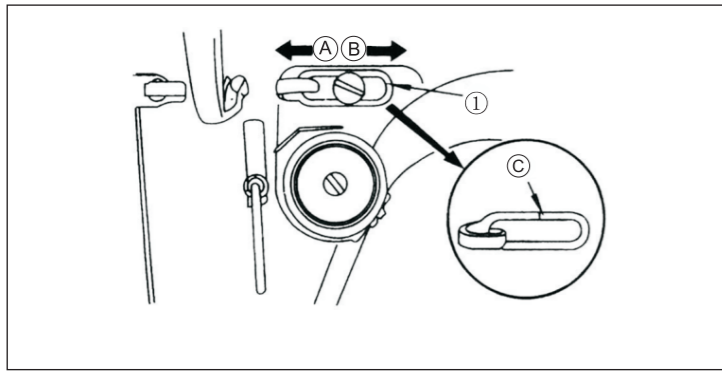


22. 挑线杆挑线量的调节 Adjusting the thread take-up stroke

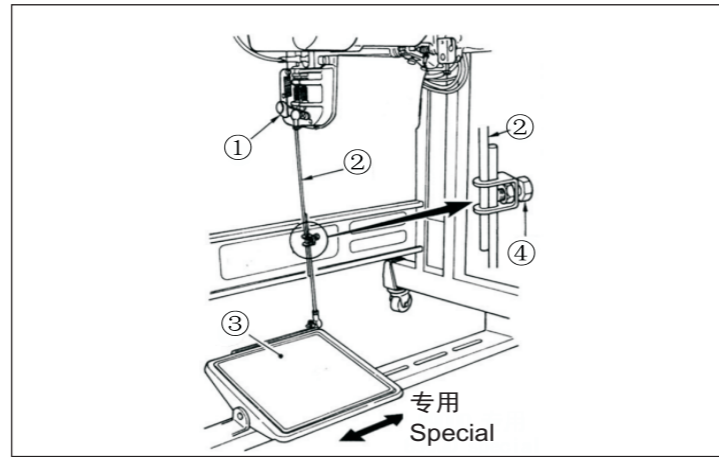


- 1) 缝制厚料时，导线勾①向左A方向移动，挑线量变大。
- 2) 缝制薄料时，导线勾①向右B方向移动，挑线量变小。
- 3) 导线勾①的刻线C在螺丝的中心位置时是标准位置。

EN

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

23. 踏板的调整 Adjustment of the pedal



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. 规格 Specifications

机型分类 Models classification	中厚料 For medium-weight materials	厚料 For heavy-weight materials	针迹长度 Stitch Length	压脚提升高度 Presser foot to mention Lift height	针杆行程 Needle bar Stroke	机针规格 Needle Specification	最高转速 Highest Speed	使用旋梭 Use Rotary Hook
中厚料 Medium material	○	—	5	5.5/13	30.7	DB×1 # 14	5000	小旋梭 Hook (small)
大针距中厚料 Medium material, large needle gauge	○	—	7	5.5/13	30.7	DB×1 # 14	4000	小旋梭 Hook (small)
厚料 Heavy material	—	○	7	6/13	35	DP×5 # 21	4000	小旋梭 Hook (small)
大旋梭厚料 Heavy material, big hook	—	○	7	6/13	35	DP×5 # 21	4000	大旋梭 Hook (large)
单剪线中厚料 Medium material, auto thread trimmer	○	—	5	5.5/13	30.7	DB×1 # 14	5000	小旋梭 Hook (small)
大针距中厚料单剪线 Medium material, large needle gauge, auto thread trimmer	○	—	7	5.5/13	30.7	DB×1 # 14	4000	小旋梭 Hook (small)
厚料单剪线 Heavy material, auto thread trimmer	—	○	7	6/13	35	DP×5 # 18	4000	小旋梭 Hook (small)
大旋梭单剪线 Big hook, auto thread trimmer	—	○	7	6/13	35	DP×5 # 18	4000	大旋梭 Hook (large)

配节能直驱机型电机功率为550W，配离合器电机型电机功率为370W。

EN

If with energy saving system motor, power 550W, if with clutch motor, power 370W.

高速单针平缝机

HIGH SPEED SINGLE NEEDLE LOCKSTITCH M

使用说明书

Operating Manual

安全操作指南 General safety instructions

使用本机器时，一定要谨遵基本安全提示操作，以免发生着火、断电及人身伤害等。在使用本机器前，一定要仔细阅读下列操作指南：
Warning! When using this machine, basic safety precautions should always be followed to reduce the risk of fire. Electric shock and personal injury, including the following. Read all these instructions before operating this product and save these instructions.

1. 保持工作区清洁。
混乱而不清洁的工作区，会引来伤害。
2. 注意工作区环境。
不要将电源露在雨中；不要在潮湿阴暗的地方使用机器的工具；要保持工作区通风和见光；在易燃易爆危险存在时，不可使用电源工具。
3. 谨防触电。
避免机身与地面接触。（如：导管、散热器，冷藏器等）
4. 不要让儿童靠近。
不要让参观者触摸机器及外延设备。
5. 操作者要合理穿着。
操作者不要穿宽松的衣服及配戴首饰，因为这些会被机器的移动部件夹住。
6. 不可乱用绳索。
不可乱用绳索拉机器或用绳索把机器从机座上吊起。要让绳索远离热、油及锋利的边沿。
7. 细心保养机器。
要根据操作使用说明书来加油或更换附件。预先要检查工具，如有损坏，要到指定的服务单位维修。
8. 断开机器电源。
在机器未使用，或在维修及更换附件前，要断开机器的电源。
9. 避免无意识启动。
当在插入插头时一定要保证开关是关着的。
10. 检查损坏的零件。
在再使用机器以前，损坏的零件一定要仔细的检查，确保机器能正确的操作并完成其各种功能。
11. 警告。
使用本说明书推荐使用外的零部件，可能会产生人体伤害。
12. 让有资格的专业维修人员来修理机器。
机器的维修要由有资格的专业人员使用原配的零件来操作。

特别警告！

1. 与此机相配的控制设备必须要有“CE”认证；
2. 要根据使用说明书来安装控制设备；
3. 机器运行时，机器保持与地面恰当摆放；
4. 调整时，要确保开关处于关状态，以避免无意识启动造成的伤害。

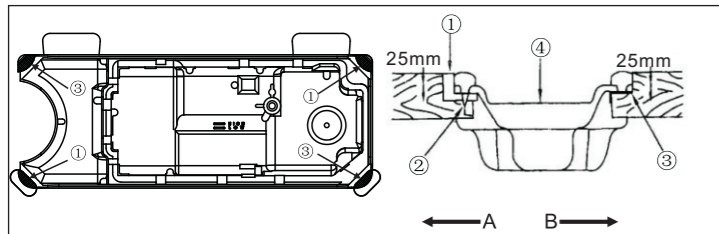
1. Keep work area clean.
• Cluttered areas and benches invite injuries.
2. Consider work area environment.
• Do not expose power to rain. Do not use machine tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.
3. Guard against electric shock.
• Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, rangers, refrigerators).
4. Keep children away.
• Do not let visitors touch the tool or extension code.
5. Dress properly,
• Do not wear loose clothing or jewellery, they can be caught in moving parts. Wear protecting hair covering to contain long hair.
6. Do not abuse the cord.
• Never carry the machine by cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.
7. Maintain machine with care.
• Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged have it repaired by an authorized serviced facility.
8. Disconnect machine.
• When not in use, before servicing and when changing accessories.
9. Avoid unintentional starting.
• Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.
10. Check damaged parts.
• Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.
11. Warning.
• The use of any accessory or attachment, other than those recommended in this instruction manual, may present a risk of personal injury.
12. Have your tool repaired by a qualified person.
• Repairs should only be carried out by qualified persons using original spare parts.

Special Warning for Electric Connection !

1. Incorporate this machine only with the “CE” certificate hold-to-run control device.
2. Follow the instruction manual “device” to install control device.
3. Always earth machine appropriately during operation.
4. During adjustment, be sure to put “OFF” the main power switch to prevent the hazard of unintentionally start of machine.

1. 缝纫机的安装 Installation

(1). 油盘的安装 Installing the oil pan

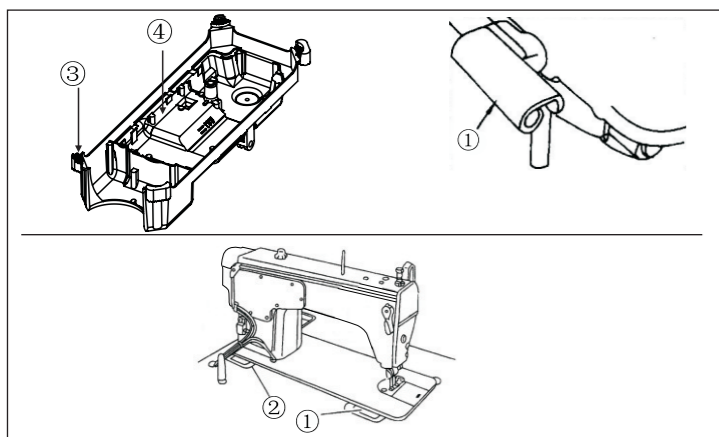


- 1) 油盘应搁在工作台凹槽四角。
- 2) 如图所示, 将两只油盘支座①用油盘座钉②固定在A的一边(朝操作者一边), 将两只油盘支座③用油盘座钉②固定在B一边(用机头连接钩接合一边), 最后把油盘④放在其上。

EN

- 1) The oil pan should rest on the four corners of the machine table groove.
- 2) Fix two rubber seats ① on side A (operator's side) using nails ② as illustrated above. Fix two cushion seats ③ on side B (hinged side) using a rubber-based adhesive. Then place oil pan ④ on the fixed seats.

(2). 铰链的安装 Installing the hinge

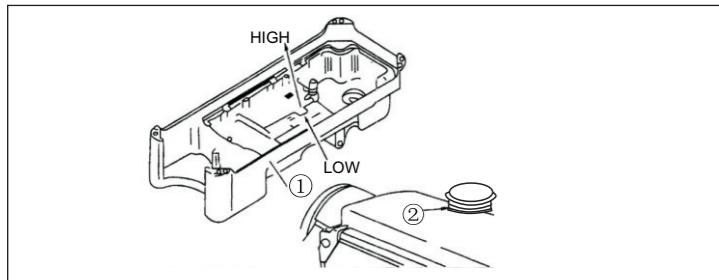


将机头铰链①放入台板孔内, 与台板的机头铰链座②相嵌合, 再将机头放到四只角的机头支座③上。

EN

Fit hinge ① into the opening in the machine bed, and fit the machine head to table rubber hinge ② before placing the machine head on cushions ③ on the four corners.

2. 加油 Lubrication



- 1) 把专用机油#10白油加入到油盘①, 加到“HIGH”标记的位置。
- 2) 如果油面降到“LOW”标记以下时, 请再次把油加到“HIGH”标记的位置。
- 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, 应以每分3000针的速度约10分钟磨合运转。

EN

- 1) Fill oil pan ① with New Special Oil 10# up to HIGH mark.
- 2) When the oil level lowers below LOW mark, refill the oil Up to HIGH mark.
- 3) When you operate the machine after lubrication, you will see splashing oil through oil sight window ② if the lubrication is

adequate.

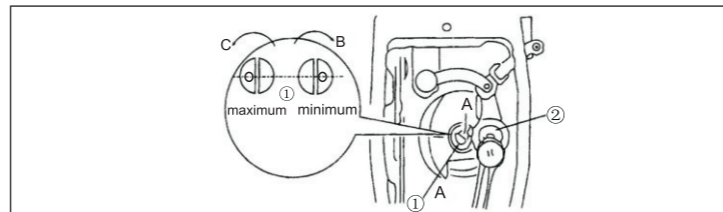
4) Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil.

(Caution) When you first operate your machine after setup or after an extended period of disuse, run your machine at 3000 s.p.m. for about 10 minutes for the Purpose of break-in.

3. 油量的调节 Adjusting the amount of oil

(1). 面部油量调节

Adjusting the amount of oil supplied to the face plate parts

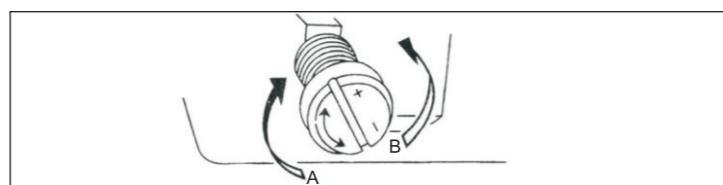


- 1) 转动油量调节销①上的刻点。
- 2) 调节销①上的刻点, 离挑线曲柄②距离近的油量少(向B)。
- 3) 离挑线曲柄②距离远的油量大(向C)。

EN

- 1) Turn the point on the oil amount adjusting pin ①
- 2) Adjust the point on the oil amount adjusting pin ①, when close to the thread take-up winch ② the oil amount will be small (Toward B)
- 3) When close to the thread take-up winch ② the oil amount will be large (Toward C)

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



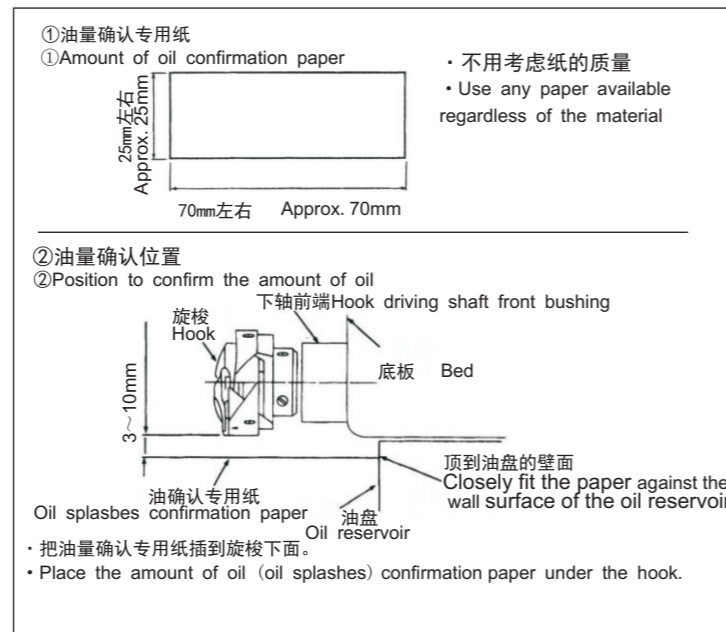
- 1) 把下轴前段部的油量调节螺丝向“+”方向(A方向), 转动油量增多, 向“-”方向(B方向)转动油量变少。
- 2) 油量调节螺丝调节后, 请进行30秒钟的空运转, 以确认油量。

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.

(3). 油量的确认 Confirm the 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。

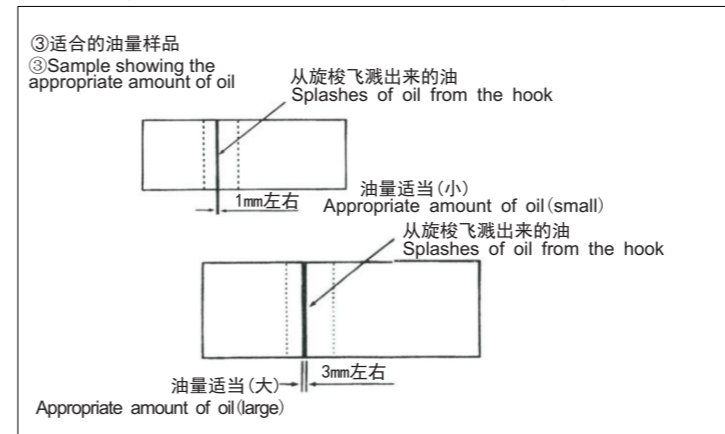
- 1) 机头冷却时, 请进行3分钟左右的空载运转。(适当的间歇运转)
- 2) 请在缝纫机运转时将油量确认专用纸插入。
- 3) 请确认油盘的油面高度是否在HIGH和LOW范围之内。
- 4) 油量确认时间为5秒钟。(用表来测定)

EN

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

(Caution)

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



- 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)

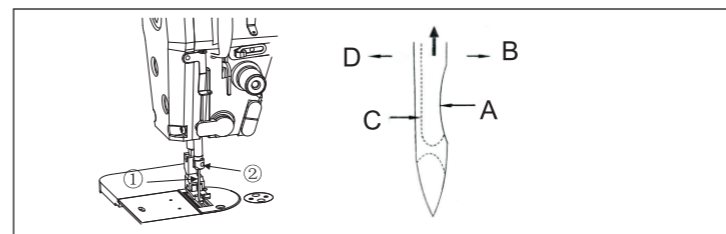
- 6) 油量就确认3次(3张)均无变化。

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).

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) 转动带轮, 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1四部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。
- 5) 确认针的长孔C在左横向D的方向。

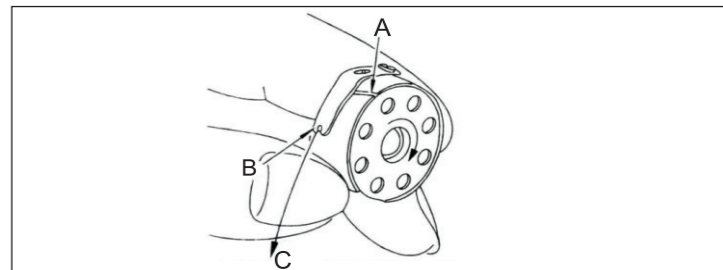
EN

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.

5. 梭心的安装方法

Setting the bobbin into the bobbin case



- 1) 手拿梭心, 让线往左绕的方向, 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。

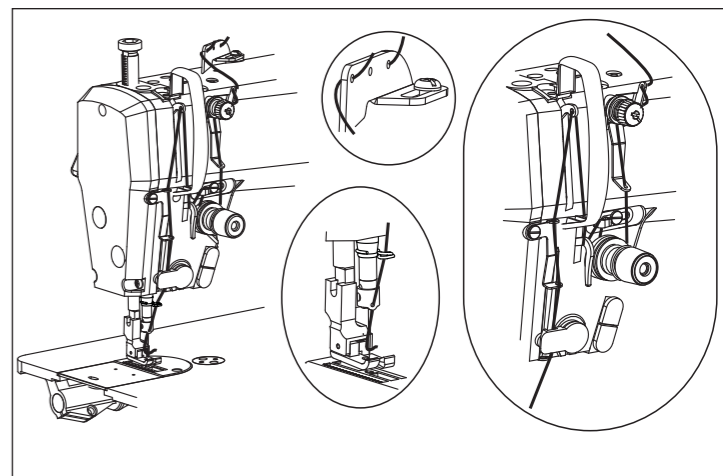
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- 1) Install the bobbin in the bobbin case so that the thread wound direction is clockwise.

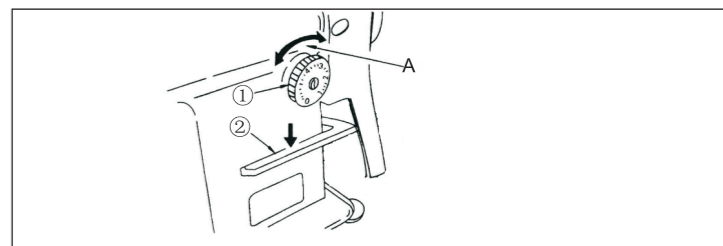
2) Pass the thread through thread slit, and pull the thread in direction B. By so doing, the thread will pass under the tension spring and come out from notch.

- 3) Check that the bobbin rotates in the direction of the arrow when thread is pulled.

6. 上线穿线方法 Threading the machine head



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

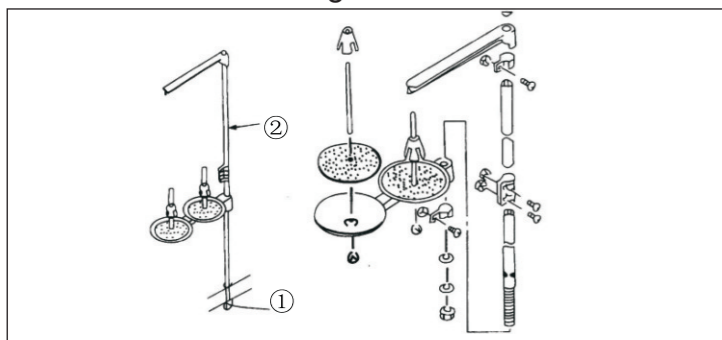


- 1) 沿箭头方向转动送料距旋钮①, 并把希望的数字对准机头的刻点A。
- 2) 刻度盘的数字为mm。
- 3) 从大往小变更送布刻度时, 请向箭头方向按下倒缝扳手②的同时转动调节刻度盘①进行调节。

EN

- 1) Turn stitch length dial ① in the direction of the arrow, and align the desired number to marker dot A on the machine arm.
- 2) The dial calibration is in millimeters.
- 3) When you want to decrease the stitch length, turn stitch length dial ① while pressing feed lever ② in the direction of the arrow.

8. 线架的安装 Installing the thread stand

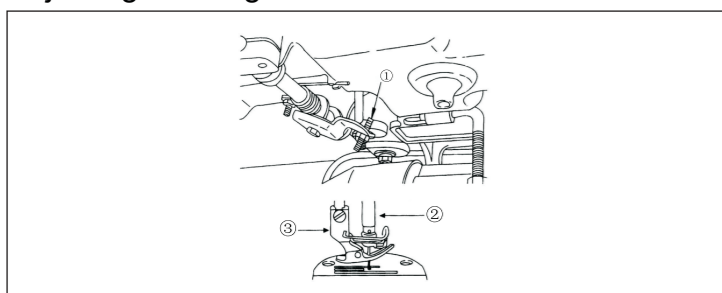


- 1) 如图所示把线架安装到台板孔上。
- 2) 用固定螺母①固定线架。
- 3) 从顶上配线时，请把电源线从线架杆②中穿过。

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

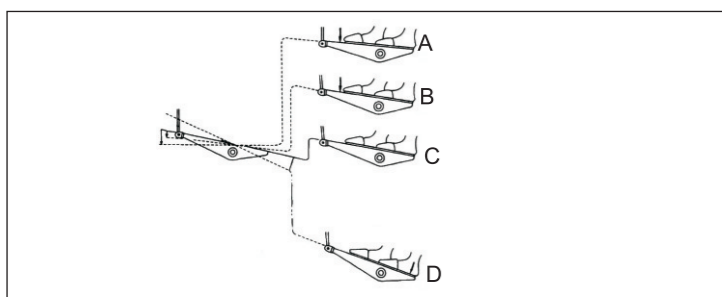


- 1) 膝动提升压脚的标准高度为10mm。
- 2) 调节膝动提升调节螺丝①可以把压脚最高提升到13mm。(薄料机种最大只能调到9mm)
- 3) 压脚提升到10mm以上时，调整时请注意不要让针杆②的前端在最下方时也不能碰到压脚③。

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 10 mm, 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



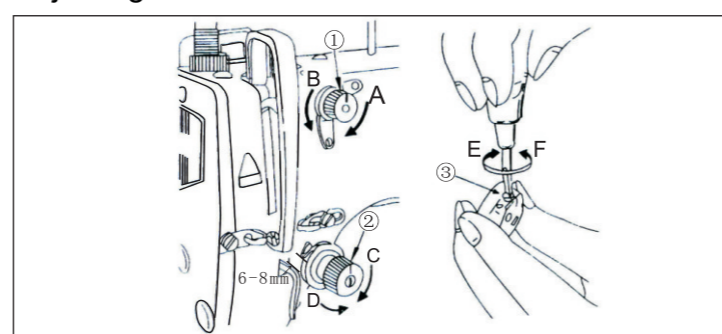
1. 踏板有4级操作。
 - 1) 向前轻轻踩踏板为低速缝纫B。
 - 2) 在继续往前踩踏板为高速缝纫A。
 - 3) 轻轻踩踏板然后返还缝纫机停止C (机针为上停止或下停止)。

- 4) 向后踩踏板为切线动作D。

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.
 - 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.

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

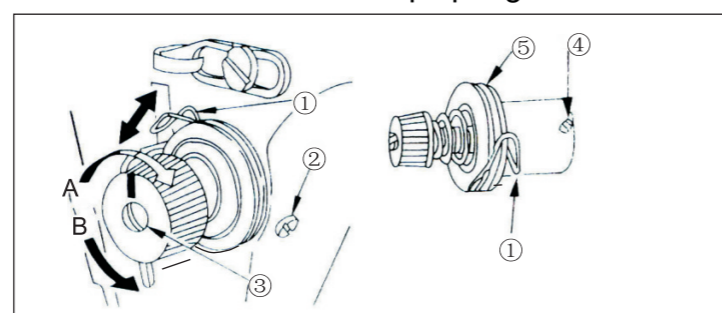


1. 上线张力的调整
 - 1) 螺母①顺时针方向 (A方向) 转动，上线张力变强。
 - 2) 螺母①逆时针方向 (B方向) 转动，上线张力变弱。
 - 3) 螺母②向右C方向转，上线张力变强。
 - 4) 向左D的方向转动则变弱。
2. 底线张力的调整
 - 1) 把底线张力螺丝③向右E的方向转动，底线张力变强。
 - 2) 向左F的方向转动则变弱。
 - 3) 挑线簧的高度标准为6-8mm。

EN

1. Adjusting the needle thread tension
 - 1) As you turn nut ① clock wise (indirection A), the thread length 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. 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.
 - 3) thread picking spring high standards for 6-8mm

12. 挑线弹簧 Thread take-up spring



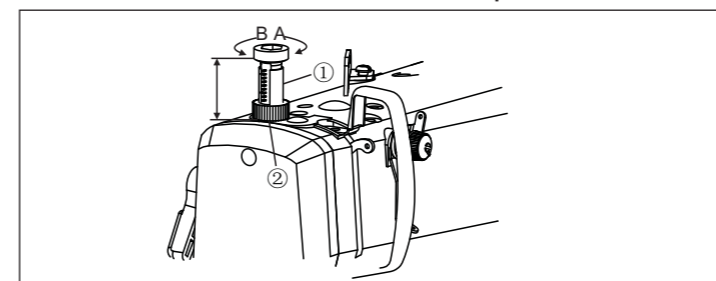
1. 要改变挑线弹簧1的行程时
 - 1) 拧松固定螺丝②。
 - 2) 把夹线螺钉③向右A的方向转动则变大。
 - 3) 向左B的方向转动则变小。
2. 要改变挑线弹簧1的压力时
 - 1) 拧松固定螺丝②，卸下张力器 (组件⑤)。
 - 2) 拧松夹线螺钉固定螺丝④进行调整。

- 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

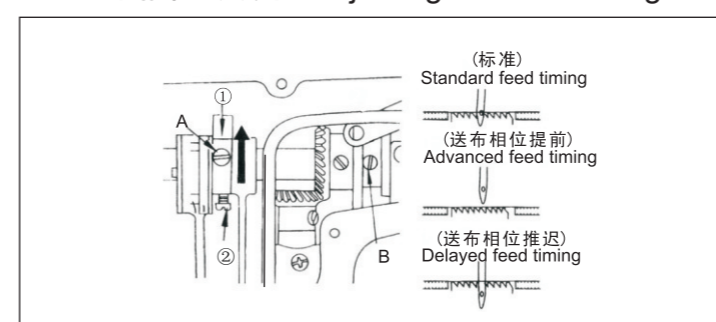


- 1) 拧松螺母②，把压脚调节螺钉①向右A方向转，力变强。
- 2) 向左B方向转，力变弱。
- 3) 调节后，拧紧螺母②。
- 4) 一般布料时，压脚调节螺钉的标准高度为29~32mm。

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.

14. 送布相位的调节 Adjusting the feed timing



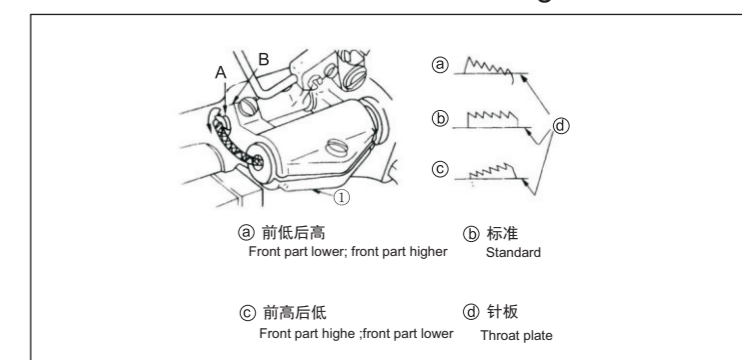
- 1) 拧松送布偏心凸轮①的固定螺丝②，朝箭头方向或反箭头方向转动送布偏心凸轮，然后拧紧固定螺丝。
- 2) 标准调节位置是送布牙从针板往下落时，送布牙上面与针孔上端对准针板上方的位置。
- 3) 提前送布相位以防止布偏斜时，请向箭头方向转动送布偏心凸轮。
- 4) 为了良好的紧线而推迟相位时，请逆箭头方向转动偏心凸轮。

EN

- 1) Loosen screws ② 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.

15. 送布牙的倾斜 Tilt of the feed dog

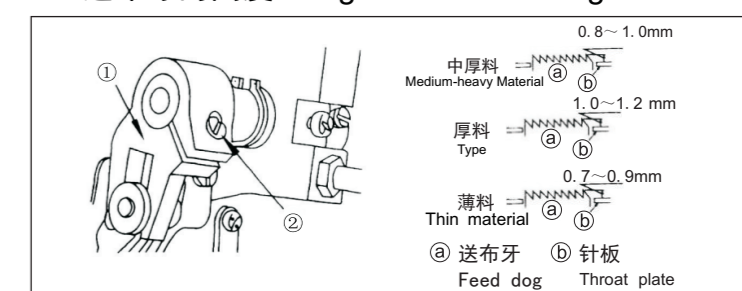


- 1) 标准倾斜 (水平) 度是送布轴的刻点A和牙架座①的B部下降到20度水平送布轴侧的位置。
- 2) 为了防止缝制皱褶，使牙齿呈现前低后高，请拧松螺丝，把螺丝刀插入送布偏心轴，然后沿箭头方向转90度。
- 3) 为了减少布的滑移，使牙齿呈现前高后低，请沿与箭头方向相反方向转90度。

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, and turn the feed bar shaft 90 degrees in the direction of the arrow, using a screw driver.
- 3) To tilt the feed dog with its front down in order to prevent uneven material feed, turn the feed bar shaft 90 degrees in the opposite direction from the arrow.

16. 送布牙的高度 Height of the feed dog

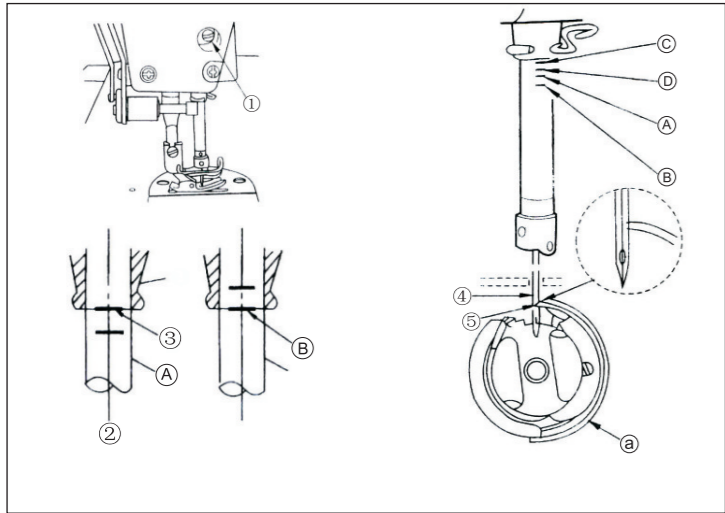


- 1) 送布牙a从针板b突出的量请调整为0.8~1.0mm。(厚料时为1.0~1.2mm)。
- 2) 缝制薄料时，送布牙伸出过高时容易起褶。(0.7~0.9mm为适当)。
- 3) 调节送布牙。
 - 拧松上下抬牙叉形曲柄①的固定螺丝②。
 - 上下移动牙架进行调节。
 - 然后拧紧固定螺丝。(注意) 拧得不紧时，会损伤叉口部。

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 just 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.

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

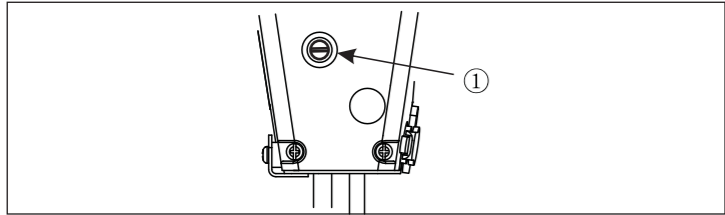


- 1) 转动带轮，让针杆降到最下点，然后拧松针杆连接柱固定螺丝①。
(决定针杆高度)
- 2) (DB*1, DP*5针时) 把针杆②的刻线A对准针杆下轴套③的下端，然后拧紧针杆连接柱固定螺丝①。(DA针时) 把针杆②的刻线C对准针杆下轴套③的下端，然后拧紧针杆连接柱固定螺丝①。(决定旋梭a的安装位置)
- 3) (DB*1, DP*5针时) 拧松3颗旋梭固定螺丝，转动带轮在针杆②上升的方向，把刻线B对准针杆下套③的下端。(DA针时) 拧松3颗旋梭固定螺丝，转动带轮在针杆②上升的方向，把刻线D对准针杆下套③的下端。
- 4) 在此状态下，让旋梭尖⑤对准机针④的中心，把机针与旋梭的间隙调整为0.04~0.1mm (大致)，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*1 or DP*5 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*1 or DP*5 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 in the above steps align hook blade point ⑤ with the center of needle ④. Provide a clearance of 0.04 mm to 0.1 mm (reference value) between the needle and the hook, then securely tighten set screws 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.

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

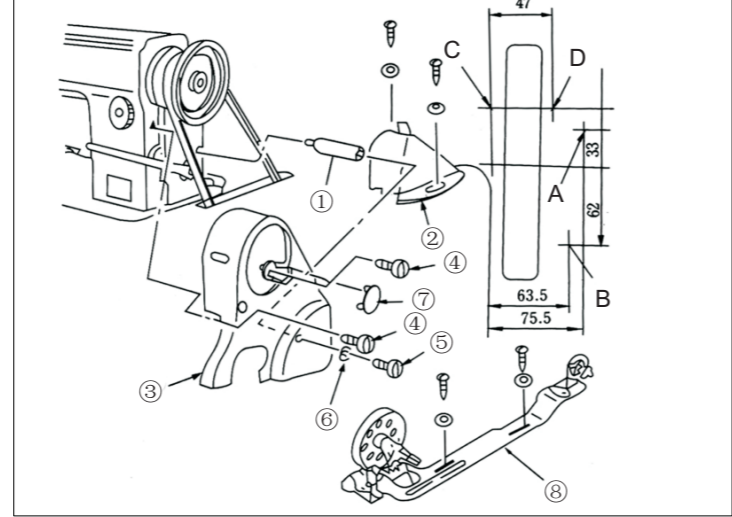


- 1) 变换压脚高度或角度时，请拧松压脚杆的固定螺丝①进行调节。
- 2) 调节后，再拧紧固定螺丝。

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.

19. 皮带罩和绕线器的装法 Installing the belt cover and bobbin winder

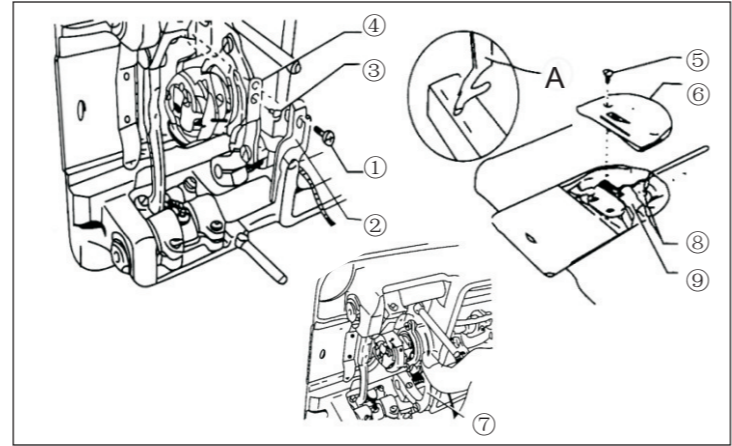


- 安装程序:
- 1) 在台板上钻四只木螺钉导孔A、B、C、D。
 - 2) 将罩壳支柱①装入机壳的螺孔内。
 - 3) 将上轮前罩③从后斜方装入，使上轮套进上轮前罩壳③的孔内。
 - 4) 将上轮后罩壳②放置在导孔CD上。
 - 5) 用螺钉和垫圈④⑤⑥，将上轮前罩③固定在车壳上。此时的螺钉紧固扭矩请控制在螺钉④为30kgfcm、螺钉⑤为25kgfcm，即使紧固扭矩超过以上程度，也无效果。
 - 6) 盖上下轮前罩壳盖⑦。
 - 7) 将上轮后罩壳②向后方移动，在上轮后罩壳②的橡胶部分碰到上轮前罩壳③时，再移动0.5-1mm，将其用木螺钉和垫圈固定。
 - 8) 用木螺钉将绕线器⑧固定在导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

EN

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

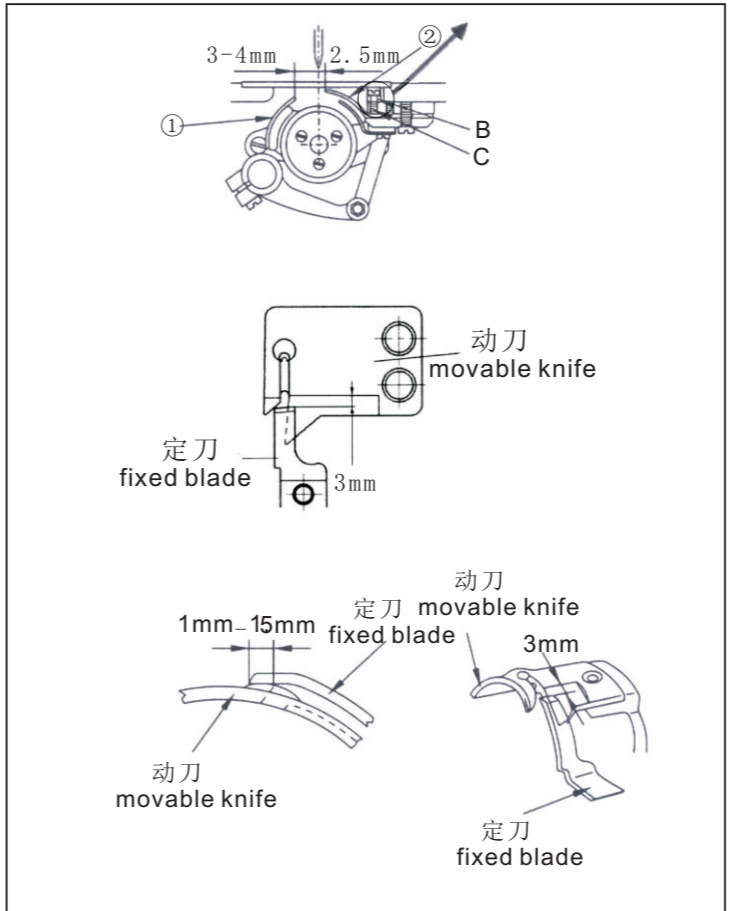
20. 定刀与移动刀的转换(圆刀) Change of fixed knife and shift knife (Circular knife)



- 定刀的拆卸方法
- 1) 将缝纫机放倒。
 - 2) 取下紧固螺钉①和旋梭定位勾②。
 - 3) 拆下沉头螺钉③和定刀④。切线不良时请磨定刀 (如图中A)。
- 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) 将刀轴连杆⑦按箭头方向用手推到，停在沉头螺钉⑧显露的位置。
 - 5) 拆下沉头螺钉⑧，取下移动刀⑨。
- 注
1. 拆针板⑥及动刀⑨时，请先取下机针。
 2. 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 riting hook positioner ②.
 - 3). Remove the screw ③ and the knife ④. Please sharpen the knife when the fixed knife is not well.
- Removing the shift knife
- 1). Let the presser foot up by presser foot lever
 - 2). Remove the screw ⑤ and the needle plate ⑥.
 - 3). Turn around the balance wheel, let the needle bar stop highest.
 - 4). Push the knife bushing connecting lever ⑦ as the arrow shown, stop in the position of the screw ⑧.
 - 5). Remove the screw ⑧ and shift knife ⑨.
- Note:
1. Remove the needle before removing the needle plate and the shift knife ⑨.
 2. Installation refer to the reverse order.



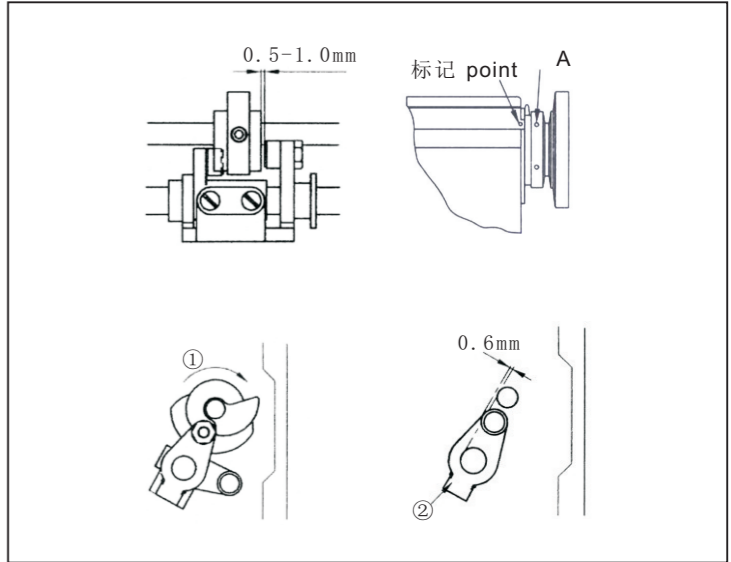
- 刀片位置调整
- 1) 动刀与定刀的位置调整: 如图所示，动刀①与机针中心的距离为3-4mm，定刀②与机针中心的距离为2.5mm。

- 2) 动刀移动量调整: 开动电磁铁，启动机器。剪线凸轮会使动刀①向右旋转。当动刀①移动到其最远位置时，其断面定刀②的端点进行到1.0mm-1.5mm。
- 3) 刀片压力调整: A. 如图所示，动刀和定刀开始接触为标准状态。B. 如果剪线情况不良，尤其当线较粗时，只需增加定刀张力即可。C. 定刀张力可调整: 松开螺母B，通过调节螺钉A来调节螺母B。

EN

- Adjusting the position of blade
- 1) Adjusting the position of the movable knife ① and the fixed blade ② The standard position of the movable knife is 7.5mm from the needle center, and 5 mm for the fixed blade.
 - 2) Adjusting the progress amount of the movable knife If you run the machine putting the solenoid in the operation mode, the movable knife ① will rotate by the thread trimming cam. The standard will be where the cut part of the movable knife ① progresses 1.0 to 1.5mm from the end edge of the fixed blade ② when the progress amount of the movable knife is in its maximum.
 - 3) Adjusting blade pressure A. As in Figure, the standard is when the contact between the movable knife and the fixed blade begins. B. In particular, when the cutting quality gets worse by using a thick thread, strengthen a little bit the tension of the fixed blade. C. In order to adjust the tension of the fixed blade, loosen the tension adjustment nut with the wrench box and adjust the tension using the tension adjustment bolt.

21. 安装剪线凸轮 Installation of thread trimming cam



- 1) 将主动轮上的第2标记点对准机壳上的定位标记点。
- 2) 在启动剪线电磁铁状态下，朝正方向回转剪线凸轮①直到接触滚柱，然后固定凸轮。
- 3) 剪线电磁铁关闭，使凸轮曲柄②恢复到原始置，这样凸轮与滚柱端面将以0.5-1.0mm间隙为标准。

EN

- 1) Align the second timing carved line of the pulley with the arm's carved line.
- 2) Under the thread trimming solenoid is in operation, rotate the trimming cam ① clockwise and fix the cam when it connected with the roller.
- 3) When the thread cam following crank returned by stopping the operation of the thread trimming solenoid, the edge end between the cam and the roller should be from 0.5 to 1.0mm. It is the standard.