



**TYPICAL**

**GC0322/-D2**

**MEDIUM-HEAVY DUTY TOP AND BOTTOM FEED  
LOCKSTITECH SEWING MACHINE WITH AUTOMATIC  
THREAD TRIMMER**

**OPERATION INSTRUCTION / PARTS MANUAL**

**TYPICAL SEWING MACHINE WANPING MACHINERY CO., LTD.**

- ☐ Please don't adjust and repair the machine by non-professionals,except adjusting stitch.
- ☐ Specifications subject to change without notice

**TYPICAL SEWING MACHINE WANPING MACHINERY CO.,LTD.**

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ADD: WANPING TOWN, WUJIANG CITY, JIANGSU  
PROVINCE, CHINA

TEL: +86-512-63391278

FAX: +86-512-63391371

POST. CODE: 215223

[Http://www.typicalwpchina.com](http://www.typicalwpchina.com)

E-mail:[export@typicalwpchina.cn](mailto:export@typicalwpchina.cn)

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## Parts manual

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## 1. Brief introduction

Typical GC0322 and GC0322-D2 both adopt link feed, thread take-up lever and rotating hook looping, which form the 301 stitch. Extra long machine head ensures a spacious operation room. Extra long needle bar stroke and large amount of alternation presser foot lifter ensure excellent sewing capacity.

This machine adopts auto lubrication system and runs smoothly with low noise and little vibration. This machine is widely used in manufacturing leather products such as suitcase, cushion, tent, sofa and canvas, heavy weight decorative, fabric, etc.

GC0322-D2 runs under the authentic function of auto-trimming, auto-set needle number and auto-set needle position.

## 2. Main technical specification

| Model                                     |         | GC0322                           | GC0322-D2                                            |
|-------------------------------------------|---------|----------------------------------|------------------------------------------------------|
| Material                                  |         | Heavy duty                       |                                                      |
| Max sewing speed                          |         | 2000rpm                          |                                                      |
| Stitch length                             |         | 0-8.0mm                          |                                                      |
| Needle bar stroke                         |         | 38.0mm                           |                                                      |
| Thread take-up lever stroke               |         | 73.0mm                           |                                                      |
| Amount of alternating presser foot lifter |         | 2.0-5.0mm                        |                                                      |
| Operation system of outside presser foot  |         | Dial cup                         |                                                      |
| Height of feed dog                        |         | 1.0mm                            |                                                      |
| Needle                                    |         | DP×17 23#                        |                                                      |
| Presser foot lift volume                  | By hand | 6.0mm                            |                                                      |
|                                           | By knee | 16.0mm                           |                                                      |
| Rotating hook                             |         | Auto lubrication with large hook | Auto lubrication with large hook (for auto trimming) |
| Lubrication                               |         | Auto lubrication                 |                                                      |
| Trimmer parts                             |         | No                               | ○                                                    |
| Reverse sewing parts                      |         | ○                                |                                                      |

## 3. Connecting the power lead

### 1. Connecting the power lead:

When the power lead is connected to the controlling box, figure out the plug model and the matching direction, then securely insert the plug into the proper jack.

(1) When employing three phase machine, please connect the “U” wire to the red wire. “V” wire to the white wire, and the “W” wire to the black wire. The built-in switch in the controlling box controls the rotating direction of the motor.

Note: The green wire must be connected to the ground.

### (2) Correct power:

Three phase power supply: 200-240V 10A

Single phase power supply: 100-120V 15A

### 2. Floodlight lead:

(1) When installing the floodlight(6V, 15-20w), separate the floodlight lead connector at the back of the controlling box, strip off the wire and connect them, then twist the insulating tape.

Note: Turn off the switch power when connecting the floodlight.

(2) When the floodlight is not in use, the lead tip must be insulated so as to avoid short circuit, otherwise, the transformer of the controlling box will burn out.

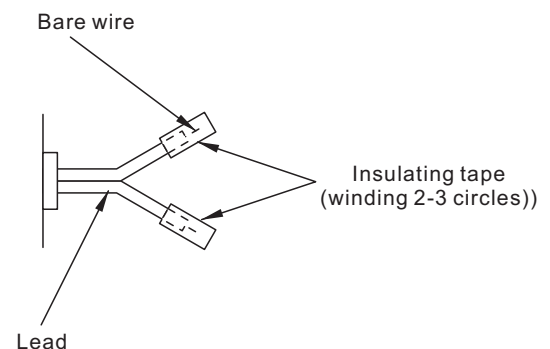
Note: The floodlight can not be connected to any heater; otherwise, over loading will result in burnout of the transformer.

### (3) Rotating direction:

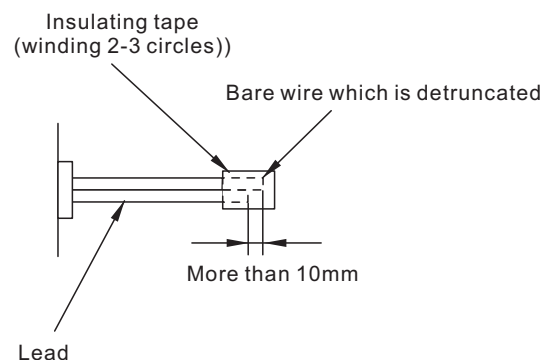
If you want to change the motor's rotating direction, remove the power lead and insert it anew in the opposite direction. View from the direction of the pulley, the correct rotating direction for the motor is running counter clockwise.

Before delivery, the pulley's rotating direction should be set to run counter clockwise.

1

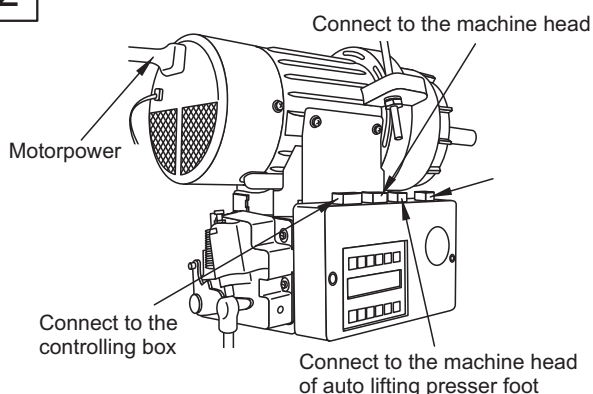


(a)



(b)

2



#### 4. Connecting the controlling box(Fig.2)

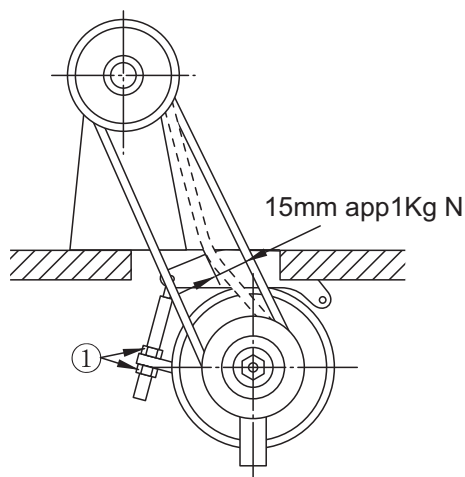
The controlling box must be connected as shown in the Fig.  
Note:

(1) Before removing and installing the controlling box, turn off the switch power.

(2) The model and the motor controlling box should be matched as follows:

| machine model | controlling box |
|---------------|-----------------|
| GG0322-D2     | XC-AM-A1020     |
|               | XC-AM-B2020     |

3



#### 5. Installing the belt(Fig.3)

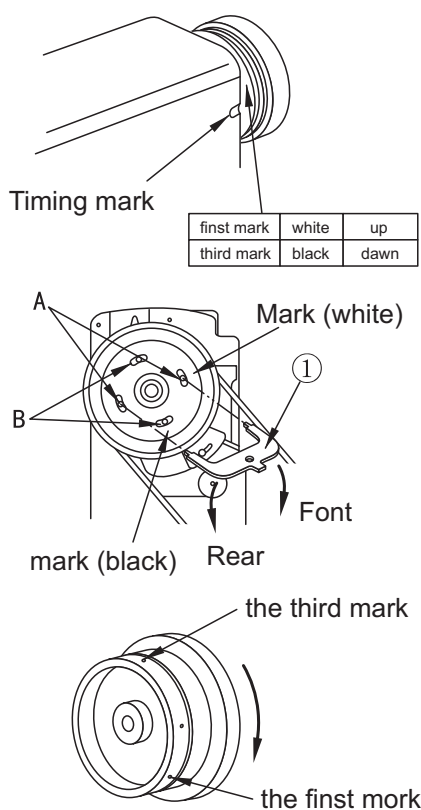
1. Using V-belt.

2. Adjust the tension of the belt. Change the height of the motor by turning the adjusting nut (1), press on the center position of the belt and there should be a slack of 15mm.

If the tension is too weak, the sewing speed will not stable or the needle can not stop in the proper position when the machine runs at low speed.

If the tension is too strong, the bearing of the motor will be damaged soon.

4



#### 6. Adjusting the position of needle(Fig.4)

1. Adjusting the “up” position of the needle bar

When depressing the trimming pedal, the needle bar should stop in the “up” position. If the mark error is more than 3mm, adjust it as follows:

(1) Turn off the power.

(2) Hold the machine pulley, insert the probe unit adjusting plate(1) into the two holes A and press on it by hand, then turn the machine pulley until the first marked point on the machine pulley is aligned with the marked point on the arm.

(3) Start a running test.

2. Adjusting the “down” position of the needle bar

When the pedal returns to the middle position, the needle bar should stop in the “down” position. If the mark error is more than 3mm, adjust it as follows:

(1) Turn off the power:

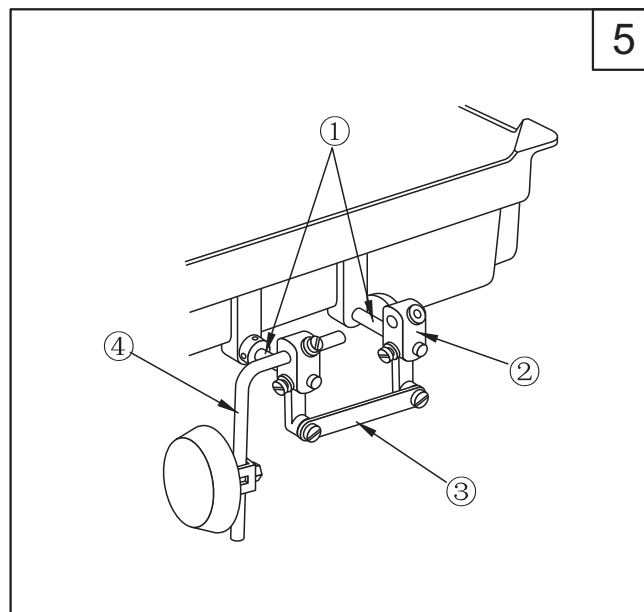
(2) Hold the machine pulley, insert the probe unit adjusting plate into the two holes B, then turn the machine pulley until the third marked point on the machine pulley until the third marked point on the machine pulley is aligned with the marked point on the arm.

(3) Start a running test.

3. Connecting the plug.

## 7. Installing the knee control mechanism(Fig.5)

1. Pull out the two hinge shafts(1), and then install it properly
2. Install the bell connector(2) onto each shaft.
3. Connect the bell connector with the connecting rod(3).
4. Install the bent bar onto the left bell connector.



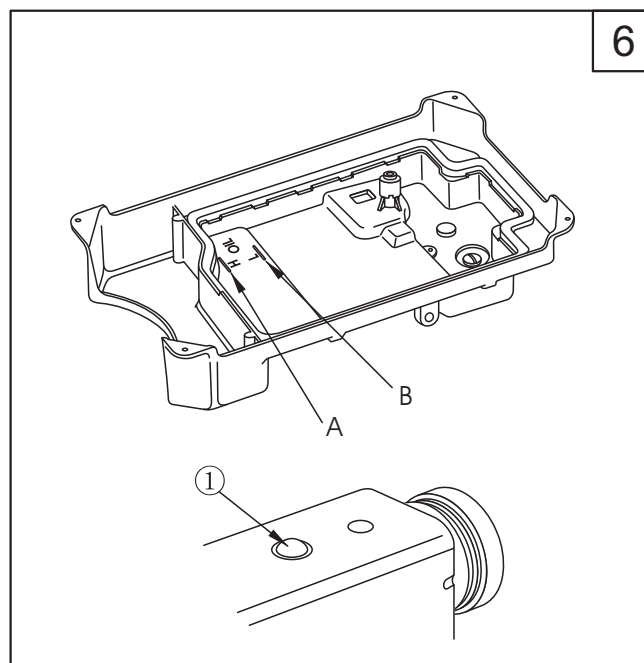
## 8. Lubrication(Fig.6)

Fill the oil into the mark A of the oil reservoir.

During operation, check the height of the oil level frequently.

If the oil level is lower than mark B, fill the oil to mark A.

Note: When running the machine, examine the lubrication situation through the oil screen(1).

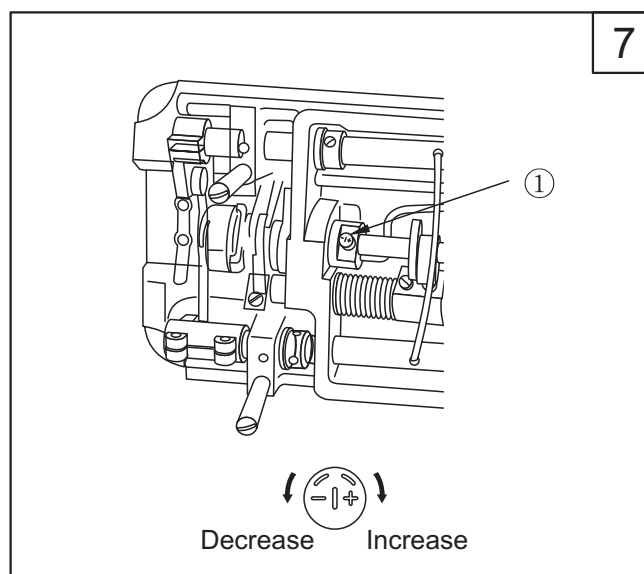


## 9. Adjusting the lubrication of rotating hook(Fig.7)

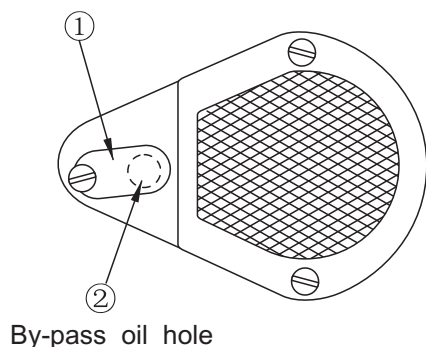
Adjust the lubrication situation of the rotating hook by turning the screw(1).

- If tighten the screw, the oil amount will be at the max.
- If loosen the screw, the oil amount will be at the minimum.

Note: After adjusting the screw, the machine should run at least 30 seconds, then check that if the oil is leaking into the rotating hook.



8

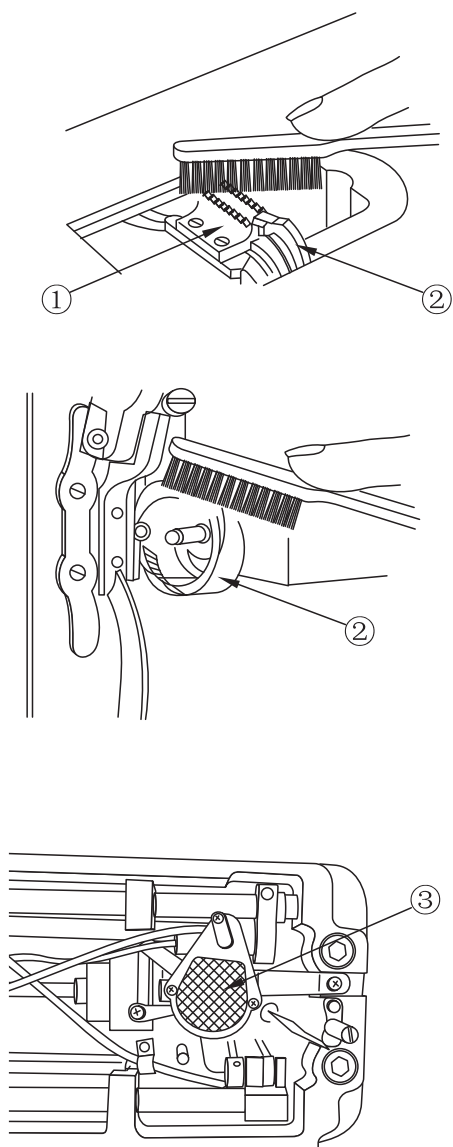


## 10. Oil pump adjustment(Fig.8)

Adjust the oil pump as follows:

The adjusting plate(1)should fully cover the oil by-pass hole (2).If the oil amount need to be reduced, then open the by-pass oil hole(2) suitably.

9



## 11. Cleaning the machine(Fig.9)

Clean the feed dog(1), the rotating hook(2)and the oi pump (3).

(Motor maintenance)

Clean off the dusts on the cover every one or two months. (The dusts or other objects on the motor cover for a long time will result in heat.)

(Controlling box)

Clean off the dusts from the plug.(If the plug is full of dusts, error operation will occur.)

## 12. Instruction of the controlling box and the motor(Fig.10)

1. Do not press on the pedal when running the machine.
2. Turn off the power when leave the machine.
3. If the power is turned off or is down when sewing, thereby the detent will appear mistake.
4. When operating the machine, the cover of controlling box should be closed to avoid error operation.
5. The controlling loop should be examined by avometer to protect the semiconductor parts.
6. The off the power when tilting back the machine or touching the needle.
7. The three phase machine must be connected to the ground with the ground cable(green wire).
8. When operating the switch of the controlling box, first turn off the power, then open the front cover(1). If the bottom cover need to be opened, please wait about ten minutes after turning off the power.As the inside of the box still maintains upper voltage. (It's important to release the inside energy.)
9. When using the motor, be sure to keep away from the high frequency weld zone.
10. The single phase machine is suitable for 15A,and the three phase machine is suitable for 10A
11. The probe unit has a smooth and bright surface. Avoid the dirt, oil or other objects sticking onto the probe unit. When pulling out the machine pulley and adjusting it, if there is dirt, clean it softly and avoid scratching the surface. Note: prevent the oil leaking into the gap of the surface of the plate.

## 13. Installing the belt cover(Fig.11)

The sewing machine and the motor both should be installed with belt cover for safety.

## 14. Winding the lower thread(Fig.12)

Winding tension:

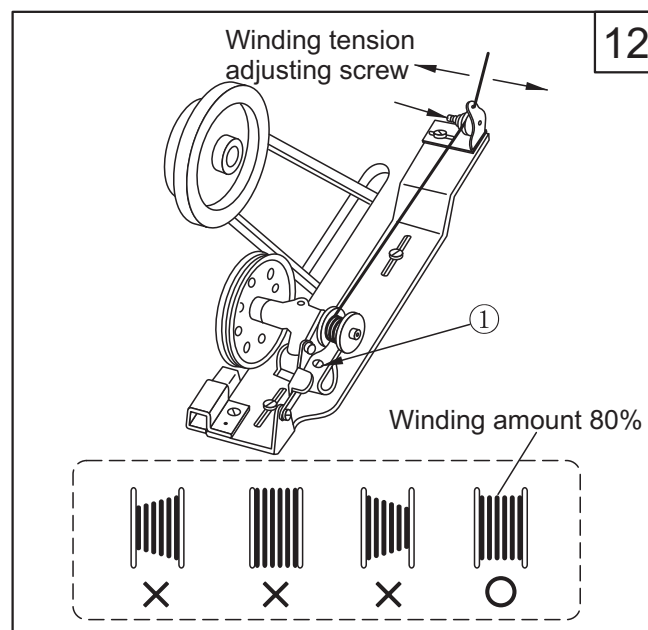
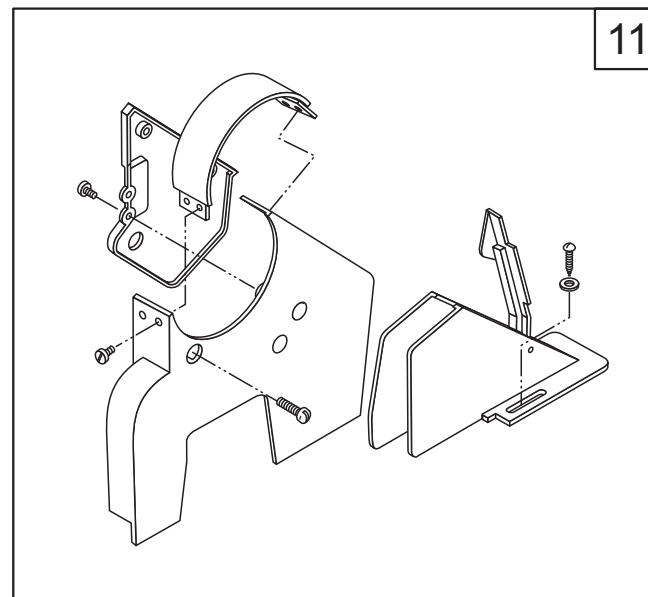
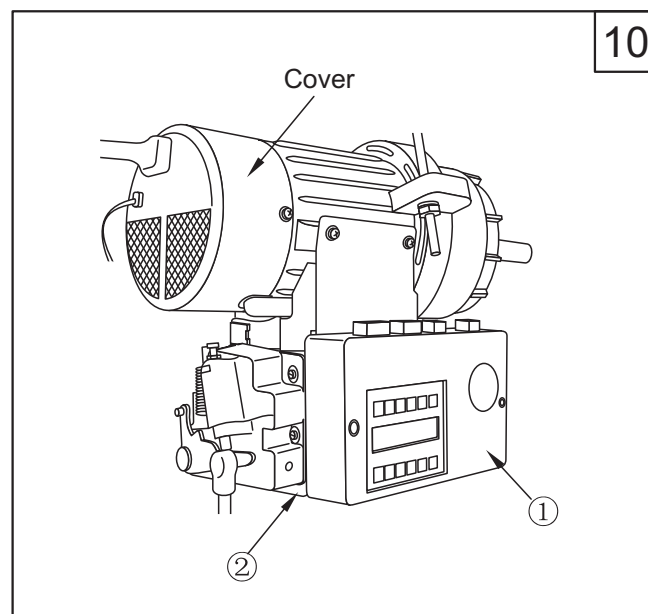
When winding the nylon or terylene, the winding tension should be weak.

One-side winding:

The thread guide bracket should move to the place where the winding amount is at the minimum.

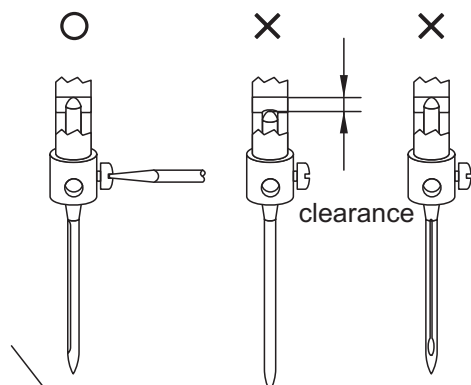
Winding amount:

If the bobbin is wound excessively, loosen the adjusting screw (1); if the bobbin is not wound enough, tighten the screw(1).





13



long groove to left

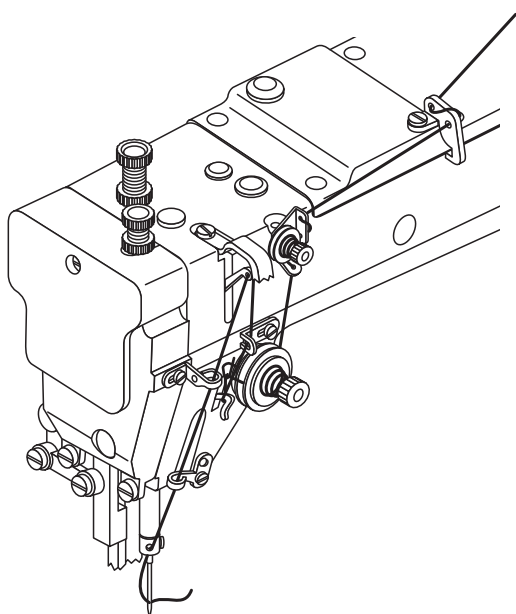
## 15. Installing the needle (Fig.13)

Note: Turn off the power before installing the needle.

Insert the needle to the bottom, tighten the screw, then keep the long groove of the needle toward to the left.

Note: When reverse sewing with terylene, if the thread is breaking, turn the long groove of the needle to the front, which may avoid the thread breakage. In general, do not turn the long groove of the needle to the back.

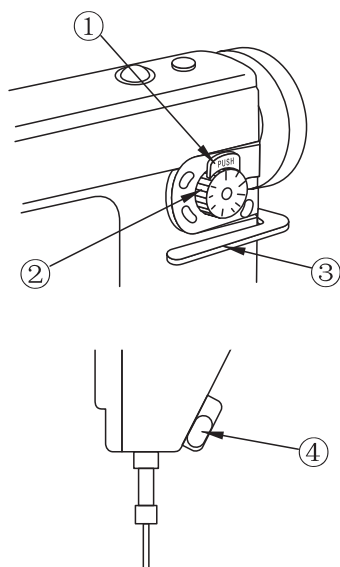
14



## 16. Threading the upper thread (Fig.14)

Raise the thread take-up lever to its highest position, and then thread it as shown in the Fig.

15



## 17. Adjusting the stitch length and the reverse sewing(Fig.15)

1. To adjust the stitch length, turn the dial face (2) while pressing on the dial cup (1).
2. Press on the reverse feed lever (3) to start reverse sewing.
3. Press on the reverse sewing key press (4) to start reverse sewing.
4. Install the reverse sewing key press (4) from the side of the arm as shown in the Fig. Press on the key press to start reverse sewing.

## 18. Adjusting the thread tension(Fig.16)

### 1. Upper thread tension

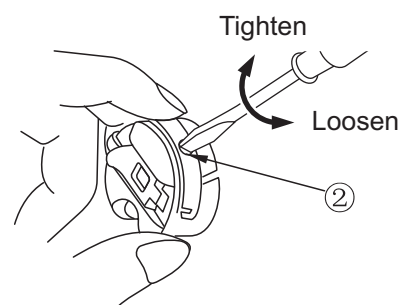
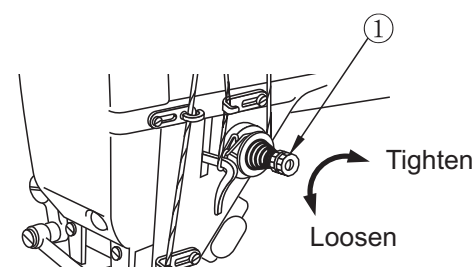
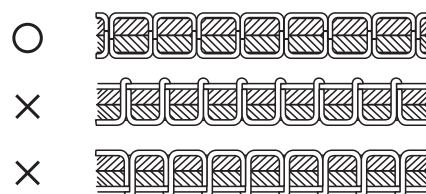
(1) Adjust the upper thread tension with reference to the lower thread tension.

(2) Adjust the upper thread tension by turning the thread tension nut(1).

As to some special materials, adjust its tension by adjusting the thread take-up spring.

### 2. Lower thread tension

Adjust the lower thread tension by turning the screw(2).



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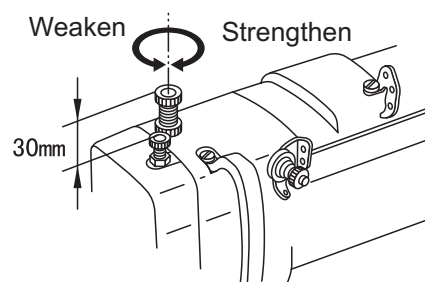
## 19. Adjusting the pressure of the presser foot(Fig.17)

1. The pressure of the presser foot should be adjusted with reference to the nature of the sewing material.

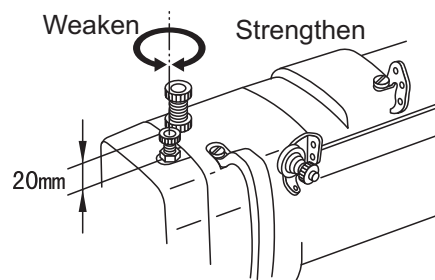
2. The pressure of both the inside and the outside presser foot can be adjusted.(The adjusting screw has been adjusted before delivery as shown in the Fig.)

3. The sewing pressure should be adjusted to a minimum of need.

### Pressure of the inside presser foot

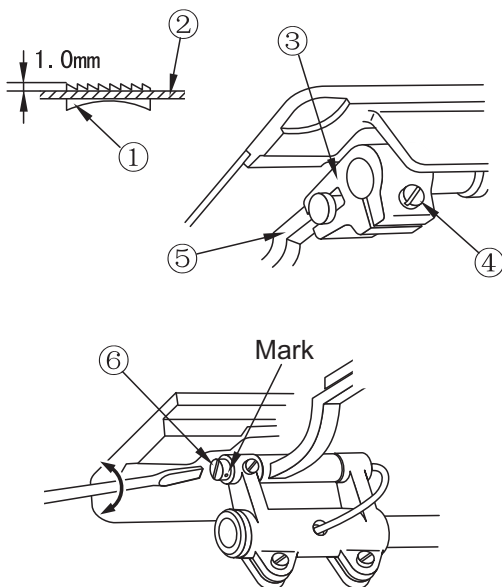


### pressure of the outside presser foot



17

18



## 20. Adjusting the feed dog(Fig.18)

### 1. Adjusting the alternating movement(Fig.a,b)

(1) The feed dog(1) should be 1.0 mm higher than the surface of the needle plate(2). This is the standard height.

### (2) Adjusting the height of the feed dog:

1) Loosen the screw(4) on the feed dog(3), and then move the feed dog support(5) vertically.

2) After the adjustment, tighten the screw(4), otherwise, the motion of the feed dog support(5) will be incorrect.

### 2. Adjusting the obliquity of the feed dog

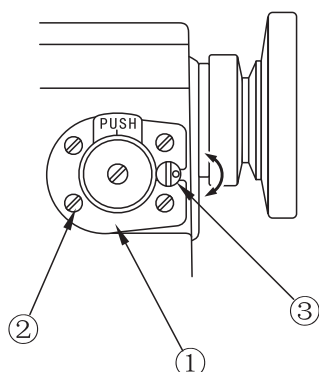
(1) Loosen the screw(4).

(2) Turn the eccentric shaft(6) with the screw driver.

(3) After the adjustment, tighten the screw(4).

| The mark position of the eccentric shaft |            | Feed dog |                 |
|------------------------------------------|------------|----------|-----------------|
|                                          | Horizontal |          | Standard        |
|                                          | Up         |          | The front lifts |
|                                          | Down       |          | The front falls |

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## 21. Adjusting the stitch length and the forward sewing and reverse sewing(Fig.19)

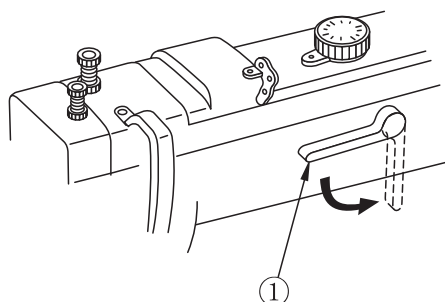
1. Loosen the four screws(2)on the holder(1).

2. Turn the holder shaft(3)as follows:

(1) Clockwise: increase the stitch length of forward sewing, decrease the stitch length of the reverse sewing.

(2) Counter clockwise: decrease the stitch length of forward sewing, increase the stitch length of reverse sewing.

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## 22. Presser lifter lever(Fig.20)

Turn the presser lifter lever(1)in the direction of the arrow shown in the Fig. At the moment, the inside presser foot will be lifted.

## 23. Adjusting the inside and the outside presser foot(Fig.21)

### 1. Adjusting the alternating movement(Fig.a,b)

(1) Adjust the alternating movement of the inside and the outside presser foot by the dial plate(1) on the top of the upper cover.

(2) The figure of the dial plate (1) should point at the mark on the upper cover.

(3) The figure of the dial plate (1) indicates the lifting amount of the inside and the outside presser foot from the needle plate.

(4) If the alternating movement has been set, the amount of alternation can be adjusted in the range of 2.0-5.0mm.

### 2. Changing the balance of the alternating movement of the inside and the outside presser foot (Fig.c)

(1) Increase the lifting amount of outside presser foot and decrease the lifting amount of the inside presser foot.

1) Remove the rubber plug(4) on the upper cover.

2) Turn the machine pulley until the inside presser foot (3) is lifted from the needle plate.

3) Loosen the screw(5).

4) The spring pulls the inside presser foot downward until the later touches the needle plate, then tighten the screw (5).

5) Accordingly, the lifting amount of the inside presser foot will be reduced for certain amount, and the lifting amount of the outside presser foot will be increased for the same certain amount.

(2) Opposite to the above situation: decrease the lifting amount of the outside presser foot and increase the lifting amount of the inside presser foot.

First, turn the machine pulley until the outside presser foot is lifted away from the needle plate. Then loosen the screw(5). At last, tighten the screw(5).

### 3. Installing the bracket for the presser foot lifter lever(Fig.d)

Remove the bracket(6) and the correlative parts.

Note: If the bracket is not set properly, the amount of the alternating movement will be either too much or too little, which will cause error operation.

(1) The distance between the screw(8)on the adjusting shaft (7) and the inner wall of the arm should be 22.7mm.

(2) After the step (1), adjust the bracket(6) to a distance of 6.6 mm between the top of the surface of the bracket shaft(9) and the installing cover on the arm, then tighten the screw(10).

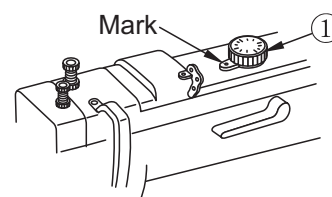
### 4. Adjusting the feed amount of the outside presser foot(Fig.e)

The upward feed amount and the downward feed amount of the outside presser foot are the same. However,the feed amount can be adjusted with reference to the situation.

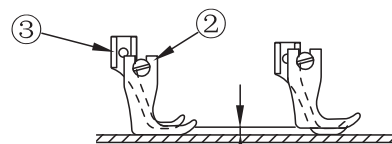
Loosen the nut (12) on the left crank (1), and then adjust the crank shaft upward and downward.

● Up position→feed amount→small

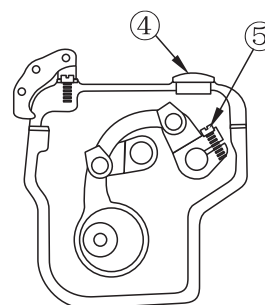
● Down positon→feed amount→big



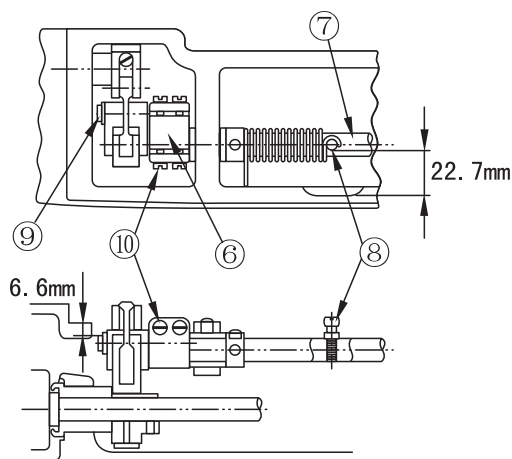
(a)



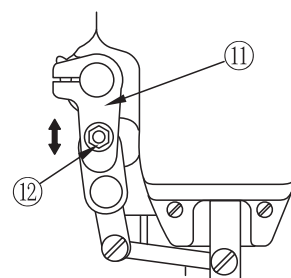
(b)



(c)

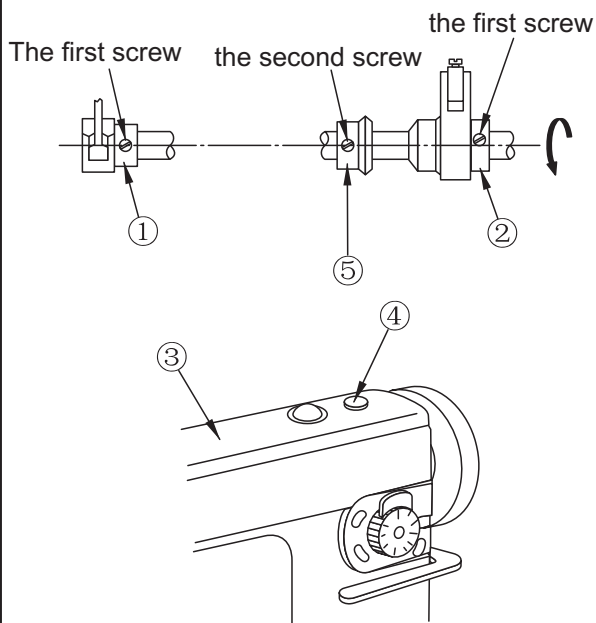


(d)



(e)

22



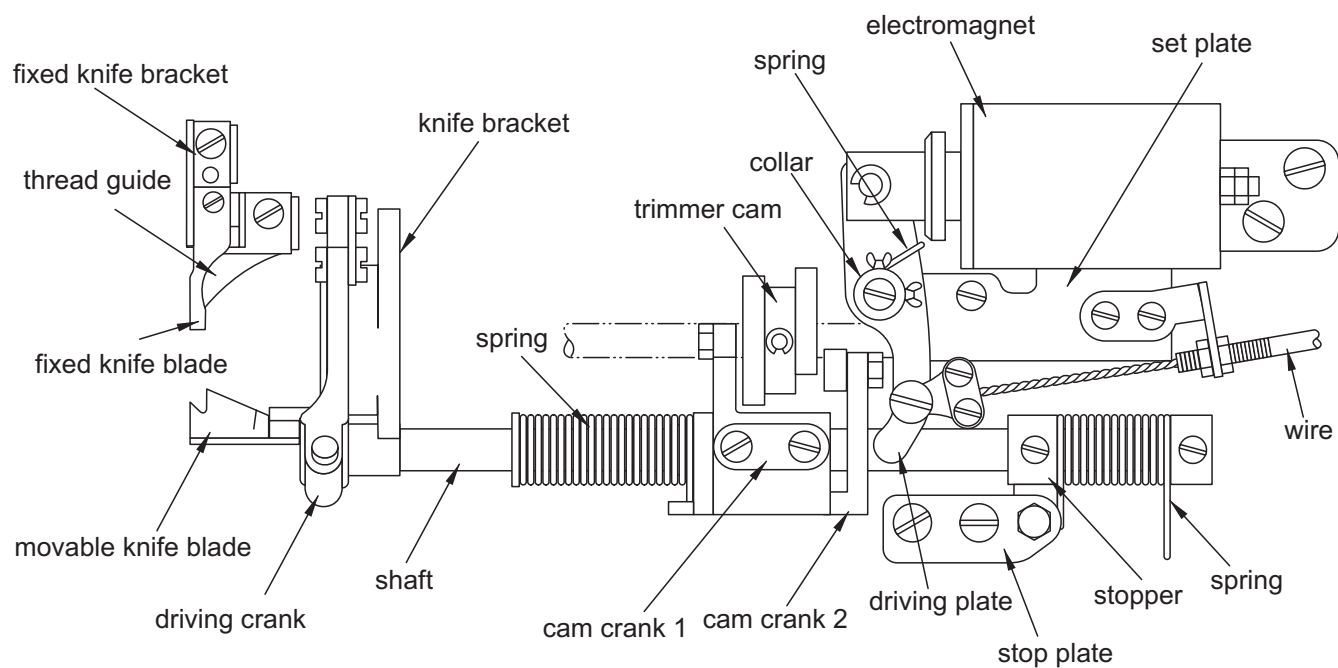
## 24. Adjusting the feed dog timing(Fig.22)

1. The standard position between the feed cam(left)(1)and the feed cam (right)(2)is shown in the Fig.
2. Open the upper cover(3), and then adjust its position.
3. The feed dog (right)(2)can be adjusted by removing the rubber plug (4) on the upper cover. Under this condition, be careful to protect the bevel gear (5) as it is not easy to be found when adjusting.

## 25. Adjusting the knife device

1. The knife device(Fig.23)

23

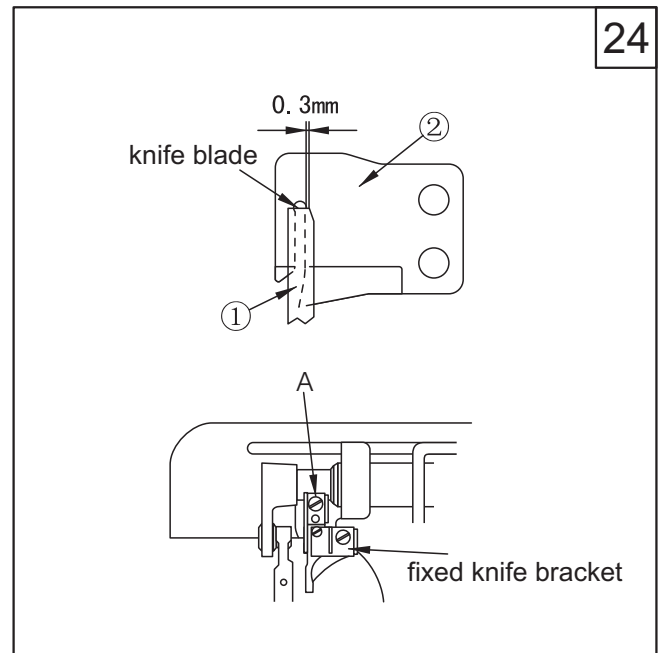


2. The relationship between the fixed and the movable knife:  
(Fig.24)

(1) The clearance between the fixed knife blade(1)and the movable knife blade(2)should be 0.3mm.

(2) Adjust the position of the fixed knife bracket and the fixed knife blade as shown in the Fig.

(3) Remove the position hook for rotating hook, and then install the fixed knife bracket.

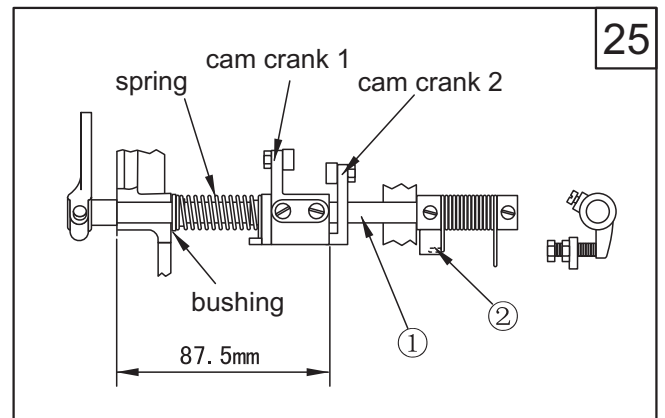


3. Cam crank shaft(Ffig.25)

(1) When installing, set the cam crank shaft(1) on the bed first.

(2) The cam crank 1 should be set onto the surface of the cam crank shaft (1) as shown in the Fig.

(3) Turn the cam crank shaft slightly, set the stopper block (2) onto the surface of the cam crank shaft(1).



4. Installing the electromagnet(Fig.26)

(1) the stroke of the electromagnet:

a. The standard stroke should be 6.0mm.

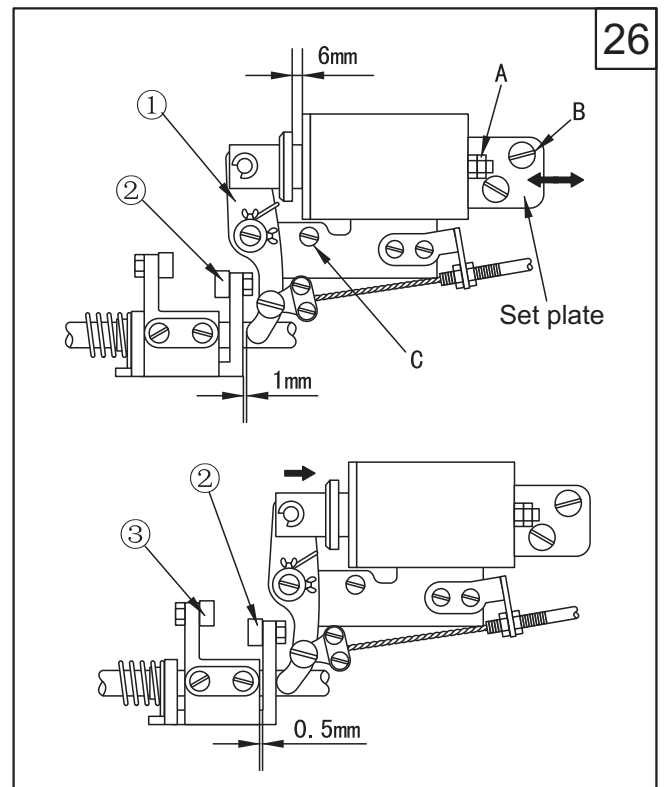
B. Adjust the stroke by turning the adjusting nut A.

(2) Installing the electromagnet:

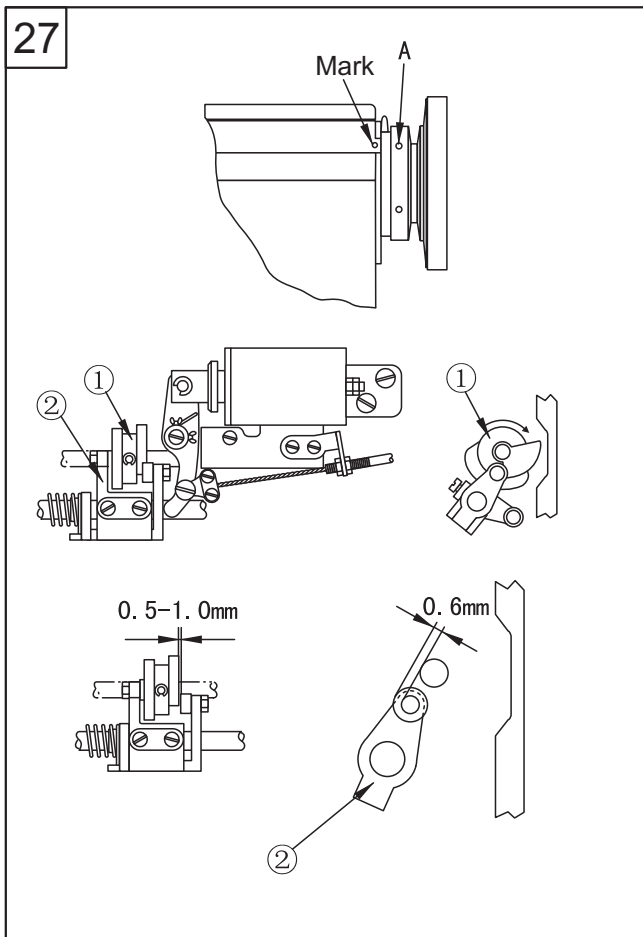
a. The electromagnet is set with screw B and C.

b. The clearance between the driving plate (1) and the cam crank(2) must be 1mm.

C. When the electromagnet is working, the clearance between the cam crank (3) and the cam crank(3) will be 0.5 mm. This is the standard position. The clearance can be adjusted by moving the electromagnet set plate toward the direction as the arrow shows in the Fig.



27



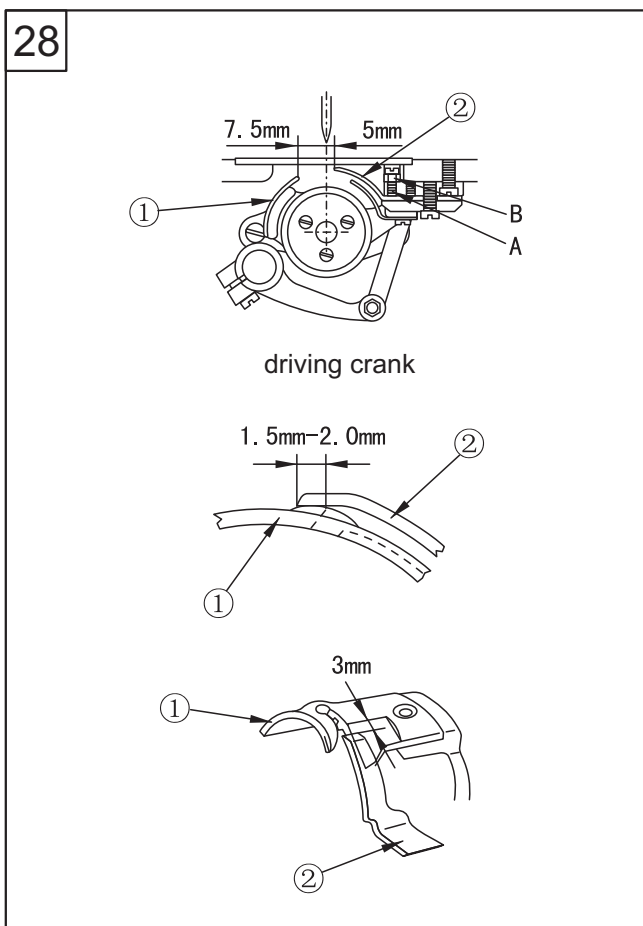
### 5. Installing the trimmer cam(Fig.27)

(1) Align the second mark on the machine pulley with the position mark on the arm.

(2) Switch on the electromagnet, and rotate the trimmer cam (1) to the front until it touches the roller, then set the cam.

(3) Switch off the electromagnet, then the cam crank(2) will return to its original position. Thereby, there will be a standard clearance of 0.5-1.0mm between the cam and the roller.

28



### 6. Adjusting the movable knife(Fig.28)

(1) The relationship between the movable knife blade and the fixed knife blade:

The distance between the movable knife blade (1) and the center of the needle should be 7.5 mm, and the distance between the fixed knife blade(2) and the center of the needle should be 5 mm.

(2) Adjusting the knife blade

Switch on the electromagnet, and the trimmer cam will make the movable knife blade (1) rotate rightward. When the movable knife blade (1) moves leftward to its farthest position, the clearance between it and the fixed knife blade should be 1.5-2.0mm.

(3) Adjusting the electromagnet:

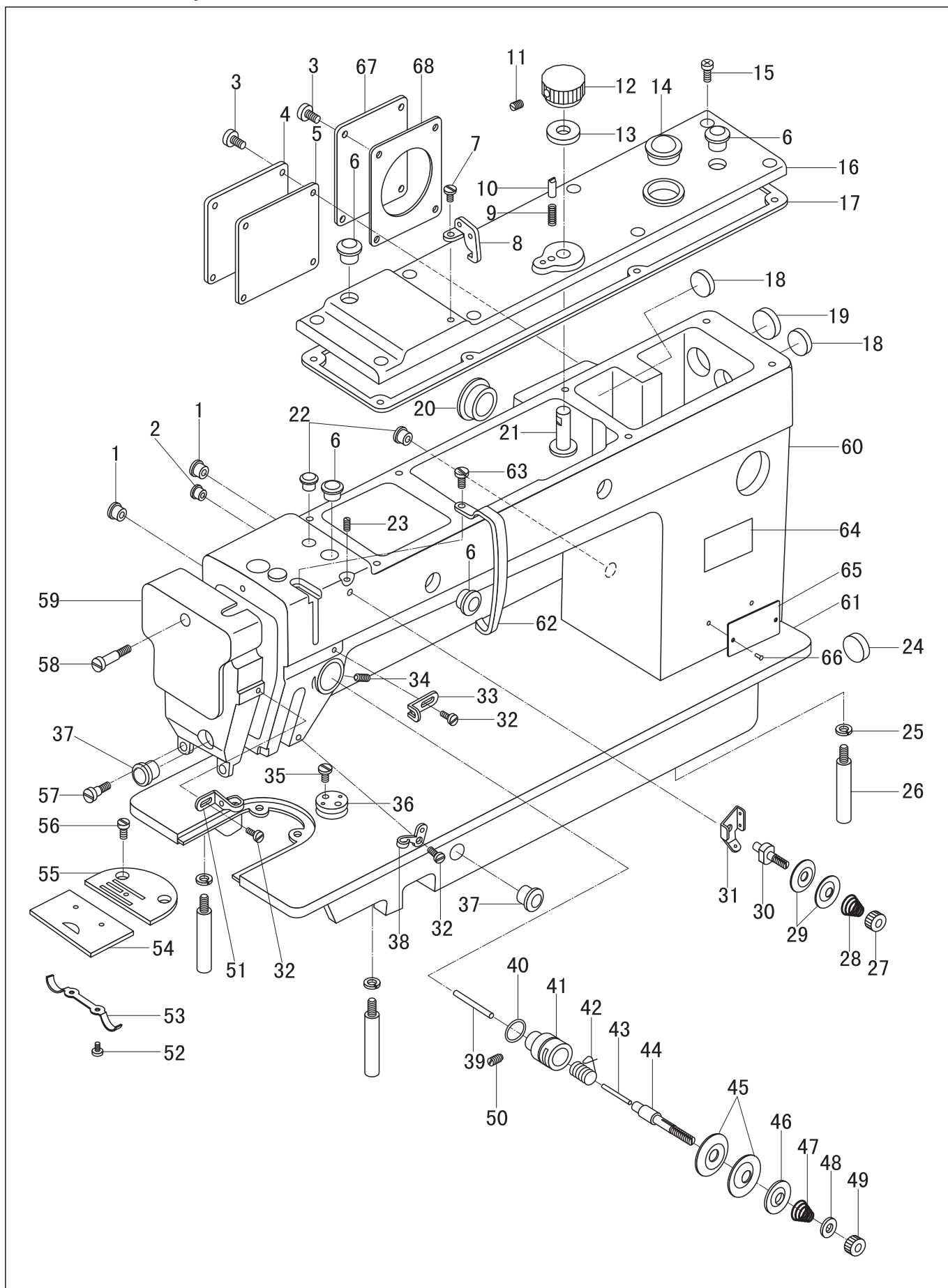
a. If the trimmer device cannot work smoothly, especially when the thread is very thick, please increase the trimming pressure.

B. The trimming pressure can be adjusted as follows: Loosen the nut B, and then adjust the nut B by turning the adjusting screw A.

# Parts Manual



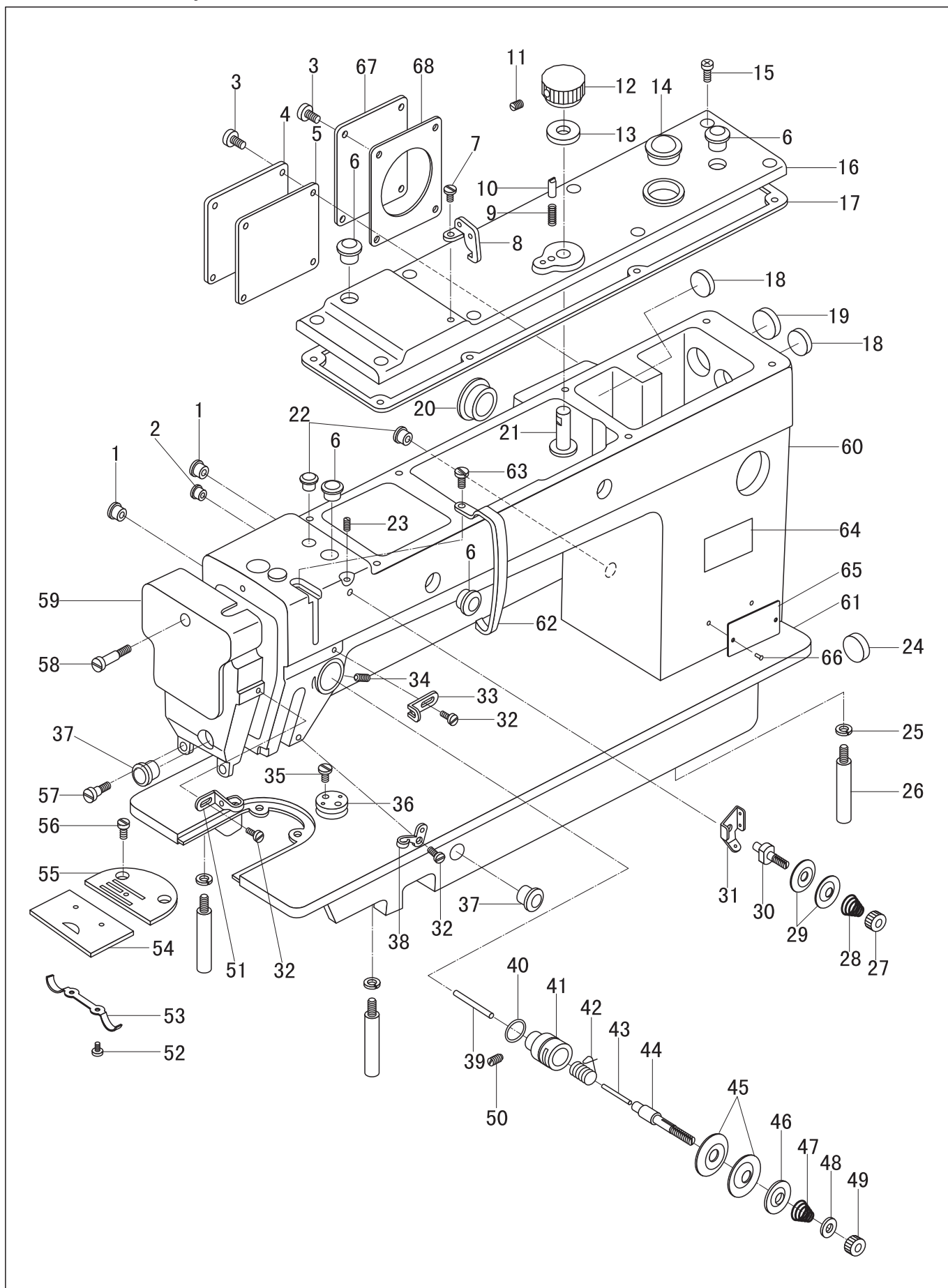
## 1. Machine body



## 1. Machine body

| No. | Part number | Name                   | Qt. | Remark          |
|-----|-------------|------------------------|-----|-----------------|
| 1   | 22T2-011    | Rubber plug            | 2   | φ 8.8           |
| 2   | 22T1-017    | Rubber plug            | 1   | φ 5.7           |
| 3   | 22T1-006    | Screw                  | 9   | SM11/64"×40×9.4 |
|     | 22T1-007    | Spacer                 | 4   |                 |
| 4   | 68WF1-001   | Cover                  | 1   |                 |
| 5   | 68WF1-002   | Spacer                 | 1   |                 |
| 6   | 22T1-003C3  | Rubber plug            | 4   | φ 19            |
| 7   | 36T2-005    | Screw                  | 1   | SM11/64"×40×8   |
| 8   | 68WF1-003   | Thread guide           | 1   |                 |
| 9   | 68WF1-004   | Spring                 | 1   |                 |
| 10  | 68WF1-005   | Pin                    | 1   |                 |
| 11  |             | Screw                  | 1   | GB80-85 M4×6    |
| 12  | 68WF1-006   | Dial plate             | 1   |                 |
| 13  | 68WF1-007   | Dial                   | 1   |                 |
| 14  | 22T1-008    | Oil screen assembly    | 1   |                 |
| 15  | 22T6-008D3  | Screw                  | 8   | SM11/64"×40×12  |
| 16  | 68WF1-009   | Upper cover            | 1   |                 |
| 17  | 68WF1-010   | Spacer                 | 1   |                 |
| 18  | 68WF1-011   | Rubber plug            | 2   | φ 21.8          |
| 19  | 68WF1-012   | Rubber plug            | 1   | φ 29            |
| 20  | 68WF1-013   | Rubber plug            | 1   | φ 26            |
| 21  | 68WF1-014   | Adjusting cam          | 1   |                 |
| 22  | 22T1-015    | Rubber plug            | 2   | φ 8.8           |
| 23  | 22T1-011    | Screw                  | 1   | SM11/64"×40×5.5 |
| 24  | 22T1-016    | Rubber plug            | 1   | φ 27            |
| 25  |             | Washer                 | 3   | GB93-87-6       |
| 26  | 68WF1-015   | Bed leg                | 3   |                 |
| 27  | 36T2-006D4  | Nut                    | 1   |                 |
| 28  | 36T2-006D3  | Spring                 | 1   |                 |
| 29  | 22T1-009E3  | Thread tension disc    | 2   |                 |
| 30  | 36T2-006D2  | Screw                  | 1   |                 |
| 31  | 36T2-006D1  | Thread guide           | 1   |                 |
| 32  | 22T1-003C6  | Screw                  | 3   | SM9/64"×40×6    |
| 33  | 68WF1-016   | Thread finger          | 1   |                 |
| 34  | 22T1-013    | Screw                  | 1   | SM15/64"×28×8   |
| 35  | 1WF3-025    | Screw                  | 2   | SM11/64"×40×5.5 |
| 36  | 7WF4-005    | Holder                 | 1   |                 |
| 37  | 22T1-003C4  | Rubber plug            | 2   | φ 11.8          |
| 38  | 7WF4-015    | Thread guide           | 1   |                 |
| 39  | 35T3-305    | Thread releasing bar   | 1   |                 |
| 40  | 22T1-012F11 | Seal ring              | 1   |                 |
| 41  | 22T1-012F7  | Adjusting bracket      | 1   |                 |
| 42  | 22T1-012F6  | Thread take-up spring  | 1   |                 |
| 43  | 22T1-012F9  | Thread releasing pin   | 1   |                 |
| 44  | 22T1-012F1  | Screw                  | 1   |                 |
| 45  | 22T1-012F5  | Thread tension plate   | 2   |                 |
| 46  | 22T1-012F4  | Thread releasing plate | 1   |                 |

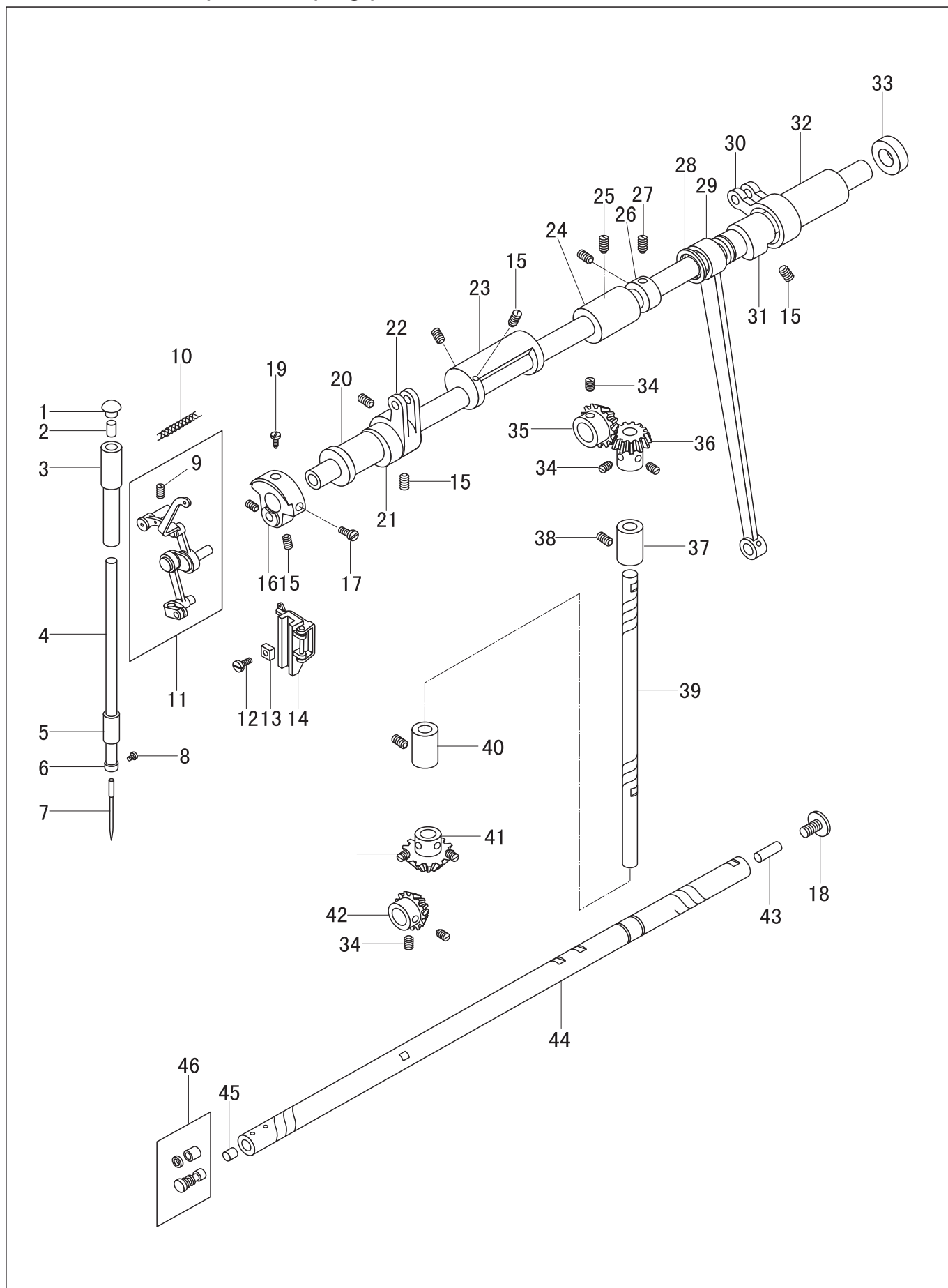
## 1. Machine body



## 1. Machine body

| No. | Part number | Name          | Qt. | Remark          |
|-----|-------------|---------------|-----|-----------------|
| 47  | 33T4-008C1  | Spring        | 1   |                 |
| 48  | 22T1-012F10 | Stop plate    | 1   |                 |
| 49  | 22T1-012F2  | Nut           | 1   |                 |
| 50  | 22T1-012F8  | Screw         | 1   | SM9/64"×40×4    |
| 51  | 68WF1-017   | Thread finger | 1   |                 |
| 52  | 20T1-013F3  | Screw         | 2   | SM3/32"×56      |
| 53  | 20T1-013F2  | Spring        | 1   |                 |
| 54  | 68WF1-023   | Sliding plate | 1   |                 |
| 55  | 33T4-012-A  | Needle plate  | 1   |                 |
| 56  | 20T1-020    | Screw         | 2   | SM11/64"×40     |
| 57  | 7WF4-004    | Screw         | 2   | SM11/64"×40×20  |
| 58  | 68WF1-008   | Screw         | 1   | SM11/64"×40×28  |
| 59  | 68WF1-020   | Face plate    | 1   |                 |
| 60  | 68WF1-021   | Arm           | 1   |                 |
| 61  | 68WF1-022   | Bed           | 1   |                 |
| 62  | 33T4-007    | Safety guard  | 1   |                 |
| 63  | 21WF4-047   | Screw         | 1   | SM11/64"×40×7.5 |
| 64  | 7WF4-019    | Safety notice | 1   |                 |
| 65  | 68WF1-024   | Trade mark    | 1   |                 |
| 66  |             | Rivet         | 2   | GB827-86 2.5×5  |
| 67  | 68WF1-018   | Rear cover    | 1   |                 |
| 68  | 68WF1-019   | Spacer        | 1   |                 |

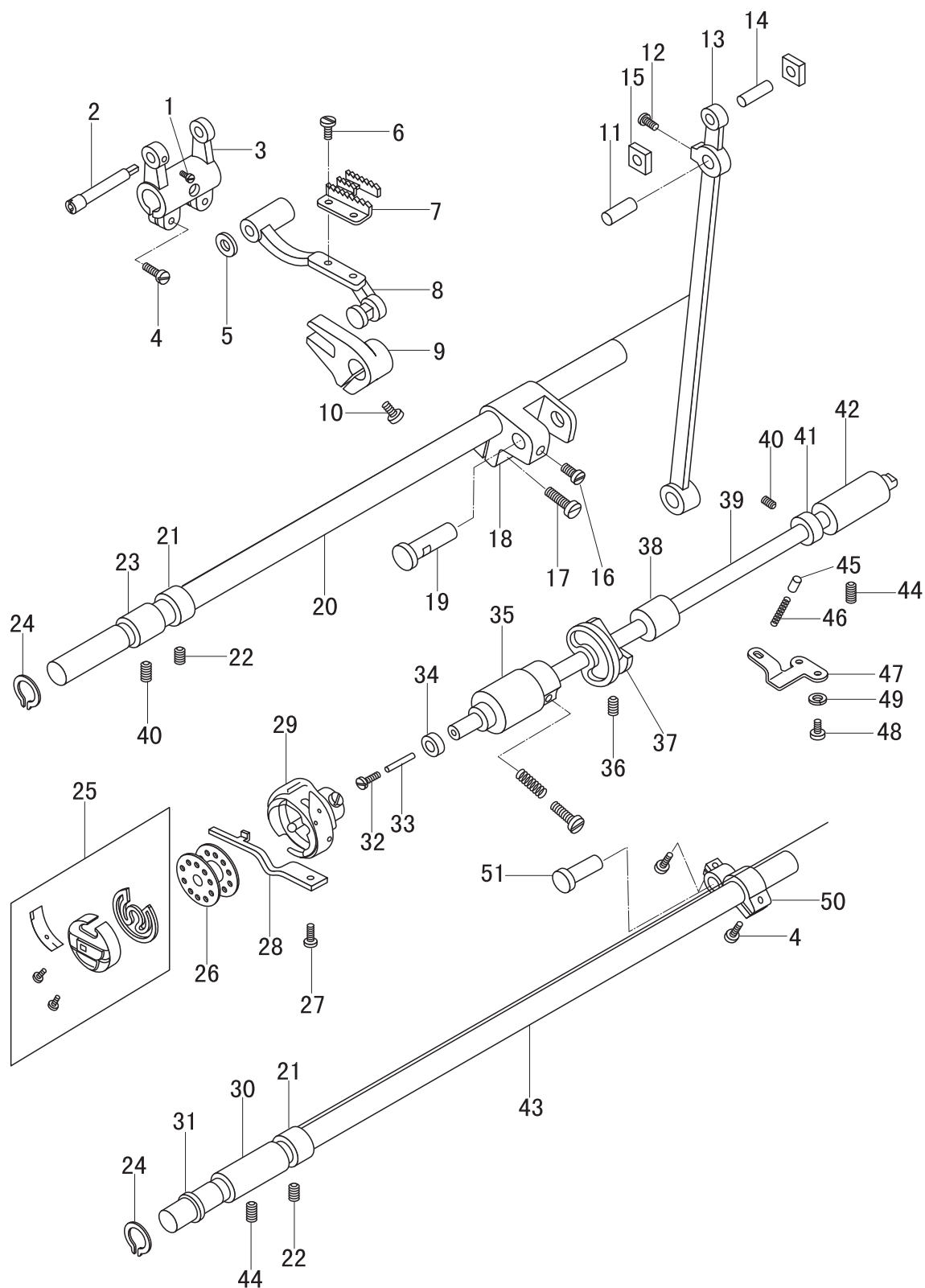
## 2. Thread take-up and looping parts



## 2. Thread take-up and looping parts

| No. | Part number    | Name                      | Qt. | Remark                          |
|-----|----------------|---------------------------|-----|---------------------------------|
| 1   | 22T2-011       | Rubber plug               | 1   | $\phi 8.8$                      |
| 2   |                | Felt                      | 1   | $\phi 8 \times 8$               |
| 3   | 68WF2-001      | Upper bushing             | 1   |                                 |
| 4   | 68WF2-002      | Needle bar                | 1   |                                 |
| 5   | 68WF2-003      | Lower bushing             | 1   |                                 |
| 6   | 22T2-015       | Thread guide              | 1   |                                 |
| 7   |                | Needle                    | 1   | DP $\times 17$ 23#              |
| 8   | 22T2-017       | Screw                     | 1   | SM1/8" $\times 44 \times 4.5$   |
| 9   | JO.O.40        | Screw                     | 1   | SM15/64" $\times 28 \times 10$  |
| 10  |                | Oil wick                  | 1   | length 130mm                    |
| 11  | 68WF2-005      | Thread take-up lever      | 1   |                                 |
| 12  | 21WF4-047      | Screw                     | 1   | SM11/64" $\times 40 \times 7.5$ |
| 13  | 68WF2-006      | Sliding block             | 1   |                                 |
| 14  | 68WF2-007      | Guide rail                | 1   |                                 |
|     | 78WF5-001      | Hinge pin                 | 1   | GC0322-D2                       |
|     | 78WF5-002      | Spring                    | 1   | GC0322-D2                       |
|     | 78WF5-003      | Hinge                     | 1   | GC0322-D2                       |
| 15  | 22T2-005B3     | Screw                     | 8   | SM1/4" $\times 40 \times 7$     |
| 16  | 68WF2-008      | Needle bar crank          | 1   |                                 |
| 17  | 21WF1-012      | Screw                     | 1   | SM9/32" $\times 28 \times 13.3$ |
| 18  | 22T3-008       | Screw                     | 1   | SM11/32" $\times 28 \times 11$  |
| 19  | 61-04-01/B206  | Screw                     | 1   | SM9/32" $\times 28 \times 11.5$ |
| 20  | 68WF2-009      | Left bushing              | 1   |                                 |
| 21  | 68WF2-010      | Feed dog cam(left)        | 1   |                                 |
| 22  | 68WF2-011      | Feed dog cam crank(left)  | 1   |                                 |
| 23  | 68WF2-012      | Balancing block           | 1   |                                 |
| 24  | 68WF2-013      | Middle bushing            | 1   |                                 |
| 25  | JO.O.81        | Screw                     | 1   | SM15/64" $\times 28 \times 7.5$ |
| 26  | 22T3-002B1     | Collar                    | 1   |                                 |
| 27  | 22T3-002B2     | Screw                     | 2   | SM1/4" $\times 40 \times 4$     |
| 28  |                | C-type ring               | 1   | GB894.1-86 20                   |
| 29  | 68WF2-014      | Link                      | 1   |                                 |
| 30  | 68WF2-015      | Feed dog cam crank(right) | 1   |                                 |
| 31  | 68WF2-016      | Feed dog cam              | 1   |                                 |
| 32  | 68WF2-017      | Back bushing              | 1   |                                 |
| 33  | 2KT1-005       | Oil seal                  | 1   |                                 |
| 34  | 22T2-005B3     | Screw                     | 8   | SM1/4" $\times 40 \times 7$     |
| 35  | 22T3-010E2a1-2 | Bevel gear                | 1   |                                 |
| 36  | 22T3-010E2a2-2 | Bevel gear(up)            | 1   |                                 |
| 37  | 68WF2-018      | Upper bushing             | 1   |                                 |
| 38  | JO.O.40        | Screw                     | 2   | SM15/64" $\times 28 \times 10$  |
| 39  | 68WF2-019      | Vertical shaft            | 1   |                                 |
| 40  | 68WF2-020      | Lower bushing             | 1   |                                 |
| 41  | 22T3-010E2b2-2 | Bevel gear(down)          | 1   |                                 |
| 42  | 22T3-010E2b1-2 | Bevel gear                | 1   |                                 |
| 43  | 22T3-001A2     | Oil seal                  | 1   |                                 |
| 44  | 68WF2-004      | Upper shaft               | 1   |                                 |
| 45  |                | Felt                      | 1   |                                 |
| 46  | 68WF2-021      | Adjusting rod assembly    | 1   |                                 |

### 3. Lower feed parts

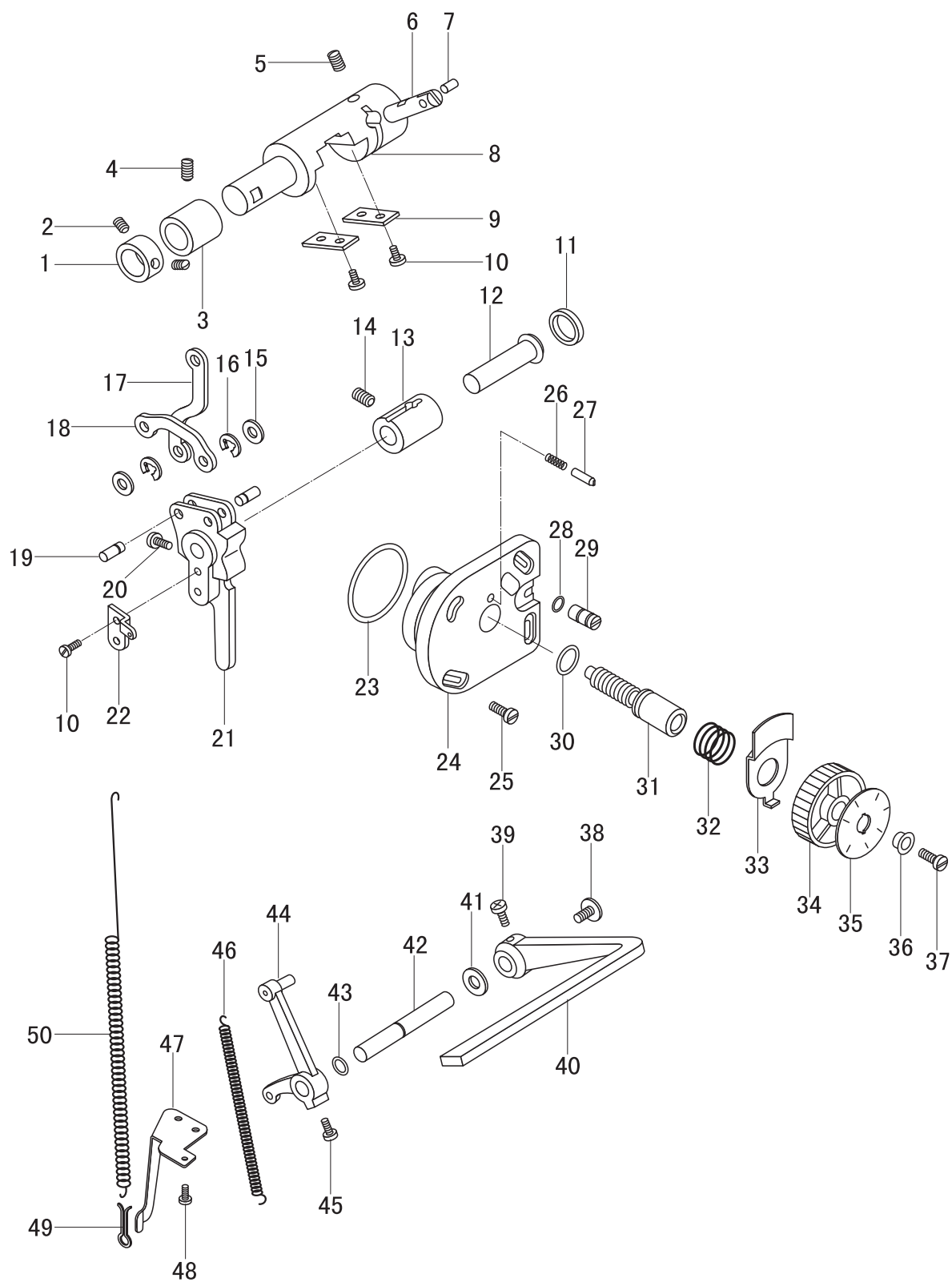


### 3. Lower feed parts

| No. | Part number  | Name                      | Qt. | Remark          |
|-----|--------------|---------------------------|-----|-----------------|
| 1   | 21WF4-047    | Screw                     | 1   | SM11/64"×40×7.5 |
| 2   | 36T1-001A2   | Eccentric shaft           | 1   |                 |
| 3   | 68WF3-001    | Crank                     | 1   |                 |
| 4   | 22T6-001A1b  | Screw                     | 4   | SM3/16"×28×10   |
| 5   | 51T5-001A6   | Washer                    | 1   | φ10× φ6×1.3     |
| 6   | JO.O.50      | Screw                     | 2   | SM1/8"×44×6     |
| 7   | 20T3-008     | Feed dog                  | 1   |                 |
| 8   | 36T4-001A1a  | Feed dog support assembly | 1   |                 |
|     | 36T4-001A1a2 | Feed dog support          | 1   |                 |
|     | 36T4-001A1d  | Sliding block             | 1   |                 |
|     | 72T6-002B1b  | Shaft                     | 1   |                 |
|     | 4WF2-011     | Washer                    | 1   |                 |
| 9   | 68WF3-003    | Feed dog lift fork        | 1   |                 |
| 10  | 22T6-008D3   | Screw                     | 1   | SM11/64"×40×12  |
| 11  | 68WF3-004    | Link pin(down)            | 1   |                 |
| 12  | 21WF4-047    | Screw                     | 1   | SM11/64"×40×7.5 |
| 13  | 68WF3-005    | Link                      | 1   |                 |
| 14  | 68WF3-006    | Link pin(up)              | 1   |                 |
| 15  | 1WF4-040     | Sliding block             | 2   |                 |
| 16  | 1WF2-038     | Screw                     | 1   | SM15/64"×28×10  |
| 17  | 16WF3-061    | Screw                     | 1   | SM15/64"×28×16  |
| 18  | 68WF3-007    | Crank(right)              | 1   |                 |
| 19  | 68WF3-008    | Crank pin                 | 1   |                 |
| 20  | 68WF3-009    | Feed shaft                | 1   |                 |
| 21  | 22T3-002B1   | Collar                    | 1   |                 |
| 22  | 22T3-002B2   | Screw                     | 2   | SM1/4"×40×4     |
| 23  | 22T6-004     | Bushing                   | 1   | GB894.1-86 15   |
| 24  |              | Elastic retainer          | 2   |                 |
| 25  | 33T1-028R    | Bobbin case assembly      | 1   | GC0322-D2       |
|     | 151845001    |                           | 1   |                 |
| 26  | 33T1-027     | Bobbin                    | 1   | GC0322-D2       |
|     | 2KT1-014     |                           | 1   |                 |
| 27  | 22T4-015     | Screw                     | 1   |                 |
| 28  | 33T1-029     | Position hook             | 1   | GC0322-D2       |
|     | 2KT1-013     |                           | 1   |                 |
| 29  | 33T1-018J    | Rotating hook assembly    | 1   | GC0322-D2       |
|     | 159793901    |                           | 1   |                 |
| 30  | 22T6-012     | Bushing                   | 1   |                 |
| 31  | 51T5-013     | Washer                    | 1   |                 |
| 32  | 22T4-001A1a1 | Washer                    | 1   |                 |
| 33  | 22T4-001A1a2 | Oil filter                | 1   |                 |
| 34  | 68WF3-014    | Oil seal                  | 1   |                 |
| 35  | 68WF3-015    | Left bushing              | 1   |                 |
| 36  | 2KT5-031     | Screw                     | 2   | SM1/4"×40×10    |
| 37  | 78WF3-001    | Trimmer cam               | 1   | GC0322-D2       |
| 38  | 68WF3-016    | Middle bushing            | 1   |                 |
| 39  | 68WF3-017    | Rock shaft                | 1   |                 |
| 40  | JO.O.35      | Screw                     | 3   | SM15/64"×28×4.5 |
| 41  | 22T4-002B1   | Collar                    | 1   |                 |
| 42  | 68WF3-002    | Right bushing             | 1   |                 |
| 43  | 68WF3-012    | Feed dog lift shaft       | 1   |                 |
| 44  | JO.O.40      | Screw                     | 2   | SM15/64"×28×10  |
| 45  | 36T4-015     | Plunger                   | 1   |                 |
| 46  | 36T4-016     | Spring                    | 1   |                 |
| 47  | 22T4-010     | Retainer                  | 1   |                 |
| 48  | 1WF2-038     | Screw                     | 1   | SM15/64"×28×10  |
| 49  |              | Washer                    | 1   | GB93-87-6       |
| 50  | 68WF3-011    | Crank                     | 1   |                 |
| 51  | 22WF6-007    | Hinge pin                 | 1   |                 |



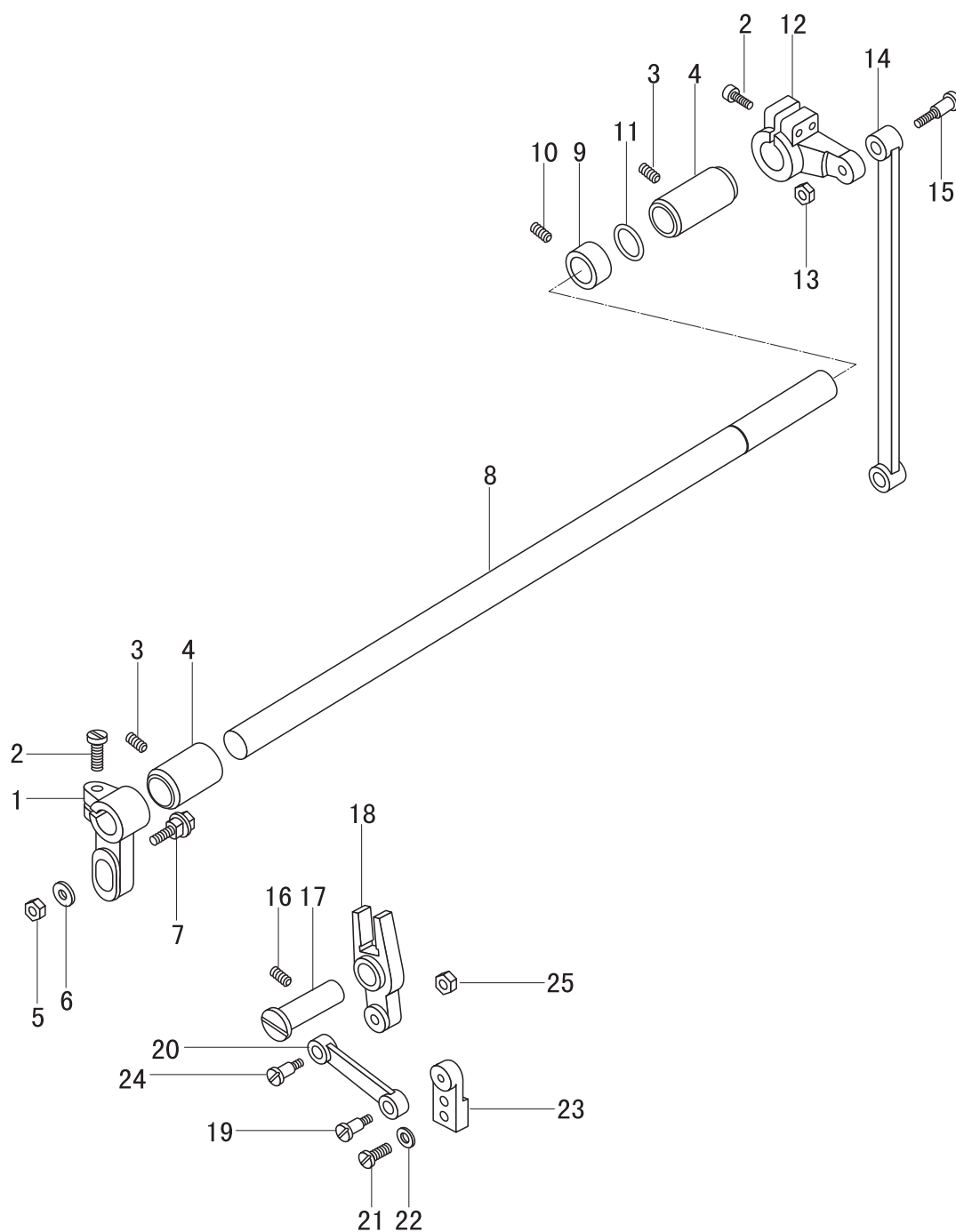
## 4. Stitch length adjusting parts



#### 4. Stitch length adjusting parts

| No. | Part number | Name                              | Qt. | Remark                |
|-----|-------------|-----------------------------------|-----|-----------------------|
| 1   | 22T3-002B1  | Collar                            | 1   |                       |
| 2   | 22T3-002B2  | Screw                             | 2   | SM1/4"×40×4           |
| 3   | 22T6-004    | Bushing                           | 1   |                       |
| 4   | 1WF5-022    | Screw                             | 1   | SM11/64"×40×5.5       |
| 5   | JO.O.40     | Screw                             | 1   | SM15/64"×28×10        |
| 6   | 68WF4-002   | Support shaft                     | 1   |                       |
| 7   | 68WF4-003   | Pin                               | 1   |                       |
| 8   | 68WF4-004   | Reverse feed bracket              | 1   |                       |
| 9   | 1WF4-056    | Guide plate                       | 2   |                       |
| 10  | 21WF4-047   | Screw                             | 6   | SM11/64"×40×7.5       |
| 11  | 68WF4-005   | Rubber plug                       | 1   | φ 19.5                |
| 12  | 7WF2-013    | Hinge shaft                       | 1   |                       |
| 13  | 68WF4-006   | Bushing                           | 1   |                       |
| 14  | JO.O.40     | Screw                             | 1   | SM15/64"×28×10        |
| 15  | 68WF4-008   | Washer                            | 2   |                       |
| 16  |             | Retainer                          | 2   | GB896-86-4            |
| 17  | 68WF4-009   | Stitch length link                | 1   |                       |
| 18  | 78WF6-001   | Reverse feed link                 | 1   | GC0322-D2             |
| 19  | 68WF4-011   | Link pin                          | 2   |                       |
| 20  | 1WF2-038    | Screw                             | 1   | SM15/64"×28×10        |
| 21  | 68WF4-007   | Swing bar                         | 1   |                       |
| 22  | 68WF4-013   | Spring bracket                    | 1   |                       |
| 23  | 68WF4-014   | O-type ring                       | 1   | GB3452.1-92 33.5×3.55 |
| 24  | 68WF4-015   | Dial plate holder                 | 1   |                       |
| 25  | 22T4-015    | Screw                             | 4   | SM11/64"×40×10        |
| 26  | 22T5-009    | Spring                            | 1   |                       |
| 27  | 36T5-012    | Stop pin                          | 1   |                       |
| 28  |             | O-type ring                       | 1   | GB1235 φ 8×1.9        |
| 29  | 68WF4-012   | Shaft for dial plate holder       | 1   |                       |
| 30  |             | Seal ring                         | 1   | GB1235 φ 14×2.4       |
| 31  | 36T5-007D1  | Screw bolt                        | 1   |                       |
| 32  | 36T5-011    | Spring                            | 1   |                       |
| 33  | 36T5-010    | Position plate                    | 1   |                       |
| 34  | 68WF4-018C  | Dial plate                        | 1   |                       |
| 35  | 68WF4-018B  | Dial face                         | 1   |                       |
| 36  | 36T5-007D4  | Bushing                           | 1   |                       |
| 37  | 68WF4-018A  | Screw                             | 1   | SM3/16"×28×18         |
| 38  | 22T5-010D3  | Screw                             | 1   | SM3/16"×28×7          |
| 39  | 1WF2-038    | Screw                             | 1   | SM15/64"×28×10        |
| 40  | 68WF4-017   | Reverse feed lever                | 1   |                       |
| 41  | 68WF4-016   | Washer                            | 1   |                       |
| 42  | 68WF4-001   | Shaft                             | 1   |                       |
| 43  |             | Seal ring                         | 1   | GB1235 φ 8×1.9        |
| 44  | 68WF4-022   | Reverse feed lever crank assembly | 1   |                       |
| 45  | 22T5-013    | Screw                             | 1   | SM15/64"×28×14.5      |
| 46  | 68WF4-010   | Spring                            | 1   |                       |
| 47  | 68WF4-019   | Spring bracket                    | 1   |                       |
| 48  | 1WF2-038    | Screw                             | 1   | SM15/64"×28×10        |
| 49  | 68WF4-020   | Spring hook                       | 1   |                       |
| 50  | 68WF4-021   | Extension spring                  | 1   |                       |

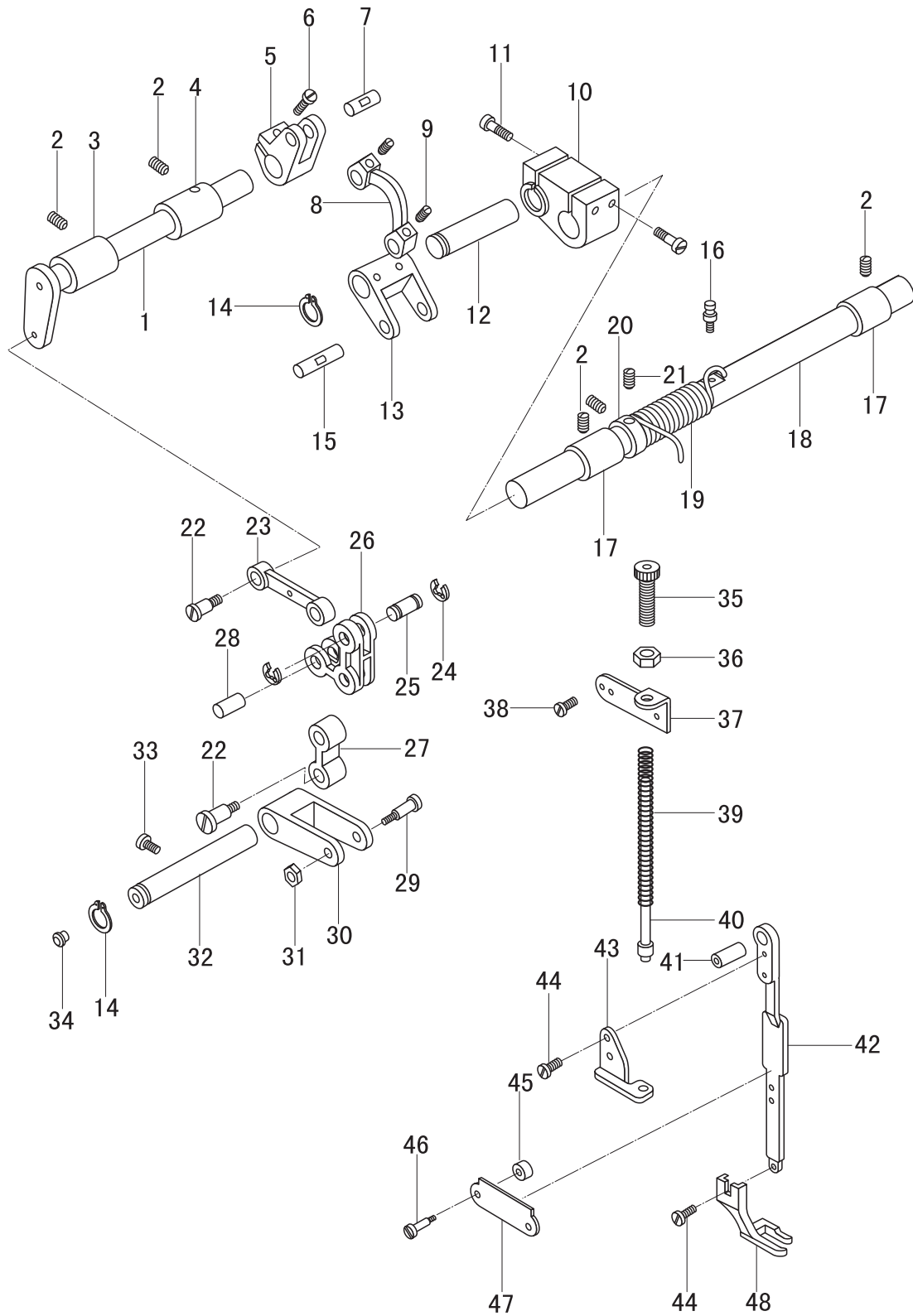
## 5. Presser foot parts



## 5. Presser foot parts

| No. | Part number | Name                         | Qt. | Remark          |
|-----|-------------|------------------------------|-----|-----------------|
| 1   | 68WF5-001   | Left crank                   | 1   |                 |
| 2   | 16WF3-061   | Screw                        | 2   | SM15/64"×28×16  |
| 3   | 1WF5-022    | Screw                        | 2   | SM11/64"×40×5.5 |
| 4   | 68WF5-002   | Bushing                      | 2   |                 |
| 5   | 7WF5-003    | Connecting nut               | 1   |                 |
| 6   |             | Washer                       | 1   | GB95-85-6       |
| 7   | 7WF5-014    | Crank shaft assembly         | 1   |                 |
| 8   | 68WF5-003   | Swing shaft for presser foot | 1   |                 |
| 9   | 22T3-002B1  | Collar                       | 1   |                 |
| 10  | 22T3-002B2  | Screw                        | 2   | SM1/4"×40×5     |
| 11  | 68WF5-004   | O-type ring                  | 1   |                 |
| 12  | 68WF5-005   | Right crank                  | 1   |                 |
| 13  | 7WF5-022    | Adjusting nut                | 1   |                 |
| 14  | 68WF5-006   | Crank link                   | 1   |                 |
| 15  | 7WF5-037    | Screw                        | 1   | SM9/32"×28      |
| 16  | JO.O.81     | Screw                        | 1   | SM15/64"×28×7.5 |
| 17  | 68WF5-007   | Guide column                 | 1   |                 |
| 18  | 68WF5-008   | Crank                        | 1   |                 |
| 19  | 7WF5-019a   | Screw                        | 1   | SM1/4"×40       |
| 20  | 68WF5-009   | Crank link                   | 1   |                 |
| 21  | 7WF5-008    | Screw                        | 2   | SM9/64"×40×7    |
| 22  |             | Washer                       | 2   | GB95-85-4       |
| 23  | 7WF5-009    | Swing link bracket           | 1   |                 |
| 24  | 7WF5-011    | Screw                        | 1   | SM1/4"×40×26    |
| 25  | 7WF5-001    | Connecting nut               | 1   |                 |

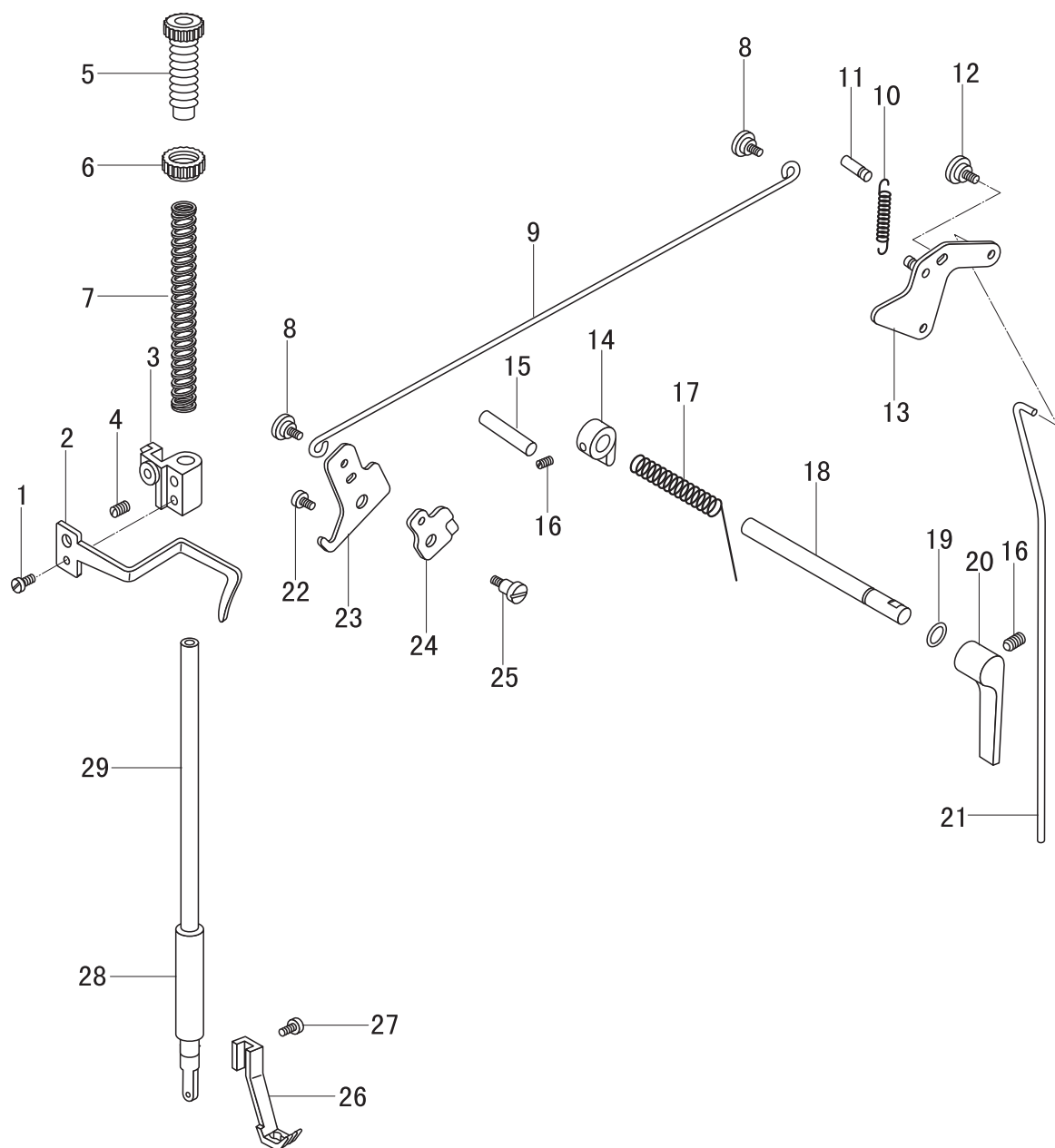
## 6. Presser foot lift parts



## 6. Presser foot lift parts

| No. | Part number | Name                    | Qt. | Remark          |
|-----|-------------|-------------------------|-----|-----------------|
| 1   | 68WF6-001   | Presser foot lift shaft | 1   |                 |
| 2   | 1WF5-022    | Screw                   | 4   | SM11/64"×40×5.5 |
| 3   | 68WF6-002   | Left bushing            | 1   |                 |
| 4   | 68WF6-003   | Right bushing           | 1   |                 |
| 5   | 68WF6-004   | Adjusting crank         | 1   |                 |
| 6   | 1WF4-027    | Screw                   | 1   | SM15/64"×28×13  |
| 7   | 68WF6-005   | Crank shaft             | 1   |                 |
| 8   | 68WF6-006   | Crank link              | 1   |                 |
| 9   | 1WF5-022    | Screw                   | 2   | SM11/64"×40×4   |
| 10  | 68WF6-007   | Bracket                 | 1   |                 |
| 11  | 1WF3-009    | Screw                   | 4   | SM11/64"×40×15  |
| 12  | 68WF6-008   | Shaft for bracket       | 1   |                 |
| 13  | 68WF6-009   | Bracket crank           | 1   |                 |
| 14  |             | Retainer                | 2   | GB894.1-86-10   |
| 15  | 68WF6-010   | Shaft for crank         | 1   |                 |
| 16  | 68WF6-011   | Screw                   | 1   | SM15/64"×28     |
| 17  | 22T6-004    | Bushing                 | 2   |                 |
| 18  | 68WF6-013   | Adjusting shaft         | 1   |                 |
| 19  | 68WF6-014   | Spring                  | 1   |                 |
| 20  | 22T3-002B1  | Collar                  | 1   |                 |
| 21  | 22T3-002B2  | Screw                   | 2   | SM1/4"×40×4     |
| 22  | 7WF5-019a   | Screw                   | 2   | SM1/4"×40       |
| 23  | 68WF6-015   | Crank link              | 1   |                 |
| 24  |             | E-type ring             | 2   | GB896-86-6      |
| 25  | 68WF6-016   | Hinge shaft(up)         | 1   |                 |
| 26  | 68WF6-017   | Presser foot feed crank | 1   |                 |
| 27  | 68WF6-018   | Feed crank link         | 1   |                 |
| 28  | 68WF6-019   | Hinge shaft(down)       | 1   |                 |
| 29  | 68WF6-022   | Screw                   | 1   | SM15/64"×28     |
| 30  | 68WF6-023   | Bracket                 | 1   |                 |
| 31  | 36WF5-008   | Connecting nut          | 1   |                 |
| 32  | 68WF6-024   | Feed crank shaft        | 1   |                 |
| 33  | 1WF2-019    | Screw                   | 1   | SM15/64"×28×12  |
| 34  | 22T1-017    | Rubber plug             | 1   | φ 5.7           |
| 35  | 7WF5-021    | Screw                   | 1   | SM9/32"×28      |
| 36  | 7WF5-022    | Nut                     | 1   |                 |
| 37  | 68WF6-012   | Spring bracket          | 1   |                 |
| 38  | 21WF4-047   | Screw                   | 2   | SM11/64"×40×7.5 |
| 39  | 7WF5-027    | Spring                  | 1   |                 |
| 40  | 7WF5-028    | Guide column assembly   | 1   |                 |
| 41  | 68WF6-020   | Bushing                 | 1   |                 |
| 42  | 68WF6-021   | Presser foot link       | 1   |                 |
| 43  | 7WF5-029    | Position plate          | 1   |                 |
| 44  | 7WF5-007    | Screw                   | 3   | SM9/64"×40×8    |
| 45  | 7WF5-002    | Cushion                 | 2   |                 |
| 46  | 22T6-008D3  | Screw                   | 2   | SM11/64"×40×12  |
| 47  | 7WF5-031    | Presser plate           | 1   |                 |
| 48  | 7WF5-006    | Swing presser foot      | 1   |                 |

## 7. Presser foot parts

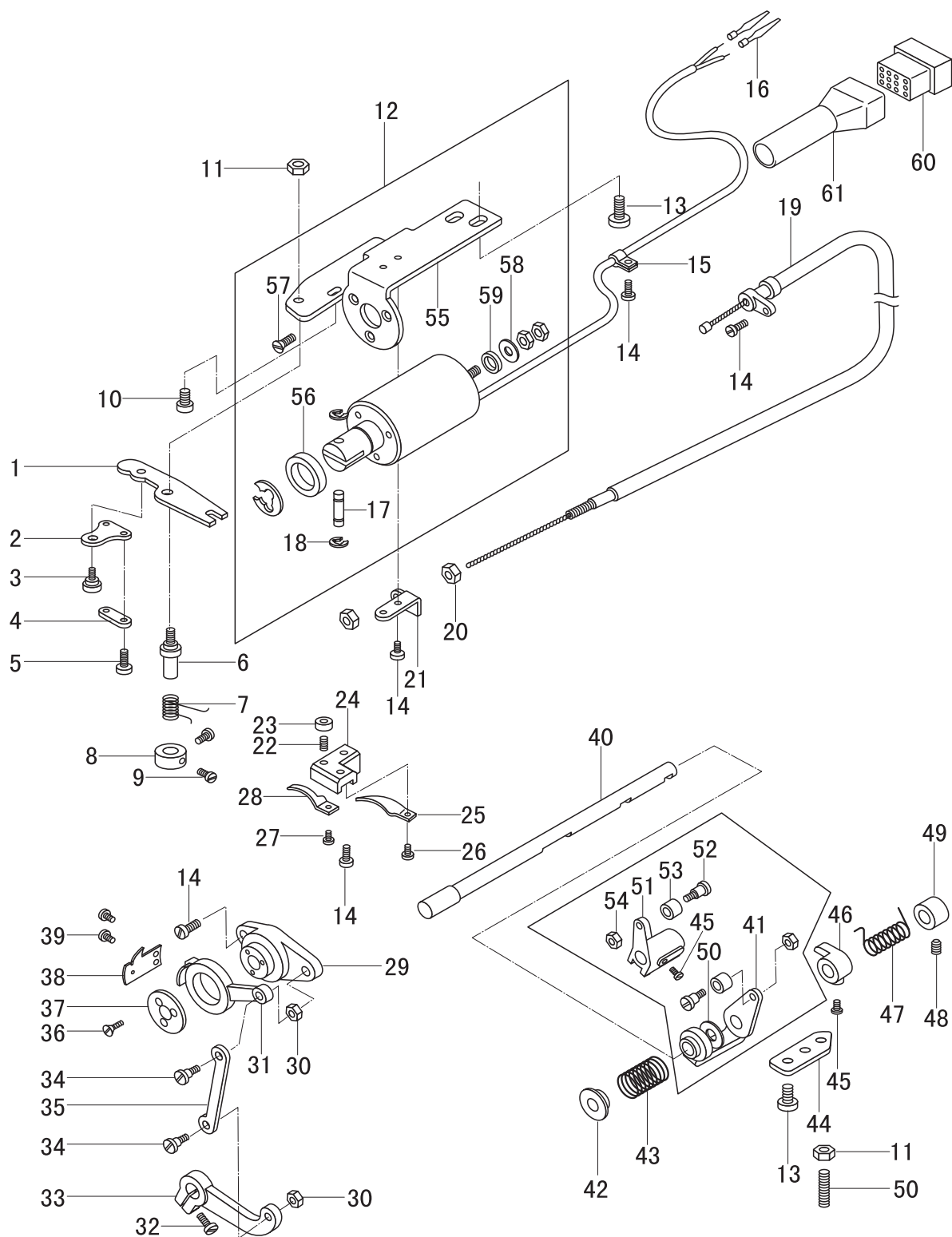


## 7. Presser foot parts

| No. | Part number | Name                           | Qt. | Remark          |
|-----|-------------|--------------------------------|-----|-----------------|
| 1   | 22T2-004    | Screw                          | 1   | SM11/64"×40×5.5 |
| 2   | 68WF7-001   | Hook                           | 1   |                 |
| 3   | 68WF7-002   | Guide bracket                  | 1   |                 |
| 4   | JO.O.81     | Screw                          | 1   | SM15/64"×28×7.5 |
| 5   | 1KT4-001    | Screw                          | 1   |                 |
| 6   | 1KT4-002    | Locking nut                    | 1   |                 |
| 7   | 20T4-002    | Spring                         | 1   |                 |
| 8   | 22T7-004B2  | Screw                          | 1   | SM3/16"×28      |
| 9   | 68WF7-004   | Connecting rod                 | 1   |                 |
| 10  | 68WF7-005   | Spring                         | 1   |                 |
| 11  | 22T7-008    | Spring pin                     | 1   |                 |
| 12  | 22T7-005B   | Screw                          | 1   | SM15/64"×28×6.9 |
| 13  | 68WF7-006   | Presser foot lift lever(right) | 1   |                 |
| 14  | 68WF7-007   | Presser foot lift cam          | 1   |                 |
| 15  | 68WF7-013   | Stopper pin                    | 2   |                 |
| 16  | JO.O.35     | Screw                          | 1   | SM15/64"×28×4.5 |
| 17  | 68WF7-008   | Spring                         | 1   |                 |
| 18  | 68WF7-009   | Spanner shaft                  | 1   |                 |
| 19  | 17WF5-021   | O-type ring                    | 1   |                 |
| 20  | 68WF7-010   | Spanner                        | 1   |                 |
| 21  | 68WF7-011   | Link                           | 1   |                 |
| 22  | 22T7-004B1c | Screw                          | 1   | SM11/64"×40×6.5 |
| 23  | 68WF7-012   | Presser foot lift lever(lift)  | 1   |                 |
| 24  | 22T7-004B1b | Thread releasing cam           | 1   |                 |
| 25  | 22T7-005A   | Screw                          | 1   | SM15/64"×38×7.2 |
| 26  | 7WF3-003    | Presser foot                   | 1   |                 |
| 27  | 7WF5-007    | Screw                          | 1   | SM11/64"×40×8   |
| 28  | 68WF7-003   | Bushing                        | 1   |                 |
| 29  | 68WF7-014   | Presser bar                    | 1   |                 |



## 8. Trimmer parts



## 8. Trimmer parts

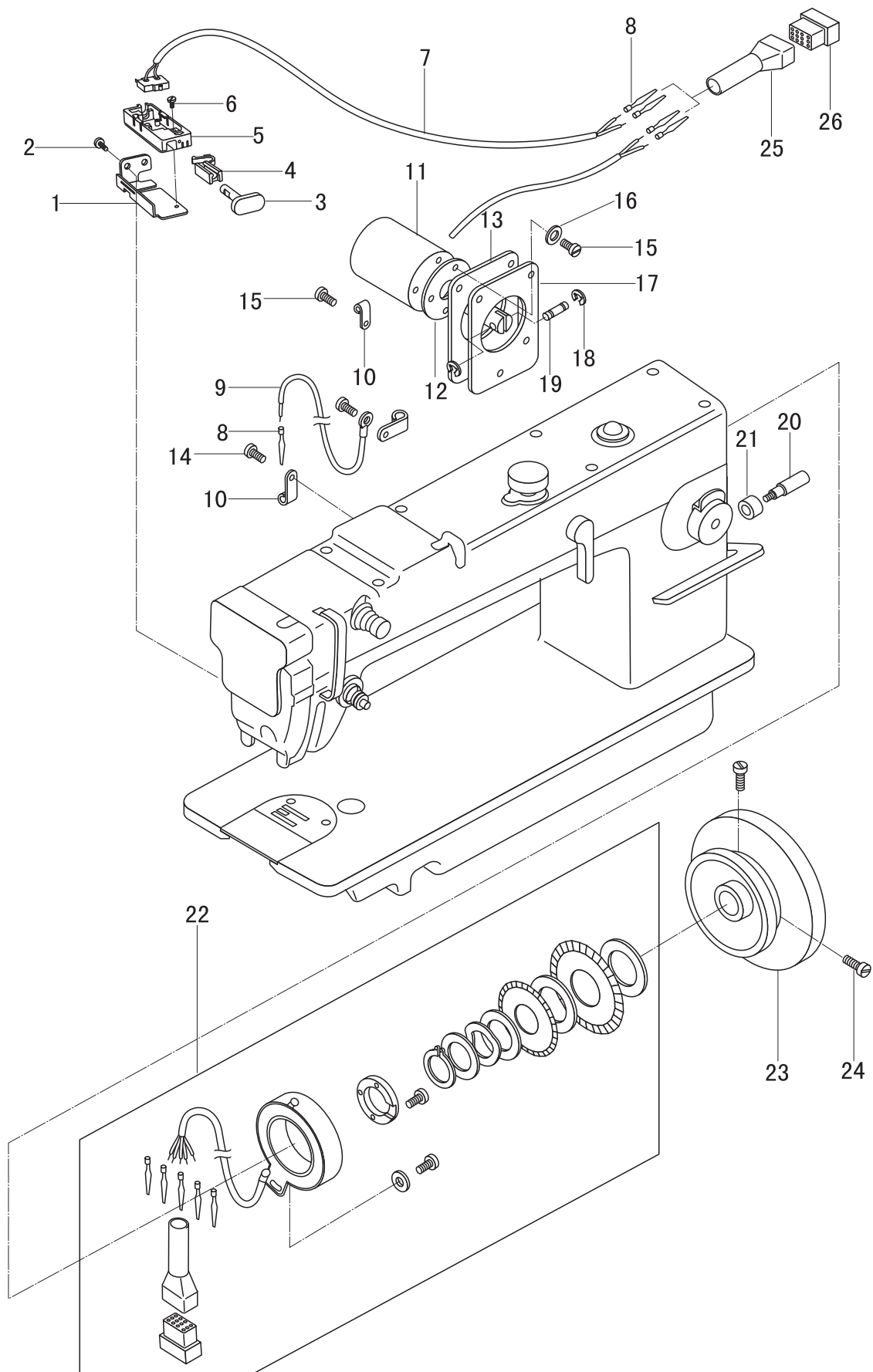
| No. | Part number | Name                            | Qt. | Remark         |
|-----|-------------|---------------------------------|-----|----------------|
| 1   | 78WF1-004   | Driving plate                   | 1   | SM11/64"×40×5  |
| 2   | 78WF1-005   | Support plate                   | 1   |                |
| 3   | 78WF1-006   | Screw                           | 1   |                |
| 4   | 78WF1-007   | Connecting plate                | 1   | SM1/8"×44×7    |
| 5   | 37T2-203    | Screw                           | 1   |                |
| 6   | 78WF1-008   | Shaft for driving plate         | 1   |                |
| 7   | 78WF1-009   | Spring                          | 1   | SM9/64"×40×6.5 |
| 8   | 78WF1-010   | Collar                          | 1   |                |
| 9   | 1WF1-024    | Screw                           | 2   |                |
| 10  | 22T4-015    | Connecting screw                | 1   | SM11/64"×40×10 |
| 11  | 36WF5-008   | Nut                             | 1   |                |
| 12  | 78WF1-001   | Electromagnet rotating assembly | 1   |                |
| 13  | 36WF1-056   | Screw                           | 4   | SM15/64"×28×12 |
| 14  | 21WF1-047   | Screw                           | 7   |                |
| 15  | 2KT5-040    | Clamp                           | 1   |                |
| 16  | 2KT6-001C   | Plug adptor                     | 2   | GB896-86-4     |
| 17  | 78WF1-001A  | Pin                             | 1   |                |
| 18  |             | Retainer                        | 2   |                |
| 19  | 78WF1-011   | Haul line assembly              | 1   | GB6170-86 M5   |
| 20  |             | Nut                             | 2   |                |
| 21  | 78WF1-012   | Bracket                         | 1   |                |
| 22  | 78WF1-013   | Screw                           | 1   | SM9/64"×40×8.5 |
| 23  | 78WF1-014   | Nut                             | 1   |                |
| 24  | 78WF1-015   | Fixed knife bracket             | 1   |                |
| 25  | 78WF1-016   | Thread plate                    | 1   | SM9/64"×40×8   |
| 26  | 13WF2-008   | Screw                           | 1   |                |
| 27  | 2KT5-002    | Screw                           | 1   |                |
| 28  | 78WF1-002   | Fixed knife blade               | 1   | SM9/64"×40×4.3 |
| 29  | 78WF1-017   | Knife bracket                   | 1   |                |
| 30  | 2KT5-013    | Nut                             | 2   |                |
| 31  | 78WF1-018   | Knife bracket (left)            | 1   | SM11/64"×40×12 |
| 32  | 22T6-008D3  | Screw                           | 1   |                |
| 33  | 78WF1-019   | Driving crank                   | 1   |                |
| 34  | 78WF1-020A  | Screw                           | 2   | SM11/64"×40    |

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## 8. Trimmer parts

| No. | Part number | Name            | Qt. | Remark                     |
|-----|-------------|-----------------|-----|----------------------------|
| 35  | 78WF1-020   | Link            | 1   | SM1/8"×44×5.2              |
| 36  | 78WF1-021   | Screw           | 3   |                            |
| 37  | 78WF1-022   | Washer          | 1   |                            |
| 38  | 78WF1-003   | Movable knife   | 1   |                            |
| 39  | 2KT5-007    | Screw           | 2   | SM11/64"×40                |
| 40  | 78WF1-023   | Cam crank shaft | 1   |                            |
| 41  | 78WF1-024B  | Right crank     | 1   |                            |
| 42  | 78WF1-025   | Spring cover    | 1   |                            |
| 43  | 78WF1-026   | Spring          | 1   | SM15/64"×28×8.5            |
| 44  | 78WF1-027   | Stop plate      | 1   |                            |
| 45  | 22T5-010D4  | Screw           | 3   |                            |
| 46  | 78WF1-028   | Stopper block   | 1   |                            |
| 47  | 78WF1-029   | Spring          | 1   | SM1/4"×40×4                |
| 48  | 22T3-002B2  | Screw           | 2   |                            |
| 49  | 78WF1-030   | Collar          | 1   |                            |
| 50  | 78WF1-024F  | Plastic ring    | 1   |                            |
| 51  | 78WF1-024A  | Left crank      | 1   | SM3/16"×28×8.5             |
| 52  | 78WF1-024C  | Screw           | 2   |                            |
| 53  | 78WF1-024D  | Roller          | 2   |                            |
| 54  | 78WF1-024E  | Nut             | 2   |                            |
| 55  | 78WF1-001B  | Set plate       | 1   | SM3/16"×28                 |
| 56  | 78WF1-001C  | Washer(big)     | 1   |                            |
| 57  |             | Screw           | 3   |                            |
| 58  |             | Spacer          | 1   |                            |
| 59  | 78WF1-001D  | Washer(small)   | 1   | GB819-85 M4×6<br>GB96-85-5 |
| 60  | 2KT8-002    | Plug cover      | 1   |                            |
| 61  | 2KT8-003    | Thread cover    | 1   |                            |

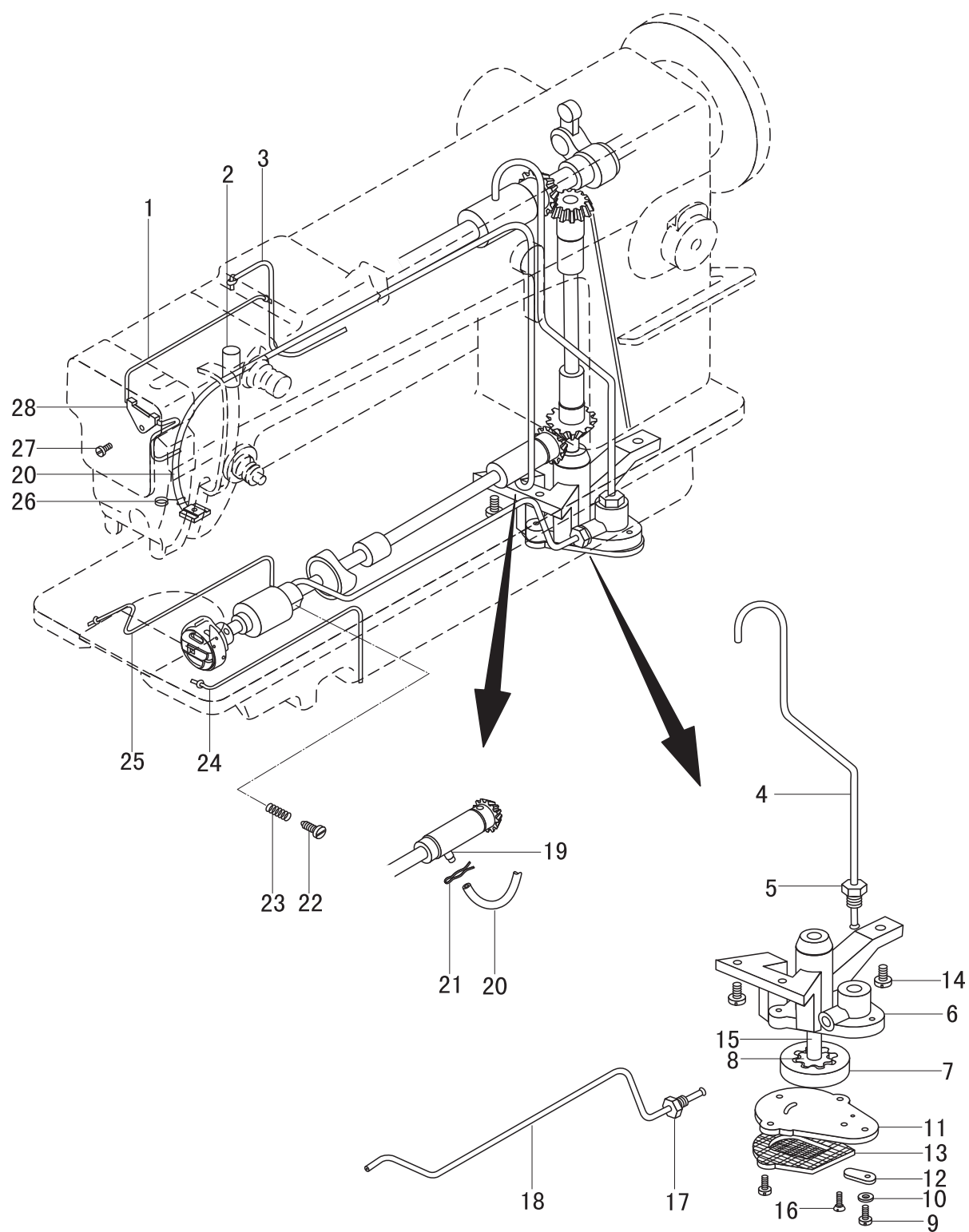
## 9. Reverse feed parts



## 9. Reverse feed parts

| No. | Part number | Name                                | Qt. | Remark          |
|-----|-------------|-------------------------------------|-----|-----------------|
| 1   | 62WF5-032   | Set plate                           | 1   | SM3/16"×32×9.5  |
| 2   | 21WF1-062   | Screw                               | 2   |                 |
| 3   | 2KT6-015    | Switch                              | 1   |                 |
| 4   | 2KT6-014    | Connecting part                     | 1   |                 |
| 5   | 2KT6-013    | Switch bracket                      | 1   |                 |
| 6   |             | Screw                               | 1   | GB818-85 M3×6   |
| 7   | 2KT6-016    | Switch assembly                     | 1   |                 |
| 8   | 2KT6-001C   | Plug adaptor                        | 5   |                 |
| 9   | 2KT8-001    | Ground cable assembly               | 1   |                 |
| 10  | 2KT5-040    | Clamp                               | 2   |                 |
| 11  | 78WF2-001   | Reverse feed electromagnet assembly | 1   | SM11/64"×40×7.5 |
| 12  | 78WF2-001A  | Washer                              | 1   |                 |
| 13  | 78WF2-003   | Rear cover                          | 1   |                 |
| 14  | 21WF4-047   | Screw                               | 1   |                 |
| 15  | 21WF3-026   | Screw                               | 5   |                 |
| 16  |             | Washer                              | 4   | GB859-87-5      |
| 17  | 68WF1-019   | Washer                              | 1   |                 |
| 18  |             | E-type ring                         | 2   |                 |
| 19  | 78WF1-001A  | Pin                                 | 1   |                 |
| 20  | 68WF4-023   | Support rod                         | 1   |                 |
| 21  | 68WF4-024   | Stopper ring                        | 1   | Gc0322          |
| 22  | 78WF2-002   | Probe unit assembly                 | 1   |                 |
| 23  | 78WF2-004   | Machine pulley                      | 1   |                 |
|     | 7WF1-001    | Machine pulley                      | 1   |                 |
| 24  | 22T3-007C2  | Screw                               | 2   |                 |
| 25  | 2KT8-002    | Plug cover                          | 1   | SM15/64"×28×15  |
| 26  | 2KT8-003    | Thread cover                        | 1   |                 |

## 10. Oil pump parts

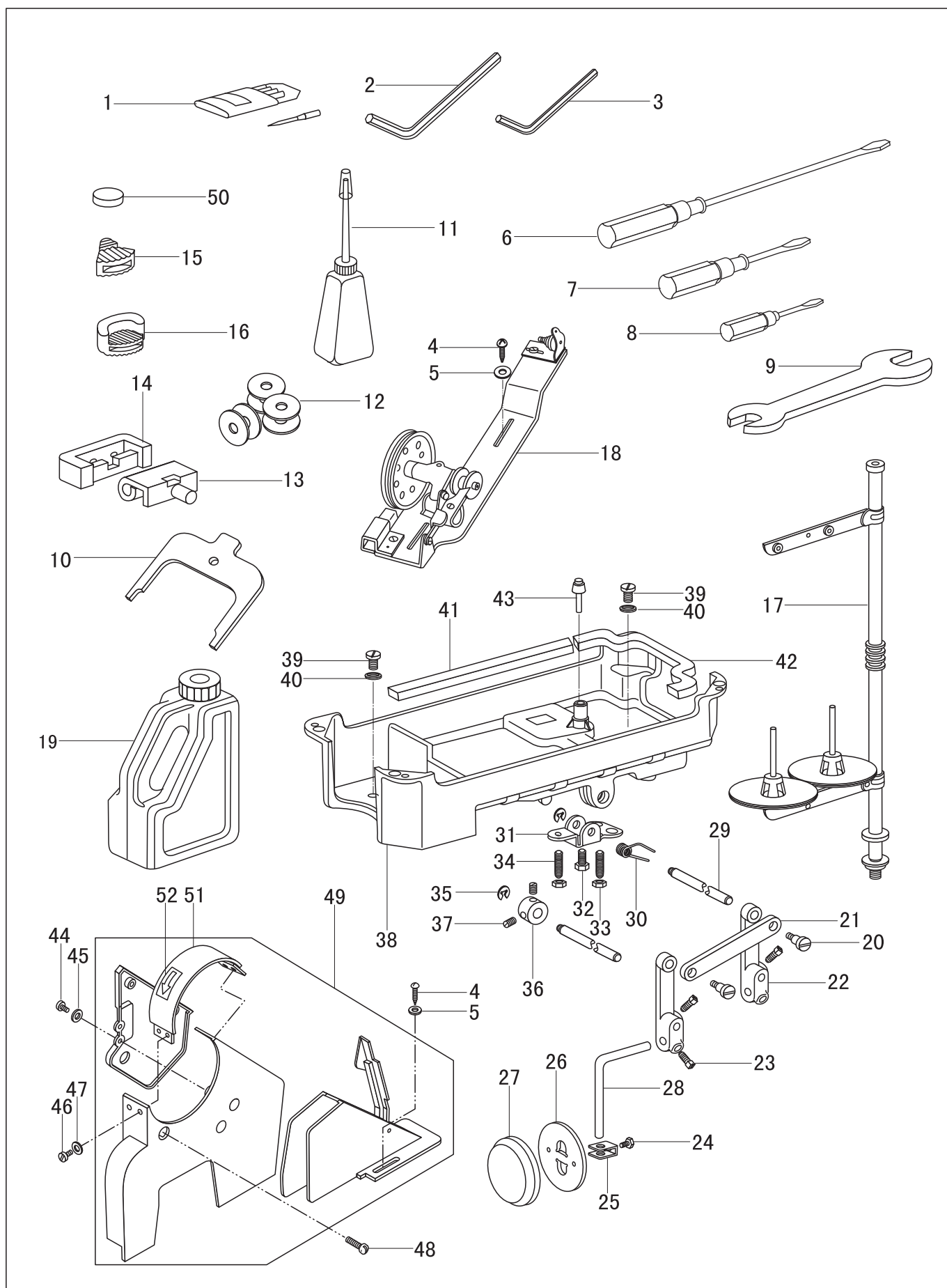


## 10. Oil pump parts

| No. | Part number | Name                | Qt. | Remark         |
|-----|-------------|---------------------|-----|----------------|
| 1   |             | Oil wick            | 1   | length 500mm   |
| 2   |             | Felt                | 1   |                |
| 3   |             | Oil wick            | 1   | length 250mm   |
| 4   | 68WF8-001A  | Oil tube            | 1   |                |
| 5   | 22T8-013D2  | Adaptor             | 1   |                |
| 6   | 15WF4-003   | Oil pump            | 1   |                |
| 7   | 15WF4-006   | Big gear            | 1   |                |
| 8   | 15WF4-007   | Small gear          | 1   |                |
| 9   |             | Screw               | 3   | GB67-85 M3×10  |
| 10  |             | Washer              | 1   | GB93-87-4      |
| 11  | 15WF4-004   | Oil pump cover      | 1   |                |
| 12  | 22T8-006    | Adjusting plate     | 1   |                |
| 13  | 22T8-008A   | Oil filter assembly | 1   |                |
| 14  | 22T8-009    | Screw               | 3   | SM11/64"×40×13 |
| 15  | 15WF4-005   | Shaft               | 1   |                |
| 16  |             | Screw               | 2   | GB68-85 M3×10  |
| 17  | 22T8-010B1  | Adaptor             | 1   |                |
| 18  | 68WF8-002A  | Oil tube            | 1   |                |
| 19  | 22T4-007C2  | Adaptor             | 1   |                |
| 20  |             | Oil pipe            | 1   |                |
|     | 22T8-015    | Oil felt            | 1   |                |
| 21  | 68WF8-005   | Clamp               | 1   |                |
| 22  | 22T4-005    | Screw               | 1   |                |
| 23  | 22T4-006    | Spring              | 1   |                |
| 24  |             | Oil wick            | 1   | length 250mm   |
| 25  |             | Oil wick            | 1   | length 300mm   |
| 26  | 68WF8-004   | Clamp               | 1   |                |
| 27  | 22T1-003C6  | Screw               | 1   | SM9/64"×40×6   |
| 28  | 68WF8-003   | Set plate           | 1   |                |



## 11. Accessories



## 11. Accessories

| No. | Part number | Name                        | Qt. | Remark             |
|-----|-------------|-----------------------------|-----|--------------------|
| 1   |             | Needle                      | 1   | DP1723#            |
| 2   |             | Spanner                     | 1   | S=3                |
| 3   |             | Spanner                     | 1   | S=2                |
| 4   |             | Wood screw                  | 4   | GB5282-85 ST4.8×19 |
| 5   |             | Spacer                      | 4   | GB848-85-6         |
| 6   | 33TF-012    | Screw driver(big)           | 1   |                    |
| 7   | 33TF-013    | Screw driver(medium)        | 1   |                    |
| 8   | 33TF-014    | Screw driver(small)         | 1   |                    |
| 9   | 22WF6-008   | Spanner                     | 1   | 8×10               |
| 10  | 78WF7-001   | Adjusting plate             | 1   | GC0322-D2          |
| 11  | 33TF-011    | Small oil pot               | 1   |                    |
| 12  | 33TF1-027   | Bobbin                      | 4   |                    |
|     | 2KT1-014    | Bobbin                      | 4   | GC0322-D2          |
| 13  | 22T9-007F1  | Hinge                       | 2   |                    |
| 14  | 22T9-007F2  | Rubber cover                | 2   |                    |
| 15  | 1KT5-003    | Cushion(big)                | 2   |                    |
| 16  | 1KT5-004    | Cushion(small)              | 2   |                    |
| 17  | 4F-007      | Thread spool stand assembly | 1   |                    |
| 18  | S14420020   | Bobbin winder assembly      | 1   |                    |
| 19  | 22T9-017    | Oil tank                    | 1   |                    |
| 20  | 68WF9-007   | Screw                       | 2   | SM1/4"×24×10.5     |
| 21  | 68WF9-006   | Link                        | 1   |                    |
| 22  | 68WF9-009   | Bell adaptor                | 2   |                    |
| 23  | 22T9-003B4  | Screw                       | 3   | SM5/16"×18×13      |
| 24  | 22T9-003B7  | Screw                       | 1   | SM15/64"×28×8      |
| 25  | 22T9-003B6  | Bell bracket                | 1   |                    |
| 26  | 22T9-003B5  | Bell                        | 1   |                    |
| 27  | 22T9-003B8  | Cushion                     | 1   |                    |
| 28  | 22T9-003B2  | Bent rod                    | 1   |                    |
| 29  | 68WF9-008   | Hinge shaft                 | 1   |                    |
| 30  | 22T9-001A7  | Spring                      | 1   |                    |
| 31  | 22T9-001A8  | Stopper bracket             | 1   |                    |
| 32  | 22T3-007C2  | Screw                       | 1   | SM15/64"×28×15     |
| 33  | 22T9-001A10 | Adjusting nut               | 2   | SM15/64"×28        |
| 34  | 22T9-001A9  | Adjusting screw             | 2   | SM15/64"×28×27     |
| 35  |             | E-type ring                 | 2   | GB896-86-9         |
| 36  |             | Collar                      | 1   |                    |
| 37  | JO.O.35     | Screw                       | 2   | SM15/64"×28×4.5    |
| 38  | 68WF9-010   | Oil reservoir               | 1   |                    |
| 39  | 22T9-001A2  | Screw                       | 2   | SM15/16"×28×10     |
| 40  | 22T9-001A3  | Washer                      | 2   |                    |
| 41  | 68WF9-011   | Pat(big)                    | 1   |                    |
| 42  | 68WF9-012   | Pat(small)                  | 1   |                    |
| 43  | 22T9-003B1  | Prop rod                    | 1   |                    |
| 44  | 13WF3-018   | Screw(2)                    | 1   | M4×10              |
| 45  |             | Spacer                      | 1   | GB97.1-85-4        |
| 46  | 21WF4-047   | Screw(1)                    | 6   | SM11/64"×40×7.5    |
| 47  | 22T1-007    | Spacer                      | 6   |                    |
| 48  | 22T8-009    | Screw                       | 2   | SM15/64"×28×8      |
| 49  | 68WF9-013   | Belt cover assembly         | 1   |                    |
| 50  | 22T9-012    | Magnet                      | 1   |                    |
| 51  | 68WF9-013A  | Upper belt cover            | 1   |                    |
| 52  | 36WF1-031E  | Moving mark                 | 1   |                    |