

# TW1-1245-HL14 //-HL30

INSTRUCTION BOOK // PARTS CATALOGUE



LONGARM COMPOUND FEED LOCKSTITCH SEWING MACHINE  
LANGARM-, 3-FACH TRANSPORT STEPPSTICH-NÄHMASCHINE

**TYPICAL**

- ☐ 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.com](mailto:export@typicalwpchina.com)

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## Parts manual

# **OPERATION INSTRUCTION**

## 1. Brief introduction

This machine adopts compound feed mechanism with synchronous top, bottom and needle feed and the max amount of alternating presser foot lifter reaches 7 mm, which guarantees the high sewing quality of different materials. Besides, it adopts the large auto-lubricating horizontal rotating hook, 4-link thread take-up lever and timing belt, which assures its lower noise and high speed.

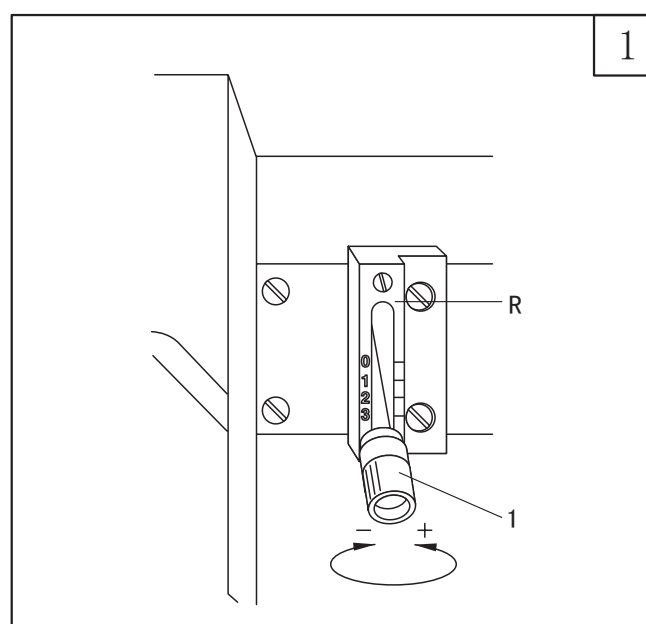
This machine is widely used in manufacturing suitcase, tents, cushions, leather products, clothes bamboo matting, etc.

## 2. Main technical specifications

| Model              | TW1-1245        | TW1-1245V | TW1-1245HL14 | TW1-1245HL30     |
|--------------------|-----------------|-----------|--------------|------------------|
| Max. Sewing speed  | 2000s.p.m       |           | 1800s.p.m    | 1500s.p.m        |
| Max. Stitch length | 8mm             |           |              |                  |
| Needle bar stroke  | 36mm            |           |              |                  |
| Needle             | DP 35 Nm110~150 |           |              |                  |
| Lubrication        | By hand(partly) |           |              |                  |
| Foot lifting       | By hand/knee    |           |              | By hand/solenoid |
| Motor power        | 370W            |           |              | 550W             |

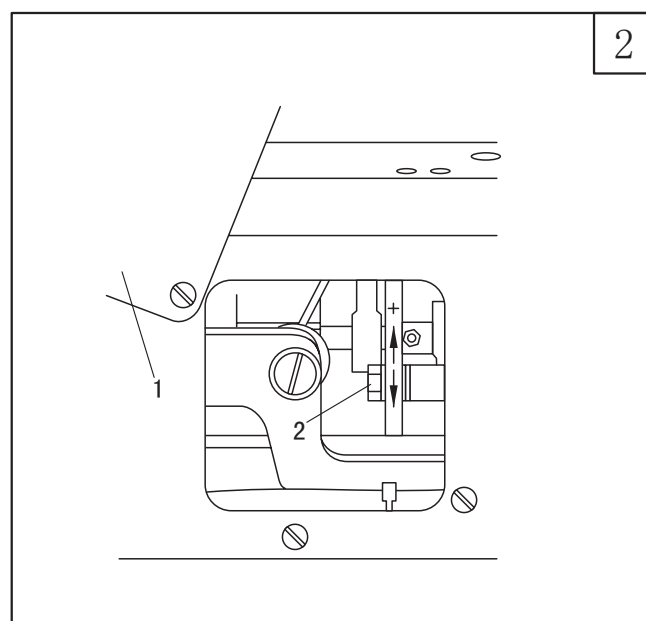
## 3. Feed adjustment/reverse stitching(Fig.1)

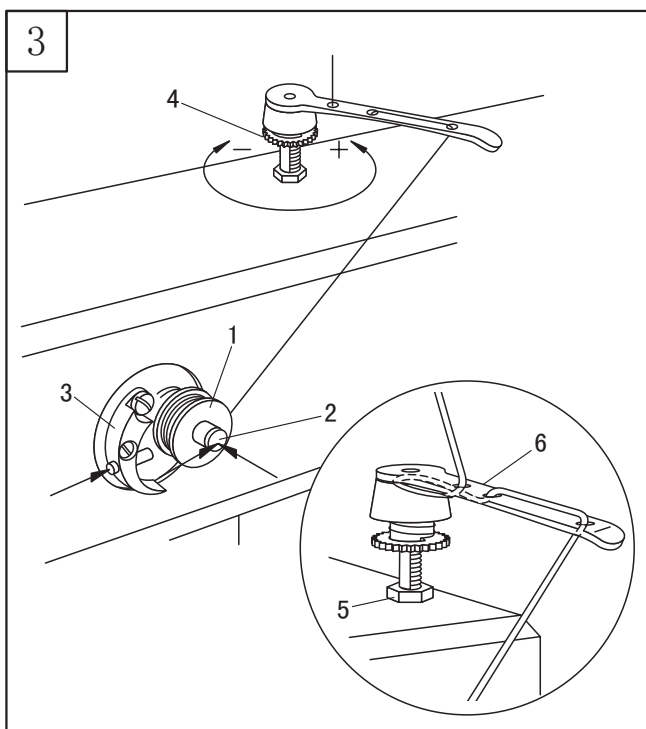
1. Adjusting the stitch length by turning Nut 1;
2. When backward stitching, push Nut 1 to Mark R as much as possible.



## 4. Adjusting upper feed stroke(Fig.2)

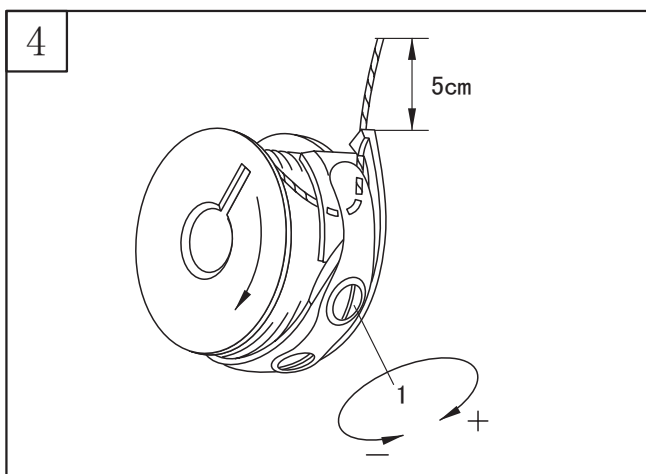
Open the rear cover 1; loosen the screw 2, and as required, move it up and down.





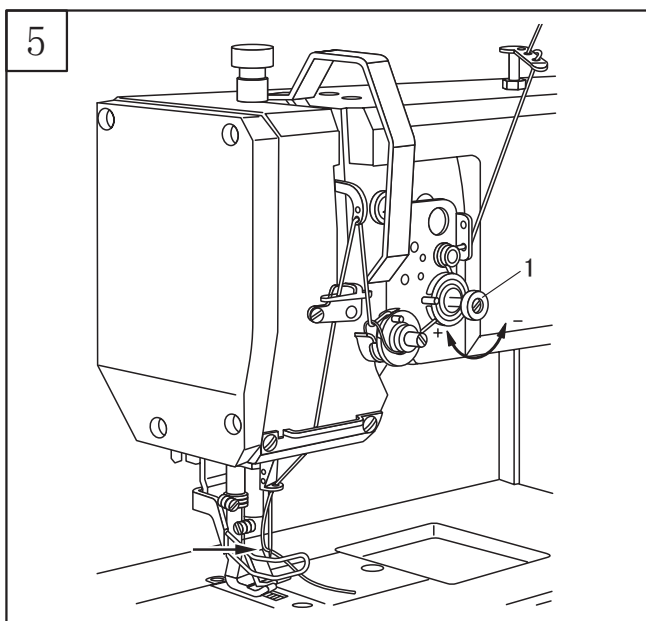
### 5. Winding bobbin thread(Fig. 3)

1. Put the bobbin into the bobbin shaft 2;
  2. As Fig 3 shows, draw out the thread and winding clockwise to the bobbin several times;
  3. Before winding, press down the winding shaft 2 and the hook gib 3;
  4. Adjusting the bobbin 1 thread tension by the screw 4;
  5. When the bobbin is full, the bobbin winder will automatically stop.
- If the winding is abnormal, loosen the screw 5, and as required, move the thread guide 6, then tighten the screw 5.



### 6. Adjusting the bobbin thread tension(Fig. 4)

1. As Fig.4 shows, draw out the bobbin thread;  
 ※ When the bobbin thread is drawn out, the bobbin should run as the arrow goes.
2. Adjusting the bobbin thread tension by the screw 1.



### 7. Threading the needle thread/adjusting the tension of needle thread(Fig. 5)

1. Threading as the Fig 5 shows.  
 ※ Pass the thread to the eye of needle from the left side(Fig.arrow)
2. Adjusting the needle thread tension by the screw 1

## 8. Maintenance

|                                     |              |
|-------------------------------------|--------------|
| Clean the bobbin clearance          | Once a week  |
| Normal oiling                       | Twice a week |
| Front parts oiling                  | Twice a week |
| Check the hook oil box              | Once a week  |
| Clean the rotating hook             | Once a week  |
| Upper feed driving eccentric oiling | once a year  |

※ The above data is due to the normal situation. If the machine is used frequently, the interval of the maintenance should be shortened.

Maintenance for rotating hook(Fig.6)

1. Clean the rotating hook with brush every day, and constant use needs more frequent cleaning.

2. Clean the rotating hook thoroughly every week.

As follows:

a. Open the slide plate and lift the needle bar to its highest point;

b. Take out the bobbin cap and the bobbin;

c. Release the hook gib 1; turn over the balance wheel until the Point 2 passes to the groove 5mm; then take out the bobbin case;

d. Clean the rotating hook track with paraffin wax;

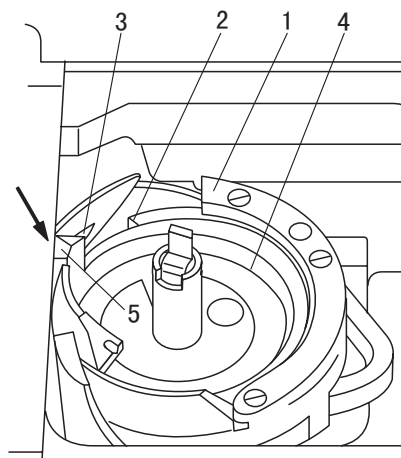
e. When the bobbin case is installed, the horn 5 and needle plate groove must be closely touched; (Fig. Arrow)

f. Tighten the hook gib 1, install the bobbin case and close the slide plate.

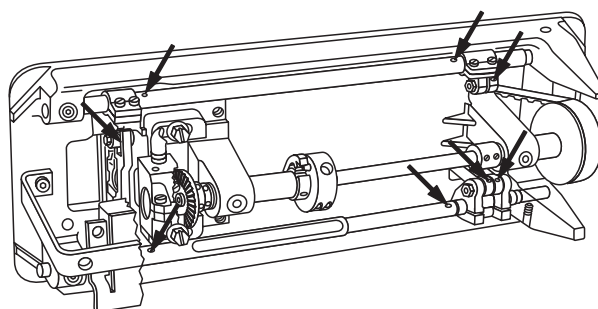
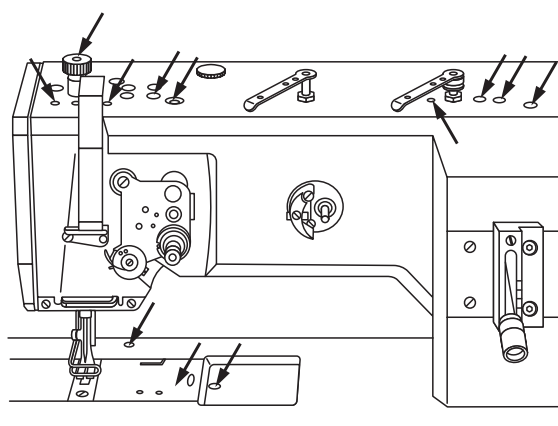
## 9. Oiling(Fig. 7)

The machine must be oiled at the mark(arrow) twice a week.

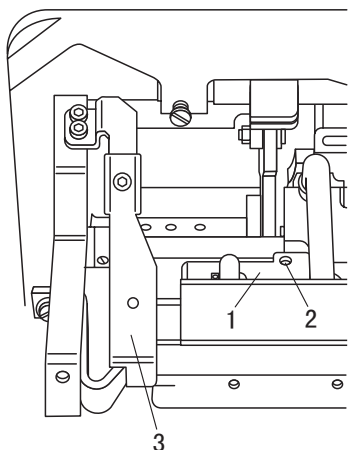
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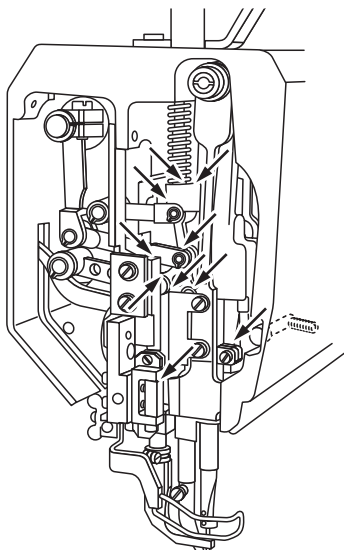
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### 10. Lubricating the hook (Fig. 8)

1. Pull out the knee lever, then lay down the machine head;
2. Fill the oil into box 1 through the hole 2 until the oil level exceeds the highest level mark;
3. Raise the machine.

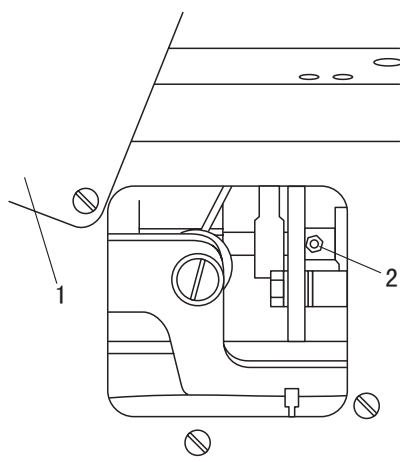
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### 11. Lubricating the machine head (Fig. 9)

1. Open the face plate;
2. Oil twice a week at all the moving position as the Fig shows;
3. Close the face plate.

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### 12. Lubricating the upper feed driving eccentric (Fig. 10)

1. Open the rear cover 1;
2. Oil the interface (2) at least twice a year; (apply to oil gun)
3. Close the rear cover.

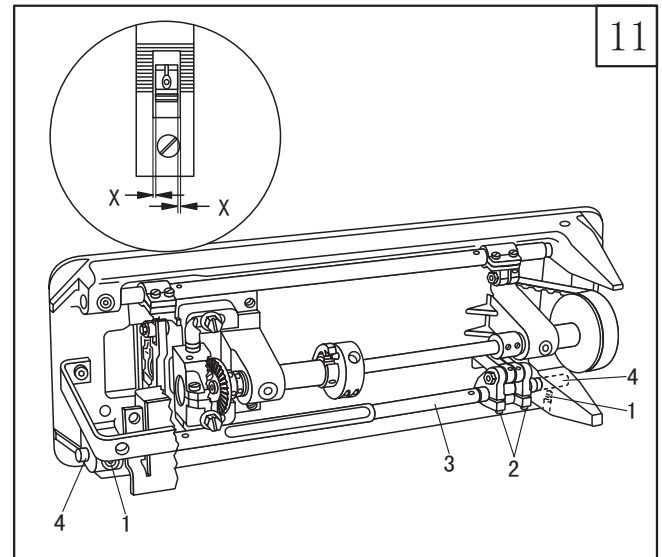


### 13. Adjusting the feed dog

1. Positioning the feed dog across the direction of sewing (Fig.11);

- a. Loosen the screw 1 and 2;
- b. Adjust the shaft 3 as required;
- c. Tighten the screw 1. (Keep the screw 2 loosening for the following adjustment)

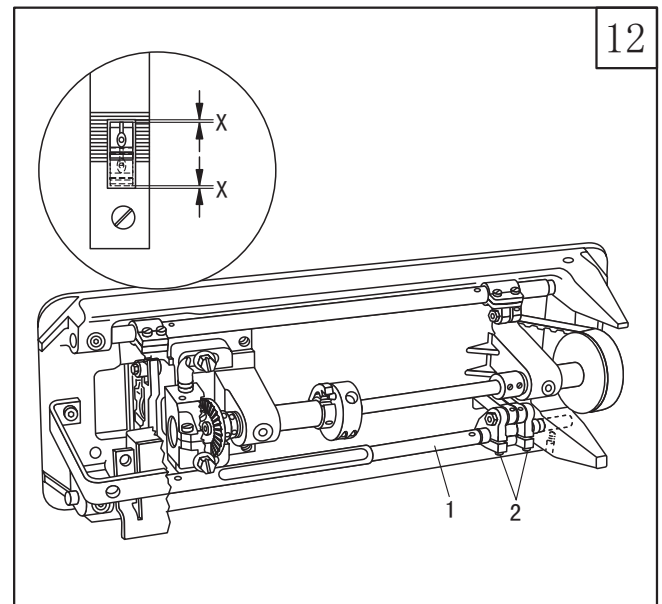
※ The bottom feed dog must be the same distance from the left and right side of the needle plate cutout



2. Positioning the feed dog in the direction of sewing (Fig. 12)

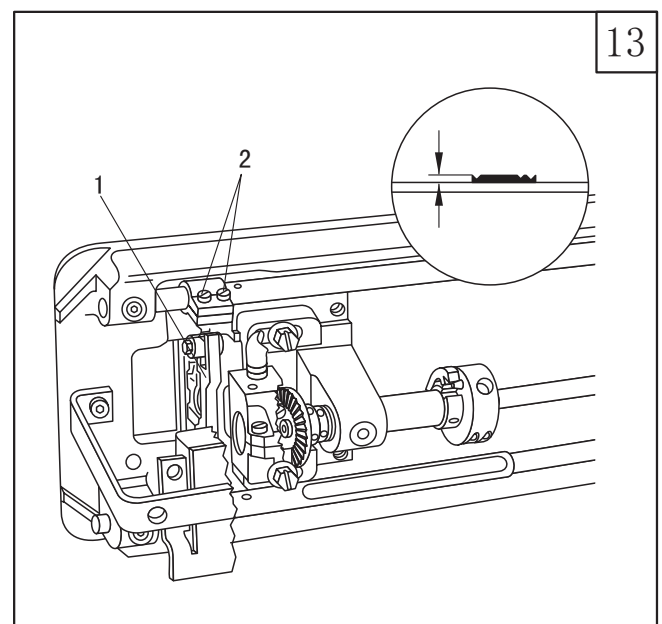
- a. Set the longest stitch
- b. Adjust the shaft 1 as required, and tighten the screw 2.

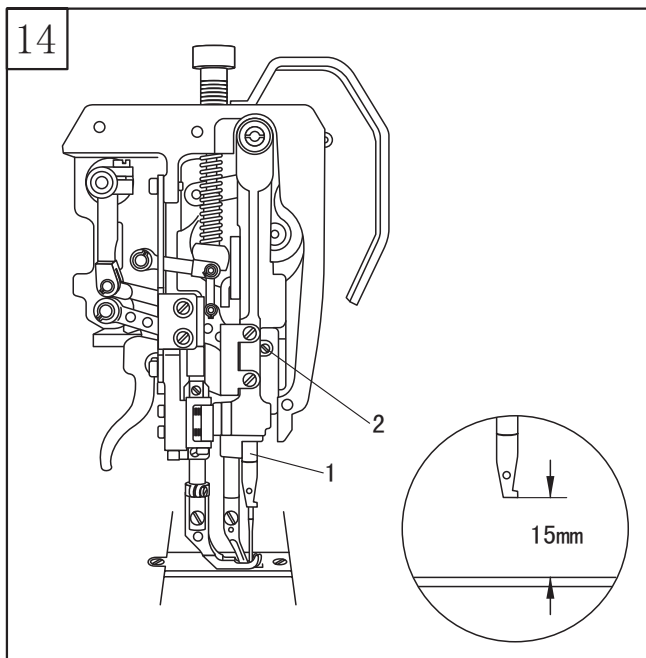
※ With the longest stitch set, the bottom feed dog must have the same clearance the front and the back with respect to the needle plate cutout when feeding both forwards and backwards.



3. Adjusting the height of feed dog (Fig.13)

- a. Adjust the stitch length to "0" ;
- b. Turn over the balance wheel until the feed dog reaches its highest position; and as required, adjust the feed dog supporter 1 and the screw 2.

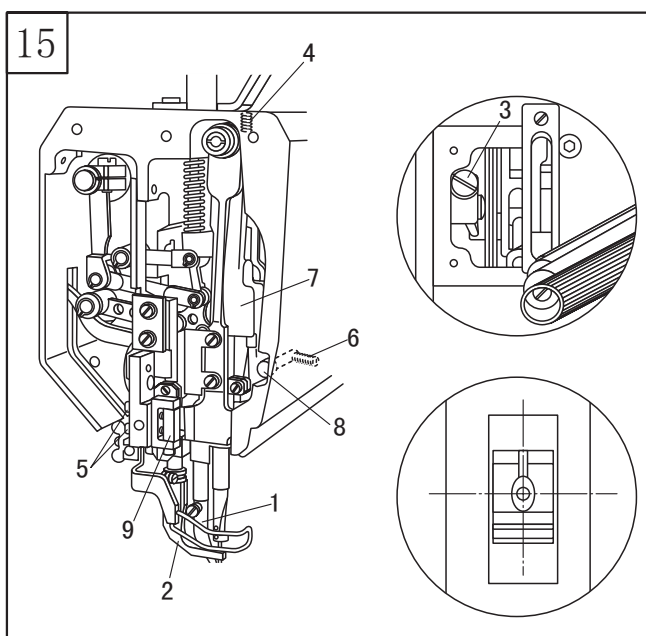




#### 14. Pre-adjusting the needle height (Fig. 14)

Move the needle bar 1 (screw 2) up and down, and as required, adjust it to the right position.

※ When the needle bar is at the lowest position, the clearance between needle bar and needle plate should be 15 mm.



#### 15. Centering the needle in the needle hole (Fig. 15)

1. Loosen the walking foot 1 and the presser foot 2;  
2. Adjust the stitch length to "0", and lift the needle bar to its highest point;

3. Insert the new needle, and loosen the screw 3, 4, 5, 6;

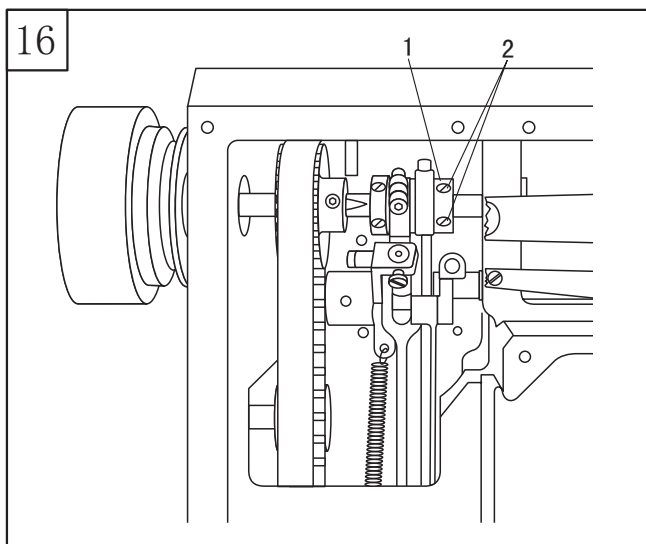
4. Turn the balance wheel and pass the needle directly through the feed dog;

5. As required, move the needle bar frame 7;

6. Tighten screw 3, 4, 5, 6;

7. Move the pin 8 to make it touch the needle bar frame 7, and tighten screw 6.

※ When the stitch length is at the "0", the needle must enter the needle hole exactly in the middle



#### 16. Adjusting the bottom feed dog position (Fig. 16)

1. Adjust the needle bar to the lowest position;

2. Turn the eccentric wheel 1 (screw 2), and adjust the bottom feed dog to the highest position;

3. Tighten screw 2 to make the eccentric wheel 1 unable to turn;

4. Set the stitch length to the max and turn the eccentric wheel 1 a bit in accordance with requirement 2

5. Tighten screw (2).

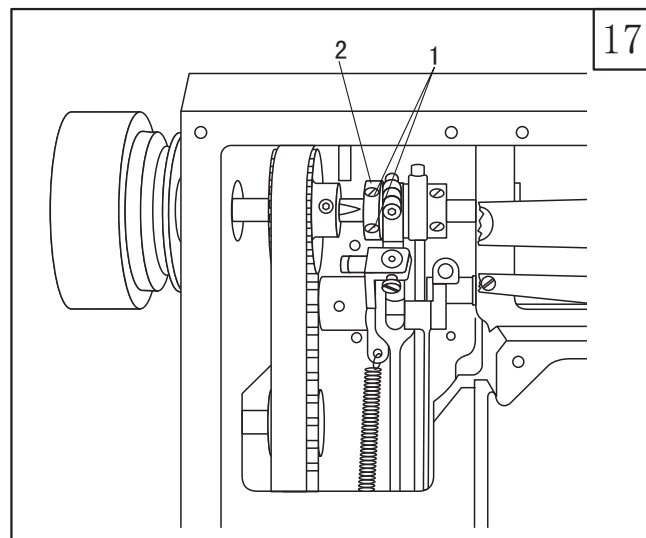
※ a. When the needle bar is at its lowest position, the bottom feed dog should be at the highest position;

※ b. Set the stitch length to its max; turn the balance wheel, and when the bottom feed dog and the needle plate are in the same horizontal level, the point of the needle should be right reaching the surface of the needle plate.

### 17. Lower feed adjustment (Fig. 17)

1. Adjust the stitch length to the max;
2. Loosen screw 1 to make the feed eccentric wheel 2 turn around the shaft;
3. Adjust the needle bar to the lowest position;
4. Turn the eccentric wheel 2 so that its eccentricity is facing downwards.
5. As required, turn the eccentric wheel a bit as it turns and tighten screw 1;
6. Check it as required.

※ When the stitch length is at the max, the needle bar is at the lowest position, if the reverse feed lever is activated, there will be no feeding.

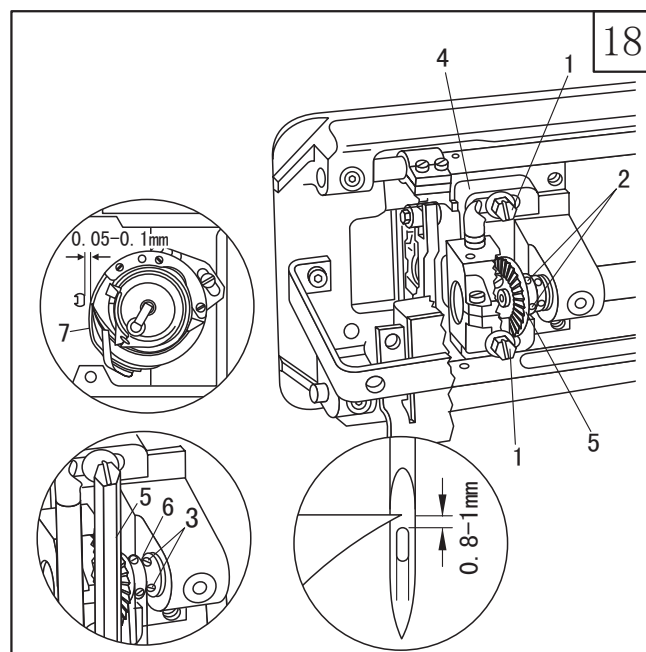


### 18. Position of needle and rotating hook (Fig. 18)

1. Adjust the stitch length to “3”, and loosen screw 1,2;
2. The clearance between needle and the hook point should be adjusted to 0.05-0.1 mm by moving the hook gear 4;
3. Tighten screw 1;
4. Turn the needle to the lowest position, and continue to turn the hand wheel to raise 2 mm of the needle;
5. Make the hook point aim at the center of the needle and be sure the guard plate 7 doesn't press on the needle;
6. Leave some gear clearance and tighten screw 2;
7. The vertical clearance between the top of needle eye and the hook point should be 0.8-1 mm by adjusting the needle height;
8. The guard plate 8 might be adjusted to touch the needle lightly.

※ When the stitch length is adjusted to “3” and the needle is lifted 2 mm from the lowest position, the following requirements must be reached:

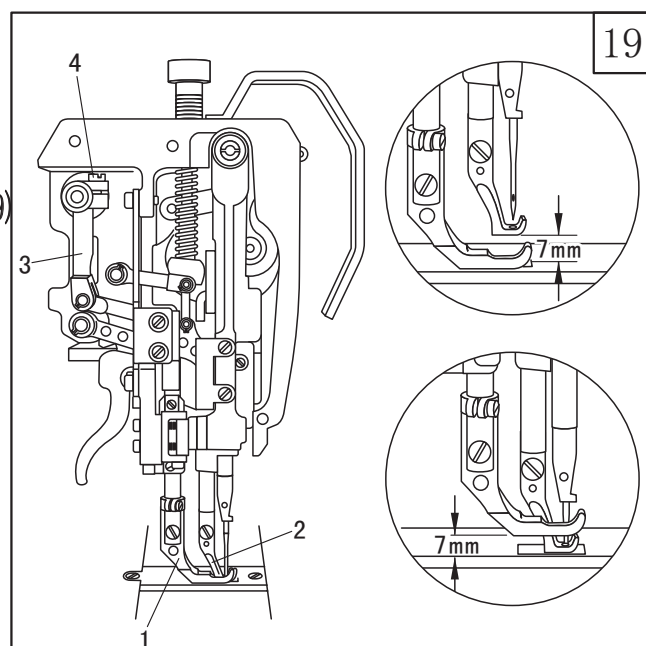
- a. The clearance between needle and hook point is 0.05-1mm;
- b. The vertical clearance between the top of needle eye and hook point is 0.8-1mm;
- c. The guard plate must touch the needle lightly.



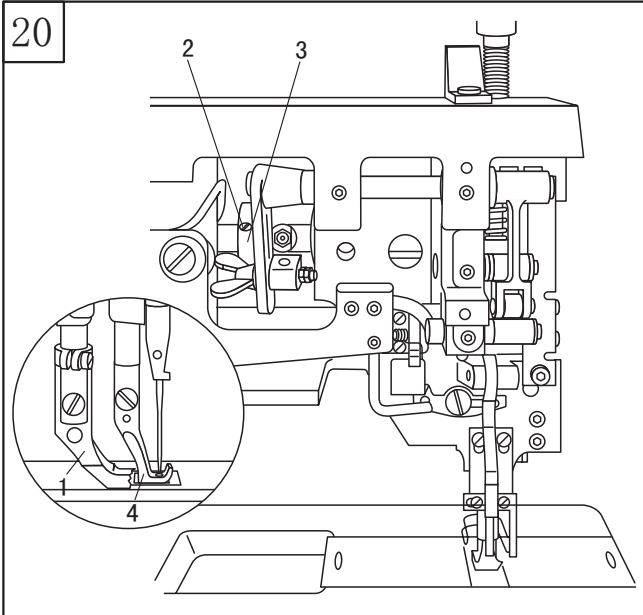
### 19. Adjusting the lifting amount of alternating presser foot (Fig. 19)

1. The stitch length is adjusted to “0”, and the lifting amount of alternating presser foot is adjusted to the max;
2. Lower the presser foot 1 on the needle plate;
3. Turn the hand wheel until the walking foot 2 reaches the highest position;
4. As required, move the crank 3 (screw 4);
5. Check as required.

※ When the stitch length is at the “0” and the lifting amount of alternating presser foot is at the max, turn the hand wheel to make sure the clearance between presser foot 1/walking foot 2 and needle plate is 7mm.



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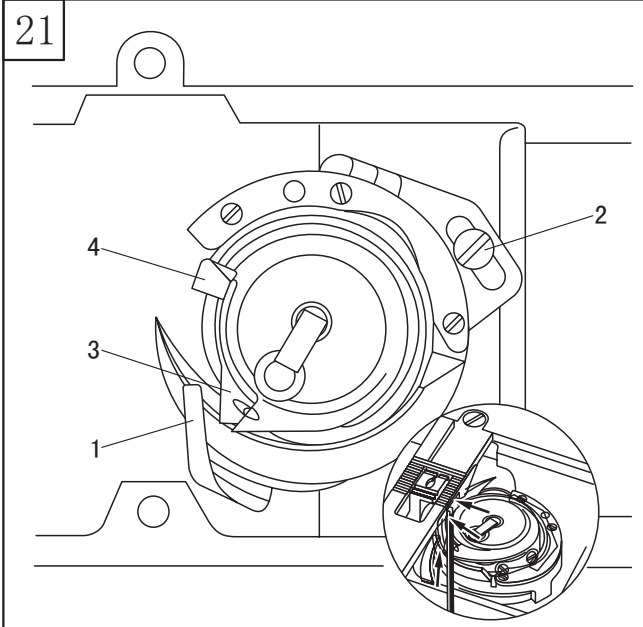


## 20. Top feed adjustment (Fig. 20)

1. Lower the presser foot on the needle plate;
2. Loosen screw 2 until the feed lifting eccentric wheel 3 can turn reluctantly;
3. Adjust the eccentric wheel 3 as required;
4. Tighten screw 2;
5. Check as required.

※ When presser foot is resting on the needle plate, the walking foot and the point of needle must both reach the needle plate at the same time when the top feed stroke is set at maximum.

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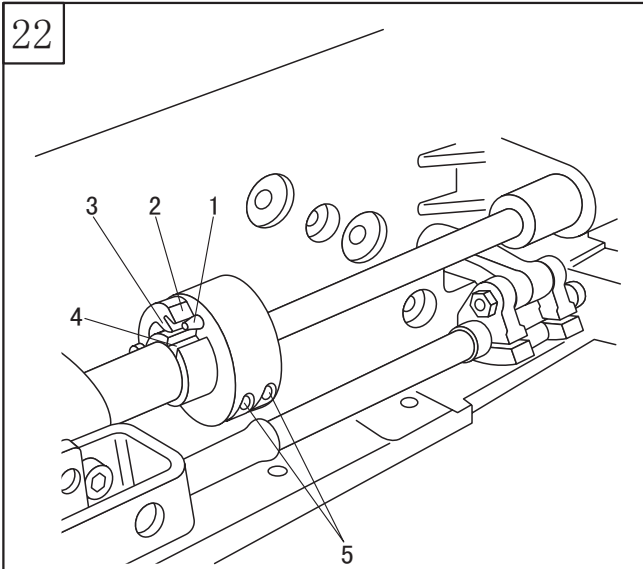
## 21. Adjusting the bobbin case opener

1. Thread the machine; lay down the material; then lower the presser foot;
2. Turn the hand wheel and sew a bit, then check as required.

3. Move the opener 1 (screw 2) as required

※ The needle thread must not be clamped when passing through the mark 1,3,4

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## 22. Saftety clutch (Fig. 22)

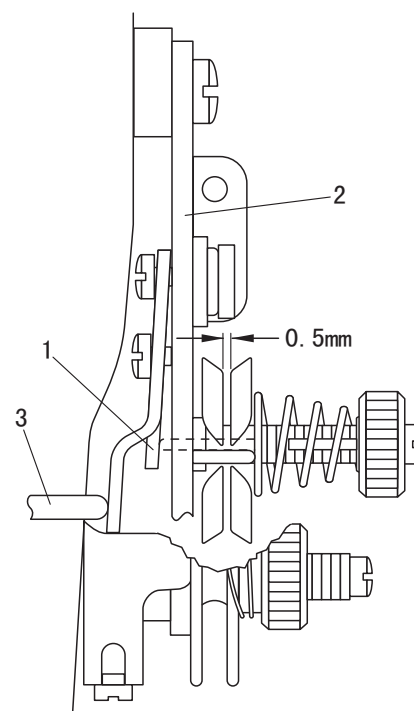
1. When the rotating hook jams the thread, the safety clutch will be off to prevent the hook being damaged

2. Take out the jammed thread;

※ Press the piston 1 and turn the hand wheel until hook 3 of pawl 2 clicks into groove 4

### 23. Needle thread tension release (Fig. 23)

When the presser foot is lifted, the clearance between the two tension discs should be 0.5mm (0.5mm is the minimum. When applied to thick thread, it could be adjusted to 1 mm or more). Adjust the plate 1 as required.

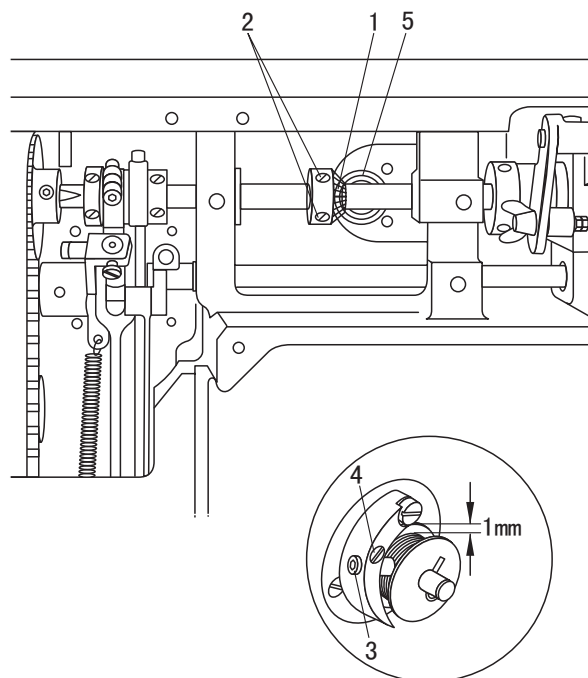


### 24. Bobbin thread winder (Fig. 24)

1. When the winder switch on, its spindle must engage reliable; when the winder switch off, the friction wheel 5 and the driving gear 1 should get apart;

2. When the thread level is approx. 1mm from the edge of the bobbin, the winder will switch off automatically;

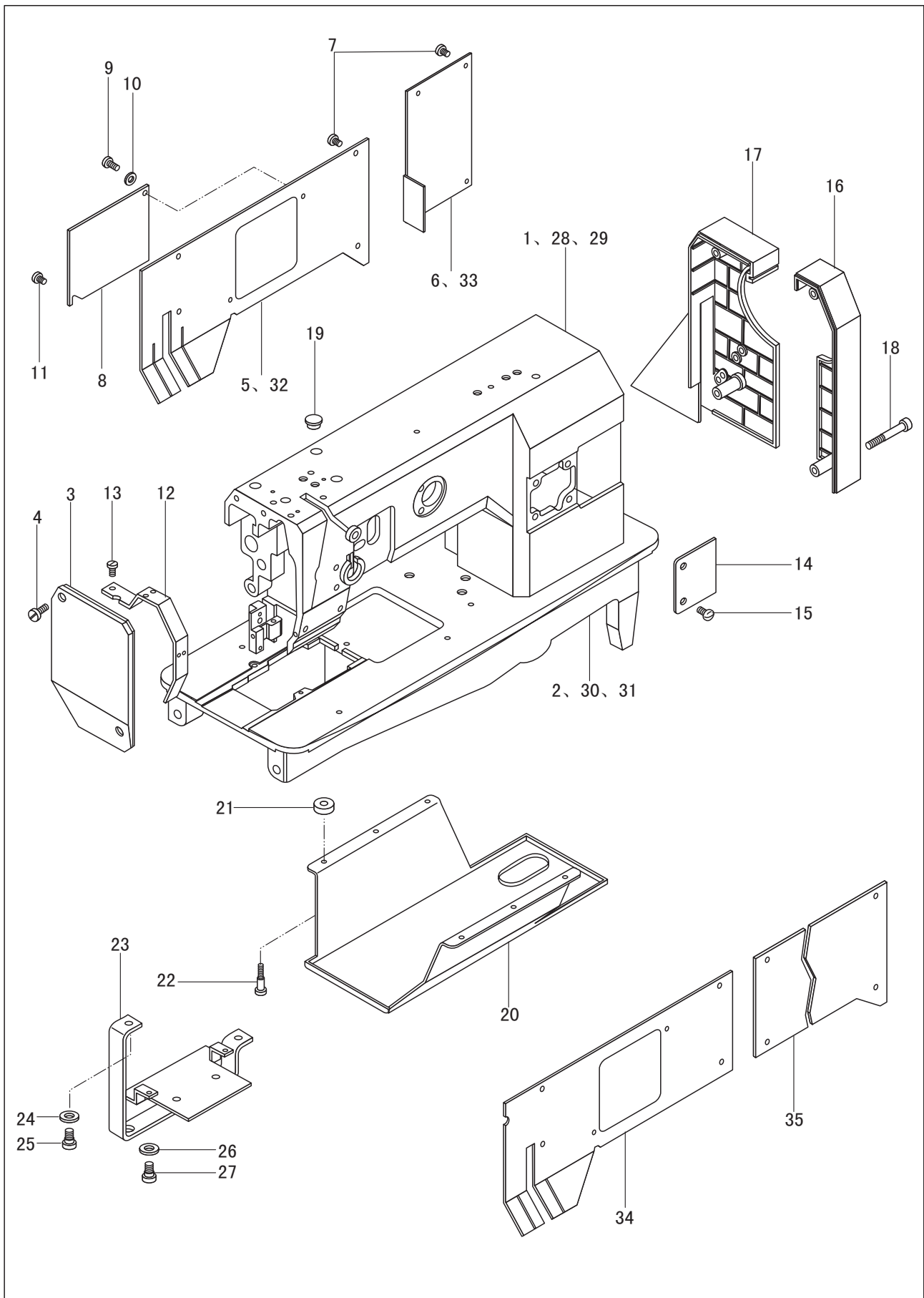
3. When operating, set the bobbin on the winder, threading the bobbin thread and switch the winder On, adjust the pin 3 and screw 4 as requirements if need.



# PARTS    MANUAL



## 1. Machine casting components

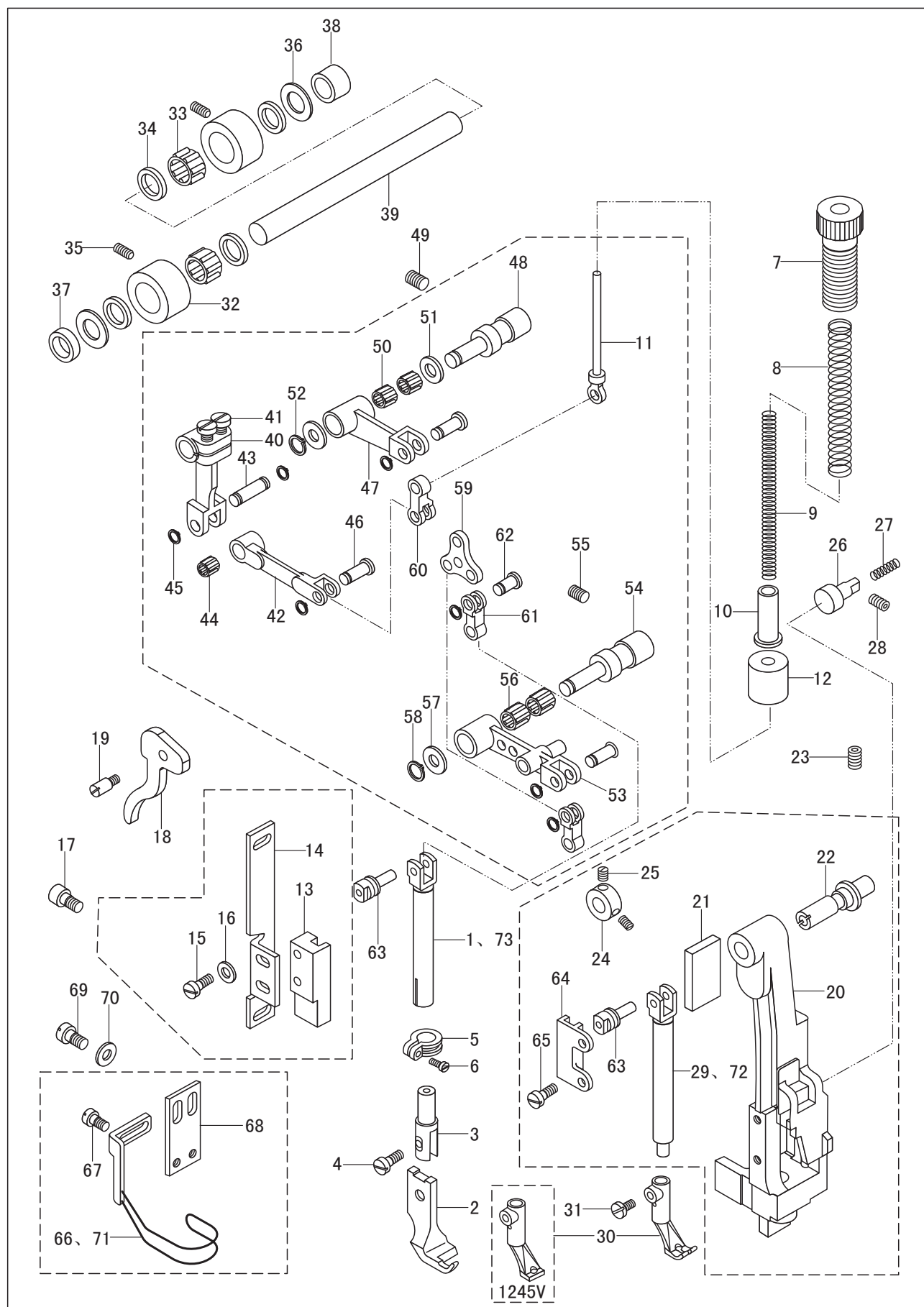


# 1. Machine casting components

| No. | Parts No   | Name                         | Qty. |    |      |      | Remarks            |
|-----|------------|------------------------------|------|----|------|------|--------------------|
|     |            |                              | 1245 | -V | HL14 | HL30 |                    |
| 1   | 71WF2-001  | Arm                          | 1    | 1  | /    | /    | GB65-M5 1 6        |
| 2   | 71WF2-002  | Bed                          | 1    | 1  | /    | /    |                    |
| 3   | 71WF2-003  | Face plate                   | 1    | 1  | 1    | 1    |                    |
| 4   |            | Screw                        | 2    | 2  | 2    | 2    |                    |
| 5   | 71WF2-004  | Rear cover(left)             | 1    | 1  | /    | /    | GB67-M5 8          |
| 6   | 71WF2-005  | Rear cover(right)            | 1    | 1  | /    | /    |                    |
| 7   |            | Screw                        | 8    | 8  | 8    | 8    |                    |
| 8   | 71WF2-006  | Cover(small)                 | 1    | 1  | 1    | 1    |                    |
| 9   | 71WF2-007  | Screw(1)                     | 1    | 1  | 1    | 1    | GB1972-80          |
| 10  |            | Spring                       | 1    | 1  | 1    | 1    |                    |
| 11  |            | Screw(2)                     | 1    | 1  | 1    | 1    |                    |
| 12  | 71WF2-008  | Thread take-up lever guard   | 1    | 1  | 1    | 1    |                    |
| 13  |            | Screw                        | 1    | 1  | 1    | 1    | GB67-M4 6          |
| 14  | 71WF2-009  | Front cover                  | 1    | 1  | 1    | 1    |                    |
| 15  |            | Screw                        | 2    | 2  | 2    | 2    |                    |
| 16  | 71WF5-005  | Safety guard(1)              | 1    | 1  | 1    | 1    |                    |
| 17  | 71WF5-006  | Safety guard(2)              | 1    | 1  | 1    | 1    | GB67-M5 8          |
| 18  |            | Set Screw                    | 4    | 4  | 4    | 4    |                    |
| 19  | 71WF2-025  | Plug                         | 2    | 2  | 2    | 2    |                    |
| 20  | 71WF5-007  | Oil pan                      | 1    | 1  | 1    | 1    |                    |
| 21  | 71WF5-008  | Washer                       | 6    | 6  | 6    | 6    | GB70-85 M5 3 5     |
| 22  |            | Screw                        | 6    | 6  | 6    | 6    |                    |
| 23  | 71WF2-010  | Oil box set bracket complete | 1    | 1  | 1    | 1    |                    |
| 24  |            | Washer                       | 2    | 2  | 2    | 2    |                    |
| 25  |            | Screw                        | 2    | 2  | 2    | 2    | GB845 ST2.9 19-C-Z |
| 26  |            | Washer                       | 2    | 2  | 2    | 2    |                    |
| 27  |            | Screw                        | 2    | 2  | 2    | 2    |                    |
| 28  | 99WF2-006  | Arm                          | /    | /  | 1    | /    |                    |
| 29  | 100WF2-001 | Arm                          | /    | /  | /    | 1    | GB70-85 M6 1 2     |
| 30  | 99WF1-007  | Bed                          | /    | /  | 1    | /    |                    |
| 31  | 100WF2-002 | Bed                          | /    | /  | /    | 1    |                    |
| 32  | 99WF2-001  | Rear cover(left)             | /    | /  | 1    | /    |                    |
| 33  | 99WF2-002  | Rear cover(right)            | /    | /  | 1    | 1    | GB96-85 4          |
| 34  | 100WF2-003 | Rear cover(left)             | /    | /  | /    | 1    |                    |
| 35  | 100WF2-004 | Rear cover(middle)           | /    | /  | /    | 1    |                    |



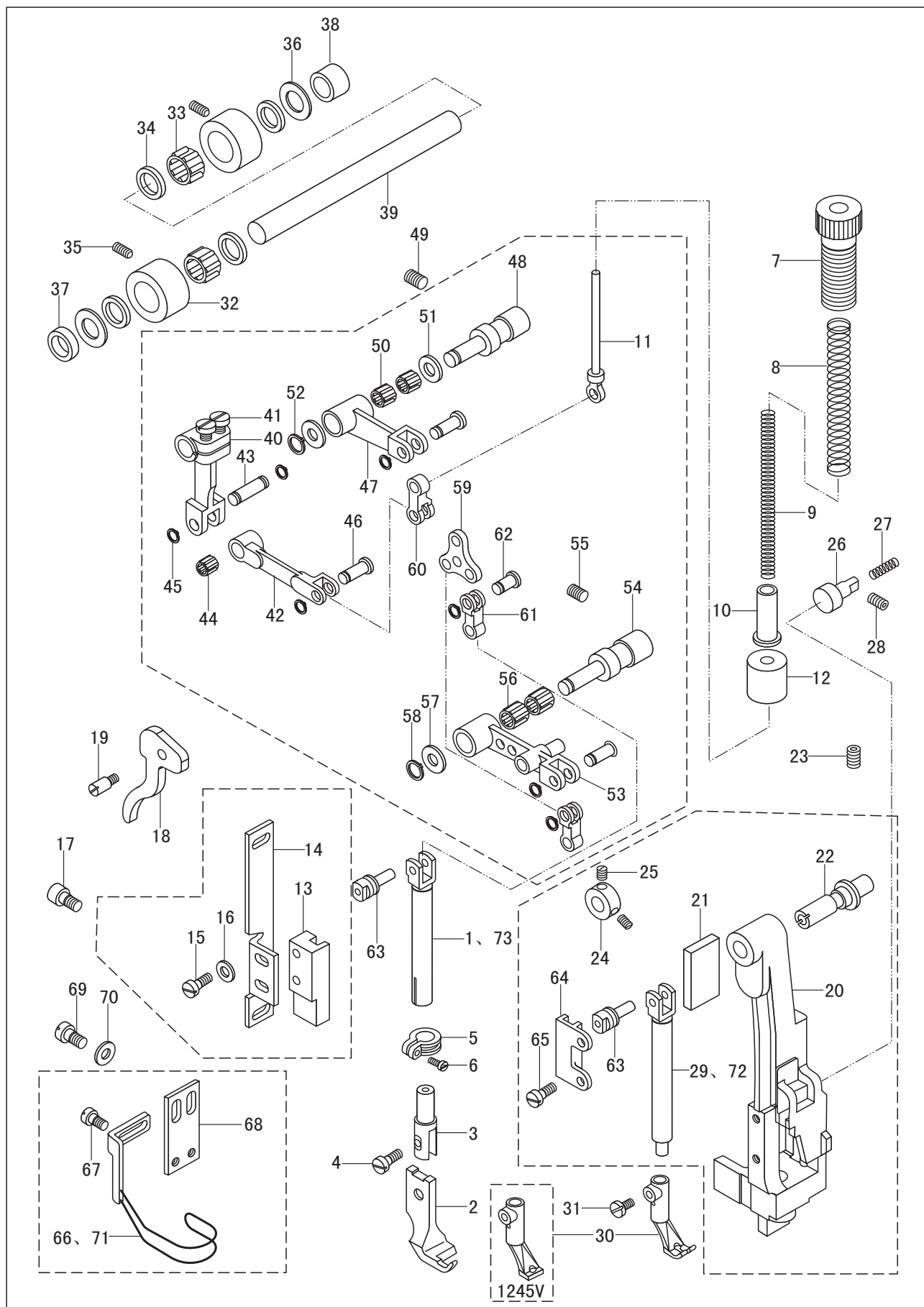
## 2. Needle and presser foot components



## 2. Needle and presser foot components

| No. | Parts No   | Name                     | Qty. |    |      |      | Remarks     |
|-----|------------|--------------------------|------|----|------|------|-------------|
|     |            |                          | 1245 | -V | HL14 | HL30 |             |
| 1   | 71WF4-001  | Presser foot bar         | 1    | 1  | /    | /    |             |
| 2   | 71WF4-002  | Presser foot             | 1    | /  | 1    | 1    |             |
|     | 77WF7-004  | Presser foot             | /    | 1  | /    | /    |             |
| 3   | 71WF4-003  | Presser foot bracket     | 1    | 1  | 1    | 1    |             |
| 4   | 71WF4-004  | Screw                    | 1    | 1  | 1    | 1    |             |
| 5   | 71WF4-005  | Collar                   | 1    | 1  | 1    | 1    |             |
| 6   | 19WF1-013B | Screw                    | 1    | 1  | 1    | 1    |             |
| 7   | 71WF4-006  | Screw                    | 1    | 1  | 1    | 1    |             |
| 8   | 71WF4-007  | Spring(big)              | 1    | 1  | 1    | 1    |             |
| 9   | 71WF4-008  | Spring(small)            | 1    | 1  | 1    | 1    |             |
| 10  | 71WF4-009  | Spring bushing           | 1    | 1  | 1    | 1    |             |
| 11  | 71WF4-010  | Guide bar                | 1    | 1  | 1    | 1    |             |
| 12  | 71WF4-011  | Oil felt                 | 1    | 1  | 1    | 1    |             |
| 13  | 71WF4-012  | Sliding guide            | 1    | 1  | 1    | 1    |             |
| 14  | 71WF4-013  | Set plate                | 1    | 1  | 1    | 1    | M15 1       |
| 15  |            | Screw                    | 2    | 2  | 2    | 2    |             |
| 16  |            | Washer                   | 2    | 2  | 2    | 2    |             |
| 17  |            | Screw                    | 2    | 2  | 2    | 2    |             |
| 18  | 71WF4-014  | Presser foot lifting bar | 1    | 1  | 1    | 1    |             |
| 19  | 71WF4-015  | Lifting bar shaft        | 1    | 1  | 1    | 1    |             |
| 20  | 71WF3-003  | Needle bar rocking frame | 1    | 1  | 1    | 1    |             |
| 21  | 71WF3-004  | Oil felt                 | 1    | 1  | 1    | 1    |             |
| 22  | 71WF3-005  | Hinge pin                | 1    | 1  | 1    | 1    | GB65-M4 10  |
| 23  |            | Screw                    | 1    | 1  | 1    | 1    | GB97. 1-4   |
| 24  | 71WF3-006  | Collar                   | 1    | 1  | 1    | 1    | GB70-M5 10  |
| 25  | 13WF1-029  | Screw                    | 2    | 2  | 2    | 2    |             |
| 26  | 71WF3-007  | Pin                      | 1    | 1  | 1    | 1    |             |
| 27  | 71WF3-008  | Spring                   | 1    | 1  | 1    | 1    |             |
| 28  |            | Screw                    | 1    | 1  | 1    | 1    |             |
| 29  | 71WF3-015  | Walking foot bar         | 1    | 1  | /    | /    |             |
| 30  | 71WF3-016  | Walking foot             | 1    | /  | 1    | 1    | GB77-M6 8   |
|     | 77WF7-002  | Walking foot             | /    | 1  | /    | /    |             |
| 31  | 71WF3-017  | Screw                    | 1    | 1  | 1    | 1    | M3 3        |
| 32  | 71WF3-018  | Upper feed bushing       | 2    | 2  | 2    | 2    |             |
| 33  |            | Bearing                  | 2    | 2  | 2    | 2    |             |
| 34  | 71WF3-019  | Stop ring                | 4    | 4  | 4    | 4    | GB77-M5 8   |
| 35  |            | Screw                    | 2    | 2  | 2    | 2    |             |
| 36  | 71WF3-020  | Washer                   | 2    | 2  | 2    | 2    |             |
| 37  | 71WF3-021  | Washer(front)            | 1    | 1  | 1    | 1    | SM17/64" 28 |
| 38  | 71WF3-022  | Washer(rear)             | 1    | 1  | 1    | 1    |             |
| 39  | 71WF3-023  | Upper feed shaft         | 1    | 1  | 1    | 1    | Φ10 Φ13 9.7 |
| 40  | 71WF3-024  | Upper feed crank(I)      | 1    | 1  | 1    | 1    | GB77-M6 5   |

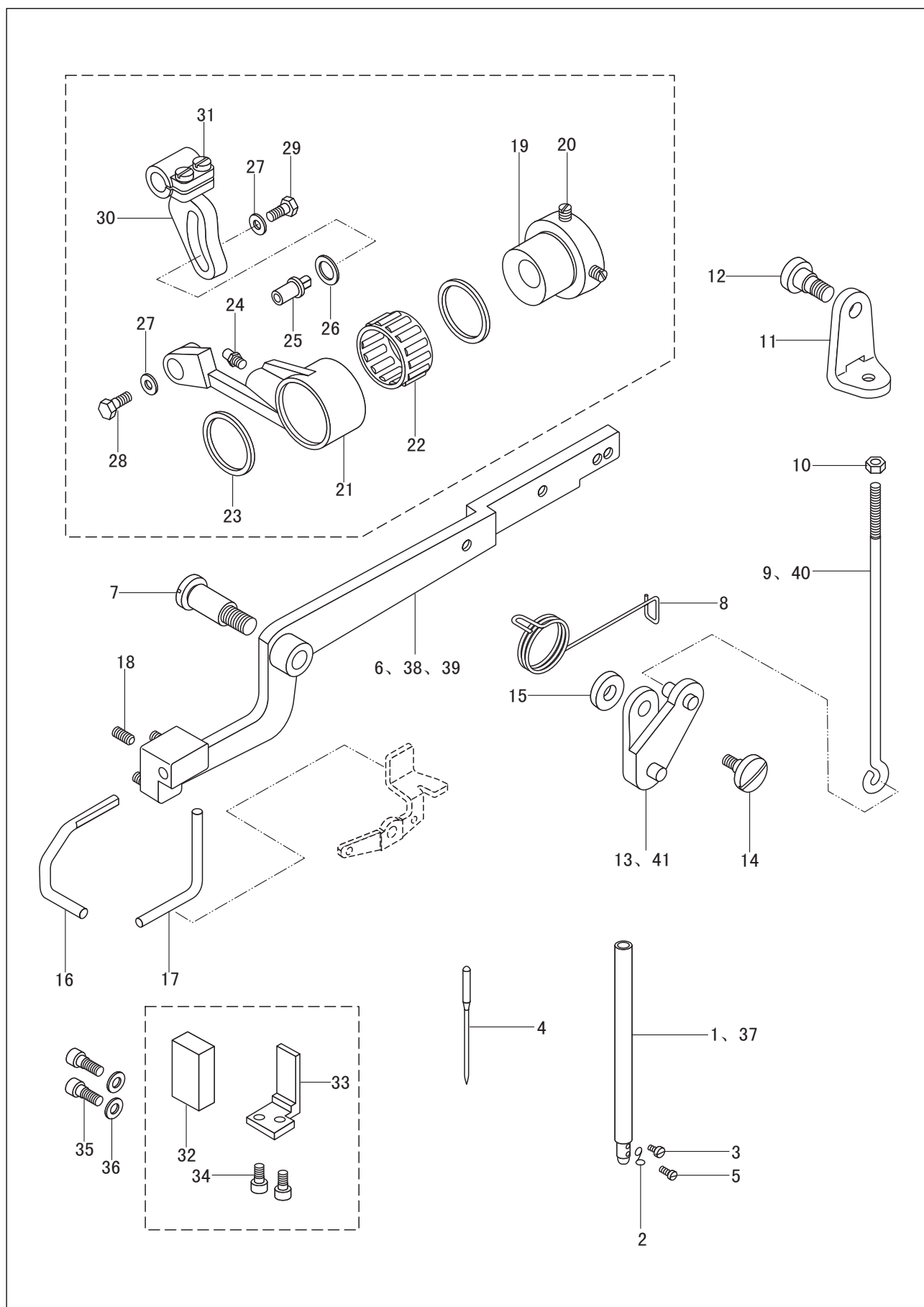
## 2. Needle and presser foot components



## 2. Needle and presser foot components

| No. | Parts No  | Name                      | Qty. |    |      |      | Remarks     |
|-----|-----------|---------------------------|------|----|------|------|-------------|
|     |           |                           | 1245 | -V | HL14 | HL30 |             |
| 41  |           | Screw                     | 2    | 2  | 2    | 2    |             |
| 42  | 71WF3-025 | Presser foot lifting link | 1    | 1  | 1    | 1    |             |
| 43  | 71WF3-026 | Link pin                  | 1    | 1  | 1    | 1    |             |
| 44  |           | Bearing                   | 1    | 1  | 1    | 1    |             |
| 45  |           | Spring                    | 6    | 6  | 6    | 6    |             |
| 46  | 71WF3-027 | Pin(long)                 | 3    | 3  | 3    | 3    |             |
| 47  | 71WF3-028 | Upper feed crank(II)      | 1    | 1  | 1    | 1    |             |
| 48  | 71WF3-029 | Shaft                     | 1    | 1  | 1    | 1    | GB65-M5 1 2 |
| 49  |           | Screw                     | 1    | 1  | 1    | 1    |             |
| 50  |           | Bearing                   | 2    | 2  | 2    | 2    |             |
| 51  | 71WF3-030 | Washer                    | 2    | 2  | 2    | 2    | Φ5 Φ8 7 .7  |
| 52  |           | Spring                    | 1    | 1  | 1    | 1    | GB894. 1-5  |
| 53  | 71WF3-031 | Upper feed crank(III)     | 1    | 1  | 1    | 1    |             |
| 54  | 71WF3-032 | Shaft                     | 1    | 1  | 1    | 1    |             |
| 55  |           | Screw                     | 1    | 1  | 1    | 1    |             |
| 56  |           | Bearing                   | 2    | 2  | 2    | 2    | GB77-M6 8   |
| 57  | 71WF3-033 | Washer                    | 1    | 1  | 1    | 1    | Φ6 Φ9 7 .7  |
| 58  |           | Spring                    | 1    | 1  | 1    | 1    |             |
| 59  | 71WF3-034 | Movable plate             | 1    | 1  | 1    | 1    | GB894. 1-6  |
| 60  | 71WF3-035 | Link                      | 1    | 1  | 1    | 1    |             |
| 61  | 71WF3-036 | Presser foot link         | 2    | 2  | 2    | 2    |             |
| 62  | 71WF3-037 | Pin(short)                | 1    | 1  | 1    | 1    | GB77-M6 8   |
| 63  | 71WF3-038 | Slide block               | 1    | 1  | 1    | 1    | Φ7 Φ10 7 .5 |
| 64  | 71WF3-039 | Sliding guide             | 1    | 1  | 1    | 1    |             |
| 65  |           | Screw                     | 2    | 2  | 2    | 2    | GB894. 1-7  |
| 66  | 71WF2-022 | Finger guard              | 1    | 1  | /    | /    |             |
| 67  | 71WF2-023 | Screw                     | 2    | 2  | 2    | 2    |             |
| 68  | 71WF2-024 | Finger guard set plate    | 1    | 1  | 1    | 1    |             |
| 69  |           | Screw                     | 2    | 2  | 2    | 2    |             |
| 70  |           | Washer                    | 2    | 2  | 2    | 2    |             |
| 71  | 99WF2-003 | Finger guard              | /    | /  | 1    | 1    |             |
| 72  | 99WF3-004 | Walking foot bar          | /    | /  | 1    | 1    | GB65-M4 8   |
| 73  | 99WF4-001 | Presser foot bar          | /    | /  | 1    | 1    | GB65-M4 8   |
|     |           |                           |      |    |      |      | GB65-M5 8   |
|     |           |                           |      |    |      |      | GB97. 1-5   |

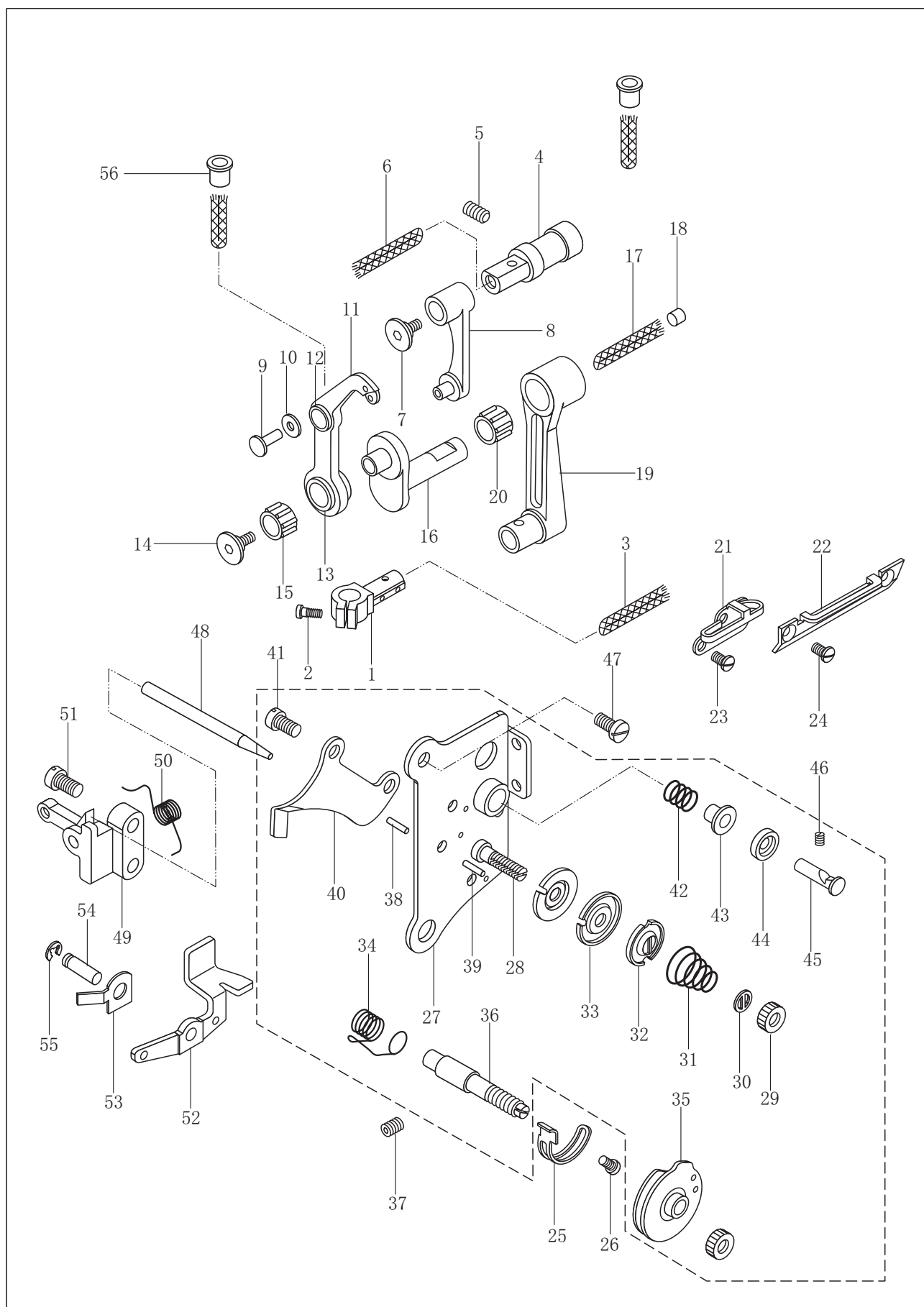
### 3. Presser foot lifting components



### 3. Presser foot lifting components

| No. | Parts No   | Name                       | Qty. |    |      |      | Remarks       |
|-----|------------|----------------------------|------|----|------|------|---------------|
|     |            |                            | 1245 | -V | HL14 | HL30 |               |
| 1   | 71WF1-001  | Needle bar                 | 1    | 1  | 1    | 1    |               |
| 2   | 71WF1-002  | Needle bar thread guide    | 1    | 1  | 1    | 1    |               |
| 3   | 13WF1-015  | Screw                      | 1    | 1  | 1    | 1    | M3 5          |
| 4   |            | Needle                     | 1    | 1  | 1    | 1    | DP 3 5 LR     |
| 5   | 71WF1-003  | Screw                      | 1    | 1  | 1    | 1    | M3 5          |
| 6   | 71WF4-016  | Knee lifter lever          | 1    | 1  | /    | /    |               |
| 7   | 71WF4-017  | Screw                      | 1    | 1  | 1    | 1    |               |
| 8   | 71WF4-018  | Spring                     | 1    | 1  | 1    | 1    |               |
| 9   | 71WF4-019  | Knee lifter drawing bar    | 1    | 1  | /    | /    |               |
| 10  |            | Nut                        | 1    | 1  | 1    | /    |               |
| 11  | 71WF4-020  | Connector                  | 1    | 1  | 1    | /    |               |
| 12  | 71WF4-021  | Screw                      | 1    | 1  | 1    | /    |               |
| 13  | 71WF4-022  | Movable plate complete     | 1    | 1  | /    | /    |               |
| 14  | 71WF4-023  | Screw                      | 1    | 1  | 1    | /    |               |
| 15  | 71WF4-024  | Washer                     | 1    | 1  | 1    | /    |               |
| 16  | 71WF4-039  | Presser foot lift bent bar | 1    | 1  | 1    | 1    |               |
| 17  | 71WF4-040  | Releasing bent bar         | 1    | 1  | 1    | 1    |               |
| 18  |            | Screw                      | 3    | 3  | 3    | 3    |               |
| 19  | 71WF3-040  | Presser foot lift cam      | 1    | 1  | 1    | 1    | GB6170-M5     |
| 20  | 13WF1-018  | Screw                      | 2    | 2  | 2    | 2    | GB79-M5 5     |
| 21  | 71WF3-041  | Link                       | 1    | 1  | 1    | 1    |               |
| 22  |            | Bearing                    | 1    | 1  | 1    | 1    | M6 0 . 75     |
| 23  | 71WF3-042  | Stop ring                  | 2    | 2  | 2    | 2    |               |
| 24  |            | Oil cup                    | 1    | 1  | 1    | 1    | Φ22 Φ26 1 2.6 |
| 25  | 71WF3-043  | Pin                        | 1    | 1  | 1    | 1    |               |
| 26  | 71WF3-044  | Washer                     | 1    | 1  | 1    | 1    |               |
| 27  | 71WF3-045  | Washer                     | 2    | 2  | 2    | 2    | GB1152-89 M6  |
| 28  |            | Screw(front)               | 1    | 1  | 1    | 1    |               |
| 29  |            | Screw(rear)                | 1    | 1  | 1    | 1    |               |
| 30  | 71WF3-046  | Adjusting crank            | 1    | 1  | 1    | 1    |               |
| 31  |            | Screw                      | 2    | 2  | 2    | 2    | GB5781-M5 8   |
| 32  | 71WF3-083  | Block                      | 1    | 1  | 1    | 1    | GB5781-M5 1 0 |
| 33  | 71WF3-084  | Set bracket                | 1    | 1  | 1    | 1    |               |
| 34  |            | Screw                      | 2    | 2  | 2    | 2    |               |
| 35  |            | Screw                      | 2    | 2  | 2    | 2    | GB65-M5 1 2   |
| 36  |            | Washer                     | 2    | 2  | 2    | 2    |               |
| 37  | 99WF1-003  | Needle bar                 | /    | /  | 1    | 1    |               |
| 38  | 99WF4-002  | Knee lifter lever          | /    | /  | 1    | /    | GB70-M4 8     |
| 39  | 100WF4-001 | Knee lifter lever          | /    | /  | /    | 1    | GB70-M4 1 6   |
| 40  | 99WF4-003  | Knee lifter drawing bar    | /    | /  | 1    | /    | GB97. 1-4     |
| 41  | 99WF4-004  | Movable plate complete     | /    | /  | 1    | /    |               |

#### 4.Thread take-up and thread tension components

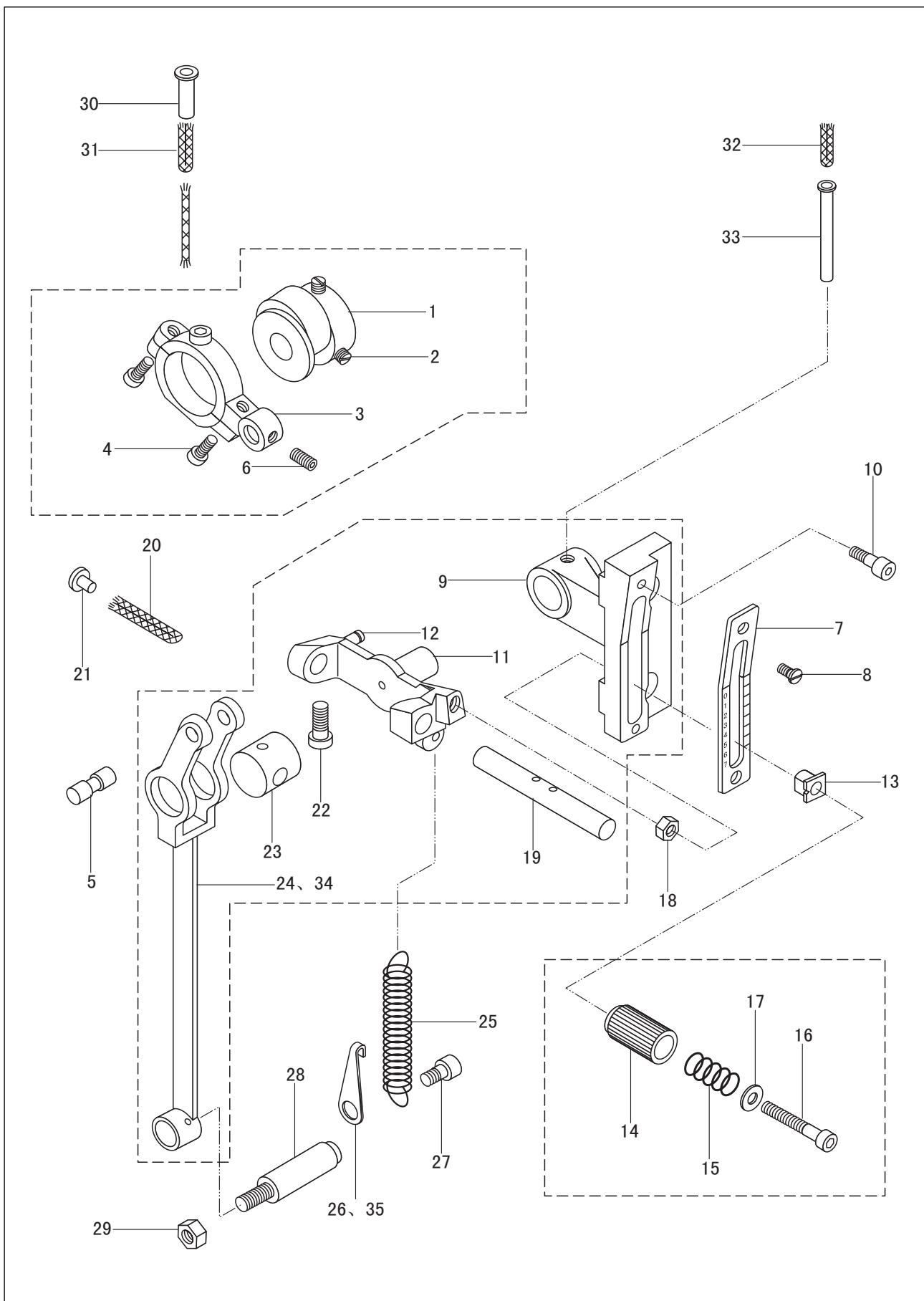


#### 4.Thread take-up and thread tension components

| No. | Parts No   | Name                              | Qty. |    |      |      | Remarks       |
|-----|------------|-----------------------------------|------|----|------|------|---------------|
|     |            |                                   | 1245 | -V | HL14 | HL30 |               |
| 1   | 71WF1-004  | Needle bar connector              | 1    | 1  | 1    | 1    |               |
| 2   | 71WF1-005  | Screw                             | 1    | 1  | 1    | 1    |               |
| 3   |            | Oil wick                          | 1    | 1  | 1    | 1    |               |
| 4   | 71WF1-006  | Pin shaft                         | 1    | 1  | 1    | 1    |               |
| 5   |            | Screw                             | 1    | 1  | 1    | 1    |               |
| 6   |            | Oil wick                          | 1    | 1  | 1    | 1    |               |
| 7   | 71WF1-007  | Screw                             | 1    | 1  | 1    | 1    |               |
| 8   | 71WF1-008A | Crank                             | 1    | 1  | 1    | 1    |               |
| 9   | 71WF1-008B | Stud                              | 1    | 1  | 1    | 1    | M4 10         |
| 10  | 71WF1-008C | Washer                            | 1    | 1  | 1    | 1    |               |
| 11  | 71WF1-008D | Thread take-up lever              | 1    | 1  | 1    | 1    |               |
| 12  | 71WF1-008E | Link bushing                      | 1    | 1  | 1    | 1    | GB77-M6 8     |
| 13  | 71WF1-008F | Bearing bushing                   | 1    | 1  | 1    | 1    |               |
| 14  | 71WF1-007  | Screw                             | 1    | 1  | 1    | 1    |               |
| 15  |            | Bearing                           | 1    | 1  | 1    | 1    |               |
| 16  | 71WF1-009  | Hinge shaft                       | 1    | 1  | 1    | 1    |               |
| 17  |            | Oil wick                          | 1    | 1  | 1    | 1    |               |
| 18  | 71WF1-010  | Plug                              | 1    | 1  | 1    | 1    |               |
| 19  | 71WF1-011  | Needle bar link                   | 1    | 1  | 1    | 1    |               |
| 20  |            | Bearing                           | 1    | 1  | 1    | 1    |               |
| 21  | 71WF2-011  | Thread guide(middle)              | 1    | 1  | 1    | 1    |               |
| 22  | 71WF2-012  | Thread guide(lower)               | 1    | 1  | 1    | 1    | Φ 7 Φ 10 7.5  |
| 23  | 71WF2-013  | Screw                             | 1    | 1  | 1    | 1    |               |
| 24  |            | Screw                             | 1    | 1  | 1    | 1    |               |
| 25  | 71WF2-016  | Stop plate                        | 1    | 1  | 1    | 1    |               |
| 26  |            | Screw                             | 1    | 1  | 1    | 1    |               |
| 27  | 71WF2-021A | Set plate                         | 1    | 1  | 1    | 1    | Φ 9 Φ 12 12.7 |
| 28  | 71WF2-021B | Bolt                              | 1    | 1  | 1    | 1    |               |
| 29  | 71WF2-021C | Nut                               | 2    | 2  | 2    | 2    |               |
| 30  | 71WF2-021D | Stop washer                       | 1    | 1  | 1    | 1    | M5 7          |
| 31  | 71WF2-021E | Spring                            | 1    | 1  | 1    | 1    | GB68-M4 8     |
| 32  | 71WF2-021F | Thread releasing disc             | 1    | 1  | 1    | 1    |               |
| 33  | 71WF2-021G | Thread tension disc               | 2    | 2  | 2    | 2    | GB65-M4 6     |
| 34  | 71WF2-021H | Thread take-up spring             | 1    | 1  | 1    | 1    |               |
| 35  | 71WF2-021I | Thread control plate assembly     | 1    | 1  | 1    | 1    |               |
| 36  | 71WF2-021J | Bolt                              | 1    | 1  | 1    | 1    |               |
| 37  |            | Screw                             | 1    | 1  | 1    | 1    |               |
| 38  | 71WF2-021K | Thread guide pin                  | 2    | 2  | 2    | 2    |               |
| 39  | 71WF2-021L | Thread releasing pin              | 1    | 1  | 1    | 1    |               |
| 40  | 71WF2-021M | Thread releasing plate            | 1    | 1  | 1    | 1    |               |
| 41  | 71WF2-021N | Screw                             | 2    | 2  | 2    | 2    |               |
| 42  | 71WF2-021O | Spring                            | 1    | 1  | 1    | 1    |               |
| 43  | 71WF2-021P | Thread tension cap                | 1    | 1  | 1    | 1    |               |
| 44  | 71WF2-021Q | Thread tension disc               | 1    | 1  | 1    | 1    | GB77-M5 8     |
| 45  | 71WF2-021R | Pin                               | 1    | 1  | 1    | 1    |               |
| 46  |            | Screw                             | 1    | 1  | 1    | 1    |               |
| 47  |            | Screw                             | 1    | 1  | 1    | 1    |               |
| 48  | 71WF2-022  | Thread releasing bar              | 1    | 1  | 1    | 1    | SM9/64" 40    |
| 49  | 71WF4-033  |                                   | 1    | 1  | 1    | 1    |               |
| 50  | 71WF4-034  | Spring                            | 1    | 1  | 1    | 1    |               |
| 51  | 71WF4-035  | Screw                             | 2    | 2  | 2    | 2    |               |
| 52  | 71WF4-036  | Thread releasing lever            | 1    | 1  | 1    | 1    |               |
| 53  | 71WF4-037  | Spring plate                      | 1    | 1  | 1    | 1    | GB73-M4 8     |
| 54  | 71WF3-053  | Lever stud                        | 1    | 1  | 1    | 1    | GB67-M4 10    |
| 55  |            | Split ring                        | 1    | 1  | 1    | 1    |               |
| 56  | 71WF2-026  | Thread releasing bracket assembly | 1    | 1  | 1    | 1    |               |
|     |            | Oil pipe                          | 2    | 2  | 2    | 2    |               |
|     |            |                                   |      |    |      |      | M5 6          |
|     |            |                                   |      |    |      |      | GB896-86 5    |



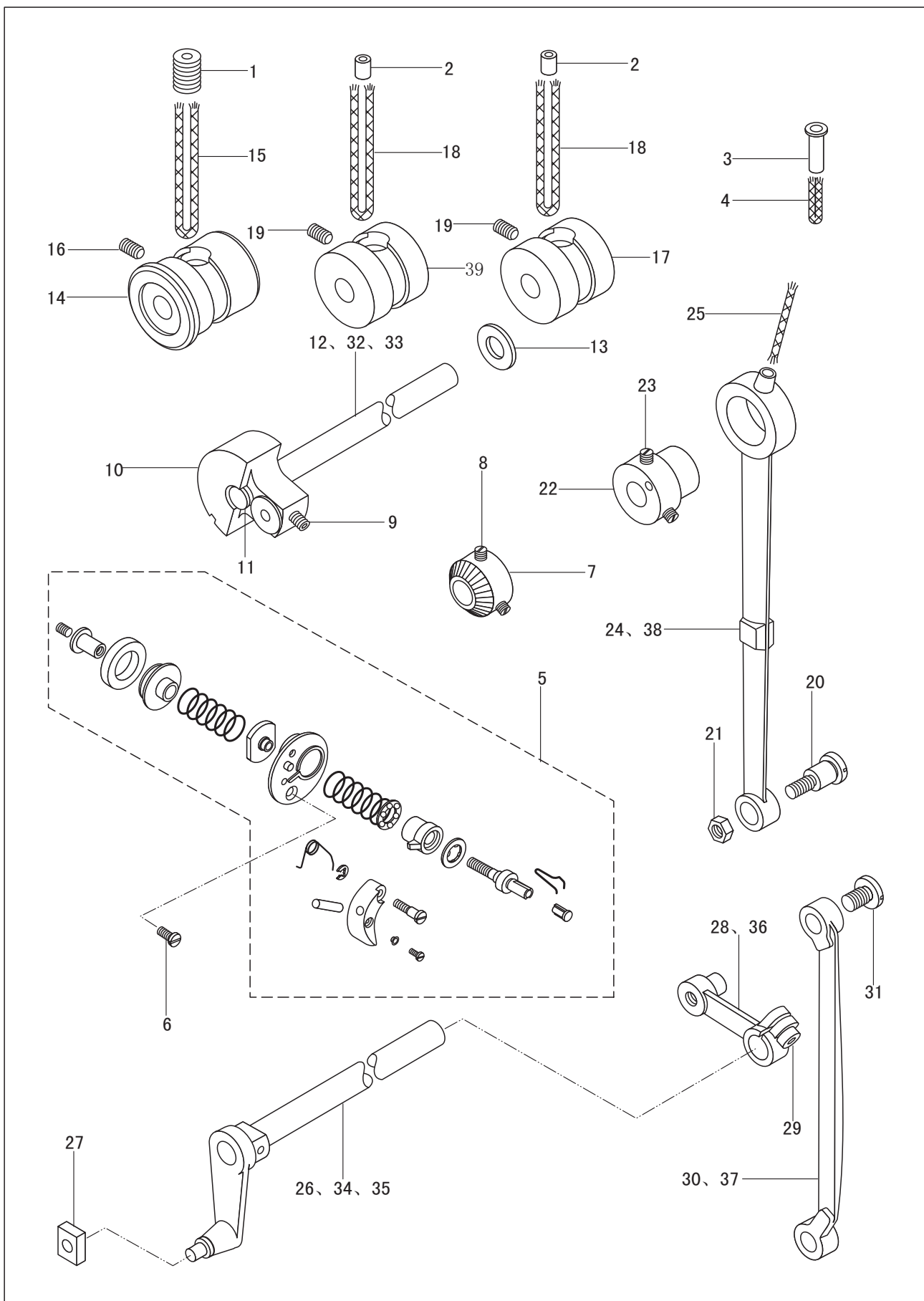
## 5. Feed adjustment components



## 5.Feed adjustment components

| No. | Parts No   | Name                            | Qty. |    |      |      | Remarks       |
|-----|------------|---------------------------------|------|----|------|------|---------------|
|     |            |                                 | 1245 | -V | HL14 | HL30 |               |
| 1   | 71WF3-047  | Feed cam                        | 1    | 1  | 1    | 1    |               |
| 2   | 22T2-005B3 | Screw                           | 2    | 2  | 2    | 2    |               |
| 3   | 71WF3-048  | Feed crank                      | 1    | 1  | 1    | 1    |               |
| 4   |            | Screw                           | 2    | 2  | 2    | 2    |               |
| 5   | 71WF3-049  | Link stud                       | 1    | 1  | 1    | 1    |               |
| 6   |            | Screw                           | 1    | 1  | 1    | 1    |               |
| 7   | 71WF3-050  | Stitch length label             | 1    | 1  | 1    | 1    |               |
| 8   |            | Screw                           | 2    | 2  | 2    | 2    |               |
| 9   | 71WF3-051  | Stitch length bracket           | 1    | 1  | 1    | 1    | SM1/4" 40     |
| 10  |            | Screw                           | 2    | 2  | 2    | 2    |               |
| 11  | 71WF3-052  | Stitch length adjusting bracket | 1    | 1  | 1    | 1    | GB70-M5 12    |
| 12  | 71WF3-053  | Stud                            | 1    | 1  | 1    | 1    |               |
| 13  | 71WF3-054  | Stop bushing                    | 1    | 1  | 1    | 1    | GB77-M4 5     |
| 14  | 71WF3-055  | Adjusting bar                   | 1    | 1  | 1    | 1    |               |
| 15  | 71WF3-056  | Spring                          | 1    | 1  | 1    | 1    | GB68-M3 8     |
| 16  | 71WF3-057  | Screw                           | 1    | 1  | 1    | 1    |               |
| 17  | 71WF3-058  | Washer                          | 1    | 1  | 1    | 1    | GB70-M6 16    |
| 18  |            | Nut                             | 1    | 1  | 1    | 1    |               |
| 19  | 71WF3-059  | Sliding shaft                   | 1    | 1  | 1    | 1    |               |
| 20  |            | Oil wick                        | 1    | 1  | 1    | 1    |               |
| 21  | 71WF1-013  | Filter                          | 1    | 1  | 1    | 1    |               |
| 22  | 71WF3-060  | Screw                           | 1    | 1  | 1    | 1    |               |
| 23  | 71WF3-061  | Sliding guide                   | 1    | 1  | 1    | 1    |               |
| 24  | 71WF3-062  | Feed link                       | 1    | 1  | /    | /    |               |
| 25  | 71WF3-063  | Spring                          | 1    | 1  | 1    | 1    | GB6172-86 M6  |
| 26  | 71WF3-064  | Spring hook                     | 1    | 1  | /    | /    |               |
| 27  |            | Screw                           | 1    | 1  | 1    | 1    |               |
| 28  | 71WF3-013  | Crank stud                      | 1    | 1  | 1    | 1    |               |
| 29  | 71WF3-014  | Nut                             | 1    | 1  | 1    | 1    |               |
| 30  | 71WF2-027  | Oil tube                        | 1    | 1  | 1    | 1    |               |
| 31  |            | Oil wick                        | 1    | 1  | 1    | 1    |               |
| 32  | 71WF2-028  | Oil tube                        | 1    | 1  | 1    | 1    |               |
| 33  |            | Oil wick                        | 1    | 1  | 1    | 1    |               |
| 34  | 99WF3-005  | Feed link                       | /    | /  | 1    | 1    | GB70-85 M6 10 |
| 35  | 99WF3-006  | Spring hook                     | /    | /  | 1    | 1    | SM17/64" 28   |

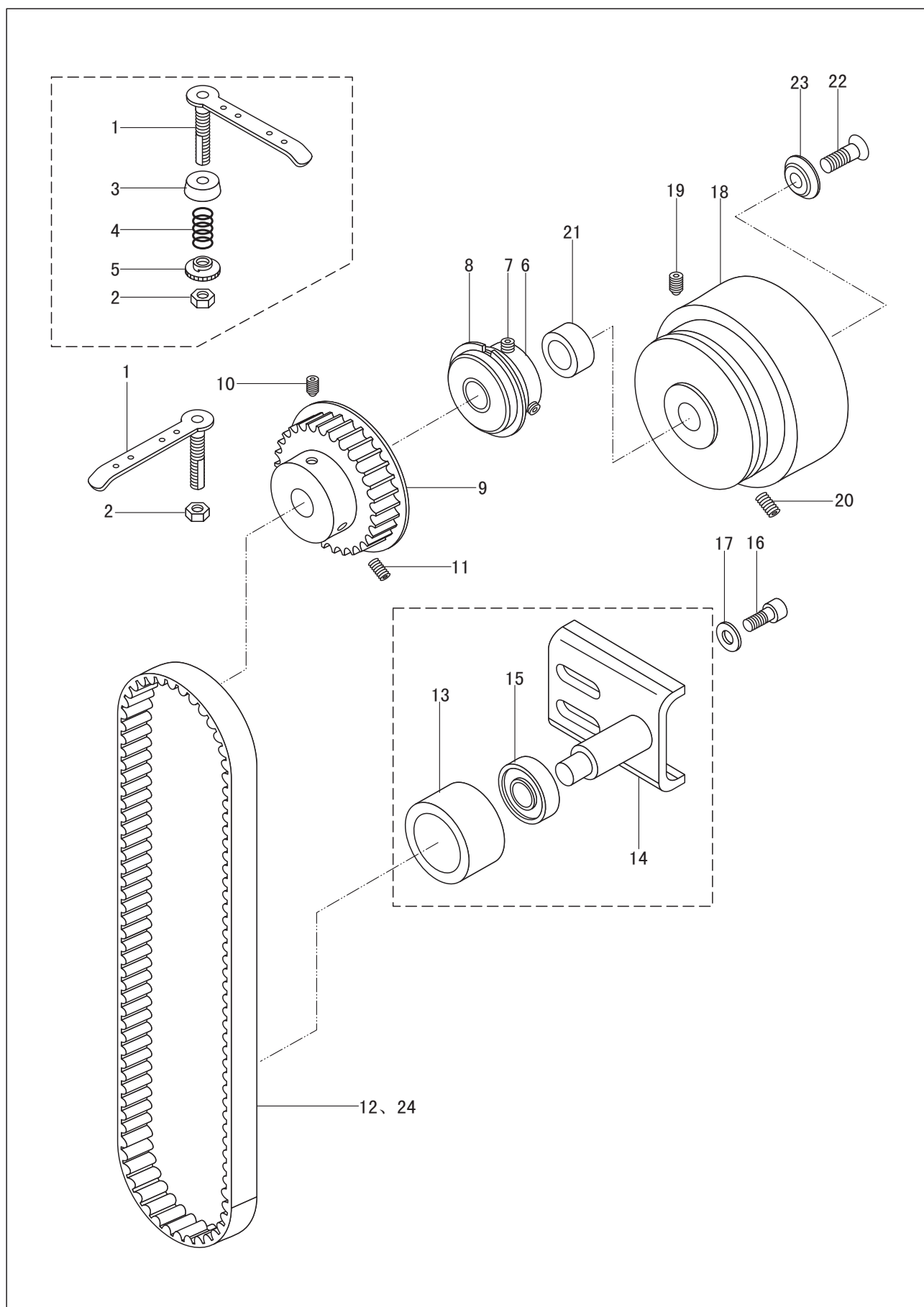
## 6. Upper shaft and rocking shaft components



## 6.Upper shaft and rocking shaft components

| No. | Parts No   | Name                        | Qty. |    |      |      | Remarks      |
|-----|------------|-----------------------------|------|----|------|------|--------------|
|     |            |                             | 1245 | -V | HL14 | HL30 |              |
| 1   | 71WF2-029  | Oil plug                    | 1    | 1  | 1    | 1    |              |
| 2   | 71WF2-030  | Oil plug                    | 1    | 1  | 1    | 1    |              |
| 3   | 71WF2-027  | Oil pipe                    | 1    | 1  | 1    | 1    |              |
| 4   |            | Oil wick                    | 1    | 1  | 1    | 1    |              |
| 5   | 71WF2-034  |                             | 1    | 1  | 1    | 1    |              |
| 6   |            | Screw                       | 1    | 1  | 1    | 1    |              |
| 7   | 71WF2-035  | Friction wheel              | 1    | 1  | 1    | 1    | GB68-M4 8    |
| 8   | 13WF1-027  | Screw                       | 2    | 2  | 2    | 2    |              |
| 9   |            | Screw                       | 2    | 2  | 2    | 2    | M6 0 .75     |
| 10  | 71WF1-012  | Needle bar crank            | 1    | 1  | 1    | 1    | GB77-M6 5    |
| 11  | 71WF1-013  | Oil plug                    | 1    | 1  | 1    | 1    |              |
| 12  | 71WF1-014  | Upper shaft                 | 1    | 1  | /    | /    |              |
| 13  | 71WF1-015  | Washer                      | 1    | 1  | 1    | 1    |              |
| 14  | 71WF1-016  | Upper shaft bushing(front)  | 1    | 1  | 1    | 1    |              |
| 15  |            | Oil wick                    | 1    | 1  | 1    | 1    |              |
| 16  |            | Screw                       | 1    | 1  | 1    | 1    |              |
| 17  | 71WF1-017  | Upper shaft bushing(middle) | 1    | 1  | 1    | 1    |              |
| 18  |            | Oil wick                    | 1    | 1  | 1    | 1    | GB77-M6 8    |
| 19  |            | Screw                       | 1    | 1  | 1    | 1    |              |
| 20  | 71WF3-078  | Screw                       | 1    | /  | 1    | 1    |              |
| 21  | 71WF3-079  | Nut                         | 1    | /  | 1    | 1    |              |
| 22  | 71WF3-080  | Feed dog lift cam           | 1    | /  | 1    | 1    | GB77-M6 8    |
| 23  | 71WF3-081  | Screw                       | 2    | /  | 2    | 2    |              |
| 24  | 71WF3-082  | Feed dog lift link          | 1    | /  | /    | /    | SM11/64" 2 8 |
| 25  |            | Oil wick                    | 1    | /  | 1    | 1    |              |
| 26  | 71WF3-001  | Rocking shaft assembly      | 1    | 1  | /    | /    |              |
| 27  | 71WF3-002  | Slide block                 | 1    | 1  | 1    | 1    |              |
| 28  | 71WF3-009  | Rocking shaft driving cam   | 1    | 1  | /    | /    |              |
| 29  |            | Screw                       | 1    | 1  | 1    | 1    |              |
| 30  | 71WF3-010  | Rocking shaft link          | 1    | 1  | /    | /    |              |
| 31  | 71WF3-011  | Screw                       | 1    | 1  | 1    | 1    |              |
| 32  | 99WF1-001  | Upper shaft                 | /    | /  | 1    | /    |              |
| 33  | 100WF1-001 | Upper shaft                 | /    | /  | /    | 1    | GB70-M8 1 6  |
| 34  | 99WF3-001  | Rocking shaft assembly      | /    | /  | 1    | /    |              |
| 35  | 100WF3-001 | Rocking shaft assembly      | /    | /  | /    | 1    | SM17/64" 3 2 |
| 36  | 99WF3-002  | Rocking shaft driving cam   | /    | /  | 1    | 1    |              |
| 37  | 99WF3-003  | Rocking shaft link          | /    | /  | 1    | 1    |              |
| 38  | 99WF3-009  | Feed dog lifting link       | /    | /  | 1    | 1    |              |
| 39  | 100WF1-003 | Upper shaft bushing(middle) | /    | /  | /    | 1    |              |

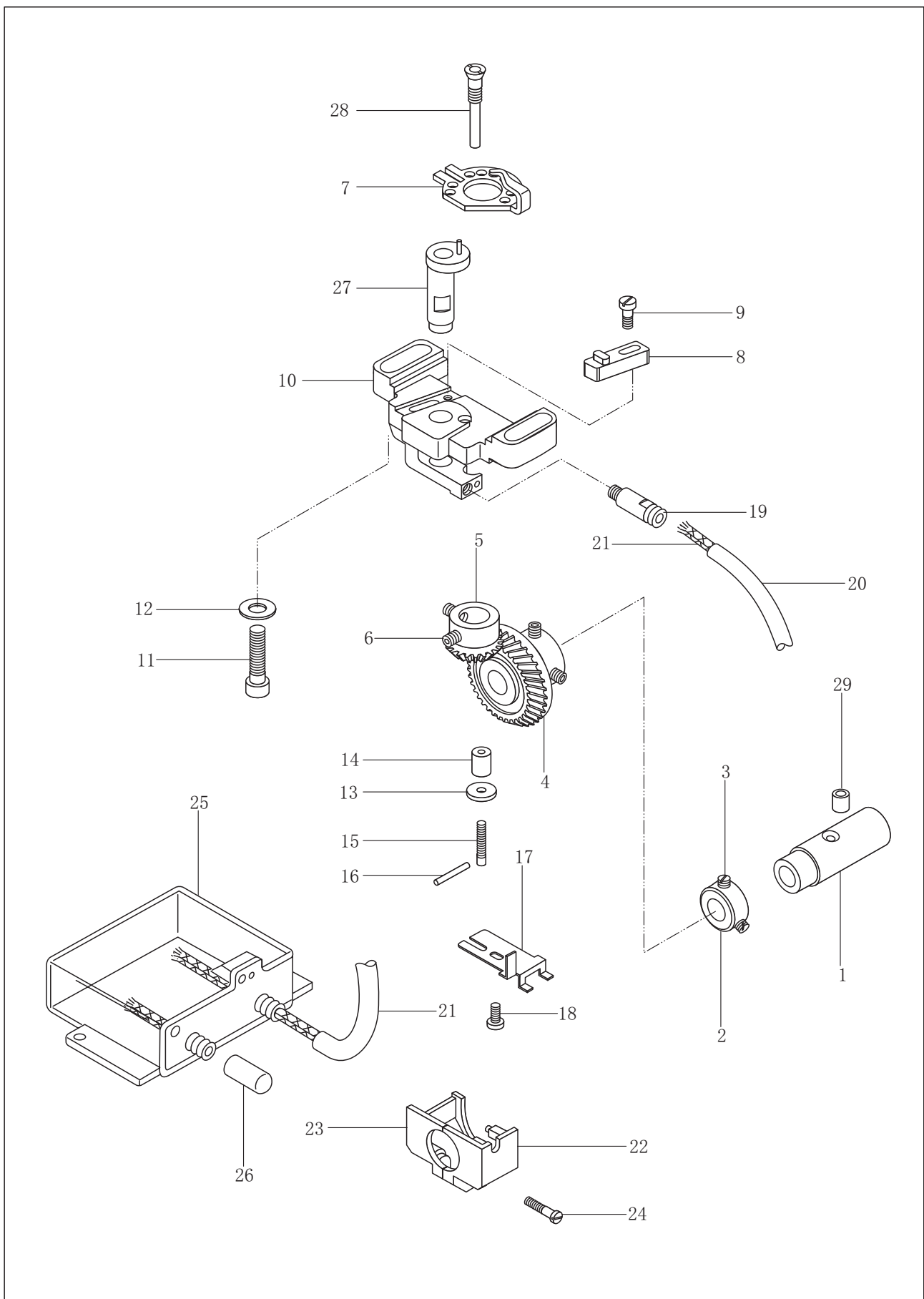
## 7. Timing belt components



## 7. Timing belt components

| No. | Parts No.  | Name                      | Qty. |    |      |      | Remarks  |
|-----|------------|---------------------------|------|----|------|------|--|
|     |            |                           | 1245 | -V | HL14 | HL30 |  |
| 1   | 71WF2-014  | Thread guide bar assembly | 1    | 1  | 1    | 1    | GB6170-M6  |
| 2   |            | Nut                       | 1    | 1  | 1    | 1    |  |
| 3   | 71WF2-015A | Thread tension disc       | 1    | 1  | 1    | 1    |  |
| 4   | 71WF2-015B | Thread tension spring     | 1    | 1  | 1    | 1    |  |
| 5   | 71WF2-015C | Thread tension nut        | 1    | 1  | 1    | 1    |  |
| 6   | 71WF1-018  | Collar                    | 1    | 1  | 1    | 1    |  |
| 7   | 19WF3-005  | Screw                     | 2    | 2  | 2    | 2    |  |
| 8   |            | Bearing                   | 1    | 1  | 1    | 1    |  |
| 9   | 71WF1-019  | Timing pulley assembly    | 1    | 1  | 1    | 1    |  |
| 10  |            | Screw                     | 1    | 1  | 1    | 1    |  |
| 11  |            | Screw                     | 1    | 1  | 1    | 1    | M6 0.75<br>6002-2NR 15 32 9<br>GB78-M6 0.75<br>GB77-M6 0.75<br>270H063<br>6000-2Z<br>GB70-M5 1 2<br>GB97.1-5<br>GB78-M6 0.75<br>GB77-M6 0.75<br>GB68-M6 2 0<br>285H063 |
| 12  |            | Timing belt               | 1    | 1  | /    | /    |  |
| 13  | 71WF1-021A | Tension wheel             | 1    | 1  | 1    | 1    |  |
| 14  | 71WF1-021B | Tension wheel bracket     | 1    | 1  | 1    | 1    |  |
| 15  |            | Bearing                   | 1    | 1  | 1    | 1    |  |
| 16  |            | Screw                     | 2    | 2  | 2    | 2    |  |
| 17  |            | Washer                    | 2    | 2  | 2    | 2    |  |
| 18  | 71WF1-022  | Hand wheel                | 1    | 1  | 1    | 1    |  |
| 19  |            | Screw                     | 1    | 1  | 1    | 1    |  |
| 20  |            | Screw                     | 1    | 1  | 1    | 1    |  |
| 21  | 71WF1-023  | Collar                    | 1    | 1  | 1    | 1    |  |
| 22  |            | Screw                     | 1    | 1  | 1    | 1    |  |
| 23  | 71WF1-024  | Washer                    | 1    | 1  | 1    | 1    |  |
| 24  |            | Timing belt               | /    | /  | 1    | 1    |  |

## 8. Rotating hook saddle components

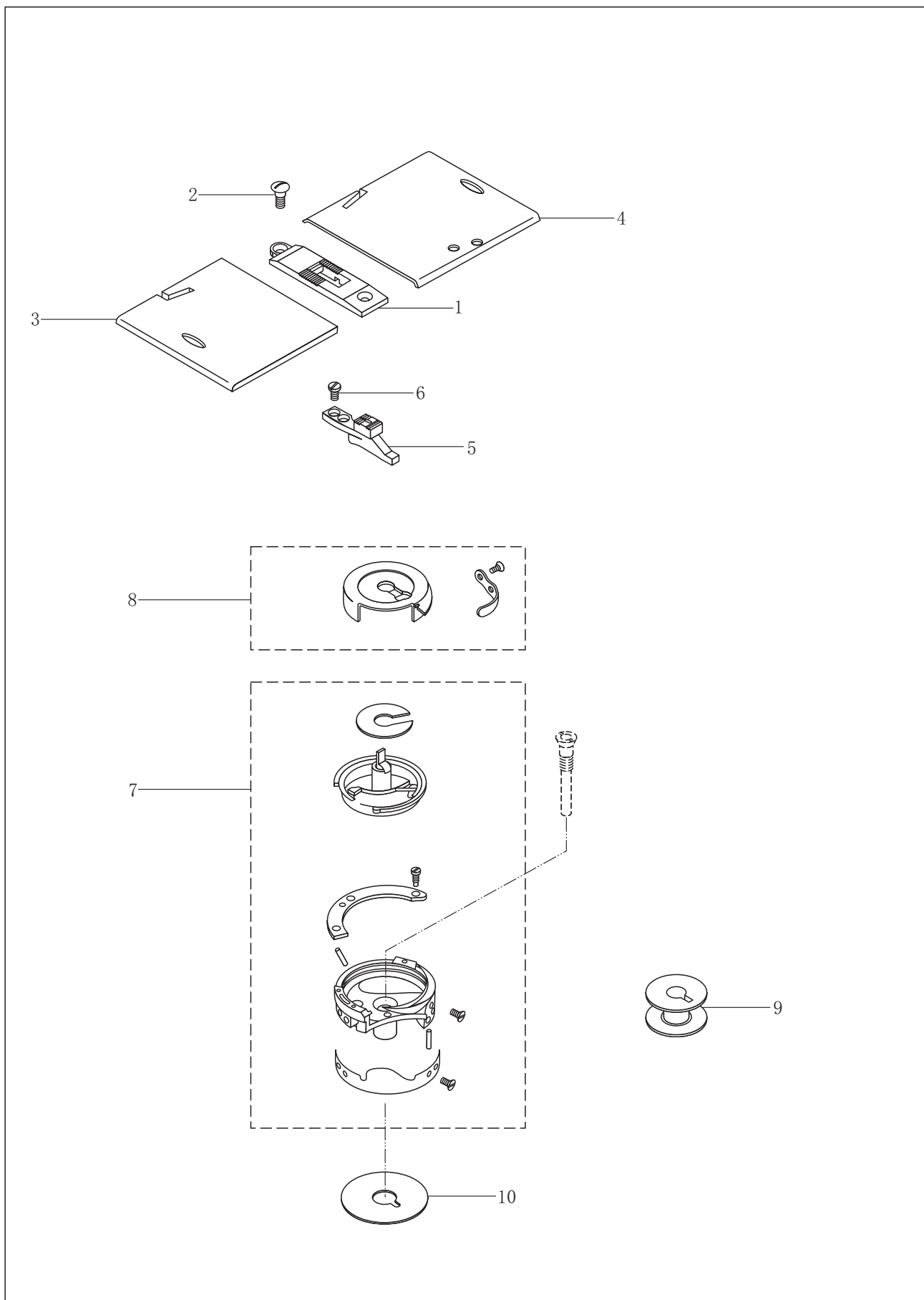


## 8. Rotating hook saddle components

| No. | Parts No. | Name                       | Qty. |    |      |      | Remarks  |
|-----|-----------|----------------------------|------|----|------|------|--|
|     |           |                            | 1245 | -V | HL14 | HL30 |  |
| 1   | 71WF1-028 | Lower shaft bushing(front) | 1    | 1  | 1    | 1    | M5<br><br>M6 0.75<br><br>GB65-M4 8<br><br>GB70-85 M6 25<br><br>GB879-86 1 16<br><br>GB65-M4 8<br><br>Φ 3 L=400<br><br>GB65-M4 14 |
| 2   | 71WF1-031 | Collar                     | 1    | 1  | 1    | 1    |  |
| 3   | 22WF4-005 | Screw                      | 2    | 2  | 2    | 2    |  |
| 4   | 71WF1-032 | Lower shaft gear           | 1    | 1  | 1    | 1    |  |
| 5   | 71WF1-033 | Rotating hook gear         | 1    | 1  | 1    | 1    |  |
| 6   | 19WF3-005 | Screw                      | 4    | 4  | 4    | 4    |  |
| 7   | 71WF1-034 | Hook opener                | 1    | 1  | 1    | 1    |  |
| 8   | 71WF1-035 | Adjusting plate assembly   | 1    | 1  | 1    | 1    |  |
| 9   |           | Adjusting screw            | 1    | 1  | 1    | 1    |  |
| 10  | 71WF1-036 | Rotating hook saddle       | 1    | 1  | 1    | 1    |  |
| 11  |           | Screw                      | 2    | 2  | 2    | 2    |  |
| 12  | 71WF1-037 | Washer                     | 2    | 2  | 2    | 2    |  |
| 13  | 71WF1-038 | Oil felt(1)                | 1    | 1  | 1    | 1    |  |
| 14  | 71WF1-039 | Oil felt(2)                | 1    | 1  | 1    | 1    |  |
| 15  | 71WF1-040 | Screw bar                  | 1    | 1  | 1    | 1    |  |
| 16  |           | Pin                        | 1    | 1  | 1    | 1    |  |
| 17  | 71WF1-041 | Cover plate                | 1    | 1  | 1    | 1    |  |
| 18  |           | Screw                      | 1    | 1  | 1    | 1    |  |
| 19  | 71WF1-042 | Joint                      | 1    | 1  | 1    | 1    |  |
| 20  | 71WF1-043 | Oil pipe                   | 1    | 1  | 1    | 1    |  |
| 21  |           | Oil wick                   | 1    | 1  | 1    | 1    |  |
| 22  | 71WF1-044 | Gear cover(1)              | 1    | 1  | 1    | 1    |  |
| 23  | 71WF1-045 | Gear cover(2)              | 1    | 1  | 1    | 1    |  |
| 24  |           | Screw                      | 1    | 1  | 1    | 1    |  |
| 25  | 71WF1-047 | Oil box                    | 1    | 1  | 1    | 1    |  |
| 26  | 71WF1-049 | Oil hole cover             | 1    | 1  | 1    | 1    |  |
| 27  | 71WF1-061 | Rotating hook shaft        | 1    | 1  | 1    | 1    |  |
| 28  | 71WF1-062 | Screw                      | 1    | 1  | 1    | 1    |  |
| 29  | 71WF2-030 | Oil plug                   | 1    | 1  | 1    | 1    |  |



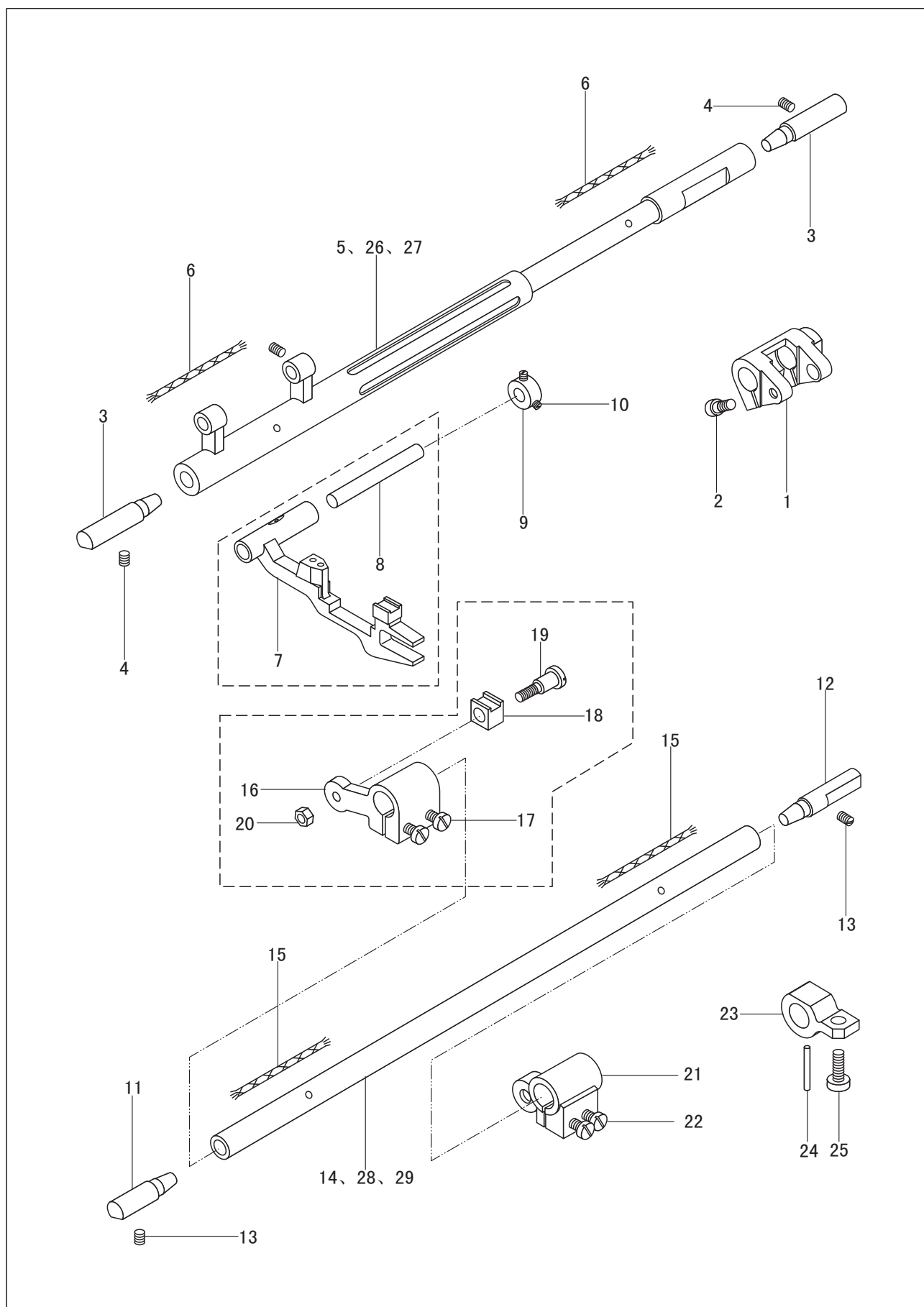
## 9. Needle plate and hook components



## 9. Needle plate and hook components

| No. | Parts No. | Name                   | Qty. |    |      |      | Remarks                          |
|-----|-----------|------------------------|------|----|------|------|----------------------------------|
|     |           |                        | 1245 | -V | HL14 | HL30 |                                  |
| 1   | 71WF2-017 | Needle plate           | 1    | /  | 1    | 1    | SM11/64" 40                      |
|     | 77WF7-001 | Needle plate           | /    | 1  | /    | /    |                                  |
| 2   | 71WF2-018 | Screw                  | 2    | 2  | 2    | 2    |                                  |
| 3   | 71WF2-019 | Slide plate(left)      | 1    | 1  | 1    | 1    |                                  |
| 4   | 71WF2-020 | Slide plate(right)     | 1    | 1  | 1    | 1    |                                  |
| 5   | 71WF3-070 | Feed dog               | 1    | /  | 1    | 1    |                                  |
|     | 77WF7-003 | Feed dog               | /    | 1  | /    | /    |                                  |
| 6   | J0. 0. 50 | Screw                  | 2    | 2  | 2    | 2    |                                  |
| 7   |           | Rotating hook assembly | 1    | 1  | 1    | 1    |                                  |
| 8   |           | Bobbin cap             | 1    | 1  | 1    | 1    |                                  |
| 9   | 71WF1-046 | Bobbin                 | 1    | 1  | 1    | 1    | SM1/8" 44<br>LRT1242-R<br>SCP545 |
| 10  | 71WF1-060 | Washer                 | 1    | 1  | 1    | 1    |                                  |

## 10. Lower feed components

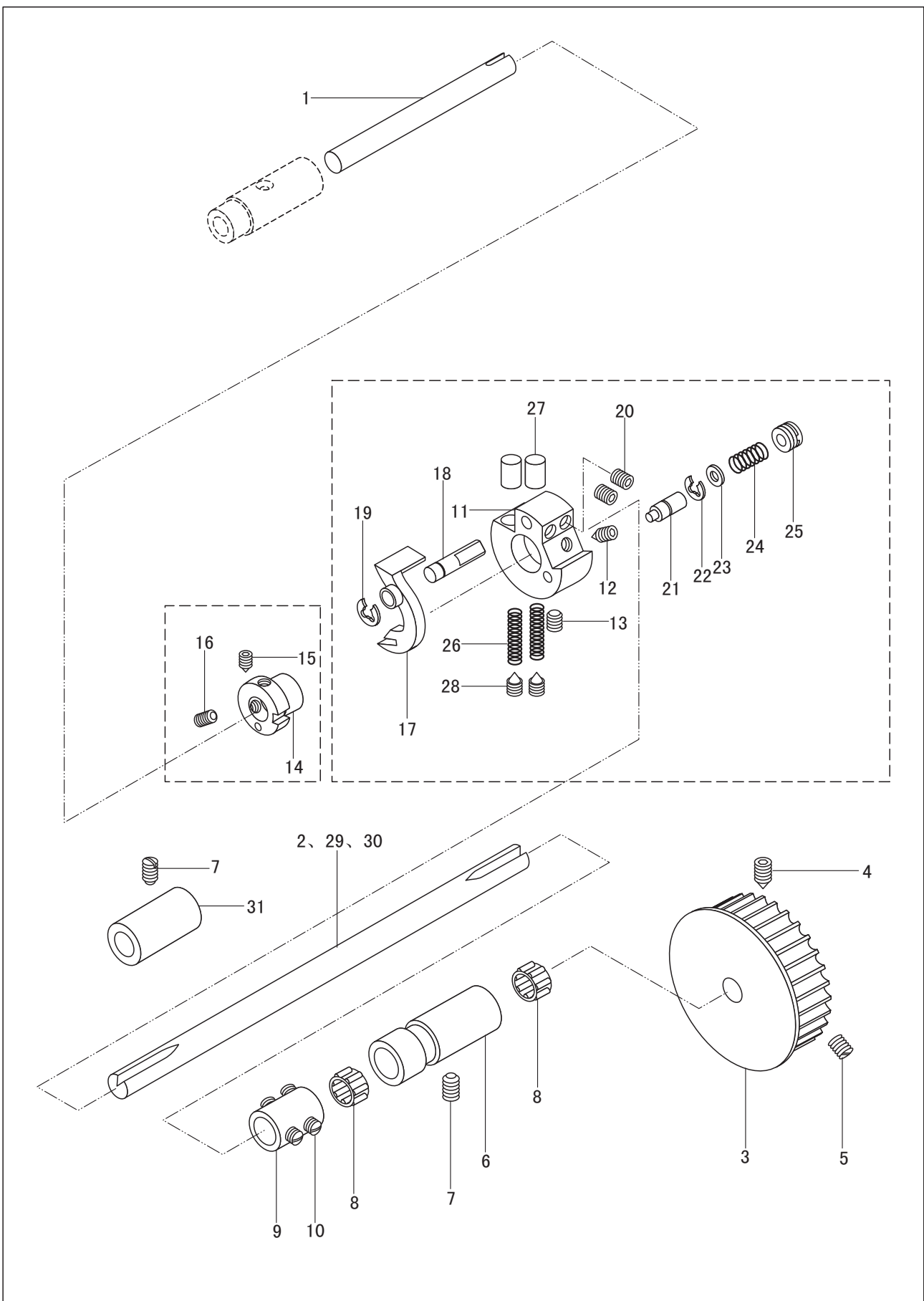


## 10. Lower feed components

| No. | Parts No.  | Name                                  | Qty. |    |      |      | Remarks    |
|-----|------------|---------------------------------------|------|----|------|------|------------|
|     |            |                                       | 1245 | -V | HL14 | HL30 |            |
| 1   | 71WF3-012  | Feed shaft crank                      | 1    | 1  | 1    | 1    |            |
| 2   |            | Screw                                 | 2    | 2  | 2    | 2    |            |
| 3   | 71WF3-065  | Feed shaft set pin                    | 2    | 2  | 2    | 2    |            |
| 4   |            | Screw                                 | 2    | 2  | 2    | 2    |            |
| 5   | 71WF3-066  | Feed shaft                            | 1    | 1  | /    | /    |            |
| 6   |            | Oil wick                              | 2    | 2  | 2    | 2    |            |
| 7   | 71WF3-067  | Feed dog supporter                    | 1    | 1  | 1    | 1    |            |
| 8   | 71WF3-068  | Hinge pin                             | 1    | 1  | 1    | 1    |            |
| 9   | 71WF3-069  | Collar                                | 1    | 1  | 1    | 1    | GB65-M5 10 |
| 10  |            | Screw                                 | 2    | 2  | 2    | 2    |            |
| 11  | 71WF3-071  |                                       | 1    | 1  | 1    | 1    |            |
| 12  | 71WF3-065  | Feed dog lifting shaft set pin(front) | 1    | 1  | 1    | 1    |            |
| 13  |            | Screw                                 | 2    | 2  | 2    | 2    |            |
| 14  | 71WF3-072  | Feed dog lifting shaft set pin(rear)  | 1    | 1  | /    | /    |            |
| 15  |            | Oil wick                              | 2    | 2  | 2    | 2    |            |
| 16  | 71WF3-073  | Feed dog lifting cam                  | 1    | 1  | 1    | 1    |            |
| 17  |            | Screw                                 | 2    | 2  | 2    | 2    | GB77-M5 4  |
| 18  | 71WF3-074  | Slide block                           | 1    | 1  | 1    | 1    |            |
| 19  | 71WF3-075  | Screw                                 | 1    | 1  | 1    | 1    |            |
| 20  | 71WF3-076  | Nut                                   | 1    | 1  | 1    | 1    |            |
| 21  | 71WF3-077  | Feed dog lifting shaft crank          | 1    | /  | 1    | 1    |            |
| 22  |            | Screw                                 | 2    | /  | 2    | 2    |            |
| 23  | 77WF7-005  | Crank                                 | /    | 1  | /    | /    |            |
| 24  | 77WF7-006  | Pin                                   | /    | 1  | /    | /    |            |
| 25  |            | Screw                                 | /    | 1  | /    | /    | GB65-M5 12 |
| 26  | 99WF3-007  | Feed shaft                            | /    | /  | 1    | /    |            |
| 27  | 100WF3-002 | Feed shaft                            | /    | /  | /    | 1    |            |
| 28  | 99WF3-008  | Feed dog lifting shaft                | /    | /  | 1    | /    |            |
| 29  | 100WF3-003 | Feed dog lifting shaft                | /    | /  | /    | 1    |            |
|     |            |                                       |      |    |      |      |            |
|     |            |                                       |      |    |      |      |            |
|     |            |                                       |      |    |      |      |            |

GB70-85-M6 16

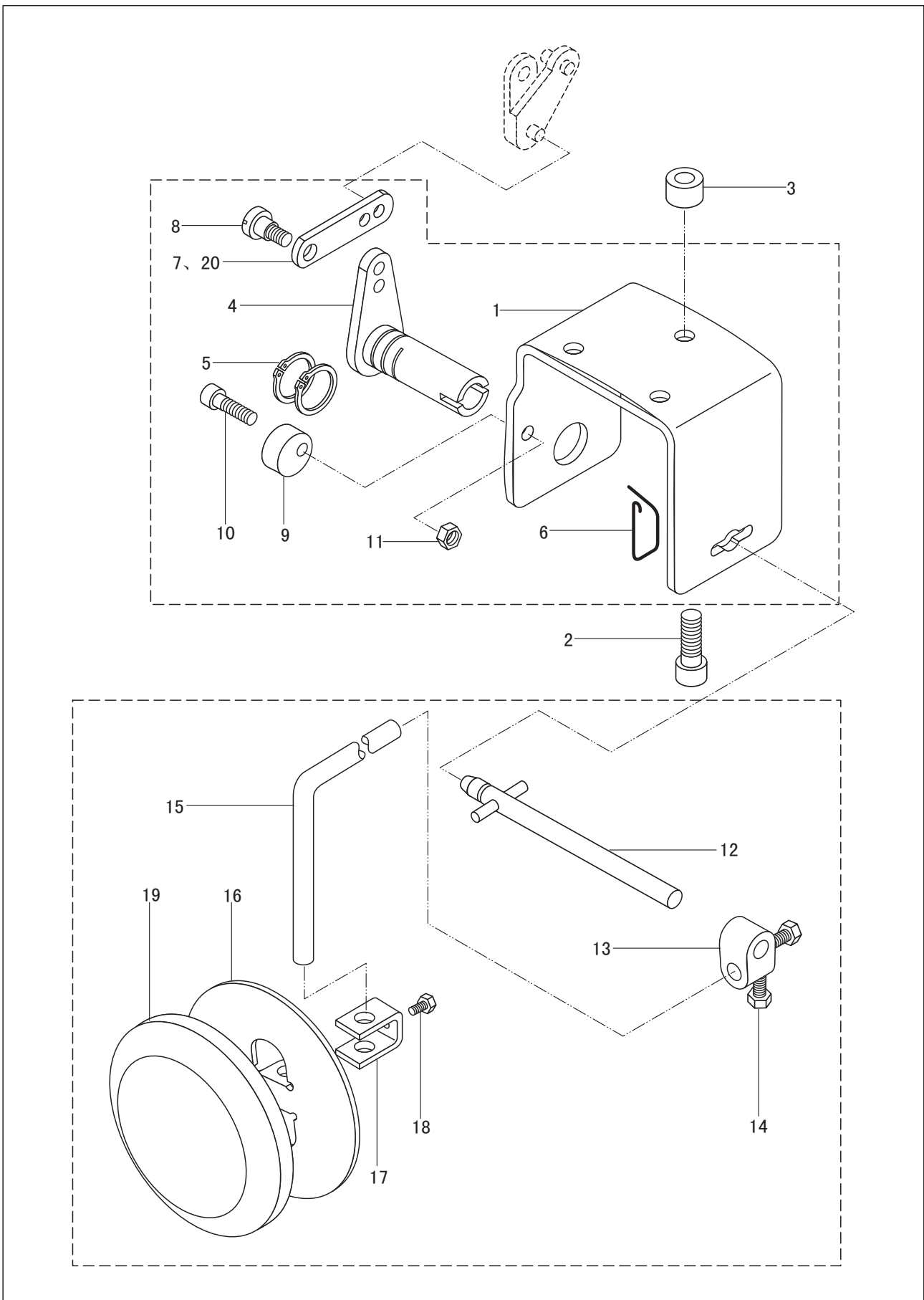
## 11. Lower shaft components



## 11. Lower shaft components

| No. | Parts No.  | Name                        | Qty. |    |      |      | Remarks       |
|-----|------------|-----------------------------|------|----|------|------|---------------|
|     |            |                             | 1245 | -V | HL14 | HL30 |               |
| 1   | 71WF1-025  | Lower shaft(front)          | 1    | 1  | 1    | 1    |               |
| 2   | 71WF1-026  | Lower shaft(rear)           | 1    | 1  | /    | /    |               |
| 3   | 71WF1-027  | Timing pulley assembly      | 1    | 1  | 1    | 1    |               |
| 4   |            | Screw                       | 1    | 1  | 1    | 1    |               |
| 5   |            | Screw                       | 1    | 1  | 1    | 1    |               |
| 6   | 71WF1-029  | Lower shaft bushing(rear)   | 1    | 1  | 1    | 1    |               |
| 7   |            | Screw                       | 1    | 1  | 1    | 1    |               |
| 8   |            | Bearing                     | 2    | 2  | 2    | 2    |               |
| 9   | 71WF1-030  | Collar                      | 1    | 1  | 1    | 1    |               |
| 10  | 13WF1-027  | Screw                       | 4    | 4  | 4    | 4    |               |
| 11  | 71WF1-050  | Safety clutch body          | 1    | 1  | 1    | 1    | GB78-M6 0.75  |
| 12  |            | Screw                       | 1    | 1  | 1    | 1    | GB77-M6 0.75  |
| 13  |            | Screw                       | 1    | 1  | 1    | 1    |               |
| 14  | 71WF1-051  | Safety clutch cam           | 1    | 1  | 1    | 1    | GB77-M6 8     |
| 15  |            | Screw                       | 1    | 1  | 1    | 1    | Φ 10 Φ 13 9.7 |
| 16  |            | Screw                       | 1    | 1  | 1    | 1    |               |
| 17  | 71WF1-052  | Spring plate                | 1    | 1  | 1    | 1    |               |
| 18  | 71WF1-053  | Pin                         | 1    | 1  | 1    | 1    |               |
| 19  |            | Split ring                  | 1    | 1  | 1    | 1    | GB78-M6 0.75  |
| 20  |            | Screw                       | 2    | 2  | 2    | 2    | GB77-M6 0.75  |
| 21  | 71WF1-054  | Stop pin                    | 1    | 1  | 1    | 1    |               |
| 22  |            | Split ring                  | 1    | 1  | 1    | 1    | GB78-M6 0.75  |
| 23  | 71WF1-055  | Washer                      | 1    | 1  | 1    | 1    | GB77-M6 0.75  |
| 24  | 71WF1-056  | Spring                      | 1    | 1  | 1    | 1    |               |
| 25  | 71WF1-057  | Screw                       | 1    | 1  | 1    | 1    |               |
| 26  | 71WF1-058  | Spring                      | 2    | 2  | 2    | 2    |               |
| 27  | 71WF1-059  | Spring bushing              | 2    | 2  | 2    | 2    | GB896-86 4    |
| 28  |            | Screw                       | 2    | 2  | 2    | 2    | GB77-M5 6     |
| 29  | 99WF1-002  | Lower shaft(rear)           | /    | /  | 1    | /    | GB896-86 3    |
| 30  | 100WF1-002 | Lower shaft(rear)           | /    | /  | /    | 1    |               |
| 31  | 100WF1-004 | Lower shaft bushing(middle) | /    | /  | /    | 1    | GB78-M6 0.75  |

## 12. Knee lifter components

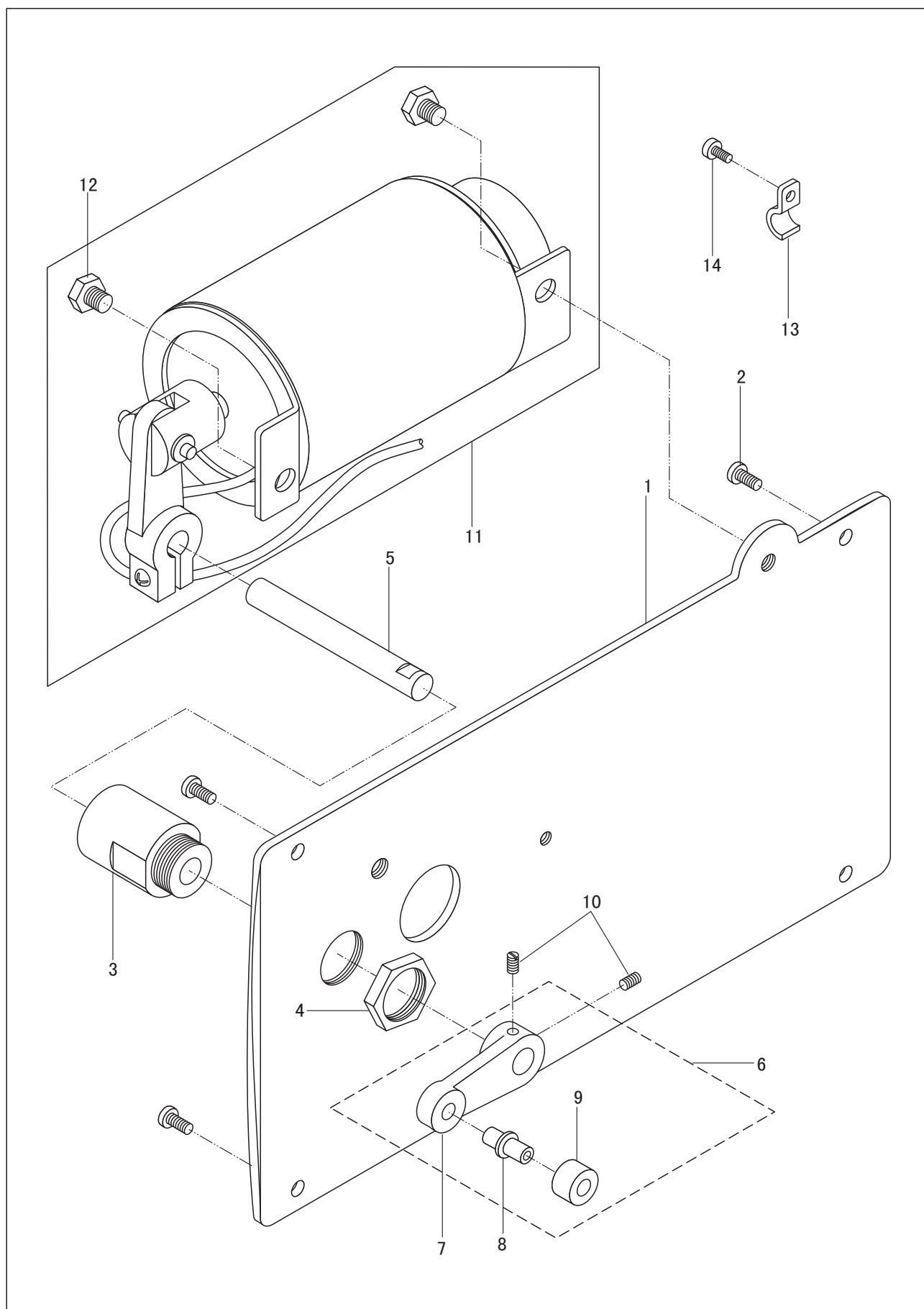


## 12. Knee lifter components

| No. | Parts No.  | Name                       | Qty. |    |      |      | Remarks                 |
|-----|------------|----------------------------|------|----|------|------|-------------------------|
|     |            |                            | 1245 | -V | HL14 | HL30 |                         |
| 1   | 71WF4-025  | Knee lifter bar bracket    | 1    | 1  | 1    | /    |                         |
| 2   |            | Screw                      | 3    | 3  | 3    | /    |                         |
| 3   | 71WF4-026  | Washer                     | 3    | 3  | 3    | /    |                         |
| 4   | 71WF4-027  | Knee lifter crank assembly | 1    | 1  | 1    | /    |                         |
| 5   |            | Spring                     | 2    | 2  | 2    | /    |                         |
| 6   | 71WF4-028  | Spring                     | 1    | 1  | 1    | /    | GB70-M8 25              |
| 7   | 71WF4-029  | Knee lifter crank link     | 1    | 1  | /    | /    |                         |
| 8   | 71WF4-030  | Screw                      | 1    | 1  | 1    | /    |                         |
| 9   | 71WF4-031  | Stop block                 | 1    | 1  | 1    | /    |                         |
| 10  |            | Screw                      | 1    | 1  | 1    | /    |                         |
| 11  |            | Nut                        | 1    | 1  | 1    | /    | GB894.2-86 18           |
| 12  | 71WF6-001  | Knee lifter shaft assembly | 1    | 1  | 1    | /    |                         |
| 13  | 71WF6-002  | Knee lifter crank          | 1    | 1  | 1    | /    |                         |
| 14  | 22T9-003B4 | Screw                      | 2    | 2  | 2    | /    |                         |
| 15  | 22T9-003B2 | Knee press bar             | 1    | 1  | 1    | /    |                         |
| 16  | 22T9-003B5 | Knee press plate           | 1    | 1  | 1    | /    | GB70-M6 20<br>GB6170-M6 |
| 17  | 22T9-003B6 | Knee press rod bracket     | 1    | 1  | 1    | /    |                         |
| 18  | 22T9-003B7 | Screw                      | 1    | 1  | 1    | /    |                         |
| 19  | 22T9-003B8 | Knee press plate pad       | 1    | 1  | 1    | /    |                         |
| 20  | 99WF4-005  | Knee lifter crank link     | /    | /  | 1    | /    |                         |
|     |            |                            |      |    |      |      | SM5/16" 18              |



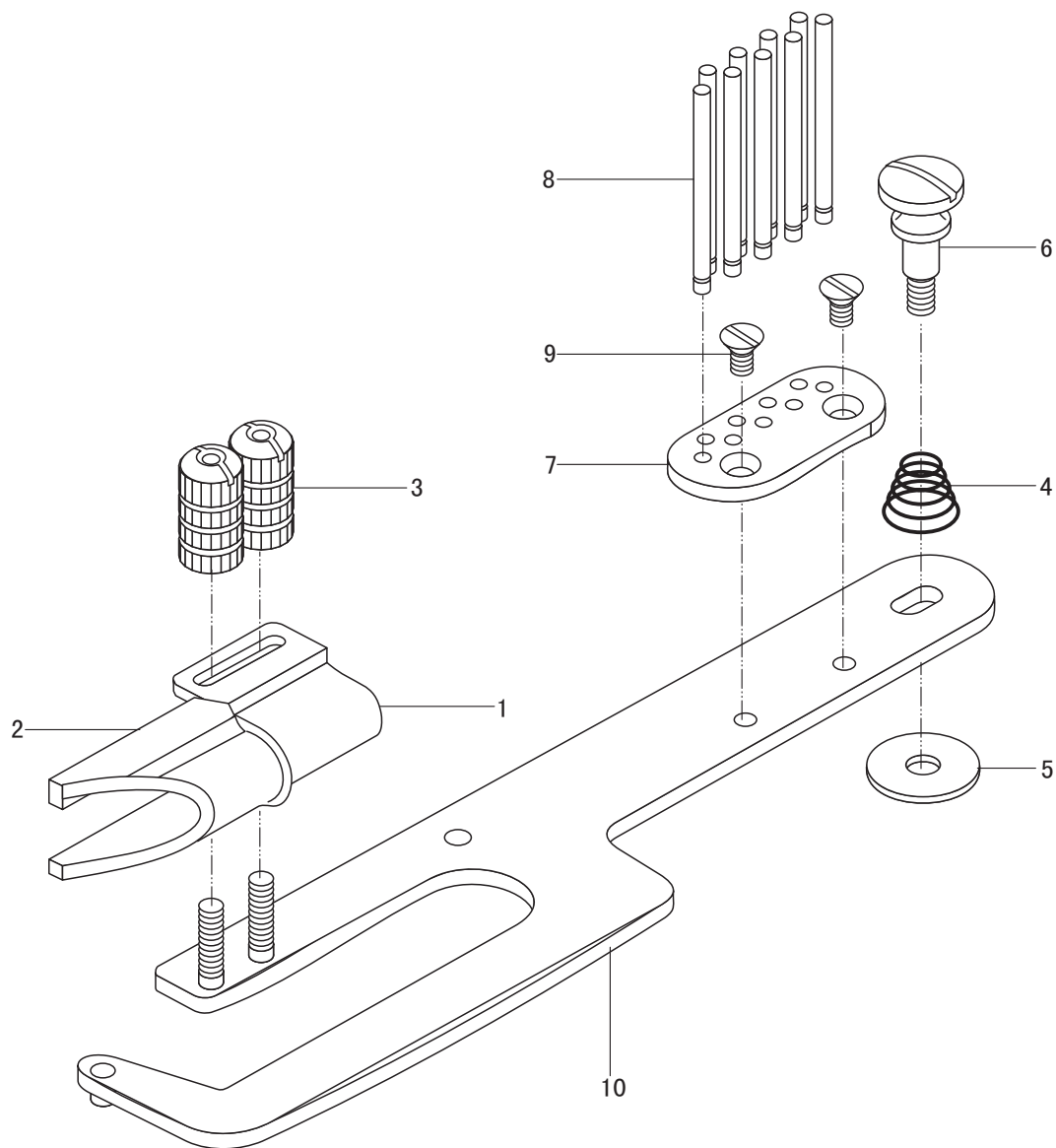
### 13. Automatic presser foot lifter components



### 13. Automatic presser foot lifter components

| No. | Parts No.   | Name                               | Qty. |    |      |      | Remarks  |
|-----|-------------|------------------------------------|------|----|------|------|--|
|     |             |                                    | 1245 | -V | HL14 | HL30 |  |
| 1   | 100WF4-002  | Set plate                          | /    | /  | /    | 1    | GB67-M5 8<br><br>GB808-88 M18 15<br><br>SM11/64" 4 0<br><br>M8 7<br>1406747-101<br>SM9/64" 4 0 |
| 2   |             | Screw                              | /    | /  | /    | 4    |  |
| 3   | 100WF4-003  | Hinge shaft bushing                | /    | /  | /    | 1    |  |
| 4   |             | Nut                                | /    | /  | /    | 1    |  |
| 5   | 100WF4-004  | Hinge shaft                        | /    | /  | /    | 1    |  |
| 6   | 100WF4-005  | Presser foot lifter crank assembly | /    | /  | /    | 1    |  |
| 7   | 100WF4-005A | Presser foot lifter crank          | /    | /  | /    | 1    |  |
| 8   | 20T3-009B2  | Roller shaft                       | /    | /  | /    | 1    |  |
| 9   | 17T2-002    | Roller                             | /    | /  | /    | 1    |  |
| 10  | 2KT5-036b   | Screw                              | /    | /  | /    | 2    |  |
| 11  |             | Presser foot lifter solenoid       | /    | /  | /    | 1    |  |
| 12  | 100WF4-006  | Screw                              | /    | /  | /    | 2    |  |
| 13  | 2KT5-040    | Wire clamp                         | /    | /  | /    | 2    |  |
| 14  | 2KT6-017    | Screw                              | /    | /  | /    | 2    |  |

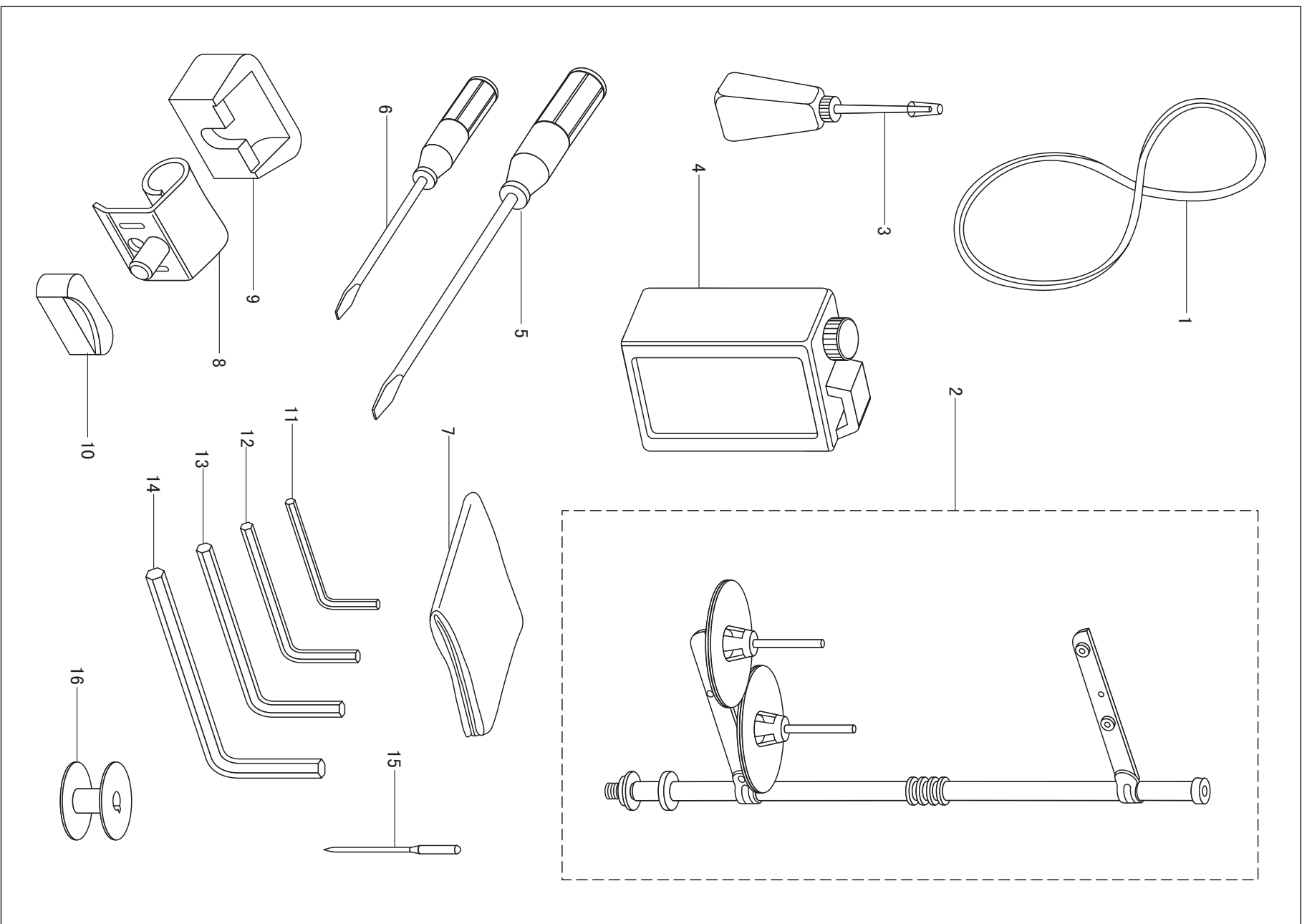
## 14. Binder Components



#### 14. Binder Components

| No. | Parts No.  | Name      | Qty. |    |      |      | Remarks |
|-----|------------|-----------|------|----|------|------|---------|
|     |            |           | 1245 | -V | HL14 | HL30 |         |
| 1   | 77WF7-007A | Base      | /    | 1  | /    | /    |         |
| 2   | 77WF7-007B | Cover     | /    | 1  | /    | /    |         |
| 3   | 77WF7-007C | Nut       | /    | 2  | /    | /    |         |
| 4   | 77WF7-008  | Spring    | /    | 1  | /    | /    |         |
| 5   | 77WF7-009  | Spacer    | /    | 1  | /    | /    |         |
| 6   | 77WF7-010  | Screw     | /    | 1  | /    | /    |         |
| 7   | 77WF7-011A | Set plate | /    | 1  | /    | /    |         |
| 8   | 77WF7-011B | Pin       | /    | 9  | /    | /    |         |
| 9   | 77WF7-011C | Screw     | /    | 2  | /    | /    |         |
| 10  | 77WF7-012  | Bracket   | /    | 1  | /    | /    |         |

## 15. Accessories



## 15. Accessories

| No. | Parts No. | Name                  | Qty. |    |      |      | Remarks   |
|-----|-----------|-----------------------|------|----|------|------|---|
|     |           |                       | 1245 | -V | HL14 | HL30 |   |
| 1   |           | V-belt                | 1    | 1  | 1    | 1    |   |
| 2   | 4F-007    | Thread stand assembly | 1    | 1  | 1    | 1    |   |
| 3   | 33TF-011  | Oil pot               | 1    | 1  | 1    | 1    |   |
| 4   | 1F-009    | Oil tank              | 1    | 1  | 1    | 1    |   |
| 5   | 33TF-013  | Screwdriver(middle)   | 1    | 1  | 1    | 1    |   |
| 6   | 33TF-014  | Screwdriver(small)    | 1    | 1  | 1    | 1    |   |
| 7   | 1F-013    | Machine head cover    | 1    | 1  | 1    | 1    |   |
| 8   | 71WF5-009 | Machine head hinge    | 2    | 2  | 2    | 2    |   |
| 9   | 71WF5-010 | Cushion               | 2    | 2  | 2    | 2    |   |
| 10  | 71WF5-011 | Rubber pad            | 2    | 2  | 2    | 2    |   |
| 11  |           | Hexagonal wrench      | 1    | 1  | 1    | 1    |   |
| 12  |           | Hexagonal wrench      | 1    | 1  | 1    | 1    |   |
| 13  |           | Hexagonal wrench      | 1    | 1  | 1    | 1    |   |
| 14  |           | Hexagonal wrench      | 1    | 1  | 1    | 1    |   |
| 15  |           | Needle                | 3    | 3  | 3    | 3    |   |
| 16  | 71WF1-046 | Bobbin                | 6    | 6  | 6    | 6    |   |
|     |           |                       |      |    |      |      | S=2.5mm<br>S=3mm<br>S=4mm<br>S=5mm<br><br>DP 35 150 |

# TW1-1245

## -HL14 // -HL30

**LONGARM COMPOUND FEED LOCKSTITCH SEWING MACHINE  
LANGARM-, 3-FACH TRANSPORT STEPPSTICH-NÄHMASCHINE**



This machine may only be operated by adequately trained operators only after having completely read and understood the instruction manual.

Parts are subject to changes in design without prior notice.



**XI'AN TYPICAL EUROPE GmbH**

Hertelsbrunnenring 9

D-67657 Kaiserslautern

Tel.: +49 (0)631 316019-0

Fax: +49 (0)631 316019-11

E-mail: [sales@typical-europe.com](mailto:sales@typical-europe.com)  
[www.typical-europe.com](http://www.typical-europe.com)

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