

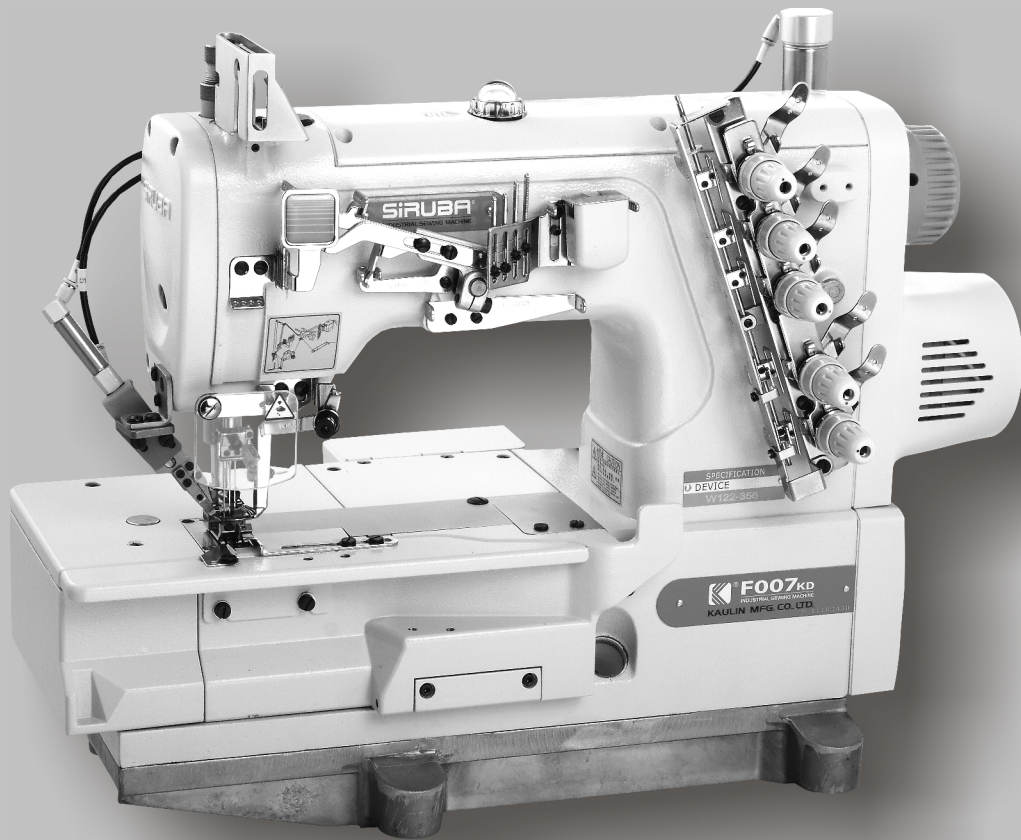
SIRUBA®

銀箭牌工業用縫紉機

INDUSTRIAL SEWING MACHINE

F007K/F007KD

使用說明書 INSTRUCTION BOOK



CE



高林股份有限公司
KAULIN MFG. CO., LTD.

EC DECLARATION OF CONFORMITY

According to the following European Directive

Machinery Directives:98/37/EC.

The undersigned, ROBERT TSAI, representing KAULIN MFG. CO., LTD., 11F, No.128, Sec.3, Minsheng East Road, Songshan District, Taipei, Taiwan, ROC., manufacturer, Declares that the machine described hereafter:

Flat Bed Three Needle
Chainstitch Machine

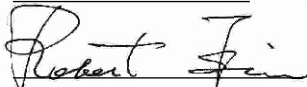
Model:F007K/F007KD

Provided that it is used and maintained in accordance with the generally accepted codes of good practice and the recommendations of the instructions manual, meets the essential safety and health requirements of the Machinery Directive.

For the most specific risks of the machine, safety and compliance with the essential requirements of the Directive has been based on elements of : the European Standard EN 12100-1:2003, EN 12100-2:2003, EN 349:1993, EN 1050:1996, EN ISO 10821:2005, EN 294:1992, EN 60204-1:2006, EN 60204-3 1:2001 Safety of machinery; basic concepts, general principles for design.



The compliance of the model with the requirements of EC Machinery Directive was established by AIB-VINCOTTE Inter n.f.p. Avenue A. Drouart 27-29, B 1160, Brussels, Belglum (Notified body under the number 26 for machinery listed in annex IV of EC Machinery Directive).

Date: Feb/01/2010






Signature: 

Qualification: R&D MANAGER

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
指示標誌 Instruction Label		禁止 Prohibited
		地線的接線表示 Indication of ground wiring

索引	INDEX	頁/PAGE
一般安全事項說明	GENERAL SAFETY INSTRUCTIONS	1
重要安全事項說明	IMPORTANT SAFETY INSTRUCTIONS	3
特別事項	WARNING	7
警告標籤	WARNING TAG	8
護針安全圖說	SAFETY ILLUSTRATION OF THE NEEDLE GUARD	9
搬運縫紉機	MOVING THE SEWING MACHINE	9
縫紉機的安裝位置	THE INSTALLATION POSITION OF THE SEWING MACHINE	10
規格	SPECIFICATIONS	10
各部件名稱	NAMES OF MAJOR PARTS	14
安裝	INSTALLATION	15
關於本機的重要安全事項	IMPORTANT SAFETY INSTRUCTION OF THIS MACHINE	16
馬達之安裝方式	INSTALL THE MOTOR	17
馬達與皮帶	MOTOR AND BELT	19
拉線鬆緊度調整	ADJUSTING THREAD TENSION	19
穿線方法	THREADING	20
穿線圖	THREADING DIAGRAM FOR F007K/KD	20
針線挑線桿之調整	ADJUSTING NEEDLE THREAD TAKE-UP	21
上叉挑線桿之調整	ADJUSTING SPREADER THREAD TAKE-UP	21
縫目長度之調整	ADJUSTING STITCH LENGTH	22
差動比調整	ADJUSTING DIFFERENTIAL FEED RATIO	23
壓具之調整	ADJUSTING PRESSER FOOT	24
壓具壓力強度之調整	ADJUSTING THE PRESSURE OF PRESSER FOOT	24
操作環境照明	LIGHTENING OF THE OPERATION ENVIRONMENT	25
操作者條件	CONDITIONS OF ALL OPERATORS	25
保養	MAINTENANCE	26
潤滑	LUBRICATION	27
針與線之冷卻與潤滑	LUBRICATION AND COOLING OF THE NEEDLES	29

針之更換	HOW TO REPLACE THE NEEDLE	29
潤滑油之更換	CHANGE THE LUBRICATION OIL	30
濾油器之更換	CHANGE THE OIL FILTER	30
故障檢修	TROUBLESHOOTING	31
桌板圖	TABLE CUT-OUT	40
報廢流程	DEMOLITION PROCEDURE	42

MODEL		F007K/F007KD	
Net Weight (Kgs)	50	Noise Level, dB(A)	80 dB(A)
Dimension	Length	Width	Height
	52 cm	26 cm	43 cm

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. 避免誤啓動

不要以手指置於啓動開關上之後，搬運一個已插入電源的工。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. 由合格人員來修理工具

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" 認證的按壓啓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. 再調整、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啓動而造成危害。

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.

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。

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. 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。



1. Instead of the following instructions, when you use this machine, please pay attention to the basic safety measures.



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。



2. Before using this machine, please read this manual and all related instructions. In addition, please keep this manual for future needs.



3. 先確認機器是符合貴國安全規定及標準後，再使用機器。



3. Before using this machine, please ascertain that it conforms with safety standards and regulations of your country.



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。



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. 此機器應由受過適當訓練之操作員操作。



5. This machine must be operated by a properly trained operator.



6. 為了安全，我們建議您配戴安全眼鏡。



6. For your own safety, we suggest you wearing goggles.



7. 以下情形，請先關閉電源或拔掉插頭：



7. Please turn off the power switch or disconnect it for any one of the circumstances of the followings:



(1) 穿針線、導線片、天平等以及更換梭子時。


(1) When threading needle(s), adjusting thread Take-up(s), thread guide(s), and/or replacing bobbin(s).


(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。


(2) When replacing needles, presser feet, needle plates, feed dogs, needle guards, horns, cloth guides and other parts or accessories.


- (3) 維修工作時。
- (4) 離開工作場所或工作場所無人看顧時。
- (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。


 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。


 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啓，以免導致人員受傷。


 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。


 11. 一般維修及檢查工作必須由受過適當訓練的人員為之。


 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。


 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。


- (3) When repairing.
- (4) When the operator leaves the working place or leaves the machine unattended.
- (5) If clutch motors without brake pads are used, must wait until the motor stops completely.


 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 any fluid mistakenly, consult a doctor immediately.






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



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








 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. 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。
-  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。

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



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. 為了避免機器突然啓動而引起可能意外，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，為了避免機器突然啓動而引起可能意外，故請關掉機器電源。



b. Please keep your hair, fingers and clothes away from the hand wheel, V belt and motor 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. 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 or removing the belt cover and the V belt 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 machine to avoid possible accidents due to abrupt start of the machine.

 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。







 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.

- 縫紉機上有下列警告標籤。(圖1、2)
- 當使用縫紉機時，請遵守標籤上的使用，如果標籤脫落或模糊不清，請和購買商店聯繫。

- The following warning tags will be attached on the sewing machine. (Fig.1, Fig. 2)
- When using the sewing machine, please follow the instructions of the tags. Please contact the dealer if any of the tags is fallen off or fuzzy.



圖1/ Fig. 1

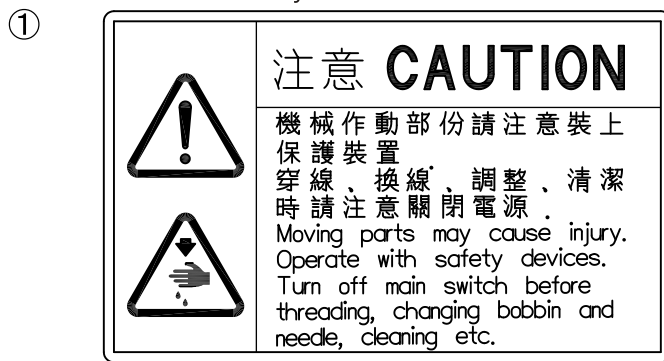


圖2/ Fig. 2

② 必須接地

接駁地線不牢固，是造成觸電或誤動作的原因。

② must have ground wire.

A loosen or a did not connect well ground wire is the reason causing electronic shock or malfunction.

③ 表示轉動方向

安全保護裝置(圖3)

- (A) 護指器
- (B) 護目鏡

③ Indicates rotating direction.

Safety Protection Device (Fig. 3)

- (A) Finger protector
- (B) Goggle

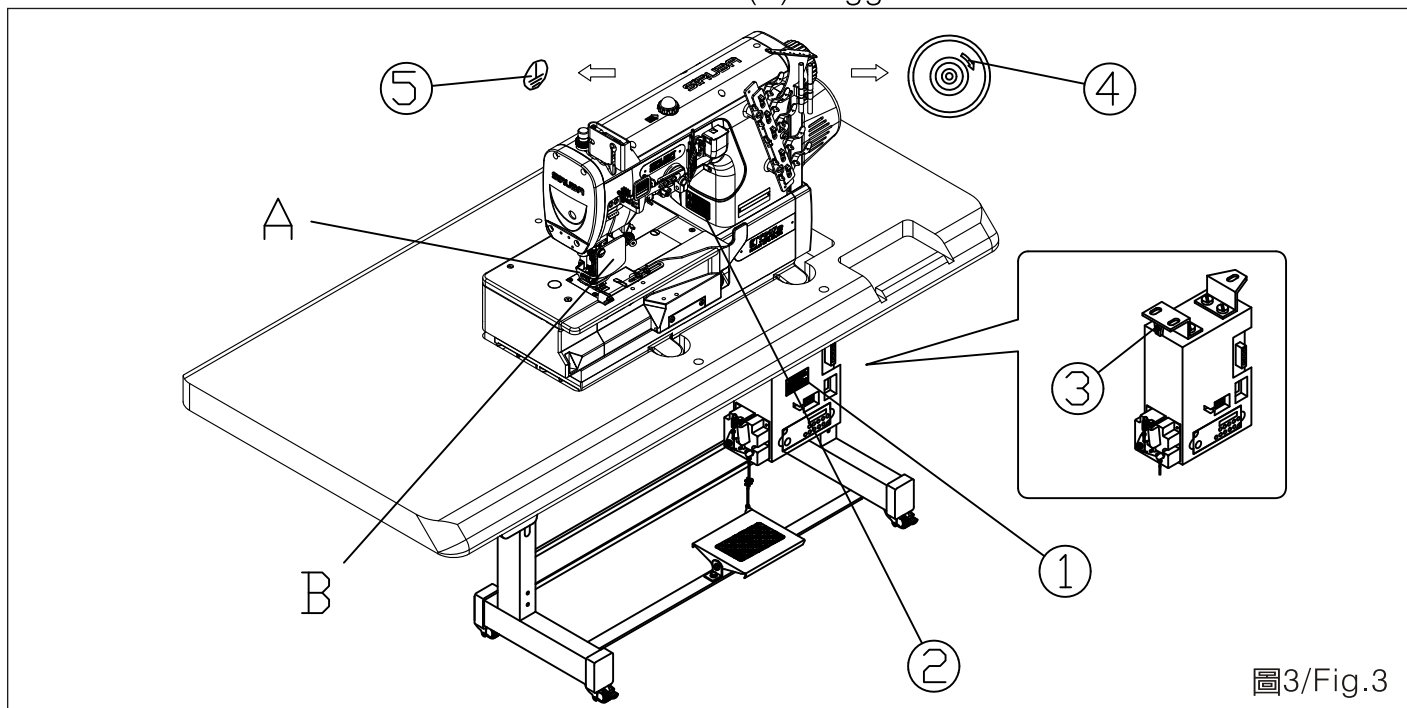


圖3/ Fig. 3

本縫紉機之壓具防護裝置如圖所示，為保護操作者之操作安全，嚴禁將此裝置拆卸。

The presser foot protection device is shown as figure 4. For safety of all operators, this device is restricted to disassemble.

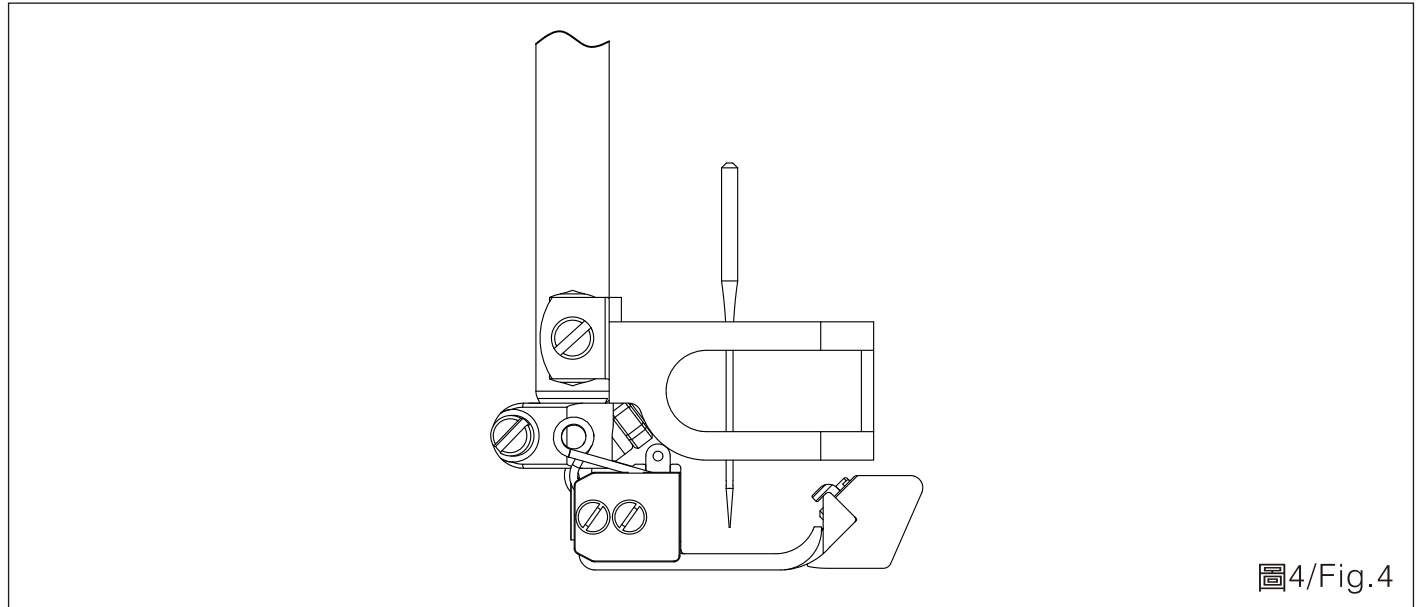


圖4/Fig.4

搬運

MOVING THE SEWING MACHINE

1. 請由兩人用手托住機殼本體進行搬運。
2. 用手扶住馬達蓋 A 部，使手輪不能轉動。
3. 搬運時，請穿著安全鞋。(圖 5)

1. The machine should be carried by two people as shown in the figure.
2. Hold the motor cover A firmly by hand, so that the pulley will not rotate.
3. Please wear a pair of skidproof shoes while moving the sewing machine. (Fig.5)

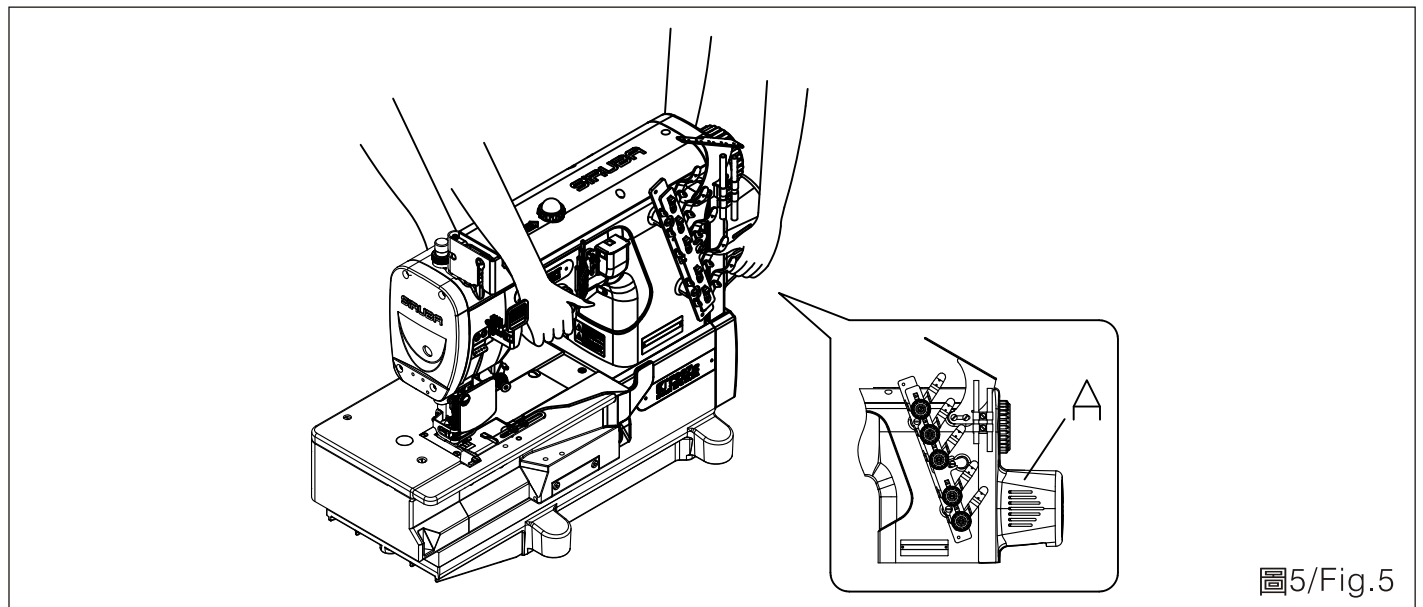


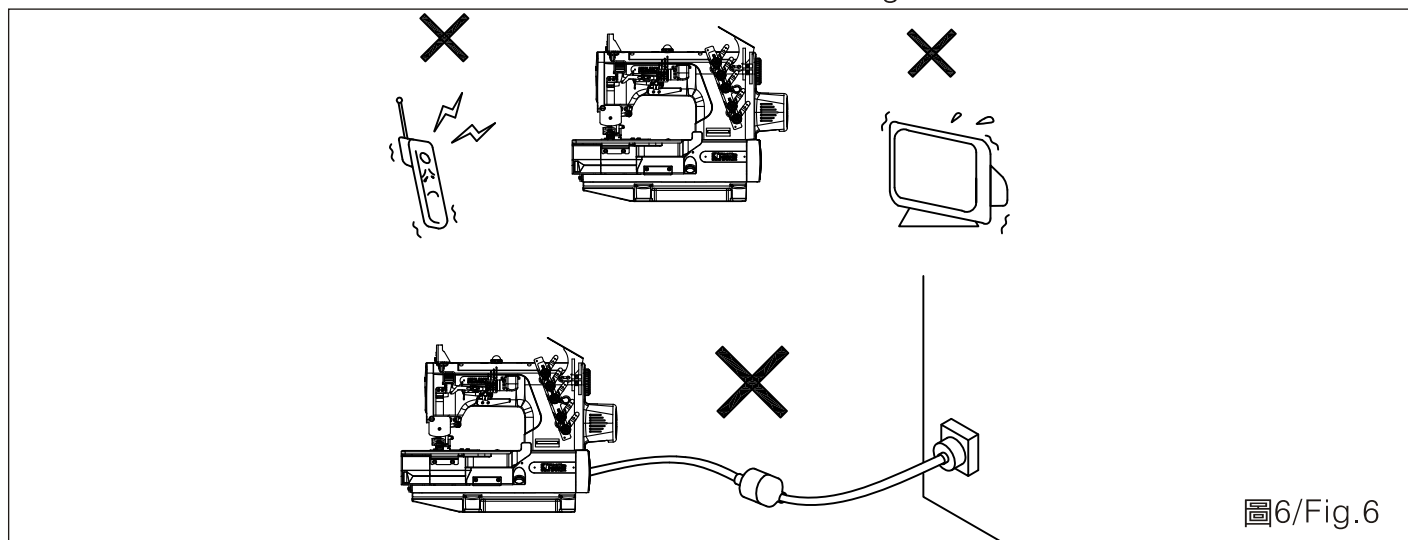
圖5/Fig.5

縫紉機的安裝位置

1. 勿將該縫紉機置於設備附近，如電視機、收音機或無線電話等，否則這些設備可能被縫紉機的電子干擾所影響。
(圖 6)
2. 應將縫紉機直接插入 AC 電源插座，如果使用延長線，可能會造成操作故障。

THE INSTALLATION POSITION

1. Please do not install the sewing machine near the equipments, such as Television, Radio, or Wireless Telephone. Or these equipments will experience electronic interference. (Fig.6)
2. The wire should insert to the AC power socket directly. If using the extension wire, this might cause malfunction.



規格

SPECIFICATIONS

種類及規格說明

1. 型號及分類表示

Specifications of machine category

1. Description of the machine name

F 0 0 7 K D - W 1 2 2 - 2 4 0 / F Q

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① 表示機種別：
F=平式三針車
- ② 表示內外銷機種：
007：外銷機種
- ③ 表示車台外觀改良之區分編碼，由F
然後G，以英文字母排列如F007K。
- ④ 表示加裝伺服小馬達。
- ⑤ 表示有無上叉縫。

- ① represents the type of the machine:
F= Flat bed three needle chainstitch machine
- ② represents domestic/export sale machine
007: export sale machine
- ③ represents the improved machine
Appearances that are arranged from letter F. Ex:F007K
- ④ represents a small servo motor added.
- ⑤ shows whether having upper cross stitchery or not.

W 有上叉縫 (圖 7)

U 無上叉線 (圖 8)

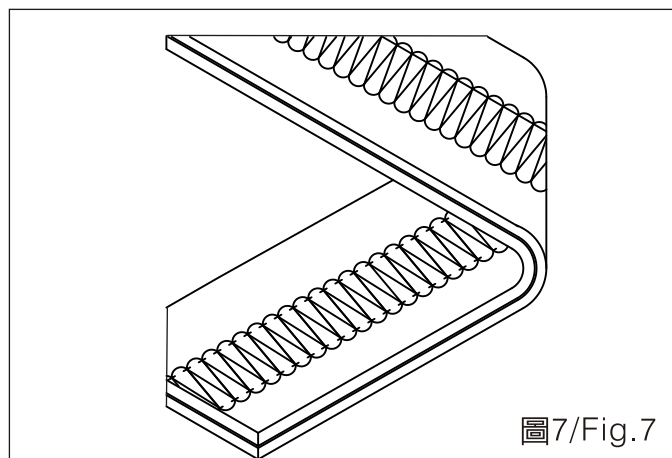


圖7/Fig.7

W= have upper cross stitchery (Fig.7)

U= without upper cross stitchery (Fig.8)

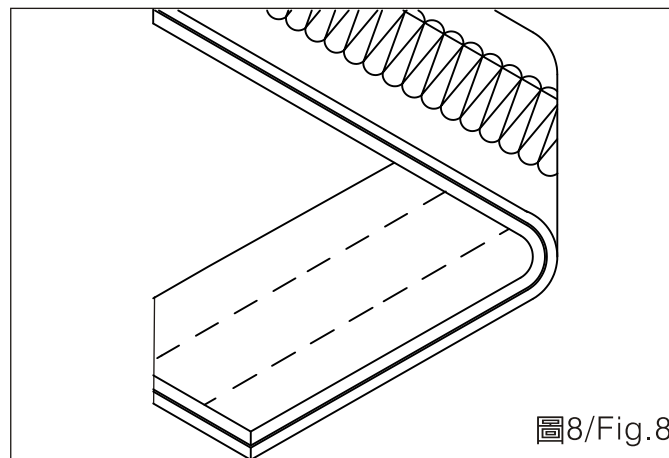


圖8/Fig.8

⑥ 車縫形式：

12= 一般平縫

13= 拷下襠

15= 三角褲、緊身褲、內褲等棉織物伸縮帶上帶縫

16= 一般厚布料之平縫

22= 附車縫包條作業

32= 包飾縫作業

51= 上送式鬆緊帶上帶車縫

52= 上花邊鬆緊帶

53= 環形平織鬆緊帶上帶車縫

54= 下送式鬆緊帶上帶車縫

61= 單面飾縫褲耳

71= 雙鍊縫

72= 褲帶縫作業

81= 拷下擺附左切刀

82= 鬆緊帶上帶邊縫附左切刀

92= 三針車四針平縫

⑦ 表示針板舌片之形狀(針板舌的功能：打網)(圖9)

1. 為縫紉時，針線較緊密，一般縫線(無伸縮性)或細縫距(15針/英吋以上)時適用。

⑥ is stitching type:

12= normal & regular stitch

13= bottom hemming

15= elastic tape feeding for cotton fabrics such as underwears, and tights pants

16= general plain seaming for normal thick materials

22= tape binding

32= seam covering (decorative stitching)

51= elastic tape feeding, upper feeding type

52= elastic or lace seaming

53= elastic tape feed seaming in hooped type lockstitch

54= elastic tape feeding, lower feeding type

61= belt loop seaming

71= double chain stitch

72= pocket lining seaming

81= bottom hemming with left trimmer

82= elastic tape feeding with left trimmer

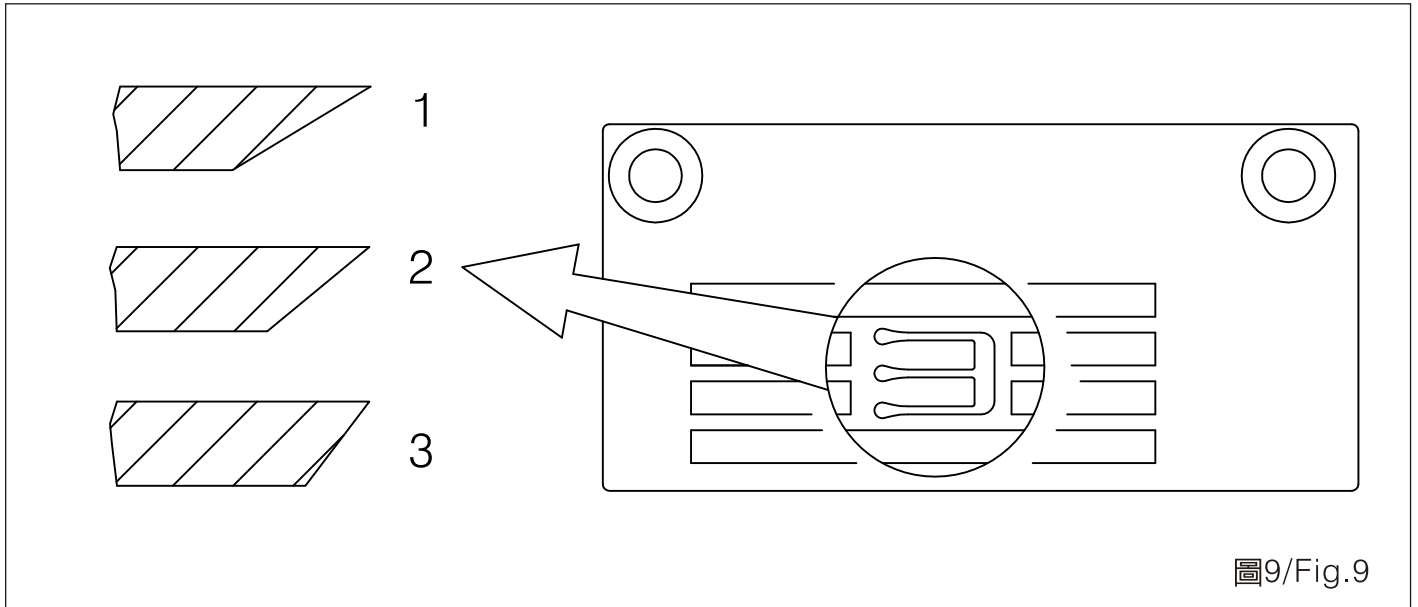
92= four needles chain stitch

⑦ means the shape of the needle plate tongue (its function is to knot) (Fig.9)

1. While sewing, the stitches are closer to each other. For normal threads without stretch, or closer stitches (15 stitches per inch or above).

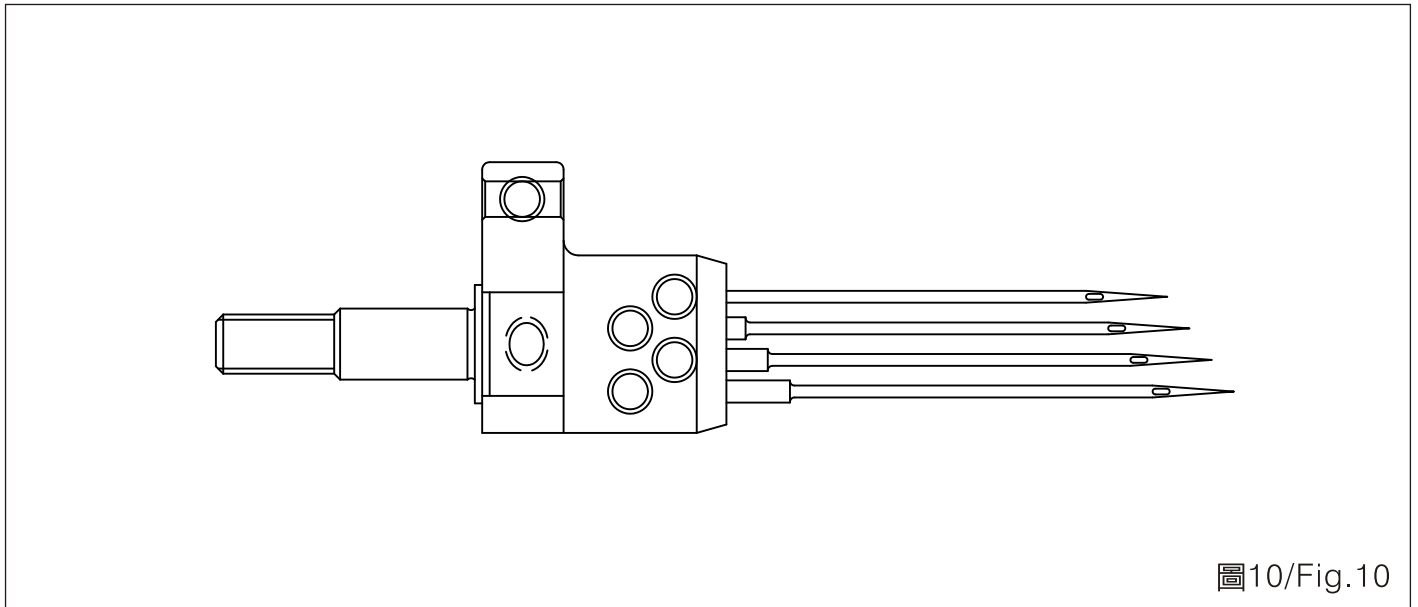
2. 為標準縫距 (11~14 針 / 英吋)
3. 縫紉時針線結線較鬆弛，伸縮性縫線或粗縫距 (10 針 / 英吋以下) 時適用。

2. Standard stitch length (11~14stitches/in)
3. The stitches length is wider. For stretch threads or long stitch length (10 stitches/in)



- ⑧ 表示針數 (圖10)
2為2針車
3為3針車

- ⑧ is the number of the needle. (Fig.10)
2= 2 needle sewing machine
3=3 needle sewing machine



- ⑨ 針寬 (左右針之距離) (圖11)
3.2 mm, 4.0mm
4.8 mm, 5.6mm
6.4mm

- ⑨ means the needle width (the distance between the left and the right needle.) (Fig.11)
3.2 mm, 4.0mm
4.8 mm, 5.6mm
6.4mm

- ⑩ 表示輔助件：如FQ, FAC, FEC

- ⑩ indicates the accessories, such as FQ, FAC, FEC

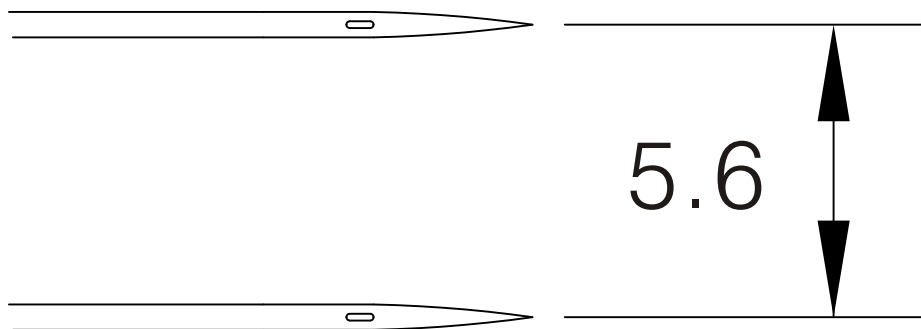


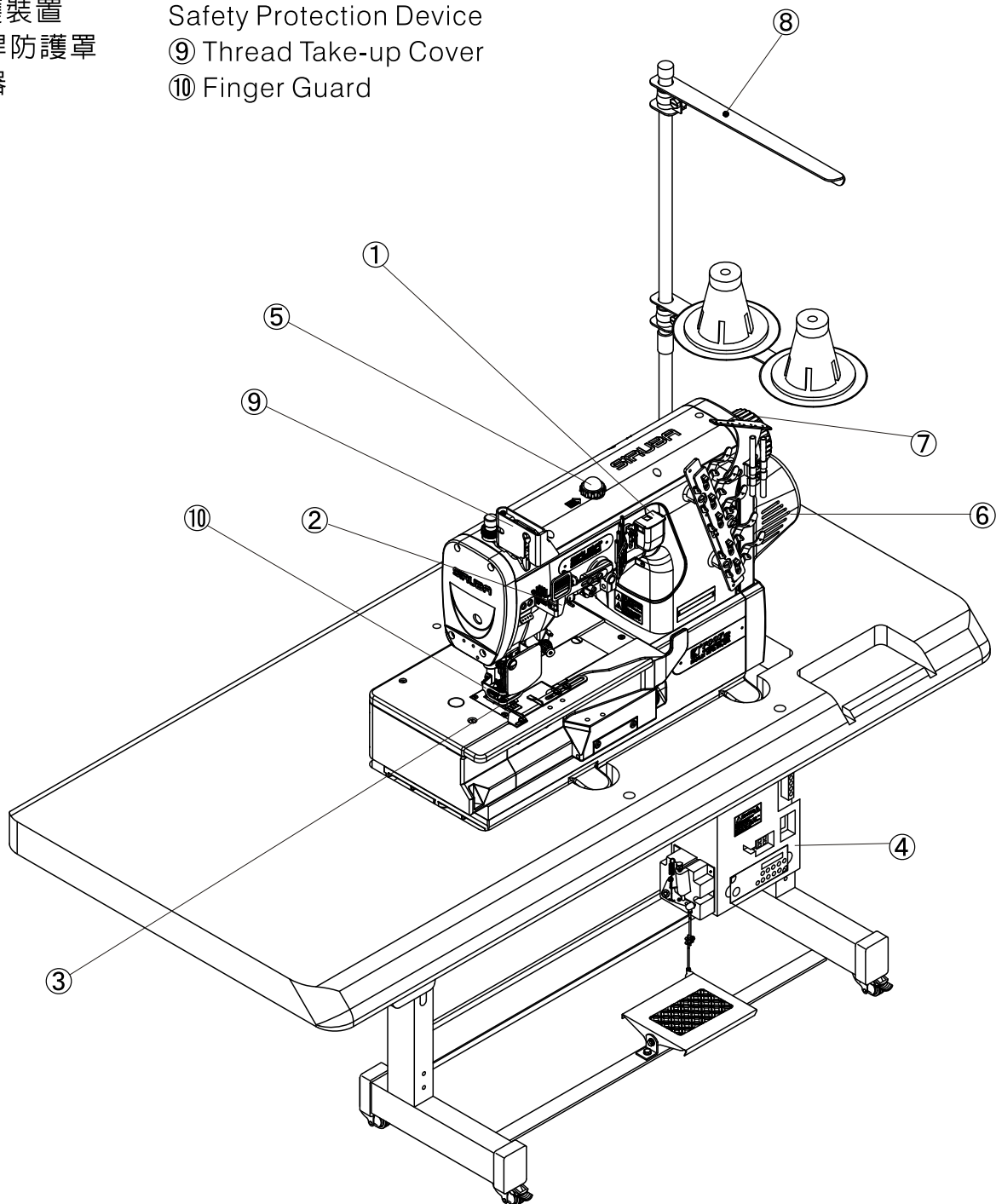
圖11/Fig.11

2. 規格 (表1)

2. Specification (Table 1)

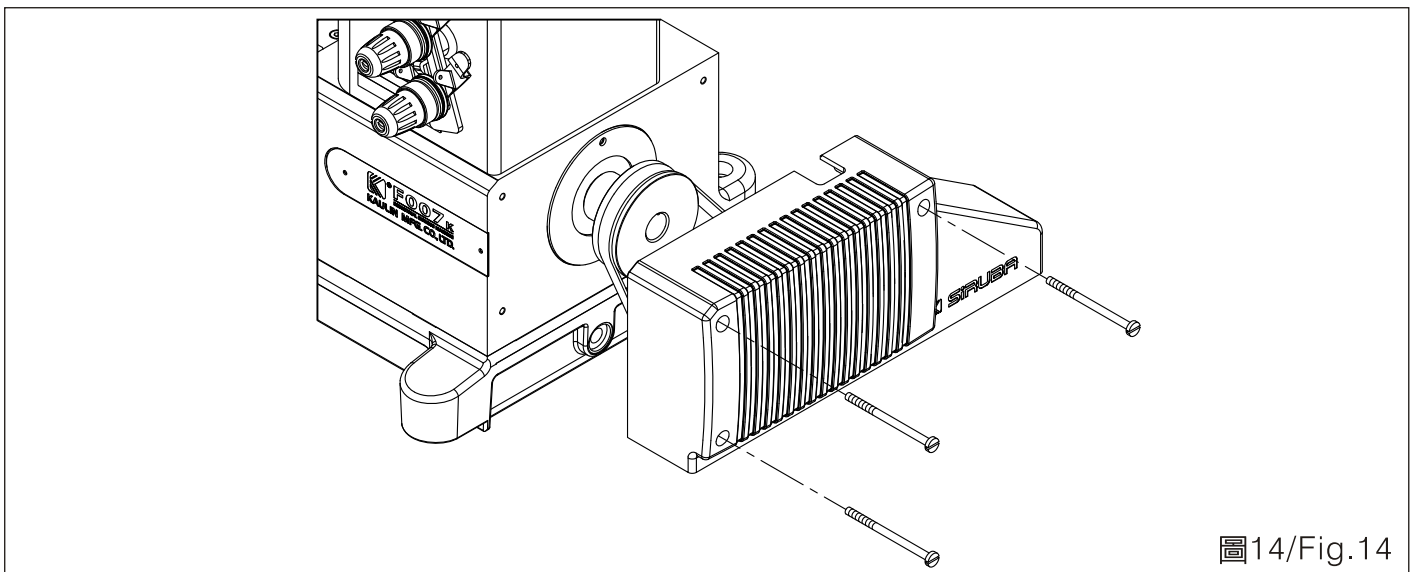
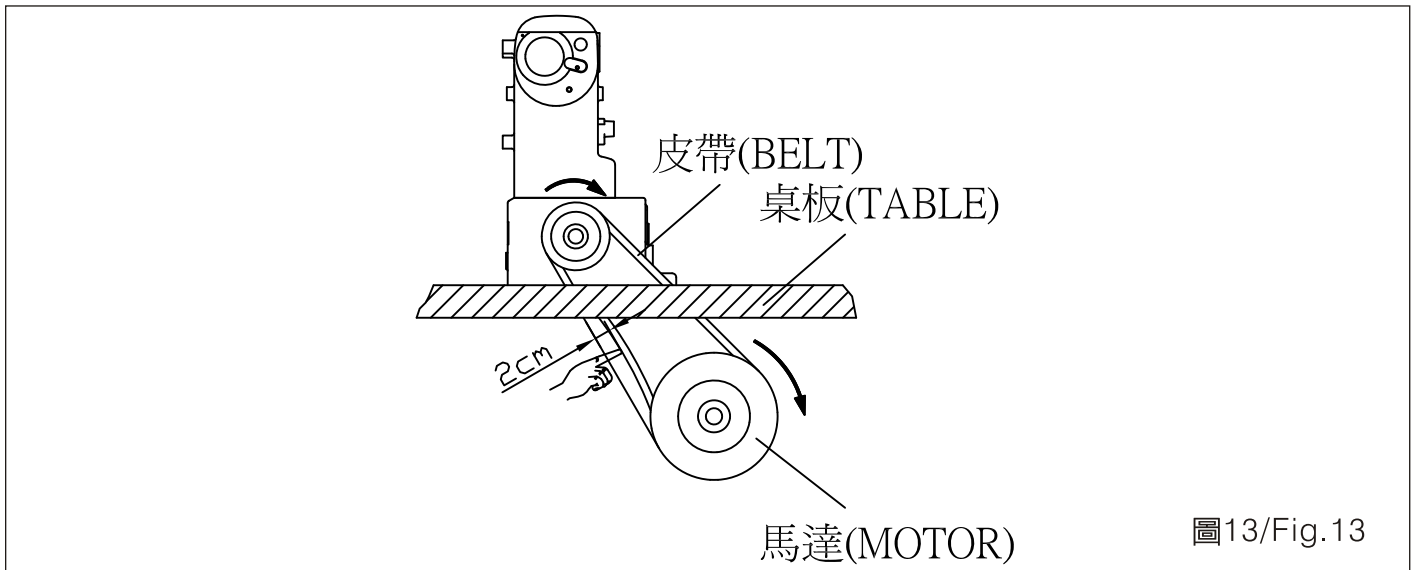
規格 Specification	機型別 Model	F007K/F007KD
針棒行程 Needle bar stroke		31 mm
勾針左右行程 Looper left and right stroke		30.5 mm
車縫速度 Max. Sewing speed		5000 S.P.M
噪音 Noise		4500 S.P.M 80dBA 以下
使用針 Needle		UYX 128GAS #10
壓具壓力 Presser foot pressure		最大 5 kg
壓具提升量 Presser foot height		5 mm
壓具 Presser foot		可調整性壓具 Adjustable presser foot
送料具高度 Feed dog height		0.8~1.2 mm
縫距 Stitch Length		1.6~4.2 mm
重量 Weight		機頭 : 50 kgf 控制箱 : 4.1kgf Machine head: 50 kgf Control box: 4.1kgf
機頭空間尺寸 Machine head specification		長 : 520 mm × 寬 : 260 mm × 高 : 430mm Length 520 mm × Width 260 mm × Height 430 mm
桌板尺寸 Bed specification		540 mm × 1070mm 540 mm × 1200 mm
加油方式 Lubrication		完全自動加油 Automatic lubrication system
潤滑油 Oil		提供之專用油 SIRUBA sewing machine oil
機頭驅動 Machine head driving		直接驅動裝置 Directly driving device
馬達 Motor		額定輸出 400W (1/2 HP) 最大輸出 500W (3/4HP) Output power 400W (1/2 HP) Max. Output 500W (3/4HP)
控制電路 Control circuit		3 相/單相 Single-phase / 3-phase
使用電路 Power		3 相/單相 Single-phase / 3-phase
電磁線圈驅動電源 Solenoid driving power		DC-30V

- | | |
|-----------|--------------------------------|
| ① 過線盒 | ① Thread Guide Box |
| ② 導線片 | ② Thread Guide |
| ③ 壓具 | ③ Presser Foot |
| ④ 控制箱 | ④ Control Box |
| ⑤ 油鏡 | ⑤ Oil Windows |
| ⑥ 拉線鬆緊調整組 | ⑥ Thread Tension Adjusting Set |
| ⑦ 手輪 | ⑦ Pulley |
| ⑧ 線架 | ⑧ Thread Stand |
| 安全保護裝置 | Safety Protection Device |
| ⑨ 挑線桿防護罩 | ⑨ Thread Take-up Cover |
| ⑩ 護指器 | ⑩ Finger Guard |



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，線架。
。（及廢料槽 -FR 機種）
2. 馬達之轉向為順時鐘方向，皮帶之鬆緊度以用手指向內壓下 2 公分為宜，同時為了安全起見，請務必鎖上皮帶蓋。
（圖 13 及圖 14）

1. Please refer to table cut-out drawing and parts lists to install the sewing-proof base and the thread stand. (As well as the cloth waste chute for FR model)
2. The turning direction of the motor is clockwise. As to the tension of the belt should be 2 cm while using a finger to press inward. In addition, for safety concern, please look the belt cover tightly. (Fig. 13 and Fig. 14)



3. 皮帶輪與縫紉速度請參照表2。

3. Please refer to Table 2 to check the belt size and the speed of sewing.

注意：

- (1) 使用新機器，最初一個月的運轉速度約為最高轉速的 80%，請選擇正確的馬達帶輪尺寸。（如表 2）
- (2) 桌板厚度約 45 mm。

ATTENTION:

- (1) The operating speed is about 80% of the max. Speed for a newly machine during the first month. Please choose the correct size of the motor belt. The max. Speeds and the belt sizes are listed on Table 2.
- (2) The standard thickness of the table is about 45 mm.

轉速 S.P.M.	皮帶輪尺寸 MOTOR PULLEY SIZE		皮帶尺寸 MOTOR SIZE
	60 Hz	50 Hz	
6000	105	125	36" ↑ 35" ↓ 34"
5500	95	115	
5000	85	105	
4500	80	95	
4000	70	85	

表2/Table 2

關於本機的重要安全注意事項

1. 搬運作業

- (1) 使用全罩二片式的保麗龍將機器包裝防護。
- (2) 放入紙箱內。
- (3) 用手推車或二人用雙手抬動搬運。

2. 儲存作業

- (1) 機器不使用時，應用防塵套將其罩上。
- (2) 避免儲存於高於 45 °C 以上的高溫。

3. 作業中

機器不要在高於 40 °C 以上的溫度工作。

4. 警告

請注意以下警示建議事項。

- (1) 工作區域是危險的。
- (2) 當機器還在運作的時候絕對不要去碰觸針。

IMPORTANT SAFETY INSTRUCTIONS OF THIS MACHINE

1. Transportation

- (1) The machine packed with two piece covers that made os expanded Polystyrene to protect it.
- (2) Put the machine into a carton.
- (3) Use a cart or by two men's hands to move it.

2. Storage

- (1) The machine must use duster cover to cover it when it did not work.
- (2) Do not storage the machine over 45 °C .

3. Working

The machine doesn't work over 40 °C .

4. Warning

Pay attention to the following warning advices:

- (1) Working area is dangerous.
- (2) Never touch the needle if the machine is still running.

- (3) 當在送布料的時候要多加小心。
- (4) 不要把手指放在針與傳送布料的送具之間。

- (3) Be careful if you infeed fabric.
- (4) Do not insert your finger between needle and feed dog for transportation on fabric.

在貼有警告標示之處請注意。

Pay attention to the warning sticker.

- (1) 機械動作部分，請注意裝上保護裝置。
- (2) 穿線、換線、調整、清潔時，請注意關閉電源。

- (1) Movable parts must be enclosed with guard when you operate.
- (2) Turn off the power during adjusting, threading, bobbin-changing and needle-cleaning.

馬達之安裝方式

INSTALL THE MOTOR

- 1. 先將小型伺服馬達 A 與齒輪 B 鎖配完成備用，鎖配距離為 4 mm。（圖 15）

- 1. Connect the small servo motor A and the gear B. Keep the distance to be 4 mm between each other. (Fig. 15)

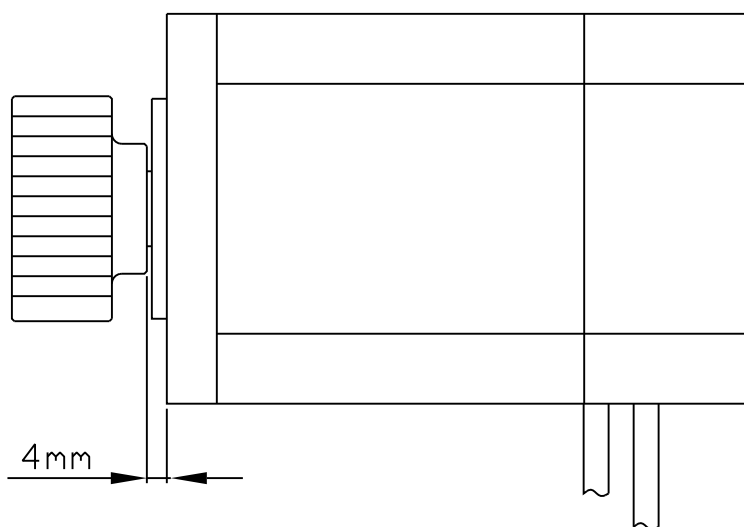


圖15/Fig.15

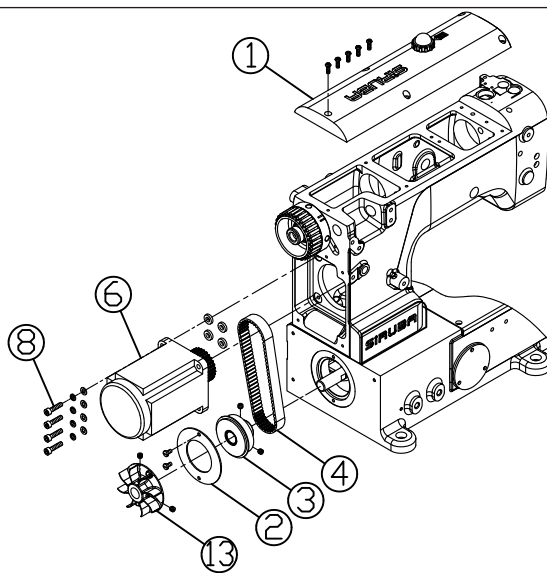


圖16/Fig.16

2. 以適當工具卸下上蓋①、風扇⑫、固定片②，軸承③，將皮帶④裝入。
(圖 16)

3. 將皮帶④下端與齒輪⑤先行齒合後，以適當工具支撐皮帶④上方，並將小型伺服馬達⑥與皮帶④上端扣住並旋轉手輪⑦，使皮帶④上下端與齒輪⑤及小型伺服馬達⑥齒合順暢後，以螺絲⑧將小型伺服馬達⑥固定於機體上。(圖 16，圖 17)

2. Remove the top cover ①, fan ⑫, the fix plate ②, and the bearing ③. Then, install the belt ④. (Fig.16)

3. Connect the bottom of the belt ④ and the gear ⑤, and then hold the upside of the belt ④ by a proper tool. Hold the small servo motor ⑥ and the upside of the belt ④ and rotate the pulley ⑦ to make the upside and the downside of the belt ④ connecting well with servo motor ⑥ and the gear ⑤. After the adjustment, fix the small servo motor ⑥ onto the machine by the screw ⑧. (Fig. 16, 17)

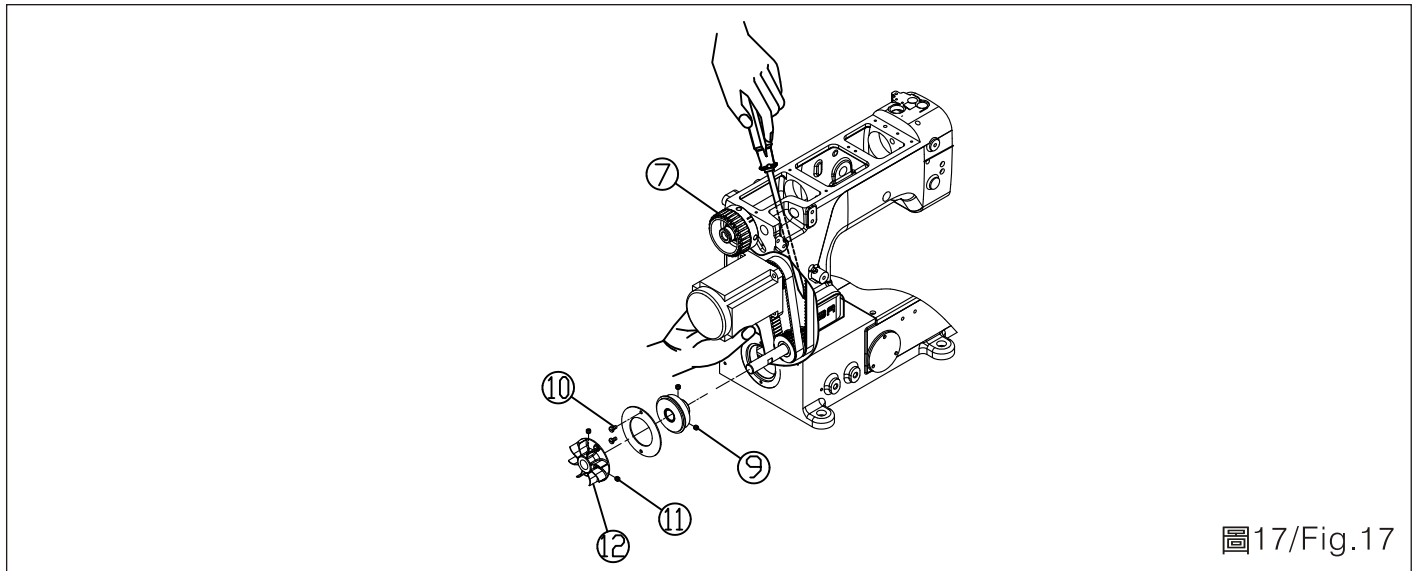


圖17/Fig.17

4. 依序將軸承③與固定片②分別以螺絲⑨、⑩固鎖於原先位置。最後利用螺絲⑪將風扇⑫固鎖及完成。(圖 16、17、18)

4. Fix the bearing ③ and the fix plate ② by the screws ⑨ and ⑩ to the original position. Then, fasten the fan ⑫ by screw ⑪. (Fig. 16, 17, 18)

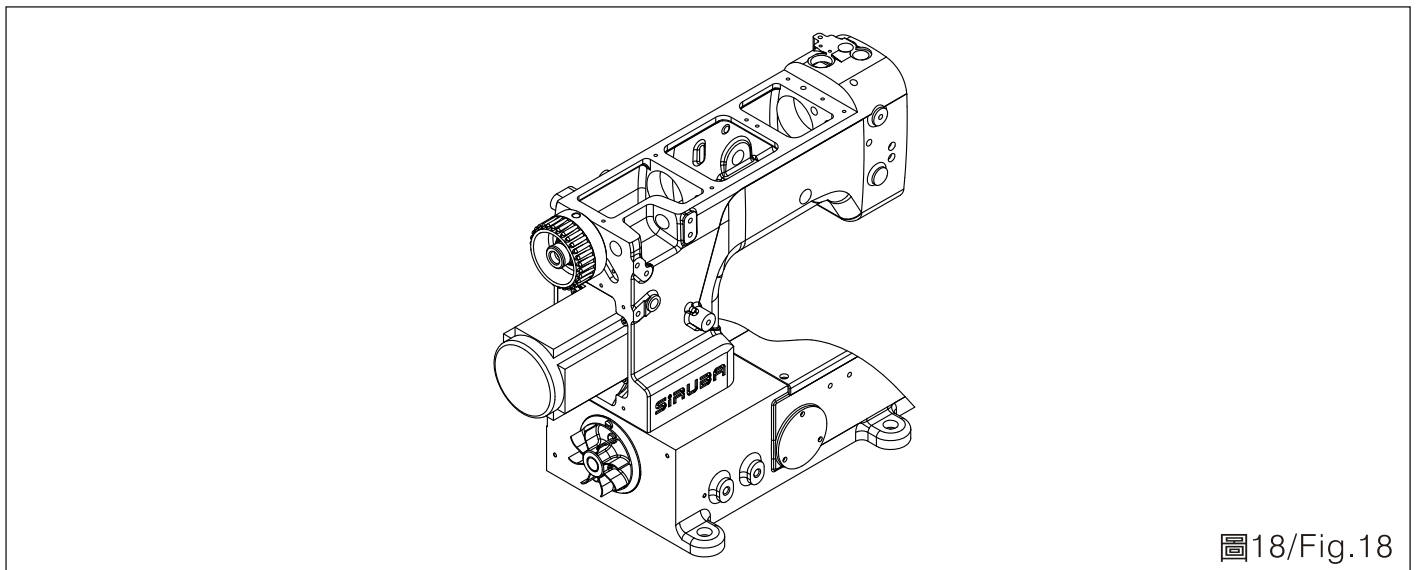


圖18/Fig.18

5. 將上蓋①、馬達蓋⑪固鎖於機體上座，再將皮帶蓋⑫固鎖於機體下座。(圖 16、19)

5. Fix the top cover ① and the motor cover ⑪ on the machine, and then, fix the belt cover ⑫ on the machine bed .(Fig. 16, 19)

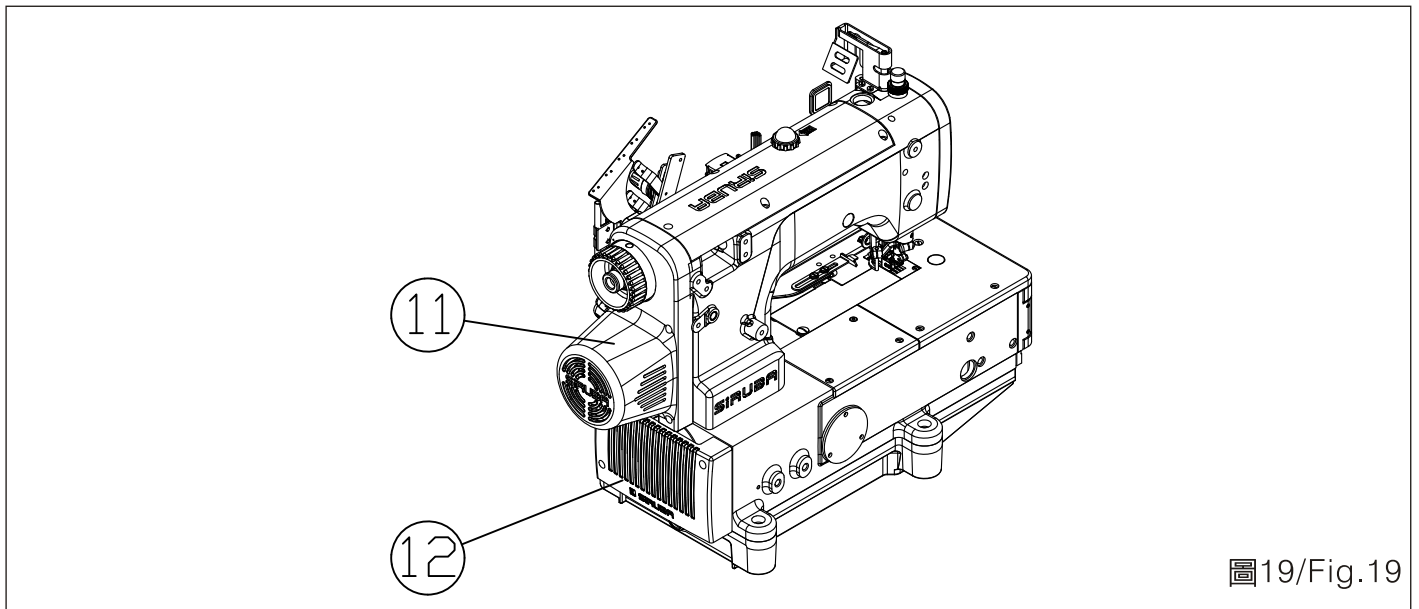


圖19/Fig.19

馬達與皮帶

MOTOR AND BELT

1. 離合器馬達 1/2 馬力 (或 400 瓦) ， 3 相 2 極 M 番 V 型皮帶。
2. 馬達位置之安裝必須是機器皮帶輪與馬達皮帶輪的中心線必須為一直線。

1. Clutch motor, 1/2 HP (400W), 3phase, 2 Polse, M type, V belt.
2. When installing the motor, the center line of both motor's and machine's pulley must be aligned with each other.

拉線鬆緊度調整

ADJUSTING THREAD TENSION

拉線強弱必須根據：

The tension of the thread should be adjusted according to :

1. 車縫布料種類
2. 料質厚薄
3. 線
4. 縫距

1. The material type
2. The thickness of the fabric being sewed;
3. The thread;
4. The stitch length.

等不同而做調整，將控制鈕順時鐘方向旋轉時，線越緊，反之則越鬆。(圖 20)

If you turn the thread tension knob clockwise, thread will be tighter. If you turn it counter-clockwise, will be looser. (Fig.20)

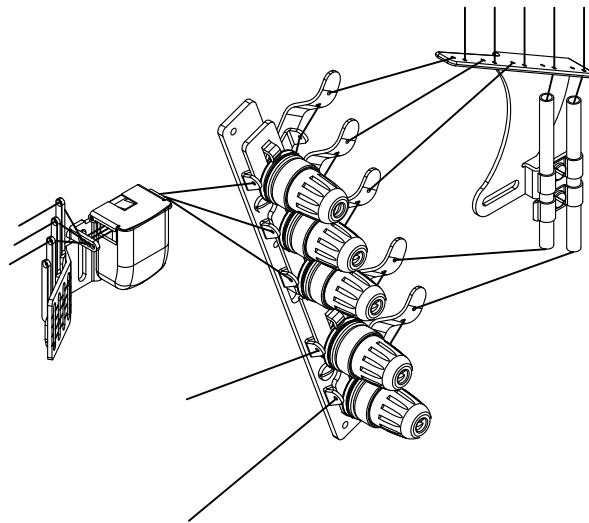


圖20/Fig.20

穿線方法

請確實按照圖示各種不同縫合情況穿線，錯誤之穿線將引起斷線、跳針及車縫部平坦等現象，請參照穿線圖。（圖 21）

THREADING

Follow the procedures shown in Fig.9 for threading. Wrong threading may cause thread breaking, stitch skipping, puckering or unexpected sewing. Please refer to THREADING drawing. (Fig.21)

穿線圖

THREADING DIAGRAM FOR F007K/KD F858K/KD

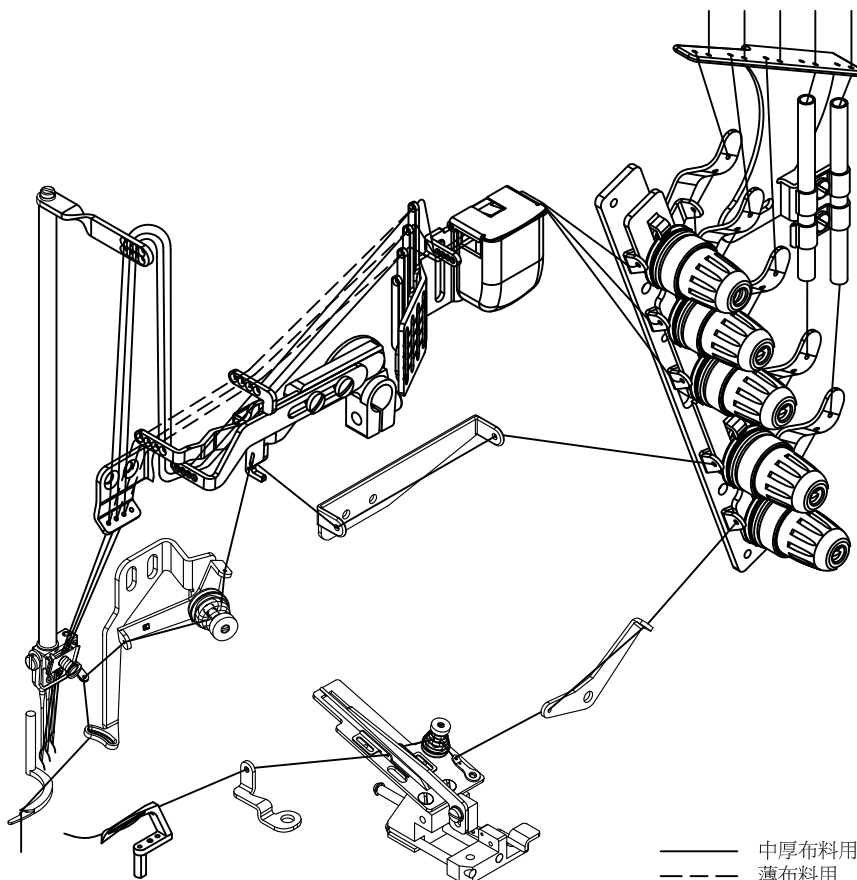


圖21/Fig.21

1. 轉動手輪使針棒位於最低位置時，針線控桿搖臂①的上邊必須成水平，必要時放鬆螺絲④調整之。（圖 22）

1. When turning the pulley and make the needle bar in the lowest position, the top edge of the needle thread take-up ① should remain horizontal. To adjust the position of the take-up if necessary, loosen the screw ④. (Fig.22)

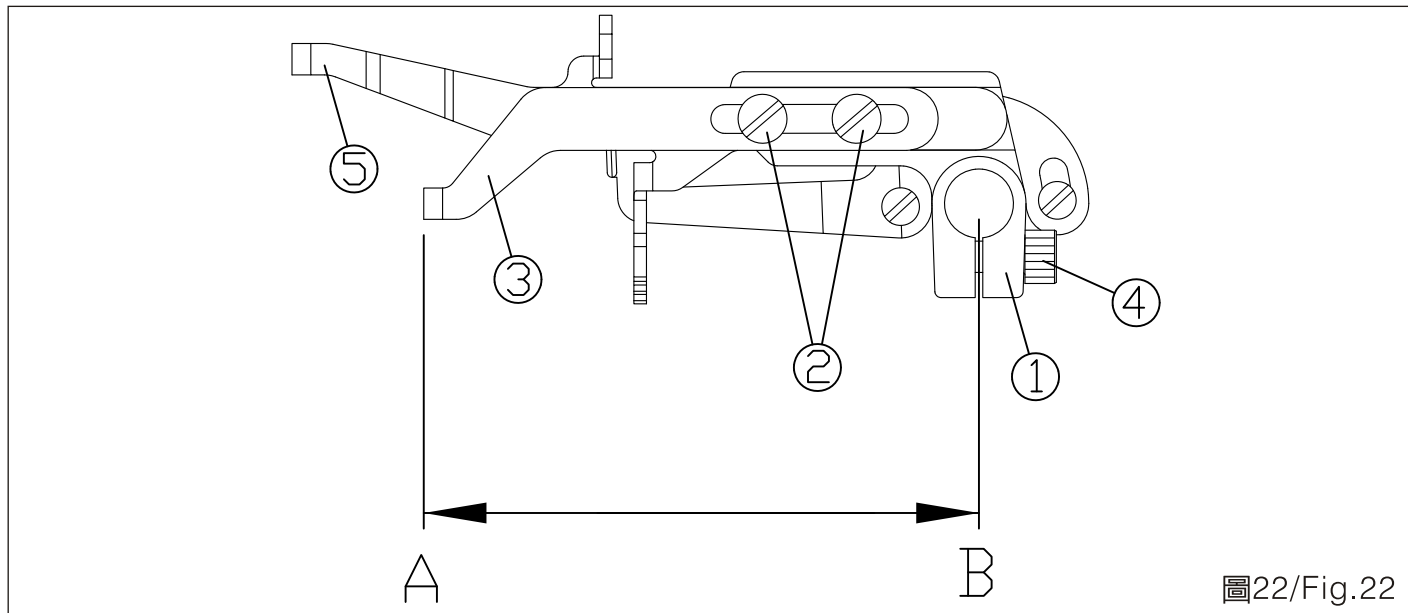


圖22/Fig.22

2. 將螺絲②鬆開，調整 A ， B 兩點的距離約 81.5 mm 再鎖緊。

2. Loosen screw ② to adjust the length between point A and B to be about 81.5 mm, then fasten it tightly.

註：

欲將針線條鬆時，將挑線桿③向左方向移動。

欲將針線條緊時，將挑線桿③向右方向移動。

Note:

To loosen the needle thread, turn the needle thread take up ③ toward the left.

To tighten the needle thread, turn the needle thread take up ③ toward the right.

3. 上叉挑線桿⑤不要調動。

3. Do not move the spreader thread take-up ⑤ when making above adjustments.

1. 當上叉挑線桿①擺至最高點時，另一張線桿②上的小孔 A 必須與張線桿①上之長溝底同高。（圖 23）

1. When the spreader thread take-up ① is adjusted to the top, the small hole A of the other spreader thread take-up ② must be at the same level with the long groove of the Spreader Thread Take-up ①. (Fig.23)

2. 必要調整時，先鬆開螺絲③及④，上下擺動上叉挑線桿②，調整後鎖緊之。

2. For necessary adjustment, loosen screw ③ and ④ first, move the Spreader Take-up ② up and down, and then fasten the screws again.

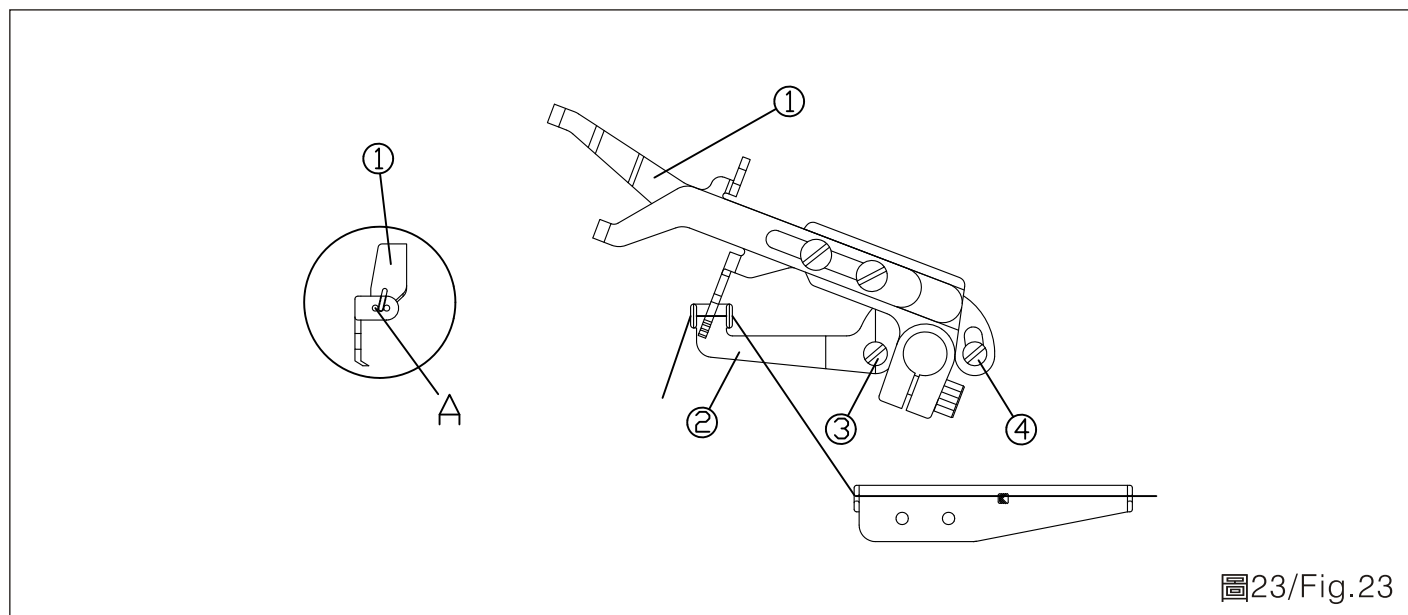


圖23/Fig.23

縫目長度之調整

ADJUSTING STITCH LENGTH

縫目長由 1.6 至 4.2mm 或 6-16 針 / 吋無階段性調整。

Stitch length can be adjusted variably in range from 1.6mm- 4.2mm, or 6-16 stitches per inch.

1. 用左手壓下按鈕 A，再以右手轉動手輪直到左手手指感覺按鈕嵌入到機器內部卡鎖。（圖 24）

1. Keep pressing the push button A with the left hand, then turn the hand-wheel with the right hand until you feel the push button lock in. (Fig. 24)

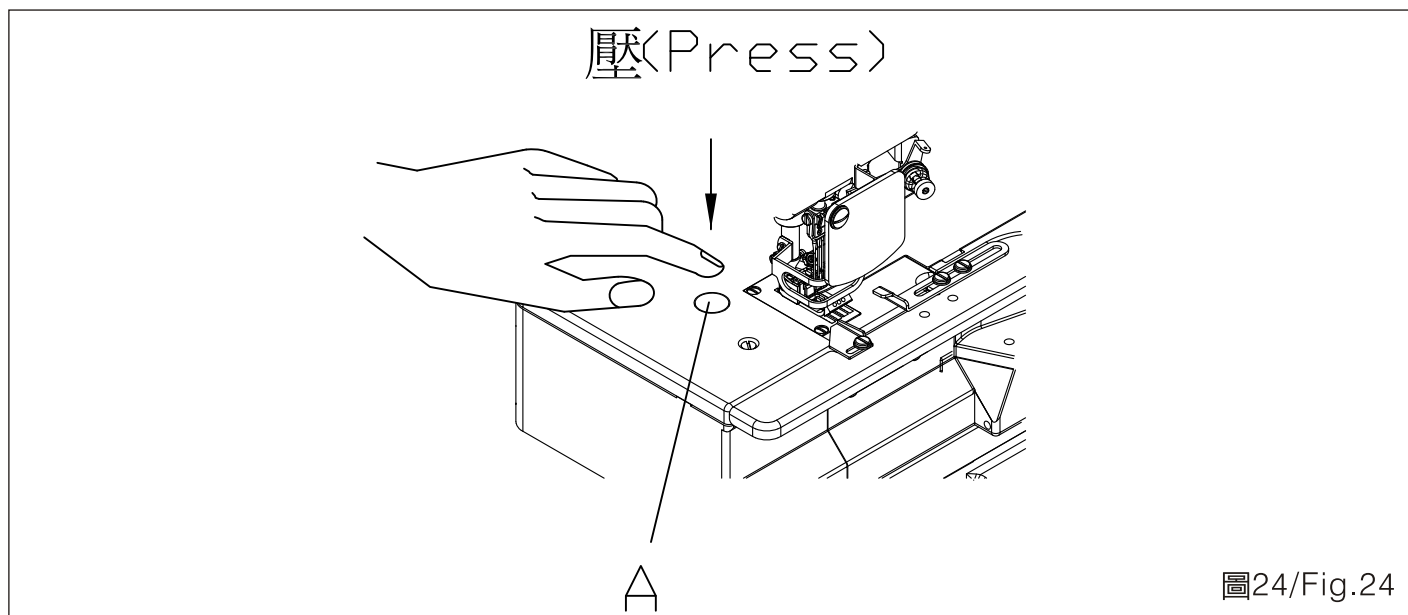


圖24/Fig.24

2. 持續轉動手輪，選擇所需之縫目長度對準 B，然後放開按鈕。（圖 25）
3. 欲調長縫距時，將手輪順時針方向旋轉；反之則小。
4. 縫距之調整會使差動比改變，故縫距調整後，需接著調整差動比。

2. Keep turning the hand-wheel for a inquired stitch length. Turn the pulley and align the inquired scale with mark B, and then stop pressing the button. (Fig. 25)
3. Rotate the hand-wheel clockwise to increase the stitch length, and counter-clockwise to decrease.
4. Adjusting the stitch length will change the differential feed ratio, therefore, after adjusting the stitch length, please adjust the differential feed ratio.

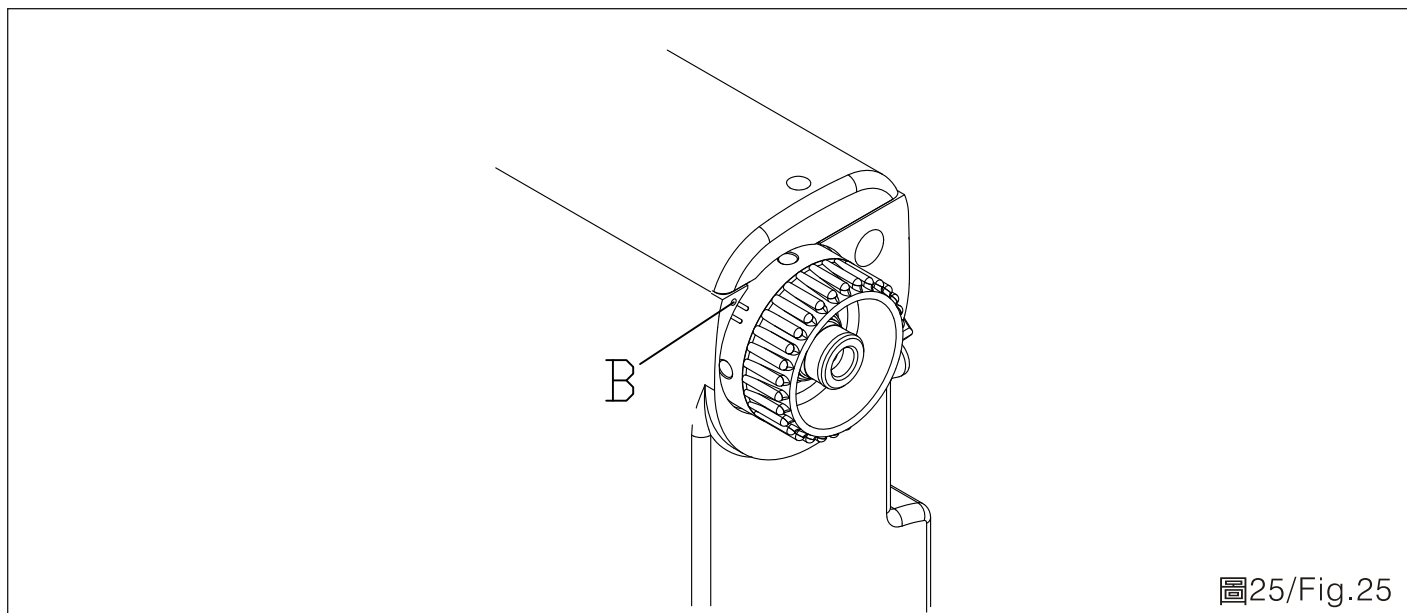


圖25/Fig.25

差動比調整

ADJUSTING DIFFERENTIAL FEED RATIO

本機器之差動比可從 1:0.5 調整至 1:1.3 鬆開螺母②，上下移動調整桿①調整之。（圖 26）

The differential Feed Ratio of this machine is adjustable from 1:0.5 to 1:1.3. (Fig.26)

To adjust the ratio, loosen the nut ②, move the indicator ① up or down.

- * 要拉伸布料車縫時，則將調整桿①往上移。
- * 需要縮皺布料車縫時，則將調整桿①往下移。

* To stretch the cloth, move the indicator ① upward.

* To gather the cloth, move the indicator ① downward.

注意：

螺絲③④勿任意調整，避免於最大縫距且最大差動比時，送布牙上升時易碰針板，如必要調整時，請將縫距調小。

NOTE:

Do not adjust screws freely ③④ to prevent the feed teeth colliding with the needle plate when the stitch length is the longest and the differential ratio is the biggest. If it is necessary to adjust, please shorten the stitch length.

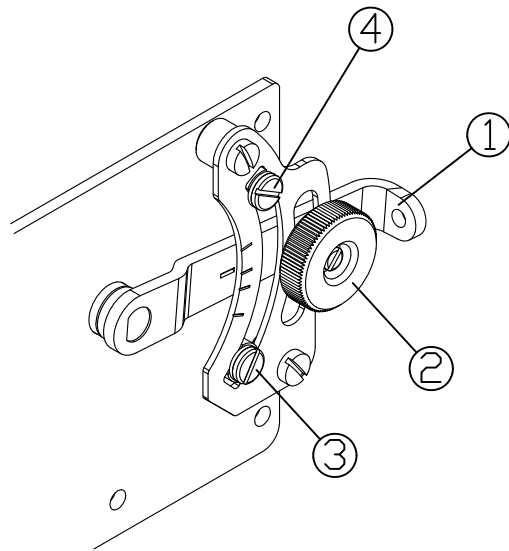


圖26/Fig.26

壓具之調整

ADJUSTING PRESSER FOOT

鬆開螺絲①，左右搖擺，調整壓具②，使針尖端剛好位於如圖所示之中心點。調整後，再鎖緊螺絲①。（圖 27）

Loosen screw ① and adjust presser foot ② left and right to a proper position to let the needle may get into the center of presser foot's eyelet. After adjusting, tighten screw ①. (Fig. 27)

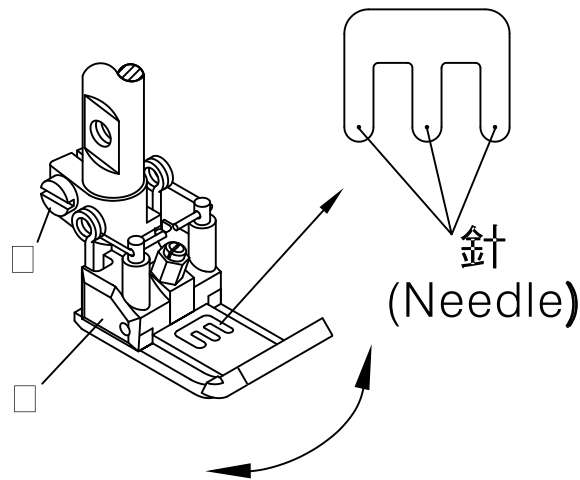


圖27/Fig.27

壓具壓力強度之調整

ADJUSTING THE PRESSURE OF PRESSER FOOT

在布料推送順暢且縫合完美的情況下，盡量使壓具壓力輕一點。

* 鬆開螺帽 A，將螺桿 B 順時針旋轉壓力變大，反之則變小。（圖 28）

If the fabric is fed smoothly and has perfect sewing, the pressure of presser foot could be adjusted to be lightened.

*Loosen the nut A, and turn the screw B clockwise to increase the pressure, turn it counterclockwise to decrease the pressure. (Fig. 28)

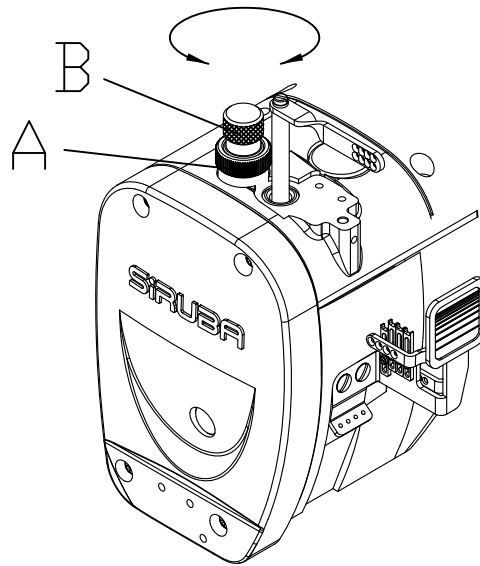


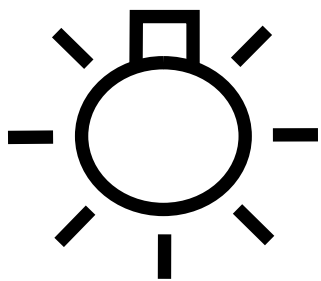
圖28/Fig.28

操作環境照明

提供一個警示標誌，告知使用者：工業用縫紉品或是縫紉系統必須在該縫紉區域未啓動照明裝置前，禁止插電或通電；照明裝置的最大輸入功率應該能夠輕易辨識，當照明裝置被重置或移動的時候，警示標誌也應設置在照明裝置插座上或是附近。警示標示如圖 29 所示。

LIGHTENING OF THE OPERATION ENVIRONMENT

Provide a warning that an industrial sewing unit or sewing system must always be unplugged from the local lighting of the sewing area before relamping, the marking of maximum rated input of a lamp shall be easily discernible while the lamp is being replaced indicated on or near the lamp socket as shown on Fig. 29.



額定功率.....100W
Lamp Max.....100W

圖29/Fig.29

操作者條件

CONDITION OF ALL OPERATORS

1. 熟讀並了解使用說明書內容。
2. 認識機器各部功能及注意事項。
3. 了解各警告標籤之意義。
4. 了解熟悉機器之操作方式。
5. 操作者須保持精神狀態良好。
6. 操作者須穿著何宜適當之工作服。
7. 視需要培養操作者使用機器之熟練度。

1. Read and understand well the content of this instruction book .
2. Know the functions of major parts and understand the notices.
3. Truly realize the meanings of all warning tags.
4. Realize and be familiar with how to operate this machine.
5. Operators have to keep well mental status.
6. Operators shall wear appropriate and proper working suits.
7. Develop the familiarity of how to operate the machine if needed.

保養

MAINTENANCE



注意CAUTION



清潔作業前，請切斷電源。當誤觸啟動開關時，縫紉機動作易導致人員受傷。
Turn off the power switch before carrying out cleaning. The machine may operate if the treadle is pressed incautiously, which could result in injury.



加潤滑油和黃油時，務必戴好保護眼鏡和手套，以防潤滑油進入眼中或沾在皮膚上，易引起發炎。
Be sure to wear protective goggles and gloves when handling the lubricating oil and grease so that they do not get into your eyes or onto your skin, otherwise inflammation can be resulted.



潤滑油或黃油不能飲用，否則將會引起嘔吐和腹瀉，將油放在小孩拿不到的地方。
Furthermore, do not drink or eat the oil nor the grease for they can cause vomiting and diarrhea. Keep the oil away of the reach of children.

縫紉機頭倒下或豎起時，請以雙手進行操作。
Use both hands to hold the machine head when tilting or returning it to its original position..



單手操作時，因縫紉機的重量較重，萬一滑落易導致受傷。
If only using one hand to move the machine, the weight of the machine head may cause slipping and you may get hurt.

為了保持縫紉機的機能，且能長久的使用，請每日加以保養。另外，縫紉機如果長時間未使用，請進行以下的保養後再使用。

For keeping the machine quality and lengthening the usage term of this sewing machine, please maintain it everyday. In addition, before first use after a long idling time, please follow the following steps to maintain.

《保養》

1. 抬起壓具。
2. 將兩個螺絲①拆下，然後拆下針板②。
3. 以軟毛刷清除送布牙③上的棉絮。
(圖 30)
4. 清潔後將針板②裝上。
5. 後傾斜縫紉機頭部。
6. 定期保養項目 (表 3)。

《CLEANING》

1. Raise the presser foot.
2. Remove the two screws ①, and then remove the needle plate ②.
3. Use a soft brush to clean dust and lints on the feed dog teeth ③. (Fig.30)
4. Install the needle plate ② after doing the above cleaning.
5. Tilt back the machine head.
6. Periodical Maintenance Items (Table 3)

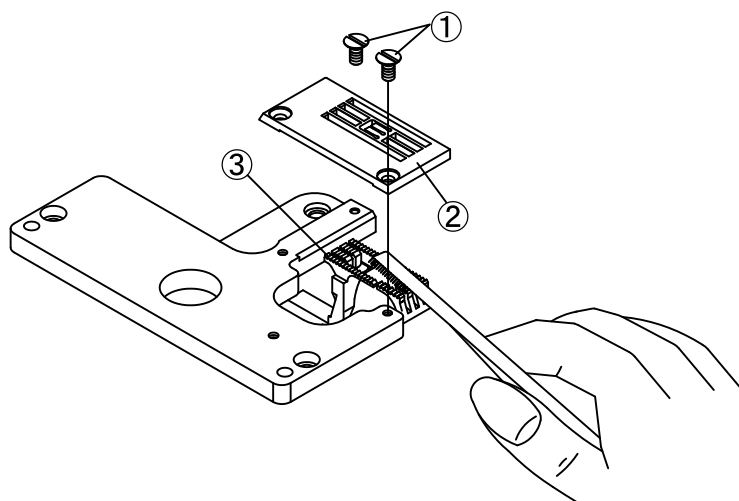


圖30/Fig.30

保養循環 Maintenance Cycle	保養項目 Maintenance Items
每天 Daily	1. 清潔送料具上之棉絮 1. Clean the lint on the feed dog.
	2. 檢查油盤是否有足夠之液態油。(油量在油鏡之上、下兩紅漆記號間) 2. Check if there has enough liquid oil inside the oil pan. (The amount should be between the red up and down paint mark of the oil level gauge.)
	3. 保持機器及操作台清潔 3. Keep the machine and the operation table clean.
每週 Weekly	1. 保持電源外觀乾淨 1. Keep the power cords looking clean and neat.
	2. 保持操作面板乾淨 2. Keep the operation panel clean.
	3. 檢查電源零件是否鬆脫或在正確位置 3. Check if the power parts is loosening or still at the right position.
每三個月 Quarterly	1. 更換油盤之液態油 1. Change the liquid oil inside the oil pan.
每年 Annually	1. 檢查傳動皮帶是否疲乏或毀損 1. Check the transmission belt to see if it is weariful or damaged.

表3/Table 3

1. 請選用 MOBIL #10 或 ESSO #32 或同級之潤滑油。
2. 由於新機器在裝運前已將油倒盡，因此新機器在使用前必須注入新油，轉開油鏡 A 將油注入機器中，待油量滿至油標指示上下線之間即可。（圖 31/32）

1. Please use a Mobil #10 or Esso #32 or its equivalent lubricant.
2. The lubricating oil has been drained from the machine before delivery. Therefore, before using the new machine, remove the oil level inspection lens(A), and fill the oil until the oil level is between the high/low indicate lines of oil level gauge. (Fig.31/32)

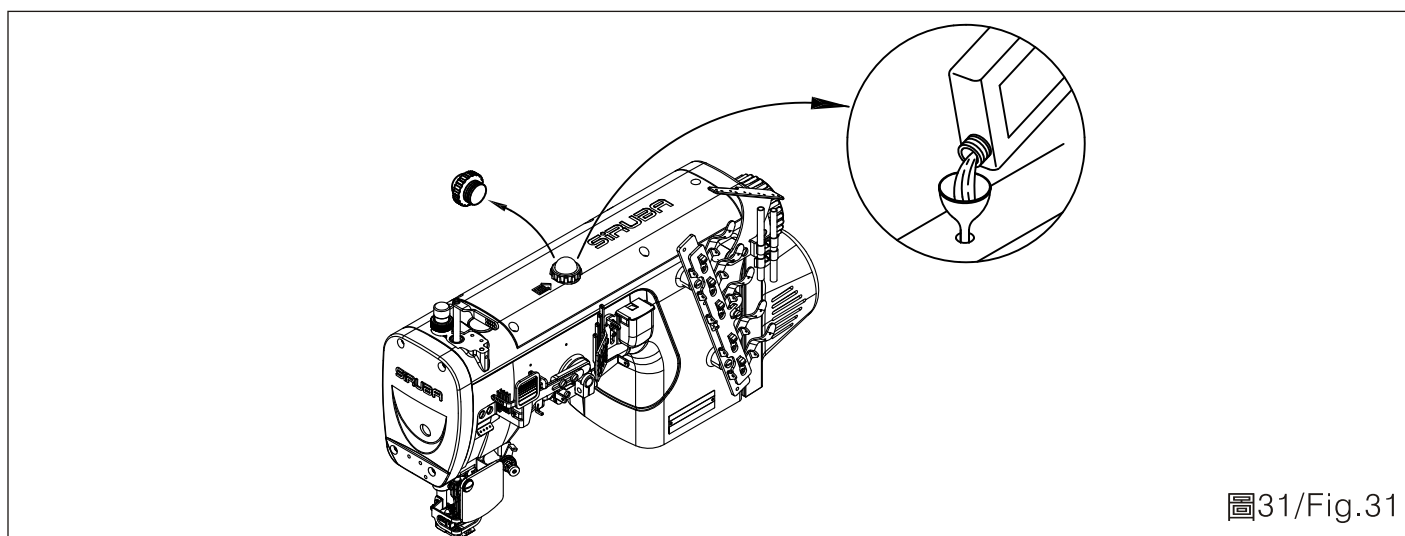


圖31/Fig.31

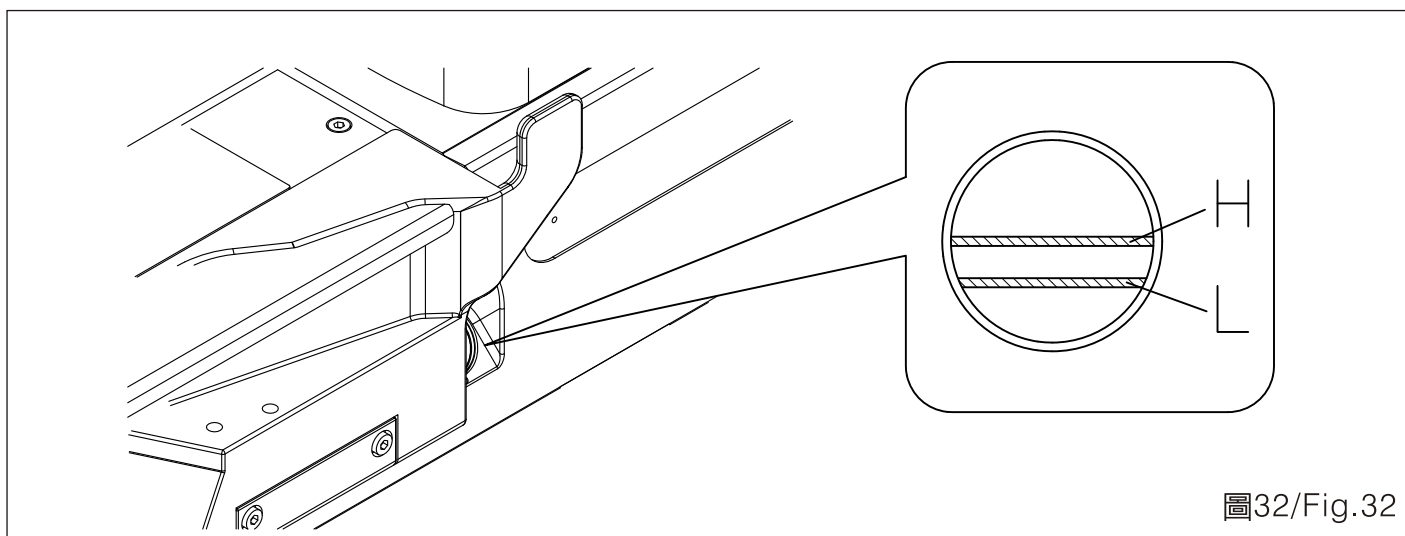


圖32/Fig.32

3. 每天必須檢視，如果油已低於油標指示窗之下限，必須加注新油。當機器開始運轉，操作前必須檢視整個潤滑系統是否暢順。

3. Be sure to check the oil level every day and refill the oil, if oil level is lower than the lower indicate line of oil level gauge. When the machine starts functioning, check the lubrication system to see if it is well functioned before operating the machine.

* 開箱之新機器或許久未使用而重新要使用時，請在針棒上下部份加油潤滑。

* Please lubricate the upper and the lower part of the needle bar when intending to use a brand new machine or an idling machine.

針與線之冷卻與潤滑

LUBRICATION AND COOLING OF THE NEEDLES AND THE THREADS

將矽油注入①②油槽以防止斷線。(圖33)

Fill the oil tank ① and ② with silicone oil to Prevent the thread and breaking. (Fig.33)

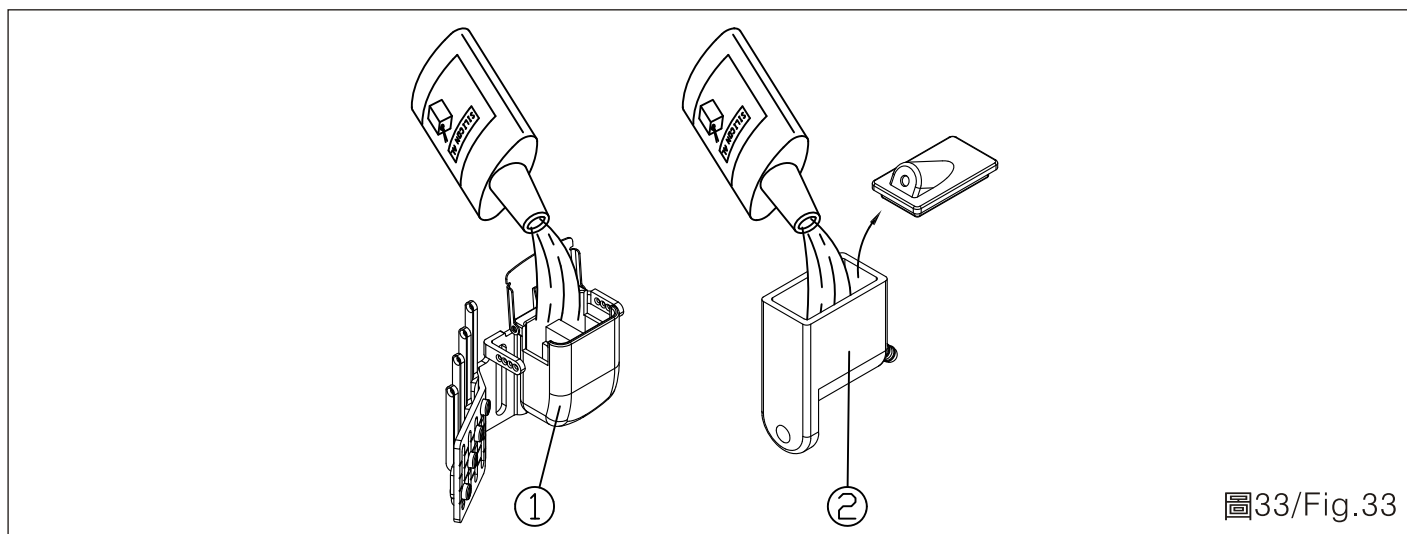


圖33/Fig.33

針之更換

HOW TO REPLACE THE NEEDLES

1. 選用針之規格與尺寸請參照(表4)。

1. See Table 4 for the sizes and the specifications of the needles.

針代號 NEEDLE SYSTEM	針尺寸 NEEDLE SIZE	
	2針 2 NEEDLES	3針 3 NEEDLES
SCHMETZ	#70	#75
ORGAN UYX 128 GAS	#10	#10

表4/Table 4

2. 旋開螺絲①並取下針，將新針插至針座最底端，並使針之長溝面向自己。(圖 34)

2. Loosen screw ①, then pull out the used needles. Insert the new needles into the holder holes as far as they can go, and let the long groove of the needle face you. (Fig.34)

3. 重新鎖緊螺絲①。

3. Tighten screw ①.

* 特殊機種針之代號請參考規格件表。

* Needle size of special model, please refer to conversion chart.

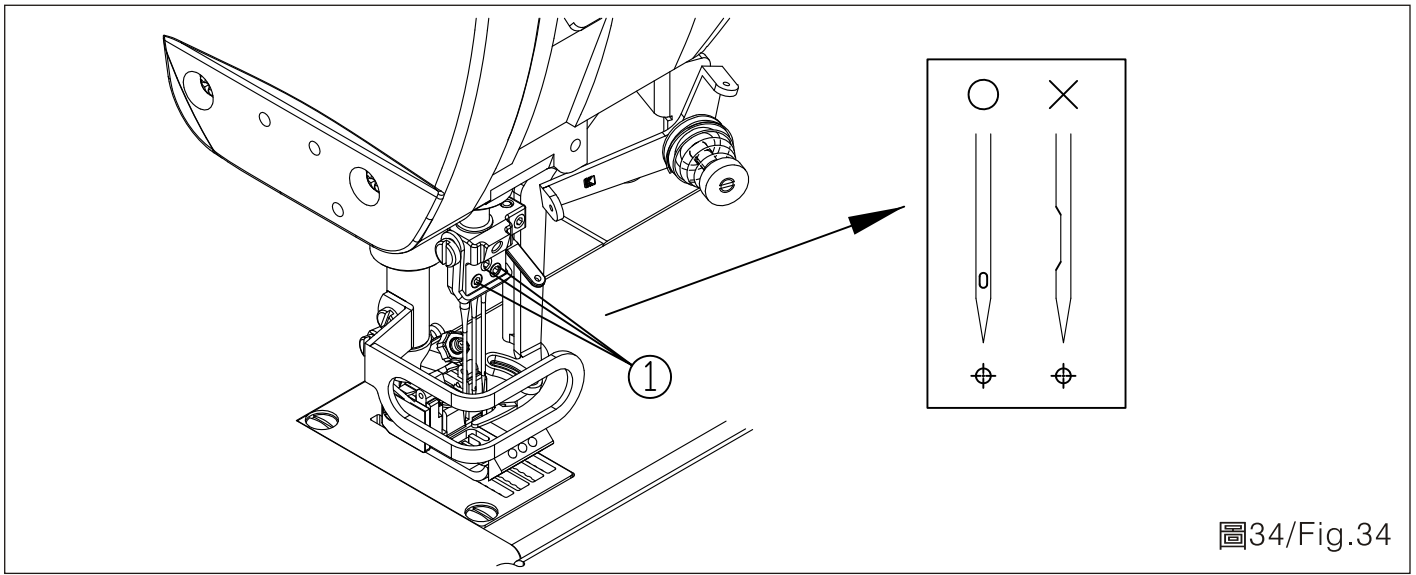


圖34/Fig.34

潤滑油之更換

CHANGE THE LUBRICATION OIL

1. 將螺絲 D 鬆開，使油槽之油完全排出後再鎖緊。（圖 35）
2. 為延長本機器壽命，請於開始使用一個月後更換新油，爾後約每三個月更換一次。

1. Loosen screw D, and fasten it after drain all the oil from the tank. (Fig.35)
2. To extend the life of the machine, change oil after the first month of operation. Later, change oil every four months.

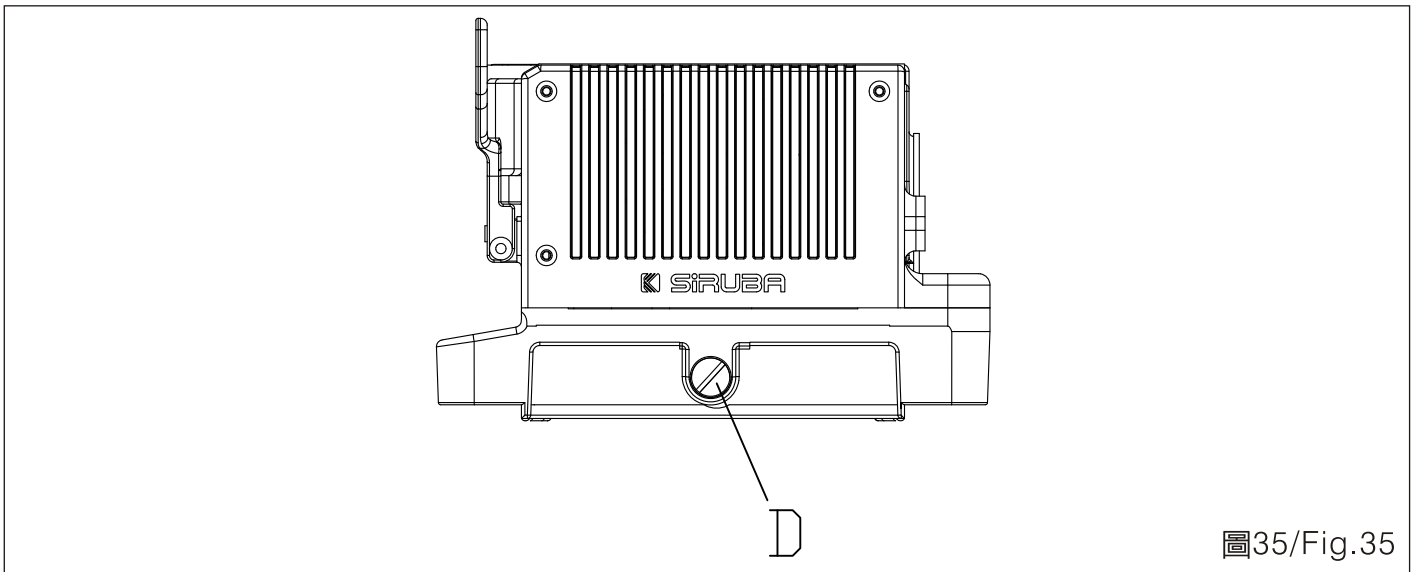


圖35/Fig.35

濾油器之更換

CHANGE THE OIL FILTER

本機器特別裝有濾油器，約每使用一個月後應卸下清洗，必要時得換新品。（圖 36）

This machine is specially equipped with an Oil filter, which shall be changed every month. Please replace the filter if necessary. (Fig. 36)

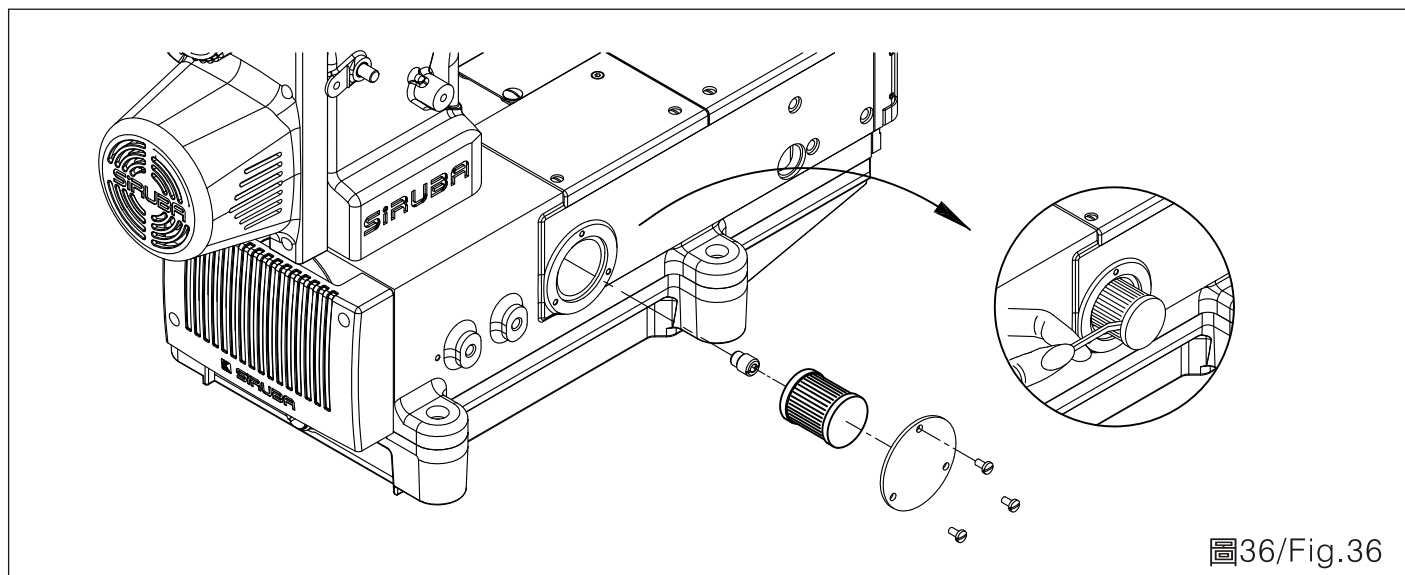


圖36/Fig.36

故障檢修

TROUBLESHOOTING


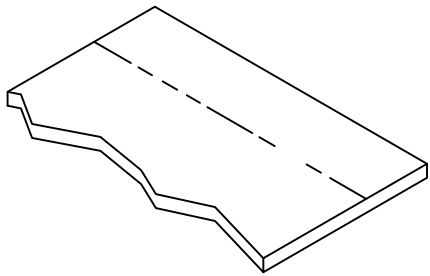


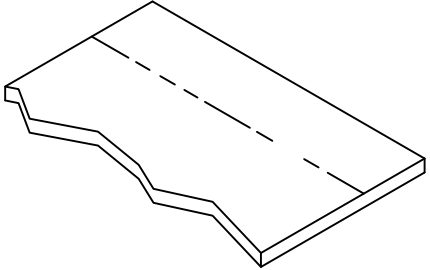
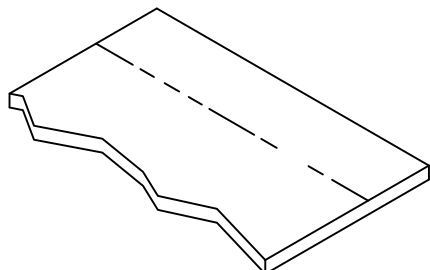
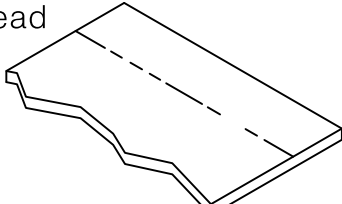
注意CAUTION

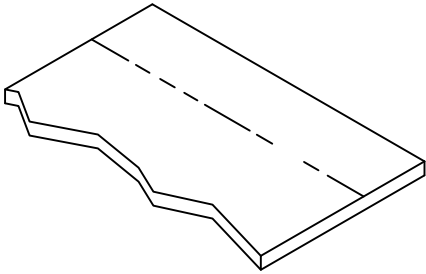
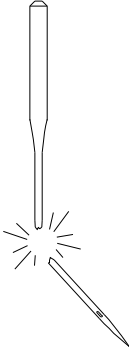


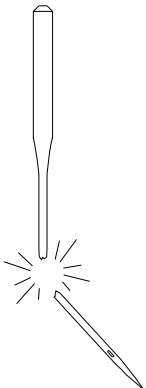
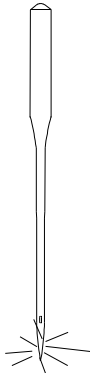
在進行故障檢修查詢之前，請先關閉電源並拔出電源，否則如果誤觸啓動開關，縫紉機會動作，易導致人身受傷。

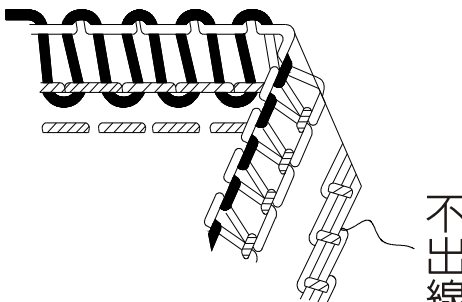
Before processing the troubleshooting, please turn off the power switch and unplug the electronic cord. Otherwise, if touching the start switch incautiously, the sewing machine will function and will probably cause injuries happened on operators.

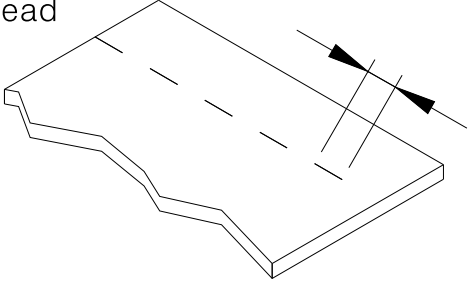
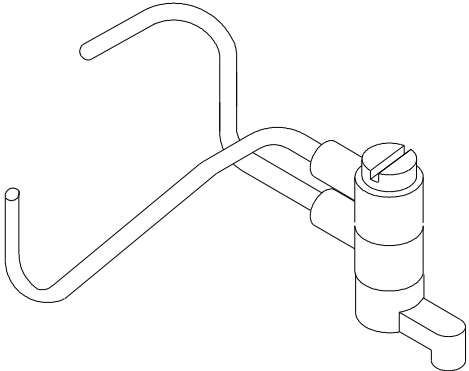
No.	現象 Problem	檢查及調整 Exam and Adjustment
1.	針線太過緊密/疏鬆 Needle thread too tight/ loose 	<ul style="list-style-type: none"> ● 針線張力是否過大或過小？ The tension of the needle thread is too loose or too tight? ◎ 調整針線張力。 Adjust the needle thread tension.
2.	針線的跳線現象 The skipping stitch of needle thread 	<ul style="list-style-type: none"> ● 車針的選擇不對？ Choose the wrong needle? ◎ 選擇配合布料的車針與縫線號碼。 Select the needle and thread number match the fabrics. ● 車針不良？ Bad needle? ◎ 換新車針。 Change a new needle. ● 車針與左勾針尖端之間有間隙？ Any clearance between the needle and the top of the left looper? ◎ 調整左勾針尖端與車針之間±0。 Adjust the distance from the top of the left looper to the needle to be ±0.

No.	現象 Problem	檢查及調整 Exam and Adjustment
2.	針線的跳線現象 The skipping stitch of needle thread 	<ul style="list-style-type: none"> ●張力調整小彈簧不起作用？ The small spring tension of adjustment doesn't function? ◎(1)小彈簧不起作用時，要把彈簧拉緊一點。 (注意)拉太長則會發生斷線。 (1) If the small spring does not function, pull it to be more tightened. (Note) The broken thread will happen of pull the spring too tight. (2)張力調整盤發生溝槽時，則需更換新調整盤。 (2) If there is any groove existing on the tension adjusting plate, please change a new one. ●針線的張力太緊？ The tension of the needle thread is too tight? ◎(1)把針線張力全部放鬆些。 (1) Loose the tension of the needle thread a little. (2)把針線的線路(A)調整在最高位置，使針線的勾線器(B)的針線放出量減少。 (2) Adjust the line (A) of the needle thread to the highest position, so that the release amount of the needle thread from thread hooking will decrease. (3)把線路程(C)左傾一點，以增加勾針的線放出量。 (3) Learn the line (C) to left a little to increase the release amount of the looper thread.
3.	左勾針線的跳線。 The skipping stitch of the left looper thread 	<ul style="list-style-type: none"> ●左右勾針交叉時，右勾針不會勾到左勾針線？ The right looper didn't hook the left looper thread while they are crossing each other? ◎換新左勾針。(左勾針尖端磨損，要修正時，不得把頭部凸出處予以磨低/磨薄)。 Change the new left looper. (The top of the left looper is worn. When fix and replace, the protrusion of the looper top shall not be worn.) ●右勾針尖端的磨損？ The wear of the right looper top? ◎換新勾針或用油石把尖端磨尖。 Change a new looper or use the oil stone to wear the top.
4.	右勾針線的跳線 The skipping stitch of the right looper thread 	<ul style="list-style-type: none"> ●右勾針與車針的間隙太大？ The space between the right looper and needle is too wide?

No.	現象 Problem	檢查及調整 Exam and Adjustment
4.	右勾針線的跳線 The skipping stitch of the right looper thread 	<ul style="list-style-type: none"> ◎右勾針向右退後時，和車針的間隙必須為0.1mm乃使用正規的右勾針。(備有單針、雙針、厚料、薄料用各機種最合適的右勾針) When the right looper turn right and backward, the distance to the needle has to be 0.1 mm, which is using the correct right looper. (The appropriate right looper for each type, such as single needle, 2 needles, materials, and thin fabrics, are included) ●雙針時，右勾針與左針的間隙大？ The distance is too wide between the right and left needle when using 2 needles? ◎由於右勾針安裝時的左右位置以及右勾針座上下運動位置之雙方關係，予以調整在勾針的運動軌跡，在右勾針下降時，將左針到右針的下降量予以減少。 Because the correlation of the left/right position of the right looper while assembling and the up/down moving position of the right looper seat, adjust the movement path of the looper. When the right looper descends, decrease the descending amount from left needle to right needle.
5.	斷針 Needle broken 	<ul style="list-style-type: none"> ●車針的選擇不對？ Choose the wrong needle? ◎在布料不發生針孔的範圍內，使用粗一點的車針。 Use thick needle within the range that there will be no pinhole occurred on the fabric. ●壓具的安裝不良？ Bad assembling of the presser foot? ◎安裝時必須使用車針會插進壓具落針處中央。 During assembly, make sure the needle can insert to the central point of the presser foot. ●送布齒的安裝高度低不對？ Wrong assembling height of the feeding teeth? ◎調整送布齒的高度為0.8~1mm，同時保持適當的壓具壓力。 Adjust the height of the feeding teeth to be around 0.8mm to 1mm. Meanwhile, keep the appropriate presser foot pressure. ●縫線不良？ Bad threading? ◎縫線有結頭要事先加以處理後，重新穿線。 If there is any connecting part of the thread, it needs to be dealt first. Then, threading. ●縫紉過程中是否在送入或拉出面料時用力過度？ Is the material being pushed or pulled with excessive force during sewing? ◎機針是否安裝正確？ Is the needle properly installed?

No.	現象 Problem	檢查及調整 Exam and Adjustment
5.	斷針 Needle broken 	<ul style="list-style-type: none"> ●如果機針安裝不正確，應正確加以安裝。 If it is incorrect, install the needle correctly. ◎機針是否彎曲？針尖是否斷裂起毛或針孔是否被堵住？ Is the needle bent? Is the needle tip broken, or is the needle hole blocked? ●如果斷針不慎掉入縫紉衣物中，會有很大的危險。 It is extremely dangerous to leave any pieces of broken needle sticking in the material. ◎請儘可能找出斷掉的機針。 If the needle breaks, search for all pieces until the whole of the needle is found.
6.	車針尖端受損 The top of the needle damaged 	<ul style="list-style-type: none"> ●右勾針及車針高低不對？ The right looper and the needle have wrong height position? ◎車針在上死點附近時，用手指故意把車針向前彎曲，看看尖端會不會碰到右勾針，然後調整車針高低或右勾針的運動位置。 When the needle moves close to the upper dead point, push the needle forwards a little by finger. See whether the top of the needle touches the right looper or not. Then adjust the height of the needle position or the moving position of the right looper. ●頂針片太靠近？ The ejector plate is too close? ◎裡面的頂針片必須在左勾針的尖端到達車針右側面時，就要從車針離開。前面頂針片與車針間隙必須留大約0.2mm。 The ejector plate inside must leave from the needle before the top of the left looper reaches the right side of the needle. The distance between the front ejector plate to the needle is about 0.2mm. ●針板安裝位置不對？ Incorrect needle plate assembling position? ◎把針板拉前安裝使A部份的間隙大一點。 When assembling the needle plate, pull it forward a little so that the space of part A can be larger.
7.	斷線與縫合不順 Broken thread and rough/uneven stitch	<ul style="list-style-type: none"> ●線架的線孔沒有磨光？ The thread hole of the thread stand did not polish? ◎用砂布把線孔周圍磨光。 Use emery cloth to polish the surroundings of the thread hole. ●線的選擇錯誤？ Choose the wrong thread? ◎更換較好的線，使粗細線均勻。 Change a better thread to balance the threads.

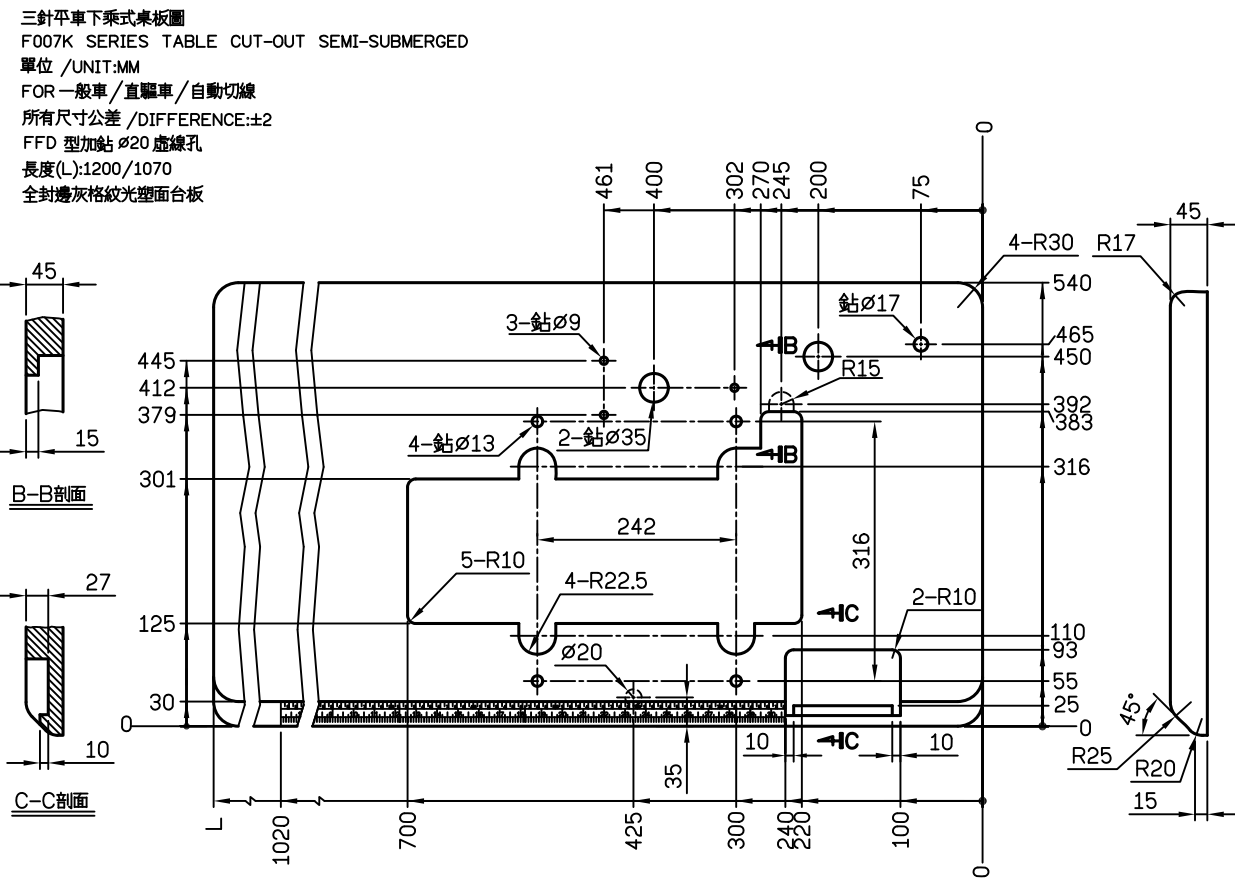
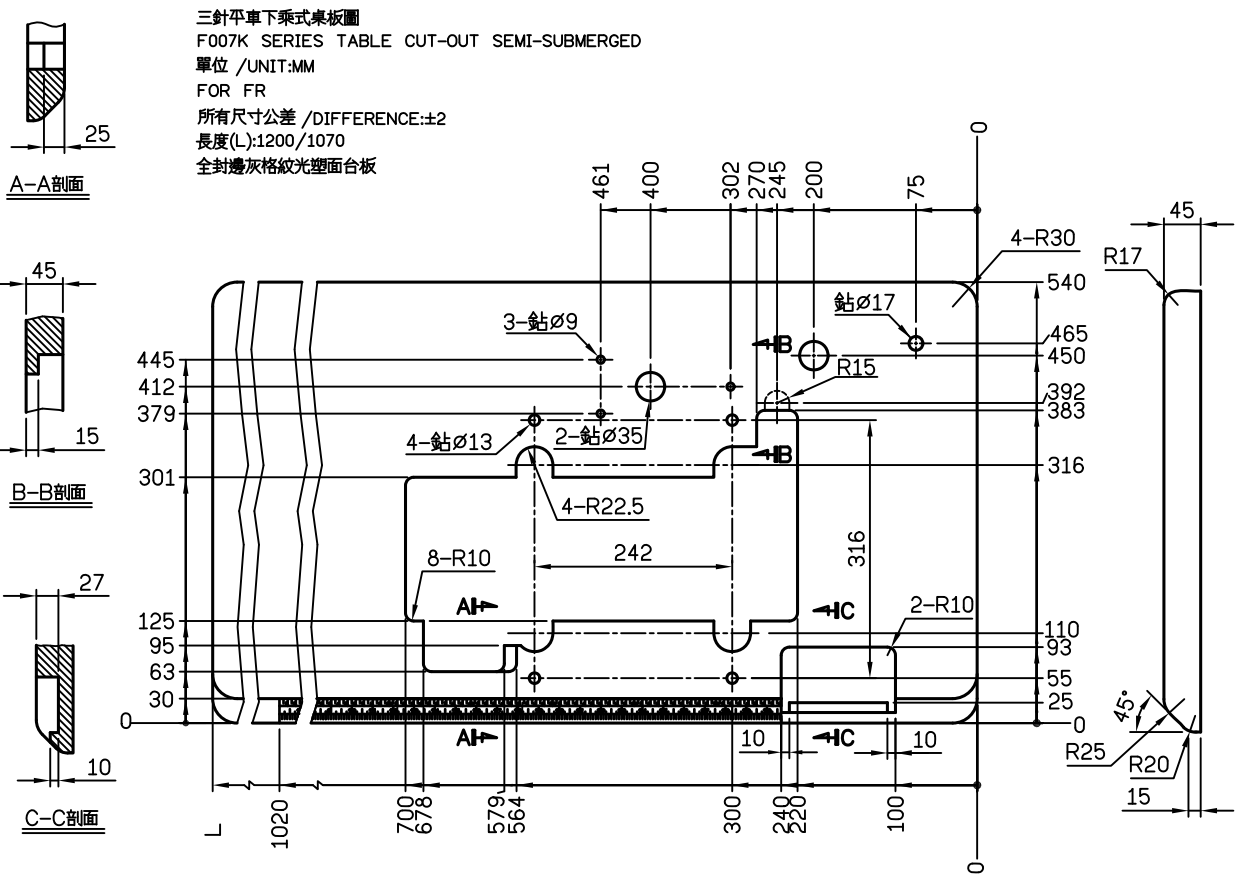
No.	現象 Problem	檢查及調整 Exam and Adjustment
7.	斷線與縫合不順 Broken thread and rough/uneven stitch	<ul style="list-style-type: none"> ●線的張力調整不好？ Cannot adjust to the best thread tension? ◎注意左右勾針的線不要太鬆，要調整一支針線時也要注意到有關的線變化。 Please be noted that the threads of the left/right looper should not be too loose. When adjust the position of one needle, the related changes of the threads are needed to be noticed. A. 拉緊針線→左右勾針線會鬆→右勾針線會鬆。 A. Pull the needle thread tightly→the left looper is looser→the right looper is tighter. B. 拉緊左勾針線→右勾針線會鬆→針線也會鬆。 B. Pull the left looper thread tightly→the right looper is looser→the needle thread is looser, too. C. 拉緊右勾針線→左勾針線會鬆→針線也會鬆。 C. Pull the right looper thread tightly→the left looper thread is looser→the needle thread is looser. ●壓具彈簧調整不良？ Incorrect adjustment of the presser foot spring? ◎調整壓具彈性配合所要用的布料。 Adjust the presser foot flexibility to fit the fabric. ●切刀磨損？ The knife is worn? ◎磨力刀口或更換新品。 Sharpening the knife or changing a new one. ●差動比未配合？ The differential ration is not match? ◎調整配合布料的差動送料。 Adjust the differential feeding to match the feeding fabric.
8.	環縫不出線 The thread does not come out when doing chainstitch 	<ul style="list-style-type: none"> ●環勾針線凸輪調整不當？ The cam of the chainstitch looper is not appropriate? ◎調整適當的凸輪方位。 Adjust the cam to an appropriate position. ●控線器不良？ Thread tension device does not work well? ◎(1)調整彈簧強度。 (1) Adjust the spring strength. (2) 拋光或換新。 (2) Polishing or changing a new one. ●壓具後彈簧安裝不良？ The presser foot rear spring did not assemble well?

No.	現象 Problem	檢查及調整 Exam and Adjustment
8.	環縫不出線 The thread does not come out when doing chainstitch	<ul style="list-style-type: none"> ◎重新調整彈簧或換新，使壓具活動自如，並試其壓力。 Readjust the spring or change a new one to make sure the presser foot can act smoothly and test its pressure.
9.	粗細針不能分 Cannot separate the thin and thick thread 	<ul style="list-style-type: none"> ●偏心凸輪生鏽？ The eccentric is rusty? ◎清除阻塞部分使油通到凸輪上。 Clean the stuck part so the oil can reach the cam. ●偏心凸輪控制彈簧調整不當？ Inappropriate adjustment of the eccentric cam control spring? ◎調整適當之緊度，但不可太鬆。 Adjust to the proper tension, but should not be too loose.
10.	大聲、異聲 Loud noise, strange noise	<ul style="list-style-type: none"> ●心軸鬆動出聲？ The main shaft is loose and has noise? ◎把大心上的銅套之銅面膠清除、重新調整。 Clean the copper glue from the copper cover of the main shaft and readjust. ●泵浦聲(沙沙聲)？ Noise of the pump (scratchy)? ◎用治具加壓泵浦齒輪，使運轉3-5分鐘即可。 Use the fixture to add pressure on the gear of the pump, and keep the pump running 3-5 minutes. ●針棒鬆動？ The needle bar is loosening? ◎更換新品或磨合其接觸面使之間隙變小。 Change a new one or to polish the contacting surface so that clearance is smaller. ●皮帶輪出聲？ Noise from the belt wheel? ◎按基準調整之。 Adjust it based on the norm.
11.	不能噴油 The oil does not splash 	<ul style="list-style-type: none"> ●泵浦不出油？ The oil does not come out from the pump? ◎(1)重新鎖正確位置。 (1) Relcok it to the correct position. (2)重新組配泵浦中齒輪與心軸位置。 (2) Reassemble the gear of the pump to main shaft and adjust the position. ●上機構不噴油？ Upper mechanism does not splash the oil? ◎(1) 清除毛頭換新出油螺絲。 (1) Clean the blunt and change with a new screw. (2) 換新濾油器。 (2) Change with a new filter.

No.	現象 Problem	檢查及調整 Exam and Adjustment
11.	不能噴油 The oil does not splash	(3) 清除污穢的東西或換新。 (3) Clean the dirt or change a new one. (4) 用鐵絲疏通油路。 (4) Use the iron wire to clean through the oil path.
12.	針線不夠緊密 Upper thread is not tight	●針線張力是否過小，或勾針線張力是否過大？ Is the upper thread tension too weak, or is the looper tension too strong? ◎調整針線張力或勾針線張力。 Adjust the upper thread tension or looper thread tension.
13.	勾針線不夠緊密 Lower thread is not tight	●勾針線張力是否過小，或針線張力是否過大？ Is the looper thread tension too weak, or is the upper tension too strong? ◎調整勾針線張力或針線張力。 Adjust the looper thread tension or upper thread tension.
14.	縫紉時出現跳針 Skipped stitches occur while sewing	●機針是否彎曲？針尖是否鈍化或起毛？ Is the needle tip bent? is the needle tip blunt? ◎如果針尖彎曲或斷裂起毛，應予以更換。 If the needle tip is bent or broken, replace it. ●機針是否安裝正確？ Is the needle installed properly? ◎如果機針安裝不正確，應正確加以安裝。 If it is incorrect, install the needle correctly. ●縫線是否穿引正確？ Is the machine threaded properly? ◎如果穿引不正確，應正確穿引縫線。 If it is incorrect, thread the thread correctly. ●壓具壓力是否過小？ Is the presser foot pressure too weak? ◎調整壓具壓力。 Adjust the presser foot pressure. ●機針是否太細？ Is the needle too thin? ◎更換大一號的機針。 Replace the needle with a needle that is one rank thicker. ●壓具是否太高？ Is the presser foot too high? ◎調整壓具高度。 Adjust the presser foot height. ●挑線彈簧是否太弱？ Is the thread take-up spring too weak? ◎調整挑線彈簧的張力。 Adjust the tension of the thread take-up spring.

No.	現象 Problem	檢查及調整 Exam and Adjustment
15.	縫紉開始時出現跳針或脫線 Skipped stitches or unraveled thread at sewing start	<ul style="list-style-type: none"> ●挑線彈簧張力是否過大？ Is the thread take-up spring tension too strong? ◎減小挑線彈簧張力。 Reduce the tension of the thread take-up spring. ●挑線彈簧活動範圍是否過大？ Is the thread take-up spring operating range too large? ◎降低挑線彈簧的位置。 Lower the position of the thread take-up spring. ●切線後，針線殘留量是否過短？ Are the trailing lengths of the upper threads too short after thread trimming? ◎調整張力。 Adjust the tension. ●縫線張力是否減切整齊？ Are the threads not trimmed cleanly? ◎將固定刀磨利，或視需要更換固定刀和活動刀。 Sharpen the fixed knives, or replace the fixed and moveable knives if necessary. ●機針是否過粗？ Is the needle too wide? ◎使用比現有機針小一號的機針。 Try using a needle with a count that is one lower than the current needle. ●縫紉開始時，縫紉速度是否過快？ Is the sewing speed too fast at the sewing start? ◎使用慢速起縫。 Use the slow start feature.
16.	縫線不平整 Uneven Seam	<ul style="list-style-type: none"> ●壓具壓力是否過小？ Is the presser foot pressure too weak? ◎調整壓具壓力。 Adjust the presser foot pressure. ●送布牙高度是否太低？ Is the feed dog too low? ◎調整送布牙高度。 Adjust the feed dog height.
17.	打開電源並踩下腳踏板時，縫紉機不動作。 Machine does not operate when power is turned on and treadle is pressed.	<ul style="list-style-type: none"> ●電源插頭是否從控制箱上鬆開？ Is the power supply connector disconnected from the control box? ◎將插頭插牢。 Insert the connector securely.
18.	縫紉機不能以高速運轉。 Machine does not operate at high speed.	<ul style="list-style-type: none"> ●縫紉機速度設定和倒縫加固速度設定是否正確？ Is the sewing speed setting or back bar-tacking speed setting incorrect? ◎請設定在高速縫紉速度。 Use the sewing speed control keys to set the high speed.

No.	現象 Problem	檢查及調整 Exam and Adjustment
19.	大量的縐褶(張力過大) Large degree of puckering (Excess Tension)	<ul style="list-style-type: none"> ●針線張力是否過大？ Is the upper thread tension too strong? ◎盡量減小針線張力。 Make the upper thread tension as weak as possible. ●勾針線張力是否過大？ Is the looper thread tension too strong? ◎盡量減小勾針線張力。 Make the looper thread tension as weak as possible. ●條線彈簧張力是否過大？ Are the thread take-up spring tension too strong? ◎盡量減小挑線彈簧張力。 Make the thread take-up spring tension as weak as possible. ●挑線彈簧活動範圍是否過大？ Is the thread take-up spring operating range too large? ◎盡量降低挑線彈簧位置。 Lower the thread take-up spring as low as possible. ●壓具壓力是否過大？ Is the presser foot pressure too strong? ◎調整壓具壓力。 Adjust the presser foot pressure. ●縫紉速度是否過快？ Is the sewing speed too fast? ◎降低縫紉速度。 Use the sewing speed control keys to gradually reduce the sewing speed.
20.	在縫紉過程中縫紉機停止運轉。 Machine stops during sewing.	<ul style="list-style-type: none"> ●定針鍵是否在ON位置？ Is the fixed stitch key turned on? ◎關閉定針鍵功能。 Turn off the function of fixed stitch key. ●電源電壓是否太低？ Is the power supply voltage too low? ◎檢查電源。如果電線太長，或單一插座接入過多的電器，則可能造成電壓下降。 Check the power supply. (If the power cord is too long or too many appliances are being run from a single outlet, this may cause voltage drops.)



三針平車上乘式桌板
 F007K SERIES TABLE CUT-OUT SEMI-SUBMERGED
 FOR FHK

單位/UNIT : MM

所有尺寸公差/DIFFERENCE : ±2

長度(L) : 900

全封邊灰格紋光塑面台板

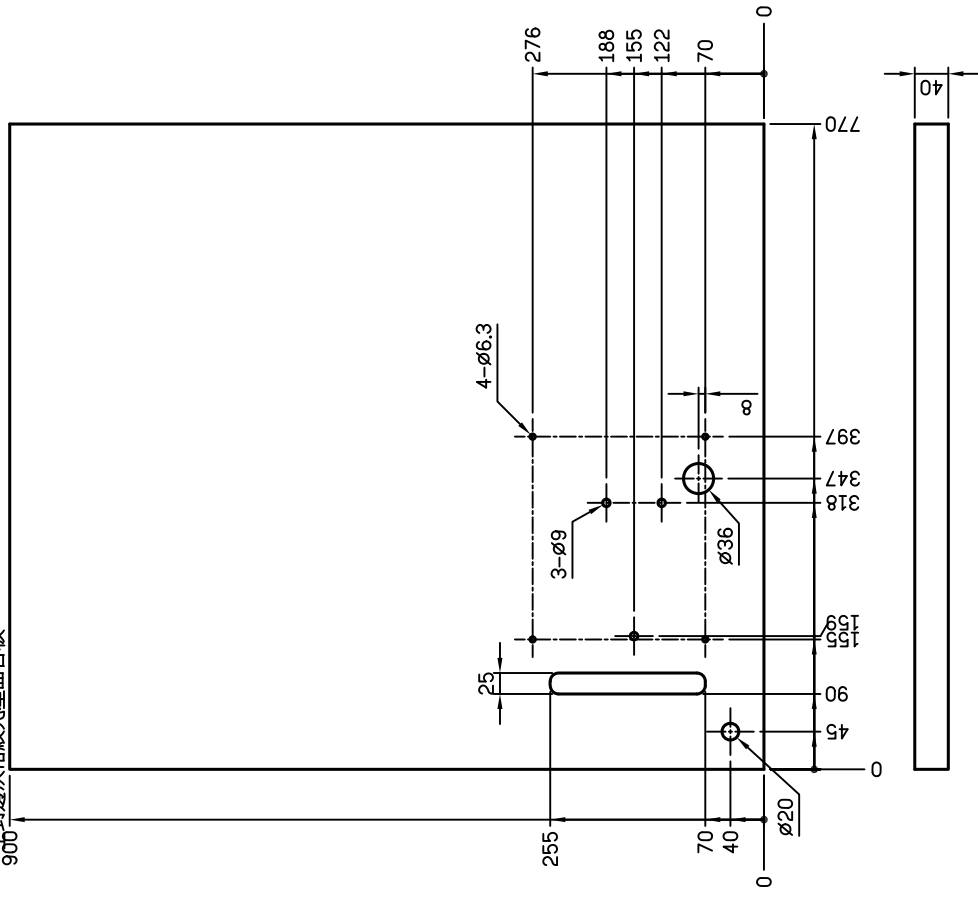


TABLE CUT-OUT OF F007K/KD-T2

1. 當機器需要被淘汰與報廢時，有一些基本規則必須採納、遵守以保護環境及公眾健康。
 2. 所有的機器零件必須依照下列分類來區分開：
 - (1) 所有護套、可伸縮軟管及塑膠或非金屬零件。
 - (2) 電器零件：開關、照明器具等。
 - (3) 絕緣材料：石棉、彈性 / 可伸縮橡膠片。
 - (4) 金屬：含鐵金屬、銅、青銅與黃銅、其他各種金屬。
 3. 以此方法，所有材質可以正確的淘汰，回收再利用或熔解為可再使用或再處理而不至於危害環境。
1. When the machine needs to be eliminated and demolished, certain basic rules must be observed to protect the environment and public health.
 2. ALL machine components must be divided according to categories as the followings:
 - (1) All sheathes, flexible hosing and plastic or non-metal components.
 - (2) Electricity components: switches, or lighting components.
 - (3) Insulation materials: rock wool, and Flexible rubber strips.
 - (4) Metals: ferrous metals, copper, bronze and brass, various.
 3. In this way, all materials can be eliminated correctly, recycled, or melted down for reuse or disposed of so that they do not harm the environment.



F007K/F007KD

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