



一体型自动剪线 平缝机

Integrated Automatic Thread Trimmer
Lockstitch Sewing Machine

Instructions for Operating **GB**
操作说明书 **CN**

注意： 为了安全地使用，请您在使用产品之前一定阅读本使用说明书。
另外，请您注意保管本使用说明书，以便随时查阅

NOTE: Read safety Instructions carefully and understand them before operation.
Retain this Instruction Manual for future reference.

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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。

此样本是二零二四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 2024 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 (△) 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 (⊘) indicates something that you must not do.



..... This symbol (●) 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℃-35℃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.



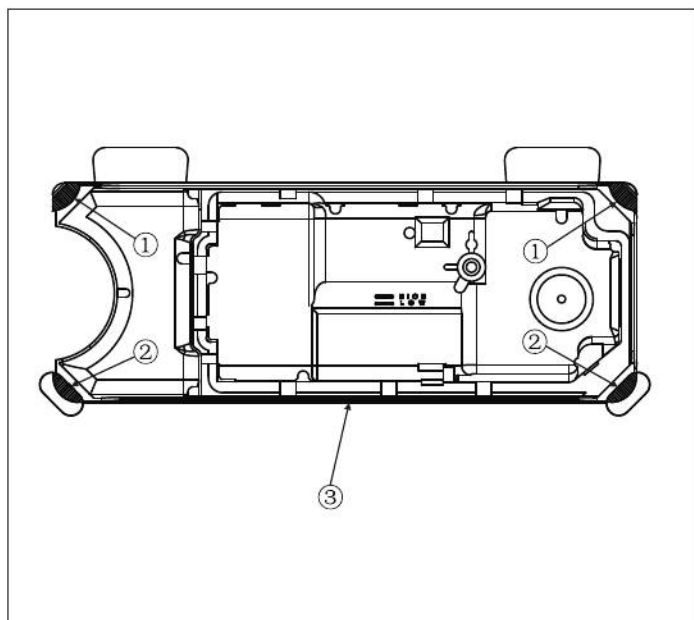
Be sure to wear protective goggles and gloves when handling the lubricating oil and grease, so that they do not get into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil or eat the grease under any circumstances, as they can cause vomiting and diarrhoea.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

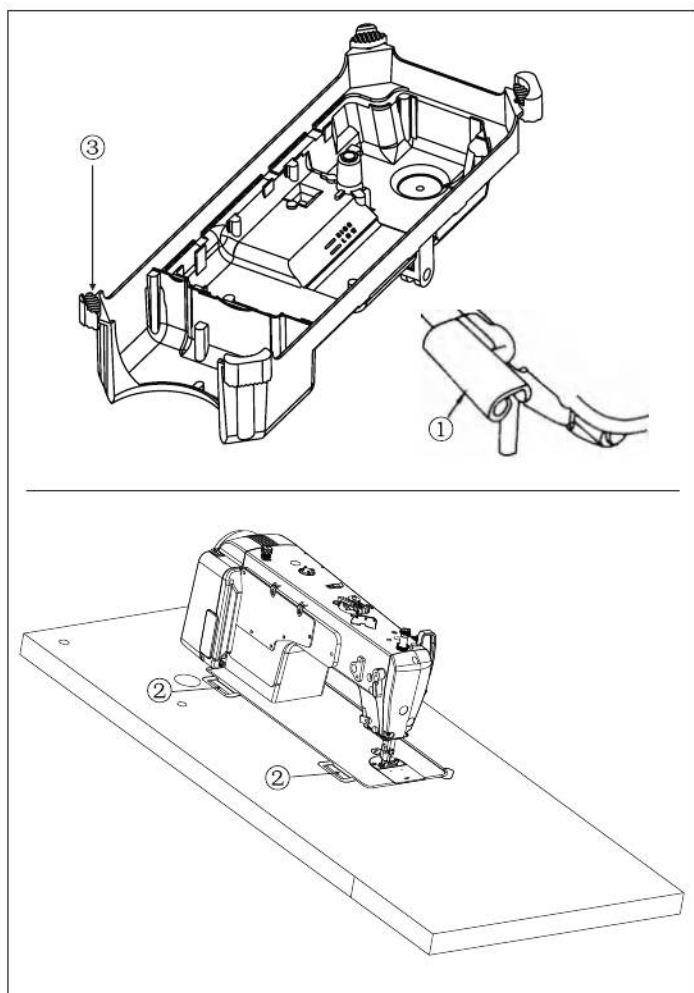


- 1) 油盘应搁在工作台凹槽四角。
- 2) 如图所示, 先将两只油盘支座小①与两只油盘支座大②分别置于油盘的四角, 然后将油盘③与油盘支座按如图所示方向放置于台板上。

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- 1) The oil pan should rest on the four corners of the machine table groove.
- 2) Fix two rubber seats ① and two rubber seats ② on the four corners of the oil pan. The oil pan should rest on the machine table groove.

(2). 铰链的安装 installing the hinge

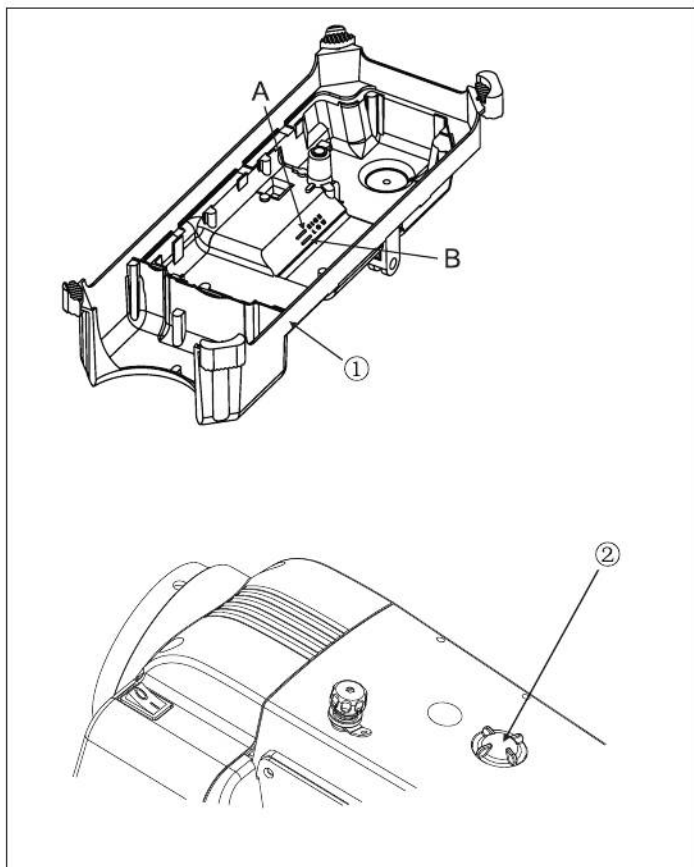


将机头连接钩①放入底板孔内, 与台板的机头连接钩座②相嵌合, 再将机头放到四只角的机头支座③上。

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Fit hinge① into the opening in the machine bed, and fit the machine head to table rubber hinge ② before placing the machine head on cushions ③ on the four corners.

2. 加油 Lubrication



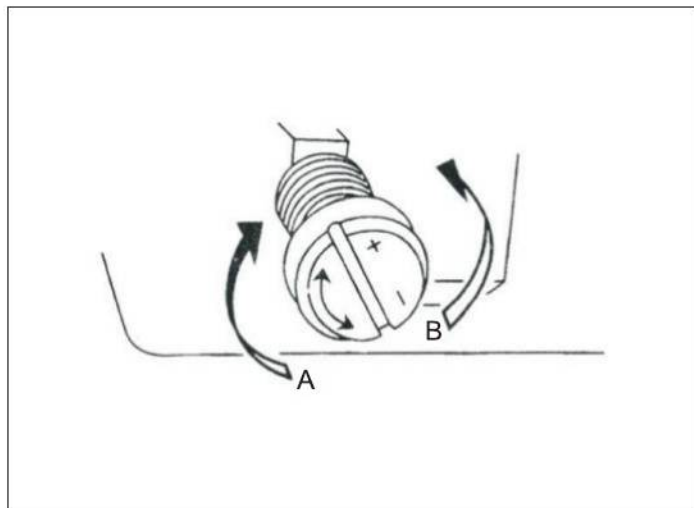
- 1) 把专用10#缝纫机润滑油加入到油盘①，加到HIGH标记A的位置。
- 2) 如果油面降到LOW标记B以下时，请再次把油加至HIGH位置。
- 3) 加油后运转缝纫机，润滑正常时应能看到油窗②里油面跳转。
- 4) 油跳动量的大小与油量的多少无关，因此不用担心。
(注意) 新缝纫机或较长时间没有使用的缝纫机，应进行约10分钟每分3000针的磨合运转。

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- 1) Fill oil pan ① with New Special Oil up to HIGH mark.
- 2) When the oil level lowers below LOW mark, refill the oil pan with the specified oil.
- 3) When you operate the machine after lubrication, you will see splashing oil through oil sight window ② if the lubrication is adequate.
- 4) Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil.
(Caution) When you first operate your machine after setup or after an extended period of disuse, run your machine at 3000 s.p.m. to 3500 s.p.m. for about 10 minutes for the purpose of break-in.

3. 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) 把下轴前段部的油量调节螺丝向+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。

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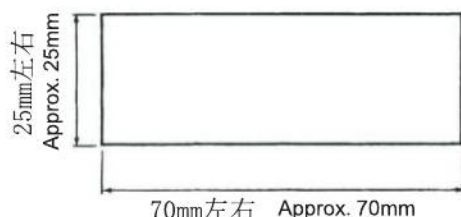
- 1) Turning the oil amount adjustment screw attached on the hook driving shaft front bushing in the + direction (in direction A) will increase the amount of oil in the hook, or in the - direction (in direction B) will decrease it.
- 2) After the amount of oil in the hook has been properly adjusted with 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	旋梭以调整运转。为了防止人身伤害，请充分注意调节油量。 Be extremely careful about the operation of the machine since the amount of oil has to be checked by turning the hook at a high speed.
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①油量确认专用纸

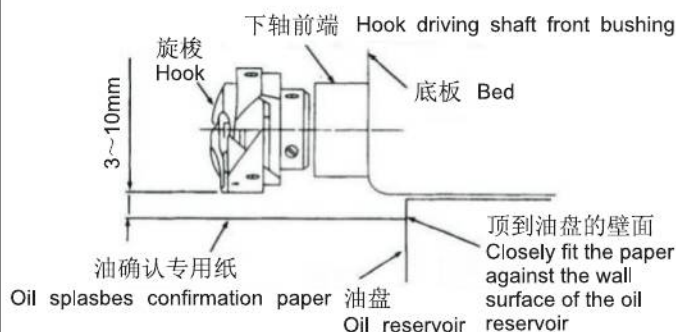
①Amount of oil confirmation paper



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

②油量确认位置

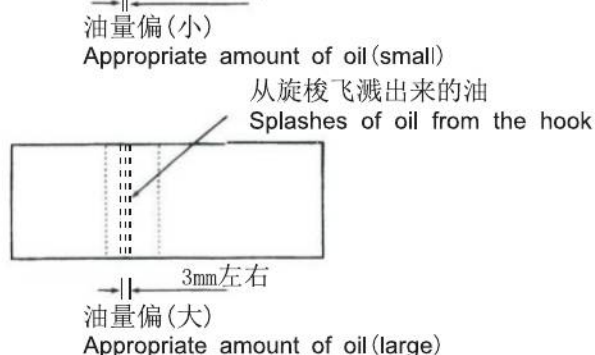
②Position to confirm the amount of oil



- 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.

③适合的油量样品

③Sample showing the appropriate amount of oil



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 intermittent operation.)
- 2) Place the amount of oil (oil splashes) confirmation paper under the hook while the sewing machine is in operation.
- 3) Confirm that the height of the oil surface in the oil reservoir is within the range between "HIGH" and "LOW".
- 4) Confirmation of the amount of oil should be completed in five seconds.(Check the period of time with a watch.)

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)

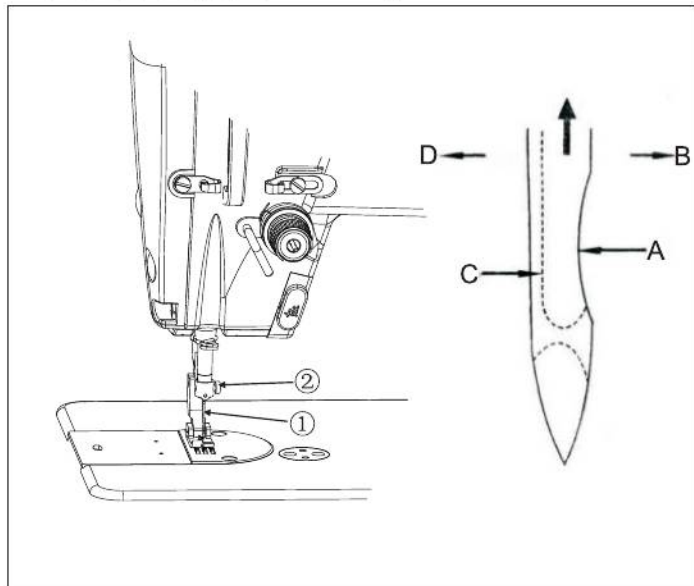
6) 油量应确认3次(3张)均无变化。

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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 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).

4. 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。

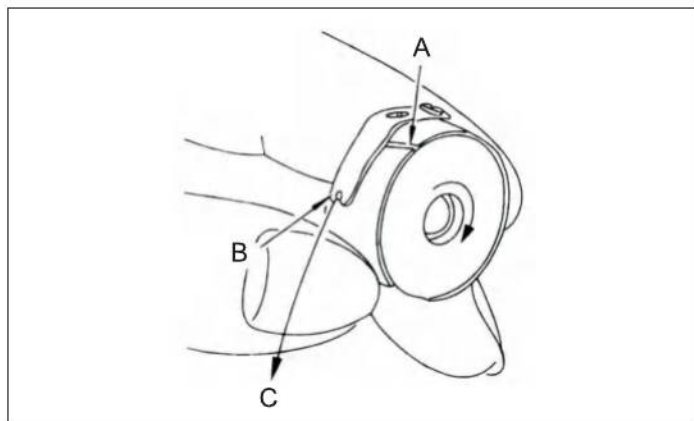
- 1) 转动手轮，把针杆升到最高处。
- 2) 拧松机针固定螺丝②，手拿机针把机针①凹部A横向转到B的方向。
- 3) 把机针插到针杆孔的深处。
- 4) 拧紧机针固定螺丝②。
- 5) 确认针的长孔C在左横向D的方向。

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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.

5. 梭心的安装方法 Setting the bobbin into the bobbin case



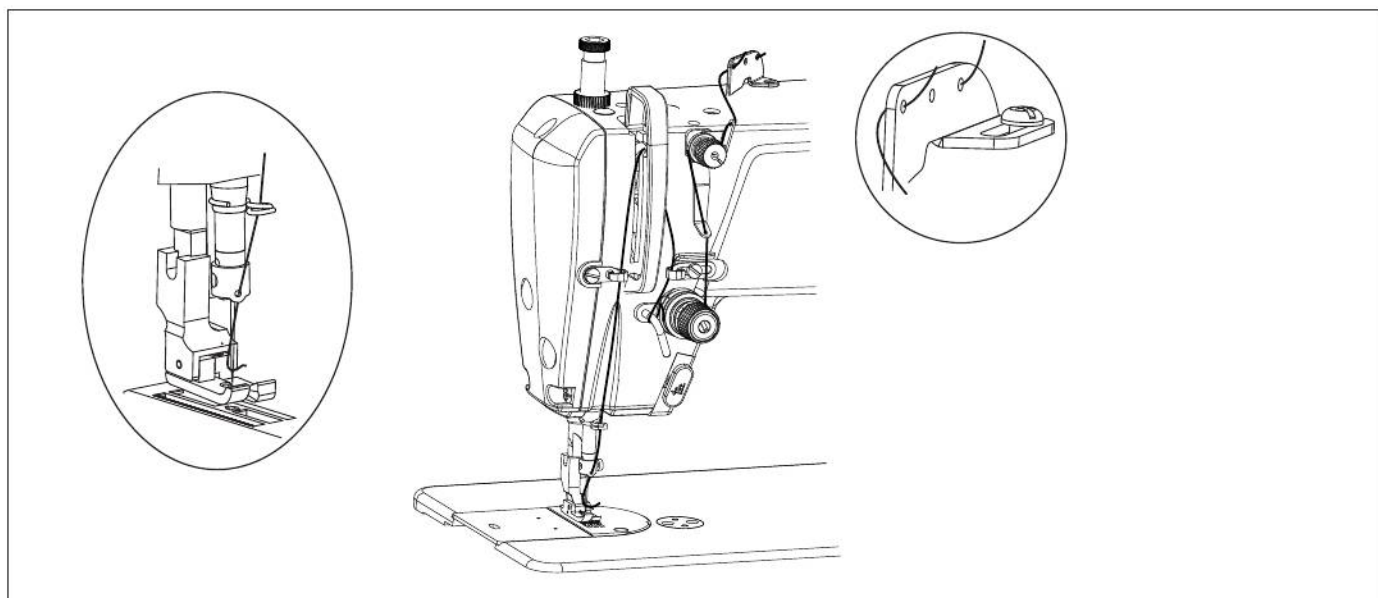
- 1) 手拿梭心，让线往左绕C方向，把它放入梭壳。
- 2) 把线穿过梭壳的穿线口A，然后把线往B方向拉，从线张力弹簧下面的穿线口B拉出来。
- 3) 拉底线C，确认梭心是否按箭头方向转动。

EN

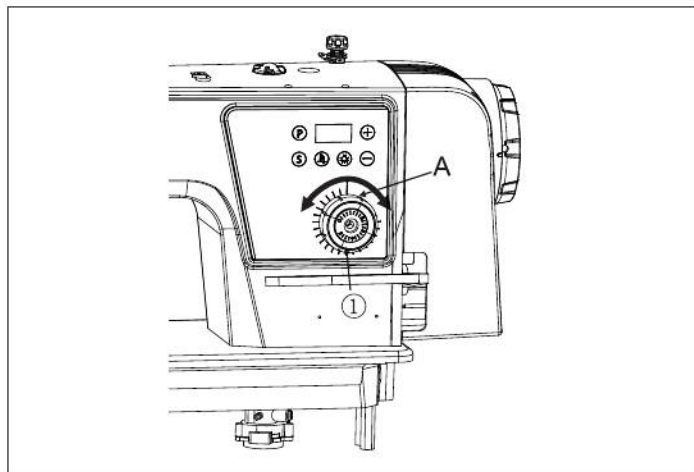
- 1) Install the bobbin in the bobbin case so that the thread wound direction is clock wise.
- 2) Pass the thread through thread slit A, and pull the thread in direction B. By doing so, the thread will pass under the tension spring and come out from notch.
- 3) Check that the bobbin rotates in the direction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

6. 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.
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7. 缝迹长度的调节 Adjusting the stitch length

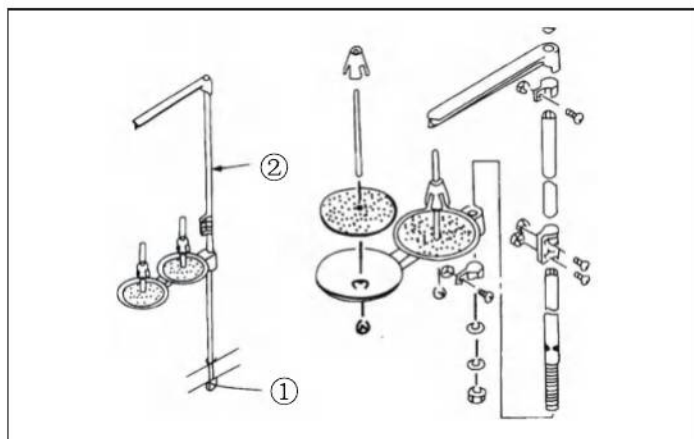


- 1) 沿箭头方向转动送布调节刻度盘①，并把希望的数字对准机臂的刻点A。
- 2) 刻度盘的数字为mm。

EN

- 1) Turn stitch length dial① in the direction of the arrow, and align the desired number to marker dot A on the machine arm.
- 2) The dial calibration is in millimeters.

8. 线架的安装 Installing the thread stand

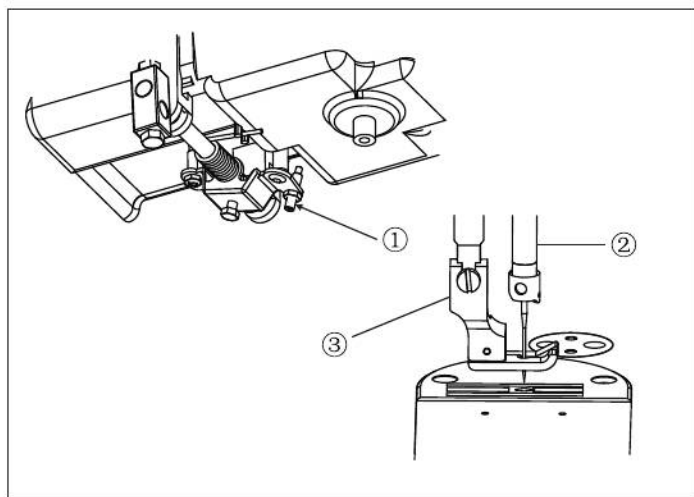


- 1) 如图所示把线架安装到台板右上角孔上。
- 2) 用固定螺母①固定线架。
- 3) 若采用顶线配线时，请把电源线从线架杆②中穿过。

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.

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

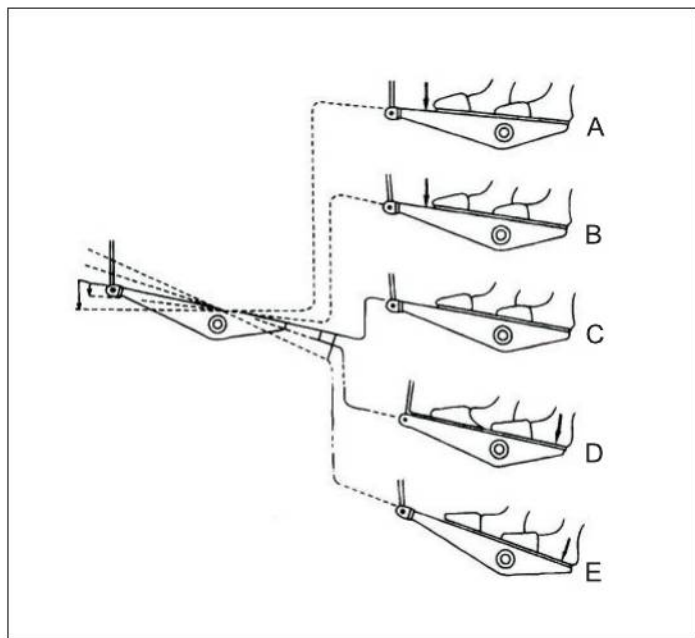


- 1) 膝动提升压脚的标准高度为10mm。
- 2) 调节膝动提升调节螺丝①可以把压脚最高提升到13mm。（薄料机种最大只能调到9mm）
- 3) 压脚提升到10mm以上时，调整时请注意不要让针杆②的前端在最下方时也不能碰到压脚③。

EN

- 1) The standard height of the presser foot lifted using the knee lifter is 10mm.
- 2) You can adjust the presser foot lift up to 13 mm using knee lifter adjust screw ①. (The max, lift should be 9 mm for the weak material)
- 3) When you have adjusted the presser foot lift to over 10mm, be sure that the bottom end of needle bar ② in its lowest position does not hit presser foot ③.

10. 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。

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.

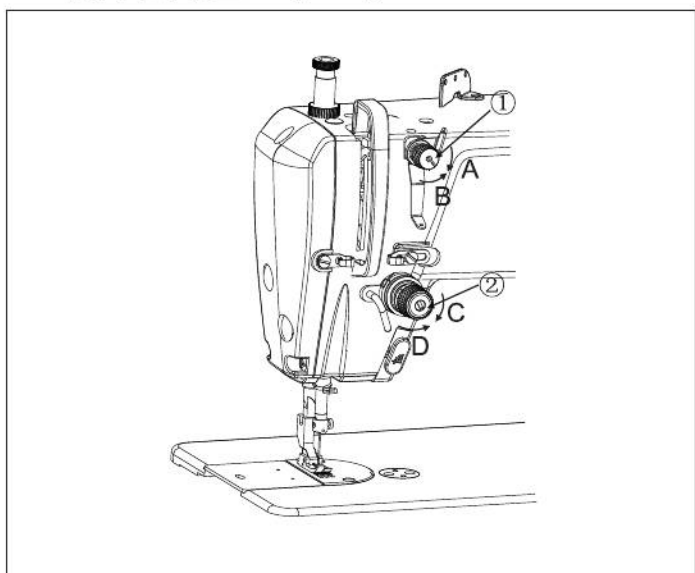
4) The machine trims threads when you fully depress the back part of the pedal.

• 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.

11. 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

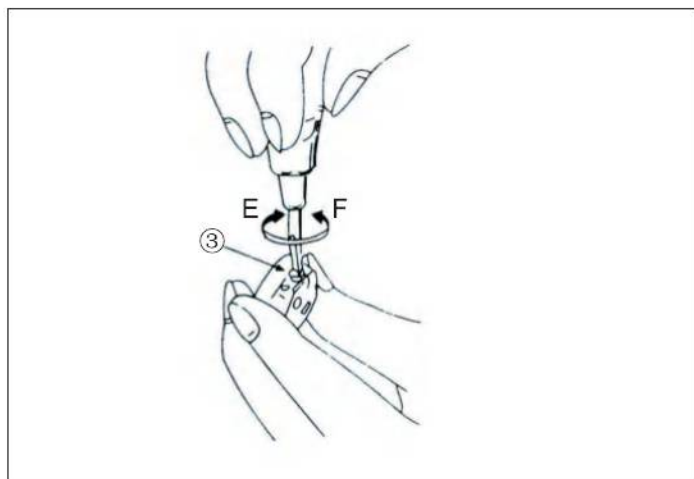
1) As you turn thread tension No.1 nut ① clock wise (indirection A), the thread remaining on the needle after thread trimming will be shorter.

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.

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



2. 底线张力的调整

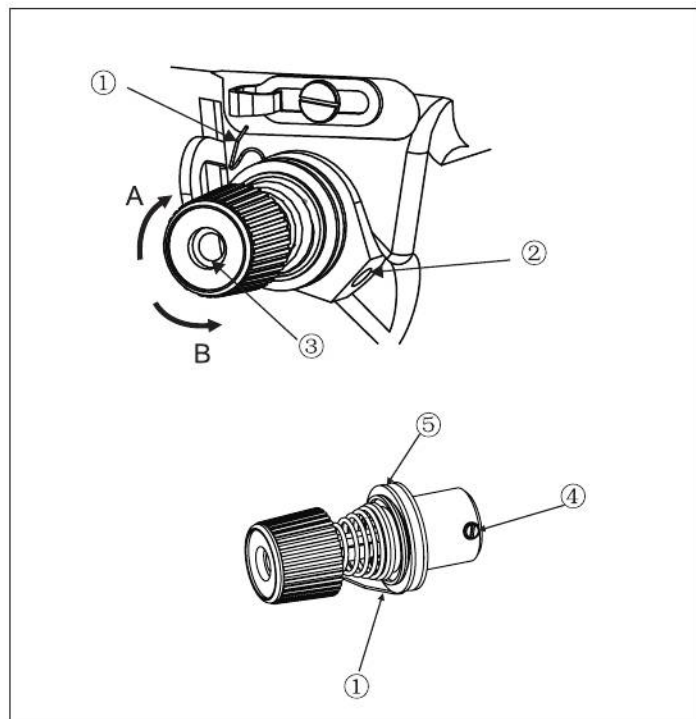
- 1) 把底线张力螺丝③向右E的方向转动，底线张力变强。
- 2) 向左F的方向转动则变弱。

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.

12. 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

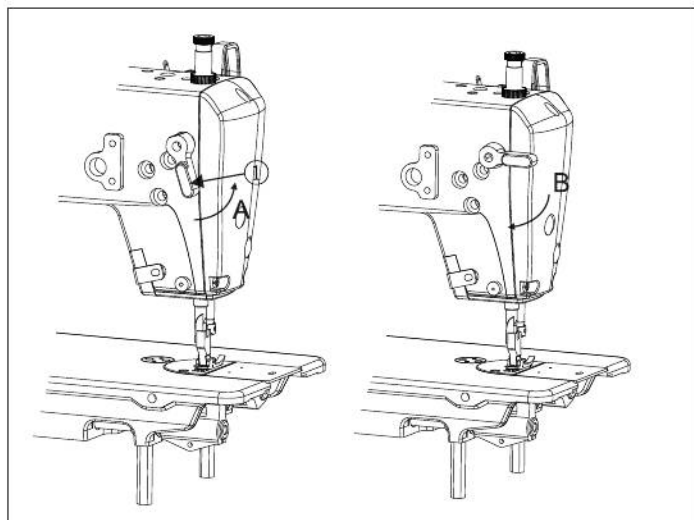
1. Changing the stroke of thread take-up spring ① 1) Loosen setscrew ②.

- 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.

13. 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的方向落下压脚则返回原来的位置。

- 3) 膝动提升的标准量为10mm，最大可上升约13mm。

EN

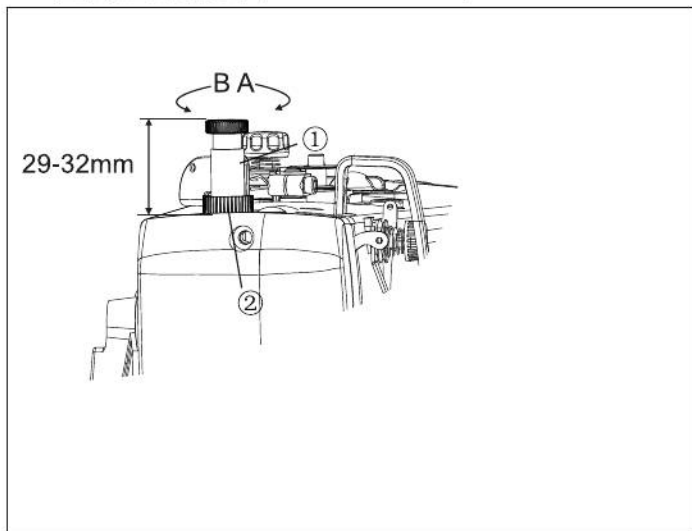
- 1) To stop the machine with its presser foot up, turn hand lifter lever ① in the direction A.

- 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 10 mm and the maximum lift of about 13mm .

14. 压脚压力的调节 Presser foot pressure

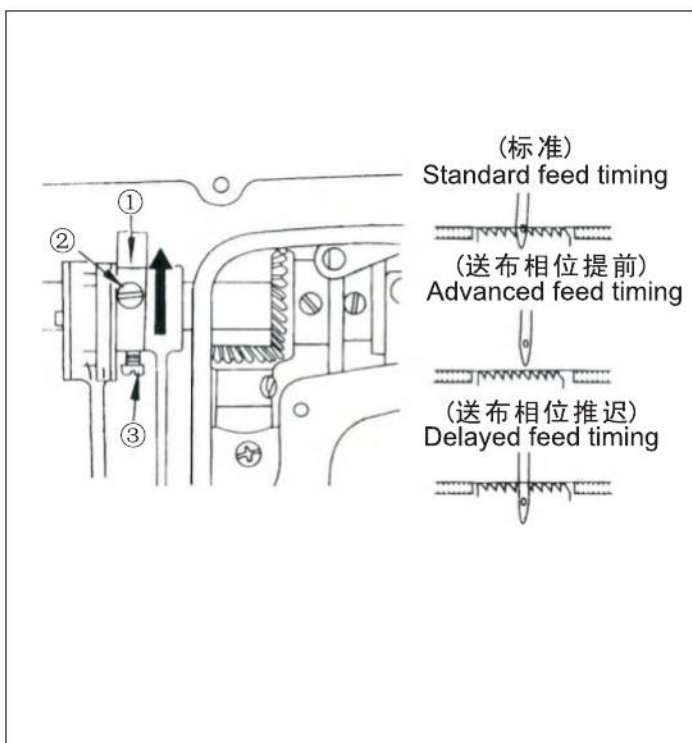


- 1) 拧紧螺母②，把压脚调节螺钉①向右A方向转，压脚压力变强。
- 2) 向左B方向转，压脚压力变弱。
- 3) 调节后，拧紧螺母②。
- 4) 一般布料时，压脚调节螺钉的标准高度为29~32mm。

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.

15. 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面的位置。
- 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.

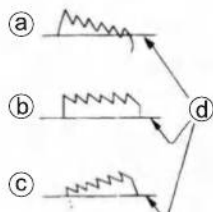
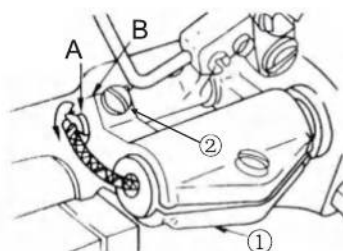
16. 送布牙的倾斜 Tilt of the feed dog



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 feel 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.

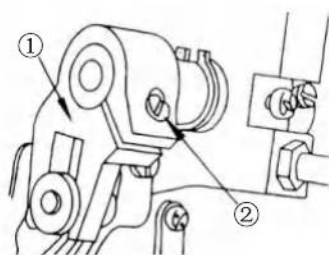
17. 送布牙的高度 Height of the feed dog



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.



普通型 0.8~1.0mm
⇒ ① ②

薄料 0.7~0.9mm
⇒ ① ②

厚料 1.0~1.2mm
⇒ ① ②

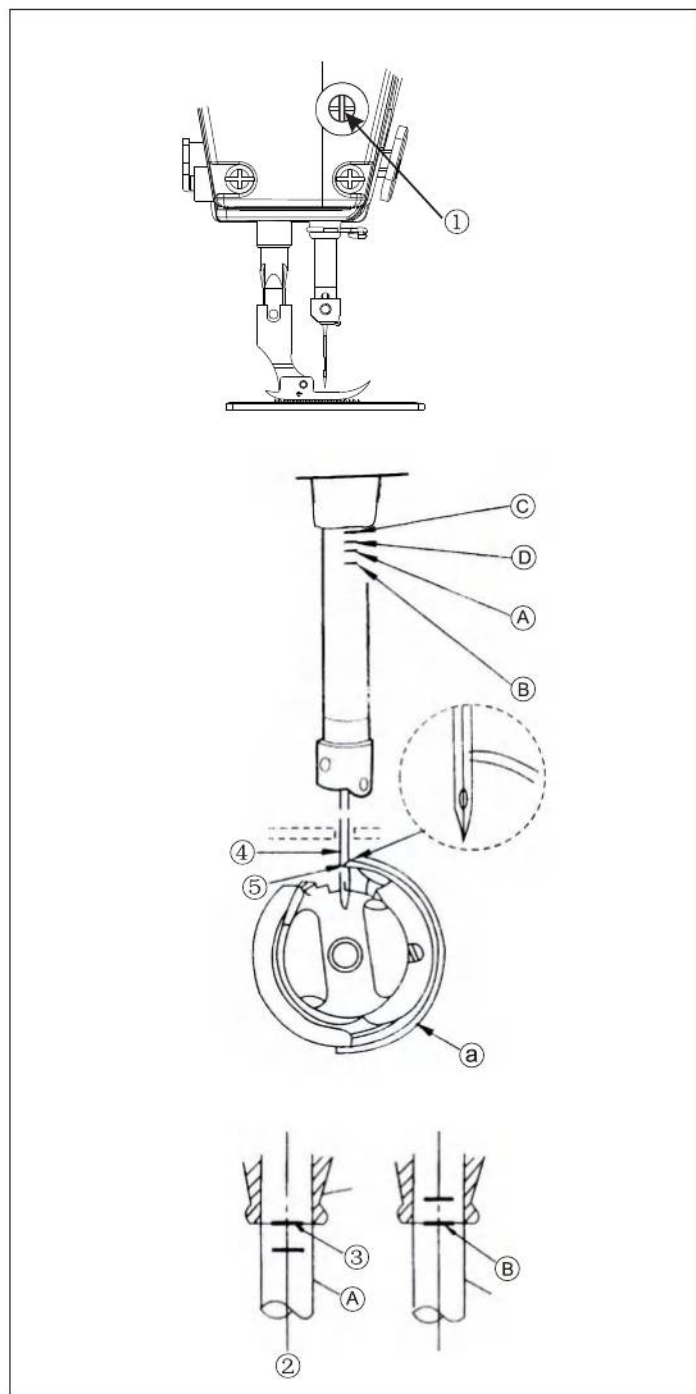
① Feed dog ② Throat plate
① 送布牙 ② 针板

- 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.

18. 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.

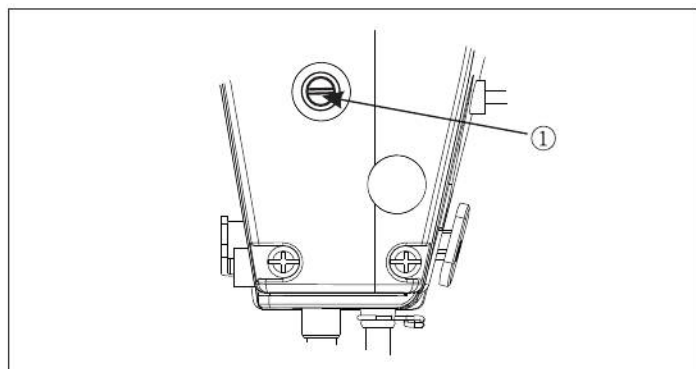
(For a DA needle) Loosen the three hook setscrews, turn the handwheel, and align marker line D on ascending needle bar ② with the bottom end of needle bar lower bushing ③.

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.

19. 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。

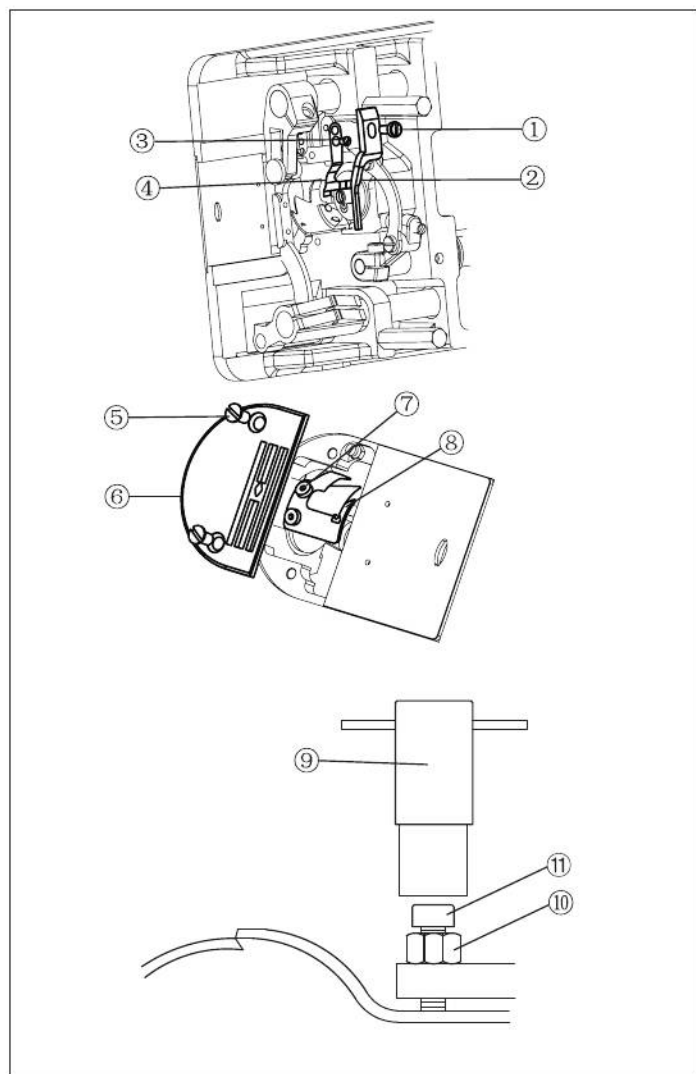
2) 调节后，再拧紧固定螺丝。

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.

20. 定刀与移动刀的转换 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.

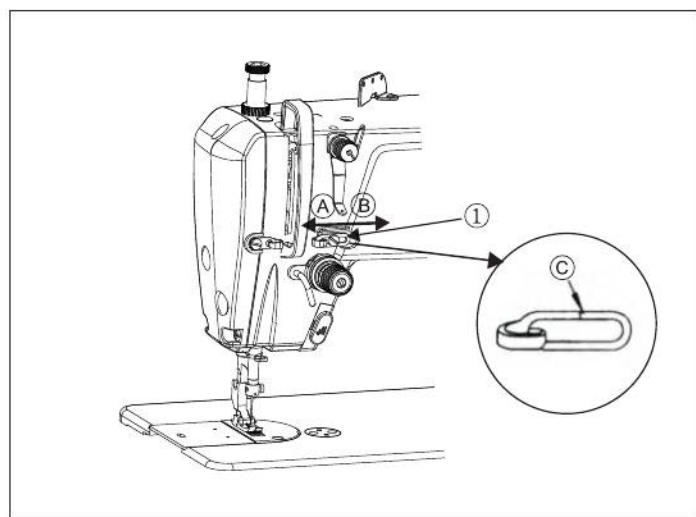
Adjusting pressure of the fixed knife

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

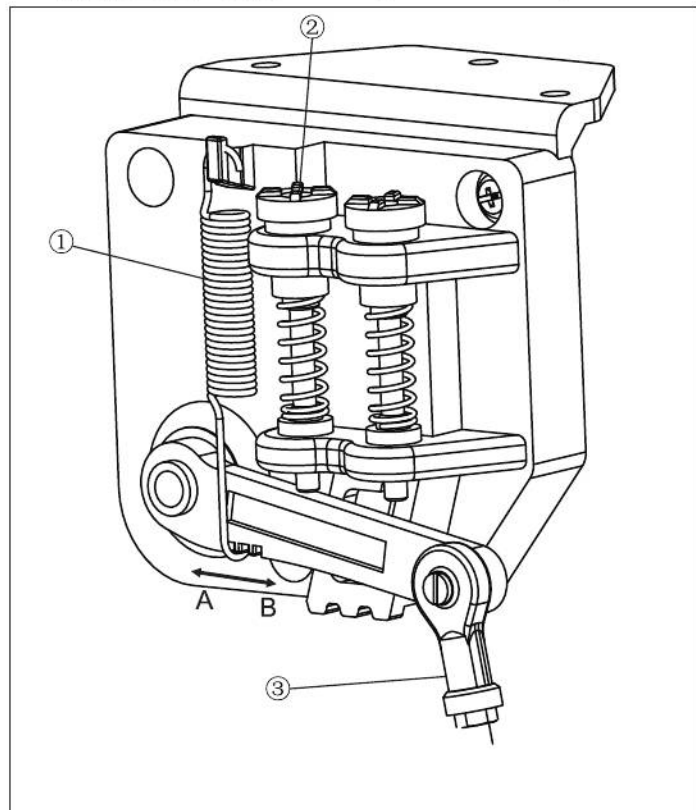


- 1) 缝制厚料时，导线勾①向左(A)方向移动，挑线量变大。
- 2) 缝制薄料时，导线勾①向右(B)方向移动，挑线量变小。
- 3) 导线勾①的刻线(C)在螺丝的中心位置时是标准位置。

EN

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

22. 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 pedalling 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.

23. 踏板的调整 Adjustment of the pedal

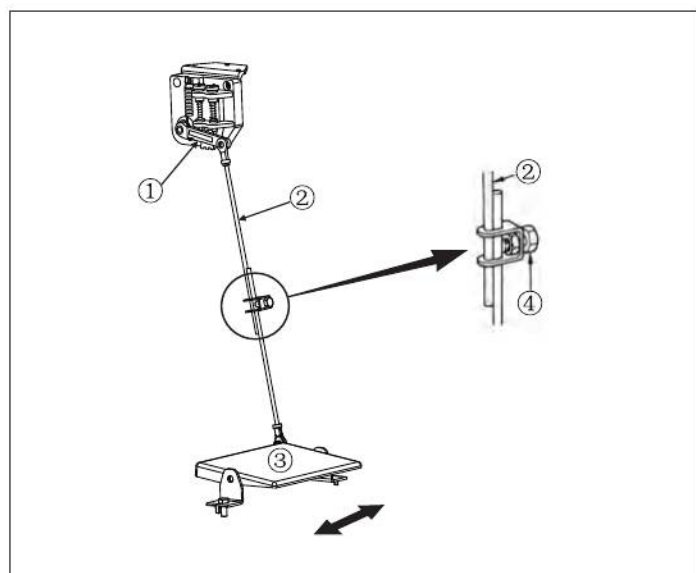


注意

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.

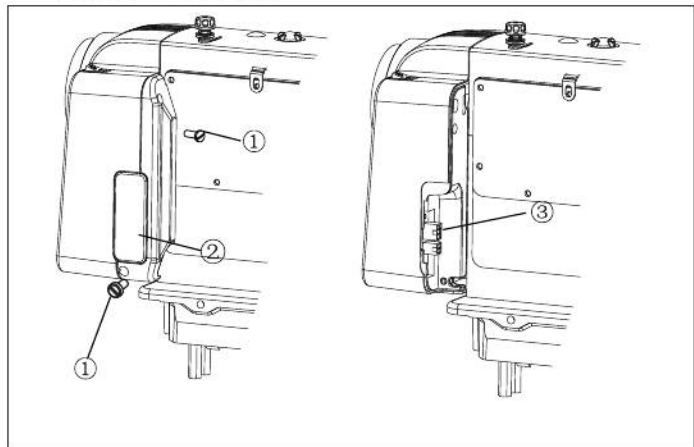


1. 连接杆的安装
 - 1) 向箭头方向移动踏板调节板③，让马达控制杆①和连接杆②成一直线。
2. 踏板的角度
 - 1) 调节连接杆的长度即可以改变踏板的角度。
 - 2) 拧松调节螺丝④，移动连接杆②进行调节。

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.

24. 脚踏开关的连接 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 wire head ②, and screw the bolts ①.

25. 规格 Specifications

用途 Application		中厚料 Medium Heavy Material	大针距中厚料 Big Needle Gauge Medium Heavy Material	厚料 Heavy Material	大旋梭 Big Hook
最高缝纫速度 Max.sewing Speed		5000rpm	3500rpm	3500rpm	3500rpm
驱动类型 Max.stitch		直接驱动 Direct-drive			
最大针迹长度 Max.Stitch Length		5mm	7mm	7mm	7mm
压脚提升高度 (mm) Presser Foot Lift		5.5mm	6mm	6mm	6mm
		13mm(最大) 13mm(max.)	13mm(最大) 13mm(max.)	13mm(最大) 13mm(max.)	13mm(最大) 13mm(max.)
机针 Needle	E1	DBx1 #14	DBX1 #14	DPx5 #18	DPx5 #18
	E	DBx1 #14	DBX1 #14	DPx5 #21	DPx5 #21
电机功率(W) Motor Power		550W			
润滑油 Lubricating Oil		Special Oil 10#			

26. 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	5
	②上线张力过强或过弱	把张力调到适当	7
	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	5
	④旋梭尖弯曲或折断	修理旋梭尖或更换新品	
线迹不均匀	⑤机针和旋梭的同步不好	调整同步	10
	⑥机针与旋梭的间隙过大	调整间隙	10
	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
线迹起皱	③梭心是否损坏	磨擦毛刺或更换梭心	
	④V形皮带是否太松	调整到用手指推皮带时压下5-10mm	
	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	
	③机针尖损坏	更换机针	4
开始缝纫时 上线脱线	④机针太粗	尽可能使用小号机针	
	⑤送料相位调整是否准确	参照“送料相位的调节”	8
	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	12
	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	

26. 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	① Is the needle properly installed	Re-threading correctly	5
	② When the needle thread is excessively tight or loose	Adjust the thread tension	7
	③ Is the needle properly installed	Install the needle correctly	4
	④ Is the needle tip bent or blunt	Replace the needle	
	⑤ When there is a scratch on the thread catch of the sewing hook, bobbin case, thread take-up lever or any other parts	Remove such a scratch or replace the component	
	⑥ Is thread in the rotary hook	Clean the rotary hook	
	⑦ When 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	
	⑧ replace the type of needle	Adjust the position of needle and rotating shuttle over again	
	⑨ Stitch skipping	Refer to the following paragraphs stitch skipping	
Stitch skipping	① When 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	
	② Is the needle tip bent or blunt?	Replace it with a new needle	
	③ Is the needle properly installed	Re-threading correctly	5
	④ When the hook blade point is not sharp enough or damaged	repair the hook or replace it	
	⑤ When the timing of the sewing hook and the needle is not matched	Adjust the timing properly	10
	⑥ When the clearance between the needle and the sewing hook is too great	Adjust the clearance	10
Seams don't match	① Is the presser foot pressure too weak or strong	Adjust the presser foot pressure	8
	② Is the feed dog too low ?	Adjust the feed dog height	9
	③ Is the bobbin scratched?	If bobbin is damaged, smooth it with an oiled grindstone or replace it	
	④ Is the V-belt tension too low	Adjust so that there is 5-10mm of deflection in the V-belt when it is pushed with a finger	
Poor thread tightening	① The upper thread and lower thread tension is too strong	Adjust the thread tension	7
	② The presser foot pressure is too strong	Decrease the presser foot pressure	7~9
	③ The needle tip is broken	Replace the needle	4
	④ The needle is too thick	Use as thin a needle as possible	
	⑤ whether 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	① The 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	
	② The thread end is too short for the needle hole at the sewing start	Approx 50mm of thread should be coming out of the needle hole	
	③ The 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	12
The thread comes out of the needle hole at the sewing start	① when cut thread, the bobbin is racing	Replace the bobbin	4
	② the length of base line inside bobbin is short and cannot appear base line	Replace the bobbin	4
	③ the pinhole upper line is too short after cutting thread	adjust thread tension	
The needle is broken	① When the needle is bent	Replace the needle	
	② The quality of the needle is poor	Select good quality needle	
	③ the needle is not entirely into the needle bar	Fully insert the needle	
	④ When 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
	⑤ The needle is too thin for the thread	Use a suitable needle	
	⑥ The 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	① fixed knife and move knife are abrasion, blunt	change fixed knife and move knife	11
upper line cannot cut	① When the needle is inserted in a wrong way	Install the needle correctly	4
	② the distance of thread tension spring is too long	decrease the distance of thread tension spring	
	③ hook timing is not good to cooperate	start in low speed and check slip stitch, revise time cooperation of hook	
base line cannot cut	① cutting 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
	② the base line is not fasten when cutting	check whether there is base guide slot, if not, exchange hook	
needle mark is not consistent in observe feed and reverse feed	① the slope of feed dog cannot adjust well	Adjusting the feed dog incline	9

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

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