# FW-777-603

使用說明&零件手册

-

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## 一、使用說明:

## OPERATION GUIDE

#### A. 安裝:

- 1. 請依本機配件盒內所附之正確桌 板尺寸裁製圖,裁製桌板。
- 再依序安裝防震襯墊、底座固定 板及其他副件。

#### \*注意:

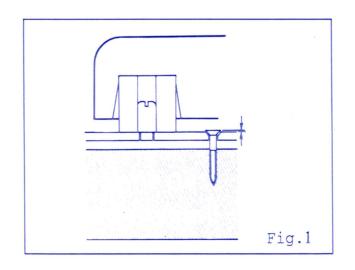
- (1) 防震觀墊及底座固定板切勿鎖 死。於鎖緊後仍要保留些許的彈 性,以利減震。另外,觀墊及底 座固定板的一邊要緊臨皮帶孔。 (圖1)
- (2) 在安裝腳架時,前腳請比後腳稍 微調高2cm。(圖2)

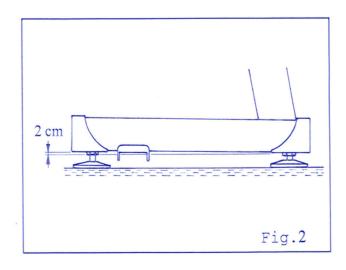
#### A. INSTALLATION:

- Before installing machine, please refer to table cut-out drawing. To cut-out the table correctly.
- 2. According to the sequence of installation, to fix quake-proof sheet, base-fixed plate and others attachment.

#### \*Remarks:

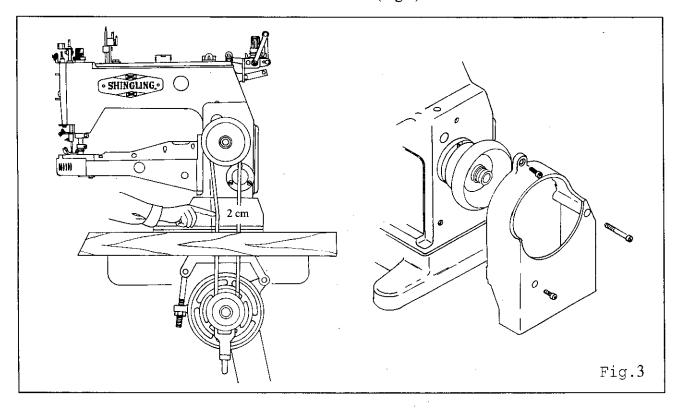
- (1) Don't screw the quake-proof sheet and base-fixed plate too hard, please keep some elasticity for quake-proof. In additional, one of their side must be closed the belt hole. (Fig. 1)
- (2) When installing foot stand, the front feet must be 2 cm higher than rear feet. (Fig.2)







- 3. 馬達之轉向爲順時鐘方向,皮帶 之鬆緊度以用手指向內壓下2cm 爲一般標準,同時爲了安全起 見,請將皮帶蓋蓋上。(圖3)
- 3. Be sure that the motor turning direction is clockwise, and the motor belt tension can be pressed with finger inward 2 cm. For safety reason, please fasten the belt cover. (Fig.3)



4. 皮帶輪與轉速請參照表1。

4. Regarding machine speed and motor pulley diameter, please refer to table 1.

Table 1 (表1)

MACHINE SPEED	MOTOF	PULLEY	MOTOR BELT	
(S.P.M.)			NEEDLE POSITIONER	V-BELT, M-TYPE
轉速/分	60Hz	50Hz	(定位馬達)	(CLUTCH MOTOR)
3,500	75	90	70	38"
3,000	65	80	60	36"
2,700	55	70	50	35"

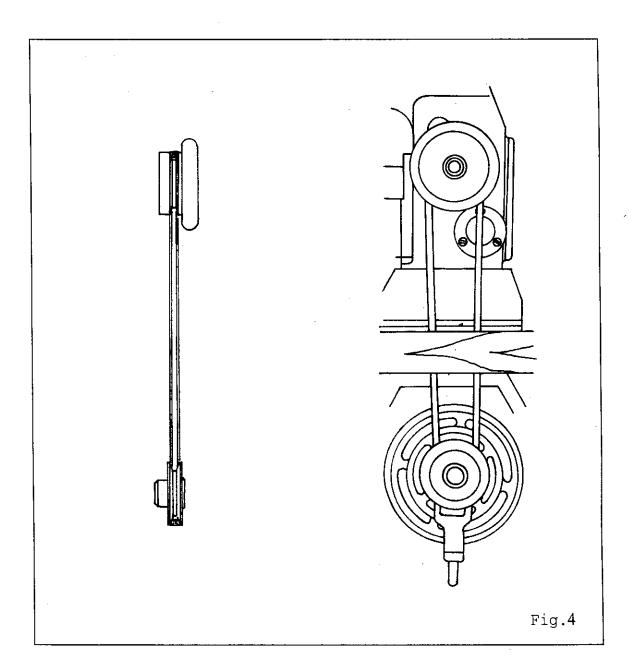


#### B.馬達與皮帶:

- 1. 請依照表1所指示之規格安裝馬達,並使用M番之V型皮帶。
- 馬達位置的安裝請安裝於機台之 正下方,馬達驅動輪必須與機器 皮帶輪呈垂直。(圖4)

#### B. MOTOR AND BELT:

- 1. Please follow the table 1 to install motor.
  Use a V belt of M type.
- 2. The center of both motor's and machine's pulley must be aligned in vertically when install the motor. (Fig4)



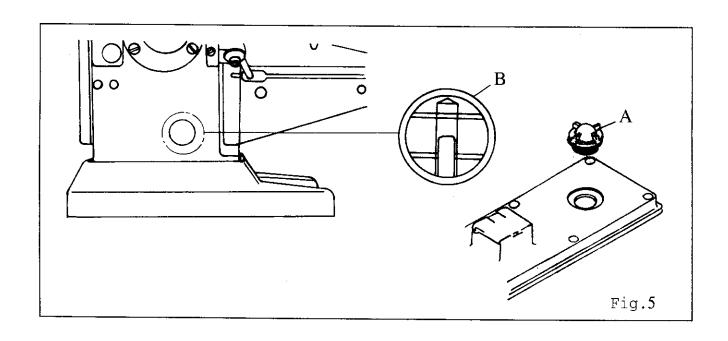


#### B.潤滑:

- 1. 請選用與MOBIL #10 同級之潤滑 油。
- 2. 在新機使用前請先注入潤滑油。 旋開頂蓋上的噴油檢視蓋 (A), 將油緩緩注入機器中,待油量滿 至油標指示窗 (B) 上下線之間即 可。 (圖5)
- 3. 於每天開機操作時,請先檢查噴 油狀態是否正常,且注意油標是 否低於指示窗之下限,若低於下 限請隨時補充新油。

#### **B.**LUBRICATION OIL:

- 1. Please use MOBIL #10 or it's equivalent.
- 2. Before operating the new machine, to remove Oil Sight Window (A) and fill the oil slowly until the oil level reaches between lines H and L of Oil Sight Gauge (B). (Fig 5)
- 3. When you begin operating the machine in everyday, please check whether all the lubricating system is at normal condition.
  If oil level is lower than line L of Oil Sight Gauge, please supply oil.





#### D.潤滑油的更換:

- 1. 將放油螺絲(A)鬆開,使油槽內的 舊油完全排出後,再將放油螺絲 鎖緊(圖6)再依C-2的步驟注入 新油。
- 為延長本機的使用壽命,請於開始使用的一個月內更換第一次的新油,以後約每6個月更換新油一次。

#### E. 濾油之器更換:

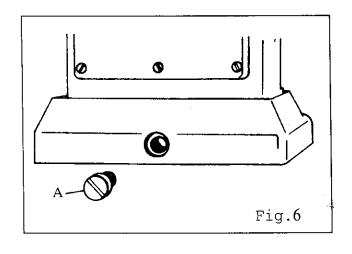
本機裝有濾油器,新機使用一個月 後必須更換新品。此後,僅需每6個 月更換一次。(圖7)

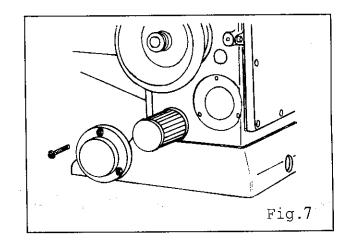
#### D.OIL CHANGE:

- Remove screw (A) and drain all the oil
  from the tank. After draining, tighten screw
  (A) without fail. Please refer to C-2 for
  replenishing oil. (Fig 6)
- 2. For the long life of machine, change lubrication oil completely after one month of intial operation. After that, change lubrication oil every six months.

#### E.REPLACING OIL FILTER:

This machine is equipped with an Oil Filter, to change the Oil Filter after one month of intinal operation. After that, please change Oil Filter every six months. (Fig 7)





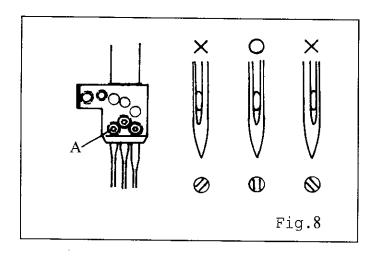


#### F.換針方式:

- 1. 請選用TVx7,11番的針或其他相 同規格之針。
- 2. 旋開鎖針螺絲(A),並取下舊針, 將新針插至針座之最頂端,且使 長溝面向自己。(圖8)
- 3. 重新將鎖針螺絲鎖緊(A)。

#### F.HOW TO REPLACE THE NEEDLES:

- 1. Please use the TVx7 of Organ's needle or its equivalent.
- Loosen screw (A), 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 8)
- 3. Fasten screw (A).



#### G. 穿線方式:

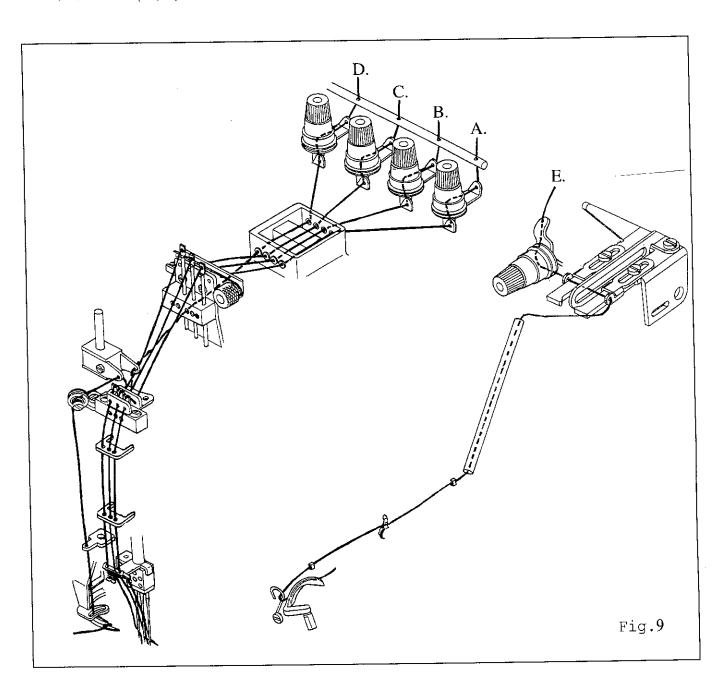
 請按照圖中所指示的穿線方式, 正確穿線。若穿線方式錯誤,將 會引起斷線、跳針或車縫不平坦 等現象。(圖9)

#### G. THREADING:

Threading should be made correctly.
 Referring to the illustration. (Fig 9)
 Wrong threading may cause thread breaking, skipping stitch or puckering.



- 2. A.B.C.....擊針線, D.....上網線, E.....勾針線。
- 3. 若用三針車縫,穿線方式如圖所 示。若用二針車縫,穿線方式相 同,所不同者,僅是擊針線穿二 針而已。(圖9)
- 2. A. B. C.....needle thread, D..... top cover thread, E....looper thread.
- 3. The threading for three needles machine is shown in the illustration below. For two needles machine, thrading is the same except two needles threaded. (Fig 9)





#### H.拉線鬆緊度的調整:

- 拉線的強弱必須根據車縫的布料、 厚薄及線與針距等的不同而做調整。
- 將針線控制鈕順時鐘方向旋轉時, 線愈緊,反之則愈鬆。(圖10)

#### I.上網線控線桿的調整:

除了針線控線鈕可調整上網線之鬆緊外,上網線控線桿亦可用來調整上網線之鬆緊,控線桿升愈高則線愈鬆,愈低則線愈緊。 (圖11)

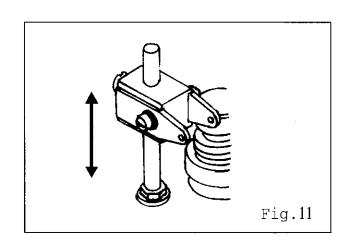
# Fig. 10

#### H.ADJUSTING THREAD TENSION:

- 1. The tensions of thread should be adjusted for according to what types and thicknesses of fabrics being sewed; what types of threads being used; how mang stitches you need in one inch.
- Turning the Thread Tension Knob clockwise, thread will be tighter. (Fig 10) On the contrary, turning it counterclockwise will be looser.

#### I.ADJUSTING SPREADER THREAD TAKE-UP:

The Spreader Thread Take-Up could adjust the tension of top-cover thread except the Thread Tension Knob. When The Spreader Thread Take-Up move upward, the tension of top-cover thread will be looser. If the Spreader Thread Take-Up move downward, the tension of top-cover thread will be tighter. (Fig 11)





#### J.縫目長度的調整:

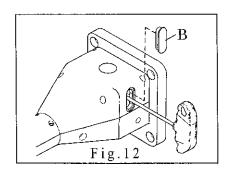
- 1. 本機的標準縫目爲最粗針1英吋7 針,最細針1英吋14針,採用無階 段式調整方式。
- 2. 請將止油膠蓋(A)打開,用本機所 附之3mm T型板手予以調整。 將縫目調整螺絲放鬆往下降,鎖 緊則縫目愈細,往上升鎖緊則縫 目愈粗。(圖12)

#### K.差動比之調整

請將止油膠蓋(B)打開,用本機所附之3mm T型板手予以調整。 將差動比調整螺絲放鬆往下降, 鎖 緊則差動比愈小,往上升鎖緊 則差動比愈大。(圖13)

## K.差動比之調整

- 若要求布料推送順暢且縫合完美, 押腳壓力應儘量輕些。
- 2. 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14)



#### J.ADJUSTING STITCH LENGTH:

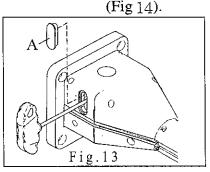
- 1. The standard stitch length can be adjusted variably in range from min. 7 stitches to max. 14 stitches per inch.
- 2. Please take out Rubber Plug (A) and use 3 mm hexagon wrench to adjust the stitch length on the arm. Loosen Screw, move it downward to decrease the stitch length, move it upward to increase the stitch length. (Fig12)

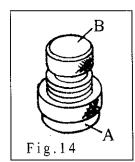
#### K. ADJUSTMENT OF DIFFERENTIAL FEED:

Please take out Rubber Plug (B) and use 3 mm hexagon wrench to adjust the differential feed. Loosen Screw, move it downward to decrease the differential feed, move it upward to increase the differential feed. (Fig13)

### K. ADJUSTMENT OF DIFFERENTIAL FEED:

- 1. Pressure of Presser Foot should be as weak as possible, so that cloth can be feeded and sewed smoothly.
- 2. To increase the pressure of Presser Foot, to turn Adjusting Screw (B) clockwise after loosening Lock Nut (A) and to decrease the pressure turn Screw (B) counterclockwise.





## 二、調整說明:

#### ADJUSTMENT GUIDE

#### A.針棒高度之調整:

- 1. 先將針棒升到最高處,此時最長針 的針尖與針板的距離爲10.2mm~ 10.4mm。(圖15)
- 2. 若需調整時,請先打開機頭前蓋之 止油膠蓋,放鬆針棒連桿(A)上的 螺絲(B),上下調整針棒的高度後 再固定之。(圖16)

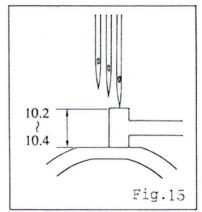
#### \*注意:

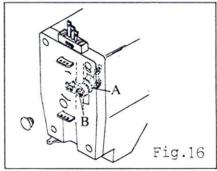
- (1) 針必須完全裝入針鎦孔最頂端。
- (2)經過針棒高度調整後,必須要確定每一根針皆通過針板的針孔正中央,不可以偏斜,且三根針需成平行。(圖17)

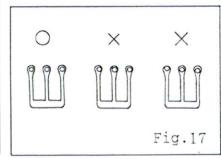
#### A. THE HEIGHT OF NEEDLE BAR:

- Please lift the Needle Bar to the highest position. During this time, the standard height between the longest right needle point and the Needle Plate are 10.2 ~ 10.4 mm. (Fig 15).
- If you want to adjust the height of Needle Bar, please remove the rubber plug of front cover and loosen the screw(B) on Needle Bar Rod(A).
  - Adjust the Needle Bar up or down to require height and fix the screw (A). (Fig 16)
- \* Remarks:
- (1) Be sure insert the needle into the Needle Holder as far as it can go.
- (2) After the Needle Bar adjustment, make sure that every needle passes through the center of the needle hole on the Needle Plate. Besides, the three needles must be in parallel and the gap must be even. (Fig 17)

Needle distance	Code	Left Needle height(N)
4. 0mm	40	11.5-11.7mm
4.8mm	48	11.3-11.5mm
5. 6mm	56	10.2-10.4mm
6. 4mm	64	10-10. 2mm







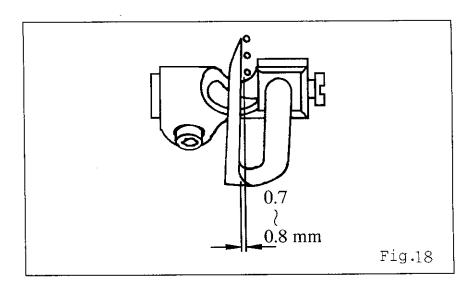


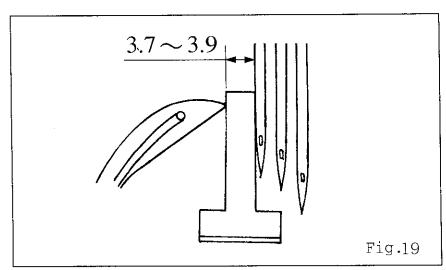
#### B.縫目長度的調整:

- 1. 將勾針固定於勾針座上,勾針約 向右傾斜0.7mm~0.8mm。 (圖18)
- 2. 再將針棒降至最低點,此時勾針 與最左針之距離爲3.7mm~3.9 mm。(圖19)

#### B. POSITION OF NEEDLE AND LOOPER:

- 1. Fix the Looper on the Looper Holer,make sure Looper deflect to the right about 0.7 mm~0.8 mm. (Fig 18)
- Please move the Needle Bar to the lowest position, setting the distance between the point of Looper and shortest left needle is 3.7 mm~3.9 mm. (Fig19)





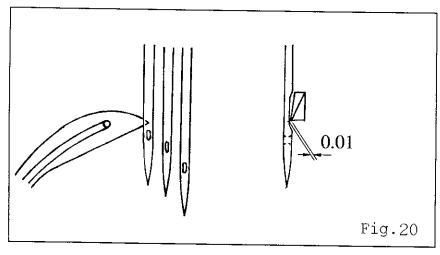


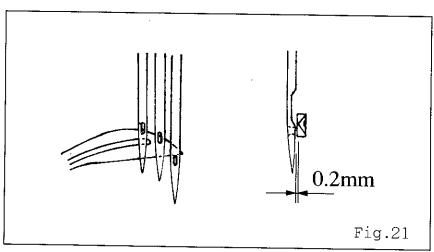
## C.針與勾針的時位關係調整:

- 1. 當勾針前進通過左針時,勾針針 尖與針的距離爲0.01mm。 (圖20)
- 2. 當勾針前進通過右針超過0.1mm時,勾針底端與針孔上沿接觸(圖20),而此時勾針與針的間隙爲0.2mm。(圖21)

#### C.TIMING OF NEEDLE AND LOOPER:

- 1. When the tip of Looper meets the left needle, the clearance between them should be 0.01mm. (Fig 20)
- 2. When the tip of Looper passes behind the right needle over 0.1mm, the bottom of Lopper hole touch with the top of right needle hole, the clearcance between them should be 0.2 mm. (Fig 21)







3. 當勾針退後時,右針必須插到勾 針斜面稜線往上1/4處。(圖22)

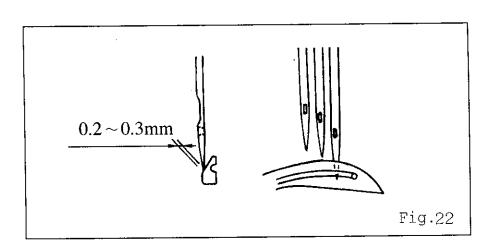
#### \*注意:

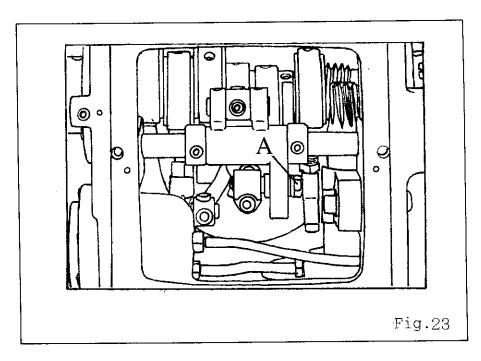
鬆開下勾針前後移動控制桿上之螺母(A),將控制桿上、下調動,即可調整對針插到勾針斜面的厚、薄。(圖23)

3. When the Looper reversed, the right needle stick on 1/4 be high of the Looper's slant edge. (Fig 22)

#### \*Remark:

Loosen the nut (A) of Looper Front-Rear Contral Shaft, move the Shaft upward or downward, it could adjust the needle to stick on the Looper thicker or thiner. (Fig 23)







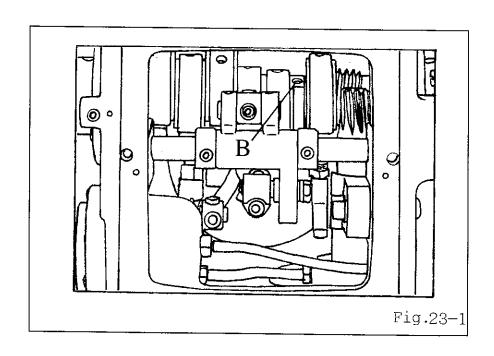
4. 當勾針往後退,勾針孔經過右針時,勾針針孔須與右斜針孔對齊。(圖24)

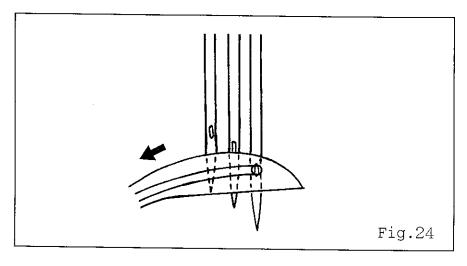
#### \*注意:

放鬆勾針左右移動時間凸輪(B)上的 三顆螺絲,往前、後移動,即可調 整勾針左、右移動時間的快、慢。 (圖23-1) 4. When the Looper is returned to pass the right needle, Looper hole aligns with right needle hole. (Fig 24)

#### \*Remark:

Loosen the three screws on the Looper Timing Control Cam(B), move the Cam toward or backward, it could adjust the timing of Looper faster or slower. (Fig 23-1)







#### D.頂針片之調整:

當送料具移動到最前端時,頂針片 必須維持水平,且頂針片尖端與左 針的間隙應爲0.05mm。(圖25)

#### D.ADJUSTING THE NEEDLE GUARD:

When the Feed Dog moves to the frontest position, the Needle Guard should remain horizontal. Besides, the clearance between the tip of Needle Guard and left needle should be 0.05 mm. (Fig 25)

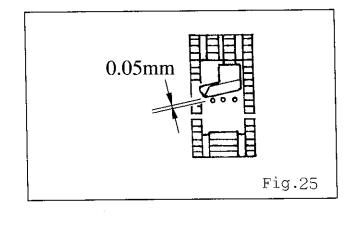
## E.上勾針位置的調整:

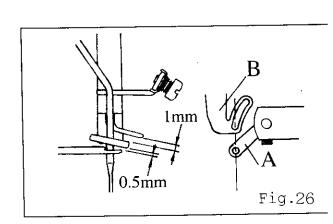
1. 把針棒降到最低,此時上網線導線片(A)與上網線導線板(B)的間隊爲1mm,而導線板(B)與上勾針的間隊爲0.5mm,且上網線導片(A)的導孔與上網線導線板(B)的長溝、上勾針針尖的彎處,三者必須對齊。(圖26)

#### E.ADJUSTING THE POSITION OF SPREADER:

1. Please move the Needle Bar to its lowest position, adjust the clearance between Thread Guide Pin (A)and Thread Guide Plate (B) to 1mm. In the meantimes, adjust a clearance between Thread Guide Plate (B) and Spreader to 0.5mm.

Please make sure that the concavity of the Spreader align with the thread hole of Guide Pin(A) and the groove of Guide Plate (B). (Fig 26)







- 2. 當針棒升至最高時,上勾針針尖前進到最右點,此時,上勾針針尖到右針的間隙爲4mm。而當上勾針針尖絕過右針時,兩者的間隙爲0.1mm。(圖27)
- 2. When the Needle Bar lifts to the highest position and the Spreader moves to extreme right, the distance between the right needle and the hook's point of Spreader is 4 mm.

When the Spreader passes the right needle, the clearance between the hook's point of Spreader and right needle is 0.1mm. (Fig 27)

## F.押腳提升高度的調整:

欲堤升或降低押腳,可先旋鬆螺母(A),再以內六角板手調整螺絲(B),螺絲(B)調高則押腳高度降低,調低則押腳高度升高。(圖28)

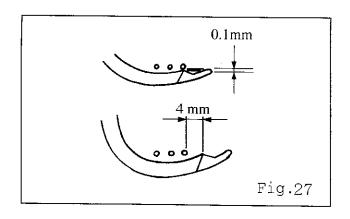
#### \*注意:

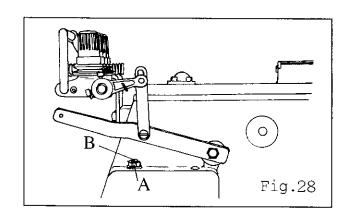
- (1)調高押腳時,請小心不可調得太高 以免押腳碰撞上勾針。
- (2)在未安装上勾針狀態下,押腳也不可以調得太高,以免押腳壓不到布料。

#### F. ADJUSTING THE NEIGHT OF PRESSER FOOT:

If you want to adjust the height of Presser Foot, Loosen the nut (A), turn the screw (B) higher by hexagon wrench to decrease the height. On the contrary, turn the screw (B) lower to increase the height. (Fig 28)

- \* Remark:
- (1)Please don't adjust the Presser Foot too high. Or, it will hit the Spreader.
- (2)Even the Spreader doesn't install. Please don't adjust the Presser Foot too high, it will cause the Presser Foot can't press the fabric well.





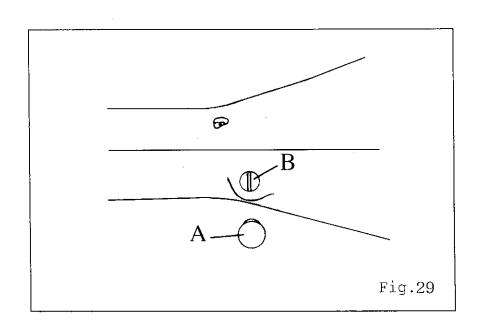


#### G. 送料具高度之調整:

- 1. 本機在出廠時,已將送料具高度 調在一般位置。若因車縫布料厚 薄不同,而欲調整送料具高度 時,可先將止油膠蓋(A)取下,再 以螺絲起子轉動送料具高度調整 螺絲(B)調整之。(圖29)
- 2. 一般送料具高度調整螺絲(B)的溝槽皆在垂直狀況,其順時針轉15度,爲本機最高點,反之,則爲最低點。

#### G.ADJUSTING THE HEIGHT OF FEED DOG:

- 1. The height of Feed Dog have been adjusted in standard position at the time of shipment. According to the difference thickness of fabric, if you want to adjust the height of Feed Dog, please take out the Rubber Plug (A) and turn the screw (B) to adjust by flat screw driver. (Fig 29)
- 2. The groove of screw (B) is in vertical normally. Turn it clockwise to 15 degree is the highest position of Feed Dog. On the contrary, it is the lowest position.





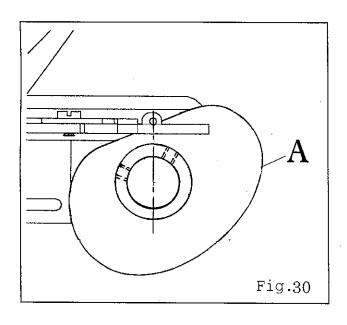
#### H.勾針控線組之調整:

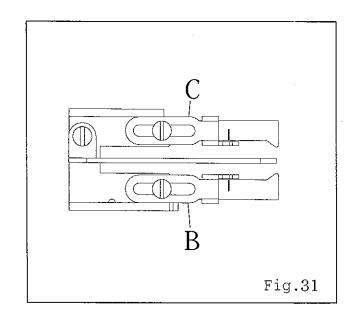
- 1. 當針棒升至最高點,將分線盤(A) 的平面部調整呈45度角,且平面 邊緣輕輕接觸穿過的線。分線盤 須位於控線組中間溝槽的正中 央。(圖30)
- 2. 當線穿過勾針底線控制鈕及勾針 控線組中的導線片 (B、C) 時要 呈一直線,且導線片 (B、C) 前 端的穿線孔要位於控線組的中 央,並對準刻痕。 (圖31)

#### H.ADJUSTING LOOPER THREAD TAKE-UP:

- When the Needle Bar lift to the highest positon, the flat of Looper Thread Take-Up

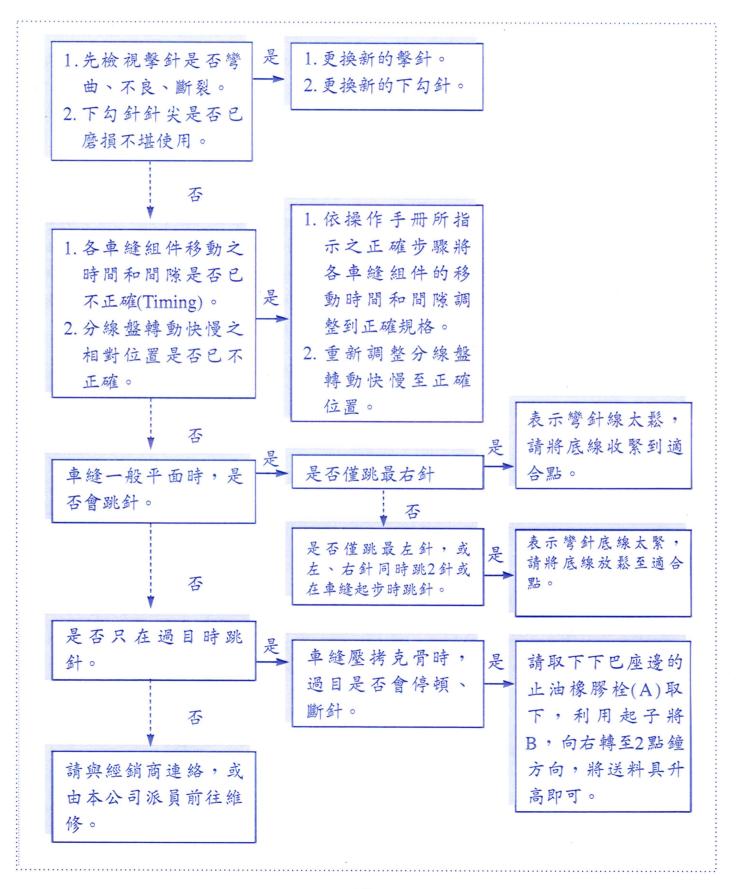
   (A) touch the thread while it locates at 45 degree. The Looper Thread Take-Up should be sat at middle of channel. (Fig 30)
- 2. When the thread through the Looper Thread Tension Knob and two Thread Eyelet (B.C) in a line, the front thread hole of Looper Thread Eyelet(B.C) locate at middle of channel and align with the nick. (Fig 31)





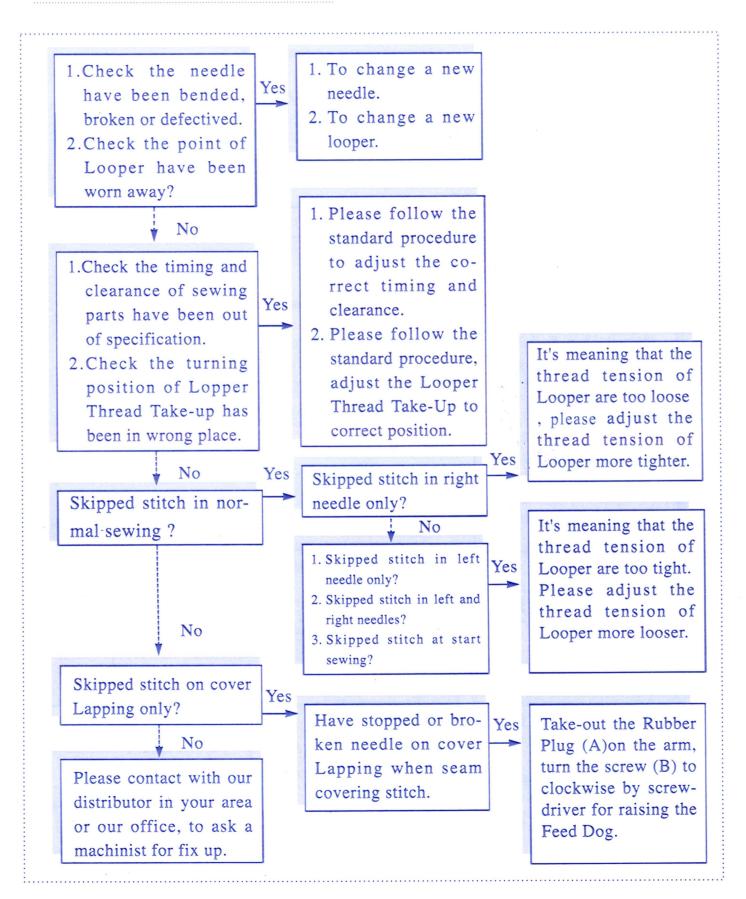
## 三、簡易故障排除:

#### A.跳針:



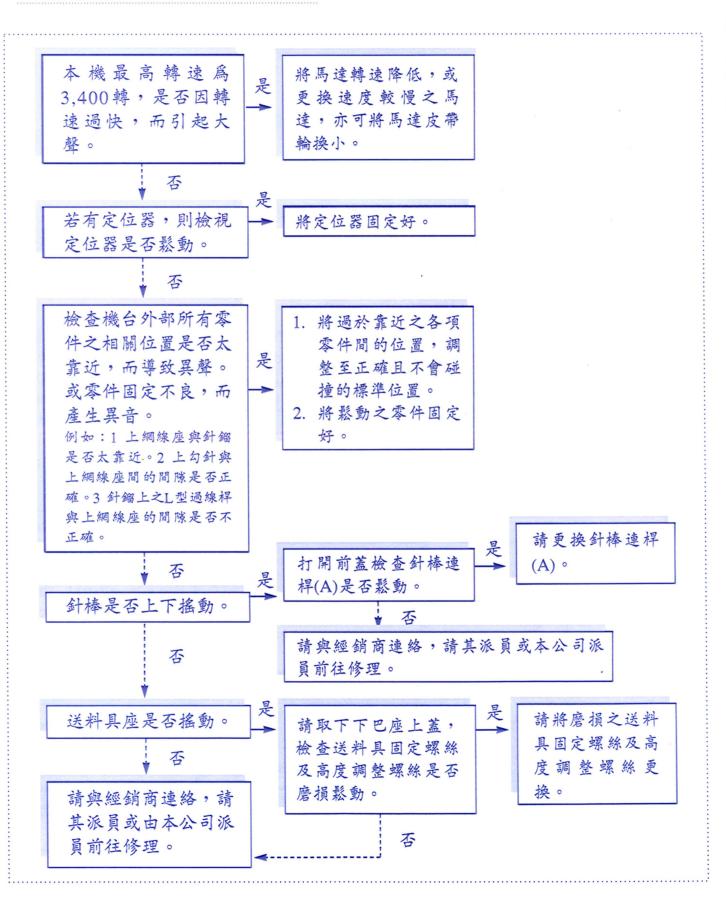
## **■ MAINTENANCE GUIDE:**

#### A. SKIPPED STITDH:



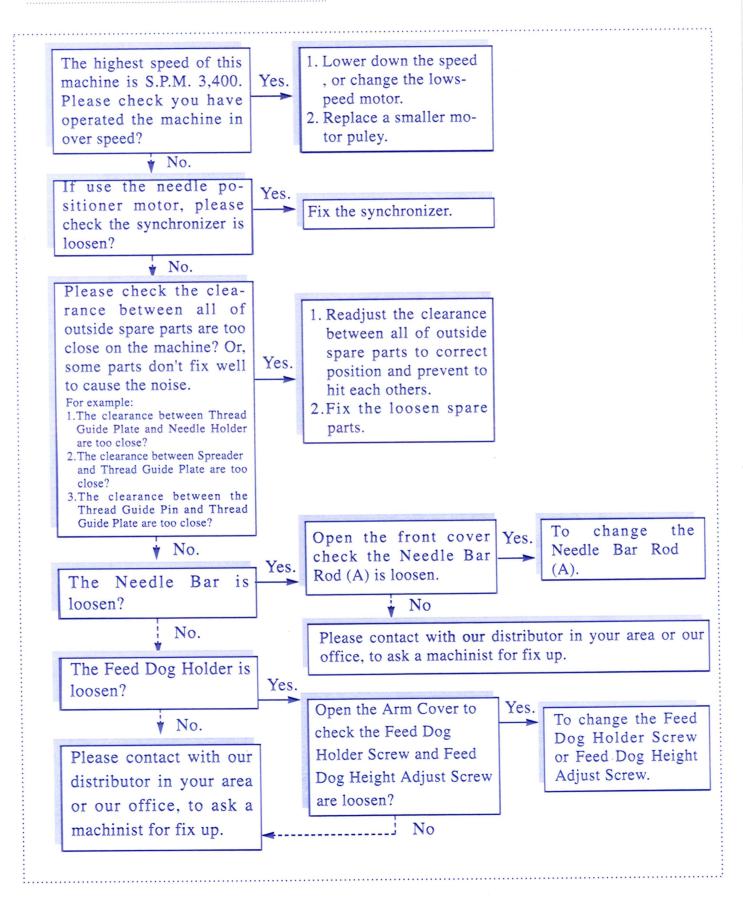
## 三、簡易故障排除:

#### B.雜香或車縫大聲:



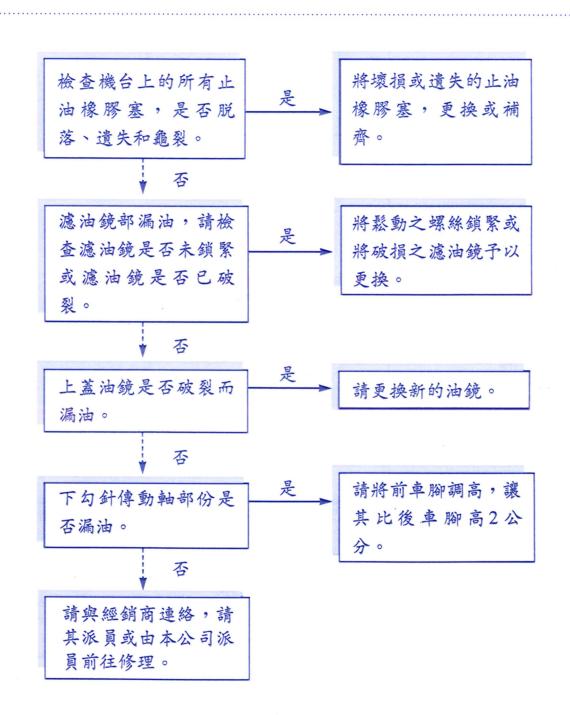
## = MAINTENANCE GUIDE:

#### B. SNOISE OR LOUDLY SEAMING:



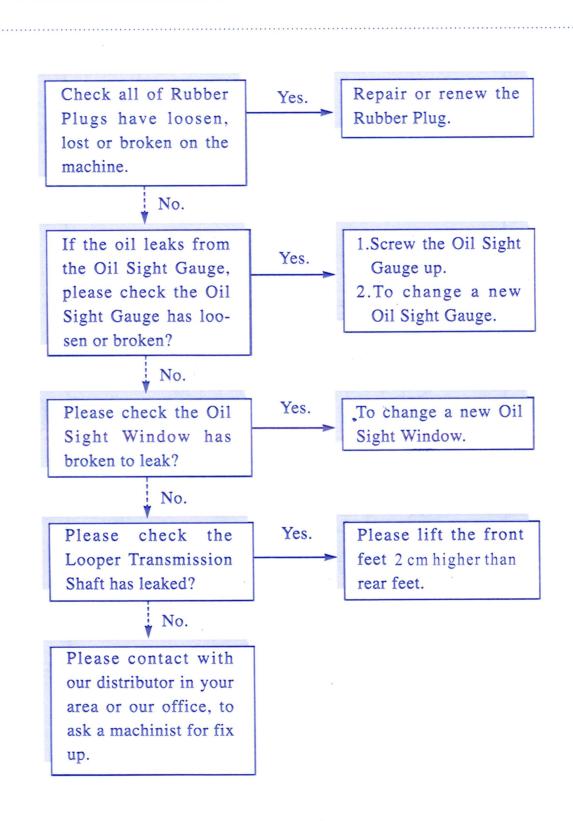
## 三、簡易故障排除:

#### C.漏油:



## **■ MAINTENANCE GUIDE:**

#### C. SLEAKING:

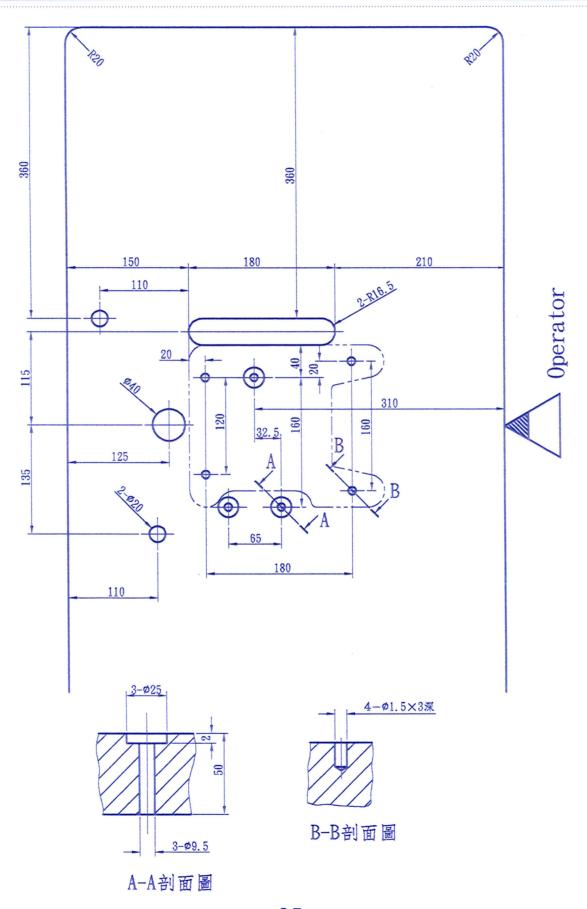


## 四、桌板圖:

## TABLETOP:

#### A.車台安裝位置圖〔電子馬達〕:

A. TABLE TOP INSTALLATION(SERVO MOTOR)

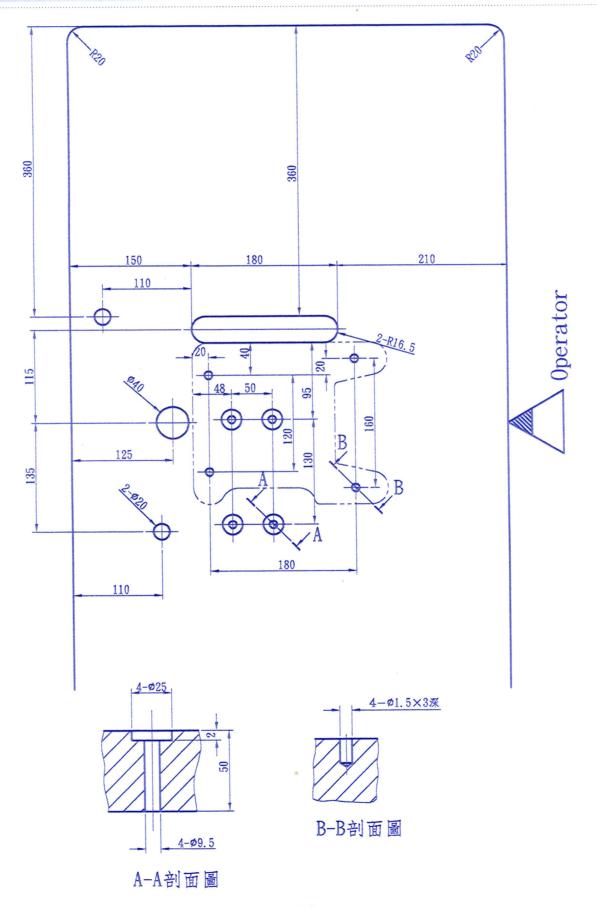


## 四、桌板圖:

## TABLETOP:

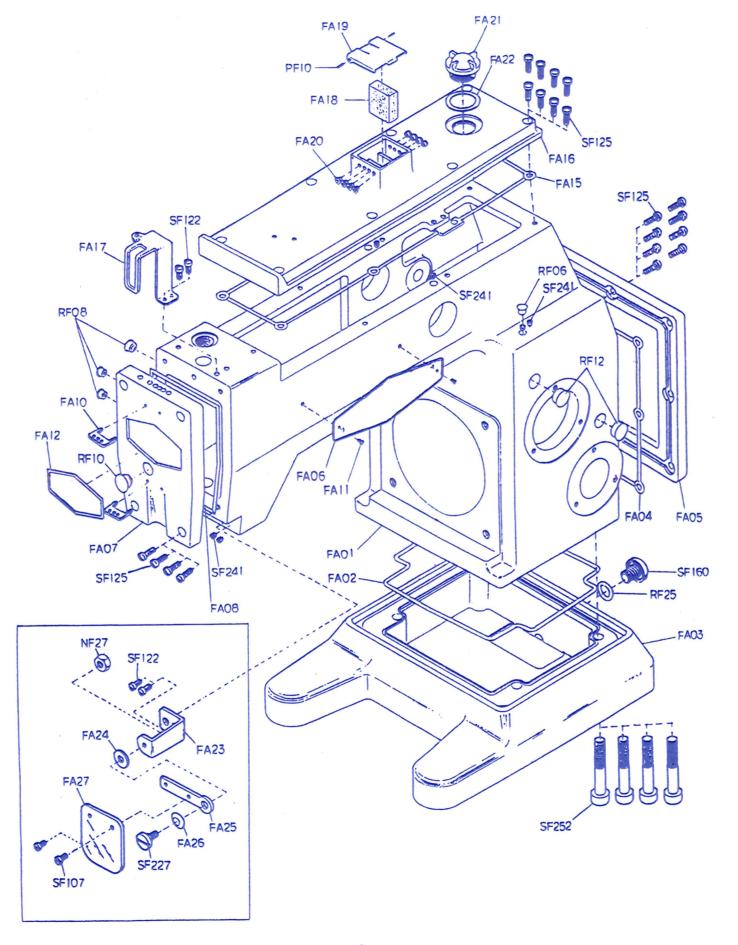
B.車台安裝位置圖〔普通馬達〕:

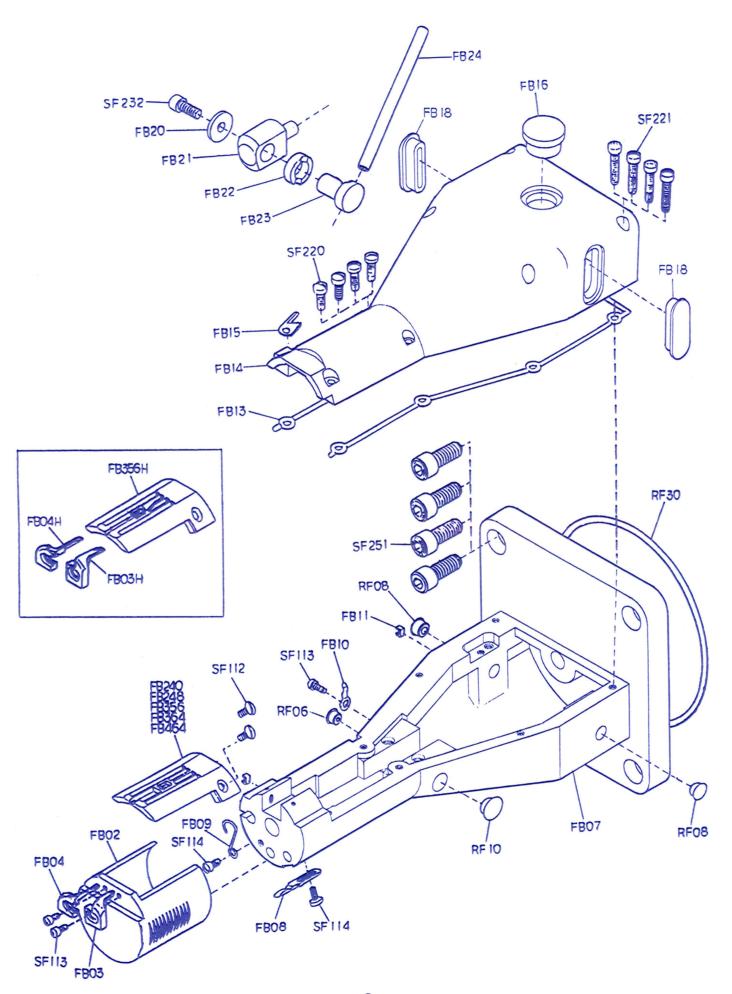
B. TABLE TOP INSTALLATION(CLUTCH MOTOR)

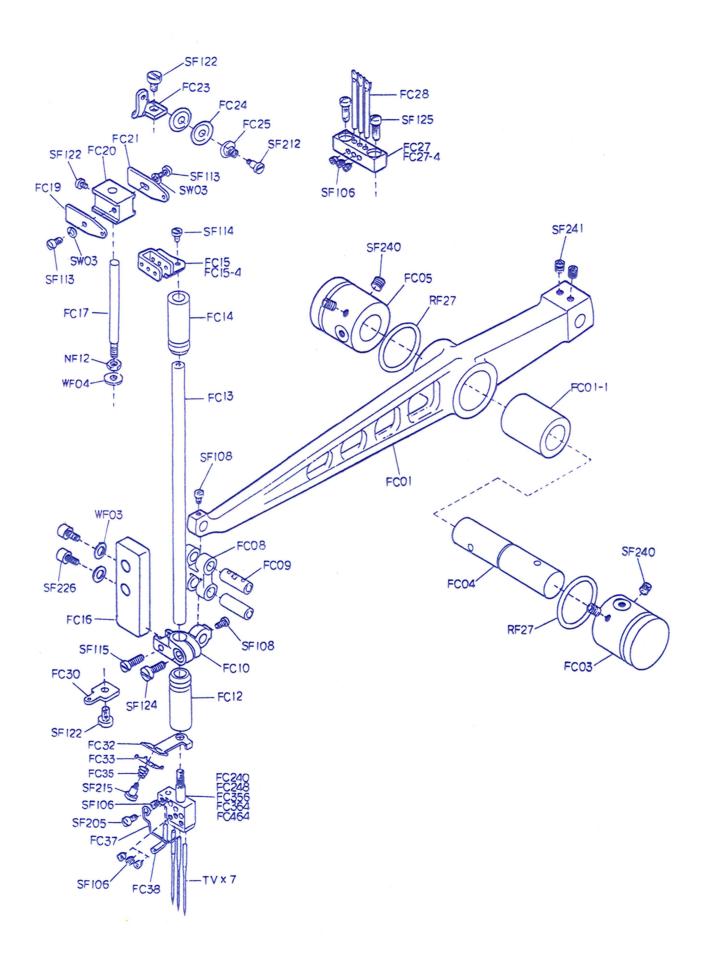


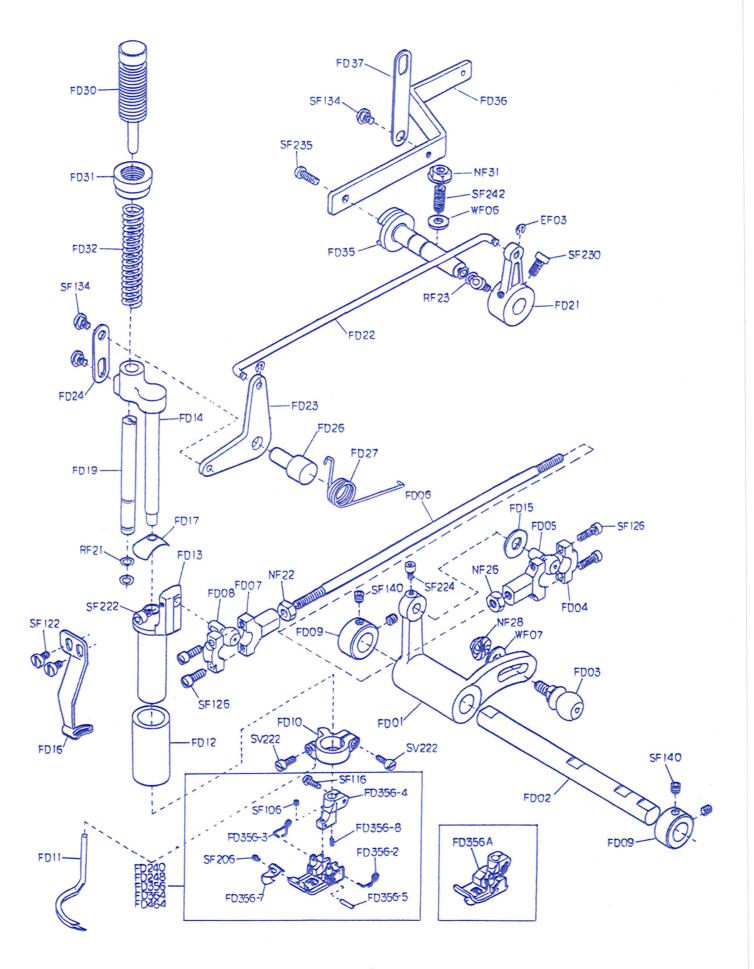
# 零件手删 Spare parts Book

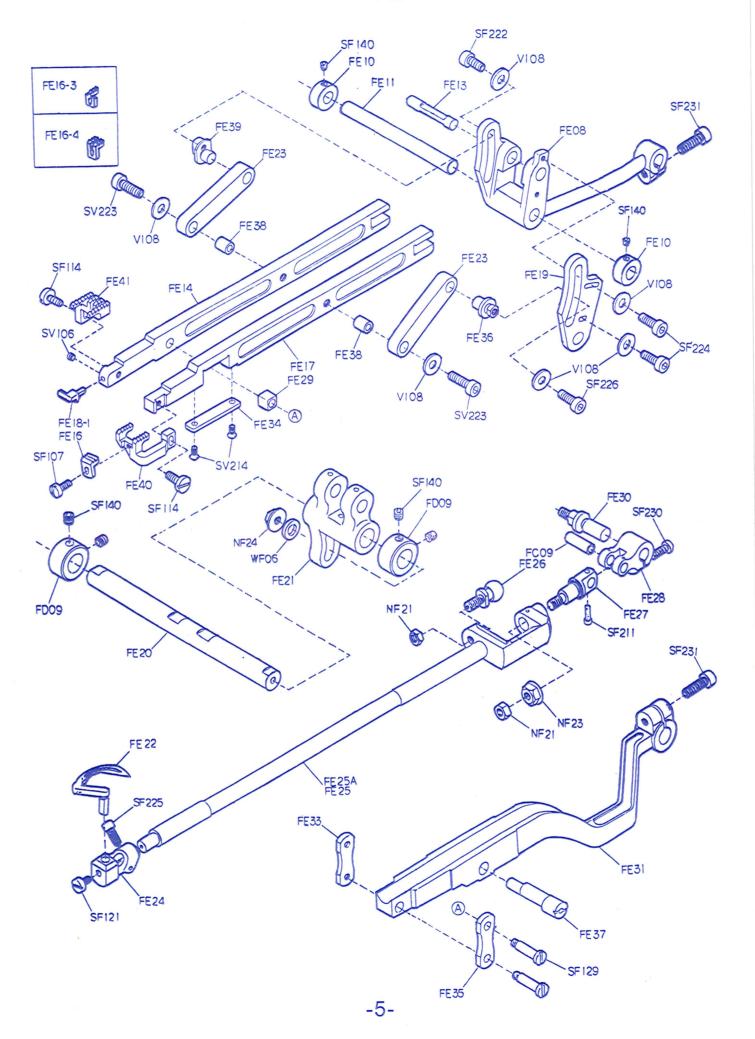
CONTENTS											沙	?				
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MISCELLANEOUS COVERS(2)	•						•	機殼結構(	2)							2
NEEDLE BAR MECHANISM								針柱結構 .							. ;	3
PRESSER FOOT & SPREADER MECHAMISH	A.				÷			壓腳及上叉	結構	÷						4
FEED & LOOPER DRIVING MECHANISM.								送料具及下	勾針	結						5
MAIN SHAFT DRIVING MECHANISM(1).				÷				下主軸傳動	結構	(1)						6
MAIN SHAFT ERIVING MECHANISM(2).			÷					下主軸傳動	結構	(2)			•		. '	7
LOOPER THREAD EYELETS			·			٠		下勾針過額	結構							8
MISCELLANEOUS THREAD EYELETS						÷		過線結構								9
LUBRICATING MECHANISM								潤滑結構							. 1	0
THREAD STAND & SUPPORTING BOARD								線架及底板	反結構						. 1	1
SUPPLEMENTARY MECHANISM								左斯姓達							1	2

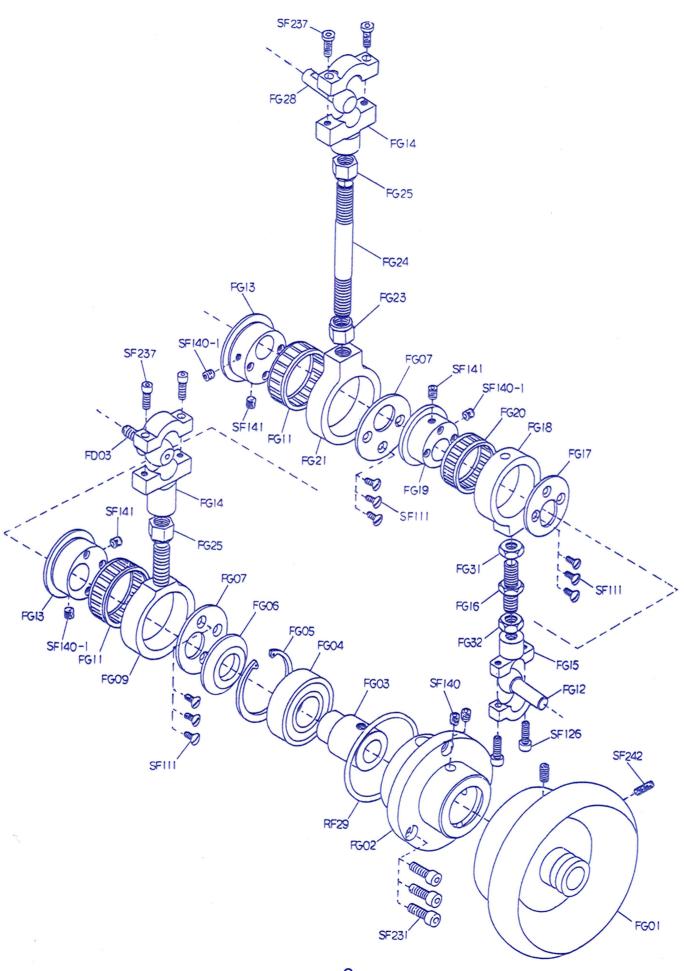


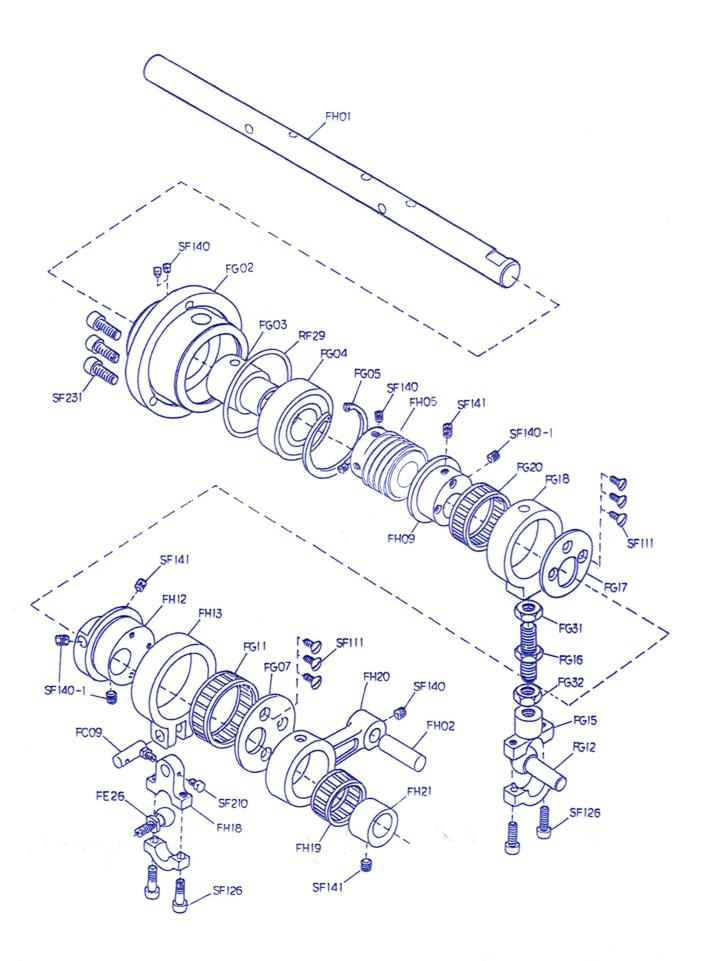


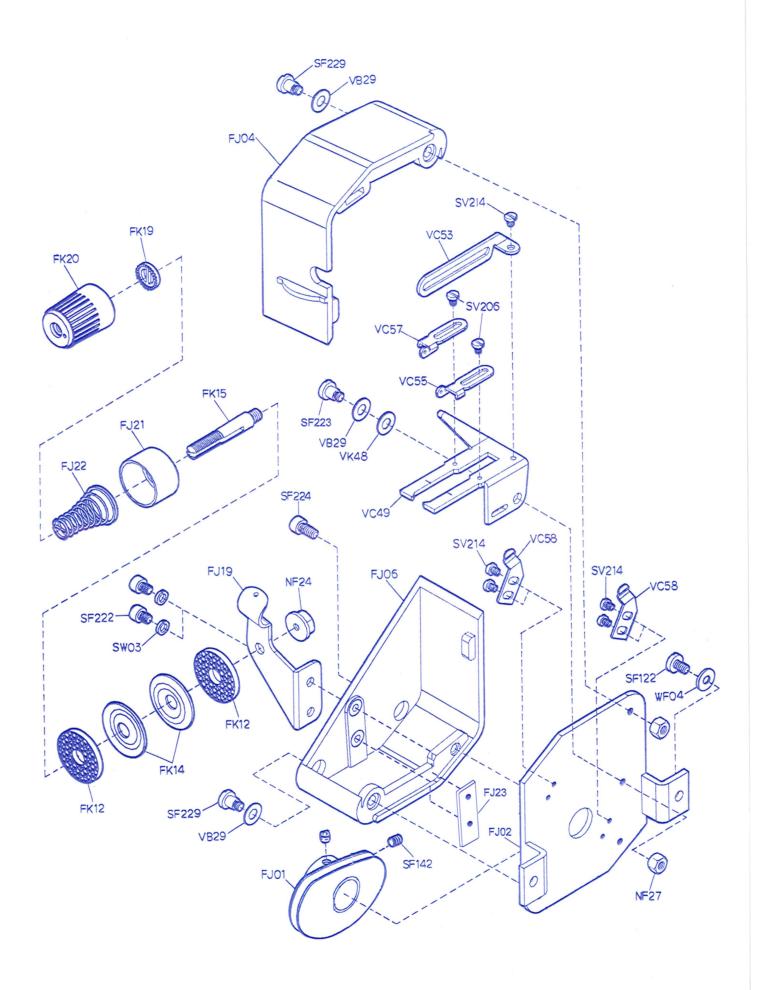


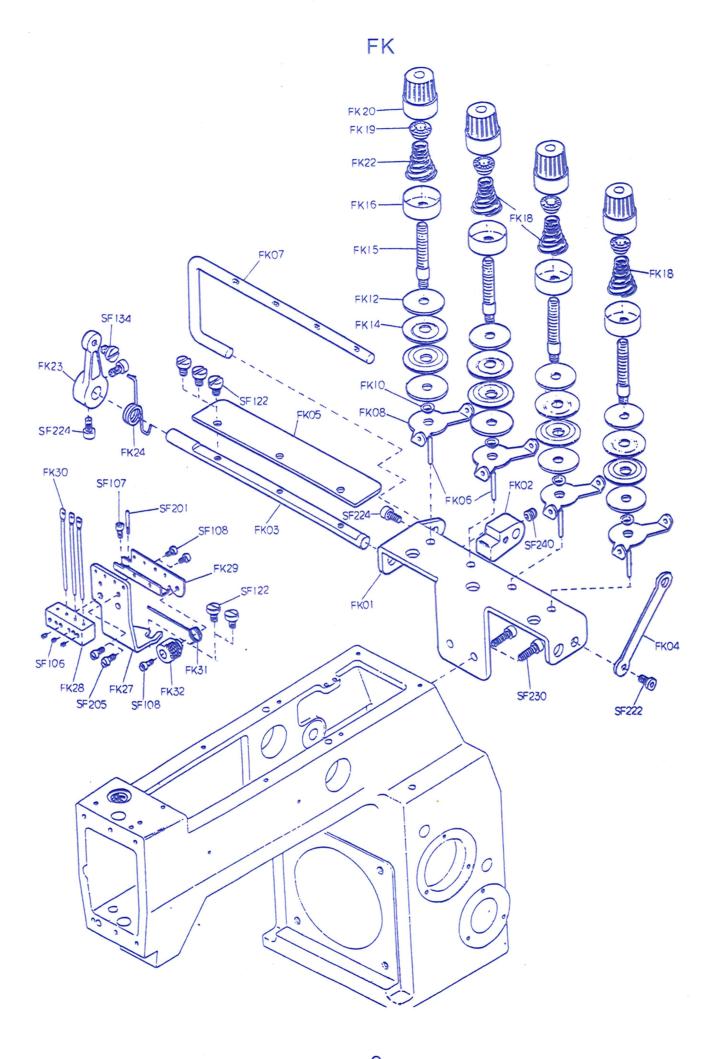


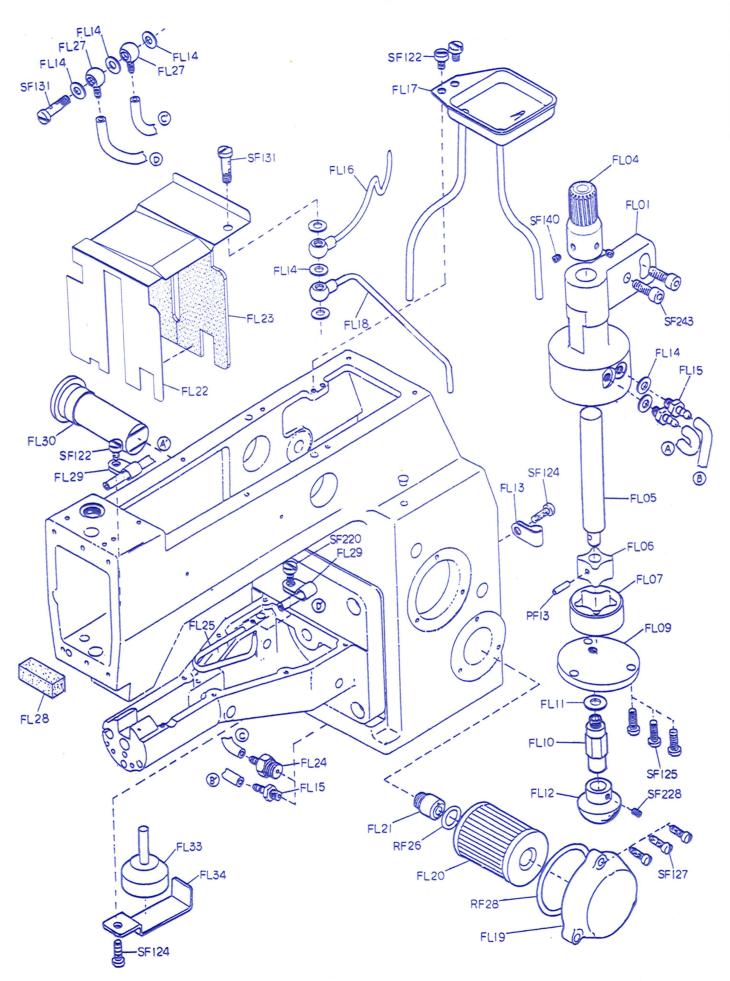


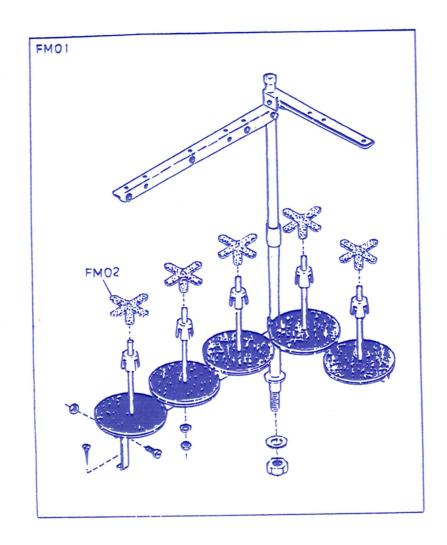


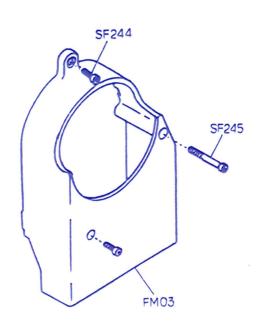


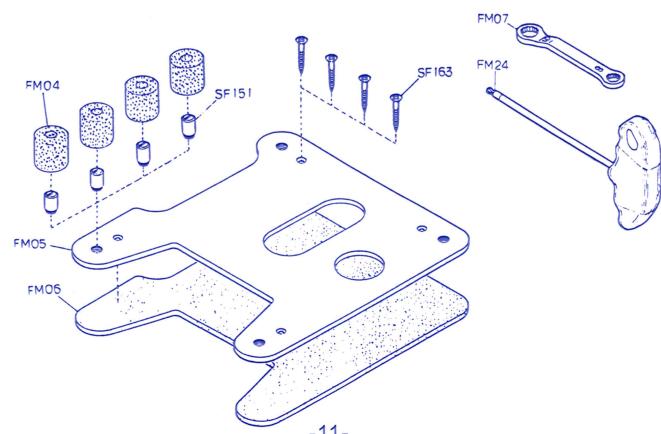


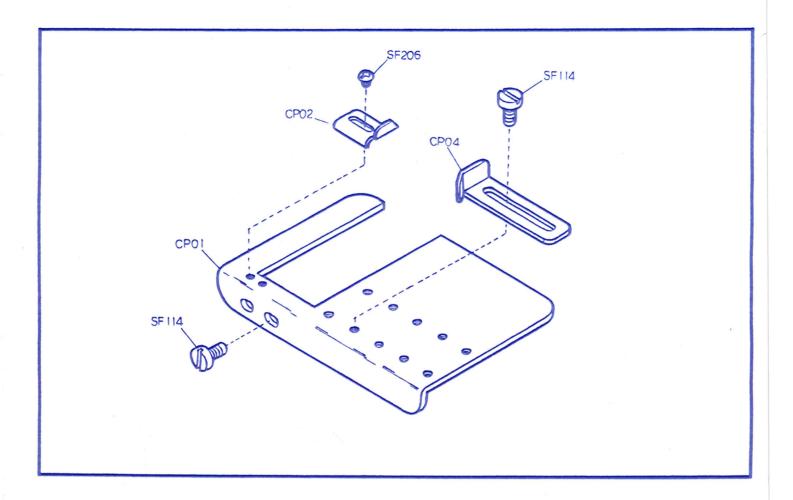


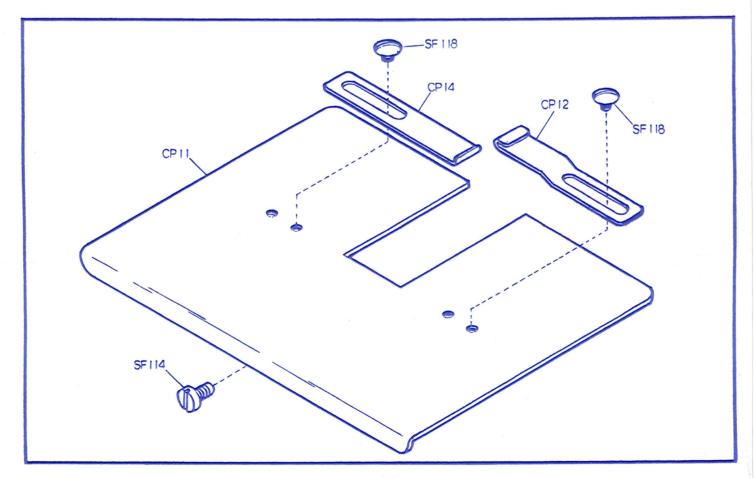


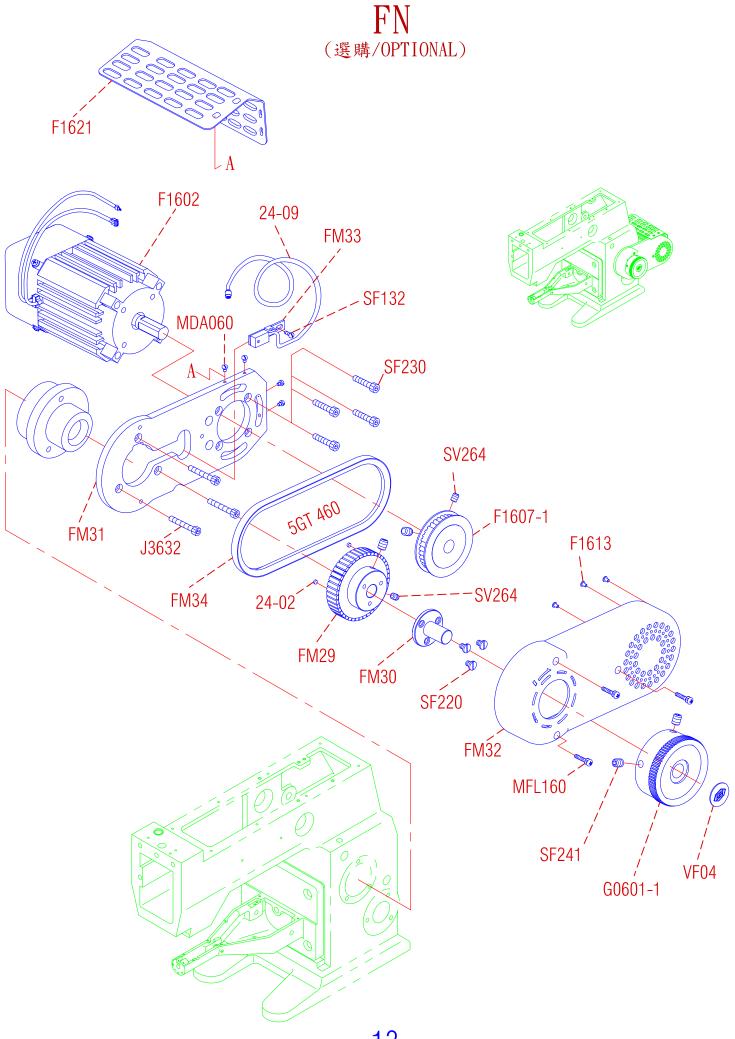




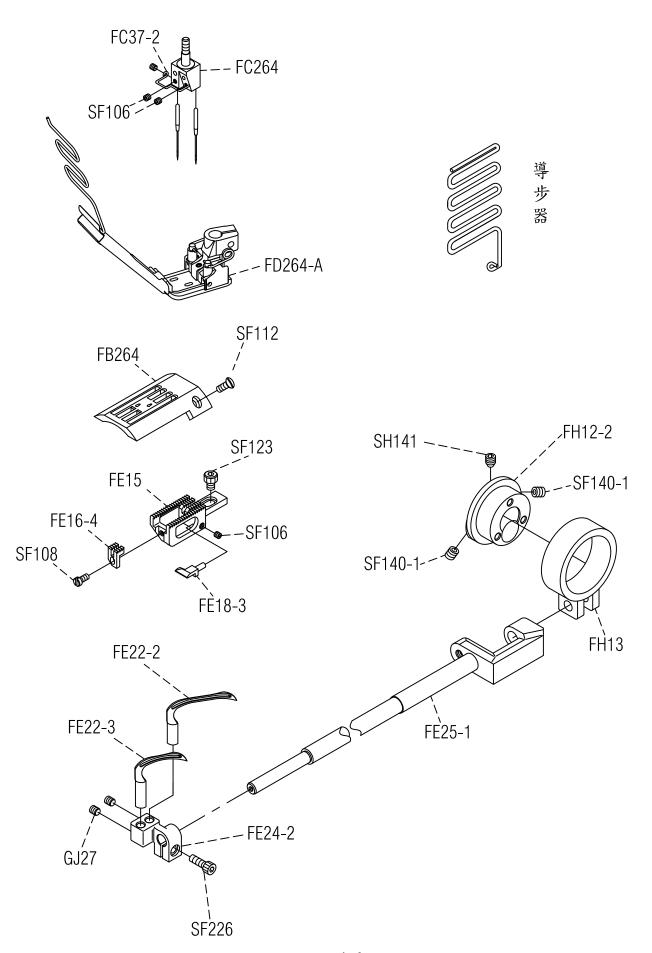




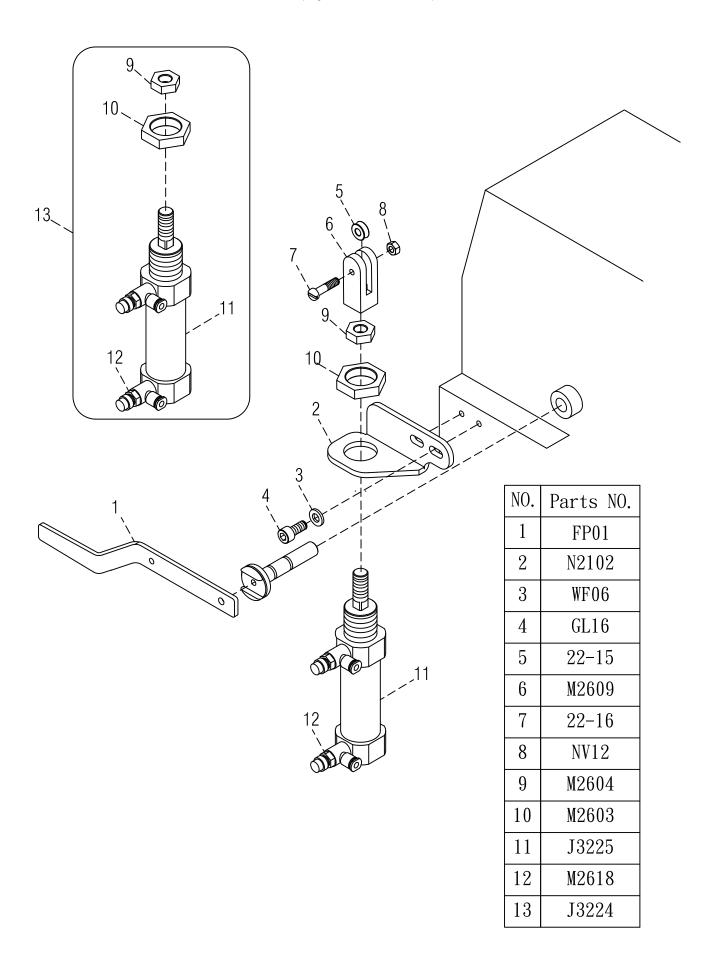


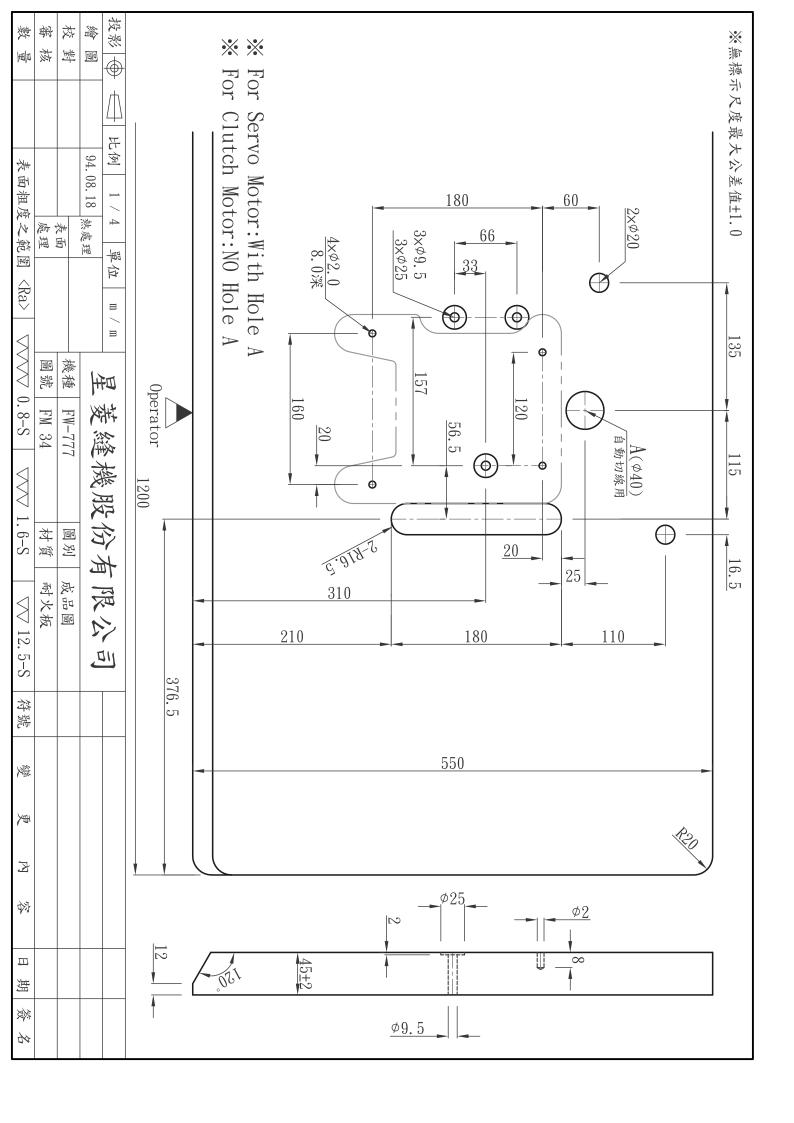


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