



自动高速平缝机 ZJ7000E/ZJ8000E
Automatic high speed lockstitch sewing machine

使用说明书
OPERATION MANUAL
零件手册
PARTS BOOK

浙江中捷缝纫科技有限公司
ZOJE SEWING MACHINE CO., LTD.

使用说明

为使您正确使用本机,须对本机的各种功能充分了解,以便安全操作。

使用前请仔细阅读使用说明书,我们希望您能长期愉快地使用本机,请保存好说明书,以备查阅。

1. 无论您何时使用本机,须了解基本的安全事项,包括但不限于下列事项。
2. 通读所有说明,并保存好使用说明书。如果需要,请随时翻阅。
3. 使用本机前,必须弄清与本机有关安全规定、标准在您的国家是否适用。
4. 使用本机前或使用本机时,所有安全装置必须配备齐全。机器运转时,无安全装置属违章操作,决不允许。
5. 操作人员必须经过适当的培训。
6. 为了您的人身安全,我们建议您戴上防护上镜。
7. 下列情况下,请关闭电源开关或拔下电源插头:
 - 7-1 机针穿线和换梭心;
 - 7-2 更换机针、压脚、针板、送料牙、布料导板等;
 - 7-3 进行维修时;
 - 7-4 操作区无人时。
8. 在机器加油润滑时,若不小心让油接触眼睛、皮肤或咽下机油或润滑油,请立即清洗被沾染部位或去医院检查。
9. 无论机器运转与否,严禁乱动机器零部件和配套装置。
10. 机器的维修、改造和调整等工作必须由专业技术人员进行。
11. 应由专业受训人员进行一般的维修和检查工作。
12. 必须在专业电器人员或专业技术人员的指导下进行有关电器部件的维修,任何电器部件一经发现受损,立即停止机器运转。
13. 使用期间要定期全面彻底清洗机器。
14. 正常操作本机时,必须进行试运转,工作环境远离强噪音源,如高频电焊机等。
15. 由电气人员选择合适的插头和有地线的插座。
16. 若需要改造或改进本机,请采用有效可行的安全措施。本公司对由此而产生的伤害不承担责任。

17. 本机只适用于专业缝纫。

18. 两种警告提示符：



操作人员或维修人员请注意



特别注意事项

INSTRUCTION MANUAL

To get the most out of the many functions of this machine and operate it insafely,it is necessary to use this machine correctly.

Please read this Instruction Manual carefully before use.We hope you will enjoy the use of your machine for a long time.Please remember to keep this manual in a safe place.

1. Observe the basic safety measures,including,but not limited to the following ones, whenever you use the machine.
- 2.Read all the instructions, including, but not limited to this Instruction Manual before you use the machine, in addition, keep this Instruction Manual so that you may read it at any-time when necessary.
3. Use the machine after it has been ascertained that it conforms with safety rules/standards valid in your country.
4. All safety devices must be in position when the machine is ready for work or in operation The operation without the specified safety devices is not allowed.
5. This machine shall be operated by appropriately-trained operators.
6. For your personalprotection,we recommend that you wear safety glasses.
7. For the following, turn off the power switch of disconnect the power plug of the machine from the receptacle.
 - 7-1 For threading needle(s) and replacing bobbin.
 - 7-2 For replacing part(s) of needle, presser foot, throat plate, feed dog, cloth guide etc.
 - 7-3 For repair work.
 - 7-4 For when leaving the working place of when the working place is unattended.

8. If you should allow oil, grease, etc. used with the machine and devices to come in contact with your eyes or skin or swallow any of such liquid by mistake, immediately wash the contacted ar-eas and consult a medical doctor.
9. Tampering with the live parts and devices, regardless of whether the machine is powered, is prohibited.
10. Repairing,remodeing and adjustment works must only be done by appropriately trained technicians or specially skilled personnel.
11. General maintenance and inspection works have to be done by appropriately trained personnel.
12. Repair and maintenance works of electrical components shall be conducted by qualified electric technicians or under the audit and guidance of specially skilled personnel. Whenever your find a failure of any of electrical components, immediately stop the machine.
13. Periodically clean the machine throughout the period of use.
14. Grounding the machine is always necessary for the nomal operation of the machine. The machine has to be operated in an enviornment that is free from strong noise sources such as high-frequency welder.
15. An appropriate power plug has to be attached to the machine by electric technicians, Power plug has to be connected to grounded receptacle.
- 16.Remodel or modify the machine in accordance with the safety rules/standards while taking all the effective safety measures.We assumes no responsibility for damage caused by remodeing or modification of the machine.
17. The machine is only allowed to be used for the ppose intended. Other used are not allowed.
18. Warning hints are marked with the two shown symbols.



Danger of injury to operator or service staff



Items requiring special attention

安全操作事项



1. 为避免触电,请不要打开电机的电箱盖,也不要触摸电箱内部组件。



1. 为避免人身伤害,移动防护罩、护手挡或安全装置时,请不要开动机器。
2. 为尽可能避免机器运转造成的人身伤害,手指、头部和衣服应远离上轮,上轮周围不要放置任何物品。
3. 为避免人身伤害,当您打开电源开关或操作机器时,切勿将手放在机针下方。
4. 为避免人身伤害,机器运转时,切勿将手放入挑线杆防护罩内。
5. 旋梭运转时,勿将手指放在旋梭附近。另外,换梭芯时,请关掉机器电源开关。
6. 为尽可能避免人身伤害,当翘起或抬起机头时,勿将手指放入机器内部。
7. 为尽可能避免机器的突然启动所造成的事故,抬起机头时,请关掉机器的电源。
8. 机器配有电机,机器未运转时,电机无噪音;为避免机器的突然启动所先造成的事故,请关掉机器的电源开关。
9. 为尽可能避免触电或电器组件受损,在插上或拔下插头之前,请关掉电源开关。

FOR SAFE OPERATION



1. To avoid electrical shock hazards, neither open the cover of the electrical box for the motor nor touch the components mounted inside the electrical box.



1. To avoid personal injury, never operate the machine with any of the belt cover, finger guard or safety devices removed.
2. To prevent possible personal injuries caused by being caught in the machine. Keep your fingers, head and clothes away from the handwheel, cover and the motor while the machine is in operation. In addition, place nothing around them.
3. To avoid personal injury, never put your hand under the needle when you turn ON the power switch or operate the machine.
4. To avoid personal injury, never put your fingers into the thread take-up cover while the machine is in operation.
5. The hook rotates at a high speed while the machine is in operation. To prevent possible injury to hands, be sure to keep your hands away from the vicinity of the hook during operation. In addition, be sure to turn OFF the power to the machine when replacing the bobbin.
6. To avoid possible personal injuries, be careful not to allow your fingers in the machine when tilting/raising the machine head.
7. To avoid possible accidents because of abrupt start of the machine, turn OFF the power to the machine when tilting the machine head.
8. If your machine is equipped with a servo-motor, the motor does not produce noise while the machine is at rest. To avoid possible accidents due to abrupt start of the machine, be sure to turn OFF the power to the machine.
9. To prevent possible accidents because of electric shock or damaged electrical component(s), turn OFF the power switch in prior to the connection /disconnection of the power plug.

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1 开机前的注意事项

Precautions Prior to Startup

1. 机头装箱前为了防止机件生锈,在部分均涂有较厚的防锈油脂,同时机头装箱后,还可能可能在较长的贮藏和长途运输阶段造成油脂硬化和在机器表面积聚灰尘,所以必须将表面的油脂和灰尘用汽油和洁净的软布擦拭干净。

2. 机器出厂时,虽经过周密的检查和试验,但在长途运输中也可能受到强烈的震动使机件松动或歪曲,所以应该做一次周密的检查,并用手转动上轮,看机件之间有无转动困难、碰撞现象或其它不均匀的阻力,不正常的声响,如有应作适当的调整,机器状态正常后才可正式试车。

3. 油盒内机油液面高度没有在正常范围内绝不能开车。

4. 机器运转时,上轮转向应该是逆时针方向(从上轮外侧面看)。

5. 确认电控铭牌上所标电压及相位是否正确。

6. 生产日期见合格证。

1. The machine head is coated with a thick layer of rust-prevention grease before encasement, and the encased machine head may possibly be subjected to grease hardening and dust buildup on the machine surface in process of long storage and long-haul traffic; therefore, take care to remove the grease and dust from the surface using soft cloth and gasoline.

2. Though the machine was inspected and tested with care before factory leaving, it might be affected by violent vibration resulting in looseness or distortion of the machine parts; therefore the operator shall thoroughly check the machine, turn the upper wheel by hand and check it for difficulty in free rotation, slight impact, and other uneven resisting force or abnormal noises, and make appropriate adjustment if any to restore the machine state before formal trial run.

3. Never start up the machine if the oil liquid level in the oil box falls outside the normal range.

4. The upper wheel shall rotate counterclockwise (when it is viewed from the lateral surface of the upper wheel) when the machine is operating.

5. Check whether the voltage and phases indicated on the electric-control data plate are correct.

6. The date of manufacture is indicated on the certificate of conformity.

2 使用注意事项

Precautions for Use

1. 当接通电源或机器运转时,请勿将手与机针接触。

2. 机器运转时,请勿将手指伸入挑线杆防护罩内。

3. 操作者用手送料时,请勿将手指伸入护针架。

4. 机头翻动及拆手盖时,一定要切断电源。

5. 操作者离开机器时,必须切断电源。
6. 机器运转时,绝不允许头或手以及任何东西靠近上轮、绕线器。
7. 只有在停机时,才能装卸防护罩或其它保护装置。
8. 不能用香蕉水等油漆稀释剂擦拭机头表面。

1. Never touch the needle by hand when the machine is powered on or while it is operating.
2. Never put your finger into the protection cover of take-up lever during operation of the machine.
3. The operator must not put his finger into the needle guard bracket when he feeds the sewing materials by hand.
4. Operator must trim off the electricity supply before he turns over the machine head or removes the hand cover.
5. The operator must trim off the electricity supply before he gets away from the machine.
6. Prohibit the head, hands and anything to approach the upper wheel and bobbin winder while the machine is operating.
7. Never remove or mount the protection cover or other protection devices before the machine is stopped.
8. Never wipe up the surface of machine head using paint thinner such as acetone.

3 主要技术规格 Main Technical Specifications

规格		参数
缝料		中厚料
最高缝速		5000针/分
最大针距		5-7毫米
机针		DB×1/DP×5 9#~18#
压脚提升高度	手控	5.5毫米(最大)
	膝控	15毫米(最大)
润滑系统		自动
润滑油		10号白油
电机功率		220伏/550瓦

Specification		Parameter
Application		For medium-weight materials
Max sewing speed		5000sti/min
Max stitch length		5-7mm
Needle		DB×1/DP×5 9#~18#
Presser foot lift height	Hand lifter	5.5mm(Max)
	Knee lifter	15mm(Max)
Lubricating system		Auto
Lubrication oil		10# White oil
Motor power		220V/550W

4 机器的安装 (图1、图2、图3、图4) Mounting the Machine (Fig.1, Fig. 2, Fig.3 and Fig. 4)

1.油盘的安装

1) 油盘②应放置在台板上的凹槽四角上。

2) 将两只机头座垫①安装在油盘②的A边 (朝操作者一边), 将两只油盘支座③安装在油盘②的B边 (机头连接钩接合一边), 然后放上油盘②。

3) 将机头连接钩⑤插入底板销孔内, 与台板的机头连接钩座④相嵌合再把机头放到油盘四只角的机头座垫上。

4) 如图所示将机头支柱⑥牢牢地插入台板中。

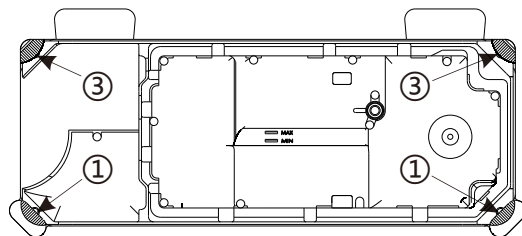


图1 Fig.1

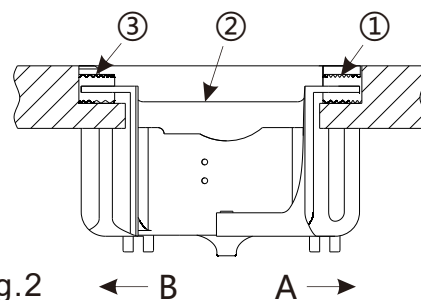


图2 Fig.2

1.Fixing oil tray

1) Put the oil tray ② on the four groove corners on the sewing table.

2) Fix two arm cushion ① to the A side of oil tray ② (facing the operator). Fix the two stand bases ③ to the B side of oil tray ② (hinge side), then fix the oil tray ②.

3) Insert machine head coupling hook ⑤ into the pin holes in the bottom plate such that it is embedded into the coupling hook seat ④, and put the machine head onto the seating washer on four corners of the oil tray.

4) As shown in the picture, insert head support ⑥ into the machine table firmly.

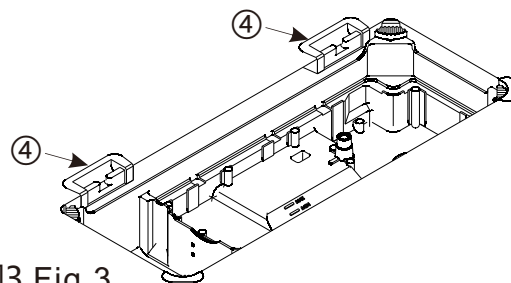


图3 Fig.3

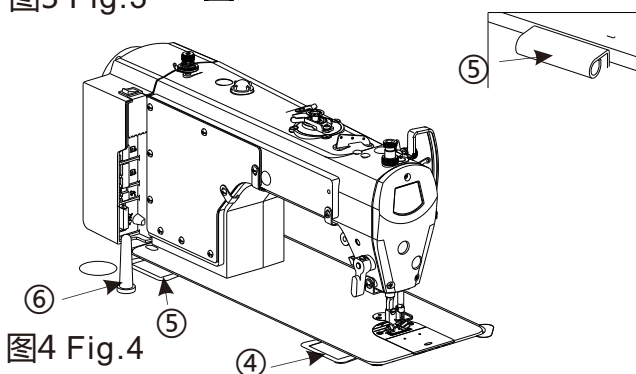


图4 Fig.4

5 机器的加油(图5) Lubrication of machine(Fig.5)

1.润滑须知

1) 向油盘①注入缝纫机油 (10号白油) 至“MAX” 记号部A。

2) 当油面低于MIN记号B时, 应再加油。

1.Information on lubrication

1) Fill oil pan ① with sewing machine oil (10 while oil) up to MAX mark A.

2) When the oil level lowers below MIN mark B, refill the oil pan with the specified oil.

3) 加油后，开动机器，应看到油液飞溅到油窗②上，说明润滑正常。

4) 至于飞溅的油量多少与总润滑油量多少无关。

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 splash oil is unrelated to the amount of the lubricating oil.



注意:

1. 为了防止缝纫机的意外启动，请关掉



电源之后再进行操作。



Caution:

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

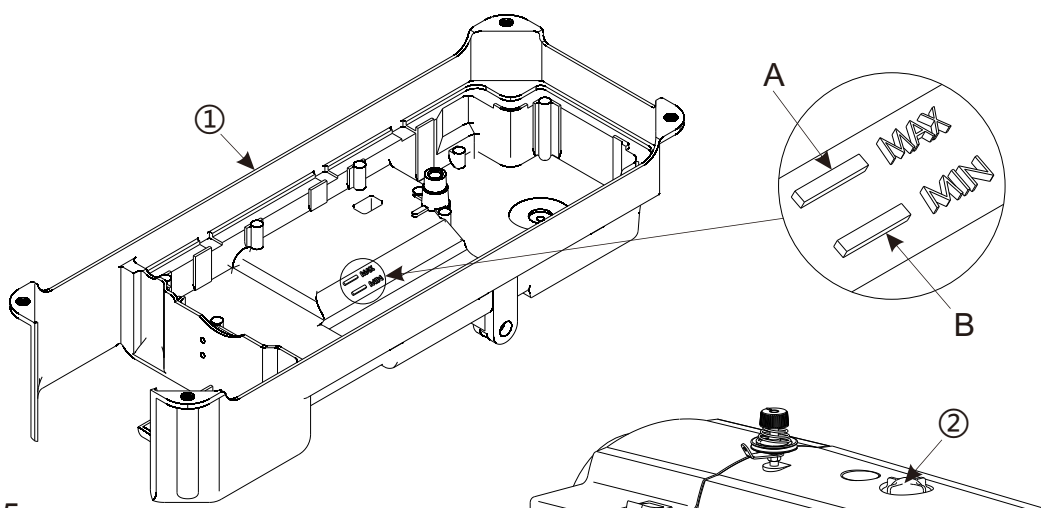


图5 Fig.5

6 线架的安装(图6) Mounting the Thread Stand (Fig.6)

1. 如右图所示那样将线架部件安装到缝纫机台板线架安装孔上。

2. 旋紧线架杆下节固定螺母①固定线架。

1. As shown in right-hand figure, mount the thread stand component onto the mounting hole for thread stand on the sewing machine table.

2. Screw down retaining nut ① for lower segment of thread stand lever to fix the thread stand.

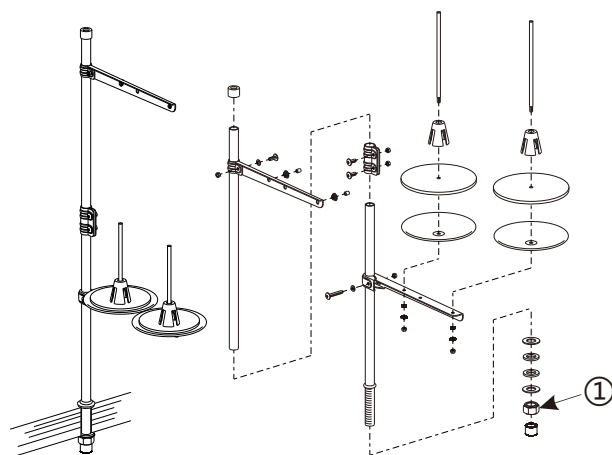


图6 Fig.6

7 旋梭油量调节 (图7、图8、图9) Oil mass Adjustment of Rotating Hook (Fig. 7, Fig. 8, Fig. 9)

1.调节方法

1) 旋梭的油量是用旋梭油量调节螺钉①来调节：拧紧(向右转动)旋梭油量调节螺钉①旋梭油量将增多，拧松(向左转动)旋梭油量将减少，直至获得适当的供油量为止。

2) 调节油量后缝纫机在进行约2小时的缝纫后，再次检查以确认供油量。



注意:

1.为了防止缝纫机的意外启动，请关掉



电源之后再进行操作。

2.油量的确认方法

1) 拆去挑线杆至机针上的面线。

2) 用抬压脚扳手抬起压脚。

3) 以缝纫机实际缝纫时的转速进行约3分钟的空运转(适度的断续运转)。

4) 将油量测试纸②插入旋梭③的下面并握住，以缝纫机实际进行缝纫时的转速使缝纫机运转10秒钟。(对油量测试纸②的纸质没有什么特别的要求)

5) 确认飞溅到测试纸②上的油量。



注意:

1.进行上述操作时，请卸下推板并确认油盒中是否有油。



2.为了防止发生安全事故，检查旋梭油量时，要充分注意手指不要碰到旋梭和送料机构等运动的零部件。

3.如更换了旋梭或要变更缝纫速度时，请按上述步骤调整旋梭供油量。

2.Confirming the Oil Mass

1) Remove the thread from all points from the thread take-up to the needle.

2) Use the lifting lever to lift the presser foot.

3) Run the machine at the normal sewing sp

1.Adjustment method

1) Adjust the oil mass of rotating hook using adjusting screw ①: Screw down (turn it to the right) adjusting screw ① to raise the oil mass ,or unscrew (turn it to the right) the adjusting screw to lower the oil mass.Amount repeatedly until the lubrication amount is correct.

2)Check the lubrication amount again after the sewing machine has been used for approximately two hours.



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

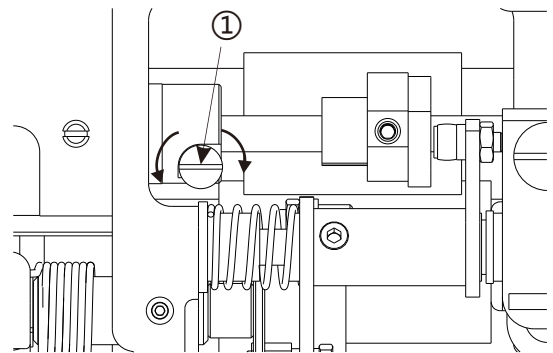
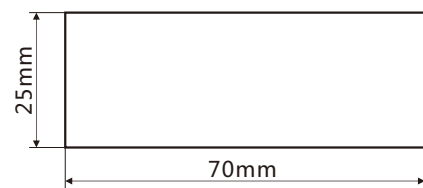


图7 Fig.7

油量确认专用纸

Special oil mass confirmation paper



油量确认位置

Position for oil mass confirmation

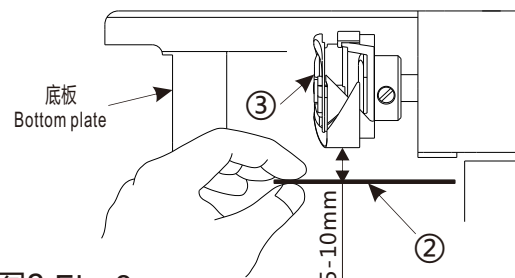


图8 Fig.8

-eed for approximately 3 minute without sewi
-ng any material (following the same start/sto
-p pattern as when actually sewing)

4) Place the lubrication amount check sheet
② underneath the rotary hook ③ and hold it
there. Then run the sewing machine at the no
-rmal sewing speed for 10 seconds. (Any type
of paper can be used as the lubrication amount check sheet ②)

5) Check the amount of oil which has spattered onto the sheet ②.

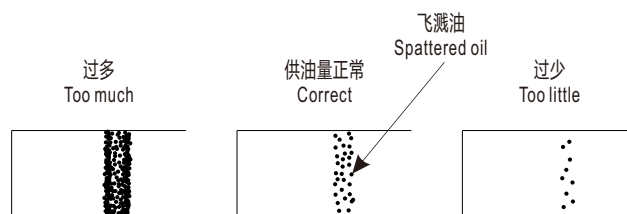


图 9 Fig.9



Caution:



1. Prior to the above-mentioned operation, remove the knockout plate and check whether there is oil in the oil box.

2. Do not use fingers to touch the hook or other running components of feeding mechanism when checking the amount of oil for the hook to avoid the accident.

3. Use the following procedure to check the amount of oil being supplied to the rotary hook when replacing the rotary hook or when changing the sewing speed.

3.油量适合标样

1) 上图标样(见图10)可根据不同的缝纫工序需求进行增或减的微调整，但应注意不要增加或减少过多。油量过少时会引起旋梭发热，油量过多时会污染缝料。

2) 用油量测试纸测试3次，直至确认3次油量测试纸油迹均无变化为止。

3. Guide sample of oil mass adequacy

1) The guide sample shown in the right-hand figure(see Fig. 10) may be finely adjusted (increased or reduced) as per different sewing processes; however, excessive increase or reduction shall be avoided. Too little oil mass may lead to rotating hook heating, and over much oil mass may lead to contamination of the sewing materials.

2) Test the oil mass 3 times using special oil mass confirmation paper till the oil traces indicated by the special paper show no changes.

8 机针的装法 (图10) Mounting the Needle (Fig.10)

1. 转动上轮使机针上升到最高处。

2. 拧松支针螺钉②，手拿机针①将机针的凹弧部分A正对右方向B。

3. 将机针朝箭头方向插入针孔的底部，直至插不进为止。

4. 拧紧支针螺钉②。

5. 务必使机针的长槽C正对左方向D。

1. Turn the upper wheel to allow the needle to reach its maximum height.

2. Unscrew needle carrying screw ②, hold needle ① by hand, and align the indentation A of needle to right direction B.

3. Insert the needle into the bottom of needle hole in direction of arrow till it reaches the end point.

4. Screw down the needle carrying screw ②.

5. Take care to ensure that the elongated slot C on the needle is aligned to the left direction D.



注意:

1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。



2.机针有各种编号,请根据所用线的粗细和缝料来选择适当的机针。



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



2.Needles are available in different sizes. Please select appropriate needle as per the thickness of threads and the sewing materials.

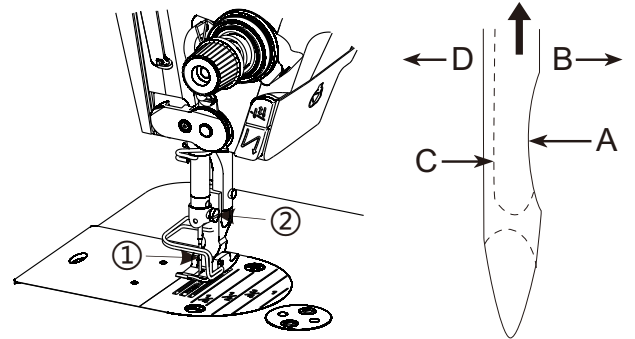


图10 Fig.10

9 梭芯的装法 (图11) Mounting the Bobbin (Fig. 11)

1. 拿住梭子, 将梭芯装入梭子内。
2. 将线从梭子上的线槽A中穿过, 朝C方向拉出。这样, 线通过夹线簧从孔B处引出。
3. 拉底线时, 梭芯应按箭头方向顺时针转动。

1. Hold the rotating hook by hand, and fit the bobbin into the rotating hook.

2. Thread the thread through the thread groove A in the rotating hook, and draw out the thread in direction C. In this way, the thread is led out of hole B through the tension spring.

3. When bobbin thread is drawn, the bobbin shall turn clockwise in direction of arrow.

10 梭芯套的装法 (图12) Installation of bobbin case (Fig. 12)

1. 转动手轮将机针升起, 直至其处于针板上方。
2. 用手拿住梭芯套①(装好梭芯), 将梭芯套装入旋梭中。



注意:

1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。

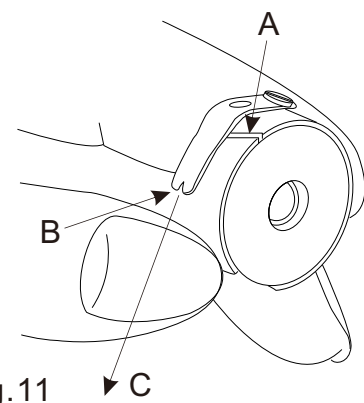
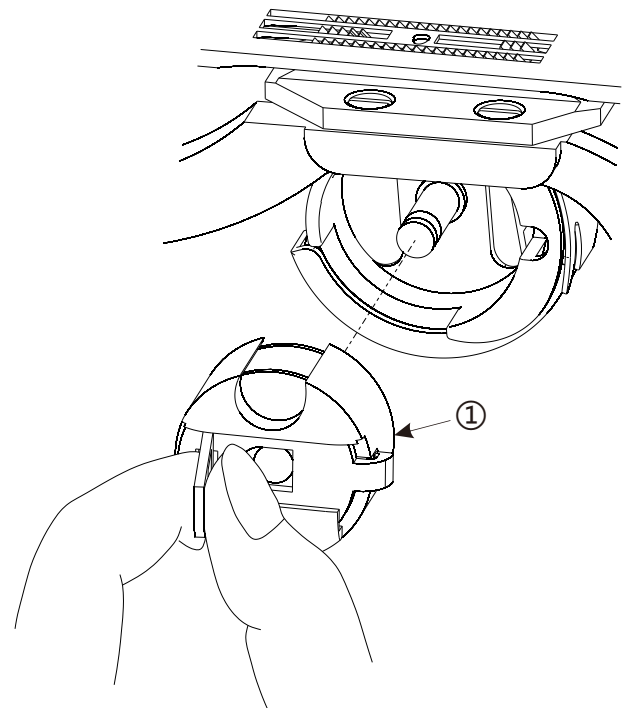


图11 Fig.11



1. Turn the machine pulley to raise the needle until it is above the needle plate.
2. Hold the bobbin case ① (with bobbin) with one hand, then install the bobbin case into the hook.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

11 面线的穿法 (图14) Threading the Needle Thread (Fig. 14)

穿面线时应先转动手轮使挑线杆上升到最高位置，然后由线架上引出线头按图示序号顺序进行穿线。



注意:



1. 为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

Thread the needle thread when needle bar stays in its highest position, lead out the thread end from the thread stand, and conduct the threading as per the serial numbers indicated in the figure.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

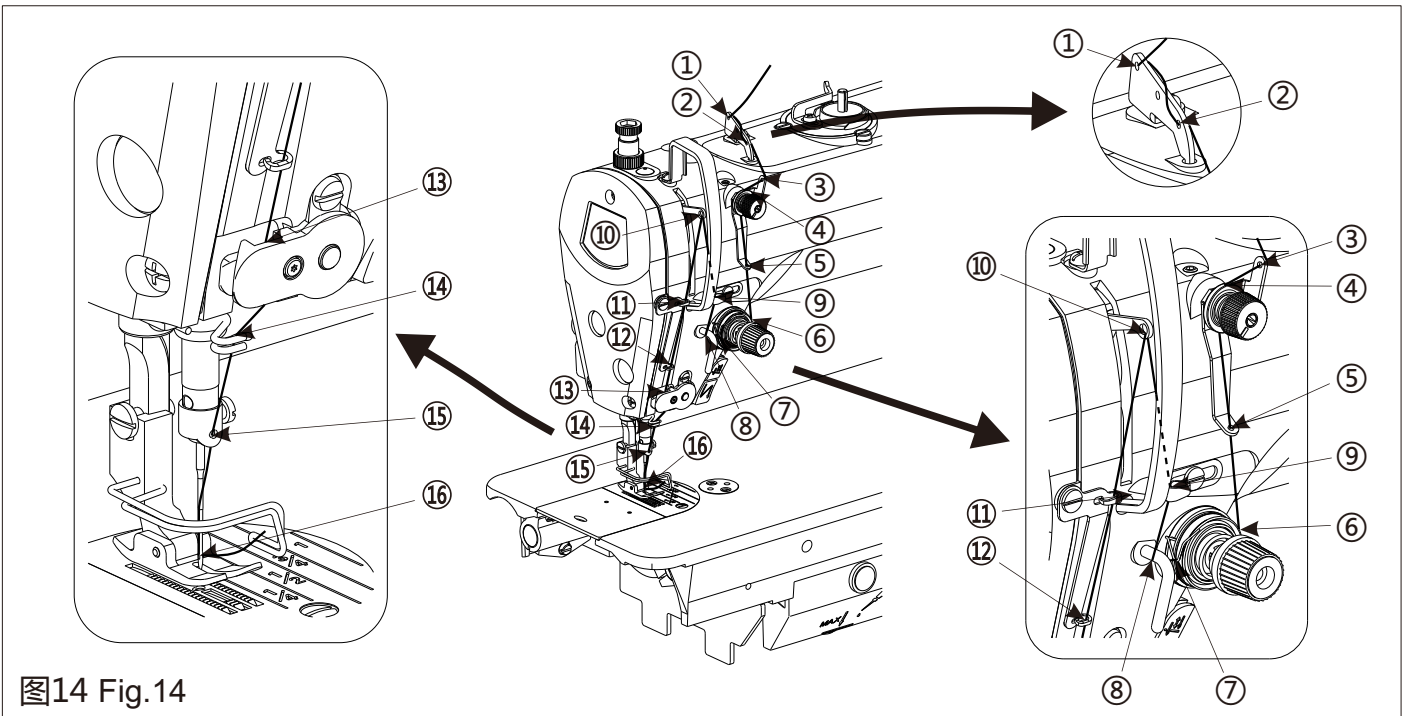


图14 Fig. 14

适用于薄料缝纫

缝纫线为：细棉线、丝光线≤ 200D

Be suitable for heavy material sewing

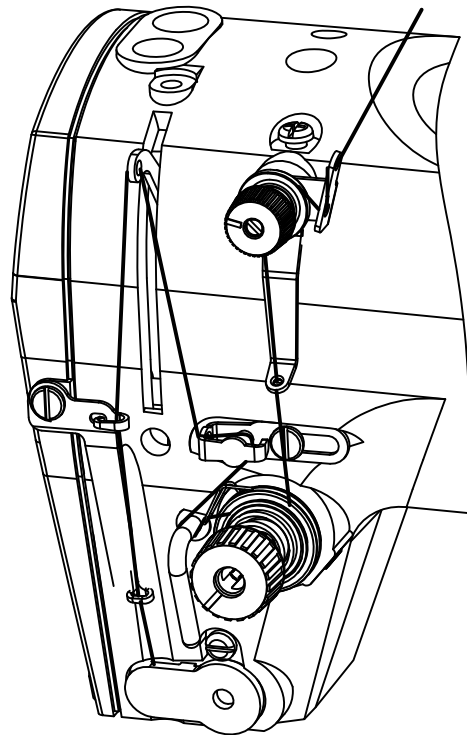
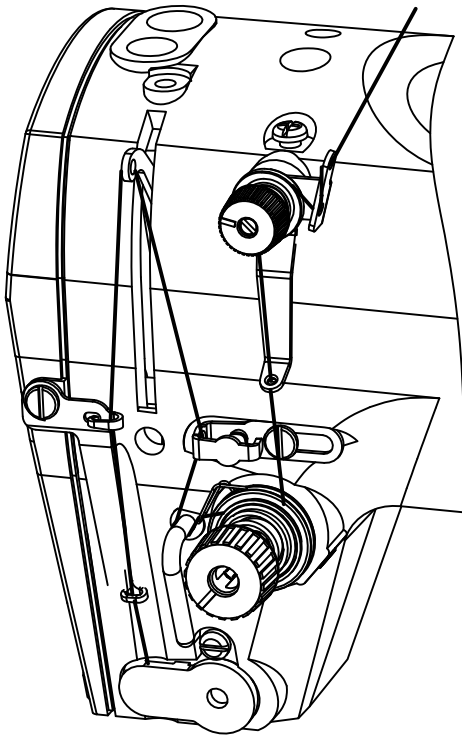
sewn thread :thin cotton thread

适用于厚料缝纫

缝纫线为：粗棉线、丝光线> 200D

Be suitable for heavy material sewing

sewn thread :Coarse cotton thread



12 面线的穿法 (图15、图16) Threading the Needle Thread (Fig. 15, Fig. 16)

穿面线时应先转动手轮使挑线杆上升到最高位置，然后由线架上引出线头按图示序号顺序进行穿线。

Thread the needle thread when needle bar stays in its highest position, lead out the thread end from the thread stand, and conduct threading as per the serial numbers indicated in the figure.



注意:

1.为了防止缝纫机的意外启动，请关掉



电源之后再进行操作。



Caution:

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



4) 取下梭芯①，用绕线切刀④切断线。



注意:



1. 不进行缝制时给梭芯①绕底线时，请把面线从挑线杆孔上抽出来，把梭芯①从旋梭里卸下来后再进行。

2. 为了防止发生安全事故，在底线卷绕的过程中，不要碰触任何运动部件或将物件靠在运动部件上。

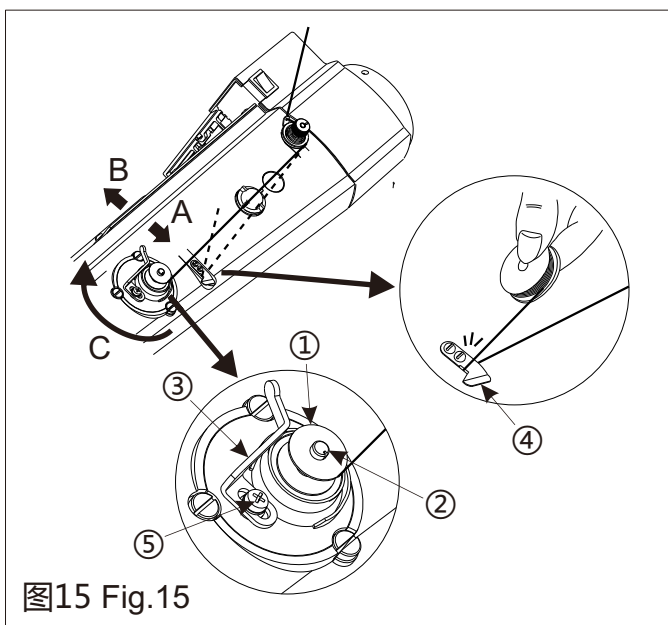


图15 Fig.15

2. 底线卷绕的调节

1) 调整底线卷线量时，请拧松固定螺钉⑤，把卷线拨杆③移动到A方向或B方向，然后再固定螺钉⑤。A方向卷线量变少，B方向卷线量变多。(注意：卷绕在梭芯上的底线量最多应为梭芯容量的80%)

2) 如果线不能平绕梭芯时，请拧松螺母⑥，转动绕线夹线器，调整夹线板⑦的高度：

a. 旋梭①中心和夹线板⑦中心高度一样时为标准位置。

b. 下部卷的多时，向如右图D方向移动绕线夹线器的位置，上部卷的多时，向如右图E方向移动绕线夹线器的位置。

-nding is over.

4) Remove bobbin ①, and trim off the thread using winding trimmer ④.



Caution:



1. To reel bobbin thread onto bobbin ① when no sewing is performed, draw the needle thread out of hole in the take-up lever, remove bobbin ① out of rotating hook.

2. Do not touch or lean anything to any running components when rolling the bottom line, in order to avoid the safety accident.

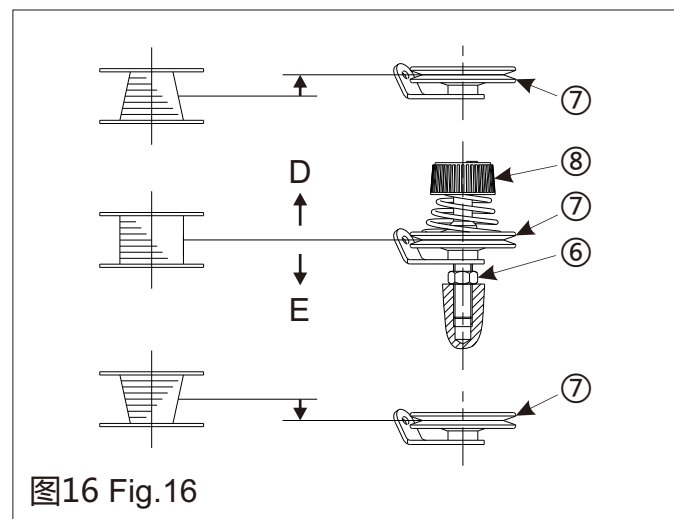


图16 Fig.16

1. Adjusting the bobbin thread winding

1) To adjust the winding capacity of bobbin thread, unscrew fixing screw ⑤, set winding lever ③ in direction A or direction B, and fix screw ⑤ again. Direction A is intended for reduction, and direction B is intended for increase (Caution: The amount of thread wound onto the bobbin should be a maximum of 80% of the bobbin capacity).

2) If thread cannot be wound onto the bobbin flatly, unscrew nut ⑥, turn the winding tension disc, and adjust the height of height of thread gripper plate ⑦.

a. The standard position is reached once the center heights of rotating hook ① and thread gripper plate ⑦ are identical.

b. If the winding amount on the lower part is bigger, move the winding tension disc

c.调整绕线夹线器到合适位置后，把固定螺钉⑥拧紧。

3) 调整底线卷绕张力时，请转动线张力螺母⑧进行调整。

in direction D indicated in the right-hand figure. If the winding amount on upper part is bigger, move the winding tension disco in direction E indicated in the right-hand figure.

c. When the winding tension disco reaches its suitable position, screw down fixing screw ⑥.

3) Adjust the winding tension of bobbin thread by turning thread tension nut ⑧.

13 关于压脚提升 (图17、图18) Lifting of presser foot(Fig. 17, Fig. 18)

1.手控提升压脚

1) 停车后将压脚扳手①朝A方向转动使压脚抬起(压脚的抬起量约为5.5mm)。

2) 当压脚扳手①朝B方向转动时，压脚将放回原来的位置。

2.膝控提升压脚

1) 在压下膝控碰块②时，可提升压脚③(压脚提升高度与膝控碰块压下程度有关)。

注意：完全压下膝控碰块时，压脚的标准提升量约为10mm，最大提升量约为13mm。

2) 松开膝控碰块②后，提升的压脚③立即放下。

1.Lift presser foot controlled by hands

1) Shut down the machine, turn presser foot lever ① in direction A to uplift the presser foot (for about 5.5 mm).

2) When presser foot lever ① is turned in direction B, presser foot will be returned to its original position.

2.Lift presser foot controlled by knees

1) The presser foot ③ can be raised by pressing the knee lifter plate ②. (Height of presser lifting is relate to the degree of knees pressing)

Caution: standard and maximal lifting height of presser foot are respectively about 10mm and 13mm when pressing knees fully.

2) The lifting presser foot ③ lowers as soon as loosing the knee lifter plate ② release.

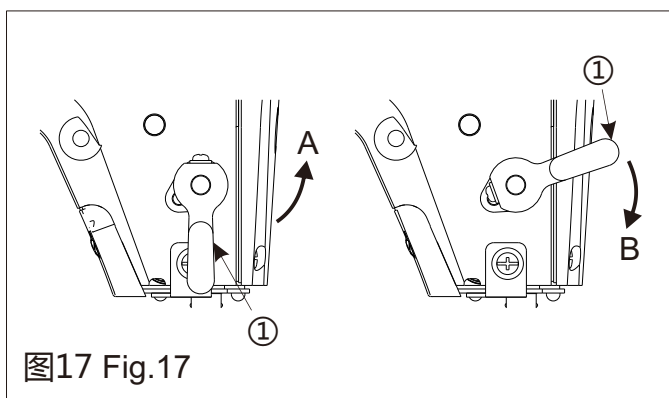


图17 Fig.17

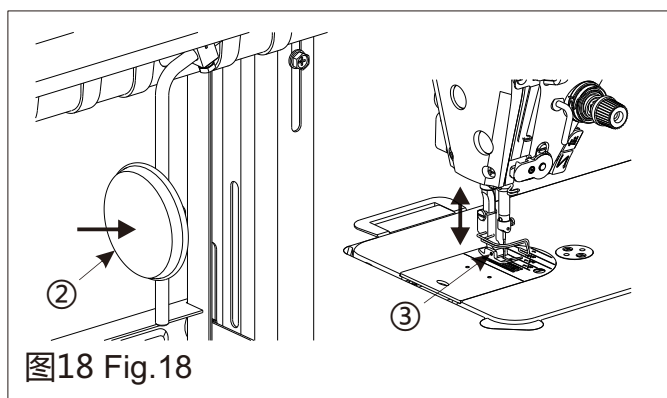


图18 Fig.18

14 针距的调节 (图19) Adjusting the Stitch Length(Fig. 19)

将针距旋钮①按下并朝箭头方向转动，旋至所需数字对准机壳正上方A方向，松开针距旋钮①即可。

Press needle gauge knob ① and rotate it according to arrows, do not release it until the the number you require aim at A direction right



注意:

1.旋钮上的刻度数字用毫米表示。



2.从大到小改变针距旋钮①刻度时,应一边把倒送料扳手②朝B方向压,一边转动针距旋钮。

above machine head,Loose needle gauge knob ①.



Caution:

1.Scale mark digits are expressed on the knob in millimeters.



2.Press the reverse feeding wrench ② towards B direction and rotate needle gauge knob ① when changing the scale of it from largest to smallest.

15 倒送料扳手的用法 (图19) Use of back Feeding Wrench(Fig. 19)

- 1.将送料扳手①朝B方向压。
- 2.朝B方向压便能倒送料。
- 3.松开手即恢复到顺送料状态。

1.Press the reverse feeding wrench ① towards B direction.

2.Press towards B direction can realize back feeding.

3.Recover to forth feeding when release hands.

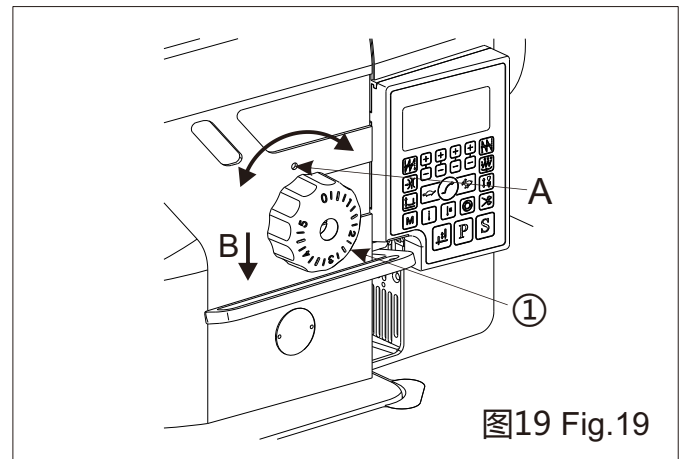


图19 Fig.19

16 手触倒缝装置的使用方法 (图20) Hand-touch Backstitch Device(Fig. 20)

1.倒缝按钮的使用方法

- 1) 按下倒缝按钮①, 缝纫机立即开始倒缝。
- 2) 仅在按下的时间里进行倒缝。
- 3) 手松开后立即变为正向缝纫。

2.补针按键的使用方法

按一下补针按钮②缝纫机则作往前补半针,一直按着缝纫机则作连续往前补针。

注意:补针按钮②可在连续回缝除外,任何一种车缝中途停止时使用(未切线时)。

3.照明灯控制按钮的使用方法

开机后照明灯会全亮度打开,按动照明灯控制按钮③,灯的亮度会依次减弱,直至关闭,依次循环。

1.Use of back sewing push-button

1) Push the backstitch switching push-button ① to allow the sewing machine to start backstitch immediately.

2) Backstitch is implemented only while the push-button is held down.

3) It is changed to forward stitch once the push-button is released.

2.Use of reinforce sewing

Press the reinforce sewing button ② one time, the sewing machine reinforce forth with half stitch, press all the time, it continues sewing with forth reinforce.

Caution:in addition to continue back reinforce sewing,the reinforce sewing button can be as stop button ② during any sewing condition.(before trimming)

3.Use of the light push-button

The illuminating lamp goes on at full brightness once the machine is powered on. Push illuminating lamp control button ③ to reduce in sequence the brightness till turn off.

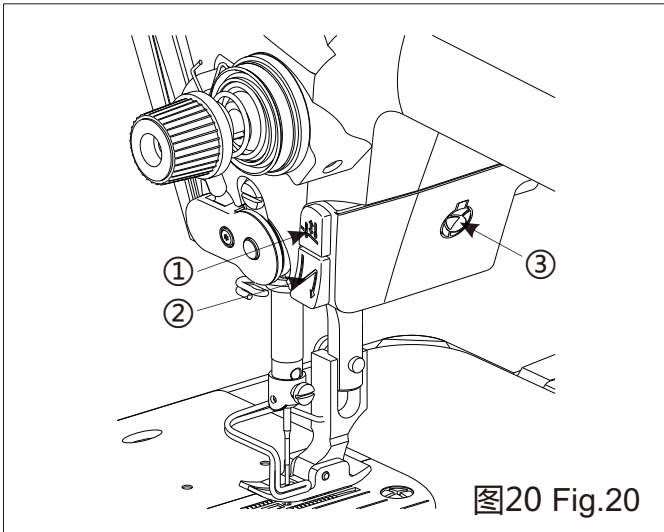


图20 Fig.20

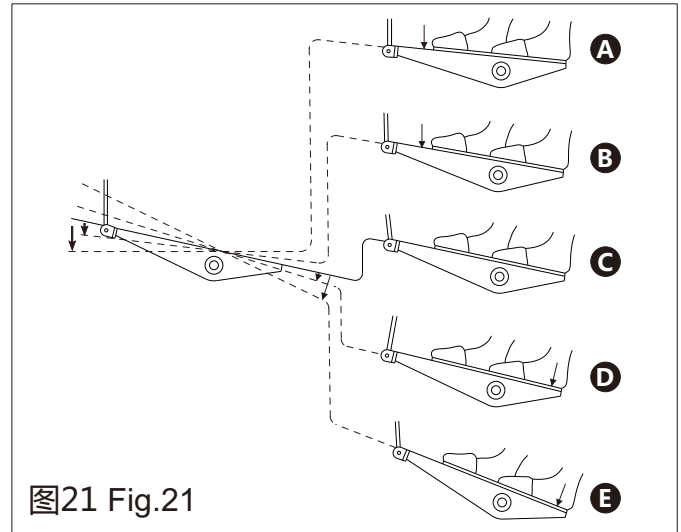


图21 Fig.21

17 踏板的操作 (图21) Operating the Treadle(Fig. 21)

1.踏板有4级操作：

- 1) 向前轻踩踏板为低速缝纫(图示B)。
- 2) 再用力向前踩踏板则变为高速缝纫(图示A)。
- 3) 当脚不向踏板施力，则踏板回复到原始状态时，缝纫机停止运转(机针在上停针或下停针位置)(图示C)。
- 4) 再用力向后踩踏板为切线动作(图示E)。
- 5) 使用自动压脚提升装置时，在停止和切线之间增加一级开关D。向后轻踩踏板为压脚提升动作，继续向后强力踩踏板，压脚下降进行切线动作，再次进行压脚提升动作。

1.The treadle has 4 operation levels:

- 1)The machine runs at low sewing speed when you lightly depress the front part of the pedal. (as show in the picture B)
- 2)The machine runs at high sewing speed when you further depress the front part of the pedal.(as show in the picture A)
- 3)Penal back to the initial position when stop stepping on it and the machine stop working.(needle in the upper or down position)(as show in the picture C)
- 4)The machine trims threads when you fully depress the back part of the pedal.(as show in the picture A)
- 5)When the auto-lifer is used,one more operating switch is provided between the sewing machine stop switch and thread trimming switch.The presser foot goes up when you lightly depress the back part of the pedal(D),and if you further depress the back part,the thread trimmer is actuated.

18 踏板的调整 (图22、图23、图24) Adjusting the Treadle(Fig. 22, Fig. 23, Fig. 24)

1.踏板角度的调整

- 1) 调节踏板连接杆的长度即可以调节踏板的角度的：旋松螺钉①，上下移动上连接杆②和下连接杆③就可以调节踏板连接杆的长度。
- 2) 调节完成后旋紧螺钉①。

1.Adjusting the angle of treadle

- 1)Adjust the angle of treadle only by adjusting the length of treadle connecting rod: unscREW screw ①, and adjust the length of treadle connecting rod by moving upward/downward the upper connecting rod ② and lower connecting rod ③.
- 2)Screw down screw ① when adjustment is over.



注意:

1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。

2.踏板踩踏力的调整

将脚放在踏板上并向前轻踩踏板时,缝纫机进行低速缝纫。如感觉踩踏力比较轻时,将踩踏力调节弹簧④挂在踏板旋臂拨杆⑤的位置上进行调节(踩踏力以a为最小,b、c、d依次逐渐增大)。



注意:

1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。

2.Adjustment of the strength of pedal

The sewing machine run at a low speed when step forth on the panel slightly.If the strength is insufficient, hang the stepping adjustment spring ④ on the panel spiral arm driving lever ⑤ in order to adjust strength.(a is the minimum stepping strength ,b,c,d increase gradually)



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

3.踏板返回力的调整

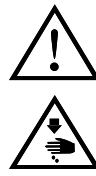
1) 松开螺母⑥,旋转螺栓⑦调节踏板返回力:拧紧螺栓⑦则踏板返回力将增大,拧松螺栓⑦则踏板返回力将减小。

2) 调节完踏板返回力后,请拧紧螺母⑥。



注意:

1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

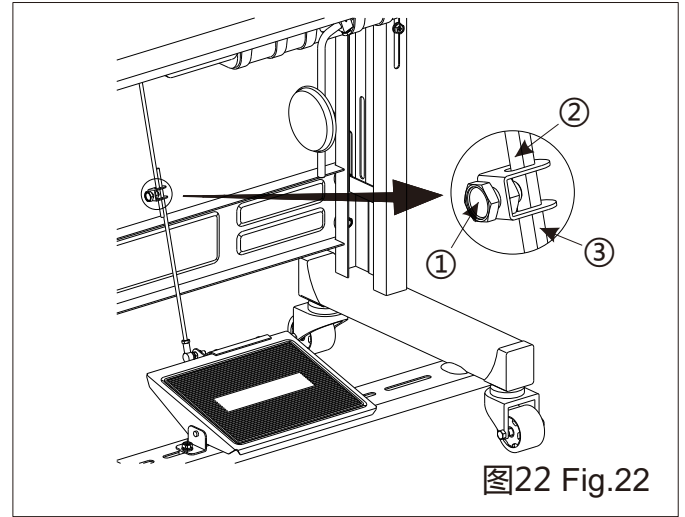


图22 Fig.22

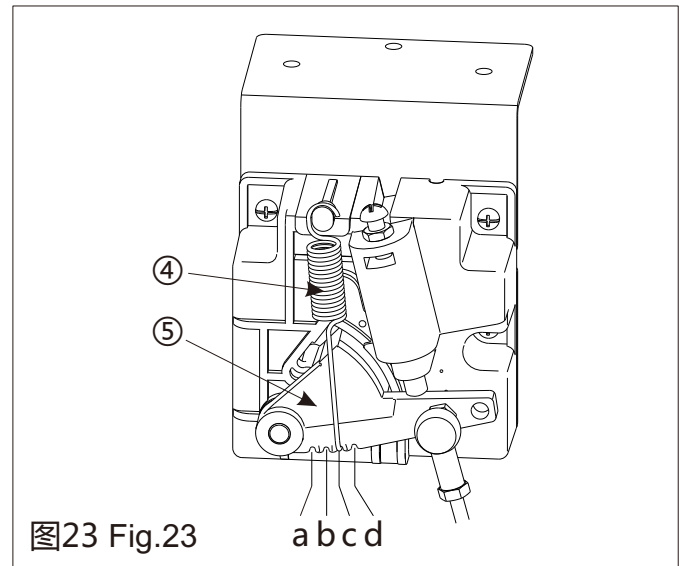


图23 Fig.23

3.Adjustment of stepping return strength

1)Loosing nut ⑥ and turn bolt ⑦ to adjust stepping return strength : tighten bolt ⑦,the strength increases;loosen bolt ⑦,the strength decreases.

2)Tighten nut ⑥ after adjusting stepping return strength.



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

4. 踏板行程的调节

1) 拆下螺母⑧。

2) 将连杆接头⑨从A的位置移动到B的位置，则踏板的行程变为原来行程的约1.3倍，反之则踏板的行程变为原来行程的约0.8倍。

3) 调整完行程后，请装上螺母⑧。



注意:



1. 为了防止缝纫机的意外启动，请关掉电源之后再进行操作。
2. 踏板行程调整后，踏板踩踏力和踏板返回力均已改变，请按照上述步骤进行重新调整。

4. Adjustment of panel moving distance

1) Remove nut ⑧.

2) Move connecting rod joint ⑨ from A to B, panel moving distance is 1.3 times than original one. Move reversely the distance is 0.8 times as original one.

3) Assemble the nut ⑧ after adjusting panel moving distance.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.
2. Stepping strength and stepping return strength both change after adjusting panel movement, follow the steps above to have adjustments again.

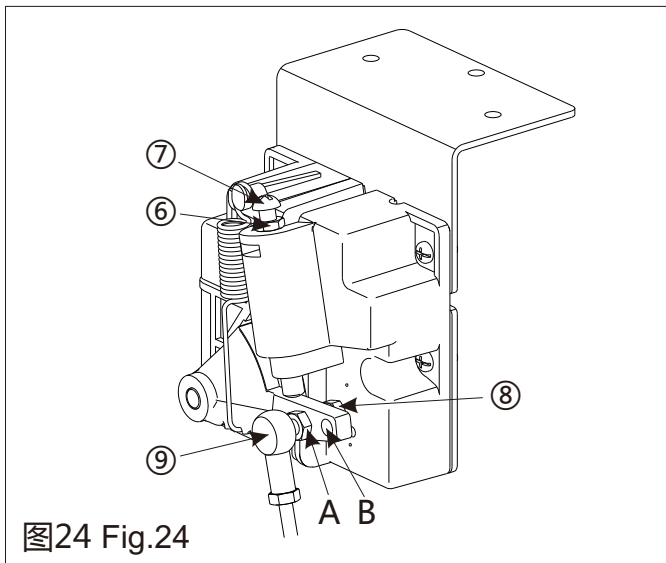


图24 Fig.24

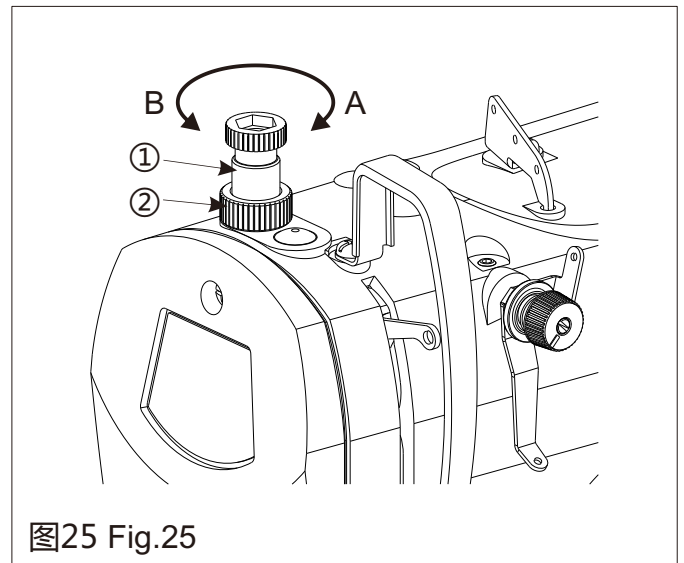


图25 Fig.25

19 压脚压力的调节 (图25)

Adjusting the Presser Foot Pressure(Fig. 25)

1. 旋松调压螺母②。

2. 若将调压螺钉①朝顺时针方向(即A方向)转动时，压脚压力将增强；若朝逆时针方向(即B方向)转动时，压脚压力将减弱。

3. 调节完成后旋紧调压螺母②。



注意:



1. 为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

1. Unscrew pressure adjusting nut ②.

2. Presser foot pressure is increased if pressure adjusting screw ① is turned clockwise (namely in direction A); the pressure is reduced if the screw is turned counterclockwise (namely in direction B).

3. Screw down pressure adjusting nut ② when adjustment is over.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2.对一般布料而言,调压螺钉①的标准高度为32~34毫米,(4.5公斤力)左右。

2.For ordinary materials, the standard height of pressure adjusting screw ① ranges from 32 to 34mm (4.5 kilogram force) approximately.

20 压脚高度和角度的调节 (图26) Adjusting the height and angle of presser foot(Fig. 26)

1.旋松调压螺母②和调压螺钉①,使其对压脚不施加压力。

1.Loosen pressure adjusting nut ② and screw ①,free the pressure of presser foot.

2.拆下面板上的橡胶塞③。

2.Open rubber plug ③ in panel.

3.旋松压杆导架紧固螺钉④,上下移动压杆⑤来调节压脚的高度和角度(压脚高度为针板面与压脚底面的距离,手动抬压脚高度的标准值为5.5mm)。

3.Loosen screw ④ in compression rod guide frame, move mobile compression rod ⑤ from up and down to adjust the height and angle of presser foot.(height of presser foot is the distance from needle plate surface to the bottom of it, the standard height of lifting presser foot by hand is 5.5mm)

4.调节完成后旋紧压杆导架紧固螺钉④,并装上橡胶塞③。

4.Tighten the screw ④ in compression rod guide frame and assembly the rubber plug ③ after adjusting.

5.通过调压螺钉①来调节压脚压力,调节后并旋紧调压螺母②。

5.Adjust pressure of presser foot through pressure adjusting screw ①, tighten the nut ② after adjusting.



注意:



1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。

2.调节完成后回转手轮,确认机针应下降到压脚槽的正中处。



Caution:



1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2.After adjusting,check that the needle moves down into the center of the groove in the presser foot.

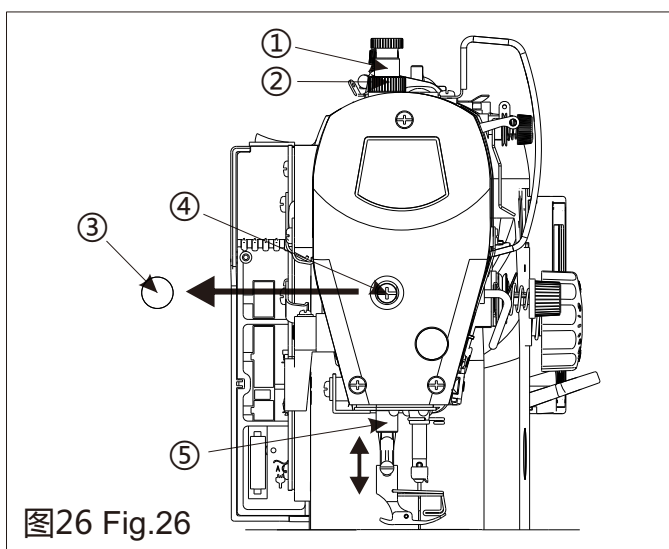


图26 Fig.26

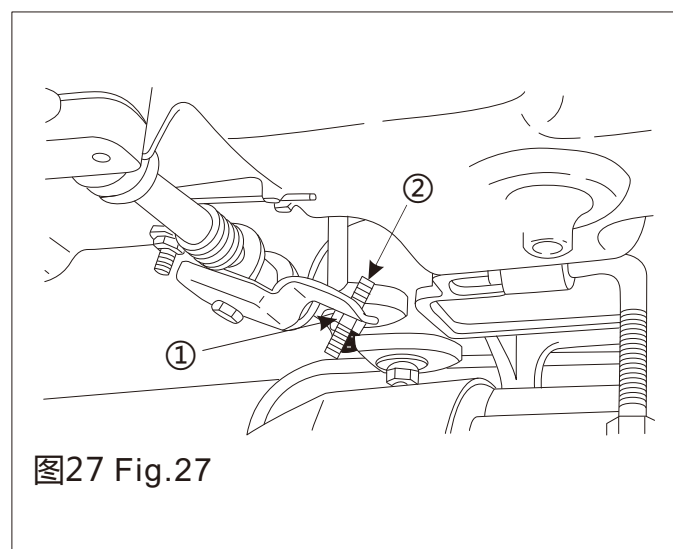


图27 Fig.27

21 膝动提升压脚高度的调节 (图27) Adjustment of The Knee Lift Height(Fig. 27)

1.转动手轮使送料牙从针板的上面降到针板的下面。

2.使用压脚扳手将压脚放下。

3.旋松螺母①，旋转螺钉②调节压脚在膝控碰块完全压下时的提升量(完全压下膝控碰块时，压脚的标准提升量约为10mm，最大提升量约为13mm)。

4.调节完成后拧紧螺母①。

1.Turn the machine pulley so that the feed dog is below the top of the needle plate.

2.Lower the presser foot by using the lifting lever.

3.Unscrew the nut ① and rotating the screw ② are the purpose to adjust the height of presser foot when the knee totally pushed to the touch point (by knee, the standard height:10 mm , the maximum height :13mm)

4.Securely tighten the nut ①.



注意:

1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

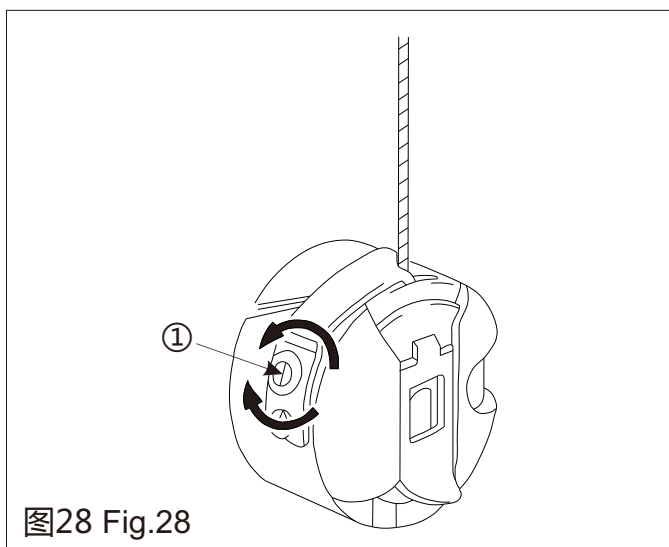


图28 Fig.28

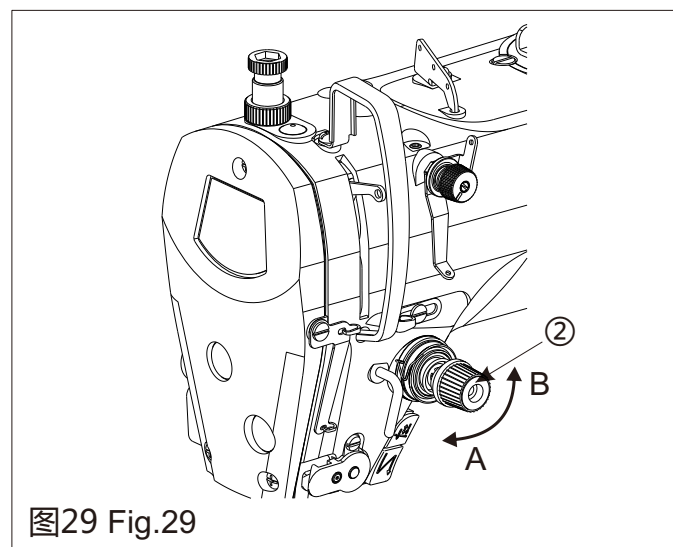


图29 Fig.29

22 缝线张力的调节 (图28、图29)

Adjusting the Tension of Stitch Thread(Fig. 28, Fig. 29)

1.底线张力的调节

拉住从梭芯套中露出的线头，旋转调节螺钉①进行调节：旋紧调节螺钉①则底线张力变大，反之则底线张力变小。

注意：底线张力调节标准：旋转调节螺钉①直至梭芯套以自重慢慢垂落。

1.Adjusting the tension of bobbin thread

Hold the end of a thread which hanging from the bobbin case and use the adjusting rotating screw ① to regulate. The tension of the bottom thread is become strong by tight the screw ①, loose the screw to make it weak.

Caution : The adjust standard of the bottom thread tension: Rotating the adjusting screw ① till the bobbin case can falling slowly by it's own weight.



注意:

1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2.面线张力的调节

在底线张力调节之后，调节面线张力以使针脚均匀平整。

1) 使用压脚扳手将压脚放下。

2) 转动夹线螺母②进行调节：朝顺时针方向(即A方向)转动时，面线张力将增大；朝逆时针方向(即B方向)转动时，面线张力将减小。

23 剪线后面线长度的调节 (图30)

Adjustment of the Upper Thread Length after Trimming(Fig. 30)

剪线时，线张力松弛，仅用上夹线器①施加张力。如果增加上夹线器①的张力，剪线后残留在针孔处面线长度将会减少，反之减小张力，长度将会增加。

1.转动夹线器①上的调节螺母②进行调节：朝顺时针方向(即A方向)转动时，剪线后残留在针孔处面线长度将会减少,反之朝逆时针方向(即B方向)转动时，长度将会增加(剪线后残留在针孔处面线标准长度：25-30mm)。

2.Adjusting the tension of needle thread

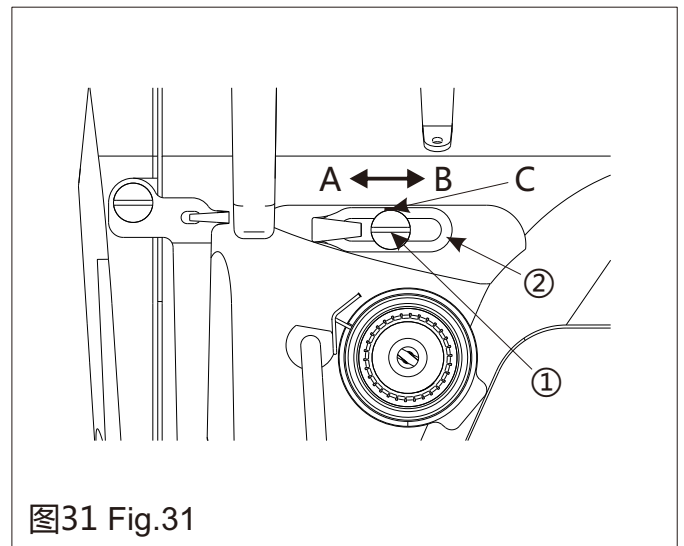
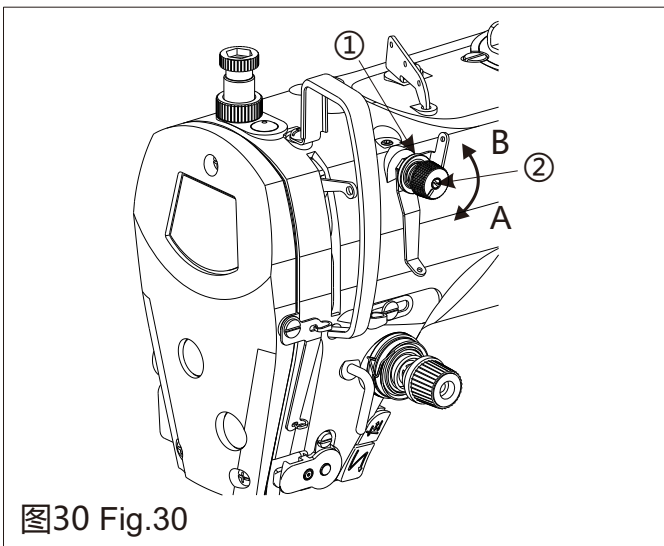
After the lower thread tension has been adjusted,adjust the upper thread tension so that a good,even stitch is obtained.

1)Lower the presser foot by using the lifting lever.

2)Adjust by turning the tension nut ② : The tension of the upper thread will become strong when turning toward the clockwise(A), otherwise weak when toward anti-clockwise (B).

At the time of thread trimming,the thread tension is loosened and tension is applied by the thread clamp ① only.If added the tension in the thread clamp ①, the upper thread length that left in the pinhole will be shorter, and vice versa.

1.The length of upper thread which left in the pinhole will decrease when turning the adjusting nut ② in the thread clamp ① towards the clockwise (A), otherwise it will increase when turn toward anti-clockwise (B). (The standard length of the upper thread which left in the pinhole is 25~30mm)



24 挑线杆挑线量的调节 (图31)

Adjusting the Take-up Amount of Take-up Lever(Fig. 31)

1.旋松螺钉①。

2.移动右线钩②进行调节：朝左方向(即A方向)

1.Unscrewing the screw ①.

2.Move the right thread hook ② to adjust : the thread amount of thread take-up lever will

移动，挑线量将会增加；反之朝右方向(即B方向)移动，挑线量将会减少。(右线钩上的刻线C与螺钉中心一致时为标准位置)。

3.调节完成后拧紧螺钉①。



注意:



1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

2.缝制厚料时，应按照上述方法向左方向移动右线钩②，以增大挑线量。

3.缝制薄料时，应按照上述方法向右方向移动右线钩②，以减小挑线量。

increase if turned it towards left (A direction), while turning it to the right (direction B) and the thread amount of thread take-up lever will decrease accordingly. (The standard position is obtained when graduation line C on right thread hook is aligned to screw center.)

3. Remember to tight the screw ① after adjusting.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2. For heavy duty, move the right thread hook ② to left to add amount of thread.

3. For light material, move the right thread hook ② to right to reduce amount of the thread.

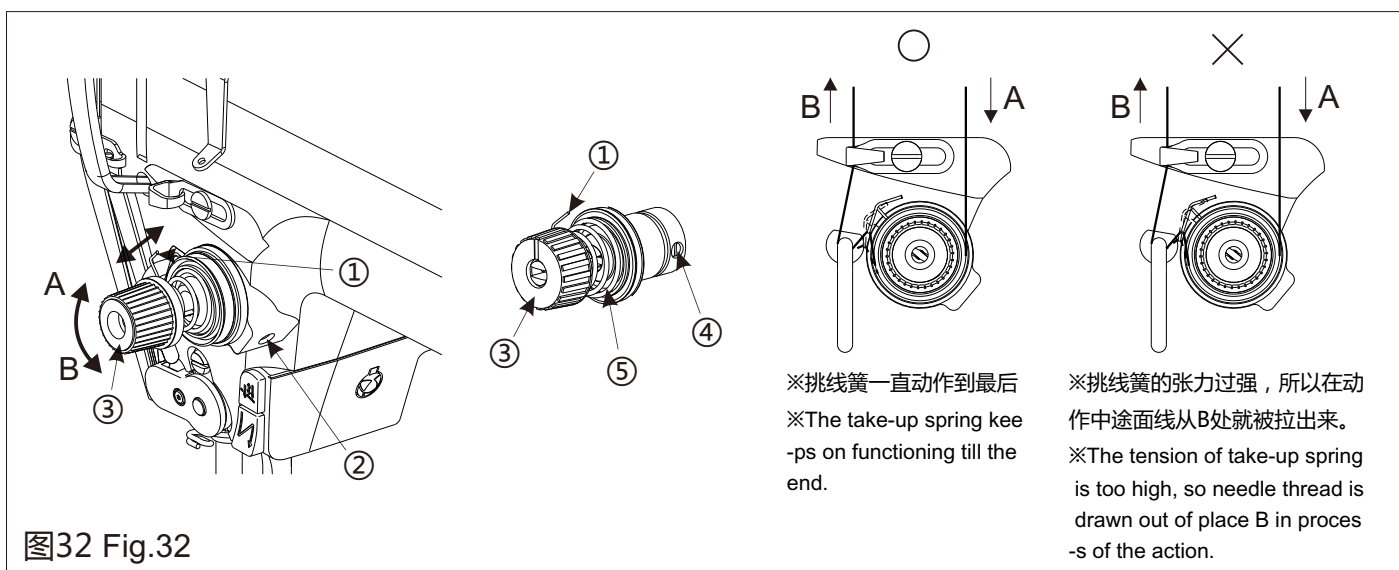


图32 Fig.32

※挑线簧一直动作到最后
※The take-up spring keeps on functioning till the end.

※挑线簧的张力过强，所以在动作中途面线从B处就被拉出来。
※The tension of take-up spring is too high, so needle thread is drawn out of place B in process of the action.

25 挑线弹簧的调节 (图32) Adjusting the Take-up Spring (Fig. 32)

1.挑线簧张力的调节

1) 旋松螺钉②，取出夹线器⑤(组件)。

2) 旋松夹线器⑤中螺钉④。

3) 转动夹线器⑤中的螺钉③进行调节：朝顺时针方向(即A方向)转动时，挑线簧的张力将增大；反之朝逆时针方向(即B方向)转动时，挑线簧的张力将减小。

4) 调节完成后旋紧螺钉④，并将夹线器⑤(组件)装入机器中再旋紧螺钉②。

1. Adjusting the tension of take-up spring

1) Unscrew screw ②, and take out thread clamp ⑤(assembly).

2) Unscrew screw ④ in thread clamp ⑤.

3) Rotating the screw ③ in the thread clamp ⑤ to adjust, The tension of the thread take-up spring will become larger when turning toward the clockwise(A), otherwise smaller when turning anti-clockwise (B).

4) Screw down screw ④ when adjustment is over, fit thread clamp ⑤(assembly) into the machine, and screw down screw ②.

挑线簧张力调整适当的判断方法：确认挑线簧的张力调整好后，把面线向B方向拉出，如果在挑线簧达到最低位置之前面线B处就被拉动，请减弱挑线簧的张力。



注意:

1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。



2.通常，机器在出厂前，挑线簧均已调整妥善，只是在缝纫特殊的缝料或特殊的缝线时，才需要重新进行调整。

2.挑线弹簧挑线行程的调节

1) 使用压脚扳手将压脚放下。

2) 旋松紧固螺钉②。

3) 转动夹线螺钉③进行调节：朝顺时针方向(即A方向)转动时，挑线弹簧①的挑线行程将增加,反之朝逆时针方向(即B方向)转动时，挑线行程将减少(标准挑线行程：在压脚被放下的状态下，距离缓线钩上方6-7mm)。

4) 调节完成后拧紧紧固螺钉②。



注意:

1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。



2.通常，机器在出厂前，挑线簧均已调整妥善，只是在缝纫特殊的缝料或特殊的缝线时，才需要重新进行调整。

26 针杆高度的调节 (图33)

Adjust the Height of the Needle Bar(Fig. 33)

1.转动手轮，使针杆①降到最低点。

2.拆下面板上的橡胶塞②。

3.旋松针杆连接柱紧固螺钉③，将针杆①上下移动来进行调节：使用DBX1和DPX5机针时，

Judgment basis for adjustment adequacy of take-up spring: Confirm that the tension of take-up spring is properly adjusted, draw out the needle thread in direction B. If place B of needle thread is drawn before take-up spring reaches its lowest position, reduce the tension of take-up spring.



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



2.The take-up spring is already adjusted properly before the machine leaves the factory as a rule, and it requires readjustment only for sewing of special materials or usage of special stitch threads.

2.Adjustment of the Stroke to the Thread take-up Spring

1)Lower the presser foot by using the lifting lever.

2)Loosen the set screw ②.

3)Rotating the screw ③ in the clamp to adjust, the stroke to the Thread take-up Spring ① will increase when turning toward the clockwise(A), otherwise decrease when toward anti-clockwise (B).(The standard stroke, under the state of presser foot was put down is around 6~7mm higher than the slow hook)

4).Securely tighten the screw ②.



Caution:

1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



2.The take-up spring is already adjusted properly before the machine leaves the factory as a rule, and it requires readjustment only for sewing of special materials or usage of special stitch threads.

1.Turn the machine pulley to set the needle bar ① to its lowest position.

2.Remove the rubber cap ② from the face plate.

3.Unscrewing the connecting screw ③ of needle bar, through moving the needle bar ① up and down to adjust, when using needle DB

使针杆①上的刻线A对准针杆下套的下端；使用DAX1机针时，使针杆①上的刻线C对准针杆下套的下端。

4.调节完成后拧紧针杆连接柱紧固螺钉③，并装上橡胶塞②。



注意:



1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

X1 and DPX5, the mark A on the needle bar ① should be match to the bottom of needle bar lower bushing; When using DAX1, the mark C on needle bar ① should match to the bottom of needle bar lower bushing.

4. Tighten the screw ③ in compression rod guide frame and assembly the rubber plug ② after adjusting.



Caution:



1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

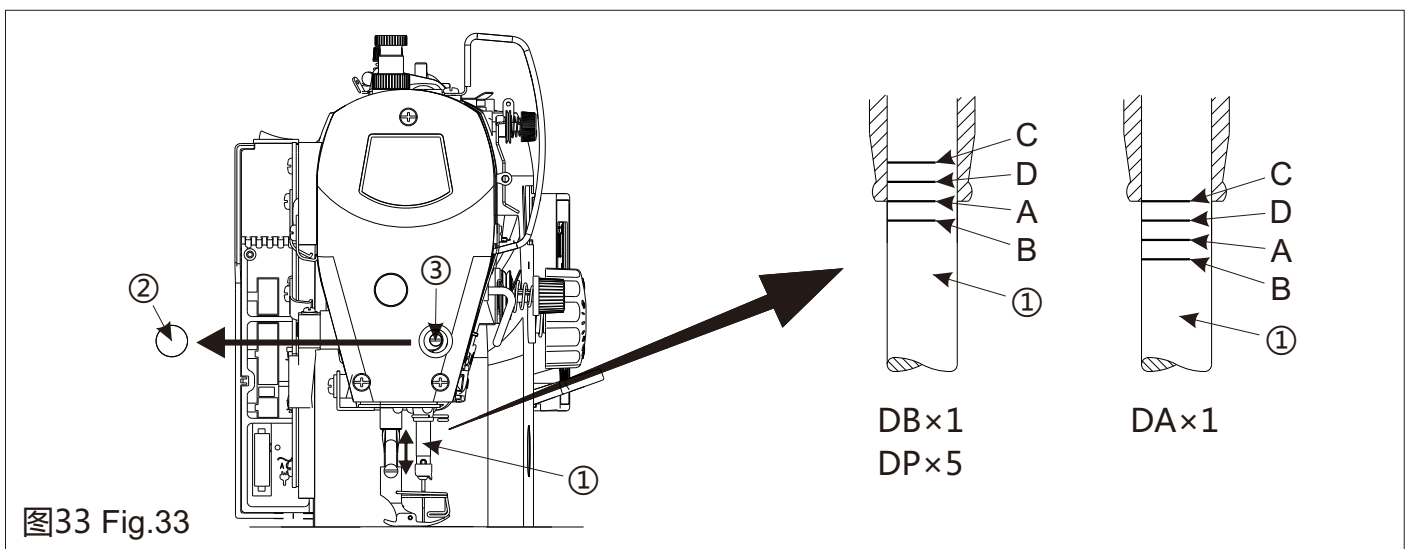


图33 Fig.33

27 机针和旋梭同步的调节 (图34)

Adjust the Synchronization of the needle and hook(Fig. 34)

1.旋松2只旋梭定位螺钉①。

2.转动手轮，使针杆②从最低点向上升起：使用DBX1和DPX5机针时，使针杆②上的刻线B对准针杆下套的下端；使用DAX1机针时，使针杆②上的刻线D对准针杆下套的下端。

3.移动旋梭使旋梭的梭尖③和机针④缺口处的中心保持一致。此时，应使旋梭梭尖③和机针④之间的间隙为0-0.05mm。

4.调节完成后拧紧2只旋梭定位螺钉①。

1.Unscrewing the two positioning screw ① of hook.

2.Rotating the hand wheel to make needle bar ② lift from the lowest place, when using needle DBX1 and DPX5, the mark B on needle bar ② should match to the bottom of lower needle bar ② bushing, when using needle DAX1, the mark D on needle bar ② should match to the bottom of lower needle bar ② bushing.

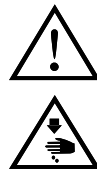
3.Moving the hook to match the hook point ③ with center of needle ④. Meantime, make the space between the hook point ③ and needle ④ 0~0.05mm.

4.Tightening two positioning screw ① of hook.



注意:

- 1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。
- 2.若机针与旋梭梭尖的间隙太小,会磨损旋梭梭尖;若间隙过大,会引起跳针。
- 3.若旋梭损坏了,请更换相同型号的旋梭。



Caution:

- 1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.
- 2.If the clearance between notch on needle and thread hooking tip of rotating hook is too small, rotating hook tip may be worn;if the clearance is excessive,skipped stitch may take place.
- 3.It may lead to needle breakage if over-rotating the eccentric wheel towards A direction.

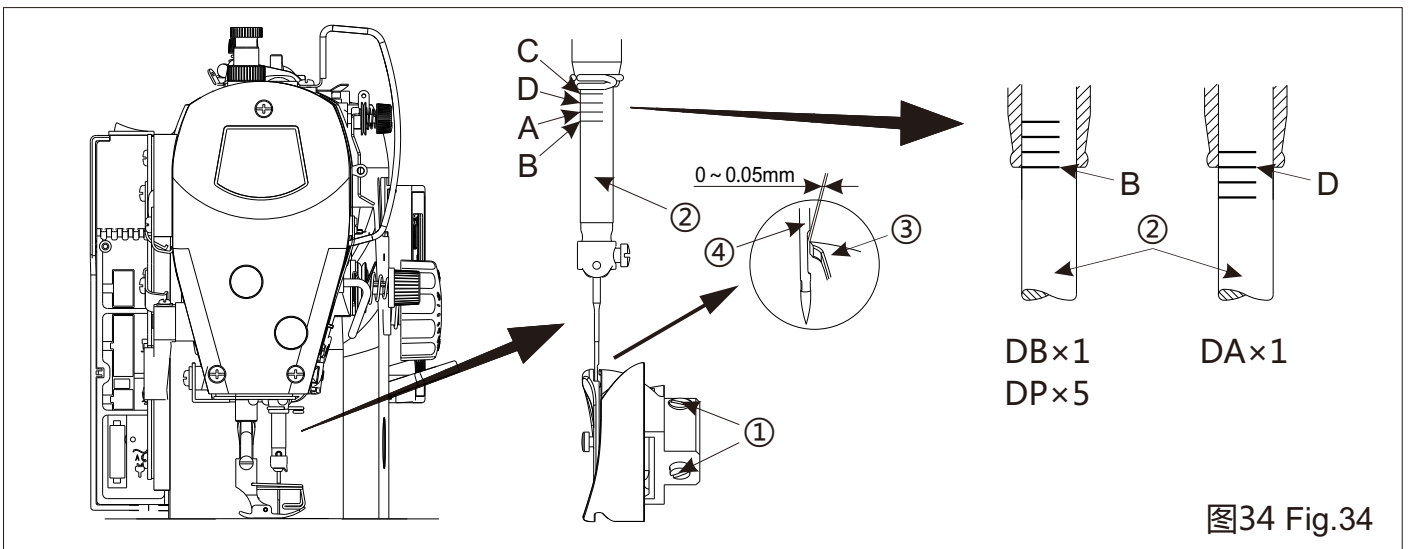


图34 Fig.34

28 机针和送料同步的调节 (图35)

Adjust the Synchronization of the Needle and Feed(Fig. 35)

- 1.取下橡胶塞①。
- 2.旋松送料偏心轮②上的两个固定螺钉③,然后轻微的旋转送料偏心轮②进行调节:要使机针早于送料时,向A方向旋转;要使机针晚于送料时,向B方向旋转(标准调节位置:送料牙从最高位置开始下降到和针板的表面一致时,机针孔上沿与针板面对齐)。
- 3.调节完成后拧紧2个固定螺钉③,并装上橡胶塞①。

- 1.Remove the rubber plug ①.
- 2.Loosen the two set screws ③ of the feed eccentric cam ②,and then turn the feed eccentric cam ② slightly to adjust the timing : If make the needle sooner than material feeding, rotate toward A direction. If make the needle later than material feeding, rotate toward B direction. (The standard of adjustment is when the feed dog falling from the highest to the surface of needle plate, the top of the needle and needle plate should at the same level).
- 3.Tightening two positioning screw ③ and assembly the rubber plug ① after adjusting.



注意:

- 1.为了防止缝纫机的意外启动,请关掉电源之后再进行操作。



Caution:

- 1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

- 2.如果将送料偏心轮②沿A方向旋转过多，则有可能导致机针断裂。
- 3.为了防止在重叠缝纫时布料不一致(缝线不合)，可将机针的时序调晚些。
- 4.为了使收线良好，可将机针的时序调早些。

- 2.If the feed lifting eccentric cam ② is turned too far in the direction A, it may cause the needle to break.
- 3.To prevent material slippage from occurring, retard the needle timing.
- 4.To improve thread tightening, advance the needle timing.

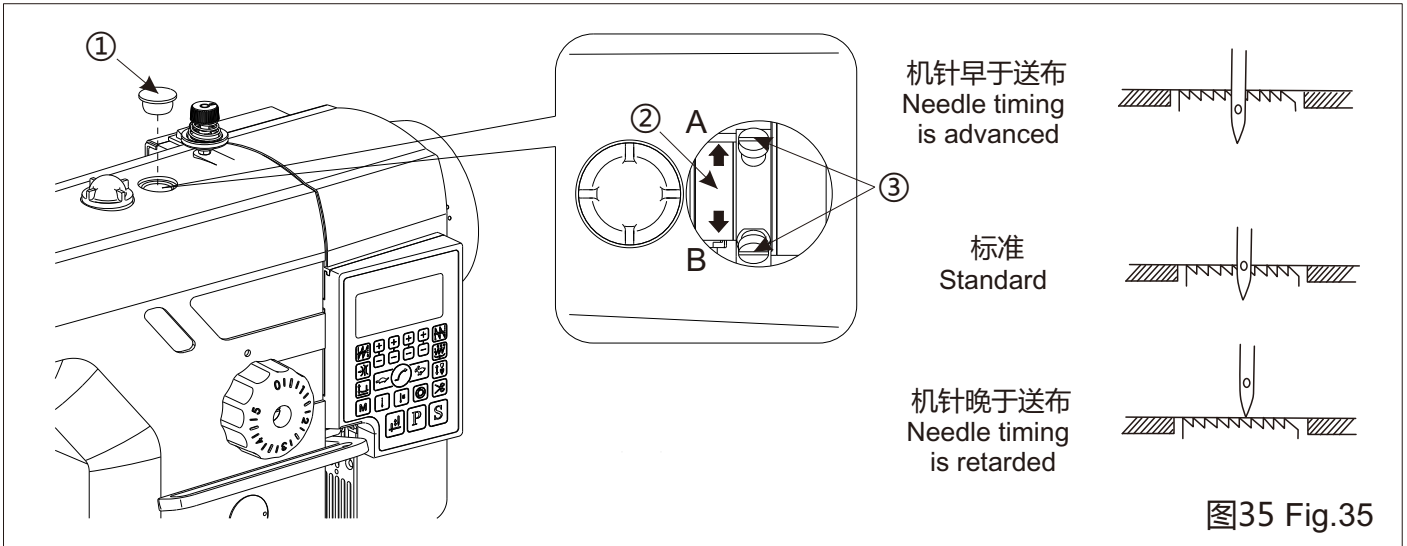


图35 Fig.35

29 送料牙高度的调节 (图36)

Adjustment of the Height of feed dog(Fig. 36)

- 1.转动手轮，将送料牙升到针板的最高位置。
- 2.将缝纫机放倒，并支到机头支柱上。
- 3.旋松抬牙叉形曲柄②上的紧固螺钉①。
- 4.转动抬牙叉形曲柄②进行调节：将抬牙叉形曲柄②向A方向转动，送料牙将变高；反之向B方向转动，送料牙将变低(当送料牙升到针板的最高位置时，中厚料机型送料牙距针板的标准高度为0.8-1.0mm，厚料机型的标准高度为1.1-1.3mm)。
- 5.调节完成后拧紧抬牙叉形曲柄②上的紧固螺钉①。

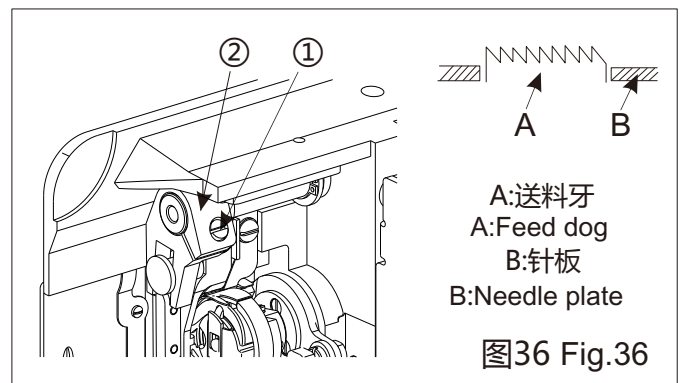


图36 Fig.36

- 1.Turn the pulley until the feed dog rises to the highest position.
- 2.Turn over the sewing machine head on the supporting bar.
- 3.Unscrewing the tightened screw ① in the feed lifting crank ②.
- 4.Rotating the feed lifting crank ② to make adjustment: the feed dog will be higher when the feed lifting crank ② is turn towards A direction; turn towards B direction the feed dog will be lower.(When the feed dog in the highest



注意:

- 1.为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

position, the standard height of the type of medium-heavy machine is 0.8~1.0mm and standard height of the heavy duty machine is 1.1~1.3mm).

5. Remember to tighten the tightening screw ① in the feed lifting crank ② after adjusting.



Caution:

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

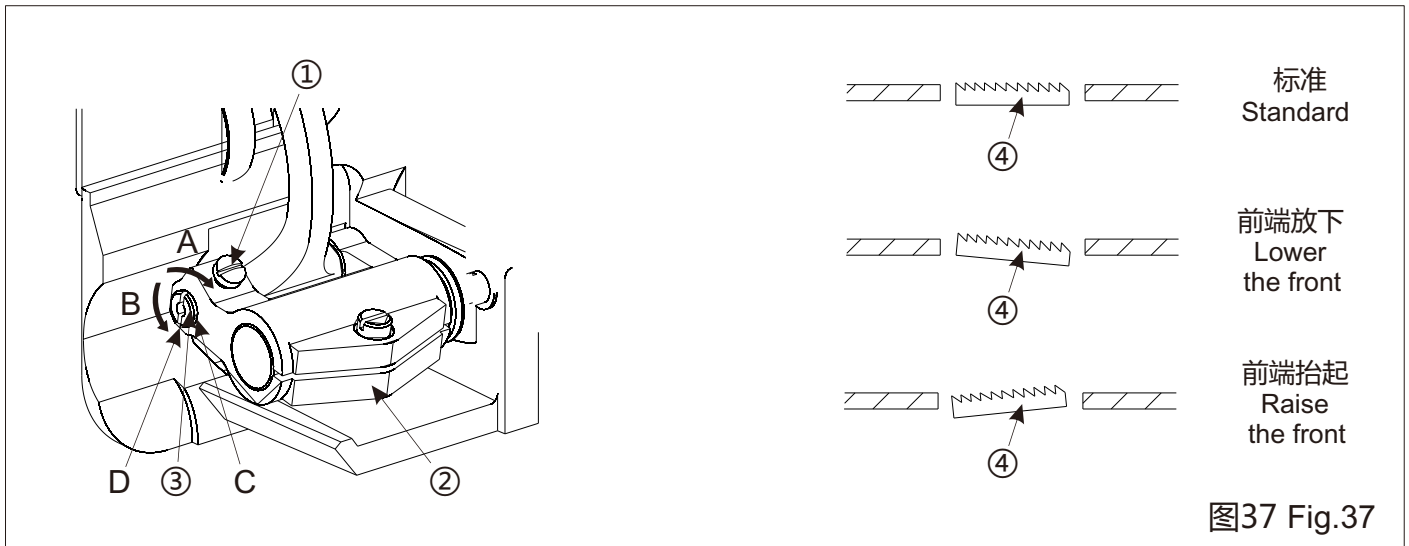


图37 Fig.37

30 送料牙倾斜的调节 (图37) Adjust the lean of feed dog(Fig. 37)

1. 转动手轮，将送料牙④升到针板的最高位置。
2. 将缝纫机放倒，并支到机头支柱上。
3. 旋松牙架座②上的紧固螺钉①。
4. 用螺丝刀转动偏心销③进行调节：将偏心销③向A方向转动，送料牙前端放下；向B方向转动，送料牙前端抬起(当送料牙升到针板的最高位置时，送料牙标准倾斜为偏心销③上的刻点C与牙架座②上的刻横D对齐，送料牙与针板平行)。

5. 调节完成后拧紧牙架座②上的紧固螺钉①。



注意:

1. 为了防止缝纫机的意外启动，请关掉电源之后再进行操作。
2. 为了防止起皱，可降低送料牙前端。
3. 为了防止在重叠缝纫时布料不一致(缝



1. Turn the pulley until the feed dog ④ rises to the highest position.
2. Turn over the sewing machine head on the supporting bar.

3. Unscrewing the tightening screw ① in the teeth pedestal ②.

4. Adjust the eccentric pin ③ by screw driver: Fall front site of tooth feed when moving the eccentric pin ③ towards A, and raising it when move towards B. (When raising the tooth feed to the highest position, The standard lean position of feed dog is that mark C on eccentric pin ③ should be at the same level D with mark on the teeth pedestal ② and the feed dog should be parallel with needle plate.)

5. Remember to tighten the tightening screw ① in the teeth pedestal ② after adjusting



Caution:

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.



线不合), 可提高送料牙前端。

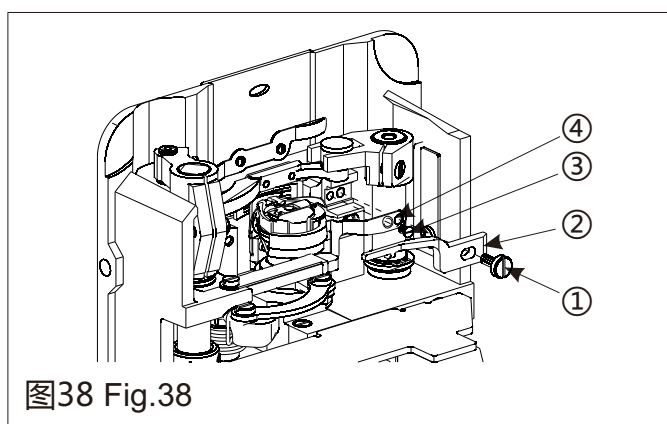
1. 调节送料牙的倾斜度后, 送料牙的高度也会发生改变, 因此请重新调节送料牙的高度。

2. In order to prevent puckering, lower the front of the feed dog.
3. In order to prevent the material from slipping, raise the front of the feed dog.
4. The height of the feed dog will change after the angle has been adjusted, so it will be necessary to re-adjust the height of the feed dog.

31 定刀和动刀的更换 (图38、图39、图40) Replacing the fixed knife and movable knife (Fig. 38, Fig. 39, Fig. 40)

1. 定刀的拆卸方法

- 1) 将缝纫机放倒, 并支到机头支柱上。
- 2) 松掉螺钉①, 拆下旋梭定位钩②。
- 3) 松掉螺钉③, 取出定刀④。



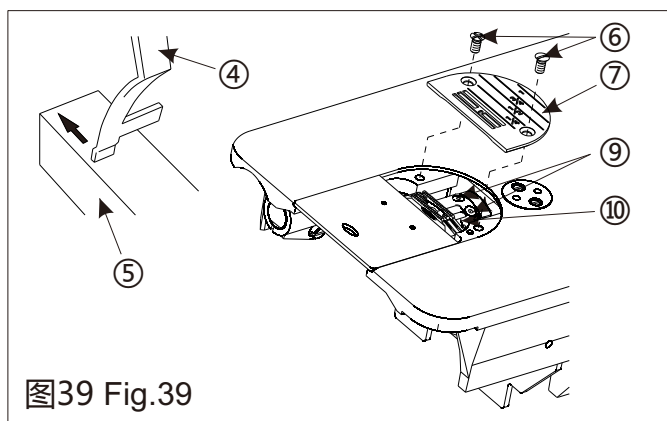
注意:

1. 为了防止缝纫机的意外启动, 请关掉电源之后再进行操作。

2. 安装定刀顺序请按拆卸定刀顺序的相反步骤进行。

1. Removing the stationary trimmer

- 1) Lay down the sewing machine head.
- 2) crew off screw ①, and remove positioning hook ② of rotating hook.
- 3) Screw off screw ③, and take out stationary trimmer ④.



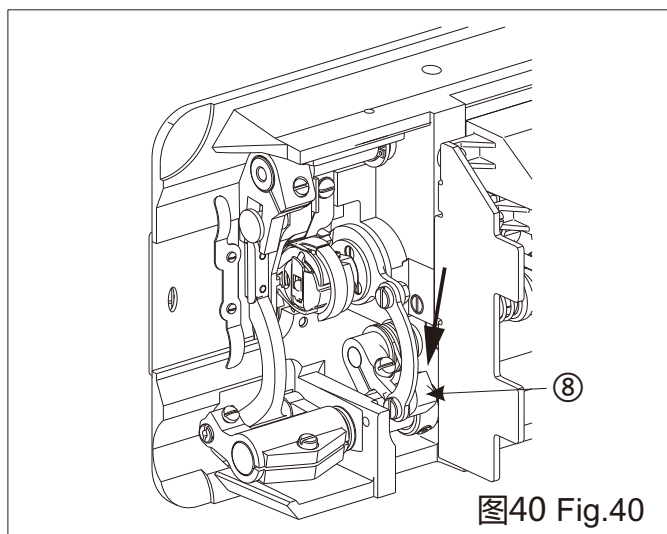
Caution:

1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

2. Carry out the above steps in reverse to install the fixed knife.

2. 定刀刀刃的研磨方法

如果定刀的刃部受损或磨损, 请将定刀④如图所示在油磨石⑤上研磨定刀。



3.动刀的拆卸方法

- 1) 取下机针。
- 2) 用抬压脚扳手将压脚抬起。
- 3) 松掉螺钉⑥(2颗), 然后取出针板⑦。
- 4) 转动缝纫机手轮, 将针杆上升至最高位置。
- 5) 将缝纫机放倒, 并支到机头支柱上。
- 6) 按箭头所示方向方向推动切线驱动曲柄⑧直至看到螺钉⑨的位置为止。
- 7) 松掉螺钉⑨(2颗), 然后取出动刀⑩。



注意:



- 1.为了防止缝纫机的意外启动, 请关掉电源之后再进行操作。
- 2.安装动刀顺序请按拆卸动刀顺序的相反步骤进行。

2.Grinding the stationary trimmer

If the cutting performance deteriorates,Sharpen the fixed knife ④ on a whetstone as shown in the illustration ⑤.

3.Removing the movable trimmer

- 1)Remove the needle.
- 2)Uplift the presser foot using foot lifting lever.
- 3)Screw off screw ⑥ (2 pieces) , and take out needle plate ⑦.
- 4)Turn the handwheel to allow the needle bar to reach its highest position.
- 5)Lay down the sewing machine head.
- 6)Push thread-trimming driving crank lever ⑧ in direction of arrow till the position of screw ⑨ is exposed.
- 7)Screw off screw ⑨ (2 pieces), and take out movable trimmer ⑩.



Caution:



- 1.To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.
- 2.Carry out the above steps in reverse to install the movable knife.

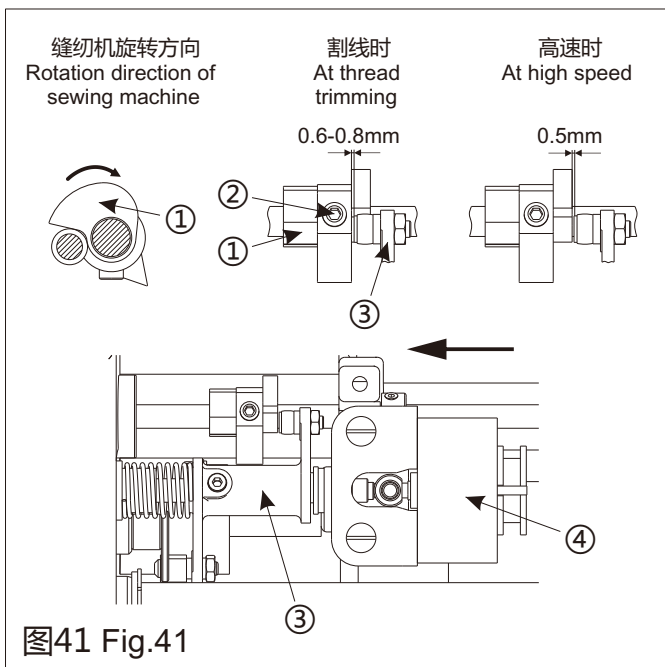


图41 Fig.41

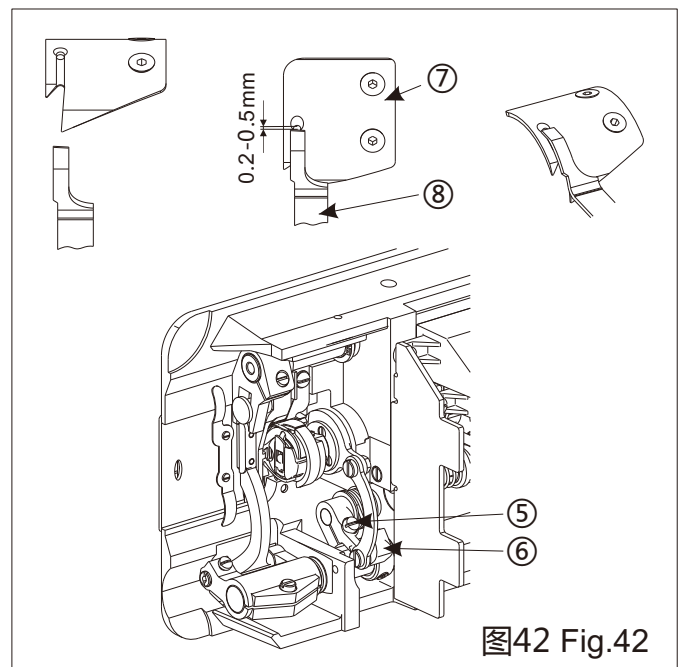


图42 Fig.42

32 剪线装置的调节 (图41、图42)

Adjusting the Thread-trimming Device(Fig. 41, Fig. 42)

1.剪线凸轮位置的调节

- 1) 转动手轮, 将针杆从最低位置上升5mm。

1.Adjusting the position of thread-trimming cam

- 1)Rotating the hand wheel to raise the needle

2) 再用手按箭头方向压紧剪线电磁铁④内芯，使剪线凸轮曲柄③中的滚珠压进剪线凸轮①的凹部。这时调节剪线凸轮①位置使剪线凸轮①的端面与滚珠左端面的间隙为0.6-0.8mm。

3) 用25kgf·cm的力矩紧固2颗剪线凸轮螺钉②。

4) 剪线凸轮曲柄③向右复位后，请确认剪线凸轮①右端面与剪线凸轮曲柄③滚珠左端面的间隙为0.5mm。



注意:



1. 为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

2. 动刀、定刀位置的调节

压紧电磁铁铁芯，滑块体组件③中滚珠进入剪线凸轮①的凹部，转动上轮，当切线驱动曲柄⑥带动动刀⑦做剪线动作时，定刀⑧前端与动刀⑦刃口应当啮合0.2~0.5mm。如果没有啮合，旋松螺钉⑤移动切线驱动曲柄⑥使定刀⑧的前端与动刀⑦的刃部啮合。动刀⑦、定刀⑧位置调节后要能保证在手动剪线时能剪断203棉线。



注意:



1. 为了防止缝纫机的意外启动，请关掉电源之后再进行操作。

-dle bar 5mm from the lowest place.

2) To press the core in trimming electromagnet ④ with your hands by arrow direction, allowing the ball of the trimming cam crank ③ to press into the cavity in trimming cam ①. And the place of trimming cam ① remains the gap which between the end face of trimming cam ① and the left side on the ball is 0.6~0.8mm.

3) With the 25kgf·cm force to tighten the two screws ② from trimming cam .

4) When the trimming cam crank ③ back to its original place, please confirm that the gap between the right side on the trimming cam ① and the left side on the ball of the trimming cam crank ③ is 0.5mm.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

3. Adjusting the positions of movable trimmer and stationary trimmer

Hold down electromagnet core so that the balls in slide block assembly ③ is pressed into the recess on thread-trimming cam ①. Turn the upper wheel, and the front end stationary trimmer ⑧ and cutting edge of movable trimmer ⑦ shall be engaged for 0.2~0.5mm when thread-trimming driving crank lever ⑥ drives movable trimmer ⑦ to perform thread-trimming action. If no engagement is achieved, unscrew screw ⑤ and move thread-trimming driving crank lever ⑥ to engage the front end stationary trimmer ⑧ and cutting edge of movable trimmer ⑦. The adjusted positions of movable trimmer ⑦ and stationary trimmer ⑧ must ensure that cotton thread 203 can be snipped when manual thread-trimming is conducted.



Caution:



1. To prevent the unexpected startup of sewing machine, trim off the power supply before the operation is conducted.

33

保养 (图43、图44、图45)

Maintenance (Fig. 43, Fig. 44, Fig. 45)

为了保持缝纫机的机能，而能够长久的使用，请每日进行以下的保养。

1.确认齿轮箱油量

请确认油标的前端应该在油标指示窗的上刻线 and 下刻线之间。(详细内容请参考[6机器的加油])

2.清扫

- 1) 抬起压脚。
- 2) 将两颗针板固定螺钉①拆下，然后再拆下针板②。
- 3) 用软毛刷清除送料牙③及剪线装置上粘附的灰尘。
- 4) 将针板②及两颗针板固定螺钉①装上。
- 5) 将缝纫机放倒，并支到机头支柱上。
- 6) 拆下梭芯套④。
- 7) 用软布擦去旋梭⑤上的灰尘，并确认旋梭⑤是否受损。再用软布把旋梭周围底盖内的灰尘也擦拭干净。

8) 将梭芯从梭芯套④拆下，用软布清洁梭芯套④。

9) 将梭芯装入梭芯套④，再将梭芯套④重新装入缝纫机。

2.Cleaning

- 1) Raise the presser foot.
- 2) Remove the two screws ①, and then remove the needle plate ②.
- 3) Remove dust adhered to feed dog ③ and thread trimmer unit with a soft brush or cloth.
- 4) Install the needle plate ② with the two screws ①.
- 5) Turn over the sewing machine down on the supporting bar of head.

6) Remove the bobbin case ④.

7) Wipe off any dust from the rotary hook ⑤ with a soft cloth, and check that there is no damage to the rotary hook ⑤. Wipe out with the cloth dust and hook oil drained in the under cover near the hook.

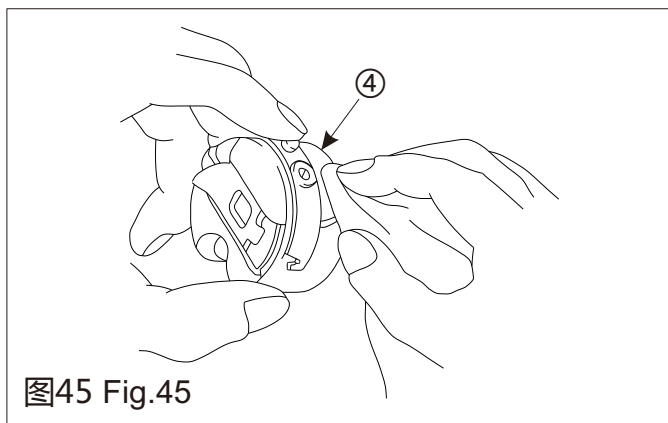
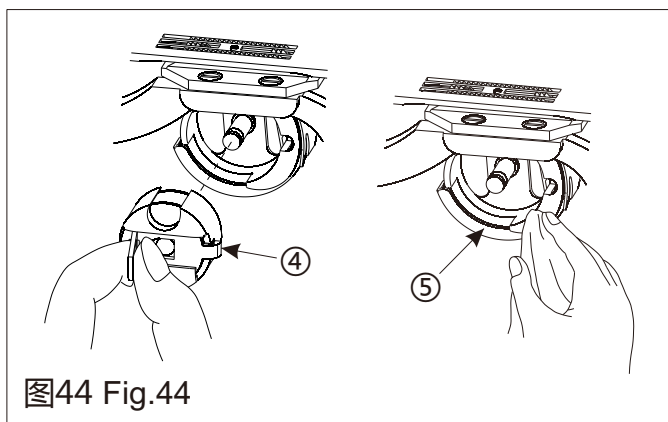
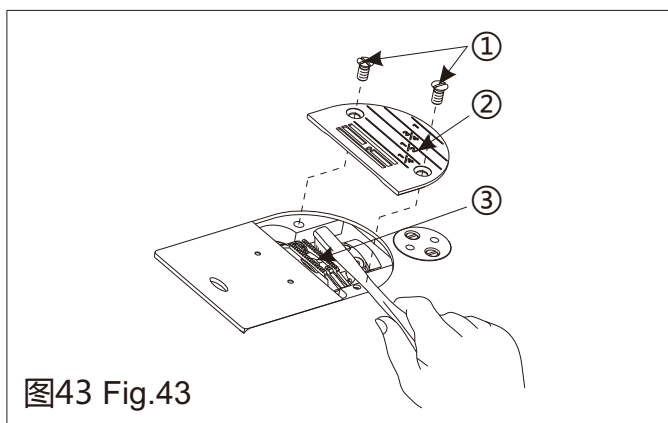
8) Remove the bobbin from the bobbin case ④ and clean the bobbin case ④ with a cloth.

9) Insert the bobbin into the bobbin case ④, and then place the bobbin case ④ back into the machine.

The following cleaning operations should be carried out each day in order to maintain the performance of this machine and to ensure a long service life.

3.Ensuring the oil amount in gear case

Confirm that the top of oil amount indicating rod is between the upper engraved marker line and the lower engraved marker line of the oil amount indicating window.(For the details, refer to “6 Lubrication of machine”)



34 缝纫机的搬运及放置注意事项 (图46、图47)

Carrying and Placing of the Sewing Machine(Fig. 46, Fig. 47)

1. 缝纫机的搬运方法

请按图示那样,由两人来手持缝纫机机架主体进行搬运。

2. 放置缝纫机时的注意事项

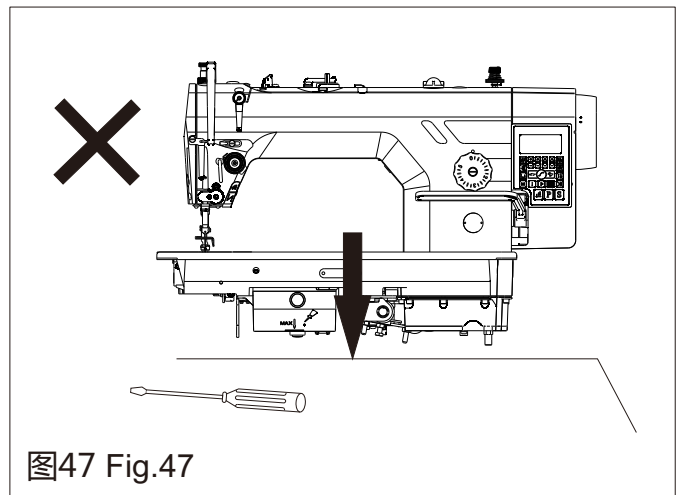
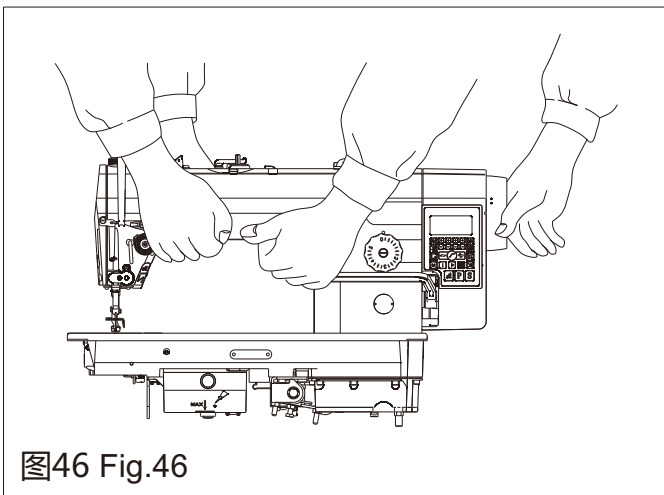
放置缝纫机时, 请注意一定要水平的放置到平坦的地方。同时在放置缝纫机的地方, 请不要放螺丝刀等凸起物件。

1. Carrying of the machine

It needs to hold tight frame body of the sewing machine by two people as the picture shows.

2. Attention for placing

Must be put in the plain site. Clear the screwdriver or something embossment out of the placing site.





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