
EA-8B/EA-8BV
CYLINDER BED COMPOUND FEED
LARGE ROTARY HOOK LARGE STITCH
LENGTH SEWING MACHINE

OPERATION INSTRUCTION / PARTS MANUAL

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Parts Manual

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OPERATION INSTRUCTION

1. Brief Introduction

EA-8B and EA-8BV are designed with sliding lever thread take-up, vertical rotating hook to produce double lockstitch, timing teeth belt driving, lever-type stitch length mechanism and safety clutch mechanism.

This series of machine is widely used in sewing bag, luggage suitcase, seat cushion, especially for cylinder and curve articles.

The main difference between EA-8B and EA-8BV are:

The feed mechanism of EA-8B is composed of presser foot, feed dog and needle, which forms the compound feed. It can prevent slippage between the layers of materials.

The feed mechanism of EA-8BV is composed of needle, presser foot, feed dog and binding apparatus, which can prevent the slippage between the material and the welting cord. It is suitable for edge seaming.

3. Installation

1. Location of the machine

The machine must be located on rigid and flat floor to ensure its smooth operation and reduce its vibration. A rubber mat should be inserted between the machine stand and the floor to reduce the running noise.

2. Installing the arm bed and the oil reservoir (Fig.1)

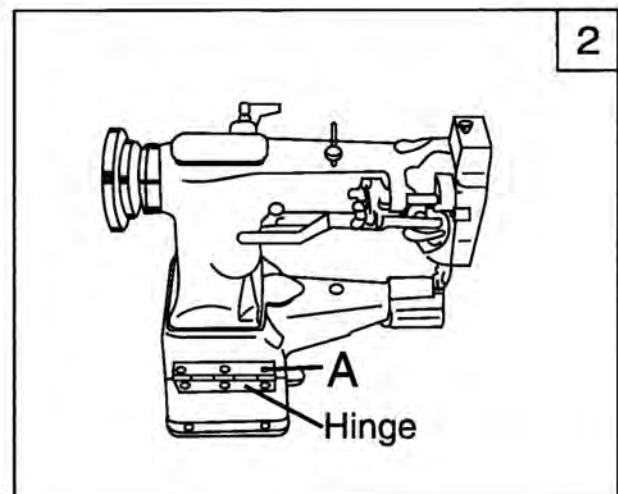
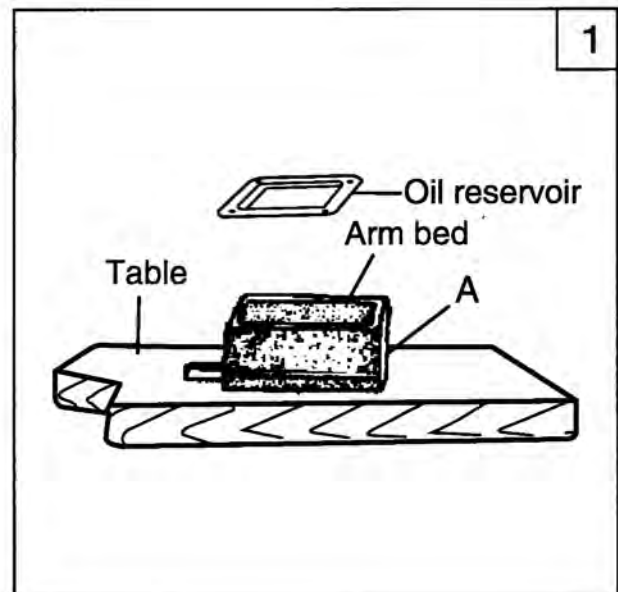
Align the four screw holes of the arm bed with the four holes of the table, plunge them with four bolts A, and tighten the nut, then put the oil reservoir on the arm bed smoothly.

3. Installing the machine head (Fig.2)

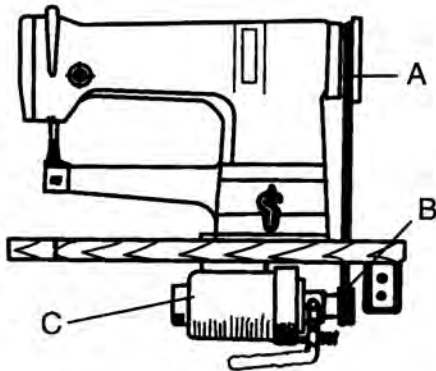
Install half of the hinges to the arm bed, then put the machine head lightly on the arm bed and move it slightly. The three screw holes of the machine head should be made to align with the three holes of the hinge and the three screws should be tighten and fixed.

2. Main Specification

| Type | EA-8B | EA-8BV |
|--------------------------|------------------------|---------------|
| Application | Medium & heavy duty | |
| Max.sewing speed | 2200s.p.m | |
| Stitch length | 0-5mm | |
| Needle bar stroke | 33.2mm | |
| Presser foot lift height | By hand 8mm | By hand 6.5mm |
| | By pedal 14mm | By pedal 12mm |
| Rotating hook | Standard vertical hook | |
| Needle | DP×17 18#-23# | |
| Lubrication | Manual | |
| Motor | 370W | |



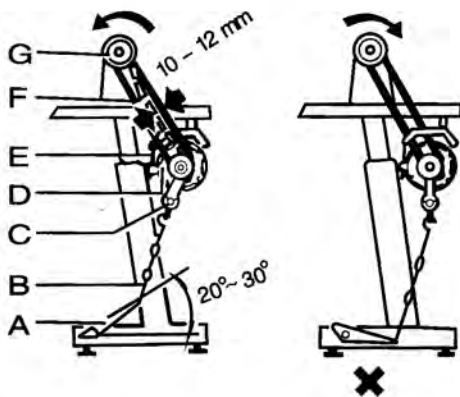
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4. Installing the motor (Fig.3)

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

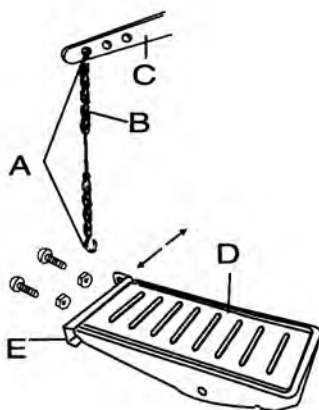
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5. Connecting the clutch lever to the pedal (Fig.4)

1. The optimum tilt angle of the pedal A against the floor is appropriate $20^{\circ}\sim 30^{\circ}$.
2. Adjust the E clutch of the motor so that the clutch lever C and the draw bar B run in one line.
3. The machine balance wheel should rotate counter clockwise for normal when observed from the opposite side of the balance wheel. The motor D should rotate in the same direction. The rotation could be reversed by reversing the plug of the motor.
4. Adjust the tension of the V-belt F by moving the motor vertically. The proper tension of the V-belt is a slack of 10-12mm when the belt is depressed by forefinger.

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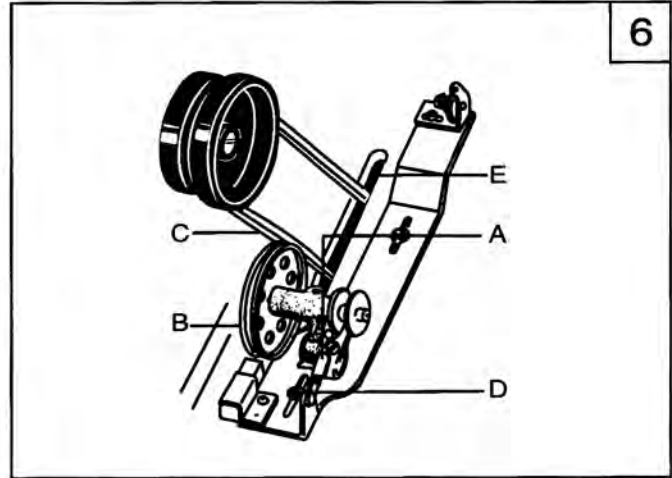


6. Installing the presser foot lift control plate (Fig.5)

At first, the hook A should be connected to the chain B and the presser foot lift lever C, then put the pedal assembly D on the stand. Move the control plate E leftward and rightward until the chain is straight in one line. Tighten the bolts and the nuts, then connect the finger to the control plate.

7. Installing the bobbin winder(Fig.6)

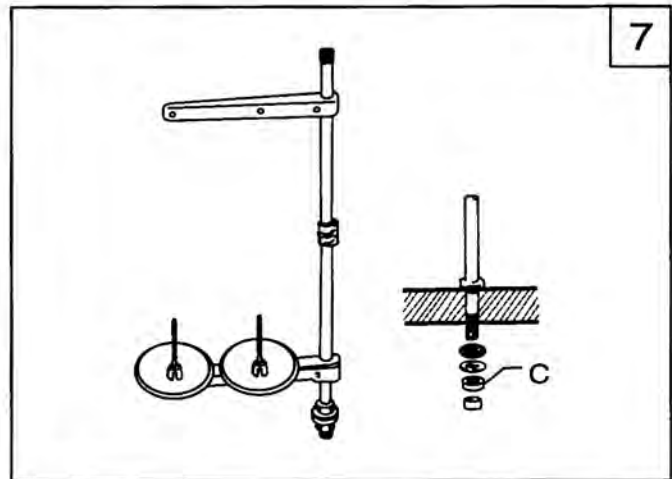
Align the pulley B of the bobbin winder with the outside of the belt C. And there should be a proper clearance between them so that the pulley B could be contacted with the belt when the thumb lever A is depressed. Thereby, the belt can drive the pulley B while the machine running. The bobbin winder should be parallel with the belt slit E of the table, and then tighten the wood screw D.



6

8. Installing the spool stand (Fig.7)

The spool stand should be located on the right backside of the table. Thread should be smooth when sewing; the spool stand may not be obstructed when the machine head is tilted back. Tighten the wood screw C.



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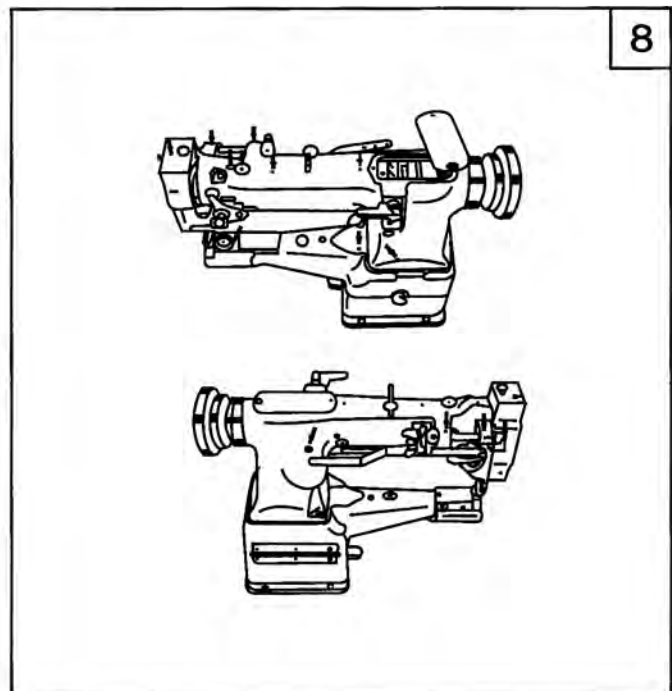
9. Preparation

1. Cleaning the machine

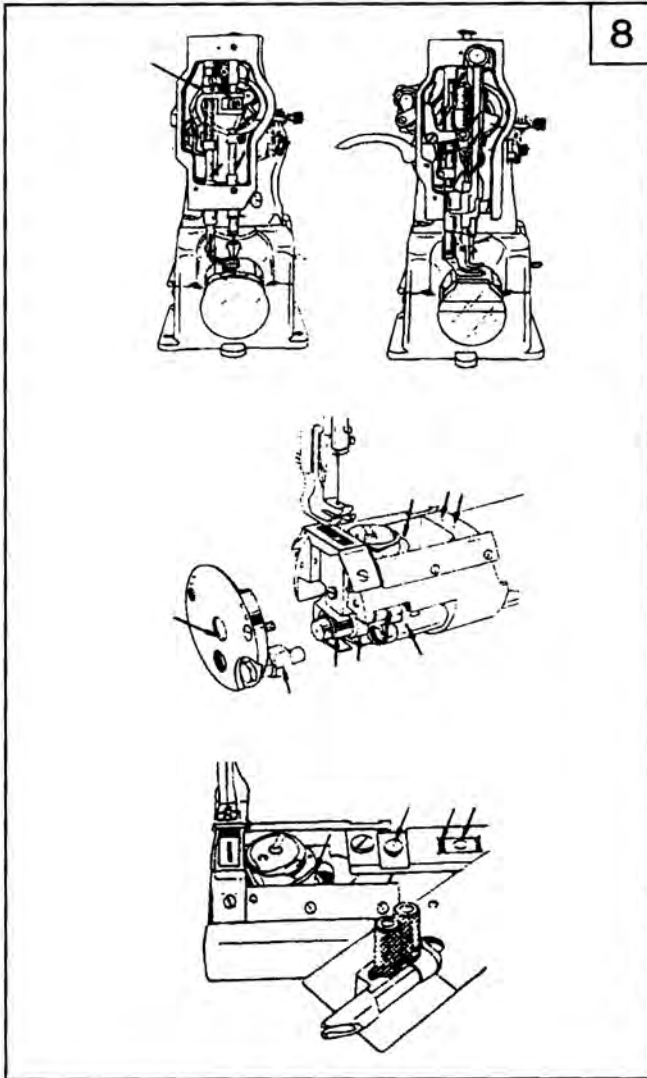
Before the machine head is packed, all the parts of the machine are coated with preventive grease. Meanwhile, the hardened grease and the converged dust on the machine surface during long storage and shipment must be removed by clean cloth with gasoline.

2. Examination

The parts of the machine may be loose and deformed after the long distance transportation with jolt though every machine is confirmed by strict inspection and test before delivery. So a thorough examination must be performed after cleaning the machine. Turn the machine balance to check if there are running obstructions, parts collision, uneven resistance or abnormal noise. If any of these exists, adjustment must be made accordingly before running.



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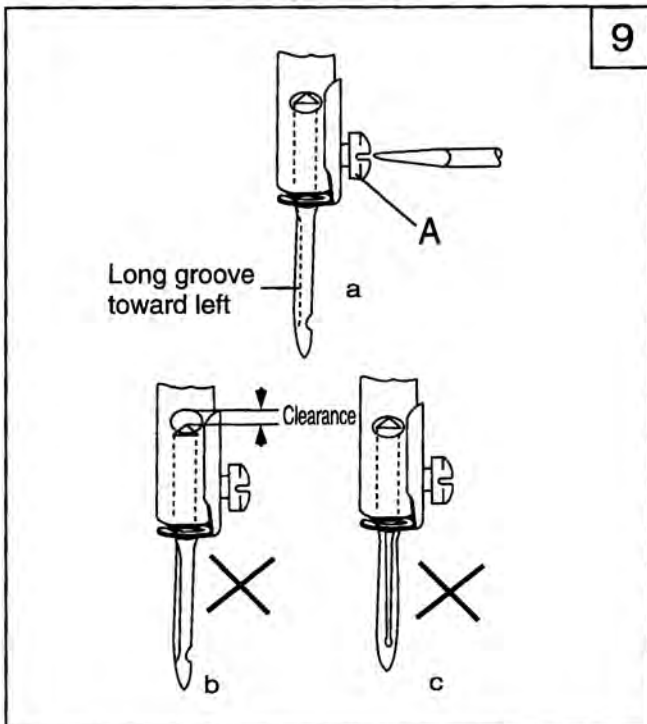


10. Lubrication (Fig.8)

Before running, the machine must be oiled at the places as the arrow shows in the Fig.8 if the machine continues in operation, it should be oiled not less than twice per shift. Please use HA-8 sewing machine oil or TJ-7 machine oil.

11. Trial run

Trial run is required when new machine is put into use or the machine is used again after operation for quite a long time. Lift the presser foot and run the machine at the low speed of 1000-1500spm for 30 minutes, then increase the speed gradually.



12. Installing the needle (Fig.9)

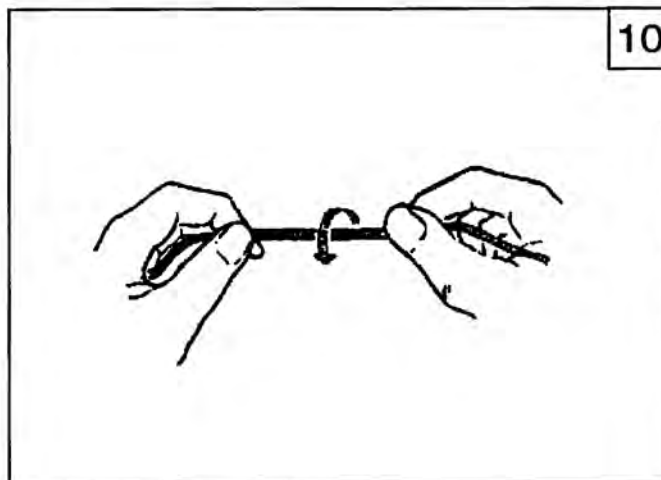
Turn the balance wheel to lift the needle bar to its highest position, loosen the needle set screw A to make the needle groove turn to the needle shank to the operator, then fully insert the needle shank to the bottom of the needle socket, finally tighten the set screw A.

Note: Fig.9 b, insufficient insertion.

Fig.9, wrong direction of groove.

13. Coordination among the needle, the thread and the material (Fig.10)

The thread should be left-twisted. Holding the thread (shown as Fig.10), Twist it upward by right hand, if the thread changes into twice, it is right-twisted; on the contrary, it is left-twisted. Needle number is $DP \times 17, 18\# \sim 23\#$. The needle size should depend on the materials to be sewn. If the thin needle is used for sewing heavy material, the needle will be broken easily, and will cause skip and thread broken as well. On the contrary, the material will be destroyed for the big needle hole. Therefore, select proper needle according to the material.



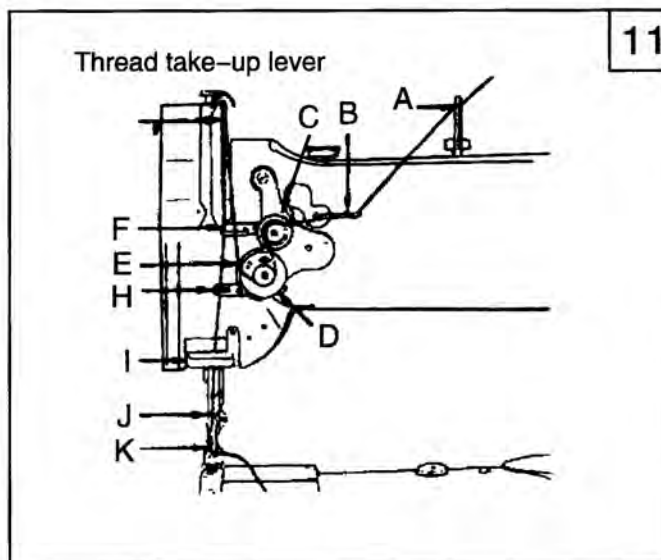
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14. Threading the needle thread(Fig.11)

Turn the balance wheel to lift the needle bar to its highest position.

The order as Fig.11: thread pass-by pin A - three-eye thread guide B - thread tension C - thread control plate D - thread take-up spring E - upper thread guide F - thread take-up spring H - lower thread guide I - needle bar thread guide J - needle K.

When drawing the bobbin thread, hold the tip of the needle thread by hand, turn the balance to lower the needle bar, and then lift it to its highest position. Pull the needle thread and draw the bobbin thread. Then make the tips of the needle thread and the bobbin thread in the front beneath the presser foot.



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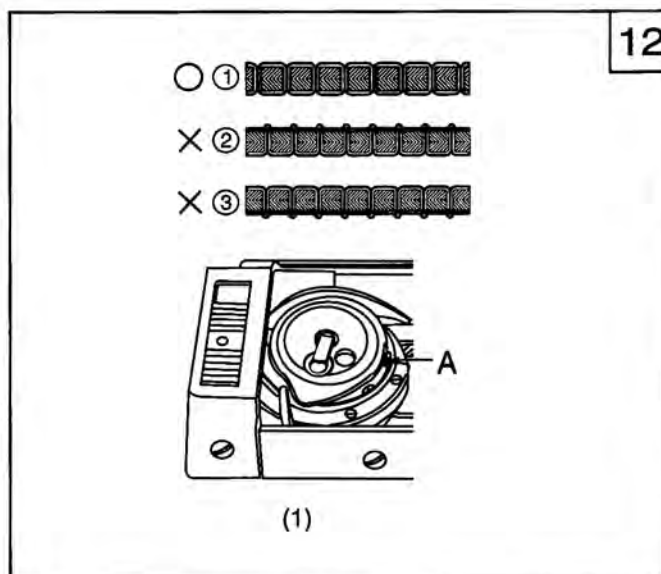
15. Adjusting the tension of the needle thread and the bobbin thread(Fig.12)

The tension of the needle thread and the bobbin thread should be suitable. The stitch form shown as (1) is the best. The abnormal stitch forms shown as (2), (3) will occur when the tension is extra tightened or extra loosened.

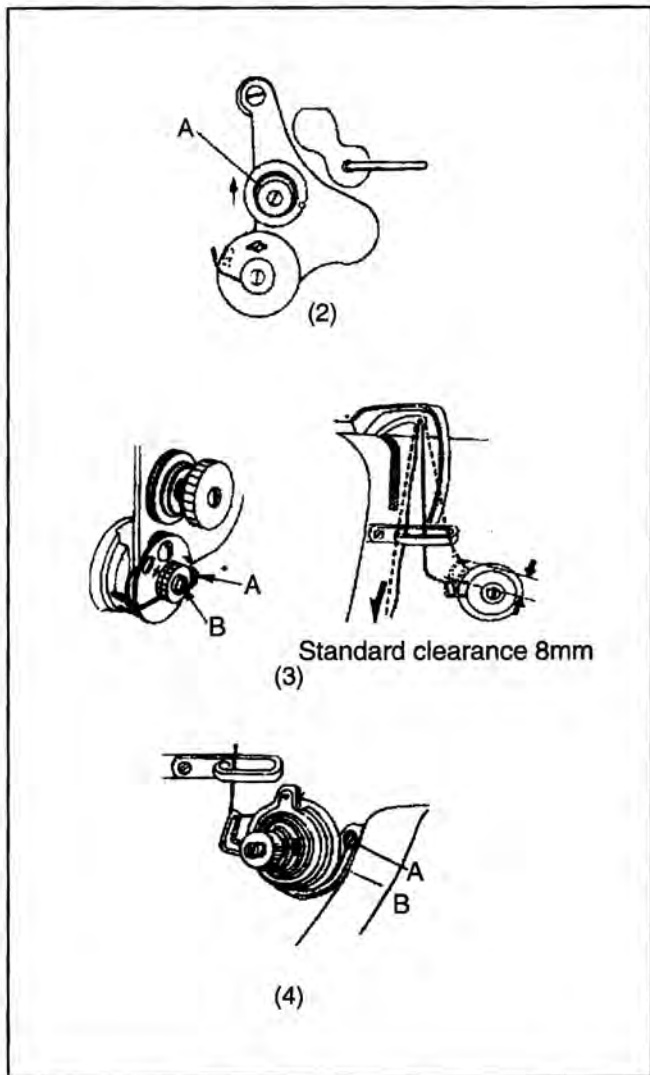
1. Adjusting the tension of the bobbin thread.

The tension of the bobbin thread could be adjusted according to the nature of the material:

- (1) Turn the balance wheel by hand to lift the thread take-up lever to its highest position;
- (2) Remove the sliding plate, the adjusting screw A is shown;
- (3) Turn the adjusting screw A clockwise with the



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Screwdriver to increase the tension;

(4) Turn the adjusting screw A counter clockwise to decrease the tension;

2. Adjusting the tension of the needle thread

(1) Adjust the pressure on the thread tension disc: Generally, the tension of the needle thread is adjusted by adjusting the pressure of the thread tension disc. As Fig.2, turn the nut A clockwise to increase the pressure, on the contrary, to decrease the pressure.

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

Light material 20g

Common material 25g

Heavy material 30g

Adjusting method:

Loosen the screw A, turn the thread take-up spring shaft B counter clockwise to increase the tension; turn it clockwise to decrease the tension.

(3) The swing range of the thread take-up spring: The thread take-up spring must be able to swing when the thread take-up lever is at its highest position.

The normal swing range of the thread take-up spring should be :

Light material more than 8mm

Common material about 8mm

Heavy material less than 8mm

The method of adjusting the swing range:

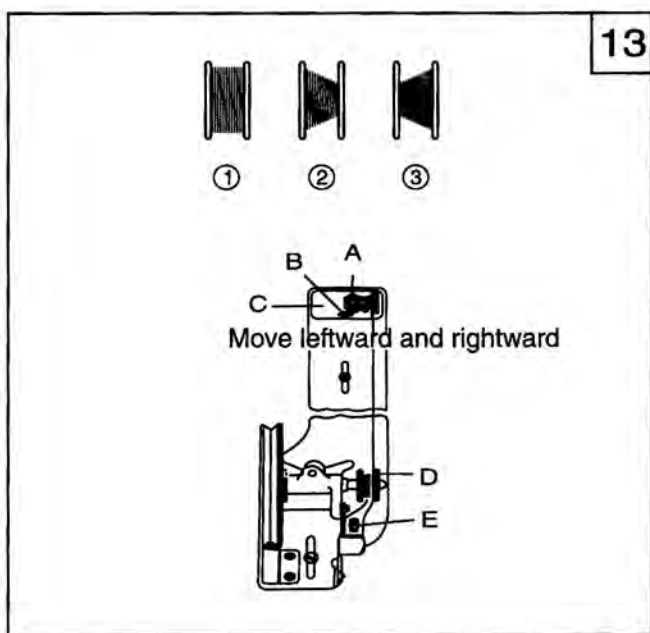
(1) Loosen the presser foot lever;

(2) Loosen the screw A;

(3) Turn the thread take-up spring position disc B counter clockwise to increase the swing range; on the contrary, to decrease the swing range.

(4) Tighten the screw A.

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16. Winding the bobbin thread (Fig.13)

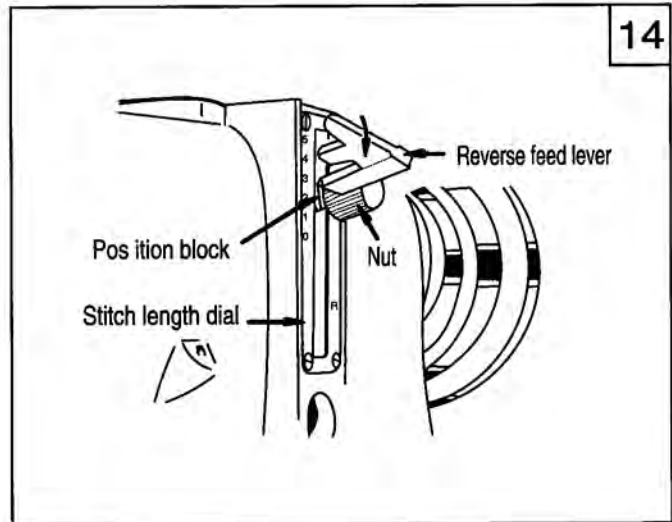
The bobbin thread should be neat and tight. If the thread is weak, please enlarge the pressure of the big thread tension disc A. If the thread is not neat, please move the thread bracket C to adjust it. Firstly, loosen the screw B, if the thread is wound to one side as Fig.(2), please move the bracket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

Note: Nylon or polyester thread should be wound with light tension in particular; otherwise the bobbin D might be broken or deformed. Don't overfill the bobbin thread as it makes thread loosen down from the bobbin.

The optimum capacity of the bobbin thread is about 80% of the bobbin outside diameter, which can be adjusted by the screw E.

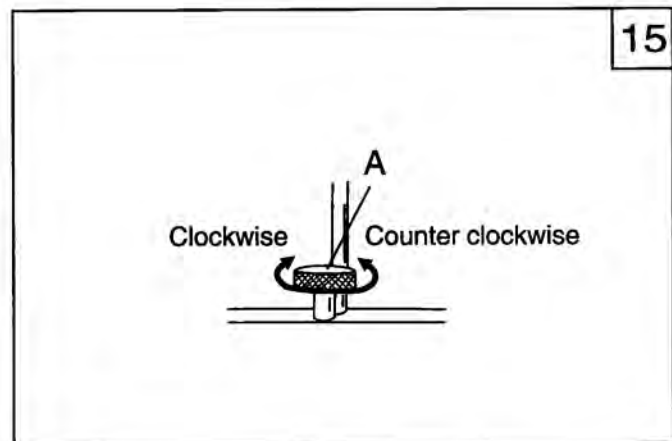
17. Stitch length and forward and backward feed (Fig.14)

Turn the stitch length regulating nut to adjust the stitch length. When the graduation on the stitch length regulating position block is aligned with the figure on the stitch length dial, the figure is the stitch length. Press the reverse feed lever, the feed is reverse. Release the lever, the machine recovers normal feed again.



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

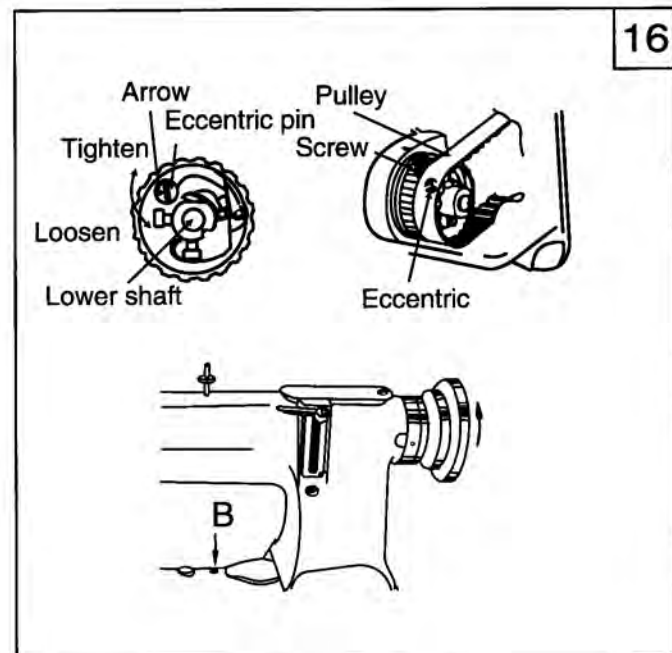
Adjust the presser foot pressure according to the nature of the material. Please increase the pressure when sewing with heavy material. Turn the regulating screw clockwise to increase the pressure, on the contrary, to decrease the pressure.

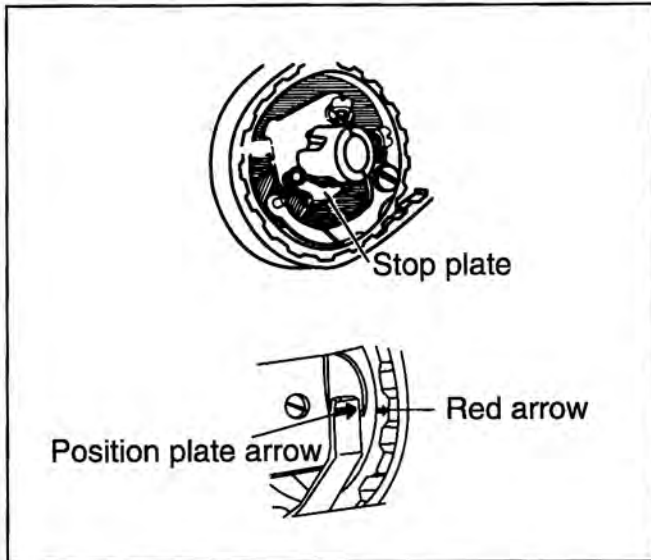


19. Function of the safety clutch (Fig.16)

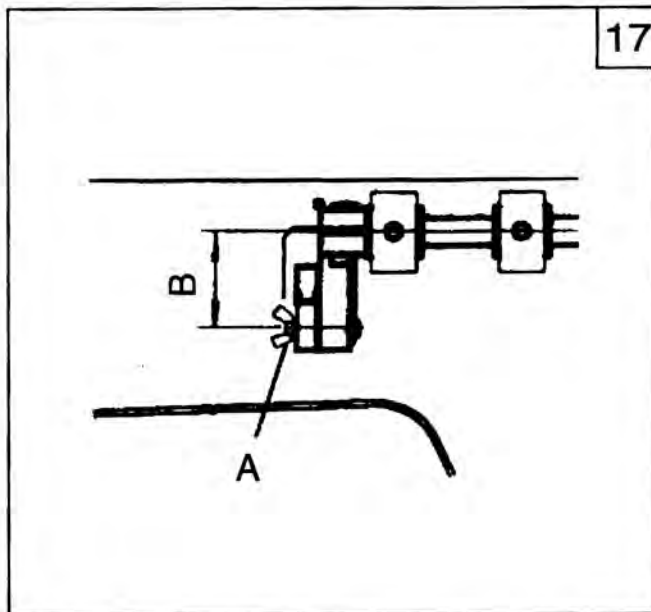
The function of the safety clutch is preventing the hook and synchro belt from destroys when the needle or the thread is drawn into the hook for abnormal load during operation.

When the eccentric pin arrow is aligned with the lower shaft center, the load on the safety clutch is at the minimum. The load will be increased accordingly when the arrow turns outside. When resetting the safety clutch: please press the button B by left hand. and turn the balance wheel clockwise by right hand. When the stop plate stops the balance wheel, please turn the balance wheel to make the safety clutch to the correct position, and then release the button.



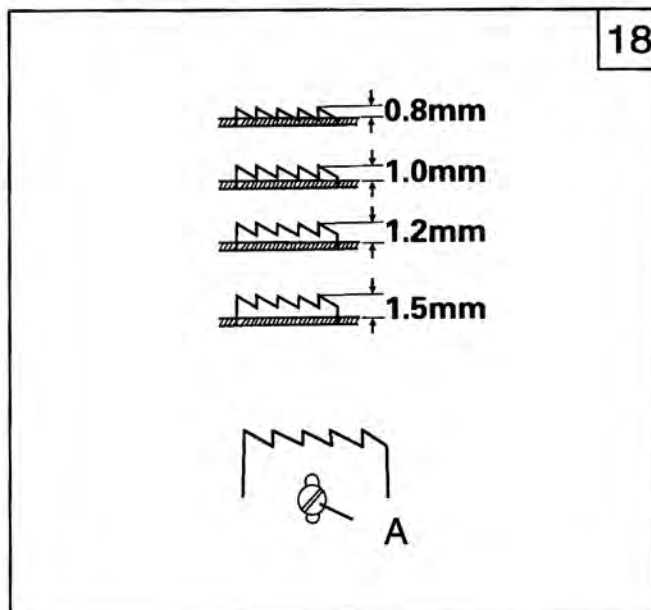


And the synchro belt should be installed again. At first, turn the balance wheel counter-clockwise, and when the thread take-up lever is at its highest position, and the red arrow is aligned with the arrow on the position plate, then install the synchro belt on the wheel.



20. Adjusting the presser foot lift volume (Fig.17)

The method of adjusting the presser foot lift volume during sewing is as follows:
Loosen the nut A, adjust the center distance B between screw and shaft; adjust the distance B short to increase the presser foot lift volume, on the contrary, decrease the presser foot lift volume. Then tighten the screw after adjustment. Turn the upper shaft slightly to check if there is any collision. Start to work when everything goes well.



21. Adjusting the feed dog height (Fig.18)

When lifting the feed dog to its highest position, the feed dog height should be determined by the material. The feed dog height is 1.2mm for sewing leather or other heavy material; 0.8mm for sewing light material; 1mm for sewing common material; 1.5mm for extra heavy material. When adjusting the feed dog height, firstly loosen the screw A, and move the feed dog to a proper height, then tighten the screw.

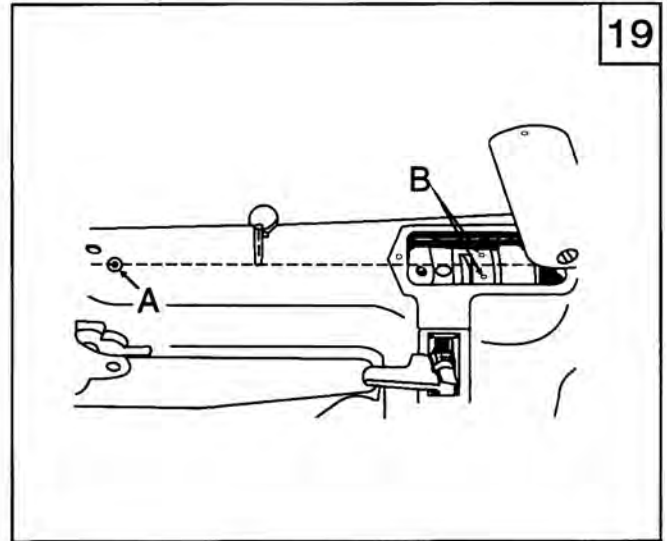
22. Adjusting the timing of feed(Fig.19)

1. Standard position

When the feed dog appears from the needle plate and start to feed, the needle should move downward, and it should be close to the needle plate and aligns with the hole on the plate. Please adjust the position of the feed cam and rock shaft crank to adjust the timing of the feed.

2. Install the feed cam

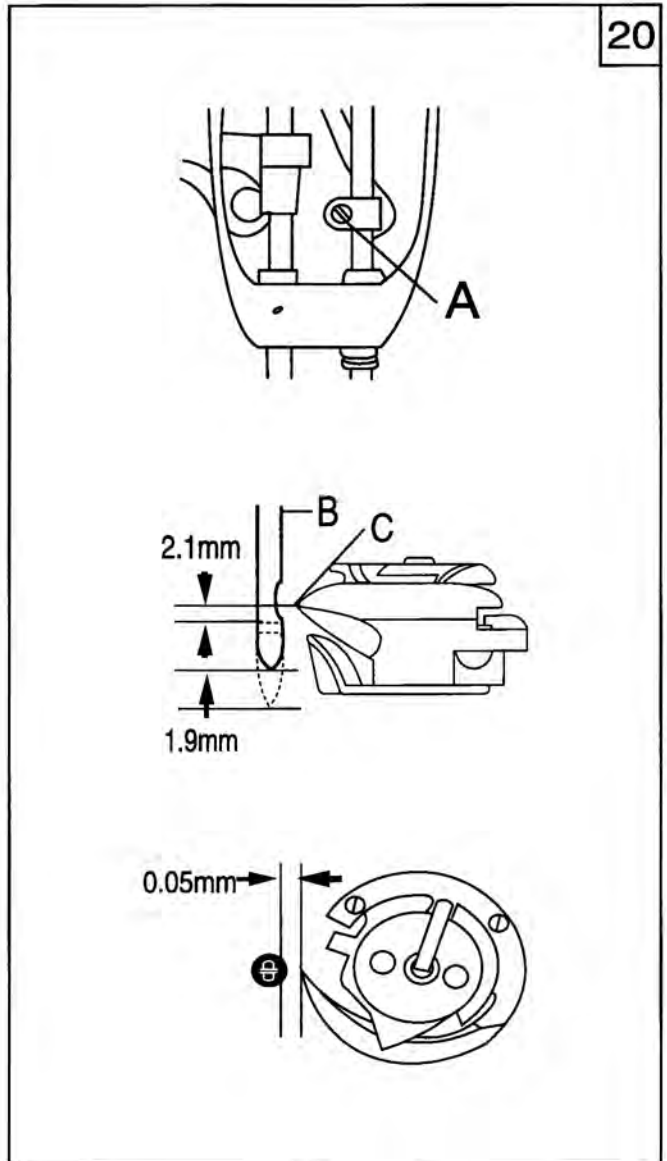
At first, adjust the stitch length to 0, and open the upper cover, turn the balance wheel counter clockwise by right hand; the oil hole A should divide the two screws B of the feed cam equally as bisector.



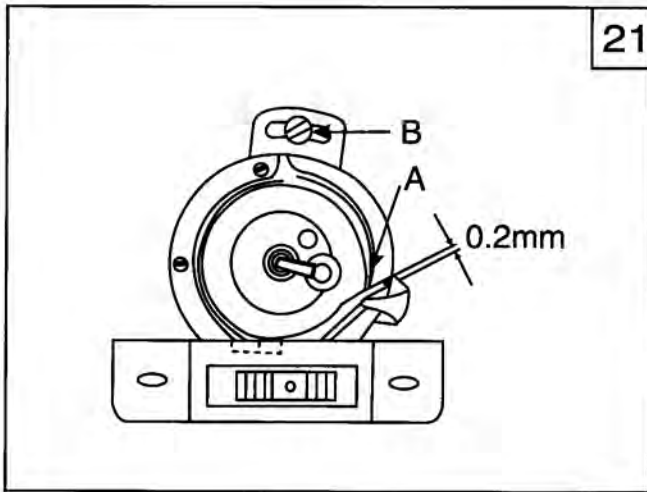
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23. Adjusting the timing between the needle and the rotating hook (Fig.20)

The position relationship between the rotating hook and the needle could be adjusted as follows: Lift the needle up to 1.9mm from its lowest position; the tip of the hook should be straight to the needle center; there is about a distance of 2.1mm between the tip of the hook and the upside of the needle hole. Move the needle bar upward and downward to its proper position, then tighten the screw A. The distance between the tip of the hook and the needle should be 0-0.05mm.

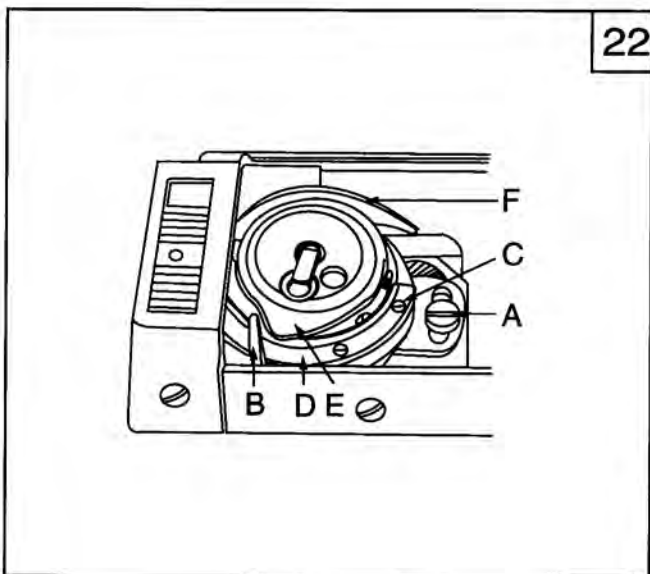


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24. The relationship between the rotating hook and the thread guide (Fig.21)

1. Remove the sliding plate;
2. Turn the balance wheel by hand until the largest clearance between the hook and the thread guide appears;
3. Loosen the screw B to make a clearance of 0.2mm between the hook and the thread guide. (The clearance should be adjusted according to the thread.)
4. Tighten the screw B.



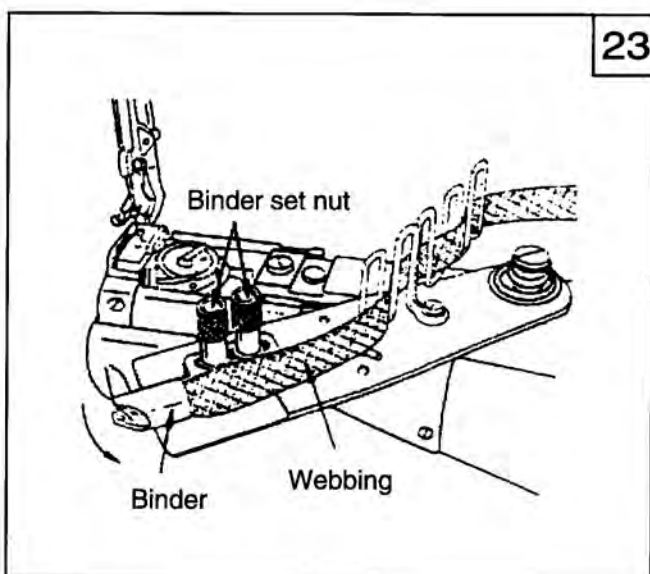
25. Installing and removing the rotating hook (Fig.22)

Replace the hook when it is damaged.

1. Turn the balance wheel to lift the needle bar to its highest position, then take down the needle;
2. Remove the sliding plate, needle plate, front and rear presser cover, and bobbin;
3. Loosen the regulating screw A, and remove the thread guide B;
4. Loosen the screw C, and remove the cover D;
5. Slightly move the hook head and take it out;
6. Loosen the screw and remove the rotating hook F.

Installing the rotating hook:

Install the hook in the reverse order that the hook is taken down;

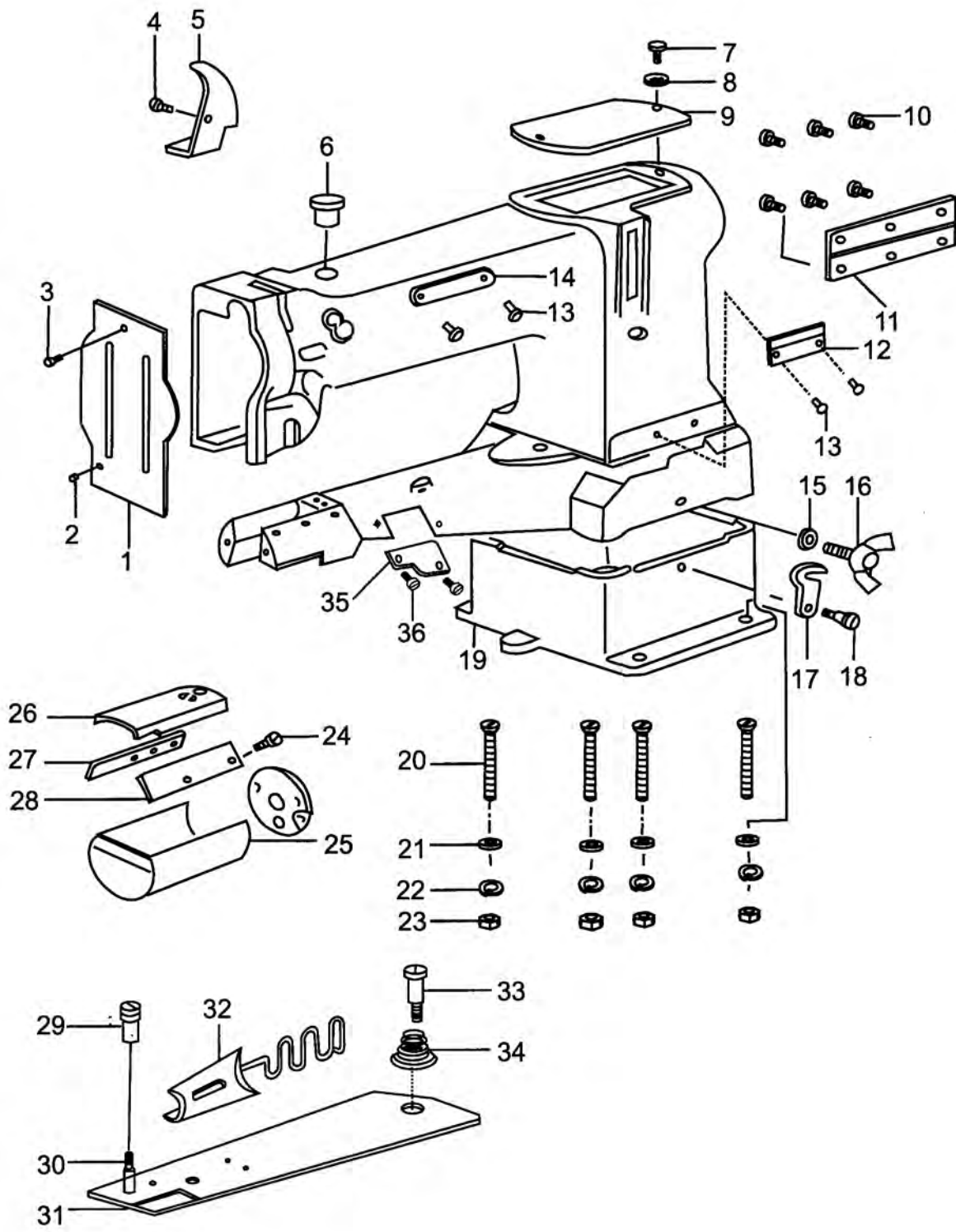


26. Adjusting the position of the binder (Model 8BV)

Loosen the set nut, move the binder forward and backward until it reaches the proper position, then tighten the set screw.

PARTS CHART

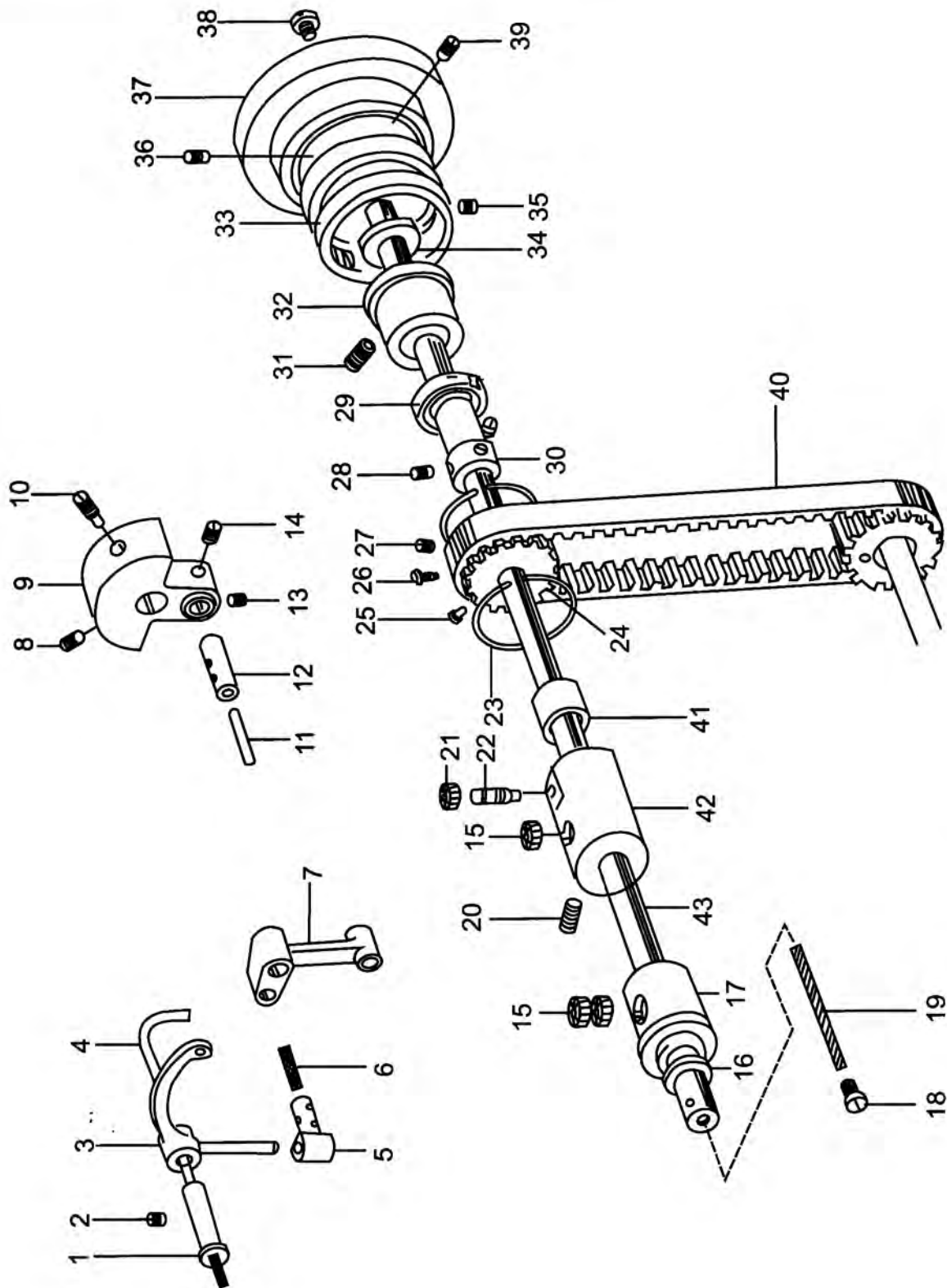
1. Arm



1.Arm

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|--------------------------------|-----|------|---------------|
| | | | 8 B | 8 BV | |
| 1 | 16WF2-008 | Face plate | 1 | 1 | |
| 2 | 16WF2-010 | Pin | 1 | 1 | |
| 3 | 16WF2-009 | Screw | 1 | 1 | SM9/64"X40 |
| 4 | 16WF1-059 | Screw | 1 | 1 | SM9/64"X40 |
| 5 | 16WF2-038 | Oil retainer | 1 | 1 | |
| 6 | 16WF2-003 | Rubber plug | 1 | 1 | |
| 7 | 16WF2-022 | Screw | 1 | 1 | SM3/16"X28 |
| 8 | 16WF2-023 | Washer | 1 | 1 | |
| 9 | 16WF2-021 | Upper cover | 1 | 1 | |
| 10 | 22WF2-004 | Screw | 6 | 6 | M6X1 |
| 11 | 37T4-407 | Hinge | 1 | 1 | |
| 12 | 22WF2-005 | Trade mark | 1 | | |
| | 28WF2-002 | Rivet | | 1 | |
| 13 | | Trade mark | 4 | 4 | GB827-86 |
| 14 | 16WF2-053 | Washer | 1 | 1 | |
| 15 | 37T4-411 | Connecting hook screw assembly | 1 | 1 | |
| 16 | 22WF2-006 | Connecting hook | 1 | 1 | M6X1 |
| 17 | 37T4-409 | Screw | 1 | 1 | |
| 18 | 22WF2-020 | Bed | 1 | 1 | SM1/4"X28 |
| 19 | 22WF2-003 | Screw | 1 | 1 | |
| 20 | | Washer | 4 | 4 | M8X75 GB68-85 |
| 21 | | Washer | 4 | 4 | GB96-85-8 |
| 22 | | Washer | 4 | 4 | GB93-87-8 |
| 23 | | Nut | 4 | 4 | GB41-86-8 |
| 24 | 22WF2-013 | Screw | 4 | 4 | SM9/65"X40 |
| 25 | 22WF2-014 | Safety guard | 1 | 1 | |
| 26 | 22WF2-010 | Sliding plate assembly | 1 | | |
| 27 | 22WF2-011 | Front plate for sliding plate | 1 | 1 | |
| 28 | 22WF2-012 | Rear plate for sliding plate | 1 | 1 | |
| 29 | 28WF2-008 | Nut | | 2 | |
| 30 | 28WF2-006 | Screw | | 2 | SM11/64"X40 |
| 31 | 28WF2-005 | Bed cover | | 1 | |
| 32 | 28WF2-007 | Binder | | 1 | |
| 33 | 28WF2-010 | Screw | | 1 | SM5/16"X24 |
| 34 | 28WF2-009 | Spring | | 1 | |
| 35 | 28WF2-004 | Side cover | | 1 | |
| 36 | 7WF5-007 | Screw | | 2 | |

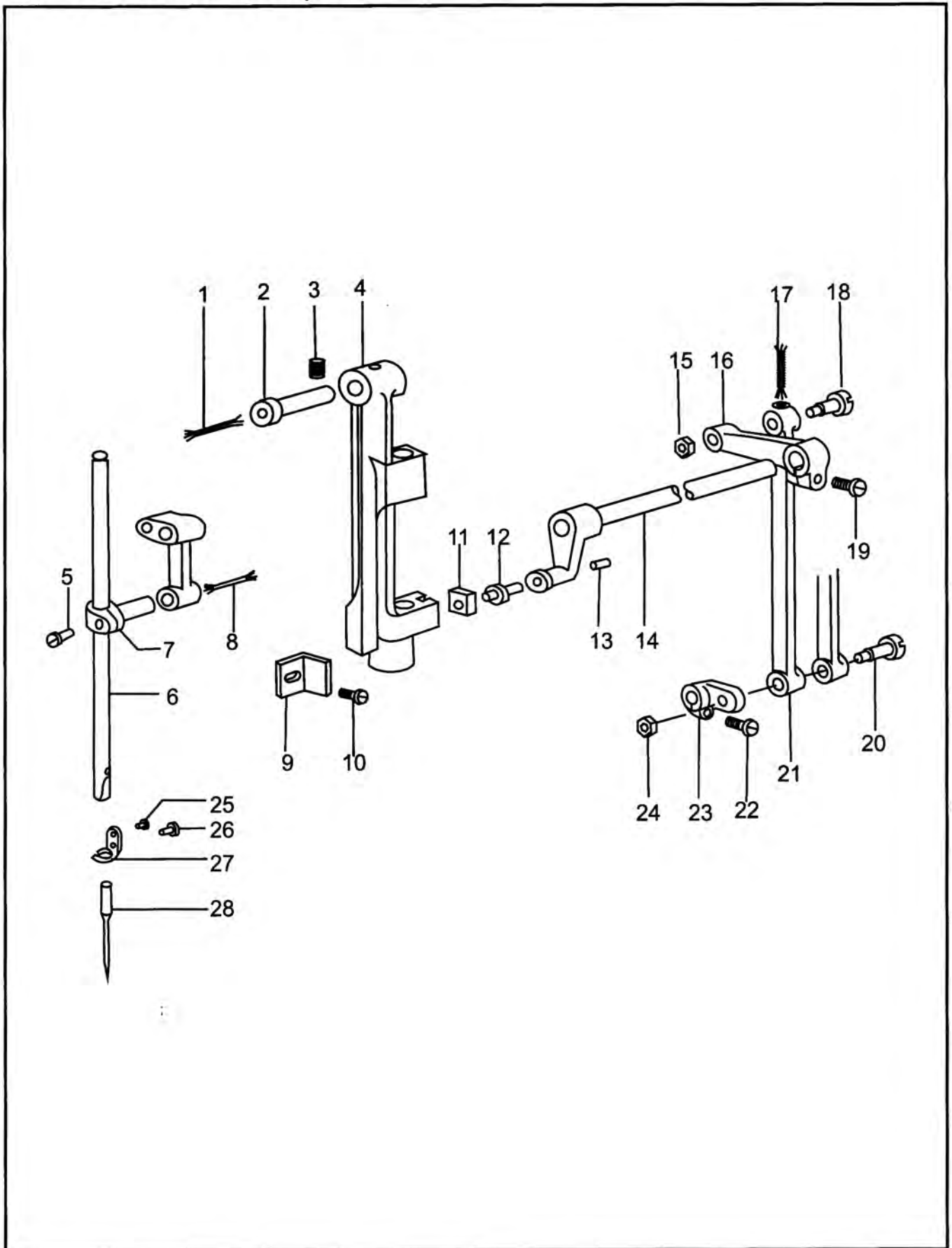
2. Upper shaft and thread take-up parts



2.Upper shaft and thread take-up parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|--------------------------------|-----|-------|--------------|
| | | | 8 B | 8 B V | |
| 1 | 16WF1-010 | Thread take-up lever pin shaft | 1 | 1 | |
| 2 | 16WF1-011 | Screw | 1 | 1 | SM17/64"×32 |
| 3 | 16WF1-012 | Thread take-up lever | 1 | 1 | |
| 4 | | Oil wick | 1 | 1 | |
| 5 | 16WF1-013 | Sliding block | 1 | 1 | |
| 6 | | Oil wick | 1 | 1 | |
| 7 | 16WF1-014 | Needle bar link | 1 | 1 | |
| 8 | 16WF1-020 | Screw | 1 | 1 | SM1/4"×28 |
| 9 | 16WF1-018 | Needle bar crank | 1 | | |
| | 28WF1-002 | Screw | | 1 | |
| 10 | 16WF1-019 | Oil wick | 1 | 1 | SM1/4"×28 |
| 11 | | Crank pin | 1 | 1 | |
| 12 | 16WF1-015 | Screw | 1 | 1 | |
| 13 | 16WF1-017 | Screw | 1 | 1 | SM1/4"×28 |
| 14 | 16WF1-016 | Oil felt | 1 | 1 | SM1/4"×28 |
| 15 | 16WF1-025 | Spacer | 3 | 3 | |
| 16 | 16WF1-021 | Front bushing | 1 | 1 | |
| 17 | 22WF1-053 | Screw | 1 | 1 | |
| 18 | 22WF1-049 | Oil wick | 1 | 1 | SM5/16"×28 |
| 19 | | Screw | 1 | 1 | |
| 20 | 16WF1-004 | Nut | 1 | 1 | SM17/64"×32 |
| 21 | 22WF1-042 | Screw | 1 | 1 | |
| 22 | 16WF1-019 | Nut | 1 | 1 | |
| 23 | 16WF1-043 | Screw | 2 | 2 | |
| 24 | 22WF1-043 | Retainer | 1 | 1 | |
| 25 | 22WF1-044 | Synchro pulley | 1 | 1 | |
| 26 | 22WF1-044 | Screw | 1 | 1 | SM1/4"×28 |
| 27 | 22WF1-046 | Screw | 1 | 1 | SM1/4"×28 |
| 28 | 22WF1-045 | Screw | 1 | 1 | SM1/4"×28 |
| 29 | 22WF1-048 | Screw | 2 | 2 | SM1/4"×28 |
| 30 | | Bearing | 1 | 1 | 202 15×35×11 |
| 31 | 22WF1-047 | Bushing | 1 | 1 | |
| 32 | 16WF1-004 | Screw | 1 | 1 | SM17/64"×32 |
| 33 | 16WF1-026 | Rear bushing | 1 | 1 | |
| 34 | 22WF1-008 | Ring for balance wheel | 1 | 1 | |
| 35 | 16WF1-029 | Retainer | 1 | 1 | |
| 36 | 16WF1-056 | Screw | 1 | 1 | SM1/4"×32 |
| 37 | 13WF1-078 | Screw | 1 | 1 | SM15/64"×28 |
| 38 | 16WF1-035 | Balance wheel | 1 | 1 | |
| 39 | 16WF1-040 | Screw | 1 | 1 | SM11/32"×28 |
| 40 | 13WF1-077 | Screw | 1 | 1 | SM15/64"×28 |
| 41 | 22WF1-007 | Synchro belt | 1 | 1 | |
| 42 | 22WF1-041 | Bushing | 1 | 1 | |
| 43 | 22WF1-006 | Middle bushing | 1 | 1 | |
| 44 | 22WF1-005 | Upper shaft | 1 | 1 | |

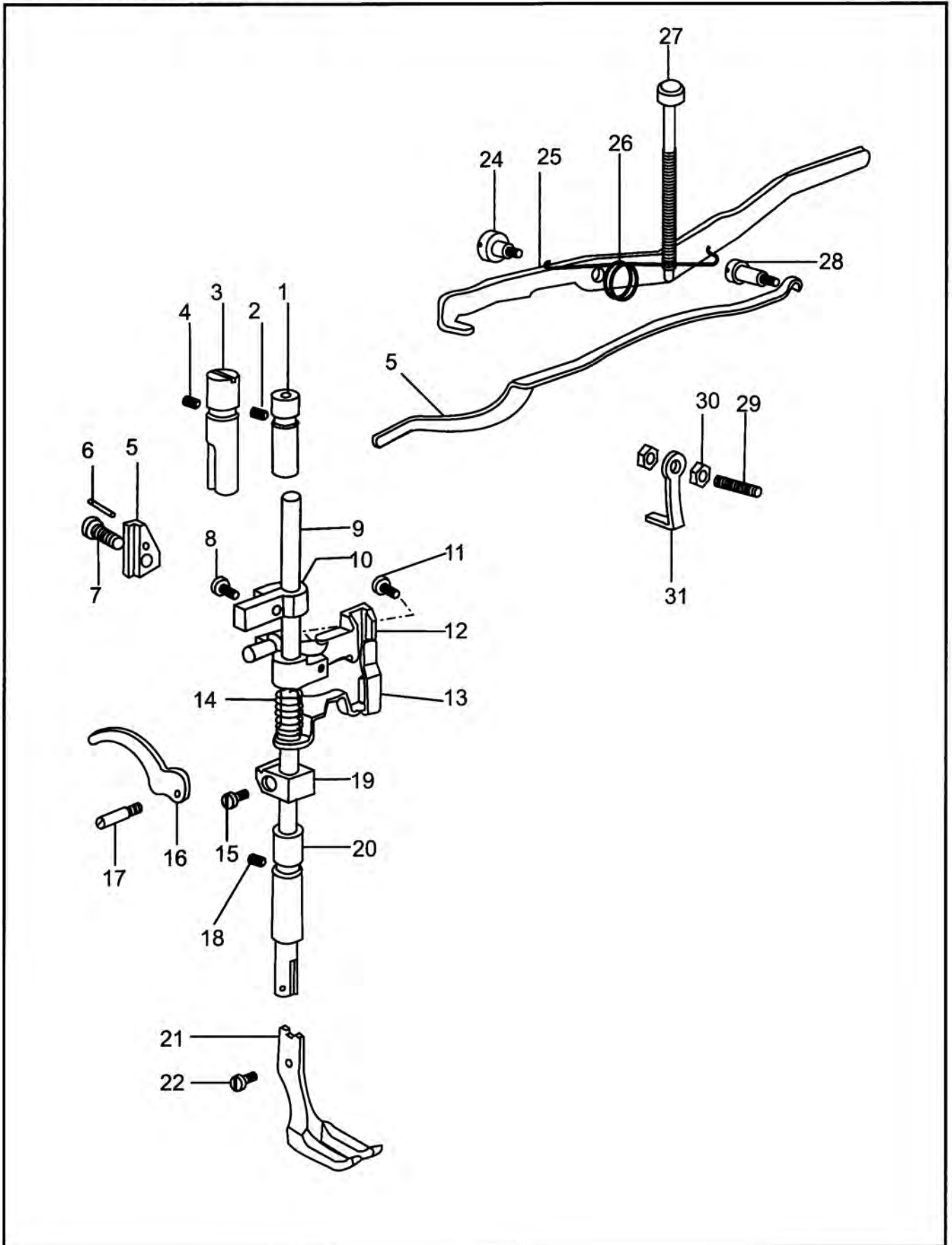
3. Needle bar rock parts



3. Needle bar rock parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|--------------------------------|-----|-------|-------------|
| | | | 8 B | 8 B V | |
| 1 | | Oil wick | 1 | 1 | |
| 2 | 22WF5-002 | Pin for needle bar rock holder | 1 | 1 | |
| 3 | 16WF1-011 | Screw | 1 | 1 | SM17/64"×32 |
| 4 | 22WF5-001 | Needle bar rock holder | 1 | 1 | |
| 5 | 16WF1-009 | Screw | 1 | 1 | M4×0.7 |
| 6 | 22WF1-001 | Needle bar | 1 | 1 | |
| 7 | 22WF1-004 | Needle bar adaptor | 1 | 1 | |
| 8 | | Oil wick | 1 | 1 | |
| 9 | 1WF5-009 | Guide plate | 1 | 1 | |
| 10 | 1WF5-010 | Screw | 1 | 1 | SM11/64"×40 |
| 11 | 22WF5-005 | Sliding block | 1 | 1 | |
| 12 | 22WF5-006 | Sliding block shaft | 1 | 1 | |
| 13 | 22WF1-020 | Screw | 1 | 1 | SM7/32"×32 |
| 14 | 22WF5-004 | Needle bar rock shaft | 1 | 1 | |
| 15 | 22WF5-016 | Nut | 1 | 1 | |
| 16 | 22WF5-008 | Crank | 1 | 1 | |
| 17 | | Oil wick | 1 | 1 | |
| 18 | 22WF5-011 | Screw | 1 | 1 | SM1/4"×28 |
| 19 | 22WF3-011 | Screw | 1 | 1 | SM1/4"×28 |
| 20 | 22WF4-008 | Screw | 1 | 1 | M8×1.25 |
| 21 | 22WF5-010 | Needle bar rock link | 1 | 1 | |
| 22 | 22WF4-007 | Screw | 1 | 1 | SM7/32"×32 |
| 23 | 22WF4-006 | Feed dog crank | 1 | 1 | |
| 24 | 22WF4-009 | Nut | 1 | 1 | |
| 25 | 16WF1-006 | Screw | 1 | 1 | SM3/32"×56 |
| 26 | 22WF4-003 | Screw | 1 | 1 | SM1/8"×40 |
| 27 | 22WF4-002 | Needle bar finger | 1 | 1 | |
| 28 | | Needle | 1 | 1 | DP×17 22# |

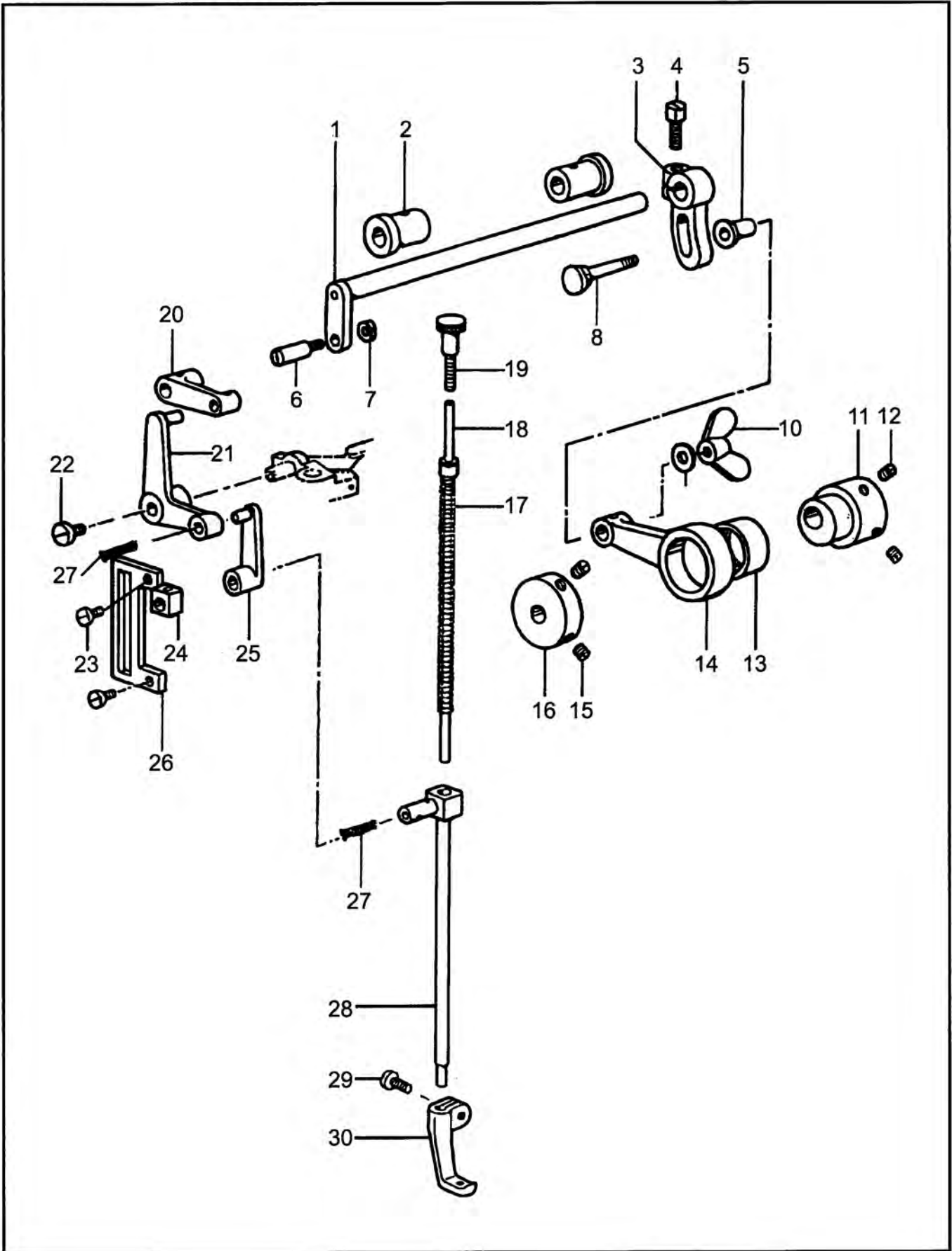
4. Presser bar parts



4.Presser bar parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|-------------------------------------|-----|-------|-------------|
| | | | 8 B | 8 B V | |
| 1 | 16WF4-027 | Upper shaft bushing for presser bar | 1 | 1 | |
| 2 | 16WF3-025 | Screw | 1 | 1 | SM17/64"×32 |
| 3 | 16WF4-020 | Guide shaft | 1 | 1 | |
| 4 | 16WF3-025 | Screw | 1 | 1 | SM17/64"×32 |
| 5 | 22WF3-010 | Pressure plate | 1 | 1 | |
| 6 | 22WF3-012 | Pressure plate pin | 1 | 1 | |
| 7 | 22WF3-011 | Screw | 1 | 1 | SM1/4"×28 |
| 8 | 16WF4-022 | Screw | 1 | 1 | SM9/64"×40 |
| 9 | 22WF3-005 | Presser bar | 1 | 1 | |
| 10 | 16WF4-021 | Presser bar guide | 1 | 1 | |
| 11 | 16WF2-033 | Screw | 1 | 1 | SM11/64"×40 |
| 12 | 22WF3-007 | Thread releasing guide bracket | 1 | 1 | |
| 13 | 22WF3-009 | Thread releasing plate | 1 | 1 | |
| 14 | 22WF3-008 | Spring | 1 | 1 | M4×0.7 |
| 15 | 16WF1-009 | Screw | 1 | 1 | |
| 16 | 16WF4-002 | Presser foot lifter | 1 | 1 | |
| 17 | 16WF3-001 | Presser foot lifter shaft | 1 | 1 | SM17/64"×32 |
| 18 | 16WF3-025 | Screw | 1 | 1 | |
| 19 | 16WF4-023 | Presser bar plate spring bracket | 1 | 1 | |
| 20 | 22WF3-006 | Lower shaft bushing | 1 | 1 | |
| 21 | 22WF3-013 | Presser foot | 1 | | |
| | 22WF3-001 | Presser foot | | | |
| 22 | 22WF3-014 | Screw | 1 | 1 | SM9/64"×40 |
| 23 | 16WF4-009 | Presser bar plate spring | 1 | 1 | |
| 24 | 16WF3-059 | Screw | 1 | 1 | SM1/4"×28 |
| 25 | 22WF3-002 | Presser foot lifter lever | 1 | 1 | |
| 26 | 22WF3-001 | Spring | 1 | 1 | |
| 27 | 16WF4-016 | Regulating screw | 1 | 1 | SM17/64"×32 |
| 28 | 16WF4-008 | Screw | 1 | 1 | SM1/4"×28 |
| 29 | 22WF3-003 | Screw | 1 | 1 | SM15/64"×28 |
| 30 | 22WF3-004 | Nut | 2 | 2 | |
| 31 | 22WF3-015 | Position plate | 1 | 1 | |

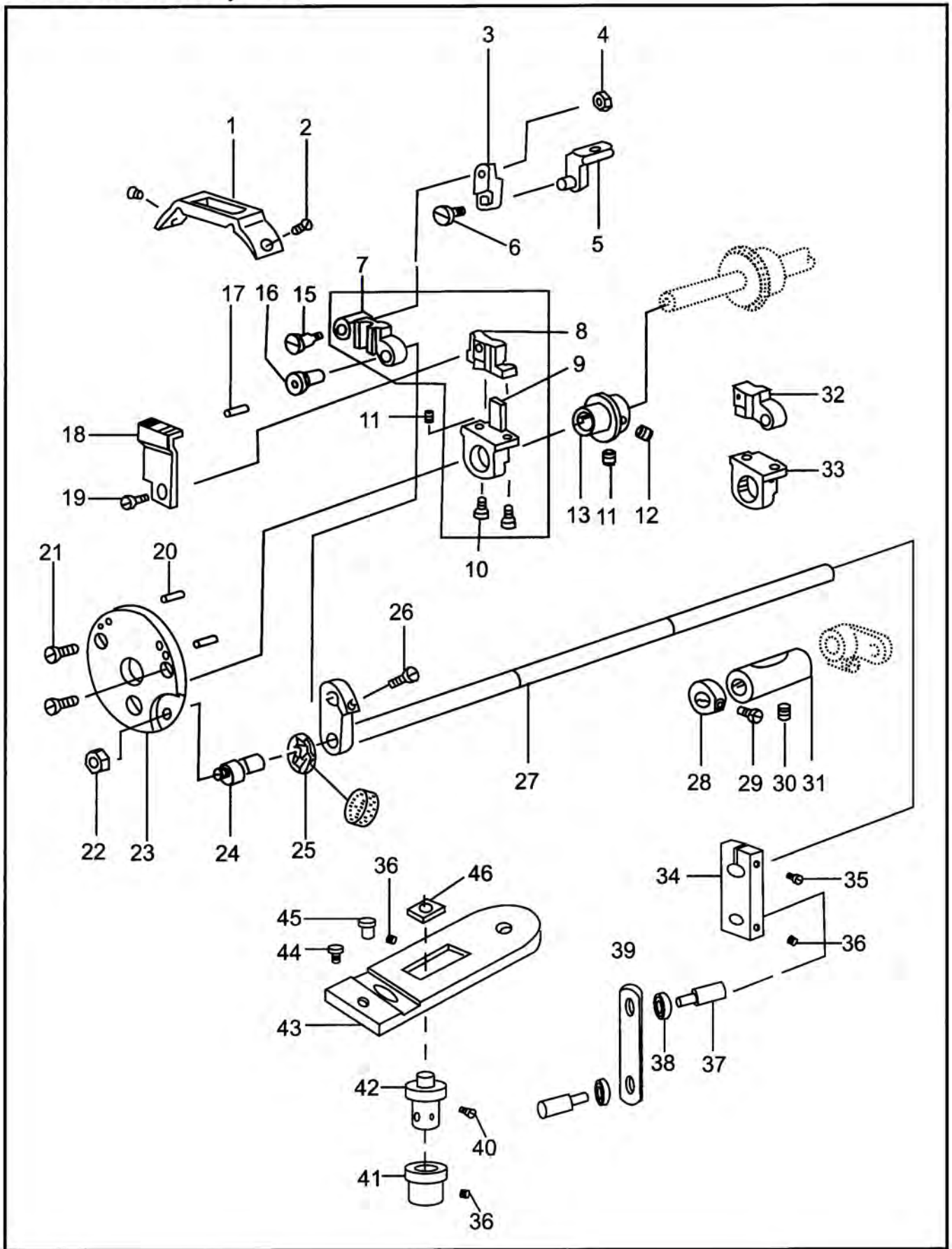
5. Upper feed parts



5.Upper feed parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|---------------------------|-----|-------|-------------|
| | | | 8 B | 8 B V | |
| 1 | 22WF5-012 | Presser foot lifter shaft | 1 | 1 | |
| 2 | 22WF5-013 | Bushing | 2 | 2 | |
| 3 | 22WF5-017 | Crank | 1 | 1 | |
| 4 | 16WF3-030 | Screw | 1 | 1 | SM1/4"×28 |
| 5 | 22WF5-019 | Collar | 1 | 1 | |
| 6 | 22WF5-015 | Screw | 1 | 1 | SM11/4"×28 |
| 7 | 22WF5-016 | Nut | 1 | 1 | |
| 8 | 22WF5-018 | Screw | 1 | 1 | SM7/32"×32 |
| 9 | 16WF2-023 | Washer | 1 | 1 | |
| 10 | 22WF5-020 | Nut | 1 | 1 | |
| 11 | 22WF5-022 | Eccentric wheel | 1 | 1 | |
| 12 | 22WF4-002 | Screw | 2 | 2 | SM1/4"×40 |
| 13 | | Bearing | 1 | 1 | |
| 14 | 22WF5-021 | Eccentric link | 1 | 1 | |
| 15 | 22WF5-025 | Screw | 2 | 2 | SM7/32"×32 |
| 16 | 22WF5-024 | Collar | 1 | 1 | |
| 17 | 22WF5-030 | Spring | 1 | 1 | |
| 18 | 22WF5-031 | Spring lever | 1 | 1 | |
| 19 | 22WF5-034 | Screw | 1 | 1 | SM9/32"×32 |
| 20 | 22WF5-014 | Link | 1 | 1 | |
| 21 | 22WF5-026 | Rocking plate | 2 | 2 | |
| 22 | 22WF5-027 | Screw | 1 | 1 | SM11/64"×40 |
| 23 | 16WF1-059 | Screw | 2 | 2 | SM9/64"×40 |
| 24 | 22WF5-009 | Sliding block | 1 | 1 | |
| 25 | 22WF5-028 | Link | 1 | 1 | |
| 26 | 22WF5-003 | Guide rail | 1 | 1 | |
| 27 | | Oil wick | 2 | 2 | |
| 28 | 22WF5-029 | Rocking presser lever | 1 | 1 | |
| 29 | 22WF5-033 | Screw | 1 | 1 | SM5/32"×40 |
| 30 | 22WF5-032 | Small presser foot | 1 | | |
| | 28WF5-001 | | | 1 | |

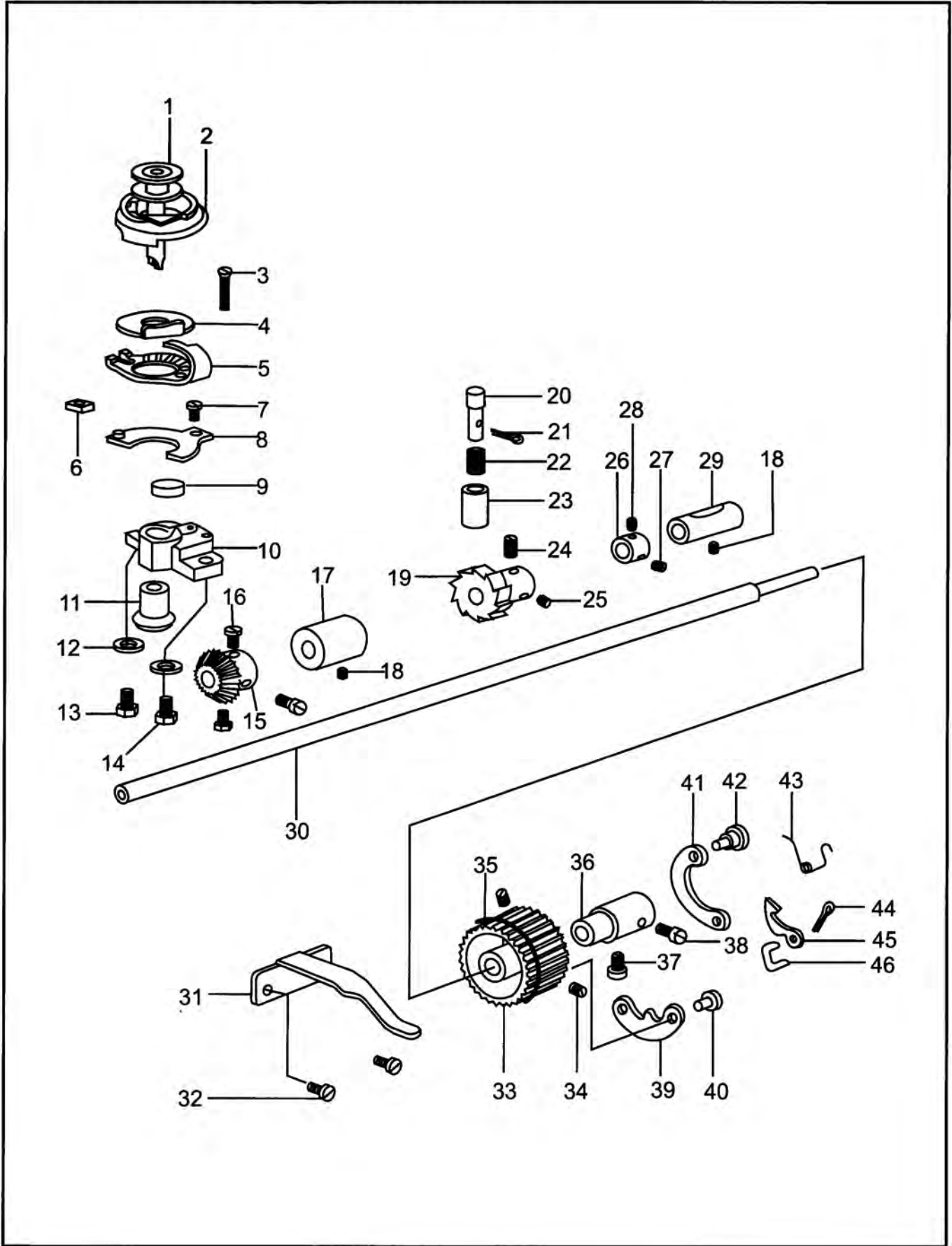
6. Feed shaft parts



6.Feed shaft parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|--------------------------|-----|-------|-------------|
| | | | 8 B | 8 B V | |
| 1 | 22WF2-009 | Needle plate | 1 | | |
| | 28WF2-003 | Needle plate | | 1 | SM9/64"×40 |
| 2 | 22WF2-007 | Screw | 2 | 2 | |
| 3 | 22WF4-017 | Link | 1 | | |
| 4 | 22WF4-044 | Nut | 1 | | |
| 5 | 22WF4-016 | Connecting holder | 1 | | |
| 6 | 22WF4-019 | Screw | 1 | | SM9/64"×40 |
| 7 | 22WF4-015A2 | Feed dog guide | 1 | | |
| 8 | 22WF4-015A1 | Feed dog holder | 1 | | |
| 9 | 22WF4-015A3 | Feed dog carrier bracket | 1 | | |
| 10 | 22WF4-015A4 | Screw | 2 | 2 | SM9/64"×40 |
| 11 | 22WF4-005 | Screw | 1 | 1 | M5×0.8 |
| 12 | 22WF4-004 | Screw | 1 | 1 | M5×0.8 |
| 13 | 22WF4-003 | Feed lifter cam | 1 | | |
| | 28WF4-001 | Screw | | 1 | |
| 14 | 22WF4-018 | Screw | 1 | 1 | M2.5×.45 |
| 15 | 22WF4-043 | Connecting pin | 1 | | SM11/64"×40 |
| 16 | 22WF4-042 | Oil wick | 1 | 1 | |
| 17 | | Feed dog | 1 | 1 | |
| 18 | 22WF4-013 | Feed dog | 1 | | |
| | 28WF4-002 | Screw | | 1 | |
| 19 | 22WF4-014 | Pin | 1 | 1 | SM11/64"×40 |
| 20 | 22WF2-018 | Screw | 2 | 2 | |
| 21 | 22WF2-017 | Nut | 2 | 2 | SM3/16"×32 |
| 22 | 22WF4-011 | Cover | 1 | 1 | |
| 23 | 22WF2-016 | Screw | 1 | 1 | |
| 24 | 614471 | Oil felt | 1 | 1 | |
| 25 | 22WF4-012 | Screw | 1 | 1 | |
| 26 | 22WF4-020 | Feed shaft | 1 | 1 | |
| 27 | 22WF4-041 | Collar | 1 | 1 | M4×0.7 |
| 28 | 22WF4-045 | Screw | 1 | 1 | |
| 29 | 22WF1-007 | Screw | 1 | 1 | |
| 30 | 661012 | Bushing | 1 | 1 | |
| 31 | 22WF4-046 | Feed dog support | 1 | 1 | M5×0.8 |
| 32 | 22WF4-003 | Feed dog support bracket | | 1 | SM15/64"×28 |
| 33 | 28WF4-016 | Feed connector | | 1 | |
| 34 | 28WF4-004 | Screw | | | |
| 35 | 28WF4-005 | Screw | | 1 | |
| 36 | 21T1-001 | Connecting pin | | 1 | |
| 37 | 28WF4-006 | Bearing | | 1 | SM11/64"×40 |
| 38 | 28WF4-015 | Link | | 3 | SM11/64"×40 |
| 39 | 28WF4-007 | Screw | | 2 | |
| 40 | 28WF4-010 | Cover | | 2 | |
| 41 | 28WF4-011 | Eccentric pin | | 1 | |
| 42 | 28WF4-009 | Rocking plate | | 1 | |
| 43 | 28WF4-012 | Screw | | 1 | |
| 44 | 28WF4-013 | Pin | | 1 | |
| 45 | 28WF4-014 | Sliding block | | 1 | |
| 46 | 28WF4-008 | Washer | | 1 | |
| 47 | 28WF4-017 | | | 1 | |

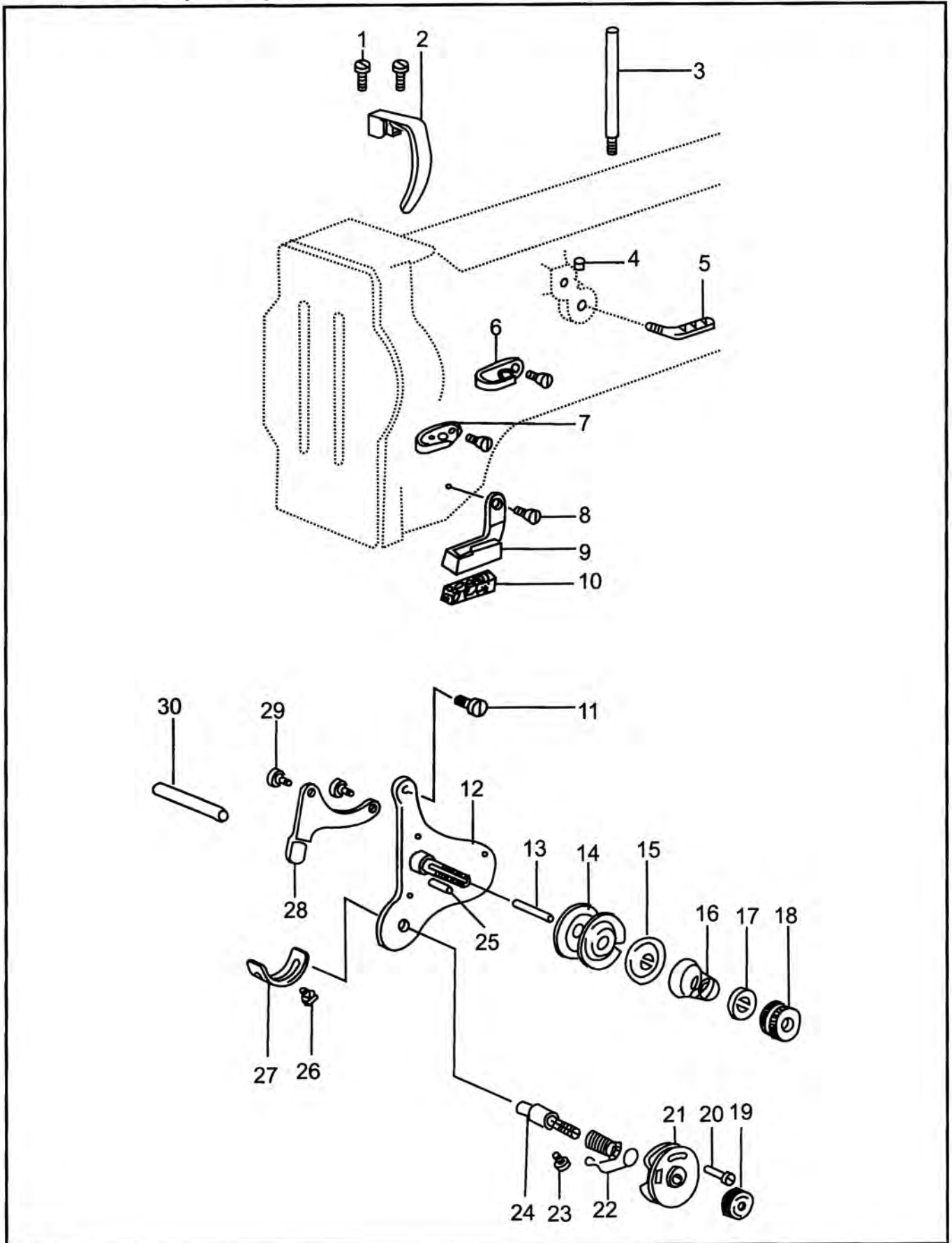
7. Lower shaft and rotating hook parts



7.Lower shaft and rotating hook parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|--------------------------|-----|-------|--------------------|
| | | | 8 B | 8 B V | |
| 1 | 16WF1-063 | Bobbin | 1 | | |
| 2 | | Bobbin | 1 | 1 | |
| 3 | 22WF1-029 | Rotating hook | 1 | 1 | Koban KRT31-11S |
| 4 | 22WF1-033 | Screw | 1 | 1 | SM9/64"×40 |
| 5 | 22WF1-030 | Eccentric plate | 1 | 1 | |
| 6 | 22WF1-031 | Thread separator | 1 | 1 | |
| 7 | 13WF2-008 | Sliding block | 1 | 1 | |
| 8 | 22WF1-032 | Screw | 1 | 1 | |
| 9 | 22WF1-037 | Set plate | 1 | 1 | |
| 10 | 22WF1-034 | Oil felt | 1 | 1 | |
| | 9KT1-006 | Rotating hook bracket | | | |
| 11 | 22WF1-028 | Hook bevel gear | 1 | 1 | |
| 12 | 22WF1-036 | Washer | 2 | 1 | |
| 13 | 22WF1-035 | Screw(big) | 1 | 2 | M5×0.8 |
| 14 | 22WF1-050 | Screw(small) | 1 | | M5×0.8 |
| 15 | 22WF1-024 | Lower shaft bevel gear | 1 | 2 | |
| 16 | 22WF1-025 | Screw | 3 | 1 | M5×0.8 |
| 17 | 22WF1-021 | Bushing | 1 | 3 | |
| | 28WF1-001 | Bushing | | 1 | |
| 18 | 22WF1-022 | Screw | 2 | | SM15/64"×28 |
| 19 | 22WF1-039 | Stop wheel | 1 | 2 | |
| 20 | 22WF1-038 | Button | 1 | 1 | |
| 21 | | Split ring | 1 | 1 | |
| 22 | 16WF3-046 | Spring | 1 | 1 | GB91-86 1.6×10 |
| 23 | 22WF1-040 | Collar | 1 | 1 | |
| 24 | 380637 | Screw | 1 | 1 | |
| 25 | 380640 | Screw | 1 | 1 | SM1/4"×32 Length 8 |
| 26 | 22WF1-026 | Collar | 1 | 1 | SM1/4"×32 Length 7 |
| 27 | 13WF3-072 | Screw | 1 | 1 | |
| 28 | 13WF3-027 | Screw | 1 | 1 | M5×0.8 |
| 29 | 22WF1-023 | Lower shaft rear bushing | 1 | 1 | |
| 30 | 22WF1-009 | Lower shaft | 1 | 1 | |
| 31 | 22WF2-015 | Position plate | 1 | 1 | |
| 32 | 13WF6-008 | Screw | 2 | 1 | SM1/8"×40 |
| 33 | 22WF1-010 | Synchro pulley | 1 | 2 | |
| 34 | 22WF1-020 | Screw | 2 | 1 | SM7/32"×32 |
| 35 | 16WF1-043 | Retainer | 1 | 2 | |
| 36 | 22WF1-011 | Bushing | 1 | 1 | |
| 37 | 22WF1-012 | Screw | 1 | 1 | SM1/4"×32 |
| 38 | 22WF1-052 | Screw | 1 | 1 | |
| 39 | 22WF1-018 | Stop plate | 1 | 1 | |
| 40 | 22WF1-019 | Screw | 1 | 1 | |
| 41 | 22WF1-013 | Spring plate | 1 | 1 | |
| 42 | 22WF1-015 | Pin | 1 | 1 | |
| 43 | 22WF1-014 | Spring | 1 | 1 | |
| 44 | | Split pin | 1 | 1 | GB91-86 1.2×8 |
| 45 | 22WF1-016 | Stop plate | 1 | 1 | |
| 46 | 22WF1-017 | Connecting part | 1 | 1 | |

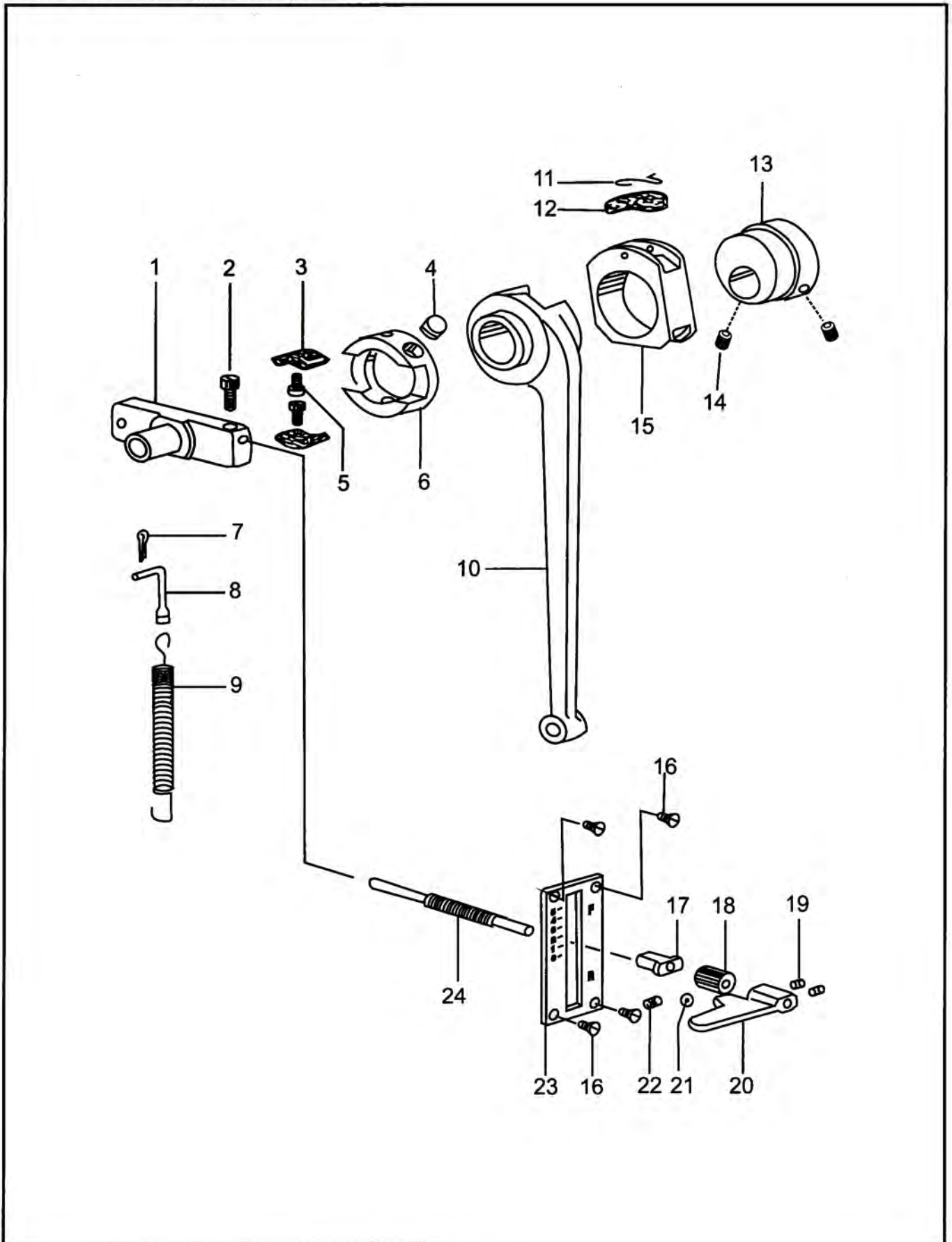
8. Thread-pass parts



8.Thread-pass parts

| NO. | Part Number | Name | Qt. | | Remark |
|-----|--------------|--------------------------------|-----|-------|-------------|
| | | | 8 B | 8 B V | |
| 1 | 16WF2-017 | Screw | 2 | 2 | SM9/64"×40 |
| 2 | 16WF2-016 | Safety guard | 1 | 1 | |
| 3 | 16WF2-048 | Thread retaining pin | 1 | 1 | |
| 4 | 16WF2-025 | Screw | 1 | 1 | SM9/64"×40 |
| 5 | 16WF2-024 | Three-eye thread finger | 1 | 1 | |
| 6 | 16WF2-011 | Upper thread finger | 1 | 1 | |
| 7 | 16WF2-012 | Middle thread finger | 1 | 1 | |
| 8 | 16WF2-015 | Screw | 3 | 3 | SM9/64"×40 |
| 9 | 16WF2-013 | Lower thread finger | 1 | 1 | |
| 10 | 16WF2-014 | Felt | 1 | 1 | |
| 11 | 16WF2-020 | Screw | 1 | 1 | SM11/64"×32 |
| 12 | 16WF2-046A1 | Set plate | 1 | 1 | |
| 13 | 16WF2-046A13 | Thread releasing pin | 1 | 1 | |
| 14 | 16WF2-046A6 | Thread tension plate | 2 | 2 | |
| 15 | 16WF2-046A5 | Thread releasing plate | 1 | 1 | |
| 16 | 16WF2-045A4 | Spring | 1 | 1 | |
| 17 | 153029 | Stop plate | 1 | 1 | |
| 18 | 16WF2-046A3 | Nut | 1 | 1 | |
| 19 | 16WF2-046A11 | Nut | 1 | 1 | |
| 20 | 16WF2-046A9 | Screw | 1 | 1 | SM3/32"×56 |
| 21 | 1WF1-010J | Thread control plate assembly | 1 | 1 | |
| 22 | 16WF2-046A7 | Thread take-up spring | 1 | 1 | |
| 23 | 16WF2-033 | Screw | 1 | 1 | SM11/64"×32 |
| 24 | 16WF2-046A10 | Thread take-up spring shaft | 1 | 1 | |
| 25 | 16WF2-046A12 | Pin | 1 | 1 | |
| 26 | 16WF2-050 | Screw | 1 | 1 | SM9/64"×40 |
| 27 | 16WF2-049 | Position plate | 1 | 1 | |
| 28 | 16WF2-046A14 | Thread tension releasing disc | 1 | 1 | |
| 29 | 16WF2-046A15 | Screw | 2 | 2 | SM9/64"×40 |
| 30 | 103723 | Thread tension releasing lever | 1 | 1 | |

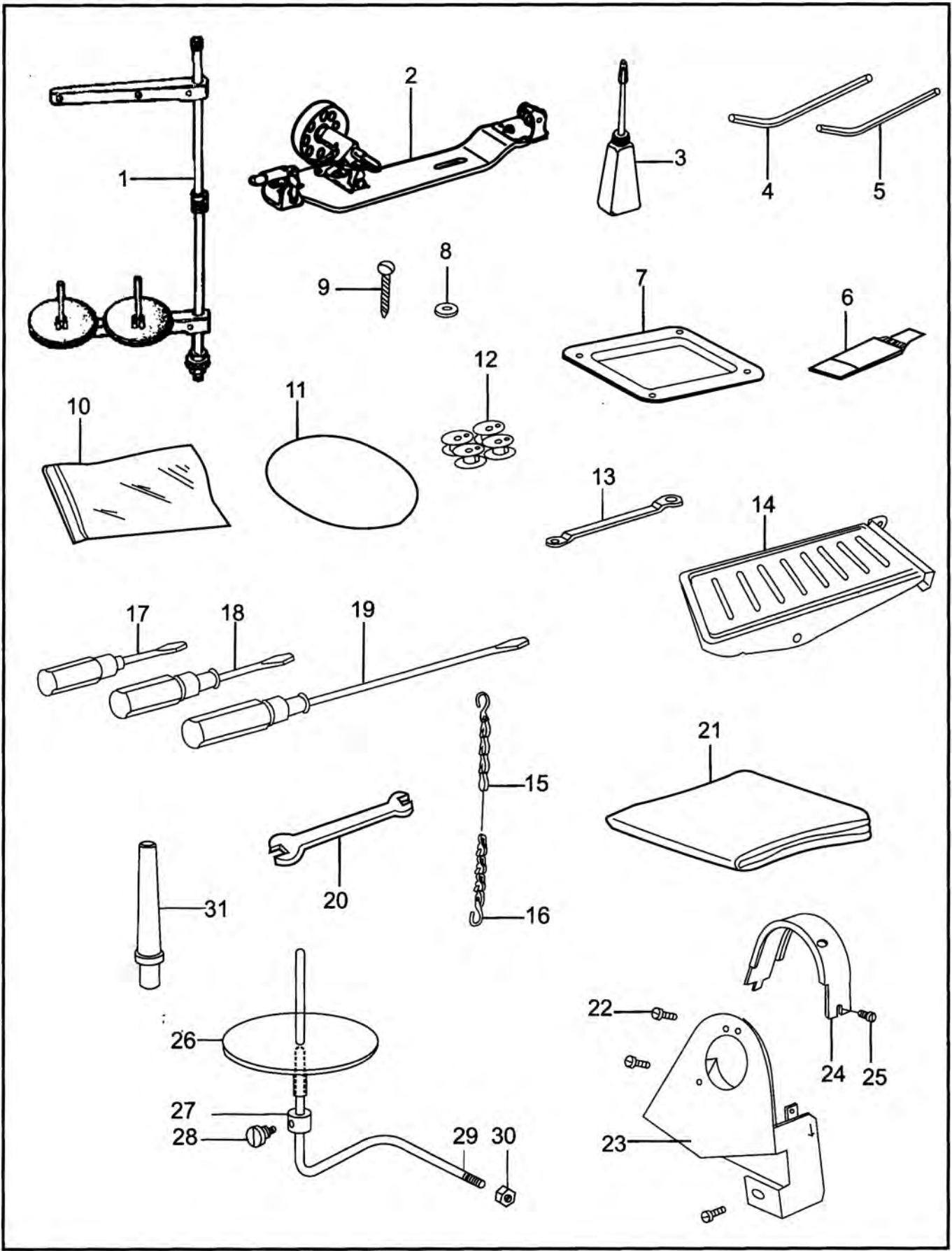
9. Stitch length adjustment



9. Stitch length adjustment

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|----------------------|-----|-------|----------------|
| | | | 8 B | 8 B V | |
| 1 | 22WF4-023 | Reverse stitch plate | 1 | 1 | |
| 2 | 22WF4-025 | Screw | 1 | 1 | M5×0.8 |
| 3 | 22WF4-035 | Oil felt | 2 | 2 | |
| 4 | 22WF4-037 | Oil felt | 1 | 1 | |
| 5 | J0. 0. 50 | Screw | 1 | 1 | SM1/8"×40 |
| 6 | 22WF4-034 | Adjusting block | 1 | 1 | |
| 7 | | Split pin | 1 | 1 | GB91.86 1.6×12 |
| 8 | 22WF4-022 | Spring finger | 1 | 1 | |
| 9 | 22WF4-021 | Spring | 1 | 1 | |
| 10 | 22WF4-033 | Feed link | 1 | 1 | |
| 11 | 22WF4-040 | Spring | 1 | 1 | |
| 12 | 22WF4-039 | Oil felt | 1 | 1 | |
| 13 | 22WF4-001 | Eccentric wheel | 1 | 1 | |
| 14 | 22WF4-002 | Screw | 2 | 2 | SM1/4"×40 |
| 15 | 22WF4-038 | Sliding block | 1 | 1 | |
| 16 | 22WF4-032 | Screw | 4 | 4 | SM1/8"×40 |
| 17 | 22WF4-026 | Position block | 1 | 1 | |
| 18 | 22WF4-027 | Nut | 1 | 1 | SM9/32"×28 |
| 19 | 13WF4-027 | Screw | 2 | 2 | M5×0.8 |
| 20 | 22WF4-028 | Reverse feed lever | 1 | 1 | |
| 21 | | Spring ball | 1 | 1 | φ 3. 17 |
| 22 | 22WF4-030 | Spring | 1 | 1 | |
| 23 | 22WF4-031 | Stitch length dial | 1 | 1 | |
| 24 | 22WF4-024 | Adjusting bolt | 1 | 1 | |

10. Accessories



10. Accessories

| NO. | Part Number | Name | Qt. | | Remark |
|-----|-------------|------------------------|-------|-------|------------------|
| | | | 8 B | 8 B V | |
| 1 | 4F-007 | Spool stand assembly | 1 | 1 | |
| 2 | S14420020 | Thread winder assembly | 1 | 1 | |
| 3 | 33TF-011 | Oil pot | 1 | 1 | |
| 4 | 1F-010 | Hexagonal screwdriver | 1 | 1 | Standard2.5mm |
| 5 | 1F-011 | Hexagonal screwdriver | 1 | 1 | Standard3mm |
| 6 | 1F-019 | Needle | 1Pack | 1Pack | DP×17 22# |
| 7 | 22WF2-008 | Oil reservoir | 1 | 1 | |
| 8 | 33TF-018 | Washer | 2 | 2 | Washer6 GB848-85 |
| 9 | 33TF-017 | Wood screw | 2 | 2 | 5×20 GB99-86 |
| 10 | 33TF-010 | Accessory bag | 1 | 1 | |
| 11 | 33TF-005 | V-belt | 1 | 1 | O-Type 1380mm |
| 12 | 16WF1-063 | Bobbin | 4 | 4 | |
| 13 | | Spanner | 1 | 1 | Standard11-12 |
| 14 | 18WF1-013 | Pedal assembly | 1 | 1 | |
| 15 | 18WF1-017 | Chain | 1 | 1 | Length1000mm |
| 16 | 18WF1-016 | Chain finger | 2 | 2 | |
| 17 | 33TF-014 | Screwdriver (small) | 1 | 1 | |
| 18 | 33TF-013 | Screwdriver (medium) | 1 | 1 | |
| 19 | 33TF-012 | Screwdriver (big) | 1 | 1 | |
| 20 | | Two head wench | 1 | 1 | |
| 21 | | Cover | 1 | 1 | |
| 22 | 37T4-416 | Screw | 2 | 2 | SM9/64"×40 |
| 23 | 22WF6-006 | Safety guard (II) | 1 | 1 | |
| 24 | 22WF6-005 | Safety guard (I) | 1 | 1 | |
| 25 | 22WF3-007 | Screw | 2 | 2 | SM13/64"×32 |
| 26 | 28WF2-011 | Webbing disc | 1 | 1 | |
| 27 | 28WF2-014 | Collar | | 1 | |
| 28 | 28WF2-013 | Screw | | 1 | GB841-86-M8 |
| 29 | 28WF2-012 | Shaft for webbing disc | | 1 | |
| 30 | | Hexagonal nut | | 1 | |
| 31 | 16WF5-007 | Machine head support | 1 | 1 | |

- 除调整线迹外, 机器的调试及维修非专业人员请勿擅自操作。
 - 个别零件进行更改设计时, 恕不另行通知。
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