

TYPICAL

**DIRECT DRIVE COMPUTER-CONTROLLED
HIGH-SPEED LOCKSTITCH SEWING MACHINE**

Operation instruction
Parts book

926158

目 录

Contents

| | |
|--|----|
| 使用说明 | |
| Operation Manual..... | 1 |
| 零件样本 | |
| Parts Book..... | 18 |
| 中厚料用 | |
| For Medium Heavy Materials..... | 19 |
| 1. 机壳分组件 | |
| Arm Bed Components..... | 19 |
| 2. 上轴、挑线分组件 | |
| Main Shaft & Take-up Components..... | 21 |
| 3. 针杆、夹线分组件 | |
| Needle Bar & Thread Tension Components..... | 23 |
| 4. 压料分组件 | |
| Presser Bar Components..... | 25 |
| 5. 勾线分组件 | |
| Hook Driving Shaft Components..... | 27 |
| 6. 送料分组件 | |
| Feed Mechanism Components..... | 29 |
| 7. 送料调节分组件 | |
| Feed Regulatig Components..... | 31 |
| 8. 润滑分组件 | |
| Lubrication Components..... | 33 |
| 9. 油盘、膝抬压脚分组件 | |
| Oil Reservoir & Knee Lifter Components..... | 35 |
| 10. 机头附件(1) | |
| Machine Head Accessories (1)..... | 37 |
| 机头附件(2) | |
| Machine Head Accessories (2)..... | 38 |
| 11. 机架、台板、电器分组件 | |
| Machine Stand、Table & Electric Appliance Components..... | 39 |
| 厚料用 | |
| For Heavy Weight Materials..... | 41 |

使用说明

Operation Manual

开车前的注意事项： BEFORE OPERATION

1. 油盘内未加油绝不能开车。
 2. 机器运转时，从上轮外侧看转向应为逆时针方向。注意，不能倒转。
 3. 在第一月中，不要选用大尺寸的电动机皮带轮。
 4. 确认电动机标牌上标电压及相位是否正确。
1. **Never operate the machine unless its oil pan has been filled with oil.**
 2. **After setting up the machine, check the direction of motor rotation. To check it, turn the handwheel by hand to bring the needle down, and turn the power switch ON while observing the handwheel. (The handwheel should turn counterclockwise as observed from the handwheel side.)**
 3. **Do not use a larger motor pulley for the first one month.**
 4. **Confirm that the voltage and phase (single or 3-phase) are correct by checking them against the ratings shown on the motor nameplate.**

使用注意事项： OPERATION PRECAUTIONS

1. 接通电源开关或机器运转时，请勿将手放到针的下部。
 2. 机器运转时，请勿将手指伸入挑线杆护罩内。
 3. 机头翻动及拆三角皮带时，一定要切断电机开关。
 4. 操作者离开机器时，必须切断电源。
 5. 机器运转期间，注意不允许任何人的头或手以及任何东西靠近上轮“V”形皮带、绕线轮和电动机。
 6. 装拆皮带罩、防护罩、或者其它保护装置时，请勿开动机器。
 7. 不要用香蕉水等油漆稀释剂擦洗机头表面。
1. **Keep your hands away from the needle when you turn the power switch ON or while the machine is operating.**
 2. **Do not put your fingers into the head take-up cover while the machine is operating.**
 3. **Be sure to turn the power switch OFF before tilting the machine head or removing the V belt.**
 4. **When an operator leaves from the machine, make sure to turn off the power.**
 5. **During operation, be careful not to allow your or any other person's head or hands to come close to the handwheel, V belt, bobbin winder or motor. Also, do not place anything close to them. Doing so may be dangerous.**
 6. **If your machine is provided with a belt cover, finger guard or any other protectors, do not operate your machine with any of them removed.**
 7. **Don't clean the face of machine head with thinner.**

1. 机器的安装(图 1、图 2、图 3、图 4)
 1. INSTALLATION (Fig.1, Fig.2, Fig.3, Fig.4)

* 油盘安装:

- 1) 油盘应搁在工作台凸槽四角。
- 2) 如图所示, 将两只油盘支座①用油盘座钉②固定在 A 一边 (朝操作者一边), 将两只油盘座垫③用油盘座钉②固定在 B 一边 (用机头连接钩接合一边), 最后把油盘④放在其上。(图 1、图 2)
- 3) 将机头连接钩①放入底板孔内, 与台板的机头连接钩座②相嵌合, 再将机头放到四只角的机头座垫③上。(图 3、图 4)

* Installing the oil pan

- 1) The oil pan should rest on the four corners of the machine table groove.
- 2) Fix two rubber seats ① on side A (operator's side) using nails ② as illustrated above. Fix two cushion seats ③ on side B (hinged side) using nails ②. Then place oil pan ④ on the fixed seats. (Fig.1, Fig.2)
- 3) Fit hinge ① into the opening in the machine bed, and fit the machine head to table rubber hinge ② before placing the machine head on cushions ③ on the four corners. (Fig.3, Fig.4)

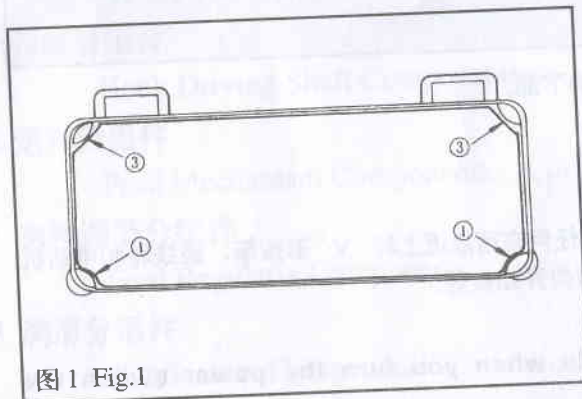


图 1 Fig.1

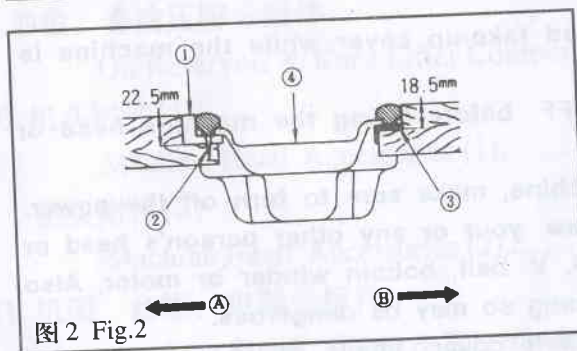


图 2 Fig.2

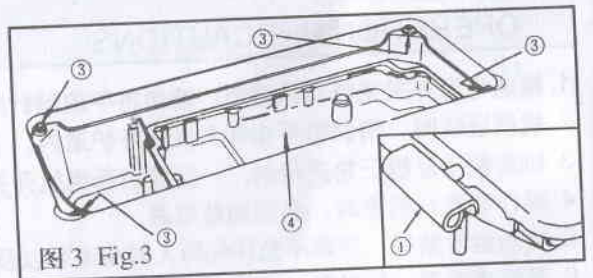


图 3 Fig.3

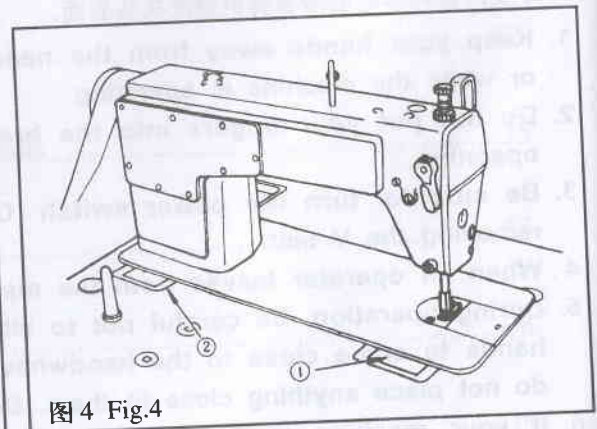


图 4 Fig.4

2. 机器的润滑(图 5、图6)

2. LUBRICATION (Fig.5, Fig.6)

1. 润滑须知:(图 5)

* 开车前:

- 1) 向油盘①内加缝纫机油(10号白油)至 HIGH 记号部位 A。(图 5)
- 2) 当油面低于 LOW 记号 B, 应再加油。
- 3) 加油后, 开动机器, 应看到油液飞溅到油窗②上, 说明润滑正常。
- 4) 至于飞溅的油量多少与总润滑油量多少无关。

* 注意:

使用新机器或者长期未使用过的机器时, 应在每分钟 3000~3500 针的状态下使机器进行十分钟左右的适应性运转。

2. 调节面部油量:(图 6)

- 1) 转动油量调节销①, 可以调节挑线曲柄②的供油量。
- 2) 油量调节销朝 B 方向转动, 刻点 A 靠近挑线曲柄时, 油量达到最小值。
- 3) 油量调节销朝 C 方向转动, 刻点 A 背离挑线曲柄时, 油量达到最大值。

1. Information on lubrication (Fig.5)

* Before starting the machine

- 1) Fill oil pan ① with sewing machine oil (10 white oil) up to HIGH mark A.
- 2) When the oil level lowers below LOW mark B, refill the oil pan with the specified oil.
- 3) When you operate the machine after lubrication, you will see splashing oil through oil sight window ② if the lubrication is adequate.
- 4) Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil.

*Precaution

When you first operate your machine after set up or after an extended period of disuse, run your machine at 3,000 s.p.m. to 3,500 s.p.m. for about 10 minutes for the purpose of break-in.

2. Adjusting the amount of oil supplied to the face plate parts (Fig.6)

- 1) Adjust the amount of oil supplied to the thread take-up and needle bar crank ② by turning adjust pin ①.
- 2) The minimum amount of oil is reached when marker dot A is brought close to needle bar crank ② by turning the adjust pin in direction B.
- 3) The maximum amount of oil is reached when marker dot A is brought to the position just opposite from the needle bar crank by turning the adjust pin in direction C.

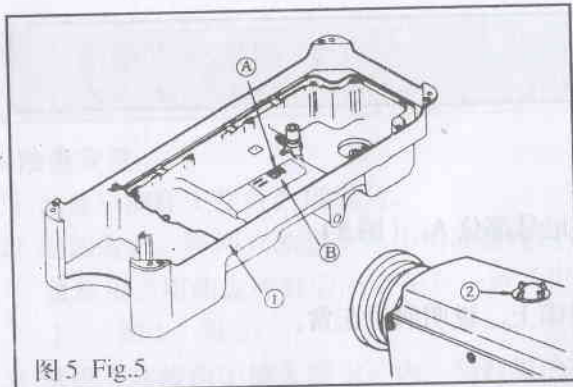


图5 Fig.5

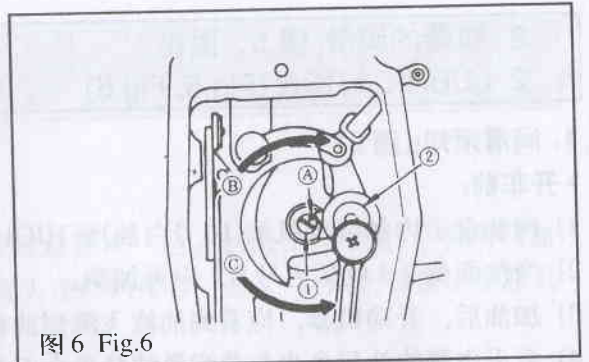


图6 Fig.6

3. 旋梭油量的调节 (图 7、图 8、图 9) 3. ADJUSTING THE AMOUNT OF OIL SUPPLIED TO THE HOOK (Fig.7, Fig.8, Fig.9)

1) 未使用的机器应进行约 3 分钟的空转 (适当的断续运转)。(图 7)

2) 油量纸必须在机器运转状态下插入。

3) 确认油盘内的油面高度处在 HI 和 LOW 范围内。

4) 油量确认时间需 5 秒钟 (请用秒表计时)。

* 适量的油量标样: (图 8)

1) 下图标样根据不同的缝制工序需进行增或减的微调整, 但应注意不要增加或减少得过多。

* 油量过少会引起旋梭发热, 油量过多会油污缝料。

2) 用油量纸试用三次, 当纸上油迹不发生变化时, 就不需再调节了。

* 调节旋梭油量: (图 9)

1) 将下轴前轴套上的油量调节螺钉朝 + 方向 A 转动时, 油量将增大。当油量调节螺钉朝 - 方向 B 转动时, 油量将减小。

2) 调整后应进行约 30 秒钟的空转, 以确认油量的状态。

1) After cooling, the machine may be idling for three minutes (operating continued properly). (Fig 7)

2) The amount of oil confirmed paper must be inserted in the state when the machine is operating.

3) Oil in the oil pan is confirmed within HI and LOW.

4) The amount of oil confirmed is for five seconds (please use the clock with the second)

***The proper amount of oil manual (Fig 8)**

1) The amount of oil can be adjusted according to the different sewing process but it must be suitable amount.

*** Otherwise the hook wil generate heat or the sewing material will be contaminated.**

2) Use the amount of confirmed paper for three times to observe the amount of oil. Adjust the screw until the mark on the paper hasn't changed.

***Adjusting the amount of oil supplied to the hook (Fig 9)**

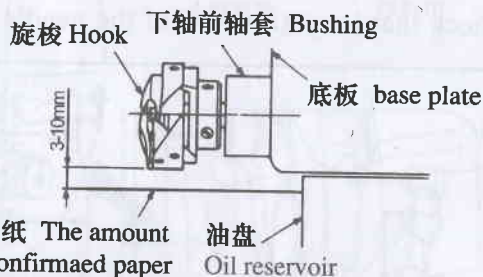
- 1) More oil is supplied as oil amount adjust screw mounted on the hook driving shaft is turned toward + in direction A. As the oil amount adjust screw is turned toward - in direction B, the amount of oil supplied will be decreased.
- 2) After adjusted, the machine must be idling for thirty seconds. It can be confirmed the state of oil supplied.

① 油量纸 The amount of oil confirmed paper



图7 Fig.7

② 油量确认位置 The place of confirmed



① 油量纸 The amount of oil confirmed paper

油盘 Oil reservoir

飞溅的油迹 The amount of oil



油量小 Min



油量最大 Max

图8 Fig.8

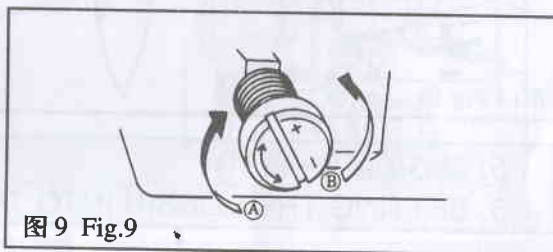


图9 Fig.9

4. 机针的装法 (图 10)

4. ATTACHING THE NEEDLE (Fig.10)

* 在装机针前，必须切断电动机电源。

标准用针为 DB × 1#14。机针有各种编号，根据所用线的粗细和缝料来选择适当的机针。

- 1) 转动上轮使针杆上升到最高位置。
- 2) 旋松支针螺钉①，使机针的凹弧部分 A 正对右方向 B。
- 3) 将机针朝箭头方向插入针孔的底部，直至插不进为止。
- 4) 旋紧支针螺钉②。
- 5) 务必使机针的长槽 C 正对左方向 D。

***Turn the motor power OFF before starting to attach the needle.**

A needle of DB × 1#14 should be used. Select a proper needle size according to the count of thread and the type of material used.

- 1) Turn the handwheel until the needle bar reaches the highest point of its stroke.
- 2) Loosen screw ②, and hold needle ① with its indented part A facing exactly to the right in direction B.
- 3) Insert the needle in the direction of the arrow until it will go no further.
- 4) Securely tighten screw ②.
- 5) Check that long groove C of the needle is facing exactly to the left in direction D.

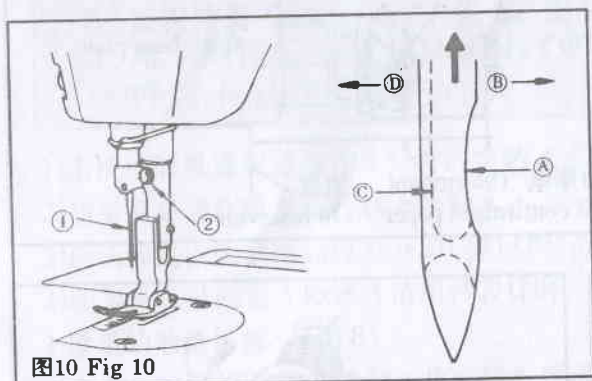


图10 Fig 10

5. 梭心的装法(图11)

5. SETTING THE BOBBIN INTO THE BOBBIN CASE(Fig.11)

- 1) 拿住梭子，将梭心装入梭子内。
- 2) 把线从梭子上的线槽 A 中穿过，朝 B 方向拉出。这样，线通过夹线簧下从线孔 B 处引出。
- 3) 拉底线 C 时，梭心应按箭头方向转动。

- 1) Hold the bobbin in a way that the thread open end is directed to the left as observed from you, and set the bobbin into the bobbin case.
- 2) Pass the thread through thread slit A, and pull the thread in direction B. By so doing, the thread will pass under the tension spring and come out from notch B.
- 3) Check that the bobbin rotates in the direction of the arrow when thread C is pulled.

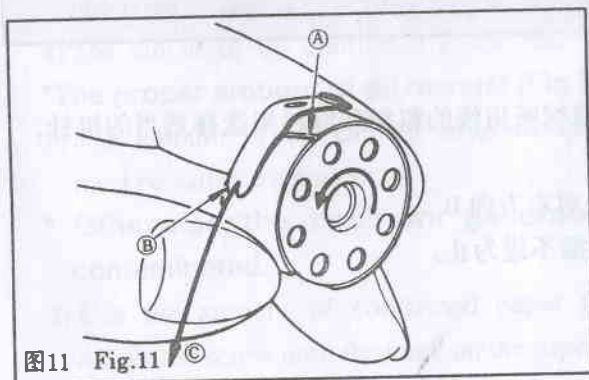


图11 Fig.11

6. 面线的穿法(图12)

6.THREADING THE MACHINE HEAD (Fig.12)

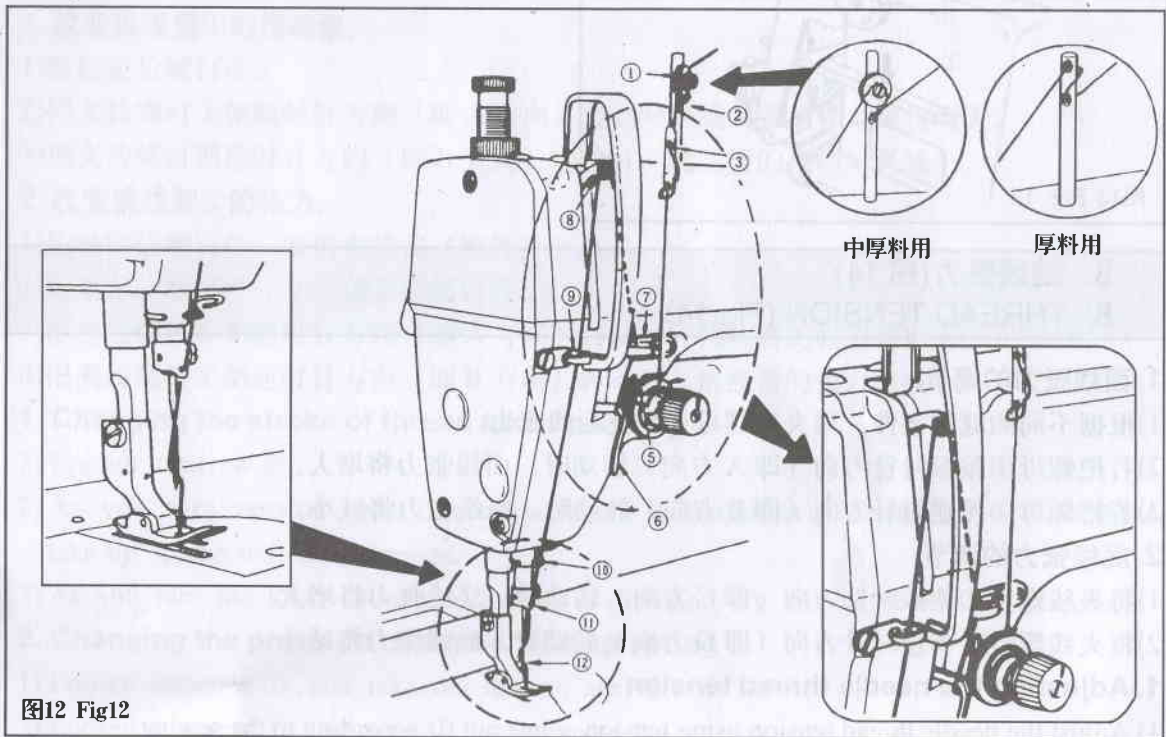


图12 Fig12

7. 针距的调节(图13)

7. ADJUSTING THE STITCH LENGTH (Fig.13)

1)将送料距旋钮①朝箭头方向转动,旋至所需数字对准机壳上的刻点A。

2)旋钮上的刻度数定用毫米表示。

3)当你想缩短线迹长度时,把倒送料扳手②朝箭头方向压的同时,转动送料距旋钮。

1) Turn stitch length dial ① in the direction of the arrow, and align the desired number to marker dot A on the machine arm.

2) The dial calibration is in millimeters.

3) When you want to decrease the stitch length, turn stitch length dial ① while pressing feed lever ② in the direction of the arrow.

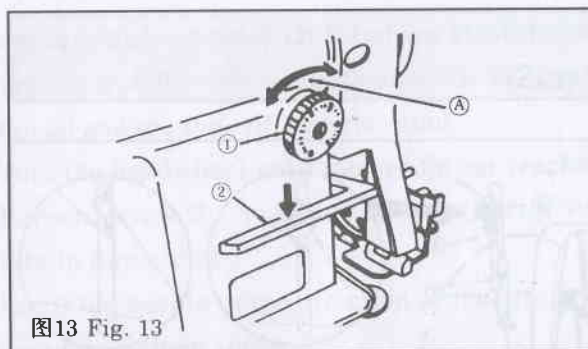


图13 Fig. 13

8. 缝线张力(图 14)

8. THREAD TENSION (Fig.14)

1. 面线张力的调节:

- 1) 根据不同的缝制条件, 用夹线螺母来调整面线张力。
- 2) 若把螺母①按顺时针方向(即 A 方向)转动时, 面线张力将增大。
- 3) 若把螺母①按逆时针方向(即 B 方向)转动时, 面线张力将减小。

2. 底线张力的调节:

- 1) 将夹线螺钉②朝顺时针方向(即 C 方向)转动时, 底线张力将增大。
- 2) 将夹线螺钉②朝逆时针方向(即 D 方向)转动时, 底线张力将减小。

1. Adjusting the needle thread tension

- 1) Adjust the needle thread tension using tension adjust nut ① according to the sewing specifications.
- 2) As you turn nut ① clockwise (in direction A), the needle thread tension will increase.
- 3) As you turn nut ① counterclockwise (in direction B), the tension will decrease.

2. Adjusting the bobbin thread tension

- 1) As you turn tension adjust screw ② clockwise (in direction C), the bobbin thread tension will increase.
- 2) As you turn screw ② counterclockwise (in direction D), the bobbin thread tension will decrease.

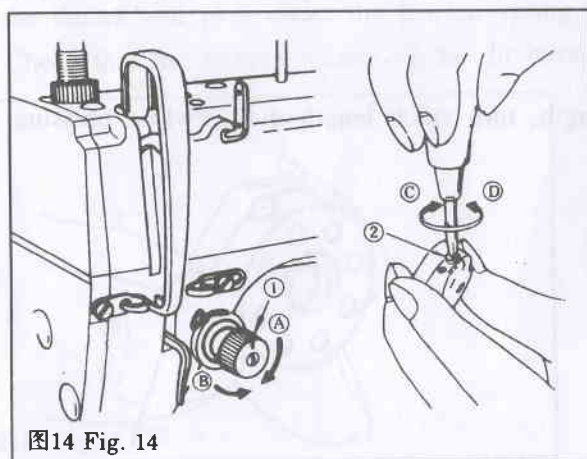


图14 Fig. 14

9. 挑线簧(图 15)

9. THREAD TAKE UP SPRING (Fig.15)

1. 改变挑线簧①的摆动量:

- 1) 旋松定位螺钉②。
- 2) 把夹线螺钉③朝顺时针方向(即 A 方向)转动时,挑线簧的摆动量将增大。
- 3) 把夹线螺钉朝逆时针方向(即 B 方向)转动时,挑线簧的摆动量将减小。

2. 改变挑线簧①的张力:

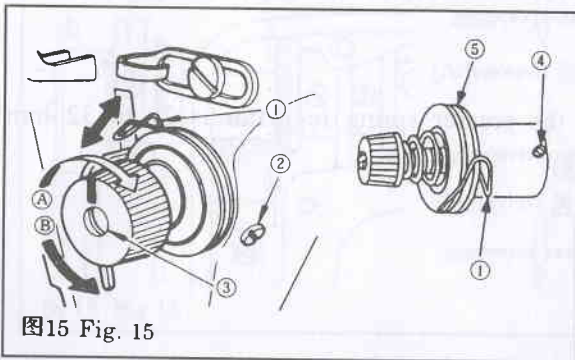
- 1) 旋松定位螺钉②,取出夹线器(组件)⑤。
- 2) 旋送定位螺钉④,并转动夹线螺钉③。
- 3) 把夹线螺钉③朝顺时针方向(即 A 方向)转动时,挑线簧的张力将增大。
- 4) 把夹线螺钉③朝逆时针方向(即 B 方向)转动时,挑线簧的张力将减小。

1. Changing the stroke of thread take-up spring ①

- 1) Loosen setscrew ②.
- 2) As you turn tension post ③ clockwise (in direction A), the stroke of the thread take-up spring will be increased.
- 3) As you turn the knob counterclockwise (in direction B), the stroke will be decreased.

2. Changing the pressure of thread take-up spring ①

- 1) Loosen setscrew ②, and take out tension asm ⑤.
- 2) Loosen setscrew ④, and remove tension post ③.
- 3) As you turn tension post ③ clockwise (in direction A), the pressure will be increased.
- 4) As you turn the post counterclockwise (in direction B), the pressure will be decreased.



10. 压脚板手(图 16)

10. HAND LIFTER (Fig.16)

- 1) 停车后,将压脚板手①朝 A 方向转动,使压脚抬起。
- 2) 压脚的抬起量约 5.5 毫米。
- 3) 当压脚板手①朝 B 方向转动时,压脚将放回原来位置。
- 4) 对膝提压脚而言,压脚的抬起量约为 10 毫米,最大抬起量约为 13 毫米。

- 1) To stop the machine with its presserfoot up, turn hand lifter ① in direction A.
- 2) The presser foot will go up about 5.5 mm and stop.
- 3) The presser foot will go back to its original position when hand lifter ① is turned down in direction B.
- 4) Using the knee lifter, you can get the standard presser foot lift of about 10 mm at maximum lift of about 13 mm.

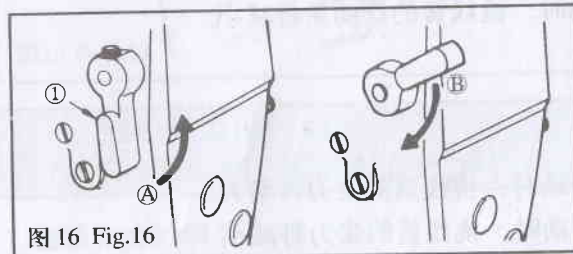


图 16 Fig.16

11. 压脚压力的调节(图 17)

11. PRESSER FOOT PRESSURE (Fig.17)

- 1) 旋松调压螺母②。顺向(即 A 方向)转动压脚调节螺钉, 压力将增强。
 - 2) 逆向(即 B 方向)转动压脚调节螺钉。压力将减弱。
 - 3) 调节后, 旋紧调压螺母②。
 - 4) 对一般布料而言, 压脚调节螺钉的标准高度为 29~32 毫米(5 公斤)左右。(DDL-5520 为 7 公斤)
- 1) Loosen nut ②. As you turn presser spring regulator ① clockwise (in direction A) presser foot pressure will be increased.
 - 2) As you turn the presser spring regulator counterclockwise (in direction B) pressure will be decreased.
 - 3) After adjustment, tighten nut ②.
 - 4) For general fabrics, the standard height of the presser spring regulator is 29 to 32 (5kg). (For the model DDL - 5520 it is 7kg)

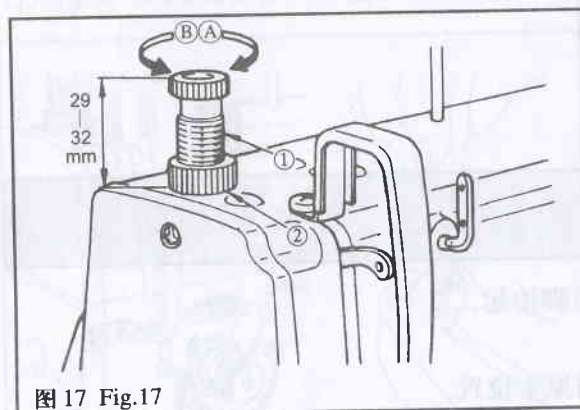


图 17 Fig.17

12. 送料相位的调节 (图 18)

12. ADJUSTING THE FEED TIMING (Fig.18)

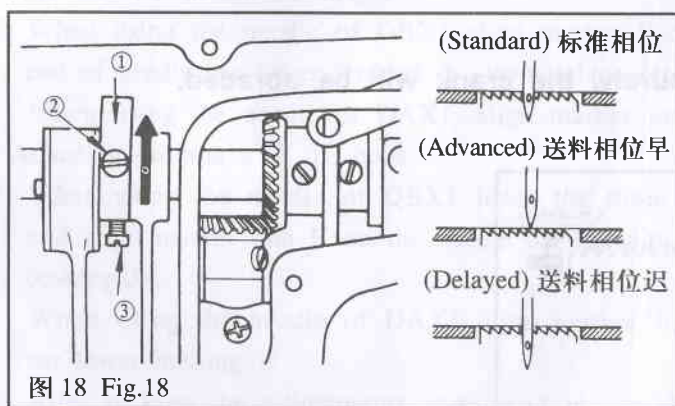
- 1) 旋松送料偏心凸轮①上的定位螺钉②和③, 将送料偏心凸轮①调到适当的位置, 然后拧紧定位螺钉。
- 2) 在标准相位情况下, 当送料牙从针板面下降时, 送料牙上端、针孔上端和针板上端面对齐。
- 3) 为了防止缝料的潜移, 要加快送料相位, 可将送料偏心轮朝箭头方向调整。
- 4) 为了增大线迹的紧密度, 要减慢送料相位, 可将送料偏心轮朝箭头反方向移动。

* 注意:

若送料偏心轮移动过多, 则会引起断针。

- 1) Loosen two setscrews ② and ③ on feed eccentric cam ①, properly position the eccentric cam. Then retighten the setscrews.
- 2) To obtain the standard feed timing, when the feed dog is dropping from throat plate, align the top of the feed dog with the top of the hole on the needle and the top of the throat plate.
- 3) To advance the feed timing in order to prevent uneven material feed, move the feed eccentric cam in the direction of the arrow.
- 4) To delay the feed timing in order to increase stitch tightness, move the feed eccentric cam in the opposite direction from the arrow.

***If moving the feed eccentric cam to far, the needle will be break.**



13. 送料牙的高度 (图 19)

13. HEIGHT OF THE FEED DOG (Fig. 19)

- 1) 送料牙应比针板高出 0.8~0.9 毫米。 型为 0.95~1.05mm。
- 2) 在缝薄料的情况下, 如果送料牙过分凸出会导致缝料起皱。(推荐送料牙突出量: 0.7-0.8 毫米)

3) 调节送料牙的高度:

- ① 旋松抬牙叉形曲柄①的紧固螺钉②。
- ② 上下移动牙架进行调节。
- ③ 旋紧曲柄螺钉②。

* 注意:

若曲柄螺钉紧固压力太小, 会使抬牙叉形曲柄磨损。

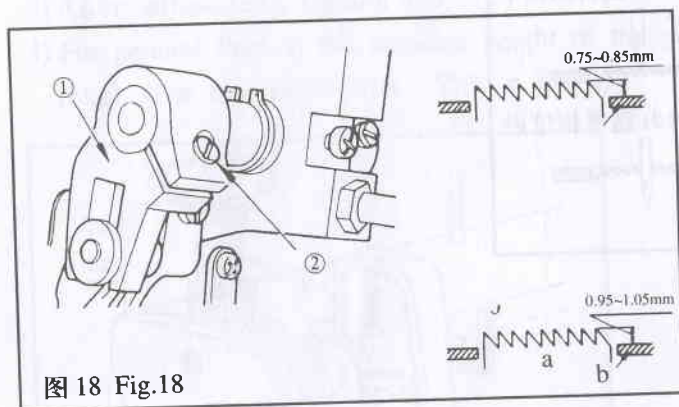
a 送料牙 b 针板

- 1) The feed dog is factory - adjusted so that it just out from the throat plate surface 0.7 mm to 0.9 mm. For the , 0.95 mm to 1.05 mm.
- 2) If the feed dog juts out too much, puckering may result when sewing light-weight materials. (Recommended protrusion: 0.7 mm to 0.8 mm)
- 3) To adjust the height of the feed dog:
 - (1) Loosen screw ② of crank ① .
 - (2) Move the feed bar up or down to make adjustment.
 - (3) Securely tighten screw ② .

* Precaution

If the screw is tighten too securely, the crank will be abraded.

a . Feed dog b. Throat plate



14. 针与旋梭的关系 (图 20)

14. NEEDLE-TO-HOOK RELATIONSHIP (Fig.20)

1. 针与旋梭的关系应配合如下:

1) 转动上轮, 使针杆位于最低点, 再旋松针杆连接柱定位螺钉①。

* 针杆高度的确定

2) (使用 DB 针时) 使针杆②上的刻线 A 对准针杆下轴套③的下端, 然后旋紧针杆连接柱定位螺钉①。

(使用 DA 针时) 使针杆②上的刻线 C 对准针杆下轴套③的下端, 然后旋紧针杆连接柱定位螺钉①。

* 旋梭位置的确定

3) (使用 DB 针时) 旋松三只旋梭定位螺钉, 并转动上轮, 使针杆②上的刻线 B 对准针杆下轴套③的下端。

(使用 DA 针时) 旋松三只旋梭定位螺钉, 并转动上轮, 使针杆②上的刻线 D 对准针杆下轴套③的下端。

4) 在上述状态下, 使旋梭的勾线尖⑤对准机针④的中心, 针与旋梭的间隙为 0.04-0.1mm, 然后拧紧旋梭紧固螺钉。

* 注意

若间隙太小, 会磨损梭尖, 若间隙太大, 则会引起跳针。

* 旋梭原来用什么型号, 调换后, 也请使用原来的型号。

1. Adjust the timing between the needle and the hook as follows:

1) Turn the handwheel to bring the needle bar down to the lowest point of its stroke, and loosen setscrew ①.

* Adjusting the needle bar height

2) When using the needle of DBX1, align marker line A on needle bar ② with the bottom end of needle bar lower bushing ③, then tighten setscrew ①.

When using the needle of DAX1, align marker line B with it, then tighten setscrew ①.

* Adjusting position of the hook

3) When using the needle of DBX1 loosen the three hook setscrews, turn the handwheel, and align marker line B on the needle bar ② with the bottom end of needle bar lower bushing ③.

When using the needle of DAX1, align marker line D with the bottom end of needle bar lower bushing ③.

4) After making the adjustments mentioned in the above steps align hook blade point ⑤ with the center of needle ④. Provide a clearance of 0.04 mm to 0.1 mm between the needle and the hook, then securely, tighten the hook setscrews.

* Precaution

If the clearance is too small, the tip of the hook will be abraded. If it is too big, it will lead to skip over.

* **Note that the type of hook to be substituted for, when replacing the hook, shall be in conformity with the very type of the hook installed in the sewing machine of original assemblage.**

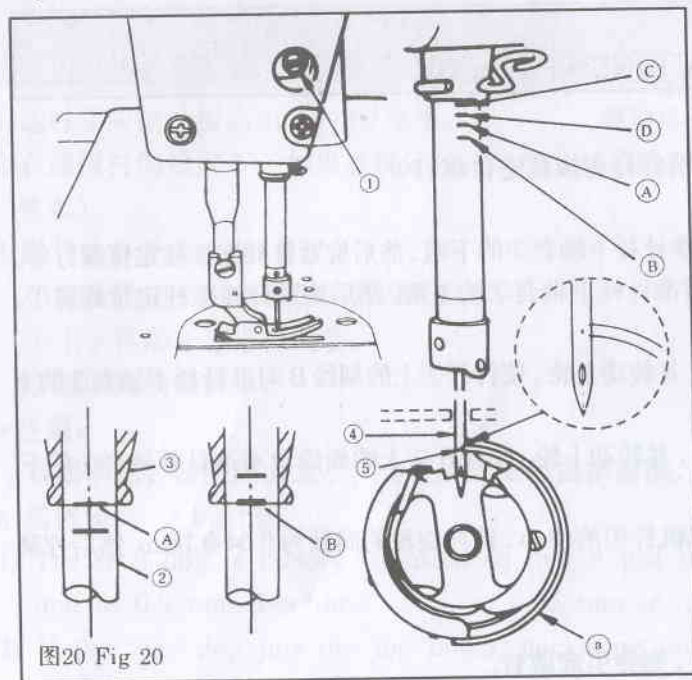


图20 Fig 20

15. 压杆高度的调节 (图21)

15. ADJUSTING THE HEIGHT OF THE PRESSER BAR (Fig.21)

- 1) 旋松压杆导架紧固螺钉①，调节压杆高度与压脚角度。
- 2) 调整后，拧紧紧固螺钉。

- 1) Loosen setscrew ①, and adjust the presser bar height and the angle of the presser foot.
- 2) After adjustment, securely tighten the setscrew.

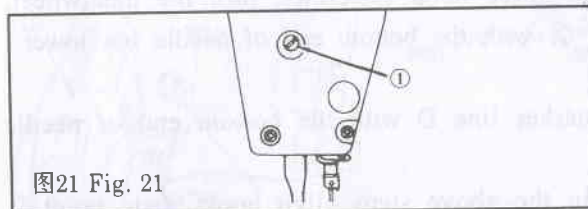


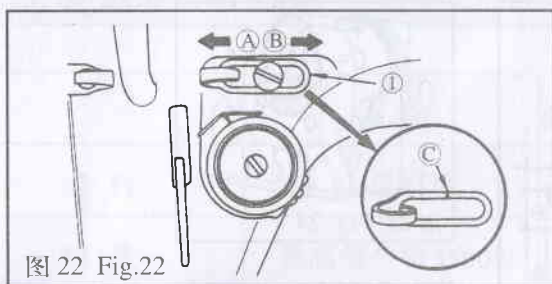
图21 Fig. 21

16. 挑线杆线量的调节(图 22)

16. ADJUSTING THE THREAD TAKE-UP STROKE (Fig.22)

- 1) 缝制厚料时, 应将右线钩①朝左方向 A 移动, 以增大挑线量。
- 2) 缝制薄料时, 应将右线钩①朝右方向 B 移动, 以减小挑线量。
- 3) 右线钩①上的刻线 C 与螺钉中心一致时为标准位置。

- 1) When sewing heavy-weight materials, move thread guide ① to the left in direction A to increase the length of thread pulled out by the thread take-up.
- 2) When sewing light-weight materials, move thread guide ① to the right in direction B to decrease the length of thread pulled out by the thread take-up.
- 3) When the marker line C on the thread guide ① is aligned with the center of the screw, it is standard.



17. 皮带罩绕线器的装法(图 23、图 24、图 25)

17. INSTALLING THE BELT COVER AND THE BOBBIN WINDER (Fig.23, Fig.24, Fig.25)

1. 安装程序:

- 1) 在台板上钻四只木螺钉导孔 A、B、C、D。
- 2) 将罩壳支柱①装入机壳的螺孔内。
- 3) 将上轮前罩壳③从后斜方装入, 使上轮套进上轮前罩壳③的孔内。
- 4) 将上轮后罩壳②放置在导孔 C D 上。
- 5) 用螺钉和垫圈④⑤⑥, 将上轮前罩壳固定在车壳上, 此时的螺钉紧固扭矩请控制在螺钉④为 30kgfcm、螺钉⑤为 25kgfcm, 即使紧固扭矩超过以上程度, 也无效果。
- 6) 盖上上轮前罩盖板⑦。
- 7) 将上轮后罩壳②向后方移动, 在上轮后罩壳②的橡胶部分碰到上轮前罩壳③时, 再移动 0.5-1mm, 将其用木螺钉和垫圈固定。
- 8) 用木螺钉将绕线器⑧固定地导孔 A 和 B 上。

1. Installing procedure

- 1) Drill four wooden screw guide holes A, B, C and D in the machine table.
- 2) Insert support ① in the tapped hole in the arm.
- 3) Install the front belt cover ③, get the hand wheel in the middle of the hole.
- 4) Install the back belt cover ② at C and D.
- 5) Using the screws ④, ⑤ and washer ⑥ fix the front belt cover ③ on the support
tighting torque for the screw ④ is about 30 kgfcm, for the screw ⑤ is about 25 k
- 6) Fix the cover ⑦.
- 7) Move the back belt cover ② backward until its rubber touches the front belt cover
then move further more 0.5-1 mm, fix it using the wooden screws and washers.
- 8) Fix bobbin winder ⑧ at A and B using the wooden screws.

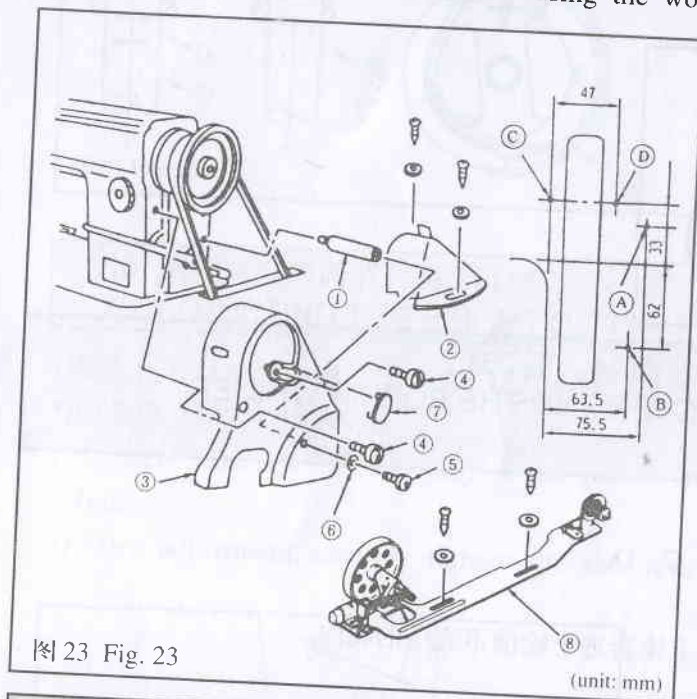


图 23 Fig. 23

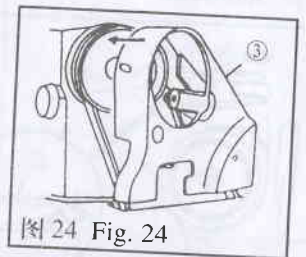


图 24 Fig. 24

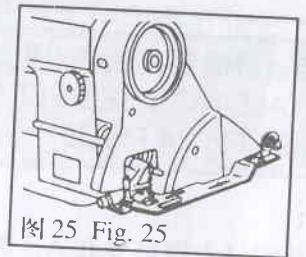


图 25 Fig. 25

18. 膝提高度的调节 (图 26、27 图)

18. ADJUSTING THE HEIGHT OF THE KNEE LIFTER (Fig.26, Fig.27)

- 1) 用膝提时的标准压脚高度是 10 毫米。
- 2) 用膝提调整螺钉①可以调节压脚提升量至 13 毫米。
- 3) 当压脚提升量超过 10 毫米时, 不能使处于最低位置的针杆②的底端与压脚③相碰。
- 1) The standard height of the presser foot lifted using the knee lifter is 10 mm.
- 2) You can adjust the presser foot lift up to 13 mm using knee lifter adjust screw ①
- 3) When you have adjusted the presser foot lift to over 10 mm, be sure that bottom
end of needle bar ② in its lowest position does not hit presser foot ③.

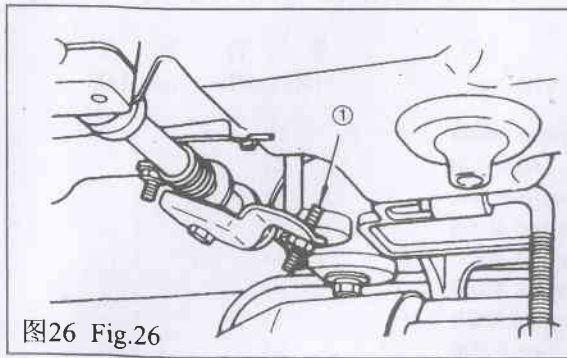


图26 Fig.26

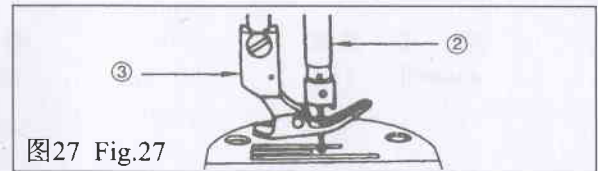


图27 Fig.27

19. 规格
19. SPECIFICSTIONS

| | Model | Model | Model |
|----------------|------------------------|------------------------|------------------------|
| 缝料 | 中厚料用 | 厚料用 | 厚料大旋梭 |
| 缝速 | 最高每分钟5500针 | 最高每分钟3500针 | 最高每分钟3000针 |
| 线迹长度 | 5mm | 5mm | 7mm |
| 压脚提升高度 (膝提) | 10mm (标准) 13mm (最大) | 10mm (标准) 13mm (最大) | 10mm (标准) 13mm (最大) |
| 机针 | DB × 1#9~#18 | DB × 1#18~#22 | DB × 1#18~#23 |
| 润滑油 | 10号白油 | | |

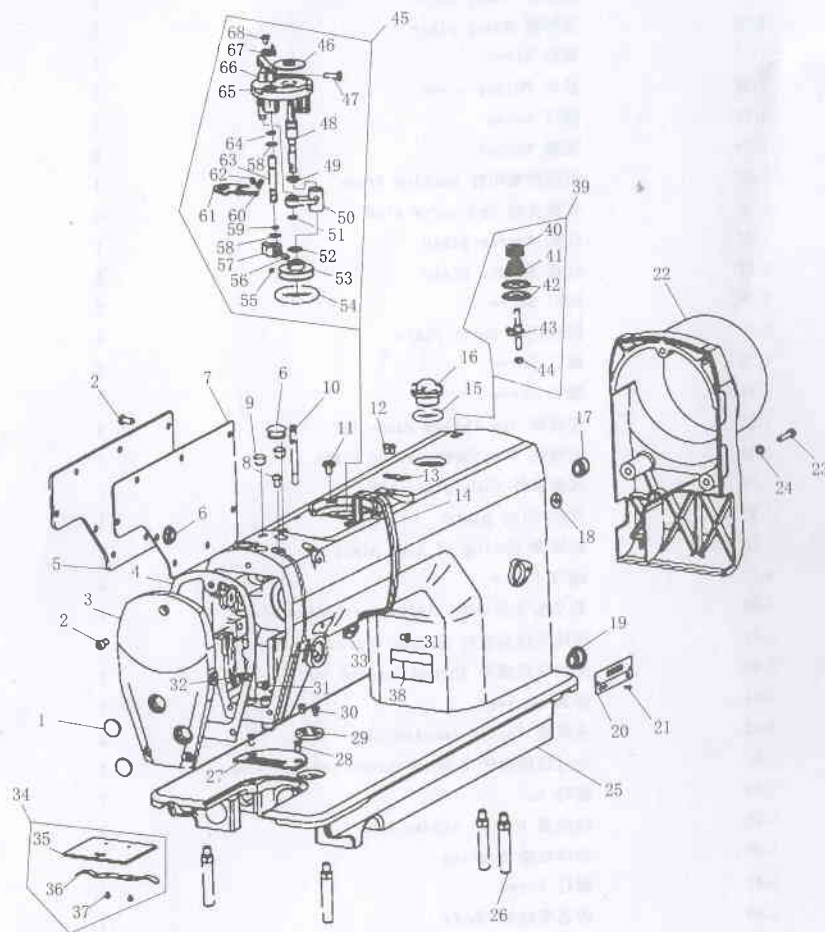
| | Model | Model | Model |
|---------------------------------------|------------------------------|------------------------------|------------------------------|
| Application | For medium-weight materials | For medium-weight materials | For heavy-weight materials |
| Sewing speed | Max. 5,500 s.p.m. | Max. 3,500 s.p.m. | Max. 3,000 s.p.m. |
| Stitch length | Max. 5mm | Max. 5mm | Max. 7mm |
| Presser foot lift (by knee lifter) | 10mm(standara) 13mm(max.) | 10mm(standara) 13mm(max.) | 10mm(standara) 13mm(max.) |
| Needle | DB × 1#9~#18 | DB × 1#18~#22 | DB × 1#18~#23 |
| Lubricating oil | 10 white oil | | |

1. 机壳分组件 MACHINE FRAME — MISCELLANEOUS COVER COMPONENTS

| 序号 Ref.No. | 件号 Part NO. | 名称 Description | 数量 QTY | 备注 Remark |
|---------------|----------------|------------------------------------|-----------|--------------|
| 1 | 1-1 | 橡胶塞 Rubber plug | 2 | |
| 2 | 1-2 | 螺钉 Screw | 11 | |
| 3 | 1-3 | 面板 Face plate | 1 | |
| 4 | 1-4 | 面板垫 Face plate gasket | 1 | |
| 5 | 1-5 | 后窗板 Side plate | 1 | |
| 6 | 1-6 | 橡胶塞 Rubber plug | 2 | |
| 7 | 1-7 | 后窗板垫 Side plate gasket | 1 | |
| 8 | 1-8 | 螺钉 Screw | 1 | |
| 9 | 1-9 | 橡胶塞 Rubber plug | 2 | |
| 10 | 1-10 | 过线柱 Needle thread guide pin | 1 | |
| 11 | 1-11 | 螺钉 Screw | 3 | |
| 12 | 1-12 | 螺钉 Screw | 2 | |
| 13 | 1-13 | 绕线切刀 Thread cutter | 1 | |
| 14 | 1-14 | 挑线杆护罩 Thread take-up lever cover | 1 | |
| 15 | 1-15 | O形圈 O-ring | 1 | |
| 16 | 1-16 | 油窗 Oil window | 1 | |
| 17 | 1-17 | 橡胶塞 Rubber plug | 1 | |
| 18 | 1-18 | 机头接地指示牌 Earthing indication plat | 1 | |
| 19 | 1-19 | 橡胶塞 Rubber plug | 1 | |
| 20 | 1-20 | 型号牌 Model plate | 1 | |
| 20 | 1-20 | 型号牌 Model plate | 1 | |
| 21 | 1-21 | 铆钉 Rivet | 1 | |
| 22 | 1-22 | 后盖 Pulley cover | 1 | |
| 23 | 1-23 | 螺钉 Screw | 3 | |
| 24 | 1-24 | 垫圈 Washer | 3 | |
| 25 | 1-25 | 机壳拼装组件 Machine frame | 1 | |
| 26 | 1-26 | 底板支柱 Bed screw stud | 4 | |
| 27 | 1-27 | 针板 Needle plate | 1 | |
| 27 | 1-27 | 针板 Needle plate | 1 | |
| 28 | 1-28 | 螺钉 Screw | 2 | |
| 29 | 1-29 | 限位挡片 Ruler plate | 1 | |
| 30 | 1-30 | 螺钉 Screw | 2 | |
| 31 | 1-31 | 螺钉 Screw | 2 | |
| 32 | 1-32 | 左线钩 Arm thread guide left | 1 | |
| 33 | 1-33 | 右线钩 Arm thread guide right | 1 | |
| 34 | 1-34 | 推板部件 Side plate ASM. | 1 | |
| 35 | 1-35 | 推板 Side plate | 1 | |
| 36 | 1-36 | 推板簧 Spring of side plate | 1 | |
| 37 | 1-37 | 螺钉 Screw | 2 | |
| 38 | 1-38 | 机头安全提示牌 Safty-indication plate | 1 | |
| 39 | 1-39 | 绕线夹线器组件 Bobbin thread tension ASM. | 1 | |
| 40 | 1-40 | 塑料夹线螺母 Thread tension nut | 1 | |
| 41 | 1-41 | 弹簧 Spring | 1 | |
| 42 | 1-42 | 夹线板 Thread tension disk | 2 | |
| 43 | 1-43 | 中过线板组件 Bobbin thread tension ASM. | 1 | |
| 44 | 1-44 | 螺母 Nut | 1 | |
| 45 | 1-45 | 绕线器 Bobbin winder ASM. | 1 | |
| 46 | 1-46 | 卷绕轴垫 Cushing | 1 | |
| 47 | 1-47 | 螺钉 Screw | 1 | |
| 48 | 1-48 | 梭芯卷绕轴 Shaft | 1 | |

1. 机壳分组件 MACHINE FRAME — MISCELLANEOUS COVER COMPONENTS

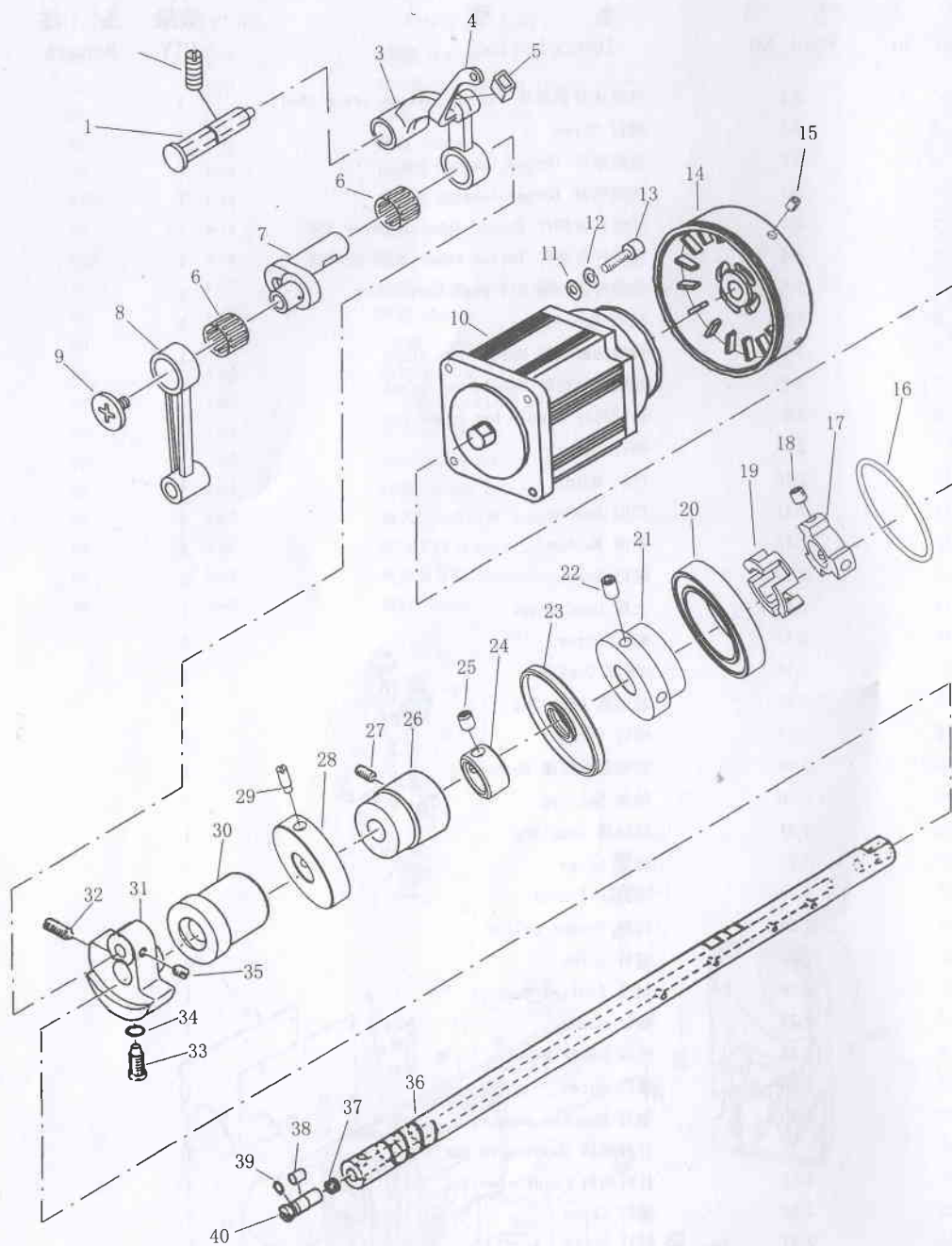
| 序号 Ref. No. | 件号 Part NO. | 名称 Description | 数量 QTY | 备注 Remark |
|----------------|----------------|-------------------------------------|-----------|--------------|
| 49 | 1-49 | O形圈 O-ring | 1 | |
| 50 | 1-50 | 摆动板组件 Bobbin winder shaft comple | 1 | |
| 51 | 1-51 | 挡圈 Thrust collar | 1 | |
| 52 | 1-52 | 垫圈 Washer | 1 | |
| 53 | 1-53 | 绕线轮 Bobbin ring | 1 | |
| 54 | 1-54 | 橡胶轮 Rubber ring | 1 | |
| 55 | 1-55 | 螺钉 Screw | 1 | |
| 56 | 1-56 | 螺钉 Screw | 1 | |
| 57 | 1-57 | 绕线定位块 Bobbin winder regulator | 1 | |
| 58 | 1-58 | 垫圈 washer | 2 | |
| 59 | 1-59 | O形圈 O-ring | 1 | |
| 60 | 1-60 | 弹簧 Spring | 1 | |
| 61 | 1-61 | 控制板 Adjusting plate | 1 | |
| 62 | 1-62 | 弹簧 Spring | 1 | |
| 63 | 1-63 | 绕线凸轮轴 Bobbin shaft | 1 | |
| 64 | 1-64 | 挡圈 Thrust collar | 1 | |
| 65 | 1-65 | 梭芯卷绕体组件 Bobbin fitting basis COMPL. | 1 | |
| 66 | 1-66 | 卷绕手柄 Bobbin lever | 1 | |
| 67 | 1-67 | 线量调节板 Adjusting plate | 1 | |
| 68 | 1-68 | 螺钉 Screw | 1 | |



2. 上轴、挑线分组件 MAIN SHAFT & THREAD TAKE-UP COMPONENTS

| 序号 Ref.No. | 件号 Part NO. | 名称 Description | 数量 QTY | 备注 Remark |
|---------------|----------------|------------------------------------|-----------|--------------|
| 1 | 2-1 | 挑线连杆销组件 Thread take-up crank shaft | 1 | |
| 2 | 2-2 | 螺钉 Screw | 1 | |
| 3 | 2-3 | 挑线连杆 Thread take-up bar | 1 | |
| 3 | 2-3 | 挑线连杆 Thread take-up bar | 1 | -5 |
| 4 | 2-4 | 挑线杆分部件 Thread take-up lever ASM. | 1 | |
| 4 | 2-4 | 挑线杆分部件 Thread take-up lever ASM. | 1 | -5 |
| 5 | 2-5 | 挑线杆防油圈 Oil resietant cover | 1 | |
| 6 | 2-6 | 轴承 Bearing | 2 | |
| 7 | 2-7 | 挑线曲柄组件 Needle bar crank | 1 | |
| 7 | 2-7 | 挑线曲柄组件 Needle bar crank | 1 | -5 |
| 8 | 2-8 | 针杆连杆 Needle bar crank rod | 1 | |
| 9 | 2-9 | 螺钉 Screw | 1 | |
| 10 | 2-10 | 电机 Motor | 1 | |
| 11 | 2-11 | 垫圈 Washer | 4 | |
| 12 | 2-12 | 垫圈 Washer | 4 | |
| 13 | 2-13 | 螺钉 Screw | 4 | |
| 14 | 2-14 | 上轮 Head wheel | 1 | |
| 15 | 2-15 | 螺钉 Screw | 2 | |
| 16 | 2-16 | O形圈 O-ring | 1 | |
| 17 | 2-17 | 联轴器 Coupling | 1 | |
| 18 | 2-18 | 螺钉 Screw | 3 | |
| 19 | 2-19 | 联轴器橡胶圈 Washer | 1 | |
| 20 | 2-20 | 轴承 Bearing | 1 | |
| 21 | 2-21 | 联轴器 Coupling | 1 | |
| 22 | 2-22 | 螺钉 Screw | 2 | |
| 23 | 2-23 | 油封 Oil seal | 1 | |
| 24 | 2-24 | 挡圈 Thrust collar | 1 | |
| 25 | 2-25 | 螺钉 Screw | 2 | |
| 26 | 2-26 | 轴套 Bearing support | 1 | |
| 27 | 2-27 | 螺钉 Screw | 1 | |
| 28 | 2-28 | 绕线主动轮 Wheel | 1 | |
| 29 | 2-29 | 螺钉 Screw | 1 | |
| 30 | 2-30 | 轴套 Bearing support | 1 | |
| 31 | 2-31 | 针杆曲柄 Counter weight | 1 | |
| 31 | 2-31 | 针杆曲柄 Counter weight | 1 | -5 |
| 32 | 2-32 | 螺钉 Screw | 1 | |
| 33 | 2-33 | 螺钉 Screw | 1 | |
| 34 | 2-34 | O形圈 O-ring | 1 | |
| 35 | 2-35 | 螺钉 Screw | 2 | |
| 36 | 2-36 | 上轴 Main shaft | 1 | |
| 37 | 2-37 | 毛毡 Roller felt | 1 | |
| 38 | 2-38 | 曲柄油量调节销套 Sleeve of adjusting pin | 1 | |
| 39 | 2-39 | O形圈 O-ring | 1 | |
| 40 | 2-40 | 曲柄油量调节销 Adjusting pin | 2 | |

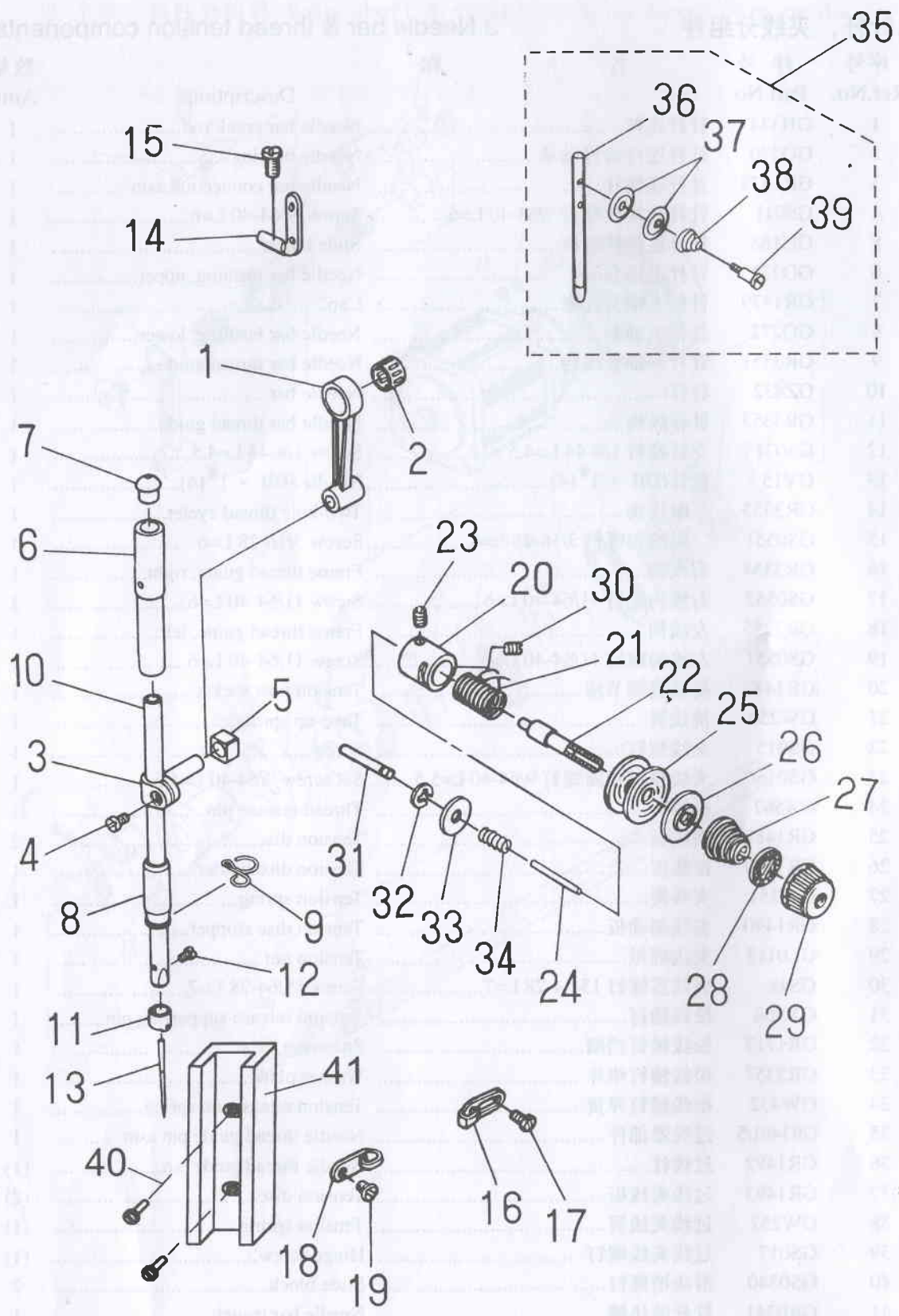
2. 上轴、挑线分组件 Main shaft & thread take-up lever components



3. 针杆、夹线分组件

3. Needle bar & thread tension components

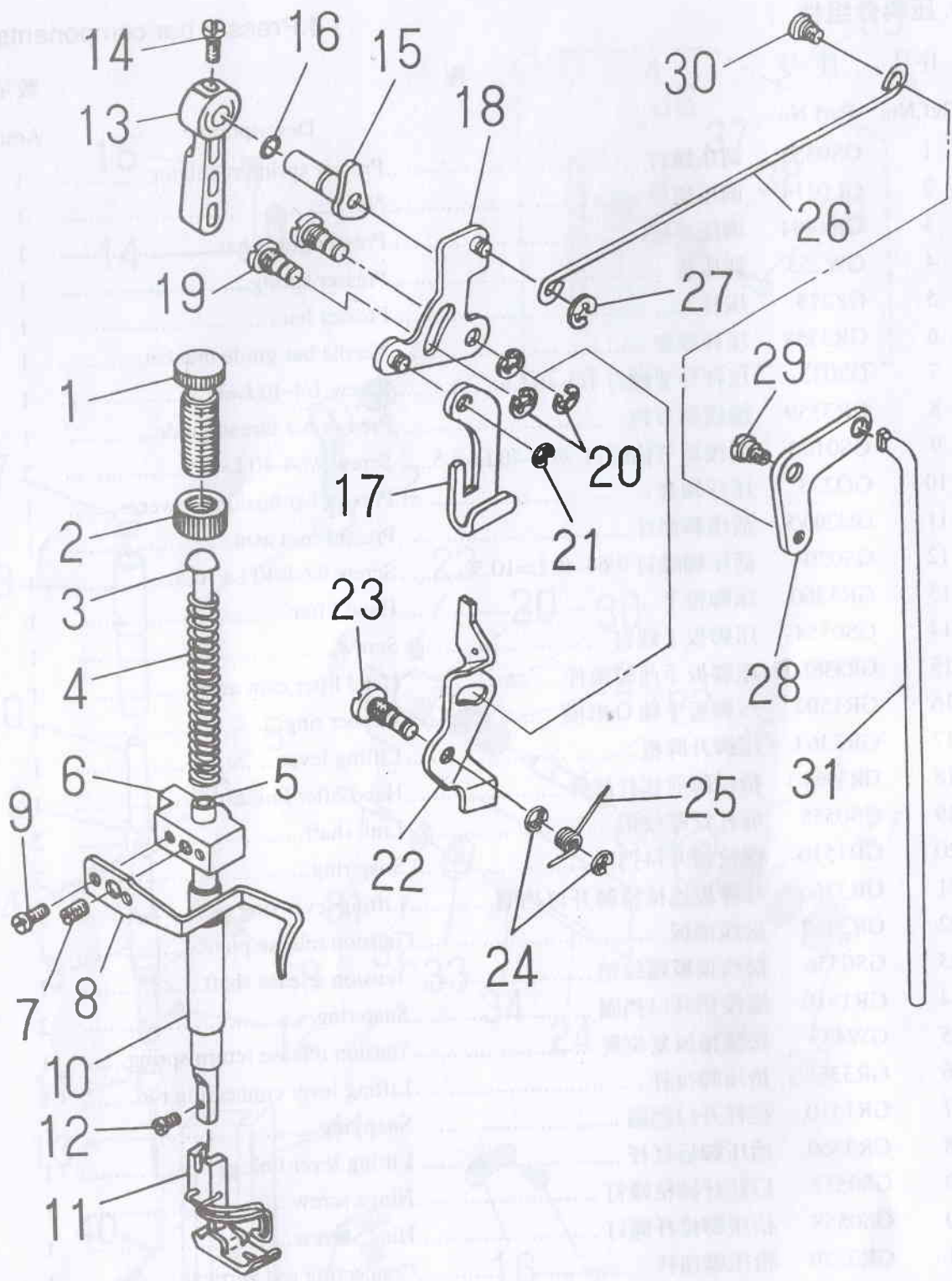
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|---------------|----------------|----------------------------------|--------------------------------------|------------|
| 1 | GH334 | 针杆连杆..... | Needle bar crank rod..... | 1 |
| 2 | GO270 | 针杆连杆滚针轴承..... | Needle bearing..... | 1 |
| 3 | GR1478 | 针杆连接柱..... | Needle bar connection asm. | 1 |
| 4 | GS011 | 针杆连接柱螺钉 9/64-40 L=6..... | Screw 9/64-40 L=6..... | 1 |
| 5 | GU168 | 针杆连接柱滑块..... | Slide block..... | 1 |
| 6 | GO271 | 针杆上轴套..... | Needle bar bushing, upper..... | 1 |
| 7 | GR1479 | 针杆上轴套孔塞..... | Cap..... | 1 |
| 8 | GO272 | 针杆下轴套..... | Needle bar bushing, lower..... | 1 |
| 9 | GR3351 | 针杆下轴套线钩..... | Needle bar thread guide..... | 1 |
| 10 | GZ432 | 针杆..... | Needle bar | 1 |
| 11 | GR3352 | 针杆线钩..... | Needle bar thread guide..... | 1 |
| 12 | GS071 | 支针螺钉 1/8-44 L=4.5 | Screw 1/8-44 L=4.5..... | 1 |
| 13 | GV15 | 机针(DB × 1 [#] 14) | Needle (DB × 1 [#] 14)..... | 1 |
| 14 | GR3353 | 二眼线钩..... | Two-hole thread eyelet..... | 1 |
| 15 | GS0551 | 二眼线钩螺钉 3/16-28 L=6..... | Screw 3/16-28 L=6..... | 1 |
| 16 | GR3354 | 右线钩..... | Frame thread guide, right..... | 1 |
| 17 | GS0552 | 右线钩螺钉 11/64-40 L=6..... | Screw 11/64-40 L=6..... | 1 |
| 18 | GR3355 | 左线钩..... | Frame thread guide, left..... | 1 |
| 19 | GS0551 | 左线钩螺钉 11/64-40 L=6..... | Screw 11/64-40 L=6..... | 1 |
| 20 | GR1487 | 挑线簧调节座..... | Tension post socket..... | 1 |
| 21 | GW250 | 挑线簧..... | Take-up spring..... | 1 |
| 22 | GS015 | 夹线螺钉..... | Screw..... | 1 |
| 23 | GS016 | 夹线螺钉紧固螺钉 9/64-40 L=5.5..... | Set screw 9/64-40 L=5.5..... | 1 |
| 24 | GX567 | 松线钉..... | Thread release pin..... | 1 |
| 25 | GR1488 | 夹线板..... | Tension disc..... | 2 |
| 26 | GR1489 | 松线板..... | Tension disc holder..... | 1 |
| 27 | GW251 | 夹线簧..... | Tension spring..... | 1 |
| 28 | GR1490 | 夹线制动板..... | Tension disc stopper..... | 1 |
| 29 | GL0113 | 夹线螺母..... | Tension nut..... | 1 |
| 30 | GS48 | 夹线器螺钉 15/64-28 L=7..... | Screw 15/64-28 L=7..... | 1 |
| 31 | GX568 | 松线辅钉..... | Tension release supporting pin..... | 1 |
| 32 | GR1717 | 松线辅钉挡圈..... | Snap ring..... | 1 |
| 33 | GR3357 | 松线辅钉垫片..... | Washer plate..... | 1 |
| 34 | GW432 | 松线辅钉弹簧..... | Tension release pin spring..... | 1 |
| 35 | GR1491/5 | 过线器部件..... | Needle thread guide pin asm. | 1 |
| 36 | GR1492 | 过线柱..... | Needle thread guide pin..... | (1) |
| 37 | GR1493 | 过线夹线板..... | Tension disc..... | (2) |
| 38 | GW252 | 过线夹线簧..... | Tension spring..... | (1) |
| 39 | GS017 | 过线夹线螺钉..... | Hinge screw..... | (1) |
| 40 | GS0340 | 滑块槽螺钉..... | Slide block..... | 2 |
| 41 | GR0341 | 针杆滑块槽..... | Needle bar trough..... | 1 |



4. 压料分组件

4. Presser bar components

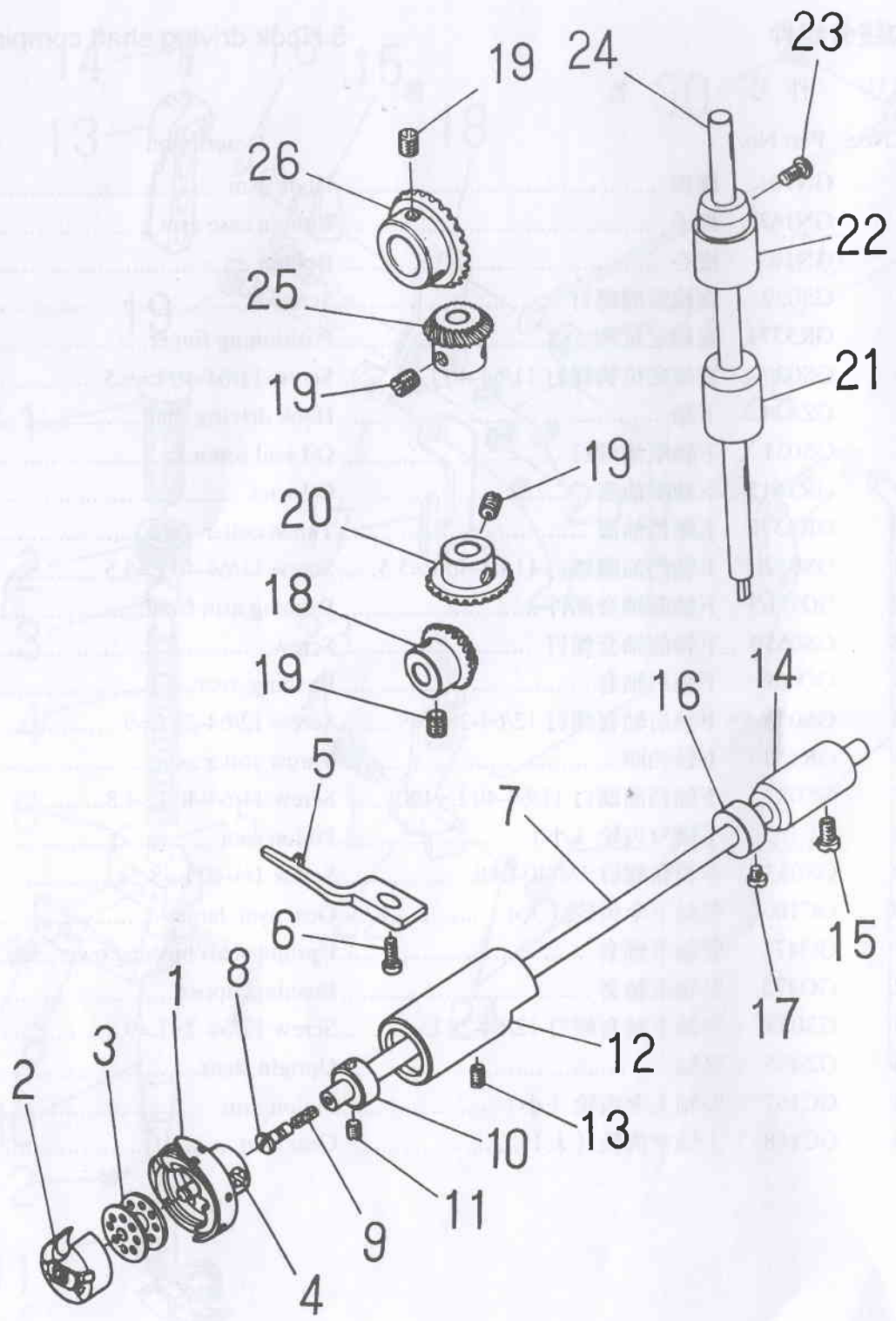
| 序号 | 件号 | 名 称 | 数量 |
|---------|----------|---|------|
| Ref.No. | Part No. | Description | Amt. |
| 1 | GS0553 | 调压螺钉 Presser spring regulator..... | 1 |
| 2 | GL0114 | 调压螺母 Nut..... | 1 |
| 3 | GR1494 | 调压导杆 Presser guide bar..... | 1 |
| 4 | GW253 | 调压簧 Presser spring..... | 1 |
| 5 | GZ275 | 压杆 Presser bar..... | 1 |
| 6 | GR3358 | 压杆导架 Needle bar guide bracket..... | 1 |
| 7 | GS033 | 压杆导架螺钉 1/4-40 L=8..... Screw 1/4-40 L=8..... | 1 |
| 8 | GR3359 | 缓线调节钩 Presser bar thread guide..... | 1 |
| 9 | GS0100 | 缓线调节钩螺钉 9/64-40 L=8.5..... Screw 9/64-40 L=8.5..... | 2 |
| 10 | GO273 | 压杆轴套 Presser bar bushing lower..... | 1 |
| 11 | GM200/5 | 活压脚部件 Presser foot asm. | 1 |
| 12 | GS020 | 活压脚螺钉 9/64-40 L=10.5..... Screw 9/64-40 L=10.5..... | 1 |
| 13 | GR3360 | 压脚扳手 Hand lifter..... | 1 |
| 14 | GS0554 | 压脚扳手螺钉 Screw..... | 1 |
| 15 | GR3361/2 | 压脚扳手凸轮部件 Hand lifter cam asm. | 1 |
| 16 | GR1503 | 压脚扳手轴 O 形圈 Rubber ring..... | 1 |
| 17 | GR3363 | 压脚升降板 Lifting lever..... | 1 |
| 18 | GR3364/3 | 抬压脚前杠杆部件 Hand lifter link asm. | 1 |
| 19 | GS0555 | 前杠杆螺纹销 Link shaft..... | 2 |
| 20 | GR1510 | 螺纹销开口挡圈 Snap ring..... | 3 |
| 21 | GR3366 | 升降板连接特制开口挡圈 Lifting lever ring..... | 1 |
| 22 | GR3367 | 松线顶板 Tension release plate..... | 1 |
| 23 | GS0556 | 松线顶板螺纹销 Tension release shaft..... | 1 |
| 24 | GR1510 | 螺纹销开口挡圈 Snap ring..... | 2 |
| 25 | GW433 | 松线顶板复位簧 Tension release return spring..... | 1 |
| 26 | GR3368 | 抬压脚拉杆 Lifting lever connecting rod..... | 1 |
| 27 | GR1510 | 拉杆开口挡圈 Snap ring..... | 1 |
| 28 | GR3369 | 抬压脚后杠杆 Lifting lever link..... | 1 |
| 29 | GS0557 | 后杠杆轴位螺钉 Hinge screw..... | 1 |
| 30 | GS0558 | 抬压脚拉杆螺钉 Hinge screw..... | 1 |
| 31 | GR3370 | 抬压脚顶杆 Connecting rod vertical..... | 1 |



5. 勾线分组件

5. Hook driving shaft compinents

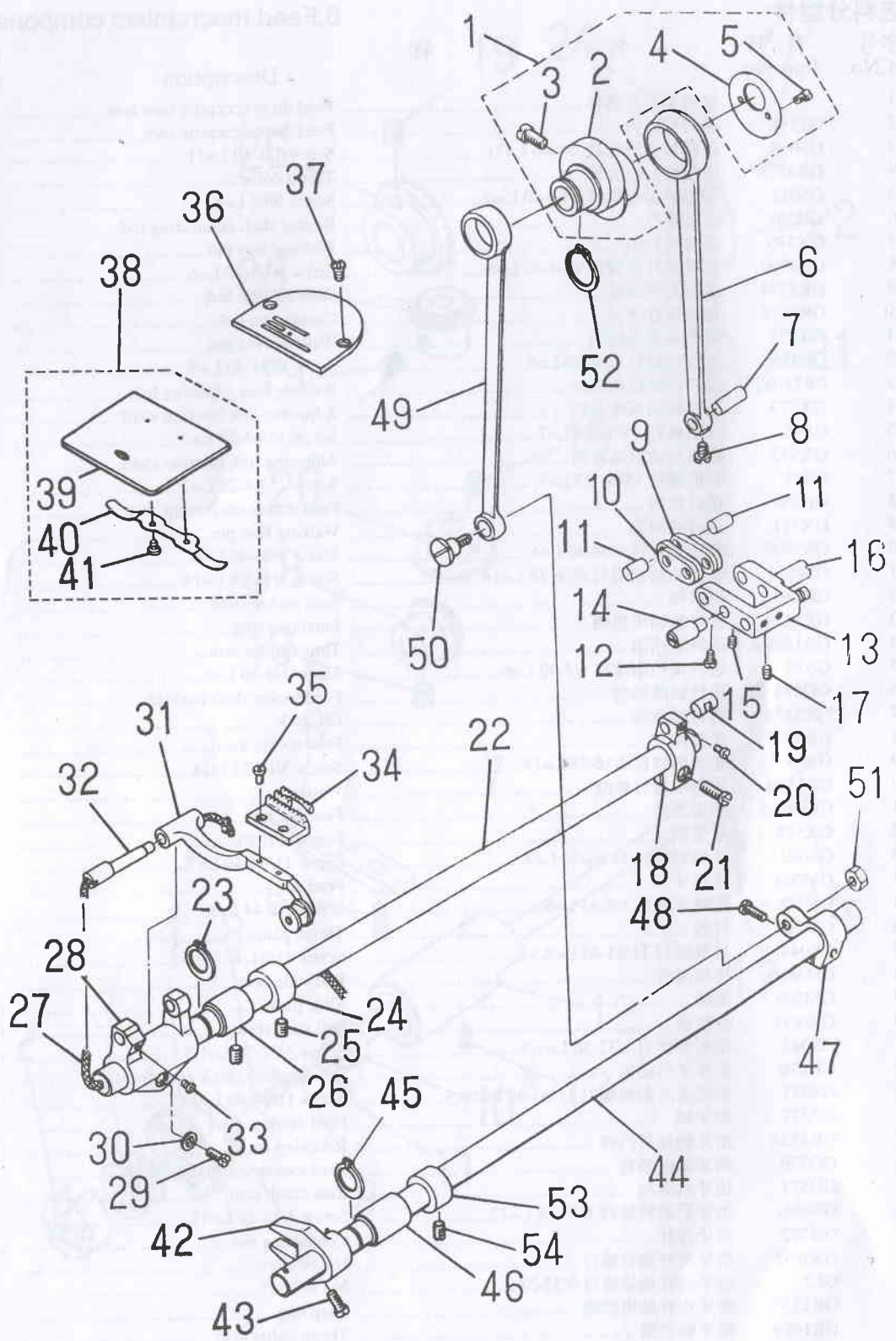
| 序号 | 件号 | 名 称 | 数量 |
|---------|----------|---|------|
| Ref.No. | Part No. | Description | Amt. |
| 1 | GN161 | 旋梭..... Hook asm..... | 1 |
| 2 | GN162 | 梭子..... Bobbin case asm..... | 1 |
| 3 | GN163 | 梭心..... Bobbin..... | 1 |
| 4 | GS029 | 旋梭紧固螺钉..... Screw..... | 2 |
| 5 | GR3371 | 旋梭定位钩..... Positioning finger..... | 1 |
| 6 | GS030 | 旋梭定位钩螺钉 11/64-40 L=9.5..... Screw 11/64-40 L=9.5..... | 1 |
| 7 | GZ434 | 下轴..... Hook driving shaft..... | 1 |
| 8 | GS031 | 下轴限油螺钉..... Oil seal screw..... | 1 |
| 9 | GR1515 | 下轴限油芯..... Oil wick..... | 1 |
| 10 | GR3372 | 下轴挡油圈..... Thtust collar..... | 1 |
| 11 | GS032 | 下轴挡油圈螺钉 11/64-40 L=3.5..... Screw 11/64-40 L=3.5..... | 2 |
| 12 | GO331/3 | 下轴前轴套部件..... Bushing asm front..... | 1 |
| 13 | GS0559 | 下轴前轴套螺钉..... Screw..... | 1 |
| 14 | GO470 | 下轴后轴套..... Bushing, rear..... | 1 |
| 15 | GS053 | 下轴后轴套螺钉 12/64-28 L=9..... Screw 12/64-28 L=9..... | 1 |
| 16 | GR1519 | 下轴挡圈..... Thrust collar asm..... | 1 |
| 17 | GS082 | 下轴挡圈螺钉 11/64-40 L=4.8..... Screw 11/64-40 L=4.8..... | 2 |
| 18 | GC165 | 下轴伞齿轮 (小)..... Pinion asm..... | 1 |
| 19 | GS033 | 伞齿轮螺钉 1/4-40 L=8..... Screw 1/4-40 L=8..... | 8 |
| 20 | GC166 | 竖轴下伞齿轮 (大)..... Gear asm, large..... | 1 |
| 21 | GO471 | 竖轴下轴套..... Upright shaft bushing, ower..... | 1 |
| 22 | GO472 | 竖轴上轴套..... Bushing, upper..... | 1 |
| 23 | GS053 | 竖轴上轴套螺钉 12/64-28 L=9..... Screw 12/64-28 L=9..... | 1 |
| 24 | GZ435 | 竖轴..... Upright shaft..... | 1 |
| 25 | GC167 | 竖轴上伞齿轮 (小)..... Pinion asm..... | 1 |
| 26 | GC168 | 上轴伞齿轮 (大)..... Gear asm..... | 1 |



6. 送料分组件

6. Feed mechanism components

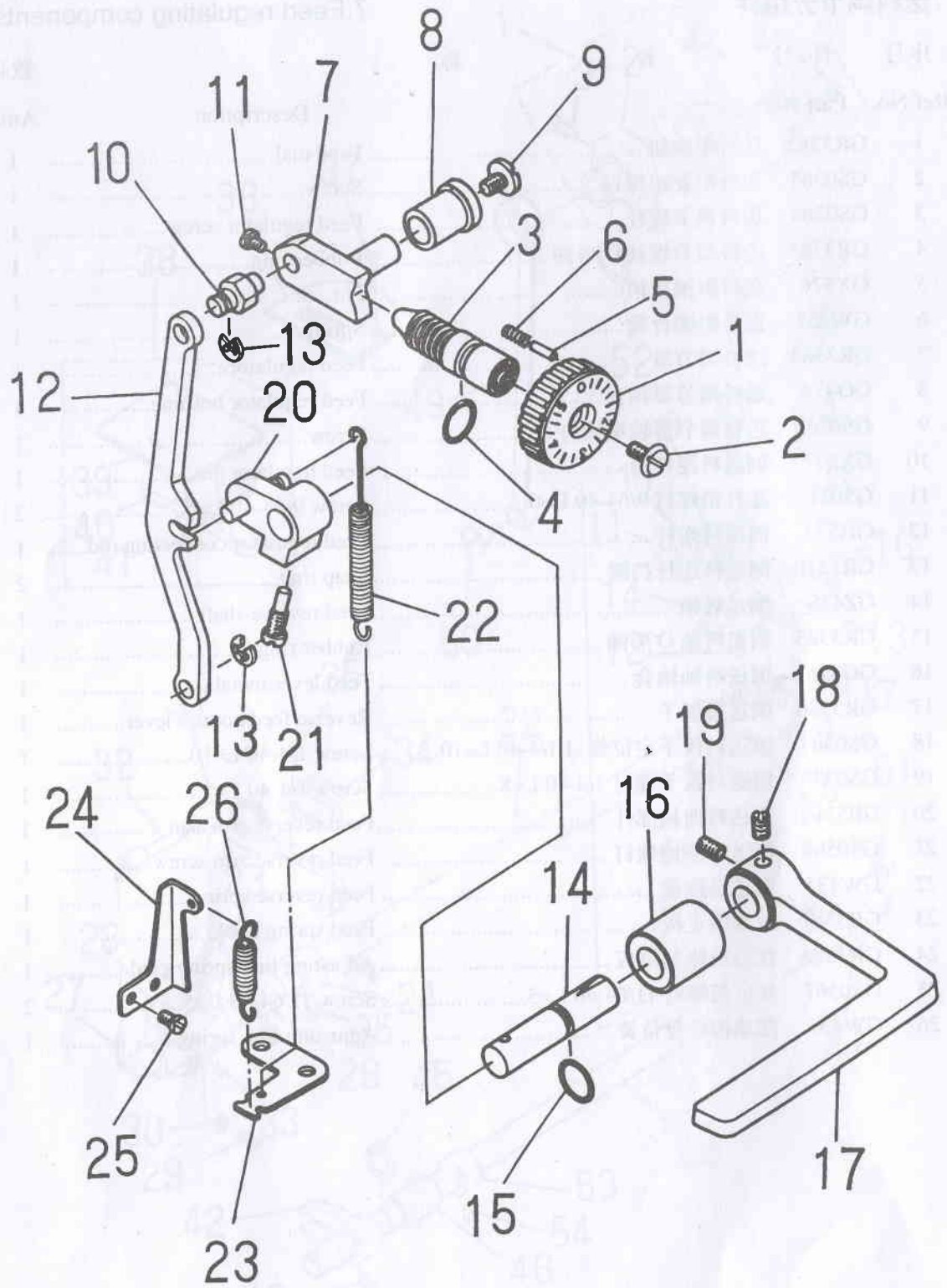
| 序号 Ref.No. | 件号 Part No. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|--------------------------------|--------------------------------------|------------|
| 1 | | 送料偏心轮部件 | Feed drive eccentric cam asm | 1 |
| 2 | GT198 | 送料偏心轮 | Feed drive eccentric cam | (1) |
| 3 | GS034 | 送料偏心轮螺钉 1/4-40 L=11 | Screw 1/4-40 L=11 | (2) |
| 4 | GR3373 | 送料偏心轮盖板 | Thrust collar | (1) |
| 5 | GS011 | 偏心轮盖板螺钉 9/64-40 L=6 | Screw 9/64 L=6 | (2) |
| 6 | GH568 | 送料连杆 | Rocker shaft connecting rod | 1 |
| 7 | GX570 | 送料连杆销 | Walking foot pin | 1 |
| 8 | GS0560 | 送料连杆销螺钉 9/64-40 L=6 | Screw 9/64-40 L=6 | 1 |
| 9 | GR3374 | 送料长摆动板 | Walking foot link | 2 |
| 10 | GR3375 | 送料短摆动板 | Connecting link | 2 |
| 11 | GX571 | 短摆动板连接销 | Walking foot pin | 2 |
| 12 | GS0560 | 连接销螺钉 9/64-40 L=6 | Screw 9/64-40 L=6 | 2 |
| 13 | GR3376/2 | 送料摆动板座部件 | Walking foot adjusting link | 1 |
| 14 | GX573 | 送料摆动板座右销 | Adjusting link fulcrum shaft | 1 |
| 15 | GS48 | 左销螺钉 15/64-28 L=7 | Screw 15/64-28 L=7 | 1 |
| 16 | GX573 | 送料摆动板座右销 | Adjusting link fulcrum shaft | 1 |
| 17 | GS48 | 右销螺钉 15/64-28 L=7 | Screw 15/64-28 L=7 | 1 |
| 18 | GH569 | 送料曲柄 | Feed rocker shaft crank asm | 1 |
| 19 | GX571 | 送料曲柄销 | Walking foot pin | 1 |
| 20 | GS0560 | 曲柄销螺钉 9/64-40 L=6 | Screw 9/64-40 L=6 | 1 |
| 21 | GS0561 | 送料曲柄销螺钉 3/16-28 L=14 | Screw 3/16-28 L=14 | 1 |
| 22 | GZ436 | 送料轴 | Feed rocker shaft | 1 |
| 23 | GR1524 | 送料轴轴用挡圈 | Retaining ring | 1 |
| 24 | GR1469 | 送料轴挡圈 | Thrust collar asm | 1 |
| 25 | GS39 | 送料轴挡圈螺钉 1/4-40 L=6 | Screw 1/4-40 L=6 | 2 |
| 26 | GO473 | 送料轴前轴套 | Feed rocker shaft bushing | 1 |
| 27 | GR3378 | 送料轴油线 | Oil wick | 1 |
| 28 | GR3379 | 牙架座 | Feed rocker asm | 1 |
| 29 | GS69 | 牙架座螺钉 3/16-28 L=14 | Screw 3/16-28 L=14 | 1 |
| 30 | GR1528 | 牙架座螺钉垫圈 | Washer | 1 |
| 31 | GR3380/5 | 牙架部件 | Feed bar asm | 1 |
| 32 | GX575 | 牙架销 | Feed bar shaft | 1 |
| 33 | GS092 | 牙架销螺钉 11/64-40 L=7 | Screw 11/64-40 L=7 | 1 |
| 34 | GM201 | 送料牙 | Feed dog | 1 |
| 35 | GS072 | 送料牙螺钉 1/8-44 L=6 | Screw 1/8-44 L=6 | 2 |
| 36 | GM202 | 针板 | Throat plate | 1 |
| 37 | GS044 | 针板螺钉 11/64-40 L=8.5 | Screw 11/64-40 L=8.5 | 2 |
| 38 | GM340/4 | 推板部件 | Bed slide asm | 1 |
| 39 | GM204 | 推板 | Slide plate | (1) |
| 40 | GW434 | 推板簧 | Bed slide spring | (1) |
| 41 | GS045 | 推板簧螺钉 3/32-56 L=1.9 | Screw 3/32-56 L=1.9 | (2) |
| 42 | GH570 | 拾牙叉形曲柄 | Driving shaft crank asm. front | 1 |
| 43 | GS037 | 拾牙叉形曲柄螺钉 11/64-40 L=10.5 | Screw 11/64-40 L=10.5 | 1 |
| 44 | GZ437 | 拾牙轴 | Feed driving shaft | 1 |
| 45 | GR1524 | 拾牙轴轴用挡圈 | Retaining ring | 1 |
| 46 | GO336 | 拾牙轴前轴套 | Feed rocker shaft bushing | 1 |
| 47 | GH571 | 拾牙后曲柄 | Rear crank asm | 1 |
| 48 | GS0561 | 拾牙后曲柄螺钉 3/16-28 L=12 | Screw 3/16-28 L=12 | 1 |
| 49 | GH572 | 拾牙连杆 | Connecting rod | 1 |
| 50 | GS0562 | 拾牙连杆轴位螺钉 | Hinge screw | 1 |
| 51 | GL7 | 拾牙连杆轴位螺母 9/32-28 | Nut 9/32-28 | 1 |
| 52 | GR1535 | 拾牙连杆轴用挡圈 | Snap ring | 1 |
| 53 | GR1469 | 拾牙轴挡圈 | Thrust collar asm | 1 |
| 54 | GS39 | 拾牙轴挡圈螺钉 1/4-40 L=6 | Screw 1/4-40 L=6 | 2 |



7. 送料调节分组件

7.Feed regulating components

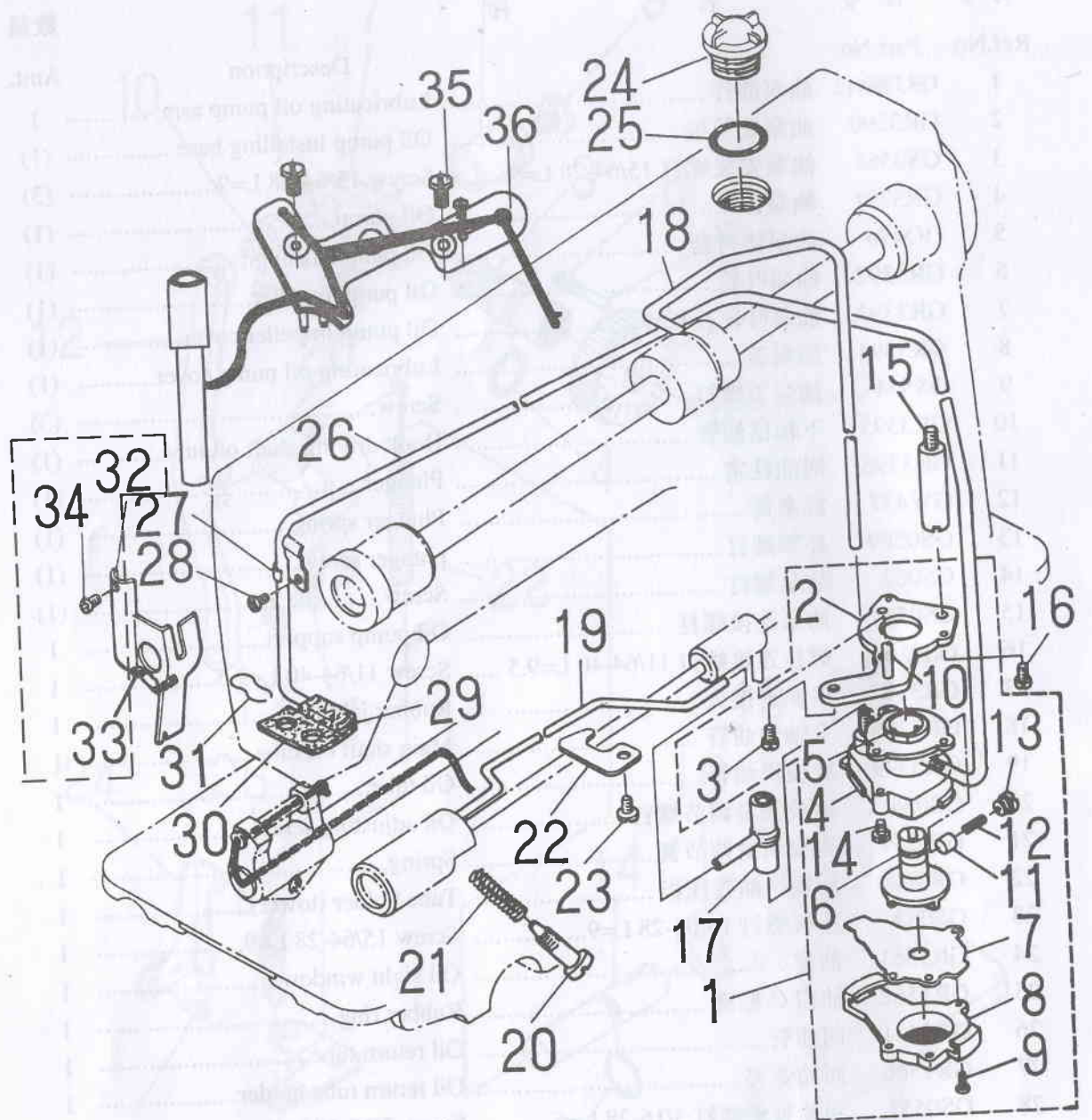
| 序号 | 件号 | 名 称 | | 数量 |
|---------|----------|----------------------------|------------------------------------|------|
| Ref.No. | Part No. | Description | | Amt. |
| 1 | GR3382 | 送料距旋钮 | Feed dial..... | 1 |
| 2 | GS0563 | 送料距旋钮螺钉 | Screw..... | 1 |
| 3 | GS0564 | 送料调节螺柱 | Feed regulator screw..... | 1 |
| 4 | GR3383 | 送料调节螺柱 O 形圈 | Rubber ring..... | 1 |
| 5 | GX576 | 送料距锁合销 | Pin..... | 1 |
| 6 | GW257 | 送料距锁合簧 | Spring..... | 1 |
| 7 | GR3384 | 送料调节器 | Feed regulator..... | 1 |
| 8 | GO474 | 送料调节器轴套 | Feed regulator bushing..... | 1 |
| 9 | GS0565 | 送料调节器轴端螺钉 | Screw..... | 1 |
| 10 | GX577 | 倒送料连杆销 | Feed regulator pin..... | 1 |
| 11 | GS011 | 连杆销螺钉 9/64-40 L=6..... | Screw 9/64-40 L=6..... | 2 |
| 12 | GH573 | 倒送料连杆 | Feed regulator connecting rod..... | 1 |
| 13 | GR1510 | 倒送料连杆挡圈 | Snap ring..... | 2 |
| 14 | GZ438 | 倒送料轴 | Feed reverse shaft..... | 1 |
| 15 | GR3385 | 倒送料轴 O 形圈 | Rubber ring..... | 1 |
| 16 | GO475 | 倒送料轴轴套 | Feed lever metal..... | 1 |
| 17 | GR3386 | 倒送料扳手 | Reverse feed control lever..... | 1 |
| 18 | GS050 | 倒送料扳手定位螺钉 1/4-40 L=10..... | Screw 1/4-40 L=10..... | 1 |
| 19 | GS033 | 倒送料扳手螺钉 1/4-40 L=8..... | Screw 1/4-40 L=8..... | 1 |
| 20 | GH574/2 | 倒送料曲柄部件 | Feed reverse arm asm. | 1 |
| 21 | GS0566 | 倒送料曲柄螺钉 | Feed reverse arm screw..... | 1 |
| 22 | GW435 | 倒送料拉簧 | Feed reverse spring..... | 1 |
| 23 | GR3387 | 拉簧固定板 | Feed spring hook..... | 1 |
| 24 | GR3388 | 摆动板座复位板 | Adjusting link spring guide..... | 1 |
| 25 | GS0567 | 复位板螺钉 11/64-40 L=5..... | Screw 11/64-40 L=5..... | 2 |
| 26 | GW436 | 摆动板座复位簧 | Adjusting link spring..... | 1 |



8. 润滑分组件

8.Lubrication components

| 序号 | 件号 | 名 称 | 数量 |
|---------|-----------|-----------------------------|--------------------------------------|
| Ref.No. | Part No. | Description | Amt. |
| 1 | GR3389/12 | 油泵部件 | Lubricating oil pump asm. 1 |
| 2 | GR3390 | 油泵安装板 | Oil pump installing base..... (1) |
| 3 | GS0568 | 油泵安装螺钉 15/64-28 L=9..... | Screw 15/64-28 L=9..... (3) |
| 4 | GR3391 | 油泵体 | Oil pump..... (1) |
| 5 | GO476 | 油泵体衬套 | Oil pump bushing..... (1) |
| 6 | GR3392 | 油泵叶轮 | Oil pump impeller..... (1) |
| 7 | GR3393 | 油泵叶轮托板 | Oil pump impeller cover..... (1) |
| 8 | GR3394 | 油泵盖 | Lubricating oil pump cover..... (1) |
| 9 | GS554 | 油泵盖螺钉 | Screw..... (3) |
| 10 | GR3395 | 下轴供油管 | Hook driving shaft oil tube..... (1) |
| 11 | GR3396 | 回油柱塞 | Plunger..... (1) |
| 12 | GW437 | 柱塞簧 | Plunger spring..... (1) |
| 13 | GS0569 | 柱塞螺钉 | plunger screw..... (1) |
| 14 | GS062 | 油泵螺钉 | Screw..... (1) |
| 15 | GS0567 | 油泵连接螺柱 | Oil pump support..... 1 |
| 16 | GS030 | 螺柱连接螺钉 11/64-40 L=9.5 | Screw 11/64-40 L=9.5..... 1 |
| 17 | GR3397 | 供油管接头 | Rubber joint..... 1 |
| 18 | GR3398 | 上轴供油管 | Main shaft oil tube..... 1 |
| 19 | GR3399 | 旋梭供油管 | Oil tube..... 1 |
| 20 | GS054 | 旋梭油量调节螺钉 | Oil adjusting screw..... 1 |
| 21 | GW259 | 旋梭油量调节簧 | Spring..... 1 |
| 22 | GR3400 | 旋梭供油管压板 | Tube holder (lower)..... 1 |
| 23 | GS062 | 压板螺钉 15/64-28 L=9..... | Screw 15/64-28 L=9..... 1 |
| 24 | GR1561 | 油窗 | Oil sight window..... 1 |
| 25 | GR1562 | 油窗 O 形圈 | Rubber ring..... 1 |
| 26 | GR3401 | 回油管 | Oil return tube..... 1 |
| 27 | GR1566 | 回油管夹 | Oil return tube holder..... 1 |
| 28 | GS0551 | 回油管夹螺钉 3/16-28 L=6..... | Screw 3/16-28 L=6..... 1 |
| 29 | GR1567 | 回油除尘毡 | Anti-dust oil felt..... 1 |
| 30 | GR1568 | 回油毡 | Oil felt..... 1 |
| 31 | GR1569 | 回油毡夹 | Oil felt presser..... 1 |
| 32 | GR3403 | 面部防油板 | Arm oil shield..... 1 |
| 33 | GR3404 | 防油板油线 | Oil wick..... 1 |
| 34 | GS44 | 防油板螺钉 1/8-44 L=4..... | Screw 1/8-44 L=4..... 1 |
| 35 | GS0835 | 油线固定板螺钉 | Oil wick setplate screw..... 2 |
| 36 | GR0836 | 油线固定板组件 | Oil wick setplate asm..... 1 |

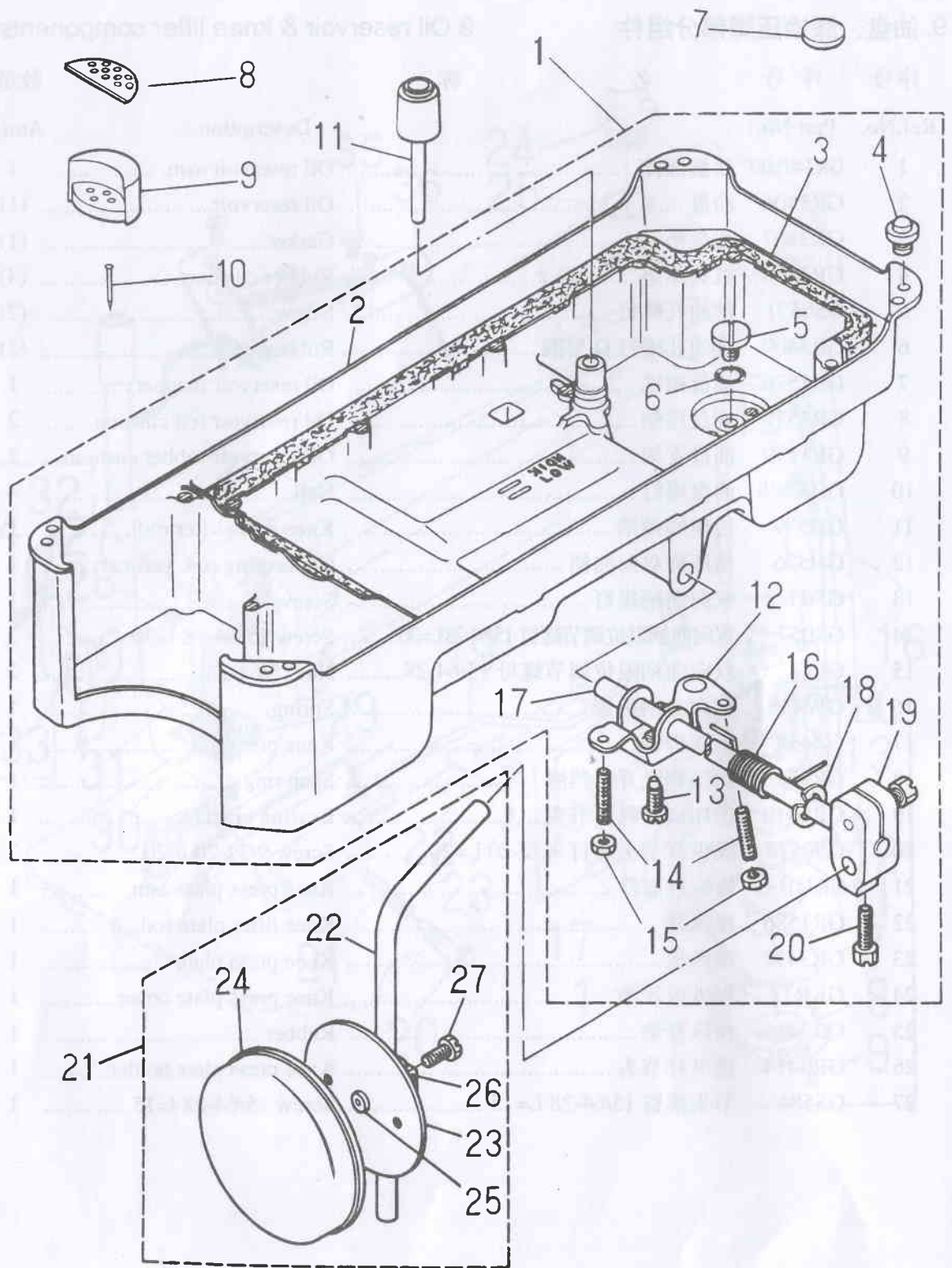


9. 油盘、膝抬压脚部分组件

9.Oil reservoir & knee lifter components

| 序号 | 件号 | 名 称 | Description | 数量 |
|---------|-----------|-------------------------------|----------------------------------|------|
| Ref.No. | Part No. | | | Amt. |
| 1 | GR3405/17 | 油盘部件 | Oil reservoir asm. | 1 |
| 2 | GR3406 | 油盘 | Oil reservoir..... | (1) |
| 3 | GR3407 | 油盘垫 | Gasket..... | (1) |
| 4 | GR3408 | 机头座垫 | Rubber cushion..... | (4) |
| 5 | GS0571 | 排油孔螺钉 | Screw..... | (2) |
| 6 | GR3409 | 排油孔螺钉 O 型圈 | Rubber ring..... | (2) |
| 7 | GR1576 | 油盘磁铁 | Oil reservoir magnet..... | 1 |
| 8 | GR1578 | 油盘座垫 | Oil reservoir felt cushion..... | 2 |
| 9 | GR1579 | 油盘支架 | Oil reservoir rubber cushion.... | 2 |
| 10 | GBX108 | 油盘座钉 | Nail..... | 4 |
| 11 | GH579 | 抬压脚顶销 | Knee press lifter rod..... | 1 |
| 12 | GH576 | 抬压脚双向曲柄 | Connecting rod, vertical..... | 1 |
| 13 | GS0572 | 双向曲柄螺钉 | Screw..... | 1 |
| 14 | GS057 | 双向曲柄限位调节螺钉 15/64-28L=30 | Screw 15/64-28 l=30..... | 2 |
| 15 | GL21 | 双向曲柄限位调节螺母 15/64-28..... | Nut 15/64-28..... | 2 |
| 16 | GW438 | 双向曲柄扭簧 | Spring..... | 1 |
| 17 | GZ439 | 抬压脚轴 | Knee press rod..... | 1 |
| 18 | GR1583 | 抬压脚轴开口挡圈 | Snap ring..... | 1 |
| 19 | GR3410 | 抬压脚操纵杆节头 | Bearing bracket..... | 1 |
| 20 | GS0573 | 操纵杆节头螺钉 9/32-20 L=20..... | Screw 9/32-20 l=20..... | 2 |
| 21 | GR3411/6 | 操纵杆部件 | Knee press plate asm. | 1 |
| 22 | GR1586 | 操纵杆 | Knee lifter plate rod..... | 1 |
| 23 | GR3412 | 操纵板 | Knee press plate | 1 |
| 24 | GKR13 | 操纵板软垫 | Knee press plate cover..... | 1 |
| 25 | GR3413 | 操纵杆垫 | Rubber..... | 1 |
| 26 | GR3414 | 操纵杆节头 | Knee press plate holder..... | 1 |
| 27 | GS584 | 节头螺钉 15/64-28 L=15..... | Screw 15/64-28 l=15..... | 1 |

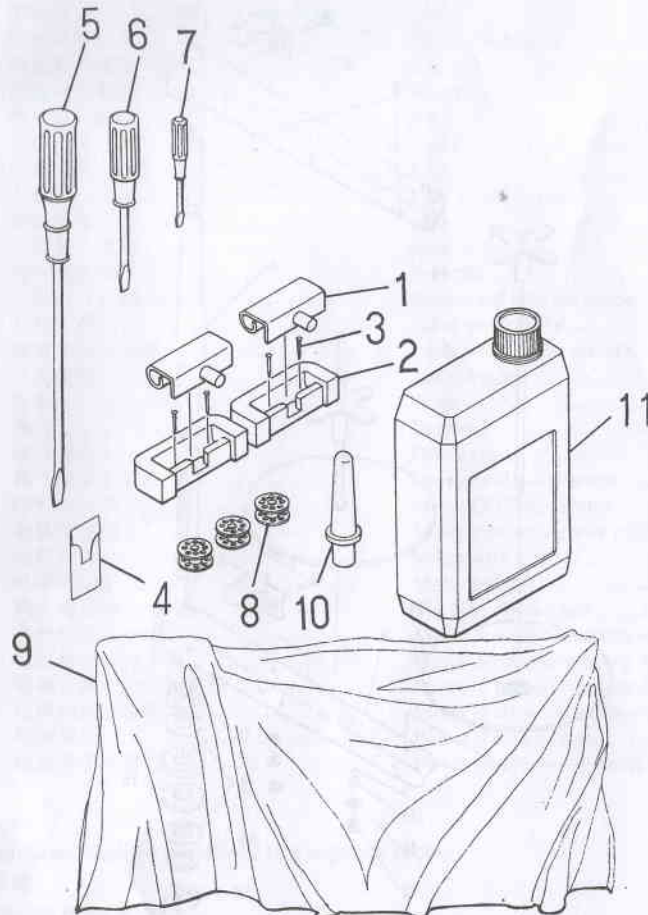




10. 机头附件(1)

10.Machine head accessories(1)

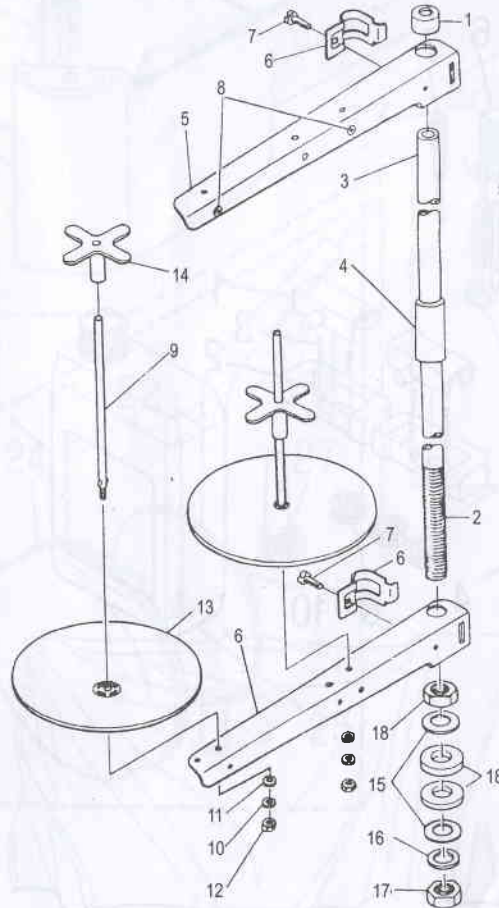
| 序号 | 件号 | 名 称 | | 数量 |
|---------|----------|---------------|-------------------------------|------|
| Ref.No. | Part No. | Description | | Amt. |
| 1 | GR1590/2 | 机头连接钩部件 | Machine hinge plate asm. | 2 |
| 2 | GBX105 | 机头连接钩座 | Machine hinge plate..... | 2 |
| 3 | GK241 | 机头连接钩座钉 | Nail..... | 4 |
| 4 | GV15 | 机针 | Needle..... | 1包 |
| 5 | GR1610 | 螺丝刀 (大) | Screw driver, large..... | 1 |
| 6 | GR1602 | 螺丝刀 (中) | Screw driver, mendium..... | 1 |
| 7 | GR1603 | 螺丝刀 (小) | Screw driver, small..... | 1 |
| 8 | GN163 | 梭心 | Bobbin..... | 3 |
| 9 | GF424 | 机头罩 | Machine head cover | 1 |
| 10 | GBR148 | 机头支柱 | Machine rest pin | 1 |
| 11 | GR1604/3 | 油箱部件 | Oil reservoir asm. | 1 |

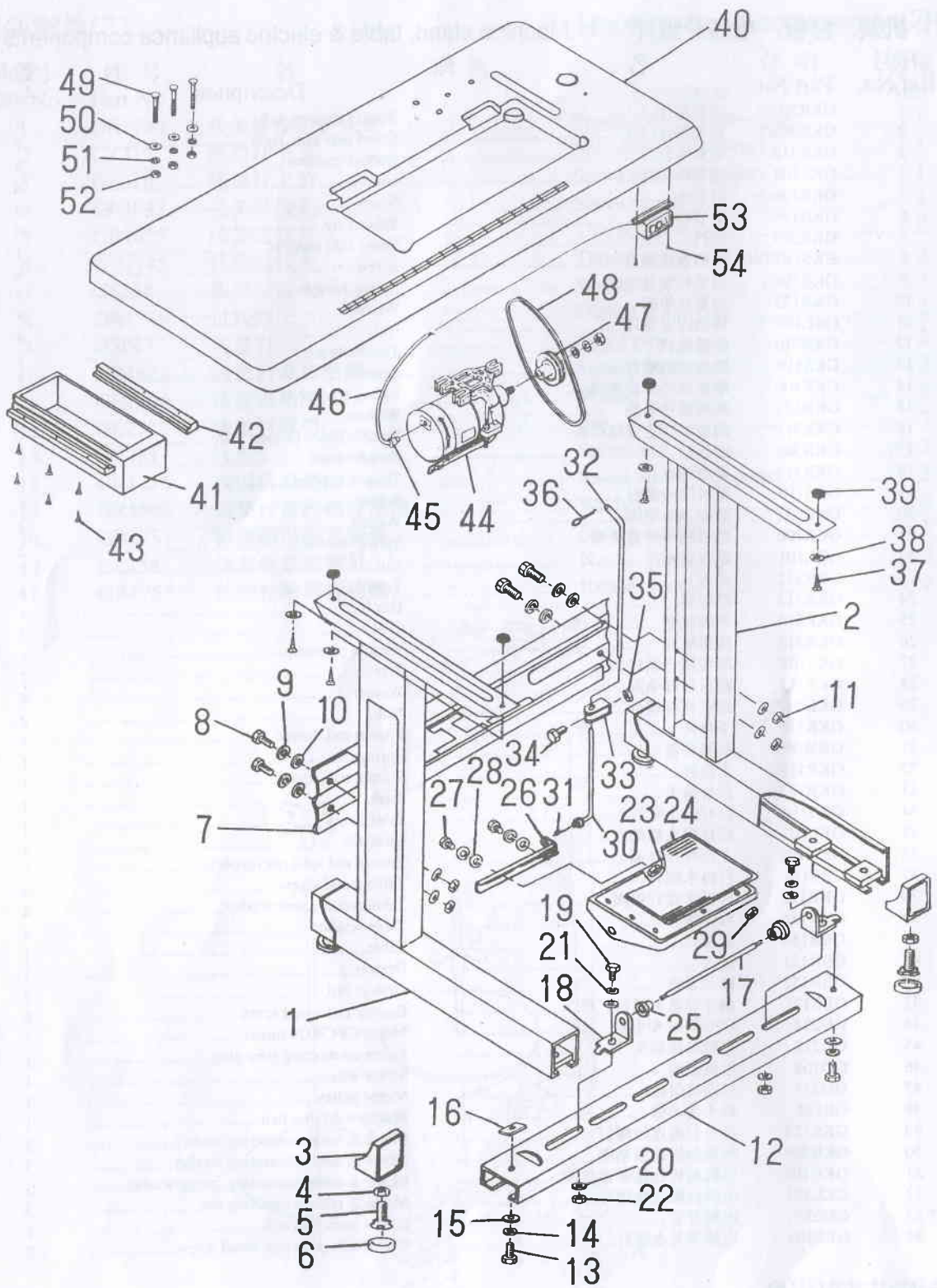


机头附件(2)

Machine head accessories(2)

| 序号 Ref.No. | 件号 Part No. | 名 称 | Description | 数量 Amt. |
|---------------|----------------|-----------|---------------------------|------------|
| 1 | GR1744 | 线架杆顶防护橡皮 | Spool rest rod rubber cap | 1 |
| 2 | GZ315 | 线架杆下节 | Spool rest rod (lower) | 1 |
| 3 | GZ316 | 线架杆上节 | Spool rest rod (upper) | 1 |
| 4 | GR1932 | 线架杆接头 | Spool rested joint | 1 |
| 5 | GR1825 | 线架过线杆 | Thread guide asm | 2 |
| 6 | GR1745 | 线架过线夹 | Thread guide asm joint | 2 |
| 7 | GS558 | 线架过线夹螺钉 | Screw | 2 |
| 8 | GR1748 | 过线圈 | Thread guide ring | 2 |
| 9 | GS067 | 线盘钉 | Spool pin | 2 |
| 10 | GR1625 | 线盘钉弹簧垫圈 | Spring washer | 2 |
| 11 | GR1626 | 线盘钉垫圈 | Washer | 2 |
| 12 | GL23 | 线盘钉螺母 | Nut | 2 |
| 13 | GR1811 | 线盘 | Spool rest | 2 |
| 14 | GR1215 | 线团防松垫 | Spool vibration stopper | 2 |
| 15 | GR1696 | 线架杆紧固螺母垫圈 | Washer | 2 |
| 16 | GR1751 | 紧固螺母弹簧垫圈 | Spring washer | 1 |
| 17 | GL158 | 线架杆紧固螺母 | Nut | 2 |
| 18 | GR1753 | 线架杆防震橡皮圈 | Rubber washer | 2 |





厚料用

For Heavy Weight Materials

| 序号 | 件号 | 名称 | | 数量 |
|---------|-----------|-----------------------|------------------------------------|------|
| Ref.No. | Part No. | | Description | Amt. |
| 1 | GH579/3 | 挑线杆部件..... | Link thread take-up lever asm. ... | 1 |
| 2 | GH580 | 挑线杆曲柄..... | Needle bar crank H..... | (1) |
| 3 | GR1644 | 过线钉..... | Thread guide pin..... | 1 |
| 4 | GO288 | 针杆下轴套..... | Needle bar bushing, lower..... | 1 |
| 5 | GR1632 | 针杆下轴套线钩..... | Needle bar thread guide..... | 1 |
| 6 | GZ441 | 针杆..... | Needle bar..... | 1 |
| 7 | GR3431 | 针杆线钩..... | Needle bar thread guide..... | 1 |
| 8 | GV17 | 机针(DB×1#21)..... | Needle (DB × 1#21)..... | 1 |
| 9 | GW269 | 调压簧..... | Presser spring..... | 1 |
| 10 | GR3433/10 | 夹线器部件..... | Thread tension asm. | 1 |
| 11 | GW268 | 夹线簧..... | Tension spring..... | 1 |
| 12 | GR3432 | 右线钩..... | Arm thread guide (HA)..... | 1 |
| 13 | GW440 | 摆动板座复位簧..... | Adjust link spring..... | 1 |
| 14 | GR3434 | 旋梭定位钩..... | Positioning finger..... | 1 |
| 15 | GM210 | 针板..... | Throat plate(H)..... | 1 |
| 16 | GM209 | 送料牙..... | Feed dog(H)..... | 1 |
| 17 | GM208/5 | 活压脚板部件..... | Hinged presser foot asm..... | 1 |
| 18 | GR1646 | 活压脚板..... | Presser foot asm..... | 1 |
| 19 | GN197 | 旋梭..... | Lubricating bobbin asm..... | 1 |
| 20 | GS069 | 防油板螺钉1/8-44L=2.5..... | Screw 1/8-44 L=2.5..... | 1 |
| 21 | GR3435 | 拉簧固定板..... | feed spring hook..... | 1 |