

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险，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。

此样本是二零二一年七月的数据而制成的, 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 July 2021 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 ($\otimes$) 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，如果误按启动开关，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.



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 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.



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.



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.



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.



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.



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.



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.



Install the safety covers to the machine head and motor.



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.



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.



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 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.

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.



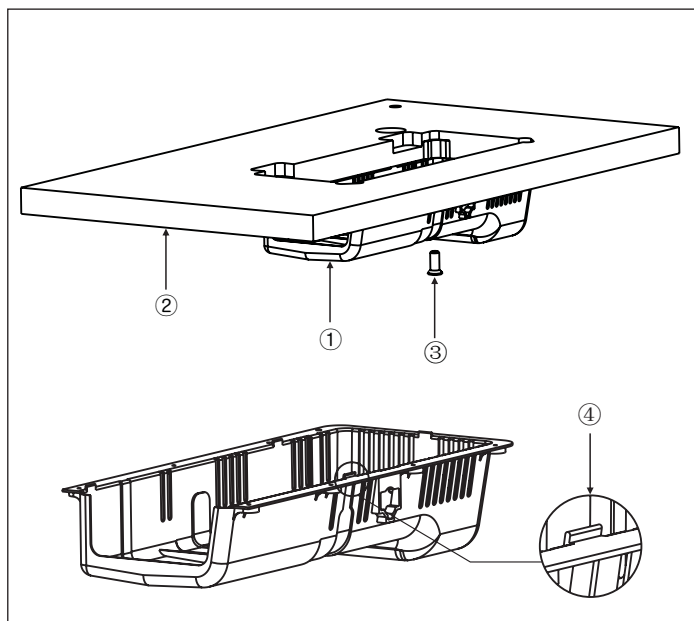
Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhoea.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

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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）。

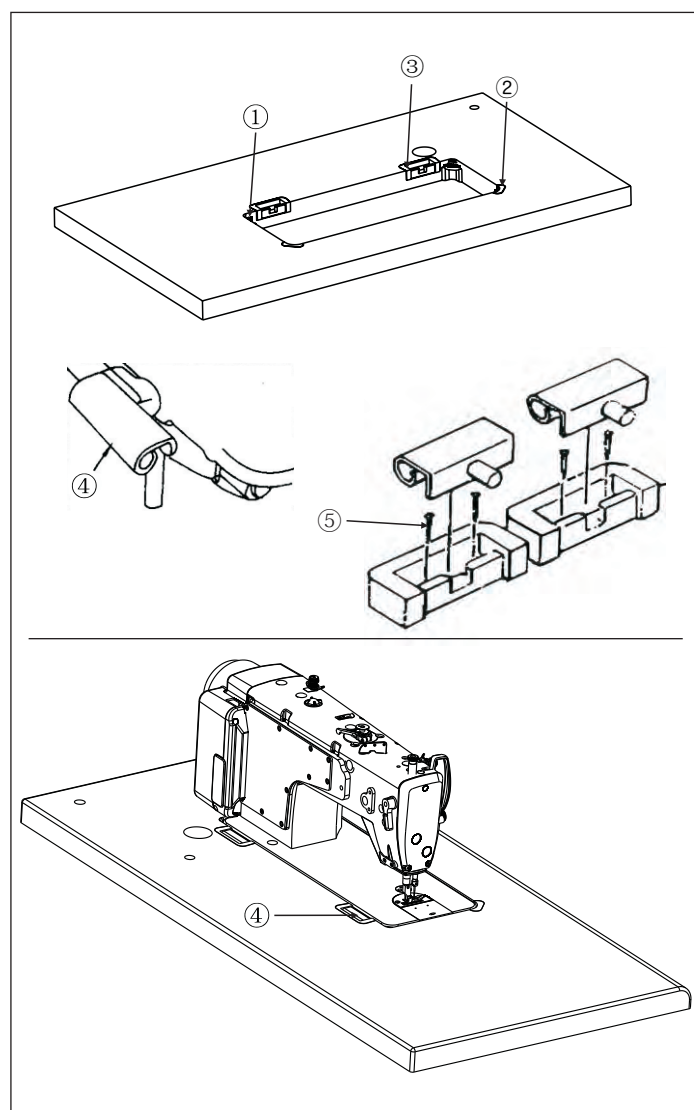
注:塑料油盘周边有限位凸台④，安装时需将油盘的限位点卡到台板上。

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。

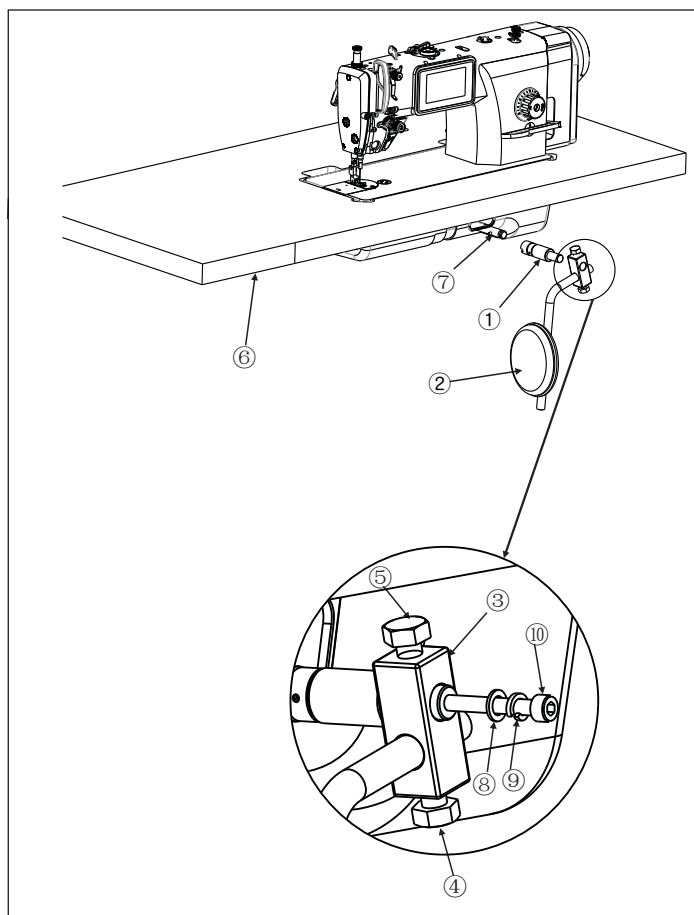
EN

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

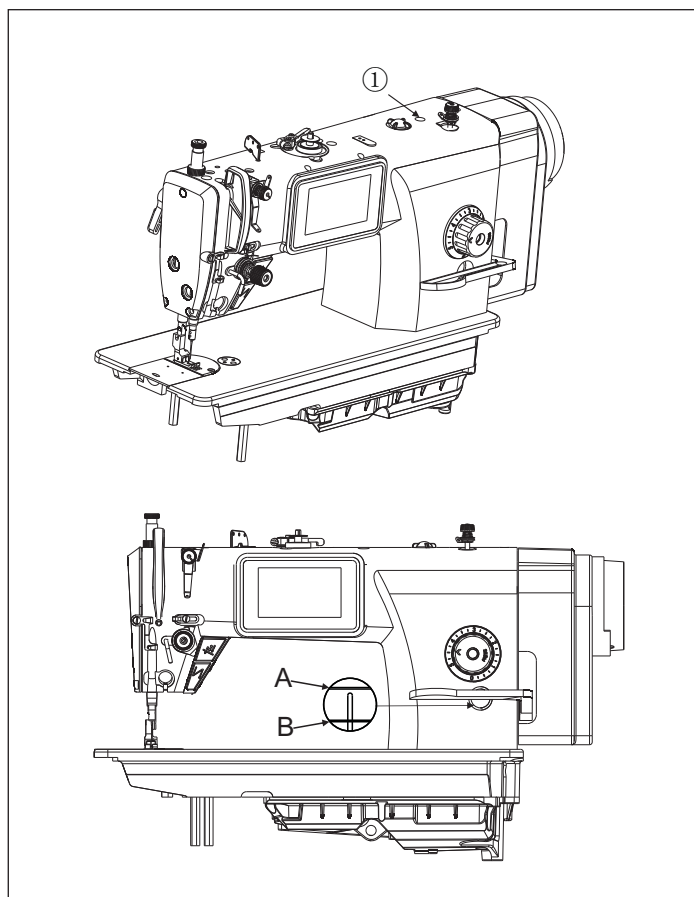


- 1) 将操纵杆组件②装到膝抬压脚连接轴①上，并用操纵杆接头③连接，最后拧紧接头螺钉④和⑤；
- 2) 将连接好的操纵杆组件与膝抬压脚连接轴⑦连接，并卡到限位点上；
- 3) 根据个人需求，拧松接头螺钉④可调整操纵杆左右的位置，拧松接头螺钉⑤可调整操纵杆的前后位置；
- 4) 安装好膝抬压脚组件后，将平垫片⑧和弹簧垫片⑨分别安装到膝抬压脚固定螺钉⑩上，最后用螺钉⑩将膝抬压脚连接轴①和膝抬压脚连接轴⑦锁死，防止脱落。

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

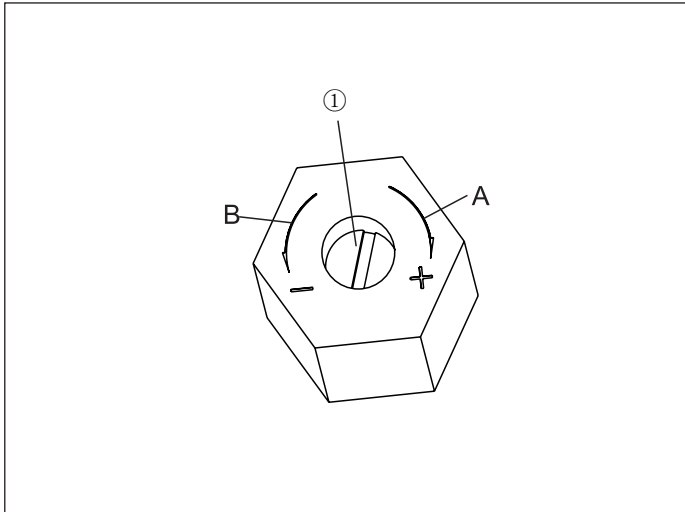
- 1) pull out the rubber plug ①, fill the oil from the machine case with special 10# sewing machine lubrication oil and the oil surface should reach A level .
- 2) If the oil window showing oil lower than B level, please fill oil to A level.

(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

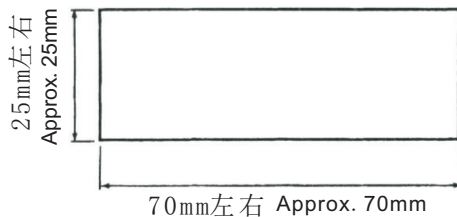
CAUTION

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

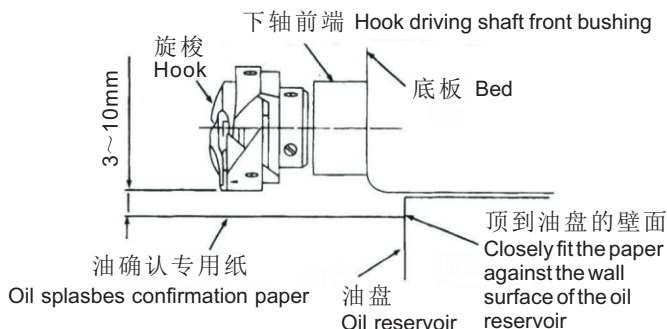
①Amount of oil confirmation paper



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

②油量确认位置

②Position 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)

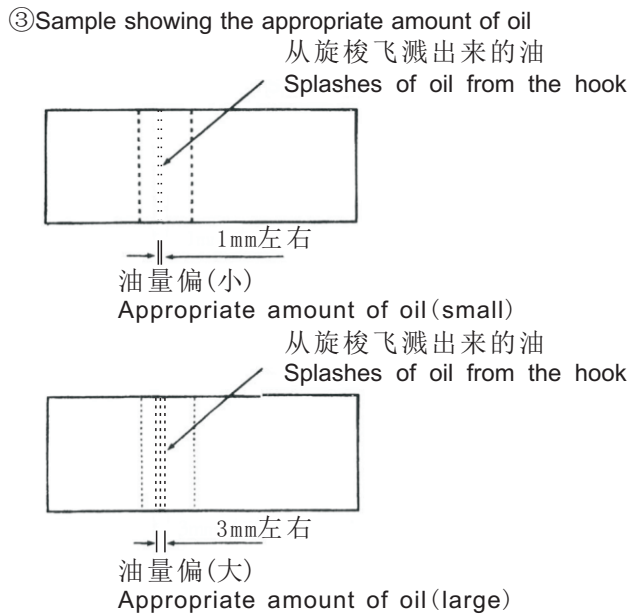
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When carrying out the procedure described below in 2, remove the slide plate and take extreme caution not to allow your fingers to come in contact with the hook.

(Caution)

- 1) If the machine has not been sufficiently warmed up for operation, make the machine run idle for approximately three minutes.(Moderate inter mitten operation.)
- 2) Place the amount of oil (oil splashes) confirm mation 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

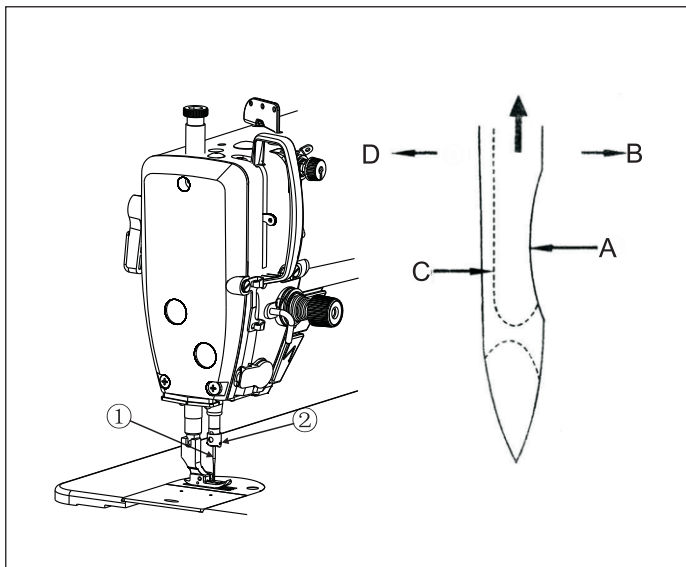


- 5) 左图样品根据缝制工序需要微调增减，但注意不要过大增加或减少。
(油量过少时，会烧坏旋梭(发热)。油量过多时，会玷污缝制品)
- 6) 油量应确认3次(3张)均无变化。

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。

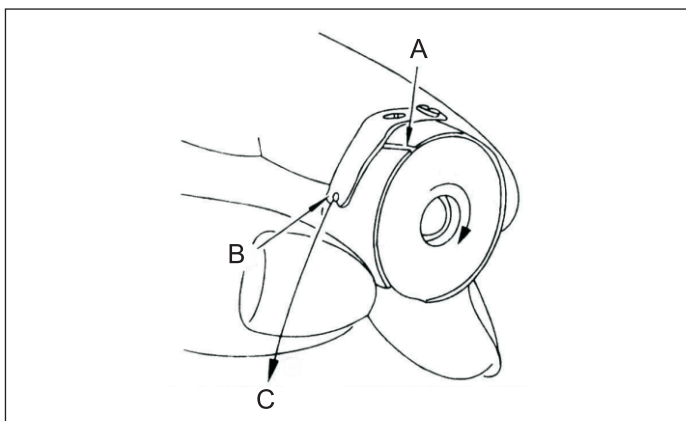
- 1) 转动手轮，把针杆升到最高处。
- 2) 拧松机针固定螺丝②，手拿机针把机针①凹部A横向转到B的方向。
- 3) 把机针插到针杆孔的深处。
- 4) 拧紧机针固定螺丝②。
- 5) 确认针的长孔C在左横向D的方向。

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.

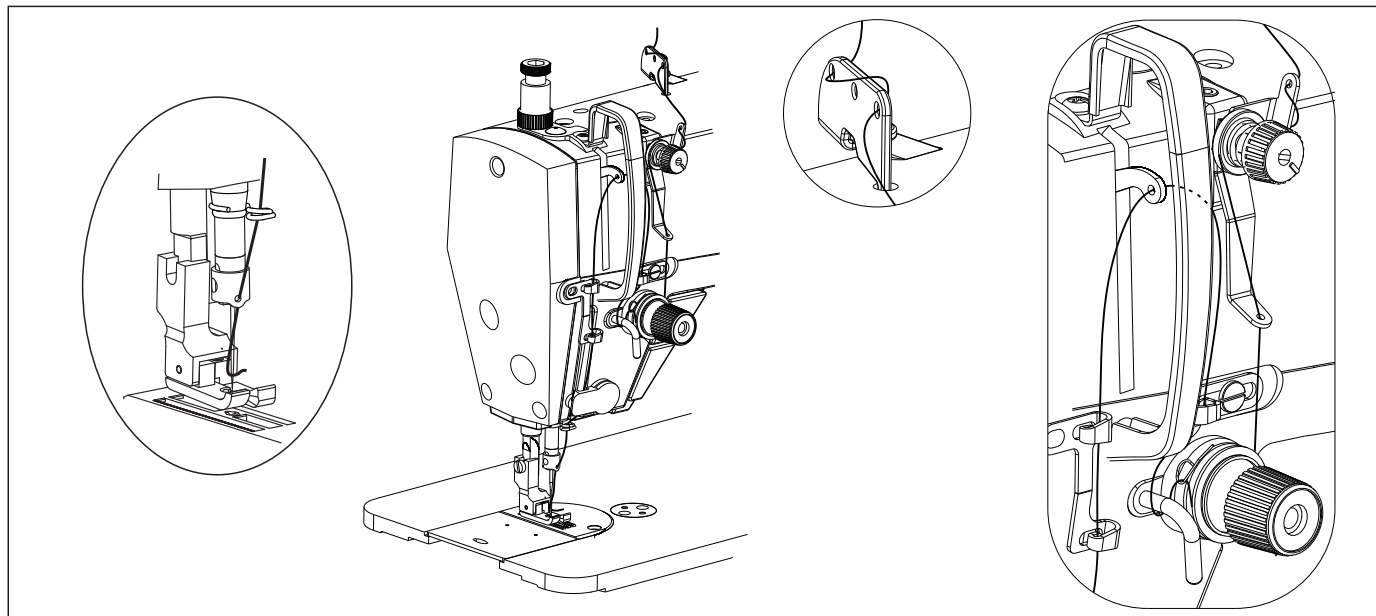
7. 上线穿线方法 Threading the machine head



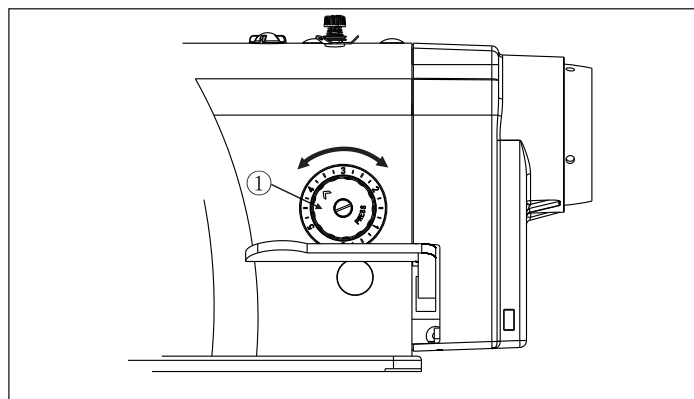
注意
CAUTION

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.



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

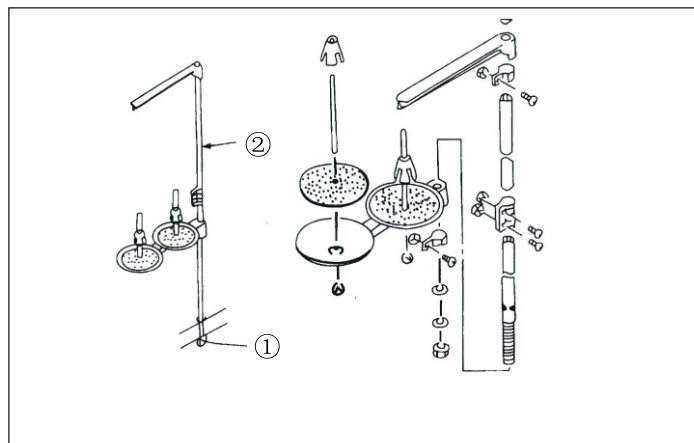


- 1) 按下针距旋钮①同时沿箭头方向旋转，把箭头位置对准标盘的刻线。
- 2) 刻度盘的数字单位为mm。

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

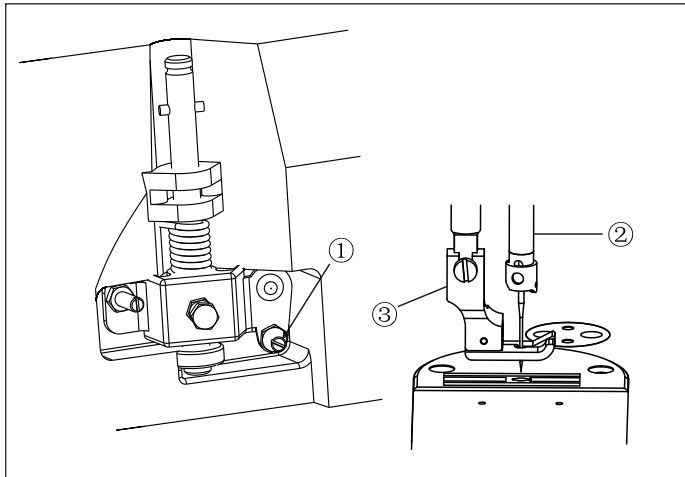


- 1) 如图所示把线架安装到台板右上角孔上。
- 2) 用固定螺母①固定线架。
- 3) 若采用顶线配线时，请把电源线从线架杆②中穿过。

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

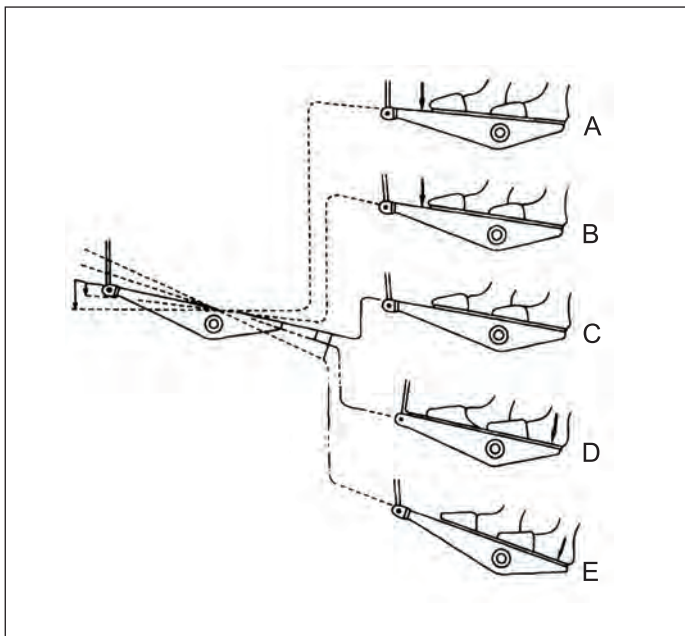


- 1) 膝动提升压脚的标准高度为9mm。
- 2) 调节膝动提升调节螺丝①可以把压脚最高提升到12mm。
- 3) 压脚提升到9mm以上时，调整时请注意不要让针杆②的前端在最下方时也不能碰到压脚③。

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半后踏抬压脚功能开关。
- 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.

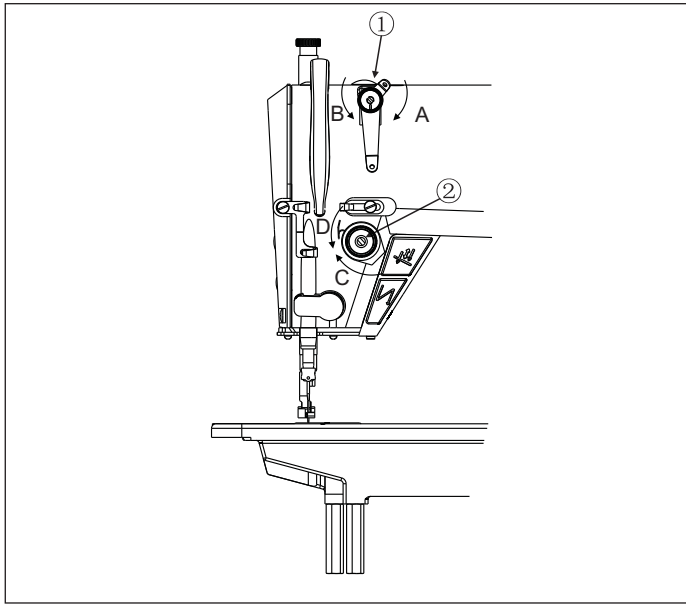
·If you reset the pedal to its neutral position during the automatic reverse feed stitching at seam start, the machine stops after it completes the reverse feed stitching.

·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



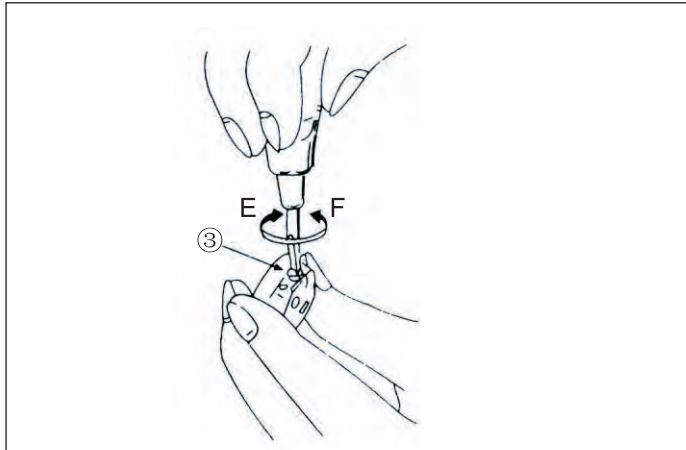
1. 上线张力的调整

- 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

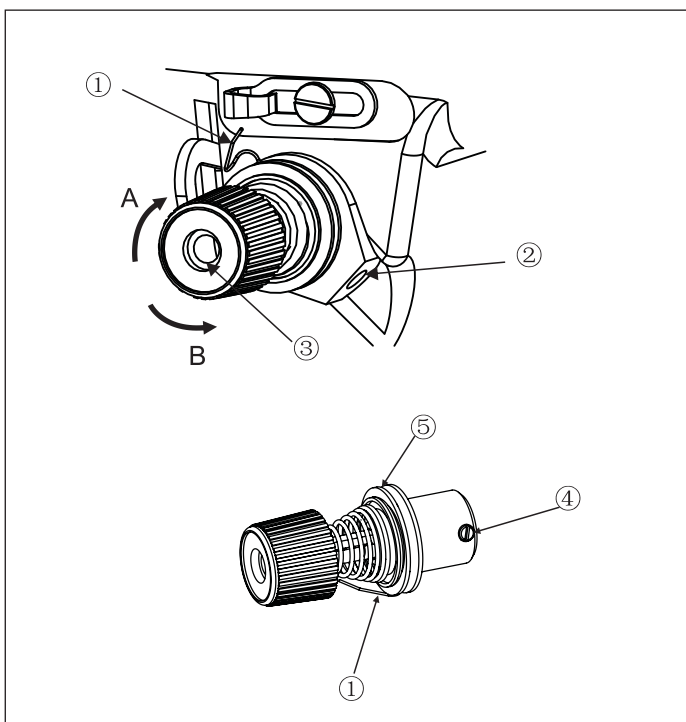
- 1) 把底线张力螺丝③向右E的方向转动，底线张力变强。
- 2) 向左F的方向转动则变弱。

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

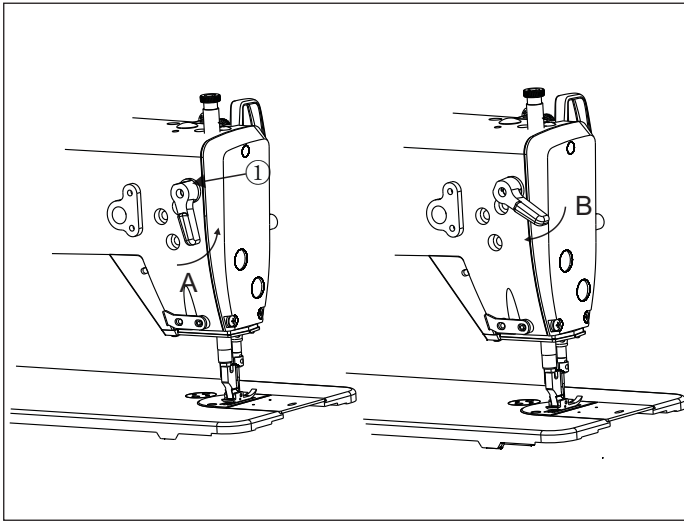
1. Changing the stroke of thread take-up spring ①

- 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

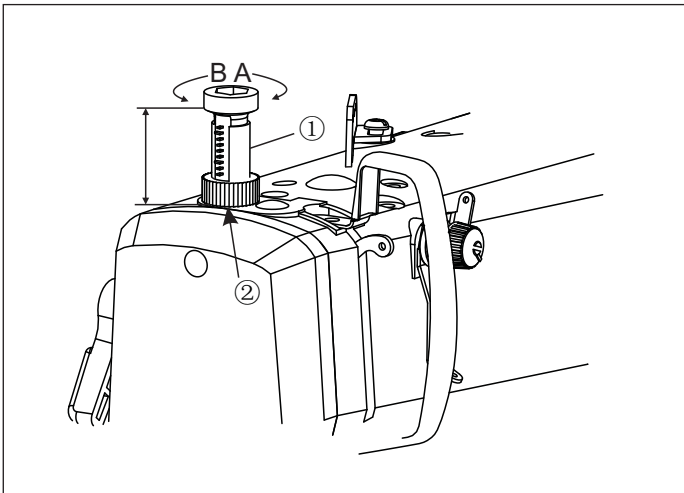


- 1) 让压脚停止到上升的位置，把压脚扳手①提到A的方向。
- 2) 压脚约上升5.5mm(厚料机种为6mm)停止，压脚扳手向B的方向落下压脚则还原原来的位置。
- 3) 膝动提升的标准量为9mm，最大可上升约12mm。

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

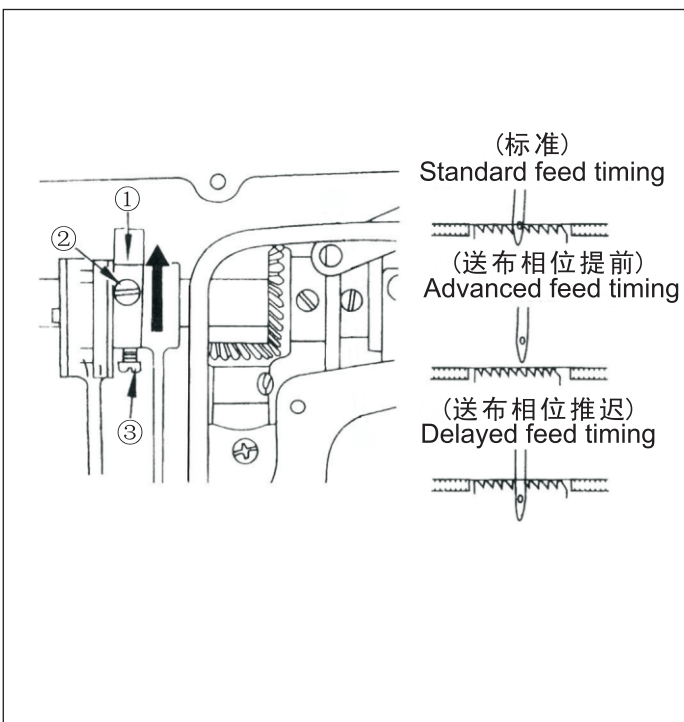


- 1) 拧松螺母②，把压脚调节螺钉①向右A方向转，力变强。
- 2) 向左B方向转，力变弱。
- 3) 调节后，拧紧螺母②。
- 4) 一般布料时，压脚调节螺钉的标准高度为29~32mm。

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.

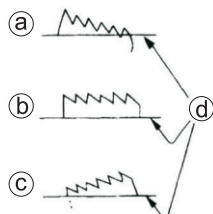
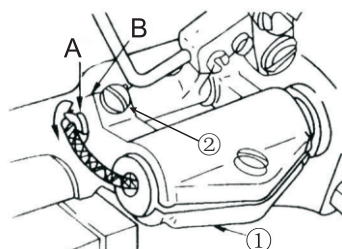
17. 送布牙的倾斜 Tilt of the feed dog



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 前上方 ② 标准 ③ 前下方 ④ 针板
① Front up ② Standard ③ Front down ④ Throat plate

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 feed dog is obtained when marker dot A on the feed bar shaft is aligned with marker dot A 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 from down in order to prevent uneven material feed, turn the feed bar shaft 90 degrees in the opposite direction from the arrow.

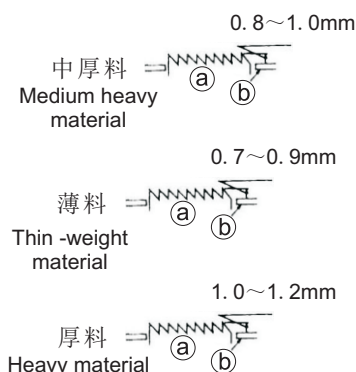
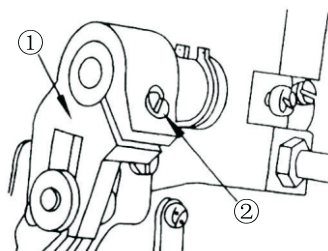
18. 送布牙的高度 Height of the feed dog



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 Feed dog ② Throat plate
① 送布牙 ② 针板

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)

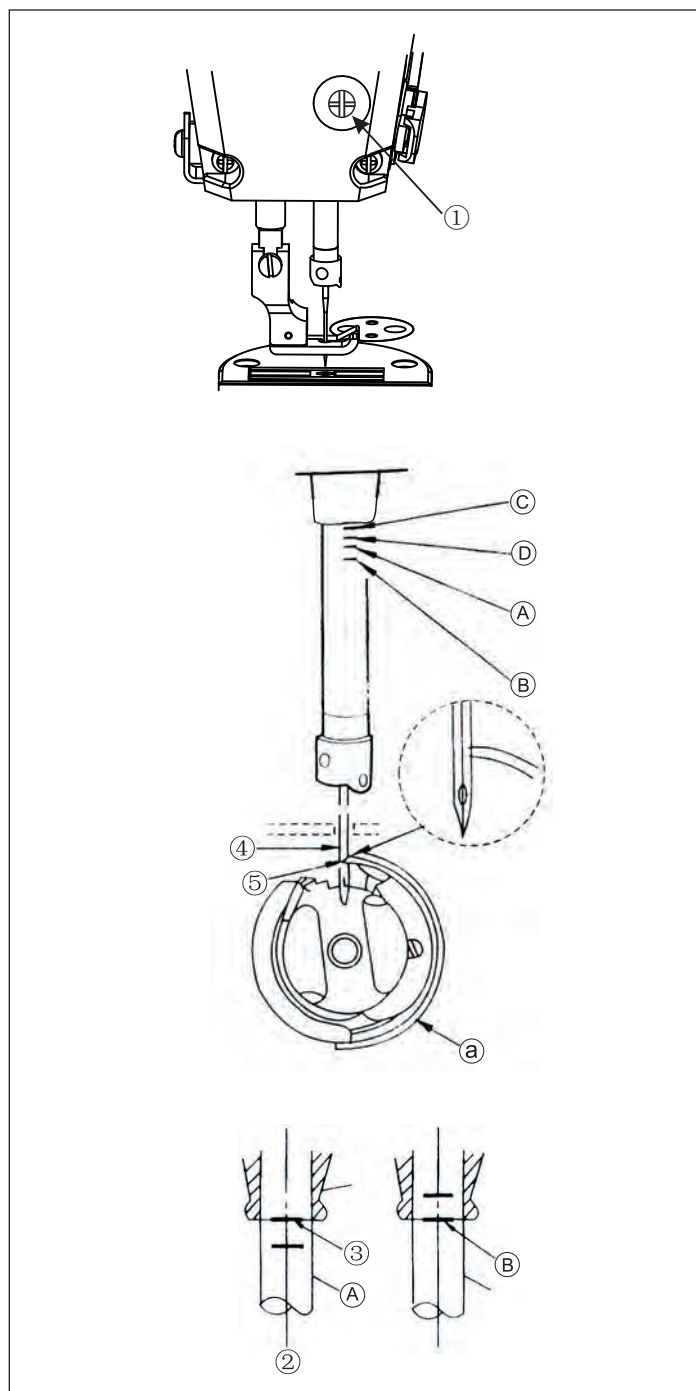
2) If the feed dog jut out too much puckering may result when sewing tight-weight materials (Recommended protrusion 0.7 to 0.8 mm)

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

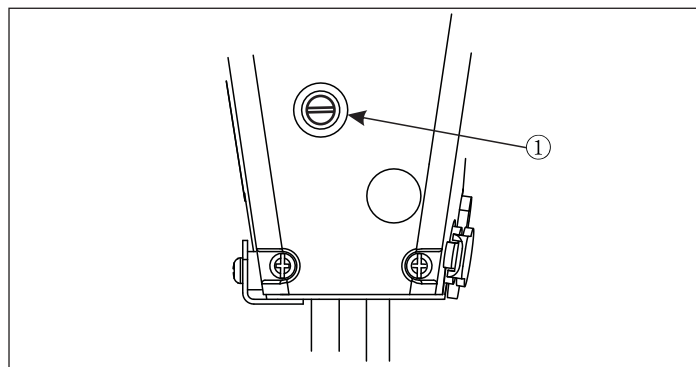


- 1) 转动手轮，让针杆降到最低点，然后拧松针杆连接柱固定螺丝①。
(决定针杆高度)
- 2) (DB针时) 把针杆②的刻线 A 对准针杆下轴套③的下端，然后拧紧针杆连接柱固定螺丝①。
(DA针时) 把针杆②的刻线 C 对准针杆下轴套③的下端，然后拧紧针杆连接柱固定螺丝①。
(决定旋梭a的安装位置)
- 3) (DB针时) 拧松旋梭固定螺丝，转动带轮在针杆②上升的方向，把刻线 B 对准针杆下套③的下端。
(DA针时) 拧松旋梭固定螺丝，转动带轮在针杆②上升的方向，把刻线 D 对准针杆下套③的下端。
- 4) 在此状态下，让旋梭尖⑤对准机针④的中心，把机针与旋梭的间隙调整为0.04~0.1mm，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

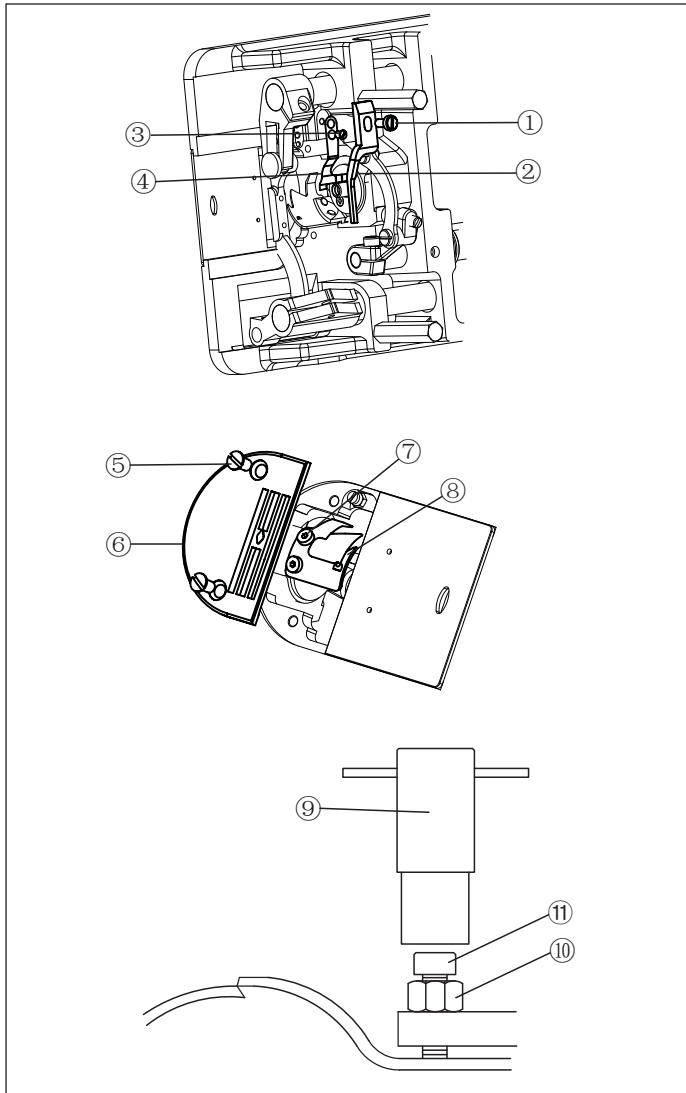


- 1) 变换压脚高度或角度时，请拆下面板孔橡胶塞拧松压脚杆的固定螺丝①进行调节。
- 2) 调节后，再拧紧固定螺丝。

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.

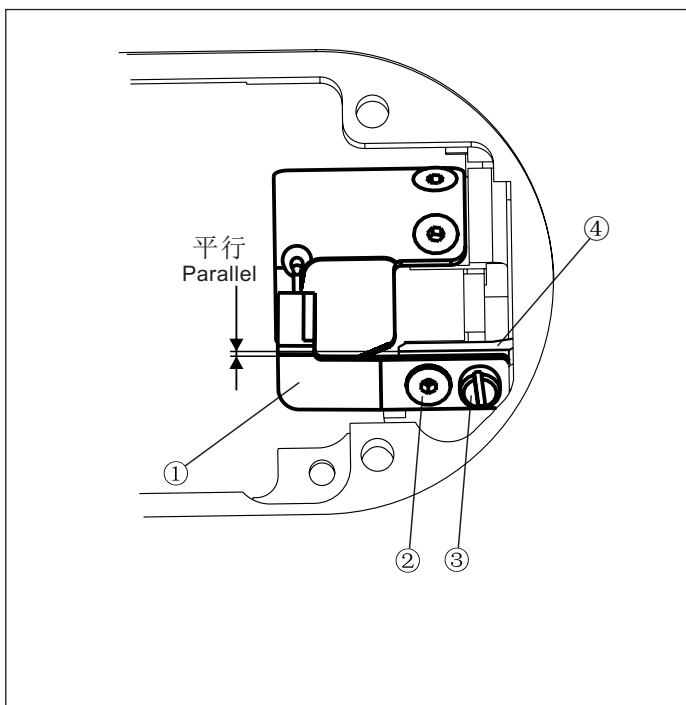
Adjusting pressure of the fixed knife

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

- 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；

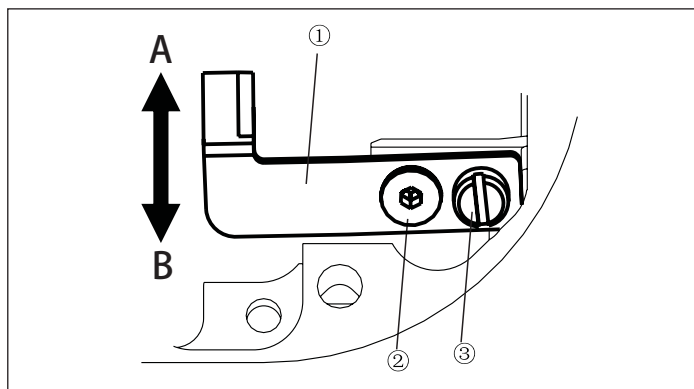
注: 若机器有出现剪线卡刀或者剪线压力重的情况, 可将副动刀①略微向A方向倾斜。

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

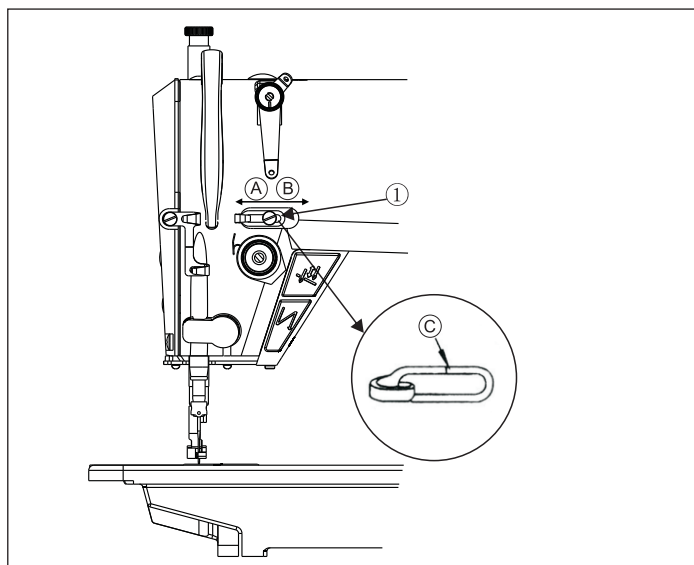
If the machine is used with thick thread or the thread trimmer performance is bad, situation can be improved by adjusting the auxiliary moving knife's pressure.

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向左 (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。

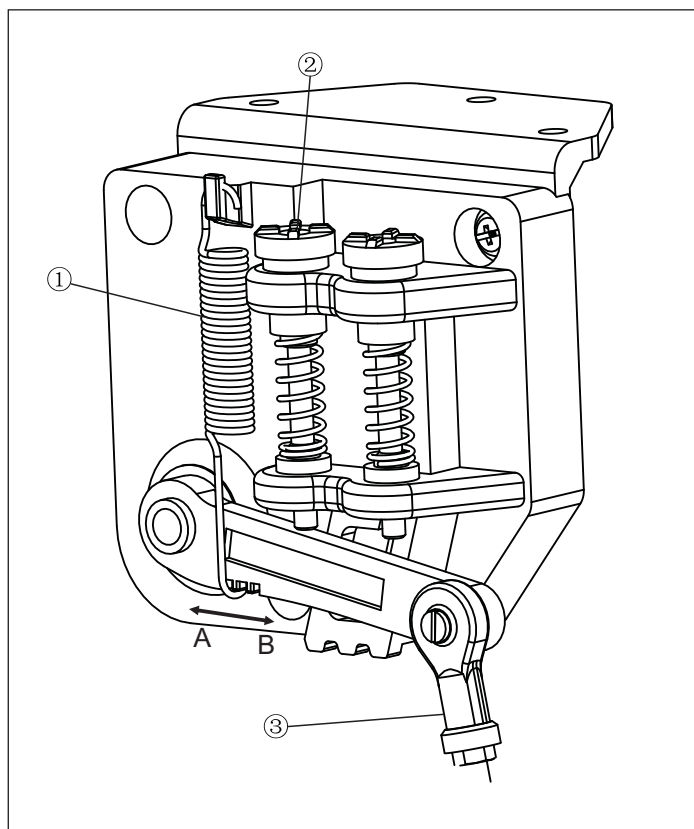
EN

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 left (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.

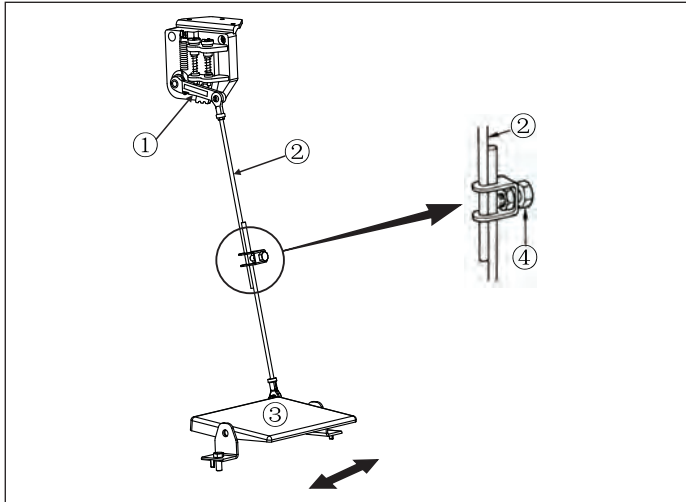
24. 踏板的调整 Adjustment of the pedal



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

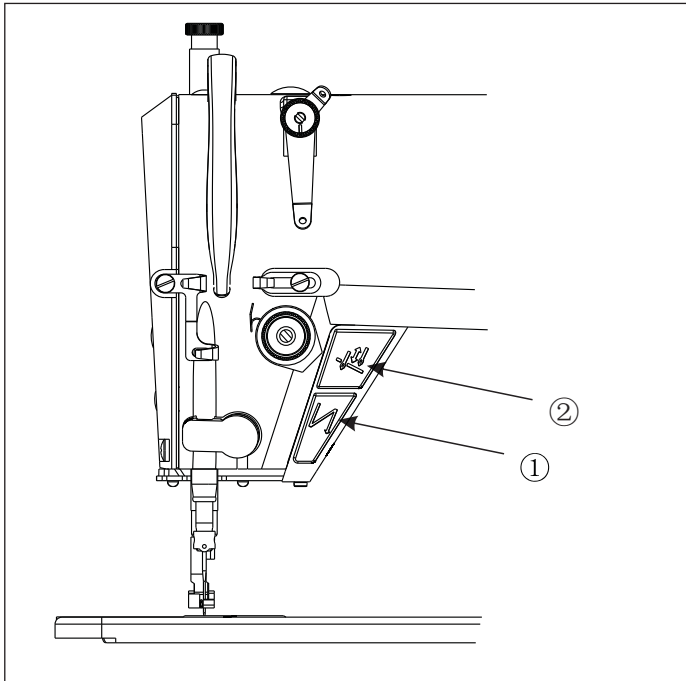
1) Move pedal ③ to the right or left as illustrated by the arrows so that motor control lever ① and connecting rod ② are straightened.

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.

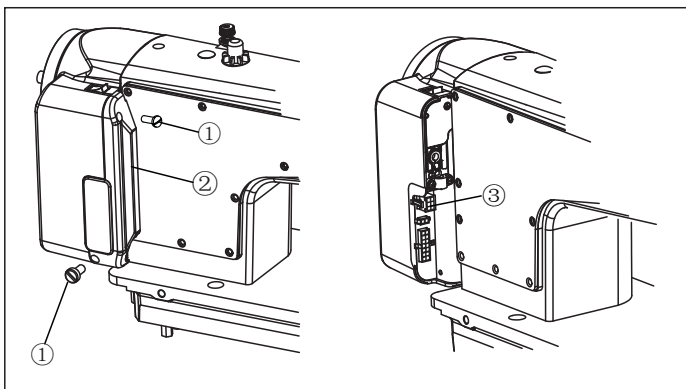
3) The machine resumes normal feed stitching the moment the switch lever is released.

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		261-140342-02 261-140345-02	261-160362-02 261-160365-02	261-140342-02A 261-140345-02 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 mm²/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
线迹不均匀	⑥机针与旋梭的间隙过大	调整间隙	10
	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	
线迹起皱	④V形皮带是否太松	调整到用手指推皮带时压下5-10mm	
	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	
开始缝纫时 上线脱线	⑤送料相位调整是否准确	参照“送料相位的调节”	8
	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	
始缝时跳线	④上针停止位置过高线被挑线拉出	调整上停针位置	
	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
Seams don't match	⑥When the clearance between the needle and the sewing hook is too great	Adjust the clearance	10
	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 with an oiled grindstone or replace it	
Poor thread tightening	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	
	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	Approx 50 mm 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	①the 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	550W

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，各插座名称如图1-2所示。连接好，请检查插头是否插牢。

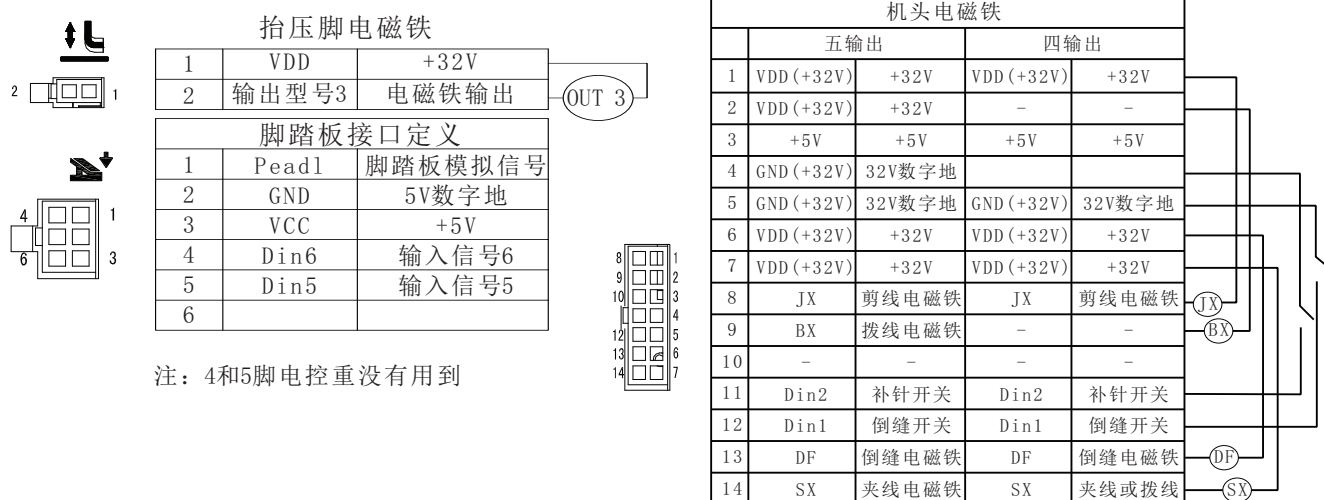


图1-2 控制器接口定义

△: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！

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。

△: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！注意!传感器A、传感器B、电机光编接线端子相同；膝控开关、步进电机A、步进电机X、步进电机Y接线端子相同；接线时注意线束标签环标志与控制盖板丝印保持一致！

第2章 操作面板使用说明

2.1 操作界面说明

正确连接电源和线束端子后开机，操作面板点亮显示logo，并完成开机初始化，最终进入如图2-1所示的菜单主界面，主界面涵盖了大部分的功能显示，并提供各个设置界面的进入方法。菜单主界面是完成多数常用功能与进入辅助界面的核心界面。

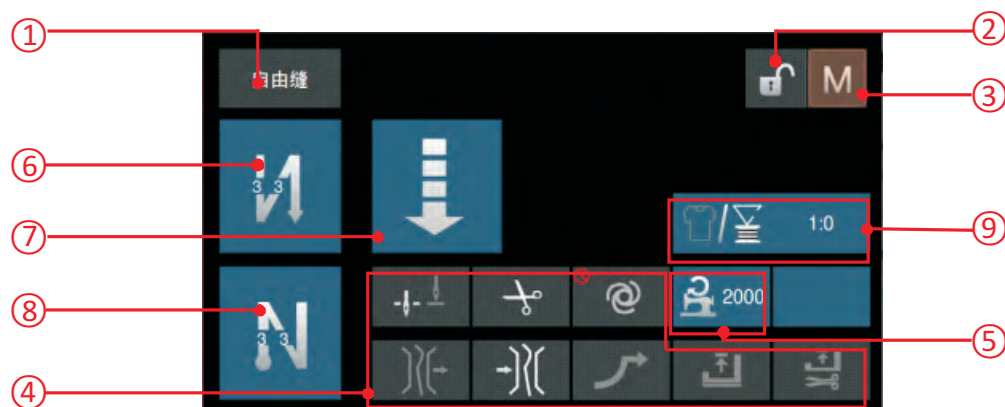


图2-1 操作面板主界面

图2-1所示的操作界面中，各个显示区域对应的功能如下：

- ① 缝纫模式切换区：用于切换缝纫模式。
- ② 锁屏区：用于锁定屏幕和解锁屏幕（屏幕锁定时，可以使用菜单）
- ③ 菜单区：用于进入设置菜单。
- ④ 辅助缝纫功能设置区：用于显示、修改本段缝纫线迹过程中的辅助属性。
- ⑤ 速度设置区：用于显示、修改本段主线迹缝纫速度。
- ⑥ 前加固设置区：用于显示、修改前加固线迹的花样与针数。
- ⑦ 主线迹设置区：用于显示、修改主线迹的针数与段数。
- ⑧ 后加固设置区：用于显示、修改后加固线迹的花样与针数。
- ⑨ 底线计数和剪线计数：用于显示相应计数上限以及当前计数值信息。

表2-1 常用基本图标说明

图标	描述	图标	描述	图标	描述	图标	描述
	自由缝模式		多段缝模式		自动剪线键		慢启动键
	四段缝模式		W缝模式		中间停针位		剪线后自动抬压脚使能
	设置菜单		前加固		触发模式使能		关闭并退出
	后加固		自由缝主线迹		夹线键（暂未使用）		功能无效
	多段缝主线迹		W缝主线迹		中间停自动抬压脚使能		确认并退出
	四段缝主线迹		底线计数		减少		增加
	剪线计数		主线迹缝纫速度		向右切换		向左切换
					向右切换		向左切换

说明：说在实际的操作界面上，左右切换图案 ，其颜色实际上是白色或者黑色，此说明书为了方便说明，只用黑色表示。

2.2 基本操作

2.2.1 基本运行模式的切换

在屏幕非锁定模式的情况下（缝纫机停止运行且屏幕锁定按钮处于解锁状态时），单击虚线框内即可实现自由缝→多段缝→连续回缝→四段缝（商标缝）的循环切换，如图2-2所示。

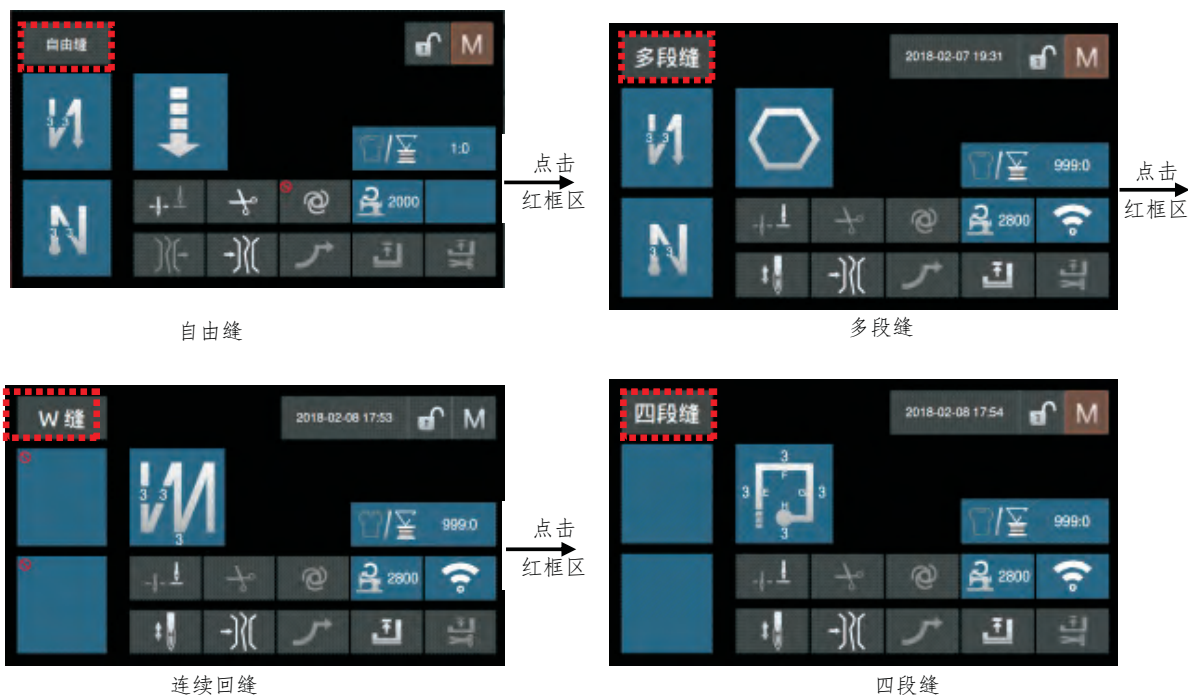


图2-2 基本运行模式的切换

2.2.2 前后加固基本设置

可以为每段编程线迹单独配置前后加固的花样，在主界面下，长按图2-3中红框所示的区域2秒以上，跳转至缝纫信息区相对应的线迹的前后加固设置界面，设置前后加固花样和加固针数。

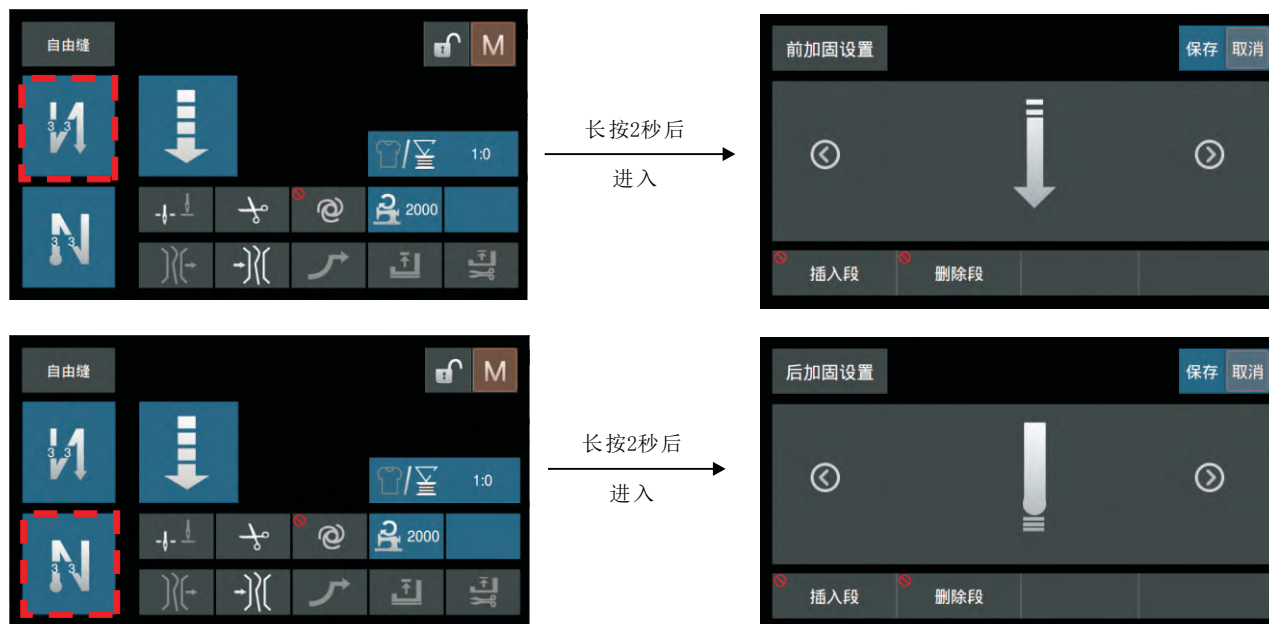


图2-3 前后加固设置界面的进入

说明：点击前后加固设置界面右下角红框区的按钮，进入前后加固设置界面。

轻触设置界面下的⏮⏭图案，前加固样式如图2-4循环切换。其中，图①花样为无加固、图②花样为单段加固、图③花样为两段加固、图④花样为四段加固。选定加固图案上的数字，再单击或长按右侧▲▼图标，修改加固线迹的针数。

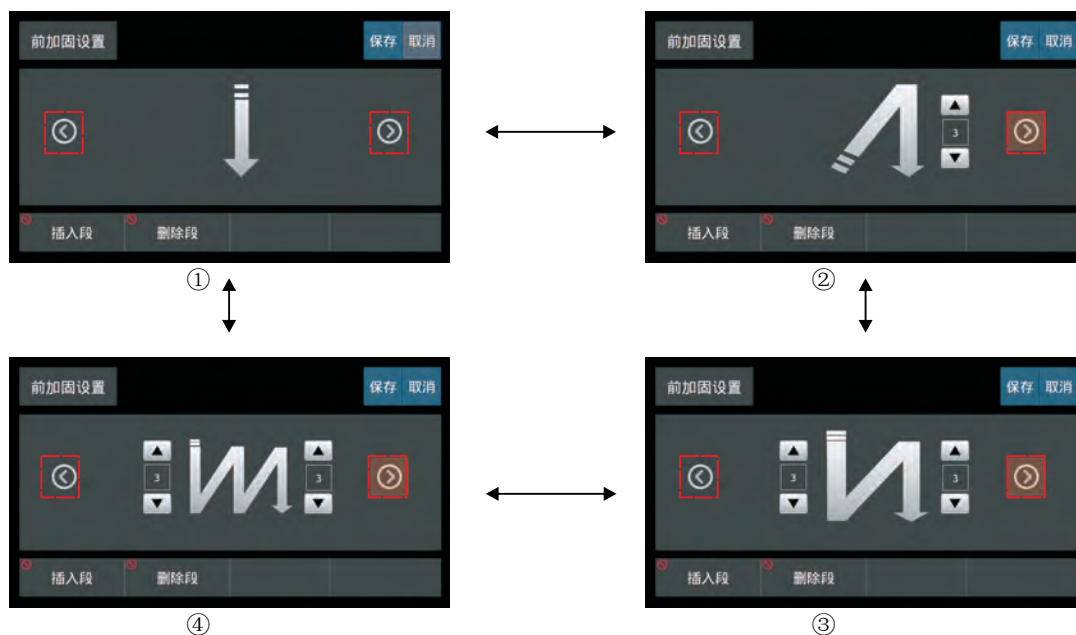


图2-4 前回针模式切换

轻触设置界面下的 图案，后加固样式如图2-5循环切换。其中，图①花样为无加固、图②花样为单段加固、图③花样为两段加固、图④花样为四段加固。

修改完成后，若需要修改成当前前后加固花样时，点击保存按钮进行保存退出。设置错误或不需要进行保存时，点击 取消按钮即退回到主界面。

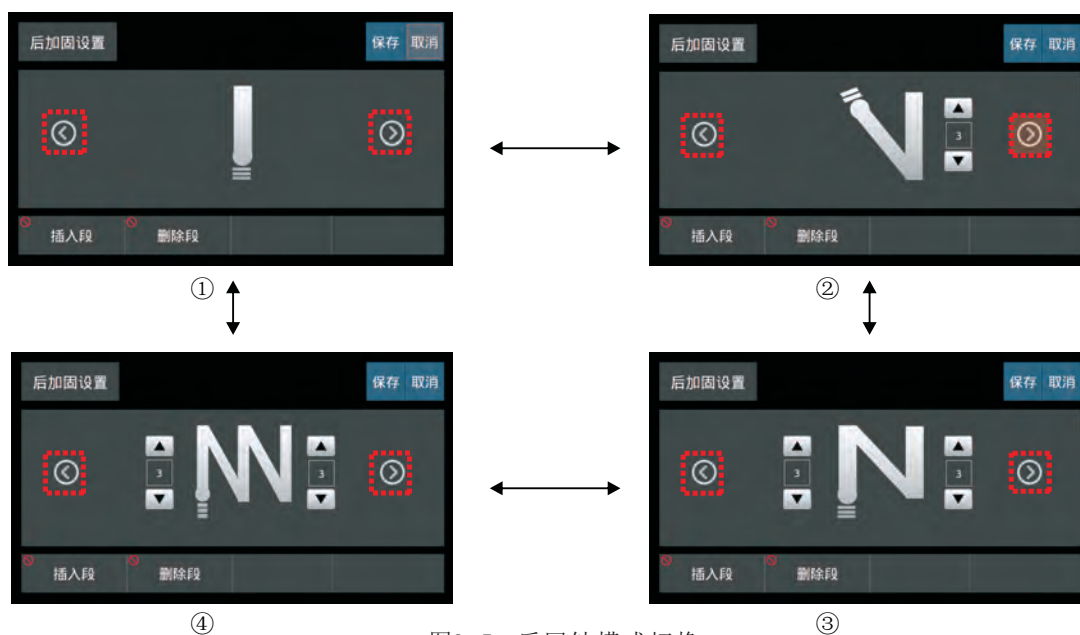


图2-5 后回针模式切换

2.2.3 多段缝基本设置



图2-6 多段缝设置

在主界面下，长按图2-6中红框所示区域2秒钟，即可进入多段缝设置，修改完成后，若需要保存当前操作工数据，点击保存按钮进行保存退出。设置错误或不需要进行保存时，点击取消按钮即退回到主界面。

2.2.4 多段缝插入段与删除段操作

在多段缝模式下，允许编辑线迹段数（总段数），编辑方式主要是插入段操作和删除段操作。

首先进入多段缝的设置界面，位于设置界面的最下方，点击按钮进行插入段和删除段操作。在进行插入段操作时，如图2-7所示，点击红框区插入段，总段数增加一个。

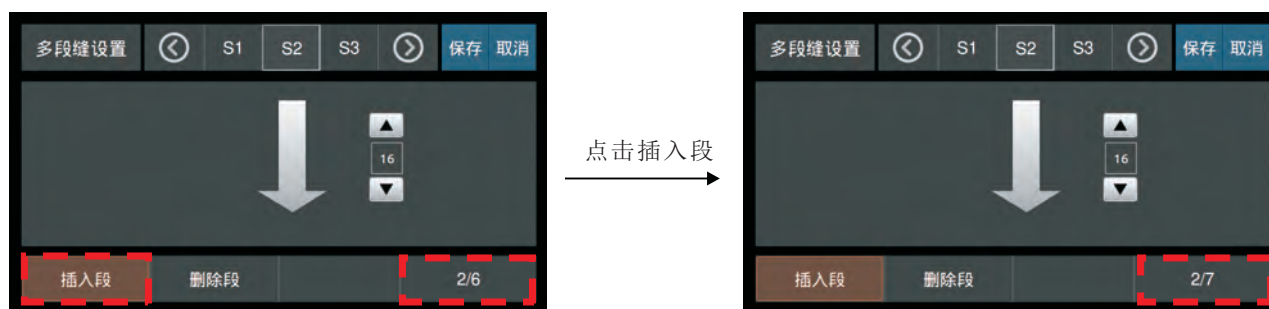


图2-7 插入段

在进行删除段操作时，如图2-8所示，点击红框区删除段，总段数减少一个。

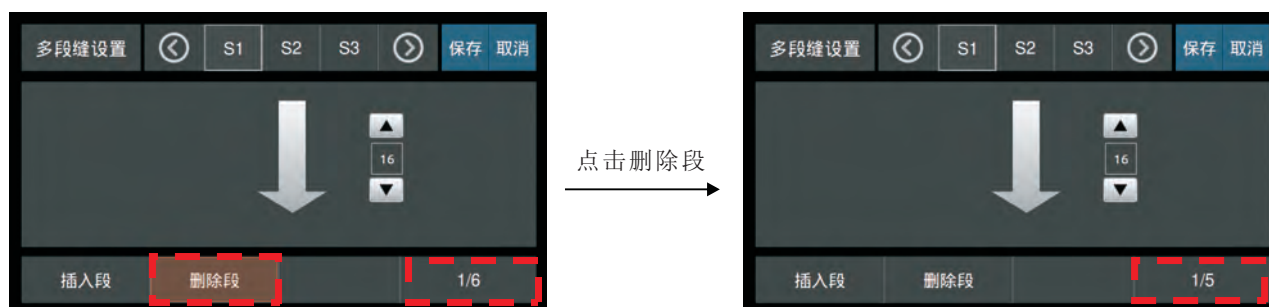


图2-8 删除段

2.2.5 W缝基本设置

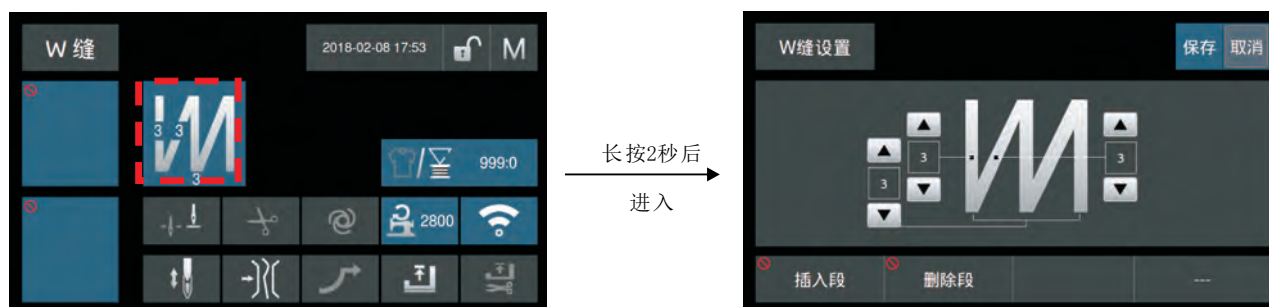


图2-9 W缝设置

在主界面下，长按图2-9中红框所示区域2秒钟，即可进入W缝设置，修改完成后，若需要保存当前操作工数据，点击保存按钮进行保存退出。设置错误或不需要进行保存时，点击取消按钮即退回到主界面。

2.2.6 四段缝基本设置



图2-10 四段缝设置

在主界面下，长按图2-10中红框所示区域2秒钟，即可进入四段缝设置，修改完成后，若需要保存当前操作工数据，点击保存按钮进行保存退出。设置错误或不需要进行保存时，点击取消按钮即退回到主界面。

2.2.7 自由缝最高速度设置

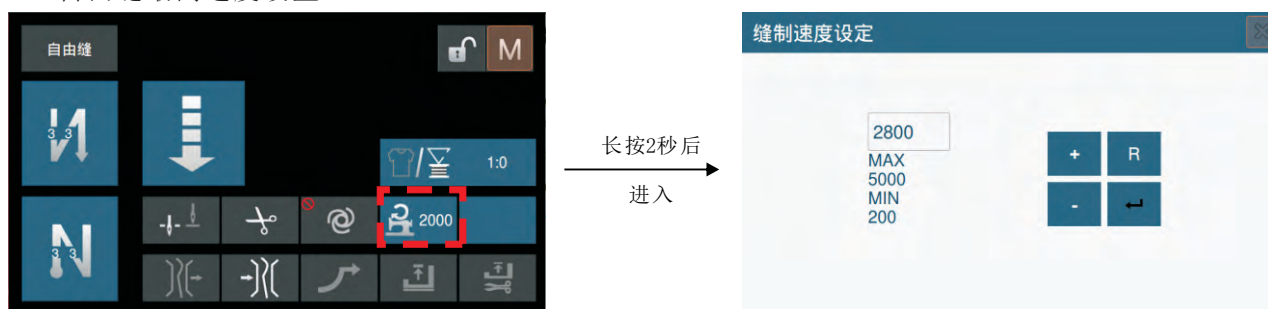


图2-11 自由缝最高速度设置

在自由缝模式下，长按图2-11中红框所示的区域2秒以上，跳转至缝纫速度设置界面，单击或长按右侧+、-图标，以修改缝纫速度。其中  代表最高缝纫速度。

2.2.8 缝纫辅助功能设置

图2-12中所示的区域为缝纫辅助功能设置区，每段线迹的辅助功能均为单独配置，轻触图标可使图标发生改变，当图标为深黑色时，表示该功能被启用，相反，图标为淡灰色时，表示该辅助功能被禁用。

：中间停止针位选择；当图标为  时，表示当前线迹在未走完时，停针位处于下针位，当图标为  时，表示当前线迹在未走完时，停针位处于上针位。

：自动剪线选择；当图标为  时，表示当前线迹在走完时，在线迹结尾处进行剪线，当图标为  时，表示当前线迹在未走完时，不执行剪线动作，仅将针停于上针位。

：中间停止自动抬压脚选择；当图标为  时，表示当前线迹在未走完时停针，踏板位于中立位置时抬压脚自动抬起。当图标为  时，表示当前线迹在未走完时停针，踏板位于中立位置时抬压脚不自动抬起，压脚抬起需要后踩踏板。

：剪线停止自动抬压脚选择；当图标为  时，表示当前线迹在剪线后，踏板位于中立位置时抬压脚自动抬起。当图标为  时，表示当前线迹在剪线后，踏板位于中立位置时抬、压脚不自动抬起，压脚抬起需要后踩踏板。

：缝纫开始的慢启动动作选择；当图标为  时，表示无缝纫开始的慢启动动作；当图标为  时，表示有缝纫开始的慢启动动作。

：自动触发选择，自动触发选择功能仅在线迹为定针数主线迹下有效，当图标为  时，表示单次轻踩踏板，缝纫机自动走完所有线迹，无需维持前踩状态。当图标为  时，表示该段线迹完全由踏板进行控速。

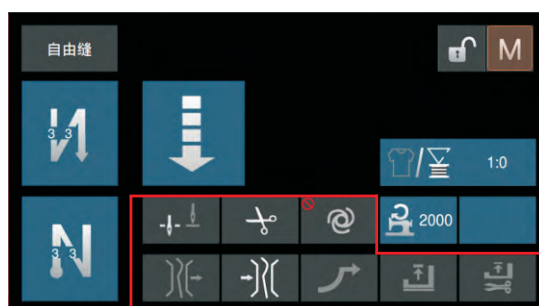


图2-12 辅助功能设置

2.2.11 底线计数和剪线计数

在主界面中，提供了底线计数和剪线计数的快捷显示功能，点击  可切换剪线/底线计数， 表示图标后紧随的数字为剪线计数值、显示为  表示图标后紧随的数字为底线计数。

长按红框中的数字弹出针数计数设定窗口，如图2-13所示，其中Reset按键可将当前计数复位为0或计数上限值，数字0-9用于快速修改针数计数上限值，针数计数器模式不为0时，+、-按钮用于手动修改针数计数值，并通过  按键进行保存， 按键用于退出计数设置窗口。

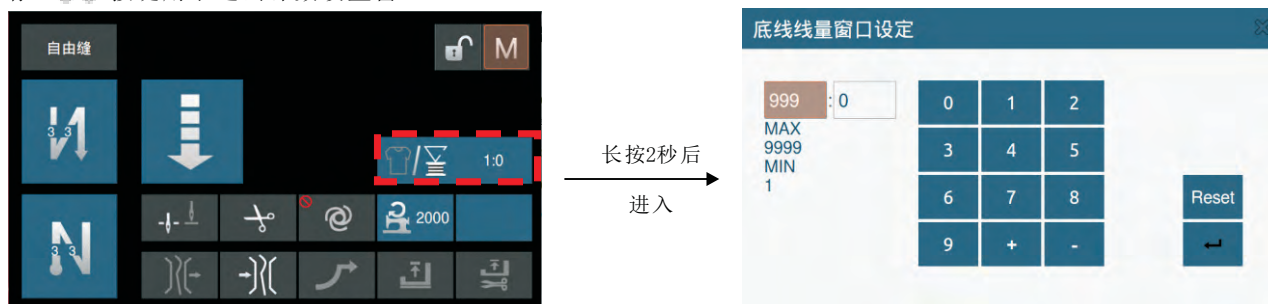


图2-13 底线计数设置

长按数字弹出剪线计数设定窗口，如图2-14所示，左侧的数字代表目标生产数量，右侧的数字代表已生产数量，其中Reset按键可将当前计数复位为0或计数上限值，数字0-9用于快速修改设计剪线数上限值，剪线计数器模式不为0时，+、-按钮用于手动修改剪线计数值，并通过按键进行保存，按键用于退出计数设置窗口。

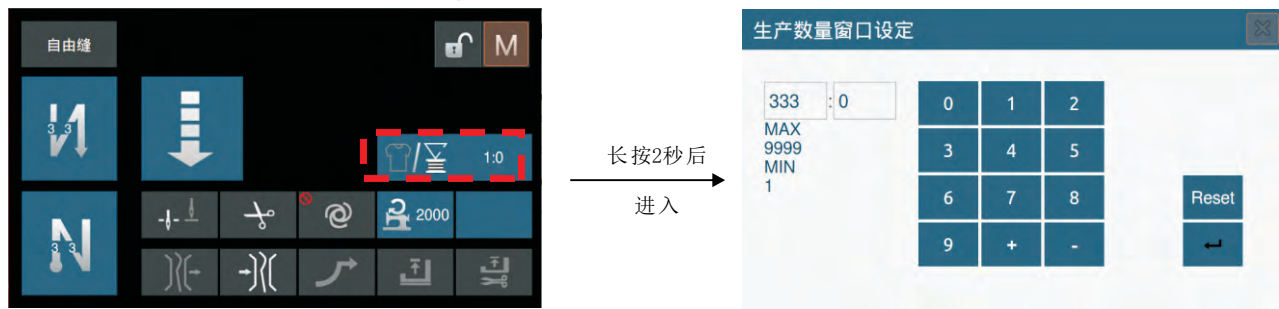


图2-14 剪线计数设置

第三章系统设置

3.1语言设置

如图3-1所示，点击主界面M按钮，选择系统设置选项，按下语言设置按钮进入语言选择界面，点击中文，并重启系统，系统语言切换到中文。同理，点击English，并重启系统，系统语言切换到英文。



图3-1 语言设置

3.2亮度调整

如图3-2所示，点击主界面M按钮，选择系统设置选项，按下亮度调整按钮进入亮度调整界面，单击右侧+、-图标，分别升高和降低屏幕亮度。



图3-2 亮度调整

3.3 参数设置

参数设置进入如图3-4所示，点击主界面M按钮，选择系统设置选项，按下参数设置按钮进入密码输入界面，输入密码(一级参数不需要输入密码)，并点击确认按钮，界面进入参数输入界面。



图3-4 参数设置进入

参数设置界面下，在上方参数号输入框中，输入需要查看的参数号，点击查看按钮后，在下方的更新值框中即可显示与参数号对应的参数值。

参数设置界面下，点击清空键清除数据，重新输入需要更改的数值，并单击  即可实现对参数的设置。

参数表详见第六章。

3.4 监测模式

图3-4所示的监测模式下的功能是提供给调试人员使用，这里不给出详细说明。



图3-4 监测模式

3.5 输入/输出测试

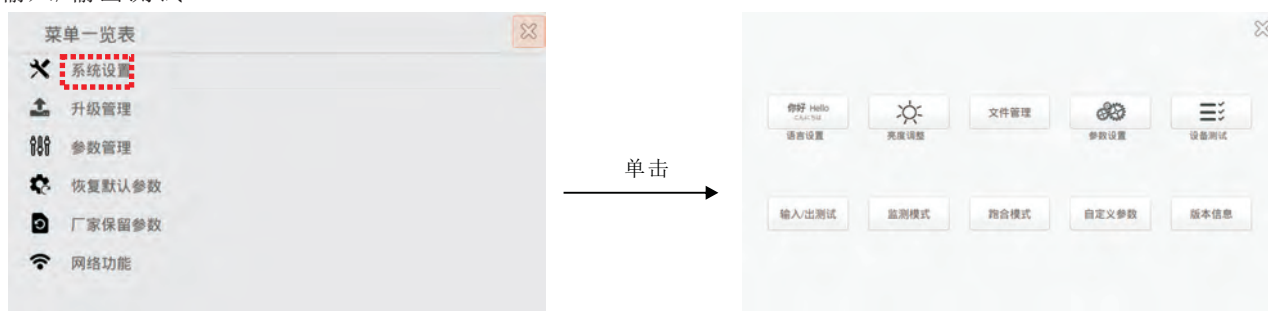


图3-5 输入/输出测试

输入/输出测试进入如图3-5所示，点击主界面M按钮，选择系统设置选项，按下输入/出测试按钮进入输入测试和输出测试界面，输入/输出测试主要用来检测输入和输出信号状态，供调试人员使用（暂未实现）。

3.6 跑合模式

如图3-7所示，点击主界面M按钮，选择系统设置选项，按下跑合模式按钮进入跑合模式界面，跑合模式用来测试老化。



图3-6 跑合模式

3.7 自定义参数

如图3-8所示，点击主界面M按钮，选择自定义参数选项，进入自定义参数保存界面，系统提供了两套参数给用户使用。
注：此处保存的自定义参数0，可用于第六章中的恢复默认参数。



图3-7 自定义参数

3. 8版本信息

如图3-9所示，点击主界面M按钮，选择系统设置选项，按下版本信息按钮，查看系统版本信息。

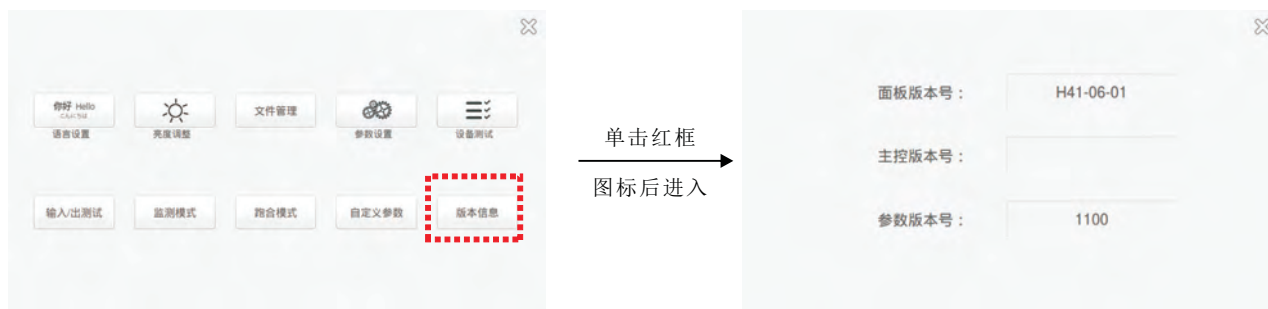


图3-8 版本信息

第四章 升级管理

⚠️:出厂还原与升级过程中，请保证电源的稳定，升级中关闭电源可能导致驱动器升级不完全，请在升级完成提示后再重新启动。升级过程失败后请勿继续使用驱动器，以免造成机器损坏和人身财产损失！

4. 1面板升级

面板升级程序包格式为Release.tar型的压缩包文件，将Release.tar拷贝到U盘根目录下（压缩包无需解压），点击图4-1中的面板升级按钮，此时请勿切段电源，约20秒后，当界面从Upgrade字样变为Upgrade Success.Code 0时，表明面板已升级完程序，重启后即为新版程序。



图4-1 面板程序更新

第五章 厂家保留参数

如图5-1所示，点击主界面Menu按键，选择花样管理选项，进入厂家保留参数界面，在编辑框输入恢复代码，点击确定，.HMI文件中对应的参数数据下到主控。



图5-1 厂家保留参数

第六章 系统参数设置说明

参数编号	参数范围	典型值	参数描述	备注
100	100~800	200	起缝速度	速度
101	200~5000	4000	自由缝最高速（全局最高限速）	
102	200~5000	3000	定长缝最高速	
103	200~5000	5000	手动倒缝最高限速	
104	200~5000	200	补针速度	
105	50~500	300	剪线速度	
106	0/1	0	慢速启动模式 0: 仅剪线后有慢速启动 1: 剪线后、中间停止都有慢速启动	
107	1~9	1	慢速起缝针数	
108	50~800	400	慢速起缝速度	
109	1~200	25	加速时间，单位10ms	
10A	1~200	25	减速时间，单位10ms	
10B	200~1400	600	中速数值（RPM）	
10C	10~400	320	剪线准备速度（RPM）	
10D	0/1	0	中间停最小速度	
110	200~2400	1800	前固缝速度	加固缝参数
111	200~2400	1800	后固缝速度	
112	200~2400	1800	连续回缝速度（W缝）	
113	1~200	38	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	1~200	28	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	1~200	38	后固缝针迹补偿1（吸合补偿，数值增大表示加快吸合）		
116	1~200	28	后固缝针迹补偿2（释放补偿，数值增大表示释放加快）		
119	1~999	200	自动回缝段落停止时间CT设定（ms）		
11B	10~359	179	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	0~4	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)		
120	0~9999	0	前加固工作模式。0：轻促踏板，即自动执行起始回缝。1：受踏板控制，可任意停止。 2：针停下定位后，受[CT]时间控制动作。3：针停下定位后，受[CT]时间控制动作。		
121	0~3	0	前固缝结束后操作模式选择：0：前固缝后，继续缝纫 1：前固缝后，自动停止2：前固缝后，自动剪线		
122	0~2	0	定长缝结束后操作模式选择：0：后固缝1：停车待命（可补针）		
123	0~1	0	后加固工作模式。0：轻促踏板，即自动执行起始回缝1：无效 2：针停下定位后，受[CT]时间控制动作3：针停下定位后，受[CT]时间控制动作		
124	0~3	0	W加固工作模式。0：轻促踏板，即自动执行起始回缝1：受踏板控制，可任意停止 2：针停下定位后，受[CT]时间控制动作3：针停下定位后，受[CT]时间控制动作		
125	0~3	0	后固缝最后一个C段增加的针数（来源于HVP70）		
126	0~90	0	前固缝之前插入的针数（看看HVP70）		
127	0~90	0	后固缝之后插入的针数（看看HVP70）		
12E	0~90	0	定针缝段间空闲停止计针数状态：0允许计1停止计		
130	0~1	0	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		踏板 参数
131	0~3	2	两段斜率：中段速度RPM（两段斜率的转折点速度）		
132	200~4000	3000	两段斜率：中段踏板模拟量（需在138到139参数之间）		
133	0~1024	800	幂次曲线：1：平方曲线；2：开方曲线；		
134	1/2	1	踏板剪线位置	具体设置方法 见图9-1所示。	
135	0~1024	150	踏板抬压脚位置		
136	0~1024	300	踏板回中位置		
137	0~1024	450	踏板前踩运行位置		
138	0~1024	465	踏板低速运行位置（上限）		
139	0~1024	680	踏板模拟量最大值		
13A	0~1024	940	踏板抬压脚确认时间		
13B	0~800	300	踏板回中立刻剪线选择：0：off1：on		
13C	0/1	0	抬压脚位置抬压脚功能选择：0：不抬1：抬		
13D	0/1	1	剪线位置抬压脚功能选择：0：不抬1：抬		
13E	0/1	1	剪线后抬压脚延迟时间		
140	0~800	0	上电自动找上针位：0：不找1：找		习惯 设定

141	0/1	0	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	习惯 设定
142	0/1	1	手按回缝时功能模式选择 0：Juki模式。在缝纫中途或中途停止时均有动作。 1：Brother模式。仅在缝纫中途有动作。	
143	0~2	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）	
145	0~3	0	停针模式：（DSP固定是1，无法修改） 0：匀速滑车模式（皮带传动方式下，停车精度不高）1：回拉模式（PMX模式）	
146	0/1	1	按钮补半针命令时间	
147	1~800	150	按钮补一针命令时间	
148	1~800	180	按钮补针模式： 0：由按下时间控制； 1：补半针； 2：补一针	
149	0~2	1	缓放压脚功能开关	
14A	0~20	5	踏板加速速度曲线滤波系数	
14B	0~20	0	缓放压脚程度	
14C	1~500	0	缓放压脚时斩波开通时间（ms）	
14D	1~100	40	缓放压脚时斩波关闭时间（ms）	
14E	1~100	0	补针功能：1.剪线后可以补针 0.剪线后不可补针	
14F	0~9999	0	缓放压脚时，压脚斩波前关闭的时间	
150	0~9999	0	计针数功能比例值设定	
151	1~100	1	计针数上限设定值	计数 模式
152	1~9999	1	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	0~6	0	计件数功能比例值设定	
154	1~100	1	计件数上限设定值	
155	1~9999	1	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。	剪线 模式
200	0~2	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	0~120	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）	
205	1~999	10	剪线开始延时T1（ms）	

206	1~999	60	剪线结束延时T2 (ms)	
210	0~6	0	松线电磁铁时序选择： 0: [LS]设定角度后进行松线动作,直至上针位再延迟[L2]所设定时间为止。 1: [LS]设定角度后进行松线动作,直至[LE]设定角度为止。 2: [LS]设定角度后进行松线动作,延迟[L2]所设定时间为止。 3:下针位信号后延迟[L1]设定时间进行松线动作,延迟[L2]所设定时间为止。 4:上针位信号后延迟[L1]设定时间进行松线动作,延迟[L2]所设定时间为止。 5:下针位信号后即开始进行松线动作至上停针止。然后延迟[L1]设定时间后再作[L2]所设定的松线时间。 6: [LS]设定角度后进行松线动作,至上停针止。然后延迟[L1]设定时间后再作[L2]所设定的松线时间。	
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	1~359	120	夹线开始角度	
21B	0~359	320	夹线结束角度	
21C	0~9999	0	吹风开始延时ms(夹线(松线)开启角度)	
21D	1~9999	320	吹风持续时间ms(夹线(松线)关闭角度)	
21E	1~359	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)	
221	0~240	0	缝纫前反转角度(提高过厚料能力)	
22D	0~359	0	定角度补针的目标角度	
230	0/1	0	压脚提升的控制模式 0: 按钮点动切换; 1: 按钮始终按下才有效;	模式 选择
231	0/2	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	0~3000	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)	
233	1~1000	50	安全开关恢复确认时间ms	
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)	机头 相关 参数
241	200~5000	4000	机头最高速度上限	
242	0~359	221	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	175	下停针位机械角度	
244	1~800	50	放压脚延迟时间(ms)	
247	0~2000	1030	加油提醒时间(小时) 0: 关闭此功能	
248	0~4000	220	加油报警、禁止运行时间(小时) 0: 关闭此功能	
250	0~28	1	1号输入功能定义	

251	0~3	1	1号输入有效电平0/1	
252	0~28	2	2号输入功能定义	
253	0~3	1	2号输入有效电平0/1	
254	0~28	7	3号输入功能定义	
255	0~3	1	3号输入有效电平0/1	
256	0~28	0	4号输入功能定义	
257	0~3	0	4号输入有效电平0/1	
258	0~28	0	5号输入功能定义	
259	0~3	0	5号输入有效电平0/1	
25A	0~28	0	6号输入功能定义	
25B	0~3	0	6号输入有效电平0/1	
25C	0~28	0	7号输入功能定义	
25D	0~3	0	7号输入有效电平0/1	
25E	0~28	0	8号输入功能定义	
25F	0~3	0	8号输入有效电平0/1	
260	0~25	1	1号电磁铁输出功能定义	
261	0~25	3	2号电磁铁输出功能定义	
262	0~25	4	3号电磁铁输出功能定义	
263	0~25	6	4号电磁铁输出功能定义	
264	0~25	5	5号电磁铁输出功能定义	
265	0~25	0	6号电磁铁输出功能定义	
266	0~25	0	7号电磁铁输出功能定义	
267	0~25	0	8号电磁铁输出功能定义	
270	1~500	60	1号电磁铁全出力时间ms	
271	0~100	1	1号电磁铁Chopping开通时间ms	
272	0~100	2	1号电磁铁Chopping关断时间ms	
273	0~600	20	1号电磁铁保护时间100ms	
274	1~500	160	2号电磁铁全出力时间ms	
275	0~100	1	2号电磁铁Chopping开通时间ms	
276	0~100	1	2号电磁铁Chopping关断时间ms	
277	0~600	150	2号电磁铁保护时间100ms	
278	1~500	150	3号电磁铁全出力时间ms	
279	0~100	3	3号电磁铁Chopping开通时间ms	
27A	0~100	5	3号电磁铁Chopping关断时间ms	
27B	0~600	250	3号电磁铁保护时间100ms	
27C	1~500	400	4号电磁铁全出力时间ms	
27D	0~100	0	4号电磁铁Chopping开通时间ms	
27E	0~100	0	4号电磁铁Chopping关断时间ms	

27F	0~600	4	4号电磁铁保护时间100ms	
280	1~500	100	5号电磁铁全出力时间ms	
281	0~100	1	5号电磁铁Chopping开通时间ms	
282	0~100	1	5号电磁铁Chopping关断时间ms	
283	0~600	20	5号电磁铁保护时间100ms	
284	1~500	100	6号电磁铁全出力时间ms	
285	0~100	1	6号电磁铁Chopping开通时间ms	
286	0~100	1	6号电磁铁Chopping关断时间ms	
287	0~600	20	6号电磁铁保护时间100ms	
288	1~500	100	7号电磁铁全出力时间ms	
289	0~100	1	7号电磁铁Chopping开通时间ms (Reserved)	
28A	0~100	1	7号电磁铁Chopping关闭时间ms (Reserved)	
28B	0~600	0	7号电磁铁保护时间100ms	
28C	1~500	100	8号电磁铁全出力时间ms	
28D	0~100	1	8号电磁铁Chopping开通时间ms (Reserved)	
28E	0~100	1	8号电磁铁Chopping关闭时间ms (Reserved)	
28F	0~600	0	8号电磁铁保护时间100ms	

第七章安全报警表

报警代码	代码含义	解决措施
ALA-1	加油提醒	按P键可暂时取消报警。请及时加油
ALA-2	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
ALA-3	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
ALA-4	紧急停车	再按下紧急停车按钮，可消除紧急停车状态
ALA-5	提针锁定	再按下提针锁定按钮，可消除提针锁定状态
POW OFF	断电提醒	请等候30秒再重新打开电源开关
ALN UP	翻台开关报警	摆正机头，确保翻台开关复原

第八章故障代码表

若系统出现报错或报警，请首先检查如下项：

1、先确认机器的连接线是否连接完好；2、确认电控和机头是否匹配；3、确认恢复出厂是否准确。

故障代码	代码含义	解决措施
Err-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。
Err-02	软件过流	
Err-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。
Err-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。
Err-05	运行时过压	
Err-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。
Err-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。

Err-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。
Err-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。
Err-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。
Err-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。
Err-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。
Err-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。
Err-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。
Err-15	电机超速保护	
Err-16	电机反转	
Err-17	HMI读写EEPROM故障	
Err-18	电机过载	
Err-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。

第九章脚踏板灵敏度调整

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）。

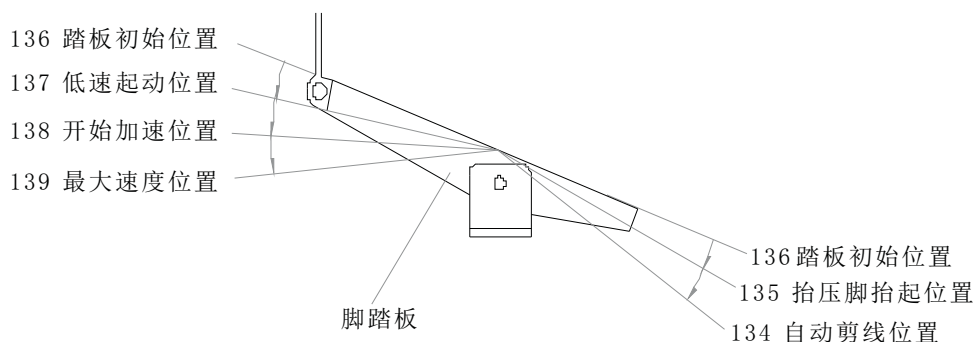


图9-1 踏板动作各位置参数示意图

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.

Chapter I Installation Instructions

1.1 Product Specifications

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

1.2 Interface Plug Connection

The pedals and the machine head of the connector plug are Mounted to the corresponding position in the controller back of socket, Please check if the plug is inserted firmly.

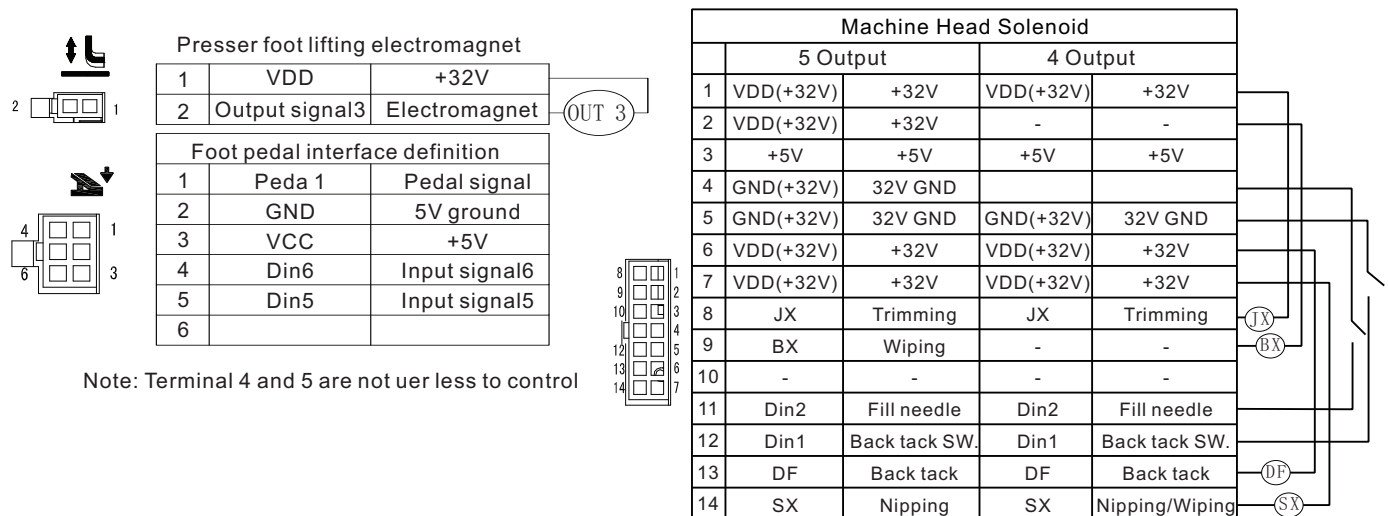


Figure 1-2 Controller Interface Definition

 : The use of the normal force are not inserted into the plug and socket, please check whether the matching, direction or needle insertion direction is correct!

1.3 Wiring and Grounding

We must prepare the system grounding project, please a qualified electrical engineer to be construction. Product is energized and ready for use; you must ensure that the power outlet the AC input is securely grounded. The grounding wire is yellow and green lines, it must be connected to the grid and reliable security protection on the ground to ensure safe use, and prevent abnormal situation.

 : All power lines, signal lines, ground lines, wiring not to be pressed into other objects or excessive distortion, to ensure safe use!

Chapter II Operating Instructions

2.1 Operation interface description

Power on after the power and terminal wire harness are properly connected. The operation panel lights up, display the logo, complete the boot initialization and finally enter the menu main interface of as shown in Figure 2-1. The main interface covers most of the function display and provides access to all setting interfaces. The menu main interface is the core interface for completing most common functions and entering the auxiliary interface.

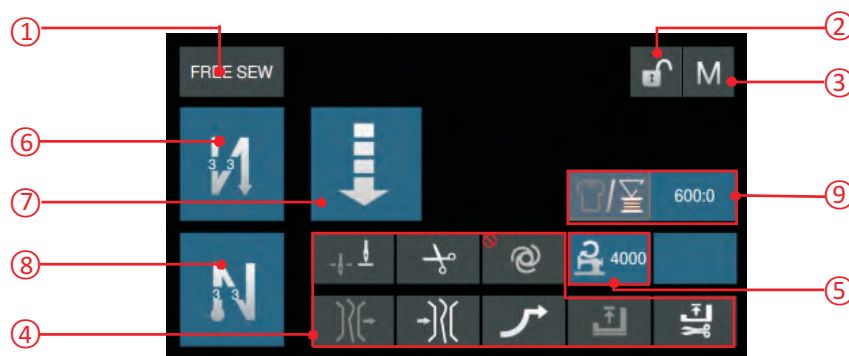
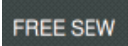
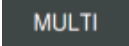
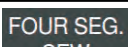


Figure 2-1 Main interface of operation panel

In the operation interface shown in Figure 2-1, the functions corresponding to each display area are as follows:

- ① Sewing mode switching area: for switching the sewing mode.
- ② Lock screen area: for locking/unlocking the screen (menu can be used when the screen is locked)
- ③ Menu area: for entering the settings menu.
- ④ Auxiliary sewing function setting area: for displaying and modifying the auxiliary attributes of the stitch in the current segment.
- ⑤ Speed setting area: for displaying and modifying the sewing speed of the main stitch in the current segment.
- ⑥ Front reinforcement setting area: for displaying and modifying the pattern and number of front reinforcement stitches.
- ⑦ Main stitch setting area: for displaying and modifying the number of stitches and segments in the main stitch.
- ⑧ Rear reinforcement setting area: for displaying and modifying the pattern and number of reinforcement stitches.
- ⑨ Bottom thread count and trimming thread count: for displaying the corresponding count upper limit and current count value information.

Table 2-1 Description of common basic icons

Icon	Description	Icon	Description	Icon	Description	Icon	Description
	Free sewing mode		Multi-segment sewing mode		Automatic thread trimming button		Slow start button
	Four-segment sewing mode		W sewing mode		Intermediate stop position		Auto presser foot lifting after trimming enabled
	Menu setting		Front reinforcement		Trigger mode enabled		Close and exit
	Rear reinforcement		Free sewing main stitch		Clamp button (not used yet)		Disable
	Multi-segment sewing main stitch		W sewing main stitch		Intermediate stop auto presser foot lifting enabled		Confirm and exit
	Four-segment sewing main stitch		Bottom thread count		Decrease		Increase
	Trimming thread count		Main stitch sewing speed		Switch to the right		Switch to the left
					Switch to the right		Switch to the left

Note: On the actual operation interface, switch the pattern left and right , and the color is actually white or black. Only black color is used in this manual for the convenience of explanation.

2.2 Basic operations

2.2.1 Basic operation mode switching

In the screen non-locking mode (when the sewing machine stops running and the screen lock button is unlocked), click on the dotted line to achieve cyclic switching of free sewing -> multi-segment sewing -> Bar-tack sewing -> four-segment sewing (brand label sewing), as shown in Figure 2-2.

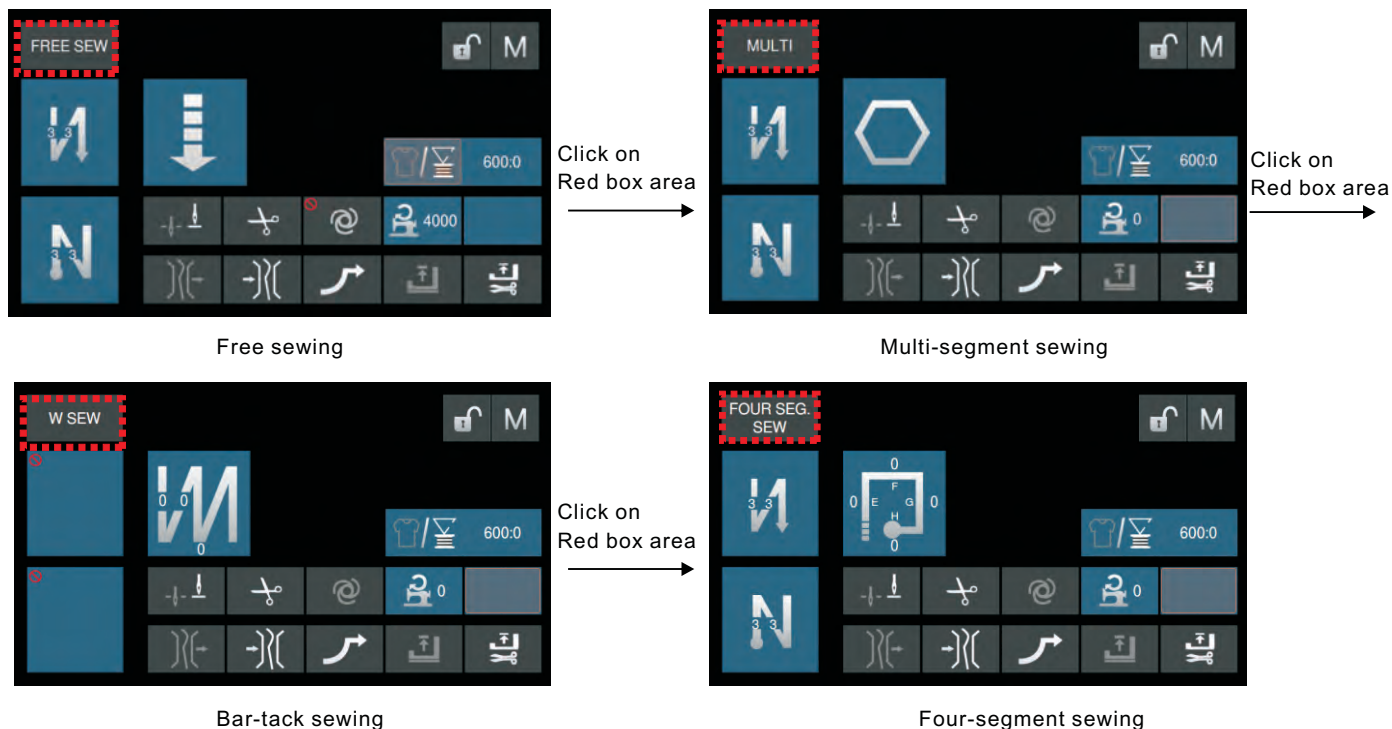


Figure 2-2 Basic operation mode switching

2.2.2 Basic settings for front and rear reinforcement

Front and rear reinforcement patterns can be configured for each segment of programmed stitch. In the main interface, long press the red box area shown in Figure 2-3 for more than 2 seconds to jump to the stitch front/rear reinforcement setting interface corresponding to the sewing information area. Set the front/rear reinforcement patterns and number of reinforcement stitches.

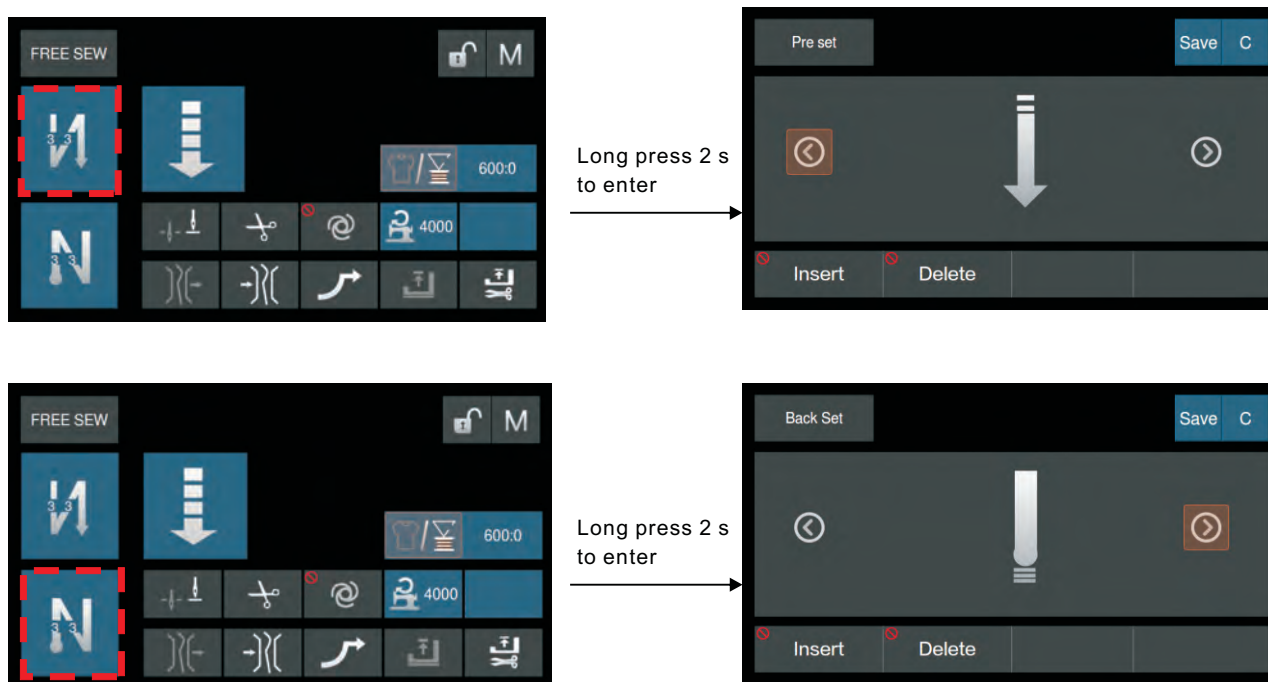


Figure 2-3 Entering the front and rear reinforcement setting interface

Note: Click the button in the red box area at the lower right corner of the front/rear reinforcement setting interface to enter the front/rear reinforcement setting interface.

Touch the pattern in the setting interface. The front reinforcement patterns are cyclically switched as shown in Figure 2-4. Among them, Figure ① pattern is no reinforcement, Figure ② pattern is single segment reinforcement, Figure ③ pattern is two-segment reinforcement, and Figure ④ pattern is four-segment reinforcement. Select the number on the reinforcement pattern and click or long press the icon on the right to modify the number of reinforcement stitches.

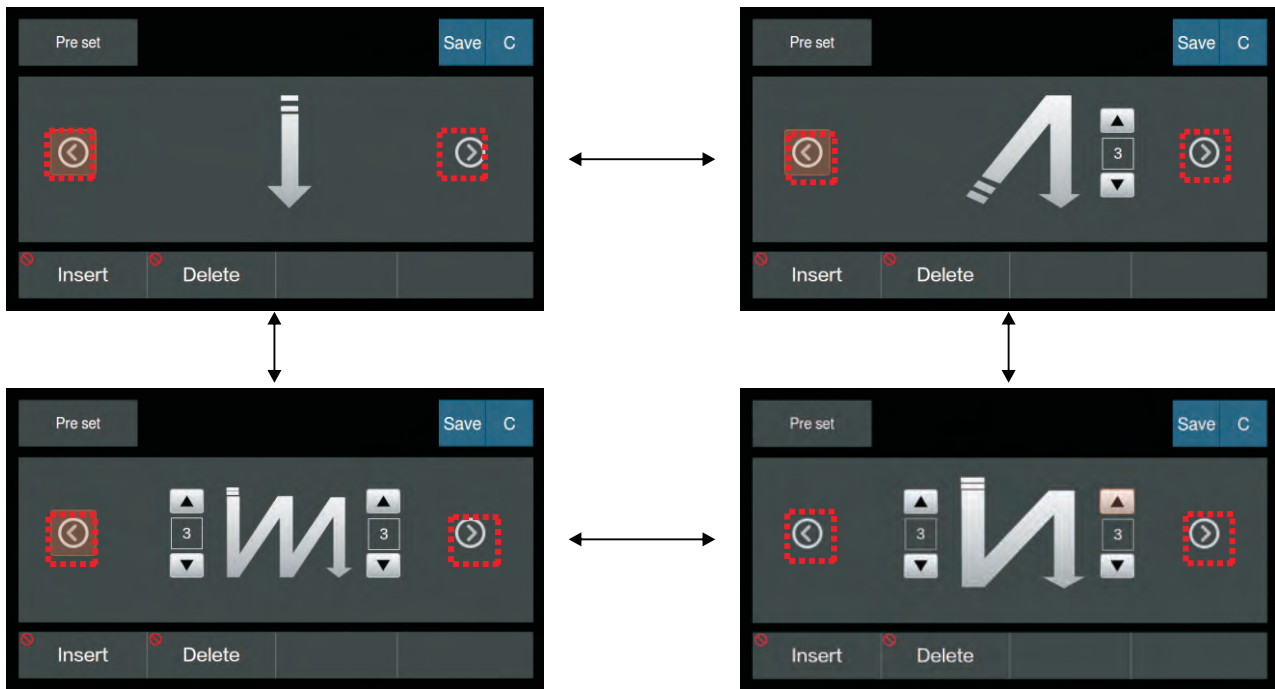


Figure 2-4 Front reverse stitching switching

Touch the   pattern in the setting interface, and the rear reinforcement patterns are cyclically switched as shown in Figure 2-5. Among them, Figure ① pattern is no reinforcement, Figure ② pattern is single segment reinforcement, Figure ③ pattern is two-segment reinforcement, and Figure ④ pattern is four-segment reinforcement.

After the modification is completed, if it needs to be changed to the current reinforcement pattern, click the Save button to save and exit. Click the Cancel button to return to the main interface in case of setting error or no need to save.

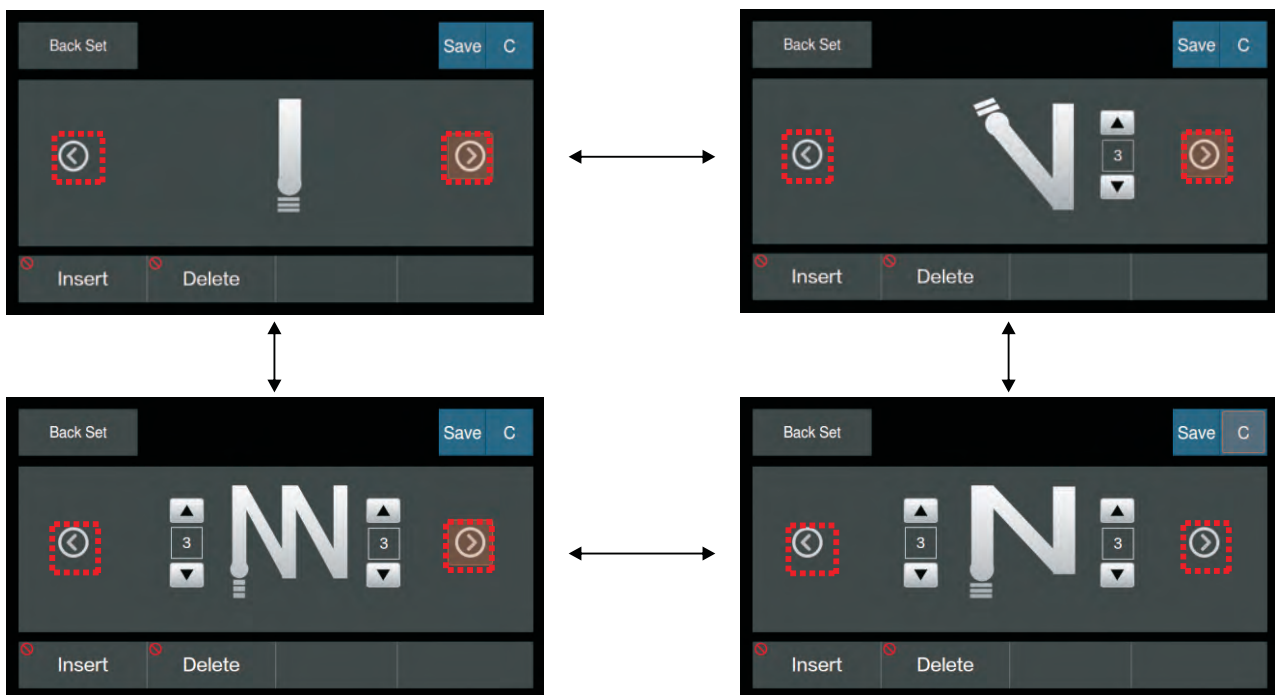


Figure 2-5 Back reverse stitching mode switching

2.2.3 Basic settings for multi-segment sewing

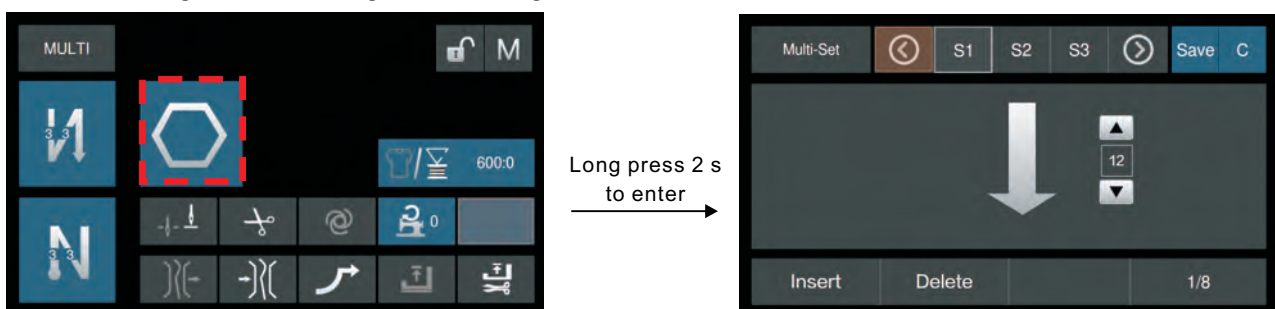


Figure 2-6 Settings for multi-segment sewing

In the main interface, long press the red box area shown in Figure 2-6 for 2 seconds to enter the multi-segment sewing setting. After the modification is completed, click the Save button to save the current operation data if required and exit. Click the Cancel button to return to the main interface in case of setting error or no need to save.

2.2.4 Segment insertion/deletion operations in multi-segment sewing

In the multi-segment sewing mode, edit on the number of stitch segments (total number of segments) is allowed, and the editing methods mainly include insert/delete segment operation.

Firstly, enter the setting interface of multi-segment sewing, and click the button to insert/delete segment at the bottom of the setting interface. When inserting a segment, click the red box area to insert the segment, and the total number of segments is increased by one, as shown in Figure 2-7.

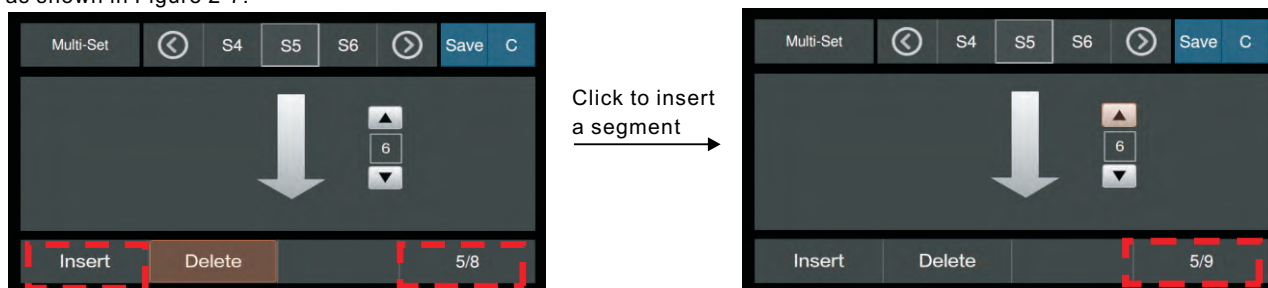


Figure 2-7 Inserting a segment

When deleting a segment, click on the red frame area to delete the segment, and the total number of segments is reduced by one, as shown in Figure 2-8.

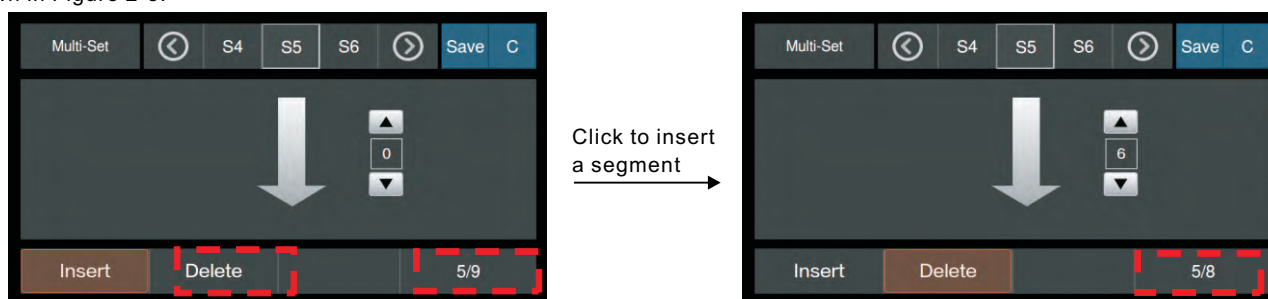


Figure 2-8 Deleting a segment

2.2.5 Basic settings for W sewing



Figure 2-9 Settings for W sewing

In the main interface, long press the red box area shown in Figure 2-9 for 2 seconds to enter the W sewing setting. After the modification is completed, click the Save button to save the current operation data if required and exit. Click the Cancel button to return to the main interface in case of setting error or no need to save.

2.2.6 Basic settings for four-segment sewing

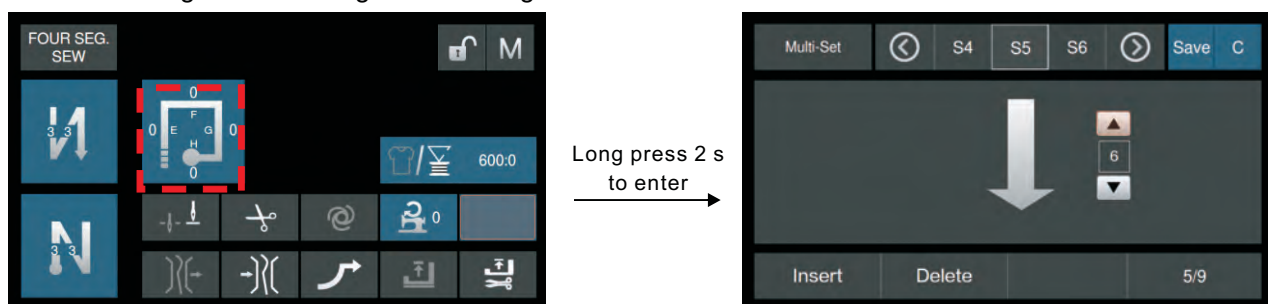


Figure 2-10 Settings for four-segment sewing

In the main interface, long press the red box area shown in Figure 2-10 for 2 seconds to enter the four-segment sewing setting. After the modification is completed, click the Save button to save the current operation data if required and exit. Click the Cancel button to return to the main interface in case of setting error or no need to save.

2.2.7 Settings for maximum speed of free sewing



Figure 2-11 Settings for maximum speed of free sewing

In the free sewing mode, long press the red box area shown in Figure 2-11 for more than 2 seconds and jump to the sewing speed setting interface. Click or long press the right +, - icon to modify the sewing speed, where represents the highest sewing speed.

2.2.8 Sewing auxiliary function setting

The area shown in Figure 2-12 is the sewing auxiliary function setting area. The auxiliary functions of each stitch are individually configured. Touch the icon to change it. When the icon is dark black, the function is enabled. Conversely, when the icon is light gray, the auxiliary function is disabled.

: Intermediate stop needle position option; when the icon is , it indicates that when the current stitch is not completed, needle stop position is at down needle position; when the icon is , it indicates that when the current stitch is not completed, needle stop position is at up needle position.

: Auto thread trimming option: when the icon is , it indicates that when the current stitch is completed, it is trimmed at the end of the stitch. When the icon is , it indicates that when the current stitch is not completed, trimming action is not executed and the needle stops at the up needle position only.

: Intermediate stop auto presser foot lifting option; when the icon is , it indicates that the needle stops before the current stitch is completed, and the presser foot automatically lifts when the pedal is in the neutral position. When the icon is , it indicates that the needle stops before the current stitch is completed, and the presser foot does not automatically lift when the pedal is in the neutral position. Stepping pedal backward is required to lift the presser foot.

: Trimming stop auto presser foot lifting option; when the icon is , it indicates that after the current stitch is trimmed, the presser foot automatically lifts when the pedal is in the neutral position. When the icon is , it indicates that after the current stitch is trimmed, the presser foot does not automatically lift when the pedal is in the neutral position. Stepping pedal backward is required to lift the presser foot.

: Slow start action option upon sewing start; when the icon is , it indicates slow start action without sewing start; when the icon is , it indicates slow start action with sewing start.

: Automatic trigger option; automatic trigger option function is only valid when the stitch is under the main stitch with mixed stitch number. When the icon is , it indicates that the pedal is lightly pressed once, and the sewing machine automatically finishes all the stitches without maintaining the front stepping state. When the icon is , it indicates that the sewing speed for the stitch is completed pedal-controlled.

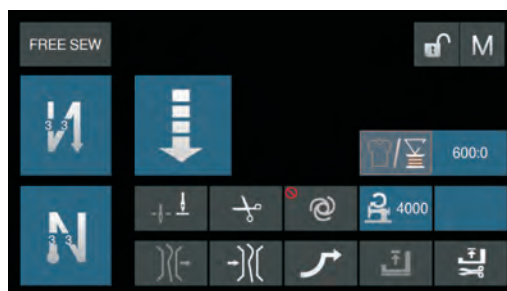


Figure 2-12 Auxiliary function setting

2.2.9 Bottom thread count and trimming thread count

In the main interface, shortcut display function for the bottom thread count and trimming thread count is provided. Click  to switch the trimming/bottom thread count,  indicates that the number immediately following the icon is the trimming thread count value, and  indicates that the number immediately following the icon is bottom thread count.

Long press the number in the red box to pop up the stitch count setting window, as shown in Figure 2-13, where the Reset button can be used to reset the current count to 0 or the count upper limit value. Number 0-9 are used to quickly modify the stitch count upper limit value. When the stitch counter mode is not 0, the + and - buttons can be used to manually modify the stitch count value. Press

 to save and  to exit the count setting window.



Figure 2-13 Bottom thread count setting

Long press the number to pop up the trimming thread count setting window, as shown in Figure 2-14. The number on the left represents the target production quantity, and that on the right represents the quantity produced, where Reset button can be used to reset the current thread count to 0 or count upper limit value, number 0-9 is used to quickly modify the upper limit of trimming thread count. When the trimming thread count mode is not 0, the +, - buttons can be used to manually modify the trimming thread count value. Press to save and to exit the count setting window.



Figure 2-14 Trimming thread count setting

Chapter III System Settings

3.1 Language setting

As shown in Figure 3-1, click on the M button on the main interface, select the system setting option, and press the language setting button to enter the language selection interface. Click on Chinese and restart the system, system language is switched to Chinese. Similarly, click on English and restart the system, system language is switched to English.

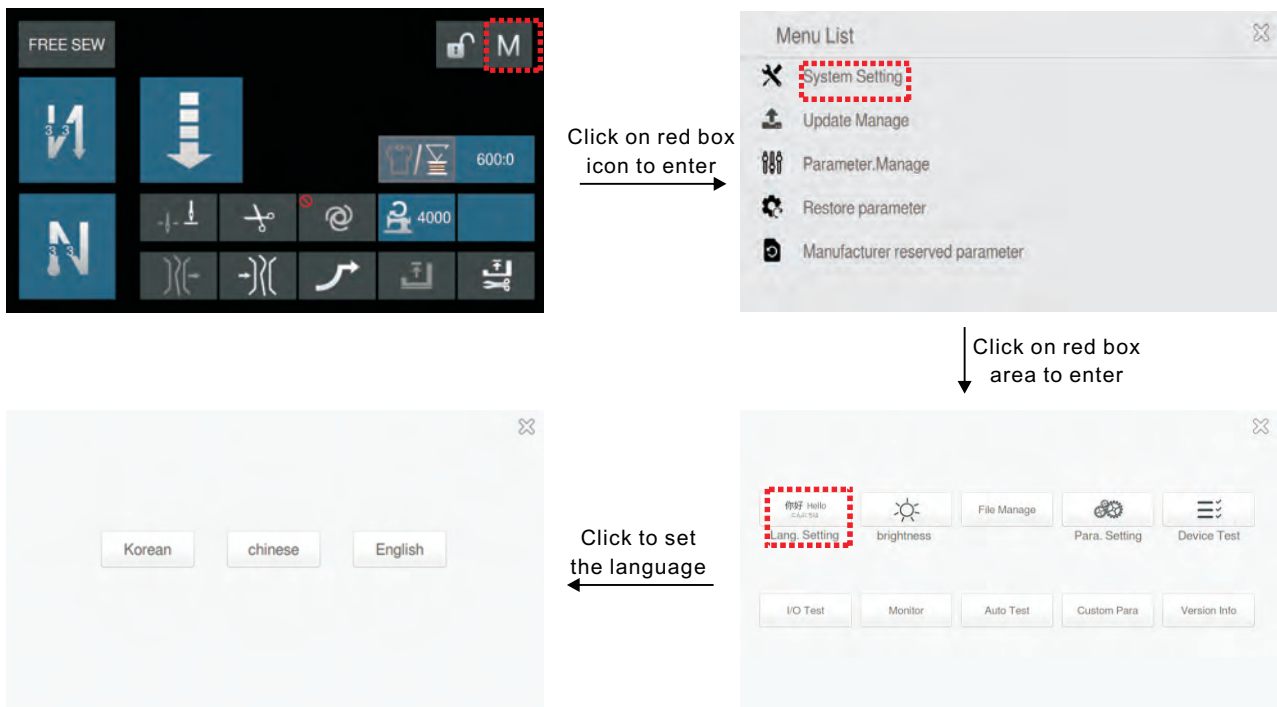


Figure 3-1 Language setting

3.2 Brightness adjustment

As shown in Figure 3-2, click the M button on the main interface to select the system setting option. Press the brightness adjustment button to enter the brightness adjustment interface. Click the right +, - icon to increase and decrease the screen brightness.

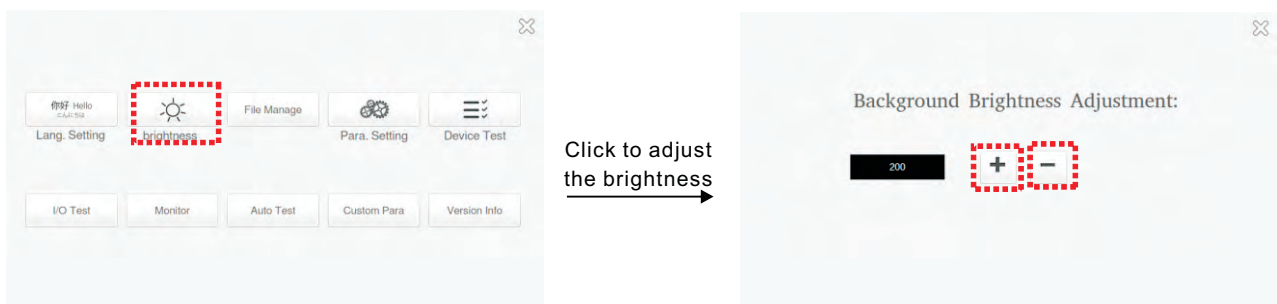


Figure 3-2 Brightness adjustment

3.3 Parameter setting

Enter the parameter settings as shown in Figure 3-3. Click the M button on the main interface to select the system setting option. Press the parameter setting button to enter the password input interface. Enter the password (no need to enter password for Level 1 parameter), and click the confirm button to enter the parameter input interface.

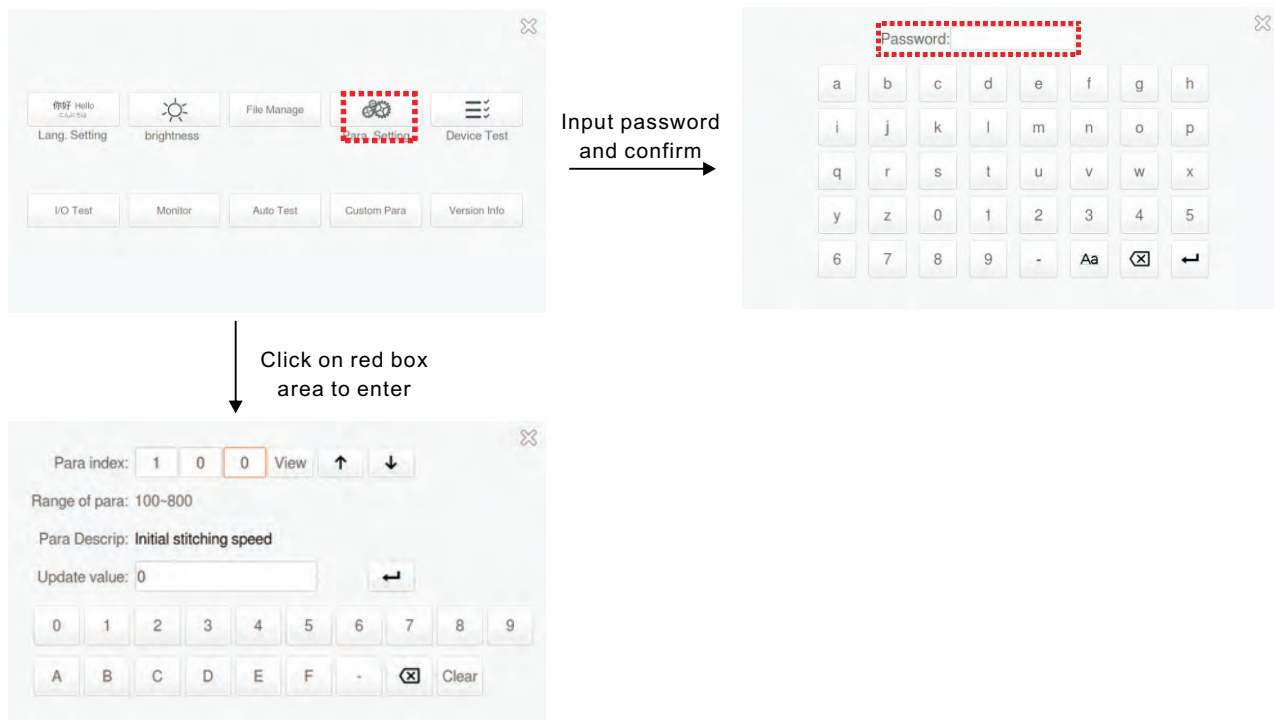


Figure 3-3 Enter parameter setting

In the parameter setting interface, enter the parameter number to be viewed in the above parameter number input box. After clicking the View button, the parameter value corresponding to the parameter number will be displayed in the update value box below.

In the parameter setting interface, click the Clear button to clear the data. Re-enter the value to be changed, and click to set the parameters.

Refer to Chapter VI for the details of the parameter table.

3.4 Monitoring mode

The functions in the monitoring mode shown in Figure 3-4 are provided to debugger for use. Detailed descriptions are not given herein.

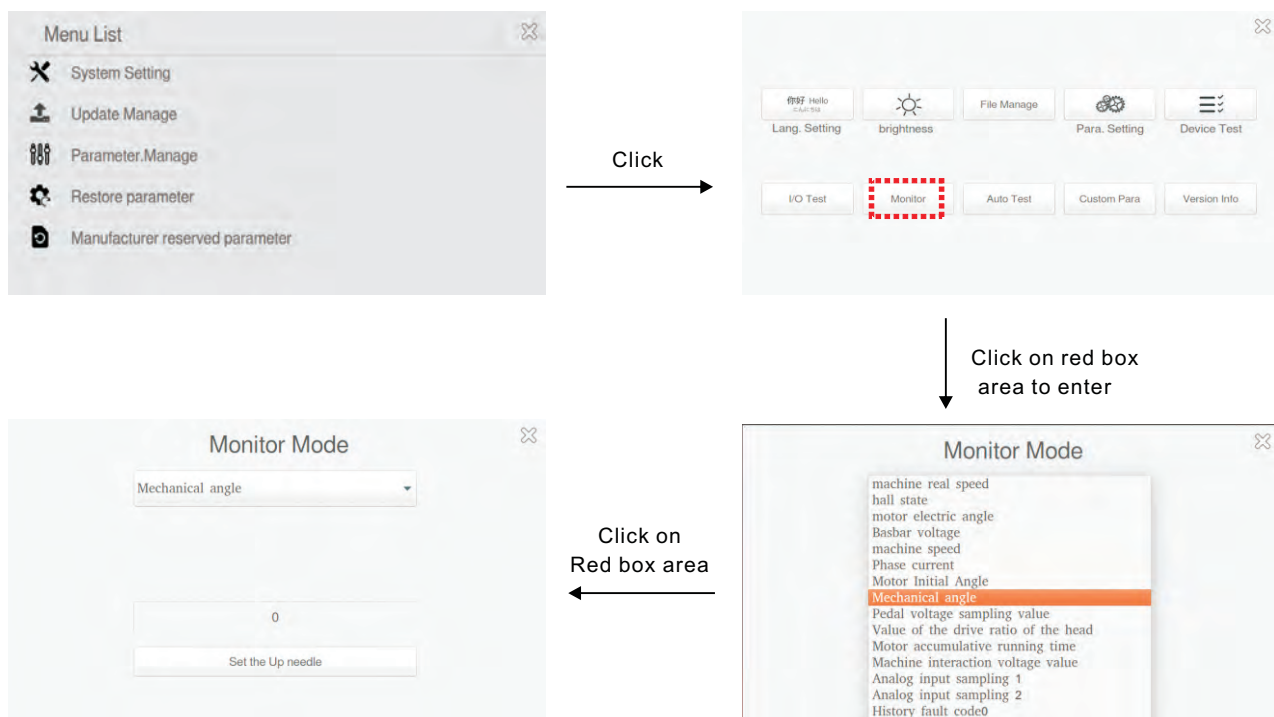


Figure 3-4 Monitoring mode

3.5 Input/output test

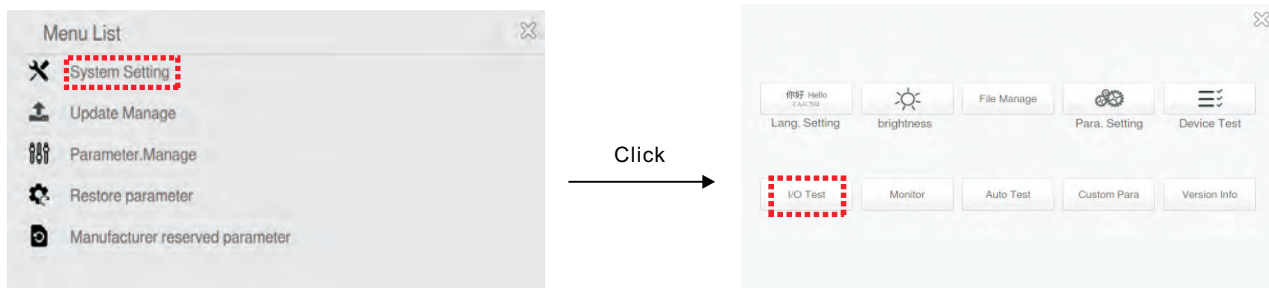


Figure 3-5 Input/output test

Click on the input/output test to enter the interface as shown in Figure 3-5. Click the M button on the main interface to select the system setting option. Press the input/output test button to enter the input and output test interface. The input/output test is mainly used by the debugger to detect the input and output signal status (not yet implemented).

3.6 Running-in mode

As shown in Figure 3-6, click the M button on the main interface to select the system setting option, and press the Running-in Mode button to enter the running-in mode interface. Running-in mode is used to test the aging.

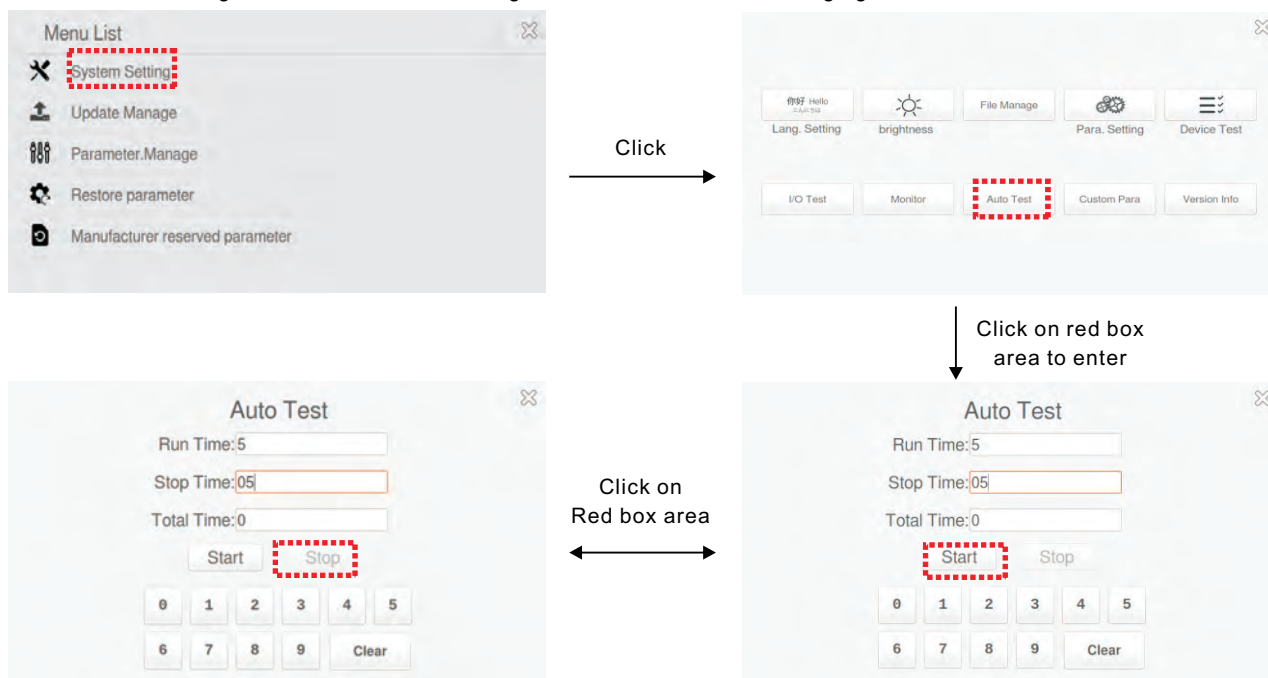


Figure 3-6 Running-in mode

3.7 Version information

As shown in Figure 3-7, click the M button on the main interface to select the system setting option, and press the version information button to view the system version information.

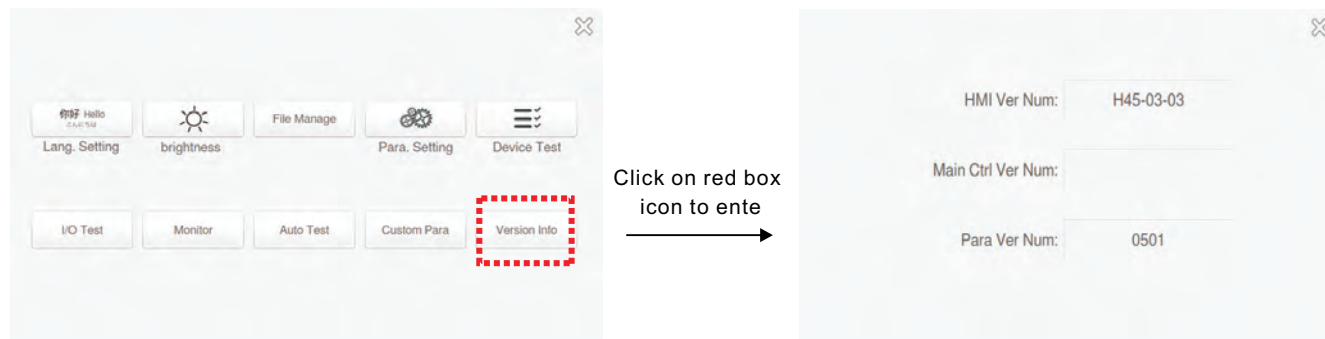


Figure 3-7 Version information

Chapter IV Upgrade Management

⚠ :During the factory restore and upgrade process, please ensure that the power supply is stable. If the power is turned off during the upgrade, drive upgrade may be incomplete. Please restart after upgrade completion is prompted. Do not continue to use the drive after the upgrade process fails, so as to avoid damage to the machine and loss of personal property!

4.1 Panel upgrade

The panel upgrade package format is Release.tar type compressed package file. Copy Release.tar to the root directory of U disk (no need to decompress the compressed package), and click the panel upgrade button in Figure 4-1. Do not turn off the power at this time. After about 20 seconds, when the interface is changed from Upgrade wording to Upgrade Success.Code 0, it indicates that the panel has been upgraded and it will be the new version of the program after restart.

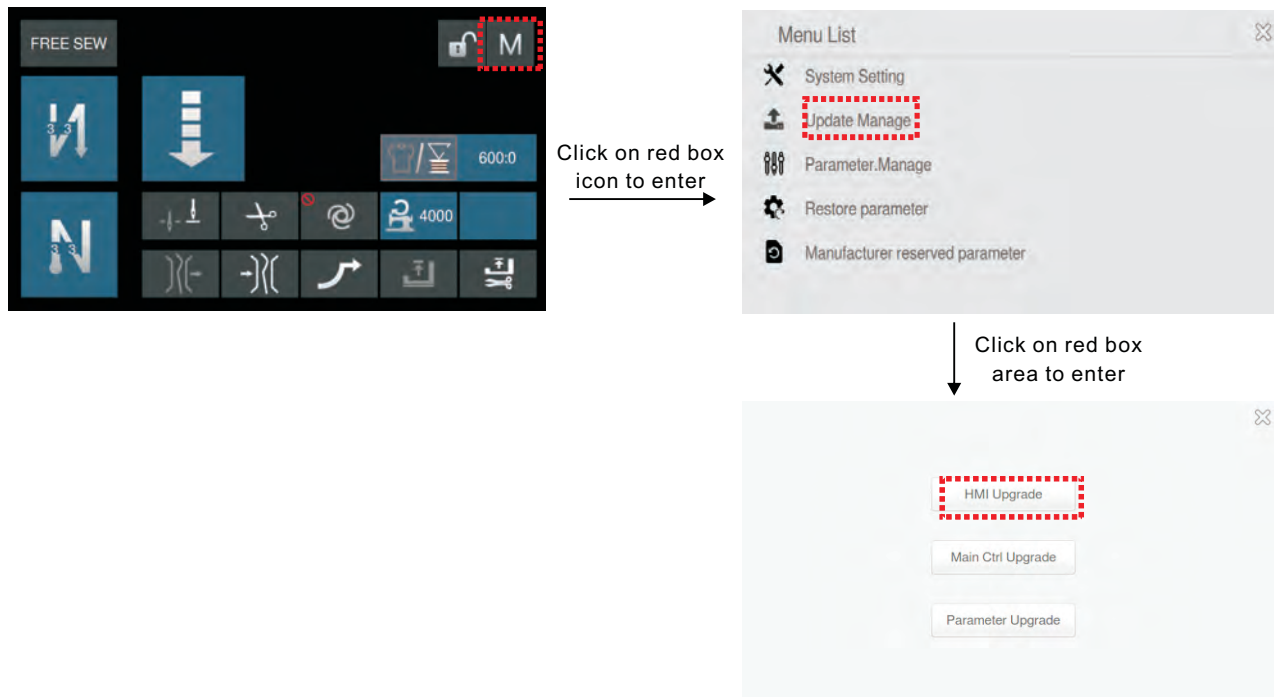


Figure 4-1 Panel program update

Chapter V Factory Reserved Parameters

As shown in Figure 5-1, click the Menu button on the main interface to select the pattern management option and enter the factory reserved parameter interface. Enter the recovery code in the edit box, click to confirm, and the corresponding parameter data in the .HMI file will be downloaded to the master.

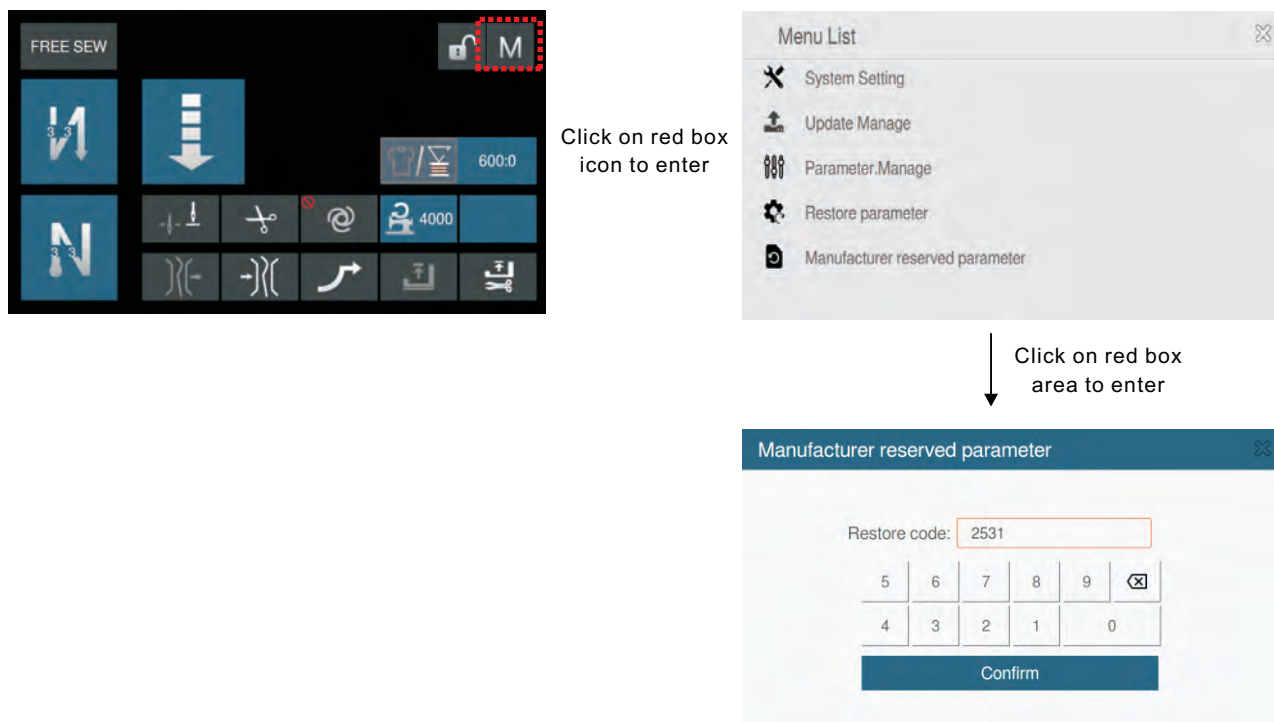


Figure 5-1 Factory reserved parameters

Chapter VI Factory Reserved Parameters

NO.	Range	Default	Description	Remarks
100	100~800	200	Start sewing speed	speed
101	200~5000	4000	Maximum speed of free sewing (global maximum speed)	
102	200~5000	3000	Maximum speed of fixed-length sewing	
103	200~5000	5000	Maximum speed limit of manual backstitch	
104	200~5000	200	Needle filling speed	
105	50~500	300	Thread trimming speed	
106	0/1	0	Soft start mode 0: Slow start only after trimming 1: Slow start after trimming and intermediate stop	
107	1~9	1	Soft start stitch count	
108	50~800	400	Soft start speed	
109	1~200	25	Motor acceleration time, unit: 10ms	
10A	1~200	25	Motor deceleration time, unit 10ms	
10B	200~1400	600	Medium speed (RPM)	
10C	10~400	320	Trimming preparation speed (RPM)	
10D	0/1	0	Minimum speed of intermediate stop	
110	200~2400	1800	Front-end back tacking speed	Reinforcing sewing parameters
111	200~2400	1800	Rear-end back tacking speed	
112	200~2400	1800	Continuous back tacking speed	
113	1~200	38	Stitch balance for start back tacking No.1	
114	1~200	28	Stitch balance for start back tacking No.2	
115	1~200	38	Stitch balance for end back tacking No.1	
116	1~200	28	Stitch balance for end back tacking No.2	
119	1~999	200	Automatic sewing stop time CT setting (ms)	
11B	10~359	179	Start and end back tacking type (CD and AB) 0: B->AB->ABAB->none 1: B->none 2: B->AB->none 3: AB->none 4: AB->ABAB->none	
11C	0~4	0	Tens digit for each segment of A/B/C/D	
11D	0~9999	0	Tens digit for each segment of E/F/G/H	
11E	0~9999	0	Tens digit for each segment of A/B/D	
120	0~9999	0	Front-end back tacking work mode 0: Gently press the pedal to activate automatic initial back tacking. 1: Stop arbitrarily by pedal control. 2: Action controlled by [CT] time after needle stops at upper fixed position . 3: Action controlled by [CT] time after needle stops at lower fixed position	
121	0~3	0	Operation mode option after front-end back tacking is completed: 0: Continue sewing after front-end back tacking 1: Stop automatically after front-end back tacking 2: Automatic trimming after front-end back tacking	
122	0~2	0	Operation mode option after fixed-length sewing is completed: 0: Rear-end back tacking 1: Stop and standby (compensation allowed)	
123	0~1	0	Rear-end back tacking work mode 0: Gently press the pedal to activate automatic initial back tacking. 1: Invalid 2: Action controlled by [CT] time after needle stops at upper fixed position . 3: Action controlled by [CT] time after needle stops at lower fixed position	

124	0~3	0	W back tacking work mode 0: Gently press the pedal to activate automatic initial back tacking. 1: Stop arbitrarily by pedal control. 2: Action controlled by [CT] time after needle stops at upper fixed position. 3: Action controlled by [CT] time after needle stops at lower fixed position		
125	0~3	0	Number of stitches added to the last C section of rear-end back tacking		
126	0~90	0	Number of stitches inserted before front-end back tacking		
127	0~90	0	Number of stitches inserted after rear-end back tacking		
12E	0~90	0	Idle stop needle count state between fixed stitch sections: 0 counting allowed 1 stop counting		
130	0~1	0	Pedal curve mode: 0: Automatic linear slope (automatically calculated according to the maximum speed) 1: Two-section slope 2: Power curve 3: S-shaped curve		Pedal
131	0~3	2	Two-section slope: mid-section speed RPM (turning point speed of two-section slope)		
132	200~4000	3000	Two-section slope: mid-section pedal analog (between parameter 138 and 139)		
133	0~1024	800	Power curve: 1: Squared; 2: Open;		
134	1/2	1	Pedal thread trimming position	The specific setting method is shown in figure 9 - 1	
135	0~1024	150	Pedal presser foot lift position (greater than the value of previous parameter in order)		
136	0~1024	300	Pedal back to center position (greater than the value of previous parameter in order)		
137	0~1024	450	Pedal stepping forward position (greater than the value of previous parameter in order)		
138	0~1024	465	Pedal low speed operating position (upper limit) (greater than the value of previous parameter in order)		
139	0~1024	680	Pedal simulation maximum value (greater than the value of previous parameter in order)		
13A	0~1024	940	Pedal simulation maximum value		
13B	0~800	300	Pedal back to center immediately thread trimming option: 0: Off 1: On		
13C	0/1	0	Presser foot position presser foot lift function option: 0: No lift 1: Lift		
13D	0/1	1	Thread trimming position presser foot lift function option: 0: No lift 1: Lift		
13E	0/1	1	Presser foot lift delay time after thread trimming		
140	0~800	0	Automatic run to up needle position option after power on: 0: Run to position 1: Not run to position		
141	0/1	0	Automatic back tacking function option: (not allowed for head without automatic back tacking function recommended) 0: Back tacking not allowed 1: Back tacking allowed		Custom setting
142	0/1	1	Function mode option in hand back tacking 0: Juki mode. Action during sewingn or upon intermediate stop. 1: Brother mode. Action only during sewing, compensate upon intermediate stop.		
143	0~2	0	Special operating mode: 0: Operator option (free sewing) 1: Simple sewing mode (without needle stop) 2: Measure initial angle of motor (belt removal not required) 3: Gear ratio calculation mode (needle stop sensor required and belt removal not allowed)		
145	0~3	0	Stop needle mode :(DSP fixed is 1, cannot be modified) 0: Constant speed pulley mode (under belt drive mode, parking accuracy is not high) 1: Pullback mode (PMX mode)		
146	0/1	1	Half stitch compensation button command time		
147	1~800	150	One stitch compensation button command time		
148	1~800	180	Button compensation mode: 0: press time control; 1: half stitch compensation; 2: one stitch compensation		
149	0~2	1	Presser foot slow down function switch		
14A	0~20	5	Pedal acceleration curve filter coefficient		
14B	0~20	0	Slow release foot level		
14C	1~500	0	Time of chopping on for presser foot slow down (ms)		

14D	1~100	40	Time of chopping off for presser foot slow down (ms)	
14E	1~100	0	Compensation function: 1. stitch compensation allowed after thread trimming 0. stitch compensation not allowed after thread trimming	
14F	0~9999	0	Time off before chopping for presser foot slow down	
150	0~9999	0	Stitch count ratio setting	
151	1~100	1	Stitch count upper limit setting	Counting mode
152	1~9999	1	Count mode selection (For bobbin thread) 0: The counter is invalid 1: Count up by stitches. When count over, counter will be auto- reset. 2: Count down by stitches. When count over, counter will be auto- reset. 3: Count up by stitches. When count over, motor stops and the counter must be reset by the external switch or the P key on the panel. 4: Count down by stitches. When count over, motor stops and the counter must be reset by the external switch or the P key on the panel. 5: Count up by trimming. When count over, panel alarms and motor stops after trimming. 6: Count down by trimming. When count over, panel alarms and motor stops after trimming.	
153	0~6	0	Trimming counter function ratio setting	
154	1~100	1	Trimming count setting	
155	1~9999	1	Count mode selection (For Sewing Piece) 0: The counter is invalid 1: Count up by pieces. When count over, counter will be auto- reset. 2: Count down by pieces. When count over, counter will be auto- reset. 3: Count up by pieces. When count over, motor stops and the counter must be reset by the external switch or the P key on the panel. 4: Count down by pieces. When count over, motor stops and the counter must be reset by the external switch or the P key on the panel.	
200	0~2	0	Trimming mode selection: 0: lockstitch machine 1: interlock machine: Needle stops at the up position and trim. 2: overlock machine: manual trimming	Trimming mode
201	0~120	0	Mechanical angle at the end of trimming	
203	5~359	10	Trimming start angle TS (relative to the lower needle position)	
204	10~359	180	Trimming end angle TE (relative to the lower needle position angle, greater than TS)	
205	1~999	10	Trimming start delay time T1 (ms) (interlock invalid)	
206	1~999	60	Trimming end delay time T2 (ms) (interlock invalid)	
210	0~6	0	Thread-loosening electromagnet timing option: 0: After [LS] set angle is reached, loosen thread to the upper needle position and delay until [L2] set time. 1: After [LS] set angle is reached, loosen thread until [LE] set angle. 2: After [LS] set angle is reached, loosen thread and delay until [L2] set time. 3: After lower needle position signal is found, delay [L1] set time and loosen thread, and delay until [L2] set time. 4: After upper needle position signal is found, delay [L1] set time and loosen thread, and delay until [L2] set time. 5: After lower needle position signal is found, loosen thread to the upper stop needle position. Then delay [L1] set time and loosen thread until [L2] set time. 6: After [LS] set angle is reached, loosen thread to upper stop needle position. Then delay [L1] set time and loosen thread until [L2] set time.	
211	5~359	30	Loose electromagnet start angle LS (relative to the lower needle position angle)	
212	10~359	300	Loose electromagnet end angle LE (relative to the lower needle position angle, greater than LS required)	
213	1~999	1	Loose electromagnet start delay time T1 (ms) (interlock invalid)	
214	1~999	10	Delay time T2 (ms) after loose electromagnet upper needle position is reached (interlock invalid)	
215	0/1	0	Sweeping function option (wiping) 0: Off 1: On	
216	1~999	10	Wiping/sweeping delay time ms	
217	1~9999	30	Wiping/sweeping duration ms	
219	0/1	1	Clamping function option (electronic clamping function on or off) 0: Off 1: On	
21A	1~359	120	Clamping start angle	

21B	0~359	320	Clamping end angle	
21C	0~9999	0	Air blow start delay (from trimming)	
21D	1~9999	320	Air blow duration	
21E	1~359	120	The angle of presser foot solenoid off during thread clamping	
220	200~360	360	Trimming pullback function (stop position after trimming)	
221	0~240	0	Reverse angle before sewing (increasing capacity for thick material)	
22D	0~359	0	Target angle for set angle compensation	
230	0/1	0	Button presser foot control mode 0: Button jog switching; 1: Button is always pressed to be valid;	Mode selection
231	0/2	0	Automatic test mode option: 0: Fixed stitch number 1: Fixed time	
232	0~3000	300	Safe switch filtering time (ms)	
233	1~1000	50	Safety switch resume confirmation time ms	
234	0/1	0	Motor steering: (no adjustment) 1: Reverse 0: Forward	
240	0~9999	1000	Motor/head gear ratio: 0.001 (non-belt head invalid) (If the gear ratio is calculated automatically, the parameter in the controller may be different from that on HMI)	Head related parameters
241	200~5000	4000	Head maximum speed limit	
242	0~359	221	Upper needle position adjustment angle (offset relative to the positin of upper needle position sensor)	
243	0~359	175	Lower needle position mechanical angle	
244	1~800	50	Presser foot release protection time (from presser foot release to needle start action)	
247	0~2000	1030	The alarm time for adding oil (hours), disabled when setting 0	
248	0~4000	220	Oil filling alarm, forbidden operation time (hours) 0: turn off this function	
250	0~28	1	No. 1 input function definition	
251	0~3	1	No. 1 input active level 0/1	
252	0~28	2	No. 2 input function definition	
253	0~3	1	No. 2 input active level 0/1	
254	0~28	7	No. 3 input function definition	
255	0~3	1	No. 3 input active level 0/1	
256	0~28	0	No. 4 input function definition	
257	0~3	0	No. 4 input active level 0/1	
258	0~28	0	No. 5 input function definition	
259	0~3	0	No. 5 input active level 0/1	
25A	0~28	0	No. 6 input function definition	
25B	0~3	0	No. 6 input active level 0/1	
25C	0~28	0	No. 7 input function definition	
25D	0~3	0	No.7 input active level 0/1	
25E	0~28	0	No. 8 input function definition	
25F	0~3	0	No. 8 input active level 0/1	
260	0~25	1	No. 1 electromagnet output function definition	
261	0~25	3	No. 2 electromagnet output function definition	

262	0~25	4	No. 3 electromagnet output function definition	
263	0~25	6	No. 4 electromagnet output function definition	
264	0~25	5	No. 5 electromagnet output function definition	
265	0~25	0	No. 6 electromagnet output function definition	
266	0~25	0	No. 7 electromagnet output function definition	
267	0~25	0	No. 8 electromagnet output function definition	
270	1~500	60	No. 1 electromagnet full output time ms	
271	0~100	1	No. 1 electromagnet Chopping on time ms	
272	0~100	2	No. 1 electromagnet Chopping off time ms	
273	0~600	20	No. 1 electromagnet protection time 100ms	
274	1~500	160	No. 2 electromagnet full output time ms	
275	0~100	1	No. 2 electromagnet Chopping on time ms	
276	0~100	1	No. 2 electromagnet Chopping off time ms	
277	0~600	150	No. 2 electromagnet protection time 100ms	
278	1~500	150	No. 3 electromagnet full output time ms	
279	0~100	3	No. 3 electromagnet Chopping on time ms	
27A	0~100	5	No. 3 electromagnet Chopping off time ms	
27B	0~600	250	No. 3 electromagnet protection time 100ms	
27C	1~500	400	No. 4 electromagnet full output time ms	
27D	0~100	0	No. 4 electromagnet Chopping on time ms	
27E	0~100	0	No. 4 electromagnet Chopping off time ms	
27F	0~600	4	No. 4 electromagnet protection time 100ms	
280	1~500	100	No. 5 electromagnet full output time ms	
281	0~100	1	No. 5 electromagnet Chopping on time ms	
282	0~100	1	No. 5 electromagnet Chopping off time ms	
283	0~600	20	No. 5 electromagnet protection time 100ms	
284	1~500	100	No. 6 electromagnet full output time ms	
285	0~100	1	No. 6 electromagnet Chopping on time ms	
286	0~100	1	No. 6 electromagnet Chopping off time ms	
287	0~600	20	No. 6 electromagnet protection time 100ms	
288	1~500	100	No. 7 electromagnet full output time ms	
289	0~100	1	No. 7 electromagnet Chopping on time ms	
28A	0~100	1	No. 7 electromagnet Chopping off time ms	
28B	0~600	0	No. 7 electromagnet protection time 100ms	
28C	1~500	100	No. 8 electromagnet full output time ms	
28D	0~100	1	No. 8 electromagnet Chopping on time ms	
28E	0~100	1	No. 8 electromagnet Chopping off time ms	
28F	0~600	0	No. 8 electromagnet protection time 100ms	

Chapter IX The Warning Message

Alarm code	Description	Corrective
ALA-1	Fuel filling warning	Fuel filling. Press P key to clear.
ALA-2	Count over for stitches	The counter reaches the limit. Press P key to reset the counter.
ALA-3	Count over for sewing pieces	The counter reaches the limit. Press P key to reset the counter.
ALA-4	Emergency stop	Press the key of emergency stop to clear.
ALA-5	Lift needle locking	Then press the needle lifting locking button, can eliminate the needle lifting locking state.
Power OFF	Power is off	Please wait for 30 seconds, then turn on the power switch.
Reset UP	Safety switch alarm	Adjust the machine to the correct position.

Chapter X Error Mode

If the error code appears, please check the following items first:

1. Make sure the machine has been connected correctly; 2. Reload the factory setting and try again.

Error Code	Description	Solution
Err-01	Hardware overcurrent	Turn off the power switch, and restart after 30 seconds. If the controller still does not work, please replace it and inform the manufacturer.
Err-02	Software overcurrent	
Err-03	Under-voltage	- Check mains voltage - Stabilize mains voltage
Err-04	Over-voltage when the machine is off	Disconnect the controller power and check if the input voltage is too high (higher than 264V). If yes, please restart the controller when the normal voltage is resumed. If the controller still does not work when the voltage is at normal level, please replace the controller and inform the manufacturer.
Err-05	Over-voltage in operation	
Err-06	Short circuit of solenoid voltage 24V	- Take plug out, if error continues, replace control box - Test inputs/ outputs for 24V short circuit
Err-07	Motor current measuring failure	Turn off the system power, restart after 30 seconds to see if it works well. If such failure happens frequently, seek technical support.
Err-08	Sewing motor blocked	- Eliminate sluggish movement in the sewing machine - Replace encoder - Replace sewing motor
Err-09	Brake circuit failure	Check the brake resistor plug on the electric board. Replace the control box
Err-10	Communication failure	Check the connection and if necessary plug in. Replace the control box.
Err-11	Machine head needle positioning failure	Check if the connection line between machine head synchronizer and controller is loose or not, restore it and restart the system. If it still does not work, please replace the controller and inform the manufacturer.
Err-12	Initial motor electrical angle failure	Try 2 to 3 more times after power down if it still does not work, please replace the controller and inform the manufacturer.
Err-13	Motor HALL failure	Turn off the system power, check if the motor sensor plug is loose or dropped off, restore it and restart the system. If it still does not work, please replace the controller and inform the manufacturer.
Err-14	DSP Read/Write EEPROM failure	Turn off the system power, restart the system after 30 seconds, if it still does not work, please replace the controller and inform the manufacturer.
Err-15	Motor over-speed protection	
Err-16	Motor reversion	
Err-17	HMI Read/Write EEPROM failure	
Err-18	Motor overload	
Err-23	Sewing motor blocked Sector error	- Eliminate sluggish movement in the sewing machine - Replace encoder - Replace sewing motor

Chapter XI 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.

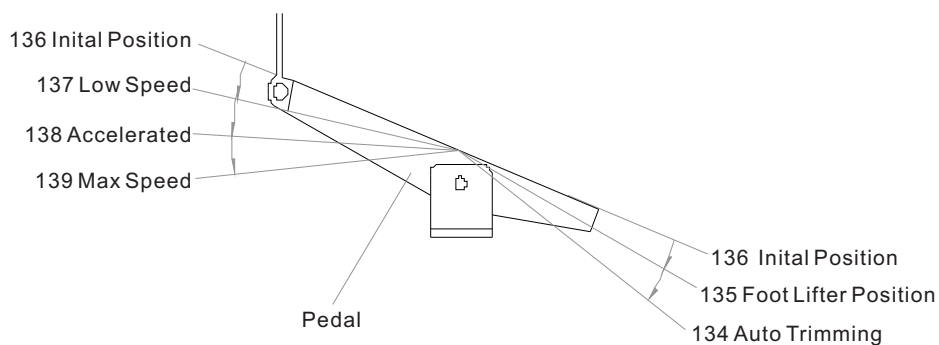
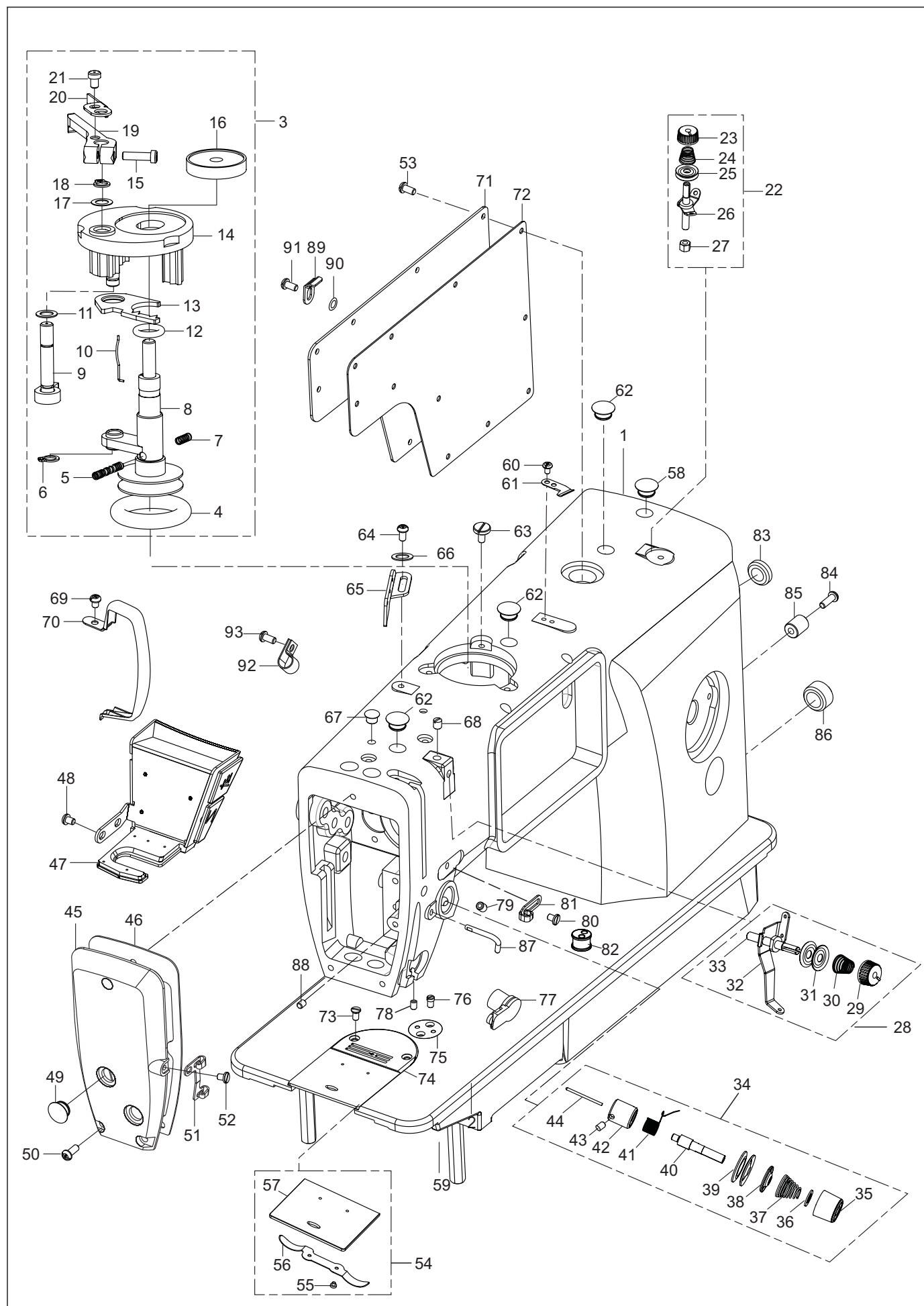


Fig. 9-1 pedal movement of each position parameter

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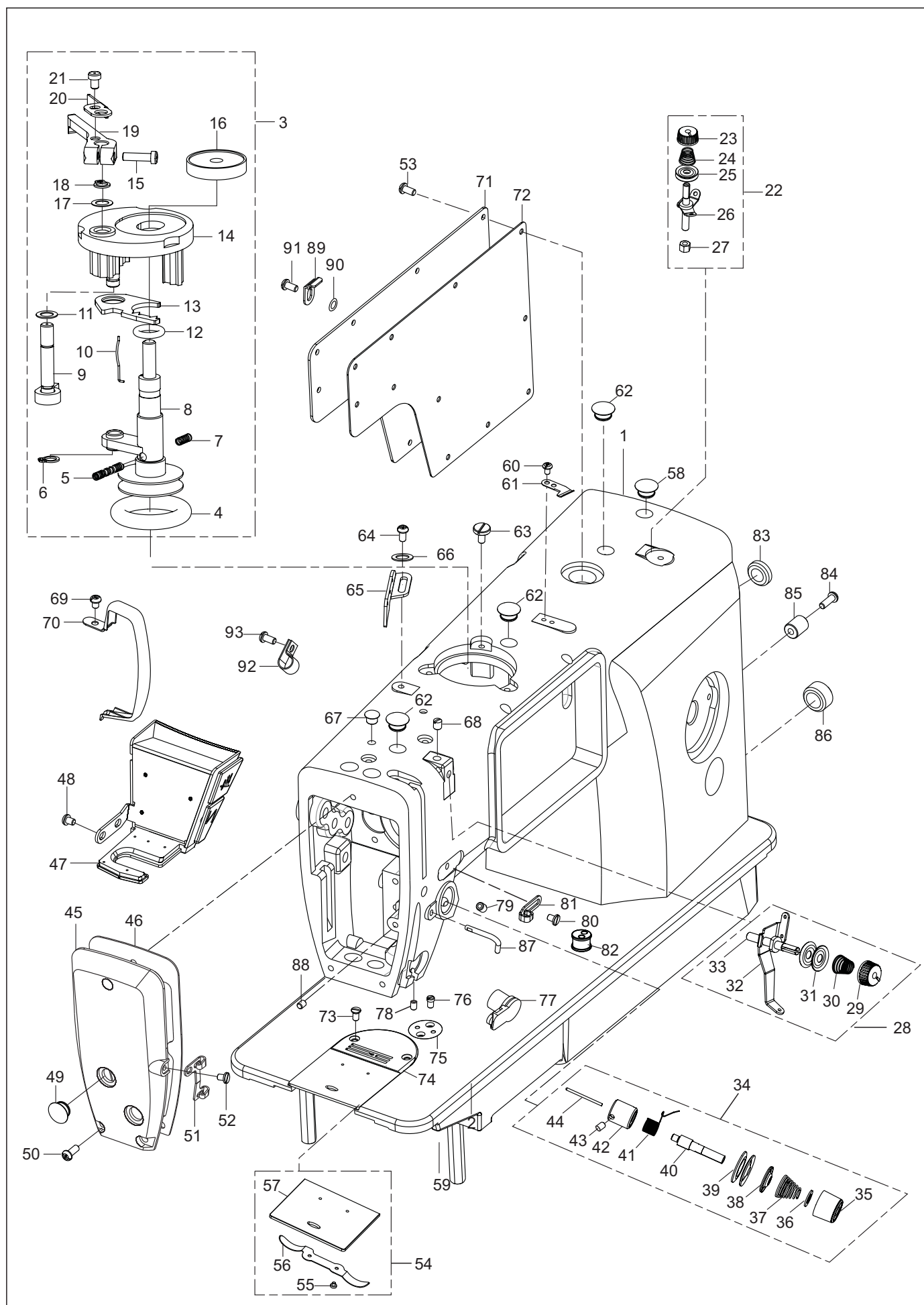
1.机壳部件 Frame Components



1.机壳部件 Frame Components

序号 NO.	图号 REF NO.	名称	DESCRIPTION
1	SG0261-010600	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

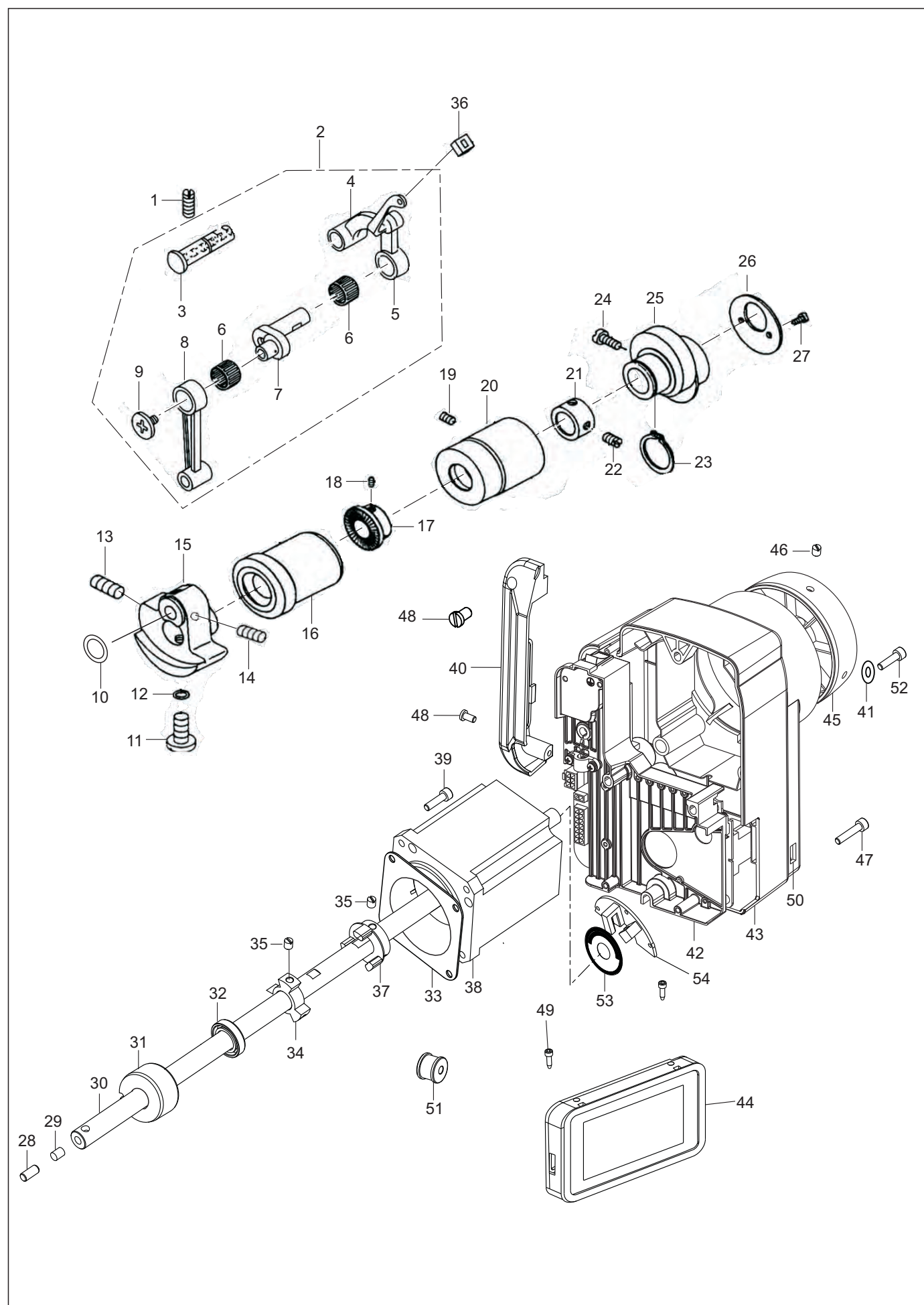
1.机壳部件 Frame Components



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

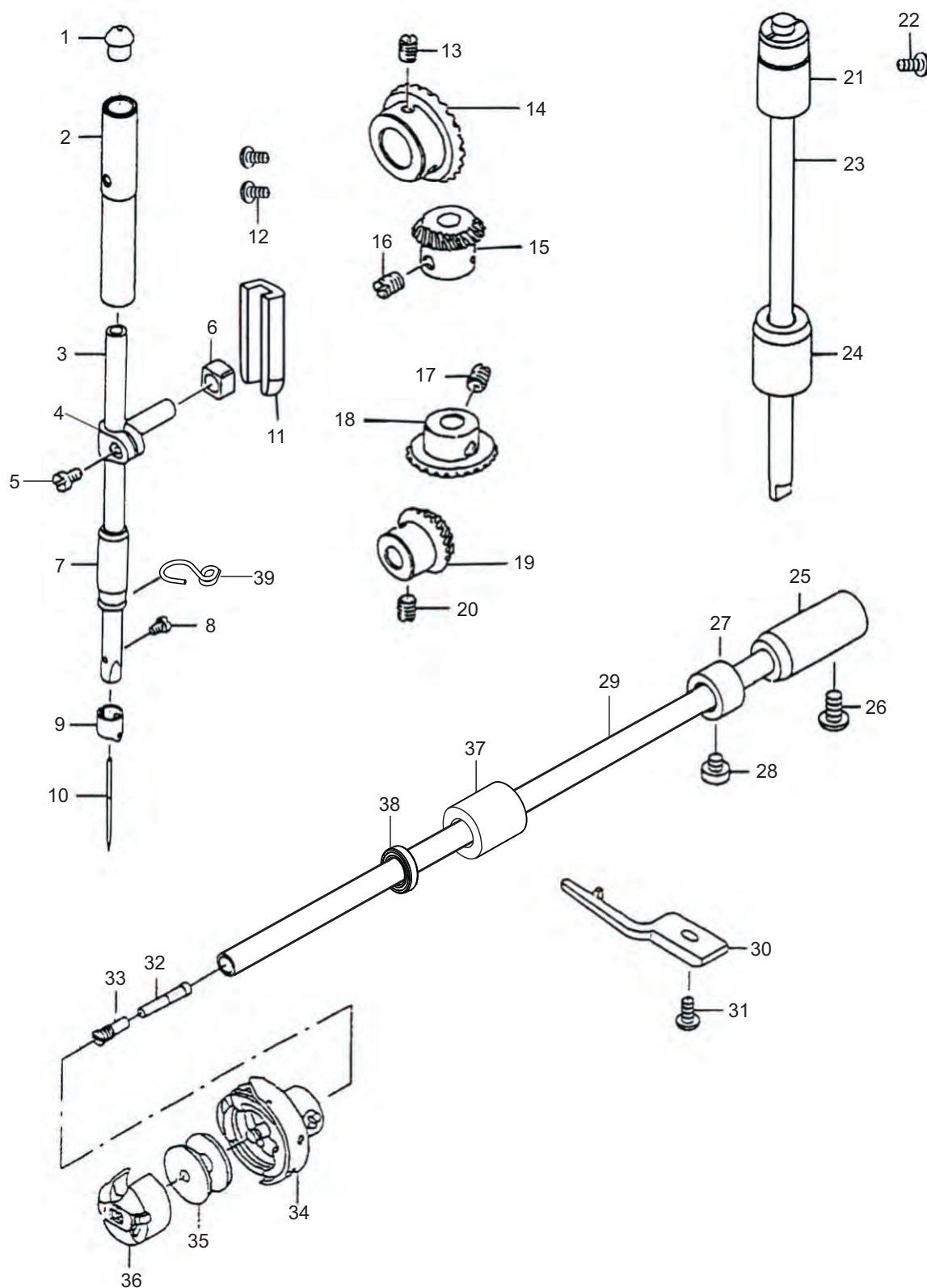
2.上轴及挑线部件 Main Shaft & Thread Take-up Components



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	SG0261-270403	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

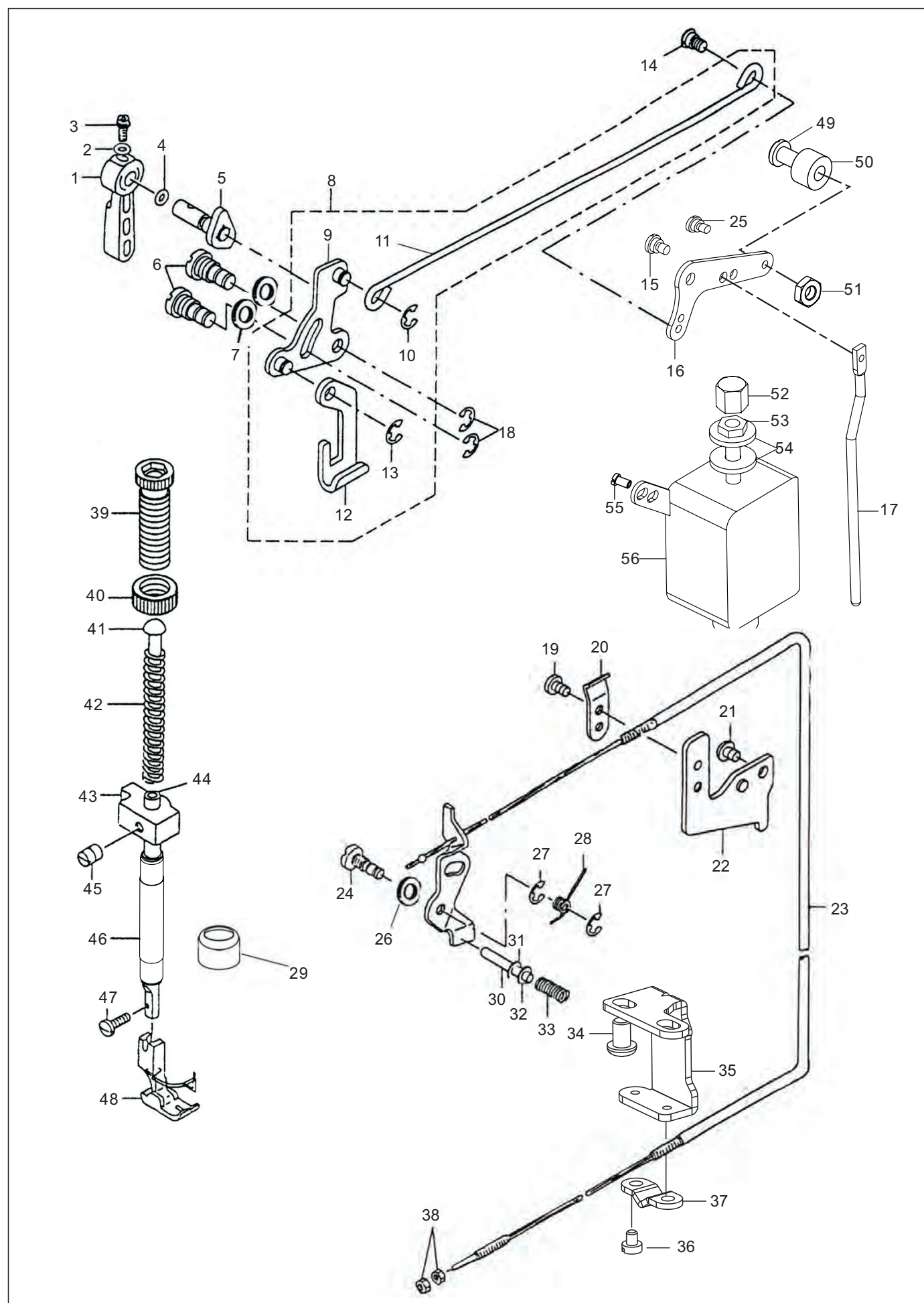
3. 针杆、竖轴、下轴部件 Needle bar, vertical shaft & hook driving shaft components



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

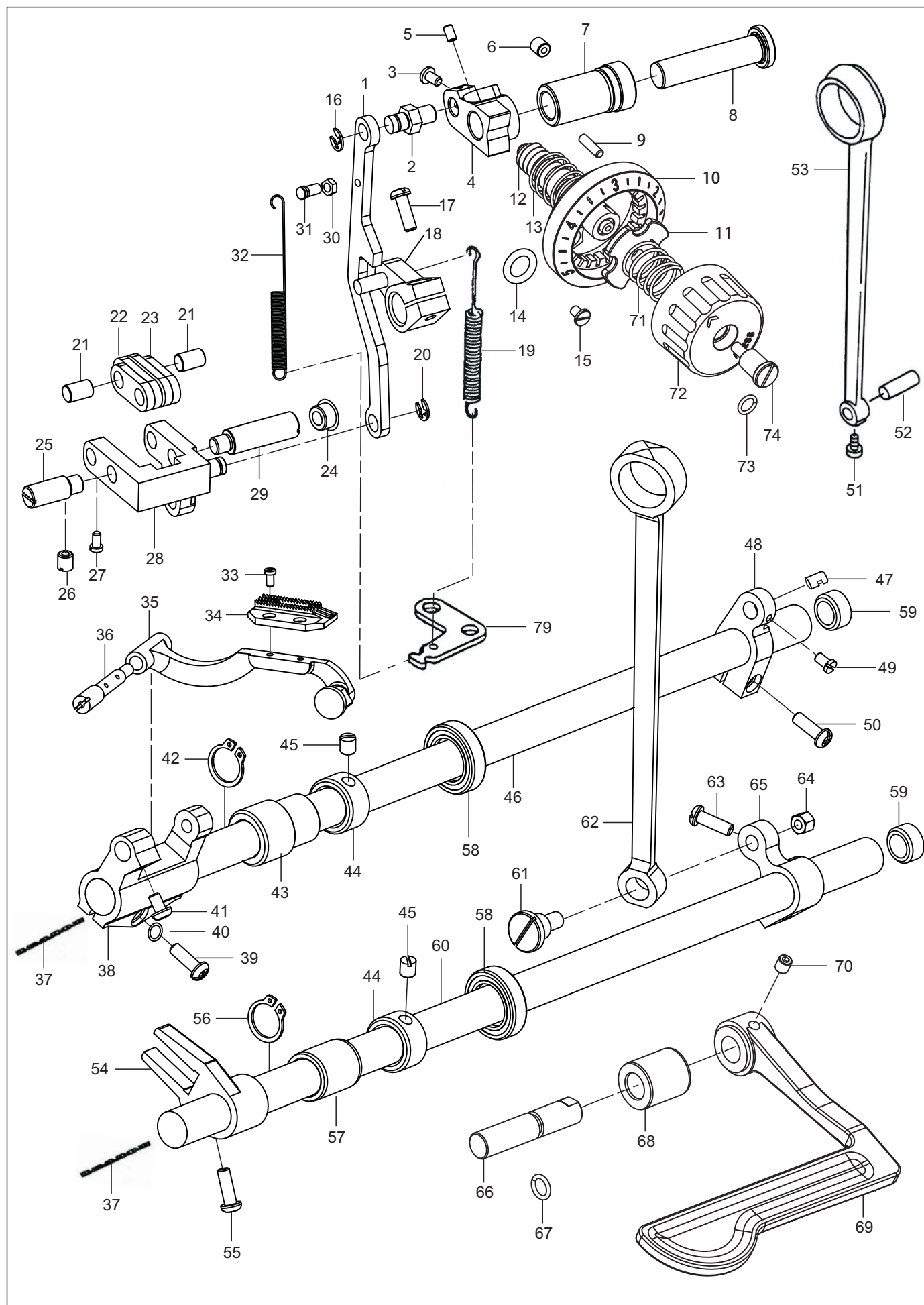
4. 压脚部件 Presser bar components



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.

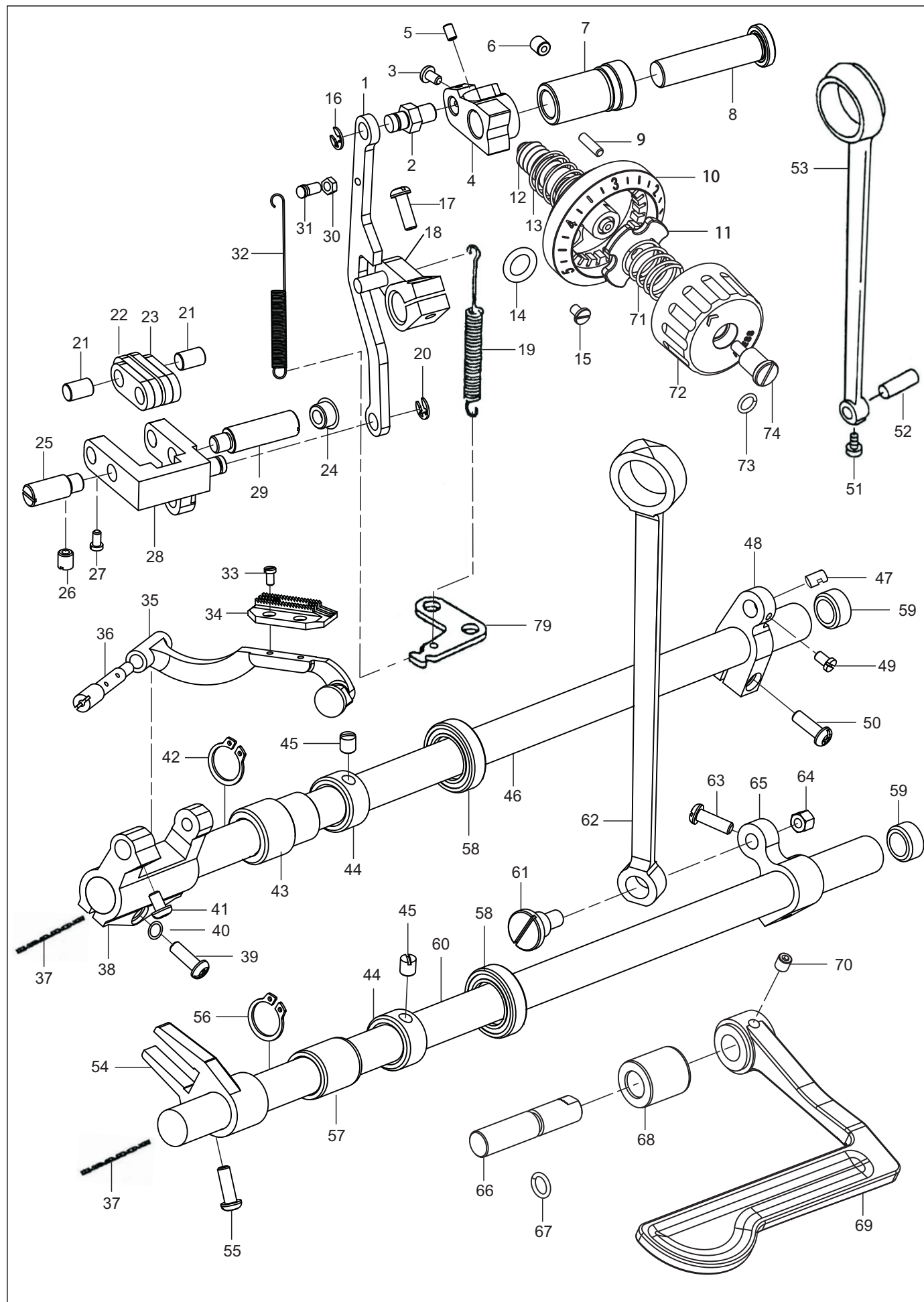
5.送料部件 Feed mechanism components



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	SG11-60111120-01	标盘螺钉	Screw Sm11/64x40 L=11
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

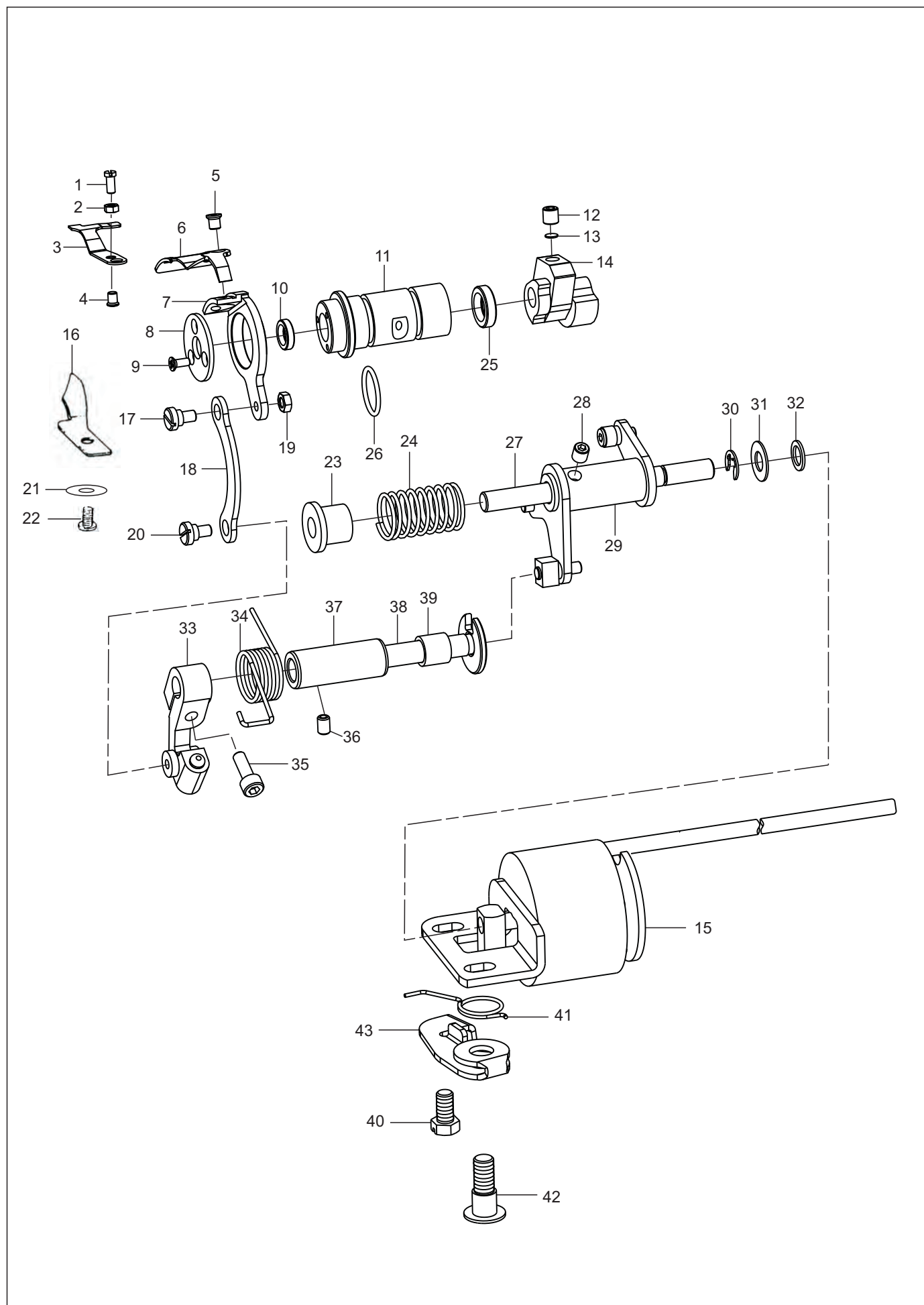
5.送料部件 Feed mechanism components



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

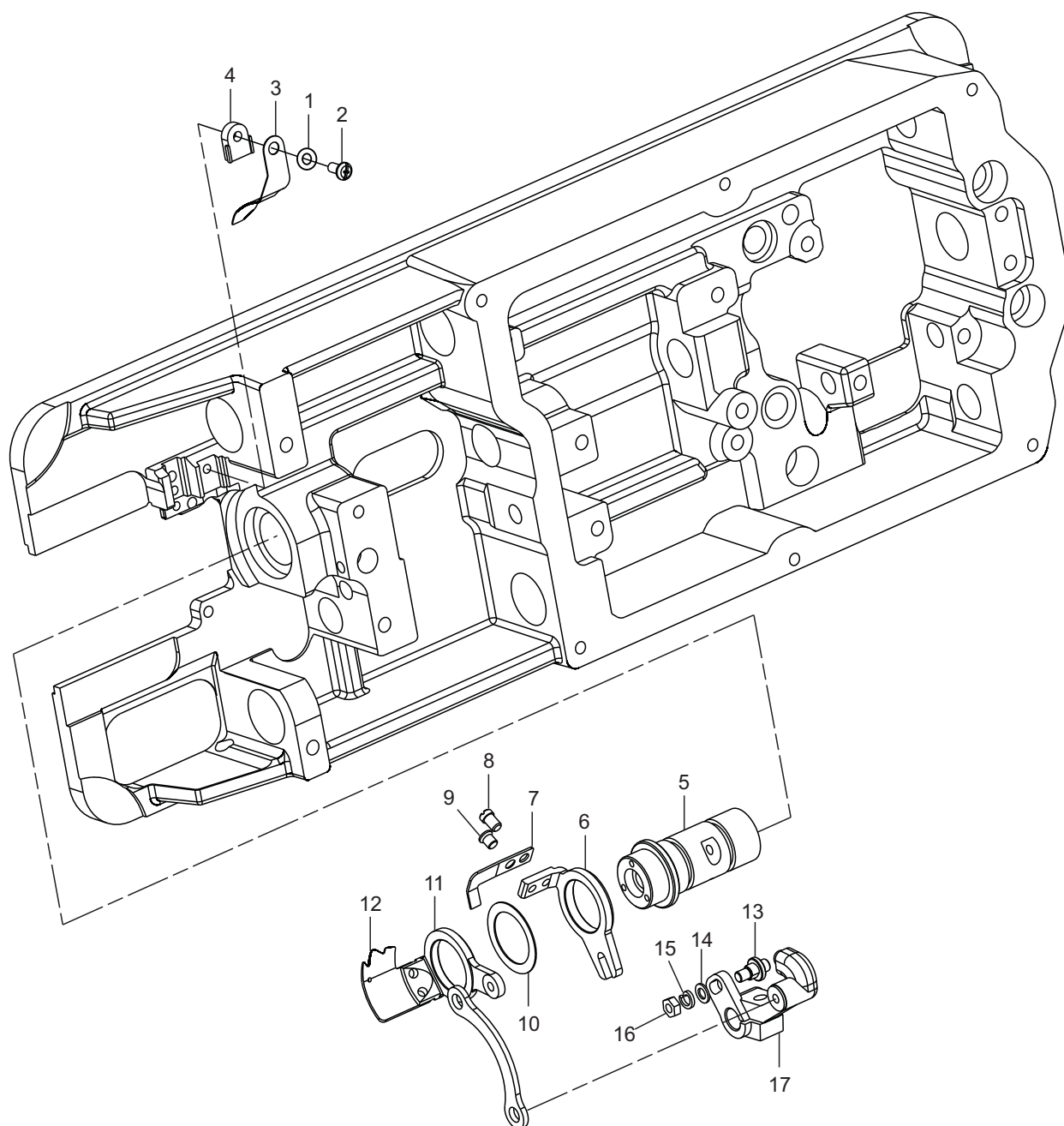
6-1.切线装置部件-单刀剪线 Thread trimmer components(261-140342-02)



6-1.切线装置部件-单刀剪线 Thread trimmer components (261-140342-02)

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

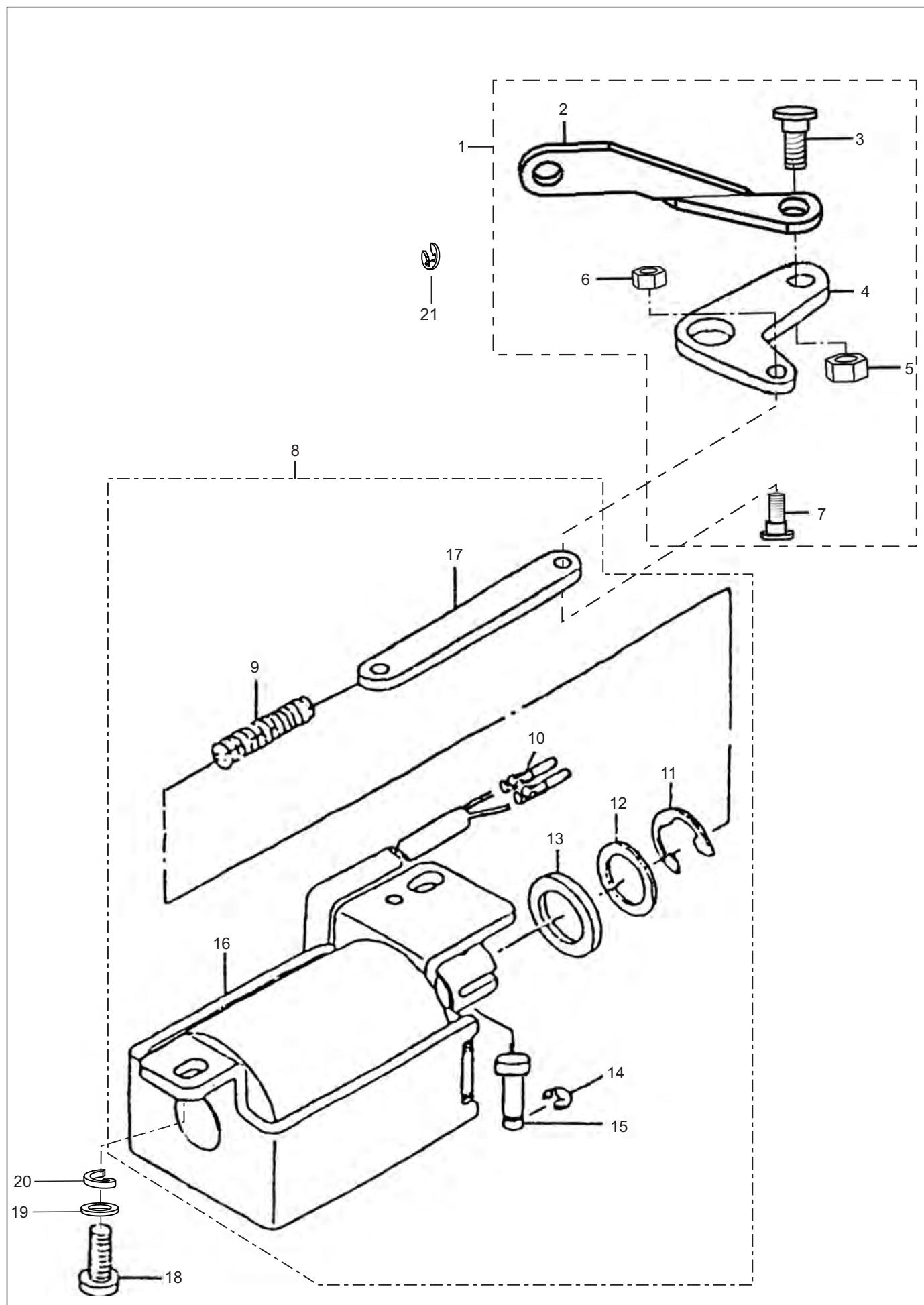
6-2.切线装置部件-双刀剪线 Short tread trimmer components (261-140345-02)



6-2.切线装置部件-双刀剪线 Short tread trimmer components (261-140345-02)

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.

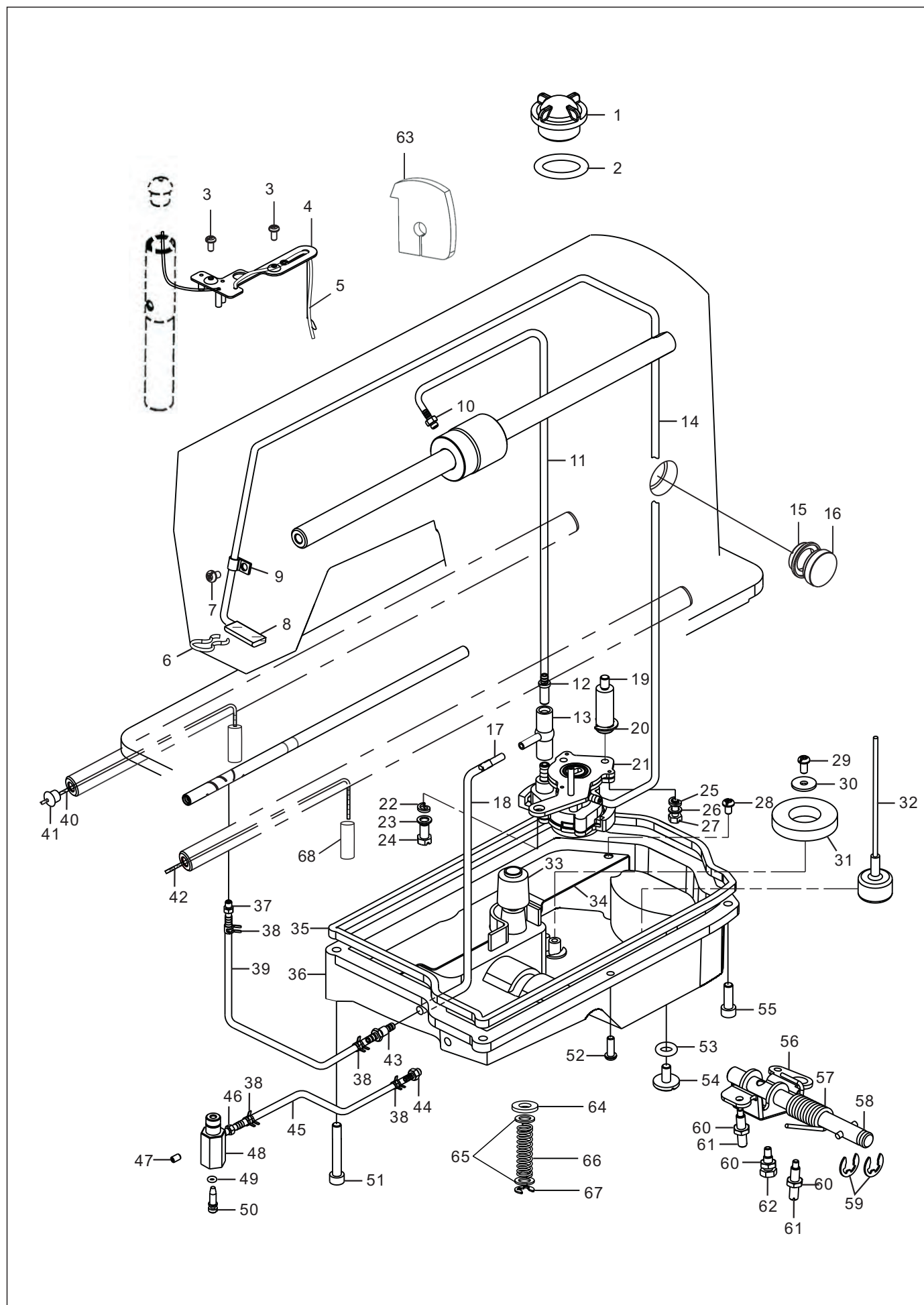
7.自动倒送料部件 Automatic Reverse Feed Components



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

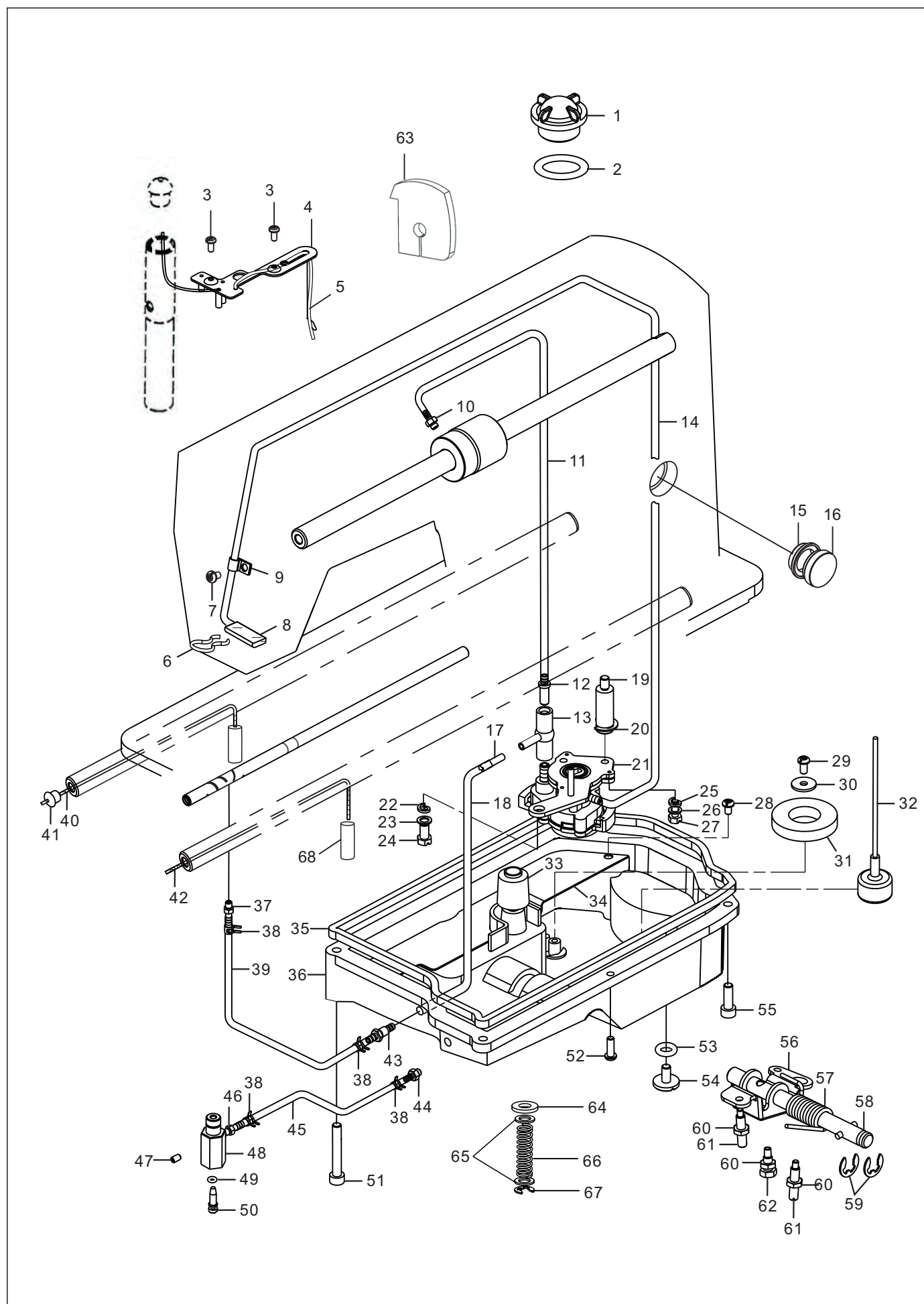
8. 润滑部件 Oil Lubrication Components



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

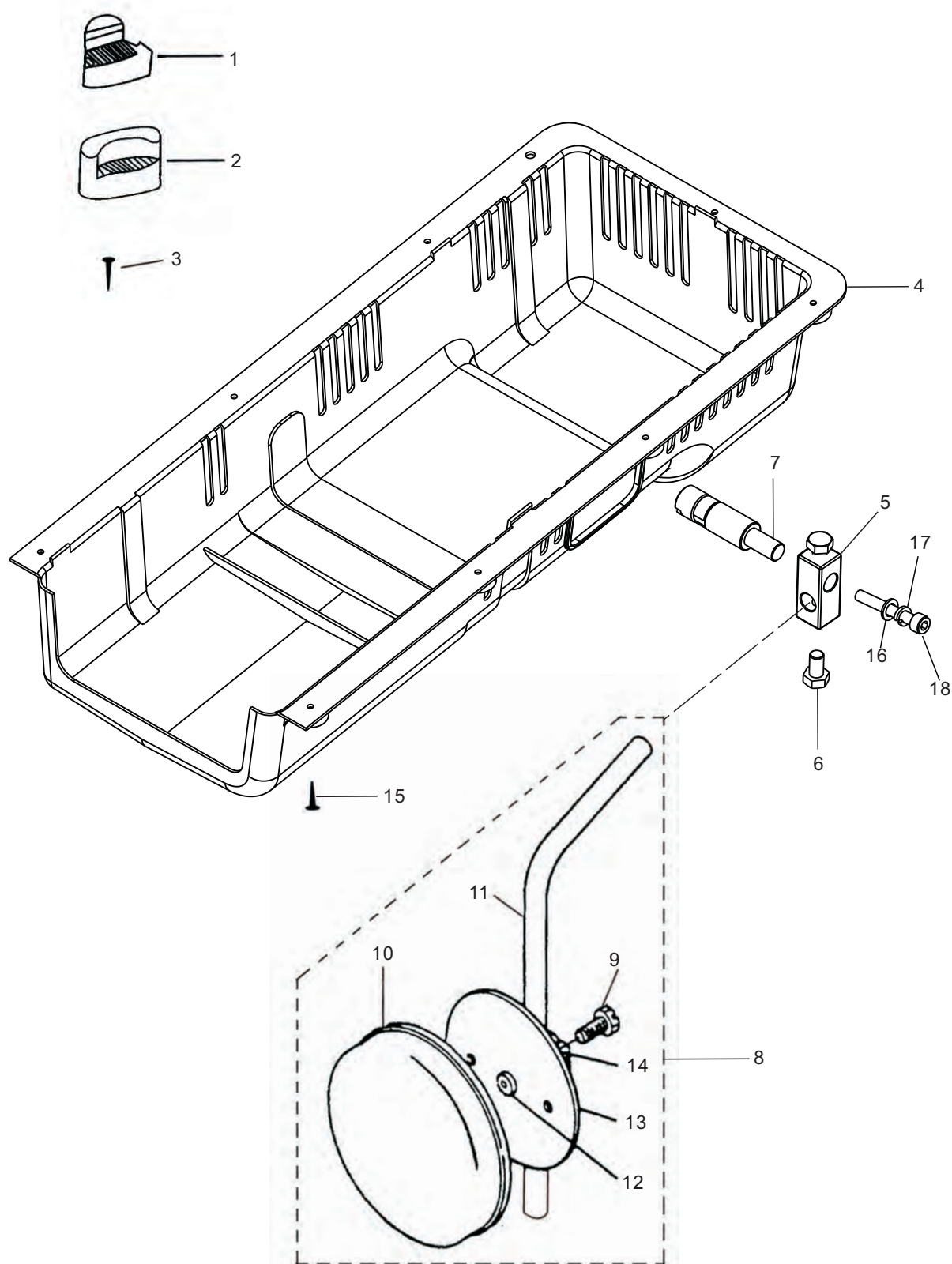
8. 润滑部件 Oil Lubrication Components



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

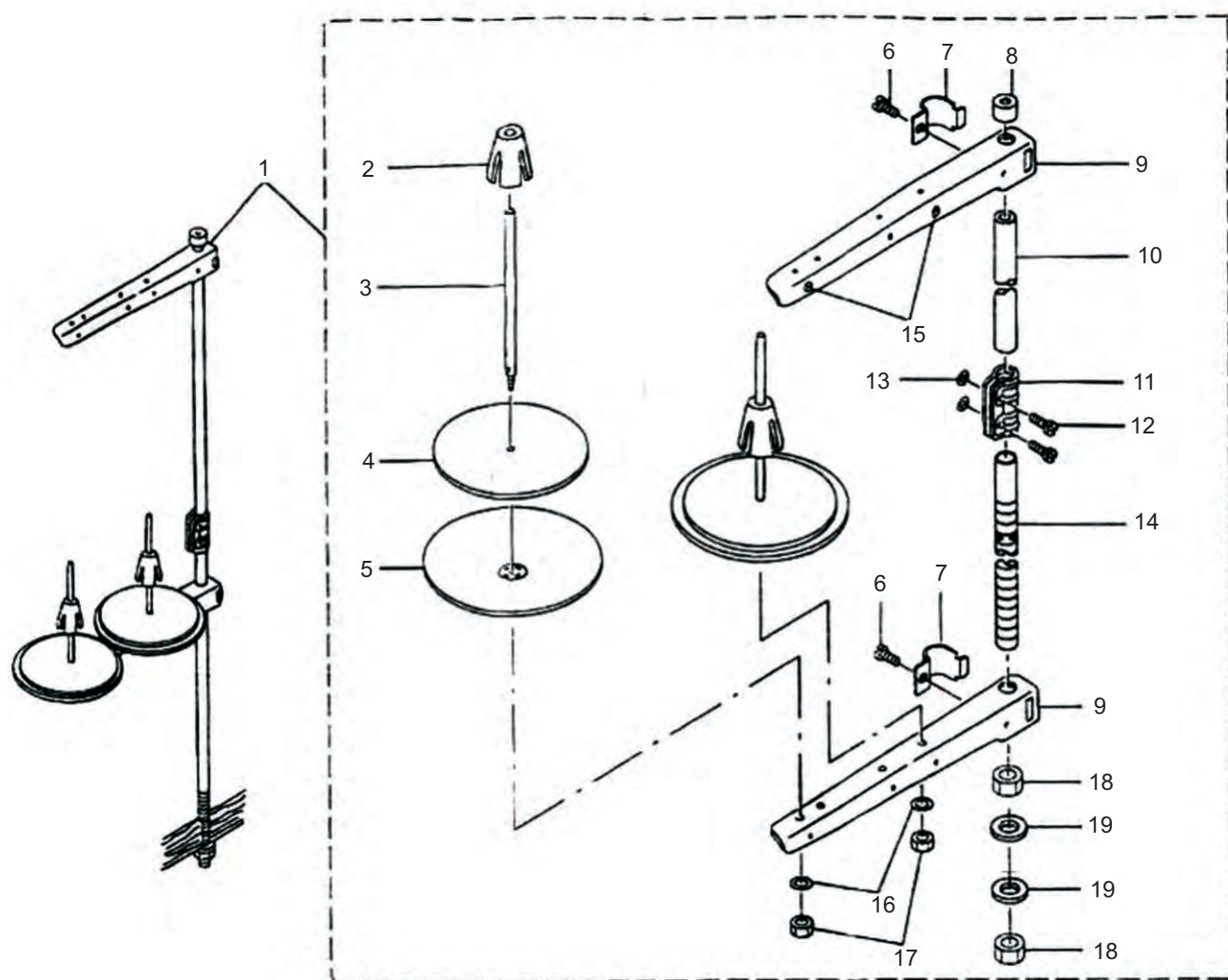
9.油盘、膝抬压脚部件 Oil Reservoir & Knee Lifter Components



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

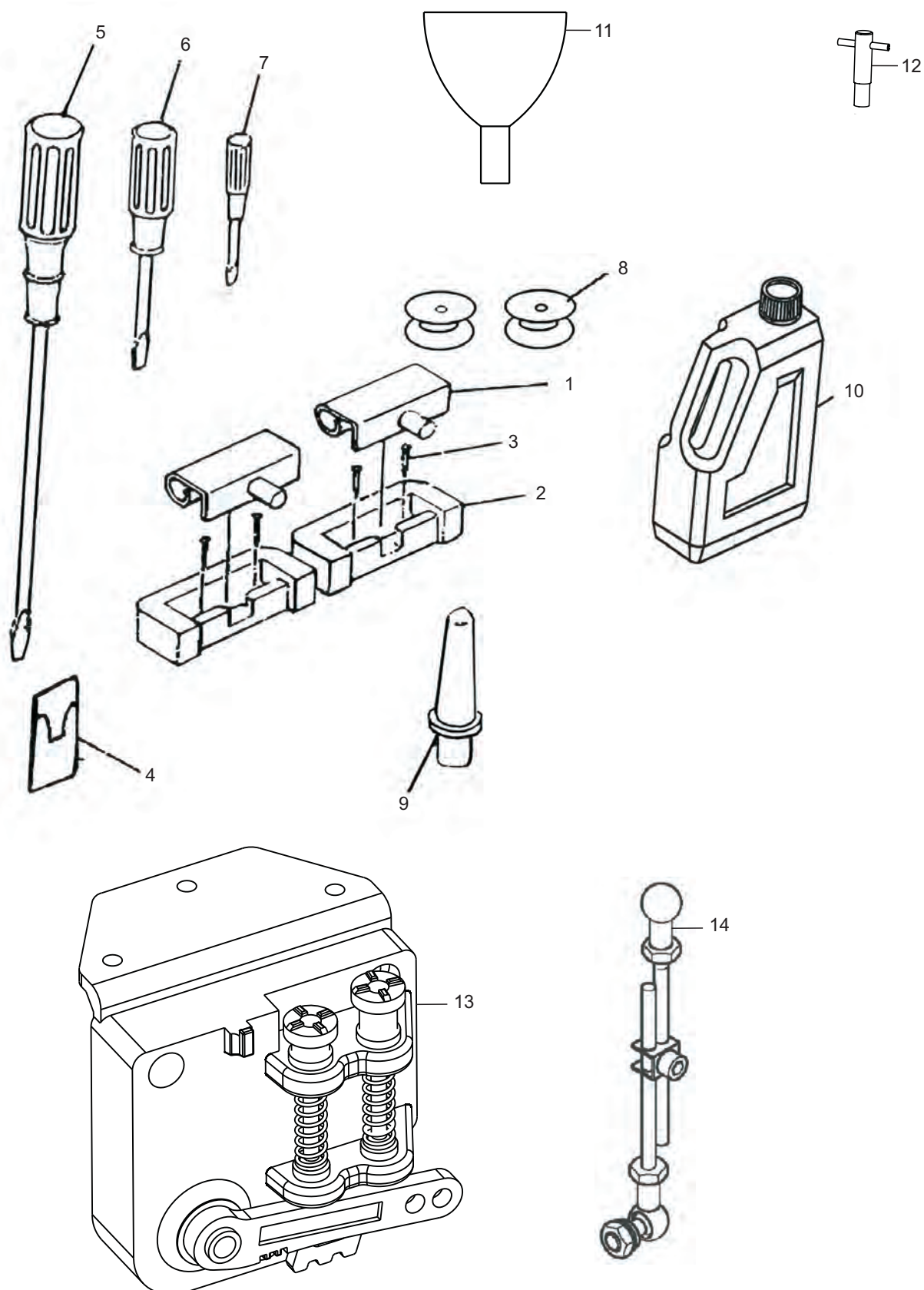
10.线架部件 Thread Stand Components



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

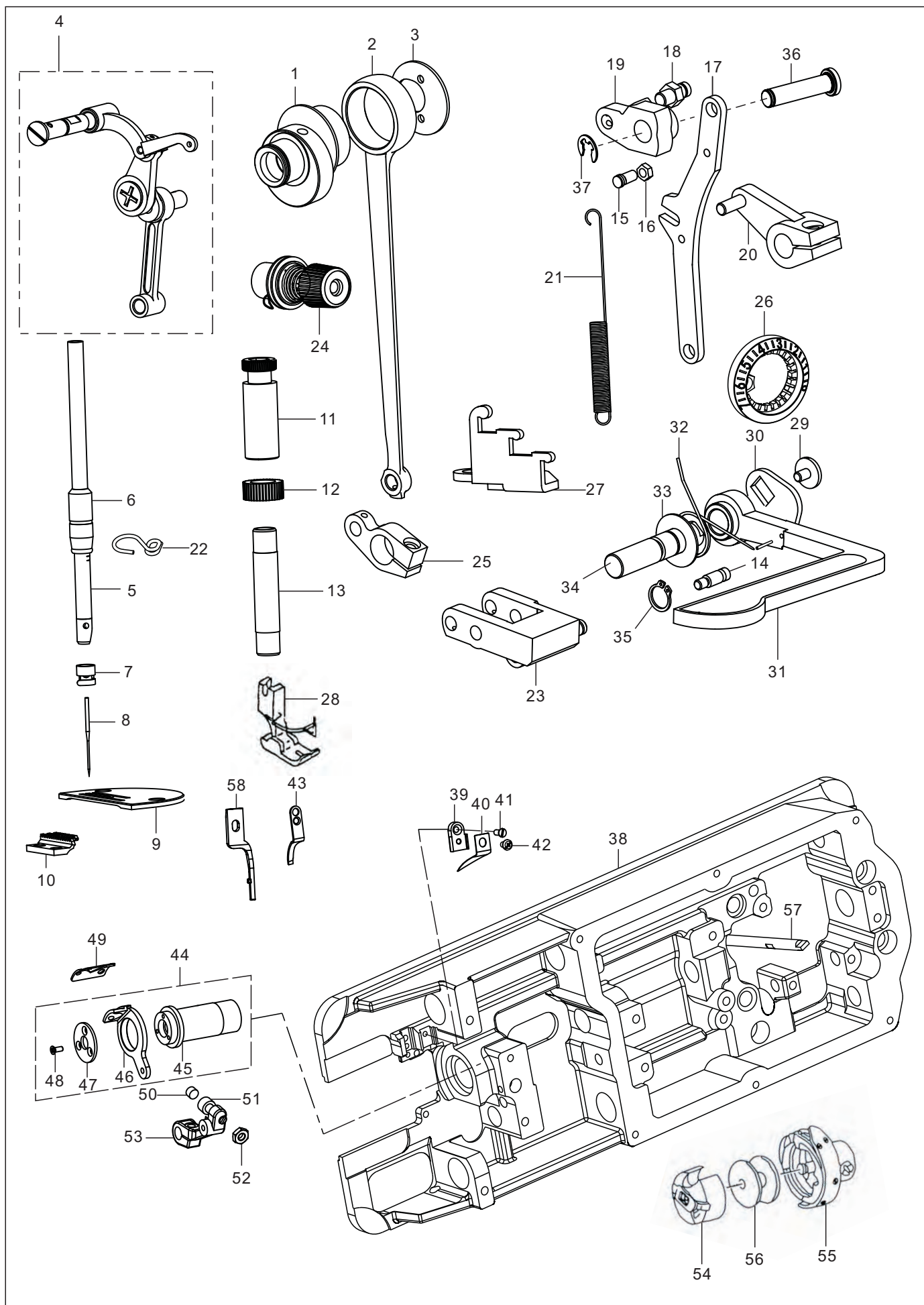
11.附件 Accessories



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

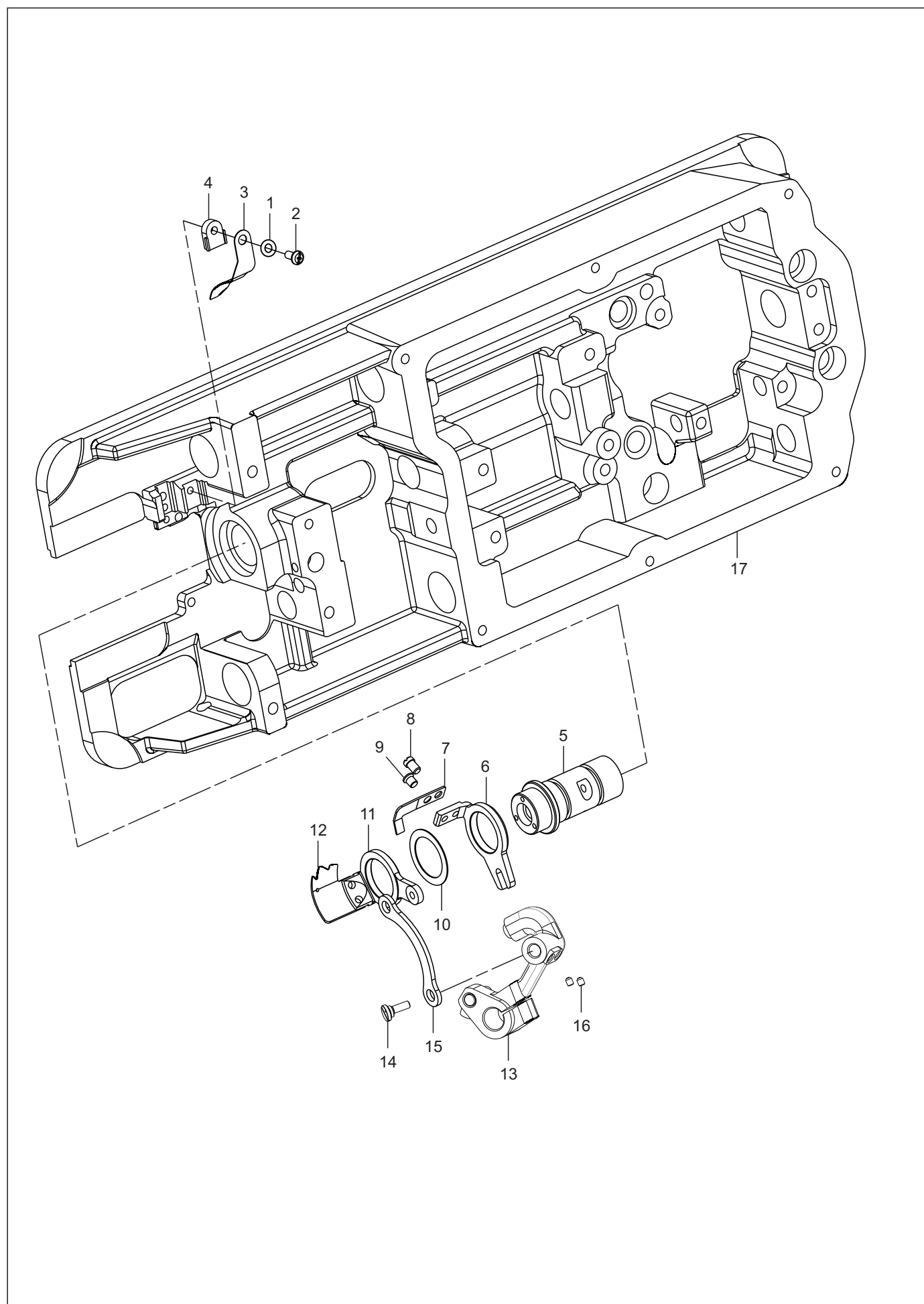
12. 厚料大旋梭部件 Heavy Duty Big Hook Components (261-160362-02)



12.厚料大旋梭部件 Heavy Duty Big Hook Components (261-160362-02)

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

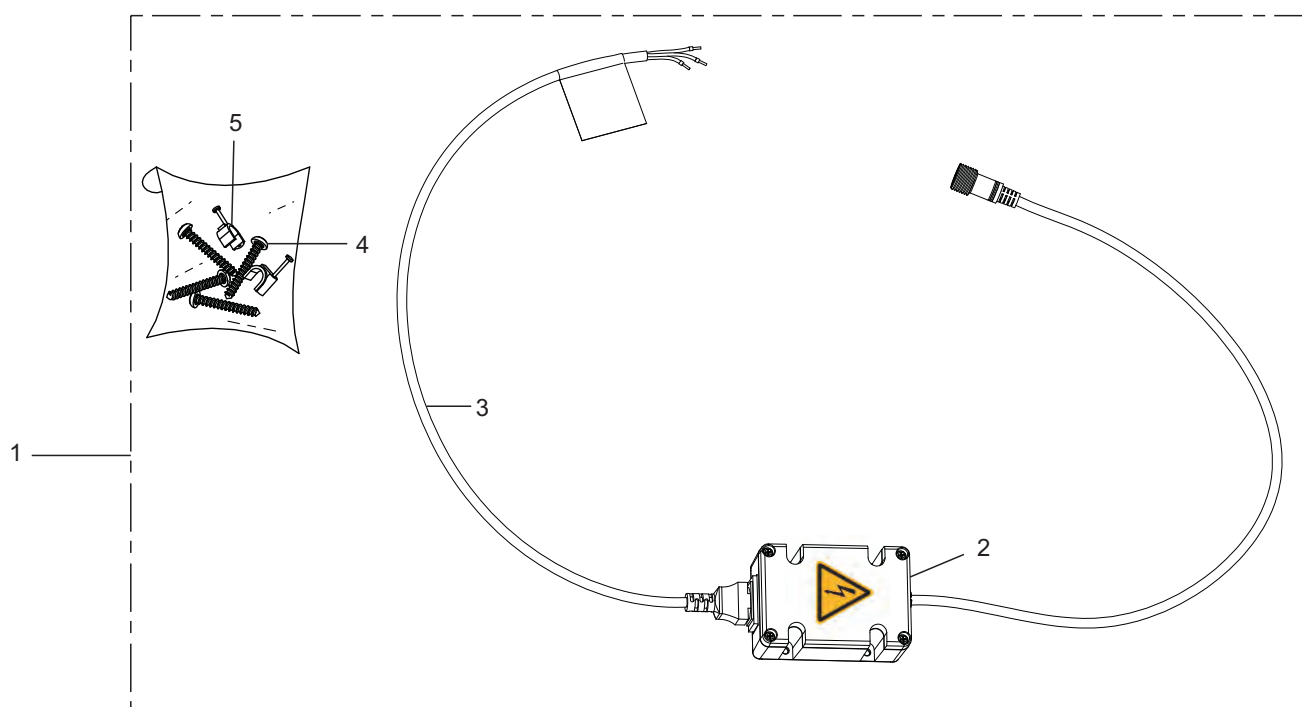
13.大梭双刀切线部件 Big Hook Short Thread Trimmer Component (261-160365-02)



13.大梭双刀切线部件 Big Hook Short Thread Trimmer Component (261-160365-02)

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 φ 8



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