

261

操作说明

Operating Instructions

零件列表

Parts List

非常感谢您购买本公司的工业缝纫机。在使用缝纫机之前，请仔细阅读（为了您的安全使用）和使用说明书。

工业缝纫机的特性之一，是要在机针和旋梭等运动零部件附近进行操作，而这些零部件很容易引起受伤的危險，所以请在受过培训的人员或有熟练操作技术的人员的指导下，正确地使用本缝纫机。

此样本是二零二零年三月的数据而制成的, 后期零件更改, 恕不另行通知。




为了您的安全使用

1. 安全使用的标记及其意义

本使用说明书及产品所使用的标记和图案记号是为了您的安全而正确地使用本产品，防止您及他人受到危害和损害。

表示方法及含义如下：

说明

	危险	如果忽视此标记而进行了错误的操作，必将导致人员死亡或重伤。
	注意	如果忽视此标记而进行了错误的操作，有可能会引起人员受伤及造成设备损坏。
	警告	如果忽视此标记而进行了错误的操作，将会引起人员重伤或死亡。

图案和符号



符号△表示“应注意事项”。
三角中的图案表示必须要注意的内容。
(如左图的符号表示“注意受伤”。)



符号⊘表示“禁止”。



符号●表示“必须”。
圆圈中的图案表示必须要做的内容。
(如左图的符号表示“必须接地”。)

Thank you very much for buying our sewing machine. Before using your new machine, please read the safety instructions below and the explanations given in the Operation Instruction.

With industrial sewing machines, it is normal to carry out work while positioned directly in front of moving parts such as the needle and thread take-up lever, and consequently there is always a danger of injury that can be caused by these parts. Follow the instructions from training personnel and instructors regarding safe and correct operation before operating the machine so that you will know how to use it correctly.




This sample book is made in March 2020 and is subject to change without notice.

SAFETY INSTRUCTIONS

1. Safety indications and their meanings

This instruction manual and the indications and symbols that are used on the machine itself are provided in order to ensure safe operation of this machine and to prevent accidents and injury to yourself or other people. The meaning of these indications and symbols are given below.

Indications

	DANGER	The instructions which follow this term indicate situations where failure to follow the instructions will almost certainly result in death or severe injury.
	CAUTION	The instructions which follow this term indicate situations where failure to follow the instructions could cause injury when using the machine or physical damage to equipment and surroundings.
	CAUTION	The instructions which follow this term indicate situations where failure to follow the instructions will almost certainly result in death or severe injury.

Symbols



..... This symbol (\triangle) indicates something that you should be careful of. The picture inside the triangle indicates the nature of the caution that must be taken. (For example, the symbol at left means "beware of injury".)



..... This symbol (\ominus) indicates something that you must not do.



..... This symbol (\bullet) indicates something that you must do. The picture inside the circle indicates the nature of the thing that must be done. (For example, the symbol at left means "you must make the ground connection".)

2. 安全注意事项

危险



打开控制箱盖时，必须先关闭电源开关并将电源插头从插座上拔下，至少等待5分钟后，再打开控制箱盖。触摸带有高电压的区域将会造成人员伤亡。



请勿将手放入皮带开口处，否则手可能会将被卷入皮带中造成重伤。

注意

使用环境



应避免在强电气干扰源(如高频焊机)的附近使用缝纫机。强电气干扰源可能会影响缝纫机的正确操作。



缝纫机的最佳工作环境是相对湿度在45%-85%的范围内，干燥或潮湿的环境均会影响缝纫机的正确操作。



电源电压的波动应该在额定电压的±10%以内的环境下使用。电压大幅度的波动会影响缝纫机的正确操作。



使用时应避免暴露于直射的阳光下。直射的阳光会影响缝纫机的正确操作。



电源容量应大于缝纫机的消耗能量。电源容量不足会影响缝纫机的正确操作。



万一发生雷电暴风雨时，关闭电源开关，并将电源插头从插座上拔下。雷电可能会影响缝纫机的正确操作。



环境温度应在5°C-35°C的范围内使用。低温或高温会影响缝纫机的正确操作。

安装



请让受过培训的技术人员来安装缝纫机。



固定电缆时，不要过度弯曲电缆或用卡钉固定得过紧，会引起火灾或触电的危险。



请委托购买商店或电气专业人员进行电气配线。



如果使用带小脚轮的工作台，则应该固定小脚轮，使其不能移动。



缝纫机重约40公斤，安装工作必须由两人以上来完成。



缝纫机头倒下或竖起时，请用双手进行操作。单手操作时因缝纫机的重量万一滑落易导致受伤。



在安装完成前，请不要连接电源，如果误接启动开关，缝纫机动作会导致受伤。



使用润滑油或黄油时，务必戴好保护眼镜和保护手套等，以防润滑油落入眼中或沾在皮肤上，这是引起发炎的原因。另外，润滑油或黄油不能饮用，否则会引起呕吐和腹泻。将油放在小孩拿不到的地方。



请在切断电源后，再拔掉电源插头。不然易成为控制箱发生故障的原因。



必须接地。接驳地线不牢固，是造成触电或误动作的原因。

2. Notes on safety

DANGER



Wait at least 5 minutes after turning off the power switch and disconnecting the power cord from the wall outlet before opening the face plate of the control box. Touching areas where high voltages are present can result in severe injury.



Please do not put hand in belt openings, or hand may be involved into the belt will be seriously injured.

CAUTION

Environmental requirements



Use the sewing machine in an area which is free from sources of strong electrical noise such as high-frequency welders. Sources of strong electrical noise may cause problems with correct operation.



The ambient temperature should be within the range of 5°C to 35°C during use. Temperatures which are lower or higher than this may cause problems with correct operation.



Any fluctuations in the power supply voltages should be within $\pm 10\%$ of the rated voltage for the machine. Voltage fluctuations which are greater than this may cause problems with correct operation.



The relative humidity should be within the range of 45% to 85% during use, and no dew formation should occur in any devices. Excessively dry or humid environments and dew formation may cause problems with correct operation.



The power supply capacity should be greater than the requirements for the sewing machine's electrical consumption. Insufficient power supply capacity may cause problems with correct operation.



Avoid exposure to direct sunlight during use. Exposure to direct sunlight may cause problems with correct operation.



In the event of an electrical storm, turn off the power and disconnect the power cord from the wall outlet. Lightning may cause problems with correct operation.

Installation



Machine installation should only be carried out by a qualified technician.



Hold the machine head with both hands when tilting it back or returning it to its original position. Furthermore, after tilting back the machine head, do not push the face plate side or the pulley side from above, as this could cause the machine head to topple over, which may result in personal injury or damage to the machine.



Contact your dealer or a qualified electrician for any electrical work that may need to be done.



The sewing machine weighs approximately 40kg. The installation should be carried out by two or more people.



All cords should be secured at least 25mm away from any moving parts. Furthermore, do not excessively bend the cords or secure them too firmly with staples, otherwise there is the danger that fire or electric shocks could occur.



Don't connect the power cord until installation is complete, otherwise the machine may operate if the foot switch is depressed by mistake, which could result in injury.



If using a work table which has casters, the casters should be secured in such a way so that they cannot move.



Be sure to connect the ground. If the ground connection is not secure, you run a high risk of receiving a serious electric shock, and problems with correct operation may also occur.



Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they don't get into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhoea. Keep the oil out of the reach children.



Install the safety covers to the machine head and motor.

2. 安全注意事项

注意

缝纫



本缝纫机仅限于接受过安全操作培训的人员使用。



为了安全起见，在使用本缝纫机之前，请安装保护装置。如果未安装这些安全装置就使用缝纫机，会造成人身伤害及缝纫机损坏。



本缝纫机不能用于除缝纫以外的任何其他用途。



缝纫过程中不要触摸任何活动部件或将物件靠在运动部件上，因为这会导致受伤或缝纫机损坏。



发生下列情况时，请切断电源。否则误按启动开关，缝纫机动作会导致受伤。

- 机针穿线时
- 更换机针或梭芯时
- 缝纫机不使用，或人离开缝纫机时



如果缝纫机操作中发生误动作，或者听到异常的噪声或闻到异常的气味，应立即切断电源。然后与购买商店或受过培训的技术人员联系。



如果使用带小脚轮的工作台，则应该固定小脚轮，使其不能移动。



如果缝纫机出现故障时，请与购买商店或受过培训的技术人员联系。

清洁



在开始清洁作业前，请切断电源。如果误踩了脚开关，缝纫机动作会导致人员受伤。



使用润滑油或黄油时，务必戴好保护眼镜和保护手套等，以防润滑油落入眼中或沾在皮肤上，这是引起发炎的原因，另外，润滑油或黄油不能饮用，否则会引起呕吐和腹泻。
将油放在小孩拿不到的地方。

2. Notes on safety

CAUTION

Sewing



This sewing machine should only be used by operators who have received the necessary training in safe use beforehand.



If using a work table which has casters, the casters should be secured in such a way so that they cannot move.



The sewing machine should not be used for any applications other than sewing.



Attach all safety devices before using the sewing machine. If the machine is used without these devices attached, injury may result.



Be sure to wear protective goggles when using the machine.
If goggles are not worn, there is the danger that if a needle breaks, parts of the broken needle may enter your eyes and injury may result.



Do not touch any of the moving parts or press any objects against the machine while sewing as this may result in personal injury or damage to the machine.



Turn off the power switch at the following times, otherwise the machine may operate if the foot switch is depressed by mistake, which could result in injury.

- When threading the needle
- When replacing the needle and bobbin
- When not using the machine and when leaving the machine unattended



If an error occurs in machine operation, or if abnormal noises or smells are noticed, immediately turn off the power switch. Then contact your nearest dealer or a qualified technician.



If the machine develops a problem, contact your nearest dealer or a qualified technician.

Cleaning



Turn off the power switch before carrying out cleaning, otherwise the machine may operate if the foot switch is depressed by mistake, which could result in injury.



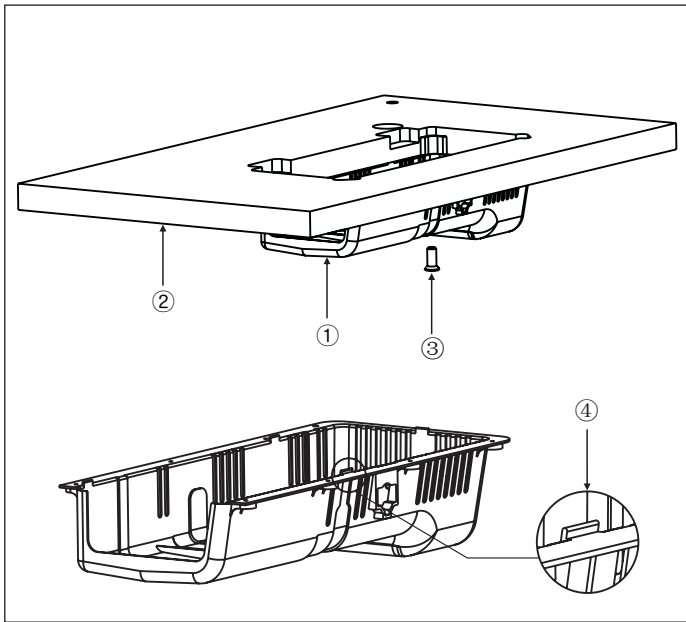
Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhoea. Keep the oil out of the reach of children.

目录 CONTENTS

1. 缝纫机的安装 Installation	1
2. 膝提组件的安装 Knee Lifter Asm	2
3. 加油 Lubrication	2
4. 油量调节 Adjusting The Amount Of Oil	3
5. 机针的安装方法 Attaching The Needle	4
6. 梭芯的安装方法 Setting The Bobbin Into The Bobbin Case	4
7. 上线穿线方法 Threading The Machine Head	5
8. 线迹长度的调节 Adjusting The Stitch Length	5
9. 线架的安装 Installing The Thread Stand	5
10. 膝动提升高度的调整 Adjusting The Height Of The Knee Lifter	6
11. 踏板操作 Pedal Operation	6
12. 线张力的调整 Adjusting The Needle Thread Tension	7
13. 挑线弹簧 Thread Take-up Spring	7
14. 压脚提升 Hand Lifter	8
15. 压脚压力的调节 Presser Foot Pressure	8
16. 送布相位的调节 Adjusting The Feed Timing	8
17. 送布牙的倾斜 Tilt Of Needle Dog	9
18. 送布牙的高度 Height Of The Feed Dog	9
19. 机针与旋梭的关系 Needle-to-hook Relationship	10
20. 压脚高度的调节 adjusting The Height Of Presser Foot	10
21-1. 定刀与移动刀的转换(单刀剪线) Change Of Fixed Knife And Shift Knife	11
21-2. 副动刀压力的调整(双刀剪线) adjustment Of Secondary Operating Pressure	11
22. 挑线杆挑线量的调节 Adjusting The Thread Take-up	12
23. 踏板压力和行程 Pedal Pressure And Pedal Stroke	12
24. 踏板的调整 Adjusting Of The Pedal	13
25. 手触动倒缝 One-touch type recerse feed stitching mechanism	13
26. 脚踏板的连接 Foot Switch Connection	13
27. 规格 Specifications	14
28. 常见故障与调整 Trouble Shooting Guide	15
嵌入式数控交流伺服系统使用说明书 AHE-59 Numerical Control AC Servo System User Manual	20

1. 缝纫机的安装 Installation

(1). 油盘的安装 Installing the oil pan



1) 将塑料油盘 ①置于台板②的下方，并用螺钉③固定（8颗）。

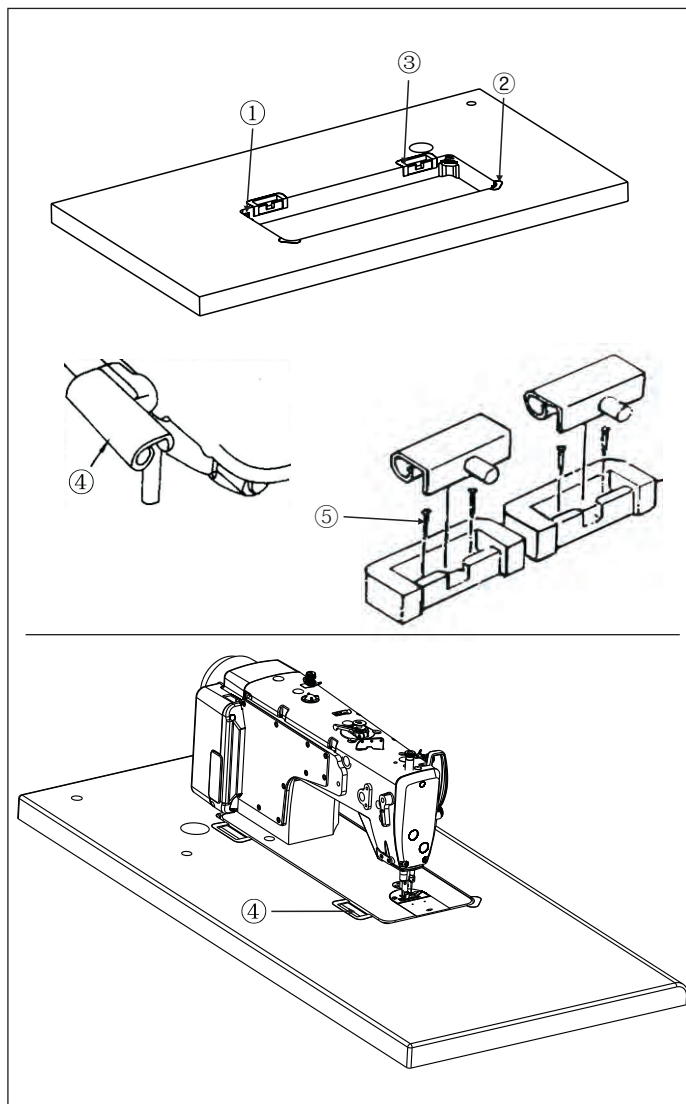
注:塑料油盘周边有限位凸台④，安装时需将油盘的限位点卡到台板上。

EN

1) Put the plastic oil reservoir① under the table②, then fix it with screw(8 pcs) ③.

Note: There is limit stopper around the plastic oil reservoir④, you need set the oil reservoir block with limit stopper on the table when installing.

(2). 铰链的安装 Installing the hinge



1)将两只油盘支座小①与两只油盘支座大②分别置于台板的四角并用鞋钉固定。

2)将机头铰链钩座③用鞋钉⑤固定在台板钩槽内。

3)将机头连接钩④放入底板孔内,与台板的机头连接钩座③相嵌合,再将机头放到四只角的机头支座上。

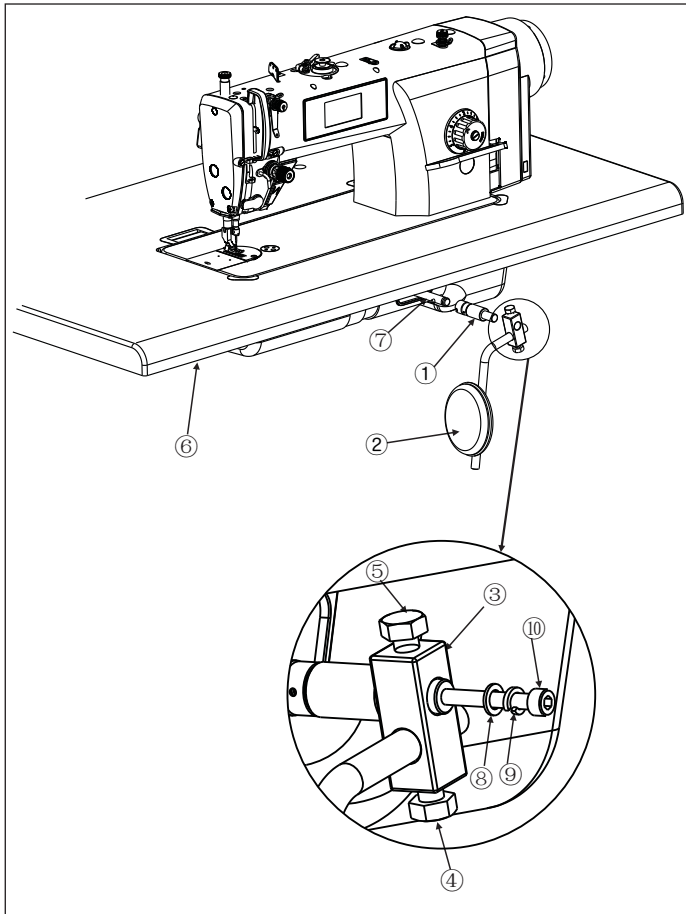
EN

1) Put the two oil reservoir support (small) ① and two oil reservoir support (big) ② in the four corner of the table and fix with spikes.

2) Put the head connecting hook socket ③ into the table top curve. Then use the nail ⑤ to fix it.

3) Put the head connecting hook socket ④ into table hole, then connect the head connecting hook socket ③ and the head connectinghook which should be on the head, and the machine head will be put on the oil reservoir.

2. 膝提组件的安装 Knee lifter asm

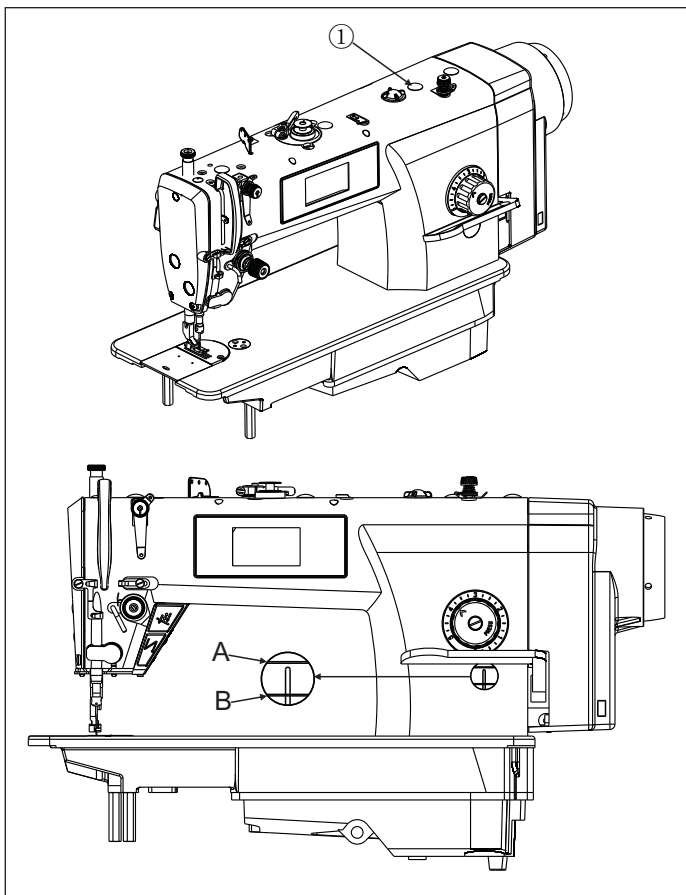


- 1) 将操纵杆组件②装到膝抬压脚连接轴①上，并用操纵杆接头③连接，最后拧紧接头螺钉④和⑤；
- 2) 将连接好的操纵杆组件与膝抬压脚连接轴⑦连接，并卡到限位点上；
- 3) 根据个人需求，拧松接头螺钉④可调整操纵杆左右的位置，拧松接头螺钉⑤可调整操纵杆的前后位置；
- 4) 安装好膝抬压脚组件后，将平垫片⑧和弹簧垫片⑨分别安装到膝抬压脚固定螺钉⑩上，最后用螺钉⑩将膝抬压脚连接轴①和膝抬压脚连接轴⑦锁死，防止脱落。

EN

- 1) Install the knee lifter plate rod ASM on the knee foot lifter, then connect it with regulator link, finally tighten connection screw ④ and ⑤.
- 2) Connect the knee lifter plate rod with knee press rod ⑦, and fix it to the limited point.
- 3) According to your requirement, unscrew the connection screw ④ can adjust the regulator position of left and right. Unscrew the connection screw ⑤ can adjust the regulator position of front and behind.
- 4) After installed the knee press ASM, install the gasket ⑧ and spring washer ⑨ on the screw ⑩ respectively, finally lock the knee foot lifter and knee press rod ⑦ with the screw ⑩ tightly, that can prevent it from dropping.

3. 加油 Lubrication



1、齿轮箱加油

- 1) 拔出橡胶塞①，把专用10#缝纫机润滑油从机壳孔处加到如图A的刻线位置为止。
- 2) 如果视油窗浮标降低到刻线B以下时，请再次把油加至刻线A的位置。

注意：

- 1、新缝纫机或较长时间没有使用的缝纫机，应进行约10分钟3000针/分钟的磨合运转；
- 2、若油箱油量太多，会从齿轮箱抬压脚杆孔处流出。

EN

1. Gear box oil lubrication

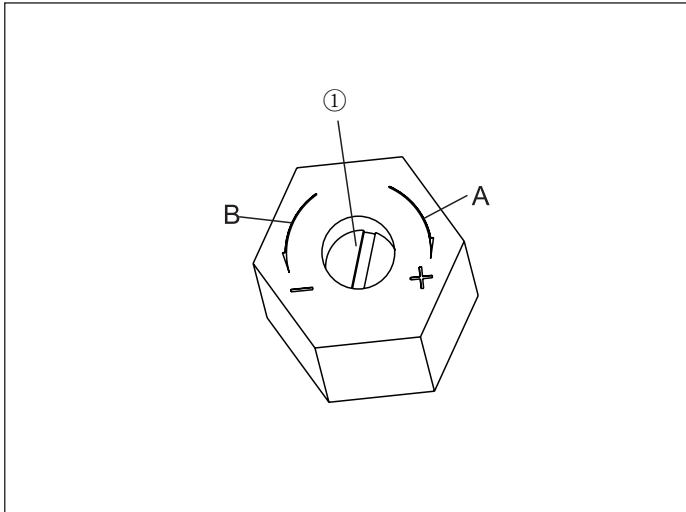
- 1) pull out the rubber plug ①, fill the oil from the machine case with special 10# sewing machine lubrication oil and the oil surface should reach A level .
- 2) If the oil window showing oil lower than B level, please fill oil to A level.

(Caution)

1. When you first operate your machine after setup or after an extended period of disuse, run your machine at 3000 s.p.m. for about 10 minutes for the purpose of break-in.
2. If there is too much oil in the tank, it will flow out from the hole of the gear box presser foot.

4. 油量的调节 Adjusting the amount of oil

(1). 旋梭油量调整 Adjusting the amount of oil in the hook



- 1) 用螺丝刀调整油量调节螺钉①, 螺丝向+方向(A方向), 转动油量增多, 向-方向(B方向)转动油量变少。
- 2) 油量调节螺丝调节后, 请进行30秒钟的空运转, 以确认油量。

EN

- 1) Turning the oil amount adjustment screw attached on the hook driving shaft front bushing in the + direction(in direction A) will increase the amount of oil in the hook, or in the “-” direction(in direction B) will decrease it.
- 2) After the amount of oil in the hook has been properly adjusted with the oil amount adjustment screw, make the sewing machine run idle for approximately 30 seconds to check the amount of oil (oil splashes) in the hook.

(2). 油量的确认 Confirm the amount of oil



注意

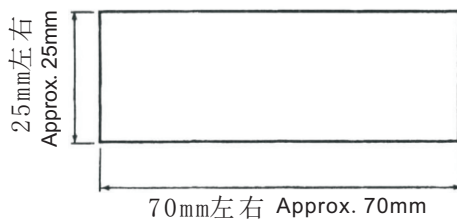
CAUTION

旋梭在运转时测试油量, 请注意人身安全!

When hook is testing oil amount by running, please take care of your own security!

① 油量确认专用纸

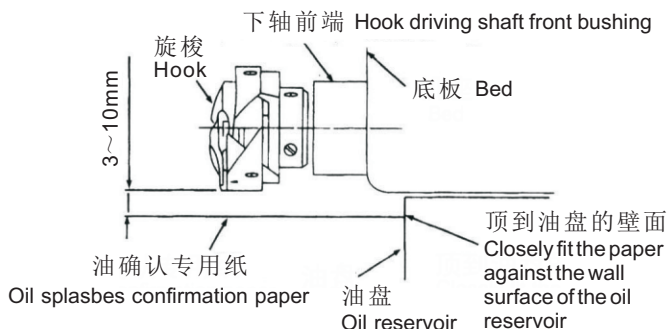
① Amount of oil confirmation paper



- 不用考虑纸的质量
- Use any paper available regardless of the material

② 油量确认位置

② Position to confirm the amount of oil



- 把油量确认专用纸插到旋梭下面。
- Place the amount of oil (oil splashes) confirmation paper under the hook.

进行下列2的作业时, 请卸下推板, 同时要充分注意手指不要碰到旋梭。

- 1) 机头冷却时, 请进行3分钟左右的空载运转。(适当的间歇运转)
- 2) 请在缝纫机转到时将油量确认专用纸插入。
- 3) 请确认油盘的油面高度是否在HIGH和LOW范围之内。
- 4) 油量确认时间为5秒钟。(用表来测定)

EN

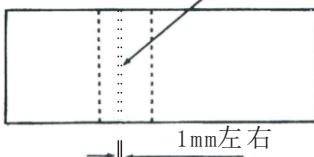
When carrying out the procedure described below in 2, remove the slide plate and take extreme caution not to allow your fingers to come in contact with the hook.

(Caution)

- 1) If the machine has not been sufficiently warmed up for operation, make the machine run idle for approximately three minutes.(Moderate intermittent operation.)
- 2) Place the amount of oil (oil splashes) confirmation paper under the hook while the sewing machine is in operation.
- 3) Confirm that the height of the oil surface in the oil reservoir is within the range between “HIGH” and “LOW”.
- 4) Confirmation of the amount of oil should be completed in five seconds.(Check the period of time with a watch.)

③适合的油量样品

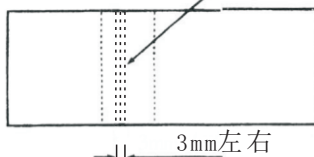
③Sample showing the appropriate amount of oil
从旋梭飞溅出来的油
Splashes of oil from the hook



油量偏(小)

Appropriate amount of oil (small)

从旋梭飞溅出来的油
Splashes of oil from the hook



油量偏(大)

Appropriate amount of oil (large)

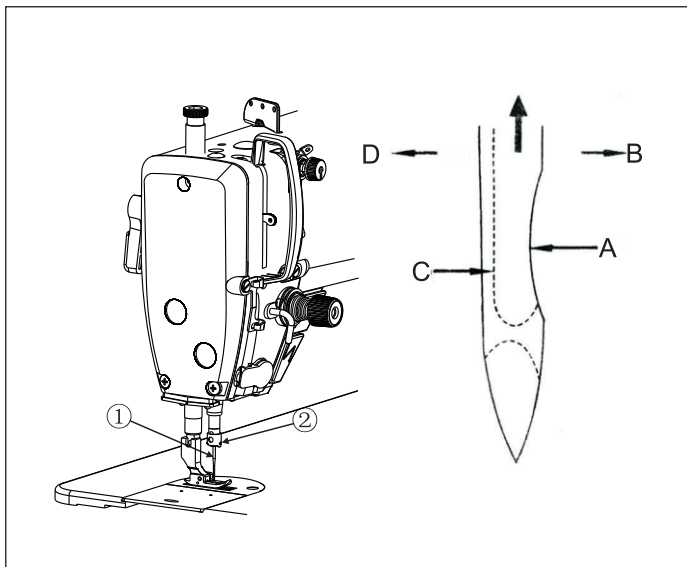
- 5) 左图样品根据缝制工序需要微调增减，但注意不要过大增加或减少。
(油量过少时，会烧坏旋梭(发热)。油量过多时，会玷污缝制品)
6) 油量应确认3次(3张)均无变化。

EN

5) The amount of oil shown in the samples on the left should be finely adjusted in accordance with sewing processes. Be careful not to excessively increase/decrease the amount of oil in the hook. (If the amount of oil is too small, the hook will be seized (be hook will be hot). If the amount of oil is too much, the sewing product may be stained with oil.)

6) Adjust the amount of oil in the hook so that the oil amount should not change while checking the oil amount three times (on the three sheets of paper).

5. 机针的安装方法 Attaching the needle



请根据线的粗细、布料的种类选择适当的机针。

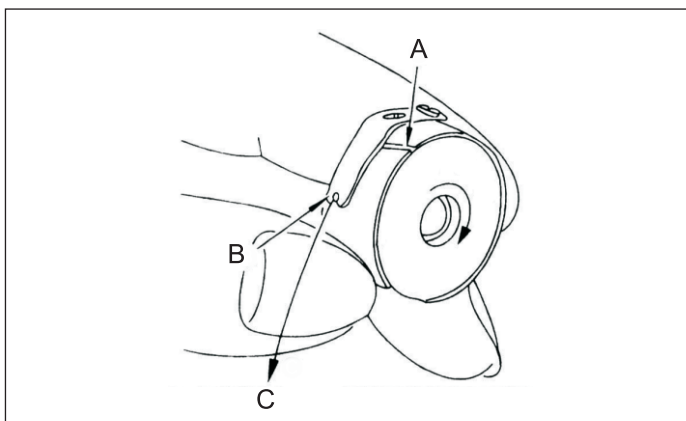
- 1) 转动手轮，把针杆升到最高处。
- 2) 拧松机针固定螺丝②，手拿机针把机针①凹部A横向转到B的方向。
- 3) 把机针插到针杆孔的深处。
- 4) 拧紧机针固定螺丝②。
- 5) 确认针的长孔C在左横向D的方向。

EN

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 fully into the hole in the needle bar in the direction of the arrow until the end of hole is reached.
- 4) Securely tighten screw ②.
- 5) Check that long groove C of the needle is facing exactly to the left in direction D.

6. 梭芯的安装方法 Setting the bobbin into the bobbin case




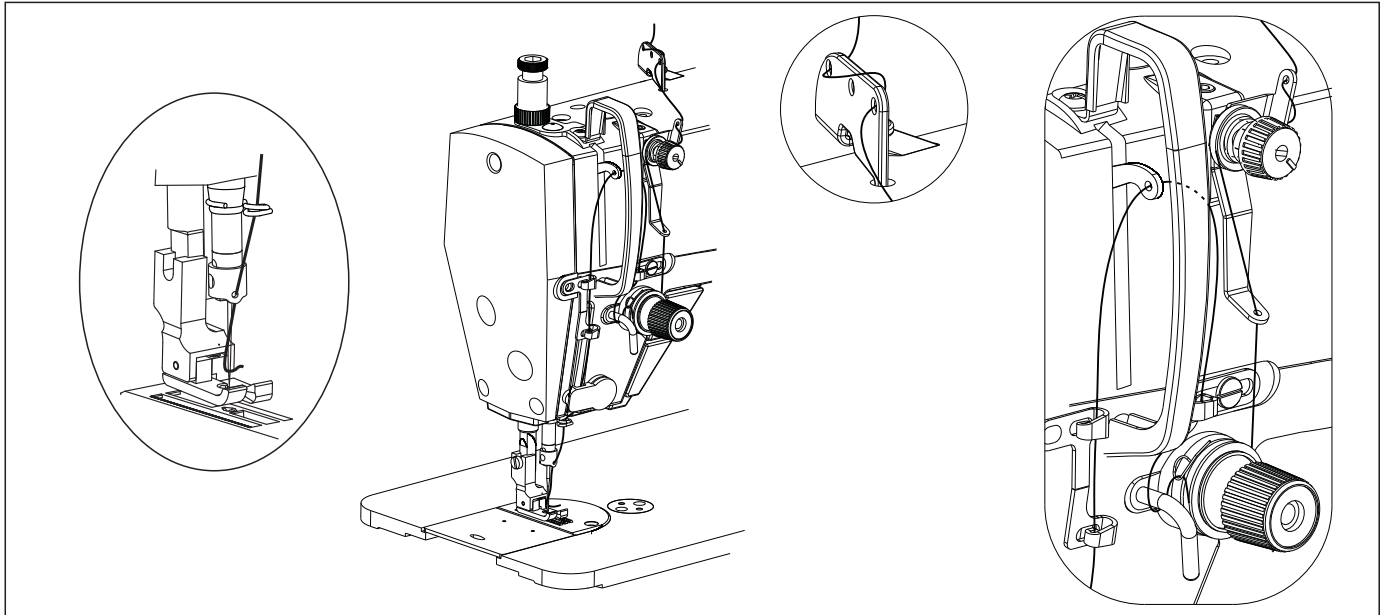
- 1) 手拿梭芯，让线往左绕C方向，把它放入梭壳。
- 2) 把线穿过梭壳的穿线口A，然后把线往B方向拉，从线张力弹簧下面的穿线口B拉出来。
- 3) 拉底线C，确认梭芯是否按箭头方向转动。

EN

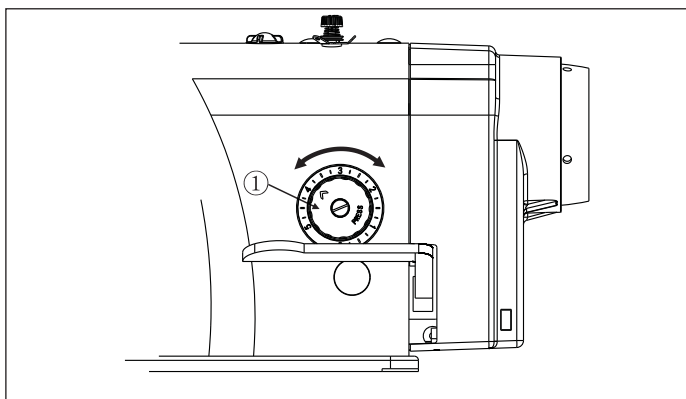
- 1) Install the bobbin in the bobbin case so that the thread wound direction is clock wise.
- 2) Pass the thread through thread slit , and pull the thread in direction . By so doing, the thread will pass under the tension spring and come out from notch .
- 3) Check that the bobbin rotates in the direction of the arrow when thread is pulled.

7. 上线穿线方法 Threading the machine head

 注意 CAUTION	<p>为了防止意外的启动造成的事故，请关掉电源后进行。 Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.</p>
--	---



8. 缝迹长度的调节 Adjusting the stitch length

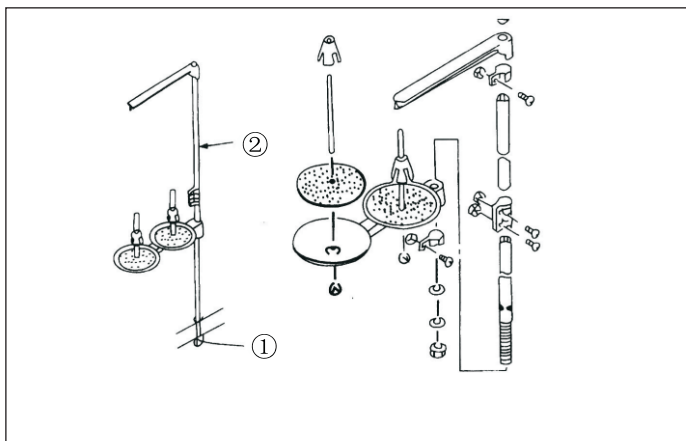


- 1) 按下针距旋钮①同时沿箭头方向旋转，把箭头位置对准标盘的刻线。
- 2) 刻度盘的数字单位为mm。

EN

- 1) Press down the needle pitch knob ① and rotate it along the direction of the arrow to align the arrow position with the marking line of the dial.
- 2) The dial calibration is in millimeters.

9. 线架的安装 Installing the thread stand

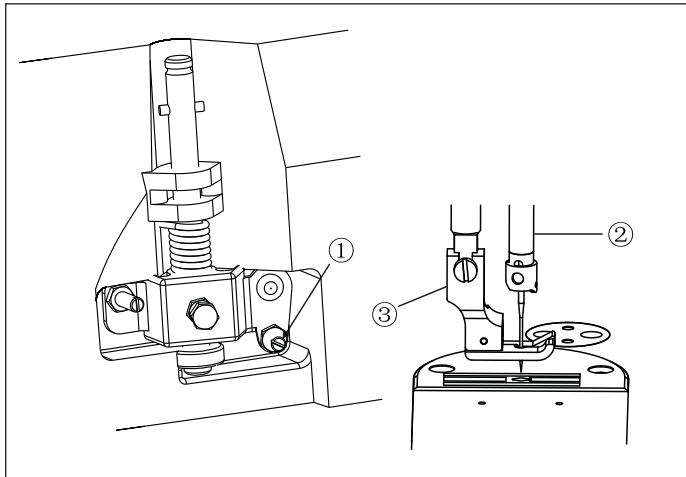


- 1) 如图所示把线架安装到台板右上角孔上。
- 2) 用固定螺母①固定线架。
- 3) 若采用顶线配线时，请把电源线从线架杆②中穿过。

EN

- 1) Assemble the thread stand unit, and insert it in the hole in the machine table.
- 2) Tighten locknut ① to fix the thread stand.
- 3) For ceiling wiring, pass the power cord through spool rest rod ②.

10. 膝动提升高度的调整 Adjusting the height of the knee lifter

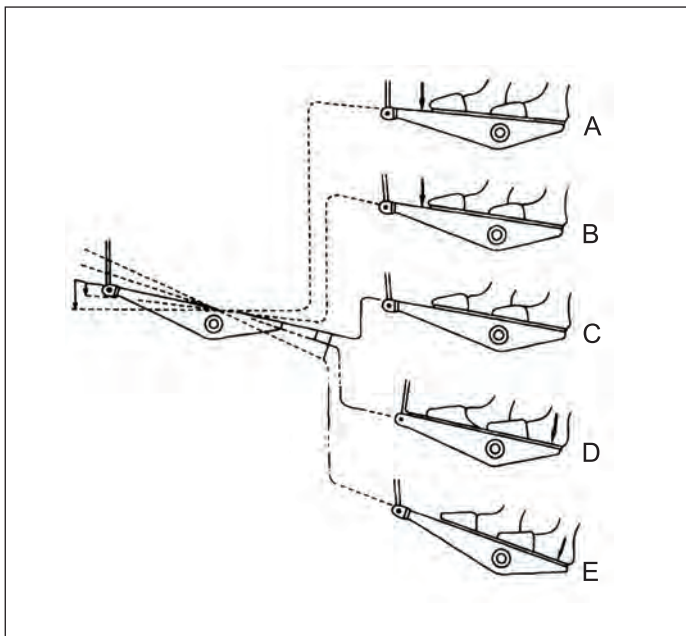


- 1) 膝动提升压脚的标准高度为9mm。
- 2) 调节膝动提升调节螺丝①可以把压脚最高提升到12mm。
- 3) 压脚提升到9mm以上时，调整时请注意不要让针杆②的前端在最下方时也不能碰到压脚③。

EN

- 1) The standard height of the presser foot lifted using the knee lifter is 9mm.
- 2) You can adjust the presser foot lift up to 12 mm using knee lifter adjust screw ①.
- 3) When you have adjusted the presser foot lift to over 9mm, be sure that the bottom end of needle bar ② in its lowest position does not hit presser foot ③.

11. 踏板操作 Pedal operation



1. 踏板有4级操作。
 - 1) 向前轻轻踩踏板为低速缝纫B。
 - 2) 在继续往前踩踏板为高速缝纫A。（但是，设定了自动倒缝开关后，倒缝结束之后为高速缝纫。）
 - 3) 轻轻踩踏板然后返还缝纫机停止C（机器默认出厂设置为下停针）。
 - 4) 向后踩踏板为切线动作E。
- 若有自动抬压脚功能时，在停止和切线之间增加后半踏抬压脚功能开关。
- 向后轻轻踩踏板，为压脚提升动作D，再继续踩踏板为切线动作。
- 始缝的自动倒缝过程中，把踏板返还中立位置则缝纫机倒缝动作结束后停止。
- 高速缝纫或低速缝纫中向后用力踩踏板缝纫机均可切线。
- 缝纫机切线中把踏板返还中立位置，但机器仍然把线切完。
- 缝纫机停止机针下降之后，如果想升起机针时，请往后踩一次踏板。

EN

1. The pedal is operated in the following four steps.

- 1) The machine runs at low sewing speed when you lightly depress the front part of the pedal .
 - 2) The machine runs at high sewing speed when you further depress the front part of the pedal . (If the automatic reverse feed stitching has been preset, the machine runs at high speed after it completes reverse feed stitching.)
 - 3) The machine stops (with its needle up or down) when you reset the pedal to its original position .
 - 4) The machine trims threads when you fully depress the back part of the pedal.
- If your machine is provided with the Auto-lifter (AK Series). An addition step is given between the machine stop and thread trimming step.

The presser foot goes up when you lightly depress the back part of the pedal, and if you further depress the back part, the thread trimmer is actuated.

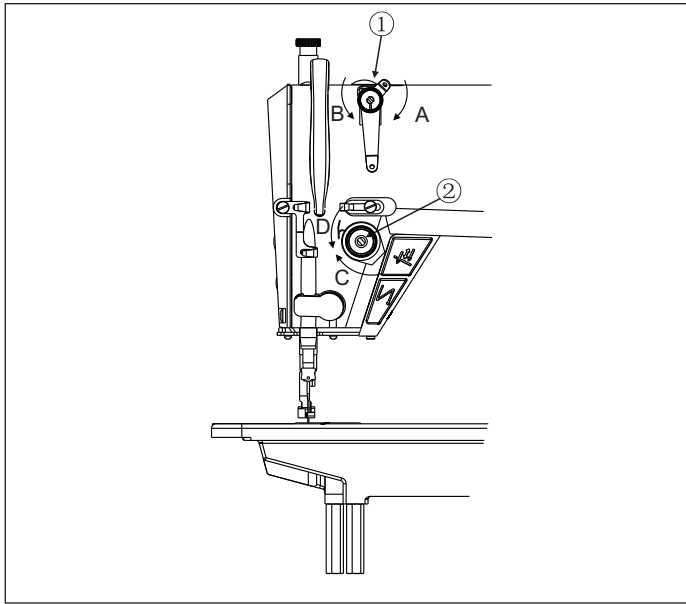
·If you reset the pedal to its neutral position during the automatic reverse feed stitching at seam start, the machine stops after it completes the reverse feed stitching.

·The machine will perform normal thread trimming even if you depress the back part of the pedal immediately following high or low speed sewing.

·The machine will completely perform thread trimming even if you reset the pedal to its neutral position immediately after the machine started thread trimming action.

·When the machine stops with its needle down, and if you want to bring the needle up, depress the back part of the pedal once.

12. 线张力的调整 Adjusting the needle thread tension



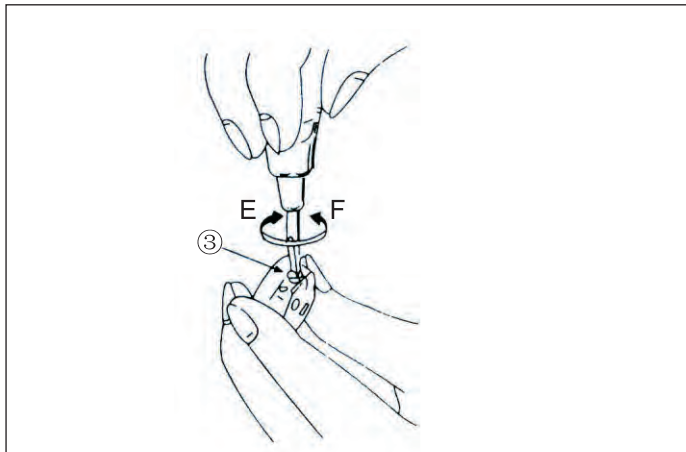
1. 上线张力的调整

- 1) 把第一线张力螺母向顺时针方向 (A方向) 转动, 上线张力变强。
- 2) 把第一线张力螺母向逆时针方向 (B方向) 转动, 上线张力变弱。
- 3) 把线张力螺母2向右C方向逆转, 上线张力变强。
- 4) 向左D的方向转动则变弱。

EN

1. Adjusting the needle thread tension

- 1) As you turn thread tension No.1 nut ① clock wise (indirection A), the thread remaining on the needle after thread trimming will be shorter.
- 2) As you turn nut ① counter clock wise (indirection B), the thread length will be longer.
- 3) As you turn thread tension nut ② clock wise (indirection C), the needle thread tension will be increased.
- 4) As you turn nut ② counter clock wise (indirection D), the needle thread tension will be decreased.



2. 底线张力的调整

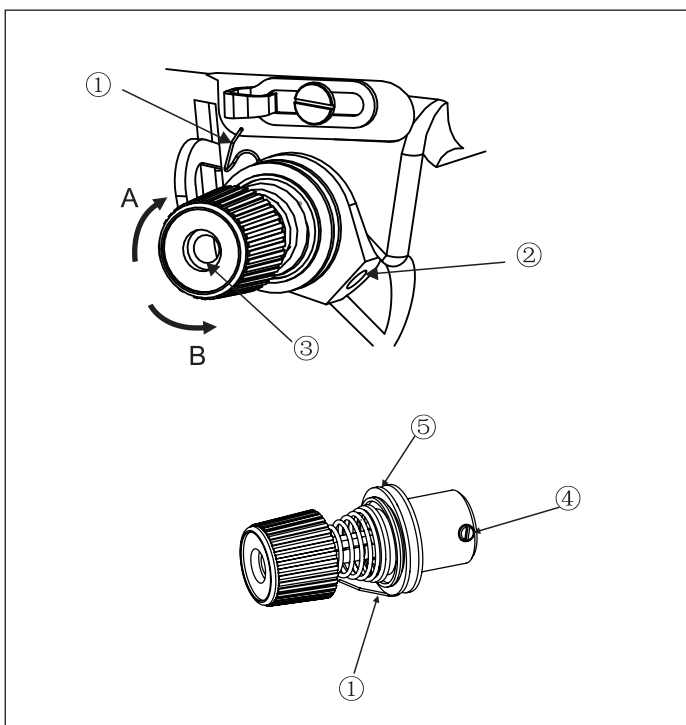
- 1) 把底线张力螺丝③向右E的方向转动, 底线张力变强。
- 2) 向左F的方向转动则变弱。

EN

2. Adjusting the bobbin thread tension

- 1) As you turn tension adjust screw ③ clock wise (indirection E), the bobbin thread tension will be increased.
- 2) As you turn screw ③ counter clock wise (indirection F), the bobbin thread tension will be decreased.

13. 挑线弹簧 Thread take-up spring



1. 要改变挑线弹簧①的行程时

- 1) 拧松固定螺丝②.
- 2) 把夹线螺钉③向右A的方向转动则变大。
- 3) 向左B的方向转动则变小。

2. 要改变挑线弹簧1的压力时

- 1) 拧松固定螺丝②, 卸下大夹线器组件⑤.
- 2) 拧松夹线螺钉固定螺丝④进行调整。
- 3) 把夹线螺钉③向右A的方向转动则变强。
- 4) 向左B的方向转动则变弱。

EN

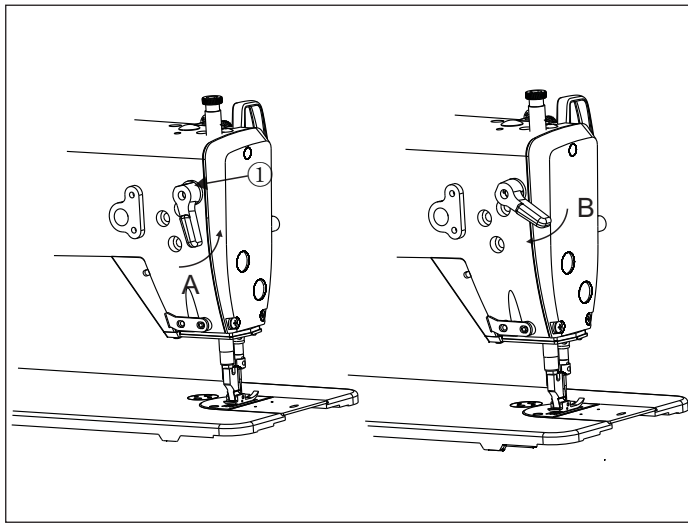
1. Changing the stroke of thread take-up spring ①

- 1) Loosen setscrew ②.
- 2) As you turn tension post ③ clock wise (indirection A), the stroke of the thread take-up spring will be increased.
- 3) As you turn the knob counter clock wise (indirection B), the stroke will be increased.

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

- 1) Loosen setscrew ②, and remove thread tension (asm.) ⑤.
- 2) Loosen setscrew ④.
- 3) As you turn tension post ③ clock wise (indirection A), the pressure will be increased.
- 4) As you turn the post counter clock wise (indirection B), the pressure will be decreased.

14. 压脚提升 Hand lifter

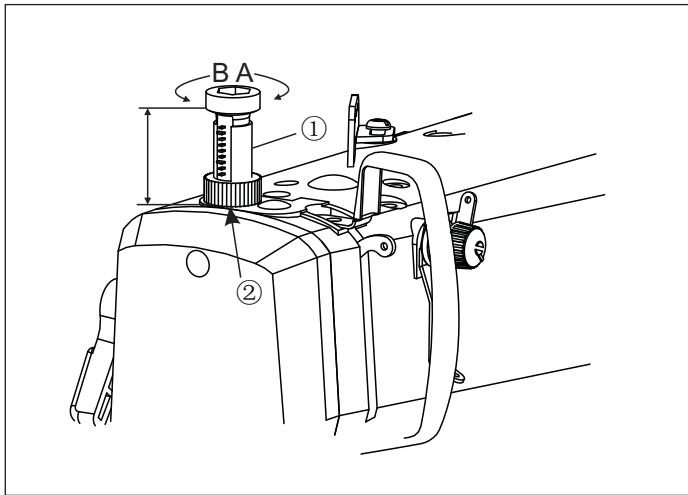


- 1) 让压脚停止到上升的位置，把压脚扳手①提到A的方向。
- 2) 压脚约上升5.5mm(厚料机种为6mm)停止，压脚扳手向B的方向落下压脚则还原原来的位置。
- 3) 膝动提升的标准量为9mm，最大可上升约12mm。

EN

- 1) To stop the machine with its presser foot up, turn hand lifter lever ① in the direction A.
- 2) The presser foot will go up about 5.5mm (6mm for thick material) and stop. The presser foot will go back to its original position when hand lifter lever is turned down in direction B.
- 3) Using the knee lifter, you can get the standard presser foot lift of about 9mm and the maximum lift of about 12mm.

15. 压脚压力的调节 Presser foot pressure

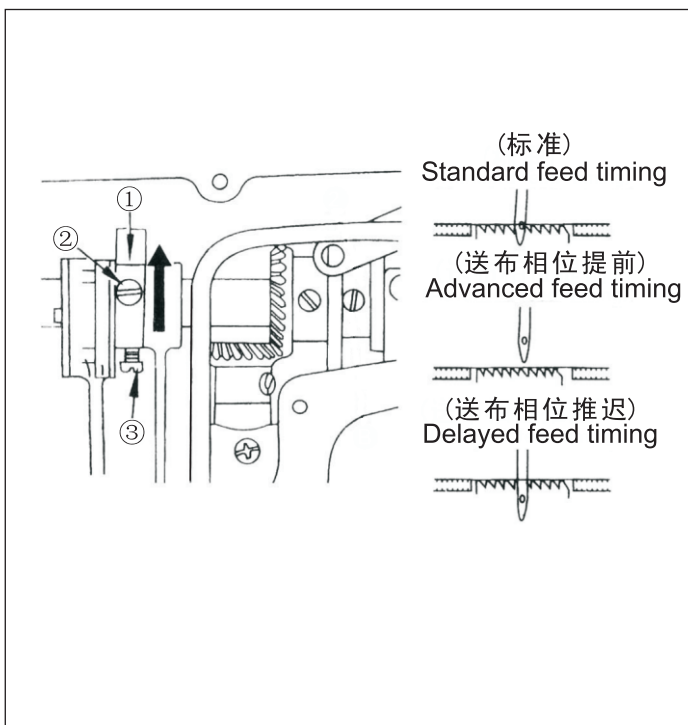


- 1) 拧松螺母②，把压脚调节螺钉①向右A方向转，力变强。
- 2) 向左B方向转，力变弱。
- 3) 调节后，拧紧螺母②。
- 4) 一般布料时，压脚调节螺钉的标准高度为29~32mm。

EN

- 1) Loosen nut ②. As you turn presser spring regulator ① clockwise (in direction A), the presser foot pressure will be increased.
- 2) As you turn the presser spring regulator counter-clockwise (in direction B), the 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 mm.

16. 送布相位的调节 Adjusting the feed timing




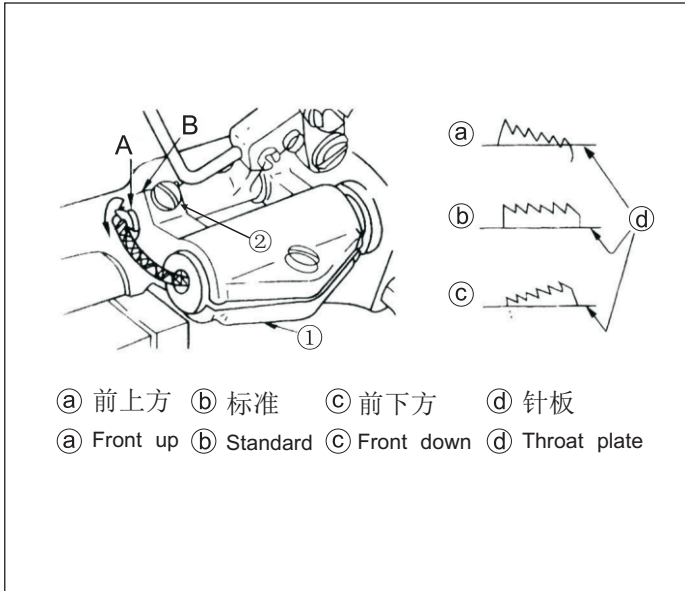
- 1) 拧松送布偏心凸轮①的固定螺丝②、③，朝箭头方向或反箭头方向移动送布偏心凸轮，然后拧紧固定螺丝。
- 2) 标准调节位置是送布牙从针板往下落时，送布牙上面与针孔上端对准针板上方的位置。
- 3) 提早送布相位以防止布偏斜时，请向箭头方向移动送布偏心凸轮。
- 4) 为了良好的紧线而推迟相位时，请逆箭头方向移动偏心凸轮。

EN

- 1) Loosen screws ② and ③ in feed eccentric cam ①, move the feed eccentric cam in the direction of the arrow or opposite direction of the arrow, and firmly tighten the screws.
- 2) For the standard adjustment, adjust so that the top surface of feed dog and the top end of needle eyelet are flush with the top surface of throat plate when the feed dog descends below 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.

17. 送布牙的倾斜 Tilt of the feed dog

 <p>注意 CAUTION</p>	<p>为了防止意外的启动造成的事故，请关掉电源后进行。 Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.</p>
--	--




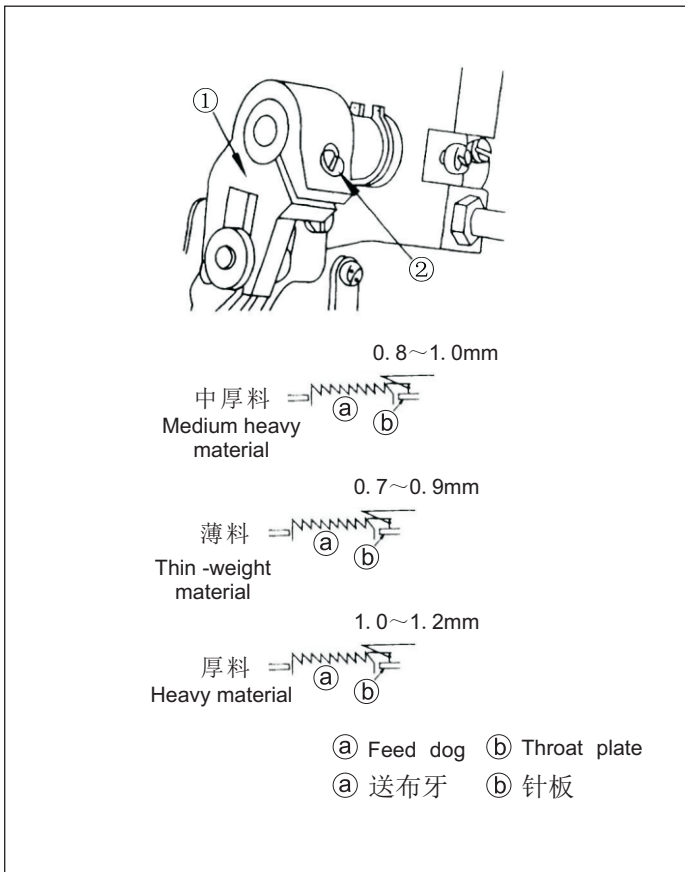
- 1) 标准倾斜(水平)度是送布轴的刻点A和牙架座①的B部下降到20度水平送布轴侧的位置。
- 2) 为了防止缝制皱褶，向前抬起送布牙时，请拧松紧固螺丝②，把螺丝刀插入送布轴，然后沿箭头方向转90度。
- 3) 为了减少布的偏斜，向前下降送布牙时，请沿与前头方向相反方向转90度。

EN

- 1) The standard tilt (horizontal of the feel dog is obtained when marker dot A on the feed bar shaft is aligned with marker dot B on feed rocker ①.
- 2) To tilt the feed dog with its front up in order to prevent puckering, loosen the set screw ②, and turn the feed bar shaft 90 degrees in the direction of the arrow, using a screw driver.
- 3) To tilt the feed dog with its front down in order to prevent uneven material feed, turn the feed bar shaft 90 degrees in the opposite direction from the arrow.

18. 送布牙的高度 Height of the feed dog

 <p>注意 CAUTION</p>	<p>为了防止意外的启动造成的事故，请关掉电源后进行。 Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.</p>
--	--

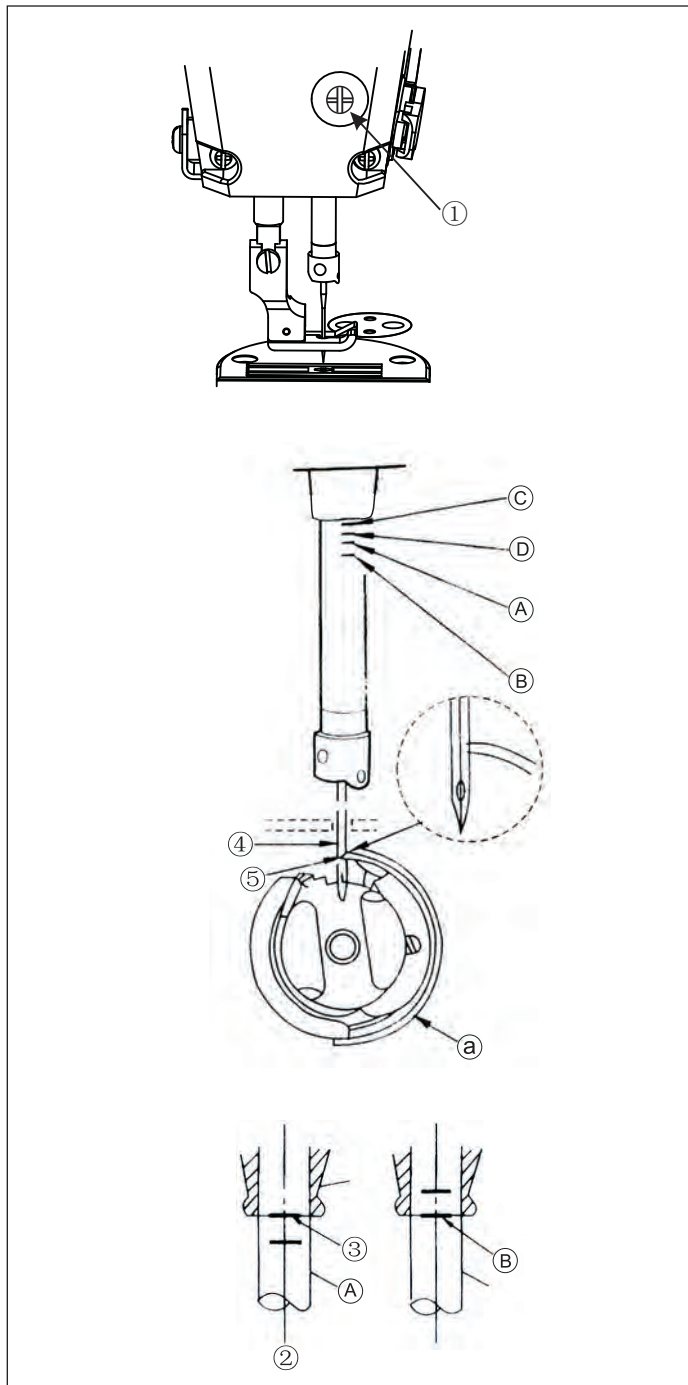


- 1) 送布牙 ① 从针板 ② 突出的量请调整为 0.8~1.0mm。(厚料时为1.0~1.2mm)。
- 2) 缝制薄料时，送布牙伸出过高时容易起褶。(0.7~0.9mm为适当。)
- 3) 调节送布牙时。
 - 拧松上下抬牙叉形曲柄①的固定螺丝②。
 - 上下移动牙架进行调节。
 - 然后拧紧固定螺丝②。
 (注意) 拧得不紧时，会损伤叉口部。

EN

- 1) The feed dog is factory-adjusted so that it jut out from the throat plate surface 0.75 to 0.85 mm (1.15 to 1.25 mm for thick material)
- 2) If the feed dog jut out too much puckering may result when sewing tight-weight materials (Recommended protrusion 0.7 to 0.8 mm)
- 3) To adjust the height of the feed dog
 - Loosen screw ② of crank ①.
 - Move the feed barcker up or down to make adjustment.
 - Securely tighten screw ②.
 (Caution) If the clamping pressure is insufficient, the forked portion will wear out.

19. 机针与旋梭的关系 Needle-to-hook relationship

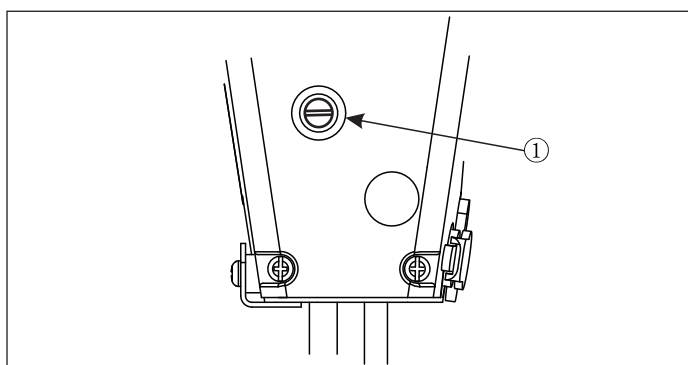


- 1) 转动手轮，让针杆降到最低点，然后拧松针杆连接柱固定螺丝①。
(决定针杆高度)
- 2) (DB针时) 把针杆②的刻线 A 对准针杆下轴套③的下端，然后拧紧针杆连接柱固定螺丝①。
(DA针时) 把针杆②的刻线 C 对准针杆下轴套③的下端，然后拧紧针杆连接柱固定螺丝①。
(决定旋梭a的安装位置)
- 3) (DB针时) 拧松旋梭固定螺丝，转动带轮在针杆②上升的方向，把刻线 B 对准针杆下套③的下端。
(DA针时) 拧松旋梭固定螺丝，转动带轮在针杆②上升的方向，把刻线 D 对准针杆下套③的下端。
- 4) 在此状态下，让旋梭尖⑤对准机针④的中心，把机针与旋梭的间隙调整为0.04~0.1mm，然后拧紧螺丝。
(注意) 间隙过小的话，会损伤旋梭尖，间隙过大的话，会跳针。

EN

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 set screw ①.
(Adjusting the needle bar height)
 - 2) (For a DB needle) Align marker line A on needle bar ② with the bottom end of needle bar lower bushing ③, then tighten set screw ①.
(For a DA needle) Align marker line C on needle bar ② with the bottom end of needle bar lower bushing ③, then tighten set screw ①.
(Adjusting position of the hook A)
 - 3) (For a DB needle) Loosen the three hook setscrews, turn the handwheel, and align marker line B on ascending needle bar ② with the bottom end of needle bar lower bushing ③.
(For a DA needle) Loosen the three hook setscrews, turn the handwheel, and align marker line D on ascending needle bar ② with the bottom end of needle bar lower bushing ③.
 - 4) After making the adjustments mentioned 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 (reference value) between the needle and the hook, then securely tighten setscrews in the hook.
(Caution) If the clearance between the blade point of hook and the needle is smaller than the specified value, the blade point of hook will be damaged. If the clearance is larger, stitch skipping will result.

20. 压脚高度的调节 Adjusting the height of the presser foot

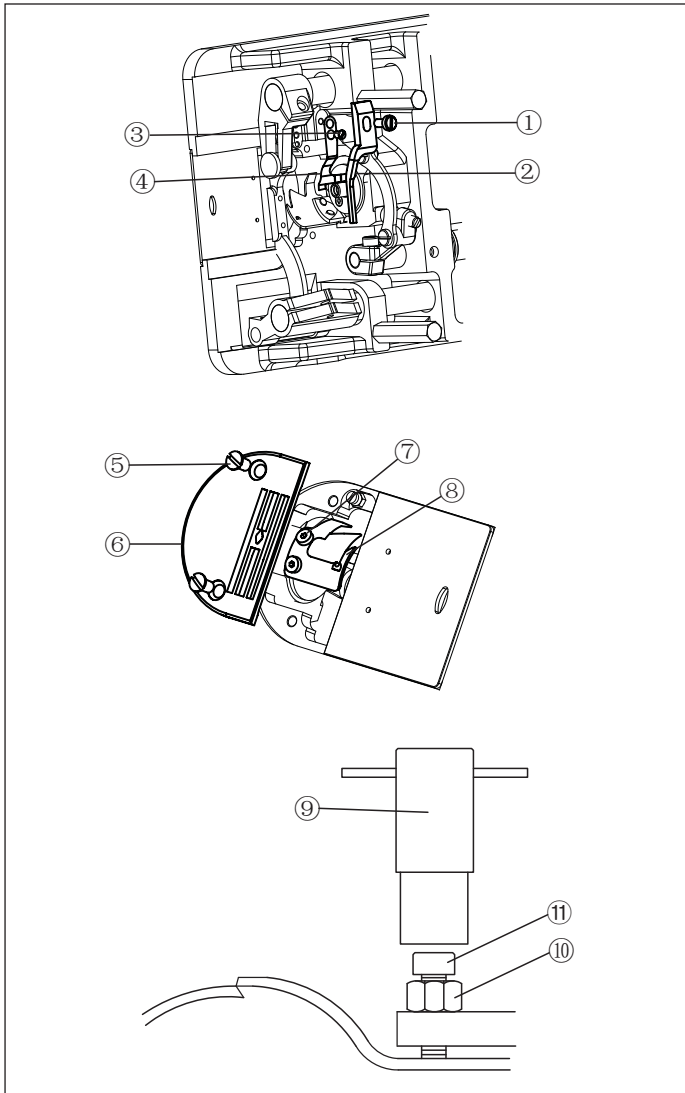


- 1) 变换压脚高度或角度时，请拆下面板孔橡胶塞拧松压脚杆的固定螺丝①进行调节。
- 2) 调节后，再拧紧固定螺丝。

EN

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

21-1. 定刀与移动刀的转换(单刀剪线) Change of fixed knife and shift knife



定刀的拆卸方法

1. 将缝纫机放倒。
2. 拆下紧固螺钉①和旋梭定位勾②。
3. 拆下沉头螺钉③和定刀④。

移动刀的拆卸方法

1. 用压脚扳手将压脚抬起。
2. 拆下沉头螺钉⑤，取下针板⑥。
3. 转动缝纫机主动轮，将针杆停止在最高位置。
4. 拆下沉头螺钉⑦，取下移动刀⑧。

定刀压力的调节

1. 拆下沉头螺钉⑤，取下针板⑥；
2. 用套筒扳手⑨松开定刀压力调节螺母⑩，把定刀压力调节螺钉⑪适当往下调。

注1. 拆针板⑥及动刀⑧时，请先取下机针。
组装按相反的顺序进行。

EN

Removing the fixed knife

1. Tilt back the machine head
2. Remove the screw ① and rotating hook positioner ②
3. Remove the screw ③ and the knife ④.

Removing the shift knife

1. Let the presser foot up by presser foot lever
2. Remove the screw ⑤ and the needle plate.
3. Turn around the balance wheel, let the needle bar stop highest
4. Remove the screw ⑦ and the knife ⑧.

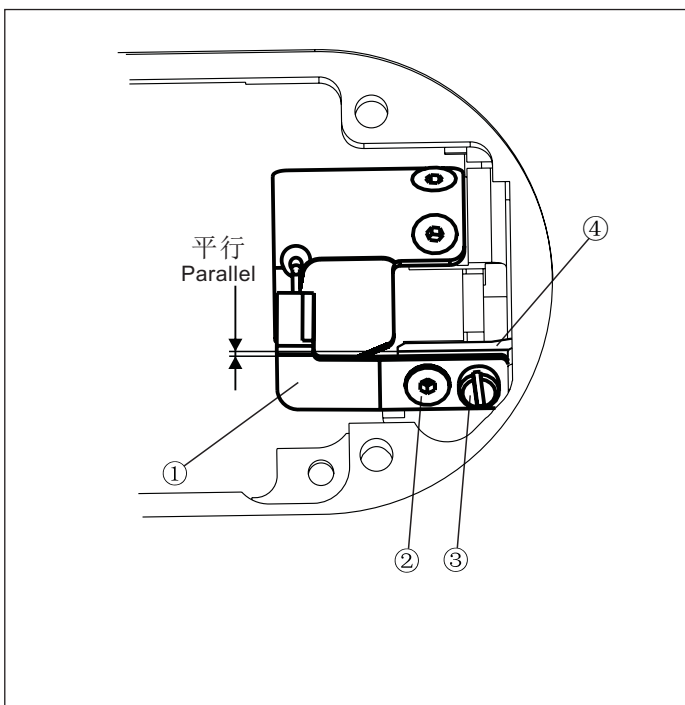
Adjusting pressure of the fixed knife

1. Remove the screw ⑤ and the needle plate ⑥.
2. Use the socket spanner ⑨ removing the screw ⑩, moving down the screw ⑪ to appropriate place.

Note: 1. Remove the needle before removing the needle plate ⑥ and the shift knife ⑧.

Installation refer to the reverse order.

21-2. 副动刀压力的调整(双刀剪线) Adjustment of secondary operating pressure



1. 副动刀的更换

- 1) 先拧掉副动刀定位螺钉②和固定螺钉③，拆下副动刀①；
 - 2) 更换新的副动刀，并重新拧紧两颗螺钉。
- 注: 更换副动刀后, 如右图所示, 要确保刀架④与副动刀①基本平行。

2. 副动刀压力的调整

当机器需要使用粗线或者剪线效果不良时, 可调节副动刀的压力来改善

- 1) 拧松副动刀定位螺钉②和固定螺钉③；
- 2) 将副动刀向B方向略微倾斜, 然后重新拧紧螺钉, 用手动剪线来确认调整效果；

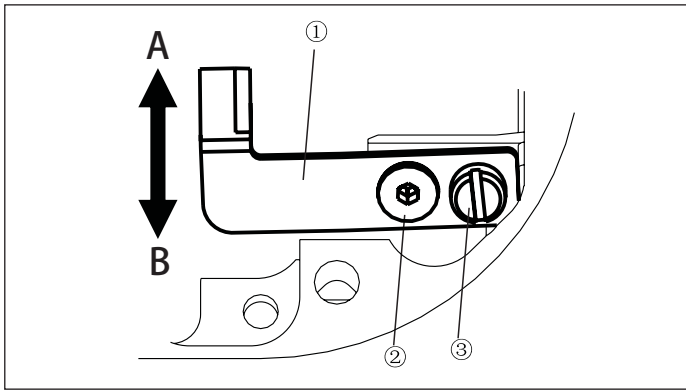
注: 若机器有出现剪线卡刀或者剪线压力重的情況, 可将副动刀①略微向A方向倾斜。

EN

1. Auxiliary Moving knife replacement

- 1) Firstly, loosen the setting screw ② and clamping screw ③ of auxiliary moving knife, then detach auxiliary moving knife ①.
- 2) Exchange the new auxiliary moving knife and fasten the two screws.

Noted: after replacing auxiliary moving knife (as shown on



the right), make sure the knife holder ④ is parallel with auxiliary moving knife ①.

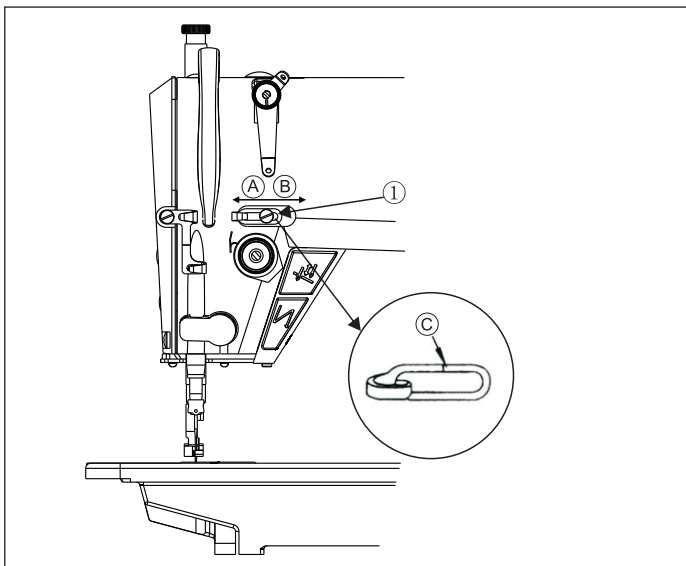
2. Auxiliary moving knife pressure adjustment

If the machine is used with thick thread or the thread trimmer performance is bad, situation can be improved by adjusting the auxiliary moving knife's pressure.

- 1) Loosen the setting screw ② and clamping screw ③;
- 2) Tilt auxiliary moving knife to direction B slightly. Then fasten the screws, cut the thread by hand and check the adjusted result;

Noted: If thread cutting knife is stuck or pressure is too heavy, tilt auxiliary moving knife ① to direction A slightly.

22. 挑线杆挑线量的调节 Adjusting the thread take-up stroke

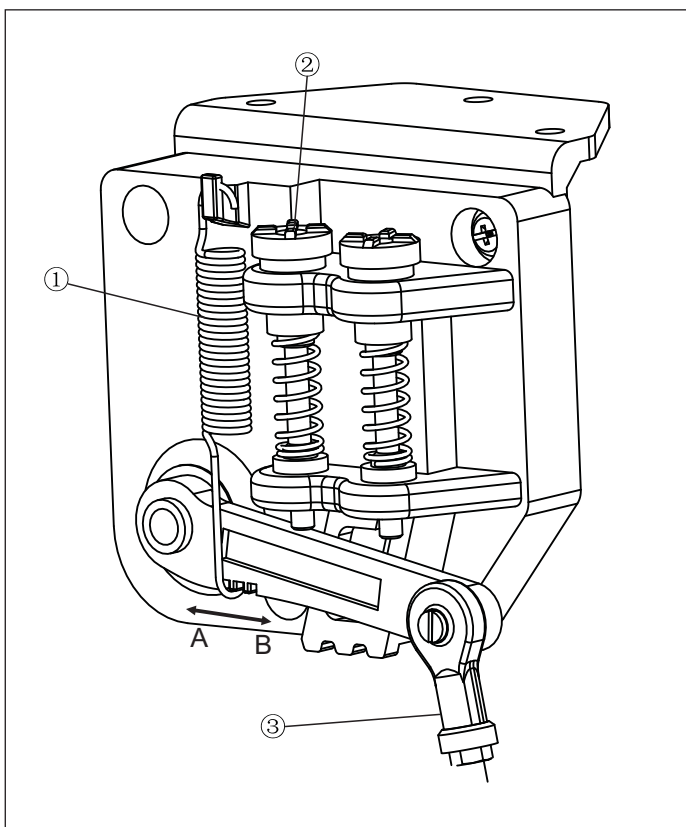


- 1) 缝制厚料时，导线勾①向左(A)方向移动，挑线量变大。
- 2) 缝制薄料时，导线勾①向右(B)方向移动，挑线量变小。
- 3) 导线勾①的刻线(C)在螺丝的中心位置时是标准位置。

EN

- 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) Normally, thread guide ① is positioned in a way that marker line C is aligned with the center of the screw.

23. 踏板压力和行程 Pedal pressure and pedal stroke



1. 踏板踩踏压力的调整

- 1) 摘下踏板压力调节弹簧①进行调节。
- 2) 把弹簧挂到左侧A向压力变轻。
- 3) 挂到右侧B向压力变大。

2. 踏板返还力的调整

- 1) 用返踩调节螺丝②可以进行调节。
- 2) 拧紧调节螺丝压力变大。
- 3) 拧松螺丝压力变轻。

3. 踏板踩踏行程的调整

- 1) 把连接杆③安装到左侧的孔内，行程变小。

EN

1. Adjusting the pressure required to depress the front part of the pedal

- 1) This pressure can be changed by altering the mounting position of pedaling pressure adjust spring ①
- 2) The pressure decreases when you hook the spring on the left side.
- 3) The pressure increases when you hook the spring on the right side.

2. Adjusting the pressure required to depress the back part of the pedal.

- 1) This pressure can be adjusted using regulator screw ②.
- 2) The pressure increase as you turn the regulator screw in.
- 3) The pressure decrease as you turn the screw out.

3. Adjusting the pedal stroke

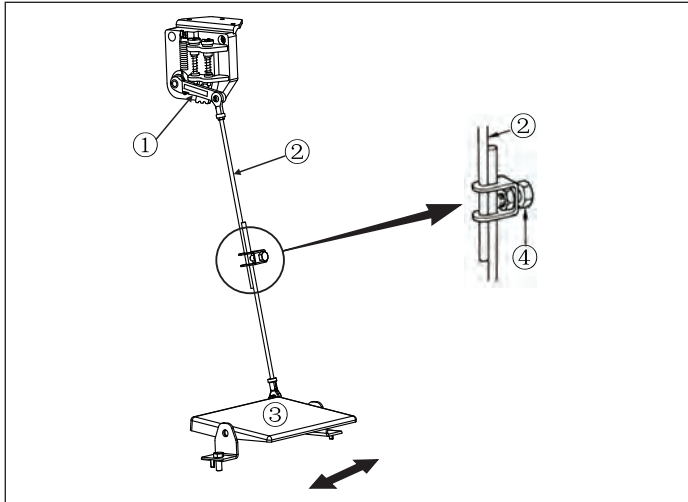
- 1) The pedal stroke decreases when you insert connecting rod ③ into the left hole.

24. 踏板的调整 Adjustment of the pedal



注意
CAUTION

为了防止意外的启动造成的事故，请关掉电源后进行。
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



1. 连接杆的安装

1) 向箭头方向移动踏板调节板③，让马达控制杆①和连接杆②成一直线。

2. 踏板的角度

1) 调节连接杆的长度即可以改变踏板的角度。
2) 拧松调节螺丝④，移动连接杆②进行调节。

EN

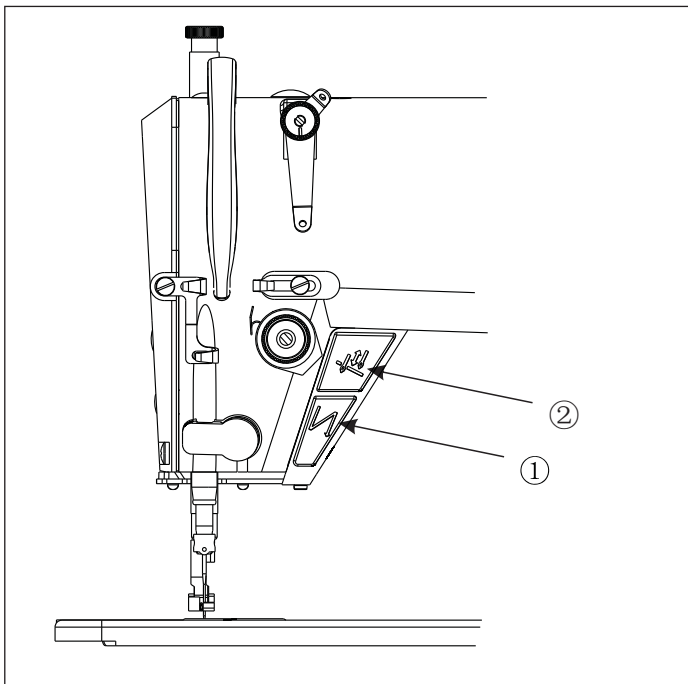
1. Installing the connecting rod

1) Move pedal ③ to the right or left as illustrated by the arrows so that motor control lever ① and connecting rod ② are straightened.

2. Adjusting the pedal angle

1) The pedal tilt can be freely adjusted by changing the length of the connecting rod.
2) Loosen adjust screw ④, and adjust the length of connecting rod ②.

25. 手触动倒缝 One-touch type reverse feed stitching mechanism



1. 倒缝按钮

1) 按下倒缝开关①，缝纫机立即倒缝。
2) 在按下的时间进行倒缝。
3) 手一松开立即变为正向缝纫。

2. 补针按钮

1) 在缝纫过程中，没有进行剪线动作时，按下补针按钮②然后释放，机器进行一针的补偿。
2) 若按下按钮②不放，则直接进行普通缝纫，松开后立即停止。

EN

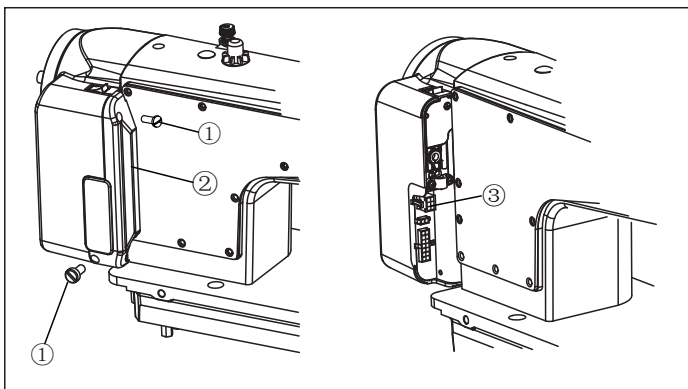
1. How to operate

1) The moment switch lever ① is pressed, the machine performs reverse feed stitching.
2) The machine performs reverse feed stitching as long as the switch lever is held depressed.
3) The machine resumes normal feed stitching the moment the switch lever is released.

2. Fill needle button:

1) In sewing, if the machine can't trim, press the button ② and then release, the machine will fill one needle back.
2) Press the button ② all along, the machine sewing as normal, release the button, the foot switch closed.

26. 脚踏板的连接 Foot switch connection



脚踏开关的连接

1) 当机器及脚踏开关已经安装到台板上以后，卸下两个后电线盖螺钉①，然后卸下后电线盖②；
2) 把已经安装好的脚踏板插头插到电控的连接口③的位置，然后轻踩脚踏确认机器能正常运转
3) 重新装上后电线盖②，拧紧螺钉①。

EN

Foot switch connection

1) When the machine and pedal switch is already installed on the table, discharge these two back wire head bolts ①, and then discharge back wire cover ②;
2) Put the pedal plug into the connector ③ of electrical control, then test the machine with treading.
3) Re-install the ware head ②, and screw the bolts ①.

27. 规格 Specifications

Noise emission

Workspace-specific emission value as per DIN EN ISO 10821:

Lc:78 dB(A) at

- stitch length:4mm
- number of stitches:4400 rpm
- sewing material:2-layer material

线迹类型 Type of stitch	301
驱动类型 Sewing drive	直接驱动 Direct-drive

规格型号 Model	261-140342-01 261-140345-01 261-140346-01	261-160362-01 261-160365-01	261-140342-01 A 261-140345-01 A 261-140346-01 A		
速度 Speed	出厂设置 Factory	4500 rpm	3500 rpm	4500 rpm	
	最大 Max.	5000 rpm	4000 rpm	5000 rpm	
最针迹长度 正缝/倒缝 Stitch Length Forward/Backward	5mm / 5mm	7mm / 7mm	5mm / 5mm		
压脚提 升高度 Presser Foot Lift	手提 Manual	6mm			
	膝提 Knee lift	出厂设置 Factory	9mm		
		最大 Max.	12mm		
	自动抬压脚 Auto lift	9mm			
梭芯规格 Bobbin Size	21 mm	25.5 mm	21 mm		
机针规格 Needle Size	Nm 80-Nm 90	Nm 110	DBX1 #14		
电机功率 (W) Motor Power	550W				
润滑油 Lubricating Oil	Lubricating Oil DA 10: Viscosity at 40 °C: 10 mm ² /s Flash point: 150 °C				

28. 常见故障与调整

在修理、服务之前请先按下面要点检查；
按照下方法处理仍不能排除故障时，请关掉电源开关，并及时与缝纫机经销商联系。

故障现象	产生原因	调整方法	页码
断线	①穿线是否正确	正确地穿线	4
	②上线张力过强或过弱	把张力调到适当	6
	③机针是否安装正确	正确安装机针	4
	④针尖是否弯曲、钝	更换机针	
	⑤旋梭、梭壳、挑线杆等过线道上无伤痕	修正伤痕或更换新品	
	⑥旋梭内是否有线头	清理旋梭	
	⑦线有问题		
	• 线的质量不好	换成质量好的线	
	• 线太粗	使用适当的针或适当的线	
	• 线受热熔解	安装线冷却装置	
	⑧机针型号调换	重新调整机针和旋梭的配合位置	
⑨跳针	参照下一项目跳针。		
跳针	①机针的安装方法不正确		
	• 没有完全插入针杆	把针插到针杆的顶部	
	• 针孔没有对正	把针孔安装到正面	
	• 针装反了	把长槽转到前面	
	②针尖是否弯曲或损坏	更换机针	
	③穿线是否正确	正确地穿线	4
	④旋梭尖弯曲或折断	修理旋梭尖或更换新品	
⑤机针和旋梭的同步不好	调整同步	10	
⑥机针与旋梭的间隙过大	调整间隙	10	
线迹不均匀	①压脚压力是否太小或太大	调节压脚压力	8
	②送布牙是否太低	调节送布牙齿的高度	9
	③梭心是否损坏	磨擦毛刺或更换梭心	
	④V形皮带是否太松	调整到用手指推皮带时压下5-10mm	
线迹起皱	①上线与底线张力过强	逐渐调弱上线与底线的张力	7
	②压脚压力过强、送布牙过高	调整压脚压力、调低送布牙位置	7~9
	③机针尖损坏	更换机针	4
	④机针太粗	尽可能使用小号机针	
	⑤送料相位调整是否准确	参照“送料相位的调节”	8
开始缝纫时 上线脱线	①开始缝纫时，挑线杆未在最高位置	缝制开始时，挑线杆调到最高位置	
	②上线穿过机针余量太少	线从机针的线孔穿出50mm左右	
	③小夹线器压力太大	调整小夹线器压力	
	④上针停止位置过高线被挑线拉出	调整上停针位置	
始缝时跳线	①切线时，梭心空转	更换梭心	4
	②梭心里的底线长度短，不出底线	更换梭心	4
	③切线后针孔的上线余量过短	调节小夹线器	

28. 常见故障与调整

故障现象	产生原因	调整方法	页码
断针	①机针是否外物碰撞弯曲了	更换机针	
	②机针的质量不好	更换质量好的机针	
	③机针没有完全插入针杆	插到针杆的顶部	
	④机针与旋梭相碰	调整针和旋梭的同步和间隙	10
	⑤与缝料和线相比针太细	换合适的机针	
	⑥机针与针板相碰	调正机针与针板的位置	
	⑦机针与压脚相碰	调正机针与压脚的位置	
上下线切不断	①定刀与动刀磨损、不锋利	更换定刀、动刀	11
上线切不断	①机针安装方法不对	正确安装机针	4
	②夹线簧的行程太大	减小夹线簧行程	
	③梭子定时配合不良	以低速启动, 检查跳针现象, 校正梭子的时间配合	
底线切不断	①动刀后退量调节不良	检查动刀的后退量, 调整剪线凸轮的左右位置, 以使切刀后退量达到适当的范围	11
	②剪线时底线位置不固定	检查梭子上有无底线引槽, 若没有引槽, 应调换梭子	
正向送布与反向送布针迹不一致	①送布牙斜度调整不良	调整送布牙斜度	9
面线不佳, 底线好 (浮线)	①面线线迹总体不好		
	• 梭皮或梭壳被线磨出线槽, 拧紧后线还松的	更换新梭皮或将梭壳的线槽磨平	
	• 送布时间与挑线时间配合过慢	打开机头侧盖板, 松开主轴上的偏心轮紧固螺钉, 将偏心轮固定不动, 手转动皮带轮向机器运动的反方向转动一点, 旋紧偏心螺钉. 试车, 一次调一点点直到面线好为止	
	• 梭壳与旋梭花栏配合不佳	更换梭壳	
	• 底线过于收紧, 面线无法收回	放松机头夹线器螺丝, 直到底、面线均匀为止	
	②面线出现时好时坏现象		
	• 梭皮无弹力, 压不住线	更换新的	
	• 梭壳与旋梭的出线口配合不佳	更换梭壳	
• 针板孔、定位勾有毛刺	对其进行抛光, 确保线的出入顺畅		
底线不好, 面线好 (浮线)	①面线的张力不够	略为加大夹线器弹簧及挑线簧的弹力	
	②机器机构相互运动配合不良	打开机头侧盖板, 松开主轴上的偏心轮紧固螺钉, 将偏心轮固定不动, 手转动皮带轮向自己座位方向转动一点 (逆时针方向), 旋紧偏心螺钉. 试车, 一次调一点点直到底线好为止	
	③定位勾与旋梭之间的间隙太小或有毛刺	间隙太小可将定位勾装开些、有毛刺可通过抛光处理	
	④旋梭的弧形过或小螺钉有毛刺	通过抛光或磨光处理	
	⑤机针未对准定位勾和旋梭勾线部的中间	调整定位勾使机针对准它们的中间	
	⑥旋梭与花栏之间间隙太小或花栏有毛刺	重新调整它们之间的间隙、对花栏进行抛光	

If you notice any of the problems listed below refer to the "Remedy" column for instructions on how to solve the problem. Our dealer or a qualified technician to carry out the necessary adjustment.

Phenomena	Possible cause	Remedy	Page
Thread breakage	①Is the needle properly installed	Re-threading correctly	4
	②When the needle thread is excessively tight or loose	Adjust the thread tension	6
	③Is the needle properly installed	Install the needle correctly	4
	④Is the needle tip bent or blunt	Replace the needle	
	⑤When there is a scratch on the thread catch of the sewing hook、bobbin case, there take-up lever or any other parts	Remove such a scratch or replace the component	
	⑥Is thread in the rotary hook	Clean the rotary hook	
	⑦When the thread is not suitable		
	·The quality of the thread is poor	Select good quality thread	
	·The thread is too thick	Use a suitable needle or thread	
	·The thread is broken by heat	Use silicone oil lubricant unit	
	⑧replace the type of needle	Adjust the position of needle and rotating shuttle over again	
⑨Stitch skipping	Refer to the following paragraphs stitch skipping		
Stitch skipping	①When the needle is inserted in a wrong way		
	·the needle is not entirely into the needle bar	Fully insert the needle	
	·The needle eye is not facing straight to the operator	Let the needle eye face straight to the operator	
	·The thread is facing backwards	Let the long groove on the needle face to the operator	
	②Is the needle tip bent or blunt?	Replace it with a new needle	
	③Is the needle properly installed	Re-threading correctly	4
	④When the hook blade point is not sharp enough or damaged	repair the hook or replace it	
	⑤When the timing of the sewing hook and the needle is not matched	Adjust the timing properly	10
⑥When the clearance between the needle and the sewing hook is too great	Adjust the clearance	10	
Seams don't match	①Is the presser foot pressure too weak or strong	Adjust the presser foot pressure	8
	②Is the feed dog too low ?	Adjust the feed dog height	9
	③Is the bobbin scratched?	If bobbin is damaged .smooth it will an oiled grindstone or replace it	
	④Is the V-belt tension too low	Adjust so that there is 5-10mm of deflection in the V-belt when it is pushed with a finger	
Poor thread tightening	①The upper thread and lower thread tension is too strong	Adjust the thread tension	7
	②The presser foot pressure is too strong	Decrease the presser foot pressure	7~9
	③The needle tip is broken	Replace the needle	4
	④The needle is too thick	Use as thin a needle as possible	
	⑤whether the adjustment of feed position is correct	consult the adjustment of feed position	8

If you notice any of the problems listed below refer to the "Remedy" column for instructions on how to solve the problem. Our dealer or a qualified technician to carry out the necessary adjustment.

Phenomena	Possible cause	Remedy	Page
Upper line comes out of the needle hole at the sewing start	①The thread take-up lever is not at its highest position at the sewing start	Set the thread take-up lever to the highest position at the sewing start	
	②The thread end is too short for the needle hole at the sewing start	Approx50mm of thread should be coming out of the needle hole	
	③The upper thread tension is too strong	Adjust the upper thread tension	
	④ upper looper fixed too high thread being take-up	adjust the position of upper looper	
The thread comes out of the needle hole at the sewing start	①when cut thread, the bobbin is racing	Replace the bobbin	4
	②the length of base line inside bobbin is short and cannot appear base line	Replace the bobbin	4
	③the pinhole upper line is too short after cutting thread	adjust thread tension	
The needle is broken	①When the needle is bent	Replace the needle	
	②The quality of the needle is poor	Select good quality needle	
	③ the needle is not entirely into the needle bar	Fully insert the needle	
	④When the needle hits the sewing hook	Adjust the timing and clearance between the needle and the sewing hook and also the position of the needle guard	10
	⑤The needle is too thin for the thread	Use a suitable needle	
	⑥The needle hits against the throat plate	adjust needle and needle plate position	
	⑦ The needle hits against the presser foot	adjust needle and press foot position	
upper line and base line cannot cut	①fixed knife and move knife are abrasion ,blunt	change fixed knife and move knife	11
upper line cannot cut	①When the needle is inserted in a wrong way	Install the needle correctly	4
	②the distance of thread tension spring is too long	decrease the distance of thread tension spring	
	③hook timing is not good to cooperate	start in low speed and check slip stitch, revise time cooperation of hook	
base line cannot cut	①cutting quantity cannot adjust well	Check the cutting quantity, adjust the left and right position of cutting thread cam, so that it can reach proper scope	11
	②the base line is not fasten when cutting	check whether there is base guide slot, if not, exchange hook	
needle mark is not consistent in observe feed and reverse feed	① the slope of feed dog cannot adjust well	Adjusting the feed dog incline	9

If you notice any of the problems listed below refer to the "Remedy" column for instructions on how to solve the problem. Our dealer or a qualified technician to carry out the necessary adjustment.

Phenomena	Possible cause	Remedy	Page
it is not so good of face line, however the base line is good	①the face line stitch is not good		
	· hook skin and hook case are milled thread slot, the thread still lax after fasten	change new hook skin or rub down hook case thread slot.	
	· the speed is slow when feeding and picking thread	Opening the side cover board of machine top, loosen the eccentric cam in principal axis and fasten bolt, fix up eccentric cam, turn strap wheel a little to opposite position by hand, close eccentric screw, test drive. adjust a bit till it is ok.	
	· hook case and rotating hook cooperate not good	Replace it with a new bobbin case	
	· the base line is too tight that face line cannot back	release thread tension screw, until make sure base and face line equality	7
	② face line appears broke down sometimes but sometimes is ok		
	· there is no elasticity of hook skin, thus cannot press down the thread	use new hook skin instead	
	· hook case and the thread exit of rotating hook cooperate not good	Replace it with a new bobbin case	
base line is not good ,but face line is good	·there is burr in the hole of needle plate, orientation hook	polishing them, and make sure thread go	
	①When the needle thread tension is too low	increase spring of thread tension spring and thread take-up spring	
	②the structure interact cooperation not good	Opening the side cover board of machine top, loosen the eccentric cam in principal axis and fasten bolt, fix up eccentric cam, turn strap wheel a little to opposite position by hand, (counter-clockwise)close eccentric screw, test drive. Adjust a bit till	
	③ positioning finger and rotating hook clearance is too small or there is burr	move positioning finger or polishing to solve it	
	④the arc of rotating or set screw have burr	deal it through polish or burnish	
	⑤ needle is not aim at the middle of poisoning finger and rotating hook	adjust poisoning finger to aim the middle	
	⑥hook case and rotating hook clearance is too small or there is burr	adjust the clearance of them and polishing	

嵌入式数控交流伺服系统 使用说明书

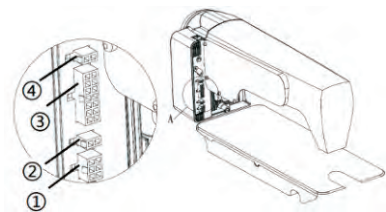
安全事项

- 在使用本产品之前，请先阅读《产品说明书》及所搭配的缝纫机机械说明书。
- 本产品必须由接受过专业培训的人员来安装或操作。
- 请尽量远离电弧焊接设备，以免产生的电磁波干扰本控制器而发生误动作。
- 请不要在室温45°以上或者0°以下的场所使用。
- 请不要在湿度30%以下或者95%以上或者有露水和酸雾的场所使用。
- 安装控制箱及其他部件时，请先关闭电源并拔掉电源插头。
- 为防止干扰或漏电事故，请做好接地工程，电源线的接地线必须以牢固的方式与大地有效连接。
- 所有维修用的零部件，须由本公司提供或认可，方可使用。
- 在进行任何保养维修动作前，必须关闭电源并拔掉电源插头。控制箱里有高压危险，必须关闭电源五分钟后方可打开控制箱。
- 本手册中标有△符号之处为安全注意点，必须注意并严格遵守，以免造成不必要的损害。

第1章 产品安装

1.1 产品规格

产品型号	AHE59-55	电源电压	AC 220±20% V
电源频率	50Hz/60Hz	最大输出功率	550/750W



例图1-1 AHE系列控制器图

1.2 接口插头的连接

将脚踏板及机头的各连接插头安插到控制器后面对应的插座上如图1-1所示，各插座名称如图1-2所示。连接好，请检查插头是否插牢。

①脚踏板插座；②抬压脚电磁铁插座；③自动电磁铁插座；④机头灯插座（黑色）；

注：图1-1以AHE-58系列为例，AHE-59系列无④。

△：使用正常的力量插不进去时，请检查插头与插座是否匹配，插入方向或针的方向是否正确！照明灯接口和抬压脚电磁铁接口都是1*2的接口，机头照明灯接口使用黑色接口，请注意区分。

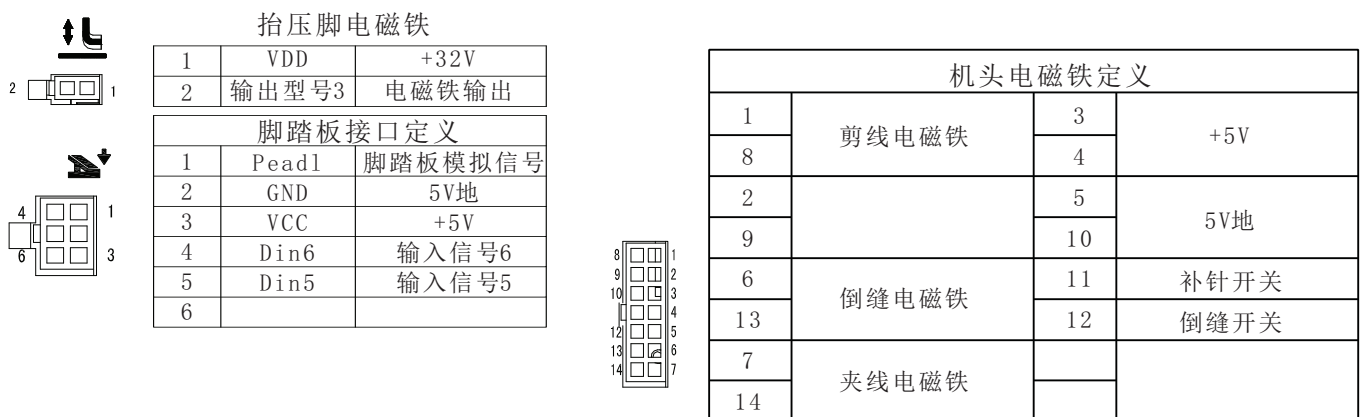


图1-2 控制器接口定义

1.3 接线与接地

必须要做好系统的接地工程，请合格的电气工程人员予以施工。产品通电及投入使用前，必须确保电源插座AC输入端已安全可靠的接地。系统的接地线为黄绿线，该地线请务必可靠连接至电网安全保护接地上，以保证安全使用，并可防止出现异常情况。

△：所有电源线、信号线、接地线等接线时不要被其它物体压到或过度扭曲，以确保使用安全！

第2章 操作面板使用说明

2.1 操作面板的显示说明








图2-1 H-12操作面板外观界面



2.2 按键功能介绍

序号	外观	名称	功能描述
1		菜单键	1. 长按键，进入菜单列表，菜单列表中包括主要功能、参数设置、计数器设置、网络设置、维修保养和系统设置功能。 2. 在菜单模式下，短按一次键进行保存，再次按下返回上一级，长按返回主界面。
2		自由缝和剪线键	1. 短按此键，选择自由缝模式。 2. 长按此键，选择剪线功能开关。
3		前加固和软启动键	1. 短按此键，系统前固缝工作模式将按照无前固缝↓、前单固缝↙、前双固缝↘、前四固缝↖之间循环选择，点阵屏显示对应的图标。 2. 长按此键，系统进入软启动↗设置设置界面。
4		夹线和触发键	1. 短按此键，选择夹线功能开关。 2. 长按此键，选择触发功能开关。
5		后加固缝和停针选择键	1. 短按此键，系统后固缝工作模式将在无前固缝↓、后单固缝↙、后双固缝↘、后四固缝↖之间循环选择，点阵屏显示对应的图标。 2. 长按此键，选择停针位置。
6		Reset键	长按恢复厂家出厂参数。
7		W缝/多段缝键	1. 短按此键，选择W缝工作模式。 2. 长按此键，选择多段缝模式。
8		抬压脚键	1. 短按此键，系统进入剪线抬压脚↘设置界面。 2. 长按此键，系统进入缝纫中停车自动抬压脚↗设置界面。
9		增减键	调整对应数值的增加键与减小键。
10		增减键	调整对应数值的增加键与减小键。
11		左右切换键	切换选中对象，切换工作模式。
12		左右切换键	切换选中对象，切换工作模式。

2.3 组合按键功能介绍

停针位调节：按下  +  键面板显示机械角后转动手轮，位置确认后按下  键待面板显示“0000”后再次按  键返回至主界面。

跑和模式：按下  +  键进入自动跑和模式，在此状态下按   选择运行时间、停止时间及跑和总时间。

基本参数调节：按下  +  键快捷进入机修工参数。

高级参数调节：按下  +  键快捷进入高级参数。

第三章 参数代码表

3.1 机修工参数表

参数编号	参数范围	典型值	参数描述
100	100~800	200	起缝速度
101	200~5000	4500	自由缝最高速（全局最高限速）
102	200~5000	3000	多段缝最高速
103	200~5000	5000	手动倒缝最高限速
104	200~5000	200	补针速度
105	100~500	300	剪线速度
106	0/1	0	慢启动模式
107	1~9	1	慢速起缝针数
108	100~800	400	慢速起缝速度
110	200~2200	1800	前固缝速度
111	200~2200	1800	后固缝速度
112	200~2200	1800	连续回缝速度（W缝）
113	1~70	32	前固（及W）缝针迹补偿1（吸合补偿，数值增大表示加快吸合）
114	1~70	21	前固（及W）缝针迹补偿2（释放补偿，数值增大表示释放加快）
115	1~70	35	后固缝针迹补偿1（吸合补偿，数值增大表示加快吸合）
116	1~70	21	后固缝针迹补偿2（释放补偿，数值增大表示释放加快）
140	0/1	0	上电自动找上针位： 0:不找；1:找
141	0/1	1	自动加固功能选择：（无自动加固功能的机头，最好禁止此功能） 0:禁止固缝；1:允许固缝
142	0/1	0	手按回缝时功能模式选择 0:在缝纫中途或中途停止时均有动作。 1:仅在缝纫中途有动作。

3.2 高级参数表

参数编号	参数范围	典型值	参数描述
109	1~20	18	加速灵敏度
10A	1~20	18	减速灵敏度
117	1~100	90	针迹速度补偿（P107-A段针数=1）
118	1~100	30	针迹速度补偿（P107=A段针数）
11B	0~4	0	前后加固模式类型。（CD与AB类似） 0: B->AB->ABAB->无。 1: B->无。 2: B->AB->无。 3: AB->无。 4: AB->ABAB->无。
11C	0~9999	0	ABCD各段的十位数（按位分配）
11D	0~9999	0	EFGH各段的十位数（按位分配）
11E	0~9999	0	ABD各段的十位数（按位分配）
11F	0~359	0	手动倒缝角度控制
130	0/1/2/3	2	脚踏板曲线模式： 0: 自动线性斜率（根据最高速自动计算） 1: 两段斜率； 2: 幂次曲线； 3: S型曲线
131	200~4000	3000	两段斜率：中段速度RPM（两段斜率的转折点速度）

参数编号	参数范围	典型值	参数描述
132	0~1024	800	两段斜率：中段踏板模拟量（需在138到139参数之间）
133	1/2	1	幂次曲线： 1：平方曲线；2：开方曲线；
134	0~1024	150	踏板剪线位置
135	0~1024	300	踏板抬压脚位置
136	0~1024	450	踏板回中位置
137	0~1024	465	踏板前踩运行位置
138	0~1024	680	踏板低速运行位置（上限）
139	0~1024	940	踏板模拟量最大值
13A	0~800	300	踏板抬压脚确认时间
143	0/1/2/3	0	特殊运行模式： 0:操作工选择（正常） 1:简易缝模式 2:测电机初始角（不需要取下皮带） 3:计算传动比模式（需要有停针传感器，且不能取下皮带）
144	0~31	0	电机低速加力功能开关：0:正常功能；1~31:低速加力过厚能力档位
148	0/1/2	0	按钮补针模式：0:由按下时间控制；1:补半针；2:补一针
149	0~10	5	缓放压脚斩波开通时间(100us单位)
14C	1~9999	0	缓放压脚斩波关断时间(100us单位)
150	1~100	1	计针数功能比例值设定
151	1~9999	1	计针数上限设定值
152	1~6	0	计针数模式选择： 0:不计数 1:依针数递增计数，计数满后自动重新计数 2:依针数递减计数，计数满后自动重新计数 3:依针数递增计数，计数满后马达自动停止，须由复位按钮设定或面板上的P键来启动重新计数。 4:依针数递减计数，计数满后马达自动停止，须由复位按钮设定或面板上的P键来启动重新计数。 5:依针数递增计数，计数满后发出报警，剪线后马达锁住 6:依针数递减计数，计数满后发出报警，剪线后马达锁住
153	1~100	1	计件数功能比例值设定
154	1~9999	1	计件数上限设定值
155	0~4	0	计件数模式选择： 0:不计数 1:计件数递增计数，计数满后自动重新计数 2:计件数递减计数，计数满后自动重新计数 3:计件数递增计数，计数满后马达自动停止，须由复位按钮设定或面板上的P键来启动重新计数。 4:计件数递减计数，计数满后马达自动停止，须由复位按钮设定或面板上的P键来启动重新计数。
156	0~9999	0	对应1/2/3/4号电磁铁斩波占空比时间选择（0以ms为单位，1以0.1ms为单位）
157	0~9999	0	对应5/6/7/8号电磁铁斩波占空比时间选择（0以ms为单位，1以0.1ms为单位）
158	0~1	0	计数可调开关（计针数和计件数）（0可调，1不可调）
161	0/1/2	2	参数传输:0:无动作;1:下传参数;2:上传参数
163	1/2	0	保存当前参数为用户自定义机修参数（可恢复）
164	-	0	密码

具体设置方法见图4-1所示。

参数编号	参数范围	典型值	参数描述
200	0/1/2	0	剪线电机运行模式选择：0：平车式；1：绷缝式（普通绷缝剪线：停到上针位后剪线）；2：包缝式：手动剪线
201	0~359	0	剪线结束时机械角度
203	5~359	10	剪线开始角度TS（相对于下针位角度）
204	10~359	180	剪线结束角度TE（相对于下针位角度，需大于TS）
20A	10~60	50	剪线加力系数(电机加力)
20B	0/1	0	尾针加密功能开关
211	5~359	30	松线电磁铁启动角度LS（相对于下针位角度）
212	10~359	300	松线电磁铁结束角度LE（相对于下针位角度，需大于LS）
213	1~999	1	松线电磁铁启动延迟时间L1（ms）
214	1~999	10	松线电磁铁上针位后延迟时间L2（ms）
215	0/1	0	扫线功能选择：0：关闭；1：打开
216	1~999	10	拨线 / 扫线延迟时间ms
217	1~9999	30	拨线 / 扫线持续时间ms
219	0/1	1	夹线功能选择：0：关闭；1：打开
21A	10~359	120	夹线开始角度
21B	11~359	320	夹线结束角度
21E	11~359	120	夹线时压脚抬起后的下放角度
220	200~360	360	剪线后停止位置（可实现剪线回拉功能）
231	0/1	0	自动测试模式选择：（前面两位数所表示的测试模式设置）0：定针数；1：定时间（×100ms）
232	0~1000	300	安全开关报警确认时间ms（直驱翻台开关和绷缝剪刀保护开关均同样处理）
234	0/1	0	电机转向：1：反转；0：正转
240	0~9999	1000	电机/机头传动比：X0.001 （如果自动计算过传动比，控制器内的该参数可能与HMI上的不同）
242	0~359	209	上停针位调整角度（相对于上针位传感器的位置偏移）
243	0~359	179	下停针位机械角度
244	0~800	50	放压脚延迟时间（ms）
247	850~1350	1030	尾针加密电磁铁吸合角度
248	0~300	220	电磁铁释放时间
249	0~50	25	电磁铁占空比

第四章 故障代码表

4.1 监控参数表

参数编号	参数描述	参数编号	参数描述	参数编号	参数描述
010	针数计数	022	相电流	027	电机累计运行时间（Hour）
011	计件数	023	初始角度	028	机头交互量电压采样值
013	霍尔状态	024	机械角度	029	DSP软件版本号
020	母线电压	025	踏板电压采样值	030-037	历史故障代码
021	机头速度	026	机头传动比实际值		

4.2 安全报警表

报警代码	代码含义	解决措施
Warm:01	加油提醒	按P键可暂时取消报警。请及时加油并运行时间复位操作
Warm:02	计针数报警	表示计针数已达所设上限，按P键可取消报警并重新计数
Warm:03	计件数报警	表示计件数已达所设上限，按P键可取消报警并重新计数
Warm:04	紧急停车	再按下紧急停车按钮，可消除紧急停车状态
Warm:05	提针锁定	再按下提针锁定按钮，可消除提针锁定状态
Warm:06	断电提醒	请等候30秒再重新打开电源开关

4.3 故障代码表

故障代码	代码含义	解决措施
Error:01	硬件过流	关闭系统电源，30秒后重新接通电源，控制器若仍不能正常工作，请更换控制器并通知厂方。
Error:02	软件过流	
Error:03	系统欠压	断开控制器电源，检查输入电源电压是否偏低（低于176V）。若电源电压偏低，请在电压恢复正常后重新启动控制器。若电压恢复正常后，启动控制器仍不能正常工作，请更换控制器并通知厂方。
Error:04	停机时过压	断开控制器电源，检查输入电源电压是否偏高（高于264V）。若电源电压偏高，请在电压恢复正常后重新启动控制器。若电压恢复正常后，启动控制器仍不能正常工作，请更换控制器并通知厂方。
Error:05	运行时过压	
Error:06	电磁铁回路故障	关闭系统电源，检查电磁铁连线是否正确，是否有松动、破损等现象。若有则及时更换。确认无误后重启系统，若仍不能工作，请更换控制器并通知厂方。
Error:07	电流检测回路故障	关闭系统电源，30秒后重新接通电源观察是否能正常工作。重试几次，若该故障频繁出现，请更换控制器并通知厂方。
Error:08	电机堵转	断开控制器电源，检查电机电源输入插头是否脱落、松动、破损，是否有异物缠绕在机头上。排除后重启系统仍不能正常工作，请更换控制器并通知厂方。
Error:09	制动回路故障	关闭系统电源，检查电源板上白色的制动电阻接头是否松动或脱落，将其插紧后重启系统。若仍不能正常工作，请更换控制器并通知厂方。
Error:10	HMI通讯故障	检查控制面板与控制器的连线是否脱落、松动、断裂，将其恢复正常后重启系统。若仍不能正常工作，请更换控制器并通知厂方。
Error:11	机头停针信号故障	检查机头同步信号装置与控制器的连线是否松动，将其恢复正常后重启系统。若仍不能正常工作，请更换控制器并通知厂方。
Error:12	电机初始角度检测故障	请断电后再尝试2-3次，若仍报故障，请更换控制器并通知厂方。
Error:13	电机HALL故障	关闭系统电源，检查电机传感器接头是否松动或脱落，将其恢复正常后重启系统。若仍不能正常工作，请更换控制器并通知厂方。
Error:14	DSP读写EEPROM故障	关闭系统电源，30秒后重启系统，若仍不能正常工作，请更换控制器并通知厂方。
Error:15	电机超速保护	
Error:16	电机反转	

故障代码	代码含义	解决措施
Error:17	HMI读写EEPROM故障	关闭系统电源，30秒后重启系统，若仍不能正常工作，请更换控制器并通知厂方。
Error:18	电机过载	
Error:19	翻台报警	
Error:23	电机堵转扇区错误	断开控制器电源，检查电机电源输入插头是否脱落、松动、破损，是否有异物缠绕在机头上。排除后重启系统仍不能正常工作，请更换控制器并通知厂方。

附件：脚踏板灵敏度调整

脚踏板动作由初始位置①（136号参数）开始，缓慢向前踩至②（137号参数）开始低速缝纫，继续前踩至③（138号参数）开始加速，再深踩至④（139号参数）达到最高速度。②③段之间维持起缝速度，③④段之间为无级调速过程；

1、当脚踏板由初始位置①（136号参数）开始，缓慢后踩至⑤（135号参数）时抬压脚自动抬起；2、当脚踏板由初始位置①（136号参数）开始，缓慢后踩至⑥（134号参数）时自动完成剪线动作。3、各参数数值设置需保证（134号参数）<（135号参数）<（136号参数）<（137号参数）<（138号参数）<（139号参数）4、可通过监控模式下025号参数实时监测，不同位置下的踏板采样数值作为各参数的参考值。调整对应参数，抬压脚和前踩或后踩的动作位置也随之改变。如前踩很大距离机器还没有运转，可适当减小137参数（不能小于回中位置参数136），即可提高前踩的灵敏度；若机器过于灵敏，轻触踏板机器就开始运行，可适当加大137参数；若不容易补针，稍微前踩，速度就迅速提高造成前冲多针，可适当增大138参数或减小137参数（即增大脚踏板低速范围），也可以适当降低初始起缝速度（100）。

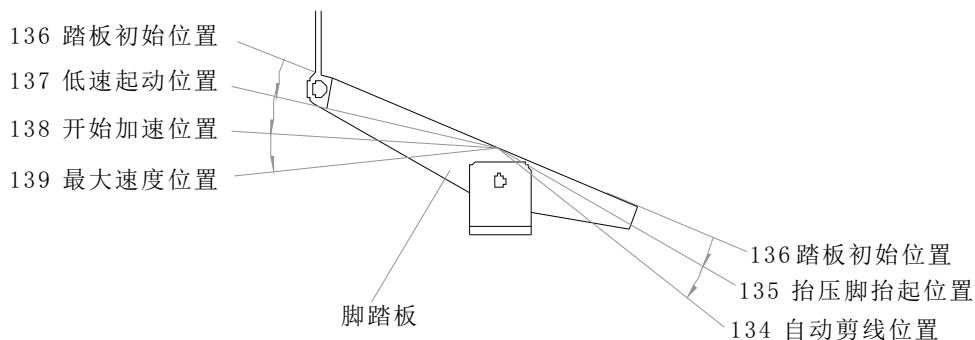
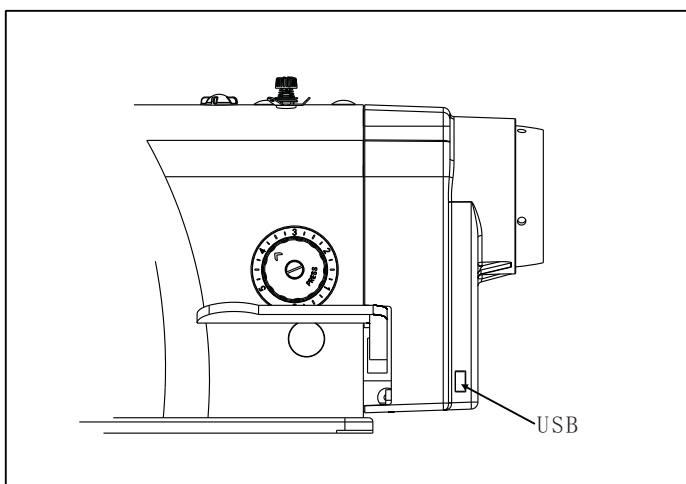


图4-1 踏板动作各位置参数示意图


4.4 USB装置



USB装置具有5V电压，最大2A电流输出，可以为小型电器提供电力，方便客户使用。

AHE-59 Numerical Control AC Servo System User Manual

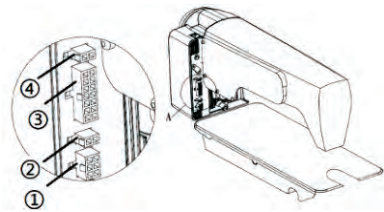
Safety Instructions

- Read the Product Specification and the attached sewing machine specification prior to using this product.
- This product shall be installed or operated by the people who have been trained professionally.
- Please stay away from the arc welding equipment, so as to avoid misoperation caused by the interference with this controller by the generated electromagnetic waves.
- Please do not use this product in the places with ambient temperature above 45°C or below 0°C.
- Please do not use this product in the places with humidity below 30% or above 95% or having dew or acid mist.
- Please turn off the power and pull the plug first prior to the installation of control cabinet and other components.
- In order to prevent interference or electric leakage, please the grounding shall be performed well. The grounding wire of the power line shall be connected to the earth firmly and effectively.
- All the parts for maintenance shall be provided or recognized by our Company.
- The power shall be turned off and the plug be pulled out prior to any maintenance. Only after the power is turned off for five minutes can the control cabinet be opened as the high voltage in it is dangerous.
- The clauses marked with  in this manual are about safety precautions, which shall be noted and strictly abided by, so as to avoid unnecessary damage.

Section 1 Product Installation

1.1 Product Specifications

Product Model	AHE59-55	Power Voltage	Ac220±20% V
Power Frequency	50Hz/60	HzMaximum Power Output	550/750W




Example Figure 1-1 AHE series controller diagram

1.2 Interface Plug Connection

Insert the pedal and head connector plugs into the corresponding sockets on the back of the controller as shown in Figure 1-1. The names of the outlets are shown in Figure 1-2. After connection, please check if the plug is inserted firmly.

① Pedal socket; ② Lifter electromagnet socket; ③ Automatic electromagnet socket; ④ Head light socket (black); Note: Figure 1-1 taking AHE-58 series as an example, AHE-59 series do not have ④.

 : In case of failure to plug in using normal force, please check if the plug and the socket match, and whether the insertion direction or the direction of needle is correct! The interfaces of the lamp and lifter electromagnet are both 1*2 interfaces. Back interface is adopted for the headlight interface. Please note the difference.

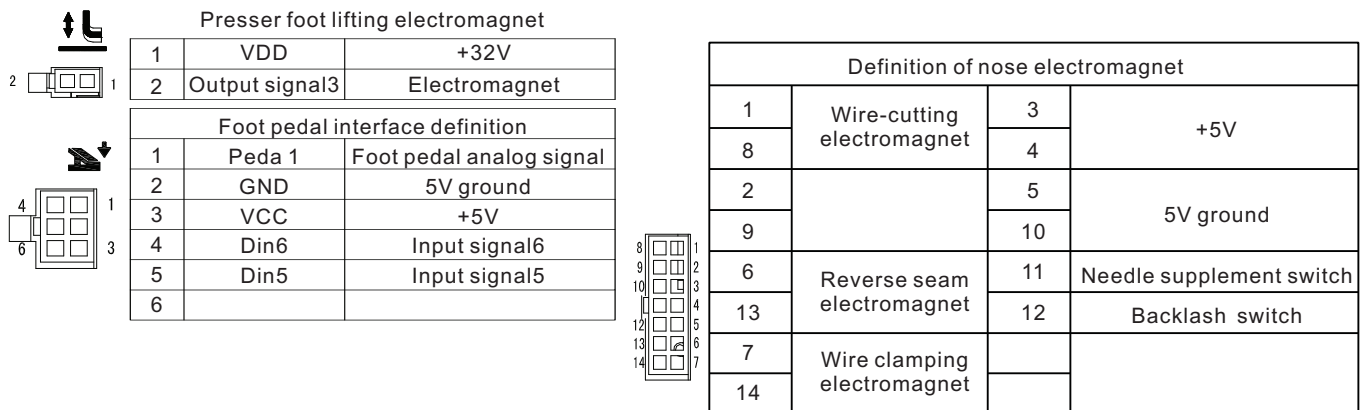



Figure 1-2 Controller Interface Definition

1.3 Wiring and Grounding

The systematic grounding engineering shall be done and constructed by qualified electrical engineer. Prior to the product is energized and put into use, the AC input terminal of power outlet shall be ensured to be grounded in a safe and reliable way. The grounding wire of the system is yellow-green line, which shall be connected to the power grid security grounding, so as to ensure safe use and prevent abnormal conditions.

 :Protect the power cords, signal cables, ground wires, etc. from being pressed by other objects or over-twisted during wiring to ensure safety in use!













Section 2 Operating panel instructions

2.1 Introduction to the Appearance of Operation Panel











Figure 2-1 Appearance Operation Panel

2.2 按键功能介绍

No.	Appearance	Name	Function Description
1		Menu	<ol style="list-style-type: none"> 1. Press the P key for a long time to enter the menu list, which includes the main functions, parameter setting, counter setting, network setting, maintenance and system setting functions. 2. In menu mode, press the P key once for saving, press it again to return to the next level, and press it again to return to the main interface.
2		Free sewing and thread cutting keys	<ol style="list-style-type: none"> 1. Press this key briefly to select the free sewing mode. 2. Press this key for a long time to select the thread cutting function switch.
3		Front Reinforcement and Soft Start Reuse Keys	<ol style="list-style-type: none"> 1. By pressing this key briefly, the system's front fixing mode will be selected cyclically among no front fixing, front single fixing, front double fixing and front four fixing, and the dot matrix screen will display the corresponding icon. 2. Press this key for a long time to enter the soft start setting interface.
4		Clamping wire and trigger key	<ol style="list-style-type: none"> 1. Press this key briefly to select the wire clamping function switch. 2. Press this key for a long time to select the trigger function switch.
5		Select key for rear reinforcing seam and needle stop	<ol style="list-style-type: none"> 1. Press this key for a short time, and the working mode of the system's rear fixing seam will be cyclically selected among no rear fixing seam, rear single fixing seam, rear double fixing seam and rear four fixing seams, and the corresponding icon will be displayed on the dot matrix screen. 2. Press this key for a long time to select the needle stop position.
6		Reset	Long press to restore factory parameters.
7		W - seam / multi - seam key	<ol style="list-style-type: none"> 1. Press this key briefly to select W - seam operation mode. 2. Press this key for a long time to select the multi-section sewing mode.
8		Lifter key	Also known as automatic lifter after trimming and automatic lifter reuse key in suspension during sewing, including short press and long press. After short press, the system enters trimming lifter  setting interface. After long press 2S, the system enters the automatic lifter  setting interface.
9/10		Increase/decrease key	Adjust the increase/decrease key for the corresponding value
11/12		Left/right switch key	Switch the selected object and switch the operation mode

2.3 Introduction to function of combination key

Adjustment of needle stop position: Press the  +  key panel to display the mechanical angle and then turn the handwheel. After confirming the position, press the  key until the panel displays "0000" and then press the  key again to return to the main interface.

Run and Mode: Press the  +  key to enter the automatic run and mode, and press   in this state to select the run time, stop time and run and total time.

Basic parameter adjustment: press  +  key to quickly enter mechanic parameters.

Advanced Parameter Adjustment: Press the  +  key to quickly enter advanced parameters.

Section 3 Parameter Code Table

3.1 Mechanic parameter table

Parameter Number	Parameter Range	Typical Value	Parameter Description
100	100~800	200	Initial stitching speed
101	200~5000	4500	Maximum free sewing speed (global maximum speed limit)
102	200~5000	3000	Maximum multi-segment sewing speed
103	200~5000	5000	Manual top down speed limit
104	200~5000	200	Stitch compensate speed
105	100~500	300	Trimming speed
106	0/1	0	Slow start mode
107	1~9	1	Number of slow initial stitches
108	100~800	400	Slow sewing speed
110	200~2200	1800	Start back tacking speed
111	200~2200	1800	End back tacking speed
112	200~2200	1800	Continuous stitching speed (W-sewing)
113	1~70	32	Start back tacking (and W) stitch trajectory compensate 1 (Absorption compensation, increased numerical value means accelerated absorption)
114	1~70	21	Start back tacking (and W) stitch trajectory compensate 2 (Release compensation, increased numerical value means accelerated release)
115	1~70	35	End back tacking stitch trajectory compensate 1 (Absorption compensation, increased numerical value means accelerated absorption)
116	1~70	21	End back tacking stitch trajectory compensate 2 (Release compensation, increased numerical value means accelerated release)
140	0/1	0	Power on automatic needle position search: 0: not searching; 1: searching
141	0/1	1	Automatic tacking function selection: (head without automatic tacking function, disabling the function is recommended) 0: Fixing prohibited; 1: Fixing allowed
142	0/1	0	Manual press backstitch function selection 0: It operates when it stops in the middle of sewing or halfway. 1: It only operates during sewing.

3.2 Advanced Parameter Table

Parameter Number	Parameter Range	Typical Value	Parameter Description
109	1~20	18	Accelerate sensitivity
10A	1~20	18	Decelerate sensitivity
117	1~100	90	Stitch speed compensation (P107-A segment stitch number = 1)
118	1~100	30	Stitch speed compensation (P107-A segment stitch number = 1)
11B	0-4	0	Start and end back tacking mode type. (CD is similar to AB) 0: B->AB->ABAB->None. 1: B->Nothing. 2: B->AB->None. 3:AB->None. 4: AB->ABAB->None.

Parameter Number	Parameter Range	Typical Value	Parameter Description
11C	0~9999	0	Ten digits of ABCD segments (allocations by bit)
11D	0~9999	0	Ten digits of EFGH segments (allocations by bit)
11E	0~9999	0	Ten digits of ABD segments (allocations by bit)
11F	0~359	0	Manual backstitch angle control
130	0/1/2/3	2	Pedal curve mode: 0: Automatic linear slope (automatic calculation according to the maximum speed) 1: two slopes; 2: power curve; 3: S curve
131	200~4000	3000	Two slopes: Mid-speed RPM (turning point speed for two slopes)
132	0~1024	800	Two slopes: Mid-range pedal simulation (between parameter 138 and 139)
133	1/2	1	Power curve: 1: Square curve; 2: Square root curve;
134	0~1024	150	Pedal trimming position
135	0~1024	300	Pedal lifter position
136	0~1024	450	Pedal back position
137	0~1024	465	Stepped forward stepping operation position
138	0~1024	680	Pedal low speed operation position (upper limit)
139	0~1024	940	Pedal simulation maximum value
13A	0~800	300	Pedal lifter confirmation time
143	0/1/2/3	0	Special operation mode: 0: Operator selection (normal) 1: Simple sewing mode 2: Measure the initial angle of motor (no need to remove the belt) 3: Calculate gear ratio mode (needle stop sensor is required, and the belt cannot be removed)
144	0~31	0	Motor low-speed booster function switch: 0: Normal function; 1~31: Low-speed booster over-thickness gear position
148	0/1/2	0	Key complement mode: 0: press to control time; 1: compensate for half stitch; 2: compensate for one stitch
149	0~10	5	Slow release presser pedal opening time (100us units)
14C	1~9999	0	Slow release presser pedal closing time (100us units)
150	1~100	1	Stitch counting function ratio setting
151	1~9999	1	Stitch counting upper limit setting value
152	1~6	0	Counting mode selection: 0: No count 1: Count up by the number of stitches, re-count automatically after the counter is full 2: Count down by the number of stitches, re-count automatically after the counter is full 3: Count up by the number of stitches. After the counter is full, the motor stops automatically. Start recount by reset key setting or e P key on the panel 4: Count down by the number of stitches. After the counter is full, the motor stops automatically. Start recount by reset key setting or e P key on the panel 5: Count up by the number of stitches. When the counter is full, an alarm is issued. And the motor locks after trimming 6: Count down by the number of stitches. When the counter is full, an alarm is issued. And the motor locks after trimming.
153	1~100	1	Piece count function ratio value setting
154	1~9999	1	Piece count upper limit setting
155	0~4	0	Piece count mode selection: 0: No count 1: Count up the number of piece count and automatically re-count after the counter is full.

Parameter Number	Parameter Range	Typical Value	Parameter Description
155	0~4	0	2: Count down the number of piece count and automatically re-count after the counter is full. 3: Count up by the number of stitches. After the counter is full, the motor stops automatically. Start recount by reset key setting or e P key on the panel 4: Count down by the number of stitches. After the counter is full, the motor stops automatically. Start recount by reset key setting or e P key on the panel
156	0~9999	0	Corresponding to 1/2/3/4 solenoid chop duty cycle time selection (0 in ms, 1 in 0.1ms)
157	0~9999	0	Corresponding to 5/6/7/8 solenoid chop duty cycle time selection (0 in ms, 1 in 0.1ms)
158	0~1	0	Count adjustable switch (stitch count number and piece count number) (0 adjustable, 1 not adjustable)
161	0/1/2	2	Parameter transmission: 0: No action; 1: Down parameter; 2: Upload parameter
163	1/2	0	Save current parameters as user-defined machine repair parameters (recoverable)
164	-	0	Password
200	0/1/2	0	Trimming motor operation mode selection: 0: Flat type; 1: Stretch type (normal stretch trim: trimming at needle position); 2: Overedge: Manual trimming
201	0~359	0	Mechanical angle at the end of trimming
203	5~359	10	Trimming start angle TS (relative to lower needle angle)
204	10~359	180	Trimming end angle TE (relative to the lower needle angle, greater than TS)
20A	10~60	50	Trimming boost coefficient (motor boost)
20B	0/1	0	Encrypted Sewing Function Switch
211	5~359	30	Release electromagnet start angle LS (relative to lower position angle)
212	10~359	300	Release electromagnet end angle LE (relative to lower needle angle, greater than LS)
213	1~999	1	Release electromagnet start delay time L1(ms)
214	1~999	10	Release electromagnet delay time L2 (ms) at needle position
215	0/1	0	Sweep function selection: 0: off; 1: on
216	1~999	10	Wiping/sweep delay ms
217	1~9999	30	Wiping/sweep duration ms
219	0/1	1	Tension function selection: 0: off; 1: on
21A	10~359	120	Tension start angle
21B	11~359	320	Tension end angle
21E	11~359	120	Lowering angle after lifting the presser in stitching
220	200~360	360	Stop position after trimming (trimming pullback function)
231	0/1	0	Automatic test mode selection: (Test mode setting represented by the previous two digits) 0: e number of fixing stitches; 1: fixing time (×100ms)
232	0~1000	300	Safety switch alarm confirmation time ms (direct drive switch and stretch sewing protection switch can be processed in the same way)
234	0/1	0	Motor steering: 1: reverse; 0: forward
240	0~9999	1000	Motor/head ratio: X0.001 (If gear ratio is calculated automatically, the parameter in the controller may be different from HMI)
242	0~359	209	Upper needle stop position adjustment angle (relative to position offset of upper needle position sensor)
243	0~359	179	Lower needle stop position mechanical angle
244	0~800	50	Presser delay (ms)
247	850~1350	1030	Tail-pin encrypted magnet suction angle

Parameter Number	Parameter Range	Typical Value	Parameter Description
248	0~300	220	Release time of electromagnet
249	0~50	25	Solenoid duty ratio

Section 4 Trouble Code Table

4.1 Monitoring Parameter Table

Parameter Number	Parameter Description	Parameter Number	Parameter Description	Parameter Number	Parameter Description
010	Number of stitches	022	Phase current	027	Accumulated motor running time (Hour)
011	Number of pieces	023	Initial angle	028	Head interaction voltage sampling value
013	Hall state	024	Mechanical angle	029	DSP software version number
020	Busbar voltage	025	Pedal voltage sampling value	030-037	Historical error code
021	Head speed	026	Actual value of head drive ratio		

4.2 Safety Alarm Table

Alarm Code	Code Definition	Solutions
Warm:01	Refuel reminder	Press P key to cancel the alarm temporarily. Please refuel and perform time reset operation timely
Warm:02	Stitch count alarm	Indicate that the number of stitches has reached the upper limit. Press P key to cancel the alarm and count again
Warm:03	Piece count alarm	Indicate that the number of pieces has reached the upper limit. Press P key to cancel the alarm and count again
Warm:04	Emergency stop	Press the emergency stop key again to cancel the emergency stop state
Warm:05	Needle lifting lock	Press the needle lifting lock key again to cancel the needle lifting lock status
Warm:06	Power off reminder	Please wait for 30 seconds before turning the power back on

4.3 Error Code Table

If the system shows error or alarm, please check the following items first:

Error Code	Code Definition	Solutions
Error:01	Hardware over-current	Turn off the system power. Turn on the power again after 30 seconds. If the controller still does not work, replace the controller and inform the factory.
Error:02	Software over-current	
Error:03	System under-voltage	Disconnect the controller power and check if the input supply voltage is too low (lower than 176V). If the power supply voltage is too low, restart the controller after the voltage returns to normal. If the voltage is restored to normal but the system still does not work after starting the controller, please replace the controller and inform the factory.
Error:04	Over-voltage at shutdown	Disconnect the controller power and check if the input supply voltage is too high (above 264V). If the power supply voltage is too high, restart the controller after the voltage has returned to normal. If the voltage is restored to normal but the system still does not work after starting the controller, please replace the controller and inform the factory
Error:05	Over-voltage at operation	
Error:06	Electromagnet circuit failure	Turn off the system power and check if the solenoid wiring is correct, loose or damaged. Replace if necessary. After confirming the error, restart the system. If it still does not work, replace the controller and inform the factory.
Error:07	Current detection circuit failure	Turn off the system power. Turn on the power again after 30 seconds and observe whether it can work normally. Retry several times. If the fault occurs frequently, replace the controller and inform the factory.
Error:08	Motor stalled	Disconnect the controller power and check if the motor power input plug is loose or damaged, and if any foreign objects are wrapped around the machine head. After eliminating the issue and restarting the system. If it still does not work normally, please replace the controller and inform the factory.

Error Code	Code Definition	Solutions
Error:09	Brake circuit failure	Turn off the system power and check if the white brake resistor connector on the power board is loose or off. After plugging it in tightly, restart the system. If it still does not work, replace the controller and inform the factory.
Error:10	HMI communication failure	Check if the connection between the control panel and the controller is detached, loose or broken, it is restored to normal and the system is restarted. If it still does not work, replace the controller and inform the factory.
Error:11	Head needle stop signal failure	Check if the connection between the head synchronization signal device and the controller is loose, and restart the system after returning it to normal, but the system still does not work, replace the controller and inform the factory.
Error:12	Motor initial angle detection failure	Please try again 2-3 times after power off. If the fault is still reported, please replace the controller and inform the factory.
Error:13	Motor HALL failure	Turn off the system power and check if the motor sensor connector is loose or detached. Return it to normal and restart the system. If it still does not work, replace the controller and inform the factory.
Error:14	DSP read and write EEPROM failure	Turn off the system power. Restart the system after 30 seconds. If the system still does not work, replace the controller and notify the factory.
Error:15	Motor over-speed protection	
Error:16	Motor reversal	
Error:17	HMI read and write EEPROM failure	
Error:18	Motor overload	
Error:19	Turn over the alarm	
Error:23	Motor stalled sector error	Disconnect the power from the controller and check if the motor power input plug is detached, loose or damaged, and if any foreign objects are wrapped around the machine head. After restarting and the system still cannot work normally, please replace the controller and inform the factory.

4.3 Pedal Sensitivity Adjustment

Pedal starts moving from the initial position (p.136) where the motor stops, slowing forward to the low speed point (p.137) where the motor run as the minimum speed (p.100), continuing to the accelerated point (p.138) where the motor start to speed up, until the max speed point (p.139) where the motor run up to the maximum speed (p.101). And when the pedal steps back to the foot lifter position (p.135), the presser foot lift. Continuing back to the auto trimming position (p.134), the line is cut. Adjusting the corresponding parameters, user can acquire the proper pedal response to fit the personal habit.

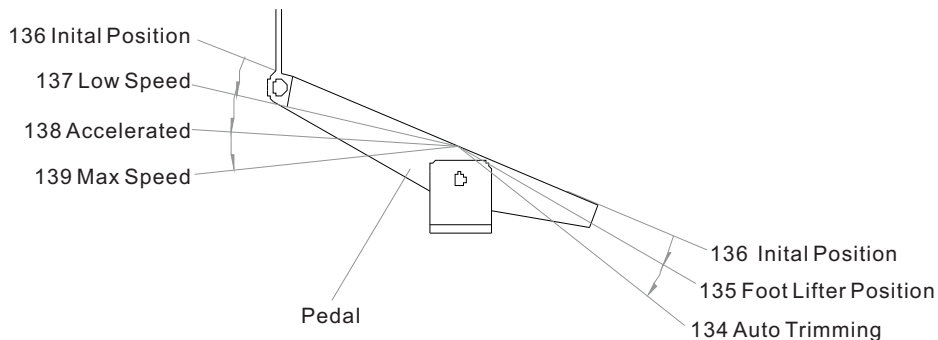
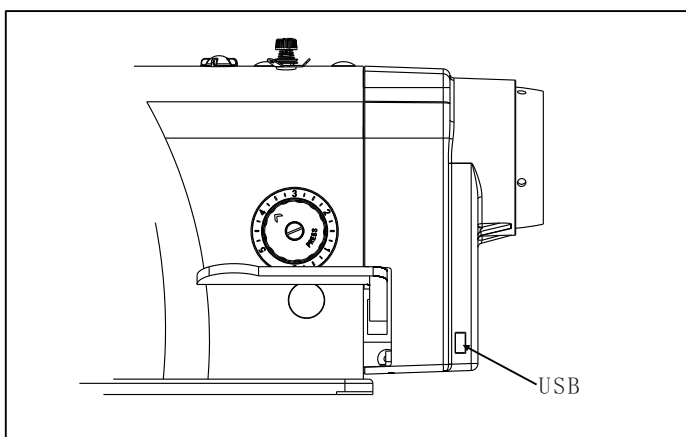


Fig. 4-1 pedal movement of each position parameter

4.4 USB device

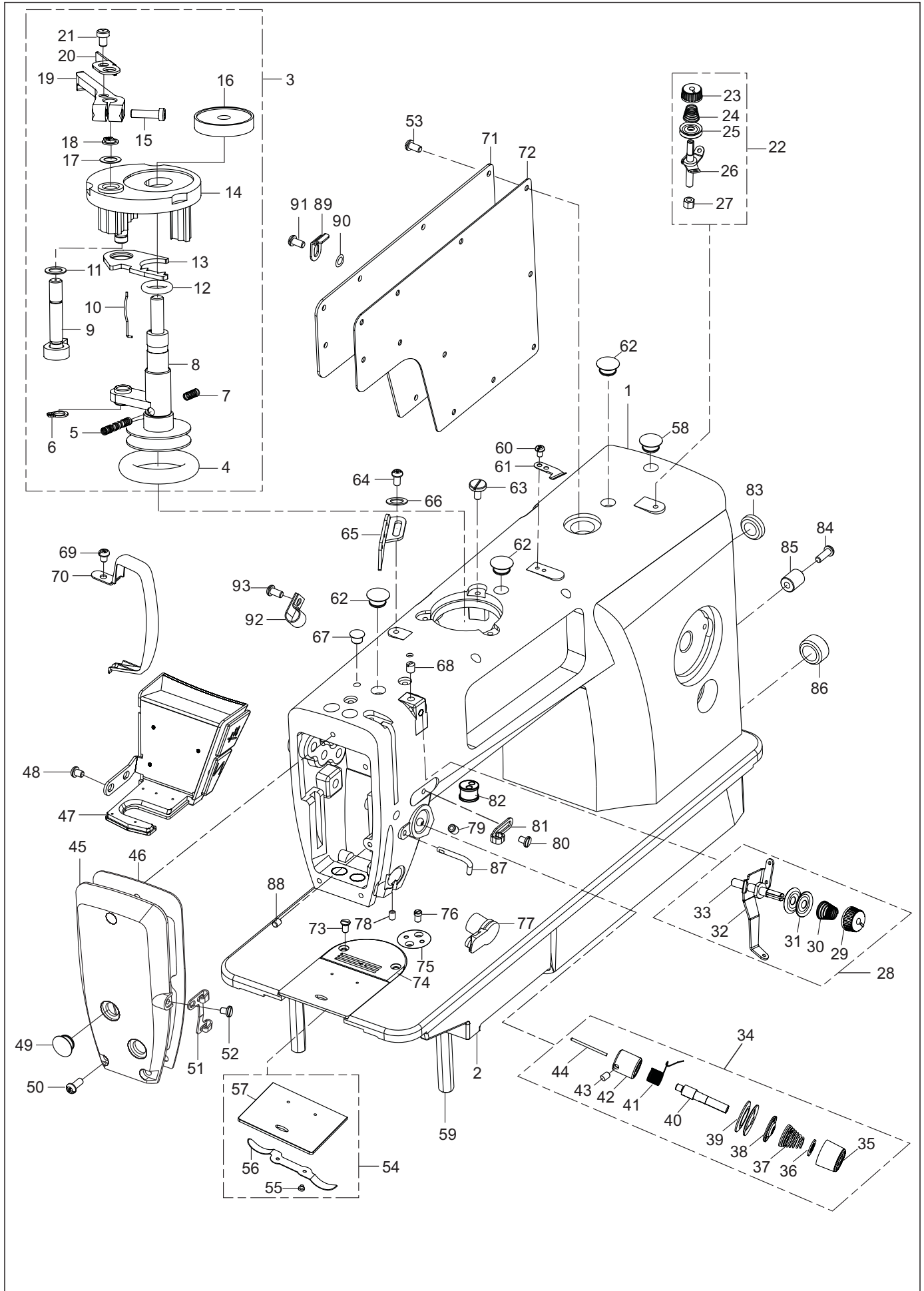


USB device with 5V voltage, maximum 2A current output, can provide power for small electrical appliances, convenient for customers to use.

零件目录 PARTS CONTENTS

1. 机壳部件	1
Frame Components	
2. 上轴及挑线部件	5
Main Shaft & Thread Take-up Components	
3. 针杆、竖轴、下轴部件	7
Needle Bar, Vertical Shaft & Hook Driving Shaft Components	
4. 抬压脚部件	9
Hand Lifter & Tension Release Components	
5. 送料部件	11
Feed Mechanism Components	
6-1. 切线装置部件-单刀剪线	15
Thread Trimmer Components (261-140342-01)	
6-2. 切线装置部件-双刀剪线	17
Short Tread Trimmer Components (261-140345-01)	
7. 自动倒送料部件	19
Auto-reverse Feeding - Motor Asm	
8. 润滑部件	21
Oil Lubrication Components	
9. 油盘、膝抬压脚部件	25
Oil Reservoir & Knee Lifter Components	
10. 线架部件	27
Thread Stand Components	
11. 附件	29
Accessories	
12. 厚料大旋梭部件	31
Heavy Duty Big Hook Components (261-160362-01)	
13. 大梭双刀切线部件	33
Big Hook Short Thread Trimmer Component (261-160365-01)	
14. 带屏蔽盒电源线部件	35
Line Filter With Plug Asm.	

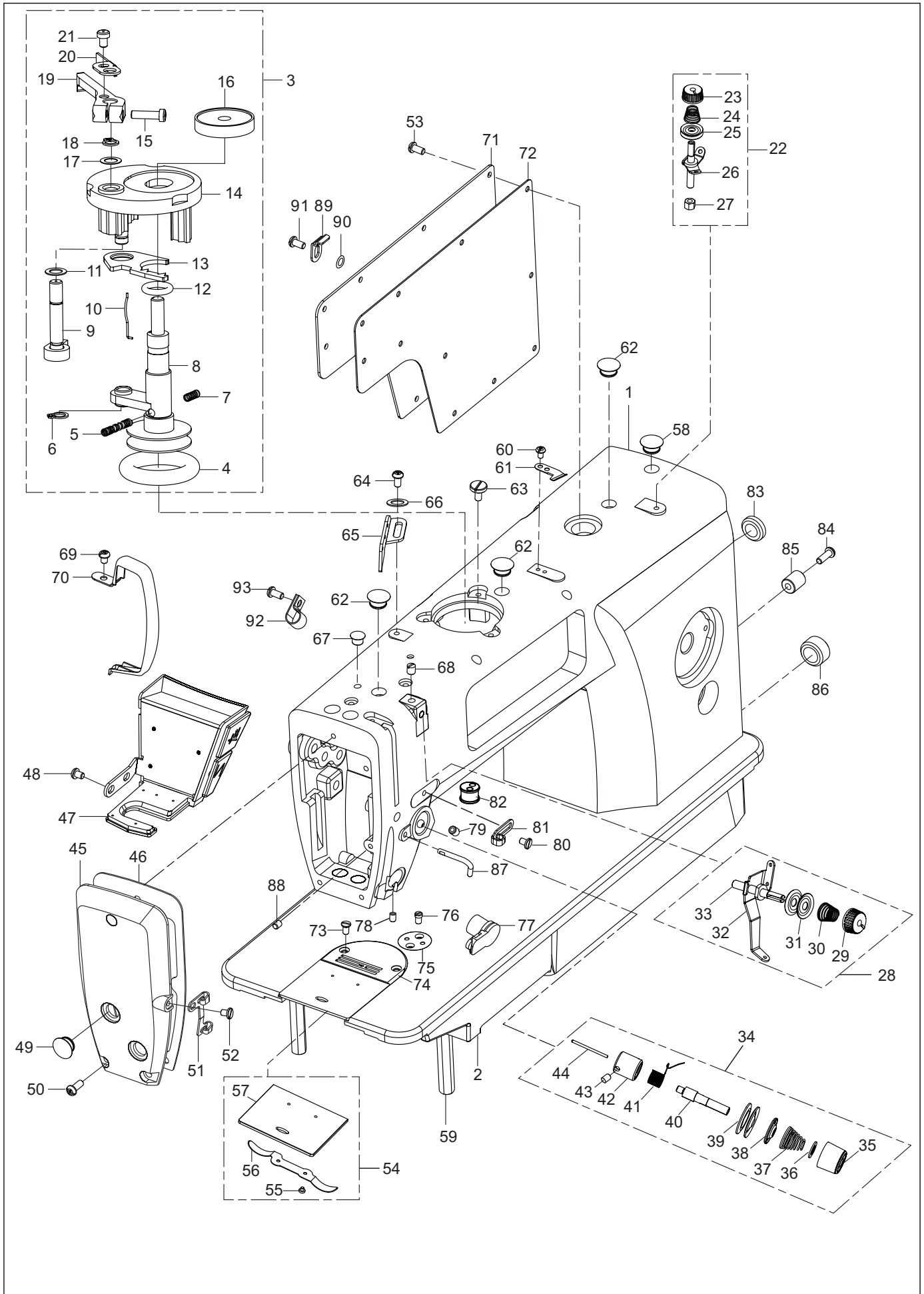
1. 机壳部件 Frame Components



1.机壳部件 Frame Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG0261 010010	机壳	Machine Frame
2	SG1287-01-02A	底板	Bed
3	SG1281-05-07A	绕线器组件	Bobbin Winder Asm.
4	SG31-25070000-09	O型圈	O Ring
5	SG134-02-01	压紧弹簧	Presser Foot Spring
6	SG24-05000000-08	固定卡簧	Retaining Ring
7	SG134-02-01-10	弹簧	Spring
8	SG134-02-01-01	绕线轴组件	Bobbin Winder Asm.
9	SG134-02-01-06	绕线凸轮轴组件	Bobbin Winder Cam Asm.
10	SG134-02-01-12	梭心防转弹簧	Latch Spring
11	SG134-02-01-08	绕线器扳手轴调整垫圈	Vertical Roller Washer
12	SG31-09428000-09	O型圈	Rubber Ring
13	SG134-02-01-07	绕线制动传动板	Adjusting Plate
14	SG134-02-01-05	绕线座	Bobbin Fitting Basis Compl
15	SG11-60091320-01	固定螺钉	Screw Sm9/64x40 L=13
16	SG134-02-01-11	梭心垫	Bobbin Cushion
17	SG134-02-01-08	绕线器扳手轴调整垫圈	Vertical Roller Washer
18	SG24-05000000-08	卡簧	E-ring
19	SG134-02-01-02	绕线控制扳手	Bobbin Lever
20	SG134-02-01-04	绕线调节板	Bobbin Winder Adjust Plate
21	SG11-40090625-01	紧定螺钉	Screw Sm9/64x40 L=6
22	SG1281-05-13A	绕线夹线器组件	Bobbin Thread Tension Asm.
23	SG1281-05-13-01A	夹线螺母	Thread Tension Nut
24	SG134-02-02-04	夹线簧	Connecting Rod Spring
25	SG134-02-02-03	夹线板	Thread Tension Disk
26	SG134-02-02-02	夹线柱组件	Bobbin Thread Tension Rod Asm.
27	SG13-60115520-02	锁紧螺母	Nut Sm11/64x40
28	SG1281-05-14A	小夹线器组件	Pre-tension Asm.
29	SG1281-05-14-01A	夹线螺母	Tension Nut
30	SG109-01-25	夹线弹簧	Tension Spring
31	SG109-01-24	夹线板	Thread Guide Disc
32	SG109-01-23	上过线板	Through Thread Plate
33	SG109-01-22	导线柱	Needle Thread Guide Pin
34	SG1281-05-12A	大夹线器组件	Pre-tension Asm.
35	SG1281-05-12-01A	夹线螺母	Tension Nut
36	SG101-03-27	夹线制动板	Tension Disc Stopper
37	SG101-03-26	夹线簧	Tension Spring
38	SG101-03-25	松线板	Tension Disc Holder
39	SG101-03-24	夹线板	Thread Guide Disc
40	SG101-03-21	夹线螺钉(柱)	Tension Pole
41	SG101-03-20	挑线簧	Take-up Spring
42	SG101-03-19-01	挑线簧调节座	Tension Pole Socket
43	SG11-80090610-01	夹线座紧固螺钉	Screw Sm9/64x40 L=6
44	SG101-03-23	松线钉	Thread Release Pin
45	SG0261 010030	面板	Face Plate
46	SG0261 010050	面板垫	Face Plate Gasket
47	SG0261 010060	倒送料转换器组件	Reverse Feed Switch Asm.
48	SG11-40120625-05	倒送料转换器固定螺钉	Screw Sm3/16x28 L=6
49	SG101-01-11	面板调节螺孔塞	Rubber Plug
50	SG11-40121225-05	面板螺钉	Screw Sm3/16x28 L=12
51	SG1281-01-13	面板线钩	Two Hole Thread Guide
52	SG11-70110620-05	左线勾螺钉	Arm Thread Guide Screw Sm11/64x40 L=6
53	SG11-40120925-05	后窗板螺钉	Screw Sm3/16x28 L=9

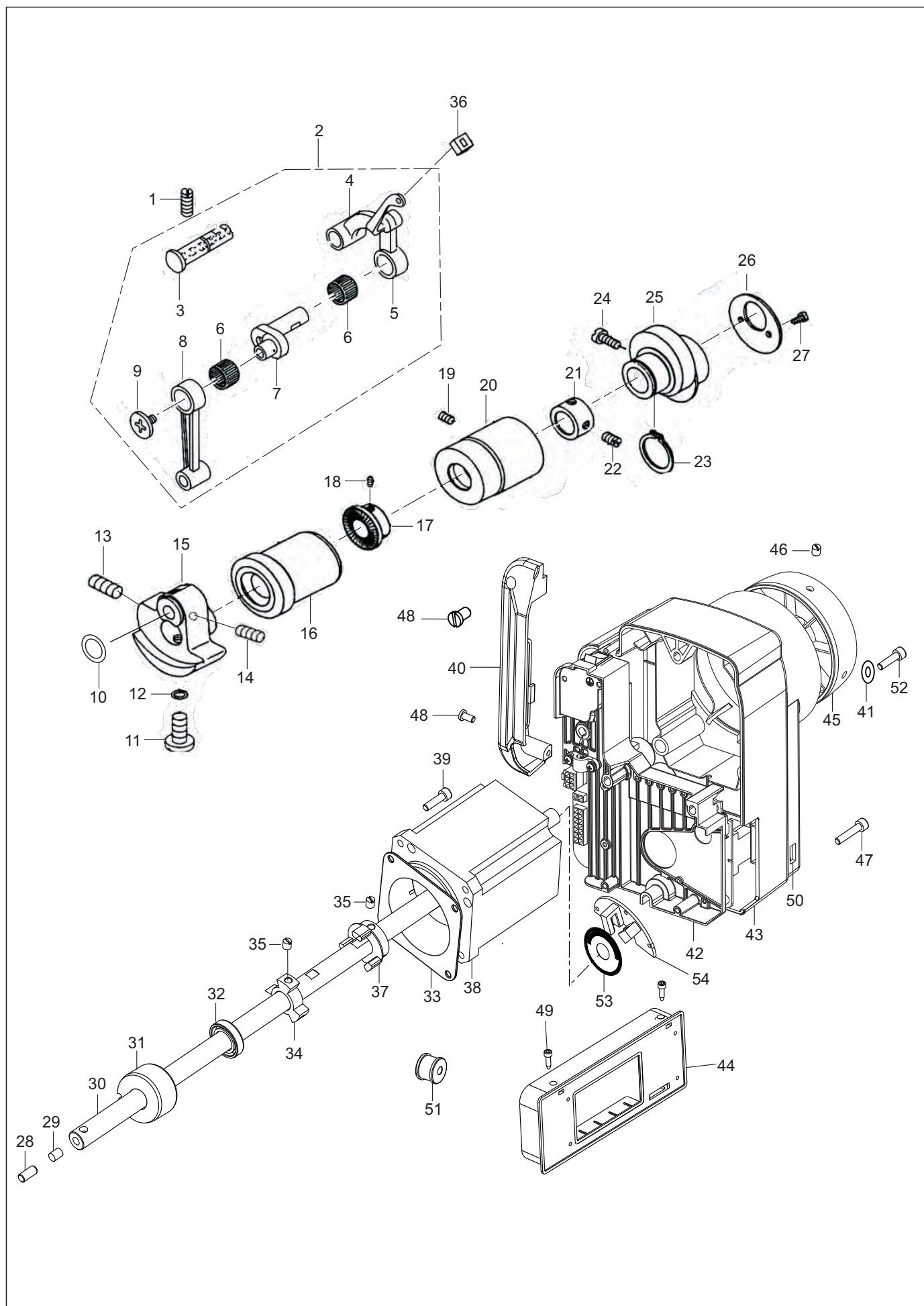
1.机壳部件 Frame Components



1.机壳部件 Frame Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
54	SG101-06-39	推板组件	Slide Plate Asm.
55	SG11-60060220-02	推板簧螺钉	Screw Sm3/32x56 L=2
56	SG101-06-40	推板簧	Slide Plate Spring
57	SG101-06-39-1	推板片	Slide Plate
58	SG101-01-11	调同步孔橡皮塞	Rubber Plug
59	SG1287-01-38	底板支座	Bed Screw Stud Sm15/64x28
60	SG11-00090620-05	割线刀固定螺钉	Screw Sm9/64x40 L=6
61	SG1281-05-21	割线刀	Thread Cutter
62	SG101-01-11	面板调节螺孔塞	Rubber Plug
63	SG11-70121020-05	绕线器固定螺钉	Screw Sm3/16x28 L=10
64	SG11-40120625-05	三眼过线板螺钉	Screw Sm3/16x28 L=9
65	SG1287-02-17	三眼过线板	Three Thread Eyelet Pate
66	SG21-05310100-02	三眼过线板螺钉垫片	Washer
67	SG101-01-12	挑线连杆销孔塞	Rubber Plug
68	SG11-80150710-05	小夹线器固定螺钉	Screw Sm15/64x28 L=7
69	SG11-40120625-05	挑线杆护罩螺钉	Screw Sm3/16x28 L=6
70	SG1281-05-25	挑线杆护罩	Thread Take-up Lever Cover
71	SG1281-02-04	后窗板	Side Plate
72	SG1281-02-05	后窗板垫	Side Plate Guide
73	SG11-20110920-05	针板螺钉	Screw Sm11/64x40 L=9
74	SG109-01-44A	针板	Needle Plate
75	SG101-01-17	安装板	Ruler Stop Seat Thread Sm9/64x40
75	SG1281-05-31	安装板	Ruler Stop Seat Thread M4
76	SG11-00110520-05	安装板定位螺钉	Screw Sm11/64x40 L=5.5
77	SG1281-01-14	电子夹线器	Electric Thread Nipper
78	SG12-80500612-01	电子夹线器固定螺钉	Electric Thread Nipper Screw
79	SG11-80150612-01	大夹线器螺钉	Screw Sm15/64x28 L=6
80	SG11-70110620-05	右线勾螺钉	Arm Thread Guide Screw Sm11/64x40 L=6
81	SG101-03-16	右线勾	Arm Thread Guide (right)
82	SG1281-02-03	三孔橡胶塞	Tripple-hole rubber stopper
83	SG101-01-02	送料调节器孔塞	Rubber Plug
84	SG11-40121425-01	倒缝扳手限位销螺钉	Screw Sm3/16x28 L=14
85	SG1281-01-24	倒缝扳手限位销	Limit Place Bushing
86	SG101-01-03	下轴工艺孔塞	Rubber Plug
87	SG1286-04-05	缓线钩	Arm Thread Guide
88	SG12-80400412-01	缓线钩固定螺钉	Screw M4 L=4
89	SG1273-12-05	直角电线夹	Right-angle Clamp
90	SG21-05310100-02	垫片	Gasket
91	SG11-40121225-05	面板螺钉	The Panel Screws
92	SG501-13-02-09	R型线夹	R Type Clamp
93	SG11-40120625-05	R型线夹螺钉	Type R Wire Clip Screw

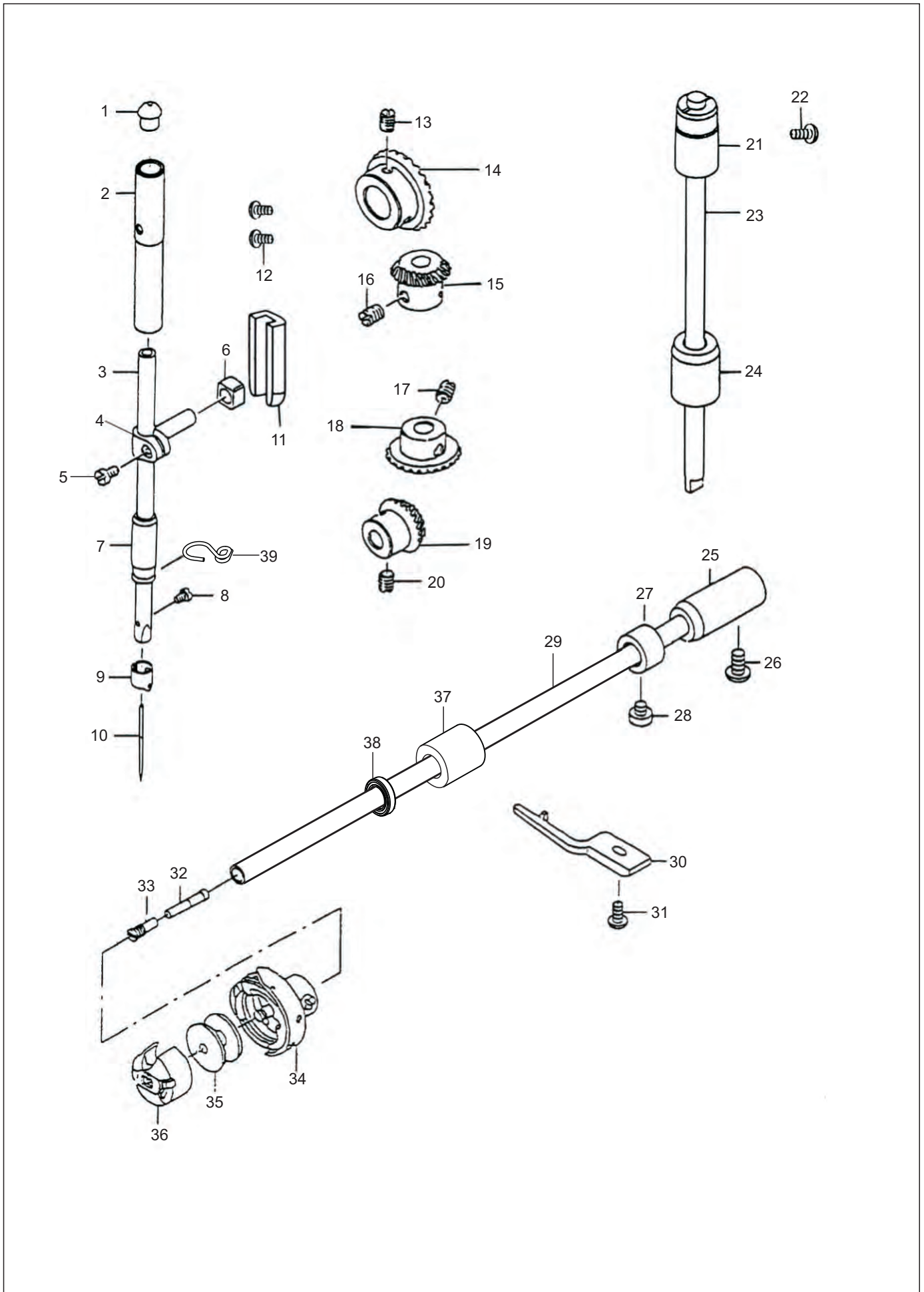
2.上轴及挑线部件 Main Shaft & Thread Take-up Components



2.上轴及挑线部件 Main Shaft & Thread Take-up Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG11-80151550-01	挑线连杆销螺钉	Set Screw Sm15/64x28 L=15
2	SG1281-01-30A	挑线杆大组件	Thread Take-up Lever Asm.
3	SG101-02-25	挑线连杆销	Hinge Pin
4	SG101-02-22-05	挑线连杆	Thread Take-up Lever Link
5	SG1281-01-30-01	挑线杆组件	Thread Take-up Lever
6	SG101-02-24	滚针轴承	Needle Bearing
7	SG101-02-20-00	挑线曲柄组件	Thread Take-up Crank
8	SG1281-01-30-02	针杆连杆	Needle Bar Link
9	SG101-02-28	挑线曲柄左旋螺钉	Set Screw (left Handed)
10	SG21-08008160-01	挑线杆垫片	Counter Weight Protecting Plate
11	SG11-60181630-01	针杆曲柄定位螺钉	Screw Sm9/32x28 L=16
12	SG31-04424000-09	定位螺钉O形圈	Rubber Ring
13	SG11-80181650-01	针杆曲柄紧固螺钉	Set Screw Sm9/32x28 L=16
14	SG11-80160612-01	针杆曲柄螺钉	Screw Sm1/4x40 L=6
15	SG1281-05-03	针杆曲柄	Needle Bar Crank
16	SG1281-05-04	上轴前轴套组件	Main Shaft Bushing (left)
17	SG1255-02-10	绕线轮	Driving Wheel
18	SG11-80160810-01	绕线轮固定螺钉	Screw Sm1/4x40 L=8
19	SG11-80150710-01	上轴中轴套螺钉	Set Screw Sm15/64x28 L=7
20	SG1255-02-12	上轴中轴套	Main Shaft Bushing (middle)
21	SG101-02-33	上轴挡圈	Thrust Collar Asm D=14.72 W=12
22	SG11-80160710-01	上轴挡圈螺钉	Screw Sm1/4x40 L=7
23	SG25-20000000-08	抬牙连杆轴用挡圈	Snap Ring
24	SG11-00161120-01	送料偏心轮螺钉	Screw Sm1/4x40 L=11
25	SG101-06-02	送料偏心轮	Feed Drive Eccentric Cam
26	SG101-06-04	送料偏心轮盖板	Thrust Collar
27	SG11-10090620-01	送料偏心轮盖板螺钉	Screw Sm9/64x40 L=6
28	SG1281-01-39	上轴油量堵销	Oil Seal Pin
29	SG101-02-11	曲柄油量限制垫	Roller Felt
30	SG1281-05-05	上轴	Main Shaft
31	SG1281-05-06	上轴后套	Supporting Sleeve
32	SG32-13850360-09	上轴油封	Oil Seal
33	SG1255-02-09	电机防油垫	Motor Oil Pad
34	SG1281-05-10	联轴器A	Coupling A
35	SG12-80600812-01	螺钉	Set Screw Socket M6 L=8
36	SG101-02-23	挑线杆防油套	Oil Protect Bushing
37	SG1281-05-08	联轴器B	Coupling B
38	SG1281-05-02-01-02	电机组件	Motor Asm.
39	SG16-60501822-01	电机安装螺钉	Bolt Socket M5 L=18
40	SG1281-05-02A-04	后电线罩	Rear Wire Cover
41	SG21-05310100-01	垫片	Gasket
42	SG0261 010074	电路板组件	Electronic Control Board
43	SG0261 010020	电机罩壳	Motor Casing
44	SG1287-02-03	操作面板组件	Operation Plate
45	SG1281-05-11A	手轮	Hand Wheel
46	SG12-80500612-01	手轮螺钉	Bolt Socket M5 L=6
47	SG12-60502522-01	电控安装螺钉(长)	Bolt Socket M5 L=25
48	SG12-60401220-02	后电线盖板螺钉	Screw M4 L=12
49	SG12-40300825-01	操作面板固定螺钉	Screw M3 L=8
50	SG1287-02-18	USB装置	USB Device
51	SG109-01-20A	单孔橡胶塞	Double holes rubber plug
52	SG12-60502722-01	螺钉	Screw M5 L=27
53	0261-271300	光栅	Grating
54	0261-271200	编码器	Encoder

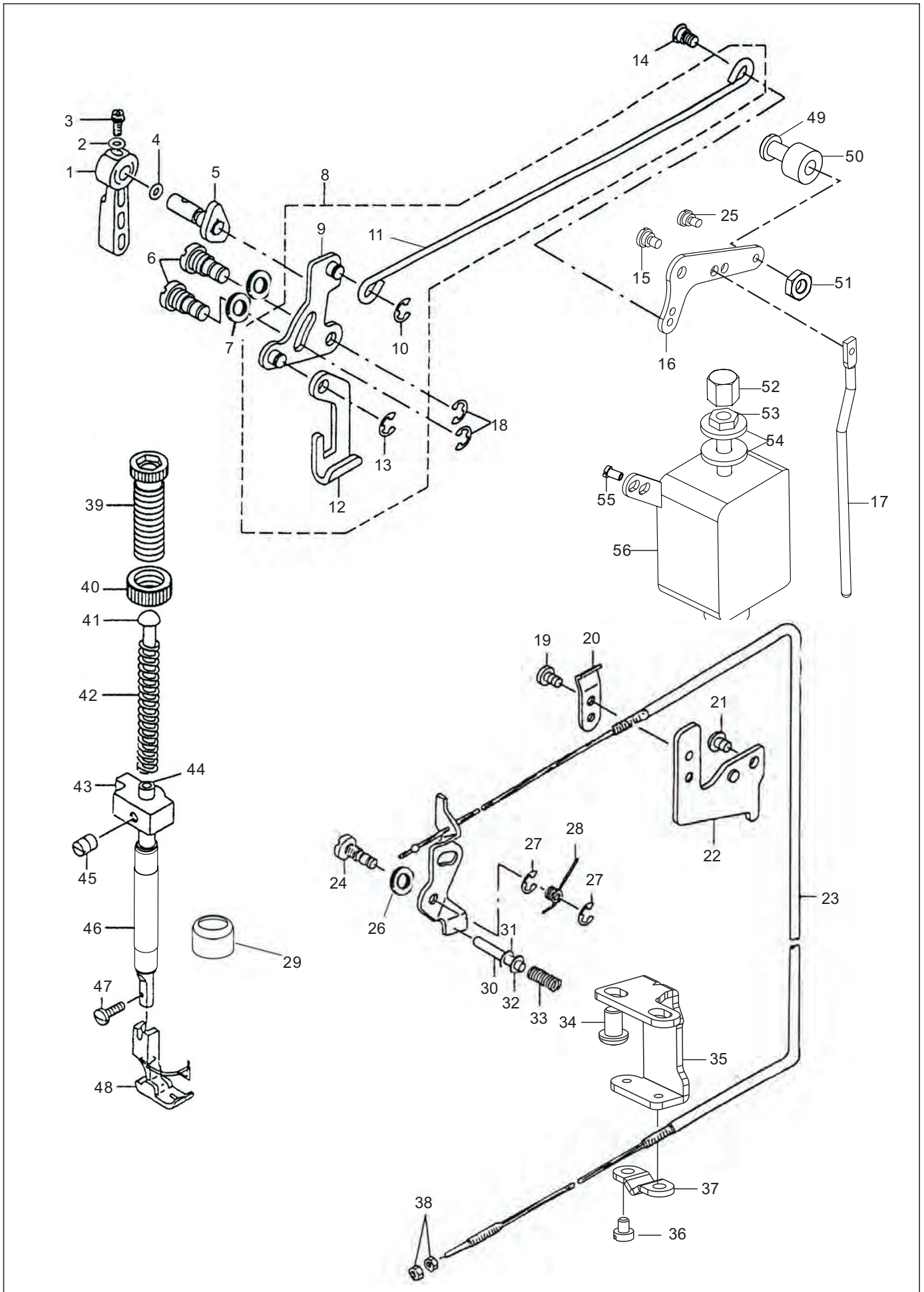
3. 针杆、竖轴、下轴部件 Needle bar, vertical shaft & hook driving shaft components



3.针杆、竖轴、下轴部件 Needle bar, vertical shaft & hook driving shaft components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG101-03-07	针杆上衬套孔塞	Rubber Plug
2	SG1281-01-25	针杆上套	Needle Bar Upper Bushing
3	SG1281-01-37-DLC	针杆	Needle Bar (261-14034X-01A)
3	SG1281-05-32H-DLC	针杆	Needle Bar (261-16036X-01)
3	SG1281-05-32-DLC	针杆	Needle Bar (261-14034X-01)
4	SG120-02-07	针杆连接柱	Needle Bar Connection
5	SG11-60090620-01	针杆连接柱螺钉	Screw Sm9/64x40 L=6
6	SG120-02-25	针杆连接柱滑块	Slide Block
7	SG101-03-08	针杆下轴套	Needle Bar Bushing Lower
8	SG11-60080520-05	机针固定螺钉	Screw Sm1/8x44 L=5
9	SG101-03-11	针杆过线环	Needle Bar Thread Guide
10	SG101-03-13	机针DBX1 14#	Needle DBx1 14# (261-14034X-A)
10	SG124-04-24	机针134 Nm90	Needle 134 Nm90 (261-14034X-01)
10	SG101-03-13H	机针134 Nm110	Needle 134 Nm110 (261-16036X-01)
11	SG120-02-23	针杆滑块导轨	Guide For Slide Block
12	SG11-60110820-01	滑块导轨螺钉	Screw Sm11/64x40 L=8
13	SG11-80160810-01	伞齿轮螺钉	Screw Sm1/4x40 L=8
14	SG101-05-26	上轴伞齿轮	Bevel Gear For Arm Shaft
15	SG101-05-25	竖轴上伞齿轮	Bevel Gear For Vertical Shaft
16	SG11-80160810-01	伞齿轮螺钉	Screw Sm1/4x40 L=8
17	SG11-80160810-01	伞齿轮螺钉	Screw Sm1/4x40 L=8
18	SG101-05-20	竖轴下伞齿轮	Bevel Gear For Vertical Shaft
19	SG101-05-18	下轴伞齿轮	Bevel Gear For Hook Shaft
20	SG11-80160810-01	伞齿轮螺钉	Screw Sm1/4x40 L=8
21	SG1281-05-30	竖轴上轴套	Upright Shaft Bushing Upper
22	SG12-80500412-01	竖轴上轴套螺钉	Screw Sm3/16x28 L=9
23	SG101-05-24	竖轴	Vertical Shaft
24	SG101-05-21	竖轴下轴套	Upright Shaft Bushing Lower
25	SG1287-01-19	下轴后轴套	Bushing For Rotating Hook Shaft
26	SG11-40120925-01	下轴后轴套螺钉	Screw Sm3/16x28 L=9
27	SG1287-01-27	下轴挡圈	Thrust Collar
28	SG11-80160512-01	下轴挡圈螺钉	Screw Sm1/4x40 L=5
29	SG1287-01-28	下轴	Rotating Hook Shaft
30	SG101-05-05A	旋梭定位钩	Positioning Finger
31	SG11-60111120-01	旋梭定位钩螺钉	Screw Sm11/64x40 L=11
32	SG101-05-09	下轴限油芯	Oil Wick
33	SG101-05-08	下轴限油螺钉	Oil Seal Screw
34	SG109-03-24-1	旋梭组件	Hook Asm.
35	SG402-04-04	梭芯	Bobbin ϕ 21
36	SG0281 150084	梭心套	Bobbin Case
37	SG11287-01-24	下轴中套	Lower Shaft Middle Sleeve
38	SG32-07430120-09	下轴中套油封	Oil Seal
39	SG1281-05-20	针杆下套过线钩	Needle Bar Thread Guide

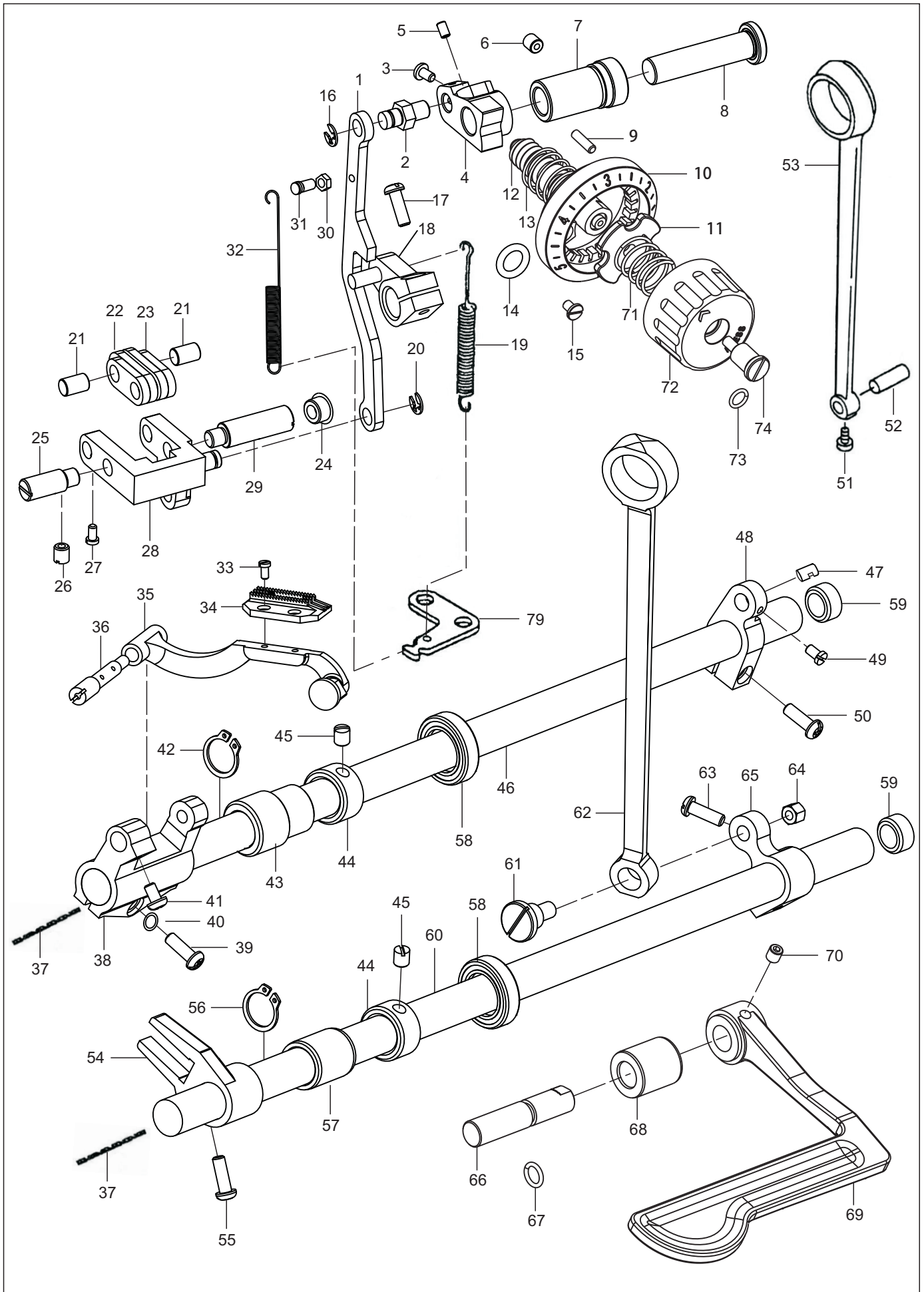
4. 压脚部件 Presser bar components



4. 压脚部件 Presser bar components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG1281-05-15A	压脚扳手	Hand Lifter
2	SG21-03810080-05	压脚扳手螺钉垫圈	Washer
3	SG11-30091020-05	压脚扳手螺钉	Screw Sm9/64x40 L=10
4	SG31-04018000-09	压脚扳手轴O形圈	Rubber Ring
5	SG1281-01-10	压脚扳手凸轮组件	Hand Lifter Cam Asm.
6	SG101-04-20	前杠杆螺纹销	Link Shaft Sm5/16x24
7	SG101-04-21	螺纹销密封垫圈	Washer Plate
8	SG101-04-19	抬压脚杠杆部件	Hand Lifter Link Asm.
9	SG101-04-19-00	抬压脚前杠杆组件	Hand Lifter Link
10	SG24-05000000-08	开口挡圈	Snap Ring
11	SG101-04-28	抬压脚拉杆	Lifting Lever Connecting Rod
12	SG101-04-18	压脚升降板	Lifting Lever
13	SG24-05000000-08	开口挡圈	Snap Ring
14	SG1211-04-07	抬压脚拉杆螺钉	Hinge Screw Sm3/16x32
15	SG101-04-31	后杠杆轴位螺钉	Hinge Screw Sm15/64x 28
16	SG1281-02-07A	抬压脚后杠杆	Lifting Lever Link
17	SG1287-01-40	抬压脚顶杆	Connecting Rod Vertical
18	SG24-05000000-08	开口挡圈	E-ring 5
19	SG11-60111020-01	螺钉	Screw Sm11/64x40 L=10
20	SG109-04-18	压板B	Wire Plate B
21	SG11-40120625-01	上电线压板固定螺钉	Screw Sm3/16x28 L=9
22	SG109-04-20-00	上电线压板组件	Wire Holder Bracket Upper
23	SG1287-02-22	制动器组件	Arrester Asm.
24	SG101-04-25	松线顶板螺纹销	Tension Release Shaft
25	SG1211-04-07	抬压脚顶杆固定螺钉	Screw
26	SG101-04-21	螺纹销密封垫圈	Washer Plate
27	SG24-05000000-08	开口挡圈E5	E-ring 5
28	SG1255-04-01	松线顶板复位簧	Thread Tension Release Wire Spring
29	SG101-04-34	压杆防油套	Rubber Bushing
30	SG101-01-23A	松线辅钉	Tension Release Supporting Pin
31	SG24-04000000-08	松线辅钉开口挡圈E4	E-ring 4
32	SG101-03-32	松线辅钉垫片	Washer Plate
33	SG101-03-33	松线辅钉弹簧	Tension Release Supporting Pin Spring
34	SG11-40150925-01	下电线压板固定螺钉	Screw Sm15/64x28 L=9
35	SG1287-01-09-01	下电线压板	Cord Holder
36	SG11-60090820-01	压紧板固定螺钉	Screw Sm9/64x40 L=8
37	SG1230-04-18	下电线压紧板	Wire Holder
38	SG13-60623020-01	松线钢丝螺母	Nut Sm3/16x32
39	SG1281-05-16A-01	调压螺钉	Presser Regulator Screw
40	SG1281-05-16A-02	调压螺母	Presser Regulator Nut
41	SG101-04-03	调压导杆	Presser Guide Bar
42	SG101-04-04	调压簧	Presser Spring
43	SG101-04-06	压杆导架	Presser Bar Guide Bracket
44	SG1281-01-26	压杆	Presser Bar
45	SG11-80160810-01	压杆导架螺钉	Screw Sm1/4x40 L=8
46	SG101-04-10	压杆衬套	Presser Bar Bushing Lower
47	SG11-60091120-05	活压脚螺钉	Presser Foot Screw Sm9/64x40 L=11
48	SG0281 220024	活压脚组件	Presser Foot Asm.
49	SG1277-02-05	滚轮固定螺钉	Screw
50	SG1277-02-04	抬压脚后杠杆滚轮	Roller
51	SG11-60153020-01	滚轮固定螺母	Nut
52	SG1281-02-06A	抬压脚电磁铁支柱螺母	Nut
53	SG14-60805010-01	抬压脚电磁铁锁紧螺母	Presser Foot Solenoid Nut
54	SG1281-02-02-03	电磁铁缓冲垫	Magnetic Plug Cushion Mat
55	SG11-30120920-02	抬压脚电磁铁固定螺钉	Presser Foot Solenoid Screw
56	SG1281-02-02B	抬压脚电磁铁	Presser Foot Solenoid Asm.

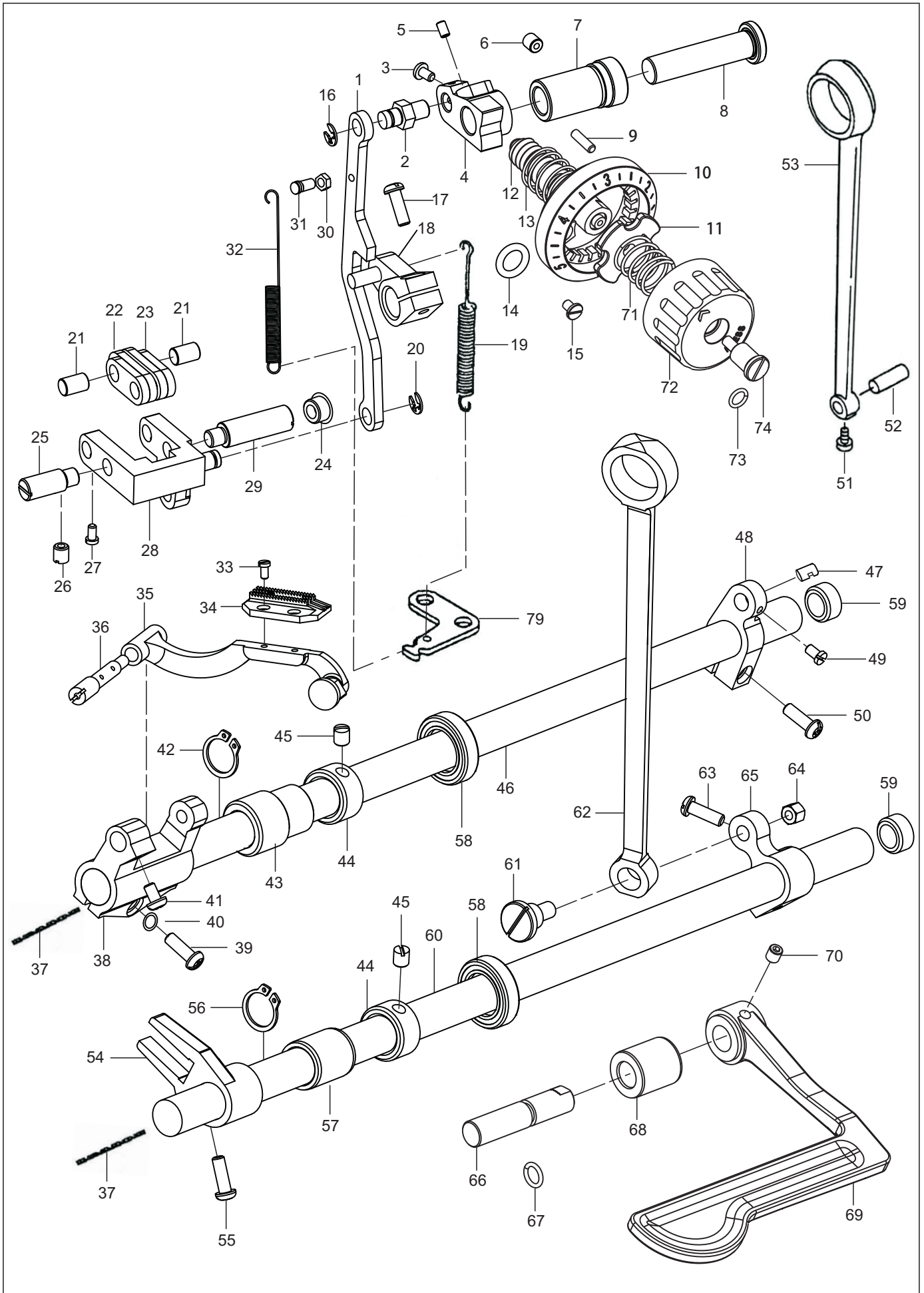
5.送料部件 Feed mechanism components



5.送料部件 Feed mechanism components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG1281-01-43	倒送料连杆	Feed Regulator Connecting Rod
2	SG1255-05-09	倒送料连杆销	Feed Regulator Pin
3	SG11-60090620-01	送料连杆销螺钉	Screw Sm9/64x40 L=6
4	SG1255-05-05	送料调节座	Feed Regulator
5	SG12-80500612-01	针距座固定螺钉	Bolt Socket M5 L=6
6	SG11-80150612-01	针距座锁紧套螺钉	Screw Sm15/64x40 L=6
7	SG1255-05-07	送料调节器轴套	Feed Regulator Bushing
8	SG1255-05-06	针距座销	Hinge Pin For Regulator
9	SG41-20401400-00	弹簧销	Pin
10	SG1287-05-06	标盘装饰套	Scale sets
11	SG1287-05-04	标盘芯	Core scale
12	SG0261 010080	送料调节螺杆	Feed regulator screw
13	SG1287-05-07	标盘压缩弹簧	Spring
14	SG31-09428000-09	送料调节螺柱0型圈	Rubber Ring
15	SG11-40111025-01	标盘螺钉	Screw Sm11/64x40 L=10
16	SG24-05000000-09	开口挡圈	E-ring5
17	SG11-60121420-01	倒送料曲柄螺钉	Feed Reverse Arm Screw Sm3/16x28 L=14
18	SG1273-05-02	倒送料曲柄组件	Feed Reverse Asm.
19	SG101-07-22	倒送料拉簧	Feed Reverse Spring
20	SG24-05000000-09	开口挡圈	E-ring5
21	SG101-06-11	短摆动座连接销	Walking Foot Pin
22	SG101-06-09	送料长摆动板	Walking Foot Link
23	SG101-06-10	送料短摆动板	Connecting Link
24	SG1287-01-13	摆动板座孔橡胶塞	Rubber Plug
25	SG101-06-14	送料摆动板座左销	Adjusting Link Fulcrum Shaft
26	SG11-80151150-01	左右销固定螺钉螺钉	Screw Sm15/64 L=11
27	SG11-00090620-01	连接销螺钉	Screw Sm9/64x40 L=6
28	SG109-05-27	送料摆动板座	Feed Adjusting Link Asm.
29	SG1230-06-16	送料摆动板座右销	Adjusting Link Fulcrum Shaft
30	SG13-60113020-01	螺母	Nut
31	SG134-05-28	弹簧连接销	Spring Connecting Pin
32	SG1281-05-45	倒送料弹簧	Feed Reverse Sping
33	SG11-60080620-01	送料牙螺钉	Screw Sm1/8x44 L=6
34	SG109-05-33A	送料牙	Feed Dog
35	SG1273-15-01	牙架组件	Feed Bar Asm.
36	SG101-06-32	牙架销	Feed Bar Shaft
37	SG43-10250000-00	油线Φ2.5×1000mm	Oil Wick
38	SG101-06-28	牙架座	Feed Rocker Asm.
39	SG11-60121420-01	牙架座螺钉	Screw Sm11/64x40 L=11
40	SG21-04808080-01	垫圈	Washer
41	SG11-40110725-01	牙架销紧固螺钉	Screw Sm11/64x40 L=7
42	SG25-15000000-08	送料轴轴用挡圈	Retaining Ring
43	SG1287-01-25	送料轴轴套	Feed Rocker Shaft Bushing
44	SG101-02-06	送料轴挡圈	Feed Rocker Shaft Collar
45	SG11-80160610-01	送料轴挡圈螺钉	Screw Sm1/4x40 L=6
46	SG1287-01-23	送料轴	Feed Rocker Shaft
47	SG101-06-19	送料曲柄销	Feed Rocker Crank Pin
48	SG101-06-18	送料曲柄	Feed Rocker Shaft Crank
49	SG11-00090620-01	送料曲柄销螺钉	Screw Sm9/64x40 L=6
50	SG11-40121425-01	送料曲柄螺钉	Screw Sm3/16x28 L=14
51	SG11-00090620-01	送料连杆销螺钉	Screw Sm9/64x40 L=6
52	SG101-06-07	送料连杆销	Walking Foot Pin
53	SG101-06-06	送料连杆	Rocker Shaft Connecting Rod

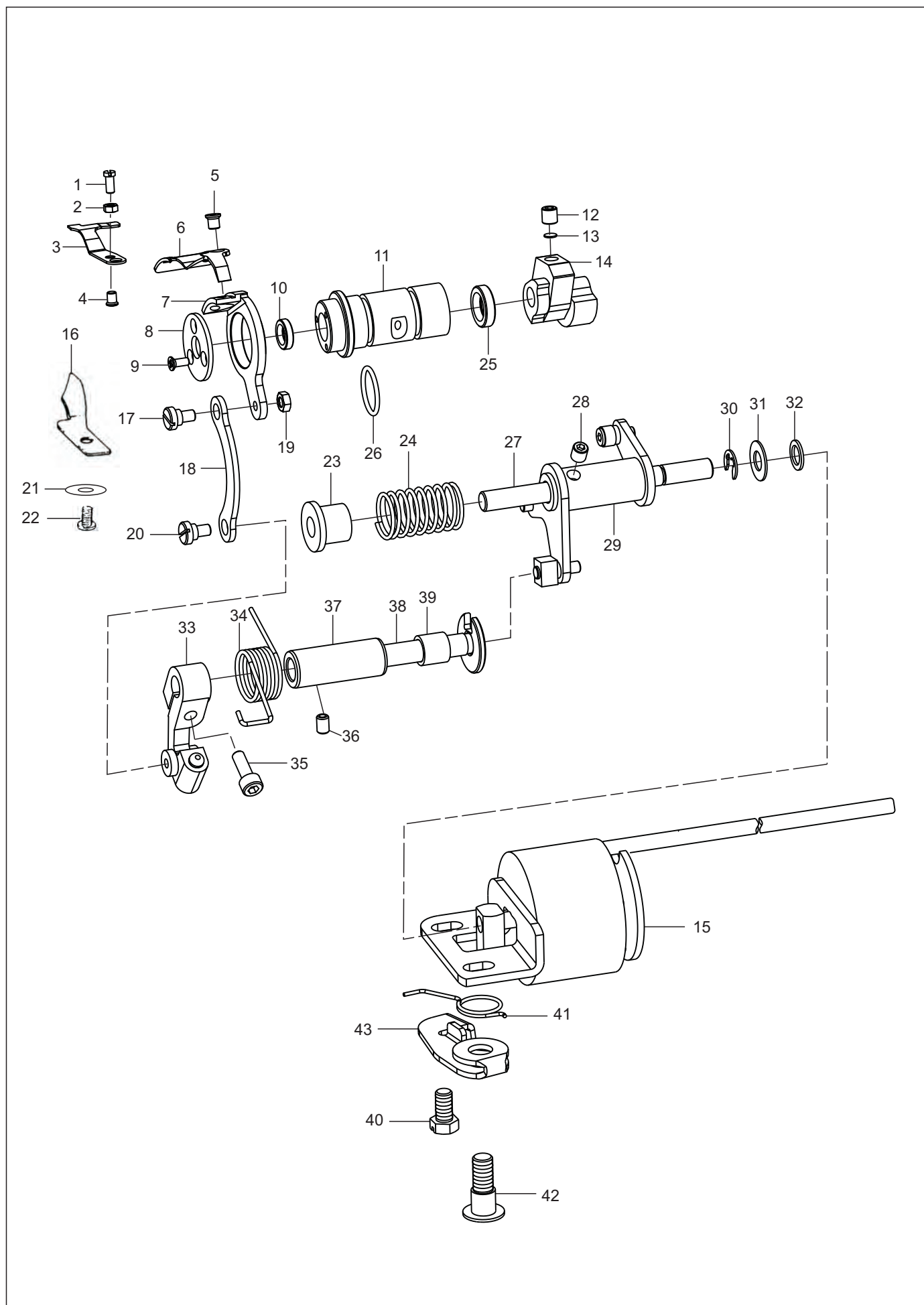
5.送料部件 Feed mechanism components



5.送料部件 Feed mechanism components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
54	SG1273-15-02	拾牙叉形曲柄	Driving Shaft Crank Asm,front
55	SG11-60111120-01	拾牙叉形曲柄螺钉	Screw Sm11/64×40 L=10
56	SG25-15000000-08	拾牙轴轴用挡圈	Retaining Ring
57	SG1286-05-02A	拾牙轴轴套	Feed Rocker Shaft Bushing
58	SG32-14770210-09	拾牙送布轴油封	Oil Seal
59	SG1287-01-12	拾牙送布轴橡胶塞	Rubber Plug
60	SG1287-01-22	拾牙轴	Feed Driving Shaft
61	SG101-06-50	拾牙连杆轴位螺钉	Hinge Screw
62	SG101-06-49	拾牙连杆	Connecting Rod
63	SG11-40121225-01	拾牙曲柄螺钉	Screw Sm3/16x28 L=12
64	SG13-60184020-01	拾牙连杆轴位螺母	Hinge Nut Sm9/32x28
65	SG101-06-47	拾牙曲柄	Feed Rocker Crank
66	SG1273-15-09	倒送料轴	Feed Reverse Shaft
67	SG32-08018000-09	倒送料轴O形圈	Rubber Ring
68	SG1273-15-09	倒送料轴套	Feed Reverse Bushing
69	SG1281-01-48/05	倒缝扳手	Reverse Feed Control Lever
70	SG12-80500612-01	倒缝扳手杆固定螺钉	Screw M5 L=6
71	SG1287-05-03	标盘弹簧	Spring
72	SG1287-05-05/02	标盘组件	Stitch Length Dial
73	SG31-07015000-09	标盘减震O型圈	Rubber Ring
74	SG1287-05-02	标盘轴位螺钉	Screw

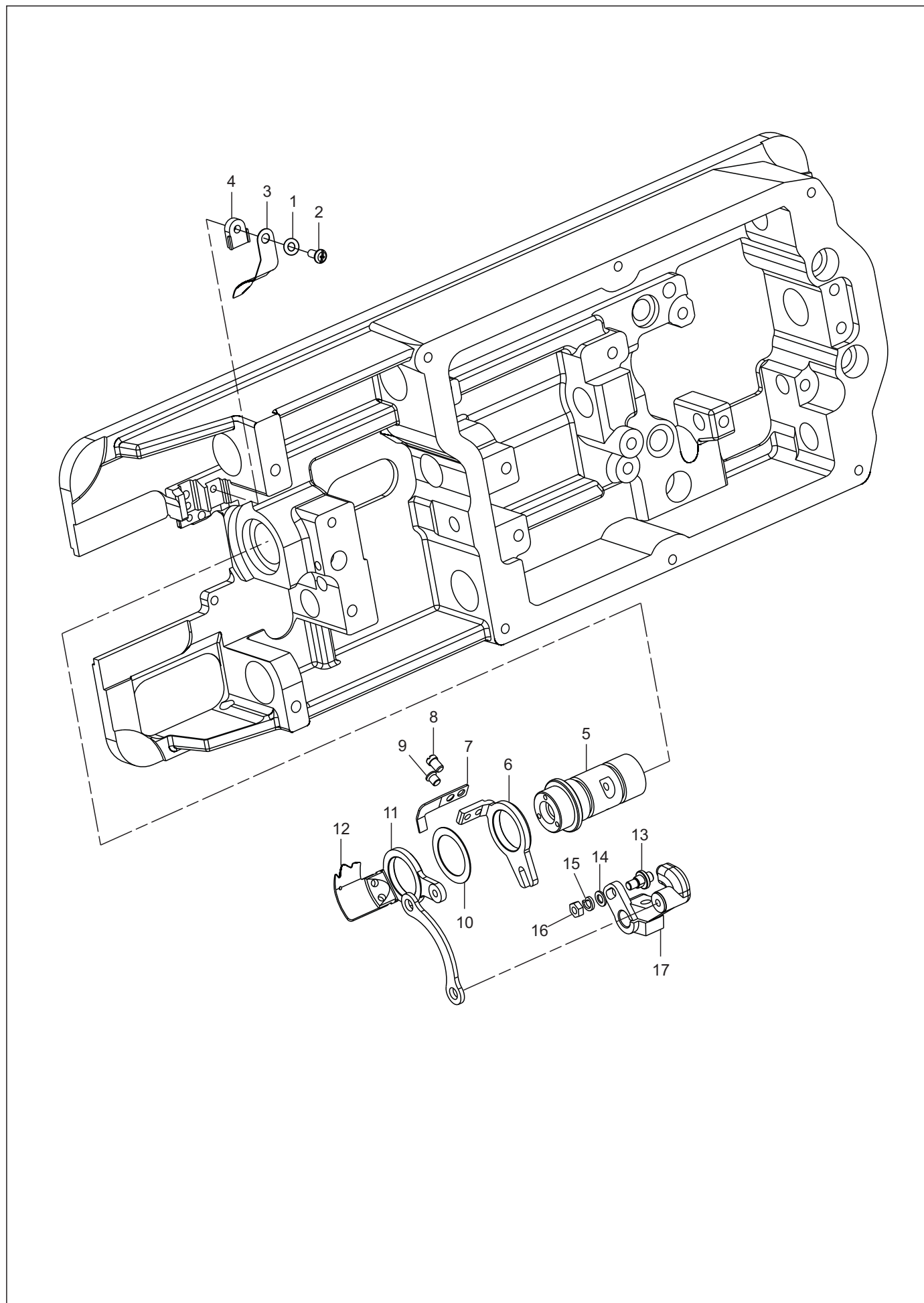
6-1.切线装置部件-单刀剪线 Thread trimmer components(261-140342-01)



6-1.切线装置部件-单刀剪线 Thread trimmer components (261-140342-01)

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG11-00580720-02	定刀调节螺钉	Screw Sm1/8x40 L=7
2	SG13-60582420-02	定刀压力调节螺母	Nut Sm1/8x40
3	SG158-09-04	固定刀	Fixed Knife
4	SG11-20090520-01	固定刀螺钉	Screw Sm9/64x40 L=5
5	SG11-10110622-01	动刀螺钉	Screw Sm11/64x40 L=6
6	SG158-09-13	动刀	Moving Knife
7	SG1255-06-01-02	动刀架	Knife Bracket
8	SG1255-06-01-03	动刀架压板	Knife Bracket Presser
9	SG12-10300821-01	动刀架压板紧固螺钉	Screw M3 L=8
10	SG32-07430120-09	骨架油封	Oil Seal
11	SG1287-01-20	下轴前套	Hook Driving Shaft Bushing Asm.
12	SG11-80161012-01	剪线凸轮固定螺钉	Set Screw 1/4x40 L=10
13	SG1230-09-40	剪线凸轮螺钉垫片	Washer
14	SG158-09-01	切线凸轮	Thread Shear Cam
15	SG1287-01-05B	剪线电磁铁组件	Solenoid Unit
16	SG1230-09-06	分线器	Thread Partition
17	SG135-06-22	刀轴连杆螺钉	Screw
18	SG1230-09-15	刀轴连杆	Knife Shaft Connecting Rod
19	SG13-60113020-01	刀轴连杆螺母	Nut Sm11/64x40
20	SG135-06-22	刀轴连杆螺钉	Screw
21	SG21-04308090-01	垫圈	Washer
22	SG11-40090625-01	分线器固定螺钉	Screw Sm9/64x40 L=6
23	SG158-09-31	扭簧端盖	Spring Cover
24	SG158-09-32	切线凸轮复位簧	Spring
25	SG32-08050180-09	下轴前套后油封	Oil Seal
26	SG31-16618000-09	下轴前套O型圈	O Ring
27	SG1287-01-16	切刀驱动轴	Thread Shear Shaft
28	SG11-80160612-01	剪线驱动轴固定螺钉	Screw Sm1/4x40 L=10
29	SG158-09-26-00	切线凸轮曲柄大组件	Thread Shear Cam Rock Arm Asm.
30	SG24-06000000-08	挡圈E6	Retaining Ring ,e6
31	SG21-08210162-03	剪线电磁铁垫片	Washer
32	SG101-04-21	电磁铁缓冲垫	Magnetic Plug Cushion Mat
33	SG1281-09-03A	切刀驱动曲柄组件	Thread Shear Rock Arm
34	SG158-09-21	切刀驱动曲柄弹簧	Spring
35	SG11-60621422-01	驱动曲柄螺钉	Screw Sm3/16x32 L=14
36	SG11-80120712-01	剪线驱动轴套螺钉	Screw Sm3/16x28 L=7
37	SG158-09-24	切线驱动轴套	Thread Shear Shaft Bush
38	SG158-09-22	切刀驱动曲柄轴	Thread Shear Rock Arm Shaft
39	SG158-09-23	驱动曲柄轴短套	Short Bush
40	SG11-90151420-01	剪线电磁铁固定螺钉	Screw Sm15/64x28 L=14
41	SG1287-01-07	松线复位弹簧	Spring
42	SG158-09-42	松线座螺钉	Screw
43	SG1287-01-06	松线座	Thread Loose Seat

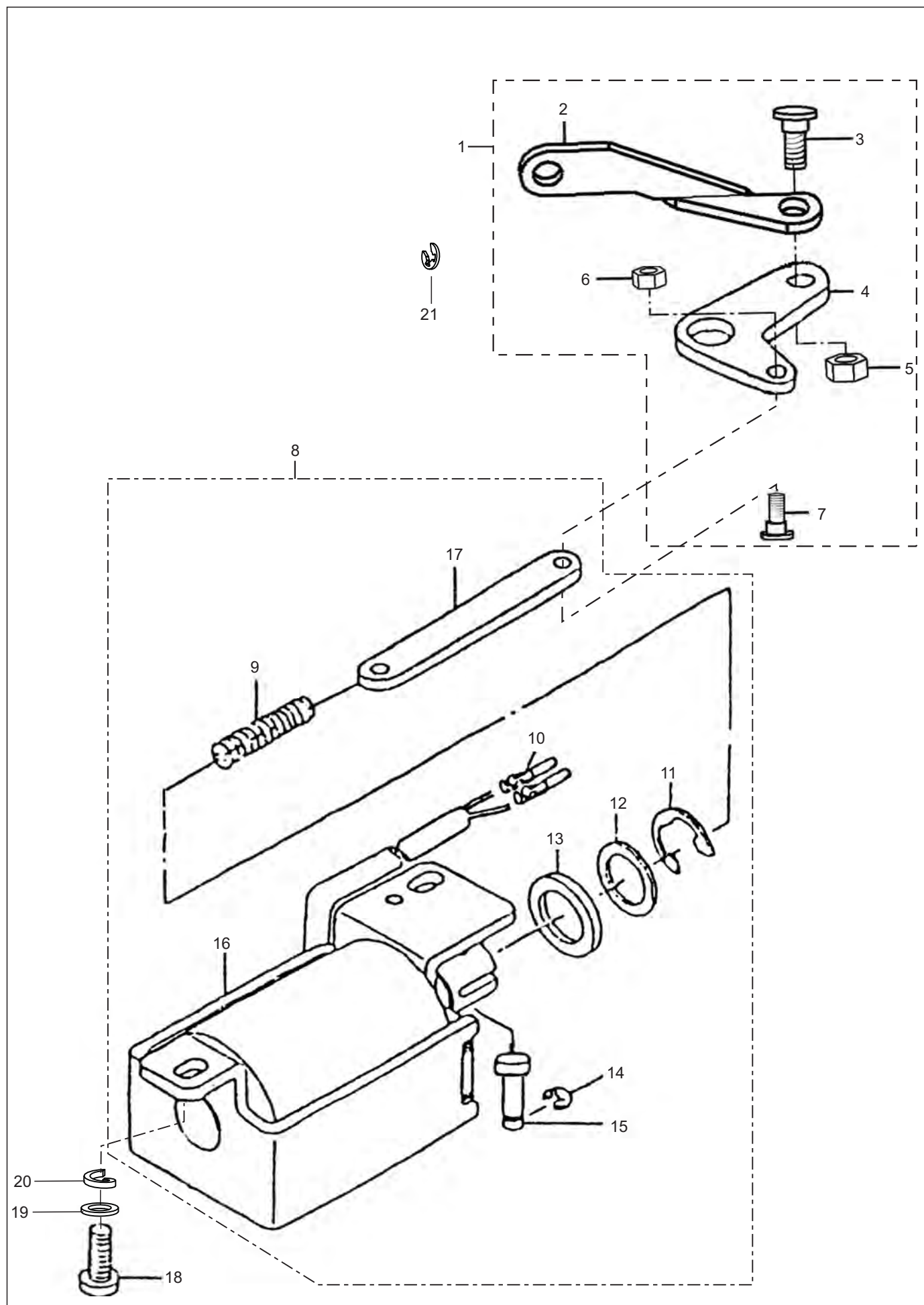
6-2.切线装置部件-双刀剪线 Short tread trimmer components (261-140345-01)



6-2.切线装置部件-双刀剪线 Short tread trimmer components (261-140345-01)

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG21-04308090-01	垫圈	Washer
2	SG11-40091025-01	分线器固定螺钉	Screw Sm9/64x40 L=10
3	SG1281-09-13	分线器	Thread Partition
4	SG1281-09-09	分线器垫片	Distributor Spacer
5	SG1287-01-21	下轴前轴套	Hook Driving Shaft Bushing Asm.
6	SG1281-09-07A	副刀架	Knife Bracket
7	SG1281-09-12	副动刀	Fixed Knife
8	SG11-00110520-01	副动刀调节螺钉	Screw Sm11/64x40 L=6
9	SG11-10110622-01	副动刀固定螺钉	Screw Sm11/64x40 L=6
10	SGAWS-AA012900	刀架中间垫圈	Washer
11	SG1281-09-06	主刀架	Knife Bracket
12	SG1281-09-11	主动刀	Moving Knife
13	SG1281-09-10	副刀销	Pin
14	SG21-04508080-01	副刀销垫片	Washer
15	SG22-05000000-08	副刀销弹簧垫片	Spring Washer
16	SG13-60113020-01	副刀削固定螺母	Nut Sm11/64x40
17	SG1281-09-03A-00	切刀驱动曲柄组件	Thread Shear Rock Arm.

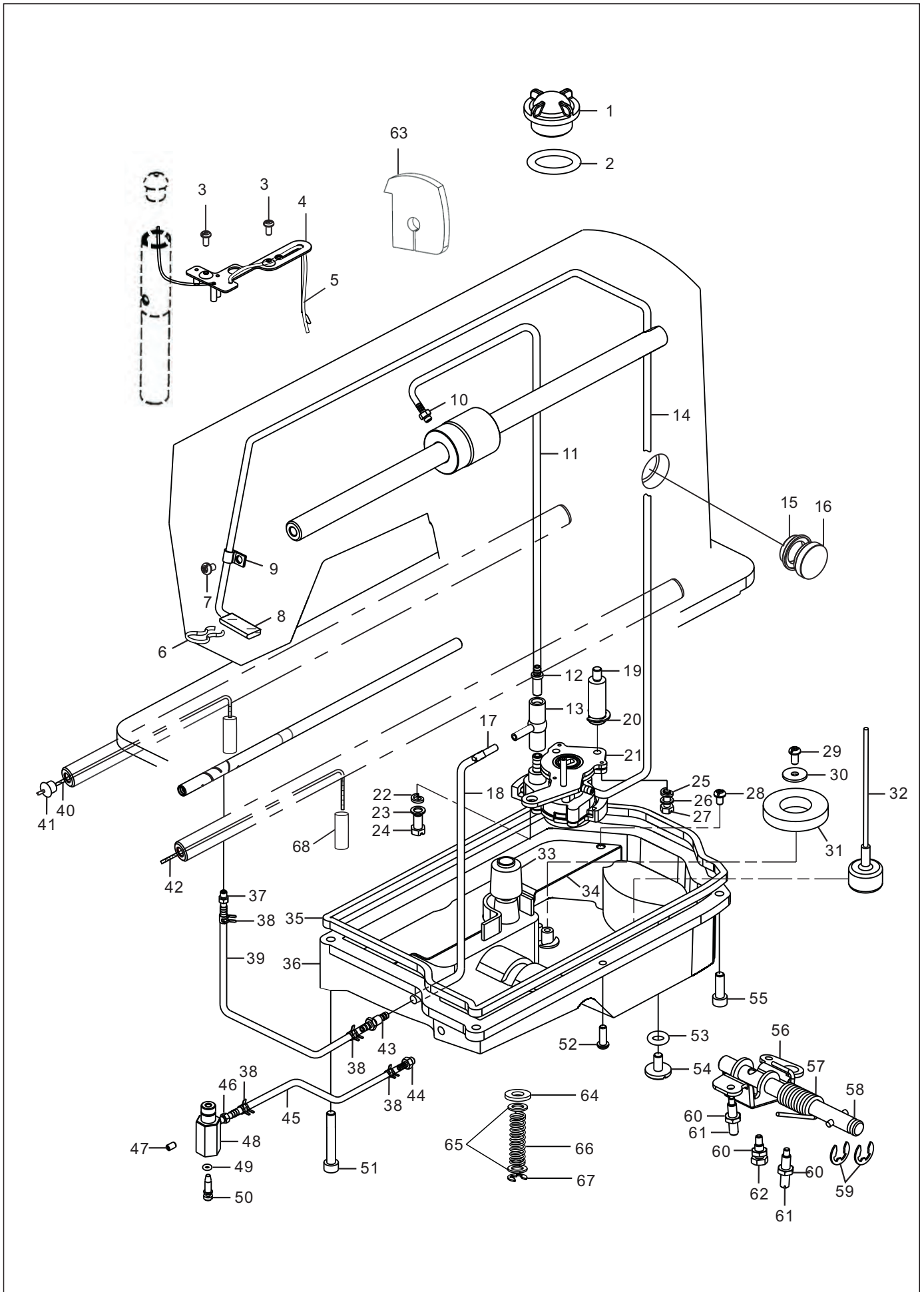
7.自动倒送料部件 Automatic Reverse Feed Components



7.自动倒送料部件 Automatic Reverse Feed Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG109-07-15-00	倒送料连接杆组件	Reverse Feed Connecting Rod Asm.
2	SG109-07-15-01	倒送料连接杆	Reverse Feed Connecting Rod
3	SG109-07-15-03	连接杆轴位螺钉	Connecting Rod Axial Screw
4	SG109-07-15-02	连接臂	Connecting Arm
5	SG13-60157020-01	六角螺母	Nut Sm15/64x28
6	SG13-60113020-01	六角螺母	Nut Sm11/64x40
7	SG109-07-15-04	连接臂轴位螺钉	The Connecting Arm Axial Screw
8	SG1287-01-14B	倒缝电磁铁组件	Reverse Feed Solenoid Asm.
9	SG109-07-28	柱塞簧	Plunger Spring
10	SG109-07-29	联接插针	Pin Connect
11	SG24-12000000-08	开口挡圈	E-ring 12
12	SG21-16030240-02	垫圈	Washer
13	SG109-07-22	橡胶垫圈	Rubber Washer
14	SG24-04000000-08	开口挡圈	E-ring 4
15	SG109-07-30	倒缝电磁铁销	Pin For Plunger Rod
16	SG1281-01-28-01	倒缝电磁铁	Reverse Feed Solenoid Asm.
17	SG1287-01-14-01	倒送料连接片	Feed Reverse Connecting Cover
18	SG11-60151522-01	倒缝电磁铁固定螺钉	Screw Sm15/64x28 L=9
19	SG21-06115130-01	倒缝电磁铁螺钉垫片	Reverse Feed Solenoid Screw Gasket
20	SG22-06000000-08	倒缝电磁铁弹簧垫圈	Reverse Feed Solenoid Spring Washer
21	SG24-05000000-09	开口挡圈E5	E-ring 5

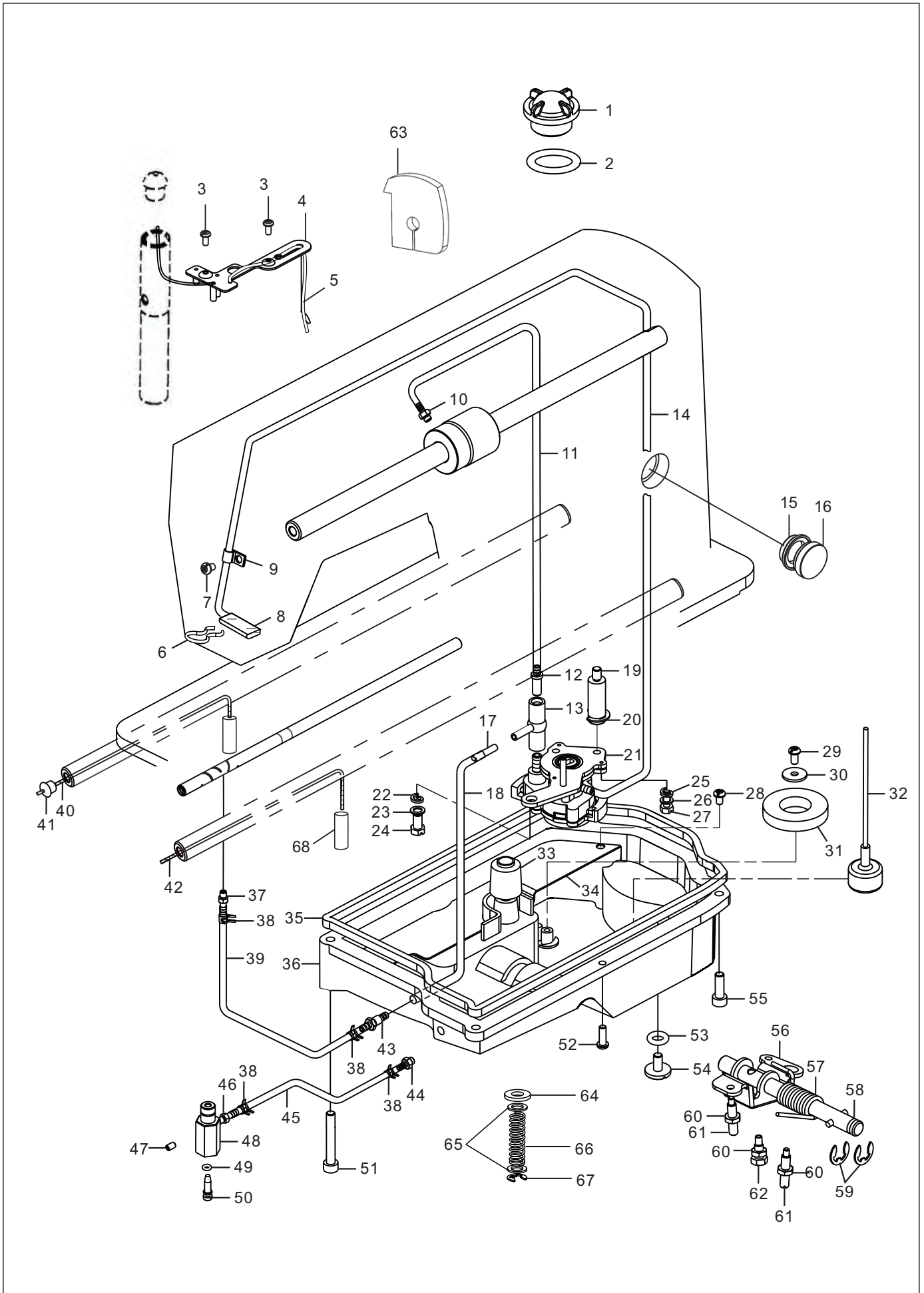
8. 润滑部件 Oil Lubrication Components



8. 润滑部件 Oil Lubrication Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG101-08-25	油窗	Oil Sight Window
2	SG31-20024000-09	油窗O型圈	Rubber Ring
3	SG11-40091225-01	油线架固定螺钉	Screw Sm9/64×40 L=12
4	SG1280-01-10	油线架组件	Oil Braid Fitting Plate
5	SG43-10250000-00	油线	Oil Wick
6	SG101-08-33	回油管固定夹	Oil Feet Presser
7	SG11-40120625-01	回油管夹螺钉	Screw Sm3/16x28 L=6
8	SG120-07-07	机头回油毡	Oil Return Tube Plate Asm.
9	SG101-08-28	回油管夹	Oil Return Tube Holder
10	SG423-12-36	供油管接头（上）	Rubber Joint（Upper）
11	SG42-05003000-00A	供油管	Oil Return Tube
12	SG1211-07-04	供油管接头（下）	Rubber Joint（Down）
13	SG101-08-18	供油管接头	Rubber Joint
14	SG42-05003000-00A	回油管	Oil Return Tube
15	SG1286-07-06-02	油窗芯	Oil Gauge Window Pin
16	SG1286-07-06-01	油窗盖	Oil Gauge Window Cover
17	SG1287-01-31	油泵连接铝管	Rubber Joint
18	SG9731 001035	旋梭供油管	Oil Return Tube
19	SG109-09-25	油泵连接螺柱	Oil Pump Support M8
20	SG24-09000000-08	开口挡圈E9	Snap Ring E9
21	SG101-08-01-00	油泵组件	Lubricating Oil Pump Asm.
22	SG22-06000000-08	弹簧垫圈	Spring Washer
23	SG21-06210101-01	油泵安装螺钉垫圈	Washer For Oil Pump Screw
24	SG11-90151420-01	油泵安装螺钉	Screw Sm15/64x28 L=11
25	SG22-05000000-08	弹簧垫圈	Spring Washer
26	SG21-04608080-01	螺柱连接螺钉垫圈	Washer For Stud Connecting Screw
27	SG11-90111220-01	螺柱连接螺钉	Screw Sm11/64x40 L=12
28	SG11-40090625-01	挡油板固定螺钉	Screw Sm9/64x40 L=6
29	SG11-40120925-01	油盘磁铁固定螺钉	Screw Sm3/16x28 L=9
30	SG21-05016170-01	磁铁固定螺钉垫片	Washer
31	SG279-08-31	油盘磁铁	Oil Reservoir Magnet
32	SG1287-01-30	浮标	Buoy
33	SG1287-01-29	油盘顶杆	Knee Press Lifter Rod
34	SG1287-01-15	油盘挡油板	Oil Baffle
35	SG1287-01-04	油盘密封垫	Oil Reservoir Gasket
36	SG1287-01-03	油盘	Oil Reservoir
37	SG1277-09-17	旋梭供油嘴	Lower Shaft Choke
38	SG1277-09-18	油管夹小	Tubing Clamp
39	SG9731 001035	回油管	Oil Return Tube
40	SG43-10250000-00	送料轴油线	Oil Wick
41	SG1287-01-37	送料轴橡胶塞	Rubber Plug
42	SG43-10250000-00	抬牙轴油线	Oil Wick
43	SG1287-01-08	旋梭供油管双向油嘴	Oil Can Choke
44	SG1287-01-26	油盘回油嘴	Oil Can Choke
45	SG9731 001035	回油管	Oil Return Tube
46	SG1277-09-10	出油嘴	Oil Can Choke
47	SG11-80120712-01	调油座固定螺钉	Screw Sm3/16x28 L=7
48	SG1286-07-04	调油座	Oil Regulating Base
49	SG31-02818000-09	调油螺钉O型圈	Rubber Ring
50	SG1271-09-06	调油螺钉	Screw
51	SG12-60604022-01	油盘固定螺钉（长）	Screw M6 L=40
52	SG11-40121425-01	油盘固定螺钉	Screw Sm3/16x28 L=14
53	SG2316-13-12	放油螺钉密封圈	Sealing Ring

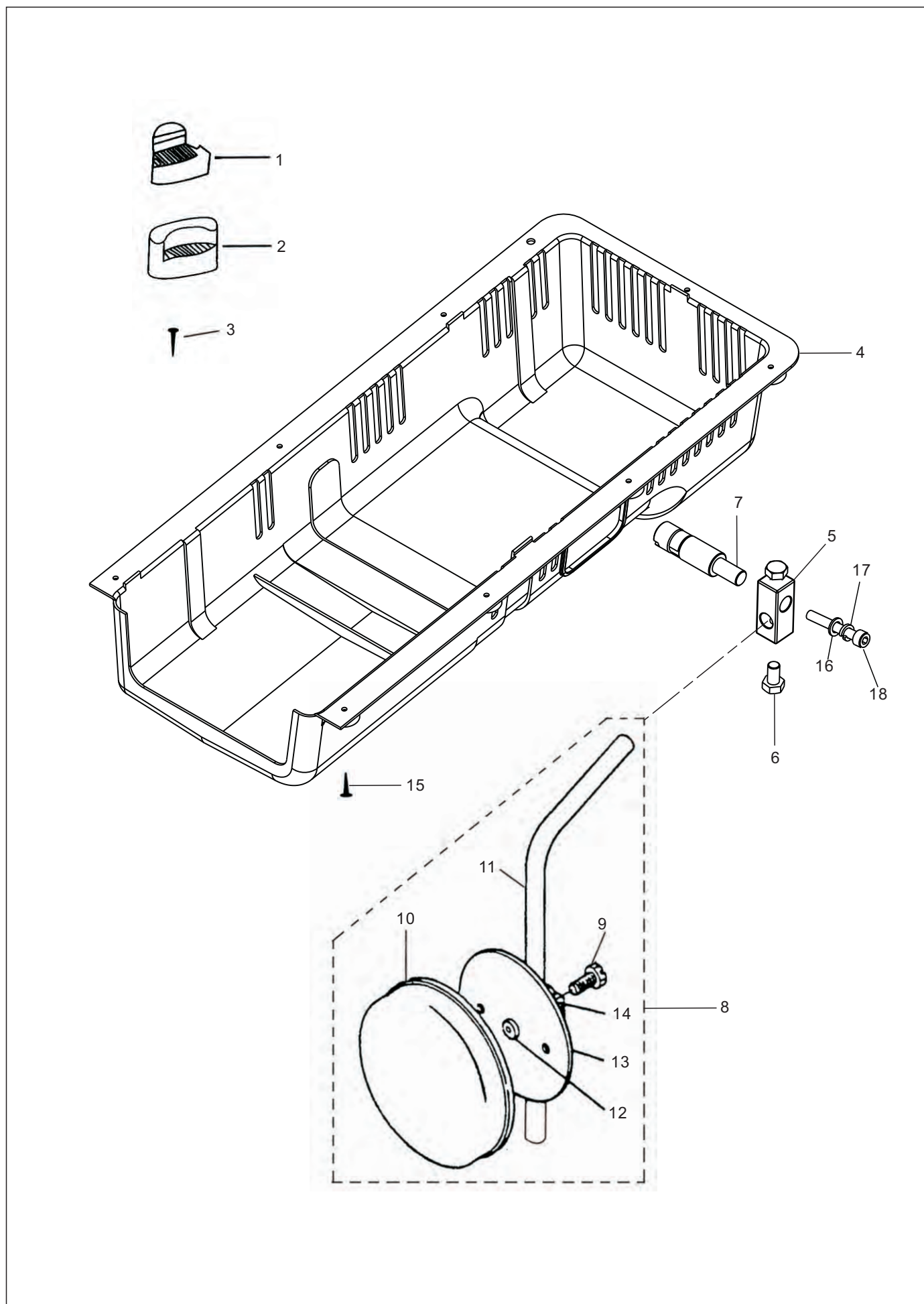
8. 润滑部件 Oil Lubrication Components



8. 润滑部件 Oil Lubrication Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
54	SG301-17-23	油盘放油螺钉	Screw
55	SG12-60601822-01	油盘固定螺钉 (短)	Screw M6 L=18
56	SG101-09-07	抬压脚双向曲柄	Connecting Rod Vertical
57	SG1287-01-41	抬压脚曲柄簧	Spring
58	SG1287-01-17A	膝提曲柄轴	Knee Press Rod
59	SG24-10000000-09	抬压脚轴开口挡圈	E-ring 10
60	SG14-60603320-02	限位调节螺母	Nut M6
61	SG12-80602550-02	限位调节螺钉	Screw M6 L=25
62	SG12-90601633-02	抬压脚双向曲柄螺钉	Screw
63	SG1286-07-15	机头放油海绵	The Sponge
64	SG44-005R-1230	密封垫	Gasket
65	SG21-07310122-03	垫片	Washer
66	SG1287-01-39	弹簧	Spring
67	SG24-06000000-08	卡簧	E-ring 6
68	SG132-10-45	油毡	Asphalt Felt

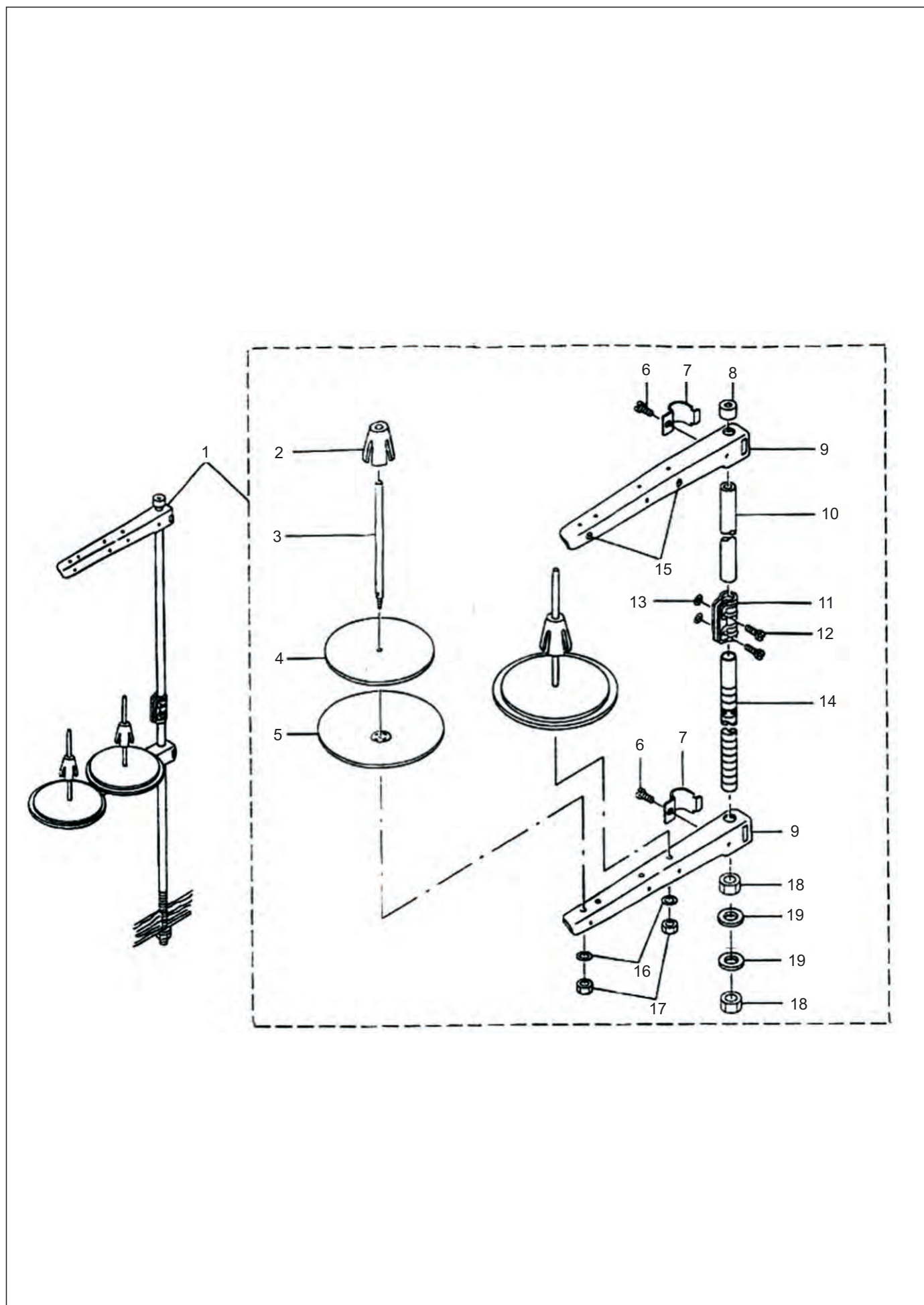
9.油盘、膝抬压脚部件 Oil Reservoir & Knee Lifter Components



9.油盘、膝抬压脚部件 Oil Reservoir & Knee Lifter Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG1286-08-01	油盘支座（小）	Rubber Cushion(small)
2	SG1286-08-02	油盘支座（大）	Rubber Cushion(big)
3	SG101-12-13	油盘座钉	Nail
4	SG1286-08-03	塑料托盘	Oil Reservoir
5	SG101-09-10-00	抬压脚操纵杆接头组件	Knee Press Rod Bearing Bracket Asm
6	SG12-90801423-02	抬压脚操纵接头螺钉	Screw M8x14
7	SG1287-01-18A	膝提压脚轴	Knee Press Rod
8	SG101-09-15-00	操纵杆组件	Knee Lifter Plate Rod Asm
9	SG101-09-16	操纵杆夹头螺钉	Screw Sm15/64x28 L=15
10	SG101-09-20	操纵板软垫	Knee Press Plate Asm.
11	SG101-09-15	操纵杆	Knee Press Plate Rod
12	SG101-09-18	操纵杆垫块	Knee Press Plate Rubber
13	SG101-09-19	操纵板	Knee Press Plate
14	SG101-09-17	操纵杆夹头	Knee Press Plate Holder
15	SG9207 170227 CN	十字木螺钉	Cross Screw
16	SG21-04308090-01	垫片	Washer
17	SG22-04000000-08	弹簧垫片	Spring Washer
18	SG12-60405522-01	螺钉	Screw M4 L=55

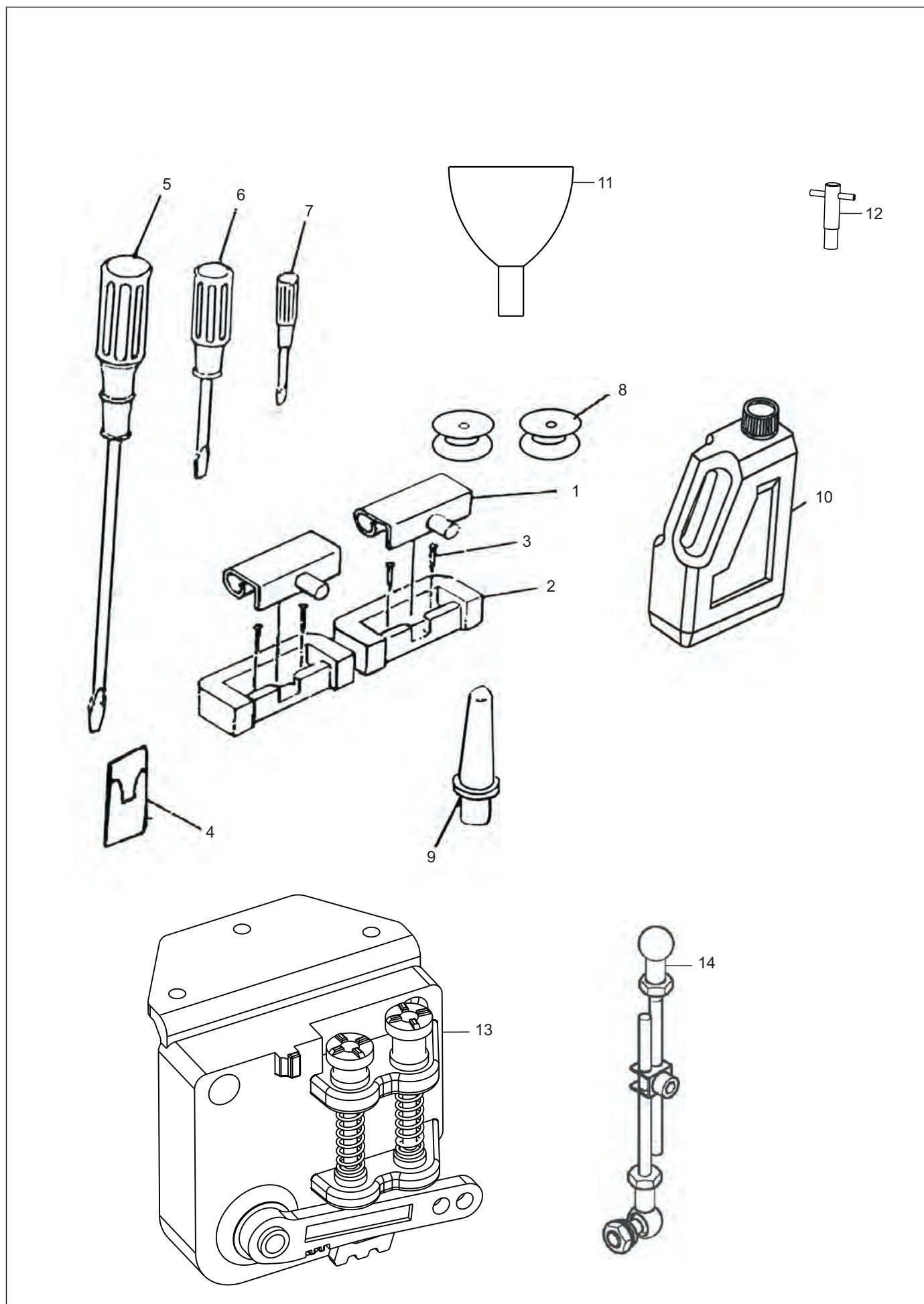
10.线架部件 Thread Stand Components



10.线架部件 Thread Stand Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG101-11-01	线架组件	Thread Stand Asm.
2	SG279-12-00-22	线盘芯	Spool Retainer
3	SG279-12-00-23	线盘钉	Spool Pin
4	SG279-12-00-24	线盘垫	Spool Rest Cushion
5	SG279-12-00-25	线圈托盘	Spool Rest
6	SG279-12-00-04	螺钉	Screw M6 L=18
7	SG279-12-00-03	线臂抱攀	Thread Guide Arm Joint
8	SG279-12-00-01	上直管盖帽	Spool Rest Rod Rubber Cap
9	SG279-12-00-08	短固线臂	Spool Rest Arm
10	SG279-12-00-02	线架上直管	Spool Rest Rod,upper
11	SG279-12-00-15	直管接头	Spool Rest Rod Joint
12	SG279-12-00-16	螺钉	Screw M5 L=16
13	SG279-12-00-14	螺帽	Nut M5
14	SG279-12-00-19	线架下直管	Spool Rest Rod,lower
15	SG279-12-00-07	引线圈	Thread Guide
16	SG279-12-00-26	弹性垫圈	Spring Washer
17	SG279-12-00-27	螺帽	Nut M5
18	SG279-12-00-20	螺帽	Nut M16x1.5
19	SG279-12-00-21	防震垫	Washer 16.1x30x2.6

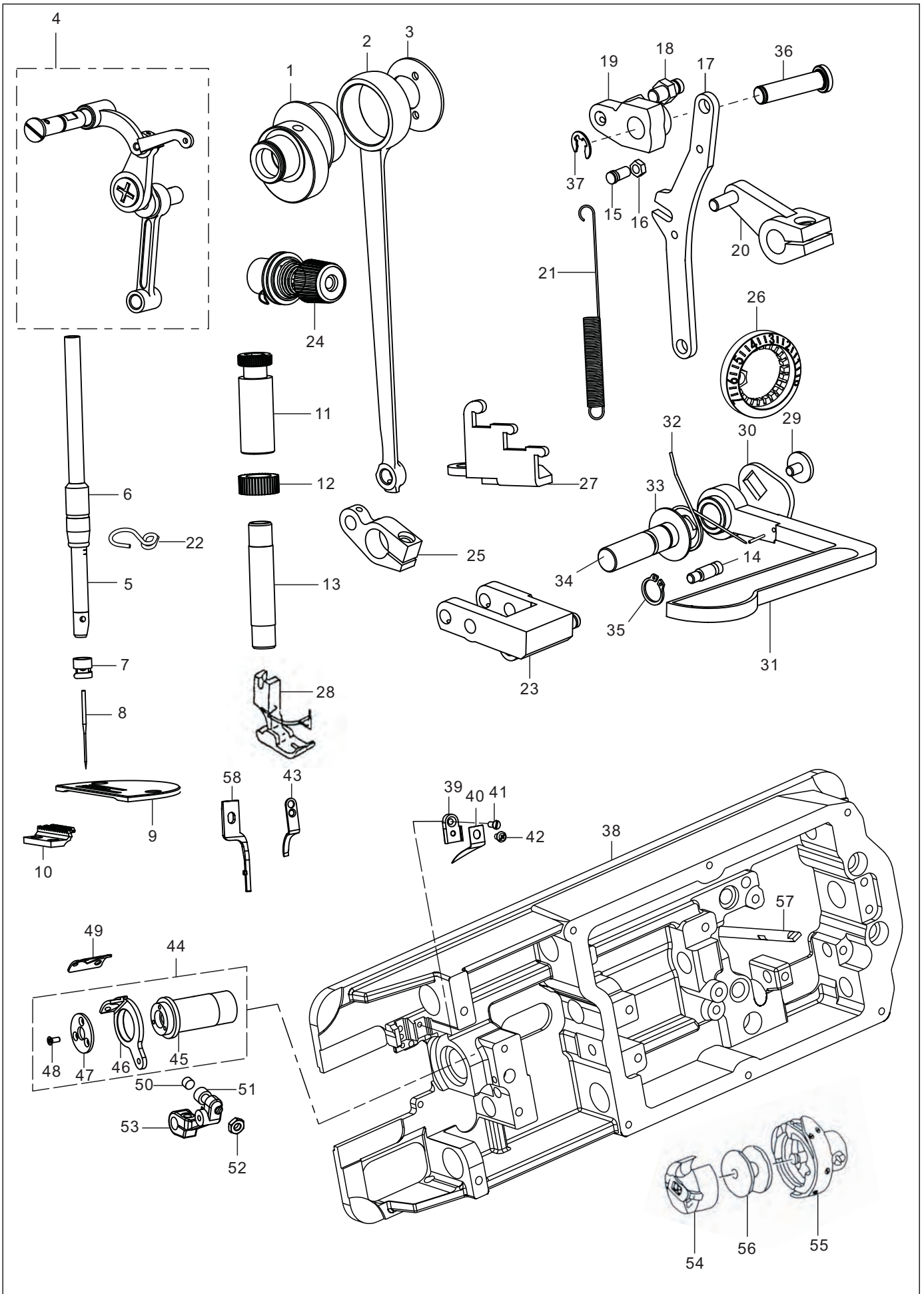
11. 附件 Accessories



11.附件 Accessories

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG101-12-01	机头铰链	Head Connecting Hook
2	SG120-09-02	机头铰链座	Head Connecting Hook Socket
3	SG101-12-03	鞋钉	Head Connecting Hook Nail
4	SG101-03-13	机针 DBX1 14#	Needles DBx1 14#(261-14034X-01A)
4	SG124-04-24	机针 DPX5 14#	Needles 134 Nm90(261-14034X-01)
4	SG101-03-13H	机针 DPX5 18#	Needles 134 Nm110(261-16036X-01)
5	SG101-12-15	螺丝刀 (大)	Screw Driver (l)
6	SG101-12-16	螺丝刀 (中)	Screw Driver (m)
7	SG101-12-17	螺丝刀 (小)	Screw Driver (s)
8	SG402-04-04	梭芯	Bobbin ϕ 21
	SG1222-05-03	梭芯	Bobbin ϕ 25.5
9	SG101-12-19	机头支柱	Head Pole
10	SG101-12-21	油箱	Oil Bottle With Oil
11	SG279-11-17	漏斗	Funnel
12	SG1277-14-02	套筒扳手	Spanner
13	SG1278-17-01-03	脚踏板组件	Proximity switch
14	SG1281-05-02-01-03	脚踏拉杆	Pedal linkage

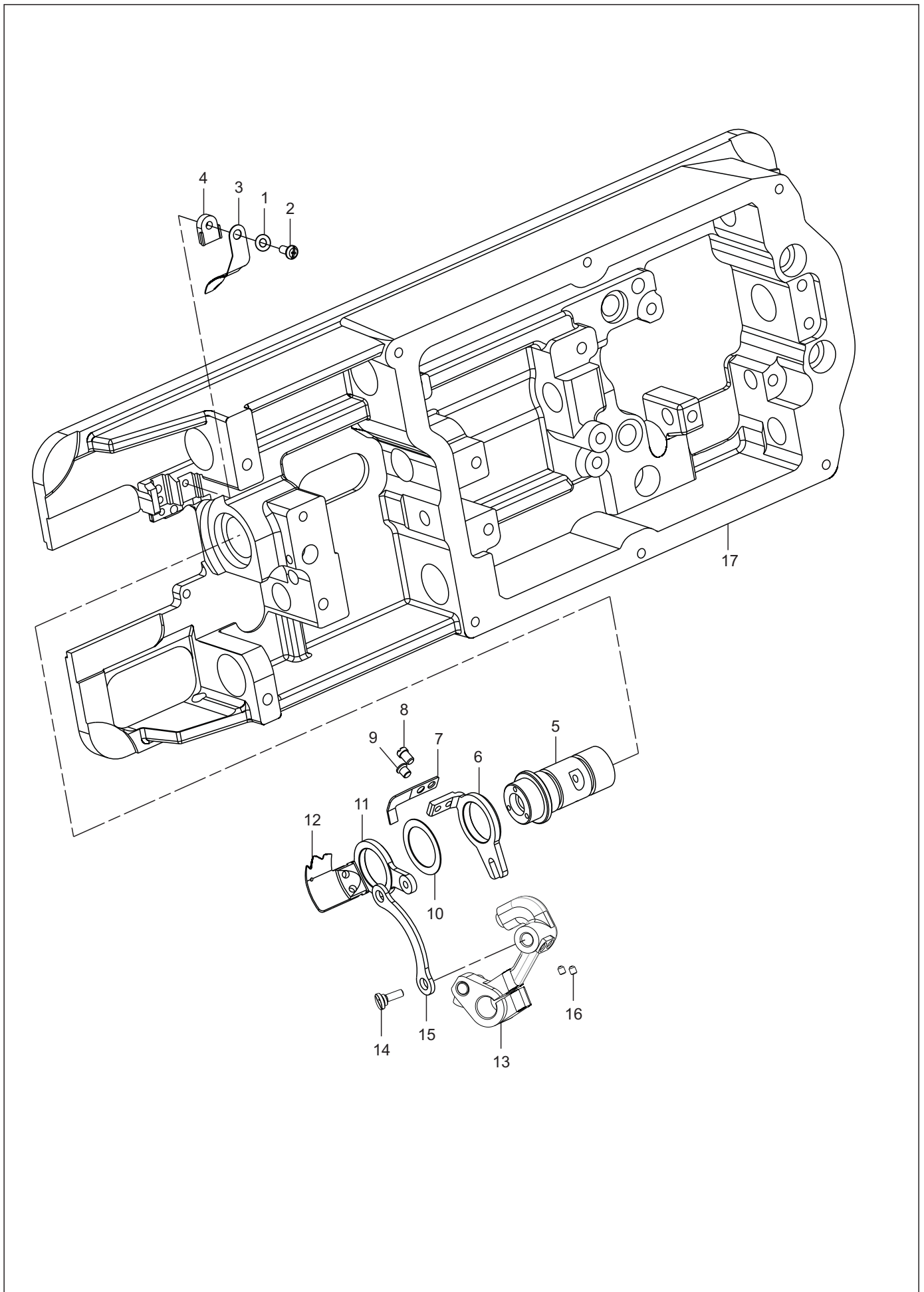
12. 厚料大旋梭部件 Heavy Duty Big Hook Components (261-160362-01)



12.厚料大旋梭部件 Heavy Duty Big Hook Components (261-160362-01)

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG101-06-02XH	送料偏心轮	Feed Drive Eccentric Cam
2	SG101-06-06XH	送料连杆	Rocket Shaft Connecting Rod
3	SG101-06-04XH	送料偏心轮盖板	Thrust Collar
4	SG1281-01-32	挑线杆大组件	Thread Take-up Lever Asm.
5	SG1281-05-32H	针杆	Needle Bar
6	SG101-03-08XH	针杆下轴套	Needle Bar Bushing Lower
7	SG1277-03-02H	针杆过线环	Needle Bar Thread Guide
8	SG101-03-13H	机针 134 Nm110	Needle 134 Nm110
9	SG101-06-36H	针板 B20	Needle Plate B20
10	SG120-04-04	牙齿	Feed Dog
11	SG101-04-01XH	调压螺钉	Presser Regular Screw
12	SG101-04-02XH	调压螺母	Presser Regular Nut
13	SG101-04-10XH	压杆衬套	Presser Bar Bushing Lower
14	SG1281-01-41	倒缝扳手复位弹簧固定销	Pin
15	SG1281-01-22	弹簧连接销	Spring Connecting Pin
16	SG13-60113020-01	螺母	Hinge Screw
17	SG1273-05-06	倒送料连杆	Feed Regulator Connecting Rod
18	SG101-07-10A	倒送料连杆销	Feed Regulator Pin
19	SG1273-15-04	送料调节器	Feed Regulator
20	SG1273-15-05	倒送料曲柄组件	Feed Reverse Asm.
21	SG1273-15-03	倒送料弹簧	Feed Reverse Spring
22	SG1281-05-20H	针杆下套线钩	Needle Bar Thread Guide
23	SG1287-07-02	送料摆动板座组件	Walking Foot Adjusting Link Asm.
24	SG1281-05-12AH	夹线器组件	Tension Asm.
25	SG101-06-18XH	送料曲柄	Feed Rocker Shaft Crank
26	SG1287 051060	送料距旋钮	Feeding From The Knob
27	SG101-07-23XH	弹簧固定板	Spring Plate
28	0281 220034	压脚组件	Presser Foot Asm.
29	SG423-06-45	倒送料轴端螺钉	Feed Reverse Screw
30	SG1273-15-08	倒缝扳手板	Reverse Feed Control Lever Link
31	SG1281-01-48H	倒缝扳手	Reverse Feed Control Lever
32	SG1273-15-12	倒缝扳手支撑弹簧	Reverse Feed Control Lever Support
33	SG21-12110262-03	垫圈	Ring
34	SG1273-15-09	倒送料轴	Washer
35	SG25-12000000-08	轴用弹性挡圈	Feed Reverse Shaft
36	SG1273-15-25	针距座销	Hinge Pin For Regulator
37	SG24-09000000-09	针距座销卡簧	E-ring 9
38	SG1287-01-02B	底板	Baseboard
39	SG1273-16-04	分线器垫片	Distributor Spacer
40	SG1300-08-05	分线器	Distributor
41	SG11-10090920-01	分线器垫片螺钉	Distributor Spacer Screw
42	SG11-40090525-01	分线器螺钉	Thread Partition Screw
43	SG1273-16-06	定刀	Counter Knife
44	SG1287-01-20B	动刀架前轴套组件	Moterial Knife Bracket Front Shaft Sleeve
45	SG1287-07-07	下轴前套	Hook Driving Shaft Bushing Asm.
46	SG1273-16-03	动刀架	Moterial Knife Bracket
47	SG1255-06-01-03	动刀架压板	Moterial Knife Bracket Presser
48	SG12-10300821-01	动刀架压板紧固螺钉	Screw M3 L=8
49	SG1273-16-07	动刀	Moterial Knife
50	SG1277-08-19	凸轮左曲柄缓冲垫	Cam Left Crank Cushion
51	SG1277-08-18	凸轮左曲柄缓冲垫螺钉	Cam Left Crank Cushion Screw
52	SG13-60153020-01	缓冲垫螺钉锁紧螺母	Cushion Nut
53	SG1273-16-02	切刀驱动曲柄	Thread Shear Rock Arm
54	SG1222-05-02	梭芯套	Bobbin Case
55	SG1281-05-27	旋梭	Hook
56	SG1222-05-03	梭芯	Bobbin φ25.5
57	SG101-05-24B	竖轴	Vertical shaft
58	SG1281-05-48	旋梭定位钩	Positioning finger

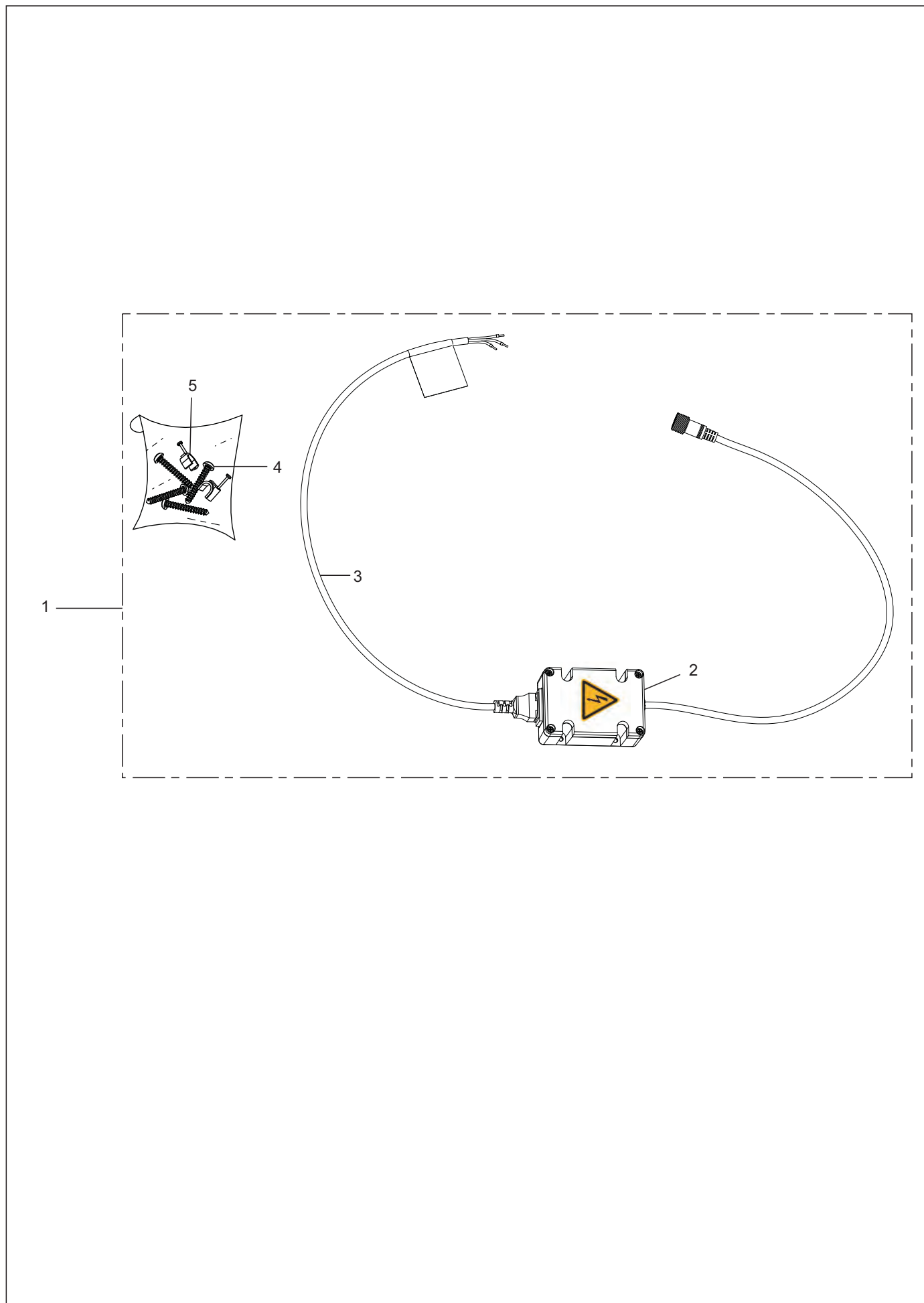
13.大梭双刀切线部件 Big Hook Short Thread Trimmer Component (261-160365-01)



13.大梭双刀切线部件 Big Hook Short Thread Trimmer Component (261-160365-01)

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG21-04308090-01	垫圈	Washer
2	SG11-40091025-01	分线器固定螺钉	Screw Sm9/64x40 L=10
3	SG1287-09-03	分线器	Thread Partition
4	SG1281-09-09	分线器垫片	Distributor Spacer
5	SG1287-01-21	下轴前轴套	Hook Driving Shaft Bushing Asm.
6	SG1287-09-08	副刀架	Knife Bracket
7	SG1287-09-02	副动刀	Fixed Knife
8	SG11-00110520-01	副动刀调节螺钉	Screw Sm11/64x40 L=5
9	SG11-10110622-01	副动刀固定螺钉	Screw Sm11/64x40 L=6
10	SGAWS-AA012900	刀架中间垫圈	Washer
11	SG1287-09-07	主刀架	Knife Bracket
12	SG1287-09-01	主动刀	Moving Knife
13	SG1287-09-04	切刀驱动曲柄组件	Thread Shear Rock Arm.
14	SG1287-09-05	切刀连杆偏心销	Pin
15	SG1287-09-06	刀轴连杆	Connecting Rod
16	SG12-80400512-01	螺钉	Screw M4 L=5
17	SG1287-09-10	底板	Bed

14.带屏蔽盒电源线部件 Line Filter With Plug Asm.



14.带屏蔽盒电源线部件 Line Filter With Plug Asm.

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	0261-310104	带屏蔽盒电源线部件	Line Filter With Plug Asm.
2	0261-310103	屏蔽盒组件	Line Filter Asm.
3	0261-310203	电源线	Power Line
4	6176-040300	木螺钉4×30	Screw 4x30
5	6005-080000	圆形钢钉线卡 φ8	Round Fix Nails φ8



DÜRKOPP ADLER GmbH
Potsdamer Str. 190
33719 Bielefeld
Germany
Phone: +49 (0) 521 925 00
Email: service@duerkopp-adler.com
www.duerkopp-adler.com

Manufacturer:
ShangGong Sewing Machine
(Zhe Jiang) Co., Ltd.
P.R.CHINA