



# 高速双针平缝机

ZJ8420 ZJ8450  
ZJ8720 ZJ8750

HIGH SPEED TWIN NEEDLE LOCKSTITCH SEWING MACHINE

## 使用说明书









OPERATION MANUAL

中国·中捷缝纫机股份有限公司  
ZOJE SEWING MACHINE CO., LTD.


## 安全注意事项

### 小 心

### 环 境 要 求

- |   |  |
|---|--|
| <p> 使用机器时，远离强电、强音地区。<br/>如高频电焊机等。<br/>因为强电、强噪音可导致错误操作。</p> | <p> 使用机器时，周围温度应在5℃-35℃。<br/>否则导致错误操作。</p>                                   |
| <p> 机器的额定电源电压的波动应在±10%<br/>之内，否则导致错误操作。</p>              | <p>湿度应在于45%-85%之间，使用时任何<br/>设备上不应有露水。<br/> 过干、过湿的环境或有露水，易导致错误<br/>操作。</p> |
| <p> 电源输出量应远大于缝纫机的电耗，<br/>否则导致错误操作。</p>                   | <p> 避免直接在阳光下曝晒，否则导致错误操<br/>作。</p>   |
| <p> 气动排量应远大于缝纫机的气动消耗<br/>量，否则导致错误操作。</p>                 | <p> 遇到电流风暴时，请切断电源，拔掉插头，<br/>闪电可导致错误操作。</p>                                |

### 缝 纫

-  使用机器时，一定要戴上防护眼镜。  
否则断针时，断针部分易伤害眼睛或引起其它伤害。

非常感谢您购买了一台缝纫机，使用您的新机器前，请阅读下列安全说明和使用手册中的相关解释。









缝纫机正常工作时，更换和移动零件，如：机针、挑线杆时，均可造成人身伤害。操作前，请详细阅读安全操作规程，从而正确使用机器。

## NOTES ON SAFETY





### CAUTION

#### Environmental Requirements

- |   |   |
|---|---|
| <p> Use the sewing machine in an area which free from sources of strong electrical noise such as high-frequency welders. Sources of strong electrical noise may cause problems with correct operation.</p> <p> Any fluctuations in the power supply voltage should be within <math>\pm 1.0\%</math> of the rated voltage for the machine. Voltage fluctuations which are greater than this may cause problems with correct operation.</p> <p> 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.</p> <p> The pneumatic delivery capability' should be greater than the requirements for the sewing machine's total air consumption. Insufficient pneumatic delivery capability may cause Problems with correct operation.</p> | <p> The ambient temperature should be within the range of 5°C to 35 oC during use. Temperatures which are lower or higher than this may cause problems with correct operation.</p> <p> 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</p> <p> Avoid exposure to direct sunlight during Use. Exposure to direct sunlight may cause problems with correct operation.</p> <p> 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.</p> |
|---|---|

#### Sewing

-  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.

Thank you very much for buying a sewing machine. Before using your new machine, please read the safety instructions and the explanations given in the instruction manual.


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.

# 安全说明




## (1). 安全指示及含义

本使用说明书，指示牌和机头上符号是为了防止您本人及他人免受意外伤害，确保安全操作机器。这些指示和符号的意义如下：










指示

 <b>小心</b>	<p>如果未按说明书中“小心”指示进行错误操作，可能引起人身伤害或机器及周转设备的损害。</p>
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符号

-  ..... “△”这个符号表明你必须对一些事物当心，三角黑面的表明你要当心的事物种类。（例如：左侧图表示“当心受伤”）
-  ..... 该符号表明不需做某事。
-  ..... “●”表明你必须做某事，圆里面的图片表示您必须做的事物种类。（例如：左侧符号表明，你必须安装地线连接。）


## (2). 安全注意事项

 <b>小 心</b>	
<h3>安装</h3>	
<ul style="list-style-type: none"> <li> ● 必须由有资格的专业技术人员安装机器。</li> <li> ● 任何电器工作前，请与经销商联系或由专业电工进行处理。</li> <li> ● 该缝纫机自重65kg多，至少需2个以人员进行安装。</li> <li> ● 安装机器完毕后方可接电源，否则误压下踏板时引起人身伤害。</li> <li> ● 一定要有地线，若地线连接不安全，当遇到严重的电流振荡时，会发生危险。</li> </ul>	<ul style="list-style-type: none"> <li> ● 所有软线至少需25mm长，以免脱落，此外，软线不易太弯或锁环固定得太紧，否则火灾或电源振荡时发生危险。</li> <li> ●</li> <li> ● 上润滑油时，一定要戴上防护眼镜和手套，以免油溅入眼内或皮肤上，引起炎症，此外，在任何情况下，千万不要喝油，否则导致呕吐和腹泻。将油放到孩子够不到的地方保存。</li> </ul>

## SAFETY INSTRUCTIONS

### Safety indications end 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 meanings of these indications and symbols are given below.

 <b>CAUTION</b>	<p>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.</p>
--	---

### Symbol



..... This symbol ( $\triangle$ ) indicates something that you should be careful of. The picture inside the triangle indicates the nature of the caution that must be taken.












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



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

### Notes on safety

 <b>CAUTION</b>	
<b>INSTALLATION</b>	
<ul style="list-style-type: none"> <li> ● Machine installation should only be carded out by a qualified technician.</li> <li> ● Contact you dealer or a qualified electrician for any electrical work that may need to be done.</li> <li> ● The sewing machine weighs more than 65kg. The installation should be carded out by two or more people.</li> <li> ● Do not connect the power cord until installation is complete, otherwise the machine may operate if the treadle is pressed by mistake, which could result in injury.</li> <li> ● Be sure to connect the ground. If the ground connection is not secure, you run the risk of receiving a serious electric Shock.</li> </ul>	<ul style="list-style-type: none"> <li> ● All cords should be secured at least 25mm away from any moving parts. Furthermore, de not excessively bend the cords or secure them too firmly with staples, otherwise shocks could occur.</li> <li> ●</li> <li> ● Be sure to wear protective goggles and gloves when handling the lubricating oil, so that no oil gets into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink the oil under any circumstances as it can cause vomiting and diarrhoea. Keep the oil out of the reach of children..</li> </ul>



## 小 心

## 缝 纫



- 操作者使用机器前必须经过必要的安全培训。



- 该缝纫机只能用于缝纫



- 下列情况请关闭电源，电机电源关闭后，由于惯性，电机仍保持均匀转动，要等电机完全停止才能开始工作。若误压下踏板，可引起人身伤害。
  - 机针穿线时。
  - 卸机针和梭心时。
  - 不使用机器或无人看管机器时。



- 使用机器前，安装好所有安全装置，否则导致伤害。



- 机器缝纫时，勿确摸任何移动部件或反向压迫任何物体，否则导致人身或机器伤害。



- 如果机器有故障或不正常的噪音或气味，请立即关闭电源，然后与您最近的经销商联系或与专业技术人员联系。



- 如果机器发现了问题，请与您最近的经销商联系或与专业技术人员联系。

## 清 理



- 关闭电源，待电机完全停止后方可清理机器。否则误压下踏板易赞成伤害。



- 上润滑油时，一定要戴上防护眼镜和手套，以免油溅入眼内或皮肤上，引起炎症，此外，在任何情况下，千万不要喝油，否则导致呕吐和腹泻。将油放到孩子够不到的地方保存。

## 维 修 与 检 验



- 必须由有资格的专业技术人员进行维修和检验。



- 电器方面的维修笔检验，请与您的经销商联系或由资格的电工来完成。



- 下列情况需关闭电源，否则误差下踏板易造成伤害。电机需完全停止方可进行维修和检验。
  - 检验、调整和维修时。
  - 更换易员件时，如旋转。



- 当进行某些调整时，如果需将电源开关放在左侧，请特别当心安全。



- 检查旋梭润滑时，不要用手或纸在移动的堆件如旋梭、机针和针杆，也不要用品物推它们，否则引起人身伤害或机器损坏。



- 正确卸拆本公司规定的零件。



- 移动任何安全装置后，必须将其放回原位置，然后再使用机器前检验其是否政党运转。



- 对擅自修改机器所产生的问题不做保证。



## CAUTION

### Sewing



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



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



- Turn off the power switch at the following times. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.

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



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



- If an error occurs in machine, 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. The motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work. The machine may operate if the treadle is pressed by mistake.



- Be sure to wear protective goggles and gloves when handling the lubricating oil, so that no oil gets into your eyes or onto your skin, otherwise inflammation can result. Furthermore, do not drink oil under any circumstances, as it can cause vomiting and diarrhoea. Keep the oil out of the reach of children.

### Maintenance and inspection



- Maintenance and inspection machine should only be carried out by a qualified technician.



- Ask your dealer or a qualified electrician to carry out any maintenance and inspection of the electrical system.



- Turn off the power switch and disconnect the power cord from the wall outlet at the following times, otherwise the machine may operate if the treadle is pressed by mistake, which could result in injury. However, the motor will keep turning even after the power is switched off as a result of the motor's inertia. Wait until the motor stops fully before starting work.

- When carrying out inspection, adjustment and maintenance.

- When replacing consumable parts such as the rotary hook.



- If the power switch needs to be left on when carrying out some adjustment, be extremely careful to observe all safety precautions.



- When checking the rotary hook lubrication, do not touch moving parts such as the rotary hook, needle and needle bar with your finger or paper nor push them with other objects, otherwise injury or damage to the machine may result.



- Use only the proper replacement pads as specified by our company.



- If any safety devices have been removed, be absolutely sure to re-install them to their original positions and check that they operate correctly before using the machine.




- Any problems in machine operation which result from unauthorized modifications to the machine will not be covered by the warranty.


**(3) 警示标贴****★ 机器上的警示标贴**

使用本机时，请按标贴上的说明操作，如果标贴丢掉或难于辨认，请与您最近的经销商联系。

1、



- 2、 ● 一定要有地线，如果没有地线，遇到电源振荡时，将发生危险。

- 3、 ● 操作方向

**★ 安全装置**

① 护指架

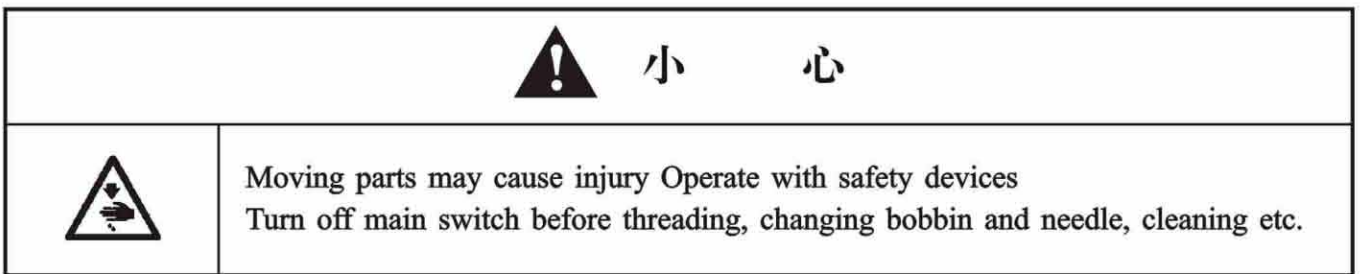
② 挑线杆护罩


**Warning labels**

★ The following warning labels appear on the sewing machine.

Please follow the instructions on the labels at all times when using the machine. If the labels have been removed or are difficult to read, please contact your nearest dealer.

1、



- 2、 ● Be sure to connect the ground. If the ground connection is not secure you run the risk of receiving a serious electric shock.

- 3、 ● Direction of operation

**★ safety devices**

① Finger guard

② Thread take-up cover. etc.



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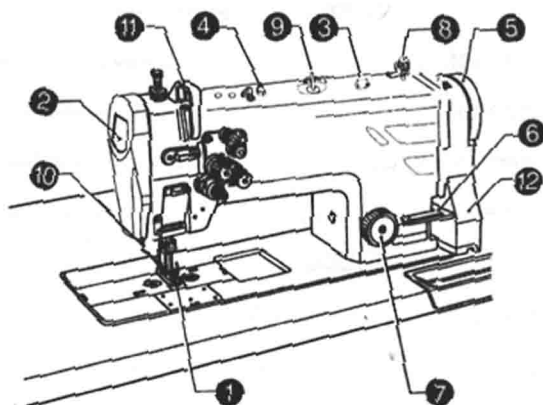
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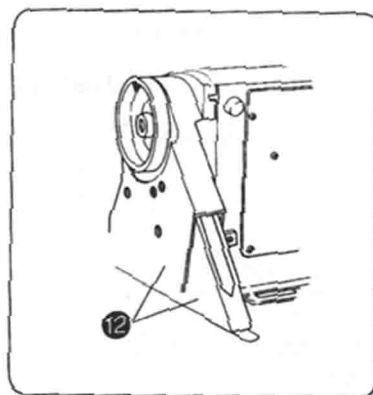
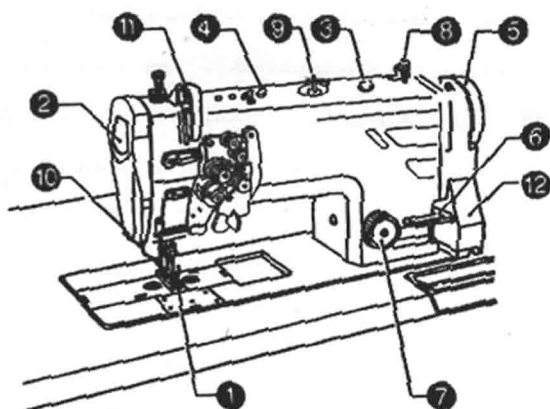
# 1、主要零件名称

## NAMES OF MAJOR PARTS

[8420 ,8720]



[8450, 8750]



- ①针板      ②面板      ③油窗      ④面部油量控制螺钉      ⑤上轮      ⑥倒送料扳手  
⑦针距旋钮      ⑧绕线夹线器      ⑨绕线器

### 安全装置

- ⑩护指架      ⑪挑线杆护罩      ⑫皮带罩

- ① Needle plate      ② Face plate      ③ Oil gauge window      ④ OIL CONTROLLING SCREW AT FRONT OF MACHINE  
⑤ Machine pulley      ⑥ Reverse Stitching lever      ⑦ Stitch length dial      ⑧ WINDER CLAMP      ⑨ BOBBIN WINDER

### Safety devices

- ⑩ Finger guard      ⑪ Thread take-up cover      ⑫ Belt cover

## 2、机器规格

[8420] 双针平缝针送布缝纫机

[8450] 双针平缝针送布角缝缝纫机

		8420			8450		
		L	M	H	L	M	H
用途		薄料	中厚料	厚料	薄料	中厚料	厚料
缝速 (spm)		4.000			3.000		
最大针迹长度		4mm			5mm		
压脚高度	手动	7mm					
	膝动	13mm					
送料牙高度		1mm					
机针		DPX5 #9-#14	DPX5 #11-#16	DPX5 #14-#22	DPX5 #11-#16	DPX5 #14-#22	DPX5 #16-#23
针送料机构		是	是				
单针停止机构		不是			是		

[1872] 双针平缝针送布大旋梭缝纫机

[1875] 双针平缝针送布大旋梭角缝缝纫机

		8720		8750		
		M	H	M		H
用途		中厚料	厚料	中厚料		厚料
缝速(spm)		3.000				
最大针迹长度		7mm				
压脚高度	手动	7mm				
	膝动	13mm				
送料牙高度		1mm				
机针		DPX5#11-#16	DPX5#14-#22	DPX5#11-#16	DPX5#14-#22	DPX17#16-#23
针送料机构		是				
单针停止机构		不是			是	

## 2. MACHINE SPECIFICATIONS

[1842] TWIN NEEDLE NEEDLE FEED LOCK STITCHER

[1845] TWIN NEEDLE NEEDLE FEED SPLIT NEEDLE BAR LOCK STITCHER

		8420			8450		
		L	M	H	L	M	H
Application		Thin material	Medium-thick material	Thick material	Medium-thick material	Thick material	VERY thick material
Sewing speed(spm)		4.000			3.000		
Max, stitch length		4mm			5mm		
Presser foot height	Presser foot lifter	7mm					
	Knee lifter	13mm					
Feed dog height		1mm					
Needle		DPX5 #9-#14	DPX5 #11-#16	DPX5 #14-#22	DPX5 #11-#16	DPX5 #14-#22	DPX5 #16-#23
Needle feed mechanism		Yes	Yes				
Single needle stop mechanism		NO			Yes		

[1872] TWIN NEEDLE NEEDLE FEED LOCK STITCHER WITH LARGE HOOK

[1875] TWIN NEEDLE NEEDLE FEED SPLIT NEEDLE BAR LOCK STITCHER WITH LARGE HOOK

		8720		8750		
		L	M	M	H	
Application		Medium-thick material	Thick material	Thick material	VERY thick material	
Sewing speed(spm)		3.000				
Max, stitch length		7mm				
Presser foot height	Presser foot lifter	7mm				
	Knee lifter	13mm				
Feed dog height		1mm				
Needle		DPX5#11-#16	DPX5#14-#22	DPX5#11-#16	DPX5#14-#22	DPX17#16-#23
Needle feed mechanism		Yes				
Single needle stop mechanism		NO			Yes	

### 3、可选用零件

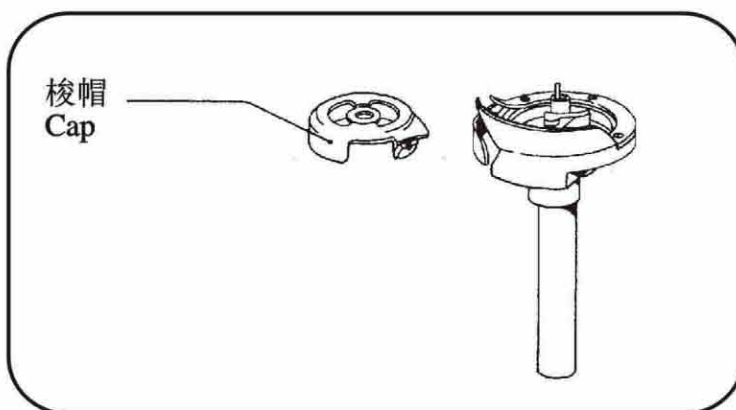
#### ■ 旋梭

下列型号的旋梭是可选用的，根据实际需要选择您所需的旋梭。

(下列旋梭号码标注在包装盒上。)

#### ● 带梭帽式旋梭

件 号	适用机型
10013966	8420-(3)

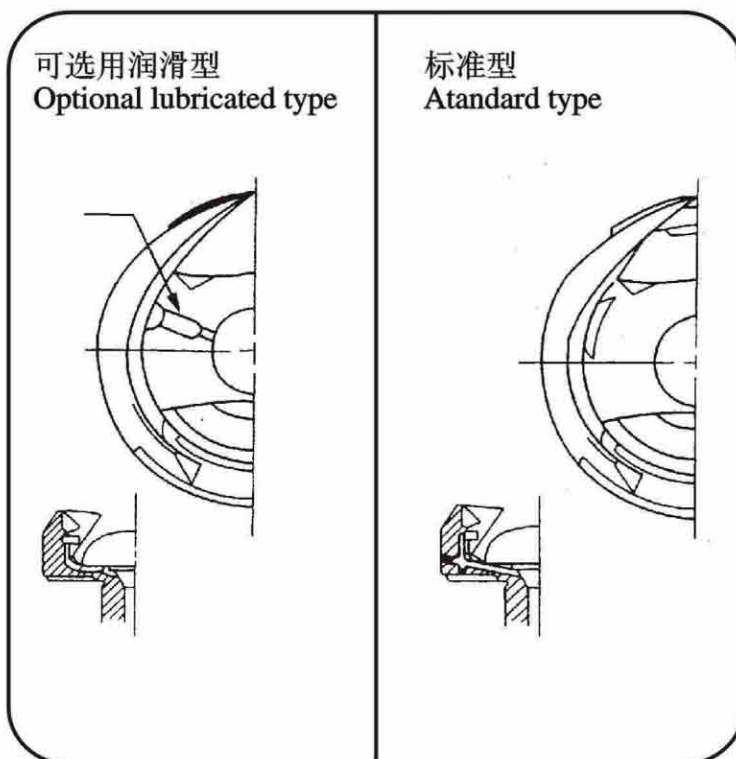


#### ■ 厚料机用旋梭

下列型号的旋梭是可选用的，根据实际需要选择您所需的旋梭。

(下列旋梭号码标注在包装盒上。)

件 号	适用机型
10013966	8420-(3)
10006754	8420-(5)
10013749 (带梭帽)	8450
10006755	8720



#### ● 梭尖加固式旋梭

梭尖加固式旋梭可提高旋梭的使用寿命，适合缝表面难形成线环的缝料(象有延展性的缝料)。这种缝料要求机针和梭尖要保持接触状态。

件 号	适用机型
10013966	8420-(3)

#### ● 塑料梭床

不需润滑，防止缝料和缝线油污。

件 号	适用机型
10013966	8420-(3)



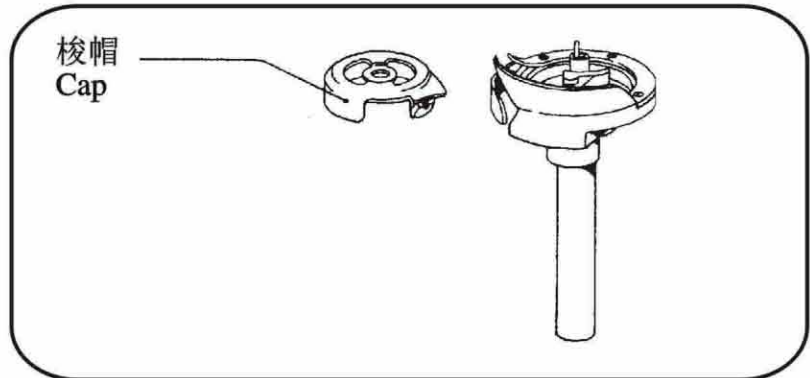
### 3、OPTIONAL PARTS

#### ■ Rotary hooks

The following types of rotary hook are available. Select whichever one is suitable for your application. (The following part codes are assigned for the rotary hooks in boxes. )

#### ● Rotary hook with a cap

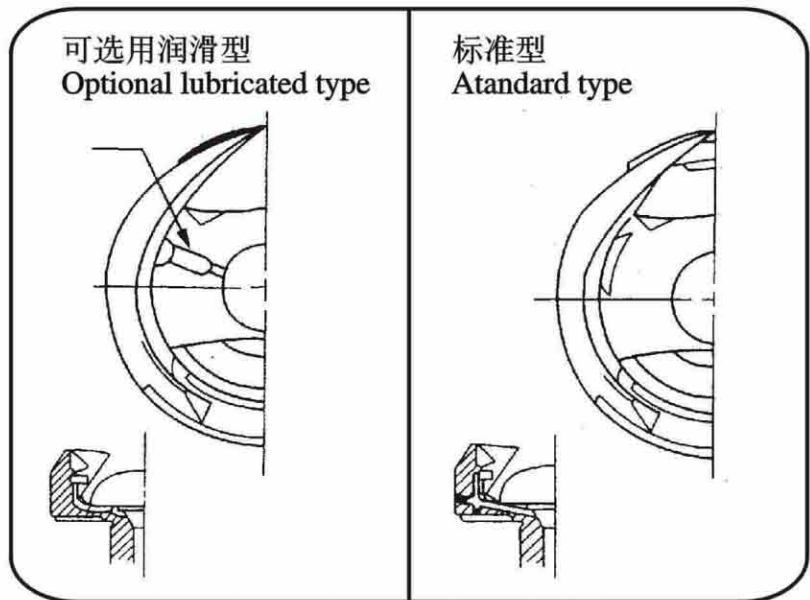
Part code	Applicable model
10013966	8420- (3)



#### ■ Rotary hooks for heavy materials

Sufficient oil is supplied to the rotary hook to prevent wear of the rotary hook race. This type is suitable for sewing heavy and extra-heavy materials.

Part code	Applicable model
10013966	8420- (3)
10006754	8420-5
10013749 (with cap)	8450
10006755	8720



#### ● Rotary hook, with reinforced hook point

The rotary hook point is reinforced to improve its durability.

This type is suitable for sewing materials that are hard to make loops on the surface (like stretchy materials), and that requires making contact with the hook point and the needle.

Part code	Applicable model
10013966	8420- (3)

#### ● Plastic race

Lubrication is not needed. This is the most useful to prevent oil stains on material and thread.

Part code	Applicable model
10013966	8420- (3)

## ■ 上夹线器组件

不同的上夹线器组件选用不同的挑线簧和夹线簧。

件 号	夹线簧	挑 线
B4-177B	标 准	双
B4-177B (A)	软 (强度低)	
B4-177B (B)	很软 (强度很低)	

\* 出厂时, 用于8420, 8450, 8720, 和8750

(参考)

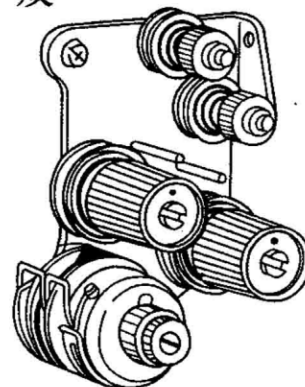
夹线张力 (弹簧高度为12mm)

标准	约为49牛顿 (5千克力)
软 (强度低)	约为17.6牛顿 (1.8千克力)
很软 (强度很低)	约为2.94牛顿 (0.3千克力)

挑线簧

Thread take-up spring type

双



## ■ Upper thread tension assembly

The following types of upper thread tension assembly are available for use with deifferent thread take-up spring types and different thread tension spring strengths.

Part code	Thread tension spring type	Thread take-up spring strength
B4-177B	Standard	Double
B4-177B (A)	Weak	
B4-177B (B)	Very weak	

\* Standard part at time of shipment 8420、8450、8720 and 8750

(Reference)

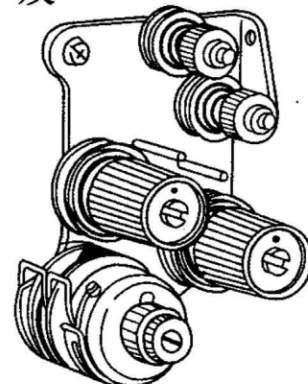
Tension spring force (when spring height 12mm)

Standard	Approx. 49N (Approx. 5kgf)
Weak	Approx. 17.64N (Approx. 1.8kgf)
Very weak	Approx. 2.94N (Approx. 0.3kgf)

挑线簧

Thread take-up spring type

双





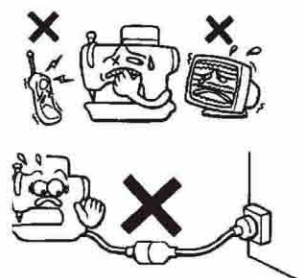
## 5. 安装

### 注意

-  请让受过培训的技术人员来安装缝纫机。
-  在安装完成前，请不要连接电源，如果误按起动开关，缝纫机动作会导致受伤。
-  请委托购买商店或电气专业人员进行电气配线。
-  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。
-  缝纫机重量约65Kg，安装工作必须由两人以上来完成。

#### 关于缝纫机的安装位置

- \* 勿将该缝纫机置于其他设备附近，如电视机、收音机或无线电话等，否则这些设备可能会被缝纫机的电子干扰所影响。
- \* 应将缝纫机直接插入AC电源插座。如果使用延长线缆可能会造成操作故障。



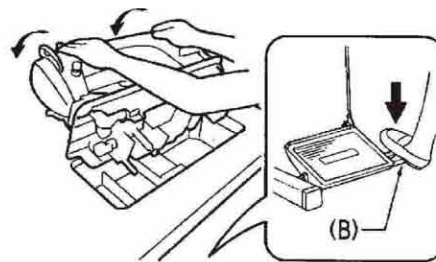
#### 搬运缝纫机

- \* 应按图示由两人用手托住机壳本体进行搬运。
- \* 还是用手扶住马达盖(A)部，使手轮不能转动。



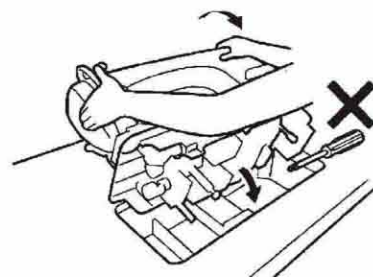
#### 向后倾斜缝纫机头部

- \* 用脚踏住(B)部分，不让台板移动，然后用双手推动
- \* 机壳本体使缝纫机头部后倾。



#### 将缝纫机头部返回至直立的位置

1. 清除台板开孔附近的所有工具等物件。
2. 用左手扶住面板，用右手轻轻地将缝纫机头部返回至直立的位置。



## 5. INSTALLATION



### CAUTION



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



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



The sewing machine weighs approximately 65kg. The installation should be carried out by two or more people.



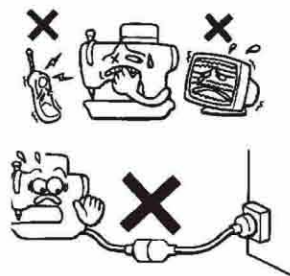
Do not connect the power cord until installation is complete. The machine may operate if the treadle is depressed by mistake, which could result in injury.



Use both hands to hold the machine head when tilting it back or returning it to its original position. If only one hand is used, the weight of the machine head may cause your hand to slip, and your hand may get caught.

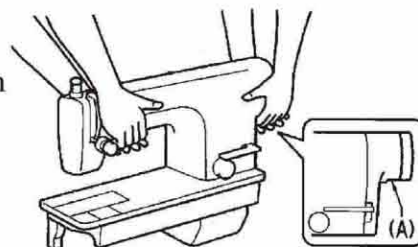
### About the machine set-up location

- \* Do not set up this sewing machine near other equipment such as televisions, radios or cordless telephones, otherwise such equipment may be affected by electronic interference from the sewing machine.
- \* The sewing machine should be plugged directly into an AC wall outlet. Operation problems may result if extension cords are used.



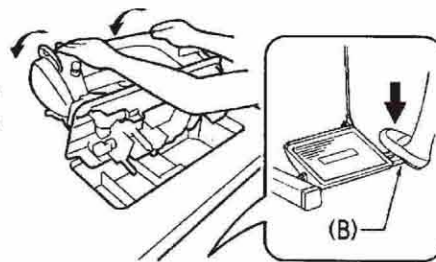
### Carrying the machine

- \* The machine should be carried by the arm by two people as shown in the illustration.
- \* Hold the motor cover(A) by hand also so that the pulley does not rotate.



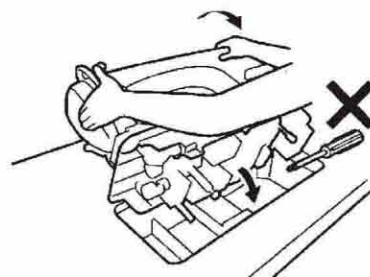
### Tilting back the machine head

- \* Hold section(B) with your foot so that the table does not move, and then push the arm with both hands to tilt back the machine head.



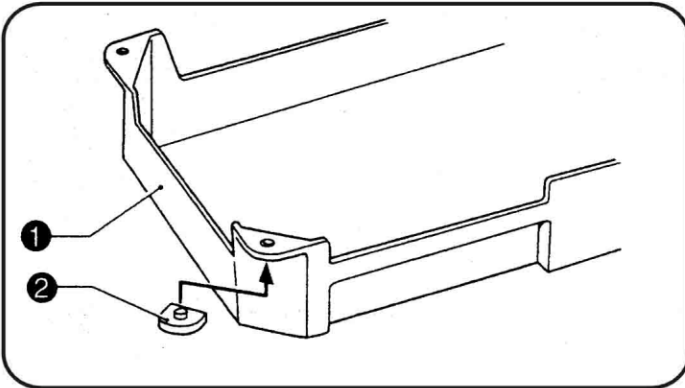
### Returning the machine head to the upright position

1. Clear away any tools, etc. which may be near the table holes.
2. While holding the face plate with your left hand, gently return the machine head to the upright position with your right hand.

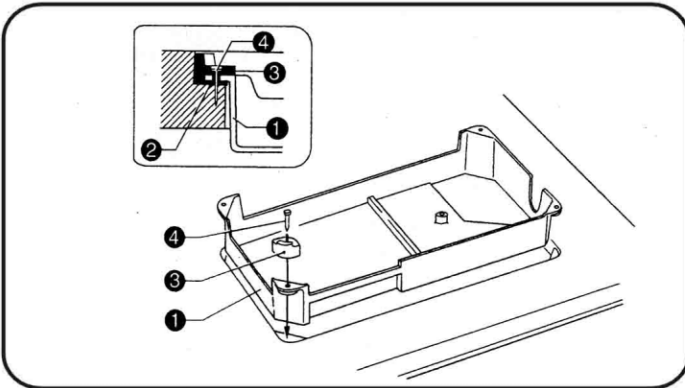


## 5-1. 油盘安装

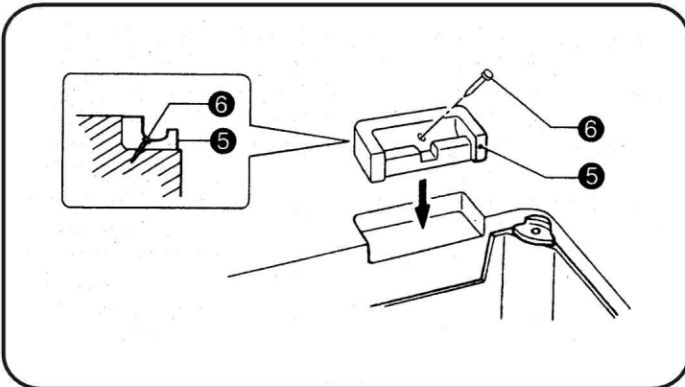
### 5-1. Installing the oil pan



1. 将四个油盘垫②插入油盘①的四个角孔下。
1. Insert the four oil cushion ② into the oil pan ① from below so that the four corner holes are aligned.



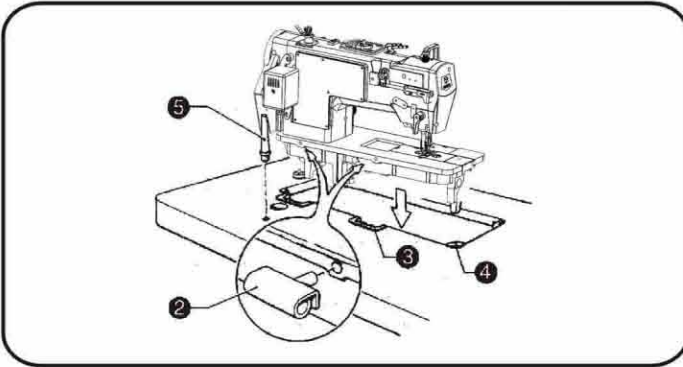
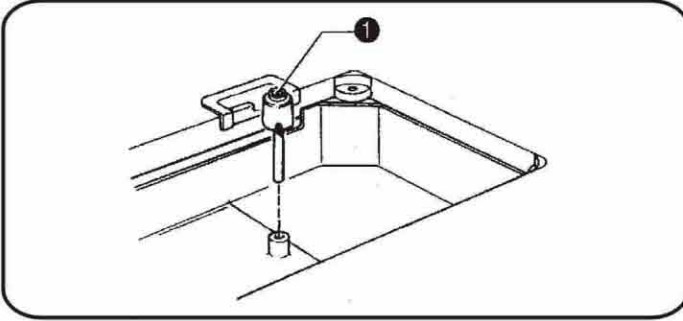
2. 将油盘①放在工作台的上个凹槽上。
3. 将四个机头座垫③放在油盘①的四个角上，然后用四个钉子④固定。
2. Place the oil pan ① into the groove in the work table so that corners are aligned.
3. Place the four head cushions ③ on top of the corners in the oil pan ① and then secure them with the four nails④.



4. 将两个(机头连接钩座)⑤放在台板的凹槽内，然后用两个钉子⑥固定。
4. Insert the two rubber cushions ⑤ into the notches in the work table, and then secure them with the two nails⑥.

## 5-2. 机头安装

### 5-2. Installing the machine head



1. 插入抬压脚顶销①。
2. 将机头连接钩②插入底板上的两个孔内。
3. 将机头连接钩②放在台板上的机头连接钩座③上，机头放在油盘四角上的机头座垫④上。
4. 将机头支柱⑤敲入台板上的孔内。

1. Insert the knee lifter complying bar ①.
2. Insert the two hinges ② into the holes in the machine bed.

3. Clamp the hinges ② onto the rubber Cushions ③ in the work table, and then place the machine head onto the head cushions ④ which are on top of the oil pan covers.

4. Tap the pillow ⑤ into the table hole.

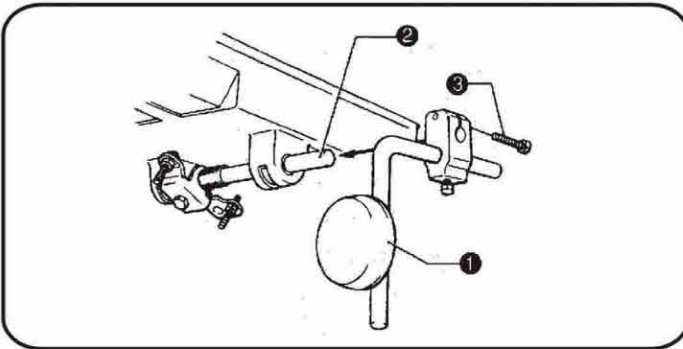
**NOTE:** Tap the pillow securely into the table hole. If the pillow is not pushed in as far as it will go the machine head will not be sufficiently stable when it is tilted back.

注：敲入机头支柱时一定要将支柱敲到底。否则，机头向后翻转放置时不稳。

Remarks: The support pin must be installed reliably, otherwise there is danger when the machine is turned over.

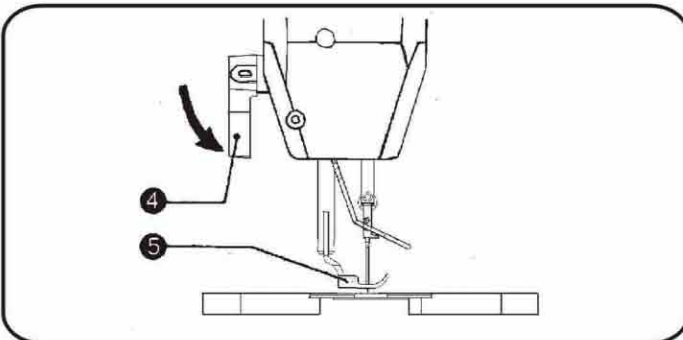
## 5-3. 膝提安装

### 5-3. Installing the knee lifter assembly



1. 将膝提组件①安装在油盘上的抬压脚轴②上，然后用螺栓③将其拧紧。

1. Place the knee lifter assembly ① onto the knee lifter bar ② on the oil pan, and then secure it by tightening the bolt ③.

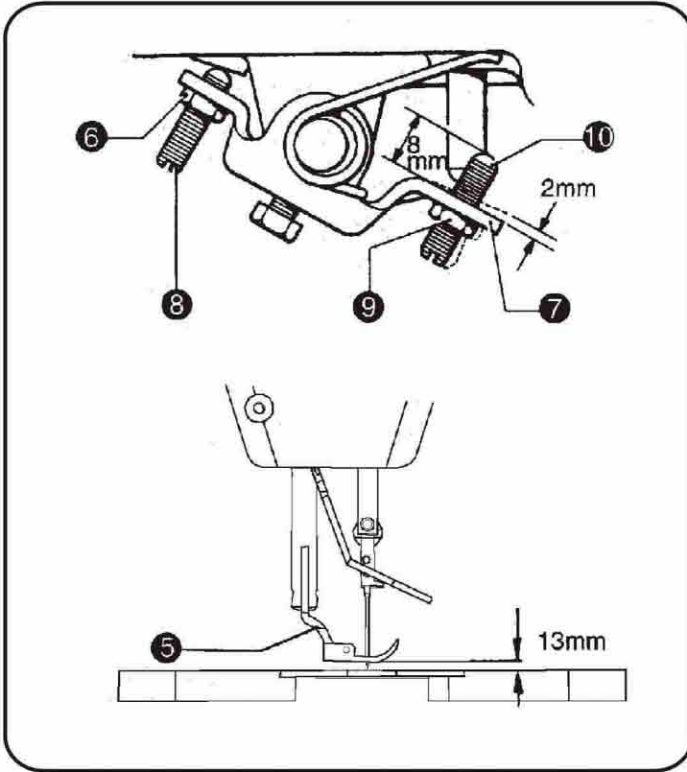


2. 膝提调节

- 1) 用压脚扳手④放下压脚⑤。

2. Adjust the knee lifter.

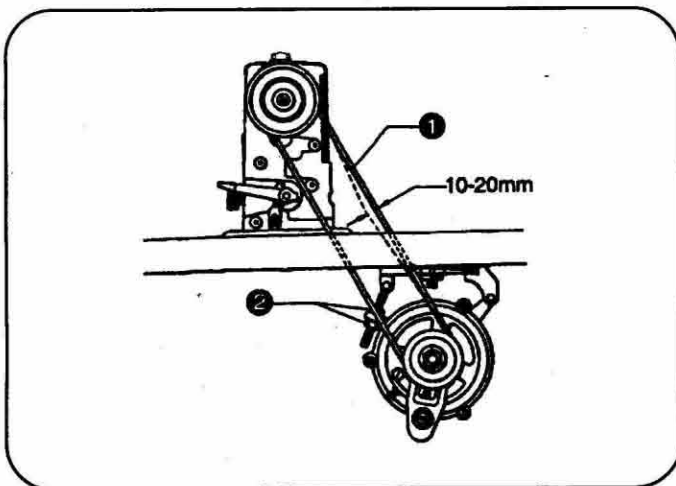
- 1) Lower the presser foot ④ by using the presser bar lifter ⑤.



- 2) 松开螺母⑥。
  - 3) 调节螺钉⑧，当轻压膝碰块⑦时，膝提①提升量约2 mm。
  - 4) 旋紧螺母⑥。
  - 5) 松开螺母⑨。
  - 6) 调节螺钉⑩，使螺钉⑩端部与膝碰块⑦的距离约为8mm。
  - 7) 旋转调节螺钉⑩，充分挤压膝提①时，压脚⑤与针板距离为13mm。
  - 8) 调节完毕后，拧紧螺母⑨。
- 2) Loosen the nut ⑥.
  - 3) Turn the screw ⑧ to adjust so that the amount of play in the knee lifter ⑦ is approximately 2mm when the knee lifter plate ① is gently pressed.
  - 4) Securely tighten the nut ⑥.
  - 5) Loosen the nut ⑨.
  - 6) Turn the screw ⑩ until the distance between the end of the screw ⑩ and the knee lifter ⑦ is approximately 8mm.
  - 7) Turn the screw ⑩ to adjust so that the presser foot ⑤ is at the desired position within a distance of 13mm of the needle plate when the knee lifter ① plate is fully pressed.
  - 8) After adjustment is completes, securely tighten the nut ⑨.

#### 5-4. 皮带安装

#### 5-4. Installing the belt

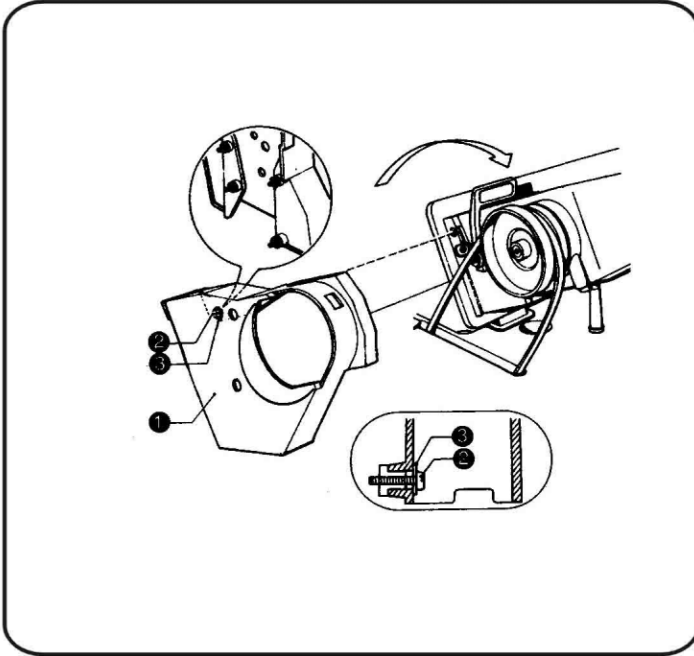


1. 将机头向后倾斜，然后将皮带①放置在上轮和电机轮上。
  2. 调节螺母②，使当手指用9.8牛(1千克力)的力压皮带时，皮带应偏斜10-20mm。
1. Tilt back the machine head, and then place the belt ① onto the motor pulley and the machine pulley.
  2. Turn the nut ② to adjust so that there is 10-20mm of deflection in the belt when it is pressed with a finger with a force of 9.8 N (1kgf).



## 5-5. 皮带罩安装

### 5-5. Installing the belt cover

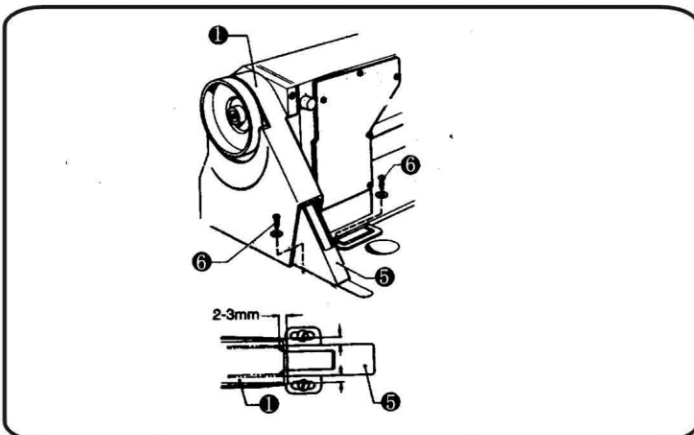
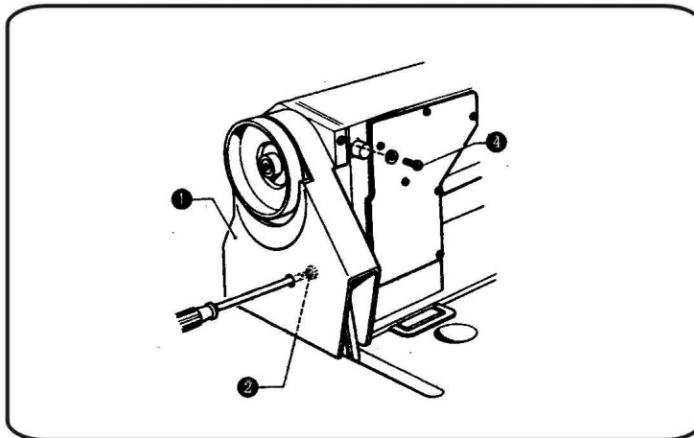


1. 将机头翻倒。
2. 将螺钉②和垫圈③固定在上皮带罩①里面的橡皮垫上。(四处)
3. 将上皮带罩安放在机头上轮上, 翻转机头恢复到原位。
4. 按第2步拧紧4个螺钉②和螺钉④, 将上皮带罩①固定好。
5. 将下皮带罩⑤与上皮带罩①的重叠部分变为2-3mm, 然后临时性拧紧两个螺钉⑥。

1. Tilt back the machine head .  
 2. Attach the screw ② and washers③ to the rubber cushions on the inside of the belt cover U ①(In four place).  
 3. Place belt cover U ① onto the machine pulley, and then return the machine head to its original position.

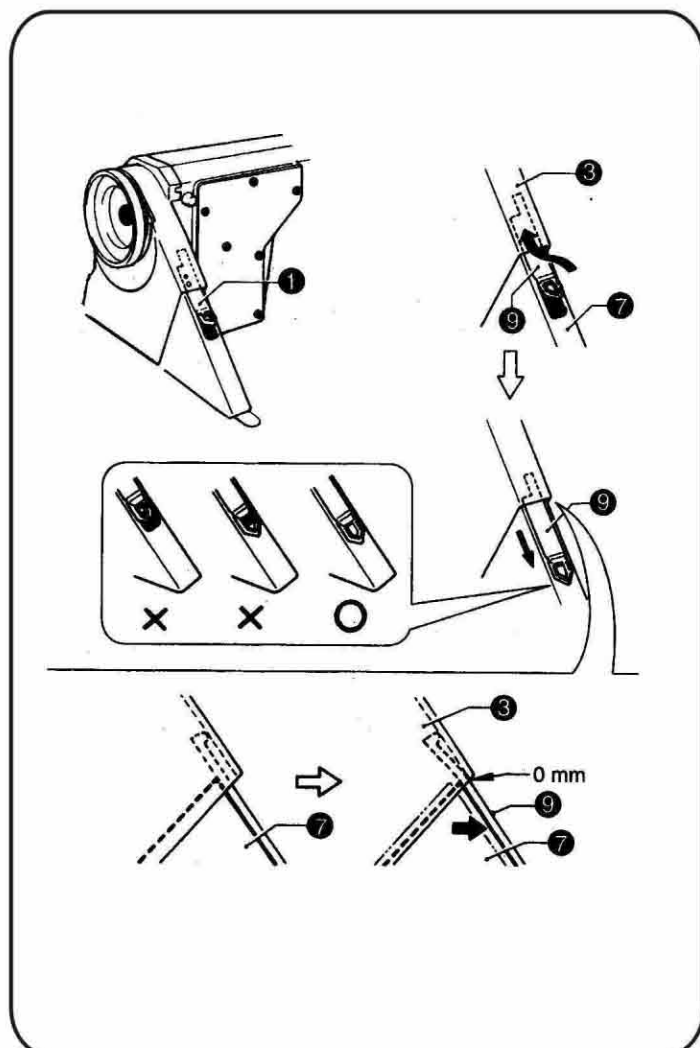
4. Tighten the four screws ② attached in step above and the screw④ to install belt cover U.

5. Place belt cover D ⑤ so that it overlaps the belt cover U ① by 2-3mm, and then provisionally tighten the two screws⑥.



## 5-5. 皮带罩安装

### 5-5. Installing the belt cover



6. 把下皮带罩⑤的防护罩⑦放在上皮带罩⑤之间，然后将其放入下皮带罩⑤的凹槽内。

7. 将防护盖⑦沿下皮带罩⑤的凹槽尽可能下。

8. 将下皮带罩⑤向操作者方向拉，直到上皮带罩①与下皮带罩⑤的防护盖⑦之间无空隙。

9. 参考第5步，完全拧紧2个螺钉⑥。

6. Insert the cover ⑦ of belt cover D ⑤ in between the cover U ② and belt cover D ⑤, and then place it into the groove cover D ⑤.

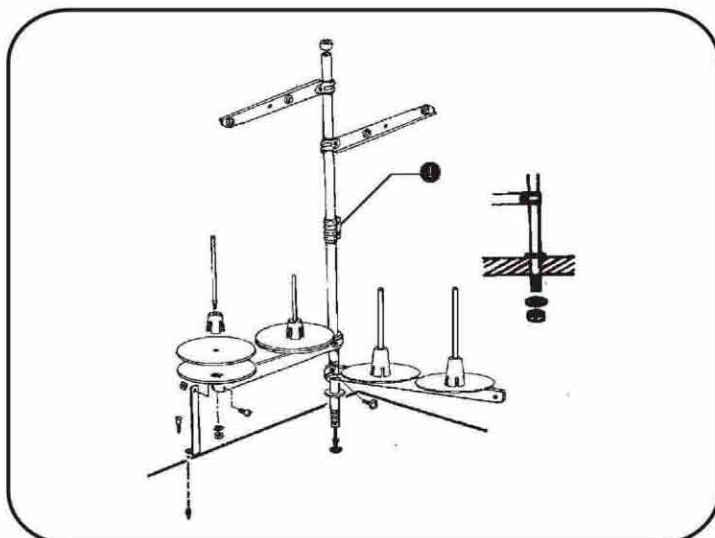
7. Slide the cover ⑦ down along the groove of belt cover D ⑤ as far as it will go.

8. Pull belt cover D ⑤ toward you until there is no clearance between the belt cover U ① and the cover of ⑦ belt cover.

9. Fully tighten the two screw ⑥. (Refer to step 5.)

## 5-6. 线架安装

### 5-6. Installing the cotton stand

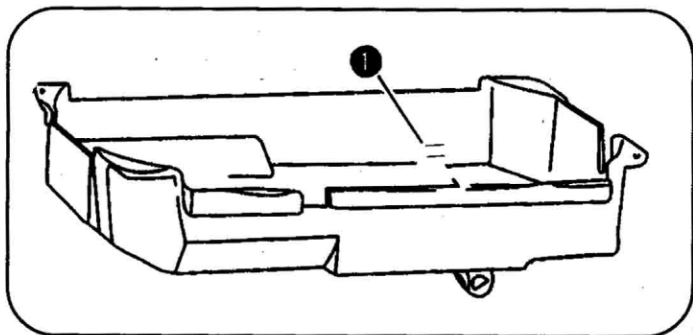


按说明书组装好线架①后，将其安装至台板远端右角处。

Assemble the cotton stand ① while referring to the cotton stand instruction manual, and then install the cotton stand to the far right corner of ① the work table.

## 5-7. 润滑

## 5-7. Lubrication



## ■ 润滑

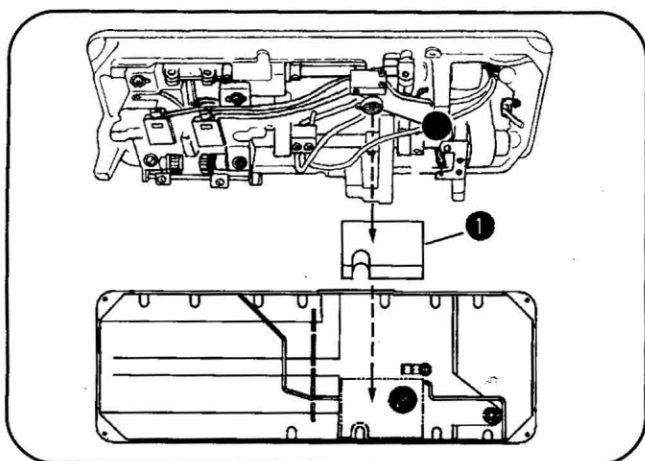
油灌入油槽，直到油到达油槽的油量线①

- 使用缝纫机10号润滑油。

## ■ Lubrication

Fill in the oil slot with oil until the oil come to the level

- Use inly the lubricating oil (Nisseki Sewing Lube 10) spectified by Brother.

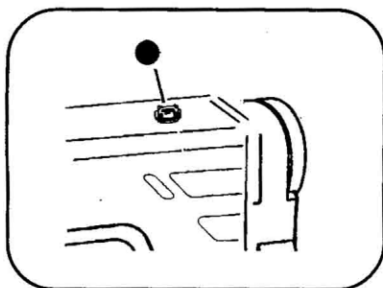


## ■ 滤油块安装

将滤油块①放入油盘图示位置②，滤油器③压住滤油块。

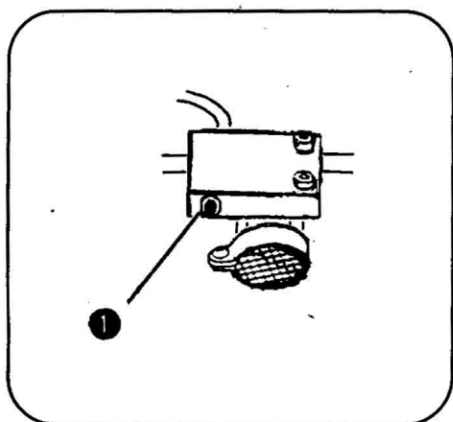
## ■ installing the filting block

Put the filting block①into the oil plate folling the position②.oil filter③press the filting block.



- 油路润滑机构工作正常时，转速在 1000 转，能看到油窗喷油。

- When oil lubrication works normal, runs machine at 1000 rpm, we can see splashing oil through oil window.



## ■ 注意！

螺丝1已调节到规定位置，因此调节油量时请不要转动

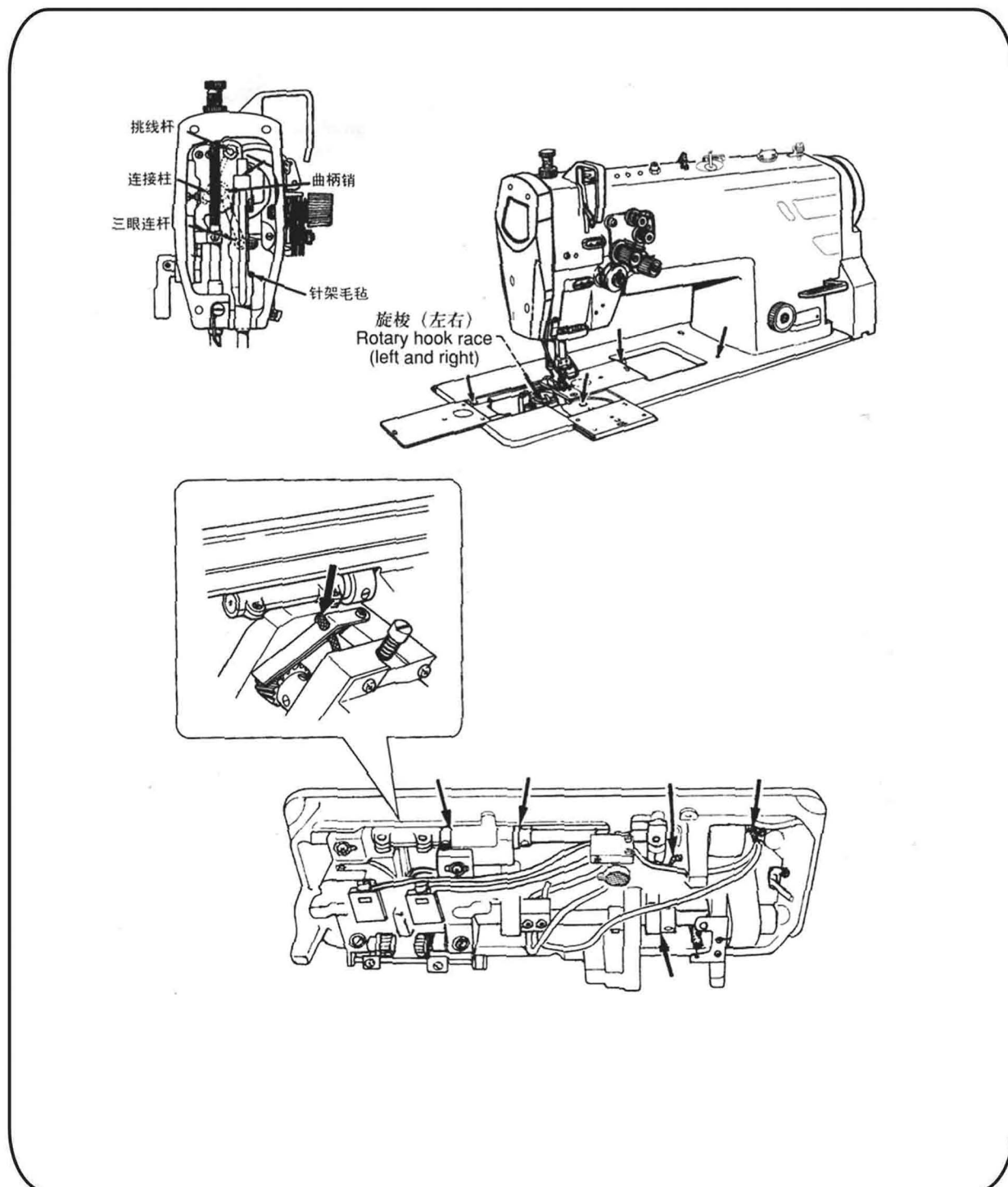
## ■ Notice !

Screw 1 has been adjusted to the regulated position , so please don't turn it when adjusting the oil quantity

**■ 加油**

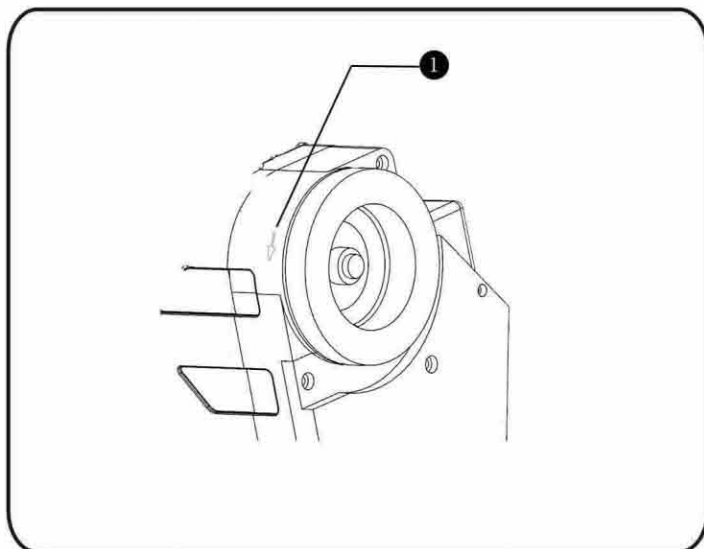
在箭头指示地方加1-2滴油。

Add 1-2 drops of oil in the places indicated by the arrows



## 5-8. 检验上轮旋转方向

## 5-8. Checking the machine pulley rotating direction



1. 插上插座，然后打开电源开关。
  2. 压下踏板，按箭头方向检查上轮转动方向。  
\* 若上轮转动方向相反，按电机操作说明更正上轮转动方向。
1. Insert the power cord plug into the wall outlet, and then turn on the power switch.
  2. Depress the treadle and check that the direction of rotation of the machine pulley matches the direction of the arrow①.  
\* If the direction of rotary is reversed, change the direction of rotation to the correct to the correct direction while referring to the instruction manual for the motor.

## 6. 操作前准备

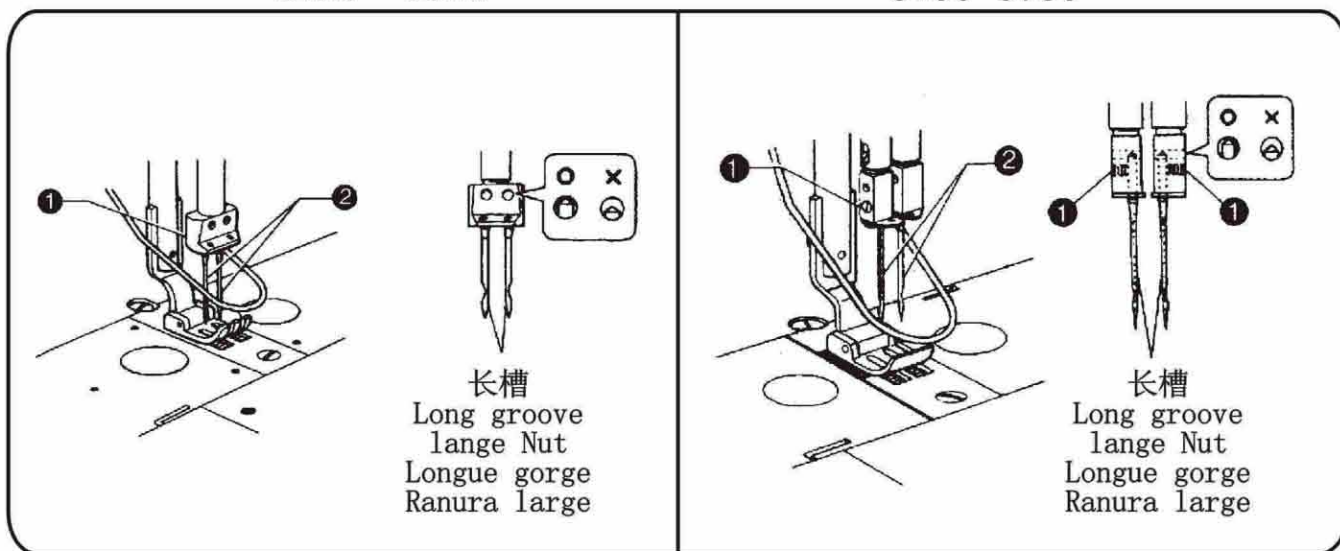
## 6. PREPARATION BEFORE SEWING

### 6-1. 安装机针

### 6-1. Installing the needle

8420 8720

8450 8750

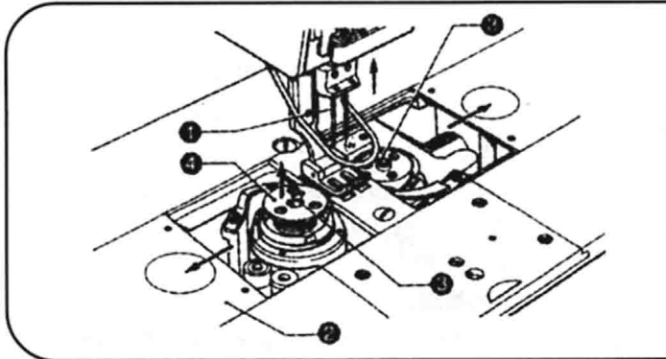


1. 松开上轮，将针杆提升到最高位置。
  2. 松开螺钉①，长槽面向里面，拿住机针②一直插入针夹头内，然后旋紧螺钉①。
1. Turn the machine pulley to move the needle bar to its highest position.
  2. Loosen the screws①, hold the needles② with their long groove facing inward, insert them all the way into the needle bars, and re-tighten the screws①.

## 6-2. 拆卸梭心和梭帽

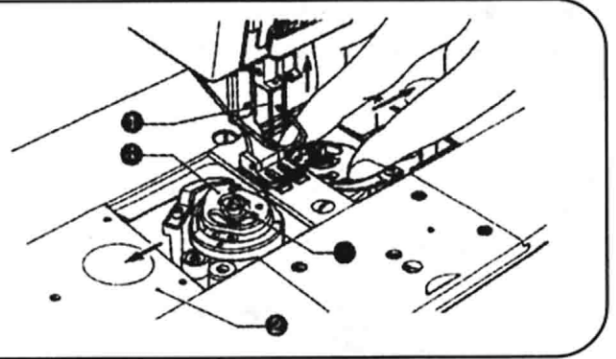
## 6-2. Removing the bobbin or cap

8420 8720



1. 将机针①抬到高位置, 推开左右推板②。
2. 向上拉开梭门③, 卸下梭心④。
1. Raise the needles① to the highest positions, and open the slide plates② by moving them to the right and left.
2. Pull the rotary hook latches③ upward, and then remove the bobbin④.

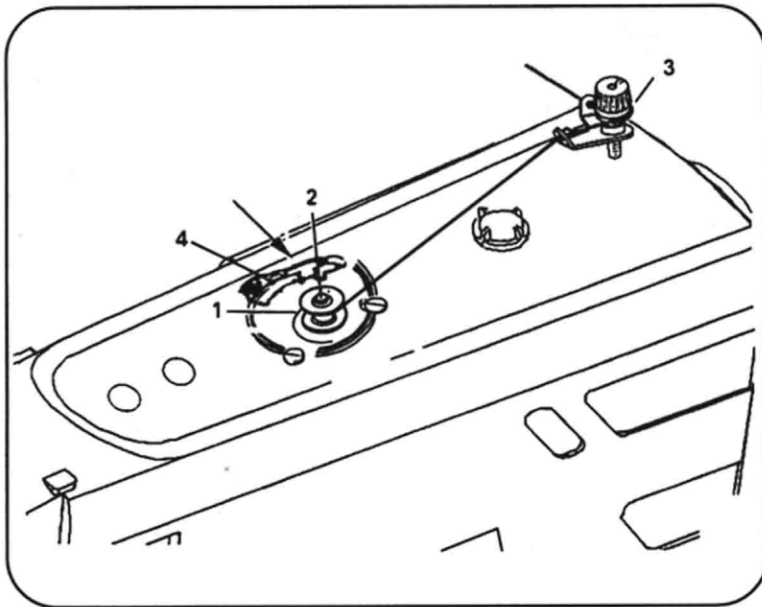
8450 8750



1. 将机针①抬到高位置, 推开左右推板②。
2. 向上拉开梭门③, 抬起梭帽④的角, 卸掉梭帽④。
1. Raise the needle① to the highest positions, and open the slide plates② by moving them to the right and left.
2. After lifting up the rotary hook latch③, lift the corner of the cap④ to remove the cap④.

## 6-3. 绕梭心线

## 6-3. Winding the lower thread



- 将空梭心①套在绕线器心轴②上。
- 按住底线, 并按顺时针方向在梭心①上绕几圈。
- 转动花纹旋钮③调节线张力。
- 将手柄④按箭头方向推入切口内。
- Place the empty bobbin 1 on the bobbin winder spindle 2.
- Thread the thread as shown in Fig. 9-03 and wind it round bobbin 1 a few times in clockwise direction.
- Set the preliminary thread tension by turning milled screw 3.
- Press lever 4 in the direction of the arrow until it clicks into place.



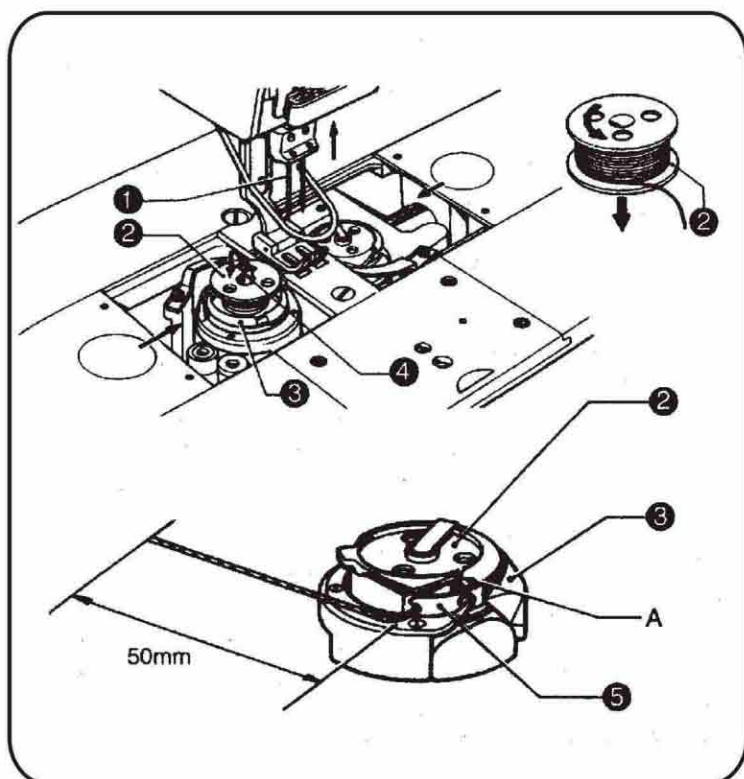
梭心在缝纫过程中绕满。  
The bobbin is filled during sewing.

## 6-4. 梭心和梭帽安装

### 6-4. Installing the bobbin or cap

#### 6-4-1. 梭芯安装 [8420 8720]

#### 6-4-1. Installing the bobbin [8420 8720]



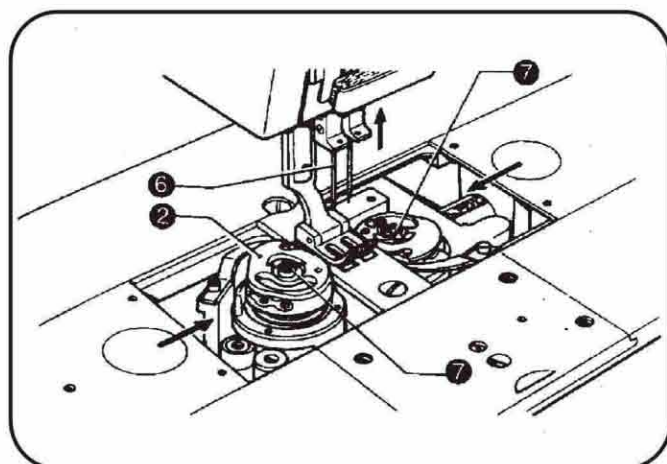
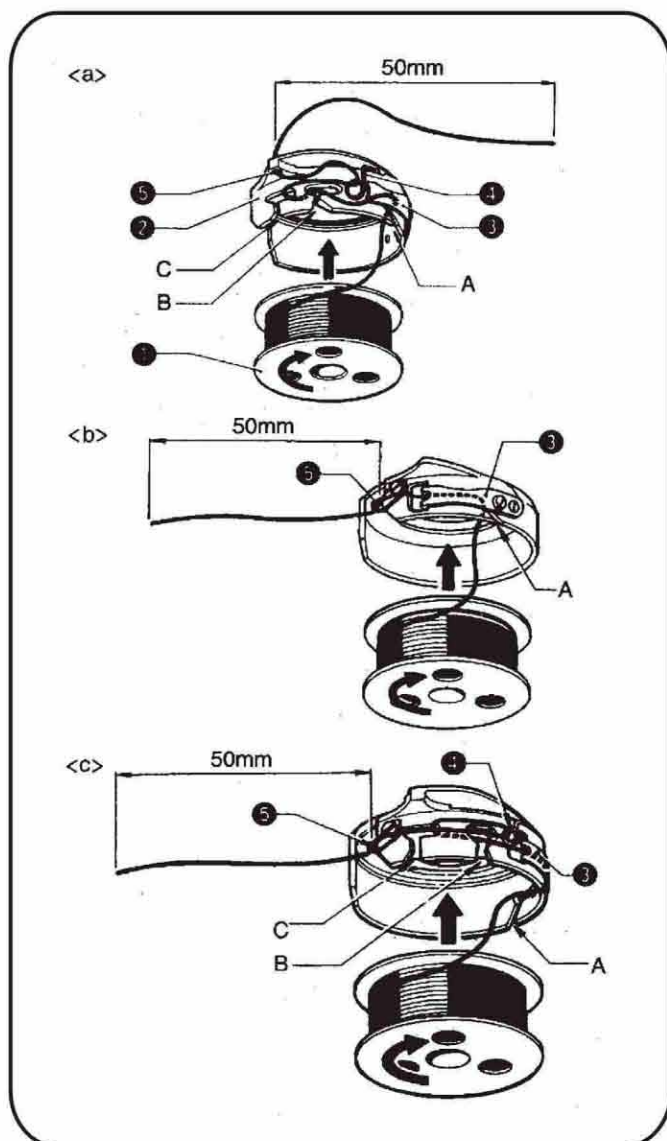
- 1、转动上轮将机针①提升到最高位置。
- 2、按图示说明方向将梭心②放入旋梭③内。
- 3、将梭门④恢复原位。
- 4、转动上轮，将旋梭③转到能看见张力簧⑤。
- 5、将线穿过旋梭开口槽A后，再从张力簧⑤穿出。
- 6、拉出线约50mm。
- 7、关上推板。

1. Turn the machine pulley to raise the needle ① to its highest position.
2. Insert the bobbin ② into the rotate hook ③ so that the winding direction is as shown in the illustration.
3. Return the rotary hook latch④to its original position.

4. Turn the machine pulley to rotary the ratary hook③until the tension spring⑤is visible.
5. Pass the thread through slit A in the rotary hook and then pass it at under through tension spring⑤.
6. Pull out the thread to a length of approximately 50mm.
7. Close the slide plates.

## 6-4-2. 梭帽安装 [8450 8750]

## 6-4-2. Installing the cap [8450 8750]



1、将梭心①按图示方向放在梭帽⑦内。

2、梭帽穿线方法。

1) 将线从槽A处穿进, 再从张力簧③下穿出。

2) 将线从槽B和 C 处穿过, 然后, 再从放松簧④穿出。

3) 将线穿过线孔⑤, 然后拉出约50mm。

3、转动上轮将机针⑥提到最高位置。

4、将梭帽②放进旋梭内。

5、将梭门⑦恢复原位。

6、关上推板。

1. Insert the bobbin ① into the cap ② so that the winding direction is as shown in the illustration.

2. Thread the thread by one of the following methods in accordance with the shape of the cap being used.

1) Pass the thread through slot "A" and under the tension spring ③.

2) Pass the thread through slot "B" and "C", and then through the thread-loosening-prevention spring.

3) Pass the thread through the thread hole ⑤ and pull out about 50mm.

3. Turn the machine pulley to raise the needle to its highest position.

4. Insert the cap ② into the rotary hook.

5. Push latch ⑦ of the rotary hook flat.

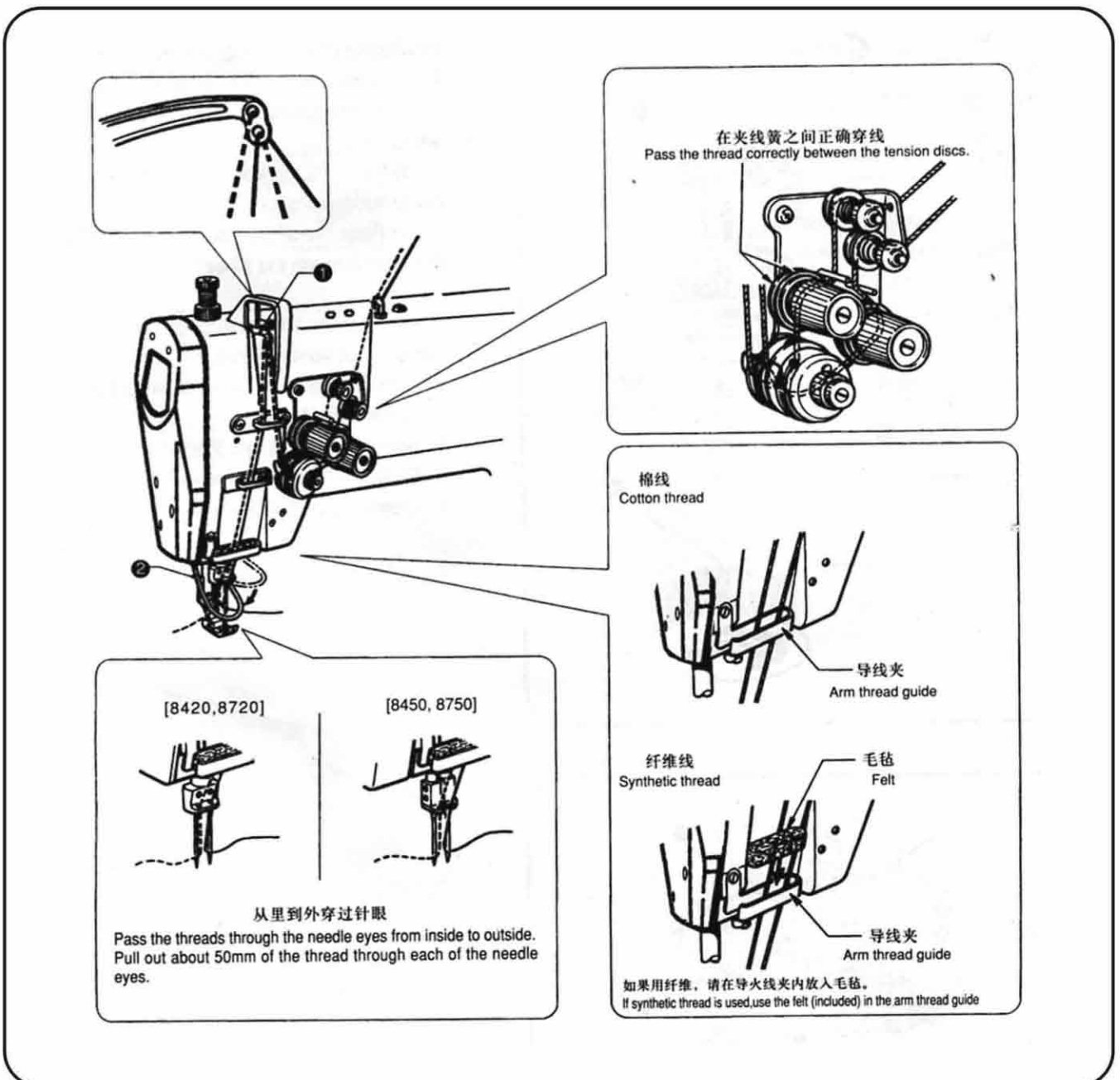
6. Close the bed slide.



## 6-5. 穿面线

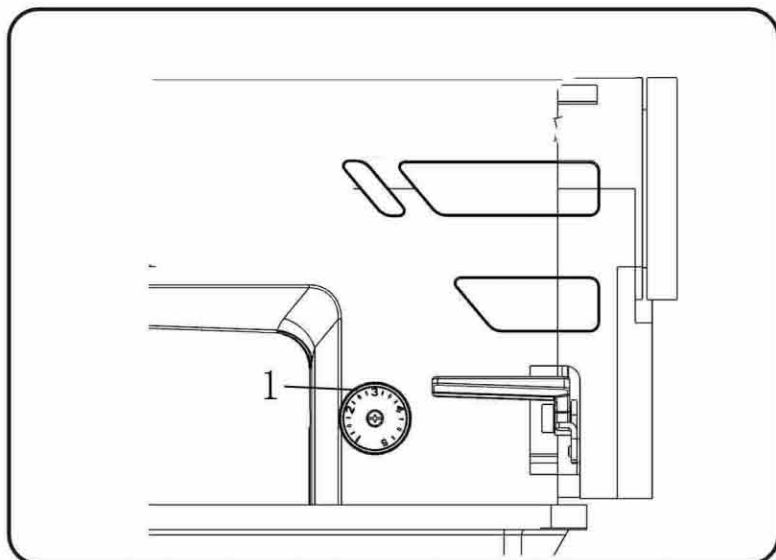
### 6-5. Threading the Upper thread

- 穿面线前，转动上轮并提升挑线杆①，防止缝纫中缝线脱落。
- 先穿左边。
- 调节护指架②到合适位置。穿线完毕后，一定要放下压脚。
- Turn the machine pulley and raise the thread take-up lever before threading the upper thread. This will make threading easier and it will prevent the thread from coming out at the sewing start.
- Thread the left-side thread first.
- The position of the finger guard is adjustable, Be sure to lower it once threading has been completed.



## 6-6. 针距调节

### 6-6. Adjusting the stitch length



[8420、8450、8720、8750]

顺时针或逆时针调节针距旋钮①，针距旋钮的最上端数值即是你所需的针距。

\* 数字越大，针距越大。

[8420、8450、8720、8750]

Turn the stitch length dial ① clockwise or counterclockwise that the desired stitch length is at the uppermost position on the dial.

\* The larger the number, the longer the stitch length will be.

## 6-7. 角缝方法 [8450、8750]

### 6-7. Corner sewing method

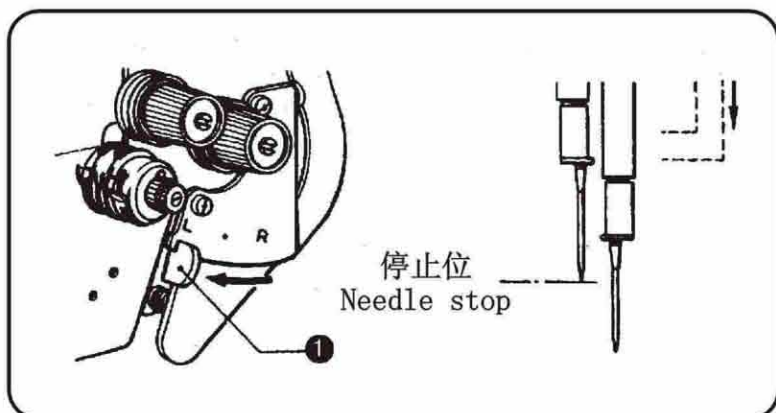
**注意：**如果用此种机器代替单针机时请卸下一支不用的机针，这样就可以不用下列停针方法，否则，将损伤机器。

**NOTE:** If using this machine in place of a single-needle machine, remove the needle which is not being used. In such cases, do not use the procedures given below to stop the unused needle bar from moving, otherwise damage to the machine may result.

#### 6-7-1. 停止针杆(右和左)

#### 6-7-1. To stop needle bars(right and left)

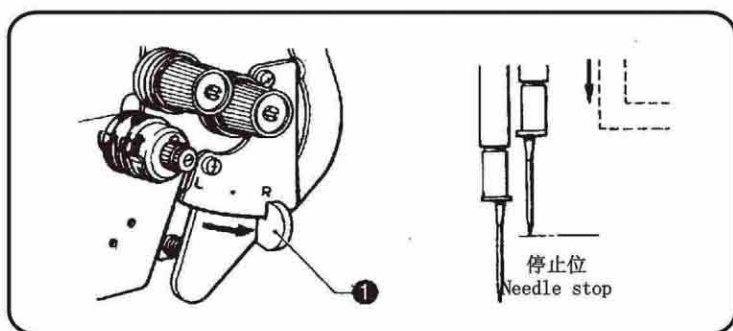
- 机针穿透布料后，操作停止杆。
- 当一个针杆已被停止，超过1000转/分时，不要缝纫。
- Operate the stop lever after the needle has penetrated the material and has moving.
- Do not sew at speeds of over 1000 spm while one of the needle bars been stopped.



#### ■ 停止左针杆

将停止杆 ① 移动“L”位置。

- To stop operation of the left needle bar:  
Move the stop lever ① to the “L” position.



■ 停止右针杆

将停止杆①移动“R”位置。

■ To stop operation of the right needle bar:

Move the stop lever ① to the “R” position.

■ 恢复双针平缝

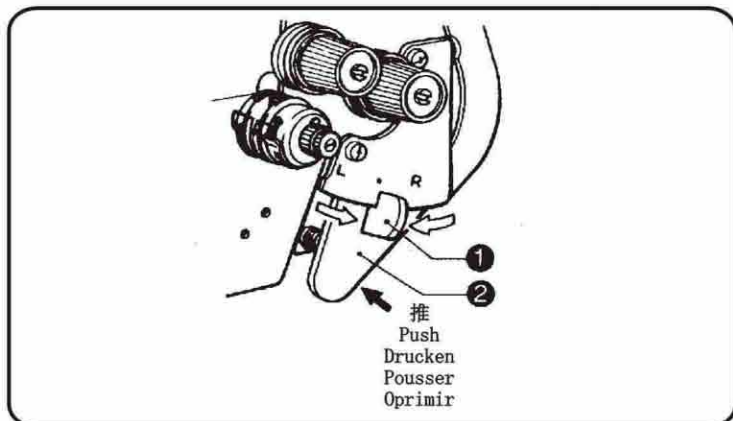
压下推板②，停止杆①将恢复原位。

■ To resume twin-needle sewing:

Press the push lever ② The stop lever ①

will then return to its original position

automatically.



6-7-2. 针迹数：速查表

6-7-2. Number of stitches: quick-reference guide

缝纫角度 Sewing angle	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
针迹数 No. of stitches					4.6	3.8	3.2	2.7	2.2	1.8	1.5	1.1
2												
3			4.6	3.5	3.0	2.5	2.1	1.8	1.5	1.2		
4		4.4	3.4	2.8	2.3	1.9	1.6	1.3				
5	4.8	3.5	2.7	2.2	1.8	1.5	1.3					
6	4.0	2.9	2.3	1.9	1.5	1.3						
7	3.7	2.5	2.0	1.6								
8	3.0	2.2	1.7									

6.35mm 针幅：

从表中查询针迹长度以获得优美的角缝线迹。

不同的缝纫角度和针距采用不同的机针和针迹数。

[例如]

缝纫角度为 40 针距 2.9 mm 针迹数为 6。

■ For 1/4" needle width:

Determine the sewing pitch from the chart below to make beautiful corner stitching.

The number of stitches of the outer needle varies according to the combination of sewing angle and sewing pitch.

[Example]

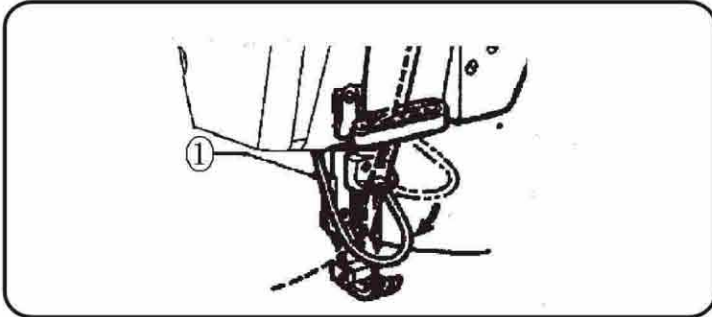
For a sewing angle of 40° , and a sewing pitch of 2.9mm, the number of stitches becomes 6.

## 7. 缝纫

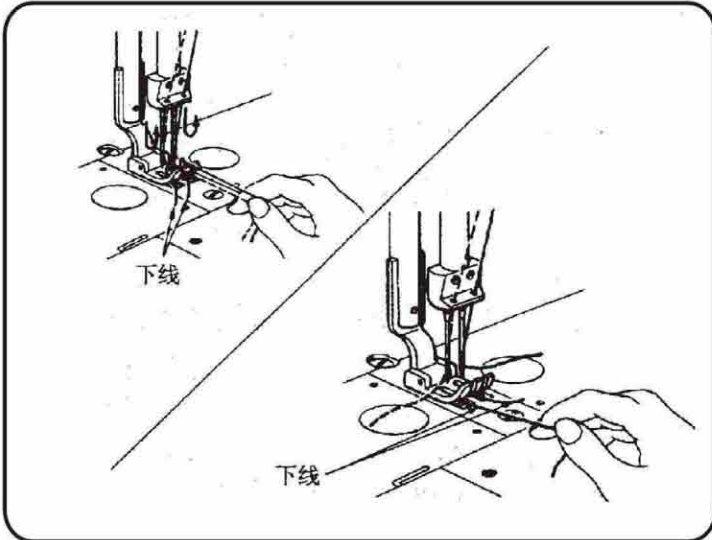
### 7. SEWING

#### 7-1. 缝纫

#### 7-1. SEWING



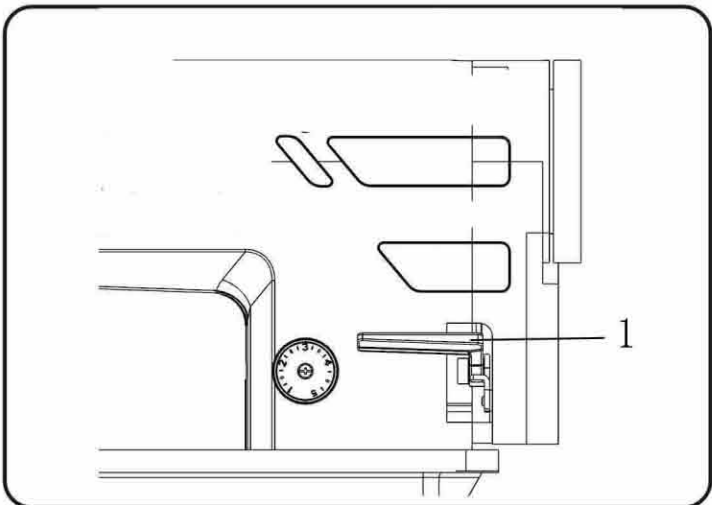
1. 放下护指架①。
1. Lower the finger guard ①.



2. 用手指拉着两根上线，用手朝操作方向转动上轮直到下线从送料牙中引出。
3. 将下线朝操作者方向拉出并检查下线是否顺滑。
4. 打开电源开关。
5. 压下踏板开始缝纫。
2. While holding the two upper threads with your fingers, turn the machine pulley by hand toward you until the lower threads come out onto the feed dog.
3. Pull the lower threads toward you and check that they pull out smoothly.
4. Turn on the power switch.
5. Depress the treadle to start sewing.

#### 7-2. 倒缝 [8420、8450、8720、8750]

#### 7-2. Back tacking [8420、8450、8720、8750]



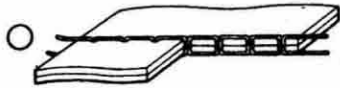
压面倒送料扳手①，缝料将反向缝纫。当倒送料扳手恢复至原位置时，又开始正常缝纫。  
When the reverse stitching lever ① is pushed, the cloth feed direction will be reversed, and when it is returned to its original position, the feed direction will change back to normal.

## 8. 底线张力

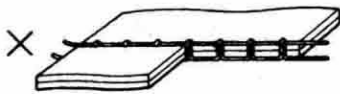
### 8. TH READ TENSION

#### 8-1. 底线张力调节

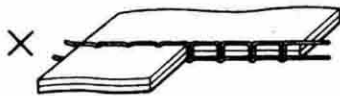
#### 8-1. Adjusting the thread tension



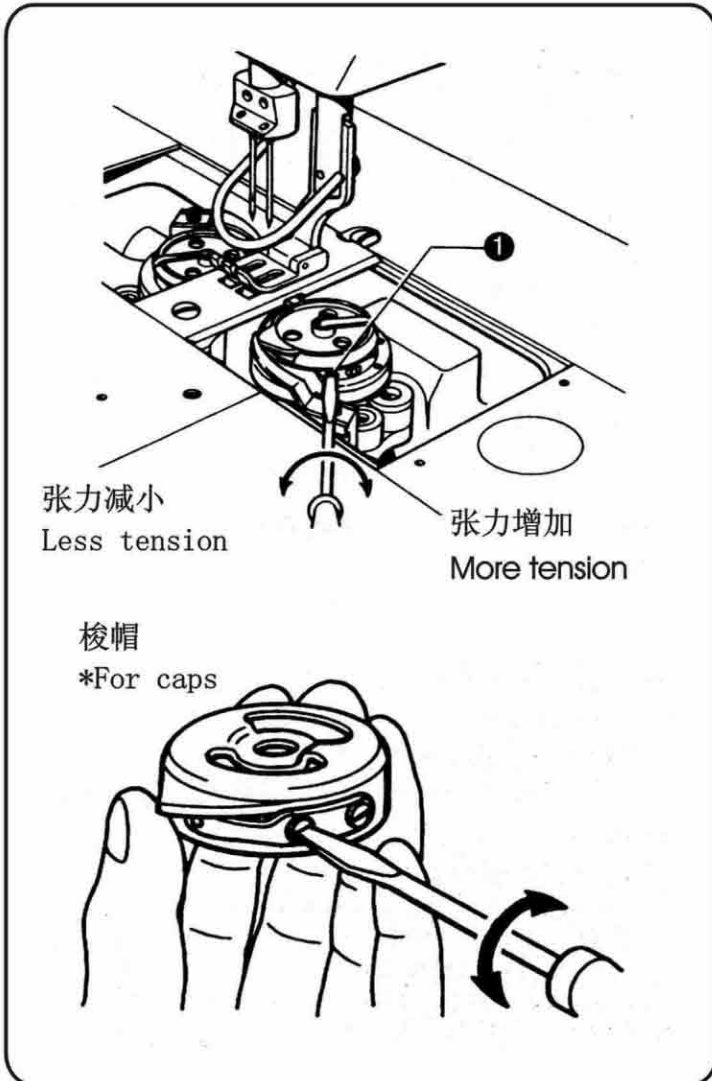
好针迹  
Good even stitches



面线张力太大或底线张力太小  
Upper thread tension too strong or lower thread tension too weak.



面线张力太小或底线张力太大  
Upper thread tension too weak or lower thread tension too strong.

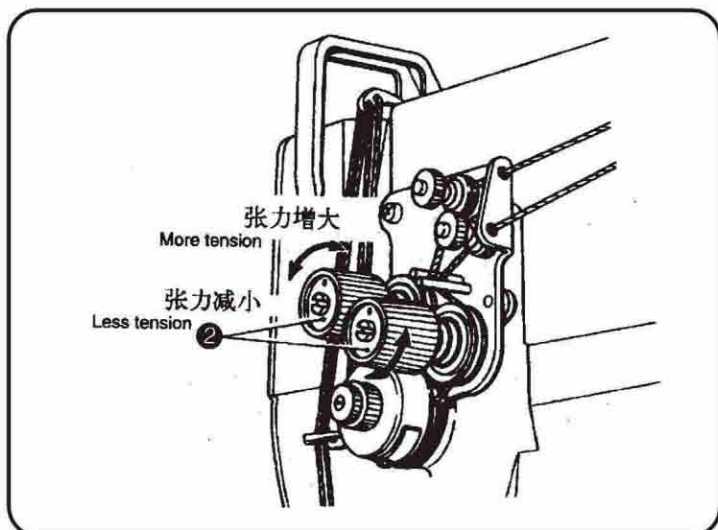


#### ■ 底线张力

根据不同的布料和缝线，调节底线张力调节螺钉①。

#### ■ Lower thread tension

The tension of the lower thread varies with the kind of cloth and thread, and can be adjusted by turning the lower thread tension adjustment Screw①.



■ 面线张力调节

底线张力调节后，再调节面线张力，获得良好、均匀的线迹

1. 放下压脚。
2. 调节夹线螺母②。

■ Upper thread tension

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

1. Lower the presser foot.
2. Adjust by turning the thread tension nut②.

## 8-2. 压脚调节

### 8-2. Adjusting the presser foot pressure

调整线迹 (Correct stitches)

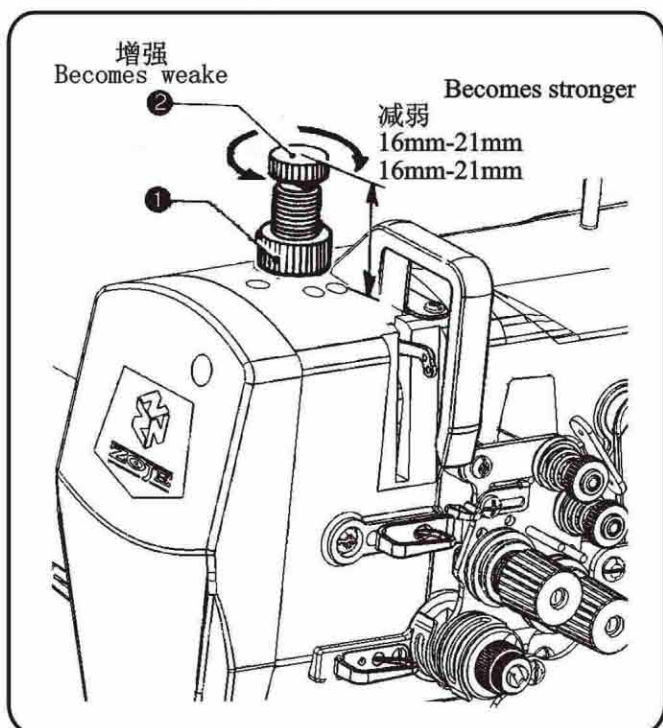
好针迹 (Upper thread)

针迹不一致  
Skipped stitches occur  
Uneven stitch length

增大压力  
(Increase the pressure)

针迹起皱  
Stitches are puckered

减少压力  
(Decrease the pressure)



压脚压力尽可能小，但缝料不能打滑。

1. 松开调压螺母①。
2. 旋转调压螺钉②，调节压脚压力。
3. 旋紧调压螺母①。

The presser foot pressure should be as weak as possible, but strong enough so that the material dose not slip.

1. Loosen the adjustment nut①.
2. Turn the adjustment screw②to adjust the presser foot pressure.
3. Tighten the adjustment nut①.

适用 Use	压脚压力 Presser foot pressure	调压螺钉高度 Adjustment screw height
薄料 For Thin material	29.4牛顿(3千克力) 29.4N(3kgf)	21mm 21mm
中厚料 For Mediumthick material	39.2牛顿(4千克力) 39.2N(4kgf)	18mm 18mm
厚料 For thick material	49牛顿(5千克力) 49N(5kgf)	16mm 16mm

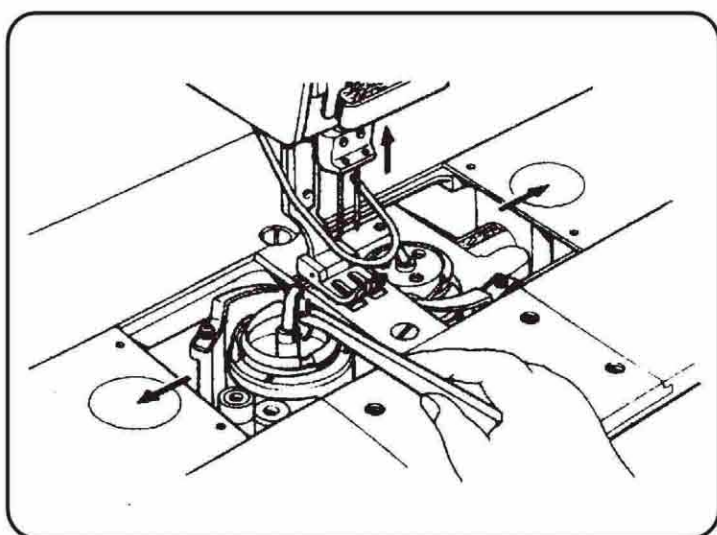
## 9. 清洁

## 9. CLEANING

\*为了更好地保养和延长使用寿命，每天需进行下列清洁工作。此外，若长时间不使用机器，再次使用时，请按下列步骤操作。

\*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.

Furthermore, if the sewing machine has not been used for along period of time, carry out the following clearing procedures before using it again.



### ■ 清理旋梭

1. 转动上轮将机针提升到最高位置。
2. 打开左右推板。
3. 卸下梭心和梭帽。
4. 清理掉旋梭内所有碎线头。
5. 装上梭心和梭帽。

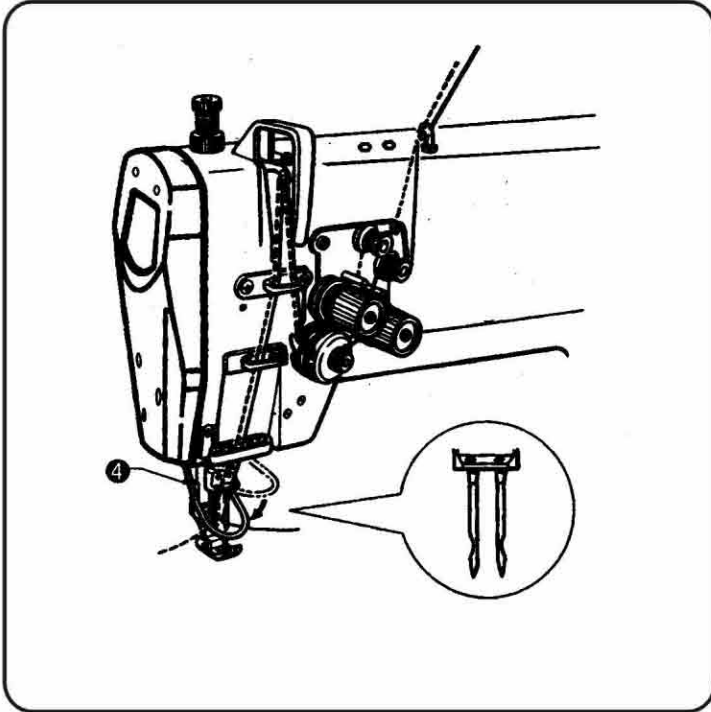
### ■ Cleaning the rotary hook

1. Turn the machine pulley to raise the needle to its highest position.
2. Open the left and slide plates.
3. Remove the bobbin or the cap.
4. Remove all thread scraps from inside the rotary hook.
5. Replace the bobbin or the cap.

## ■ 润滑 (Lubrication)

根据18页的步骤进行润滑

Lubrication the sewing machine according to the procedure on page 18.



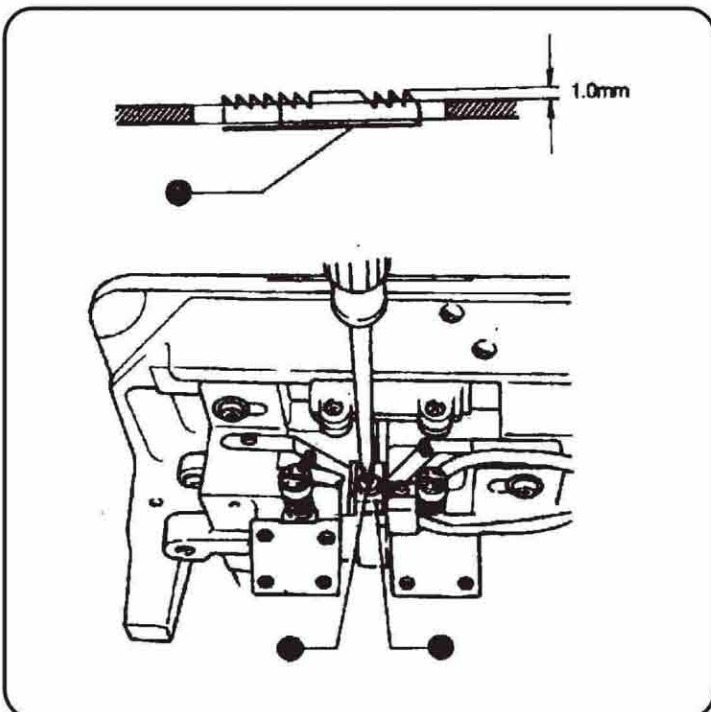
## ■ 检查

1. 检查上线是否正确。(参考16页)
2. 检查机针尾餐是否损坏。  
\* 若机针尾部损坏, 应换新机针。
3. 放下护指架④。
4. 试缝。

1. Check that the upper threads have been threaded correctly (Refer to page 16)
2. Check that the end of the needle is not broken.  
\* If the end of the needle is broken, the needle should be replaced.
3. Lower the finger guard④.
4. Carry out a test sewing.

## 10. 标准调节(Standard adjustments)

### 10-1. 送料牙高度调节(Adjusting of the feed dog height)

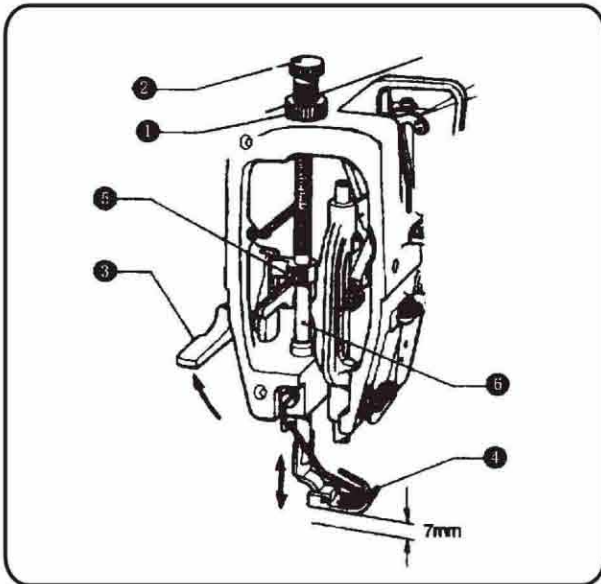


1. 转动上轮直到送料牙 ① 到最高位置。
  2. 将机头向后倾倒。
  3. 松开螺钉②, 升高或降低牙叉③直到送料牙①超过针板1.0mm
  4. 旋紧螺钉④。
1. Turn the pulley until the feed dog ① rises to the highest position.
  2. Tilt back the machine head.
  3. Loosen screw ② and raise or lower the feed dog holder ③ so that the feed dog ① will rise to about 1.0mm above the needle plate.
  4. Tighten the screw ②.



## 10-2. 压脚高度调节

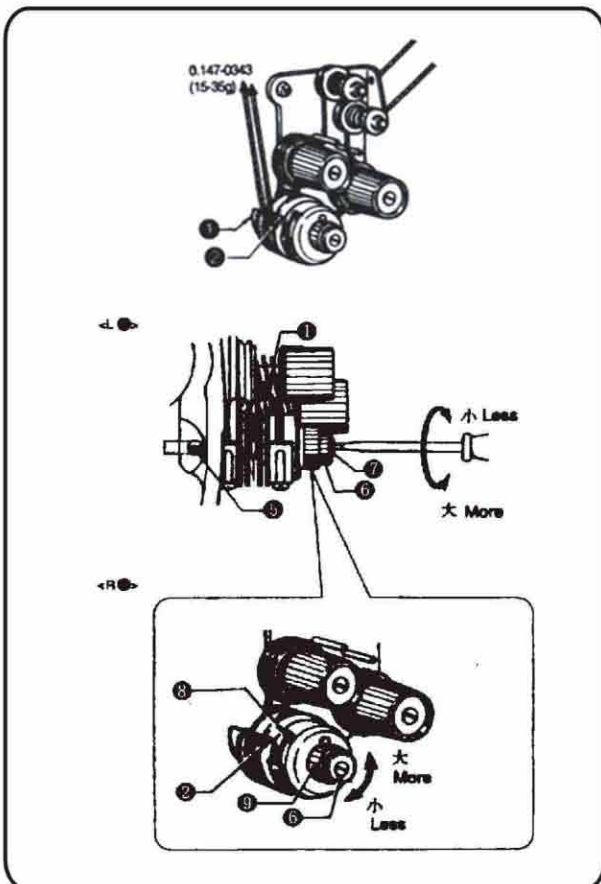
### 10-2. Adjusting the presser foot height



1. 松开调压螺母①，然后松开调压螺钉②。
  2. 打开面板。
  3. 用压脚扳手③抬起压脚④。
  4. 松开螺钉⑤，然后上下移动压杆⑥使压脚④高出针板为约7mm。(注不要旋转压杆⑥)
  5. 旋紧螺钉⑤。
  6. 转动调压螺钉②调节压脚压力，然后旋紧调压螺母①。(参考28页)
1. Loosen the nut ①, and then loosen the presser foot adjustment screw②.
  2. Open the face plate.
  3. Raise the presser foot ④ with the presser foot lifter⑦.
  4. Loosen the screw ⑤ and then move the needle bar⑥ up or down to adjust so that the presser foot ④ is approximately 7mm above the top of the needle plate.  
NOTE: Be careful not to rotate the needle bar⑥.
  5. Tighten the screw ⑤.
  6. Adjust the presser foot pressure by turning the presser foot adjustment screw②, and then tighten the nut①.  
(Refer to page28)

## 10-3. 挑线簧调节

### 10-3. Adjusting the thread tension spring



#### ■ 挑线簧张力

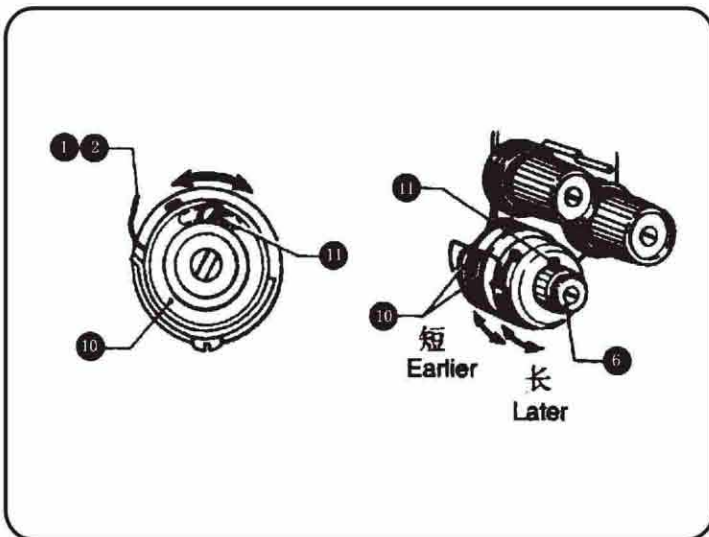
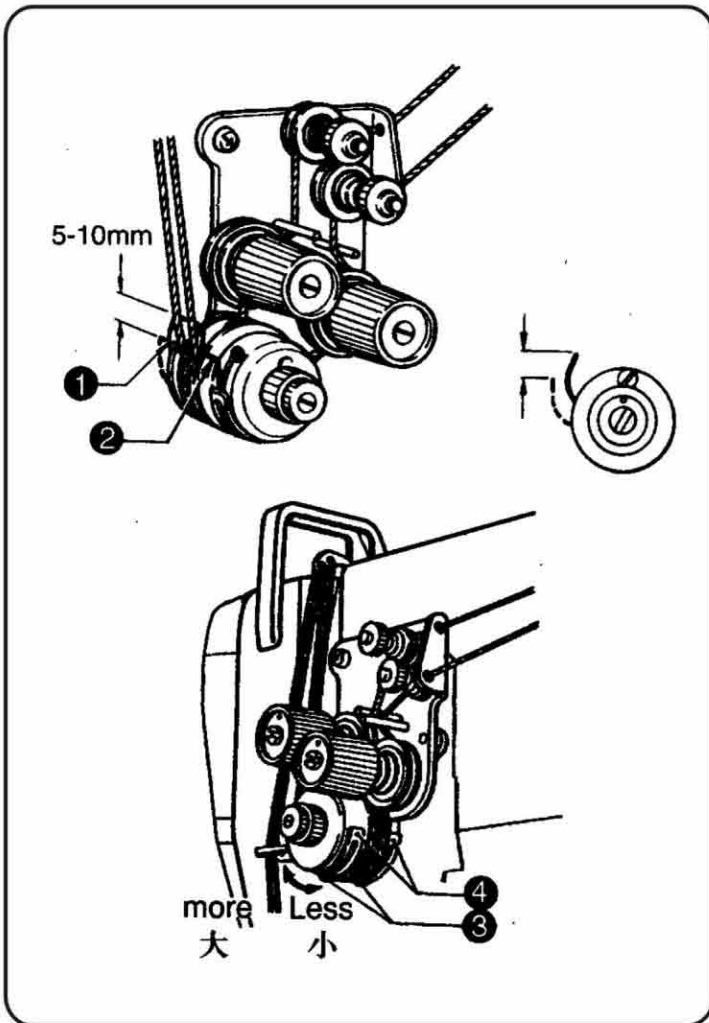
左挑线簧①和右挑线簧②的标准张力是 0.147牛-0.343牛。(15-35克力) (左挑线簧①)

1. 打开面板。
  2. 松开螺钉⑤。
  3. 松开夹线螺母⑥，转动夹线螺钉⑦来调节张力。
  4. 旋紧螺钉⑤，然后再旋紧夹螺母⑥。
- <右挑线簧②>
1. 松开紧固螺钉⑧。
  2. 松开夹线螺母⑥，转动夹线螺母⑨来调节张力。
  3. 旋紧螺钉⑧，然后，再旋紧夹线螺母⑥。

#### ■ Thread take-up spring tension

The standard tension for thread take-up spring L ① and thread take-up spring R ② is 0.147-0.343 N(15-35 g)for both spring. <Thread take-up spring L①>

1. Open the face plate.
  2. Loosen the screw ⑤.
  3. Loosen the knob⑥. and then rum the thread tension stud ⑦to adjust the tension.
  4. Tighten the screw⑤, and then tighten the knob⑥.  
<Thread take-up sprig R②>
1. Loosen the set screw⑧.
  2. Loosen the knob⑥ and then turn the adjustment knob ⑨to adjustthetension.
  3. Tighten the screw⑧, andthentightenthe knob⑥.



### 挑线簧的挑线范围

左挑线簧①和右挑线簧②的标准挑线范围是5-10m。

- 1、松开左、右螺钉⑦，左、右转动挑线簧限位器④来调节挑线范围。
- 2、旋紧螺钉④。

### operating range of thread take-up spring

The standard operating range for thread take-up spring L ① and thread take-up spring R ② is 5-10mm for both springs.

1. Loosen the left and right screws ③ and then turn the left and right thread take-up spring stoppers ④ to adjust the operating range.
2. Tighten the screws ③.

### 挑线簧的挑线相位

左挑线簧①和右挑线簧②的标准相位是挑线簧勾⑩的挑线范围的中间位置。

- 1、松开螺钉 ⑪。
- 2、松开夹线螺母⑥，左右转动挑线簧勾⑩来调节张力。
- 3、旋紧螺钉 ⑪，然后再旋紧夹线螺母⑥。

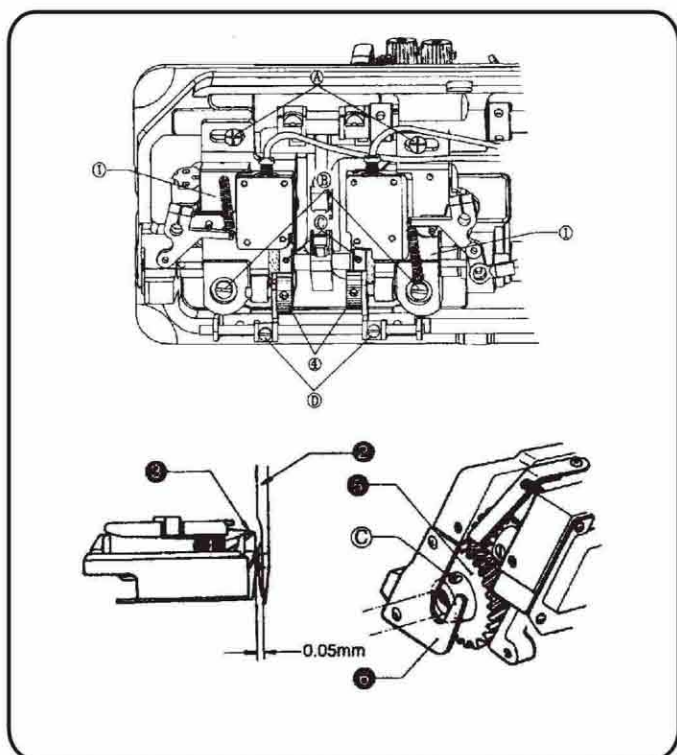
### Thread take-up spring operation timing

The standard operation take-up spring L ① and thread take-up spring R ② is the middle position within the operating range of the thread take-up spring guide ⑩,

1. Loosen the screw ⑪.
2. Loosen the knob ⑥, and then turn the left and right thread take-up spring guided ⑩ to adjust the tension.
3. Tighten the screw ⑪, and then tighten the knob ⑥.

## 10-4. 机针与旋梭相位调节(Adjusting the needle and rotarg hook timing)

### 10-4-1. 机针与旋梭尖的间隙 (Needle rotarg hook point gap)



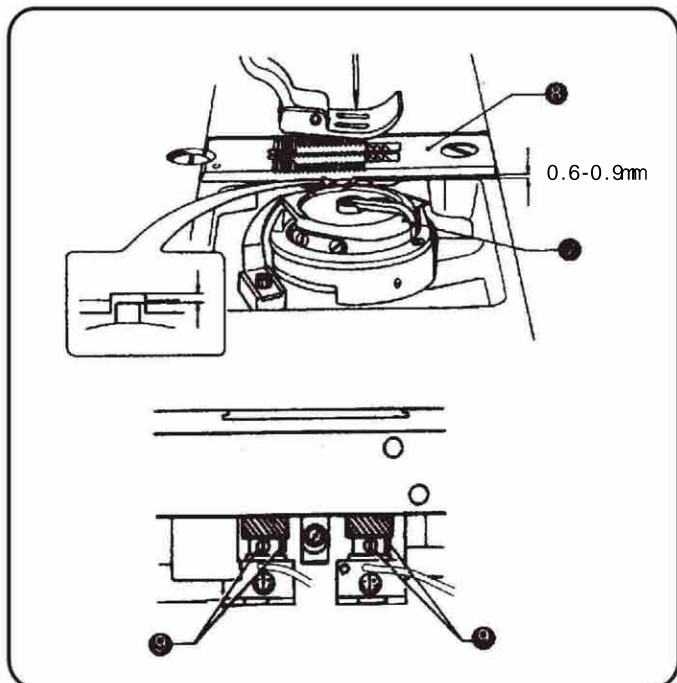
1. 放倒机头。
  2. 松开螺钉 A、B、C 和 D。
  3. 移动梭架①向左或向右，直到机针②与旋梭尖③间隙是1-3mm。
  4. 旋紧螺钉 D，然后转动调节螺钉④来调节，机针②与旋梭尖⑦的间隙是0.05mm。
  5. 调节后，再旋紧螺钉 A、B、和 C。
- 注意：旋紧螺钉 C，直到下轴齿轮⑤轻轻接触到齿轮挡片⑥。此外旋紧螺钉 C 后，不能有任何移动。

1. Tilt back the machine head.
2. Loosen screws A、B、C and D.
3. Move the rotary hook base①to the left or right so that the clearance between the needle and the rotary hook tip③is 1-3mm.
4. Tighten screw D, and then turn the adjusting screw④to adjust so that the clearance between the needle②and the rotary hook tip⑦is 0.05mm.
5. Aftering adjusting, securely tighten screws A、B and C.

**Note:** Tighten so that the laver shaft gear ⑤ is gently touching the thread guide plate⑥Furthermore, tighten screw C without moving it from its Screw stop.

### 10-4-2. 旋梭与针板间隙

### 10-4-2. Needle bar height and lift amount



1. 卸下推板。
2. 放倒机头。
3. 松开紧固螺钉⑨上、下移动旋梭⑦，直到旋梭⑦与针板⑧的间隙为1.3 mm。

注意：当紧固螺钉⑨松开时。不要转动旋梭，否则，机针与旋梭的位置改变。

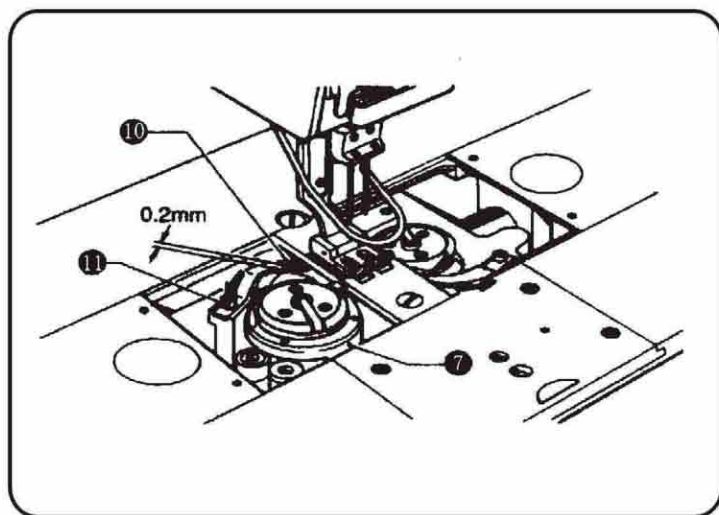
4. 旋紧紧固螺钉⑨。
1. Remove the left and the right suide plates.
2. Tilt back the machine head.
3. Tilt screw⑨and move rotary hook ⑦ so that the clearance between the rotary hook ⑦a nd needle plate⑧is 1.3 mm.

**NOTE:** Loosen screw⑨,Rotary hook will cause the postion of the needle and Rotary hook.

4. Tighten screw⑨.

## 10-4-3. 旋梭与分线勾的间隙

## 10-4-3. clearance between rotary hook and opener

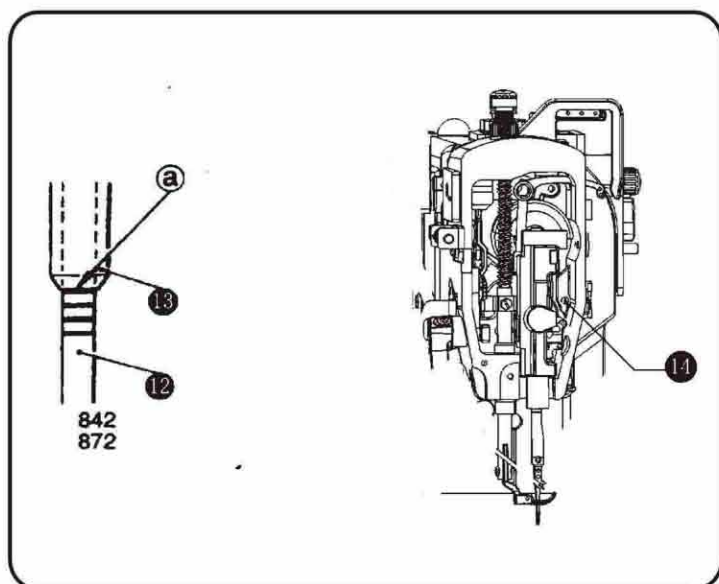


1. 当分线勾⑩按箭头方向压底时，松开紧固螺钉⑪，左、右移动分线勾⑩，直到旋梭⑦与分线勾⑩的间隙为0.2mm。
2. 旋紧紧固螺钉⑪。

1. Loosen the setscrew ⑪ and move the opener ⑩ to the left or right to adjust so that the clearance between the rotary hook ⑦ and the opener ⑩ is 0.2mm when the opener ⑩ is pulled as far as it will go in the direction of the arrow.
2. Tighten the set screw ⑪.

## 10-4-4. 针杆高度和提升量

## 10-4-4. Needle bar height and lift amount



[842Q 872Q]

## ■ 针杆高度

1. 将针距长度调至最小。
2. 打开面板。
3. 转动上轮移动针杆⑫到最低位置。这时，针杆⑫上的参考线①与针杆轴套⑬的下边对齐。
4. 松开螺钉⑭，上下移动针杆来调节针杆高度。
5. 旋紧螺钉⑭。
6. 转动上轮，检查机针是否在送料牙的针孔中间。

[842Q 872Q]

## ■ Needle bar height

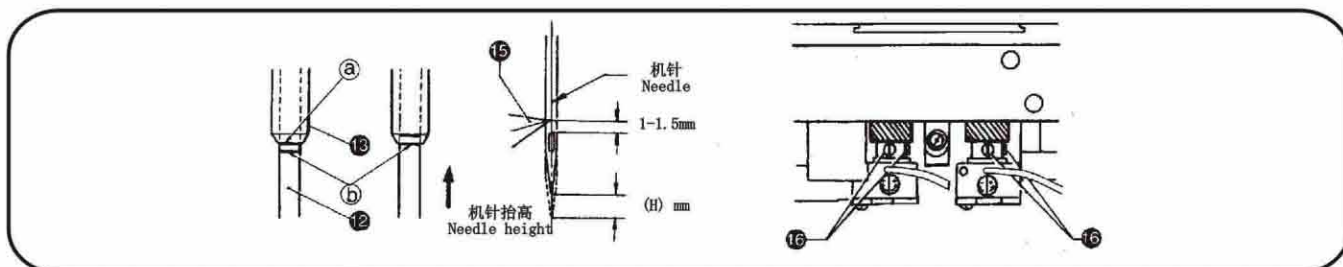
1. Change the stitch length to the smallest possible setting.
2. Open the face plate.
3. Turn the machine pulley to move the needle bar ⑫ to its lowest position. ① Reference line ① at the top of the needle bar must be aligned with the lower edge of the needle bar supporter ⑬ at this time.
4. Loosen the screw ⑭ and move the needle bar ⑫ up and down to adjust the height.
5. Tighten the screw ⑭.
6. Turn the machine pulley and check that the needle goes into the middle of the needle hole in the feed dog.

[842Q 8720]

## ■ 针杆提升量

[842Q 8720]

## ■ Needle bar lift amount



	8420			8720	
	F	(L)	M	(L)	M
针迹长度	2mm	2mm	3mm	3mm	
针杆提升量	2.4mm	2.4mm		2.4mm	

	842C			8720	
	F	(L)	M	(L)	M
Stitch Length	2mm	2mm	3mm	3mm	
Needle bar height (H)	2.4mm	2.4mm		2.4mm	

7. 卸下针板。

8. 卸下送料牙。

9. 根据不同机型(参考表), 将针迹长度调到2mm或3mm左右。

10. 转动上轮, 从最低位置提升针杆 ⑫ 到Hmm,(H的数值参考表格)

11. 针杆 ⑫ 上的参考线 ⑬ 将与针杆轴套 ⑭ 的下边对齐。此时, 旋梭尖 ⑮ 与机针孔的中心对齐。

12. 放倒机头, 松开3个螺钉 ⑯, 将旋梭尖 ⑮ 与针孔的中心对齐。

13. 旋紧螺钉 ⑯。

14. 当旋梭尖 ⑮ 与针孔中心对齐时, 针孔上边与旋梭尖 ⑮ 的距离应为1-1.5mm。

15. 安装送料牙。

16. 安装针板。

7. Remove the needle plate.

8. Remove the feed dog.

9. set the stitch length to either 2(appros2mm)or 3(appros 3mm)on the scale, depending on the model and specifications of the machine(Refer to the table).

10. Turn the machine pulley to raise the needle bar ⑫ by Hmm from its lowest Position(refer to the table below for the value for H).

11. The reference line ⑬ on the needle bar ⑫ will be aligned with the lower edge of the needle bar supporter ⑭. The rotary hook tip ⑮ must be aligned with the center of the needle at this time.

12. Tilt back the machine head, loosen the three screws ⑯, and then align the rotary hook tip ⑮ with the center of the needle.

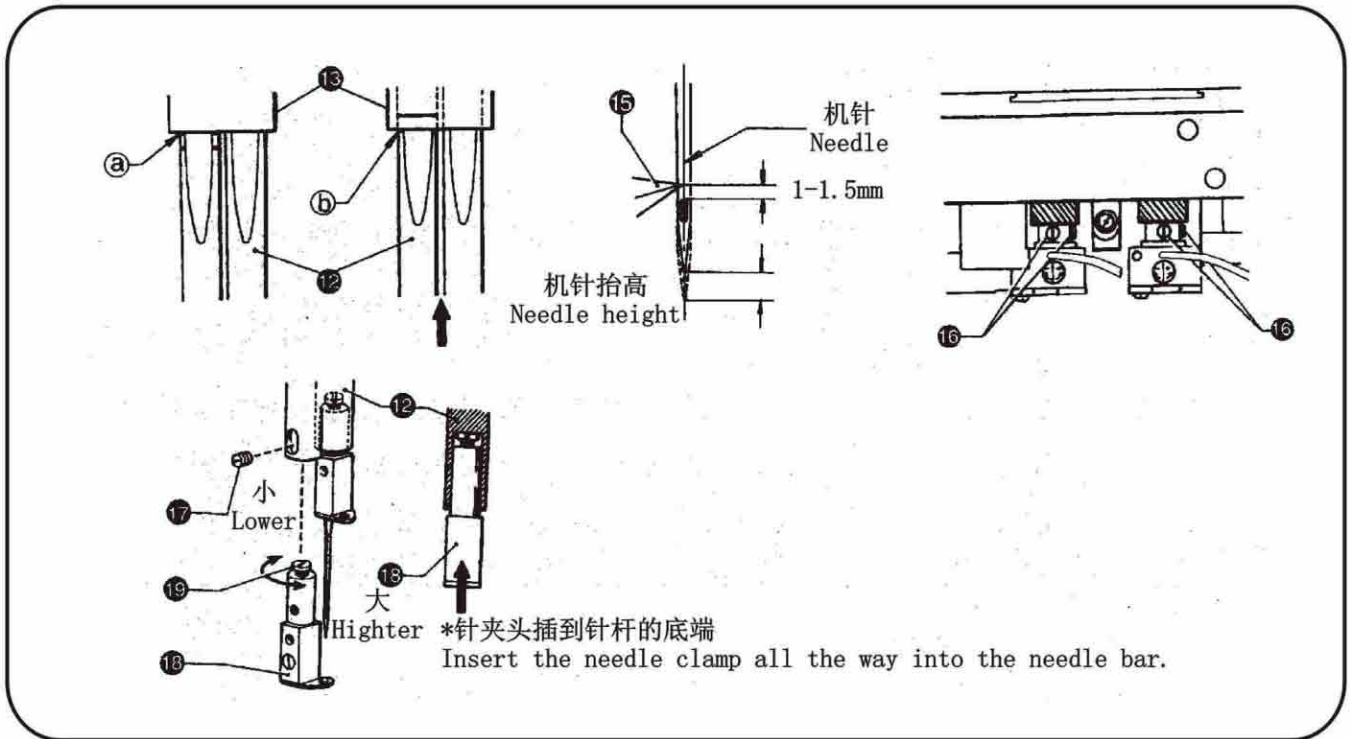
13. Tighten the screws ⑯.

14. The distance from the upper edge of the needle hole to the rotary hook tip ⑮ must be 1-1.5mm when the rotary hook tip ⑮ is aligned with the center of the needle.

15. Install the feed dog.

16. Install the needle plate.

8450 8750



	8450			8750		
	(L)	M	H	(L)	M	H
针迹长度	2mm			2mm		
针杆提升量	2.4mm			2.4mm		

	8450			8750		
	(L)	M	H	(L)	M	H
Stitch Length	2mm			2mm		
Needle bar height (H)	2.4mm			2.4mm		

1. 卸下针板。
2. 卸下送料牙。
3. 将针距调至2mm或3mm左右。(不同机种请参照表格)。
4. 转动上轮将针杆 ⑫ 从最低位置提升Hmm(H值参照表格)。  
针杆上的参考线 ⑬ 与针杆轴套下边对齐。此时，旋梭尖 ⑮ 与针孔中心对齐。
5. 放倒机头，松开三个螺钉 ⑯，将旋梭尖 ⑮ 与针孔中心对齐。
6. 旋紧螺钉 ⑯。
7. 针孔上边与旋梭尖 ⑮ 的距离应为1-1.5mm。此时，旋梭尖 ⑮ 与针孔中心对齐。
8. 松开紧固螺钉 ⑰，将针夹头 ⑱ 向下拉。
9. 转动螺钉 ⑲ 使机针上边与旋梭尖 ⑮ 的距离为1-1.5mm。
10. 调节完毕后，将针夹头 ⑱ 插到针杆 ⑫ 的底端，检查针孔上边与旋梭尖的距离是1-1.5mm。  
旋紧紧固螺钉 ⑰。
11. 安装送料牙。
12. 安装机针。

1. Remove the needle plate.

2. Remove the feed dog.

3. Set the stitch length to either 2(approx.2mm) or 3(approx.3mm) or the scale, depending on the model and specifications of the machine.(refer to the table.)

4. Turn the machine pulley to raise the needle bar ⑫ by H mm from its lowest position(refer to the table for the value for H).

The reference line ⑬ on the needle bar ⑫ will be aligned with the lower edge of the needle bar supporter

The rotary hook tip ⑮ must be aligned with the center of the needle at this time.

5. Tilt back the machine head, loosen the three screws ⑯, and then align the rotary hook tip ⑮ with the center of the needle.

6. Tighten the screws ⑯.

7. The distance from the upper edge of the needle hole to the rotary hook tip ⑮ must be 1-1.5mm when the rotary hook tip ⑮ is aligned with the center of the needle.

8. Loosen the set screw ⑰ to adjust so that the upper edge of the needle hole to the rotary hook, tip ⑮ is 1-1.5mm.

9. Turn the screw ⑲ to adjust so that the distance from the upper edge of the needle hole to the rotary hook tip ⑮ is.

10. After adjustment is completed, insert the needle bar clamp ⑱ into the hole of the needle bar ⑫ as it will go, and check that the distance is 1-1.5mm.

Secure it by tightening the set screw ⑰.

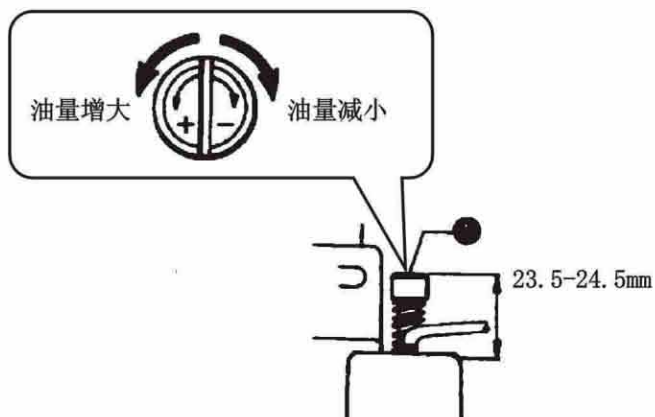
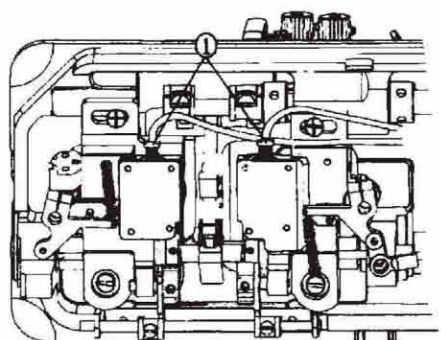
11. Install the feed dog.

12. Install the needle plate.

## 10-5. 旋梭油量调节

### 10-5. Adjusting the rotary hook lubrication amount

- 采有下列步骤调节旋梭油量。
- 无论什么时候卸下旋梭，一定要再调节旋梭油量。
- Adjust the rotary hook lubrication amount by the following procedure.
- Be sure to adjust the rotary hook lubrication amount when even the rotary hook is replaced.



#### ■ 油量调节指南

1. 放倒机头
2. 转动油量调节螺钉①，它的高度在 23.5-24.5mm 之间。

**注意：**不要松开油量调节螺钉①太多，易导致供油量太大。

#### ■ Lubrication adjustment guide

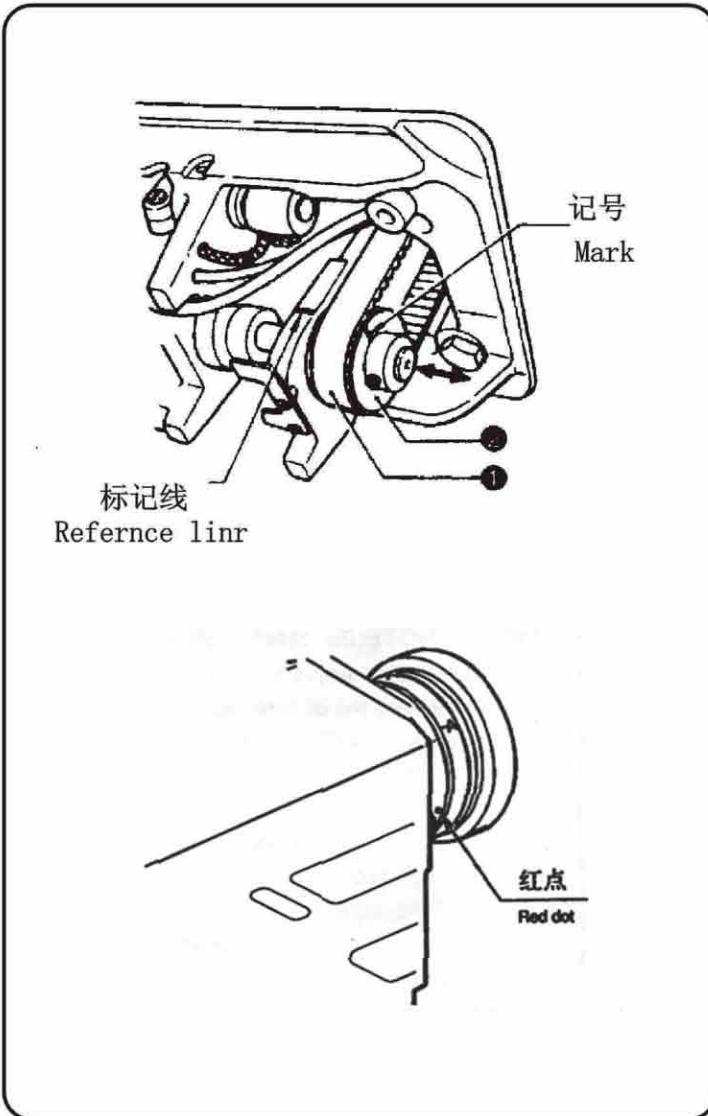
1. Tilt back machine head.
2. Turn the lubrication adjustment screw ① to adjust its height to 23.5-24.5mm.

**NOTE:** Be careful not to loosen the lubrication adjustment screw ① too much otherwise the oil tank will be consumed too quickly.



## 10-6. 机针与送料相位调节

### 10-6. Adjusting of the needle and feed timing

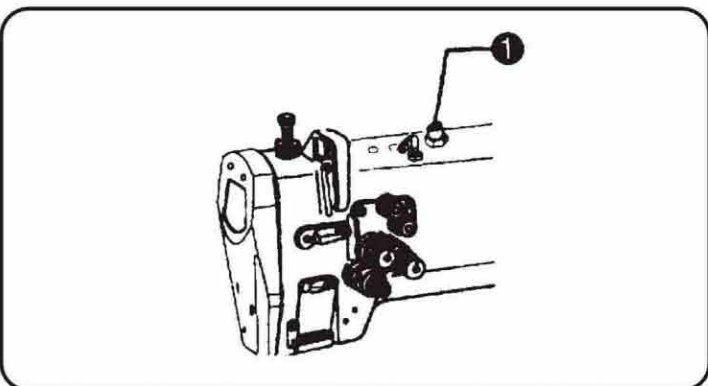


1. 卸下机针。
2. 卸下防护罩。
3. 放倒机头卸下皮带 ①。
4. 转动上轮直到标记“A”与红点对齐。
5. 让上轴不动，使下皮带轮 ②档记与底板参考线对齐，然后固定皮带 ①。
6. 检查上轮标记“A”。
7. 装上防护罩。
8. 装上机针。

1. Remove the needle.
2. Remove the belt cover.
3. Tilt the machine head back and remove the timing belt ①.
4. Turn the machine pulley until the “A” mark is aligned with the red dot.
5. While holding the upper shaft so that it won't move, align the mark in the lower belt pulley ② with the reference line in the arm bed, and attach the timing belt ①.
6. Check the position of the “A” mark on the machine pulley.
7. Replace the belt cover.
8. Install the needle.

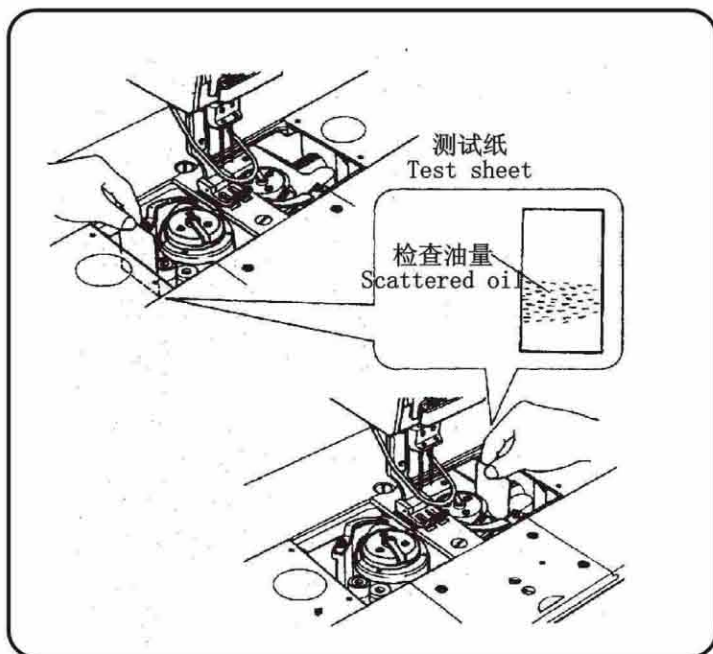
## 10-7. 面部油量调节

### 10-7. Oil adjust at the front of machine



1. 面部的油量，转动螺丝①来调节；右转动油量变少，
1. Turn the screw 1 to adjust the oil quantity at the front of the machine, oil quantity will decrease when the screw is turned to right.

- 检查油量
- Checking the lubrication amount



机器运转5-10分钟后检查油量。通过转动油量调节螺钉①来调节油量。

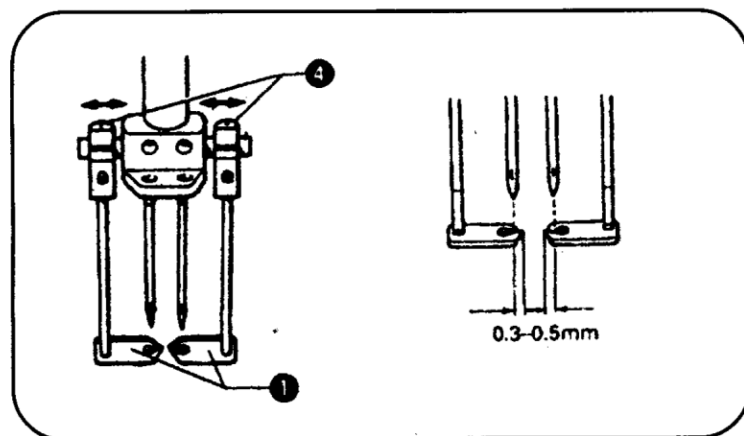
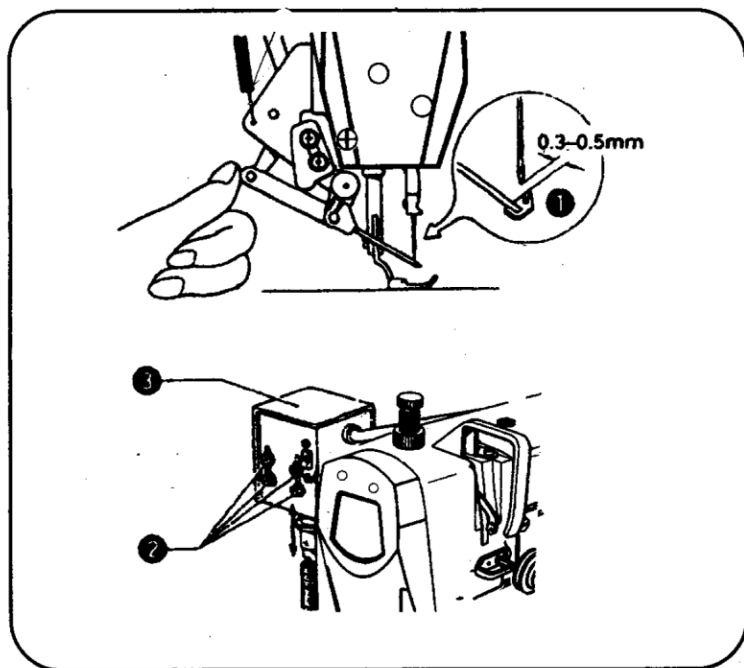
1. 卸下机针。
2. 卸下梭心和梭帽。
3. 打开电源。
4. 在旋梭左侧插入一张白纸(右旋梭则在右侧)，压下踏板进行缝纫。缝速最大时停留10秒左右。
5. 停止运转，检查油迹。  
(10秒钟后左侧油量纸的油迹呈分散状，证明油量正常。)

After turning the lubrication adjustment screw to adjust the lubrication amount, operate the machine for 5-10 minutes before checking the lubrication amount.

1. Remove the needle.
2. Remove the bobbin or the cap.
3. Turn on the power.
4. Insert a piece of white paper into the left side of the rotary hook (into the right side for the right rotary hook) and depress the treadle fully to operate the machine at maximum speed for approximately 10 seconds.
5. Stop the machine and check the amount of oil shown is scattered on the paper.  
(the adjustment is good if the amount of oil shown at left is scattered during approximately 10 seconds. )

## 10-8、拨线机构调整

## 10-8. Thread Wiper Adjustment



1、当机器停止时候，将针杆置于最高位置处。  
Stop the machine while needle bar is at its highest position.

2、关闭开关。  
Turn off the power switch.

3、设定针距长度为“2”  
Set the stitch length to “2” on the scale.

■ 调整前后位置。  
■ Adjusting the forward and back position

4、旋开螺钉，然后移动电磁铁上下调整，使拨线结构的顶端在针的顶端的前方 0.3—0.5mm处。如图所示。

Loosen the screws ② and move the solenoid ③ up and down to adjust so that the tips of the thread wiper ① are 0.3-0.5 mm forward of the thread wiper ① is pressed by hand as shown in the illustration.

5、用力旋紧螺钉。  
Securely tighten the screw.

■ 调整上下位置。  
拨线机构的顶端将沿着虚线所示方向移动。

■ Adjusting the vertical position  
The tip of the thread wiper ① will travel as indicated by the dotted lines.

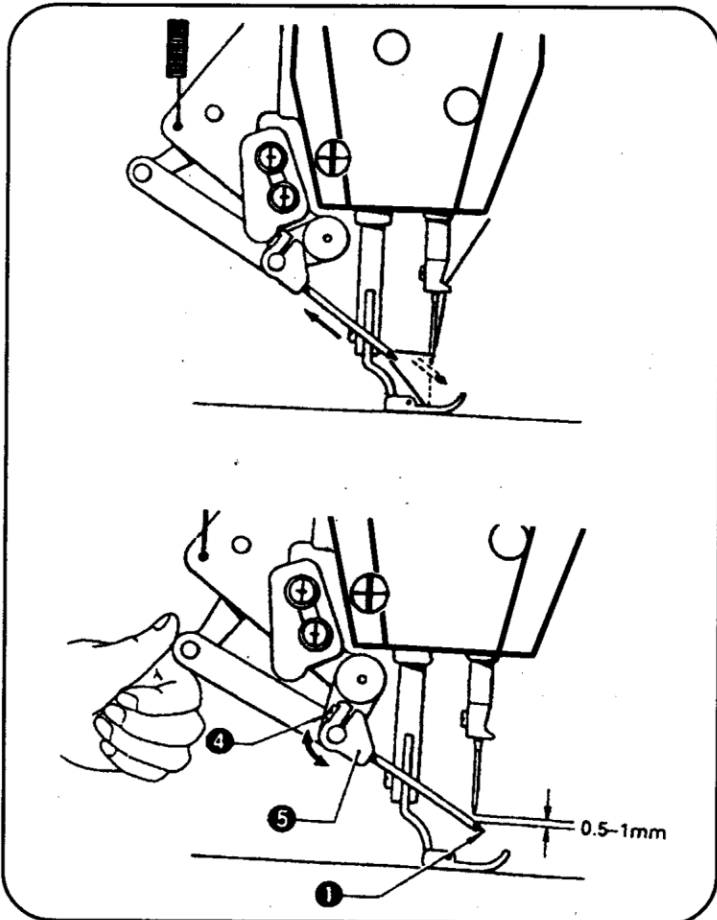
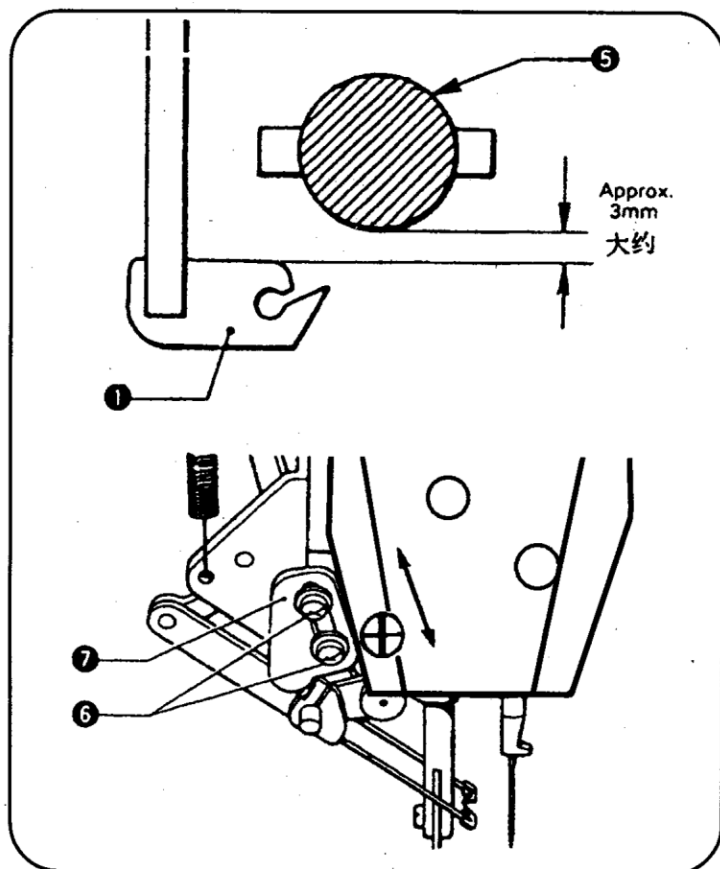
6、调整左右位置。  
旋开螺钉，然后左右调整拨线机构，使拨线机构的尖端到机针中线距离为0.3—0.5mm。

Loosen the screws ④ and move the thread wiper ① to the left and right to adjust so that the tips of the thread wiper ① are 0.3-0.5mm to the inside of the needle center lines.

7、用力旋紧螺钉。  
Securely tighten the screw ④

■ 复位调整  
■ Adjusting the return position.

8、放松螺钉⑥，然后上升或向下降止动块⑦直到拨线机构尖端①和压杆⑤间隙约为



3mm,当拨线机构返回最初位置的时候。  
Loosen the screws ⑥ and raise or lower the stopper ⑦ until the clearance between the tip of thread wiper ① and the presser bar ⑤ is about 3mm when the thread wiper ① returns to its original position.

#### 9、旋紧螺钉⑥。

\* 如果间隙太小的话,拨线机构①就不能够钩住靠近勾来的线。合并拨线机构①使其尽可能的接近机针,则被提供的线一定能够通过它。

也要检查机针紧固螺钉不能接触拨线机构。

#### 9. Securely tighten the screws ⑥.

\* If the clearance is too little, the thread wiper ① may not be able to hook the threads depending on the kind of thread. Set the thread wiper ① as close to the needles as possible, provided that the threads will positively pass through the work.

Also check that the needle set screws will not contact the thread wiper.

#### 10、旋松螺钉,④然后在支点处旋转拨机构,⑤以便调整拨线机构顶端和针的顶端距离为0.5-1mm,用手轻轻按压。如图所示。

Loosen the screw ④ and turn the thread wiper supporter ⑤ to adjust so that the clearance between the tip of the needle and the thread wiper ① is 0.5-1mm when the thread wiper ① is pressed by hand as shown in the illustration.

#### 11、用力旋紧螺钉④。

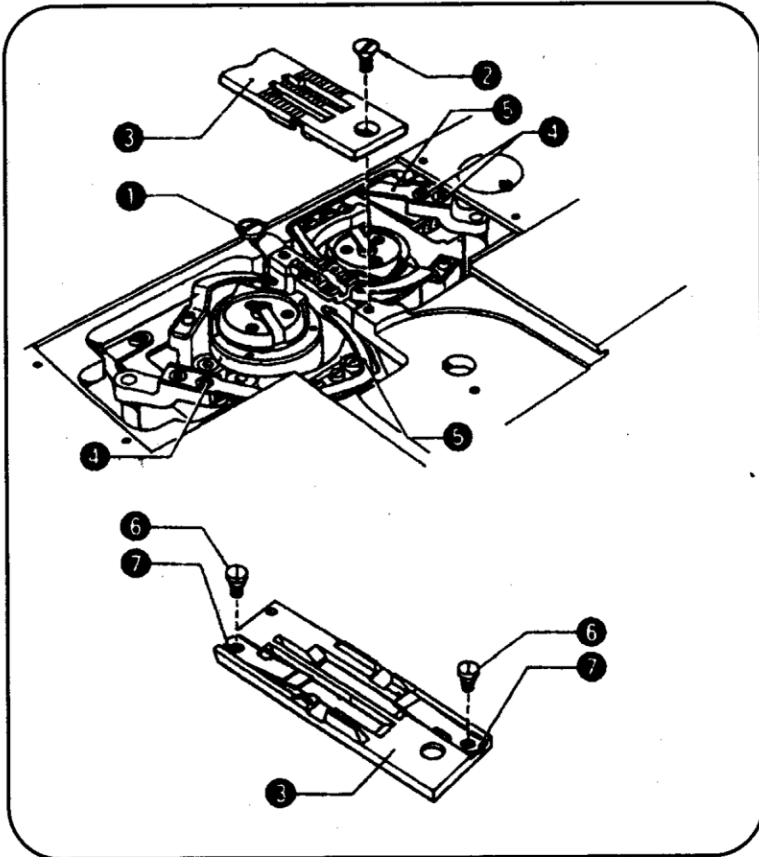
调整完毕后,进行缝制测试,检查拨线机构的正常运行。

Securely tighten the screw ④.

\* After adjustment, carry out a test sewing to check that the thread wiper operates correctly.

## 10-9、动刀与定刀的调整

## 10-9. Movable and Fixed Knife Adjustment



## ■ 拆卸动刀与定刀

## ■ Removing to movable and fixed knives

1. 卸下机针并抬升压脚。
  2. 松开螺钉①和②，然后卸下针板③。
  3. 卸下螺钉④然后拿下动刀⑤。  
\* 当心不要碰坏动刀⑤的刀尖。
  4. 卸下螺钉⑥然后卸下定刀⑦。
1. Remove the needles and raise the presser foot.
  2. Loosen the screws ① and ②, and then remove the needle plate ③.
  3. Remove the holed screws ④ and remove the movable knife ⑤.
  4. Remove the screws ⑥ and remove the fixed knife ⑦.

## ■ 磨定刀

## ■ Sharpening the fised knife

如果定刀变钝了，则应按图所示磨定刀。  
动刀不能磨。

如果动刀钝了，就换一把。

If the knives become blunt, sharpen the fixed knives as shown.  
The noving knife cannot be sharpened with an ordinary whetstone

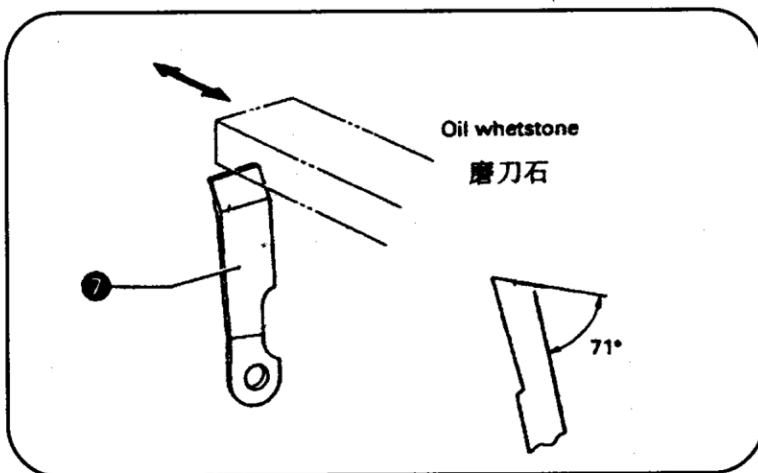
If it becones blunt, replace it with a new one.

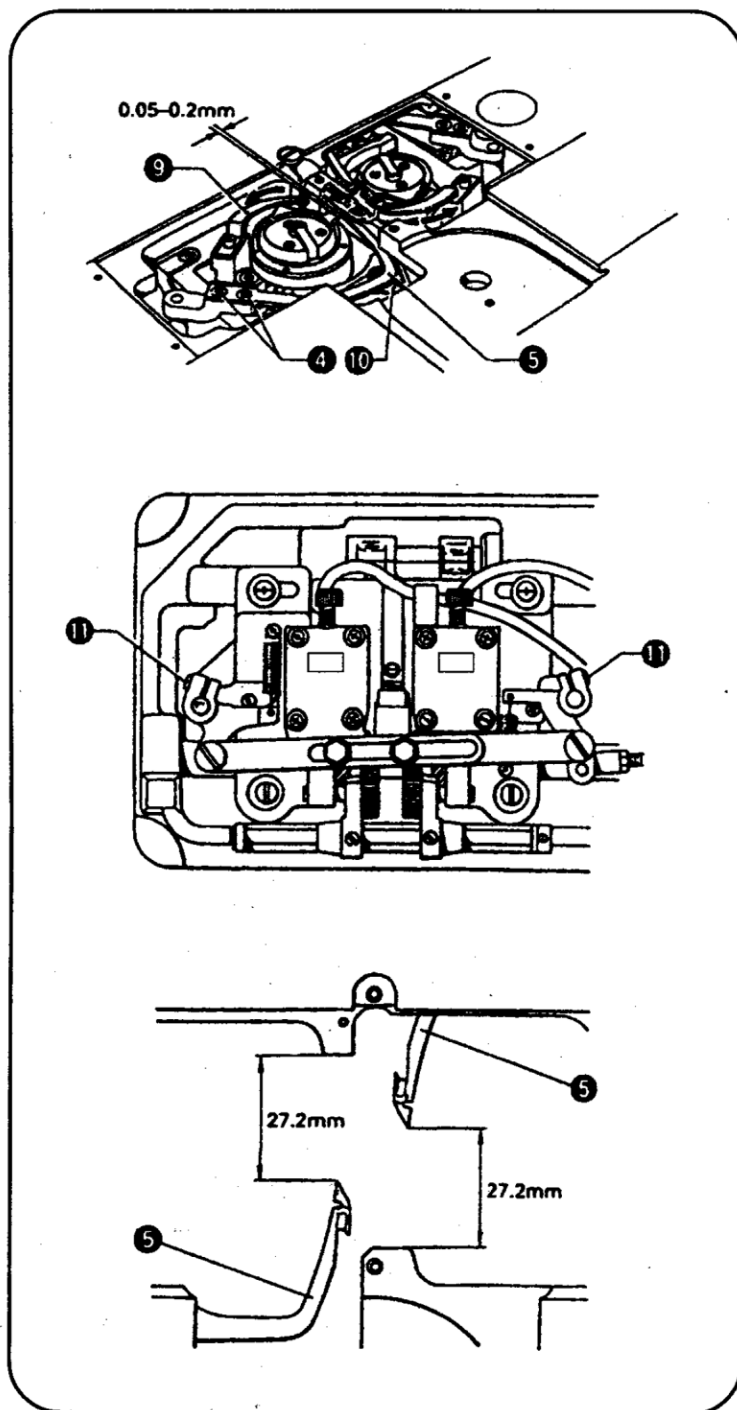
If it becones blunt, replace it with a new one.

## ■ 安装动刀与定刀

## ■ Installing the movable and fixed knives

1. 用手转动上轮，使分线钗按箭头的方向达到最大值。





2. 旋上动刀 上的螺钉 。
- \* 把动刀 安装在护刀板的压线簧上 。
3. 按住动刀 并且转动动刀。(转动动刀,使动刀的刀尖与旋梭之间的缝隙为0.05到0.2毫米,并且旋紧螺钉 。

4. 放倒机头。
5. 松开螺钉(11)。
6. 用您的手指转动动刀 ,以致使他们的位置调整到如图所示。
7. 旋紧螺钉(11)。

1. Turn the machine pulley by hand until the oedres are pulled the way in the arrow direction.

2. Lightly secure the moveble kuife with screws

\* Install the movable knife on the top of the bobbin thread clamp spring

3. Press down on the top of the movable knife and slide the movable knife. (Firmly tighten screw so that the gap between the tip of the movble knife and the rotary hook position bracket is 0.05 to 0.2mm.)

4. Tilt back the machine head.

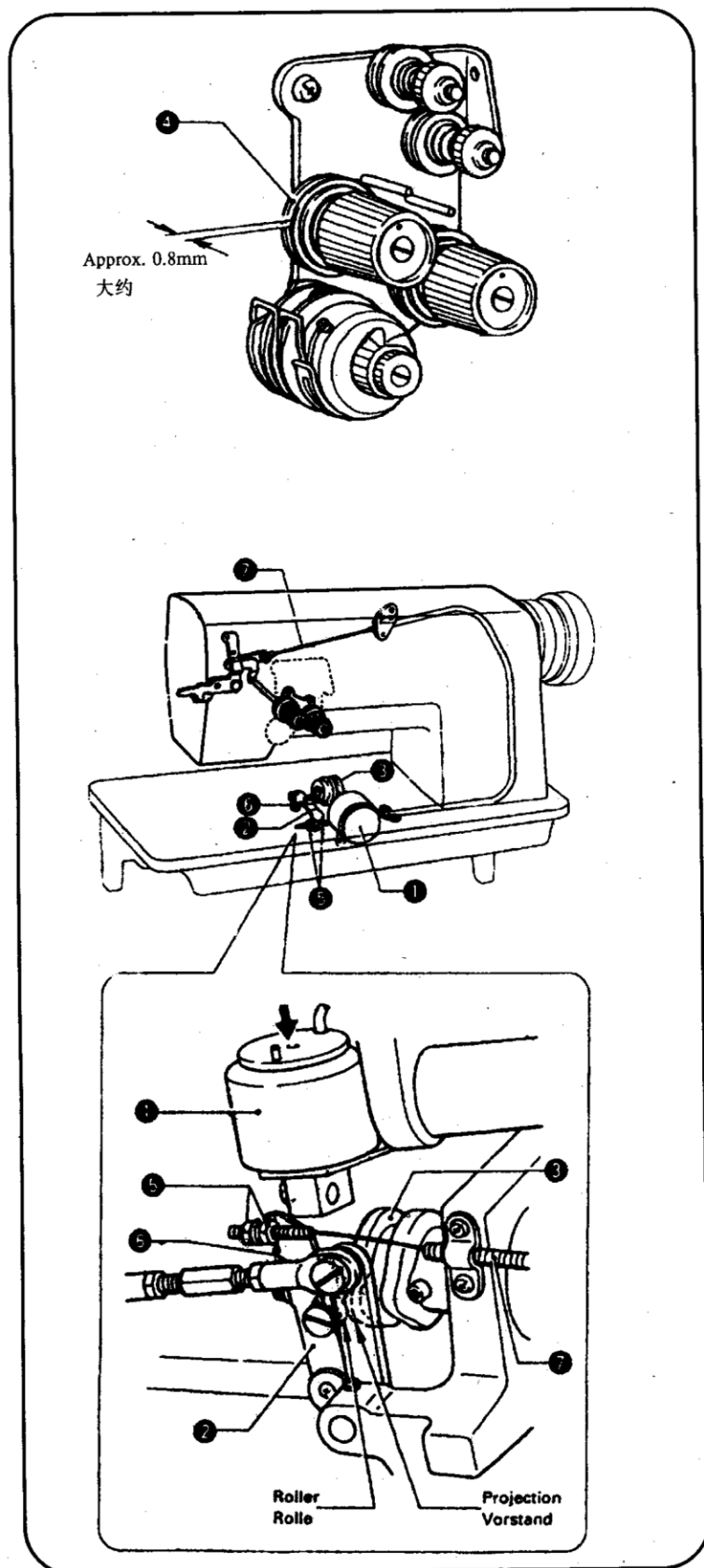
5. Loosen the screws (11).

6. Move the movable knife with your finger so that they are at the positions shown in the illustration.

7. Tighten the screw (11).

## 10-10、松线力

## 10-10. Tension Release



若而线在切线扣从针眼中脱出，或者夹线盘保持张开，按下述调整：

A、若面线在切线后从针眼中脱出(松线装置在切线时没有动作)

1. 按住切线电磁铁①，然后转动手轮。
2. 当松线驱动装置②的滚轮到达剪线凸轮的松线凸台③顶端时，松线盘④应当被打开0.8mm。

如果松线盘④没有打开，松开螺母⑤调整。

3. 当松线驱动装置②的滚轮到过剪线凸轮③凸台顶端时，松线盘④能够打开，松线驱动装置②的滚轮正常状态时，松线盘④能够关闭。

B. 或若夹线盘保持张开

1. 确信松线驱动装置②已经复位
  2. 确信松线驱动装置复位簧⑥没有损坏。
- 检查上述方面然后将螺母⑤作必要调整。如果调整不行的话，更换松线钢丝⑦。

If the thread slips out of the needle hole after thread cutting, or if the tension disc remain open, adjust as follows.

A. If the thread slips out of the needle hole (The tension release lever is not working properly during thread cutting)

1. Press the thread trimming solenoid ① and turn the sewing machine pulley.
2. The tension disc ④ should be open 0.8mm when the tension release lever ② roller reaches the top of the tension release cam ③.
3. Make sure the tension disc is open when the tension release lever ② roller is at the top of the tension release cam ③, and closed when the lever roller is on the level.

B. If the tension disc remain open.

1. Make sure the tension release lever ② is returned.
2. Make sure the return spring ⑥ is not disengaged.

Check the above and adjust with nut ⑤ as necessary.

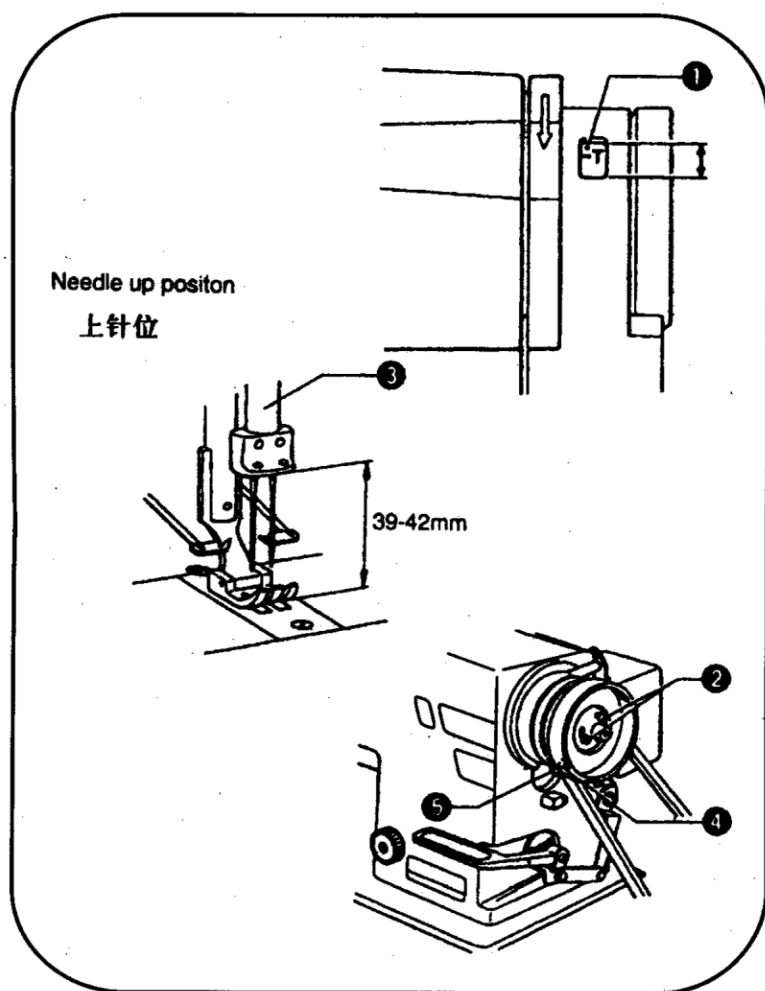
If adjustment is not possible, replace the tension release wire ⑦.

## 10-11、传感器调整

## 10-11. Synchronizer Adjustment

●传感器由两部分组成，一部分用于保护机针位置，另一部分用于控制机针下位置信号和切线信号。

●The synchronists of two elements which are used to detect the needle position. One of these elements is used to control the needle down signal and thread cutter signal.



## ■ 上停针位置调整

- 1、打开电源。
- 2、当针杆处于最高位置时，停止机器转动。
- 3、当机器停止转动时，手轮参考线应当在皮带防罩窗口①中可见。检查针板平面到针夹头下端面的距离为39-42mm。

## &lt;调整方法&gt;

- 1、关闭电源。
- 2、松开两个紧定螺钉②。
- 3、沿着针杆③台高的手轮方向移动紧定螺钉②，同样，沿着针杆下降的手轮相反方向移动紧定螺钉②。
- 4、用力旋紧紧定螺钉②。

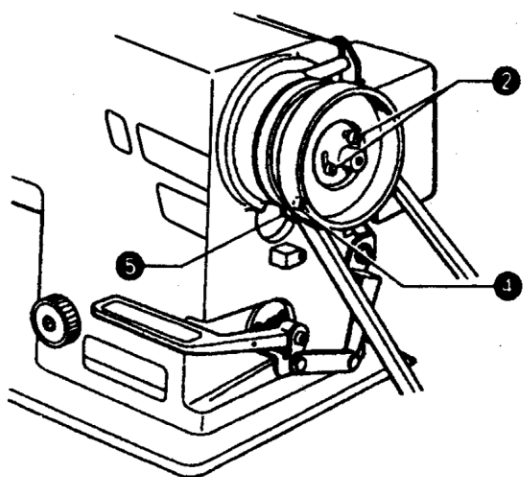
## ■ Needle up position stop adjustment

1. Turn on the power.
2. Stop the machine while the needle bar is at its highest position.
3. The pulley reference line should be visible in the windows ①of the belt cover when the machine is stopped.  
Check that the distance from the top of the needle plate to the bottom of the needle clamp is 39-42mm at this time.

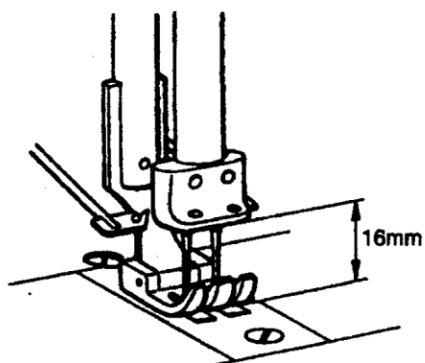
## &lt;Adjustment method&gt;

1. Turn off the power
2. Loosen the two set screws②.
3. Move set screw ② in the direction of normal pulley to raise the needle bar ③. Move the screw ② in the opposite direction to lower the needle bar.
4. Securely tighten the screws ②.





Needle down position  
下针位



## ■ 下停针和剪线信号

- 1、打开电源。
- 2、压下脚踏板，然后松开脚踏板至中间位置（针杆下停针位置）
- 3、确信针板平面到针夹头下端面距离约为16mm。

### <调节方法>

- 1、关闭电源。
- 2、卸去皮带防护罩。
- 3、松开螺钉④，适当移动传感器进行调整。
- 4、用力旋紧螺钉④。
- 5、检查上页描述的上停针位置。
- 6、安装皮带防护罩。

## ■ Needle down and thread cutter signals

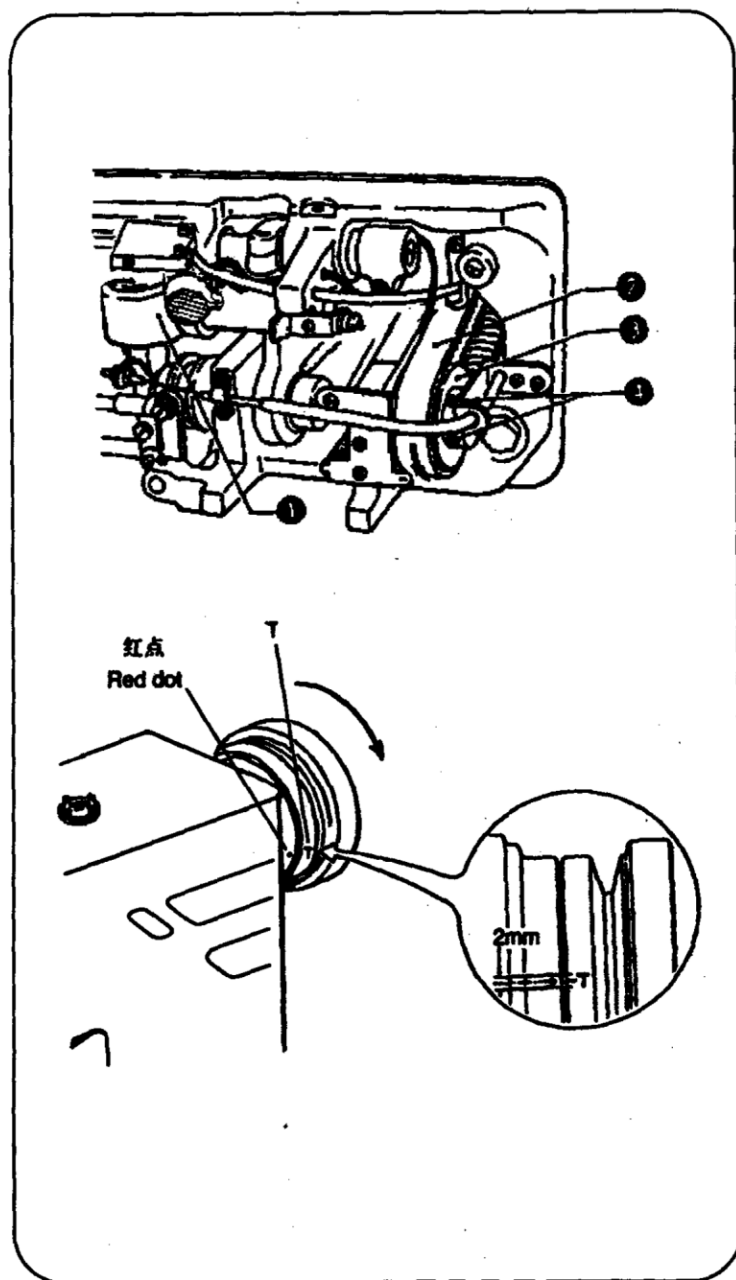
1. Turn the power on.
2. Press the treadle, and then release the treadle to neutral.
3. Make sure the gap from the top of the needle plate to the bottom of the needle clamp is approximately 16mm.

### <Adjustment method>

1. Turn off the power.
2. Remove the belt cover.
3. Loosen screw ④, and move the synchronizer assembly ④,
4. Securely tighten the screw ④,
5. Check the needle up stop position as described on the previous page.
6. Install the belt cover.

## 10-12、动刀与定刀调整

## 10-12. Movable and Fixed Knife Adjustment



## ■ 剪线相位调整

- 1、卸去针板。
- 2、卸去U型皮带防护罩。
- 3、按住剪线电磁铁①然后沿缝纫机旋转方向手转动手轮，直到手轮变的吃力为止(动刀开始移动)
- 4、手轮的T标记必定与机头的红点以至。(T标记与红点的偏移量约为2mm)

## ■ 上轴和下轴的相位调节

- 1、卸去同步齿形带②。
  - 2、转动手轮，直到T标记与红点一致。
  - 3、按住剪线电磁铁①，沿剪头方向转动下皮带轮③，直到变重为止。
  - 4、保持手轮与下皮带轮③不动，然后装同步齿形带②。
- \* 不要松动螺钉④

## ■ Thread Trimmer Timing Adjustment

1. Remove the needles.
2. Remove belt cover U.
3. Hold the thread trimming solenoid ① depressed and turn the sewing machine pulley in its normal direction of rotation until the pulley become hard to turn (the movable knife will begin to move)
4. The T mark on the machine pulley scale must be in line with the red dot on the machine head.

(The permissible deviation of the T mark from the center of the red dot is 2mm)

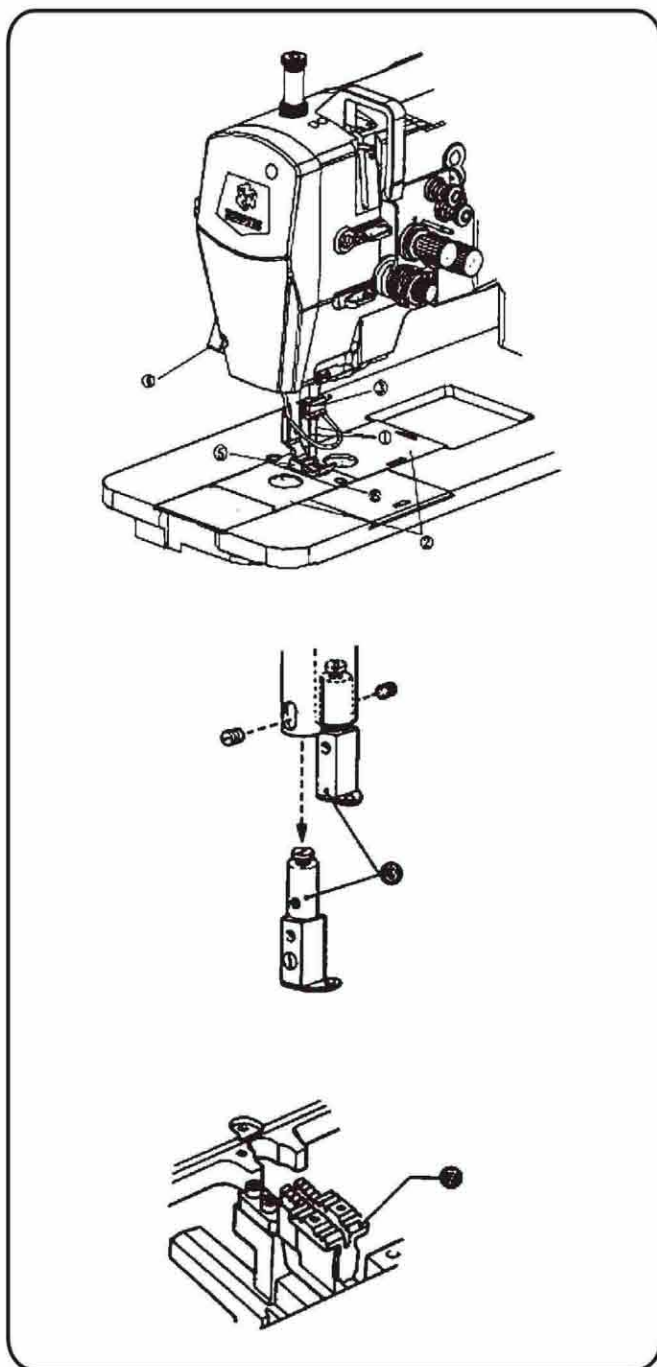
## ■ Upper and Lower Shaft Timing Adjustment [8420 8450 8720, 8750]

1. Remove the timing belt ②
2. Turn the machine pulley until the T mark is in line with the red dot.
3. With the thread trimming solenoid ① depressed turn the lower belt wheel ③ in the arrow direction until it is hard to turn.
4. Keep the machine pulley and lower belt wheel ③ still, and put the timing belt ② on.

\* Never loosen the screw ④

## 11. 安装针距互换组件(改变针间距)

## 11. REPLACING GAUGE PARTS ( CHANGING THE NEEDLE WIDTH )

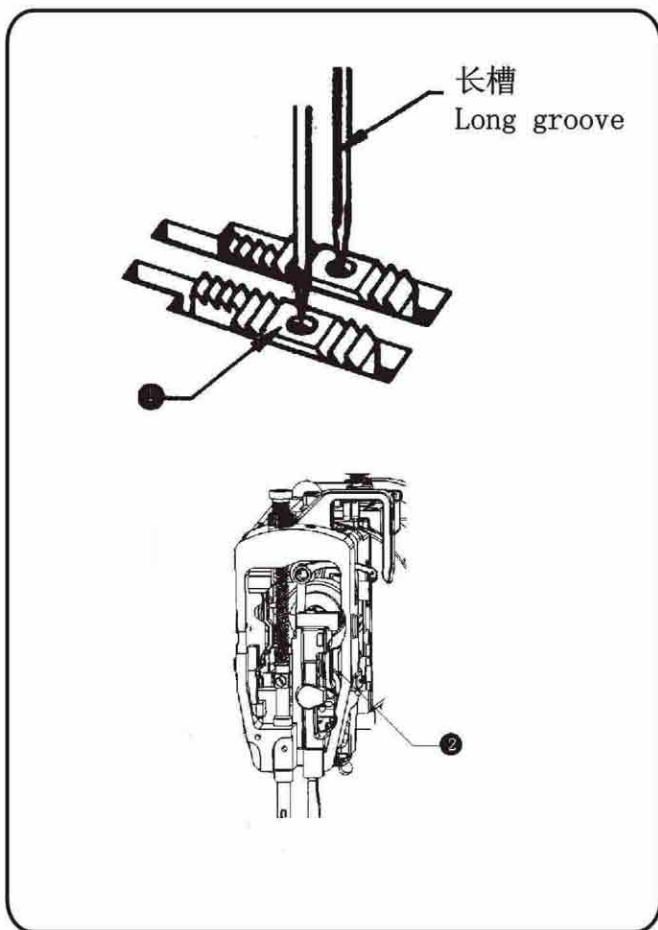
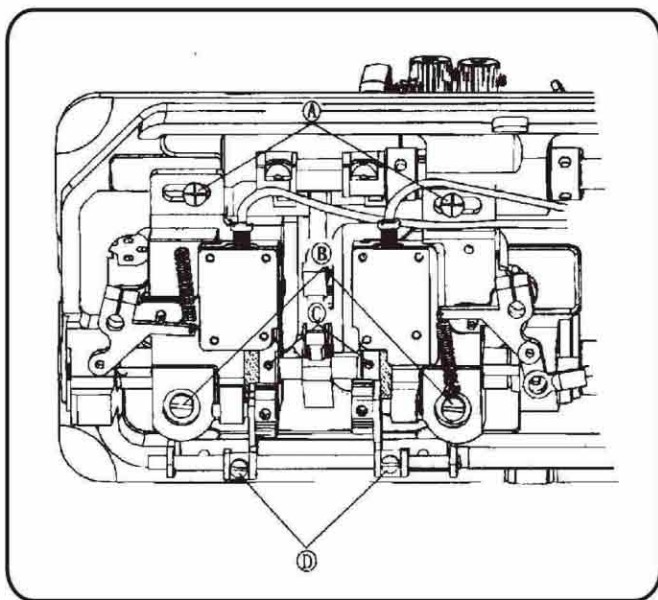


### ■ 怎样更换可换零件

1. 转动上轮将针杆升到最高位置。
2. 卸下机针①。
3. 卸下推板②。
4. 卸下针夹头③。
5. 用压脚板手④提起压脚⑤。
6. 卸下压脚⑤。
7. 卸下针板⑥。
8. 卸下送料牙⑦。
9. 放倒机头。

### ■ How to change gauges

1. Turn the machine pulley to move the needle bar to its highest position.
2. Remove the needle ①.
3. Remove the slide plate ②.
4. Remove the needle clamp ③.
5. Raise the presser foot ⑤ by using the presser foot lifter ④ .
6. Remove the presser foot ⑤.
7. Remove the needle plate ⑥.
8. Remove the feed dog ⑦.
9. Tilt back the machine head.



### ■ 梭架调节

当更换针间距更宽的零件时做如下调节。  
若不调节，送料牙装不上，松开螺钉 ①

② ③、④ 左右移动梭架。

### ■ Adjust the rotary hook base

Make the following adjustment when replacing the current gauge with one wider. The feed dog cannot be installed if this adjustment is not made. Loosen screws ①、② ③ and ④, and shift the rotary hook base right or left.

### ■ 安装

1. 固定好针夹头。
2. 固定好机针。
3. 固定好送料牙①。

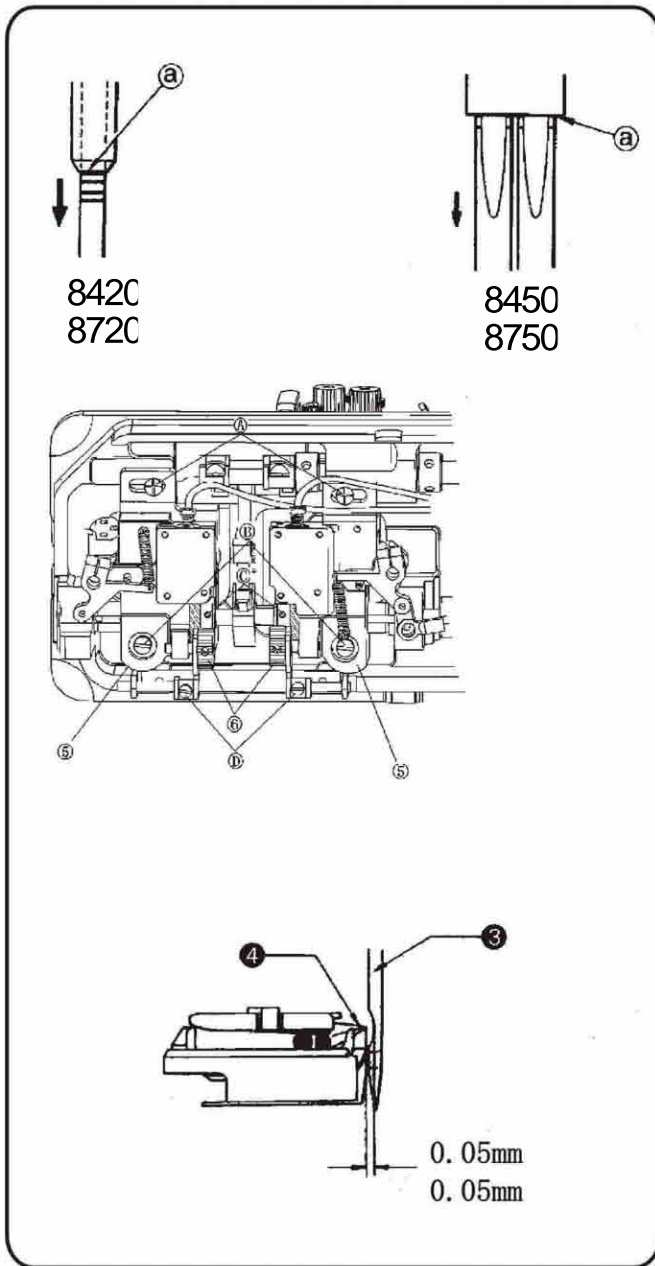
[842Q 8450]

1) 转动上轮检查机针是否与送料牙的针孔中心对齐。

2) 松开螺钉②使机针与送料牙的针孔中心对齐。

### ■ Installation

1. Attach the needle clamp.
  2. Attach the needle.
  3. Attach the feed dog [842Q 8450]
- 1). Turn the machine pulley and check that the needle goes into the middle of the needle hole in the feed dog.
- 2). Loosen ② and align the needles so that the needles will fall in the centers of the needle holes in the feed dog.



#### 4. 检查针杆高度

转动上轮将针杆移到最低位置，使参考线a与图表中一致。

#### 5. 放倒机头。

#### 6. 机针③与旋梭尖④的间隙调节

1) 松开 ①、②、③ 和 ④。

2) 左右移动梭架⑤使机针③与旋梭尖④的间隙为1-3mm。

3) 旋紧螺钉 ①，然后再转动调节螺钉⑥使机针③与旋梭尖④的间隙为0.05mm。调节完毕后，旋紧螺钉 ①、②、③。

#### 4. Check the needle bar height.

Turn the machine pulley to move the needle bar to its lowest position and adjust so that reference line is aligned as shown in the machine head.

#### 5. Tilt back the machine head.

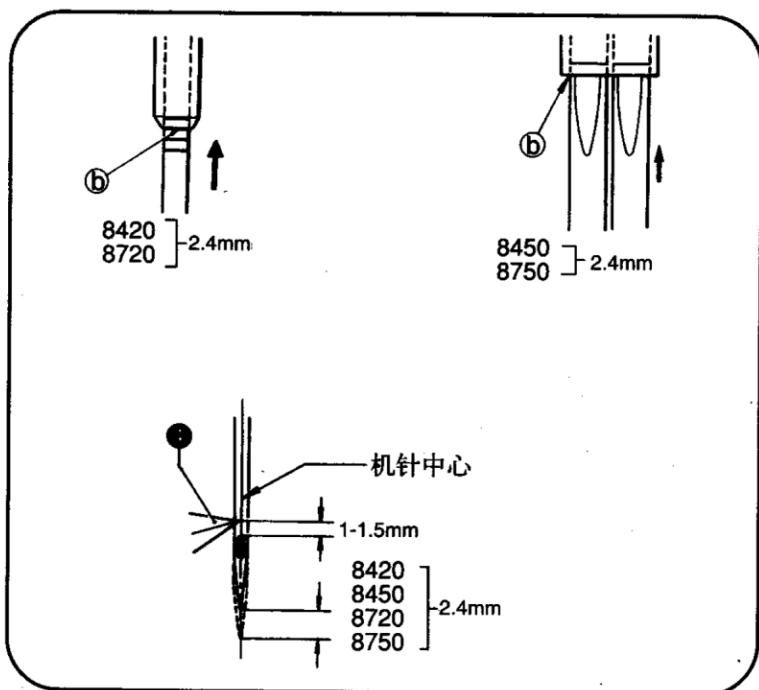
6. Adjust the clearance between the needle ③ and the rotary hook tip ④.

1) Loosen screws ①, ②, ③, and ④.

2) Move the rotary hook base ⑤ to the left or right so that the clearance between the needle ③ and the rotary hook tip ④ is 1-3mm.

3) Tighten screw ①, and then turn the adjusting screw ⑥ to adjust so that the clearance between the needle ③ and the rotary hook tip ④ is 0.05mm.

After adjusting, securely tighten screws ①, ② and ③.



### 7. 调节针杆提升量

- 1) 将针距调至 2 或 3mm 左右(不同机型, 不同针距, 参考 27-28 页表格)。
- 2) 转动上轮将针杆移到最低位置使参考线⑥与示意图中所示一致。  
检查旋梭尖④与针孔中心是否对齐, 此时针孔的上边与旋梭尖④的距离为 1-1.5mm。  
(参考 27-28 页的调节步骤)

### 8. 放正机头。

### 9. 固定好针板。

### 10. 固定好压脚。

### 7. Adjust the needle bar lift amount.

1) Set the stitch length to eight 2 (approx. 2 mm) or 3 (approx. 3 mm) on the scale, depending on the model and specifications of the machine. (Refer to the tables on pages 27 and 28.)

2) Turn the machine pulley to move the needle bar to its lowest position and adjust so that reference line b is aligned as shown in the illustration.

Check that the rotary hook tip ④ is aligned with the center of the needle and that the distance from the upper edge of the needle hole to the rotary hook tip ④ is 1-1.5mm at this time.

(Refer to pages 27 and 28 for the adjustment procedures.)

### 8. Return the head to its original position.

### 9. Attach the needle plate.

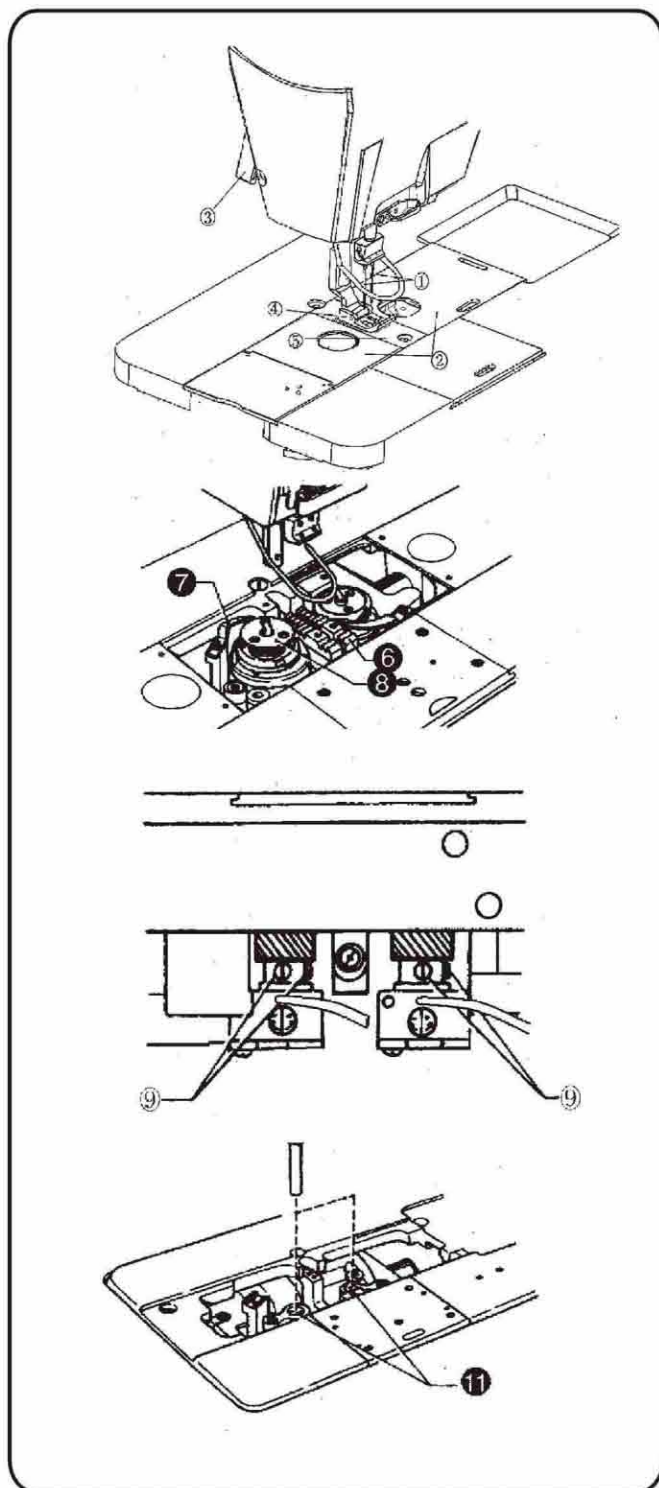
### 10. Attach the presser foot.

## 12. 可选零件安装

### 12. INSTALLING OPTIONAL PARTS

#### 12-1. 更换旋梭

#### 12-1. Replacing the rotary hook

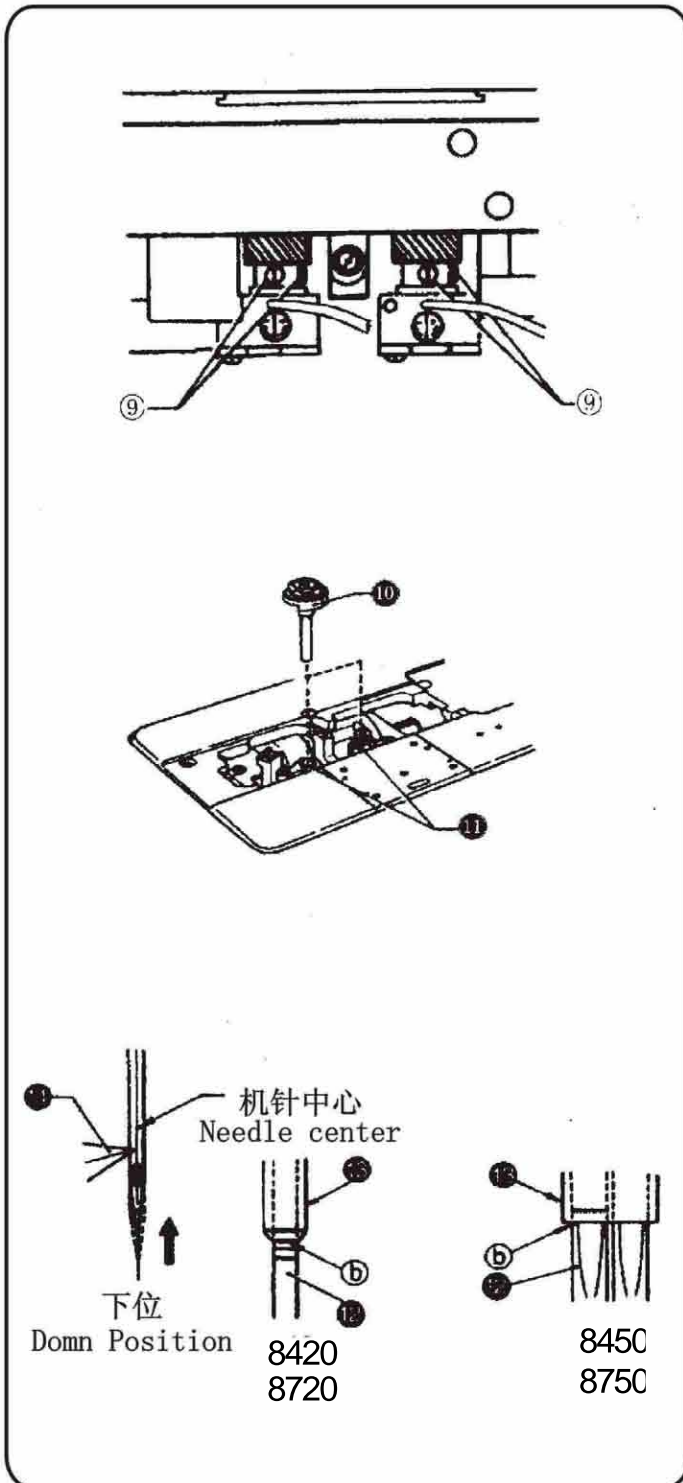


#### ■ 更换

1. 转动上轮使针杆到最高位置。
2. 卸下机针①。
3. 卸下推板②。
4. 用压脚扳手③提起压脚④。
5. 卸下压脚④。
6. 卸下针板⑤。
7. 卸下送料牙⑥。
8. 卸下分线勾⑦。
9. 卸下梭心⑧或梭帽。
10. 放倒机头。
11. 松开三个紧固螺钉⑨。
12. 转动上轮使针杆到最高位置。
13. 更换旋梭⑩。

#### ■ Removal

1. Turn the machine pulley to move the needle bar to its highest position.
2. Remove the needle ①.
3. Remove the slide plates ②.
4. Raise the presser foot ④ with the presser foot lifter ③.
5. Remove the needle foot ④.
6. Remove the needle plate ⑤.
7. Remove the feed dog ⑥.
8. Remove the opener ⑦.
9. Remove the bobbin ⑧ or the cap.
10. Tilt back the machine head,
11. Loosen the three set screws ⑨.
12. Turn the machine pulley to move the needle bar to its highest position.
13. Remove the rotary hook ⑩ .



### ■ 安装

1. 在安髻孔 ⑩ 插入新旋梭⑩。
2. 装上机针 ①。
3. 参考第33页使旋梭尖 ⑭ 与针孔中心 ① 对齐，此时针杆 ⑭ 从最低位置升起至针杆底部的参考线 b 与针杆轴套 ⑭ 的下边对齐，然后旋紧三个螺钉 ⑨。

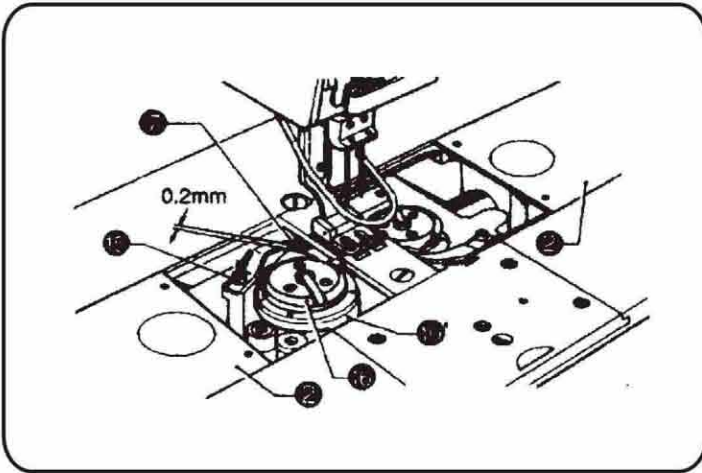
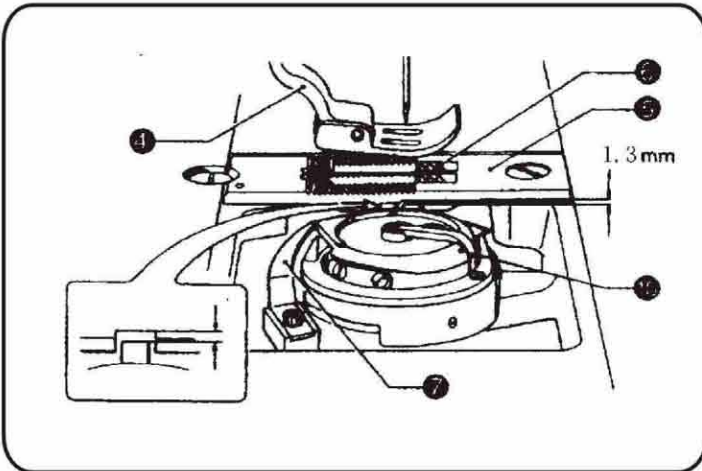
注意：为了避免力矩太大，先将三个螺钉 ⑨ 稍微旋紧后，再逐一旋到最紧。

### ■ Installation

1. Insert the new rotary hook ⑩ into the mounting hole ⑩.
2. Install the needles ①.
3. While referring to pages 33 , adjust so that the rotary hook tip ⑭ is aligned with the center of the needle ① when the needle bar is raised from its lowest position until reference line b at the bottom of the needle bar ② is aligned with the lower edge of the needle bar supporter ⑭ tighten the three screws ⑨.

**NOTE:** In order to prevent the torque from becoming too high, tighten all three screws ⑨ less than fully, and then turn them all again to tighten them fully.





4. 将机头放正。
5. 装上分线勾 ⑦。
6. 装上送料牙 ⑥。
7. 装上针板 ⑤。
8. 装上压脚 ④。
9. 松开紧固螺钉 ⑨ 上下移动旋梭，直翻旋梭 ⑩ 与针板的间隙为，1.3 mm。
10. 旋紧紧固螺钉 ⑨。
11. 当将分线勾 ⑦ 按箭头指示方向推到底，松开紧固螺钉 ⑤ 左右移动分线勾 ⑦，使旋梭 ⑩ 与分线勾 ⑦ 的间隙为 0.2mm。
12. 旋紧紧固螺钉 ⑤。
13. 装上推板 ②。
14. 在旋梭床 ⑥ 的左右加 1-2 滴油。
15. 参照 38 页调节旋梭油量。
4. Return the machine head to its original position.
5. Install the opener ⑦.
6. Install the feed dog ⑥.
7. Install the needle plate ⑤.
8. Install the presser foot ④.

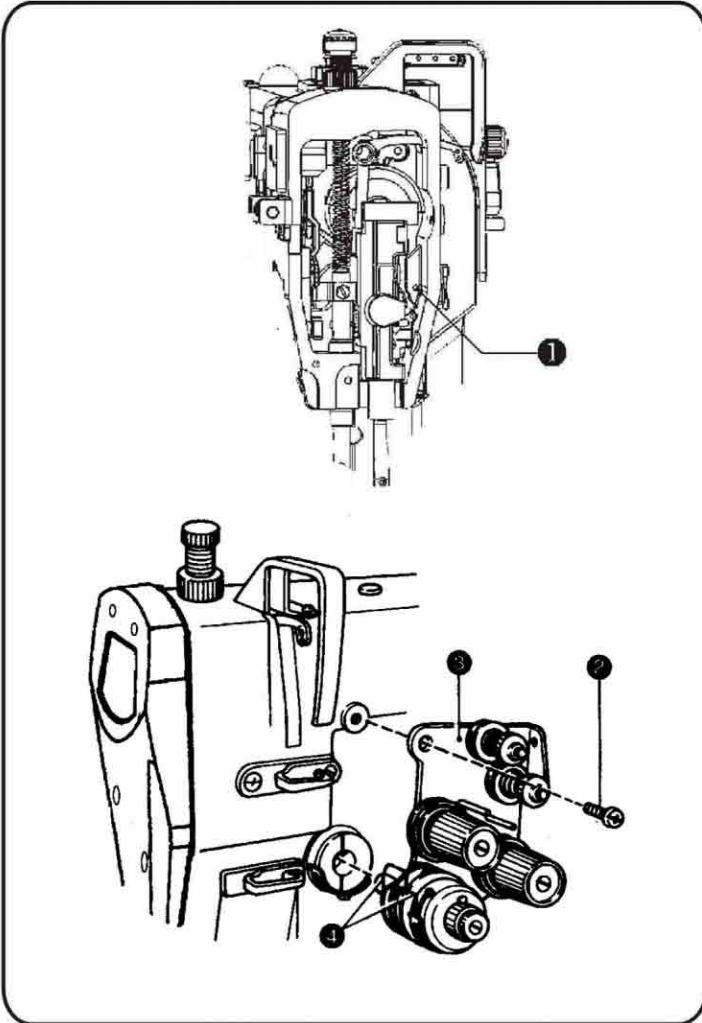
9. Loosen the setscrews ⑨ and move the rotary hook ⑩ up and down to adjust so that the clearance between the rotary hook ⑩ and the needle plate ⑤ is 1.3 mm.

NOTE: Do not turn the rotary hook while the set screws ⑨ are loosened, otherwise it will change the timing between the needle and the rotary hook.

10. Tighten the set screws ⑨.
11. Loosen the set screws ⑤ and move the opener ⑦ to the left or right to adjust so that the clearance between the rotary hook ⑩ and the opener ⑦ is 0.2mm when the opener ⑦ is pulled as far as it will go in the direction of the arrow.
12. Tighten the set screw ⑤.
13. Install the slide plates ②.
14. Add 1-2 drops of oil to the left and right rotary hook races ⑥.
15. Adjust the rotary hook lubrication amount while referring to page 38.

## 12-2. 更换夹线器组件

### 12-2. Replacing the upper thread tension assembly



#### ■ 更换

1. 打开面板
2. 松开螺钉①.
3. 松开螺钉②, 卸下夹线器组件③。

#### ■ 安装

1. 安上新夹线器组件③, 旋紧螺钉②.
2. 调节挑线簧④(参照31页).
3. 旋紧螺钉①。
4. 装上面板。

#### ■ Removal

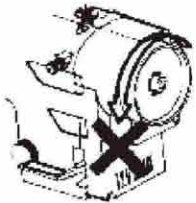
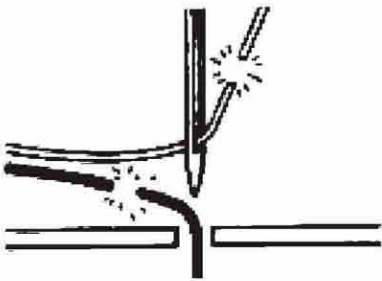

1. Open the face plate.
2. Loosen the screw ①.
3. Loosen the screw ② and then remove the upper thread tension assembly ③.

#### ■ Installation

1. Install the new upper thread tension assembly ③ and tighten it with the screw ②.
2. Adjust the tension of the thread take-up spring ④ (Refer to page 31)
3. Tighten the screw ①.
4. Close the face plate.

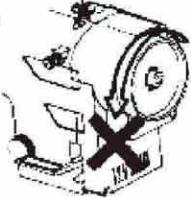
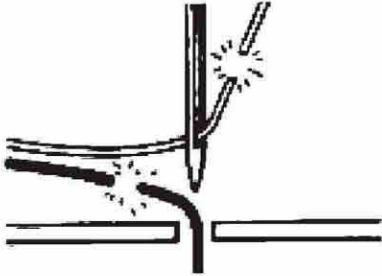

## 13. 故障排除表



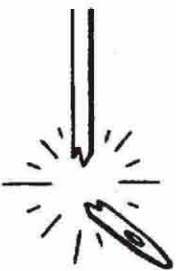
在打电话服务部进行维修前，一定要检查下列情况。

问 题	检 查	页数
1. 上轮不转。 	<ul style="list-style-type: none"> <li>● 没有电或是保险丝断掉？</li> <li>● 电线是否接好？</li> </ul>	8
2. 面线和底线断掉。 	<ul style="list-style-type: none"> <li>● 针尖是否弯曲、钝？ 如果是，请换机针。</li> <li>● 机针安装是否正确？ 如果不正确，请更正。</li> <li>● 穿线是否正确？ 如果不正确，请更正。</li> <li>● 旋梭油量如何？ 如果在油穿中油量线低于下参考线，请加油。</li> <li>● 旋梭内是否有锈或线头？ 请清理旋梭。</li> <li>● 夹线器太紧或太松？ 请正确调节。</li> <li>● 旋梭、送料牙或其它零件有无损坏？ 如果有，请加润滑油或更换损坏零件。</li> </ul>	13 13 16 11 22 21
3. 线迹不均匀。 	<ul style="list-style-type: none"> <li>● 压脚压力是否太小？ 请正确调节压脚压力。</li> <li>● 送料牙是否太低？ 请调高送料牙。</li> <li>● 梭心是否损坏？ 如果是，请磨掉毛刺或更换。</li> </ul>	21 23 14

## 13. TROUBLESHOOTING GUIDE




Be sure to check the following before calling an authorized service station.

Problem	Where to check	Page
1. Sewing machine pulley doesn't turn. 	<ul style="list-style-type: none"> <li>● Is a breaker or fuse blown.</li> <li>● Is the power cord disconnected.</li> </ul>	8
2. Needle thread and bobbin thread break. 	<ul style="list-style-type: none"> <li>● Is the needle tip bent? Is the needle tip blunt? If the needle tip is bent or broken, replace the needle.</li> <li>● Is the needle properly installed? If it is incorrect, install the needle correctly.</li> <li>● Is the machine properly threaded? If it is incorrect, thread the thread correctly.</li> <li>● Is the rotary hook properly lubricated? If the oil level is below the lower reference line in the oil sight glass, add more oil.</li> <li>● Is dust or thread in the rotary hook? Clean the rotary hook.</li> <li>● Is the upper thread tension too strong or too weak? Adjust the upper thread tension.</li> <li>● Is the rotary hook, feed dog or other part damaged? If they are damaged, smooth them with an oiled grindstone or replace the damaged parts.</li> </ul>	13 13 16 11 22 21
3. Seams don't match. 	<ul style="list-style-type: none"> <li>● Is the presser foot pressure too weak? Adjust the presser foot pressure.</li> <li>● Is the feed dog too low? Adjust the feed dog height.</li> <li>● Is the bobbin scratched? If the bobbin is damaged, smooth it with an oiled grindstone or replace it.</li> </ul>	21 23 14

问 题	检 查	页 数
<p>4. 跳 针。</p> 	<ul style="list-style-type: none"> <li>● 针尖是否弯曲或损坏? 如果是, 请换机针。</li> <li>● 机针安装是否正确? 如果不正确, 请更正。</li> <li>● 穿线是否正确? 如果不正确, 请更正。</li> <li>● 压脚压力是否太小? 请正确调节压脚压力。</li> <li>● 缝速是否太快? 检查皮带轮外径是否与缝纫相符。 如果不是, 请更换皮带轮。 ★ 不同的布料在最大缝速时仍可发生跳针, 所以更换薄点的布料为好。</li> </ul>	<p>13</p> <p>13</p> <p>16</p> <p>21</p> <p>2~5</p>
<p>5. 线迹太紧。</p> 	<ul style="list-style-type: none"> <li>● 穿线是否正确? 如果不正确, 请更正。</li> <li>● 挑线簧行程是否太小? 请正确调节。</li> <li>● 面线和底线张力是否太小? 请正确调节面线和底线张力。</li> <li>● 梭心是否损坏? 如果是, 请磨掉毛刺或更换。</li> </ul>	<p>16</p> <p>25</p> <p>20,21</p>
<p>6. 断 针。</p> 	<ul style="list-style-type: none"> <li>● 是否用手推送缝料或拉缝料? 如果针尖弯曲或断掉, 更换机针。</li> <li>● 机针是否对准送料牙针孔中心? 检查机针的下部, 如果机针未对准送料牙 针孔中心, 请对准。 [1842,1872] 如果针杆被转动, 请恢复正确位置。 小心</li> <li>● 粘在缝料中的断针相当危险。如果断针, 请找全所有断针 部分。</li> <li>● 此外, 我们建议不同缝料不同机型用不同机针。</li> </ul>	<p>32</p>

小心

- 如果问题2到6不是由于上述原因, 请检查机针与送料牙相位或机针与旋梭定位。
- 如果上述建议仍未解决, 请关闭电源与经销商联系。

Problem	Where to check	Page
<p>4. Skipped stitches</p> 	<ul style="list-style-type: none"> <li>● Is the needle tip bent? Is the needle tip blunt? If the needle tip is bent or broken, replace the needle.</li> <li>● Is the needle properly installed? If it is incorrect, install the needle correctly.</li> <li>● Is the machine properly threaded? If it is incorrect, thread the thread correctly.</li> <li>● Is the presser foot pressure too weak? Adjust the presser foot pressure.</li> <li>● Is the sewing speed too fast? Check whether the correct motor pulley (with the correct outer diameter) that matches the maximum sewing speed and frequency of your particular model and sewing specifications is being used. If it is not correct, replace the motor pulley.</li> </ul> <p>★ Depending on the type of material, skipped stitches may occur even when sewing at the maximum sewing speed is within the standard rated range. In such cases, reduce the operating speed by selecting a motor pulley that is one size smaller.</p>	<p>13</p> <p>13</p> <p>16</p> <p>21</p> <p>2,5</p>
<p>5. Poor thread tightening</p> 	<ul style="list-style-type: none"> <li>● Is the machine properly threaded? If it is incorrect, thread the thread correctly.</li> <li>● Is the thread take-up spring operating range too small? Adjust the operating range of the thread take-up spring.</li> <li>● Is the needle thread tension and bobbin thread tension too low? Adjust the upper and lower thread tension.</li> <li>● Is the bobbin scratched? If the bobbin is damaged, smooth it with an oiled grindstone or replace it.</li> </ul>	<p>16</p> <p>25</p> <p>20,21</p>
<p>6. Broken needles</p> 	<ul style="list-style-type: none"> <li>● Is the material being pushed with excessive force during sewing? If the needle tip is bent or broken, replace the needle.</li> <li>● Does the needle pass the center of the needle hole in the feed dog? Check the needle down position. If the needle does not drop into the middle of the needle hole in the feed dog, re-install the feed dog. [8420,8720] If the needle bar has been turned, turn it again to set it to the correct position.</li> </ul> <p><b>Caution</b></p> <ul style="list-style-type: none"> <li>● It is extremely dangerous to leave any pieces of broken needle sticking in the material. If the needle breaks, search for all pieces until the whole of the needle is found again.</li> <li>● Furthermore, we recommend that through steps be taken to account for such needle to comply with product liability regulations.</li> </ul>	<p>32</p>

**Caution**

- If problems 2 to 6 above are not due to the cause on the right, check the needle and feed timing, or the needle and rotary hook timing.
- If the above suggestions do not remedy the problem, turn off the power and contact the dealer of purchase.