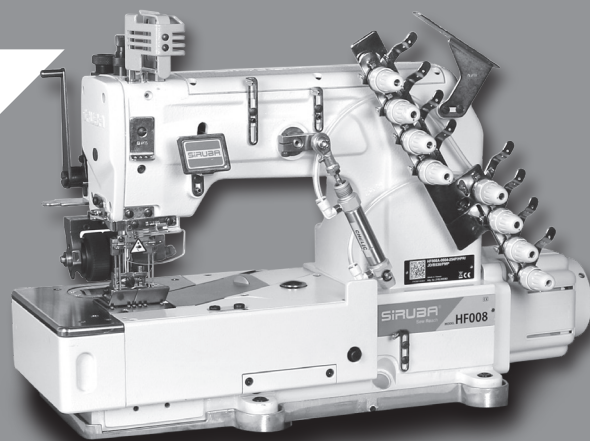


SIRUBA



使用説明書
INSTRUCTION BOOK

■ HF008A








CE

危險水準的說明 Explanation of Dangerous Level

 危險 Dangerous	<p>如果忽視此標記而運行了錯誤的機械操作，保養時肯定會引起當事者或第三者人員重傷或死亡。</p> <p>Don't ignore the warning sign and don't proceed incorrect operation. Or it will cause the person or the third party seriously injured or dead during maintenance.</p>
 注意 Caution	<p>如果忽視此標記而運行了錯誤的機械操作，保養時有可能會引起當事者或第三者人員受傷及造成設備損壞。</p> <p>Ignoring this warning sign and proceed incorrect operation will cause the person involved or the third party wounded and equipment damaged during maintenance.</p>

警告圖案表示及表示標誌的說明 Explanation of Warning Signs and Labels

警告圖案表示 Warning Sign		運動部位，謹防工傷事故 Moving part, beware of industrial accident
		高壓部位，謹防觸電事故 High voltage, beware of electric shock
		高溫部位，謹防燙傷事故 High temperature, beware of burns
指示標幟 Instruction Label		禁止 Prohibited
		地線的接線表示 Indication of ground wiring

索引	INDEX	頁 /PAGE
一般安全事項	GENERAL SAFETY INSTRUCTIONS	1
重要安全事項	IMPORTANT SAFETY INSTRUCTIONS	3
特別事項	WARNING	7
機器如何安裝	INSTALLATION OF MACHINE	8
潤滑油之注入與更換	LUBRICANT OIL FILLING AND REPLACEMENT	9
針之更換	REPLACE NEEDLES	10
穿線之方法	THREADING	11
控線之調整	HREAD TENSION ADJUSTMENT	12
針高度之調整	NEEDLE POSITION ADJUSTMENT	13
送具調整	FEED DOG ADJUSTMENT	14
縫距之調整	STITCH LENGTH ADJUSTMENT	14
護針片調整	NEEDLE GUARD ADJUSTMENT	15
針與勾針之時位關係	TIMING OF NEEDLES AND LOOPERS MOVEMENT	15
押具壓力強度之調整	ADJUSTING THE PRESSURE OF PRESSER FOOT	18
勾針線張力之調整	ADJUSTING LOOPER THREAD' S TENSION	18
後拉引輪調整	REAR PULLER ADJUSTMNET	19
後拉滾輪供給量之調整	ADJUSTING OF REAR PULLER FOR FEEDING LENGTH	20
上下滾輪間隙調整	ADJUSTING GAP OF TOP AND LOWER ROLLERS	20
桌板圖	TABLE CUT-OUT DIAGRAM	22
規格件表	GAGE PARTS LIST	26
零件圖	PARTS LIST	27

一般安全事項說明

GENERAL SAFETY INSTRUCTIONS

警告！

當使用這台機器，基本安全預防應恆被遵守，以減輕火災、電擊、或是個人傷害的風險。包含以下注意事項。
在操作這台機器之前，請閱讀所有說明並且緊記於心。

1. 保持工作場所清潔
雜亂的環境與椅子會招引危害。
2. 考量工作場所環境
勿暴露電源於雨水之中、勿在溼氣重的地方或潮濕的場所使用機械器具。保持工作場所良好整齊。當有引發火災或爆炸危險時，勿使用電源工具。
3. 免於電擊危害
避免身體接觸地線或是接地表面。(即：管線，發熱物體，以及冷凍庫)
4. 勿使孩童接近
不要讓訪客接觸工具或是延伸管線。
5. 適當的穿著
不要穿著寬鬆衣物或是穿戴珠寶，這可能被活動零件拉扯而導致危險。穿戴護髮套可包住長髮。
6. 不要任意拉扯電線
絕不要用電源端拉扯機器，或是從插座猛拉電線來拔掉電線。使電線遠離熱源、油類或是尖銳邊緣。
7. 謹慎保養機器
遵從指示來添加潤滑油或是更換附件。定期檢測工具用線，如果有所損害，請使用合格的維修器具來修復。

Warning!

When using this machine, basic safety Precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the followings. Read all these instructions before operating this product and save these instructions.

1. Keep work area clean
Cluttered areas and benches invite injuries.
2. Consider work area environment
Do not expose power to rain. Do not use machine tools in damp or wet locations. Keep work area well lit.
Do not use power tools where there is risk to cause any fire or explosion.
3. Guard against electric shock
Avoid body contact with earthed or grounded surfaces (e.g. Pipes, radiators, ranges refrigerators.)
4. Keep children away
Do not let visitors touch the tool or extension code.
5. Dress properly
Do not wear loose clothing or jewelry, they can be caught in moving parts. Wear protecting hair covering to contain long hair.
6. Do not abuse the cord
Never carry the machine by cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil, and sharp edges..
7. Maintain machine with care
Follow instructions for lubrication and changing accessories. Inspect tool cord periodically. If damaged, have it repaired by an authorized service facility.

8. 中斷機器電源

當不使用機器時、維修前、以及更換配件時。

9. 避免誤啟動

不要以手指置於啟動開關上之後，搬運一個已插入電源的工具。確定在插電之前，電源開關是關閉的。

10. 檢查損害零件

在進一步使用器具之前，應該小心檢查並確認損傷的零件或是穿戴保護器具來確認零件會正確運轉並且呈現應有功能。

11. 警告

除了在這本使用說明手冊中建議的功能之外，任何附件或是配件的使用，都可能會導致個人傷害的危險。

12. 由合格人員來修理器具

所以修理工作應由合格的人員使用原始個別零件來作修理。

連接電源的特別警示！

1. 只可與有 "CE" 認證的按壓啟動裝置連接這台機器。
2. 遵守此使用說明手冊來安裝控制裝置。
3. 在操作過程中，永遠保持機器適當的接地。
4. 在調整、更換零件、或是維修保養之前，必須確定將插頭由插座拔出，以預防任何機器意料之外的啟動而造成危害。

8. Disconnect machine

When not in use, before servicing and when changing accessories.

9. Avoid unintentional starting

Do not carry a plug-in tool with a finger on the switch. Ensure the power switch is off when plugging in.

10. Check damaged parts

Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.

11. Warning

The use of any accessory or attachment, other than those recommended in this instruction manual, may present a risk of personal injury.

12. Have your tool repaired by a

qualified person








Repairs should only be carried out by qualified persons using original spare parts.

SPECIAL WARNING FOR ELECTRIC CONNECTION!

1. Incorporate this machine only with "CE" certificate hold-to-run control device.
2. Follow the instruction manual device to install control device.
3. Always earth machine appropriately during operation.
4. Before adjustment, parts change or servicing must be sure to pull out the plug from socket to prevent the hazard of unintentionally start of machine.




重要安全事項說明

恭喜您購買本機器，為了使這台機器能獲得最佳功能以及安全的操作，務必請正確的使用這台機器，使用前請仔細閱讀使用說明書，希望您能長期使用它。請記得將此說明書放在容易取得的地方。

-  1. 當您使用機器時，除了以下事項外，請注意其他基本安全措施。
-  2. 使用機器前，除了本使用說明書外，請詳細閱讀其他相關說明書。此外，請妥善保存此說明書，以便需要時可以隨時取閱。
-  3. 先確認機器是符合貴國安全規定及標準後，再使用機器。
-  4. 當機器完成操作時，所有安全配備必須安裝就緒，在缺少所述安全配備下操作是不被允許的，以免導致人員受傷。
-  5. 此機器應由受過適當訓練之操作員操作。
-  6. 為了安全，我們建議您配戴安全眼鏡。
-  7. 以下情形，請先關閉電源或拔掉插頭：
 - (1) 穿針線、導線片、天平等以及更換梭子時。
 - (2) 更換針、壓具、針板、送具、頂針片、車布導板，以及其他附屬配件時。
 - (3) 維修工作時。
 - (4) 離開工作場所或工作場所無人看顧時。



IMPORTANT SAFETY INSTRUCTION


For operating safely and getting the best functions of this machine, you must operate it correctly. Please read and follow the instructions of this manual, and keep it at hand for future references. We are confident that you will enjoy this machine as much as we enjoy manufacturing it.


-  1. Instead of the following instructions, when you use this machine, please pay attention to the basic safety measures.
-  2. Before using this machine, please read this manual and all related instructions. In addition, please keep this manual for future needs.
-  3. Before using this machine, please ascertain that it conforms with safety standards and regulations of your country.
-  4. When the machine is ready for operation, all the safety equipments must be ready. Operate this machine without the specified safety devices is not allowed.
-  5. This machine must be operated by a properly trained operator.
-  6. For your own safety, we suggest you wearing goggles.
-  7. Please turn off the power switch or disconnect it for any one of the circumstances of the followings:
 - (1) When threading needle(s), adjusting thread Take-up(s), thread guide(s), and/or replacing bobbin(s).
 - (2) When replacing needles, presser feet, needle plates, feed dogs, needle guards, cloth guides and other parts or accessories.
 - (3) When repairing.
 - (4) When the operator leaves the working place or leaves the machine unattended.


(5) 若使用離合器馬達而無煞車片裝置時，必須待馬達完全停止。


(5) If clutch motors without brake pads are used, must wait until the motor stops completely.


 8. 假如不慎讓機器及配件使用之油或油脂，接觸到眼睛、皮膚或誤食時，請立刻以水清洗接觸部位及就診。



 8. If grease, oil, or any fluid contacts your skin or eyes by any chance, please wash the contacted area completely with clean water and consult a doctor. Or, swallow a ny fluid mistakenly, consult a doctor immediately.


 9. 請勿擅自碰觸運轉中之零件及配件及注意機器電源是否已開啟，以免導致人員受傷。


 9. Do not touch any functioning parts and devices. Always attend to whether power switch is on or off before operating in order to prevent anyone from getting hurts.


 10. 維修、修改及調整等工作，須由受過適當訓練的技師或熟手為之。維修時只許使用指定之零件。


 10. Qualified technicians are required for adjustment, modification, and repair. Only use assigned parts for replacement.


 11. 一般維修及檢查工作必須由受過適當訓練的人員為之。


 11. Routine maintenance and service must be performed by well trained persons, or qualified technicians.


 12. 電子零件維修及保養工作必須由資深的電子技師為之，或由非常熟練的人員檢查及指導，當發現零件損壞時，請立刻停止機器運轉。


 12. Maintain and check the electronic parts must be done by qualified electrician or well-trained persons. If any electronic part damaged or malfunctioned, stop the machine immediately.


 13. 在做裝有氣動式零件（例如氣缸）機器的維修及保養工作前，機器連接空壓機及高壓空氣必須予以關閉及卸除，機器中殘存高壓氣體必須予以消除，此外調整及性能檢查只能由受過適當訓練的技師或熟手為之。


 13. The air house has to be detached from the machine and the compressor or air supply has to be cut off before repairing and servicing the machine equipped with pneumatic parts such as an air cylinder. Qualified technicians or well-trained persons are required for adjustment and repairs.


 14. 機器使用一段時間，必須定期清理。


 14. To ensure the best performance, periodically clean the machine is necessary.

 15. 為使機器能正常操作以及減少噪音，機台務必平放地上，機器避免在強烈噪音的環境下操作。


 16. 選用適當的電源插頭，並由電子技師將其安裝在機器上，且插頭必須插在接地線之插座上。

 17. 機器只允許被使用於指定用途上，其他用途是不允許的。


 18. 修改或變更機器必須依照安全規定及標準，同時採取有效的安全措施或變更機器所引起損壞之責。


 19. 警告提示以兩種符號標示：


(1) 對操作員或服務人員之傷害危險，也為了避免觸電之危險，請勿打開馬達電器箱之外蓋，也不要觸摸電器箱裡面之零件。


 (2) 必須特別注意事項
a. 絕對不可在移動外蓋，手指保護蓋或安全配件後，進行機器操作，以免導致人員受傷。


b. 為了避免被機器纏住，當機器運轉中，您的手、頭髮及衣服，需遠離手輪；此外這些部位周圍不可放置任何物品，以免導致人員受傷。

 15. In order to operate properly and to reduce the noise, please place the machine flat and level on the ground. Avoid operating the sewing machine at a noisy surrounding.


 16. Select a proper power plug and install it by an electrician. Please connect the power plug to a grounded receptacle.

 17. This machine can only be used for the designed purpose. Other uses of this machine are not allowed.


 18. Any modification or conversion made on this machine must be conformed with the safety standards and regulations. Precaution is necessary. No responsibility will our company take for damages caused by any modification or conversion of this machine without permission.


 19. Two safety warning signs are applied as warning signs:


(1) For the safety of operators and service persons, please don't open the cover of any electronic control boxes of motor or other devices and don't touch any components inside to avoid electrical shock hazards.


 (2) Always keep in mind:
a. Please never operate this machine without outer cover, finger guard or any safety device to avoid physical injury.


b. Please keep your hair, fingers and clothes away from the hand wheel while the machine is in operation, as well as never put anything near these parts, to prevent the risk of injuries by tangled into them.


 c. 當您打開電源開關後或機器已在運轉中，絕不可將您的手放在針的下方或針線控線桿外蓋中，以免導致人員受傷。


 d. 當機器運轉中，梭頭高速轉動，為了避免對手可能引起之傷害，必須確定您的手保持遠離梭頭附近。此外，當更換梭子時，確定電源開關已關閉，以免導致人員受傷。


 e. 當放置或抬起機器時，小心勿將手置於機器中，以免導致人員受傷。


 f. 為了避免機器突然啟動而引起可能意外，當機頭傾斜時，請關掉機器電源，以免導致人員受傷。


 g. 如果您的機器是配置伺服馬達，機器於靜止狀態時，馬達是不會產生噪音的，為了避免機器突然啟動而引起可能意外，故請關掉機器電源。


 h. 為了避免觸電之危險，請絕不要在移開電源接地線後操作機器。


 i. 為了避免觸電或電子零件損壞而引起之可能意外，請先切斷電源，再插上或拔掉插頭。


 c. Please never put your fingers under the needle(s) or in the thread take-up cover to prevent physical injuries when you turn on the power switch or operate the machine.


 d. While the machine is in operation, the hook rotates at a high speed. Please keep your hands away from the area of hook to prevent any potential injury to your hands. In addition, please make sure to turn off the power of the machine while changing bobbins.

 e. Be careful and do not place your fingers inside the machine when placing or lifting the machine head to avoid possible physical injuries.

 f. Please turn off the power before tilting the machine head to avoid possible accidents due to abrupt start of this machine.

 g. For machine equipped servo motors, the motors do not produce noise while the machines are at rest. Therefore, please turn off the power of this accidents due to abrupt start of the machine.

 h. Never operate the sewing machine after the ground wire is removed to avoid electrical shock hazards.

 i. Please turn the power switch off before connecting or disconnecting the power plug to prevent possible accidents due to electric shock or damaged electronic components.

特別事項

WARNING

為了避免機器故障及損壞，請先確定以下事項：







-  1. 當您安裝好機器後，做第一次機器操作前，請徹底清潔機器。
-  2. 清除運送途中累積之灰塵及溢出之油脂。
-  3. 確定電壓及馬達相數（單相或三相）安裝正確。
-  4. 確定電源插頭正確地接上電源。
-  5. 當使用電壓與標示電壓不同時，請勿使用機器。
-  6. 確定機器轉動方向是否正確。



警告：

在操作或調整本書中所提到之各步驟前，請先將電源關掉，以免因為機器突然啟動造成之意外。

Please confirm the followings to avoid malfunction or damage to this machine.

-  1. After installing the machine, and before the first operation, please clean it completely.
-  2. Clean all dust and overflowed oil during transportation.
-  3. Confirm that the voltage and the phase (single or 3 phase) of motor are set correctly.
-  4. Confirm that the power plug is correctly connected to the power supply.
-  5. Never use the machine when the local voltage type is different from the marked voltage on the nametag attached on the machine.
-  6. Confirm that the rotating direction of the machine pulley is correct.

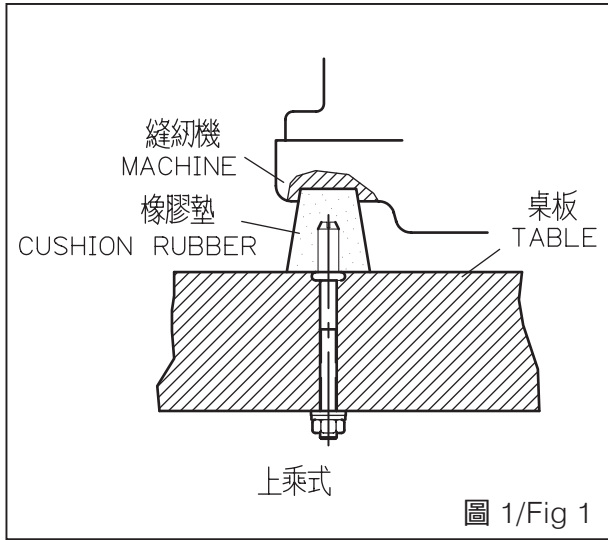


Warning:

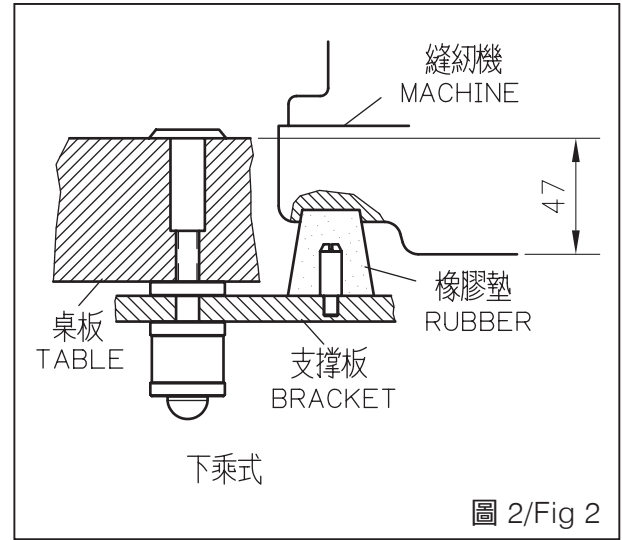
Before doing any operation or any adjustment described later in this manual, please turn the power off to prevent accidents caused by abrupt start of the sewing machine.

機器如何安裝

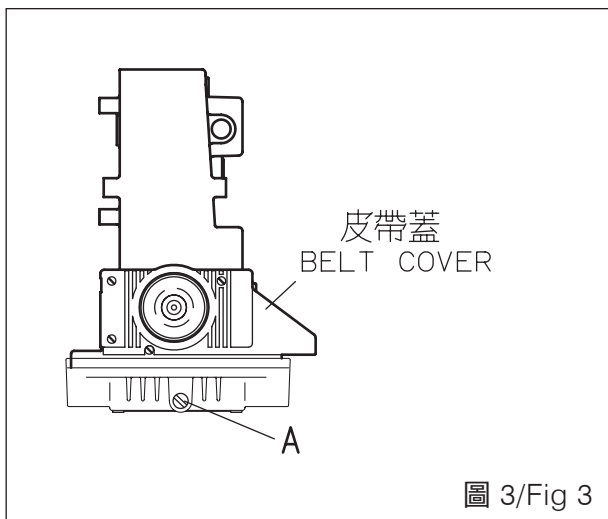
INSTALLATION OF MACHINE



1. 依本機器所附桌板裁製圖及零件組合圖所列之配件，依序安裝防震機座及線架。(圖 1.2)

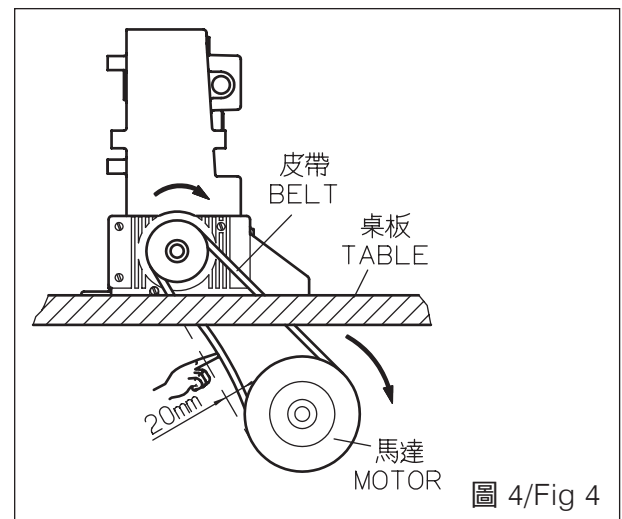


1. With reference to diagrams for table cutting and mounting parts list, install rubber cushion and thread stand in sequence. (Fig. 1.2)



2. 馬達之轉向為順時針方向，皮帶之鬆緊度以用手指能向內壓 20mm 為宜，同時為安全起見請皮帶蓋必須鎖上。(圖 3.4)

3. 皮帶輪及縫合轉速，請參照 (表 1)。



2. Motor should turn clockwise with proper tension for driving belt. It can be checked by pushing belt inward for 20mm. Please install belt cover properly for safety purpose. (Fig. 3. 4)

3. Motor pulley size and sewing speed, please refer to (Table 1).

馬達轉速 / 分 Machine Speed(s.p.m)	馬達皮帶輪的外徑 Motor Pulley Outer Diameter (mm)	
	60Hz	50Hz
4500	Ø90	Ø105
4000	Ø80	Ø95
3500	Ø70	Ø85

表 1/Table 1

注意：

1. 使用新機器最初一個月運轉速度約為最高速，之 80%，並請選擇正確的馬達皮帶輪尺寸 (表 1)。
2. 桌板厚度約 45mm。
3. 馬達規格：離合器馬達，3 相 2 極 400 瓦 (1/2HP)。
電源電壓及周波數依當地規定 110 220 380V 或其他額定電壓。
4. 皮帶規格：M 型 V 字皮帶。

Remarks：

1. New machines run a speed at approximately 80% of the Maximum speed in the first month (Table 1). Be sure to choose proper motor pulley for your machine.
2. Thickness of Table Top is about 45mm.
3. Specification of motor : Clutch motor 3 phase, 2 poles, 400w (1/2 HP).
Power source, voltage and cycle are regulated by territory including 110, 220, 380V or other appointed voltages.
4. Driving Belt: M type, V belt.

潤滑油之注入與更換

LUBRICANT OIL FILLING AND REPLACEMENT

新機器運裝前均已將油倒盡，因此機器使用前必須加入潤滑油。

Machine chamber is empty with no oil. Please fill lubricant oil into new machines before running.

1. 潤滑油之注入：(圖 5.6)

- * 將 (A) 旋開，以包裝箱內所附之超高速潤滑油或選用 MOBIL#10 或 ESSO#32 等級之潤滑油加入，直至油窗 (C) 內之二油標線中間即可，然後再鎖緊 (A)。

1. To fill lubricant oil: (Fig. 5.6)

- * Loosen Knob (A), fill in with lubricant oil or its equivalent such as Mobil #10 or Esso #32. Please fill the oil up between two level lines on oil Indicator (C) and tighten Knob (A) up.

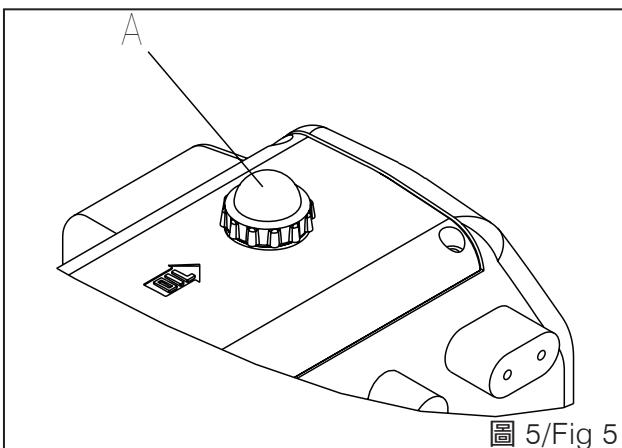


圖 5/Fig 5

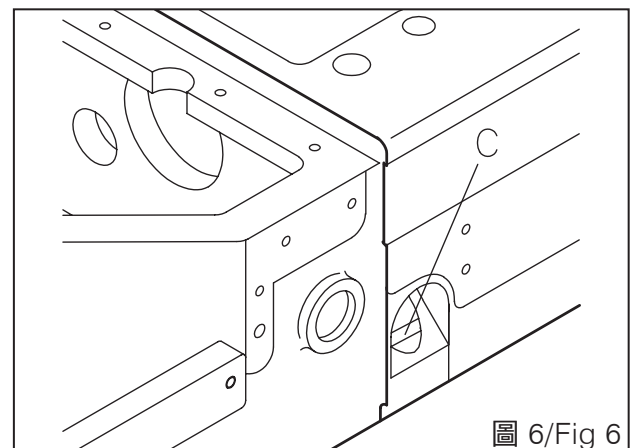


圖 6/Fig 6

2. 潤滑油之更換：(圖 3)

- * 將螺絲 (A) 鬆開，使油槽之油完全排出後再鎖緊。
- * 為延長本機器之壽命，請於開使用四星期後更換新油，爾後約四個月更換一次。

2.To replace lubricant oil : (Fig. 3)

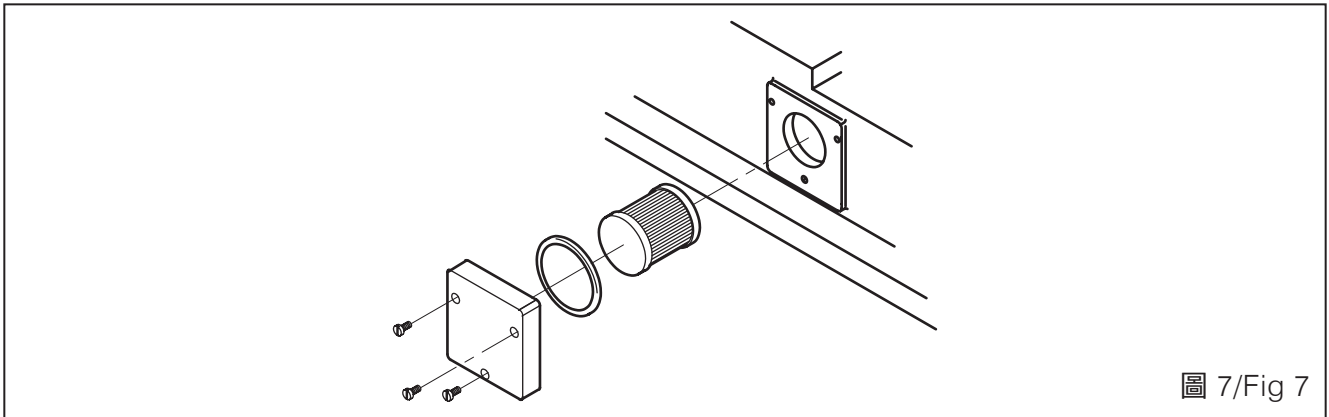
- *Loosen screw (A), drain oil from the oil tank & tighten it up.
- *To extend the life of machine, please replace lubricant oil after the first 4 weeks operation. Thereafter, replace oil every 4 months.

3. 濾油器之更換：(圖 7)

- * 本機器特別裝有濾油器，約每使用一個月後應卸下清洗，必要時得更換新品。

3.To replace oil filter : (Fig. 7)

- *Take filter out and clean up very month. Replace with new filters if necessary.



針之更換

REPLACE NEEDLES

布料種類 type of fabric	針規格 needle system		針號 needle size
薄 . 中厚布料 fine,medium	EQUIVALENT SYSTEM	UY128GS	#80 ~ #110
	ORGAN	UY128GAS	#12 ~ #18
厚 . 極厚布料 heavy,extra heavy	EQUIVALENT SYSTEM	62*53	#130
	ORGAN	TV * 5	#21

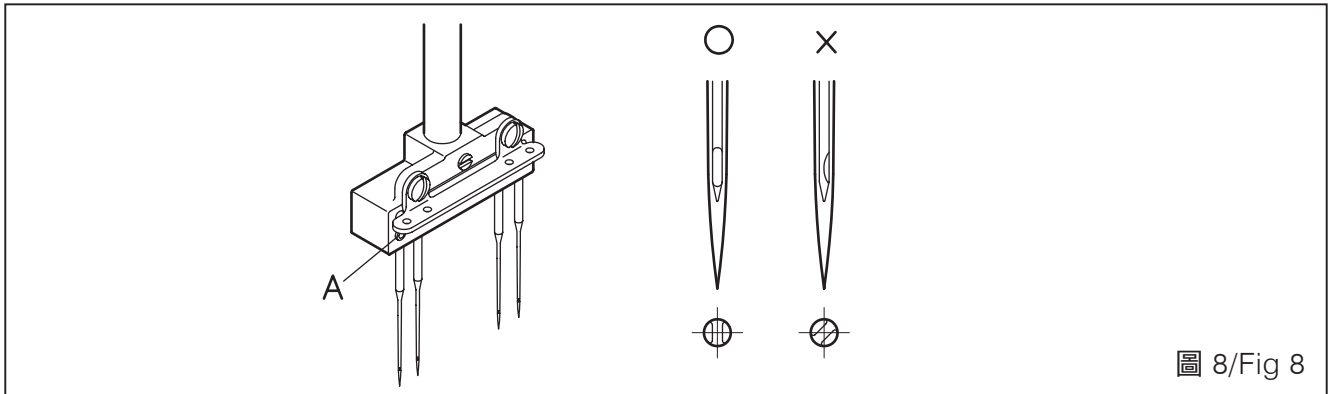
表 2/Table 2

* 選用針之規格與尺寸請參照 (表 2)

*Please refer to (Table 2) for proper needle sizes.

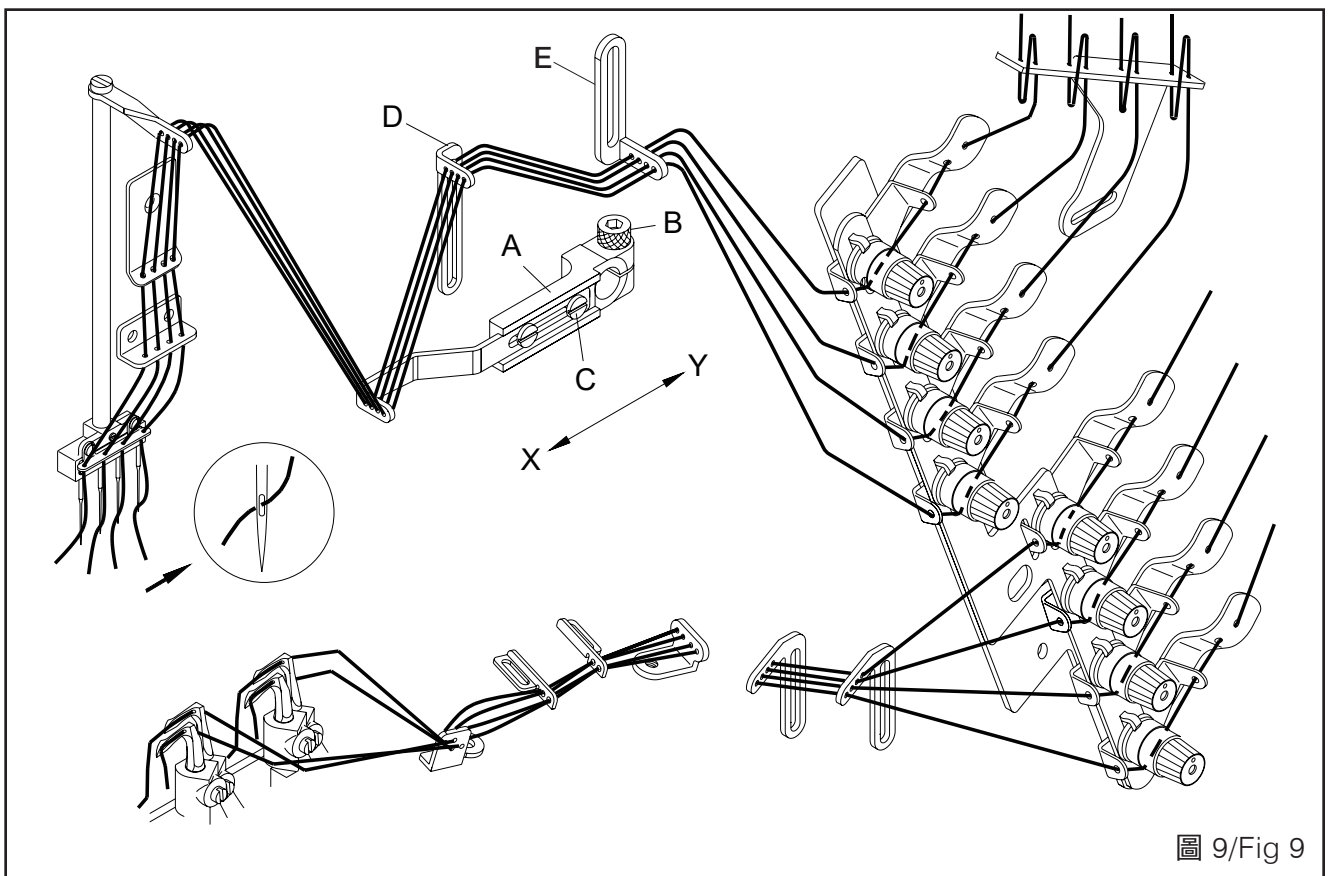
1. 旋鬆螺絲 (A) 並取下針。(圖 8)
2. 將新針插入針座之針孔至最底端，並使針之長溝面向自己。
3. 重新鎖緊螺絲 (A)。
4. 如果針安裝不正確，不但會引起跳針，斷線，還會損壞勾針，務必注意。

- 1.Loosen Screw (A) and take out the used needle. (Fig. 8)
- 2.Put new needle into the needle clamp holes as far as they can go. The groove of needle should face yourself.
- 3.Tighten Screw (A).
- 4.Improper needle setting will cause skipping stitches, breaking threads, and damaging loopers. Please pay attention to needle installation.



穿線之方法

THREADING



1. 請確實按照圖示之穿線，錯誤之穿線將引起斷線，跳針或車縫不平坦等現象，請參照穿線圖。(圖 9)
2. 在穿勾針線時，打開前蓋 (A) 旋轉手輪，將針轉至最高點後再將勾針座心軸控制壓扭 (B) 沿箭頭方向壓入，使勾針座心軸與帶動連桿分離，然後將勾針座 (C) 向前扳出，即可進行穿線。(圖 10)

1. For needle threading, please thread carefully as. (Fig. 9) Please note: improper threading will cause breaking threads, skipping stitches, and / or undesired sewings.
2. For looper threading open front cover (A), turn handle wheel till needles at the heightest point and press (B) as illustrated to let the looper base separate from the connecting rod then move (C) forward and proceed to threading (Fig. 10)

控線之調整

THREAD TENSION ADJUSTMENT

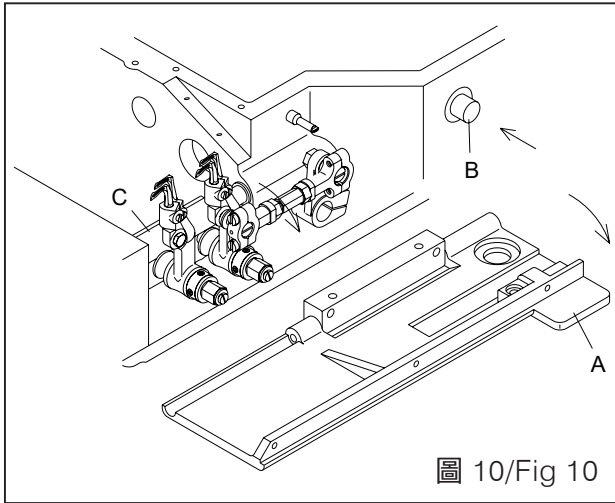


圖 10/10

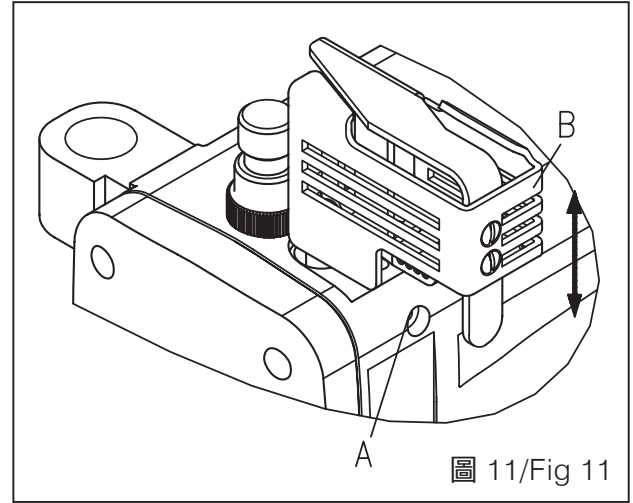


圖 11/11

1. 控線強弱必須根據車縫布料種類，厚薄，線及縫距等不同，而做不同之調整。(圖 9)
2. 將控線鈕順時針方向旋轉時，線越緊，線張力越大；反之則越鬆，線張力越小；張力超過規格強度時將會引起斷線和跳針現象。
3. 調整線張力依據使用之線與布面不同，例如：
需調整較大之線張力 - 厚布或棉線。
需調整較小之線張力 - 薄布或伸縮尼龍線。
4. 針控線桿之調整 (圖 11)
針線控線桿 (B) 依縫線使用種類來選擇使用之狀態，放鬆螺絲 (A) 將 (B) 上下移動調整，在使用伸展性大的縫線時，將 (B) 上移，則針孔處之線環就會變大，以利勾線。
5. 轉動手輪使針棒位於最低位置時，針線控線桿 (A) 必須成水平狀態，必要時要放鬆螺絲 (B) 調整之。(圖 9)

1. Thread tension should be adjusted in according to fabrics, thickness of fabrics, material, thread used and stitch length etc. (Fig. 9)
2. Turn thread-knob clockwise for increasing thread tension and vice versa. It will be thread breaking & skipping if the thread tension excess standard.
3. Adjust the tension of thread according to the kind of thread and fabrics, Ex :
Increasing thread tension - Heavy weight fabric or Cotton thread.
Decreasing thread tension - Light weight fabric Elastic Nylon thread.
4. Take-up lever adjustment (Fig. 11)
The position of Needle Thread Take-up Lever (B) is adjustable according to thread used. Loosen screw (A), move Lever (B) up and down for the optimum position. For instance, when using high extension thread, move Lever (B) upward and vice versa.
5. Turn hand wheel till needle at its lowest location, needle thread take-up lever (A) could be horizontal by loosen screw (B) to adjust it if necessary. (Fig. 9)

6. 針線控制桿之調整：(圖 9)

- 將螺絲 (C)，鬆開，左右移動至適當距離。
- 欲將針線調鬆時，將控線桿 (A) 往 X 方向移動，反之則往 Y 方向移動。
- 控線片 (D)(E) 上下調整亦有同調整 (A) 控線桿之效果。

6. The procedures for adjusting of needle thread take-up lever: (Fig. 9)

- Loosen Screw (C), move to left or right till a proper position.
- To loosen thread, move tension post (A) toward direction X, oppisite direction Y to tighten thread.
- By moving thread tension (D)&(E) up and down has similiar effect as needle tension post (A).

針高度之調整

NEEDLE POSITION ADJUSTMENT

- 當針棒升至上死點時，調整針尖與針板面之距離為 Q (mm)，如 (表 3/圖 12) 所示。

- Needle tip should be Q (mm) height from Needle Plate when Needle Bar moves to its upper dead point. (Table 3 / Fig 12)

機型 /model	Q (mm)
02064P	7.5
03064P	11
03071P	11
04085P	11
04095P	11
0464-254P	11.2
0464-191P	11.2
0448-254P	11.2
0664-254P	11.2

表 3/Table 3

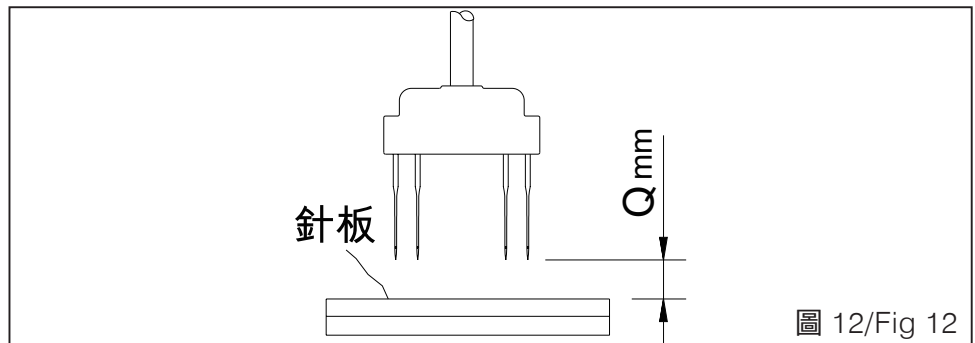


圖 12/Fig 12

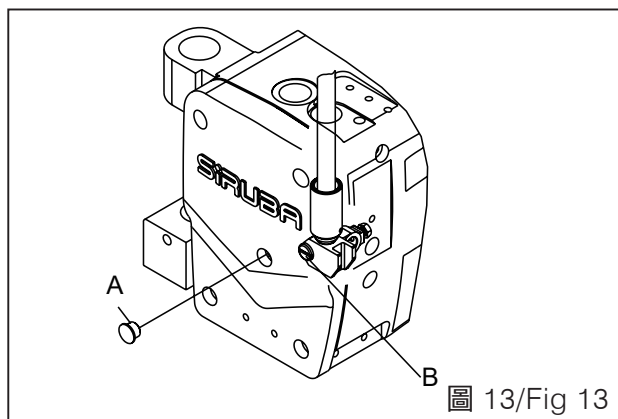
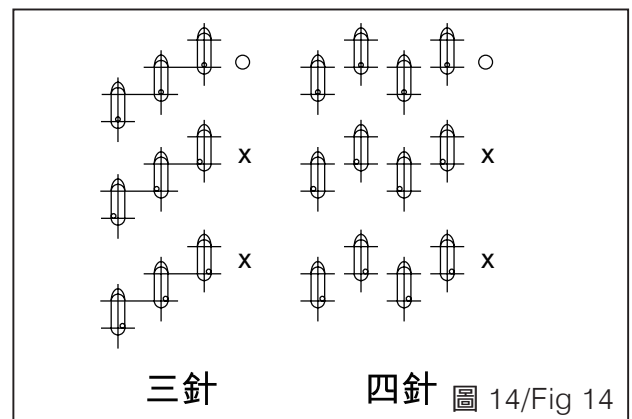


圖 13/Fig 13

- 打開上方之側蓋橡膠塞 (A)，並鬆開螺絲 (B)，上下調整針棒之高度後再固定之 (圖 13)。



三針 四針 圖 14/Fig 14

- The position of Needle Bar can be adjusted : Removing Rubber Cap (A) and loosening Screw (B), moving Needle Bar up and down, to proper position and tightening Screw (B), and insert in Cap (A). (Fig. 13)

Remark:

Be sure that every needle goes through the center of needle holes on Needle Plate. (Fig. 14)

注意：經過調整後，必須再確認每一根針是通過針板的針孔中央 (圖 14)。

送具調整

FEED DOG ADJUSTMENT

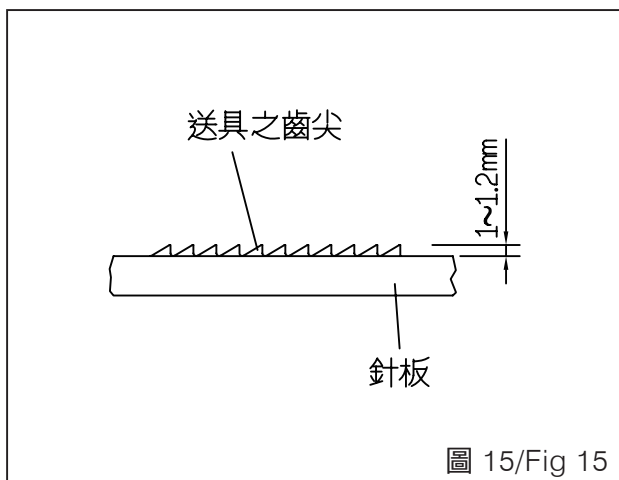


圖 15/15

送具 (C) 升至上死點時，送具齒尖面與針板面之距離為 1.0-1.2 mm (圖 15)。

調整時：(圖 16)

1. 放鬆送具 (C) 固定螺絲 (A)。
2. 上下移動送具 (C) 使符合上述條件時，再鎖緊螺絲 (A)。

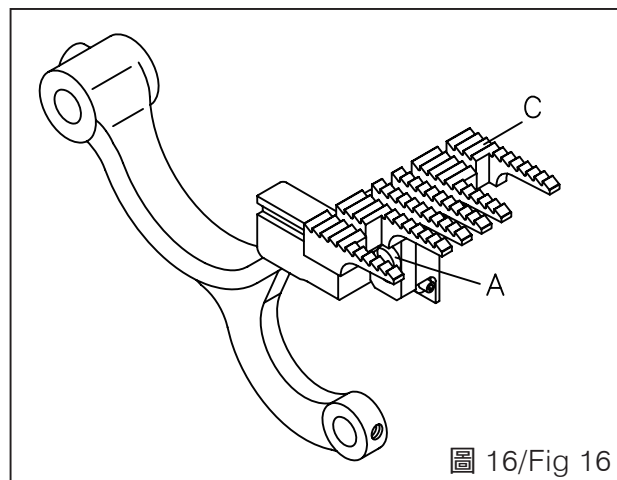


圖 16/16

When Feed Dogs (C) move to the upper dead point, the distance from the tips of feed dogs to the face of needle plate is 1.0-1.2 mm. (Fig. 15)
For adjustment : (Fig. 16)

1. Loosen Screw (A) on Feed Dog (C).
2. Move Feed Dog (C) up or down to meet above requirement then tighten Screw (A).

縫距之調整

STITCH LENGTH ADJUSTMENT

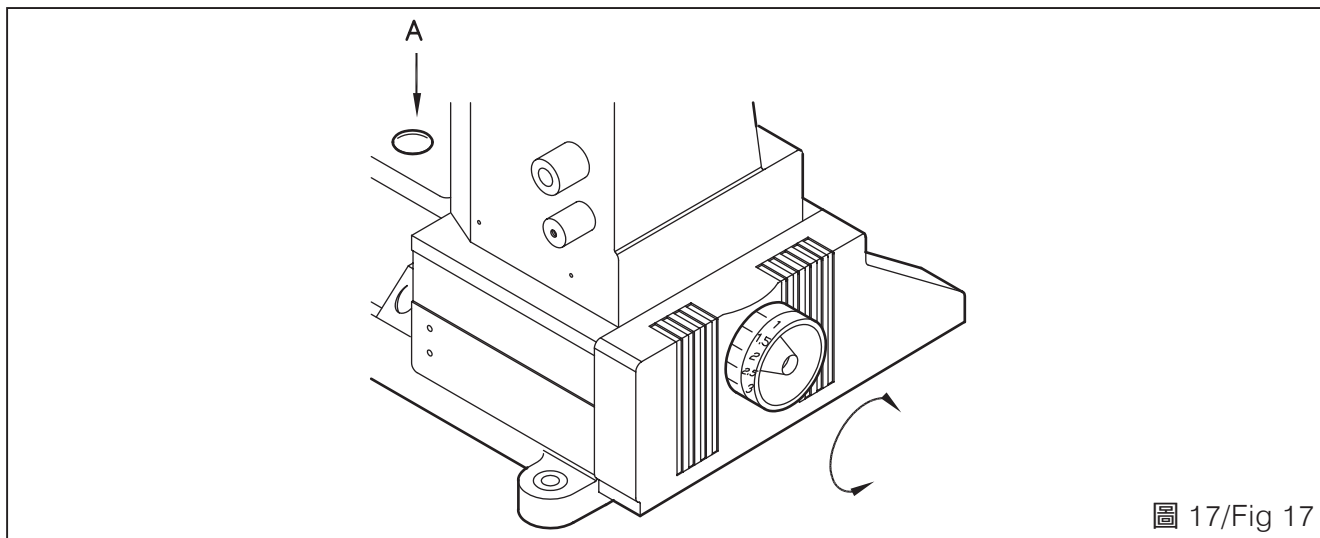


圖 17/17

首先確認馬達需關掉，然後壓下縫距調整按鈕 (A)，並轉動皮帶輪，會感覺卡一聲，即按鈕卡住針距調整組，再轉動皮帶輪至所需之縫距，欲調長縫距時，將皮帶輪往順時針方向旋轉，反之則小，再放開此按鈕。(圖 17)

Be sure to turn off motor before adjust. push stitch length Regulator Button (A) and turn pulley until the button lock in the stitch regulator. Then, turn pulley again to reach desired stitch length. Turn pulley clockwise for longer stitch length, vice versa. Then, release the button. (Fig. 17)

護針片調整

NEEDLE GUARD ADJUSTMENT

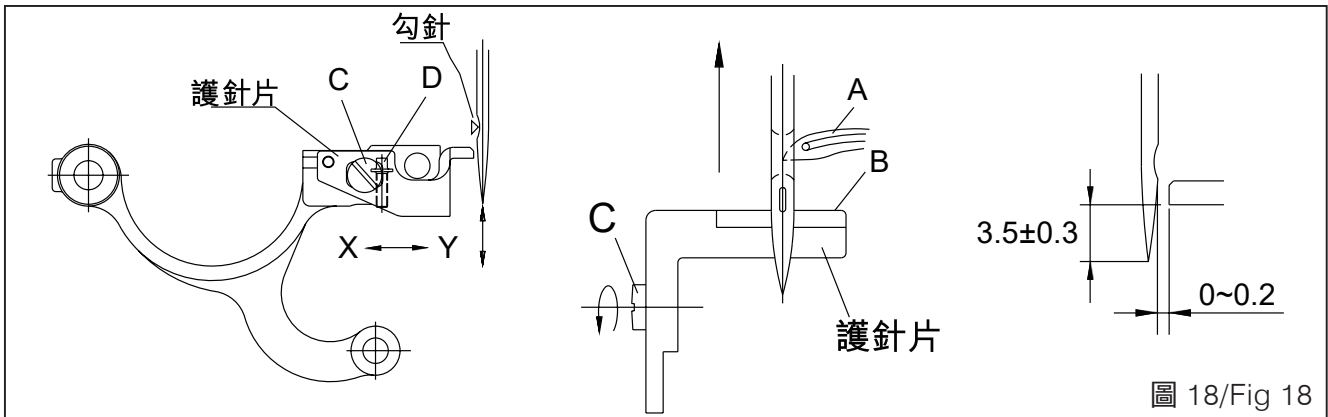


圖 18/ Fig 18

1. 如 (圖 18) 所示，以最大針為基準進行調整，當勾針 (A) 由右往左移，針由下往上時，護針片 (B) 與針凹槽下緣凸起處，距離約為 0~0.2mm，而針尖與護針器下緣距離為 3.5 ± 0.3 mm。

2. 護針片調整步驟如下：

- * 鬆開螺絲 (C) 往 X 或 Y 方向移動前後位置。
- * 旋轉螺絲 (D) 可控制護針片上下位置順時針旋轉則下降，反之則上升。
- * 調整至圖示位置時，再鎖緊螺絲 (C)。

1. As Demonstration in Figure 18, the adjustment is operated under the biggest needle specification. When the looper (A) moves from right to left, and needle shift from top to bottom, the distance between needle guard and convex of needle concave is about 0-0.2mm, and the distance between needle peak and bottom of needle guard is 3.5 ± 0.3 mm.

2. Procedures to adjust Needle Guide :

- * Loosen Screw (C) and move forward/backward as per direction X、Y.
- * Turn Screw (D) till able to control the up-down position of the needle guide, the needle will lower when turned clockwise and the opposite is upper.
- * Tighten Screw (C) after adjusted to proper position.

針與勾針之時位關係

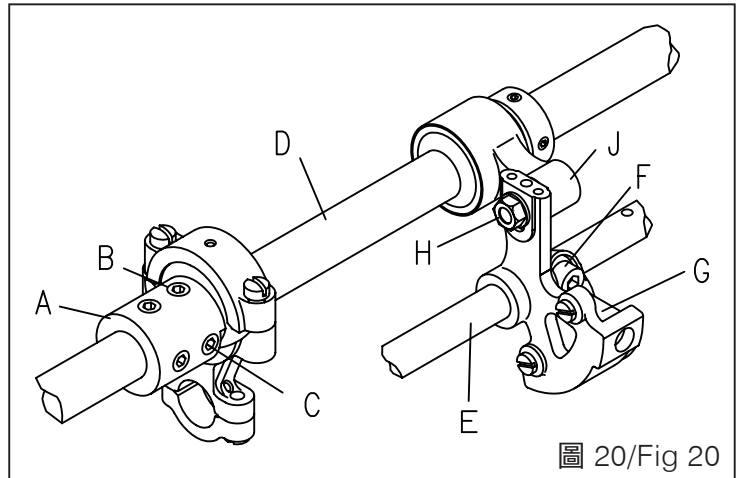
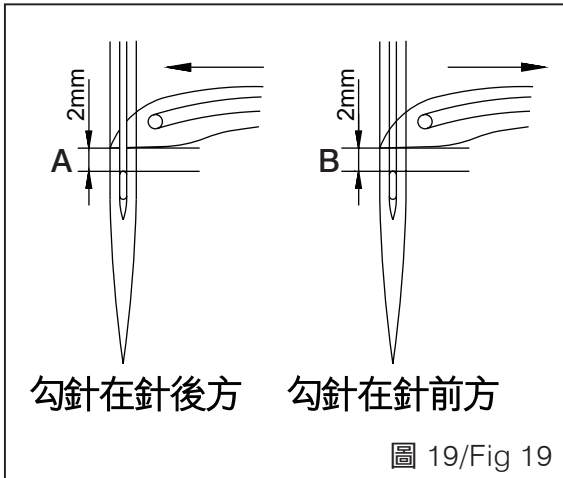
TIMING OF NEEDLES AND LOOPERS MOVEMENT

勾針針尖與針孔之會合正確時位關係

以最大針為基準進行調整，當勾針由右死點往左移至針後方左緣時，勾針尖與針孔上方距離 (A) 與勾針由左死點往右回移至針前方左緣時，勾針尖與針孔上方之距離 (B) 均相等時，此時即正確之時位關係 (圖 19)。

CORRECT TIMING BETWEEN THE LOOPERS TIP AND NEEDLE'S EYE

The adjusting bases on the biggest needle specification. The looper moves from dead right side forward behind the needle, approach to the left side of needle the distance between looper's tip and needle's eye (A), and then, the looper backward front the needle approach to the left side of needle, the distance between looper's tip and needles' eye (B). When $A=B$, the timing is correct. (Fig. 19)



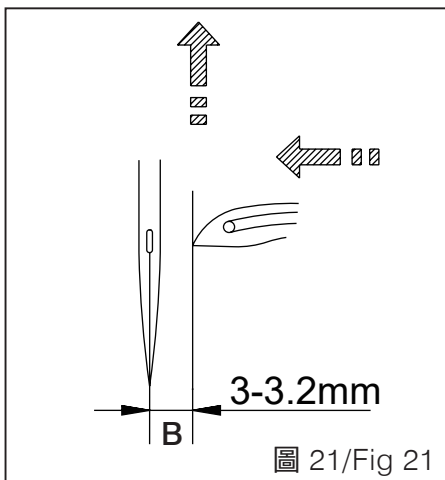
調整時：(圖 20)

1. 打開蓋板 HA14。
2. 旋轉手輪使勾針移至右死點。
3. 將偏心輪 (A) 之螺絲 (B)、(C) 稍放鬆。
4. 欲加快勾針移動時間，則將手輪逆時針轉動，反之則順時針轉動。
5. 確認車針與勾針之時位關係是否正確。
6. 依上步驟調整至正確位置再鎖緊螺絲 (B)、(C)。
7. 螺絲孔 (B) 鎖定，在心軸 (D) 上之凹槽為定位基準。
8. 時位關係在出廠時已調整好，若非必要請勿調整 (D) 之位置。

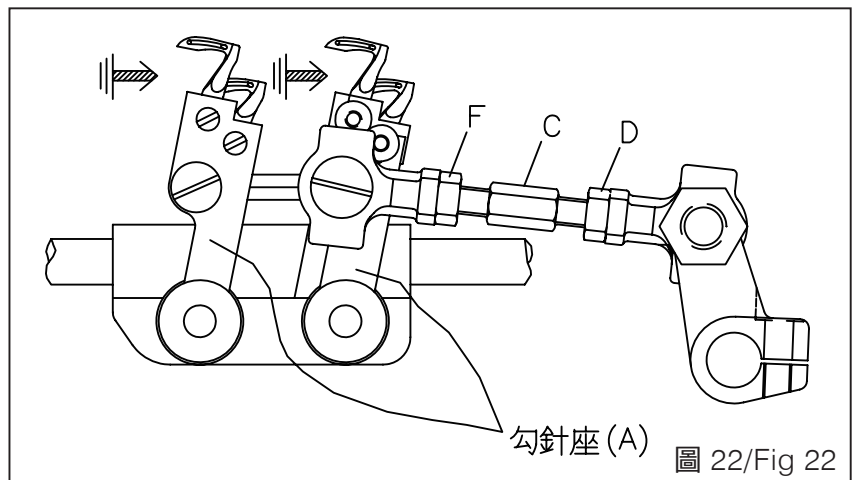
Adjusting procedures: (Fig. 20)

1. Open Cover HA14.
2. Turn Handle Wheel to let Looper move to right dead point.
3. Loosen Screws (B)、(C) on eccentric (A).
4. To increase Looper approach movement, turn handle wheel counter-clockwise, if to decrease, turn clockwise.
5. Make sure the Needle and Looper timing is correct.
6. After correct adjustment, tighten Screws (B)、(C).
7. Screw Hole (B) is set as basic point, the groove on shaft (D) is for setting place.
8. Timing has been set up already, please do not adjust Shaft (D) unless necessary.

勾針左右運動調整



ADJUSTING LOOPER MOVEMENT



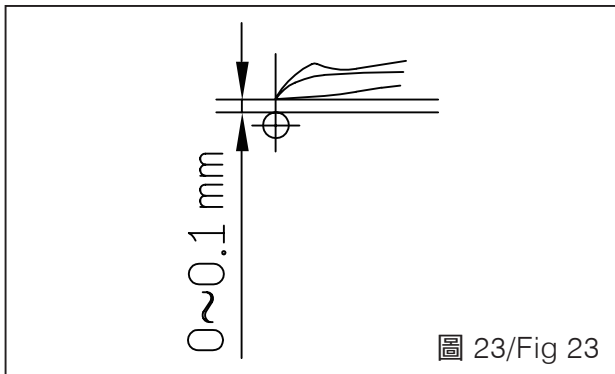
勾針位於右死點時，勾針針尖至車針側右緣之距離 (B) 為 3~3.2 mm (圖 21)。

The distance (B) between looper's tip and the right side of needle is 3~3.2 mm. (Fig. 21)

調整時：(圖 22)

1. 旋轉皮帶輪，使勾針位於右死點位置。
2. 放鬆連桿固定螺絲帽 (F)、(D) 轉動連桿 (C)，調整從車針的外徑右緣至勾針尖端的距離為 3~3.2 mm。
3. 然後鎖緊螺絲帽 (F)、(D)。

勾針與針會合間隙調整



勾針由右往左移至針後方中心時，勾針針尖與針間隙為 0-0.1 mm，但不可碰觸到針 (圖 23)。

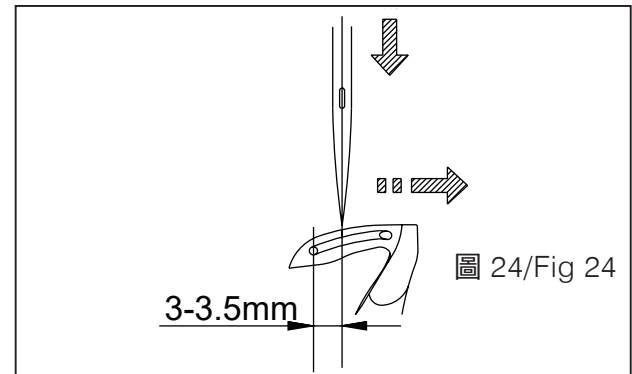
調整時：

1. 將勾針軸帶動連桿 (G)，固定螺絲 (F) 放鬆，如 (圖 20)。
2. 前後移動勾針座，使車針後側與勾針尖端的間隙小於 0.1 mm，如 (圖 23)。後旋緊固定螺絲 (F) (此時勾針在針後側位置)。
3. 當勾針從左死點開始向右回移的同時，車針也從上死點開始向下移動，此時應確認車針尖端與勾針背緣相接觸時的位置。從勾針尖端至針中心的距離為 3~3.5mm。(圖 24)
4. 勾針前後之擺幅調整，可將螺帽 (H) 放鬆，將連桿 (J) 上調，擺幅減少；反之增多。調整後再鎖緊。(圖 20)
5. 車縫時因布料之厚薄，選用針之粗細各異，勾針之運動可由上述來調整。

Adjusting procedures：(Fig. 22)

1. Turn Pulley to let Loper at right dead point.
2. Loosen nut (F)、(D) of Connecting Rod (C) to adjust the distance to 3~3.2 mm from Needle right side border to Loper's tip.
3. Tighten nut (F)、(D).

THE GAP BETWEEN LOOPER'S TIP AND NEEDLE



When Loper moves from right left-ward behind the Needle center, the gap between Loper's tip and Needle is 0~0.1 mm, don't touch needle. (Fig. 23)

Adjusting procedures：

1. Loosen Connecting Rod (G) and Tighten Screw (F). (Fig. 20)
2. Move Loper holder Clamp forward and backward to make sure the distance between Loper's tip and needle less than 0.1 mm. Then tighten Screw (F). (Fig. 23)
3. When looper moves from dead left to right, at the same time, needle also shift from peak to bottom. We must ensure the position where needle peak contacts to edge of looper. The distance between peak of looper and center of needle is 3-3.5mm (Fig.24)
4. The adjustment of looper's back and forth swing range. Loosen the screw nut and arise the shaft, then swing range will be shortened. Opposing way is to increase the range. Lock the nut after adjustment is finished.
5. Loper movement can be adjusted according to the thickness of fabric or the size of Needle.

押具壓力強度之調整

ADJUSTING THE PRESSURE OF PRESSER FOOT

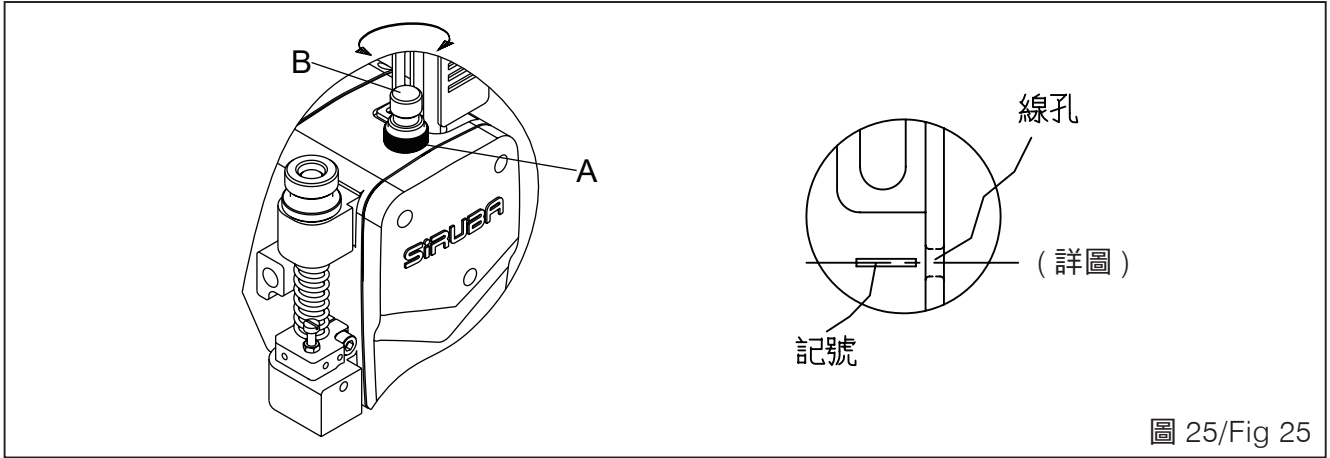


圖 25/ Fig 25

在布料推送順暢且縫合完美之情況下，押具壓力儘量輕些。

* 鬆開螺母 (A)，轉動螺絲 (B)，調整其適當壓力後再鎖緊螺母 (A)。(圖 25)

* 順時針調整則壓力加強，反之則減少。

Pressure of the Presser Foot should be as light as possible, in the condition of cloth can be feeded smoothly and sewed perfectly.

* Loosen Nut (A), turn Screw (B) to adjust to proper pressure, then tighten Nut (A). (Fig. 25)

* Adjust clockwise to increase pressure, opposite to decrease.

勾針線張力之調整

ADJUSTING LOOPER THREAD'S TENSION

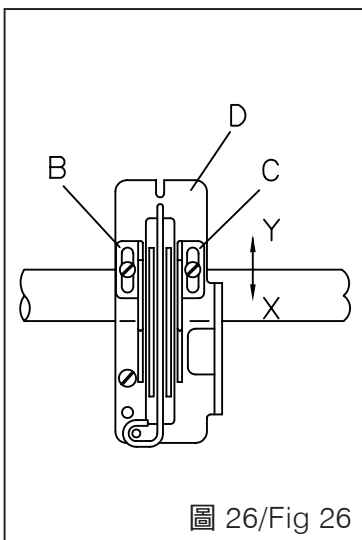


圖 26/ Fig 26

1. 勾針控線片 (B)、(C) 之線孔與支撐板 (D) 上的記號成一直線時為標準位置 (圖 26)。

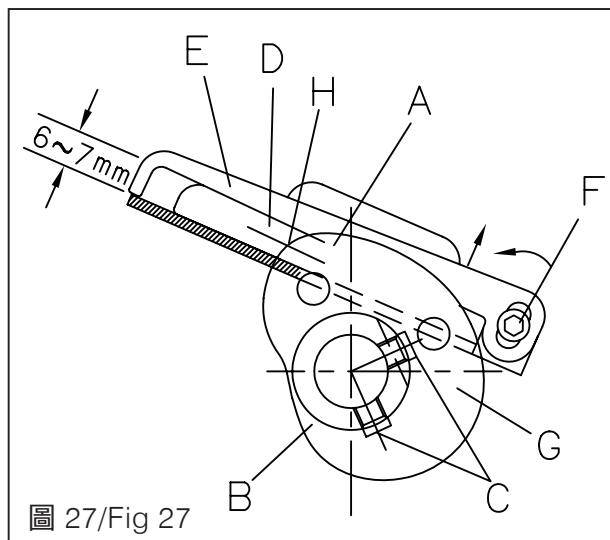


圖 27/ Fig 27

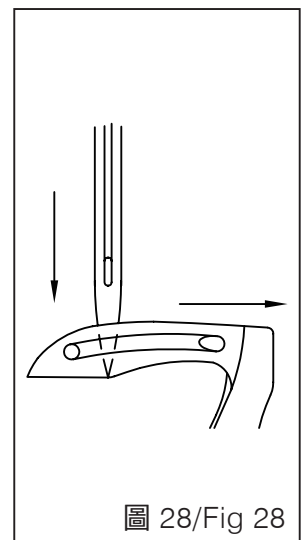


圖 28/ Fig 28

1. When the thread hole on Looper thread tension disk (B)、(C) is in straight position with the mark on support board (D) the position is correct. (Fig. 26)

- * 欲增加勾針線量時，控線片 (B)、(C) 往 (X) 移動。
 - * 欲減少勾針線量時，控線片 (B)、(C) 往 (Y) 移動。
2. 當勾針回覆往右移而針也由上往下至勾針背面，與勾針尖底部平行位置時，控線凸輪正好處於最高點 (H) 之位置 (圖 28)。
 3. 勾針線導片 (E) 之位置，應放鬆螺絲 (F) 調整，使勾針導片 (E) 之下緣與導板 (G) 上之間隙為 6.0-7.0 mm 的位置 (圖 27)。
- *To increase loopers thread, move thread tension disk (B) 、(C) towards direction (X).
 - *To decrease loopers thread, move thread tension disk (B) 、(C) towards direction (Y).
2. When Looper moves rightward, Needle moves downward to behind of Looper, also the control wheel will be in its upper dead point while Needle downwards to the same rank with Needle point (H). (Fig. 28)
 3. Loosen Screw (F) to adjust the position of Looper Thread Guide (E) to let the bottom border of guide (E) is 6.0-7.0 mm from the guide (G). (Fig. 27)

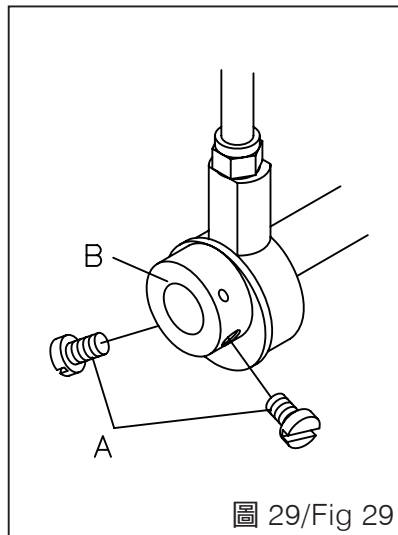
後拉引輪調整

REAR PULLER ADJUSTMENT

當針棒由下死點往上移 24 mm 時，後拉引輪開始轉動，即為正確之時位關係。

調整時：(圖 29)

1. 放鬆偏心凸輪 (B) 固定螺絲 (A) 後，再稍鎖緊。
2. 旋轉皮帶輪至上述條件後，再鎖緊螺絲 (A)，往前轉時間變快，往後轉則變慢。



The right timing is when needle bar moves upward from bottom dead point about 24 mm, the rear puller starts running.

For adjustment : (Fig. 29)

1. Loosen Screws (A) on Eccentric Cam (B) then slightly tighten them.
2. Turn pulley to have needle bar and rear puller reach their proper position. Then tighten Screws (A).

後拉滾輪供給量之調整

ADJUSTING OF REAR PULLER FOR FEEDING LENGTH

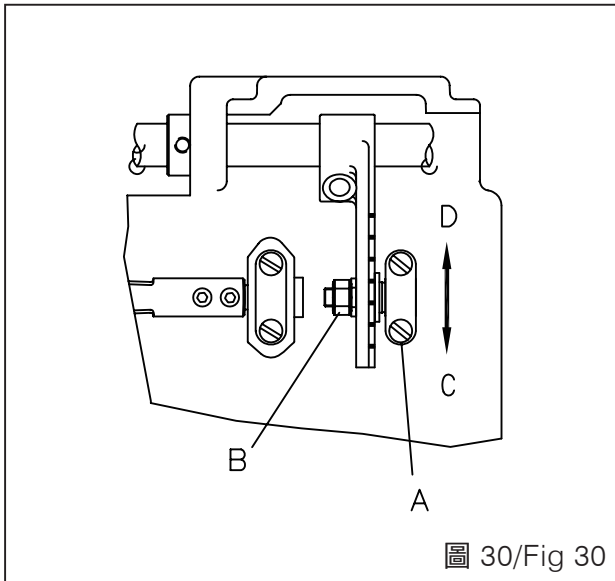


圖 30/ Fig 30

1. 取下上蓋。
2. 放鬆連桿 (A) 上之螺帽 (B) (圖 30)。
3. 將連桿 (A) 前後移動，往前移 (C 方向) 則拉引量小，往後移 (D 方向) 則拉引量變大。
4. 微量調整時，放鬆螺帽 (A) 將連桿 (B) 上下移動，往上拉引量變多，往下拉引量變少。(圖 31)。

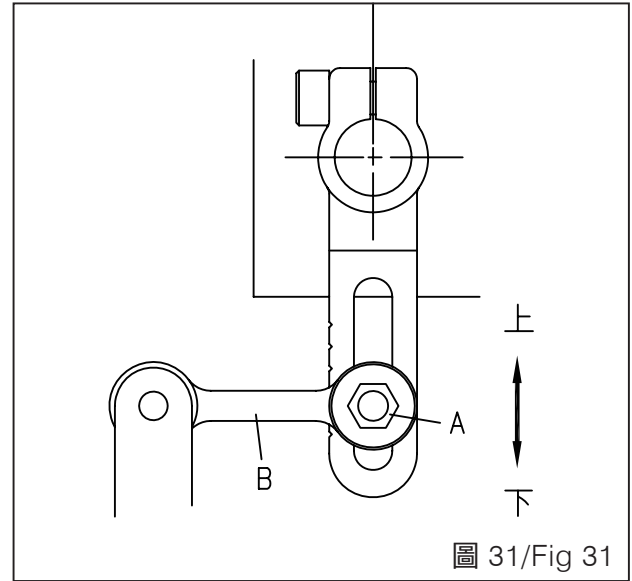


圖 31/ Fig 31

1. Take off top cover.
2. Loose Screw (B) of Connecting Rod (A). (Fig. 30)
3. Move Connecting Rod (A) forth for more and back for less feeding length.
4. For micro adjustment, loose Nut (A) and move Connecting Rod (B) upward for more and downward for less feeding length. (Fig. 31)

上下滾輪間隙調整

ADJUSTING GAP OF TOP AND LOWER ROLLERS

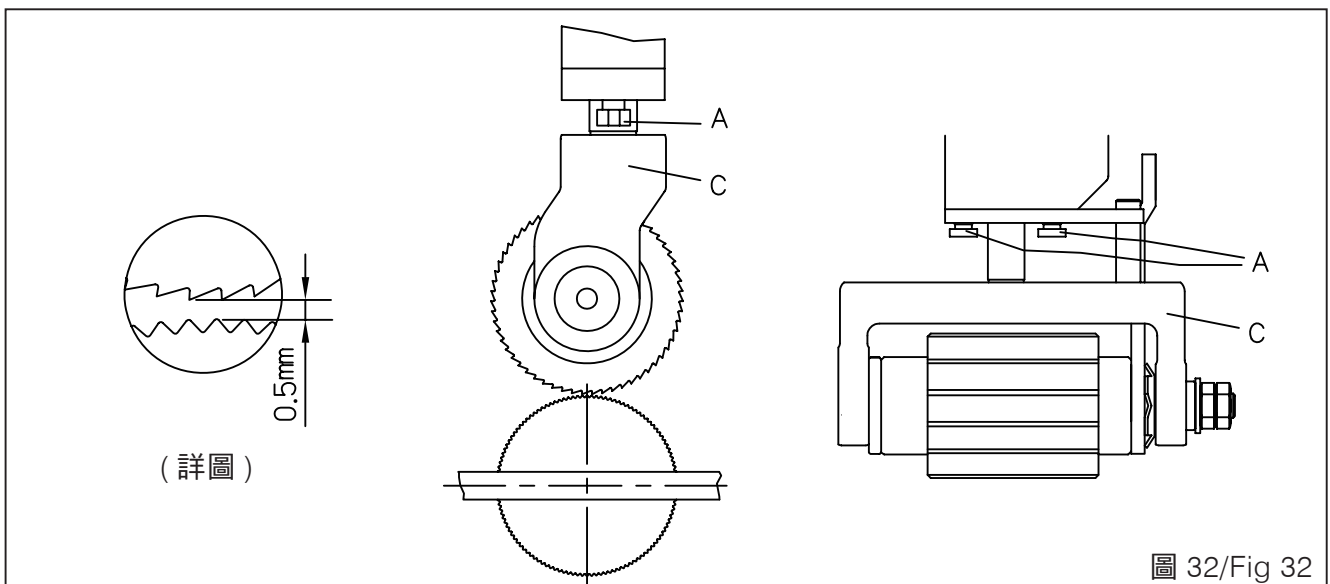


圖 32/ Fig 32

將上滾輪放至最低點，上滾輪與下滾輪之齒間隙為 0.5 mm (圖 32)，且兩滾輪平行。

The teeth gap between top and lower rollers should be 0.5 mm (Fig. 32), when put the upper roller to the bottom and parallel to the top roller.

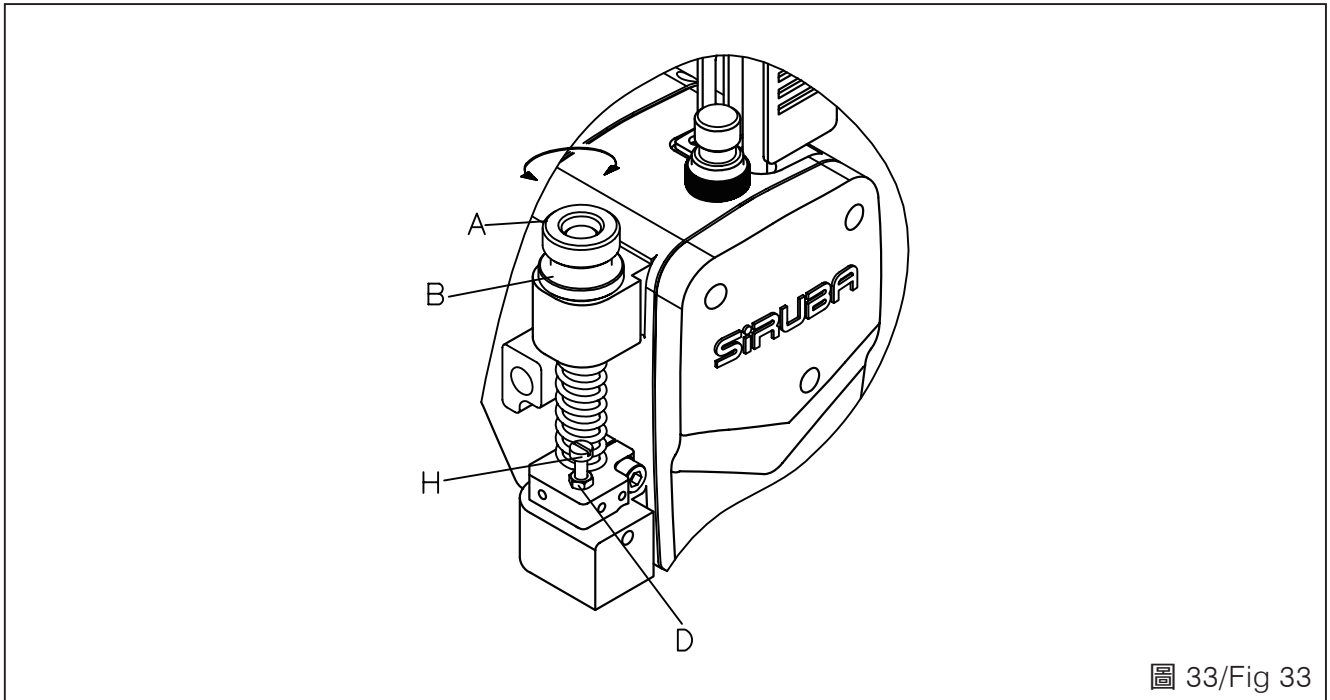


圖 33/ Fig 33

調整時：(圖 32、33)

Adjusting procedures：(Fig 32.33)

1. 兩滾輪平行之調整

1.Parallel

將螺絲 (A) 放鬆，調整兩滾輪平行後，稍鎖緊螺絲 (A)，上下移動固定座 (C)，使上下滑動順暢，再鎖緊螺絲 (A)。

Loosen Screw (A), and keep top and lower rollers parallel. Tighten Screw (A), slightly and move Frame Base (C) up and down. Then tighten Screw (A).

2. 間隙 0.5 mm 之調整：

2.Adjusting gap 0.5 mm：

將螺帽 (D) 放鬆，調整螺絲 (H)，使上下滾輪之間隙為 0.5 mm 再鎖緊螺帽 (D)。

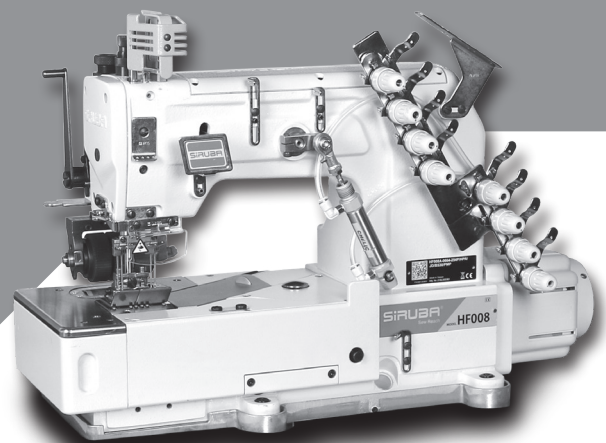
Loosen Nut (D) and turn Screw (H) to reach 0.5 mm teeth gap between top and lower rollers. Then tighten Nut (D).

3. 上滾輪壓力之調整

3.Adjusting puller pressure

將螺母 (B) 旋開，壓力調整螺絲 (A) 往順時針方向轉動，則壓力加大，反之則減小。調整後鎖緊螺母 (B)。

Loosen Nut (B), turn pressure control knob (A) clockwise to increase the pressure of top roller, vice versa. After adjusted, tighten Nut (B).



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由於對產品的改良及更新，本產品使用說明書中與零件圖之產品及外觀的修改恕不事先通知！
The specification and/or appearances of the equipment described in this instruction book & parts list are subject to change because of modification which will without previous notice.
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