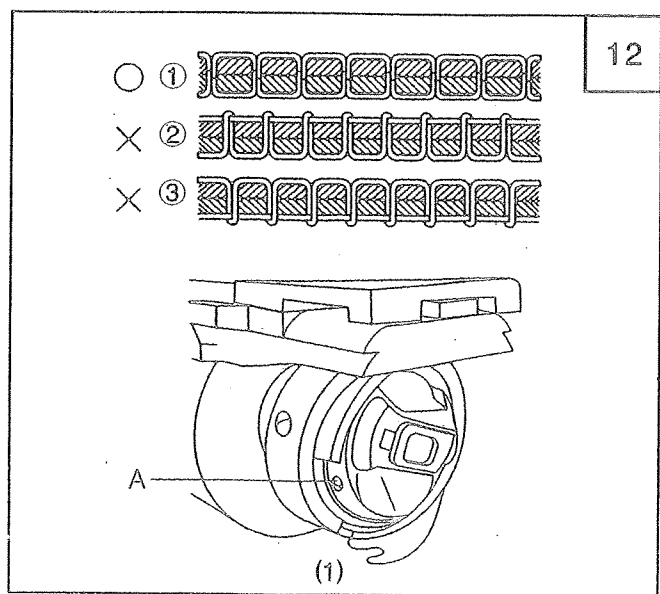
### 15. Adjusting the tension of bobbin thread and needle thread (Fig. 12)

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

1. Adjusting the tension of bobbin thread.

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

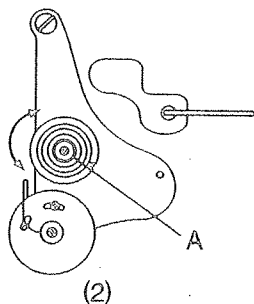
- ① Turn the balance wheel by hand to lift the thread take-up to its highest position;
- ② Take down the sliding plate, the screw A is shown as Fig. 12 (1);
- ③ Turn the screw A clockwise to increase the tension of bobbin thread;
- ④ Turn the screw A counter-clockwise to decrease the tension of bobbin thread;



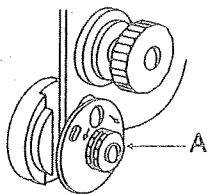
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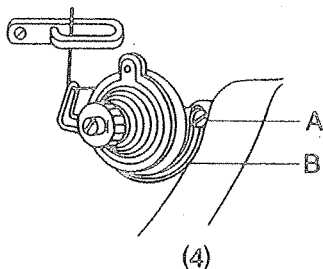
12<sup>(2)</sup>



(2)



(3) Standard clearance 8mm



(4)

## 2. Adjusting the tension of needle thread

### (1) Adjusting the pressure on the thread tension disc:

Adjusting the pressure on the thread tension disc to change the tension of needle thread. As Fig. (2), turn the nut A clockwise to increase the pressure, on the contrary, to decrease the pressure.

### (2) Adjusting the tension of spring

Light materials	20g
Normal materials	25g
Heavy materials	30g

The method of adjustment as Fig. (3):

Loosen the nut A, turn the spring shaft 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.

### (3) The swing range of the spring

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

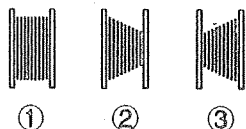
Light materials	over 8mm
Normal materials	about 8mm
Heavy materials	less 8mm

The method of adjusting swing range: as Fig (4)

- ① Loosen 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 A.

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

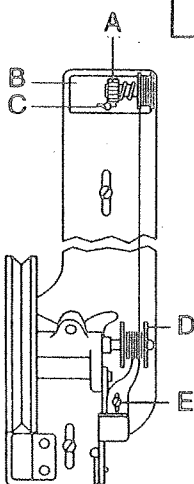
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①

②

③

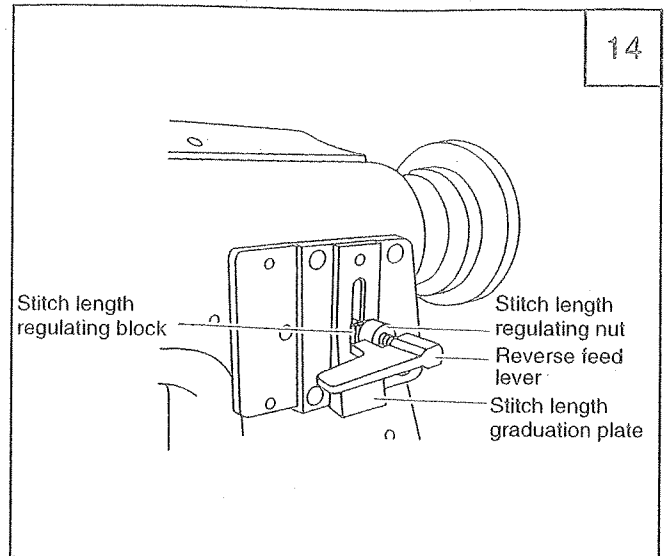


The bobbin thread should be neat and tight. If the thread is weak, please increase the tension of the thread tension disc A; if the thread is not neat, please move the bracket C to adjust it. First, loosen the screw B, if the thread is wound to one side as Fig ②, move the bracket rightward; if it is as Fig ③, please move the bracket leftward until the thread is wound neatly as Fig. ①, then tighten the screw.

Cote: Nylon or polyester thread should be wound under light tension in particular, otherwise the 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 bobbin thread is fill about 80% of bobbin outside diameter, and this can be adjusted by screw E.

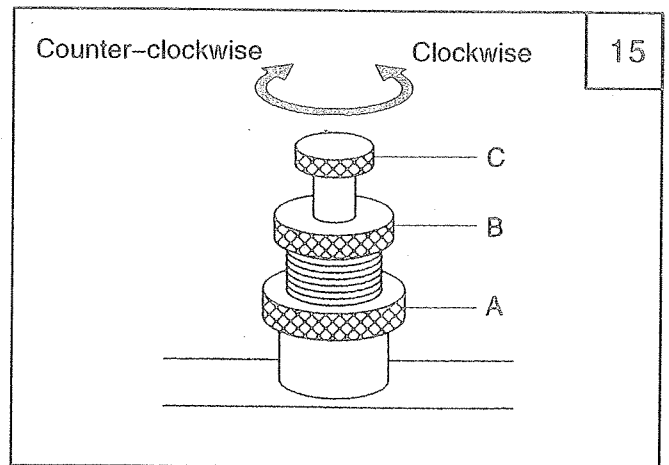
## 17. Stitch length, forward and backward feed (Fig. 14)

Turn the stitch length regulating nut to adjust the stitch length. When the graduation on the stitch length regulating block is aligned with the figure on the stitch length graduation plate, the figure is the stitch length (mm). Lift the reverse feed lever, the feeding is reverse, release the lever, the machine recovers normal feeding again.



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

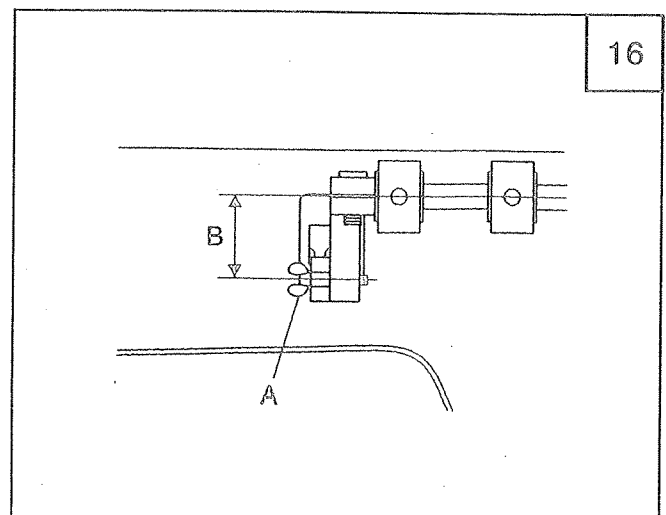
Adjust the presser foot pressure according to the materials. Please increase the pressure when you sew heavy materials. Adjust the screw as Fig. 15, first, loose the nut A, then turn the screw B clockwise to increase the pressure, contrary, decrease the pressure. After the proper pressure is got, tighten the screw A. Turn the screw C, the pressure can be lightly adjusted.



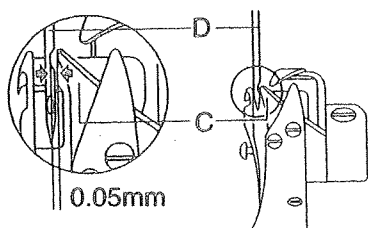
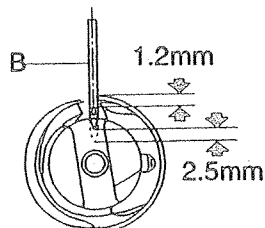
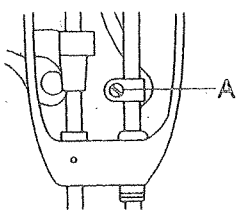
## 19. Adjusting the amount of presser foot lift (Fig. 16)

The method of adjusting the amount of presser foot lift during the sewing is:

Loosen the nut A, adjust the center distance B between the screw A and upper feed shaft, adjust the distance B short to increase the amount of presser foot lift, contrary, 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 align with the needle hole center on the feed dog, please adjust the upper feed shaft cam to adjust the timing of feed.

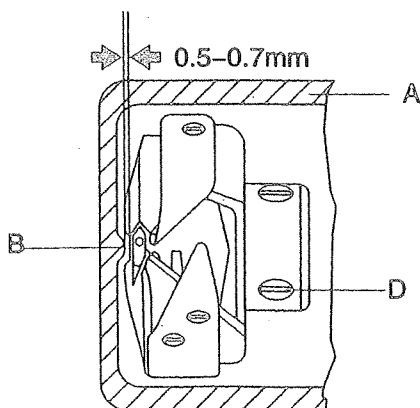
### 2. Installing the feed cam

First, adjust the stitch length to zero, and open the upper cover, turn the balance 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)

The position between hook and needle should be set as following order. Lift the needle up to 1.9mm from its lowest position, the tip of hook should be straight to the needle center line, and there is about 2.1mm distance 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 it is on proper position, then tighten the screw. When adjustmet, also please notice the lateral clearance between the tip of hook and needle, the proper clearance between the bottom of needle gap and the tip of hook is 0~0.5mm.

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

### 1. Installing the hook positioning bracket

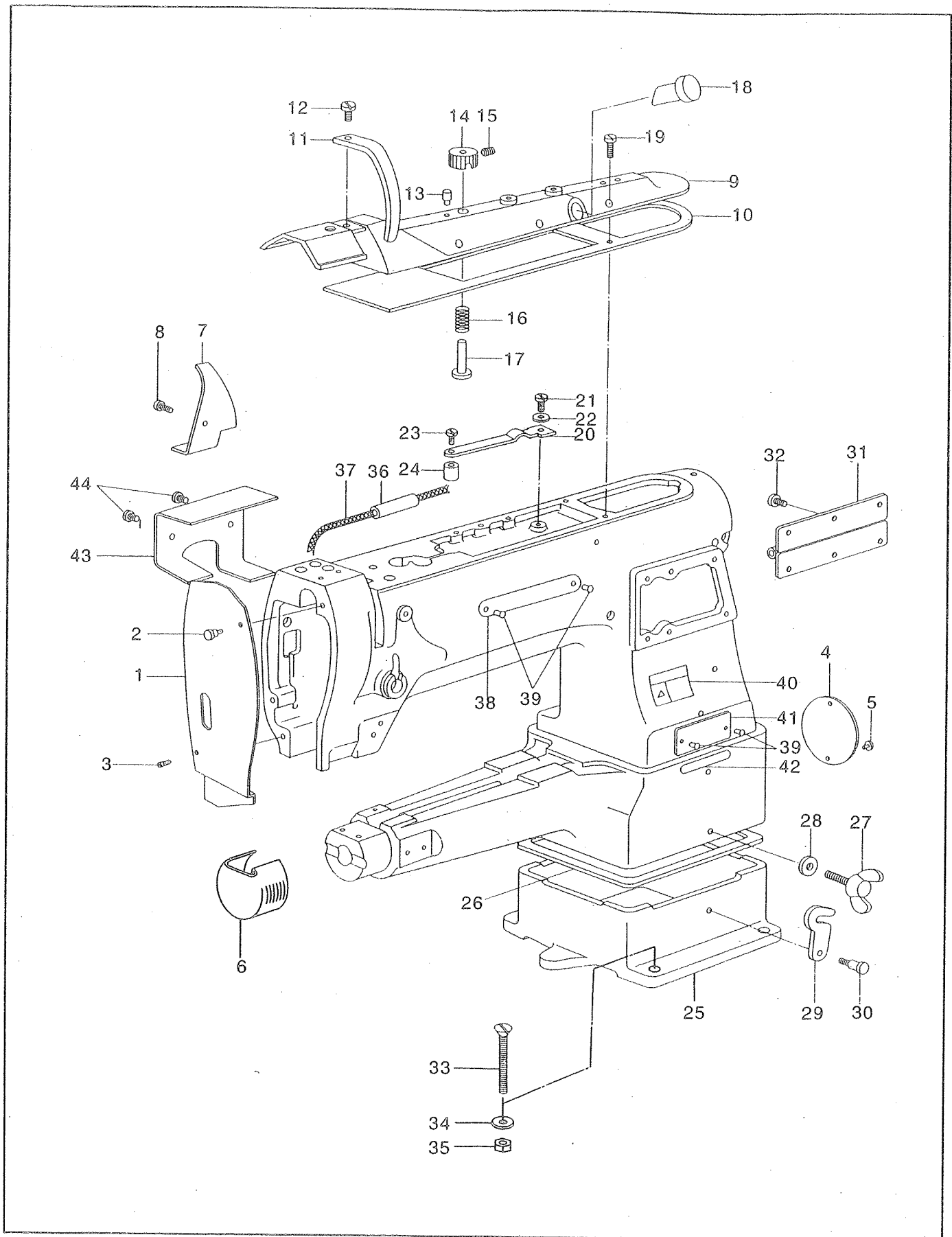
When installing the hook positioning bracket A, the flange of the bracket should enter into the hollowness of hook inner head B, and there is a clearance of 0.5-0.7mm.

### 2. Installing 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 balance wheel and loosen the two set screws 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 LIST

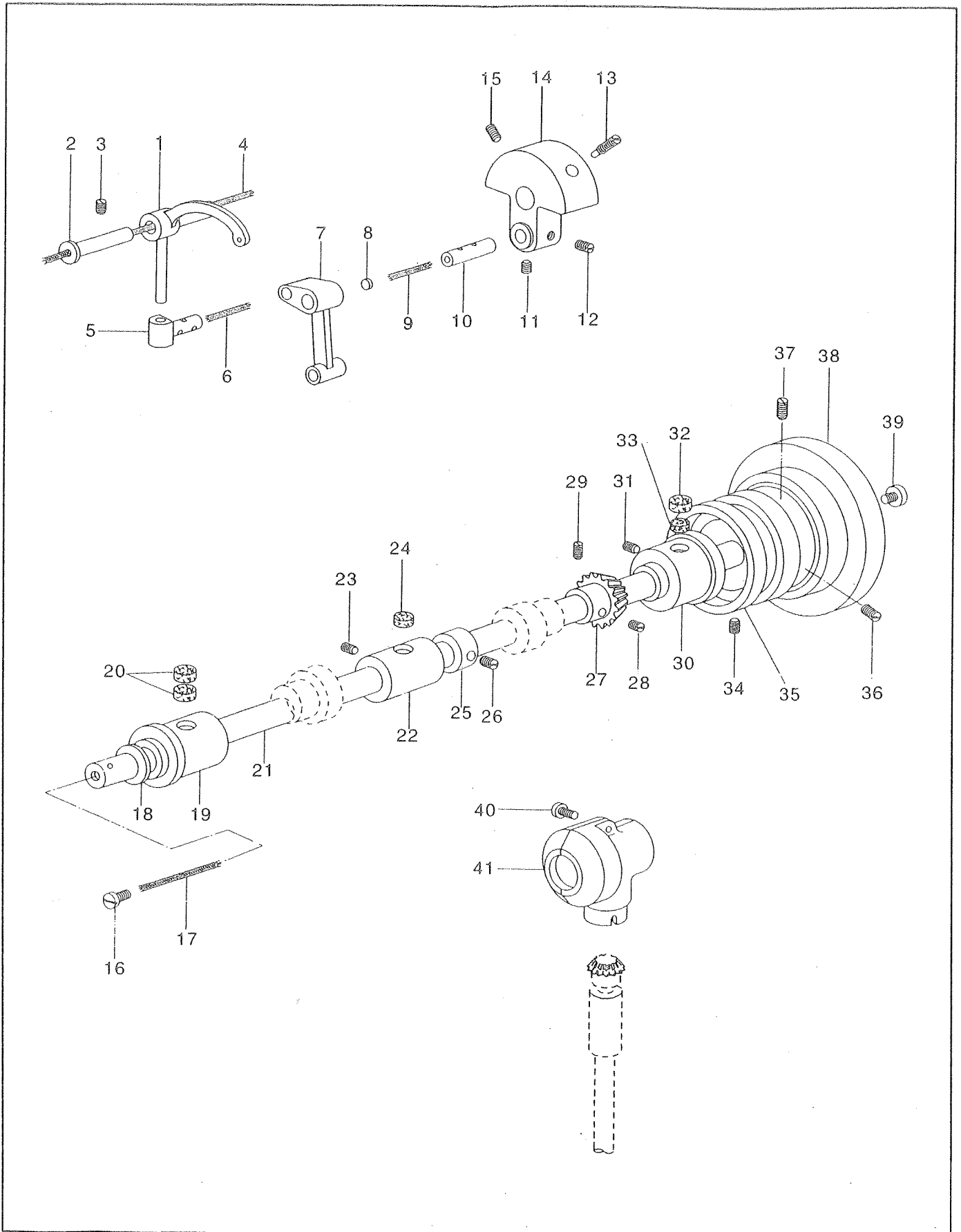
# 1. Machine body



# 1. Machine body

Ref. 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 for back cover	2	
6	49WF2-023	Cylinder	1	
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	
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 adjusting 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	Connecting 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	GB96-85-8
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 2.5 × 5
40	1KT1-005	Warning label	1	
41	49WF2-034	Model label	1	
42	4KT1-005	Series 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

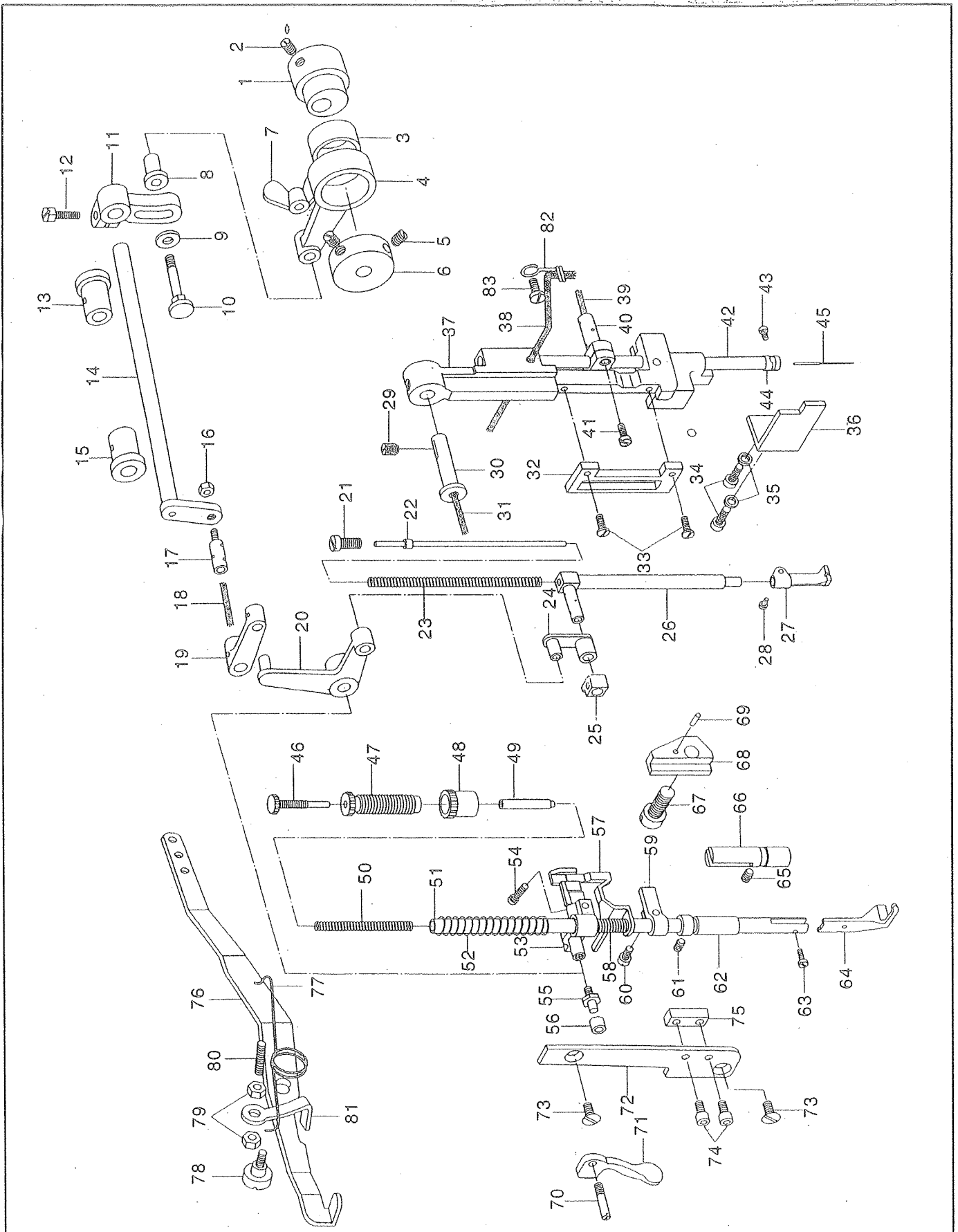


## 2. Upper shaft and thread take-up mechanism

Ref. NO.	Parts No.	Name of parts	Qty.	Remarks
1	49WF1-005	Thread take-up	1	
2	49WF1-003	Thread take-up pin	1	
3	49WF1-004	Screw	1	SM17/64" × 32
4		Oil wick	1	
5	16WF1-013	Thread take-up slide block	1	
6		Oil	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	Set screw	1	SM1/4" × 28
12	16WF1-017	Screw	1	SM1/4" × 28
13	16WF1-019	Ser screw	1	SM1/4" × 28
14	16WF1-018	Needle crank	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	1	
31	16WF1-004	Screw	1	SM17/64" × 32
32	49WF1-010	Felt	1	
33	49WF1-011	Small felt	1	
34	16WF1-056	Screw	1	SM1/4" × 32
35	22WF1-008	Ring	1	
36	13WF1-077	Set screw	1	SM15/64" × 28
37	13WF1-078	Screw	1	SM15/64" × 28
38	16WF1-035	Pulley	1	
39	16WF1-040	Screw	1	SM11/32" × 28
40	49WF1-017	Screw	1	SM9/64" × 40
41	49WF1-016	Gear cover (U)	1	



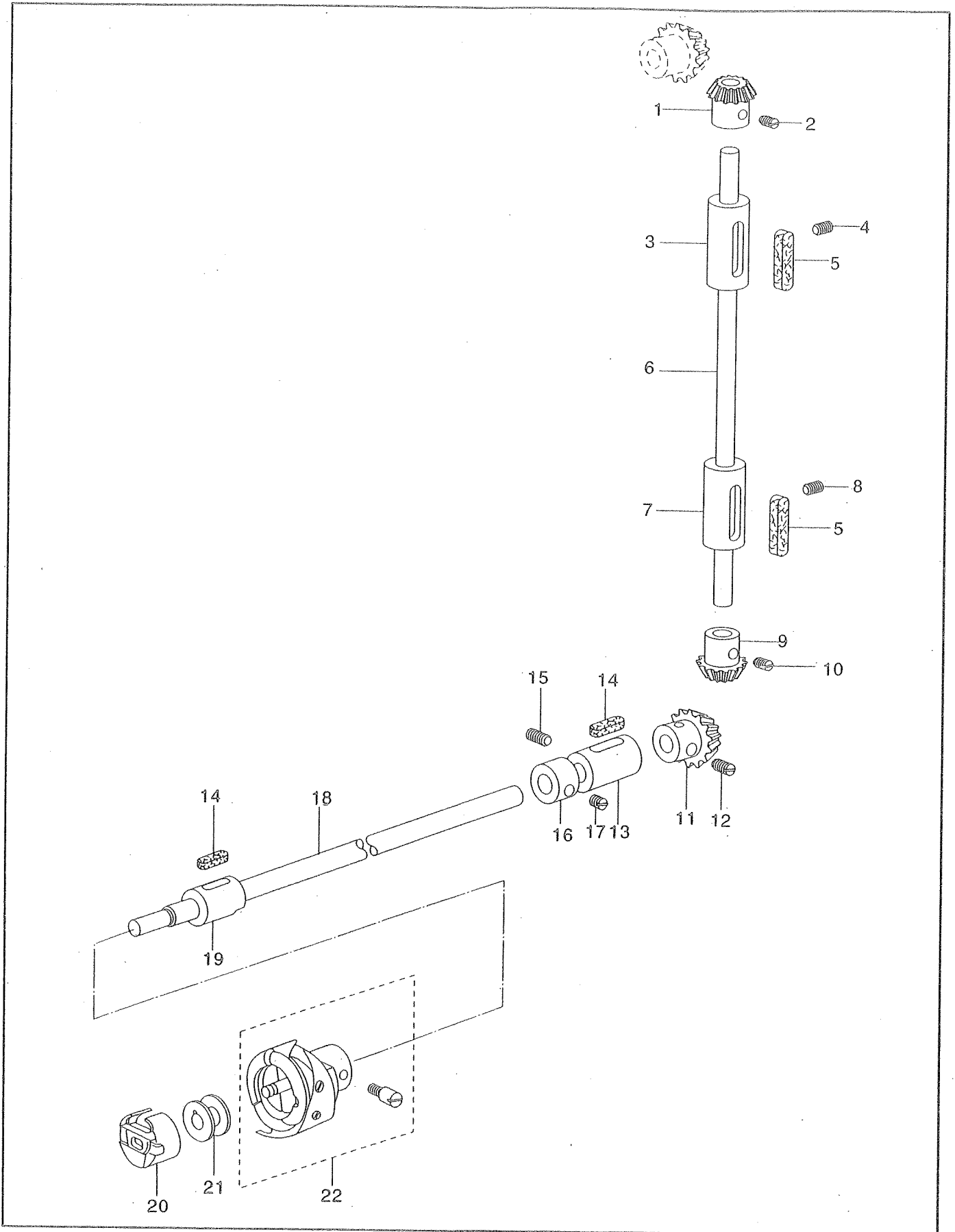
### 3. Needle bar, rocking frame, presser foot mechanism



### 3. Needle bar, rocking frame, presser foot mechanism

Ref. NO.	Parts No.	Name of parts	Qty.	Remarks	Ref. NO.	Parts No.	Name of parts	Qty.	Remarks
1	49WF5-006	Inner presser foot vertical cam	1		43	22WF1-003	Screw	1	SM17/64" × 32
2	22WF4-002	Set screw	2	SM1/4" × 40	44	49WF1-002	Needle bar thread guide	1	
3		Needle bearing	1		45		Needle	1	DP × 17 16#
4	22WF5-021	Eccentric wheel connecting rod	1		46	49WF3-004	Pressure adjustment screw(small)	1	
5	22WF5-025	Screw	2	SM7/32" × 32	47	49WF3-001	Pressure adjustment screw(big)	1	
6	22WF5-024	Collar	1		48	49WF3-002	Screw	1	
7	22WF5-020	Nut	1		49	49WF3-006	Spring pin	1	
8	22WF5-019	Collar	1		50	49WF3-005	Spring	1	
9	16WF2-023	Washer	1		51	22WF3-005	Presser bar	1	
10	22WF5-018	Stud screw	1		52	49WF3-003	Spring	1	
11	22WF5-017	Crank	1		53	22WF3-007	Presser bar lifter	1	
12	16WF3-030	Clamping screw	1	SM1/4" × 28	54	16WF2-033	Screw	1	SM11/64" × 40
13	22WF5-013	Upper feed shaft bush	1		55	49WF3-009	Roller screw	1	
14	22WF5-012	Upper feed shaft	1		56	49WF3-010	Roller	1	
15	22WF5-013	Upper feed shaft bush	1		57	22WF3-009	Thread release plate	1	
16	22WF5-016	Nut	1		58	22WF3-008	Thread release spring	1	
17	22WF5-015	Pin screw	1		59	16WF4-021	Presser bar guide	1	
18		Oil wick	1		60	16WF4-022	Screw	1	SM9/64" × 40
19	22WF5-014	Link	1		61	16WF3-025	Set screw	1	SM17/64" × 32
20	22WF5-026	Swing plate	1		62	49WF3-007	Presser bar bush	1	
21	49WF5-009	Pressure adjustment screw	1	SM5/16" × 24	63	22WF3-014	Set screw	1	SM9/64" × 40
22	22WF5-031	Spring rod	1		64	49WF3-015	Outer presser foot	1	
23	49WF5-007	Spring	1		65	6K2-042	Screw	1	M6 × 1
24	22WF5-028	Link	1		66	49WF3-008	Presser bar guide shaft	1	
25	22WF5-009	Slide block	1		67	22WF3-011	Screw	1	SM1/4" × 28
26	22WF5-029	Inner presser foot bar	1		68	22WF3-010	Presser plate	1	
27	49WF5-008	Inner presser foot	1		69	22WF3-012	Pin	1	
28	22WF5-033	Screw	1	SM5/32" × 40	70	16W4F-001	Pin screw	1	
29	16WF1-011	Screw	1	SM17/64" × 32	71	16W4F-002	Presser foot lifter	1	
30	22WF5-002	Rocking frame shaft	1		72	49WF3-011	Thread release guiding plate	1	
31		Oil wick	1		73	49WF3-012	Screw	2	SM15/64" × 28
32	22WF5-003	Bridging plate	1		74	49WF3-014	Screw	2	M5 × 0.8
33	16WF1-059	Screw	2	SM9/64" × 40	75	49WF3-013	Stopper block	1	
34	6K2-019	Screw	2	M4 × 0.7	76	22WF3-002	Presser foot lifter lever	1	
35	22T1-007	Washer	2		77	22WF3-001	Presser spring	1	
36	49WF5-001	Guide plate	1		78	16WF3-059	Screw	1	SM1/4" × 28
37	22WF5-001	Needle bar rocking frame	1		79	22WF3-004	Nut	2	
38		Oil wick	1		80	22WF3-003	Set screw	1	SM15/64" × 28
39		Oil wick	1		81	22WF3-015	Stopper	1	
40	22WF1-004	Connecting stud	1		82	49WF5-010	Oil wick set ring	1	
41	16WF1-009	Screw	1	M4 × 0.7	83	49WF2-012	Set screw	1	
42	49WF1-001	Needle bar							

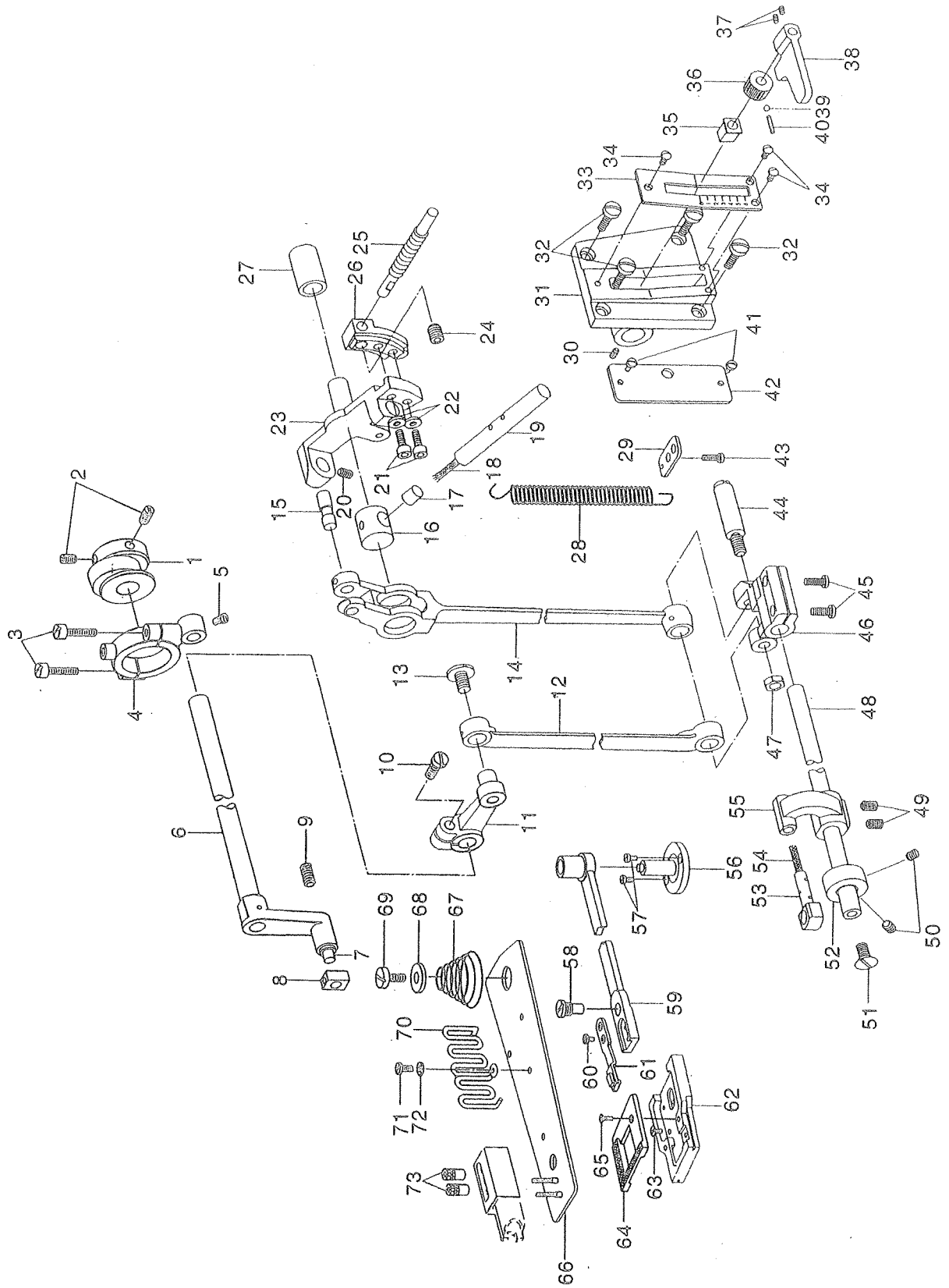
# 4. Vertical shaft, lower shaft mechanism



#### 4. Vertical shaft, lower shaft mechanism

Ref. 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 bush (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 (B)	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	SM11/64" × 32
18	49WF1-026	Lower shaft	1	
19	49WF1-029	Lower shaft bush (A)	1	
20		Bobbin case	1	SC39-14
21	49WF1-033	Bobbin	1	
22		Rotary hook	1	KR69-V

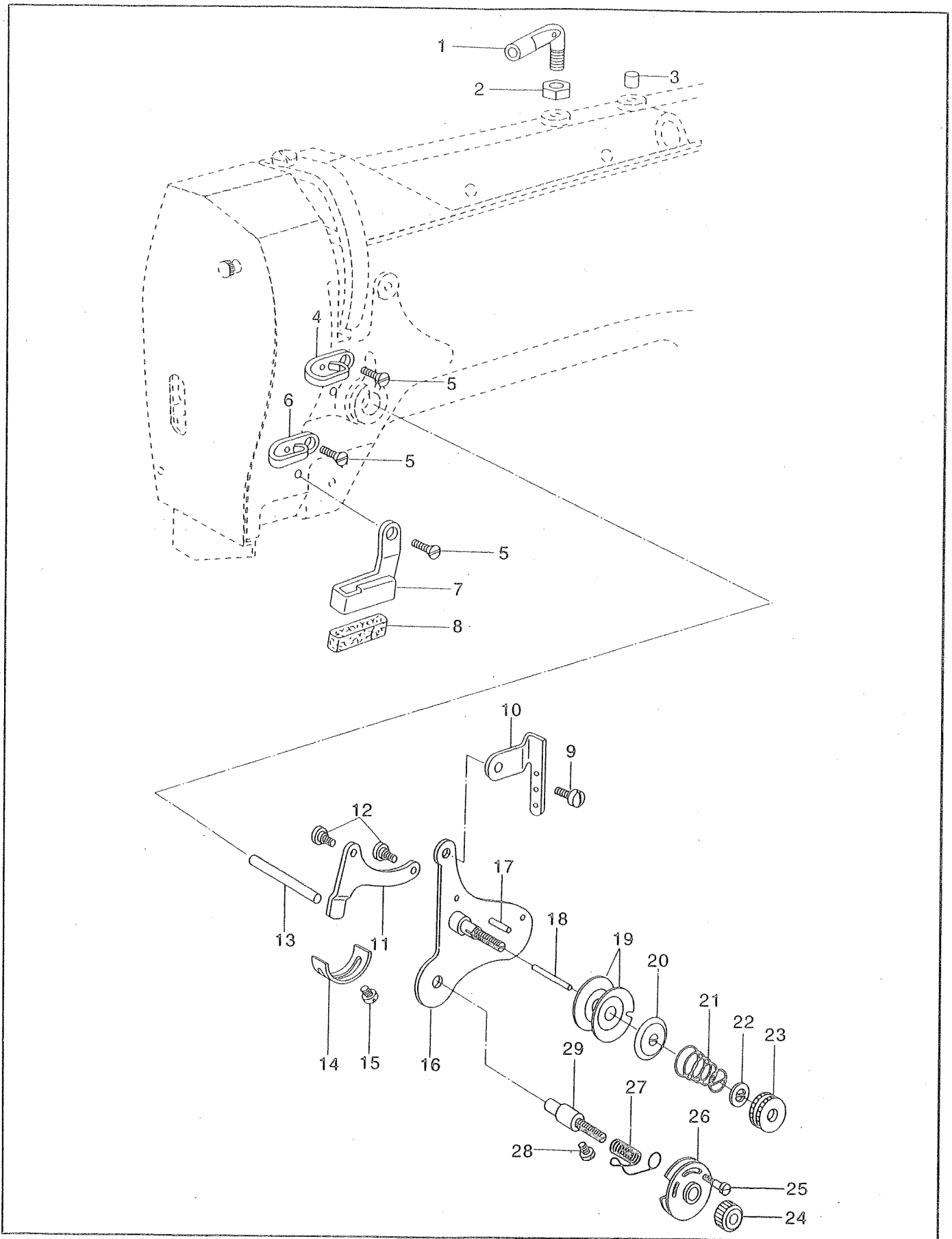
# 5. Feed mechanism



## 5. Feed mechanism

Ref. NO.	Parts No.	Name of parts	Qty.	Remarks	Ref. NO.	Parts No.	Name of parts	Qty.	Remarks
1	49WF4-001	Feed eccentric cam	1		38	22WF4-028	Feed adjust lever	1	
2	7KT3-033	Screw	2	SM1/4" × 40	39		Ball	1	Φ3.17
3	49WF4-003	Screw	2	M5 × 0.8	40	22WF4-030	Spring	1	
4	49WF4-002	Feed upper crank	1		41	37T4-416	Screw	2	SM9/64" × 40
5	1WF3-025	Screw	1	SM11/64" × 40	42	49WF2-033	Arm back cover	1	
6	49WF5-002	Needle bar rocking shaft	1		43	13WF1-045	Screw	1	M5 × 0.8
7	22WF5-006	Slide block shaft	1		44	49WF4-021	Lower feed crank link shaft	1	
8	22WF5-005	Slide block	1		45	49WF4-020	Screw	2	M6 × 1
9	22WF1-020	Screw	1	SM7/32" × 32	46	49WF4-019	Lower feed crank	1	
10	22WF3-011	Screw	1	SM1/4" × 28	47	7KT3-039	Screw	1	
11	49WF5-003	Crank	1		48	49WF4-018	Feed shaft	1	
12	49WF5-004	Needle bar rocking link	1		49	7KT5-024	Screw	2	SM15/64" × 28
13	49WF5-005	Screw	1	SM17/64" × 32	50	49WF4-029	Screw	2	SM11/64" × 32
14	49WF4-004	Feed link	1		51	49WF2-030	Set screw	1	SM9/64" × 40
15	49WF4-005	Feed link pin	1		52	49WF4-024	Feed shaft collar	1	
16	49WF4-009	Stitch length regulating shaft	1		53	49WF4-023	Link shaft	1	
17	49WF1-006	Rubber plug	1		54		Oil wick	1	
18		Oil wick	1		55	49WF4-022	Feed shaft crank (A)	1	
19	49WF4-008	Reverse stitching control rod	1		56	49WF2-028	Feed arm bracket	1	
20	21WF3-010	Screw	1	SM3/16" × 32	57	22WF4-014	Screw	2	SM11/64" × 40
21	6K2-019	Screw	2	M4 × 0.7	58	49WF4-028	Pin screw	1	
22	22T1-007	Washer	2		59	49WF4-027	Feed arm	1	
23	49WF4-006	Stitch length regulating bracket	1		60	49WF4-026	Screw	2	SM1/8" × 44
24	49WF4-014	Screw	1	SM15/64" × 32	61	49WF4-025	Feed dog	1	
25	49WF4-013	Pin screw	1		62	49WF2-025	Hook setting bracket	1	
26	49WF4-010	Bracket	1		63	49WF2-026	Screw	4	SM9/64" × 40
27	49WF4-007	Bush	1		64	49WF2-024	Needle plate	1	
28	49WF4-011	Reset spring	1		65	7KT4-035	Screw	2	SM11/64" × 40
29	49WF4-012	Spring plate	1		66	49WF2-027	Bed cover	1	
30	1WF4-016	Screw	1	SM15/64" × 28	67	49WF2-029	Spring	1	
31	49WF4-015	Feed adjust bracket	1		68	49WF2-031	Washer	1	
32	49WF4-016	Screw	4	SM13/64" × 32	69	49WF2-030	Screw	1	SM9/64" × 40
33	49WF4-017	Stitch length graduation plate	1		70	49WF2-032	Tape guide	1	
34	49WF2-026	Screw	3	SM9/64" × 40	71	22WF4-014	Set screw	1	SM11/64" × 40
35	22WF4-026	Stitch length regulating block	1		72	7KT2-020	Washer	1	
36	22WF4-027	Nut	1		73	28WF2-008	Set screw	2	
37	13WF4-027	Set screw	2	M5 × 0.8					

# 6. Threading mechanism

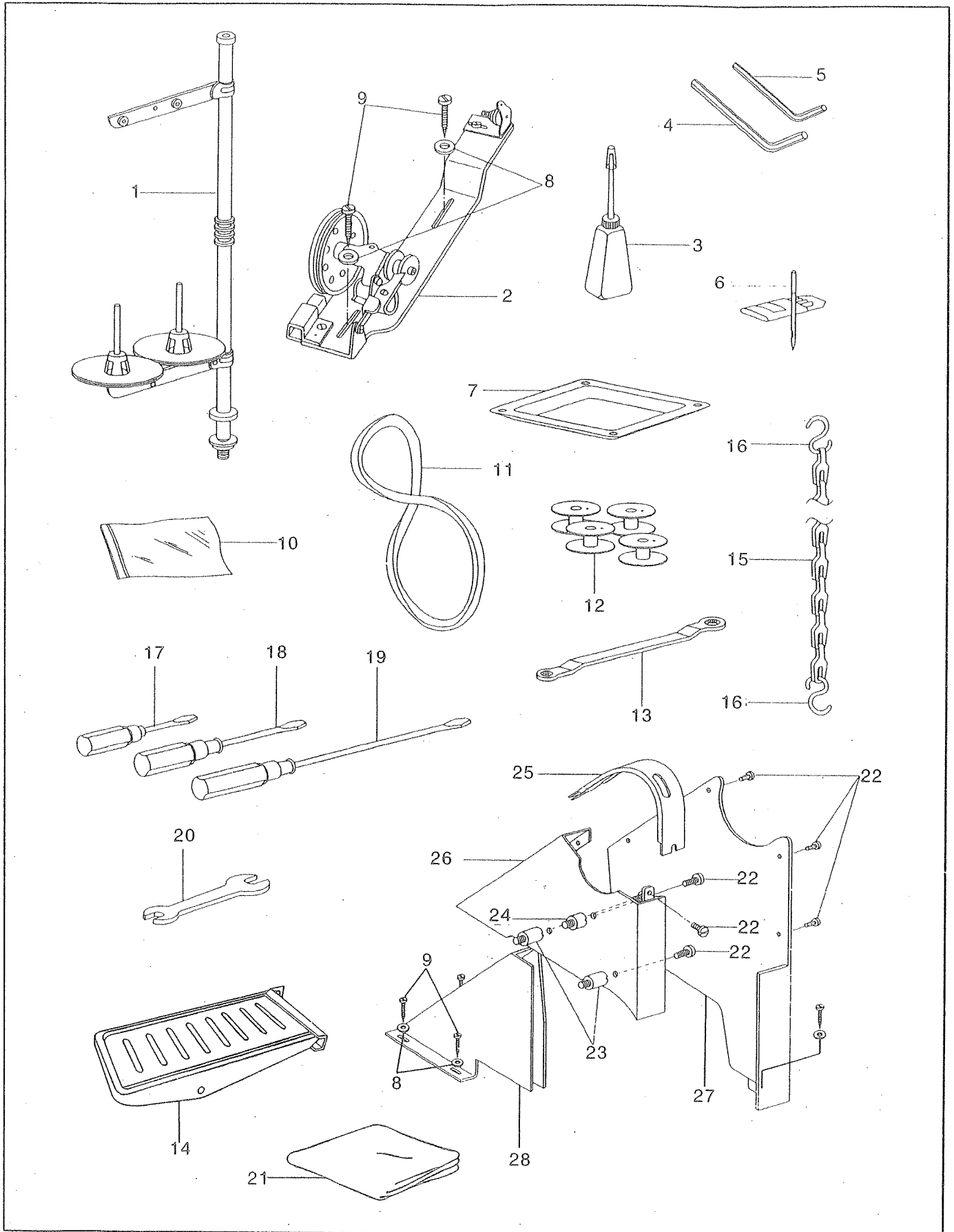


## 6. Threading mechanism

Ref. 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	Thread guide felt	1	
9	49WF2-022	Screw	1	
10	13WF2-047	Three-hole thread guide	1	SM117/64" × 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 disc	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	Spring	1	
28	49WF2-012	Screw	1	SM9/64" × 40
29	16WF2-046A10	Thread tension stud	1	



# 7. Accessories



## 7. Accessories

Ref. 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 2.5	1	2.5mm
5	1F-011	Hexagonal wrench 3	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	
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	33TF-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	8	SM11/64" × 40
23	49WF6-003	Support screw (2)	2	
24	49WF6-002	Support screw (1)	1	
25	22WF6-015	Belt cover (1)	1	
26	22WF6-009	Belt cover (2)	1	
27	49WF6-001	Belt cover (3)	1	
28	49WF6-004	Belt cover (4)	1	