

# 平頭鎖眼機系列

## BUTTON HOLING MACHINE SERIES

使用說明  
零件圖冊

OPERATION MANUAL  
PARTS BOOK



**Read safety instructions carefully and understand them before using.  
Retain this Instruction Manual for future reference.**

為了安全地使用，請您在使用之前一定閱讀本使用說明書。

另外，請您注意保管本使用說明書，以便隨時查閱。

## IMPORTANT SAFETY INSTRUCTIONS

Putting sewing systems into operation is prohibited until it has been ascertained that the sewing systems in which these sewing machines will be built into, have conformed with the safety regulations in your country. Technical service for those sewing systems is also prohibited.

1. Observe the basic safety measures, including, but not limited to the following ones, whenever you use the machine.
2. Read all the instructions, including, but not limited to this Instruction Manual before you use the machine. In addition, keep this Instruction Manual so that you may read it at anytime when necessary.
3. Use the machine after it has been ascertained that it conforms with safety rules/standards valid in your country.
4. All safety devices must be in position when the machine is ready for work or in operation. The operation without the specified safety devices is not allowed.
5. This machine shall be operated by appropriately-trained operators.
6. For your personal protection, we recommend that you wear safety glasses.
7. For the following, turn off the power switch or disconnect the power plug of the machine from the receptacle.
  - 7-1 For threading needle(s), looper, spreader etc. and replacing bobbin.
  - 7-2 For replacing part(s) of needle, presser foot, throat plate, looper, spreader, feed dog, needle guard, folder, cloth guide etc.
  - 7-3 For repair work.
  - 7-4 When leaving the working place or when the working place is unattended.
  - 7-5 When using clutch motors without applying brake, it has to be waited until the motor stopped totally.
8. If you should allow oil, grease, etc. use with the machine and devices to come in contact with your eyes or skin or swallow any of such liquid by mistake, immediately wash the contacted areas and consult a medical doctor.

9. Tampering with the live parts and devices, regardless of whether the machine is powered, is prohibited.
10. Repair, remodeling and adjustment works must only be done by appropriately trained technicians or specially skilled personnel. Only spare parts designated by JUKI can be used for repairs.
11. General maintenance and inspection works have to be done by appropriately trained personnel.
12. Repair and maintenance works of electrical components shall be conducted by qualified electric technicians or under the audit and guidance of specially skilled personnel.  
Whenever you find a failure of any of electrical components, immediately stop the machine.
13. Before making repair and maintenance works on the machine equipped with pneumatic parts such as an air cylinder, the air compressor has to be detached from the machine and the compressed air supply has to be cut off. Existing residual air pressure after disconnecting the air compressor from the machine has to be expelled. Exceptions to this are only adjustments and performance checks done by appropriately trained technicians or specially skilled personnel.
14. Periodically clean the machine throughout the period of use.

15. Grounding the machine is always necessary for the normal operation of the machine. The machine has to be operated in an environment that is free from strong noise sources such as high-frequency welder.
16. An appropriate power plug has to be attached to the machine by electric technicians. Power plug has to be connected to a grounded receptacle.

17. The machine is only allowed to be used for the purpose intended. Other used are not allowed.
18. Remodel or modify the machine in accordance with the safety rules/standards while taking all the effective safety measures. \_\_\_\_\_ assumes no responsibility for damage caused by remodeling or modification of the machine.

19. Warning hints are marked with the two shown symbols.



Danger of injury to operator or service staff



Items requiring special attention

## FOR SAFE OPERATION



1. Don't put your hand under the cloth cutting knife and the needle when you turn "on" the power switch or operate the machine.
2. Don't put your hand into the thread take-up cover while the machine is running.
3. Never bring your fingers, hair or clothing close to, or place anything on the handwheel, V-belt, bobbin winder wheel or motor during operation.
4. If your machine is provided with a belt cover, finger guard and safety plate, never operate your machine with any of them removed.
5. When tilting the machine head, exercise care not to allow your fingers etc. to be caught under the machine head.



6. To ensure safety, never operate the machine with the ground wire for the power supply removed.
7. Before inserting/removing the power plug, the power switch has to be turned OFF in advance.
8. In time of thunder and lightening, stop your work and disconnect the power plug from the receptacle so as to ensure safety.
9. If the machine is suddenly moved from a cold place to a warm place, dew condensation may be observed. In this case, turn ON the power to the machine after you have confirmed that there is no danger of water drops in the machine.

## 重要安全事項

此縫紉機在有的國家（設置場所）由于該國的安全規定而被禁止使用。同時，技術服務也同樣被禁止。

1. 使用此縫紉機時、必須遵守包括如下項目的基本安全措施。
2. 使用此縫紉機之前，請閱讀本使用說明書在內的所有指示文件。同時應將此使用說明書妥善保管，以便能夠隨時查閱。
3. 此縫紉機應與貴國的有關安全規定一起使用。
4. 使用此縫紉機和縫紉機動作中，所有的安全裝置應安裝到規定的位置。沒有安裝規定的安全裝置的縫紉機禁止使用。
5. 此縫紉機應由接受過培訓的操作人員來操作。
6. 使用縫紉機時，建議戴安全防護眼鏡。
7. 發生下列情況時，應立即關掉電源開關，或拔下電源線插頭。
  - 7-1 機針、彎針、分離器等穿線和更換旋梭時。
  - 7-2 更換機針、壓腳、針板、彎針、分離器、送布牙、護針器、支架、布導向器等時。
  - 7-3 修理時。
  - 7-4 工作場所無人了或離開工作場所時。
  - 7-5 使用離合馬達時，請等待馬達完全停止之後再進行。
8. 縫紉機以及附屬裝置使用的機油、潤滑脂等液體流入眼睛或沾到皮膚上時，或被誤飲時，應立即清洗有關部份并去醫院治療。

9. 禁止用手觸摸打開了縫紉機開關通電的零件或裝置。
10. 有關縫紉機的修理、改造、調整應由受過專門訓練的技術人員或專家來進行。
11. 一般的維修保養應由受過訓練的人員來進行。
12. 有關縫紉機的電氣方面的修理、維修應由有資格的電氣技術人員或專家的監督和指導下進行。
13. 修理、保養有關空氣、氣缸等壓縮空氣的零件時，應切斷空氣壓縮機供氣源後再進行。如有殘留壓縮空氣時，應放掉壓縮空氣。但，受過相當訓練的技術人員或專家進行有關調整或確認動作時除外。
14. 縫紉機的使用期間應定期進行清掃。

15. 為了正常安全運轉、應安裝地綫。同時應在不受高頻焊接機等強噪音源影響的環境下使用。
16. 電源插頭應用具有電氣專門知識的人來安裝。電源插頭必須連接到接地插座上。


17. 縫紉機指定用途以外不能使用。
18. 對縫紉機的改造。變更應符合安全規格，并采取有效的安全措施。另外，對於有關改造和變更、公司概不負責。

19. 本使用說明書上采用以下2個警告符號。

有損傷操作人員、維修人員的危險。

安全上需要特別以加注意的事項。

## 為了安全地使用 縫紉機的注意事項

 <b>注意</b>	<ol style="list-style-type: none"><li>1. 為了防止人身事故的發生，打開電源時以及縫紉機運轉中，請不要把手指放到壓腳、切刀和機針的附近。</li><li>2. 為了防止突然的起動造成人身事故，放倒縫紉機時，或卸皮帶罩和V形皮帶時，請一定關掉電源。</li><li>3. 為了防止被卷入機器的人身事故，縫紉機運轉中請不要將手指、頭發、衣服靠近皮帶輪、V形皮帶、馬達、切刀等驅動部分，也不要將東西放到機器上面。</li><li>4. 為了防止人身事故的發生，請不要在卸下皮帶防護罩、眼睛防護器等安全裝置的狀態下運轉縫紉機。</li><li>5. 為了防止人身事故的發生，放倒縫紉機或返回原來位置時，要注意不要夾住手。</li><li>6. 為了防止觸電事故，卸下電源地綫的狀態，請不要運轉縫紉機。</li><li>7. 為了防止觸電和損壞電氣零件，拔電源的插頭時，請先關掉機器電源開關。</li><li>8. 為了防止損壞零件造成的事故，打雷時請停止作業，并拔掉電源插頭以確保安全。</li><li>9. 為了防止損壞零件造成的事故，從寒冷的地方急速地移動到暖和的地方時，會發生結露，待水滴完全幹後再打開電源。</li><li>10. 為了防止損壞零件造成的事故，停電時請一定關掉電源。</li></ol>
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## BEFORE OPERATION

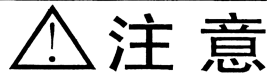


### WARNING :

To avoid malfunction and damage of the machine, confirm the following.

- The normal rotating direction of the sewing machine is counterclockwise, as observed from the pulley side. Be sure not to let it rotate in a clockwise direction.
- Never operate the machine unless the sewing machine head base has been properly lubricated.
- Be sure to remove the bobbin case and needle thread from the machine when doing trial sewing.
- Be sure to remove any dust from the hook or bobbin thread cutting knife section at the end of the day, and check the amount of oil remaining.
- Be sure to return the activating pedal to the home position after the machine has started to run. If the pedal is held depressed, the sewing machine may double the seam or cause a stop-motion during sewing at high speed.
- Confirm that the voltage has been correctly set.  
Confirm that the power plug has been properly connected to the power supply.

## 運轉縫紉機前的注意事項



### 注意

爲了防止機械的錯誤動作或損傷，請確認如下項目。

- 從皮帶輪側看縫紉機的旋轉方向是反時針方向。請注意不要反轉。
- 縫紉機油槽中沒有加油時，請絕對不要運轉縫紉機。
- 試運轉時，請卸下梭殼和上綫。
- 作業結束之後，請清掃旋梭、切刀部的灰塵。并確認油量是否充足。
- 使用起動踏板時，縫紉機起動後請把踏板返回到原來的的位置。否則會發生重縫或高速縫中停止的事故。
- 請確認電壓設定是否正確。請確認電源插銷是否正確連接。

## SPECIFICATIONS/規格

	781	782	783	784
Application	Buttonholing for ordinary cloth, knit, etc.			
Sewing speed	Max. 3,600 rpm			
Buttonhole length	6.4 ~ 19.0 mm (1/4" ~ 3/4")	6.4 ~ 25.4 mm (1/4" ~ 1")	6.4 ~ 31.7 mm (1/4" ~ 1-1/4")	2.7 ~ 38.0 mm (1/2" ~ 1-1/2")
Bar-tacking width	2.5 ~ 4.0 mm (3/32" ~ 5/32")	2.5 ~ 5.0 mm (3/32" ~ 3/16")		
Needles	DP X 5 #11J ~ #14J			
Presser lift	12 mm (15/32")			
Lubricating oil	Standard Machine Lubricating Oil			

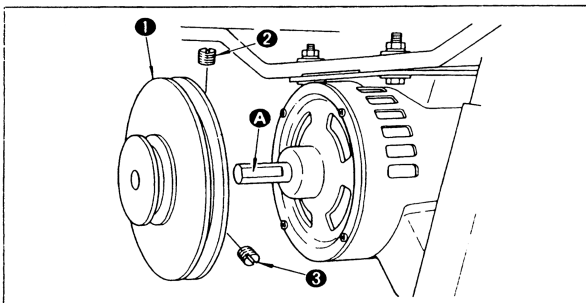
	781	782	783	784
用途	一般布料、針織布料等的鎖眼			
縫紉速度	最高每分3,600針、標準每分3,000針 (化纖時每分2,800針)			
a 孔眼長度	22mm	33mm	40mm	47mm
b 孔眼寬度	2.5 ~ 4mm	2.5 ~ 5mm	2.5 ~ 5mm	2.5 ~ 5mm
c 切刀長度 ( ) 內爲英寸	6.4 ~ 19mm (1/4" ~ 3/4")	6.4 ~ 25.4mm (1/4" ~ 1")	6.4 ~ 31.7mm (1/4" ~ 1 1/4")	12.7 ~ 38mm (1/2" ~ 1 1/2")
機針	DP X 5 #11J ~ #14J			
壓腳高度	12mm			
使用機油	標準縫紉機潤滑油			

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

為了防止意外的起動造成的事故，請關掉電源，確認馬達確實停止轉動後再進行。

**1. MOTOR PULLEY AND V BELT/馬達皮帶輪和V形皮帶****★ How to install motor pulley**

Place motor pulley ① into the motor shaft so that flat part ①A of the motor shaft aligns with first setscrew ②.

Then securely tighten setscrews ② and ③.

**★ 馬達皮帶的安裝**

把馬達皮帶輪①對準馬達軸的平坦部 A 和第1固定螺絲②，並插入軸中。然後擰緊固定螺絲②③。

1. 馬達使用單相或三相的4極 300 W 馬達。

(如果使用250 W 馬達時，轉速請控制在每分3,100 轉以下。)

2. 使用 M 型 V 形皮帶。

3. 馬達皮帶輪和 V 形皮帶長度、縫紉機轉速的關係如下所示。

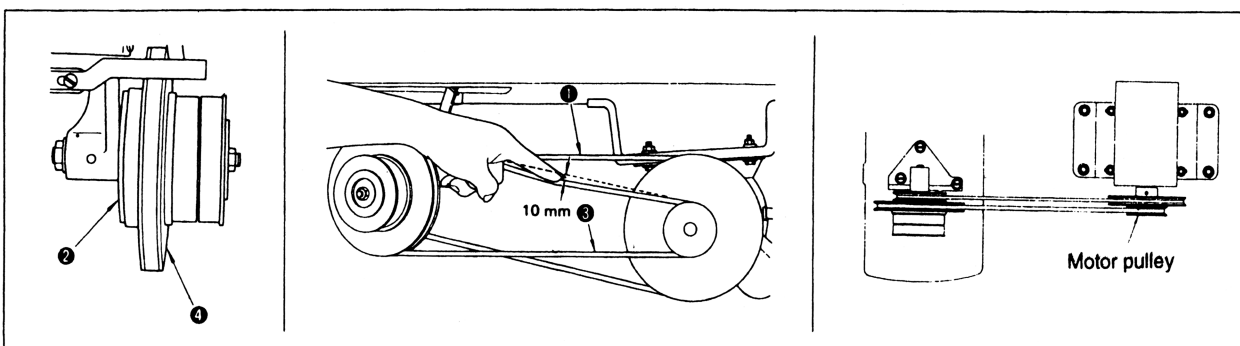
1. Motor of 300W, 4-pole are used for single-phase or three-phase operation. (If a 250W motor has to be used, operate the machine at 3,100 rpm or less.)

2. M-type V belts are used.

3. Refer to the following table for the motor pulleys, V belt length, and sewing speed.

Sewing speed (rpm) 縫紉速度(rpm)	Hz	Motor pulley part No.	高速 High speed V belt	低速 Low speed V belt
3,600	50	B7262-781-000A	45	42
	60	B7263-781-000A	43	41
3,300	50	B7256-781-000A	44	42
	60	B7257-781-000A	43	42
3,000	50	B7253-781-000A	44	42
	60	B7254-781-000A	42	41
2,800	50	B7258-781-000A	43	42
	60	B7259-781-000A	41	41

(inch)

**★ How to install V belt**

1. Mount high-speed V belt ① on accelerating pulley ② and the large diameters of the motor pulley.

2. Mount low-speed V belt ③ on low-speed pulley ④ and the small diameters of the motor pulley.

3. By moving the motor from side to side, adjust the tension of V belts ① and ③ so that they give an approx. 10 mm slack when their middle portions are pushed lightly by hand.

4. Move the motor pulley back and forth to align V belts ① and ③.

**★V 形皮帶的掛法**

1. 把高速 V 形皮帶①掛到高速皮帶輪②和馬達皮帶輪的大直徑部上。

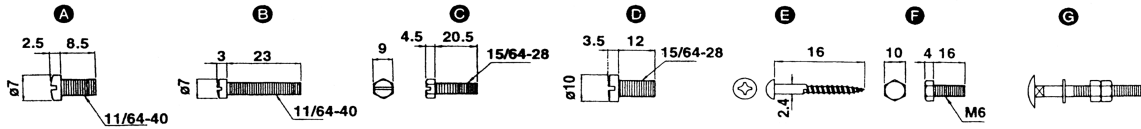
2. 把低速 V 形皮帶③掛到低速皮帶輪④和馬達皮帶輪的小直徑部上。

3. 用手輕輕按壓 V 形皮帶①③的中央部使垂度為10mm左右。左右移動馬達進行調整。

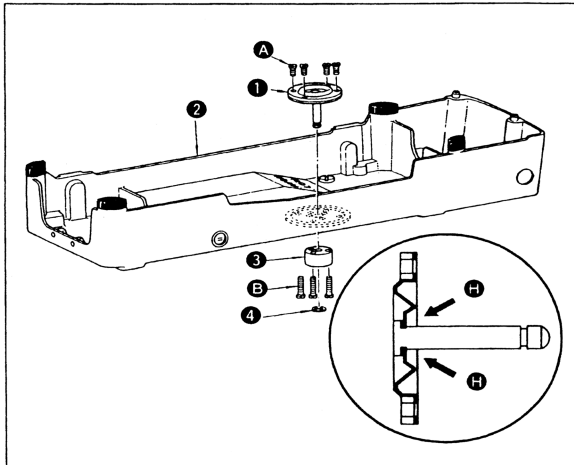
4. 前後移動馬達皮帶輪使 V 形皮帶①③保持在一直線上。

## 2. SETTING UP THE SEWING MACHINE/ 縫紉機的安裝方法

### 1. Screws used for set up/ 裝設時使用的螺絲



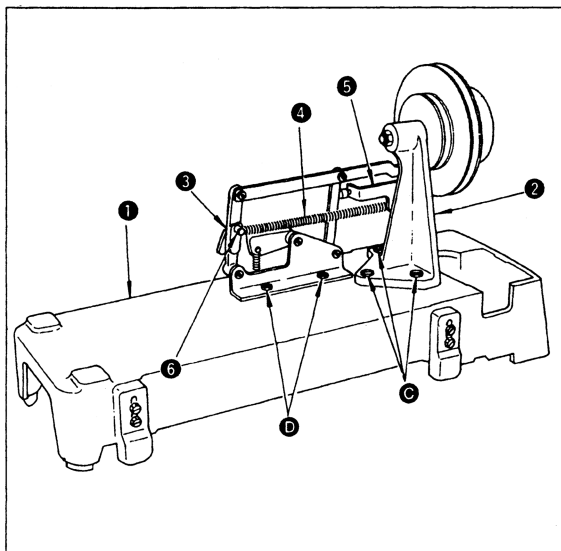
### 2. Attaching the shifter driving pin(asm.) 升降驅動銷 (組件) 的安裝



- 1) Fully apply the supplied grease to the pin of the shifter drive pin(asm.) ① and the rubber surface on the rear(See arrows H of figure).
  - 2) Using screw A, fix the shifter driving pin (asm.) on machine head base ②.
  - 3) Using screw B, fix driving pin base ③ on the rear surface of the machine head base so that the shifter driving pin moved up and down smoothly.
  - 4) Install snap ring ④ on the shifter driving pin(asm.).
- 1) 把附屬的潤滑脂塗到升降驅動銷(組件)①的銷子和背面橡膠面, 然後裝起來。(參照圖箭頭 H)
- 2) 把升降機驅動銷(組件)用螺絲 A 固定到機頭座②上。
- 3) 把驅動銷臺③用螺絲 B 固定到機頭座背面。這時升降驅動銷應上下動作順暢。
- 4) 把 E 氣缸④安裝到升降驅動銷上。

### 3. Installing transmitter(asm.)and shifter base(asm.)

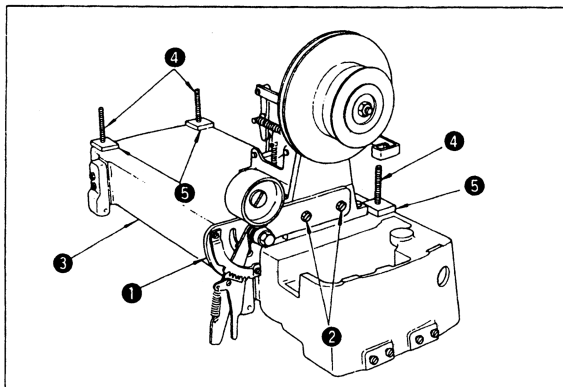
#### 減速器 (組件) 和升降器台 (組件) 的安裝



- 1) Place machine head base ① with its rear surface facing toward you.
  - 2) Fix transmitter (asm.) ② by screw C.
  - 3) Fix shifter base ③ by screw D.
  - 4) Attach shifter tension spring ④ to shifter stopper bracket (asm.) ⑤ and shifter tension spring bracket ⑥ of the shifter stopper base (asm.).
- 1) 把機頭座①轉到背面。
- 2) 把機頭座①把減速器(組件)②固定起來。
- 3) 用螺絲 D 固定好升降器(組件)③。
- 4) 把升降器拉簧④掛到減速器(組件)的升降器止動臺⑤和升降器臺座(組件)的彈簧鉤⑥上。

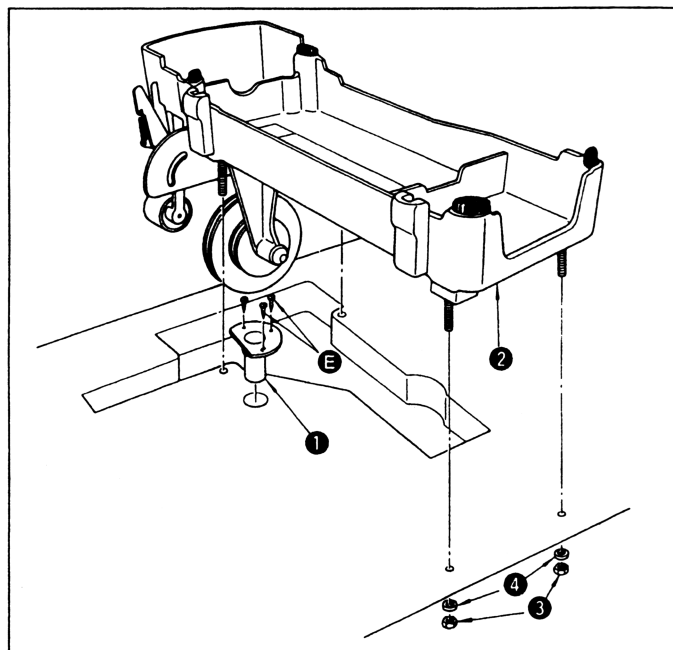
### 4. Installing the tension pulley coupling

#### 張力皮帶輪組件的安裝



- 1) Fix tension pulley coupling ① by hexagon screw ② supplied with the reducer (asm.).
  - 2) Install stud ④ and machine head base seat felt ⑤ on machine head base ③.
  - 3) Fully apply the supplied grease to the shifter driving pin base again. Also apply the supplied grease to the end of the shifter driving pin and the head of the screw of the shifter pin bracket.
- 1) 用六角螺絲②固定到減速器(組件)①上。
- 2) 把④和機頭座氈墊⑤安裝到機頭座③上。
- 3) 向升降器驅動銷和驅動銷臺上滴適當的潤滑脂塗。另外, 也向升降器驅動銷前端和升降銷座的螺絲頭上滴適當的潤滑脂塗。

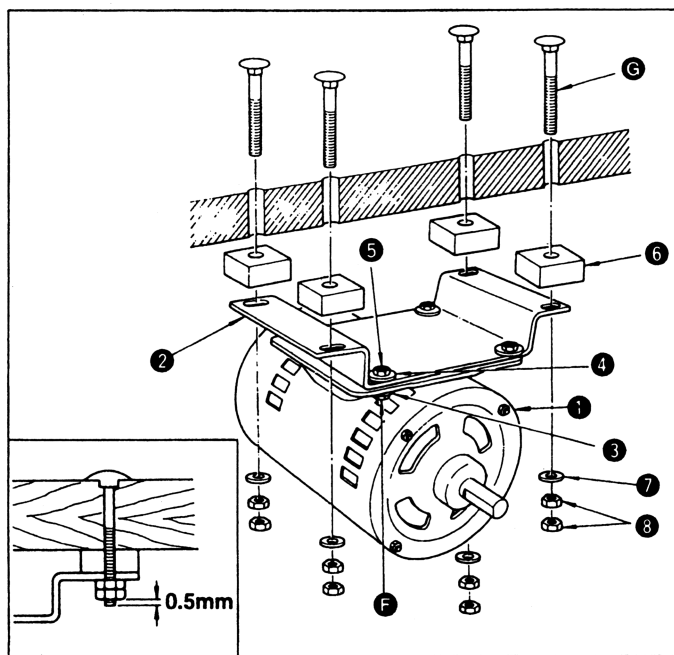
## 5. Installing the machine head base (asm.) 機頭座（組件）的安裝



- 1) Fix drain funnel ① to the drain hole (ø25) in the table by wood screw ⑤.
- 2) Placing the machine head base (asm.) ② on the table, fix it by tightening nut ③ (flat washer ④ is used) from the bottom of the table.

- 1) 把油栓①用木螺絲⑤固定到機臺的廢油孔（φ25）部。
- 2) 把機頭座（組件）②放到機臺上，從機臺下側用螺母③（平墊片④）固定好。

## 6. Installing the motor/ 馬達的安裝



- 1) Install motor ① on motor base ② by screw ⑥ (flat washer ③, spring washer ④, and nut ⑤ are used).
- 2) Placing spacer ⑥ between the table bottom and the motor base, fix the motor base by installing bolt ⑦ (a flat washer ⑧ and nut ⑨ are used). Tighten the nuts so that the lower nut is levelled with the end of bolt ⑦ or bolt ⑦ projects by 0.5 mm.

- 1) 把馬達①固定起⑥（平墊片③和彈簧墊④、螺母⑤）安裝到馬達座②上。
- 2) 把墊塊⑥放到機臺下面和馬達座之間，用安裝螺栓⑦（平墊片⑧和螺母⑨）固定好馬達座。擰緊螺母時，請調節安裝螺栓⑦，讓下側的螺母正好對準安裝螺栓⑦，螺栓突出0.5mm。

### 3. SETTING UP THE MACHINE HEAD/ 縫紉機頭的安裝



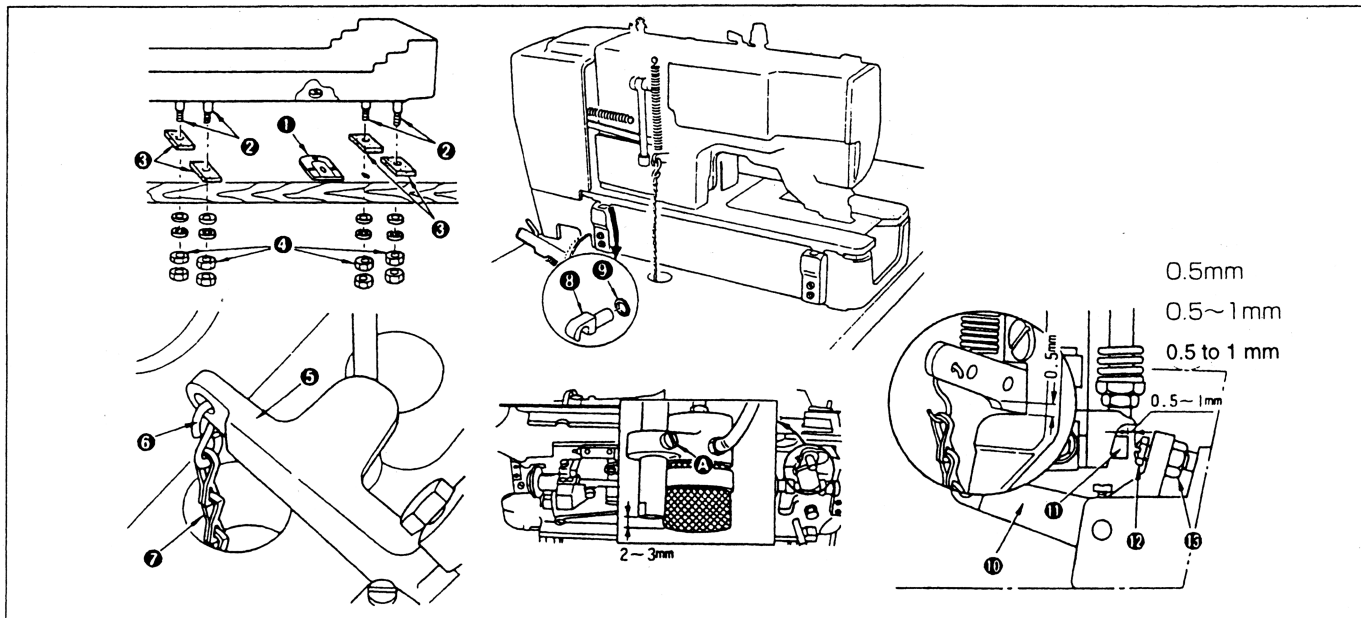
**WARNING:**

To prevent possible accidents caused by the fall of the sewing machine, perform the work by two persons or more when the machine is moved.



**注意**

搬運縫紉機時，請一定要 2 人以上進行。



1. Attach oil-drain funnel ① to the oil-drain section (25Φ) on the table using the woodscrews.
2. Attach studs ② (both sides are threaded.) to the machine base.
3. Put machine base felt pads (4 pcs.) ③ on the four holes of the table.
4. Put the machine base on them, and tighten it from the under side of the table using nut ④ to fix it.
5. Hang S-shaped metal fitting ⑥ on starting link ⑤ attached in the rear of the machine base. Then connect it with chain ⑦, and attach it to the start pedal.
6. Putting cushion ⑨ into hinge ⑧, insert hinge ⑧ into the machine head. Then, place the machine head on the machine base.
7. Then, adjust the wire-netting of the pump suction hole so that it comes below the bed screw stud by 2 to 3 mm. (The height can be adjusted with A.)
8. After placing the machine head, adjust the starting link adjusting bolt as stated below. After confirming that the sewing machine is in the stop motion state, push starting link ⑩ to the rear side. At this time, adjust with nut ⑬ so that a clearance of 0.5 to 1 mm is provided between ⑪ and ⑫, At this time, a clearance of 0.5 mm is provided between the presser bar lifting lever and the starting link.

1. 排掉機台排油部 (25φ) 的機油，用木螺絲安裝漏斗 ①。
2. 把螺栓 ② (兩端有螺絲) 安裝到機頭上。
3. 把機頭對準機臺上的 4 個螺絲孔，然後放上機頭座墊 (4 個) ③。
4. 把機頭座放到上面，從機臺下側用螺母 ④ 擰緊固定。
5. 把 S 形金屬部件 ⑥ 掛到機頭座後方安裝的起動環 ⑤ 上，連接鏈條 ⑦，並安裝到起動踏板上。
6. 把墊片 ⑨ 放到絞鏈 ⑧ 裏，然後插進縫紉機頭部。然後把縫紉機頭放到機頭座上。
7. 接著，把油杯吸入口往從機座支柱向下拉出 2~3mm。(高度用 A 可以調整)。
8. 安裝完機頭，按如下方法調節起動環調節螺栓。

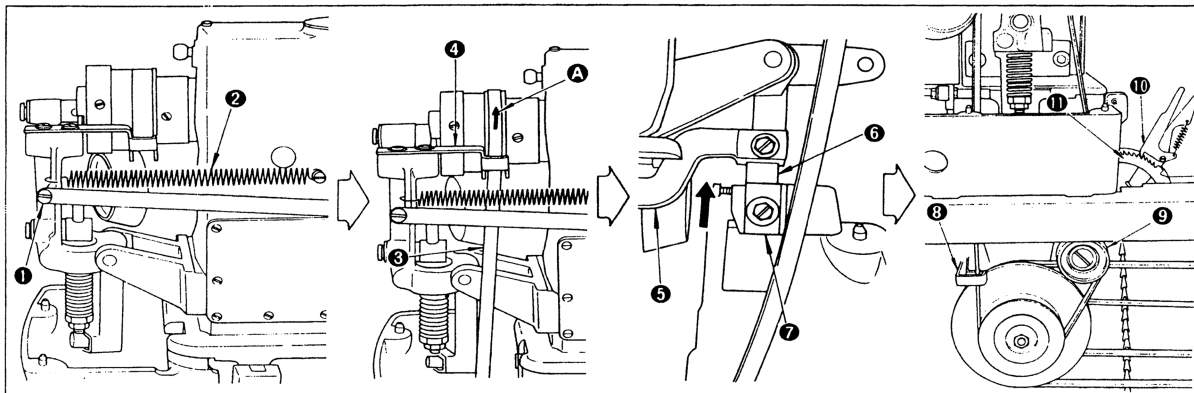
確認了縫紉機處於分離狀態後，向後方按壓起動環 ⑩。用螺母把 ⑪ 和 ⑫ 的間隙調整為 0.5~1mm。此時，壓腳提升撥杆和起動安全曲軸的間隙為 0.5mm。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

為了防止意外的起動造成的事故，請關掉電源，確認馬達確實停止轉動後再進行。

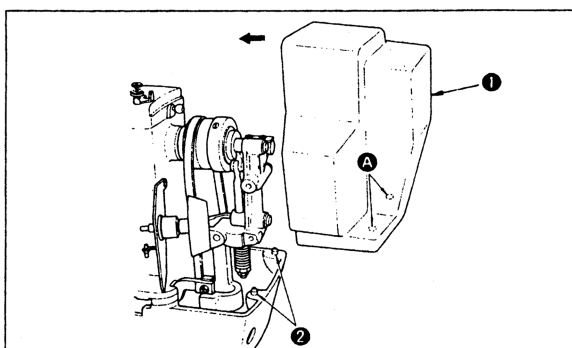
**4. ATTACHING THE FLAT BELT/ 平皮帶的掛法**

1. Removing screw ①, remove spring ② from the suspension screw. (At this time, be careful not to push starting link driving rod ⑫ in the direction of arrow. When starting link driving rod ⑫ is pushed by mistake and cannot be pulled to the rear side, loosen the nut of tension post No. 1 until the starting link driving rod can be pulled to the rear side. After doing so, reset so that the thread tension disk is opened.)
2. Pass belt ③ through belt shifter ④ so that the belt rotates in the direction of arrow A.
3. Reinstall screw ① and spring ② in their home positions.
4. Lift tripping lever ⑤ in the direction of arrow, and pass the belt between latch B ⑥ and latch A ⑦.
5. Passing belt shifter ⑧ located on the side of the speed transmitter, attach the belt onto tension pulley ⑨.
6. Put fixing pawl ⑩ in the second groove from the bottom of ratchet ⑪ to provide the belt with tension.

(NOTE) Some expansion or contraction in the belt caused by temperature or humidity may make it rather difficult to install the belt. However, the belt will restore its original length while in use.

1. 卸下螺絲①，從彈簧掛鉤上卸下彈簧②。(此時，請不要往箭頭方向按壓起動安全曲杆12。如果錯按了，起動安全曲杆12不能向後拉時，請擰鬆第1綫張力杆螺母，鬆開第1綫張力杆，讓起動安全曲杆能向後拉。然後在分離時，再次進行設定。)
2. 讓皮帶③的轉動方向和箭頭A一致，放進皮帶卡④裏再掛到皮帶輪上。
3. 把螺絲①和彈簧②安裝到原來的位置。
4. 向箭頭方向抬起鉤提升撥杆⑤，從鉤B⑥和鉤A⑦之間穿過皮帶。
5. 把皮帶掛到減速器側的皮帶提升器⑧上，再把皮帶掛到張力輪⑨上。
6. 把固定爪放到開輪的倒數第2個齒上，張緊皮帶。

(注意) 平皮帶隨氣溫、溫度變化會產生若干伸縮，安裝時不容易裝上。但是，使用時會恢復到原來的長度，因此不用擔心。

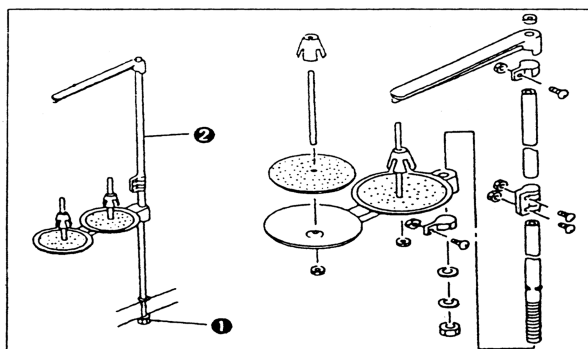
**5. INSTALLATION/REMOVAL OF BELT COVER/ 皮帶防護罩的安裝、拆卸**

Aligning guide pin ② with hole A in belt cover ①, push the belt cover in the arrow direction until it snaps.

For removal of the belt cover, bring down the belt cover in the direction opposite to the arrow, and slide it up.

把皮帶防護罩①的孔A對準導銷②，往箭頭方向按壓皮帶防護罩，直到聽見「喀嗒」的聲音。

拆卸時，把皮帶防護罩往與箭頭方向相反方向放倒，然後向上拔出。

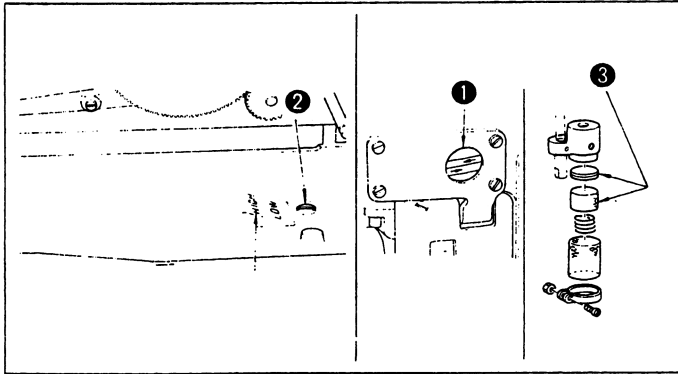
**6.****INSTALLING THE THREAD STAND  
線架的安裝**

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

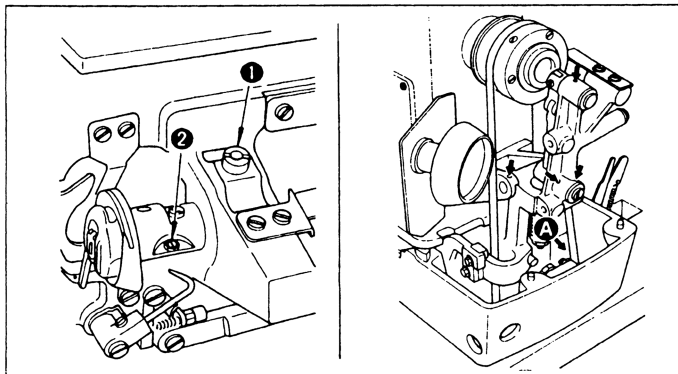
爲了防止意外的起動造成事故，請關掉電源，確認馬達確實停止轉動後再進行。

**7. LUBRICATION/ 加油****★ Before starting the machine:**

1. Fill the oil reservoir with standard machine lubricating oil up to the level indicated by "HIGH".
2. When the machine is operated after the oil reservoir has been filled with oil, the oil is seen to run through the two pipes from oil sight window ① as far as the sewing machine is normally lubricated. (Low speed operation permits easier observation of the lubricating oil.)  
If dirty oil is used, dust will accumulate on the lubrication net felt pads ③ shown in the figure, impairing smooth flow of the oil from the machine. In this case, it is necessary to drain the oil from the machine base and fill it with fresh oil and to remove the felt pads and wash them clean.
3. If the oil gets stained, loosen drain screw ② to drain the dirty oil from the machine base and fill it with fresh oil.

**★ 縫紉機運轉之前**

1. 把標準縫紉機潤滑油加入到油槽 ①，加到 HIGH 標記的位置。
2. 加油後運轉縫紉機，潤滑正常時應能看到油窗 ① 裏的 2 根油管中有油在流動。  
(低速運轉時看得特別清楚。)  
油臟了之後會積存到加油網氈 ③ 上。會堵塞油管。這時請把油槽中的油換成新的，並卸下加油網氈清洗乾淨。
3. 油臟污之後，請擰鬆放油螺絲 ② 排出臟油，並換新機油。

**★ Adjusting the lubrication for the sewing hook**

Adjust the volume of lubricating oil supplied to the sewing hook by turning oil adjusting screws ① for rough adjustment, and ② for fine adjustment; oil volume is reduced when turning the screws clockwise.

**★ Other lubricating points**

1. Apply one or two drops of lubricating oil to the arrowed points once a week or every other week.
2. Apply two or three drops of lubricating oil only to A point when the machine is newly set up or has been out of use for a long time.

**★ 旋梭油量的調整**

用調節螺絲 ① 調節大旋梭的油量，用調節螺絲 ② 進行微量調節。  
把調節螺絲往裏擰油量變多。

**★ 其他加油**

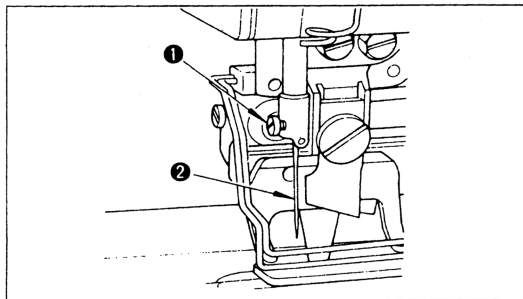
1. 每 1~2 周往箭頭所示的地方加油 1 次每次加油 1~2 滴。
2. 新縫紉機或很久沒有使用的縫紉機，在使用時，請往 A 部加油 2~3 滴機油。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



為了防止意外的起動造成的事故，請關掉電源，確認馬達確實停止轉動後再進行。

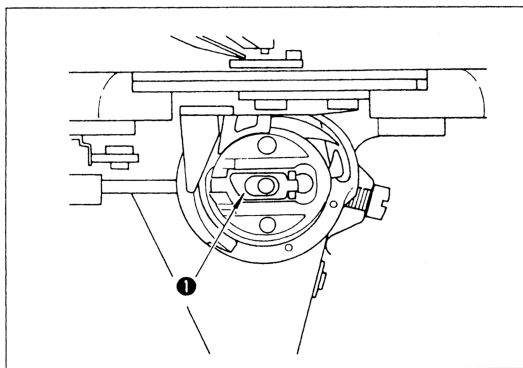
**8.****INSERTING THE NEEDLE/ 機針的安裝方法**

Use a DPx5J needle.

1. Loosening needle setscrew ②, hold needle ① with its recessed part facing toward the operator,
2. insert the needle fully into the needle clamping hole, and
3. securely tighten the needle setscrew.

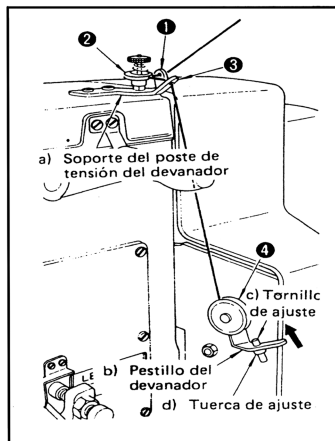
使用 DP × 5J 機針。

1. 擰鬆機針固定螺絲②，手拿機針，把機針①凹部橫向轉到前側。
2. 然後把機針插進針杆孔的深處。
3. 擰緊機針固定螺絲。

**9. INSTALLATION/REMOVAL OF BOBBIN CASE/ 梭殼的安裝方法**

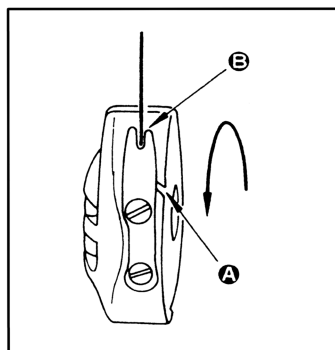
1. Lift up and hold bobbin case latch lever ① between two fingers to remove it from the hook.  
A bobbin does not fall off the bobbin case while the latch lever is lifted up.
2. For installation of the bobbin case, push the bobbin case into the hook so that it is supported by the hook shaft, and then snap in the latch lever.

1. 撬起梭殼扣爪①，取下梭殼。  
撬起扣爪拿旋梭時梭心不會掉出來。
2. 安裝時請把梭殼插到底，扣爪閉上。

**10. WINDING THE BOBBIN/ 底線的繞線方法**

1. Fit a bobbin onto the bobbin winder shaft.
2. Take the thread from the spool and pass it through the guides in the numerical order shown in the figure, and wind the end of the thread several turns around the bobbin.
3. Push the bobbin winder trip latch ⑤ in the arrow direction, and the bobbin will be wound.
4. Loosening the adjusting nut, perform adjustment by screwing in or out the adjusting screw ⑥ so that the bobbin is wound about four-fifths full.
5. If the bobbin is wound unevenly, adjust the position of the bobbin winder tension bracket ⑦ for proper and even winding.

1. 把梭心插到繞線軸上。
2. 如圖所示進行穿線，并把線在梭心上繞幾圈。
3. 向箭頭方向按梭心導線器⑤，進行繞線。
4. 擰鬆調節螺母，移動調節螺絲⑥，讓線繞到梭心的80%。
5. 如果線繞得偏時，請把底線導線座⑦移動到正確的位置。

**11. ATTACHING THE BOBBIN/ 梭心的安裝方法**

1. Hold and place a bobbin into the bobbin case so that the bobbin is wound counterclockwise.
2. Passing the thread through thread outlet A of the bobbin case, pull the thread, and the thread can be drawn out from thread outlet B, passing under the bobbin winder tension spring.

☆ Set the bobbin so that it rotates in the arrow direction when the bobbin thread is pulled.

1. 手拿梭心，讓線往左繞的方向，把它放入梭殼。
2. 把線穿過梭殼的穿線口A，然後把線往B方向拉，從線張力彈簧下面的穿線口B拉出來。

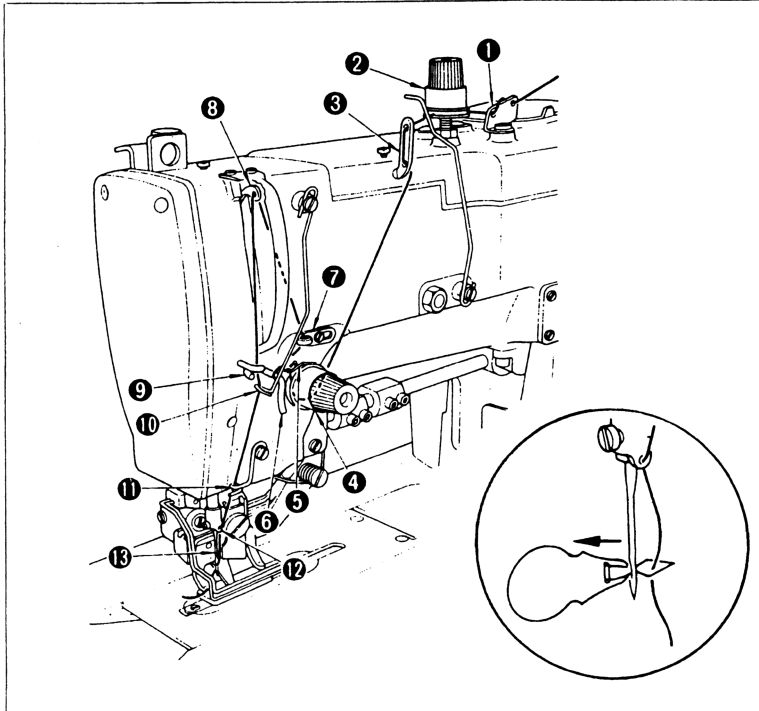
☆拉底線C，確認底線是否梭芯與箭頭的方向相同。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



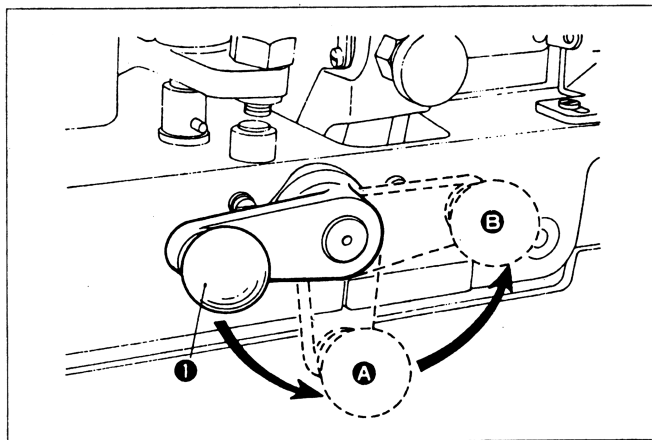
為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

**12. THREADING THE NEEDLE-THREAD/上線的穿線方法**

1. Pass the needle thread in the order as shown in the figures.
  2. The threading can be done easily by using the needle threader supplied with the machine.
1. 如圖所示穿上線。  
2. 線穿針進，如使用附屬的穿線器穿線非常方便。

Cotton thread, spun thread.

Synthetic filament thread.

**13. REDUCTION OF SEWING SPEED AND EMERGENCY STOP/ 低速運轉和緊急停止****★低速運轉**

1. 放下 (A 的位置) 手動停止手柄 1。
2. 高速運轉中的縫紉機也變成低速運轉。

**★緊急停止**

1. 把手動停止手柄繼續轉到 B 的位置。
2. 縫紉機立即停止。

(注意) 手柄不能返回時，請輕輕施加點力量就會轉動。也變成低速運轉。

**★ Reduction of sewing speed**

1. Turn hand stop crank ① downwards to position A, and
2. the machine will be immediately slowed down.

**★ Emergency stop**

1. Turn the hand stop crank downwards to position A, and further upwards to position B and
2. the machine will stop immediately.

(NOTE) When the hand stop crank do not return, push it down.

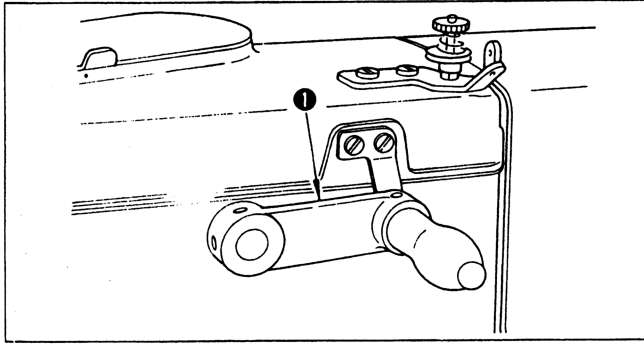
**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



爲了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

## 14. MANUAL FEED HANDLE/ 手動送布手柄



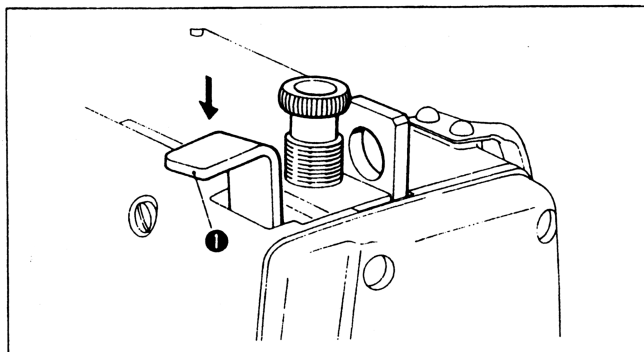
When you want to feed fabric manually after giving an emergency stop or to resume sewing from the point at which thread was broken, rotate manual feed handle ❶ to operate the cloth feeding mechanism.

**(NOTE) Confirm that the needle does not stick in fabric before turning the manual feed handle.**

緊急停止後，或中途線斷後，再次開始縫紉時，轉動手動送布手柄❶送布機構就開始動作。

(注意) 手動送布手柄應在確認了機針沒有扎到布之後再轉動。

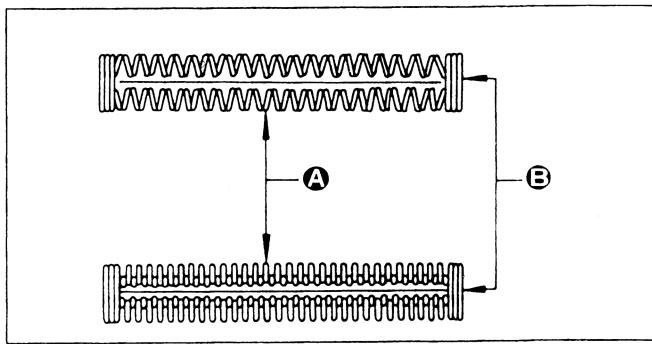
## 15. HOW TO HOLD THE DESCEND KNIFE/ 防止切刀掉落



When you do not want to cut fabric after sewing because of thread breakage or some other reasons, keep on pressing down knife stop lever ❶ lightly until the machine stops. Then the knife will not descent.

緊上綫和底綫被切斷時，或不想讓切刀落下時，在縫紉機停止之前，把切刀固定撥杆❶輕輕向下按壓。切刀就不會下落。

## 16. TYPES OF STITCHES/ 縫跡形式



本縫紉機有 2 種縫迹形式。它們是 1. 此縫紉機鋸齒邊縫和 2. 直鎖眼縫。

(鋸齒邊縫)

布的表面祇有上綫，背面是底綫的鋸齒狀縫迹。

(直鎖眼縫)

增強上綫張力，上綫直綫通過，底綫左右鎖縫的縫迹。

This machine is capable of forming two different types of stitches, namely whip stitch 1 and purl stitch, 2.

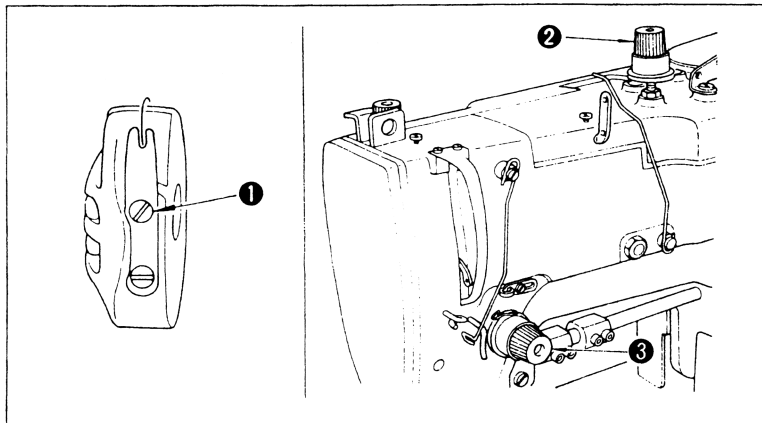
### 1) Whip stitch

The whip stitch is formed in zigzag showing the needle thread only on top of fabric, and the bobbin thread on the bottom.

### 2) Purl stitch

When applying higher tension to the needle thread to permit it to pass straight through fabric, the purl stitch is formed by the bobbin thread which is pulled over from both sides to the center line.

## 17. THREAD TENSION/ 線張力



### ★ Adjust the thread tension for purl stitch:

1. Adjust the bobbin thread tension to approx. 15 to 20g by adjusting screw ① of the bobbin case.
2. Adjust tension controller No. 1 ② for proper needle thread tension so that the bar-tack part ⑤ is formed by well-shaped whip stitches. If the tension is too low, bar tacking seam may form thread knots on the rear face of fabric.
3. Adjust tension controller No. 2 ③ for proper tension of the parallel side seams ④ by judging from the stitch formation.

### ★ Adjusting the thread tension for whip stitch:

1. Adjust the bobbin thread tension to approx. 40 to 50g by adjusting screw ① of the bobbin case.
2. Exchange the adjusting springs of tension controllers No. 1 ② and No. 2 ③ each other (the tension controller No. 2 will have a weak spring).
3. Adjust tension controller No. 2 ③ to prevent ravelling off at the end of a seam.
4. The stitches of the parallel sides or bar-tack can be adjusted by tension controller No. 1 ②.

### ★ 直鎖眼縫的綫張力

1. 用梭殼張力螺絲① 把底綫張力調節為 15~ 20 g 左右。
2. 調整第 1 綫張力器② 縫制出漂亮的鋸齒邊縫那樣的縫迹。(如果背面綫頭露出的話，請調緊第 1 綫張力器。)
3. 對於平行部A的鋸齒形狀，請用第 2 綫張力器③調節。

### ★ 鋸齒邊縫的綫張力

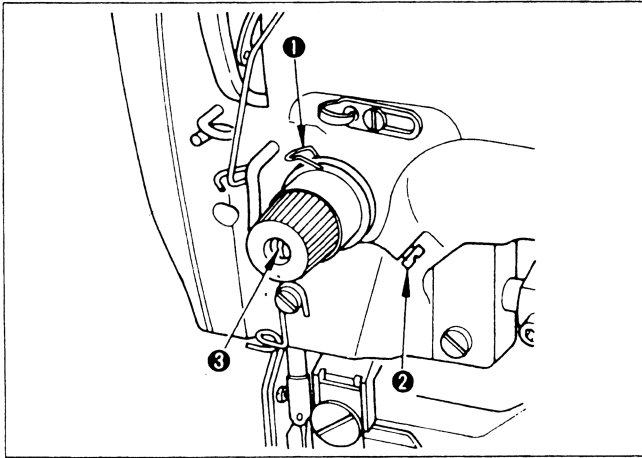
1. 用張力螺絲① 把底綫張力調節為 40~ 50g左右。
2. 更換第 1 綫張力器②和第 2 綫張力器③的調節彈簧。(第 2 綫張力器要稍弱一些。)
3. 用第 2 綫張力器③和進行調節，不讓縫紉完了後脫綫。
4. 用第 1 綫張力器②調節平行部、加固縫部的縫迹。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。



### ★ Adjusting the thread take-up spring (for purl stitch)

The suitable range of the stroke of thread take-up spring ① is from 6 to 8 mm with a starting tension of 20 to 50g. For adjusting the stroke of the thread take-up spring, loose screw ②, and insert a thin screwdriver into the slit of tension post ③ to turn the tension post.

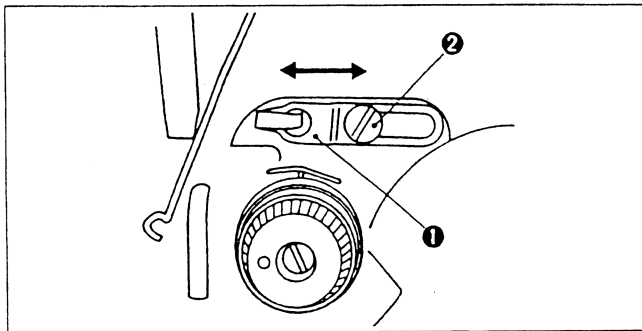
To adjust the tension of the thread take-up spring, insert a thin screwdriver into the slit of tension post ③ to turn it, with screw ② tightened. The tension of the thread take-up spring increases when the tension post is turned clockwise, and decreases when turned counterclockwise.

### ★拉綫彈簧（直鎖眼縫）

把拉綫彈簧①的拉綫量調節成8~10mm，把始動時的張力強度調節為10~20g。

變更拉綫彈簧的動作範圍時，請擰鬆螺絲②，把細螺絲刀插到綫張力杆③的切縫處轉動調節。

變更拉綫彈簧的強度時，請在螺絲②擰緊的狀態下，把細螺絲刀插到綫張力杆③的切縫處轉動調節。向右轉動拉綫彈簧的強度變大，向左轉動變弱。



### ★挑綫量的調節

根據縫制物的厚度變更挑綫量可以得到良好的緊綫效果。

- 縫制厚料時，擰鬆導綫器①的固定螺絲②，向左移動導綫器。  
挑綫量變大。
- 縫制薄料時，把導綫器①向右移動導綫器。  
挑綫量變小。

### ★ Adjusting the thread take-up amount of the thread take-up lever

The thread take-up amount of the thread take-up lever should be adjusted in accordance with the thickness of the sewing products so as to obtain well-tightened stitches.

- For heavy-weight materials, loosen setscrew ② in thread guide ①, and move the thread guide to the left. The thread take-up amount of the thread take-up lever will be increased.
- For light-weight materials, move thread guide ① to the right.

The thread take-up amount of the thread take-up lever will be reduced.

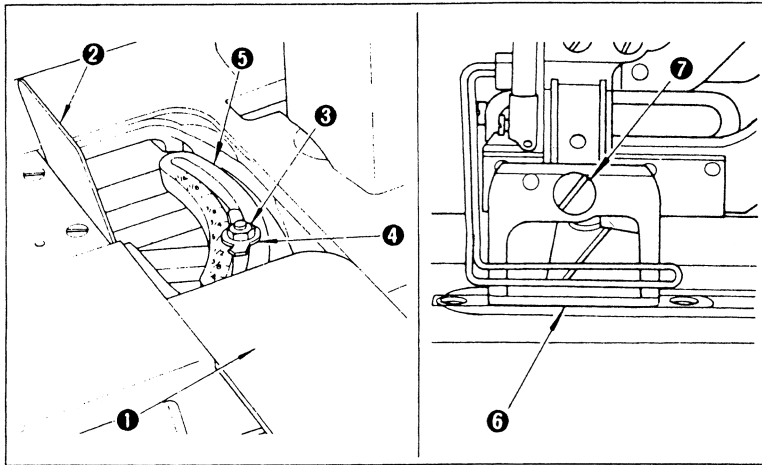
**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

為了防止意外的起動造成的事故，請關掉電源，并用腳踏板確認機器確實不動。

## 18. ADJUSTING THE BUTTONHOLE LENGTH/ 鎖縫長度（送布量）的調節



1. 拉出外罩①，就可以抬起外罩②。
2. 用附屬的扳手擰鬆螺母③，把指針④對準送布曲柄⑤上希望的刻度（與切布刀寬度相同的尺寸），然後擰緊螺母③。  
請不要把螺母④擰下來。
3. 進行試驗縫制，微調整讓切刀不切加固縫部。

★壓腳的更換

請使用接近鈕扣眼長度的壓腳⑥。  
擰鬆壓腳固定螺絲⑦，就可以更換壓腳。

1. Pull out cover ①, and raise cover ②.
2. Loosen nut ③ by the spanner supplied with the machine. Set point ④ to a desired length on scale ④ (this length is the same with the knife width), and then retighten nut ③.
3. Through your trial sewing, adjust the overedging length accurately to the extent that the bar tacking seams are not cut by the knife.

★ Changing the work clamp check

Use work clamp check ⑥ having the size nearly the same as that of a buttonhole length.

By removing setscrew ⑦, a work clamp checks can be changed together with a work clamp check holder as a set.

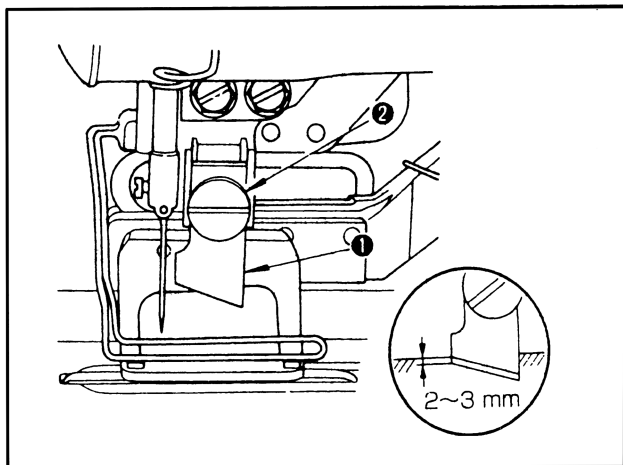
Work clamp check/Work clamp check holder set Part No.	Applicable knife width
壓腳和壓腳組件的貨號	可以使用的切刀寬度
	1/4" ~ 3/4"
	1/4" ~ 1"
	1/4" ~ 1 1/4"

**WARNING:**

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**注意**

為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

**19. REPLACING THE KNIFE/切布刀的更換**

When sharpening or replacing the knife, remove it as follows:

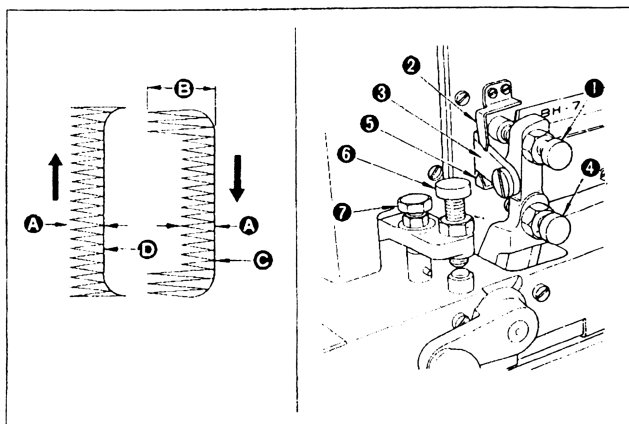
1. Loosen setscrew ②; and remove knife ① together with the washer.
2. Attach the knife to the knife holder so that the higher end of the slanted knife blade comes down 2 to 3 mm above the surface of the throat plate when the knife is brought down to the lowest position.

**(NOTE) Do not forget to install the washer when retightening the setscrew.**

研磨切刀或更換新切刀時，請按照如下要領進行更換。

1. 擰鬆切刀固定螺絲②，把切刀①和墊片一起卸下。
2. 安裝時，下降到切刀最低點，讓切刀和護針器上面的距離為2~3mm，擰緊切刀固定螺絲②。

(注意) 請一定放上墊片。

**20. ADJUSTING THE BUTTONHOLE WIDTH (STITCH WIDTH AND BAR TACKING WIDTH) AND BUTTONHOLE REFERENCE POSITION**  
**鎖眼寬度（擺送幅和加固縫寬度）以及縫鎖基準位置的調整**


機針的擺動以機針擺動的右側為基準位置。調整時請按照以下要領進行。

1. 擺動寬度 A，移動螺絲①把指針②對準刻度板③上希望的刻度。實際的擺動寬度是刻度的1/2的量（單位：mm）。
2. 加固縫寬度 B，移動螺絲④把指針⑤對準刻度板的指針②指示的刻度，設定為擺動寬度的2倍。

The needle swings from right to left with the right base line established as the reference position.

Perform the adjustment as follows:

1. To adjust stitch width A, screw in or out screw ①, and set pointer ② to a desired value on scale plate ③. The actually sewn stitch width will be the half of the set scale value (mm).
2. For adjustment of bar tacking width B, screw in or out screw ④, and set pointer ⑤ to the value indicated by scale plate pointer ②, making the bar tacking width twice as large as the stitch width.
3. Adjust the position of right base line C by screwing in or out screw ⑥ so that it is kept away from the cutting line of the knife. As screw ⑥ is screwed in, the right base line moves to the left.
4. Through your trial sewing, further perform fine adjustment.
5. It is not necessary to adjust the position of left base line D since it remains unchanged when the stitch width is changed. However, the left base line should be moved to the left by screwing in screw ⑦ if it is cut by the knife.

**WARNING:**

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**注意**

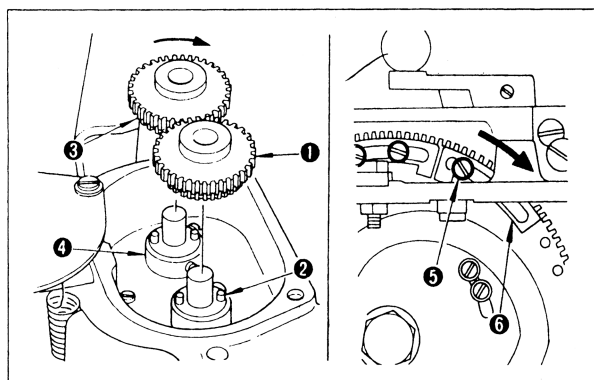
為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

**21. CHANGING THE NUMBER OF STITCHES/ 針數的變換方法**

記号			記号		
Symbol			Symbol		
I	54	345	A	93	200
Ⓜ	62	300	B	100	190
K	66	285	C	105	180
Ⓛ	70	268	D	110	170
M	74	252	Ⓢ	115	160
N	79	238	F	123	152
O	83	225	Ⓣ	130	145
	88	212	H		

**★更換齒輪**

1. 更換齒輪，可以變為表中所述的針數。
2. 齒輪上均刻有 A、B、C... 的英文字母和 123、156 的數字
3. 用英文字母相同的齒輪進行組合。
- 4) 後面安裝的齒輪上刻的數字表示此時的針數。  
(○裏的為標準附屬品。其它則為另外訂購零件。)

**★ Attaching the spur gears to their shafts**

1. Push gear ① into the shaft so that it is securely fixed by the pin on gear bushing ② located nearer to an operator.
2. For installing gear ③ on the pin of rear gear bushing ④, push gear ③ into the shaft while turning it in the arrow direction.

**★ Spur gears**

1. By selecting the spur gears, you can control the number of stitches as shown in the table.
2. Alphabetical marks like A, B, C, etc., and numerals like 123, 152, etc. are both engraved on each spur gear for identification.
3. Use a combination of gears which have the same alphabetical marks.
4. The numeral engraved on the gear installed in the rear position will represent the number of stitched provided by the then combination of spur gears.

(The circled alphabetical symbols in the above table show that the gears are included in the standard accessories. All other gears are optional attachments.)

**★齒輪的安裝**

1. 從作業人員方面看，把齒輪①插進前面的更換齒輪座②的絞鏈上。
2. 把齒輪③向箭頭方向轉動，插進後面的更換齒輪座④的絞鏈上。

**★低速凸輪位置的調整**

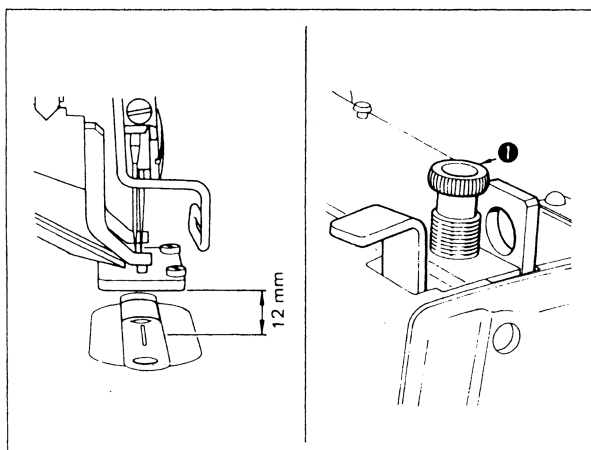
擰鬆固定螺絲⑤，按下表的間隙 A 值調整低速凸輪⑥的位置。

針數	間隙 A
93 針以下	10~12mm
115 針以下	5mm
123 針	0

**★ Adjusting the low-speed cam position**

Loosen setscrews ⑤, and adjust the position of low-speed cam ⑥ to set clearance A as shown below:

Number of stitches	Clearance A
93 stitches or less	10 ~ 12 mm
115 stitches or less	5 mm
123 stitches	0

**22. ADJUSTING THE PRESSER BAR PRESSURE/ 布壓腳的壓力調整**

The presser bar goes up 12 mm when the pedal is fully stepped down.

To adjust the pressure applied by the presser bar to fabric, turn presser spring regulator ①. When the pressure is not enough to prevent fabric from puckering, turn regulator ① clockwise.

踏板踩到底時的壓腳提升量為 12mm。

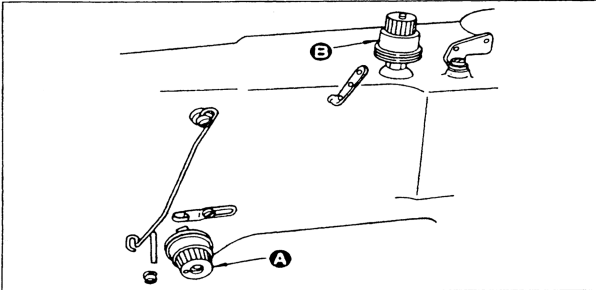
布壓腳的壓力用壓腳調節螺絲①調節。擰緊調節螺絲後，布壓腳壓力變大，布不容易出褶。

**WARNING:**

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**注意**

為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

**24. ADJUSTING THE THREAD TENSION RELEASE TIMING/ 機線鬆弛時期的調整**

★ **Thread tension release of the thread tension disk No. 1**  
Thread tension disk No. 1 **B** rises only when the sewing machine has entered the stop motion state and stopped. Its standard rising amount is 1 mm.

Adjust the rising amount by raising/lowering the attaching height of the thread tension disk No. 1.

★ **Thread tension release of the thread tension disk No. 2**  
Thread tension disk No. 2 **A** is kept risen between the bartacking section and several stitches from the sewing end to the sewing start.

The rising amount can be adjusted by loosening setscrew **1** and pulling out or putting in of **A**. The appropriate rising amount is 0.5 to 1 mm. The period of thread tension release at the sewing start should be adjusted so that the thread tension release finishes within 2 to 3 stitches from the sewing start. (For 123 stitches.)

To adjust the thread tension release timing, move both tension release cams **3** and **4** to the direction of arrow to advance the timing, and move them to the reverse direction to retard.

## ★ 第 1 綫張力器的鬆綫

第 1 綫張力器 B 僅在縫紉機分離停止時浮起，張力器浮起量為 1mm。用第 1 綫張力杆的上下安裝高度來調節。

## ★ 第 2 綫張力器的鬆綫

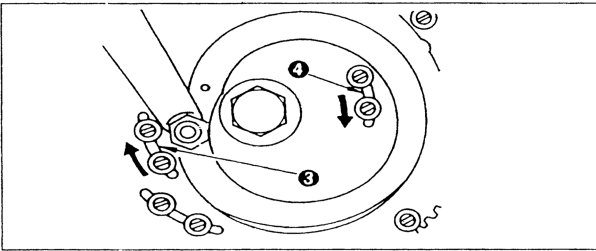
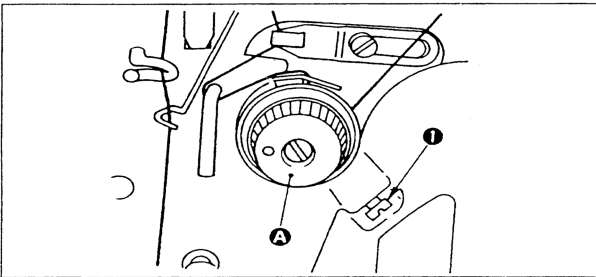
第 2 綫張力器 A 在加固縫部和縫紉結束到再次開始縫的數針之間浮起。

擰鬆固定螺絲 **1** 拉出 A 來調節浮起量。浮起量為 0.5~1mm。

開始縫的鬆綫期間為始縫起 2~3 針。(123 針時)

鬆綫時期，沿箭頭方向移動第 1 鬆綫凸輪 **3** 和第 2 鬆綫凸輪

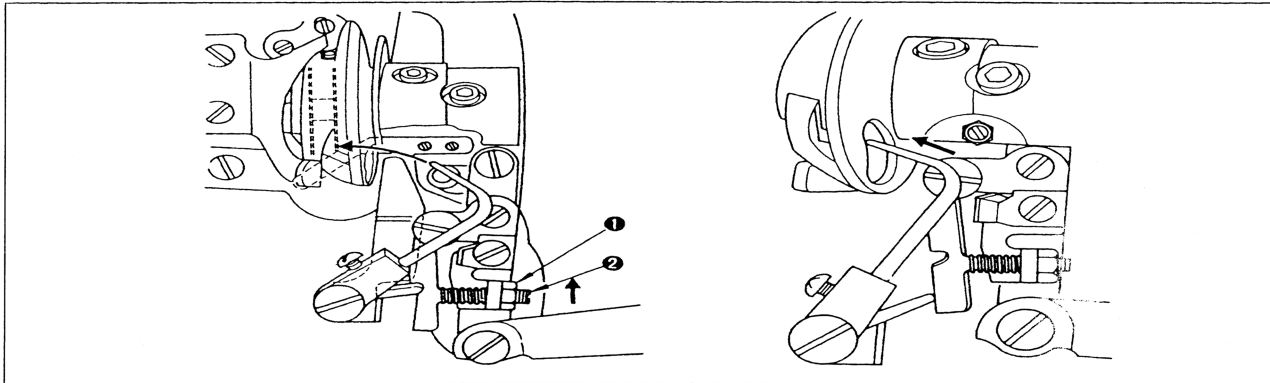
**4** 動作提前，反側推遲。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

**25. ADJUSTMENT OF THE BOBBIN PRESSER UNIT/ 梭心壓片的調整**

The bobbin presser unit is a unit to prevent the bobbin idling at the time of thread trimming or stitch skipping and slip-off of the thread at the sewing start. If the bobbin thread is cut short, the pressure of the bobbin thread is too strong. Loosen adjusting nut **1**, and turn adjusting screw **2** counterclockwise to reduce the spring pressure. If it is turned clockwise, the pressure will increase.

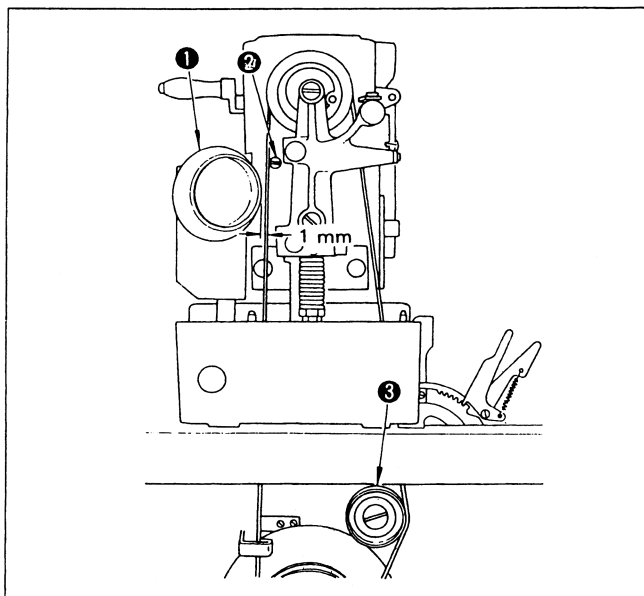
旋梭壓片，是防止切綫時旋梭空轉和開始縫時跳針、脫綫的裝置。底綫切得過短時，是因為梭心壓片的壓力過大。擰鬆調整螺母 **1**，向左轉動調節螺絲 **2**，彈簧壓力變弱。反向轉動壓力變強。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

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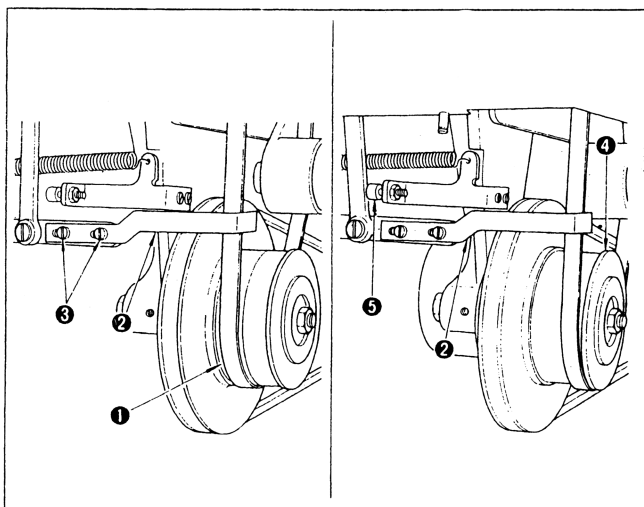
**26. ADJUSTING THE BOBBIN THREAD WINDER/ 底線繞線裝置的調整**

Loosen screw ② to make adjustment so that the clearance between bobbin thread winder pulley ① and belt ② becomes approx. 1 mm (33/64") when pulley ① is apart from the belt.

If, however, the belt touches the pulley, adjust the tension by tension pulley ③ to decrease the deflection of the belt. And if the belt still touches the pulley, increase the clearance to more than 1 mm (3/64").

底線繞綫皮帶輪①分離時，皮帶輪①和皮帶之間間隙為1mm。擰鬆螺絲②來進行調整。

但是，皮帶接觸皮帶輪時，請用張力輪③調節張力使皮帶擺動變小，如果仍然接觸時則把間隙調整為1mm以上。

**27. ADJUSTING THE SPEED TRANSMITTER/ 減速器的調整****★皮帶升起位置**

轉動手動停止手柄，設定到低速位置時，擰鬆螺絲③讓皮帶向低速皮帶輪①移動，然後移動皮帶提升器②。

**★檔塊螺絲的位置**

高速運轉狀態時，用檔塊螺絲⑤調節皮帶提升器②不讓皮帶從高速皮帶輪④上脫落下來。

**★ Adjustment of the position of the belt shifter**

When the hand stop crank is turned down to the low speed position, loosen screw ③ and allow the belt to move onto low-speed pulley ①, moving the position of belt shifter ②

**★ Adjusting the stopper screw**

Perform adjustment by stopper screw ⑤ so that belt shifter ② does not cause the belt to come off high-speed pulley ④ during high speed operation.

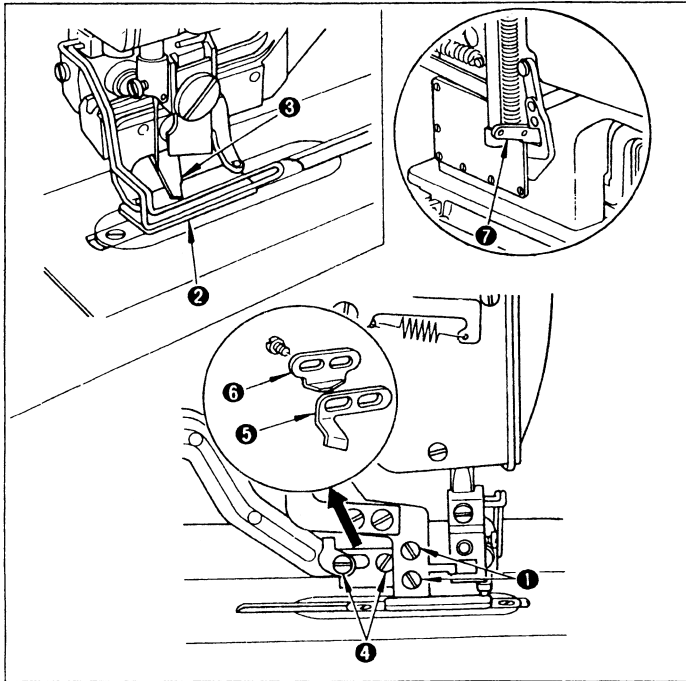
**WARNING:**

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**注意**

為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

## 28. ADJUSTMENT OF THE NEEDLE THREAD TRIMMER/ 上線切線的調整



### ★ Attaching the trimmer

Loosen setscrew ①, and adjust the height of trimmer ③. Set the height of trimmer ③ as low as possible, provided that it does not touch work clamp check ②, in order to minimize the length of remaining thread on the needle after trimming.

### ★ Closing timing of the needle thread trimmer

Adjust the closing timing of the needle thread trimmer so that the trimmer completely closes when it advances farthest.

To perform the adjustment, loosen screw ④, and move needle thread trimmer driving plate A ⑤ back and forth. When the needle thread trimmer driving plate is moved towards you, the closing timing is delayed with reduced amount of closing.

**(NOTE) Confirm that an allowance of 0.3 to 0.5 mm is left between the blades of the trimmer when the trimmer has completely closed.**

If there is no such allowance, the trimmer would interfere with the operation of the needle thread trimmer driving plate, preventing smooth movement of lifting lever ⑦.

### ★ Opening timing of the needle thread trimmer

Adjust the timing of the thread trimmer so that the trimmer begins to open gradually at a distance of approx. 2.5 to 3 mm (3/32" to 1/8") from the start.

To perform the adjustment, loosen screw ④, and move needle thread trimmer driving plate B ⑥ back and forth. As it moves towards you, the trimmer begins to open earlier.

**(NOTE): Take care not to cause the already fixed needle thread trimmer driving plate A to get out of position.**

### ★ 切刀的安裝

擰鬆螺絲①，下降壓腳使壓腳②和切刀③不相碰。上綫可以剪短。

但是縫紉布層時，壓腳會傾斜所以把切刀的位置安得稍高一點。

### ★ 切刀關閉的同步時間

切刀伸到最前時，調整切刀關閉的同步時間。

擰鬆螺絲④，把上綫切刀動作板 A ⑤ 前後移動，來調節。往前移動關閉同步時間推遲，同時關閉量也變少。

**(注意)** 切刀關閉之後，請確認還應有0.3~0.5mm左右的富裕。

沒有關閉富裕時，切刀上綫切刀動作板相接觸壓腳提升撥杆 ⑦ 變重。

### ★ 切刀張開的同步時間

調整切刀使切刀在從開始縫的 2.5 ~ 3mm 左右的地方，漸漸開始張開。

擰鬆螺絲④，前後移動上綫切刀動作板 B ⑥ 來進行調節。向前移動張開時間提前。

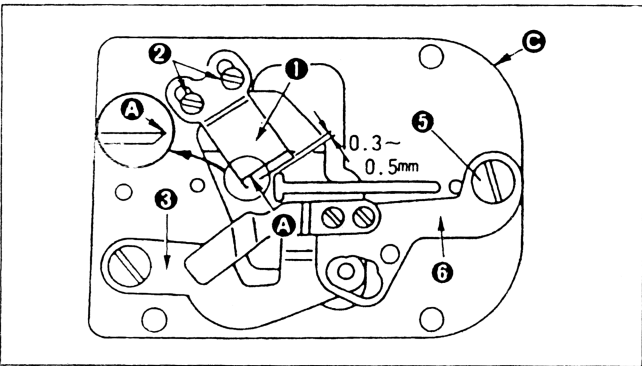
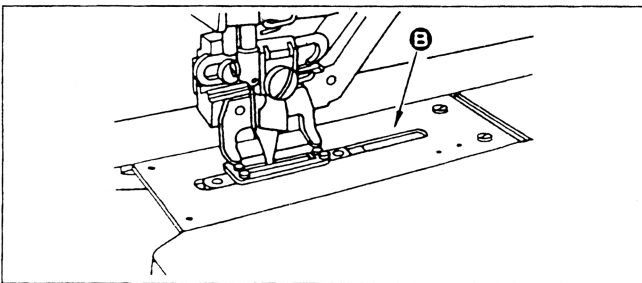
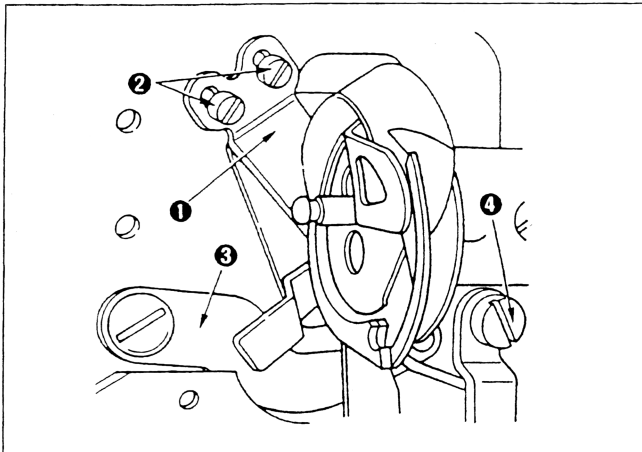
**(注意)** 定位的上綫切刀動作板 A 一定不能偏斜。

**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

**注意**

為了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

**29. ADJUSTMENT OF THE BOBBIN THREAD TRIMMER/ 底線切刀的調整**

When the sharpness of the trimmer has got dull, remove counter knife ①, and sharpen the blade point A of the counter knife with the oilstone or the like.

**(Caution) Never buff section A.**

1. To replace counter knife ①, tilt the sewing machine, remove the bobbin case positioning plate, and remove setscrew ②. To attach the counter knife, adjust so that a clearance of 0.3 to 0.5 mm is provided between the blade point and the needle hole in the throat plate.
2. To replace bobbin thread trimming knife ②, remove first bobbin thread trimmer connecting rod shaft ④.
3. Remove work clamp carrier B, loosen the setscrew (4 pcs.) of throat plate base, and remove throat plate base C.
4. Then, remove setscrew ⑤ of bobbin thread trimmer arm, and remove bobbin thread trimmer arm ⑥.
5. Finally remove the bobbin thread trimming knife from the throat plate base, and replace it.

切刀不快了，請卸下固定刀 ①，用油時磨固定刀的刀刃 A，進行修理。

(注意) A 部的刀刃一定不能弄壞。

1. 更換固定刀 ① 時，放倒縫紉機頭，卸下旋梭固定螺絲 ②。安裝固定刀時，把刀間和針板孔的間距調整為 0.3 ~ 0.5 mm。
2. 卸下底綫切刀連結杆軸 ④，更換底綫切刀 ③。
3. 卸下送布板 B，擰鬆 4 個針板座固定螺絲，卸下針板座 C。
4. 然後卸下底綫切刀曲柄螺絲 ⑤，卸下底綫切刀曲柄 ⑥。
5. 最後從針板座卸下底綫切刀進行更換。

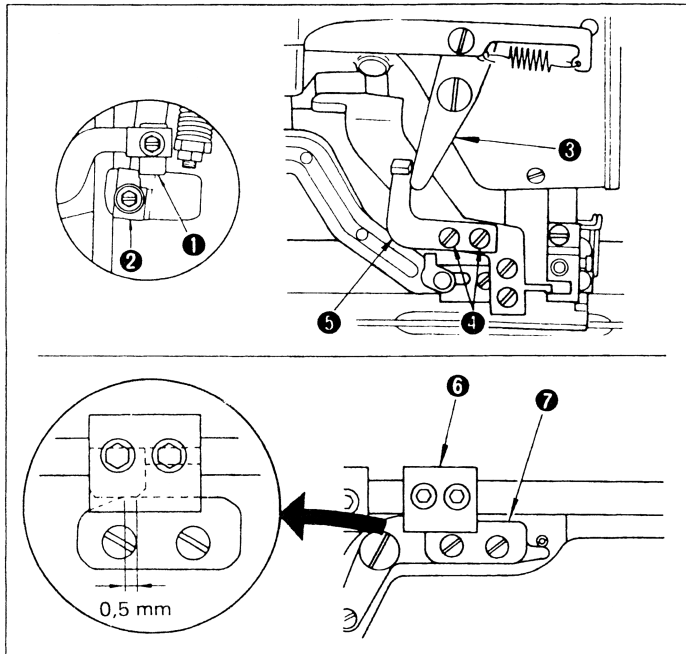
**WARNING:**

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



爲了防止意外的起動造成的事故，請關掉電源，并用腳踩踏板確認機器確實不動。

### 30. ADJUSTMENT OF NEEDLE THREAD TRIMMER HOLDER AND LIMITING PLATE/ 上線切線動作曲軸和限制板的調整



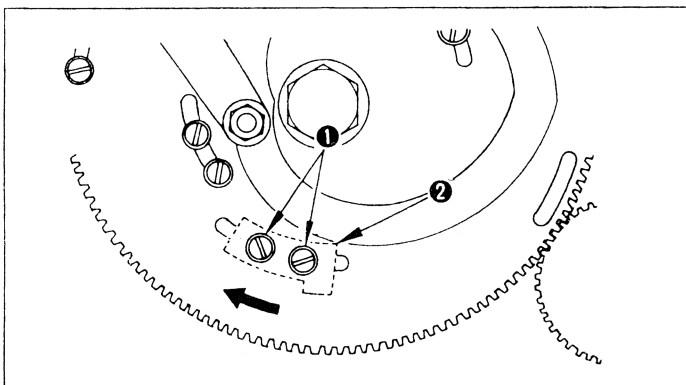
Loosen setscrew **4**, and install and adjust limiting plate **5** so that it comes in contact with the blocking arm **3** at the time of slow start of the machine (when latch B **1** is engaged with latch A **2**).

Needle thread trimmer holder **6** should be installed in such manner that it engages with cam **7** by 0.5 mm (1/64") when the needle thread trimmer opens.

縫紉機低速起動時（鉤 B **1** 和鉤 A **2** 咬合時），擰鬆固定螺絲 **4**，讓限制板頂到阻擋曲軸 **3**。

上線切刀張開時，讓上線切線動作曲軸 **6** 和動作凸輪 **7** 咬合 0.5mm。

### 31. TIMING FOR DROPPING THE KNIFE/切刀落刀時期的調整



Loosen screws **1**, and move knife tripping segment **2** in the direction shown by the arrow, and the knife will drop earlier. Adjust it so that the knife drops two to three stitches before the machine stops.

擰鬆固定螺絲 **1**，向箭頭方向移動切刀動作凸輪 **2**，切刀落刀時期提前，反則推遲。

縫紉機停止的 2~3 針前，讓切刀落刀。

## 32. TROUBLE, CAUSE, AND REMEDY

Trouble	Cause	Remedy	Page
1. Needle thread is broken.	(1) The tension of the tension controller No. 2 is too tight.	o Decrease the tension of the tension controller No. 2.	1 7
	(2) The tension or the stroke of the take-up spring is too great.	o Decrease the tension or the stroke of the take-up spring.	1 8
	(3) Blade point of sewing hook has burr or scratches.	o Buff the blade point of the sewing hook, or replace the sewing hook.	2 3
	(4) Poor timing of the sewing hook.	o Readjust the sewing hook's timing by the timing gauge.	2 3
	(5) The thread path has scratches.	o Buff the thread path by cloth files, etc.	-
	(6) The needle is too thin.	o Replace by a thick needle.	1 3
2. Thread slips out of the needle.	1) The needle thread trimmer opens too early.	o Move back the needle thread trimmer driving plate B.	2 7
	(2) The needle thread trimmer opens when the work clamp check is coming down.	o Move back the needle thread trimmer driving plate B.	2 7
	(3) The whip stitch is not formed at the start of sewing.	o Decrease the tension of the tension controller No. 1.	1 7
	(4) Wrong threading.	o Perform correct threading.	1 5
3. Wobbling stitches are formed in the overedging seams.	(1) The tension disc No. 2 is too loose.	o Increase the tension of the tension disc No. 2.	1 7
	(2) The tension and stroke of the take-up spring is not enough.	o Readjust the take-up spring.	1 8
	(3) Bobbin thread tension is too high.	o Decrease the bobbin thread tension (15 to 20g for purl stitches).	1 7
4. Wobbling stitches are formed at the start of sewing.	(1) The tension disc No. 1 is too loose.	o Increase the tension of the tension disc No. 1 (15 to 30g).	1 7
	(2) The position of the needle thread trimmer is too high.	o Lower the trimmer as low as possible, provided it does not come in contact with the work clamp check.	2 7
	(3) The stroke of the take-up spring is too great.	o Decrease the stroke of the take-up spring, and increase the spring pressure.	1 8
5. The needle thread at the first bar tacking comes out and lumps on the bottom of cloth.	(1) The tension disc No. 1 is too loose.	o Increase the tension of the tension disc No. 1.	1 7
	(2) The bobbin thread tension is too high.	o Decrease the bobbin thread tension (15 to 20g).	1 7
6. Stitches float over cloth.	(1) Bobbin thread tension is not enough.	o Increase the bobbin thread tension.	1 7
	(2) Bobbin thread slips out of the thread path on the bobbin case.	o Properly thread the bobbin case.	1 4
7. Stitches are skipped.	(1) The work clamp check is too large for the buttonhole.	o Change the work clamp check with a smaller one.	1 9
	(2) The cloth is made of light-weight materials.	o Delay the timing of the needle and the sewing hook. (Lower the needle bar by approx. 0.5 mm (1/2"))	2 3

### 33. STITCHING TROUBLES CAUSED BY OTHER REASONS

Trouble	Cause	Remedy	Page
1. Starting pedal does not work (The work clamp arm is not lifted up fully.)	(1) Needle plate, needle plate base or bobbin thread trimmer is clogged with fibrous dust. (2) The needle thread trimmer is interfered by the work clamp check or the trimmer driving plate.	o Tilt the machine head and clean them up.  o Readjust the installation of the trimmer, or the position of the trimmer driving plate.	2 7
2. Machine does not reach the high speed even when the pedal is stepped down fully.	(1) The hand stop crank is not in the correct position. (2) The belt shifter of the speed transmitter has not changed to the high speed pulley.	o Correct the position of the hand stop crank.  o Lubricate the shifter driving pin.	1 5
3. A loud noise is produced with a stop-motion, or sewing speed does not lower at the end of sewing.	(1) Improper setting of the low speed cam for small numbers of stitches. (2) The flat belt is too loose. (3) The low speed V belt is too loose.	o Readjust the setting of the low speed cam.  o Increase the belt tension by the tension pulley. o Increase the tension of the V belt by the motor.	2 2  1 0 4
4. Stop-motion is not smooth.	(1) Stop-motion lever needs lubrication. (2) The belt shifter of the speed transmitter has not changed to the low speed pulley.	o Lubricate the stop-motion lever.  o Readjust the position of the belt shifter.	1 2  2 6
5. The machine does not lubricate.	(1) Oil level in the oil reservoir is too low. (2) Oil is not circulated.	o Fill the lubricating oil up to "HIGH" mark. o Apply oil to the oil return felts.	1 2 1 2
6. Knife is dropped during high speed rotation.	(1) Position of the knife tripping segment is not correct (2) The setting of the low speed cam for numbers of stitches is not correct.	o Adjust the position of the driving cam so that the knife is dropped down at a delayed timing. o Correct the setting of the low speed cam.	2 9  2 2
7. Knife is dropped even if the needle thread is broken.	(1) The machine is threaded incorrectly.	o Correct the threading.	1 5
8. Needle is broken.	(1) The needle is bent. (2) The needle and the hook blade touch with each other. (3) Needle thread trimmer hits the needle when opening its blades.	o Replace the needle. o Readjust the positions of the needle and the sewing hook. o Readjust the position of the trimmer. o Adjust so that the limiting plate and the blocking arm touch each other at the time of starting.	1 3 2 3  2 7 2 7

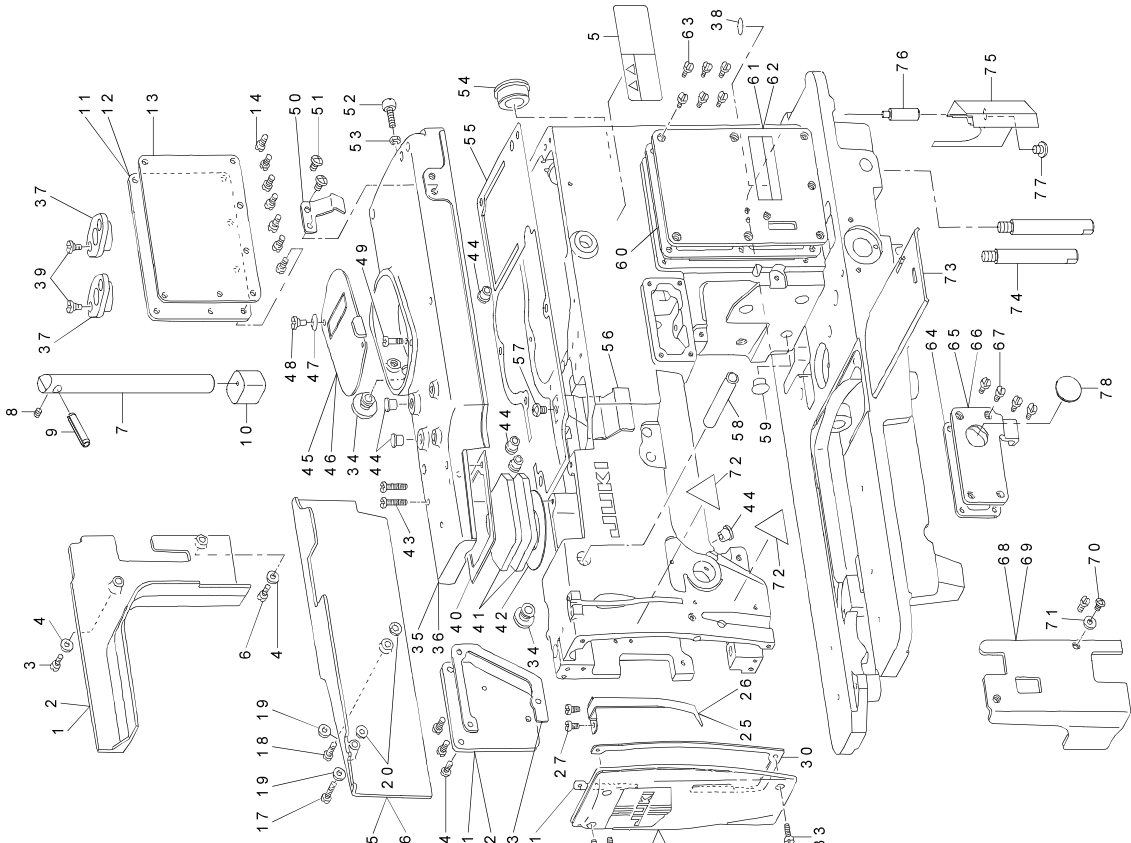
### 32. 有關縫制的故障、原因及處理方法

現象	原因	處理方法	頁
1. 上線斷線	①第2線張力器過強。	○減弱第2張力器的張力。	17
	②拉線彈簧的強度、移動量過大。	○減弱拉線彈簧的彈力，或縮小移動量。	18
	③旋梭尖有刺或有傷痕。	○磨平旋梭尖，或更換旋梭。	23
	④旋梭不同步。	○用同步尺，調整旋梭的同步。	23
	⑤線道有傷痕。	○用布或銼刀磨平。	—
	⑥機針過細。	○更換成粗針。	13
2. 上線脫線	①上線切線剪打開過早。	○往後移動上線切線動作板 B。	27
	②放下壓腳，上線切刀便打開。	○往後移動上線切線動作板 B。	27
	③開始縫時不能為直鎖眼縫。	○減弱第1線張力器的張力。	17
	④上線的穿線方法不對。	○正確地穿線。	15
3. 平行部縫迹不整齊	①第2線張力器過弱。	○增強第2線張力器。	17
	②挑線彈簧過強，活動範圍小。	○重新調整挑線彈簧。	18
	③底線張力過強。	○減弱底線張力。(鋸齒邊縫 15-20 g)	17
4. 始縫縫迹不整齊	①第1線張力器過弱。	○增強第1線張力器。(15-30 g)	17
	②上線切線位置過高	○降低高度，不要碰到壓腳。	27
	③挑線彈簧活動範圍過大。	○縮小挑線彈簧的活動範圍，增大彈簧壓力。	18
5. 第1加固縫部 上線從布的下面堆線	①第1線張力器過弱。	○增強第1線張力器。	17
	②低線張力過強。	○減弱底線張力。(15-20 g)	17
6. 縫迹鼓起	①底線張力過弱。	○加強底線張力。	17
	②底線從梭殼脫出。	○正確地穿線。	14
7. 跳線	①壓腳大，鈕釦孔小。	○換成小壓腳。	19
	②布料薄。	○推遲機針和旋梭的同步時間。 (把針杆約下降0.5mm左右)	23

### 33. 縫制以外的故障、原因及處理方法

現象	原因	處理方法	頁
1. 起動踏板不動。 (壓腳提升杆沒有返回到上邊。)	①針板、針板座、底線切線剪部沾有線頭。 ②上線切刀與壓腳或上線切刀動作板相碰。	○放倒機頭進行清掃。 ○重新安裝切刀，或重新調整上線切刀動作板的位置。	27
2. 起動踏板踩到底也不高速運轉。 (通用馬達)	①手動停止手柄的方向朝下。 ②減速器的皮帶提升器不能移動到高速皮帶輪側。	○把手動停止手柄轉到前方。 ○往提升驅動銷上加油。	15
3. 分離音過大。 或縫紉結束後不減速。 (通用馬達)	①在針數少時的低速凸輪位置。 ②平皮帶過鬆。 ③低速V形皮帶過鬆。	○調整低速凸輪位置，使低速區間變長。 ○用張力皮帶輪加強張力。 ○移動馬達皮帶輪的位置，張緊V形皮帶。	22 40 4
4. 分離不良	①分離架部沒有油了。 ②減速器的皮帶提升器不能移動到高速皮帶輪側。	○往分離架部加油。 ○再調整皮帶提升器的位置。	12 26
5. 供油	①機頭油槽中的油不足。 ②油不循環流動。	○把油加至 HIGH 標記。 ○往循環流動氈墊上加油。	12 12
6. 高速時切刀不落下。	①切刀動作凸輪位置不對。 ②針數少時的低速凸輪位置不正確。	○調整切刀落到時間。(變晚) ○調整低速凸輪位置。(變早)	29 22
7. 上線斷線切刀落下。	①在上線的穿線方法不對。	○重新正確地穿線。	15
8. 斷針	①機針彎了。 ②機針和梭尖相碰。 ③上線切線剪張開時，與機針相碰。	○更換機針。 ○調整機針和旋梭的位置。 ○調整切刀位置。 ○讓限制板與阻擋曲軸的起動時相碰。	13 23 27 27

1. FRAME & MISCELLANEOUS COVER COMPONENTS (1)



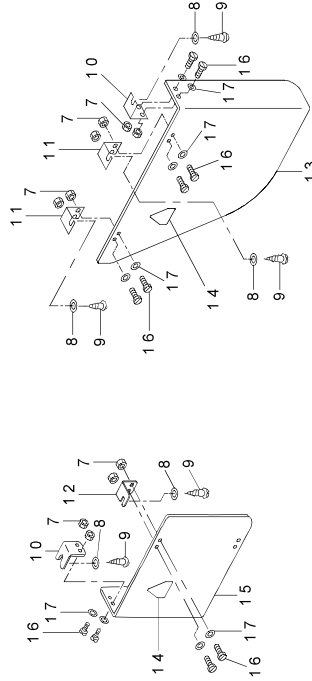
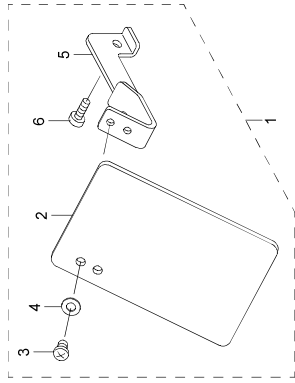
REF NO	NOTE	PART NO	DESCRIPTION	QTY
1		B1137-771-000	FRAME SIDE COVER B	1
2	#01	B1137-771-000	FRAME SIDE COVER B	1
3		SS-4111015-SP	SCREW 11/64-40 L=10	1
4		WP-0450000-SD	WASHER 4.5X8X0.5	2
5		CM-3013000-01	SAFETY LABEL	2
6		SS-4111015-SP	SCREW 11/64-40 L=10	1
7		400-09028	ARM SUPPORT ROD	1
8		SS-8110510-SP	SCREW 11/64-40 L=5	1
9		B1120-761-000	PIN	1
10		B1116-771-000	RUBBER CUSHION	1
11		B1116-771-000	SIDE COVER (C)	1
12		400-09010	ARM SIDE COVER (C)	1
13	#01	B1152-771-000	SIDE COVER GASKET (C)	1
14		SS-4110915-SP	SCREW 11/64-40 L=9	7
15		B1138-771-000	FRAME SIDE COVER C	1
16	#01	B1138-771-000	FRAME SIDE COVER C	1
17		SS-4112215-SP	SCREW 11/64-40 L=22	1
18		SS-4111415-SP	SCREW 11/64-40 L=14	1
19		B1155-771-000	CUSHION	2
20		B1144-771-000	FRAME SIDE COVER GASKET (C)	2
21		B1153-781-000	LEFT SIDE COVER	1
22		400-09055	SIDE COVER GASKET	1
23		SS-4110510-SP	SCREW 11/64-40 L=10	1
24		SS-4110515-SP	SCREW 11/64-40 L=15	3
25		B1123-881-000	THREAD TAKEUP LEVER COVER	1
26	#01	400-09038	THREAD TAKEUP LEVER COVER	1
27		SS-4096515-SP	SCREW 9/64-40 L=5	2
28		B1112-771-000	FACE COVER COMPLETE	1
29		B1149-771-000	FACE COVER COMPLETE	1
30	#01	B1149-771-000	GASKET	1
31		B1151-771-000	FACE PLATE GASKET (B)	1
32		SS-4111415-SP	SCREW 11/64-40 L=14	2
33		SS-4110915-SP	SCREW 11/64-40 L=9	1
34		TA-1250705-R0	RUBBER PLUG	2
35		B1103-771-000-A	TOP COVER	1
36	#01	B1103-771-000-A	TOP COVER	1
37		B1106-771-000	WORM GEAR SHAFT METAL	2
38		100-04109	GROUND MARK	4
39		SS-6120620-TP	SCREW	4
40		B1110-771-000	TOP COVER GASKET, FRONT	1
41		B1117-771-000	OIL FELT	2
42		400-09050	MAIN SHAFT THRUST SEAL	1
43		SS-4111815-SP	SCREW 11/64 L=18	1
44		TA-0750704-R0	RUBBER PLUG	6
45		B1106-761-000	GEAR CASE COVER	1
46	#01	400-09030	GEAR CASE COVER	1
47		B3125-155-000	DISK SPRING	1
48		SD-0640281-SP	HINGE SCREW D=6.35 H=2.6	1
49		SS-7111310-SP	SCREW 11/64-40 L=12.8	1
50		400-09311	HAND STOP LATCH	1
51		SS-4110715-SP	SCREW 11/64-40 L=7	2
52		400-09038	BALL SCREW	1
53		NS-6120310-SP	RUBBER PLUG	1
54		TA-2101002-R0	RUBBER PLUG	1
55		B1104-771-000	TOP COVER GASKET, REAR	1
56		400-09370	ARM OIL SHIELD	1
57		SS-4110715-SP	SCREW 11/64-40 L=7	1
58		B2743-771-000	KNIFE STOP LEVER SHAFT GUIDE	1
59		TA-1050504-R0	RUBBER PLUG	1
60		B1111-771-000	SIDE COVER (A) GASKET	1
61		B1114-771-000	SIDE COVER (A)	1
62		400-09008	ARM SIDE COVER (A)	1
63		SS-4110915-SP	SCREW 11/64-40 L=9	6
64		B1133-771-000	OIL SIGHT WINDOW GASKET	1
65		B1115-771-000	SIDE COVER ASM. B	1
66	#01	400-09009	ARM SIDE COVER (B)	1
67		SS-4110915-SP	SCREW 11/64-40 L=9	4
68		B1128-771-000	SIDE COVER A	1
69		B1128-771-000	SIDE COVER A	1
70		SS-4111015-SP	SCREW 11/64-40 L=10	2
71		WP-0450000-SD	WASHER 4.5X8X0.5	2
72		CM-3002000-01	ATTENTION SEAL	2
73		400-09034	BED SLIDE	2
74		400-09036	BED SCREW STUD A	2
75		400-09037	BED OIL SHIELD ASM	1
76		400-09038	BED OIL SHIELD	1
77		SS-4110515-SP	SCREW 11/64-40 L=5	1
78		400-09014	OIL SIGHT WINDOW	1

NOTE #01.....FOR URBAN WHITE

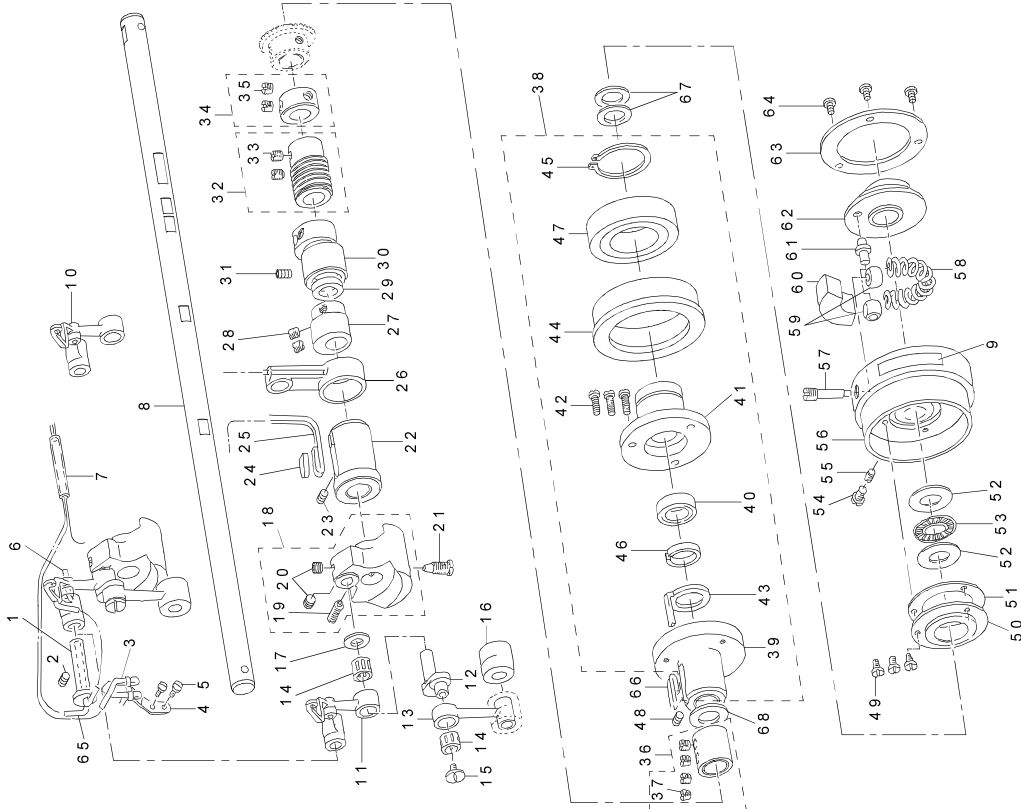
2. FRAME & MISCELLANEOUS COVER COMPONENTS (2)

REF.NO	NOTE	PART NO	DESCRIPTION	Qty
1	#01	400-52419	SAFETY PLATE ASM.	1
2		260-37200	SAFETY PLATE	(1)
3		SM-4040655-SP	SCREW/M4 L=6	(2)
4		WP-0450801-SD	WASHER 4.5X10X0.8	(2)
5		400-52354	SAFETY PLATE INSTALLING BASE	(1)
6		SS-6111140-SP	SCREW T1/64-40/L=11	(1)
7	#01	NS-6110310-SP	NUT T1/64-40	10
8	#01	WP-0501016-SC	WASHER 5X10.5X1	5
9	#01	SK-3452000-SE	WOOD SCREW D=4.5 L=20	5
10	#01	B7272-781-000	COVER MOUNTING BRACKET B	2
11	#01	400-09421	COVER MOUNTING BRACKET A	2
12	#01	262-36703	COVER MOUNTING BRACKET C	1
13	#01	137-72604	MOTOR PULLEY COVER	1
14	#01	CM-5002000-A3	LABEL.(31.5)	2
15	#01	400-09458	PULLEY COVER	1
16	#01	SS-7110710-SP	SCREW T1/64-40 L=7	10
17	#01	WP-0480856-SP	WASHER 4.8X8.4X0.8	10

#01...FOR USE IN JAPAN



3. MAIN SHAFT COMPONENTS



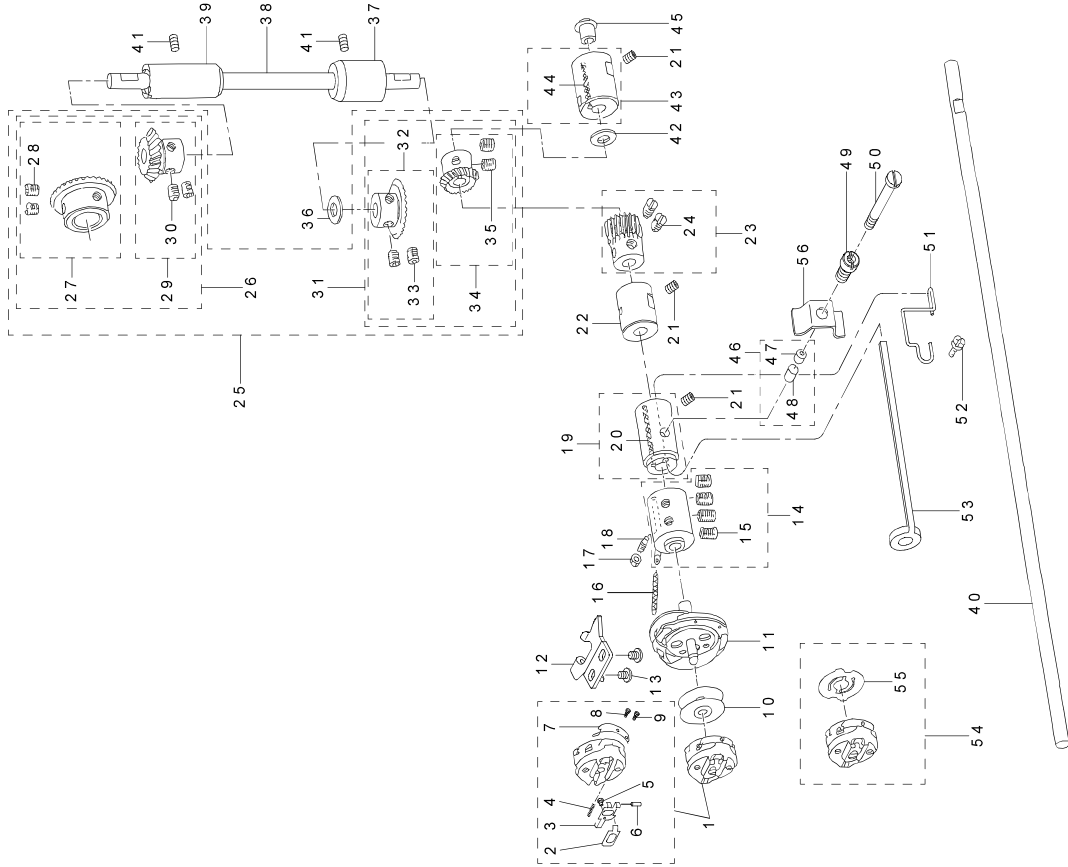
REF NO	NOTE	PART NO	DESCRIPTION	QTY
1		B1404-761-000	HINGE STUD	1
2		SS-8150822-TP	SCREW 15/64-28 L=8	1
3		CO-2520000-00	OIL WICK	0.38
4		400-09087	OIL WICK HOLDER	1
5		SS-7090510-SP	SCREW 9/64-40 L= 4.6	2
6		B1147-125-000	OIL WICK SNAP RING	1
7		BP-6000000-00	VINYL PIPE	0.03
8		400-08610	MAIN SHAFT	1
9		CM-5003000-01	DIRECTION LABEL	1
10	#01	B1901-761-BA0	THREAD TAKE-UP LEVER ASM.	1
11		B1901-761-0A0	THREAD TAKE-UP LEVER ASM.	1
12		B1204-771-000	NEEDLE BAR CRANK	1
13		B1204-761-000	NEEDLE BAR CRANK	1
14	#02	B1905-541-H00	NEEDLE BAR CRANK CONNECTING ROD	2
15		B1903-552-000	LEFT SCREW	2
16		E2615-232-000	OIL FELT WASHER	1
17		B1223-771-000	NEEDLE ROD CRANK WASHER	1
18		400-09048	COUNTERWEIGHT ASM.	1
19		SS-8681650-TP	SCREW 9/32-28 L=16	(1)
20		SS-8660512-TP	SCREW 7/44-01L=5	(2)
21		SS-7651750-TP	SCREW 9/32-28 L=16.5	1
22		R2046-1-000-A	BUSHING FRONT	2
23		SS-8150822-TP	SCREW 15/64-28 L=8	2
24		SS-8150822-TP	SCREW 15/64-28 L=8	1
25		B654-012-000	OIL FELT	1
26		B654-012-000	OIL WICK	1
27		B1200-761-000	KNIFE BAR DRIVING CONNECTING	1
28		SS-8660810-TP	KNIFE BAR DRIVING ECCENTRIC	2
29		B1208-552-000-A	OIL SEAL	1
30		261-04703	MAIN SHAFT BUSHING INTERMEDIATE	1
31		SS-8150822-TP	SCREW 15/64-28 L=8	1
32		B2920-761-0A0	WORM ASM	1
33		SS-8660610-TP	SCREW 1/4-40 L=6	(2)
34		CS-147121B-SH	THRUST COLLAR ASM D=14.72 W=12	(2)
35		SS-8660530-TP	SCREW 1/4-40 L= 4.5	(2)
36		400-09400	MAIN SHAFT THRUST COLLAR ASM.	(4)
37		SS-8660530-TP	SCREW 1/4-40 L= 4.5	(4)
38		B1256-781-0A0-A	UPPER SHAFT REAR METAL ASM.	1
39		B1256-781-000-A	UPPER SHAFT REAR METAL	(1)
40		B1208-552-000-A	OIL SEAL	(1)
41		400-09426	BEARING RETAINER	(1)
42		SS-7110910-TP	SCREW 11/64-40 L= 8.5	(3)
43		B1257-781-000	FELT B	(1)
44		400-09427	LOOSE PULLEY	(1)
45		RC-3000001-KP	RETAINING RING 30	(1)
46		400-09462	FELT-B GUIDE	(1)
47		SS-1300001-00	BEARING D=30X65	(1)
48		SS-8150822-TP	SCREW 15/64-28 L=8	1
49		SS-7090410-SP	SCREW 9/64-40 L= 3.5	3
50		B1254-781-000	MAIN SHAFT THRUST SEAL	1
51		B1227-771-000	GASKET	2
52		B1220-771-000	THRUST WASHER A	1
53		B1225-771-000	BEARING	1
54		SS-7660510-SP	SCREW 1/4-40 L=5.0	1
55		SS-8660512-TP	SCREW 1/4-40 L=5	1
56		400-09049	DRIVING PULLEY	1
57	#02	B1224-771-000	SCREW (C)	1
58		B1231-771-000	STOP CAM PRESSURE SPRING	1
59		400-09070	STOP-MOTION CAM PIN SLIDE BLOCK	2
60		B1212-232-000	BAKELITE SEGMENT	1
61		400-09069	STOP-MOTION CAM POSITION PIN	1
62		B1208-771-000	STOP MOTION CAM	1
63		400-09068	STOP MOTION CAM PRESSER PLATE	1
64		SS-7110710-SP	SCREW 11/64-40 L=7	3
65		CO-2520000-00	OIL WICK	0.4
66		B354T-012-000	WASHER B	2
67		B1255-781-00B	MAIN SHAFT THRUST WASHER (C)	1
68		B1229-771-000	NOTE	1

#01.....SPECIAL ORDER PARTS  
#02.....SELECTIVE PARTS

4. HOOK DRIVING SHAFT COMPONENTS

REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		B1810-771-0A0	BOBBIN CASE ASM.	1
2		B1810-761-C00	BOBBIN CASE LATCH LEVER	(1)
3		B1810-761-B00	BOBBIN CASE LATCH	(1)
4		B1810-761-F00	LATCH SPRING	(1)
5		B1810-761-G00	LATCH STOP SCREW	(1)
6		B1810-761-D00	HINGE PIN	(1)
7		B1810-771-E00	TENSION SPRING	(1)
8		B1810-761-J00	TENSION SCREW	(1)
9		B1810-761-H00	CLAMP SCREW	(1)
10		400-09148	BOBBIN	(1)
11		B1808-771-0A0	HOOK ASM.	1
12		261-00404	BOBBIN CASE POSITIONING PLATE	1
13		SS-4110515-SP	SCREW 1/16x4-40 L=5	1
14		B1805-771-0A0	HOOK SLEEVE ASM.	1
15		SS-8660612-TP	SCREW 1/4-40 L=6	(4)
16		B1812-771-0A0	OIL WICK ASM.	1
17		NS-6090310-SP	NUT 9/64-40	1
18		B1806-771-000	ADJUSTING SCREW	1
19		B1804-761-0A0	BUSHING ASM., FRONT	1
20		CC-2520000-00	OIL WICK	(0.03)
21		SS-8150822-TP	SCREW 15/64x28 L=8	3
22		B1803-761-000	BUSHING, INTERMEDIATE	1
23		B1446-761-CA0	PINION ASM.	1
24	#01	SS-8660610-TP	SCREW 1/4-40 L=6	(2)
25		B1306-771-0C0	GEAR & PINION ASM.	1
26		B1306-771-0B0	GEAR & PINION ASM, UPPER	(1)
27		B1305-771-0A0	GEAR ASM.	(1)
28		SS-6660712-TP	SCREW 1/4-40 L= 7.0	(2)
29		B1306-771-0A0	PINION ASM.	(2)
30		SS-6660712-TP	SCREW 1/4-40 L= 7.0	(2)
31		B1307-771-0B0	GEAR & PINION ASM, LOWER	(1)
32		B1307-771-0A0	GEAR ASM.	(1)
33		SS-6660712-TP	SCREW 1/4-40 L= 7.0	(2)
34		B1308-771-0A0	PINION ASM.	(1)
35		SS-6660712-TP	SCREW 1/4-40 L= 7.0	(2)
36		B1223-771-000	NEEDLE ROD CRANK WASHER	1
37		Z29-05202	UPRIGHT SHAFT BUSHING, LOWER	1
38		400-09071	UPRIGHT SHAFT	1
39		400-09072	UPRIGHT SHAFT BUSHING	1
40		400-09150	HOOK DRIVING SHAFT	1
41		400-61518	SCREW	2
42		B1223-771-000	NEEDLE ROD CRANK WASHER	1
43		B1802-771-0A0	BUSHING ASM., REAR	1
44		CC-2020000-00	OIL WICK	(0.1)
45		TA-0850604-R0	RUBBER PLUG	1
46		400-09442	HOOK OIL SUPPLY RUBBER ASM.	(1)
47		400-09443	BUSHING	(1)
48		400-09156	OIL ADJUSTING RUBBER	(1)
49		400-09156	HOOK OIL ADJUSTING SCREW	(1)
50		400-09157	POSITIONING SCREW	1
51		400-09153	OIL SUPPLY FELT HOLDER	1
52		SS-41150715-SP	SCREW 15/64x28 L=7	1
53		B1812-761-000	OIL SUPPLY FELT	1
54	#02	B1810-771-0BA	BOBBIN CASE ASM.	1
55	#02	B1814-761-000	SPRING	(1)
56		400-09155	PLATE SPRING	1

NOTE  
 #01...SELECTIVE PARTS  
 #02...SPECIAL ORDER PARTS FOR  
 SYNTHETIC THREAD



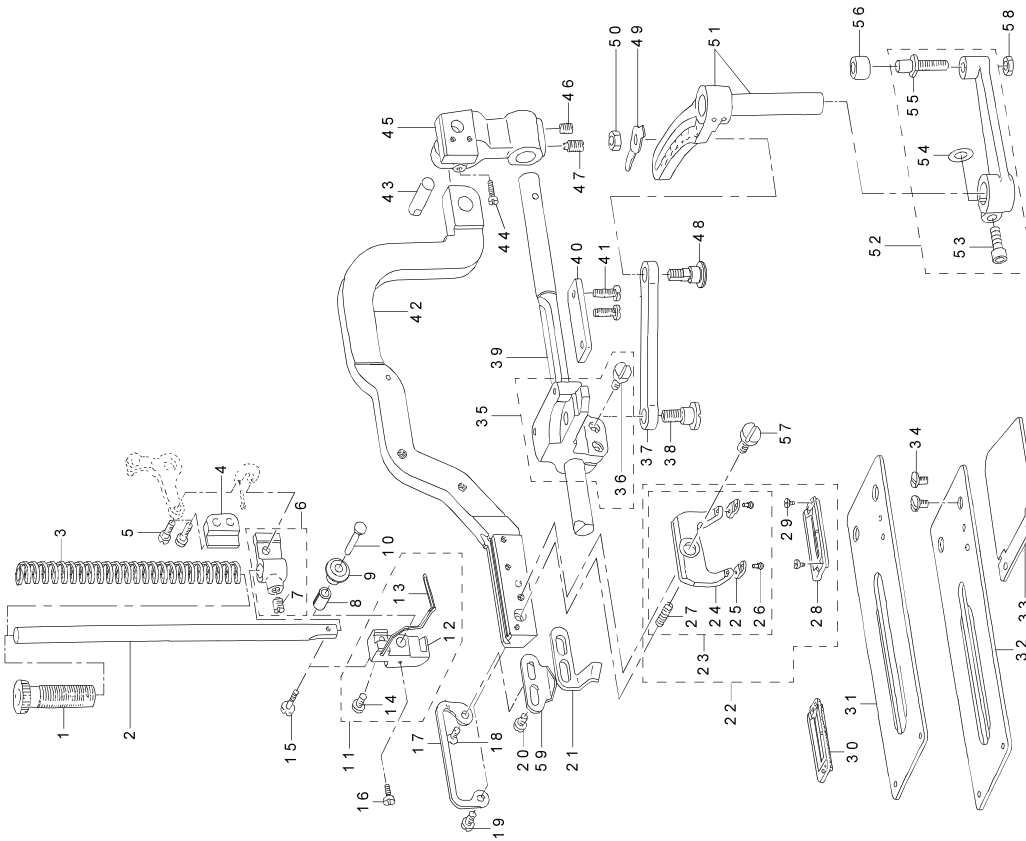
5. PRESSER BAR & WORK CLAMP CARRIER COMPONENTS

REF. NO	NOTE	PART NO	DESCRIPTION	Qty
1		400-09129	PRESSER SPRING REGULATOR	1
2		400-09119	PRESSER BAR	1
3		B1507-761-000	PRESSER SPRING	1
4		B1506-761-000	PRESSER BAR GUIDE BRACKET	1
5		SS-71131D-SP	SCREW T1164-40 L=12.8	2
6		SS-966081D-TP	PRESSER BAR POSITION BRACKET ASM.	1
7		400-09121	SCREW T1164-40 L=6	(1)
8		400-09121	SLEEVE	(1)
9		400-09123	SLIDE ROLLER	1
10		B1503-771-000	CONNECTING PIN	1
11		B1502-771-AA0-A	BRACKET ASM.	1
12		400-09131	BRACKET	(1)
13		400-09132	FINGER GUARD	(1)
14		SS-709071b-SP	SCREW 9164-40 L= 6.8	(1)
15		SS-409152b-SP	SCREW 9164-40 L=15	(1)
16		SS-711071D-SP	SCREW T1164-40 L=7	1
17		400-09122	WORK CLAMP BRACKET	1
18		SS-211092D-TP	SCREW T1164-40 L=8.5	1
19		SS-711084D-SP	SCREW T1164-40 L=7.8	1
20		SS-711084D-SP	SCREW T1164-40 L=7.8	1
21		200003800	NEEDLE THREAD TRIMMER GUIDE (A)	1
22		B1552-781-0A0-A	PRESSER ASM.	(1)
23	#01	B1514-771-0A0-B	PRESSER FOOT ASM.	(1)
24		B1511-771-000-B	PRESSER FOOT	(1)
25		B1509-761-000	WORK CLAMP CHECK SPRING	(2)
26		B1510-771-00B	WORK CLAMP CHECK SPRING SET PIN (B)	(2)
27		B1512-761-000	WORK CLAMP CHECK HOLDER SPRING	(1)
28		B1552-781-000-A	PRESSER	(1)
29		SS-606021b-SP	SCREW 332-56 L= 1.9	(2)
30	#02	B1508-771-A00	WORK CLAMP CHECK	1
31		B1613-771-A00-A	WORK CLAMP CARRIER	1
32		400-09445	WORK CLAMP CARRIER	1
33		B1607-763-0A0	BRACKET COVER	1
34		SS-611091D-SP	SCREW T1164-40 L=8	2
35		SS-611091D-SP	SCREW T1164-40 L=8	2
36		SS-615144b-SP	WORK CLAMP ARM BRACKET ASM.	1
37		B1606-763-000	SCREW T5164-28 L=14	(2)
38		SD-0870601-SP	HINGE SCREW D= 8.73 H= 6.0	1
39		261-145908	WORK CLAMP ARM SLIDE ROD	1
40		B1612-763-000	WORK CLAMP CARRIER BRACKET GUIDE	1
41		SS-611101D-TP	SCREW T1164-40 L= 9.5	2
42		B1551-781-000	WORK CLAMP	1
43		B1517-761-000	CONNECTING PIN	1
44		SS-709092b-SP	SCREW 9164-40 L= 8.5	1
45		B1516-771-000	BEARING ARM	1
46		SS-915071D-SP	SCREW T5164-28 L=7	1
47		SS-915092D-SP	SET SCREW	1
48		400-09137	REGULATING HINGE STUD	1
49		NS-615031D-SP	LENGTH REGULATING SHAFT GUIDE	1
50		NS-615031D-SP	NUT T5164-28	1
51		B1603-763-0A0	LENGTH REGULATING SCALE ASM	1
52		400-09144	LENGTH REGULATING SHAFT CRANK	1
53		SM-6081602-TP	SCREW M6 L=16	(1)
54		WP-0650876-SD	WASHER 6.5X13X0.8	(1)
55		400-09146	BELL CRANK ROLLER STUD	(1)
56		400-09143	ROLLER	(1)
57		SD-0790203-SP	HINGE SCREW D=7.94 H=2	1
58		NS-615031D-SP	NUT T5164-28	1
59		400-09178	NEEDLE THREAD TRIMMER GUIDE (B)	1

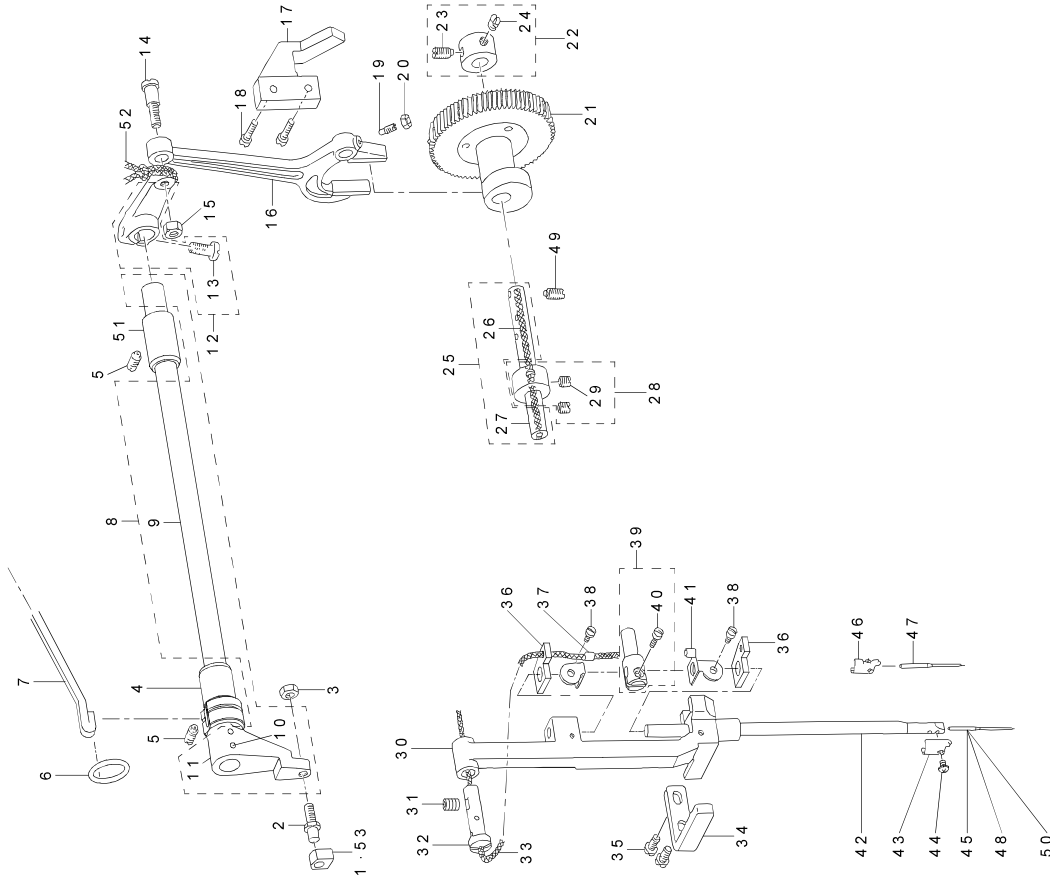
NOTE

#01.....THE SIZE OF THE BUTTONHOLE VARIES ACCORDING TO THE WORK DUAL CHECKS FOR HIGHER DIMENSIONS. PLEASE REFER TO PAGE 39, 22-12.

#02.....SPECIAL ORDER PARTS FOR LIGHT METALS (ALUMINUM) (PLEASE USE W/ALUMINUM CHECK AND THE WORK CLAMP CARRIER TOGETHER AS A PAIR.)



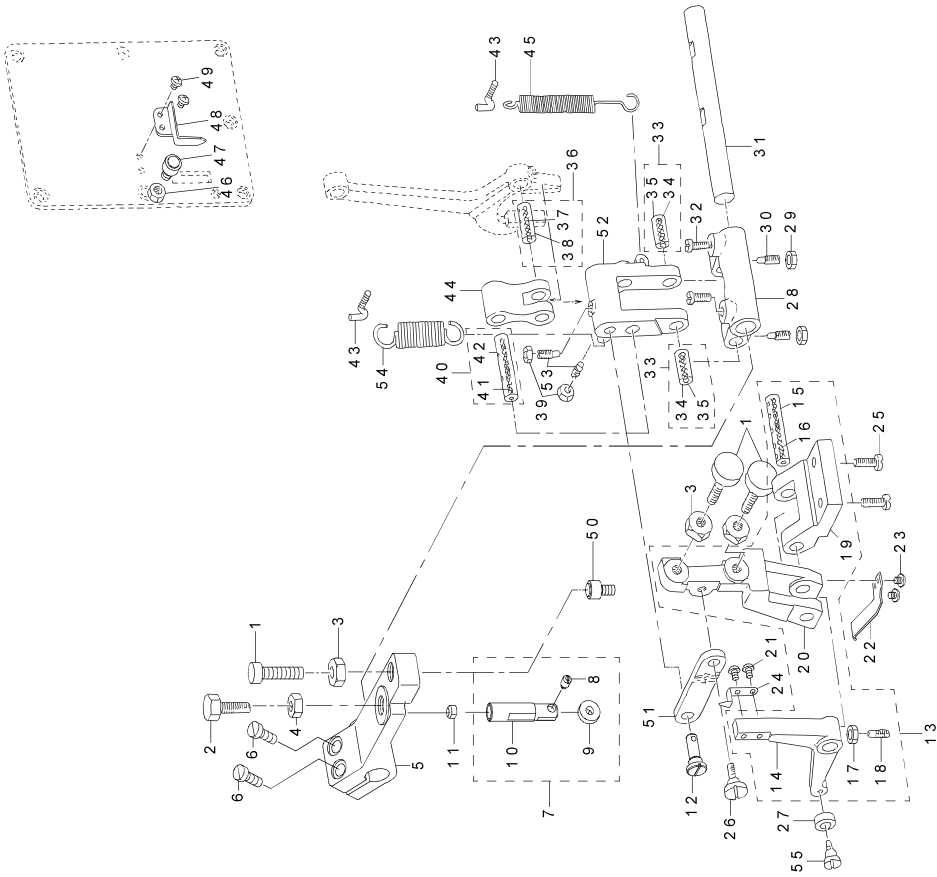
6. NEEDLE BAR FRAME COMPONENTS



REF NO	NOTE	PART NO	DESCRIPTION	QTY
1	#05	B1414-232-000	SQUARE BLOCK	1
2		B1410-771-000	STUD	1
3		NS-6150310-SP	NUT 15/64-28	1
4		400-09082	BUSHING	1
5		SS-9151150-SP	SCREW 15/64-28 L=10.5	2
6		RO-1482402-00	RUBBER RING	1
7		B3541-012-000	OIL WICK	1
8		B1411-771-0A0	FRAME ROCK SHAFT CRANK ASM.	1
9		261-06906	FRAME NEEDLE BAR SHAFT	1
10		PT-0302000-50	TAPERED PIN 3.0X20	(2)
11		400-09099	NEEDLE BAR CRANK (FRONT)	(1)
12		400-09452	NEEDLE BAR CRANK (REAR) ASM.	(1)
13		SS-7151210-SP	SCREW 15/64-28 L=12	(1)
14		SD-0799801-SP	HINGE SCREW D=7.94 H=8	1
15		NS-6160520-SP	NUT 1/4-24	1
16		B1415-761-000	NEEDLE BAR PITMAN	1
17		B1416-761-000	ROCK SHAFT CONNECTION GUIDE	1
18		SS-6111251-SP	SCREW 11/64-40 L=12.0	2
19		NS-6110310-SP	NUT 11/64-40	1
20		B1445-761-0A0	NEEDLE DRIVING GEAR ASM.	1
21		CS-095101B-SH	THRUST COLLAR ASM. D=9.53 W=10	1
22		SS-8193740-SP	SCREW 15/64-28 L=7	(1)
23		SS-8193740-SP	SCREW 15/64-28 L=7	(1)
24		B1447-761-0A0	SHAFT DRIVING SHAFT ASM.	(1)
25		CS-0920000-000	OIL WICK	(0.2)
26		400-09091	KNIFE DRIVING SHAFT	(1)
27		CS-095101B-SH	THRUST COLLAR ASM. D=9.53 W=10	(1)
28		SS-8159710-SP	SCREW 15/64-28 L=7	(2)
29		400-09073	NEEDLE BAR FRAME	(1)
30		400-09073	NEEDLE BAR FRAME	(1)
31		SS-8159822-TP	SCREW 15/64-28 L=8	1
32		B1404-771-000	HINGE STUD	1
33		CO-2520000-000	OIL WICK	0.26
34		400-09075	POSITION BRACKET	1
35		SS-5110810-SP	SCREW 11/64-40 L=8	2
36		B1406-761-000	OIL FELT FOR NEEDLE BAR	1
37		400-09085	OIL FELT UPPER	2
38		SS-7090520-SP	SCREW 9/64-40 L= 4.5	2
39		B1402-761-0A0	NEEDLE BAR CONNECTION	1
40		SS-7090910-TP	SCREW 9/64-40 L= 8.5	(1)
41		400-09086	OIL FELT RETAINER	1
42		400-09083	NEEDLE BAR	1
43		400-09083	NEEDLE BAR BOBBIN THREAD GUIDE	1
44		SS-4080415-SP	SCREW 1/8-44 L=4	1
45		MDP-5,0B1100	NEEDLE DPXS #1J	1
46	#01	B1451-771-00A	NEEDLE BAR THREAD GUIDE	1
47	#02	MC-2006E07-50	NEEDLE 134SES 75	1
48	#03	MDP-5,0B1400	NEEDLE DPXS #14J	1
49		SS-8150920-SP	SET-SCREW	1
50	#04	MC-2006007-50	NEEDLE 134 NM75	1
51		400-09077	BUSHING	0.25
52		CO-2520000-000	OIL WICK	1
53	#05	B1414-232-00A	CRANK SLIDE BLOCK	1

NOTE  
 #01.....SPECIAL ORDER PARTS FOR  
 #02.....SYNTHETIC THREAD  
 #03.....SPECIAL ORDER PARTS  
 #04.....FOR EXPORT  
 #05.....FOR U.S. SALES  
 #06.....SELECTIVE PARTS

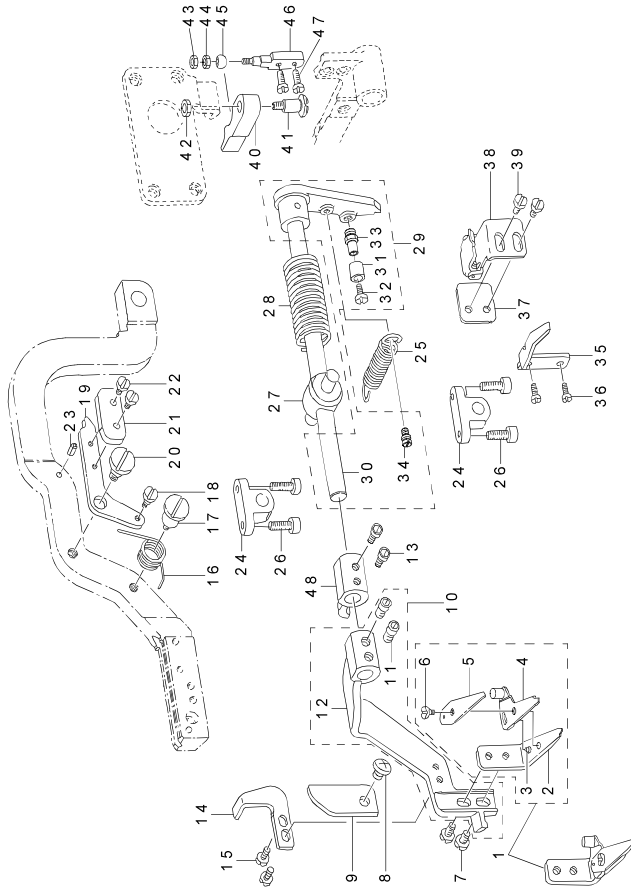
7. OVEREDGING WIDTH ADJUSTING COMPONENTS



REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		400-09092	STITCH WIDTH REGULATING SCREW	3
2		SS-9201973-CP	SCREW 5/16-18 L=19	1
3		NM-6080721-SE	NUT M8	1
4		NS-9200520-SP	NUT 5/16-18	3
5		400-09078	NEEDLE THROW REPOSITIONING LEVER	1
6		SS-6121210-SP	SCREW 3/16-28 L=12	2
7		400-09107	REPOSITIONING LIVER TRIP PIN ASM.	1
8		400-09110	PIN	(1)
9		400-09109	ROLLER	(1)
10		400-09108	REPOSITIONING LEVER TRIP PIN	(1)
11		BT1332-761-000	SWING ARM STOPPER RUBBER	(1)
12		400-09106	REGULATING HINGE PIN	1
13		400-09111	REGULATING LEVER ASM.	1
14		400-09113	BELL CRANK	(1)
15		400-09115	REGULATING LEVER SHAFT	(1)
16		CQ-3030000-00	OIL WICK	(0.1)
17		NS-11764-40	NUT 11/64-40	(1)
18		SS-61110310-SP	SCREW 11/64-40 L=12.0	(1)
19		400-09114	REGULATING LEVER BRACKET	(1)
20		400-09112	REGULATING LEVER	(1)
21		SS-4080415-SP	SCREW 1/8-44 L=4	2
22		400-09118	SPRING	1
23		SS-4080415-SP	SCREW 1/8-44 L=4	2
24		400-09117	BARRED WIDTH INDICATOR	2
25		SS-7151210-SP	SCREW 15/64-28 L=12	2
26		SD-0790432-SP	HINGE SCREW D= 7.94 HF= 4.3	2
27		400-09116	ROLLER	1
28		B1425-771-000	BEARING BRACKET	1
29		NS-61110310-SP	NUT 11/64-40	2
30		SS-6111251-SP	SCREW 11/64-40 L=12.0	2
31		B1424-761-000	NEEDLE THROW REPOSITIONING SHAFT	1
32		SS-7150940-SP	SCREW 15/64-28 L=9	2
33		B1421-761-0A0	BEARING BRACKET ASM.	2
34		CQ-2520000-00	OIL WICK	(0.1)
35		400-09105	CONNECTING PIN	(1)
36		B1418-761-0A0	CONNECTING FORKED LINK PIN ASM.	1
37		CQ-2520000-00	OIL WICK	(0.1)
38		400-09103	CONNECTING FORKED LINK PIN	(1)
39		NS-61110310-SP	NUT 11/64-40	2
40		B1419-761-0A0	CONNECTING STUD ASM.	1
41		CQ-2520000-00	OIL WICK	(0.1)
42		400-09104	CONNECTING STUD	(1)
43		400-09089	SUSPENSION SCREW	2
44		261-00008	CONNECTING FORKED LINK	1
45		B1427-771-000	SPRING	1
46		NS-6150310-SP	NUT 15/64-28	1
47		400-09094	SWING ARM STOPPER ASM.	1
48		400-09081	SEAM WIDTH INDICATOR	1
49		SS-4080415-SP	SCREW 1/8-44 L=4	2
50		400-09094	SWING ARM STOPPER ASM.	1
51		400-09102	REGULATING LEVER CONNECTION	1
52		261-00107	REPOSITIONING LIVER LINK	1
53		SS-6111251-SP	SCREW 11/64-40 L=12.0	2
54		B1426-771-000	SPRING	1
55		SD-0660471-SP	HINGE SCREW D= 6.35 HF= 4.7	1

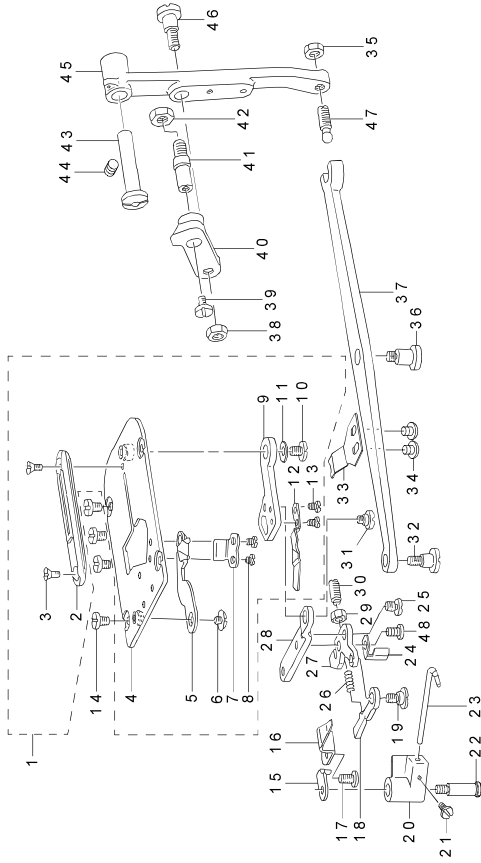
8. NEEDLE THREAD TRIMMER COMPONENTS

REF.NO	NOTE	PART NO	DESCRIPTION	QTY
1		B2001-771-0A0	NEEDLE THREAD TRIMMER ASM.	1
2		B2001-771-000	NEEDLE THREAD TRIMMER, LOWER	(1)
3		B2005-761-000	POSITION PIN	(1)
4		B2002-771-0A0	NEEDLE THREAD TRIMMER, UPPER	(1)
5		B2003-771-000	NEEDLE THREAD PRESSER SPRING	(1)
6		SD-0400191-TP	HINGE SCREW D=4 H=1.9	(1)
7		SS-7110510-SP	SCREW 11/64-40 L=5	2
8		SS-4150715-SP	SCREW 15/64-28 L=7	1
9		400-09179	NEEDLE THREAD TRIMMER SHAFT GUIDE	1
10		B2063-781-0B0-A	THREAD TRIMMER HOLDER ASM.	1
11		SM-3061002-TP	SCREW M6 L=10	(2)
12		400-09170	THREAD TRIMMER HOLDER ASM.	(1)
13		SM-3061002-TP	SCREW M6 L=10	(1)
14		400-09807	LIMITING PLATE	1
15		SS-7110840-SP	SCREW 11/64-40 L=7.8	2
16		400-09168	DRAWING CAM SPRING	1
17		400-09169	DRAWING CAM SPRING AXLE	1
18		SD-0450401-SP	HINGE SCREW D=4.5 H=4	1
19		400-08608	DRIVING CAM INSTALLING PLATE	1
20		SD-0790303-SP	HINGE SCREW D=7.94 H=3.0	1
21		400-09167	DIFFERENTIAL FEED CAM	1
22		SS-7090710-SP	SCREW 9/64-40 L=6.8	2
23		PS-0300102-K0	SPRING PIN 3.0X10	2
24		B2010-771-000	BRACKET	1
25		B2052-781-000	THREAD TRIMMER SPRING A	1
26		SS-6621212-TP	SCREW 3/16-32 L=12.0	4
27		400-09330	THREAD SHAFT GUIDE BASE	1
28		400-09164	THREAD TRIMMER SPRING B	1
29		B2007-771-0B0	NEEDLE THREAD TRIMMER SHAFT ASM.	1
30		400-09193	NEEDLE THREAD TRIMMER SHAFT	(1)
31		280-23200	CAMI ROLL	(1)
32		SS-6080610-TP	SCREW 1/8-44 L=6	(1)
33		400-09195	STUD	(1)
34		400-09196	SUSPENSION SCREW	(1)
35		400-09186	LATCH PRESSER ARM	(1)
36		SS-7090710-SP	SCREW 9/64-40 L=6.8	2
37	#01	400-09191	SPACER	1
38		400-09181	LOCKING BRACKET LATCH ASM.	1
39		SS-7110840-SP	SCREW 11/64-40 L=7.8	2
40		B2030-771-000	THREAD TRIMMING SHAFT SEGMENT	1
41		SD-0641003-SP	HINGE SCREW D=6.35 H=10	1
42		NS-6110310-SP	NUT 11/64-40	1
43		NS-6080210-SP	NUT 1/8-44	1
44		NS-6080340-SP	NUT 1/8-44	1
45		400-09188	ROLLER	1
46		B2032-771-000	STUD	1
47		SS-7110840-SP	SCREW 11/64-40 L=7.8	2
48		400-09160	THREAD TRIMMER HOLDER ASM.	1
	NOTE		#01.....DEPENDS ON THE MACHINE FRAME, 0 ~ 2 SETS OF THIS PART WILL BE USED.	



9. BOBBIN THREAD TRIMMER COMPONENTS

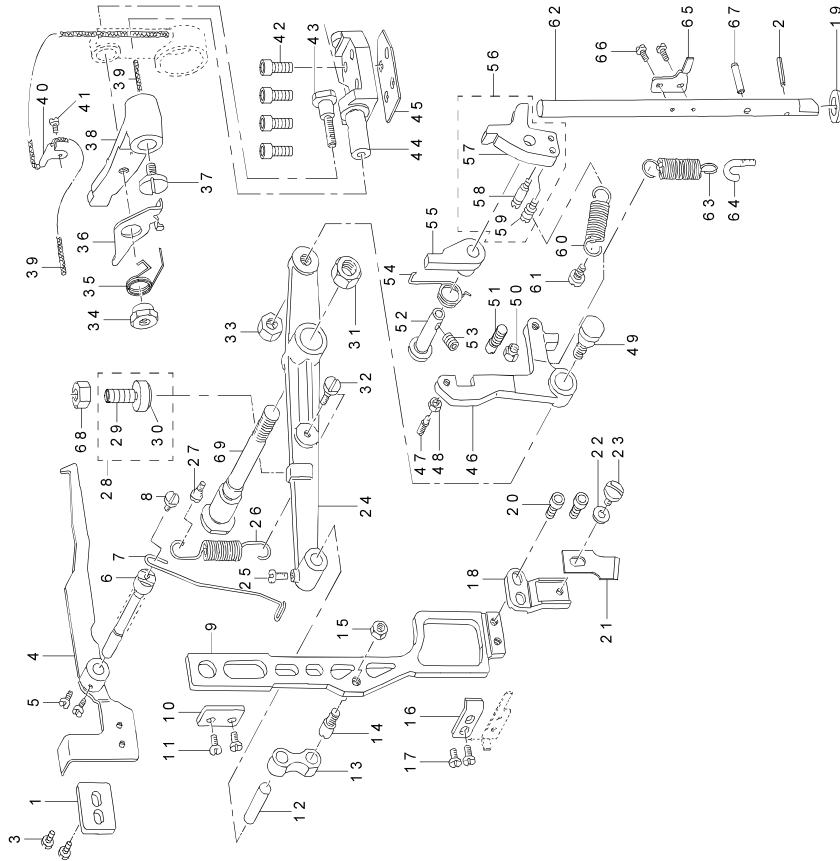
REF NO	NOTE	PART NO	DESCRIPTION	Qty
1		B2401-771-0A0	NEEDLE PLATE ASM.	1
2		B2402-771-000	NEEDLE PLATE	(1)
3		SS-2090510-SP	SCREW 9/64-40 L=5	(2)
4		B2401-771-0B0	THROAT PLATE BASE ASM.	(1)
5		B2406-771-0A0	BOBBIN THREAD TRIMMER BLADE ASM.	(1)
6		SS-5090320-SP	SCREW 9/64-40 L= 3.2	(1)
7		B2408-771-000-A	COUNTER KNIFE	(1)
8		SS-4080310-SP	SCREW 7/8-44 L=3.4	(1)
9		B2404-771-000	BOBBIN THREAD TRIMMER LEVER	(1)
10		SS-7110570-SP	SCREW 11/64-40 L= 4.8	(1)
11		WP-0451016-SP	WASHER 4.5X20X1	(1)
12		B2405-771-000	BOBBIN THREAD PULLER	(1)
13		SS-6090440-SP	SCREW 9/64-40 L= 4.0	(2)
14		SS-6090530-TP	SCREW 9/64-40 L=6	4
15		400-09218	BOBBIN PICKER STOPPER	(1)
16		B2416-771-000	PRESSER PLATE	(1)
17		SS-7110940-SP	SCREW 11/64-40 L=7.8	(1)
18		400-09220	BOBBIN PICKER PRESSER PLATE	(1)
19		SD-060272-SP	HINGE SCREW	(1)
20		B2422-771-000	BOBBIN PICKER BRACKET	(1)
21		SS-7090520-TP	SCREW 9/64-40 L=6.1	(1)
22		400-09217	BOBBIN PICKER BRACKET SHAFT	(1)
23		400-09215	BOBBIN THREAD TRIP LATCH	(1)
24		400-09219	SCREW STOPPER	(1)
25		SS-6110610-TP	SCREW 9/16-40 L=6	(1)
26		400-09222	PRESSER PLATE ADJUSTING SPRING	(1)
27		400-09214	PRESSER PLATE MOUNTING BASE	(1)
28		400-09214	BOBBIN THREAD TRIMMER LINK	(1)
29		NS-6120310-SP	NUT 5/16-28	(1)
30		400-09221	PRESSER PLATE ADJUSTING SCREW	(1)
31		SD-0640321-SP	HINGE SCREW D=6.35 H=3.2	(1)
32		SD-0640602-SP	HINGE SCREW D=6.35 H=6.0	(1)
33		B2417-771-000	BOBBIN THREAD GUIDE	1
34		SS-4090415-SP	SCREW 9/64-40 L=4	2
35		NS-6150310-SP	NUT 15/64-28	(1)
36		SD-0790602-SP	HINGE SCREW D= 7.94 H= 6	(1)
37		400-09210	BOBBIN THREAD TRIMMER DRIVING LEVER	(1)
38		NS-6150310-SP	NUT 15/64-28	(1)
39		SS-7110570-SP	SCREW 11/64-40 L= 4.8	(1)
40		400-09211	CONNECTING LINK	(1)
41		B2414-761-000	STOP SCREW	(1)
42		NS-6680320-SP	NUT 9/32-28	(1)
43		B2416-761-000	HING STUD	(1)
44		SS-8150822-TP	SCREW 15/64-28 L=8	(1)
45		400-09209	BOBBIN THREAD TRIMMER DRIVING ARM	(1)
46		SD-0790641-SP	HINGE SCREW D= 7.94 H= 6.4	(1)
47		B2412-047-000	BALL SCREW	(1)
48		SS-7110710-SP	SCREW 11/64-40 L=7	(1)



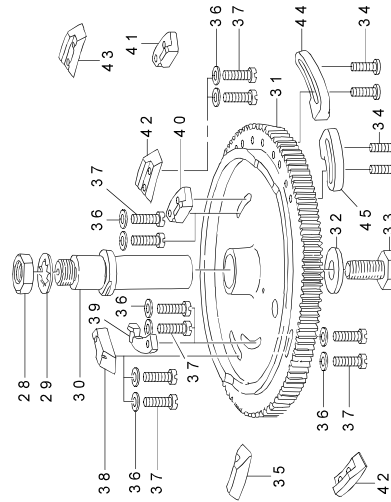
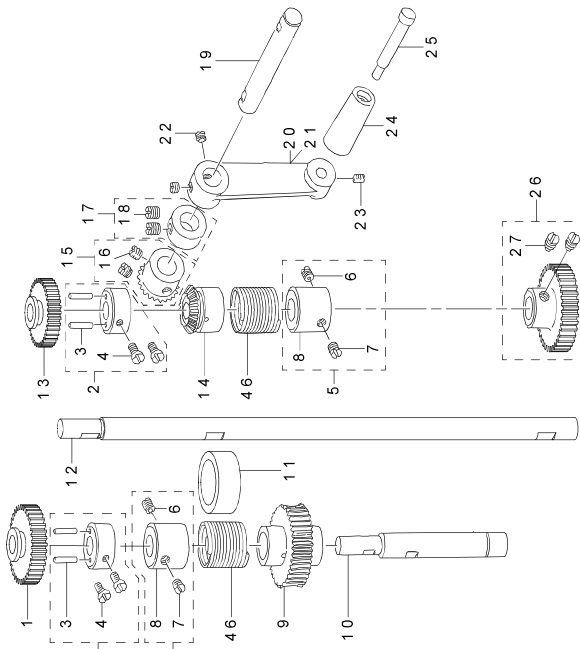
10. KNIFE BAR COMPONENTS

REF NO	NOTE	PART NO	DESCRIPTION	QTY
1		400-09302	KNIFE STOP LEVER BRACKET	1
2		PS-000182-KF	SPRING PIN 3X18	1
3		SS-711074D-TIP	SCREW 1/164-40 L=7	2
4		BZ725-761-000	KNIFE STOP LEVER	1
5		SD-0503000	SPRING PIN D=1.8	2
6		400-09300	KNIFE STOP LEVER HINGE STUD	1
7		BZ733-761-000	THREAD CHECK WIRE	1
8		SS-711084D-SP	SCREW 1/164-40 L=7.8	1
9		BZ702-771-000-A	KNIFE BAR	1
10	#02	400-09280	KNIFE ROD GUIDE PLATE A	1
11		SS-711071B-SP	SCREW 1/164-40 L=7	2
12		400-09280	HINGE STUD	1
13		BZ706-761-000	KNIFE BAR CONNECTING LINK	1
14		BZ705-761-000	HINGE SCREW	1
15		NS-696043P-SP	NUT 1/4-40	1
16	#02	400-09284	KNIFE BAR POSITIONING BRACKET	1
17		SD-0503000	SPRING PIN D=1.8	2
18		BZ704-761-000	KNIFE HOLDER	1
19		BZ740-771-000	THRUST WASHER	2
20	#01	SM-6081202-TIP	SCREW M6 L=12	2
21		BZ702-047-100-A	KNIFE 1/2	1
22		WP-0601016-SD	WASHER 5X10.5X1	1
23		SS-762075A-SP	SCREW 3/16-32 L= 6.5	1
24		BZ751-761-000	KNIFE BAR DRIVING LEVER	1
25		SS-711081B-SP	SCREW 1/164-40 L= 8.0	1
26		BZ710-771-000	SPRING	1
27		SD-050501-SP	HINGE SCREW D=5.5 H=5	1
28		400-09264	KNIFE BAR STOPPER ASM.	1
29		400-09265	STOPPER	(1)
30		400-09266	STOPPER BUSH	(1)
31		NS-674051B-SP	NUT 3/8-28	1
32		SD-079020-SD	HINGE SCREW D=7.9 H=2.0	1
33		NS-670044B-SP	NUT 5/16-24	1
34		400-09284	KNIFE BAR DRIVING CRANK NUT	1
35		BZ716-761-000	TENSION SPRING	1
36		400-09282	LATCH	1
37		SS-716104B-SP	SCREW 1/4-24 L= 9.5	1
38		400-09291	KNIFE BAR DRIVING CRANK	1
39		CG-2520000-00	OIL WICK	0.4
40		NS-674051B-SP	NUT 3/8-28	1
41		SD-079020-SD	HINGE SCREW D=7.9 H=2.0	1
42		NS-674051B-SP	NUT 3/8-28	1
43		SP-1110905-TH	HINGE SCREW D=11.11 H=9.0	4
44		261-06809	KNIFE BAR DRIVING CRANK SHAFT	1
45	#02	400-09304	SPACER	1
46		400-09441	KNIFE BAR DRIVING LEVER BELL CRANK	1
47		SS-811161B-SP	SCREW 1/164-40 L=16.5	1
48		NS-611031B-SP	NUT 1/164-40	1
49		SD-1110905-TH	HINGE SCREW D=11.11 H=9.0	1
50		400-09277	HOOK PIN NUT	1
51		400-09276	HOOK PIN	1
52		BZ416-761-000	HINGE STUD	1
53		SS-716104B-SP	SCREW 1/4-24 L=8	1
54		BZ716-761-000	TENSION SPRING	1
55		BZ724-761-000	PATCHET PAWL (B)	1
56		BZ723-761-000-A	HOOK DIFFERENTIAL CLICK A ASM.	1
57		BZ723-761-000-A	HOOK DIFFERENTIAL CLICK A	(1)
58		101-20004	SPRING SUSPENSION	(1)
59		B1110-280-000	THREAD CUTTING LINK SPRING RACK	(1)
60		BZ726-761-000-A	TENSION SPRING	1
61		SD-0503021-SP	HINGE SCREW D=5.3 H= 2.2	1
62		400-09270	DRIVING ROD	1
63		400-09289	TENSION SPRING	1
64		400-09305	SUSPENSION SCREW	1
65		SS-716104B-SP	SCREW 1/4-24 L= 8	1
66		400-09303	POSITIONING PIN (B)	2
67		NS-620052A-SP	NUT 5/16-18	1
68		BZ709-771-000	KNIFE BAR DRIVING LEVER SHAFT	1
69			KNIFE BAR DRIVING LEVER SHAFT	1

NOTE  
 #01... THE SIZE OF THE BUTTONHOLE  
 SO FOR FURTHER DETAILS PLEASE  
 REFER TO PAGE 39/22(2).  
 #02...SELECTIVE PARTS



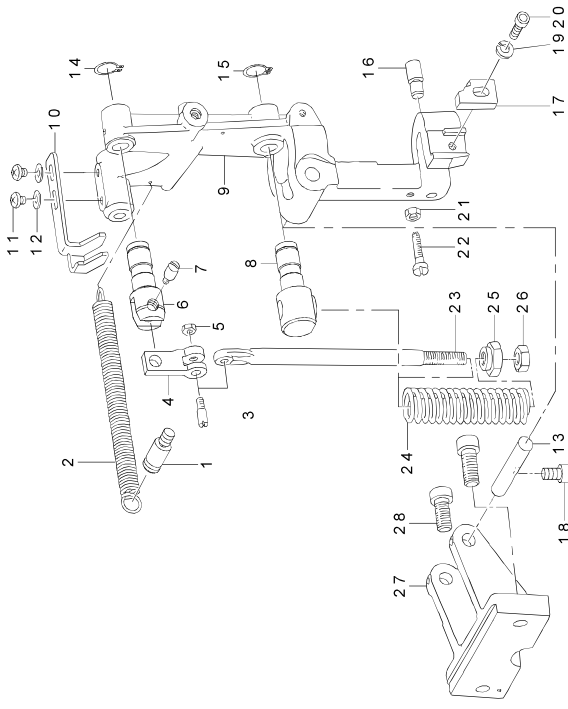
11. FEED CAM & TRIPPING SEGMENT COMPONENTS



REF.NO	NOTE	PART NO	DESCRIPTION	Qty
1		B2935-761-000	SPUR GEAR (152)	1
2		B2916-761-0A0	SPUR GEAR BUSHING ASM.	2
3		B2917-761-000	SPUR GEAR BUSHING PIN	(4)
4		SS-7120910-TP	SCREW 3/16-28 L=9	(4)
5		B2913-761-0A0	CLUTCH COLLAR ASM.	2
6		SS-8660610-TP	SCREW 1/4-40 L=6	(1)
7		SS-8660410-SP	SCREW 1/4-40 L=4.2	(1)
8		SS-8660310-TP	CLUTCH COLLAR	(1)
9		B2919-761-000	FEED CAM DRIVING WORM WHEEL	(1)
10		400-09316	FEED CAM DRIVING WORM WHEEL SHAFT	1
11		B3562-271-000	OIL FELT	1
12		26147201	CAM DRIVING STUD	1
13	#01	B2934-761-000	SPUR GEAR (123)	1
14		B2915-761-B00	HANDLE CRANK BEVEL GEAR, LEFT	1
15		B2915-761-AA0	HANDLE CRANK BEVEL GEAR ASM.,	1
16		SS-8660610-TP	SCREW 1/4-40 L=6	(2)
17		CS-111101D-SH	THRUST COLLAR ASM. D=11.11 Wp=10	(2)
18		SS-8660310-TP	SCREW 1/4-40 L=4.5	(2)
19		400-09318	HANDLE CRANK SHAFT	1
20		B2923-761-000	HANDLE CRANK	1
21	#04	400-09319	HANDLE CRANK	1
22		SS-8150510-TP	SCREW 15/64-28 L= 4.7	2
23		SS-8620610-SP	SCREW 3/16-32 L=6	1
24		400-09320	HANDLE SHAFT	1
25		400-09321	HANDLE SHAFT	1
26		B2910-761-000	FEED CAM DRIVING GEAR ASM.	(2)
27		SS-8660610-TP	SCREW 1/4-40 L=6	1
28		NM-6120001-CP	NUT M12	1
29		B2909-761-000	THRUST WASHER	1
30		400-09312	FEED CAM SHAFT	1
31		B2901-771-00C	FEED CAM	1
32		WP-0882616-SP	WASHER 9.8X24 DX2.6	1
33		SS-9241513-CP	SCREW 3/8-18 L=15	1
34		SS-7111410-TP	SCREW 11/64-40 L=14	4
35	#02	B2902-761-B00	BAR TRIPPING SEGMENT NO.2 (B)	1
36		WP-0480856-SP	WASHER 4.8X8.4X0.8	10
37		SS-6111610-SP	SCREW 11/64-40 L=16	1
38		B2904-771-000	KNIFE TRIPPING SEGMENT	1
39		400-09309	TENSION RELEASE TRIPPING SEGMENT 1	1
40		400-09310	TENSION RELEASE TRIPPING SEGMENT 2	1
41	#03	B2906-761-B00	TRIPPING SEGMENT NO.2	1
42		SS-03363	BAR TRIPPING SEGMENT NO.1	2
43		B2903-761-B00	BAR TRIPPING SEGMENT NO.2 (B)	1
44		261-04800	LOW-SPEED CAM	1
45		261-04804	STOPPER CAM	1
46		B2914-761-000	CLUTCH SPRING	2

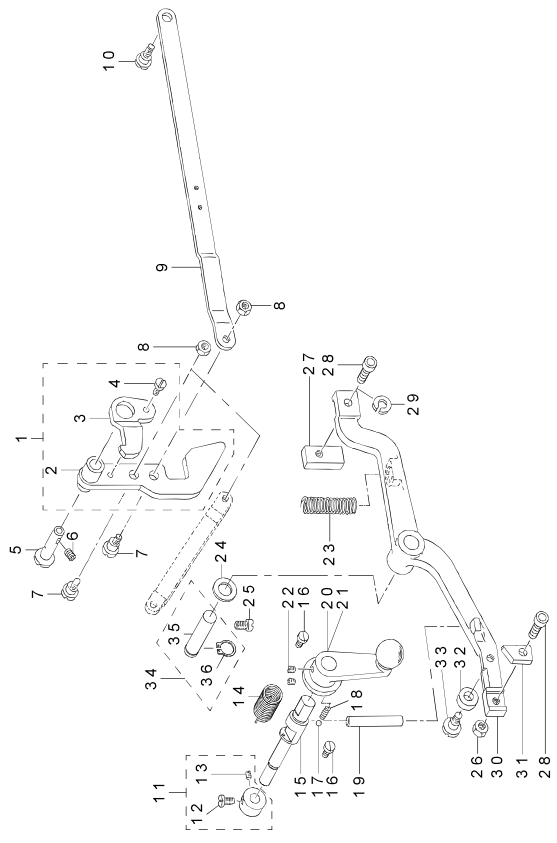
NOTE  
 #01...FOR EXCHANGING GEAR, PLEASE  
 #02...SPECIAL ORDER PARTS FOR 80%  
 #03...SPECIAL ORDER PARTS FOR 80%  
 #04...SPECIAL ORDER PARTS FOR 80%  
 #05...SPECIAL ORDER PARTS FOR 80%

12. STOP-MOTION COMPONENTS



REF.NO	NOTE	PART NO	DESCRIPTION	Qty
1		262-12308	BELT COVER SETSCREW	1
2		E2653-771-000	TENSION SPRING	1
3		E2613-232-000	STOP LINK ROD HINGE SCREW	1
4		26-106607	UPPER SHAFT STOPPER	1
5		NS-662031D-SP	NUT 3/16-32	1
6		26-107300	STOPPER PIN	1
7		E2611-252-000	STOP LINK CONNECTING SCREW	1
8		26-107508	STOP LINK ROD HINGE STUD	1
9		B2604-771-000-B	STOP MOTION LEVER	1
10		400-09228	BELT SHIFTER	1
11		SS-4150715-SP	SCREW 15/64-28 L=7	2
12		WP-0650876-SD	WASHER 6.5X13X0.8	2
13		400-09254	INSTALLING BASE PIN	1
14		RC-1200001-KP	C-SHAPED SNAP RING	1
15		RC-1200001-KP	C-SHAPED SNAP RING	1
16		B2648-232-000	STOP PIN	1
17		400-09229	LATCH (A)	1
18		SM-6061602-TP	SCREW M6 L=16	1
19		WS-0610002-KP	SPRING WASHER	1
20		SM-6062002-TP	SCREW M6 L=20	1
21		NS-6150040-SP	SCREW 15/64-28 L=30	1
22		400-09249	STOP LINK ROD	1
23		400-09249	STOP LINK ROD PRESSURE SPRING	1
24		400-09251	SPRING SUPPORT NUT	1
25		400-09252	NUT 3/8-16	1
26		NS-6240630-SP	STOP MOTION LEVER BRACKET	1
27		E2601-761-000-A	STOP MOTION LEVER BRACKET	1
28		SM-6102002-TP	SCREW M10 L=20	2

13. TRIPPING LEVER COMPONENTS

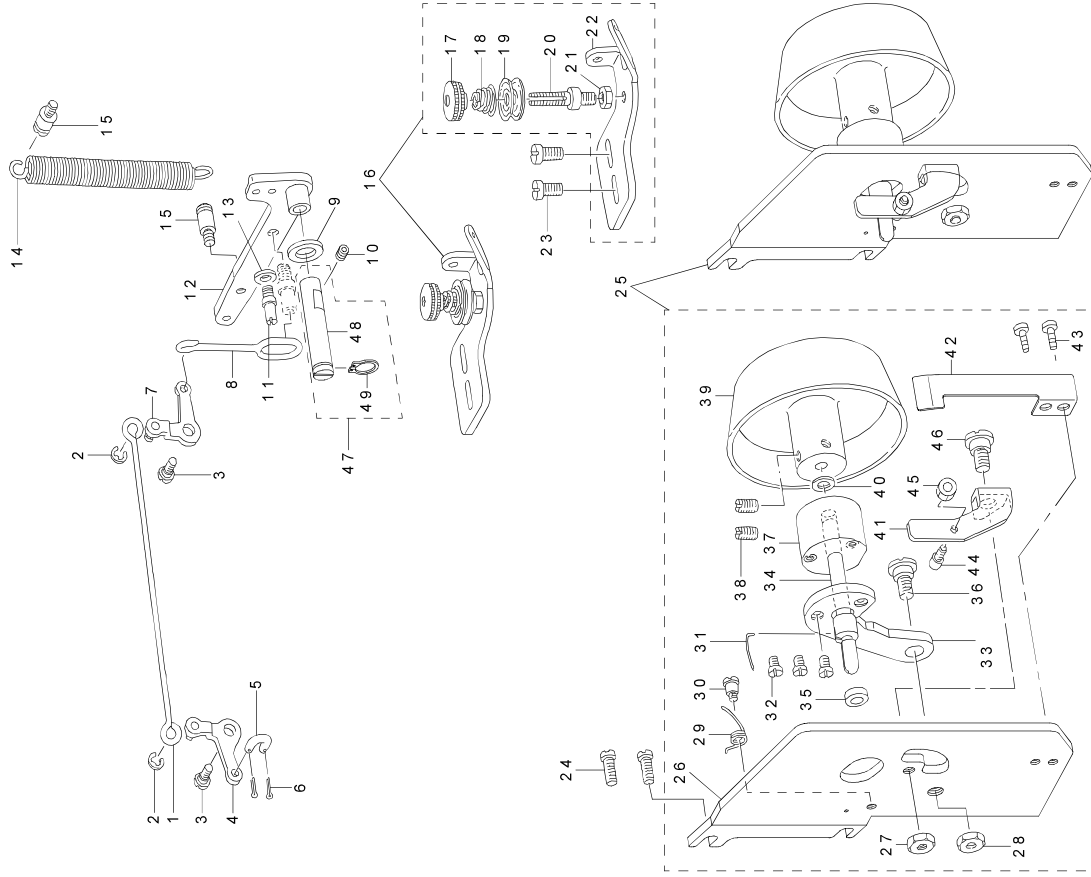


REF.NO	NOTE	PART NO	DESCRIPTION	Qty
1		400-09255	STARTING LINK COMPL.	1
2		400-09255	STARTING LINK ASM.	(1)
3		400-09259	SAFETY BASE	(1)
4		NS-6150015-SP	SCREW 15/64-28 L=7	(1)
5		B2611-761-000	HINGE STUD	(1)
6		SS-8150022-TP	SCREW 15/64-28 L=8	(1)
7		400-09233	HINGE SCREW	2
8		NS-6150315-SP	NUT 15/64-28	2
9		400-09245	STARTING LINK DRIVING ROD	1
10		SD-0790451-SP	HINGE SCREW D= 7.84 H= 4.5	1
11		CS-079101B-SH	THRUST COLLAR ASM. D=7.94 WF=10	1
12		SCREW 11/64-40 L=7	SCREW 11/64-40 L=7	(1)
13		SS-8110515-SP	CRANK SHAFT TENSION SPRING	(1)
14		400-09247	HAND STOP CRANK SHAFT	1
15		400-09241	HAND STOP CRANK SHAFT	1
16		SS-8110515-TP	CRANK SHAFT TENSION SPRING	2
17		B2606-761-000	HAND STOP CRANK SHAFT BALL	1
18		B2611-761-000	CRANK SHAFT PRESSURE SPRING	1
19	#01	400-09242	HAND STOP CRANK ASM.	1
20		B2610-761-0A0	HAND STOP CRANK ASM.	1
21	#02	B2610-761-0AA	HAND STOP CRANK ASM.	1
22		SS-8150015-TP	SCREW 15/64-28 L= 4.7	2
23		B2611-771-000	TRIPPING LEVER TENSION SPRING	1
24		400-09262	WASHER	1
25		SS-7150040-SP	SCREW 15/64-28 L=9	1
26		NM-6060001-CP	NUT M6	1
27		400-09236	LATCH (B)	1
28		WP-0650876-TP	WASHER M6 L=20	2
29		WS-0610002-KP	SPRING WASHER	1
30		B2665-761-000-A	TRIPPING LEVER	1
31		400-09243	TRIPPING DOG	1
32		400-09116	ROLLER	1
33		SD-0640471-SP	HINGE SCREW D= 6.35 H= 4.7	1
34		400-09280	TRIPPING LEVER HINGE PIN ASM.	1
35		400-09281	TRIPPING LEVER HINGE PIN	(1)
36		RC-1021011-KP	RETAINING RING 10.2	(1)

NOTE  
#01...SELECTIVE PARTS  
#02...FOR URBAN WHITE

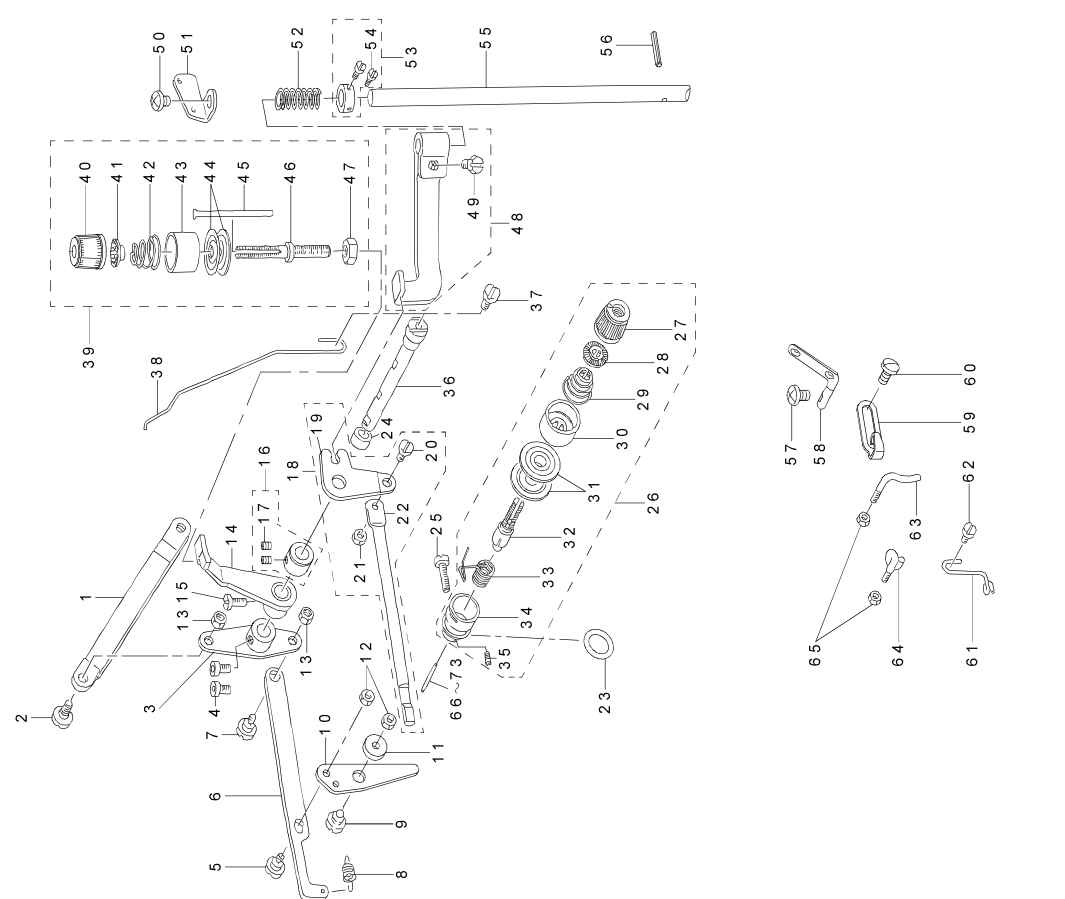
14. LIFTING LEVER & BOBBIN WINDER COMPONENTS

REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		B3404-771-000	PRESSER BAR LIFTING ROD	1
2		RE-050000-K0	E-RING	2
3		SD-0720331-SP	HINGE SCREW D= 7.24 H= 3.3	2
4		B3402-771-0A0	LEVER ASM., FRONT	1
5		B3406-761-000	LINK	1
6		PD-0201000-0B	SPLIT PIN	2
7		B3408-771-0A0	LEVER ASM., REAR	1
8		B3403-761-000	PRESSER BAR LIFTING ROD	1
9		400-09262	WASHER	1
10		SS-9150822-TP	SCREW/15/64-28 L=8	1
11		400-09357	LIFTING LEVER STOPPER	1
12		261-06656	LIFTING LEVER ASM.	1
13		WP-0740516-SP	WASHER 7.4X11.6X0.5	1
14		B3451-761-000	PRESSER FOOT LIFTING SPRING	1
15		262-12308	BELT COVER SETSCREW	2
16		400-09348	BOBBIN WINDER TENSION ASM.	1
17		262-16507	BOBBIN WINDER TENSION NUT	(1)
18		262-16606	BOBBIN WINDER TENSION SPRING	(1)
19		229-45802	THREAD TENSION DISK	(2)
20		262-16705	BOBBIN WINDER TENSION POST	(1)
21		262-16705	BOBBIN WINDER TENSION POST	(1)
22		400-09349	BOBBIN WINDER TENSION	(1)
23		SS-7110840-SP	SCREW 11/64-40 L=7.8	4
24		SS-7110840-SP	SCREW 11/64-40 L=7.8	2
25		261-03150	BOBBIN WINDER ASM.	1
26		261-03101	BOBBIN WINDER BRACKET	(1)
27		261-04208	NUT	(1)
28		261-04307	NUT	(1)
29		261-03705	BOBBIN WINDER SPRING	(1)
30		SD-0450401-SP	HINGE SCREW D= 4.5 H= 4	(1)
31		261-03903	BOBBIN STOP SPRING	(1)
32		SS-6090620-SP	SCREW 9/64-40 L=6	(3)
33		261-03306	PULLEY SHAFT BASE	(1)
34		261-03507	BOBBIN WINDER SHAFT	(1)
35		261-04109	COLLAR	(1)
36		SD-0790433-TP	HINGE SCREW D= 7.84 H= 4.3	(1)
37		261-03406	BOBBIN WINDER SHAFT BUSHING	(1)
38		SS-4120740-SP	SCREW 3/16-28 L=7	(2)
39		261-03200	BOBBIN WINDER DRIVING PULLEY	(1)
40		WP-0651056-SD	WASHER 6.5X11X1	(1)
41		261-03606	BOBBIN WINDER TRIP LATCH	(1)
42		261-03804	BOBIN GUIDE SPRING	(1)
43		SS-7090520-SP	SCREW 9/64-40 L= 4.5	(2)
44		261-04000	ADJUSTING SCREW	(1)
45		261-04505	NUT	(1)
46		261-04406	BOBBIN GUIDE SHAFT	(1)
47		400-09260	TRIPPING LEVER HINGE PIN ASM.	1
48		400-09261	TRIPPING LEVER HINGE PIN	(1)
49		RC-1021011-KP	RETAINING RING 10.2	(1)



15. THREAD TENSION COMPONENTS

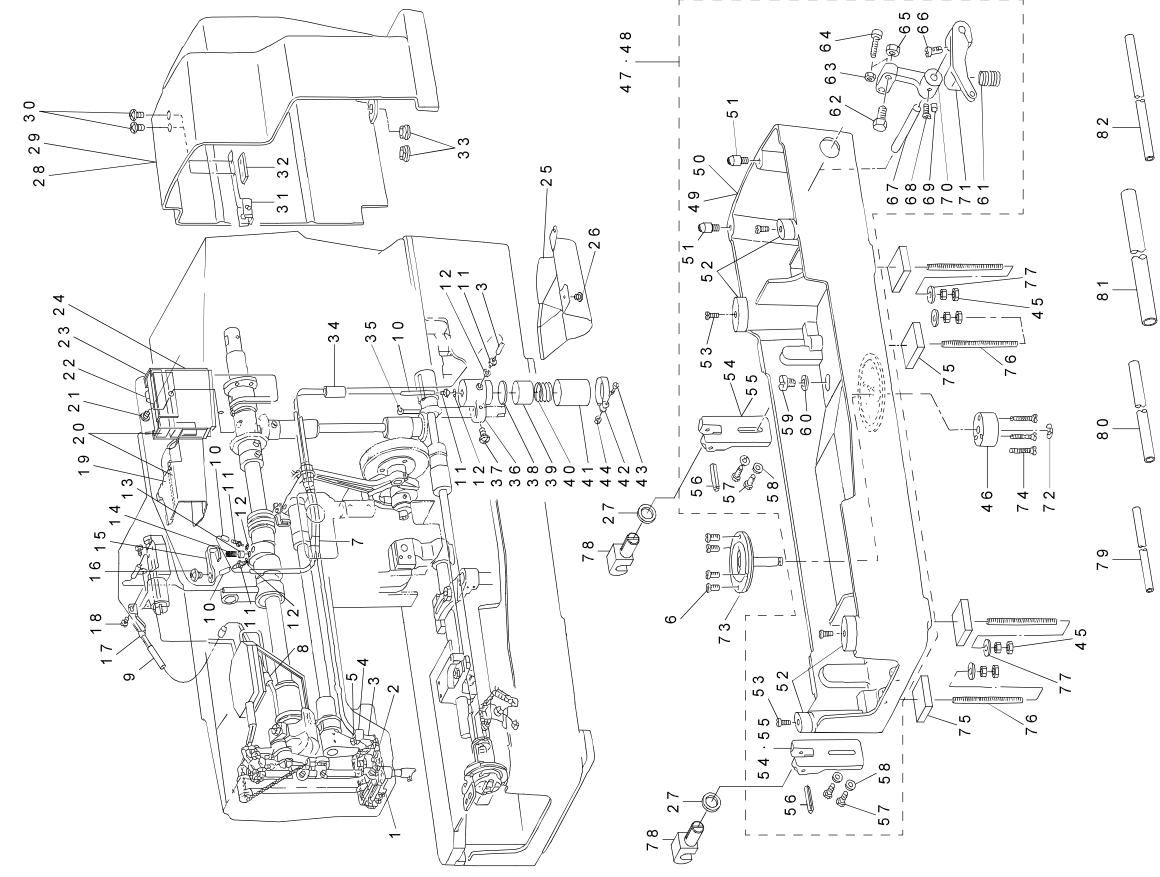
REF NO	NOTE	PART NO	DESCRIPTION	QTY
1		400-09325	TENSION RELEASE LINK	1
2		SD-0640391-TP	HINGE SCREW D= 6.35 H= 3.9	1
3		B3152-781-000	TENSION RELEASE LEVER	1
4		SS-6660712-TP	SCREW 1/4-40 L= 7.0	2
5		SD-0640241-SP	HINGE SCREW D= 6.35 H= 2.4	1
6		400-09165	BLOCKING LINK	1
7		SD-0640391-TP	HINGE SCREW D= 6.35 H= 3.9	1
8		B2056-781-000	BLOCKING ARM SPRING	1
9		SD-0790311-TP	HINGE SCREW D= 7.94 H= 3.1	1
10		400-08611	BLOCKING ARM	1
11		400-08609	BLOCKING ARM BRACKET	1
12		NUT 1/16x4-40		2
13		NUT 3/16x28		1
14		TENSION RELEASE LEVER		1
15		SS-7627040-SP	SCREW 3/16-32 L= 9.5	1
16		CS-0791070-D-SH	THRUST COLLAR ASM. D=7.94 W=10	(2)
17		400-09327	TENSION RELEASE LEVER CRANK ASM.	1
18		400-09328	TENSION RELEASE LEVER CRANK NO.2	1
19		400-09327	HINGE SCREW D= 5 H= 3	(1)
20		NS-6090310-SP	NUT 9/64-40	(1)
21		400-09329	TENSION RELEASE ROD	(1)
22		400-09330	TENSION RELEASE ROD	(1)
23		400-09331	TENSION RELEASE ROD	(1)
24		400-09332	TENSION RELEASE ROD	(1)
25		400-09333	TENSION RELEASE ROD	(1)
26		400-09334	TENSION RELEASE ROD	(1)
27		400-09335	TENSION RELEASE ROD	(1)
28		400-09336	TENSION RELEASE ROD	(1)
29		400-09337	TENSION RELEASE ROD	(1)
30		400-09338	TENSION RELEASE ROD	(1)
31		400-09339	TENSION RELEASE ROD	(1)
32		400-09340	TENSION RELEASE ROD	(1)
33		400-09341	TENSION RELEASE ROD	(1)
34		400-09342	TENSION RELEASE ROD	(1)
35		400-09343	TENSION RELEASE ROD	(1)
36		400-09344	TENSION RELEASE ROD	(1)
37		400-09345	TENSION RELEASE ROD	(1)
38		400-09346	TENSION RELEASE ROD	(1)
39		400-09347	TENSION RELEASE ROD	(1)
40		400-09348	TENSION RELEASE ROD	(1)
41		400-09349	TENSION RELEASE ROD	(1)
42		400-09350	TENSION RELEASE ROD	(1)
43		400-09351	TENSION RELEASE ROD	(1)
44		400-09352	TENSION RELEASE ROD	(1)
45		400-09353	TENSION RELEASE ROD	(1)
46		400-09354	TENSION RELEASE ROD	(1)
47		400-09355	TENSION RELEASE ROD	(1)
48		400-09356	TENSION RELEASE ROD	(1)
49		400-09357	TENSION RELEASE ROD	(1)
50		400-09358	TENSION RELEASE ROD	(1)
51		400-09359	TENSION RELEASE ROD	(1)
52		400-09360	TENSION RELEASE ROD	(1)
53		400-09361	TENSION RELEASE ROD	(1)
54		400-09362	TENSION RELEASE ROD	(1)
55		400-09363	TENSION RELEASE ROD	(1)
56		400-09364	TENSION RELEASE ROD	(1)
57		400-09365	TENSION RELEASE ROD	(1)
58		400-09366	TENSION RELEASE ROD	(1)
59		400-09367	TENSION RELEASE ROD	(1)
60		400-09368	TENSION RELEASE ROD	(1)
61		400-09369	TENSION RELEASE ROD	(1)
62		400-09370	TENSION RELEASE ROD	(1)
63		400-09371	TENSION RELEASE ROD	(1)
64		400-09372	TENSION RELEASE ROD	(1)
65		400-09373	TENSION RELEASE ROD	(1)
66		400-09374	TENSION RELEASE ROD	(1)
67		400-09375	TENSION RELEASE ROD	(1)
68		400-09376	TENSION RELEASE ROD	(1)
69		400-09377	TENSION RELEASE ROD	(1)
70		400-09378	TENSION RELEASE ROD	(1)
71		400-09379	TENSION RELEASE ROD	(1)
72		400-09380	TENSION RELEASE ROD	(1)
73		400-09381	TENSION RELEASE ROD	(1)



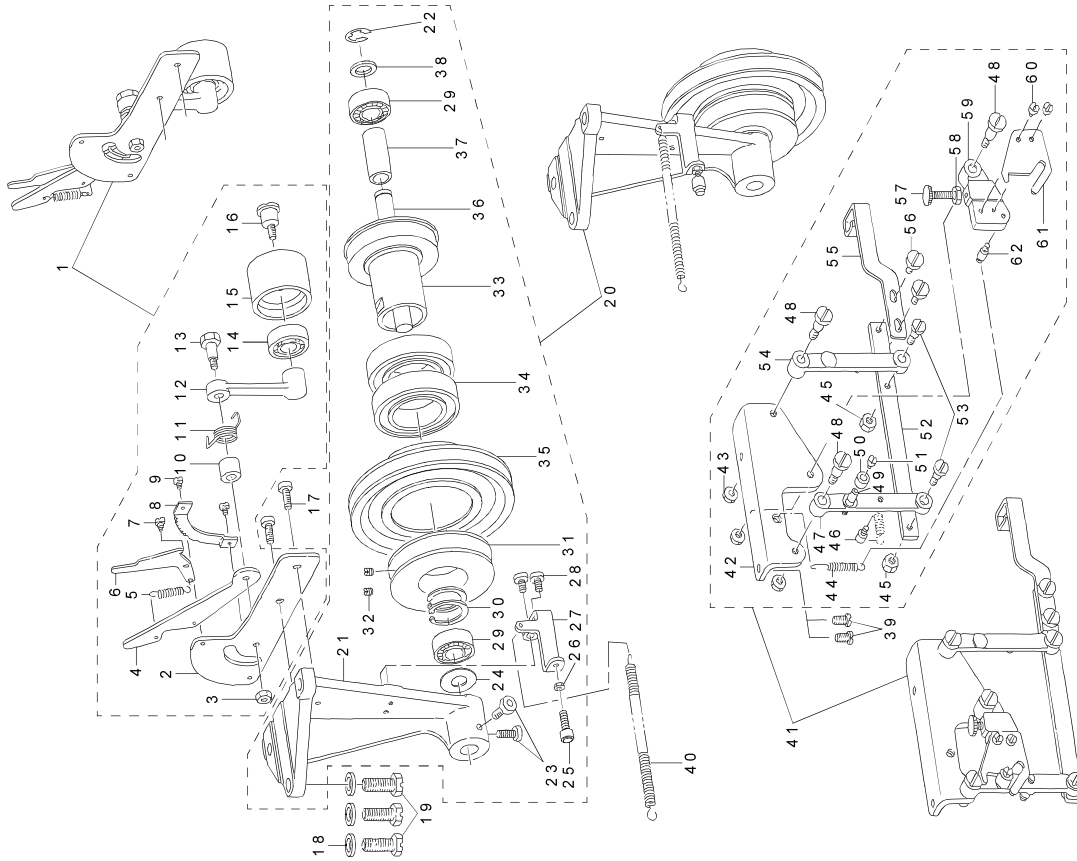
16. LUBRICATION MECHANISM COMPONENTS

REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		400-08374	OIL FELT HOLDER	1
2		B5548-771-000	OIL RETURN FELT (A)	1
3		B5548-771-000	OIL RETURN FELT (B)	1
4		B5571-771-000	PIPE HOLDER	1
5		SS-7110710-SP	SCREW 11164-40 L=7	1
6	#02	SS-71108910-TP	SCREW 11164-40 L=8.5	4
7		400-09369	PIPE GUIDE (A)	1
8		BP-5000000-00	VINYL PIPE	0.1
9		BP-5000000-00	VINYL PIPE	0.05
10		BP-5000000-00	VINYL PIPE	0.2
11		SS-7110402-00Z	CONNECTING SCREW	4
12		B5534-012-000	GASKET	1
13		B5534-155-000	PLUNGER SPRING	1
14		B1214-038-000	THRUST PLATE	1
15		400-09361	SCREW 11164-40 L=7	1
16		400-09373	SCREW 11164-40 L=7	1
17		SS-7110710-SP	OIL FELT	1
18		B5563-771-000	OIL PAN ASM.	1
19		B11335-771-0A0	SCREW 11164-40 L=5	1
20		SS-4110515-SP	OIL UNWOVEN CLOTH	1
21		B5591-771-000	OIL FELT	1
22		B11437-771-000	OIL FELT	1
23		B11437-771-000	OIL FELT	1
24		B11437-771-000	OIL FELT	1
25		B5563-771-000-A	OIL SHIELD	1
26		SS-4110515-SP	SCREW 11164-40 L=5	2
27		B1124-771-000	CUSHION	2
28		B1154-781-000	BELT GUARD	1
29		B1154-781-00A	BELT GUARD	1
30	#01	SS-4110515-SP	SCREW 11164-40 L=8	1
31		400-09003	PLATE SPRING	2
32		400-09003	SET NUT	1
33		B1156-781-000	RUBBER BUSHING	1
34		BP-8000000-00	VINYL TUBE, WHITE D=8	2
35		400-09380	OIL WICK	1
36		SS-4110515-SP	SCREW 11164-40 L=8	1
37		B5570-771-000	FILTER	1
38		B5546-771-000	OIL FELT	1
39		400-08375	SPRING	1
40		400-08366	FILTER SCREEN	1
41		400-08379	BUSHING HOLDER	1
42		SS-7080910-SP	SCREW 1164-40 L= 8.5	1
43		SS-7080910-SP	SCREW 1164-40 L= 8.5	1
44		NS-6150310-SP	NUT 1564-28	1
45		NS-6150310-SP	NUT 1564-28	8
46	#02	400-08394	DRIVING PIN BASE	1
47		B1151-781-0A0-A	MACHINE BASE ASM.	1
48	#01	B1151-781-0AAA-A	MACHINE BASE ASM.	1
49		B1151-781-000-A	MACHINE BASE	(1)
50	#01	B1151-781-00A	MACHINE BASE	(1)
51		400-08388	GUIDE PIN	(1)
52		400-09035	RUBBER CUSHION	(4)
53		SS-7111120-SP	SCREW 11164-40 L=10.5	(4)
54		B1122-781-000	HINGE HOLDER	(2)
55	#01	281-09207	HINGE HOLDER	(2)
56		B1120-781-000	PIN	(2)
57		SS-7111120-SP	SCREW 11164-40 L=10	(4)
58		WP-0821016-SD	WASHER 6.2X13X1	(4)
59		SS-6710101-SP	SCREW 3/8-28 L=10	(2)
60		B6218-125-000	OIL DRAIN CAP GASKET	(2)
61		400-08244	STARTING LEVER PRESSURE SPRING	(1)
62		SN-9082003-CP	SCREW M8 L=20	(1)
63		NS-6150310-SP	NUT 1564-28	(1)
64		NS-6150310-SP	NUT 1564-28	(1)
65		NS-6150310-SP	NUT 1564-28	(1)
66		NS-6150310-SP	NUT 1564-28	(1)
67		SS-7151710-SP	SCREW 15164-28 L=12	(1)
68		SS-9150860-SP	SCREW 15164-28 L=8	(1)
69		SS-9150710-SP	SCREW 15164-28 L=7	(1)
70		281-07409	STARTING LEVER	(1)
71		RE-5080000-00	E-RINGS	(1)
72	#02	B5563-771-000	SHIFTER DRIVING PIN	1
73	#02	B7166-781-0A0	SCREW 11164-40 L=24	1
74	#02	SS-7112420-SP	MACHINE BASE FELT PAD	3
75		B11335-781-000	MACHINE BASE SCREW STUD	4
76		B1153-771-000	WASHER 6.1X18.5X2	4
77		WP-0812056-SD	WASHER 6.1X18.5X2	4
78		BP-5000000-00	VINYL PIPE	0.13
79		BP-5000000-00	VINYL PIPE	0.05
80		BP-5000000-00	VINYL PIPE	0.1
81		BP-4000000-00	VINYL TUBE, WHITE D=8	0.03
82		BP-4000000-00	VINYL TUBE, WHITE D=4	0.03

NOTE  
#01...FOR UREAN WHITE  
#02...ACCESSORY PARTS

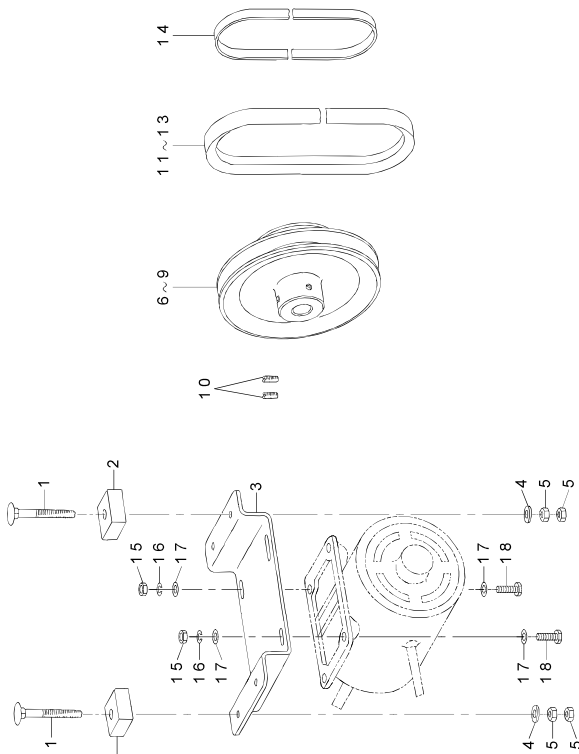


17. SPEED TRANSMITTER COMPONENTS



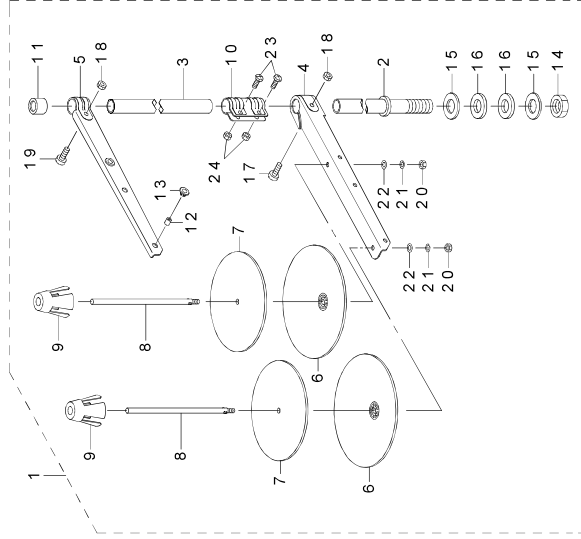
REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		B7180-781-0A0	TENSION PULLEY ASM.	1
2		400-09388	TENSION PULLEY BRACKET	(1)
3		NS-6150430-SP	NUT 15/64-28	(1)
4		400-09392	TENSION LEVER	(1)
5		B4419-372-000	NIPPER BAR ACTUATING LEVER SPRING	(1)
6		400-09393	FIXING PAVL	(1)
7		SD-0450211-SP	HINGE SCREW D= 4.50 H= 2.1	(1)
8		B7186-781-000	RATCHET	(1)
9		SS-7110710-SP	SCREW 11/64-40 L=7	(1)
10		400-09395	LEVER COLLAR	(1)
11		400-09397	TENSION SPRING	(1)
12		400-09390	TENSION PULLEY LINK	(1)
13		SD-0902901-SP	HINGE SCREW D=9 H=25	(1)
14		SB-1150002-00	BEARING	(1)
15		400-09389	TENSION PULLEY	(1)
16		SD-1501101-SP	HINGE SCREW D=14.5 H=11	(1)
17		SM-6061202-TP	SCREW M6 L=12	2
18	#01	WP-0651056-SH	WASHER 6.5X11X1	3
19	#01	SS-9152130-CP	SCREW 15/64-28 L=20.5	3
20		B7151-781-0A0-B	SPEED TRANSMITTER ASM.	1
21		B7151-781-000-A	SPEED TRANSMITTER BRACKET	(1)
22		RE-1200000-K0	E-RING 12	(1)
23		SM-6061202-TP	SCREW M6 L=12	(1)
24		B1221-771-00A	HIGH SPEED WASHER FOR BEARING	(1)
25		400-09235	STOP SCREW ASM.	(1)
26		NS-6150310-SP	NUT 15/64-28	(1)
27		B7158-781-000	SHIFTER STOPPER BRACKET	(1)
28		SM-6061202-TP	SCREW M6 L=12	(1)
29		SB-1150002-00	BEARING	(2)
30		RC-3500002-KP	RETAINING RING 35	(2)
31		B7155-781-000	ACCELERATING PULLEY	(1)
32		SS-9150710-SP	SCREW 15/64-28 L=7	(2)
33		B7154-781-000	HIGH-SPEED PULLEY	(1)
34		SB-1450004-00	BEARING	(2)
35		B7158-781-000-A	LOW-SPEED PULLEY	(1)
36		B7152-781-000-A	SPEED TRANSMITTER SHAFT	(1)
37		B7153-781-000	SLEEVE	(1)
38		WP-1502500-SC	WASHER 15X24X2.5	(1)
39	#01	SS-7151210-SP	SCREW 15/64-28 L=12	2
40	#01	B7159-781-000	SHIFTER TENSION SPRING	1
41		261-01253	SHIFTER BASE ASM.	1
42		261-01204	SHIFTER BASE	(1)
43		NS-6150310-SP	NUT 15/64-28	(1)
44		261-02004	SHIFTER CAM SPRING	(1)
45		NS-6160520-SP	NUT 1/4-24	(2)
46		261-02202	SHIFTER TENSION SPRING	(1)
47		261-01402	SHIFTER DRIVING ARM	(1)
48		261-02509	SHIFTER DRIVING ARM SCREW	(3)
49		261-02103	SHIFTER CAM ROLLER STUD	(1)
50		261-02301	SHIFTER CAM ROLLER	(1)
51		SS-6090610-TP	SCREW 1/8-44 L=6	(1)
52		261-01600	SHIFTER INSTALLING PLATE	(1)
53		SD-0790802-SP	HINGE SCREW D= 7.64 H= 8.0	(2)
54		261-01501	SHIFTER HOLDING ARM	(1)
55		261-01709	SPEED TRANSMITTER SHIFTER	(1)
56		SS-7161040-SP	SCREW 1/4-24 L= 9.5	(2)
57		261-01303	SHIFTER PIN	(1)
58		NS-6150430-SP	NUT 15/64-28	(1)
59		261-01606	SHIFTER CAM INSTALLING BASE	(1)
60		SS-7110910-SP	SCREW 11/64-40 L=8.5	(1)
61		261-01907	SHIFTER CAM	(2)
62		261-02400	SHIFTER CAM SUSPENSION	(1)
		NOTE	#01...ACCESSORY PARTS	

18. MOTOR PULLEY COMPONENTS



REF.NO	NOTE	PART NO	D E S C R I P T I O N	Qty
1		MT-LMS000000	MOUNTING BOLT 5/16-18 L=70	4
2		B7109-771-000	SPACER	4
3		400-09401	MOTOR BASE PLATE	1
4		WP-050002-SC	WASHER 8.5X16X1.6	4
5		NS-6200520-SP	HEXAGONAL NUT 5/16-18	8
6	#01	400-09397	MOTOR PULLEY FOR 50HZ 3000SPM	1
7	#01	400-09398	MOTOR PULLEY FOR 60HZ 3000SPM	1
8	#01	400-09415	MOTOR PULLEY FOR 50HZ 3300SPM	1
9	#01	B7257-781-000-A	MOTOR PULLEY FOR 60HZ 3300SPM	1
10		SS-8150710-SP	SCREW 15/64-28 L=7	2
11	#01	MT-J-VM004200	V-BELT 42INCH	1
12	#01	MT-J-VM004300	V-BELT 43INCH	1
13	#01	MT-J-VM004400	V-BELT 44INCH	1
14	#01	B7252-781-000	BELT	1
15		NM-6060001-SE	NUT M6X1 TYPE1	4
16		WS-0621210-KR	SPRING WASHER 6.2X11.4X1.2	4
17		WP-0621016-SD	WASHER 6.2X13X1	8
18		SMA-9062503-SB	SCREW M6 L=25	4
	NOTE		#01.....SPECIAL ORDER PARTS	

19. THREAD STAND COMPONENTS



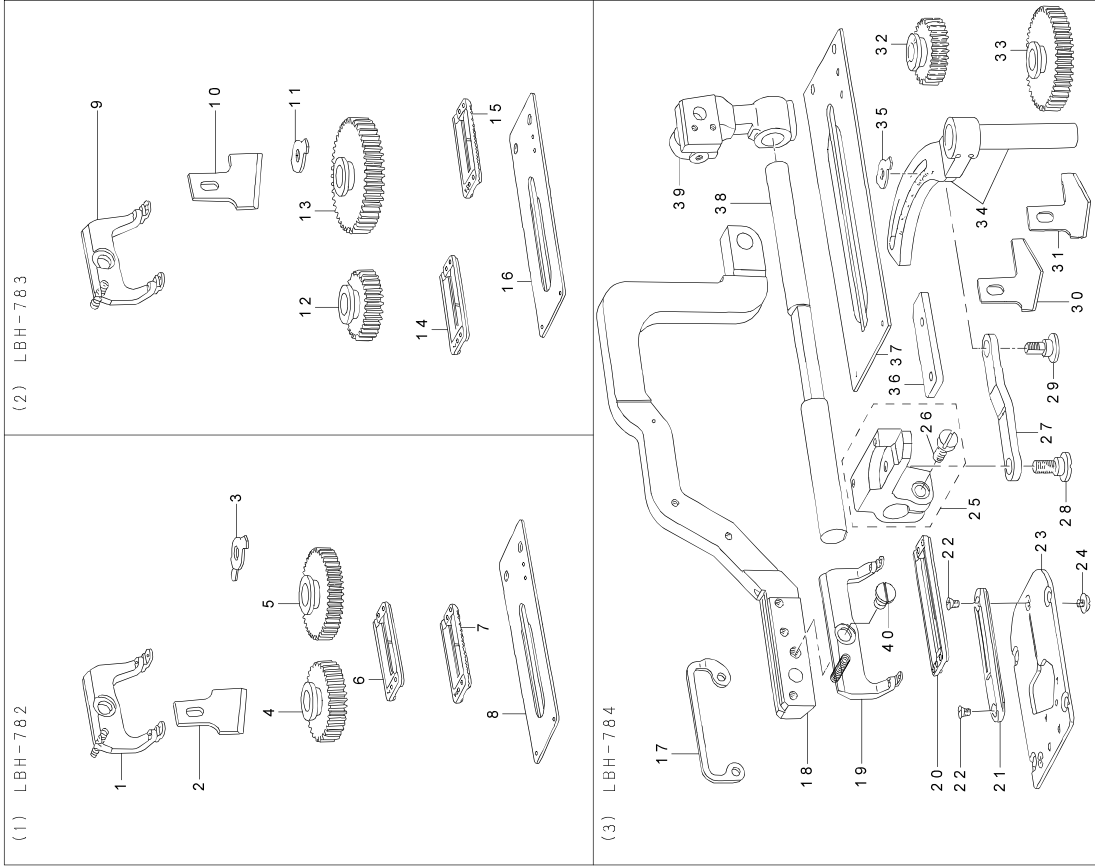
REF.NO	NOTE	PART NO	D E S C R I P T I O N	Qty
1		400-96354	THREAD STAND ASM.	1
2		400-85784	SPOOL REST ROD LOWER	(1)
3		400-85785	SPOOL REST ROD UPPER	(1)
4		400-85786	SPOOL REST ARM LOWER	(1)
5		400-85787	SPOOL REST ARM UPPER	(1)
6		400-85788	SPOOL REST	(2)
7		400-85789	SPOOL REST CUSHION	(2)
8		400-85790	SPOOL PIN	(2)
9		400-85791	SPOOL RETAINER	(2)
10		400-85792	SPOOL REST ROD JOINT	(1)
11		400-85793	SPOOL REST ROD RUBBER CAP	(1)
12		400-85794	THREAD GUIDE	(2)
13		400-85795	THREAD GUIDE BUSHING	(2)
14		400-96325	SPOOL REST ROD NUT	(1)
15		WP-1612816-SE	WASHER 16X30X2.6	(2)
16		400-85796	SPOOL REST ROD RUBBER CUSHION	(2)
17		400-96326	SPOOL REST ARM LOWER SCREW	(1)
18		NM-6050001-SE	NUT M5	(2)
19		400-96327	SPOOL REST ARM UPPER SCREW	(1)
20		NM-6050001-SE	NUT M5	(2)
21		WS-0510002-KN	SPRING WASHER M5	(2)
22		WP-0531001-SC	WASHER M5	(2)
23		SM-4051405-SE	SCREW M5 L=14	(2)
24		NM-6050001-SE	NUT M5	(2)

20. EXCLUSIVE PARTS FOR LBH-782, LBH-783, LBH-784

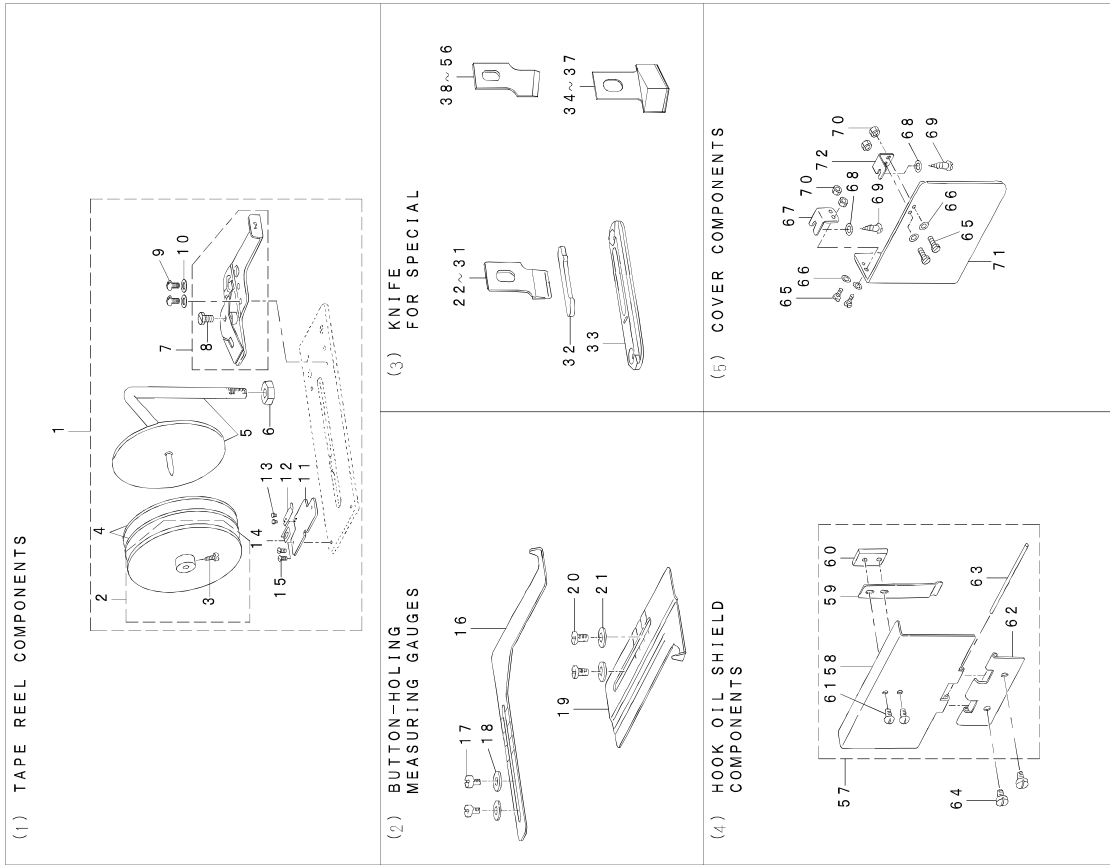
REF NO	NOTE	PART NO	DESCRIPTION	QTY
1		B151-772-0B0	WORK CLAMP CHECK HOLDER ASM.	1
2		B2702-047-000-A	KNIFE 1	1
3		B1608-772-000	LENGTH REGULATING SHAFT GUIDE	1
4		B2330-761-000	SPUR GEAR (100)	1
5		B2330-761-000	SPUR GEAR (160)	1
6	#01	B1608-772-000	WORK CLAMP CHECK (2)	1
7	#01	B1613-771-000-A	WORK CLAMP CARRIER (2A)	1
8	#01	B1511-773-0B0	WORK CLAMP CHECK HOLDER ASM.	1
9		B2702-047-000-A	KNIFE 1-1/4"	1
10		B1608-761-000	LENGTH REGULATING SHAFT GUIDE	1
11		B2946-761-000	SPUR GEAR (88)	1
12		B2946-761-000	SPUR GEAR (212)	1
13		B1552-783-000	WORK CLAMP CHECK 3	1
14		B1608-773-000	WORK CLAMP CHECK (3A)	1
15	#01	B1613-771-000-A	WORK CLAMP CARRIER	1
16	#01	B1513-774-000	WORK CLAMP BRACKET	1
17		B1551-784-000-A	WORK CLAMP ARM (4)	1
18		B1511-774-0A0	WORK CLAMP CHECK HOLDER ASM.	1
19		B1608-774-000	WORK CLAMP CHECK	1
20		B2302-774-000	THROAT PLATE	1
21		SS-2090693-SP	SCREW 9/64-40 L= 4.8	2
22		B2401-774-0A0	THROAT PLATE BASE ASM.	1
23		SS-5090320-SP	SCREW 9/64-40 L= 3.2	1
24		B1611-774-0A0	WORK CLAMP ARM BRACKET ASM.	1
25		SS-6151440-SP	SCREW 1/8-28 L=14	1
26		B1608-774-000	WORK CLAMP CARRIER PITMAN	1
27		SD-0870401-SP	HINGE SCREW D= 8.73 H= 4	1
28		B1605-774-000	FEED ADJUSTING SHAFT	1
29		B2745-774-00B-A	KNIFE 1-1/2"	1
30		B2745-774-00B-A	KNIFE 1-3/8"	1
31		B2944-761-000	SPUR GEAR (74)	1
32		B2945-761-000	SPUR GEAR 232	1
33		B1608-774-0A0	LENGTH REGULATING ARM ASM.	1
34		B1613-771-000	LENGTH REGULATING SHAFT GUIDE	1
35		B1613-774-000	WORK CLAMP ARM BRACKET GUIDE	1
36		400-69447	WORK CLAMP CARRIER (4)	1
37		B1608-774-000	WORK CLAMP ARM SLIDE ROD	1
38		B1516-774-000	WORK CLAMP ARM BEARING BRACKET	1
39		SD-0790203-SP	HINGE SCREW D=7.94 H=2	1
40	NOTE			1

#01 ..... SPECIAL ORDER PARTS FOR LIGHT WEIGHT KNIT MATERIALS. (PLEASE USE THE WORK CLAMP CHECK AND THE WORK CLAMP CARRIER TOGETHER AS A PAIR.)

ALL PARTS OTHER THAN THE ABOVE ARE SAME AS THESE USED IN MODEL LBH-781.



21. SPECIAL ORDER PARTS



REFNO	NOTE	PART NO	DESCRIPTION	QTY
1		B9201-761-0A0	REINFORCING TAPE ATTACHMENT ASM.	1
2		B9204-047-0A0	TAPE ATTACHMENT SUPPORT PLATE ASM.	(1)
3		SS-4090810-SF	SCREW 9/64-40 L=8	(1)
4		B9205-047-000	ADJUSTING FELT	(2)
5		B9201-761-0B0	REINFORCING TAPE ATTACHMENT ASM.	(1)
6		NS-6709540-SF	NUT 5/16-24	(1)
7		B9202-761-0A0	TAPE GUIDE PLATE ASM.	(1)
8		SCREW 11/64-40 L= 6.5	SCREW 11/64-40 L= 6.5	(1)
9		SS-7090510-SF	SCREW 9/64-40 L= 4.6	(2)
10		WP-0450000-SD	WASHER 4.5X8X0.5	(2)
11		B9206-761-000	TAPE RETAINER	(1)
12		B9207-761-000	TAPE RETAINER SPRING	(1)
13		SS-6060210-SF	SCREW 3/32-55 L= 1.9	(2)
14		B9205-761-000	SPACER FOR TAPE RETAINER	(1)
15		SS-5060410-SF	SCREW 3/32-56 L=3.5	(1)
16		B9402-771-000	MEASURING GAUGE, CROSSWISE	(2)
17		SS-6110610-TP	SCREW 11/64-40 L=6	2
18		WP-0501016-SD	WASHER 5X10.5X1	2
19		B9401-761-000	DISTANCE MEASURING GAUGE	2
20		SS-7110340-SF	SCREW 11/64-40 L=7.8	2
21		WP-0501016-SD	WASHER 5X10.5X1	2
22	#01	B2746-771-H00	KNIFE 1/4(FLUOROCARBON)	1
23	#01	B2746-771-H00	KNIFE 3/8(FLUOROCARBON)	1
24	#01	B2746-771-L00	KNIFE 1/2	1
25	#01	B2746-771-L00	KNIFE 5/8"	1
26	#01	B2746-771-N00	KNIFE 3/4"	1
27	#01	B2746-771-P00	KNIFE 7/8(FLUOROCARBON)	1
28	#01	B2746-771-Q00	KNIFE 1"	1
29	#01	B2746-771-R00	KNIFE 1-1/8(FLUOROCARBON)	1
30	#01	B2746-771-S00	KNIFE 1-1/4"	1
31	#01	B2746-771-T00	KNIFE 9/16" (FLUOROCARBON)	1
32	#01	B2746-771-U00	KNIFE GUARD	1
33	#02	B2402-771-00B	THROAT PLATE (FLUOROCARBON)	1
34	#02	B2746-771-P0B	KNIFE 7/8"	1
35	#02	B2746-771-Q0B	KNIFE 1"	1
36	#02	B2746-771-R0B	KNIFE 1-1/8	1
37	#02	B2746-771-S0B	KNIFE 1-1/4	1
38	#02	B2702-047-F00	KNIFE 1/4"	1
39	#02	B2702-047-K00-A	KNIFE 3/8	1
40	#02	B2702-047-I00	KNIFE (7/16)	2
41		B2702-047-L0A	KNIFE (1/2)	1
42		B2702-047-L00-A	KNIFE 1/2	1
43		B2702-047-V0B	KNIFE 14	1
44		B2702-047-V00	KNIFE 9/16"	1
45		B2702-047-M0A	KNIFE (5/8)	1
46		B2702-047-M00-A	KNIFE 5/8	1
47		B2702-047-A00	KNIFE 11/16	1
48		B2702-047-N0A	KNIFE 3/4"	1
49		B2702-047-N00	KNIFE 3/4"	1
50		B2702-047-C00	KNIFE 13/16	1
51		B2702-047-P00	KNIFE 7/8"	1
52		B2702-047-Q00-A	KNIFE 1	1
53		B2702-047-R00	KNIFE 1-1/8	1
54		B2702-047-S0A	KNIFE 1-1/4	1
55		B2702-047-S00-A	KNIFE 1-1/4"	1
56		B2702-047-U00	KNIFE (1-1/2)	1
57		B1157-771-0A0	HOOK OIL SHIELD ASM.	1
58		B1157-771-000	HOOK OIL SHIELD	(1)
59		B1158-771-000	HOOK OIL SHIELD SPRING	(1)
60		B1159-771-000	SPRING SET PLATE	(1)
61		SS-5090610-SF	SCREW 9/64-40 L=6	(2)
62		B1161-771-000	HOOK OIL SHIELD HINGE	(1)
63		B1160-771-000	HINGE PIN	(1)
64		SS-7110510-SF	SCREW 11/64-40 L=5	2
65		SS-7110710-SF	SCREW 11/64-40 L=7	2
66		WP-0480865-SF	WASHER 4.8X8.8X0.8	4
67		B272-781-000	COVER MOUNTING BRACKET B	1
68		WP-0501016-SC	COVER MOUNTING BRACKET B	2
69		SK-3452000-SE	WOOD SCREW D=4.5 L=20	2
70		NS-6110310-SF	NUT 11/64-40	4
71		B272-781-000	SPEED TRANSMITTER COVER	1
72		262-36703	COVER MOUNTING BRACKET C	1

NOTE  
 #01.....FOR FLUOROCARBON  
 #02.....FOR HEAVY WEIGHT MATERIALS

22. EXCHANGING PARTS

(1) TABLE OF CHANGING GEARS

1. Small gear				2. Large gear			
Set	Stitch No.	Part No.	Stitch No.	Part No.	Stitch No.	Part No.	
A	54	B2936-761-000	345	B2937-761-000	16	B2937-761-000	
B	62	B2938-761-000	300	B2939-761-000	17	B2939-761-000	
C	66	B2940-761-000	285	B2941-761-000	18	B2941-761-000	
D	70	B2942-761-000	268	B2943-761-000	19	B2943-761-000	
E	74	B2944-761-000	252	B2945-761-000	20	B2945-761-000	
F	79	B2946-761-000	238	B2947-761-000	21	B2947-761-000	
G	83	B2948-761-000	225	B2949-761-000	22	B2949-761-000	
H	88	B2948-761-000	212	B2949-761-000	23	B2949-761-000	
I	93	B2950-761-000	200	B2951-761-000	24	B2951-761-000	
J	100	B2930-761-000	190	B2931-761-000	25	B2931-761-000	
K	105	B2952-761-000	180	B2953-761-000	26	B2953-761-000	
L	110	B2932-761-000	170	B2933-761-000	27	B2933-761-000	
M	115	B2954-761-000	160	B2955-761-000	28	B2955-761-000	
N	123	B2934-761-000	152	B2935-761-000	29	B2935-761-000	
O	130	B2956-761-000	145	B2957-761-000	30	B2957-761-000	

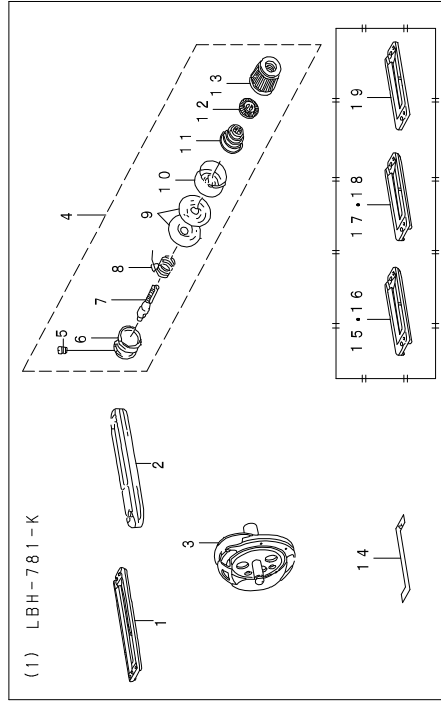
(2) TABLE SHOWING PARTS USED IN CONNECTION WITH KNIVES

Size (mm)	Knife		Work clamp check		Throat plate	
	No	Part No.	No	Part No.	No	Part No.
1/4" (6.35)	31	B2702-047-F00				
3/8" (9.53)	32	B2702-047-K00-A				
1/2" (12.7)	33	B2702-047-L00-A				
9/16" (14.29)	34	B2702-047-Y00	42	B1552-781-000-A		
5/8" (15.88)	35	B2702-047-M00-A			46	B2402-771-000
3/4" (19.05)	36	B2702-047-N00				
7/8" (22.23)	37	B2702-047-P00				
1" (25.4)	38	B2702-047-Q00-A	43	B1552-782-000		
1-1/4" (31.75)	39	B2702-047-S00-A	44	B1552-783-000		
1-3/8" (34.9)	40	B2745-774-00A-A	45	B1552-784-000	47	B2402-774-000
1-1/2" (38.1)	41	B2745-774-00B-A				

Note Standard metal machine is used as the standard for work clamp check and throat plate.

REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		B2936-761-000	SPUR GEAR (54)	1
2		B2938-761-000	SPUR GEAR (62)	1
3		B2940-761-000	SPUR GEAR (66)	1
4		B2942-761-000	SPUR GEAR (70)	1
5		B2944-761-000	SPUR GEAR (74)	1
6		B2946-761-000	SPUR GEAR (79)	1
7		B2948-761-000	SPUR GEAR (83)	1
8		B2948-761-000	SPUR GEAR (88)	1
9		B2950-761-000	SPUR GEAR (93)	1
10		B2930-761-000	SPUR GEAR (100)	1
11		B2952-761-000	SPUR GEAR (105)	1
12		B2932-761-000	SPUR GEAR (110)	1
13		B2934-761-000	SPUR GEAR (115)	1
14		B2934-761-000	SPUR GEAR (123)	1
15		B2956-761-000	SPUR GEAR (130)	1
16		B2937-761-000	SPUR GEAR (130)	1
17		B2939-761-000	SPUR GEAR (300)	1
18		B2941-761-000	SPUR GEAR (285)	1
19		B2943-761-000	SPUR GEAR (268)	1
20		B2945-761-000	SPUR GEAR (252)	1
21		B2947-761-000	SPUR GEAR (238)	1
22		B2949-761-000	SPUR GEAR (225)	1
23		B2951-761-000	SPUR GEAR (200)	1
24		B2931-761-000	SPUR GEAR (190)	1
25		B2953-761-000	SPUR GEAR (180)	1
26		B2953-761-000	SPUR GEAR (180)	1
27		B2933-761-000	SPUR GEAR (170)	1
28		B2955-761-000	SPUR GEAR (160)	1
29		B2955-761-000	SPUR GEAR (152)	1
30		B2957-761-000	SPUR GEAR (145)	1
31		B2702-047-F00	KNIFE 1/4"	1
32		B2702-047-F00A	KNIFE 3/8"	1
33		B2702-047-L00-A	KNIFE 1/2"	1
34		B2702-047-N00	KNIFE 9/16"	1
35		B2702-047-M00-A	KNIFE 3/4"	1
36		B2702-047-P00	KNIFE 7/8"	1
37		B2702-047-Q00-A	KNIFE 1"	1
38		B2702-047-S00-A	KNIFE 1-1/4"	1
39		B2745-774-00A-A	KNIFE 1-3/8"	1
40		B2745-774-00B-A	KNIFE 1-1/2"	1
41		B1552-781-000-A	PRESSER	1
42		B1552-782-000	WORK CLAMP CHECK, 2	1
43		B1552-783-000	WORK CLAMP CHECK, 3	1
44		B1552-784-000	WORK CLAMP CHECK	1
45		B2402-771-000	NEEDLE PLATE	1
46		B2402-774-000	THROAT PLATE	1
47				1

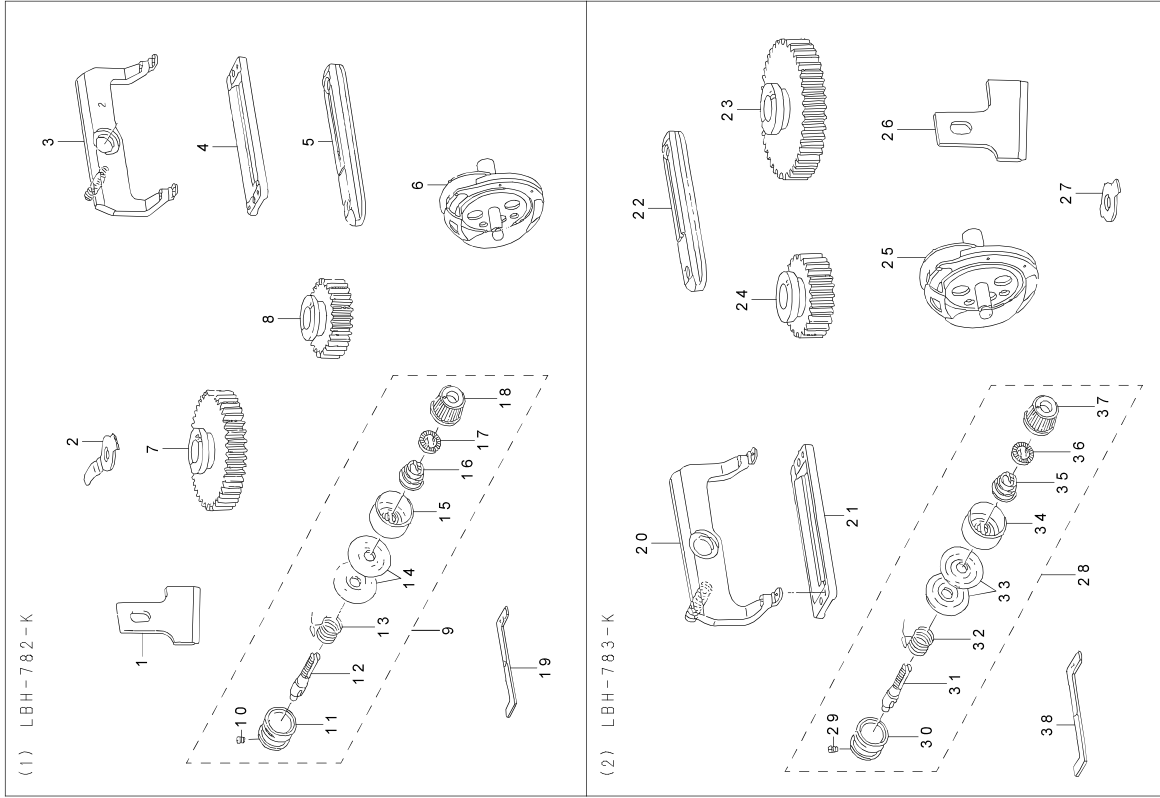
23. EXCLUSIVE PARTS FOR LBH-781-K



REF NO	NOTE	PART NO	DESCRIPTION	QTY
1		D1508-771-K03-A	LATCH WORK CLAMP CHECK	1
2		D2402-772-K00	NEEDLE PLATE 2K	1
3		B1808-761-QAB	HOOK ASM.	1
4		D3110-727-A0	THREAD TENSION NO. 3 ASM. K	1
5		D3110-727-A0	SPRING PLATE	(1)
6		B3112-771-000	TENSION POST SCREW	(1)
7		B3111-761-000	TENSION POST NO. 3	(1)
8		B3112-761-000	THREAD TAKE-UP SPRING	(1)
9		B3126-012-000	THREAD TENSION DISK	(2)
10		B3107-604-000	THREAD TENSION DISK PRESSER	(1)
11		B3128-012-A00	TENSION SPRING	(1)
12		B3120-125-000	ROTATING STOPPER	(1)
13		B3118-771-000	HOOK TENSION NUT	(1)
14		D8101-771-K00	HOOK TIMING GAUGE (K)	1
15	#01	D1508-771-K0C	WORK CLAMP CHECK 1/2"	1
16	#02	D1508-771-K0E	WORK CLAMP CHECK 3/8"	1
17	#03	D1508-771-K0F	WORK CLAMP CHECK 1/2"	1
18	#03	D1508-771-K0H	WORK CLAMP CHECK	1
19				1

NOTE  
 #01...SPECIAL ORDER PARTS FOR FLAT  
 #02...SPECIAL ORDER PARTS FOR  
 #03...UNEVEN THICKNESS

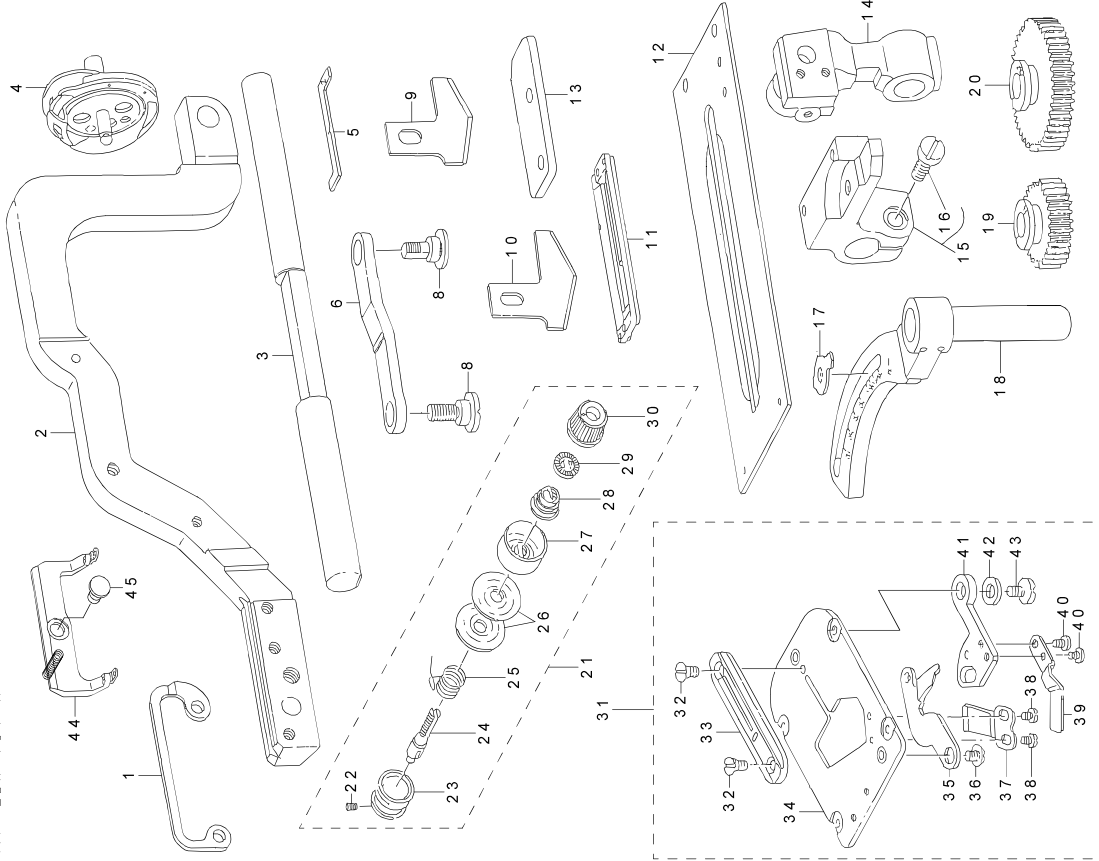
24. EXCLUSIVE PARTS FOR LBH-782-K, LBH-783-K



REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		B2702-047-Q00-A	KNIFE 1	1
2		B1608-772-000	LENGTH REGULATING SHAFT GUIDE	1
3		B1511-772-0B0	WORK CLAMP CHECK HOLDER ASM.	1
4		D1508-772-K00	WORK CLAMP CHECK (2K)	1
5		D2402-772-K00	NEEDLE PLATE 2K	1
6		B1808-761-QAB	HOOK ASM.	1
7		B2931-761-000	SPUR GEAR (180)	1
8		B2930-761-000	SPUR GEAR (100)	1
9		D3110-772-TA0	THREAD TENSION NO.3 ASM. K	1
10		SS-8090670-SP	SCREW, 9/64-40 L= 5.5	(1)
11		B3110-771-F000	TENSION POST SOCKET	(1)
12		B3111-761-000	TENSION POST NO.3	(1)
13		B3112-761-000	THREAD TAKE-UP SPRING	(1)
14		B3126-012-000	THREAD TENSION DISK	(2)
15		B3107-804-000	THREAD TENSION DISK PRESSER	(1)
16		B3129-012-K00	TENSION SPRING	(1)
17		B3120-125-000	ROTATING STOPPER	(1)
18		B3119-771-000	THREAD TENSION NUT	(1)
19		D9101-771-K00	HOOK TIMING GAUGE (K)	1
20		B1511-773-0B0	WORK CLAMP CHECK HOLDER ASM.	1
21		D1508-773-K00	WORK CLAMP CHECK (3K)	1
22		D2402-772-K00	NEEDLE PLATE 2K	1
23		B2949-761-000	SPUR GEAR (212)	1
24		B2948-761-000	SPUR GEAR (88)	1
25		B1808-761-QAB	HOOK ASM.	1
26		B2702-047-S00-A	KNIFE 1-1/4"	1
27		B1608-762-000	LENGTH REGULATING SHAFT GUIDE	1
28		D3110-772-TA0	THREAD TENSION NO.3 ASM. K	1
29		SS-8090670-SP	SCREW, 9/64-40 L= 5.5	(1)
30		B3110-771-000	TENSION POST SOCKET	(1)
31		B3111-761-000	TENSION POST NO.3	(1)
32		B3112-761-000	THREAD TAKE-UP SPRING	(1)
33		B3126-012-000	THREAD TENSION DISK	(1)
34		B3107-804-000	THREAD TENSION DISK PRESSER	(1)
35		B3129-012-K00	TENSION SPRING	(1)
36		B3120-125-000	ROTATING STOPPER	(1)
37		B3119-771-000	THREAD TENSION NUT	(1)
38		D9101-771-K00	HOOK TIMING GAUGE (K)	1

25. EXCLUSIVE PARTS FOR LBH-784-K

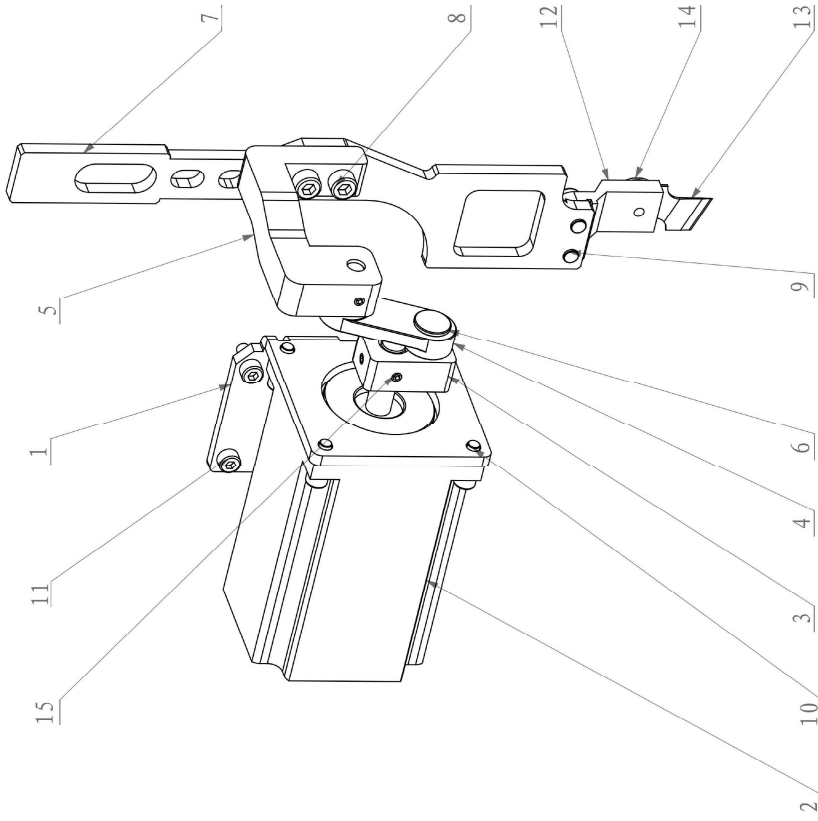
(1) LBH-784-K



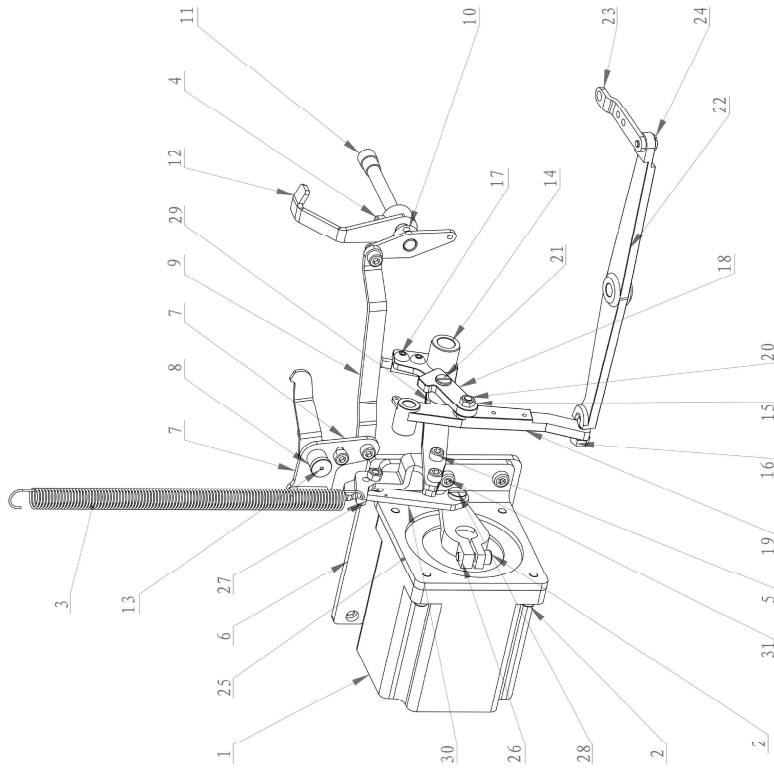
REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		B1513-774-000	WORK CLAMP BRACKET	1
2		B1551-784-000-A	WORK CLAMP ARM (4)	1
3		B1609-774-000	WORK CLAMP ARM SLIDE ROD	1
4		B1808-761-0AB	HOOK ASM.	1
5		D9101-771-K00	HOOK TIMING GAUGE (K)	1
6		B1606-774-000	WORK CLAMP CARRIER PITMAN	1
7		SP-0870401-SP	HINGE SCREW D= 8.73 H= 4	1
8		B1605-774-000	FEED ADJUSTING SHAFT	1
9		B2745-774-000-A	KNIFE 1-1/2"	1
10		B2745-774-000-A	KNIFE 1-3/8"	1
11		D1508-774-K00	WORK CLAMP CHECK K	1
12		400-09447	WORK CLAMP CARRIER (4)	1
13		B1612-774-000	WORK CLAMP ARM BRACKET GUIDE	1
14		B1516-774-000	WORK CLAMP ARM BEARING BRACKET	1
15		B1611-774-0A0	WORK CLAMP ARM BRACKET ASM.	1
16		SS-4151440-SP	SCREW 1/8x4-28 L=14	(1)
17		B1608-774-000	LENGTH REGULATING SHAFT GUIDE	1
18		B1603-774-0A0	LENGTH REGULATING ARM ASM.	1
19		B2944-761-000	SPUR GEAR (74)	1
20		B2945-761-000	SPUR GEAR 252	1
21		D3110-772-TA0	THREAD TENSION NO.3 ASM. K	(1)
22		SS-0090670-SP	SCREW 9/64-40 L= 5.5	(1)
23		B3110-771-000	TENSION POST SOCKET	(1)
24		B3110-761-000	TENSION POST SOCKET	(1)
25		B3112-761-000	THREAD TAKE-UP SPRING	(1)
26		B3126-012-000	THREAD TENSION DISK	(2)
27		B3107-804-000	THREAD TENSION DISK PRESSER	(1)
28		B3129-012-A00	TENSION SPRING	(1)
29		B3120-125-000	ROTATING STOPPER	(1)
30		B3119-771-000	THREAD TENSION NUT	(1)
31		D2401-774-KC0	NEEDLE PLATE ASM.	(1)
32		SS-2090530-SP	SCREW 9/64-40 L= 4.8	(2)
33		D2402-774-000	NEEDLE PLATE 4x	(1)
34		B2401-774-0A0	THROAT PLATE BASE ASM.	(1)
35		B2406-771-0A0	BOBBIN THREAD TRIMMER BLADE ASM.	(1)
36		SS-5090320-SP	SCREW 9/64-40 L= 3.2	(1)
37		B2408-771-000-A	COUNTER KNIFE	(1)
38		SS-4080310-SP	SCREW 1/8-44 L=3.4	(2)
39		B2405-771-000	BOBBIN THREAD PULLER	(1)
40		SS-6090440-SP	SCREW 9/64-40 L= 4.0	(2)
41		B2404-771-000	BOBBIN THREAD TRIMMER LEVER	(1)
42		WP-0451016-SP	WASHER 4.5X20X1	(1)
43		SS-5090320-SP	SCREW 9/64-40 L= 3.2	(1)
44		B1511-774-0A0	WORK CLAMP CHECK HOLDER ASM.	1
45		SD-0790203-SP	HINGE SCREW D=7.94 H=2	1

26. CUTTER STEP MOTOR

REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		3283	FIXED BRACKETS	1
2		60-020	STEP MOTOR	1
3		3281	ROTATE ARM	1
4		3282	ROTATE ARM	1
5		328	CONNECT BRIDGE	1
6		3284	ARM SCREW	1
7		B2702-771-000-A	KNIFE BAR	2
8		M5X12-N	FASTENER SCREWS HSHCS	1
9		M5X10-N	FASTENER SCREWS HSHCS	2
10		M4X12-N	FASTENER SCREWS HSHCS	2
11		M4X10-N	FASTENER SCREWS HSHCS	4
12		B2701-761-000	KNIFE HOLDER	3
13		B2702-047-LL00-A	KNIFE 1/2	1
14		781-DD-1015	KNIFE SCREWS	1
15		M4X5-N	FASTENER SCREWS HSHCS	4



27. FOOT LIFT STEP MOTOR



REF. NO	NOTE	PART NO	DESCRIPTION	QTY
1		T-86	STEP MOTOR	1
2		M5X16-N	FASTENER SCREWS HSHCS	5
3		781-DD-1039	STEP MOTOR SPRING	1
4		M5X10-N	FASTENER SCREWS HSHCS	4
5		M5X8-N	FASTENER SCREWS HSHCS	2
6		T007	CONNECTING ROD	1
7		400-09256	STARTING LINK ASM.	1
8		400-09259	SAFETY BASE	1
9		400-09245	STARTING LINK DRIVING ROD	1
10		B3152-781-000	TENSION RELEASE LEVER	1
11		B3108-771-000	TENSION RELEASE LEVER SHAFT	1
12		B3116-771-000	TENSION RELEASE LEVER	1
13		SS-7110710-SP	SCREW 1/8x4-40 L/7	1
14		T022	MOTOR CONNECTION PARTS	1
15		M6-N	FASTENER NUT SNAB1	3
16		M6-N	FASTENER NUT SNAB1	1
17		M6X10-N	GB SOCKET TYPE 7	1
18		400-09211	CONNECTING LINK	2
19		400-09209	BOBBIN THREAD TRIMMER DRIVING ARM	1
20		T030	NUT	1
21		T031	SCREW	1
22		400-09210	BOBBIN THREAD TRIMMER DRIVING LEVER	1
23		T034	WORK CLAMP CARRIER PITMAN	1
24		T035	SCREW	1
25		T001-C	CONNECTING ROD	1
26		T036	ROTATE ARM	1
27		T038	SPRING CONNECTOR	1
28		SM15-64-28	CONNECTING ROD	1
29		T023	ROTATE ARM	1
30		T037	FRONT SWIVEL ARM	1
31		M6X10-N	HEXAGON_TYPE22 SCREW	2