使用说明书

Operation Manual

2000C

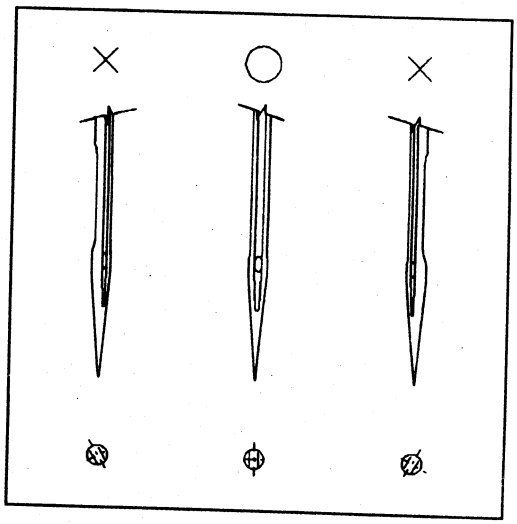
带切刀裤耳机

Earphones with cutting knife pants

目　　錄

[1] 車針和穿綫方法

1-1 車針



車針爲ORGAN或SCHMETZ生產的UY128GAS。
針的號數有多種，請根據所縫制布料的厚度及原料選擇適當的針。

<使用針和針的號數>（1701，1702EHD以外）

Schmetz	Nm75	Nm80	Nm90	Nm100	Nm110
Organ	#11	#12	#14	#16	#18

■ 1701EHD……DR2　　Nm200，#25
■ 1702EHD……UY143GS　　Nm200，#25

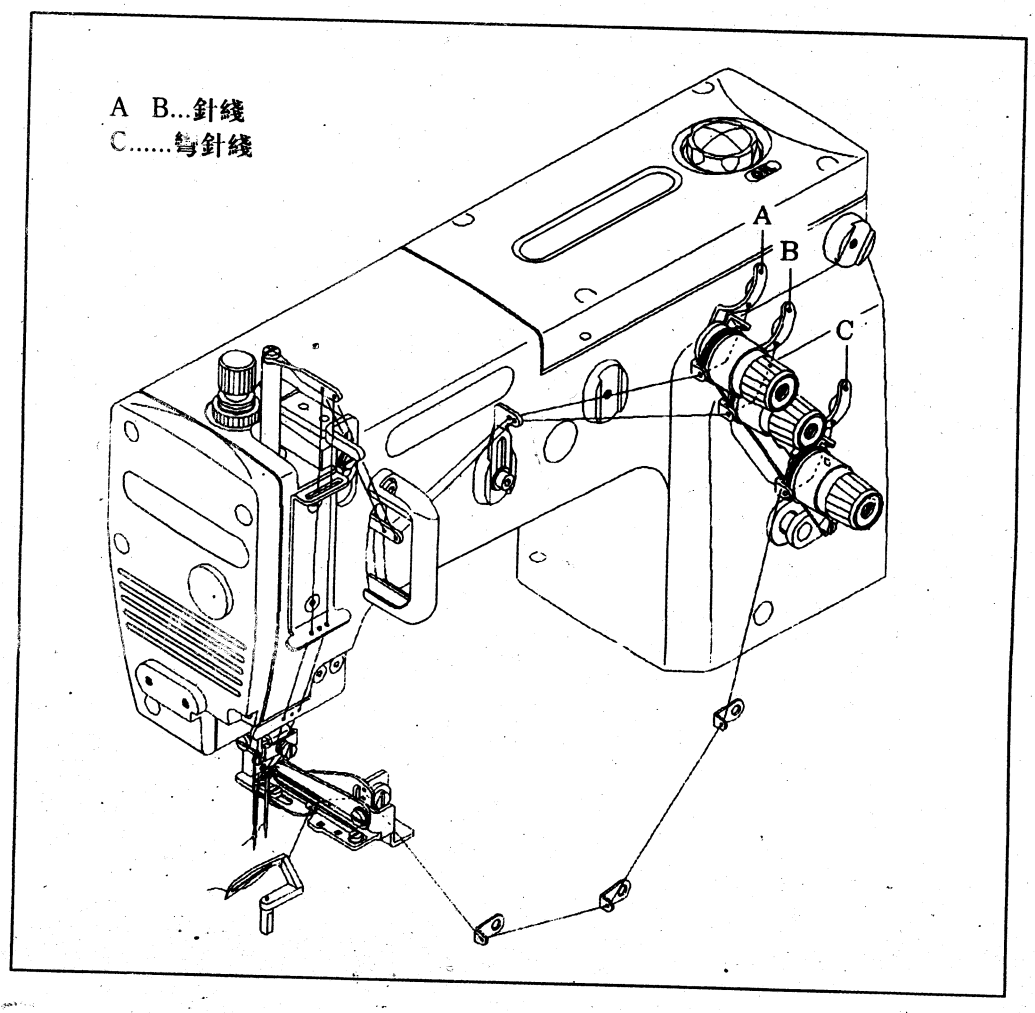
1-2 針的安裝方法

換針時，請確認針如左圖所示，針的缺彎(針槽)向着左側并進行安裝。

<注意>
換針時，必須切斷電源。使用離合電機時，即使切斷了電源，電機仍然會慣性旋轉。因此必須連續踩着脚踏板開關，直到縫紉機停止爲止。

1-3 穿綫的方法

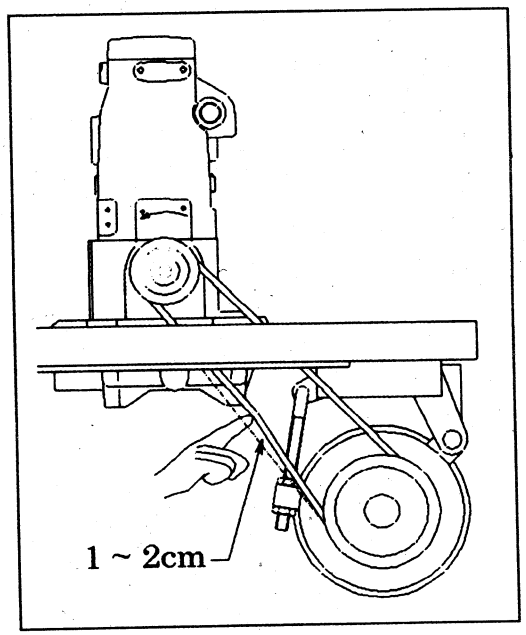
請參照下所圖示，正確穿綫。如果穿錯綫，會造成跳綫、斷綫和針脚不均勻等現象。



[2] 縫紉速度

2-1 縫紉速度與皮帶輪的運轉方向

本縫紉機的最高縫紉速度及常用縫紉速度如下表所示。
在使用新縫紉機時，最初的200個小時(大約1個月)采用最高縫紉速度的15~20%左右的低速運轉后，再采用常用縫紉速度，可延長機器使用的壽命。
皮帶輪的運轉方向如圖所示，從皮帶輪側面看，爲左運轉。



2-2 電機與皮帶

使用3相2極400W的離合電機和M型V形皮帶。
請從表中選用外徑符合縫紉機運轉數的電機皮帶輪。
如圖所示，調節電機的位置，用手指按V形皮帶的中間部位，直到有1~2cm的松弛度爲止。

＜縫紉速度表＞

機　型	最高縫紉速度	常用縫紉速度
P, PMD, B	4500SPM	4000SPM
BK, EHD, MLH	4000SPM	3500SPM

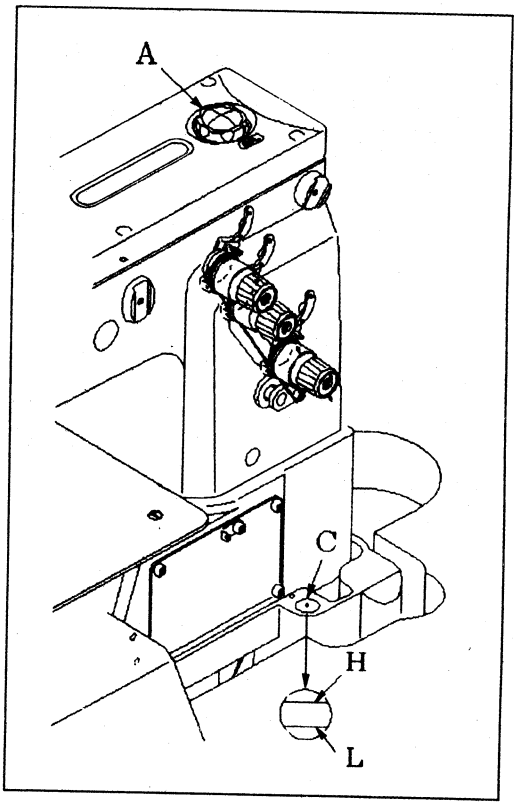
＜電機皮帶輪選擇表＞

電機皮帶輪的外徑 (mm)	縫紉機的運轉數(SPM)	
	50Hz	60Hz
70	2900	3450
80	3300	3900
90	3700	4400
100	4100	(4900)
110	4500	

[3] 縫紉機注油

3-1 使用的機油

請使用本公司SPECIAL純正機油。
(品號 28-611)



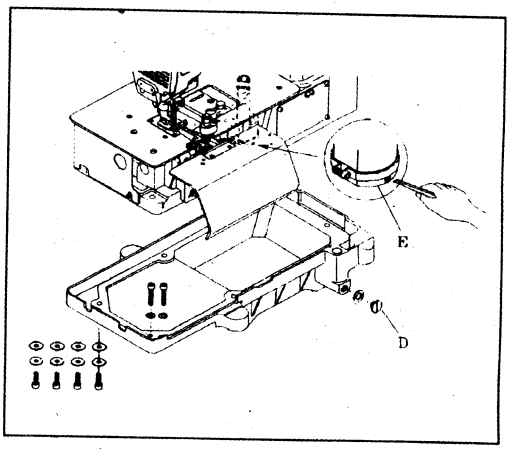
3 2 注油的方法

取下注油口的油鏡蓋A，向注油口灌注油直到油標C的上綫(圖示H)爲止。平常補充油時，請保持油面在H和L之間。
注油結束后，運轉縫紉機，確認機油有否噴到油面窗B處。

3-3 機油、油泵濾網的清掃

爲了延長和保證縫紉機的使用壽命，在新縫紉機使用250小時左右后，必須全部更換機油。
在更換機油時，請按照以下步驟進行:

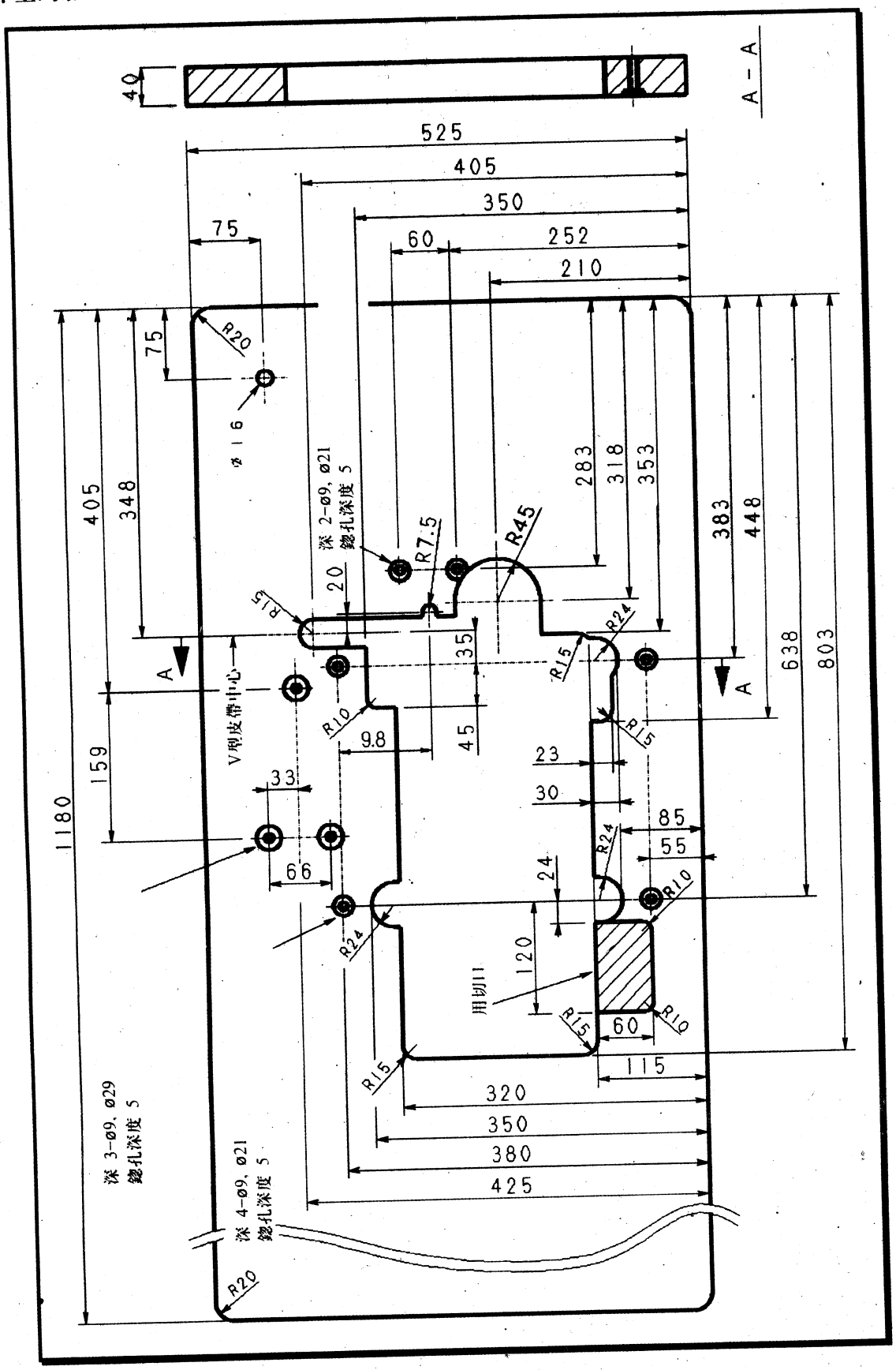
1. 把V形皮帶從電機皮帶輪上卸下來，然后從縫紉機臺上拆下縫紉機。
2. 取下排油螺釘D 排出機油。
   這時，確認V形皮帶没有沾到機油。
3. 排放完機油后，必須把螺釘D擰緊。
4. 按照前項3-2的步驟，給縫紉機注油。



此外，如果油泵濾網E塞滿污垢時，則不能進行正常的注油，故平常應每6個月清掃濾網一次。
雖然還有很多機油，而噴嘴噴不出油或噴出的油异常地少時，請進行檢查。
清掃時先取下油盤的定位螺釘，然后進行油泵濾網的清掃。

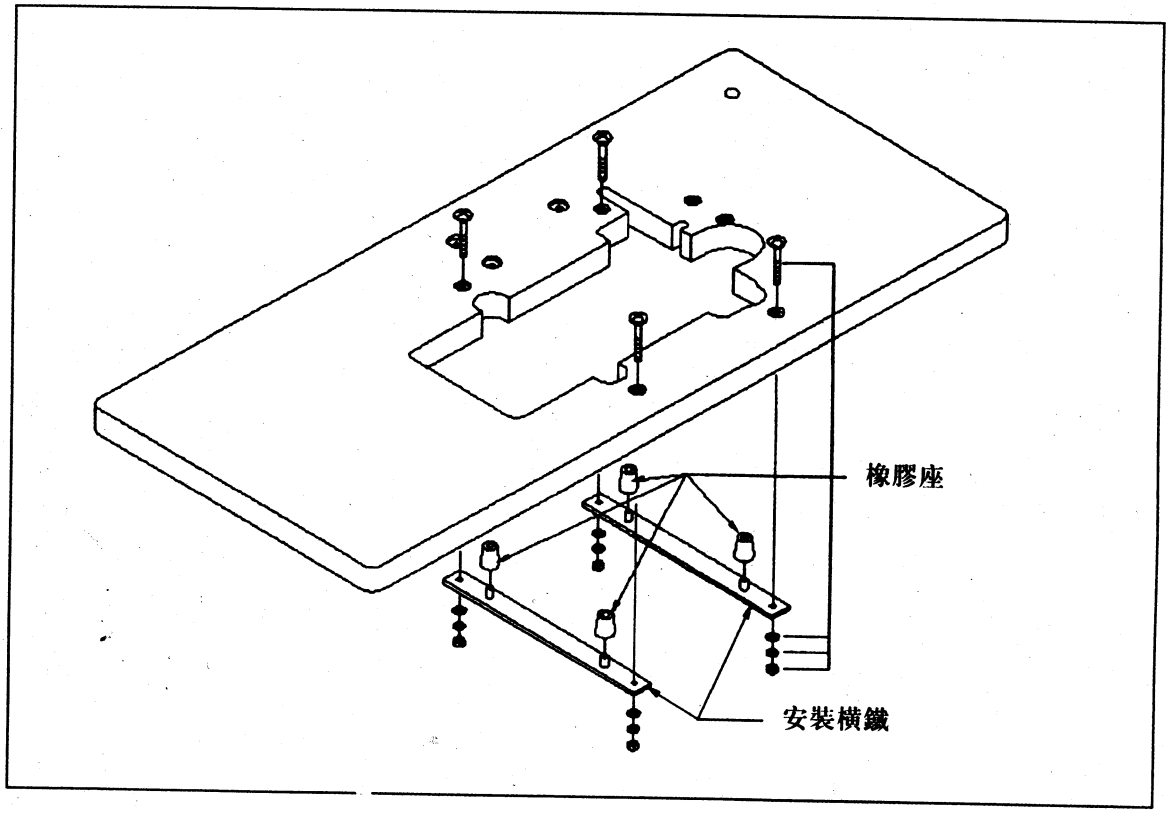
[4] 縫紉機的安裝

4-1 工作臺的加工



4-2 縫紉機的安裝

參考圖示，把橫鐵安裝在縫紉機工作臺上。然后把縫紉機平穩地安放在橡膠座上。



[5] 彎針與機針的同步調節

5-1 彎針的安裝角度和高度

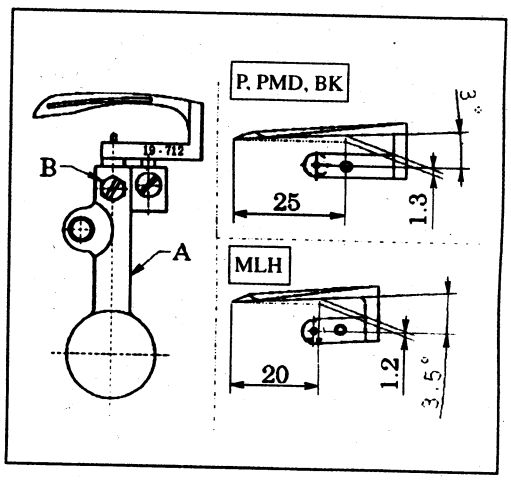
把彎針插入彎針臺座A的最裏面，然后擰緊定位螺釘B，這樣就可以確定彎針的角度和高度了。

P，PMD，B，BK系列的彎針角度爲3°。

25mm之間段差約爲1.3mm。

MLH爲3.5°在20mm之間段差約1.2mm。

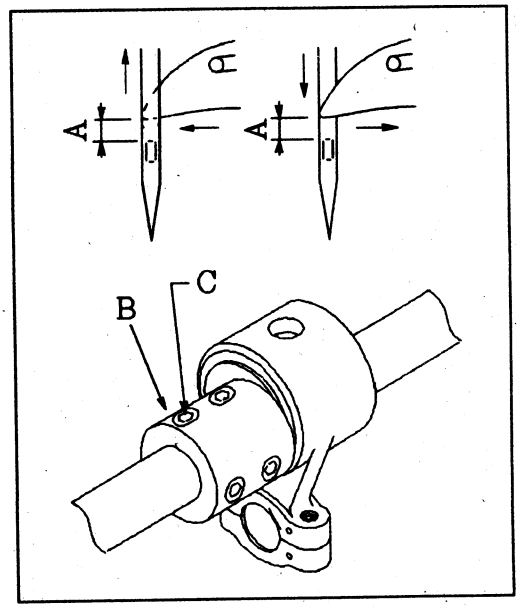
此外，EHD彎針角度爲0°。



5-2 彎針往返的運動同步調節

如右圖所示，進行調節，使無論彎針向左出去還是向右回來，左針左端從綫孔上端到彎針尖的距離都相同。

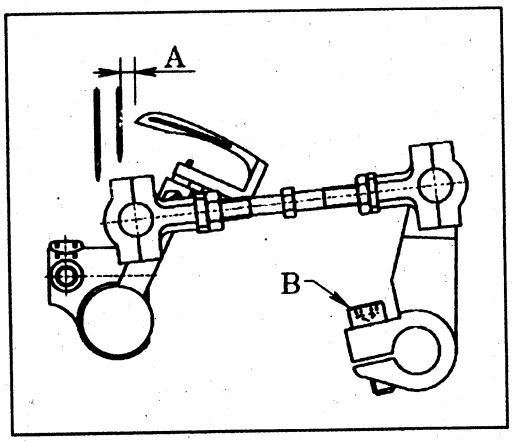
調節方法：取下縫紉機外殼，擰松擺動源偏心B的定位螺釘C(3根)，一邊固定住偏心一邊旋轉動輪，調節安裝位置。



5-3 彎針的擺動量

彎針的擺動量以彎針拉伸最遠時從彎針尖到右針的右端的尺寸A表示。機型或車針距型號不同，擺動量也不同。所以請參考下表。調節方法是擰松擺動源拉杆定位螺釘B進行。

機型(車針型號)	擺動量 A (mm)
P，PMD，MLH(1/8，5/32)	5.2
P，PMD，(3/16，7/32，1/4)	4.4
B，BK，PBK	4.0
EHD	5.0



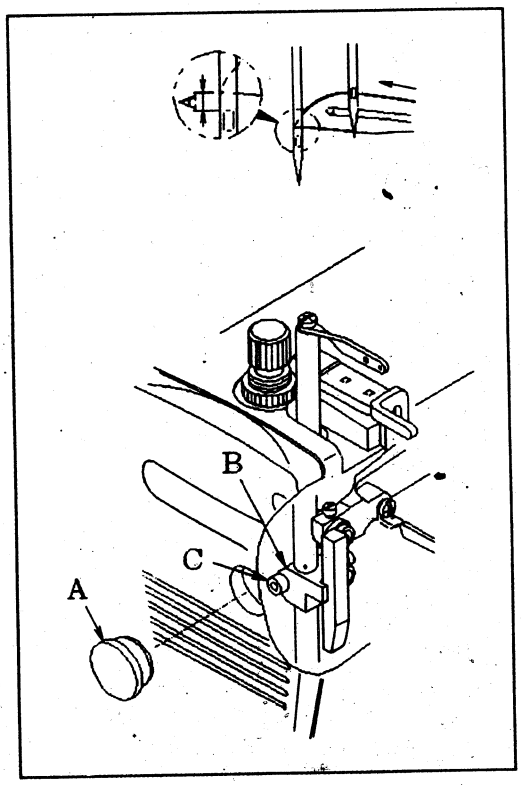
5-4 針杆的高度的調節

針杆的高度以在縫紉機運轉方向上，彎針尖穿過左針的左端時，從針背面的綫孔的上端到彎針尖的尺寸A表示。其尺寸因機型的不同而异，所以請參考下表。

調節方法是取下膠塞B，擰松針杆夾定位螺釘C，然后上下調節針杆。

<注意>
在調節針杆高度時，安裝針板后請確認各針都落在針孔的中心位置上。

機　型	A (mm)
P，PMD，MLH	1.2~1.5
B，BK，PBK	0~0.5
EHD	2~2.5

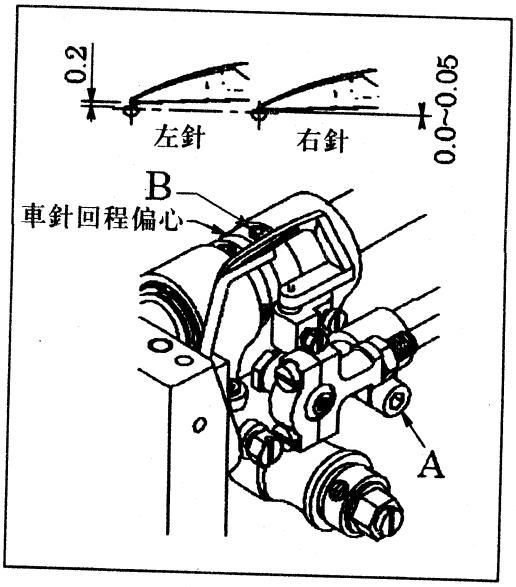


5-5 針與彎針的前后位置

擰松前后拉杆定位螺釘A進行調節，使彎針通過針背面時，右針與彎針之間的間隙爲0~0.05mm。

此外，擰松車針回程偏心定位螺釘B進行調節，使左針與彎針之間的間隙爲0.2mm。

當車針回程偏中心轉向前面時，間隙變小，轉向后面時，變大。



[6] 護針傍的前后調節

6-1 護針傍(后)的位置

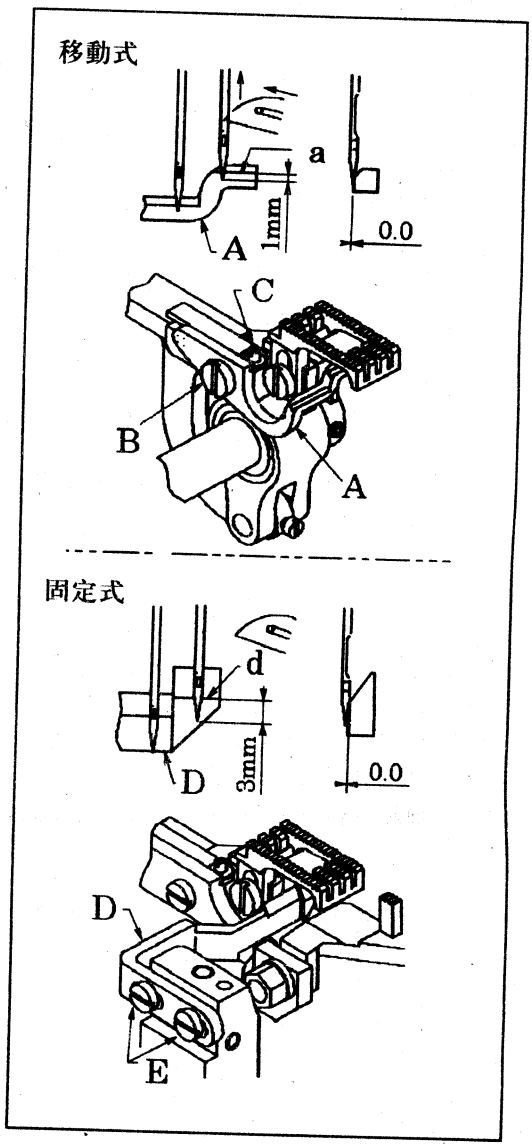
■ 移動式(BK，PBK以外)時

當彎針尖經過右針中心時，從針尖到護針傍A的綫a距離爲1mm(EHD約爲2mm)。此外，請把此時針與護針傍之間的間隙設爲0mm。

調節方法是擰松定位螺釘B，運轉調節螺釘C，上下前后移動護針傍進行調節。

■ 固定式(BK，PBK)時

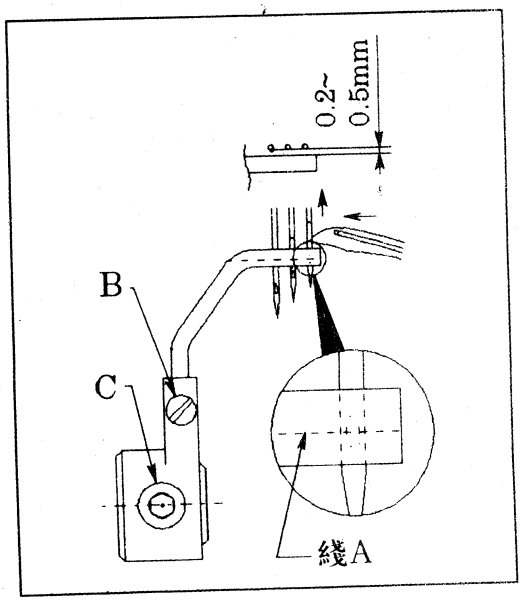
當針杆下降到最低時，右針尖到護針傍D的綫d的距離約爲3mm。此外，請把此時針與護針傍之間的間隙設爲0mm。調節方法是擰松定位螺釘E進行調節。



6-2 護針傍(前)的位置

擰松螺釘B進行調節，使彎針尖經過右針中心時，右針的針孔中心與護針傍(前)的綫A重叠，與車針平行。

此外，擰松螺釘C進行調節，使針與護針傍(前)的間隙爲0.2~0.5mm。



[7] 送布牙與針脚長度的調節

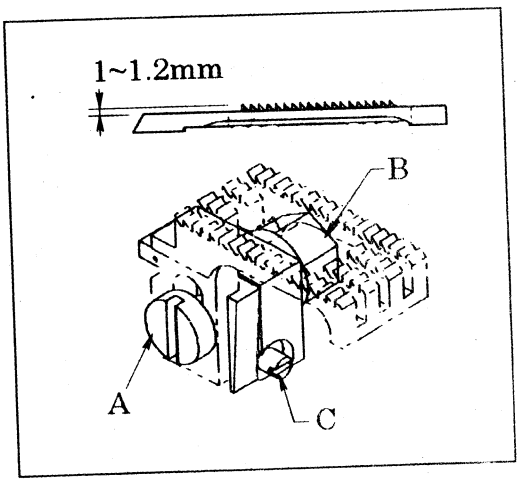
7-1 送布牙的高度與平行(傾斜)

■ 請把送布牙的高度設定爲當送布牙上升到最上部時的高度爲離針板上面1.0~1.2mm的位置。（EHD爲1.5mm）

調節方法：先擰松定位螺釘A然后進行調節。

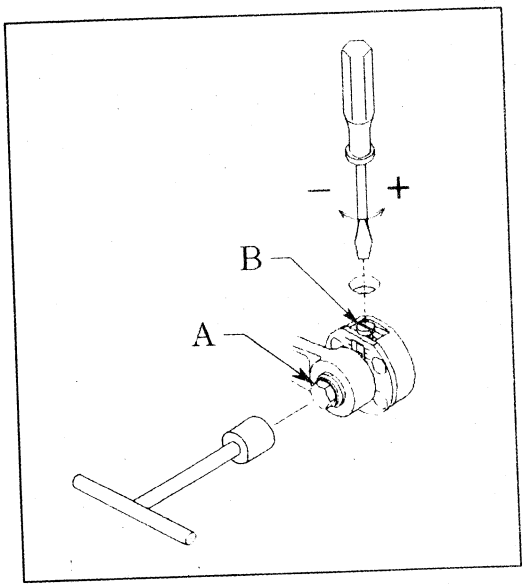
■ 當送布牙上升到最上部時的標准傾斜狀態是與針板上面平行。

調節方法：擰松螺母B，運轉調節螺釘C進行調節。



7-2 針脚長度的調節

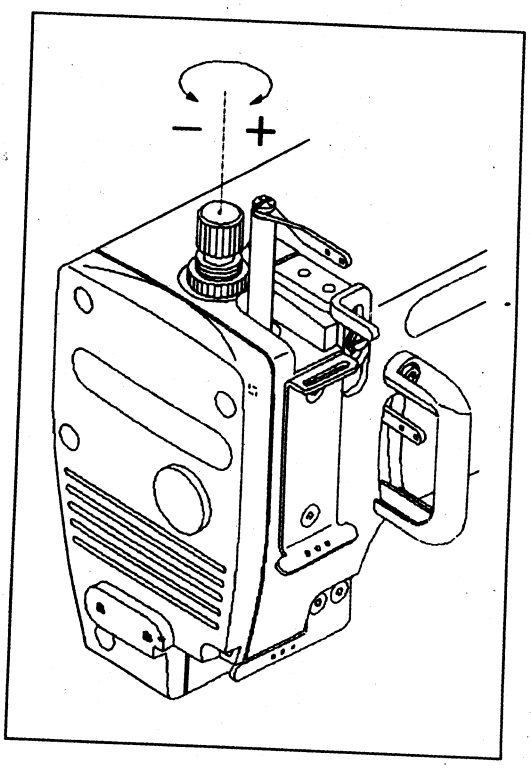
如圖所示，用9.5mm T型套管扳手擰松螺栓A(左螺紋)，旋轉螺釘B進行調節。向右旋轉時，針脚長度變小，向左旋轉時，針脚長度變大。



[8] 壓脚的調節

8-1 壓脚壓力的調節

在保證穩定的綫迹和穩定的送布運動前提下，盡可能壓力調小一些。如圖所示，按順時針方向轉動，壓力增加。



8-2 壓脚的位置和提升量

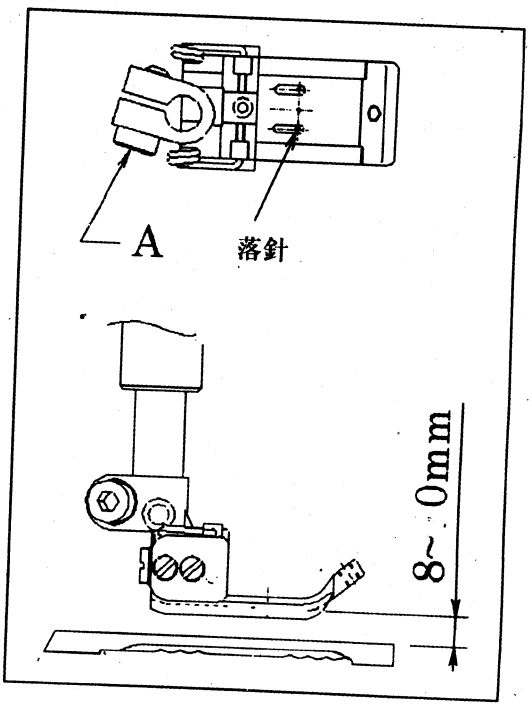
壓脚要正確地安裝在壓布杆上，并使針落在壓脚的落針孔的中心。

■ 壓脚的位置

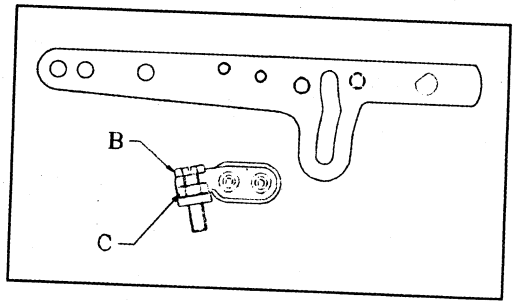
擰松定位螺釘A，一邊確認針是否落在壓脚的落針孔的中心，一邊左右移動壓脚進行調節。

■ 壓脚的提升量

離針板上表面8~10mm。



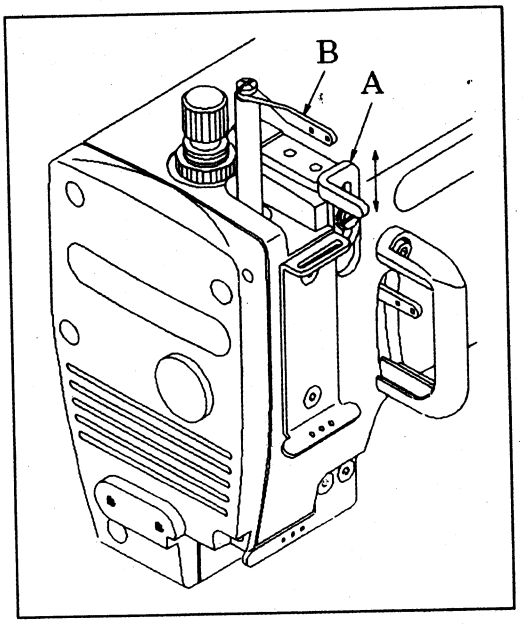
決定壓脚提升杆限位器B的位置，使壓脚提升杆不能下降過這個位置，然后用螺母C固定。



[9] 有關縫紉狀態的調節

9-1 上夾綫器的位置

當針杆在最下點時，針杆導綫器A的綫孔中心與上夾綫器B的上面在同一高度，而且A與B呈平行狀態爲標准狀態。擰松定位螺釘C，上下移動調節上夾綫器B的高度。向上移動時，針綫抽緊；向下移動時，針綫放松。

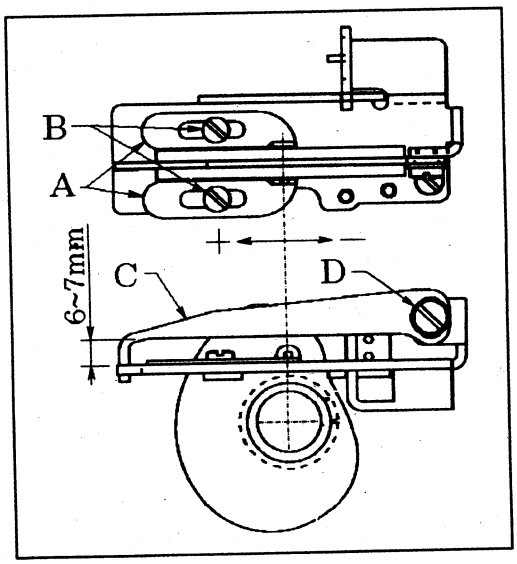


9-2 扇形過綫器的位置

過綫器A的安裝位置以綫孔在軸中心爲基准。

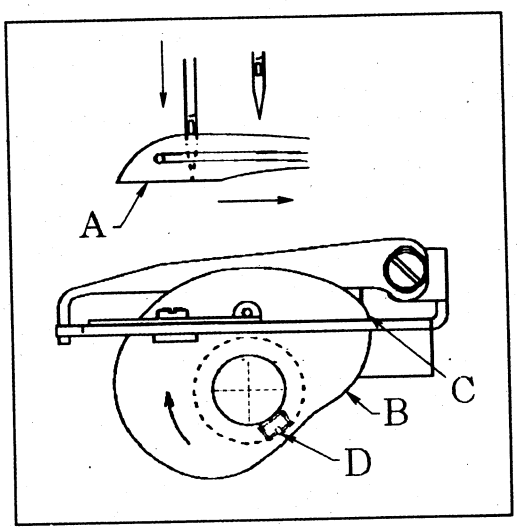
根據綫或布料等的使用條件的不同，在A綫孔的位置擰松螺釘B進行調節。向后移動時，縫紉綫的伸出量增多；向前移動時，縫紉綫伸出量減少。

然后，擰松螺釘D進行調節，使下绷綫C的位置離夾子臺上面6~7mm。



9-3 扇形過綫器的調節

用螺釘D進行調節，使彎針從最左的位置向右移動，針尖通過彎針下面A綫時，彎針綫不要碰到扇形過綫器B的最高位置C點，然后固定下來。



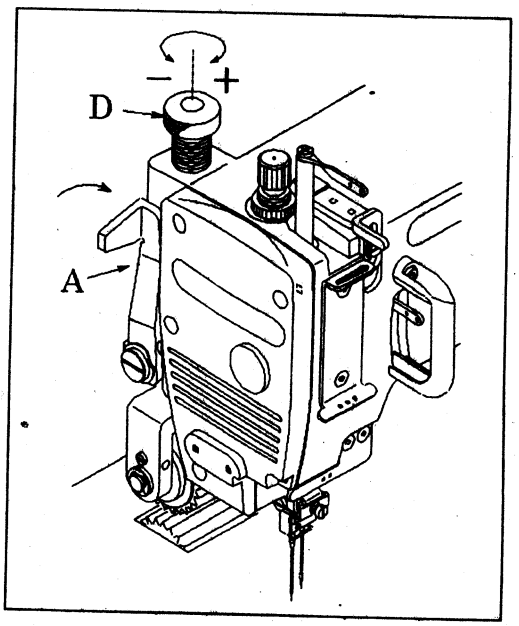
[10] 后拉料装置的調節

10-1 手動抬杆

當布料装機時或縫紉后、卸下布料時，請先提起手動抬杆A。

10-2 拉料器的壓脚壓力的調節

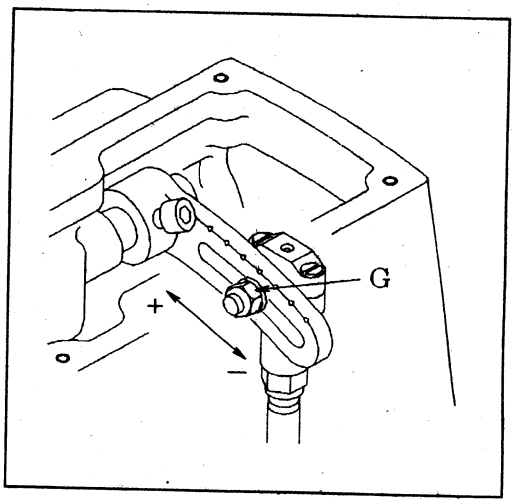
在可以順暢地推送布料的範圍内，盡量調低拉料器的壓布壓力。增大壓布壓力時，沿順時針方向旋轉調節螺釘D；减弱壓布壓力時，沿逆時針方向旋轉調節螺釘。



10-3送布量的調節

拉料器的送布量要配合送布牙的送布量。

調節方法：擰松螺母G，向左方向時，送布量增大，向右方向時，送布量變少。

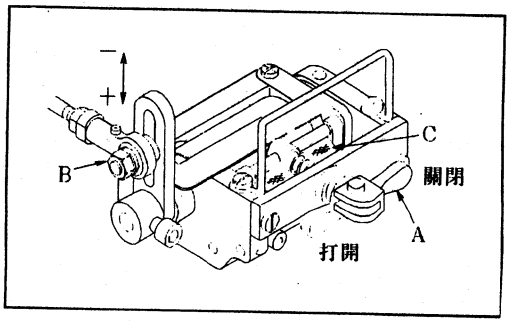


[11] 關于縫紉狀態的調節

11-1 松緊帶的安装方法與送布量的調節

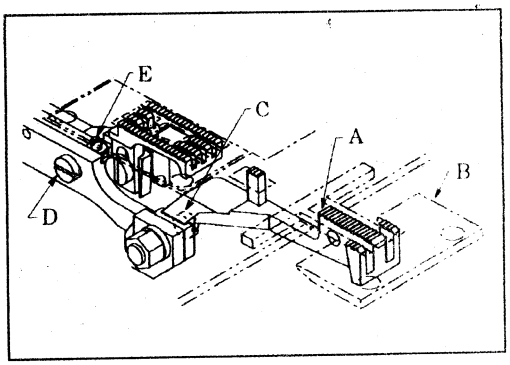
松緊帶的安装方法：如圖所示，通過用拉杆A開閉小滾輪C進行安装。拉料器的送布量要配合送布牙的送布量。

調節方法：擰松螺母B，向上方向時，送布量變少，向下方向時，送布量增大。



[12]BK 輔助推送裝置的調節

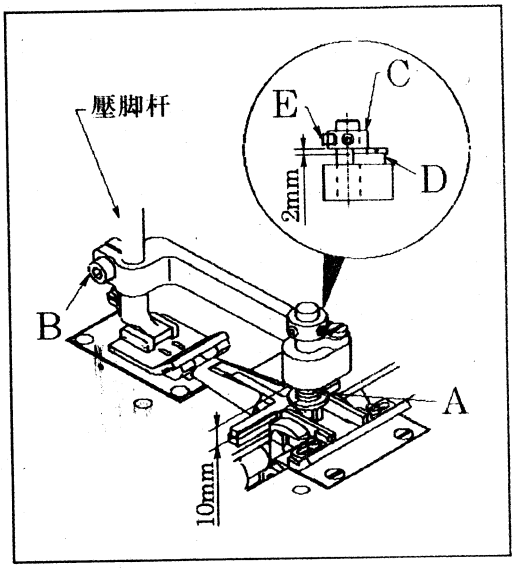
12-1 輔助送布牙的高度與平行(傾斜)



■ 調節輔助送布牙A的高度，當送布牙上升到最高處時的高度，應離輔助推送板B的上面1.5mm處。
調節方法：擰松螺釘C后進行。

■ 輔助送布牙A的傾斜以送布牙上升到最高處時的傾斜與輔助推送板平行的傾斜爲標准。
調節方法：擰松螺釘D，旋轉調節螺釘E，進行調節。

12-2 輔助壓脚的安裝方法



在彈簧A收縮大約10mm的位置上用螺釘B把輔助壓脚固定在壓脚杆上。此外，套環C在與導軌板D間隔2mm處用螺釘E擰緊。

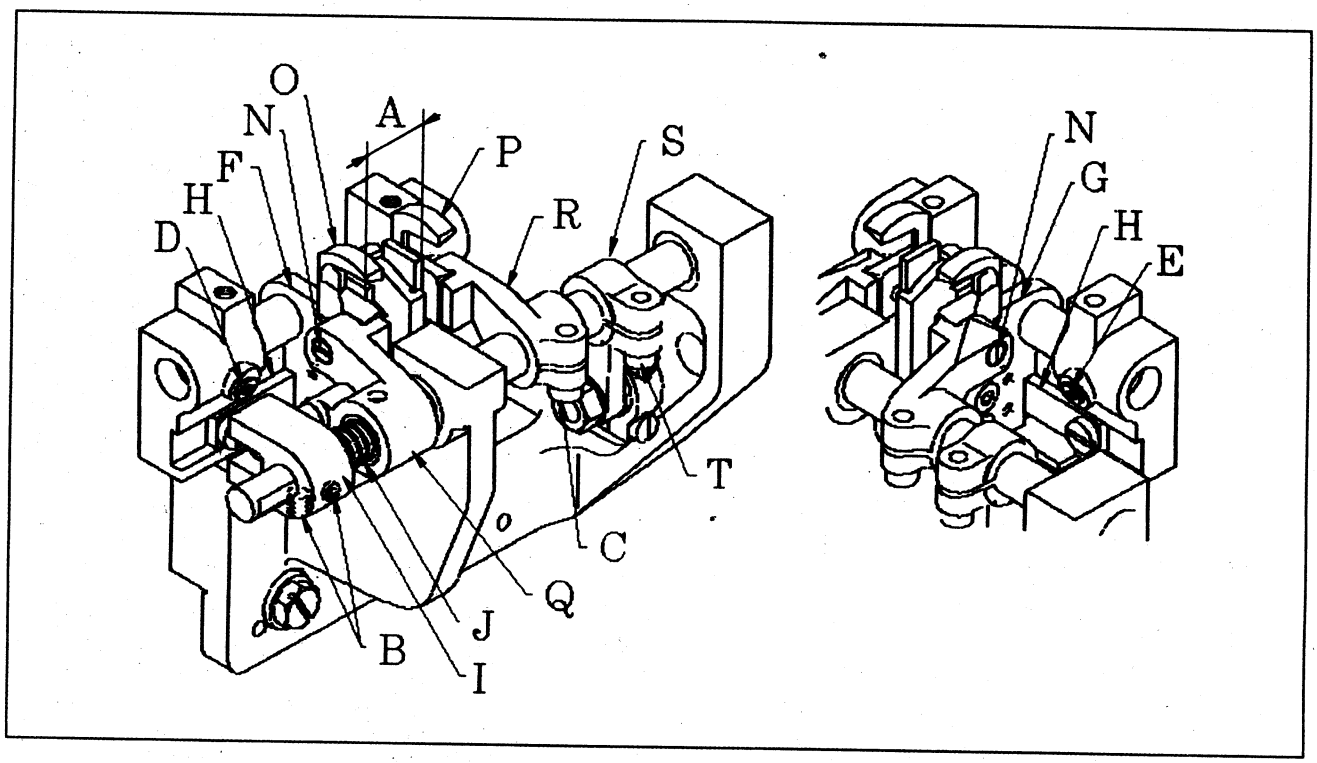
[13]BK 前刀片裝置的調節

13-1 刀片寬度的調節

刀片寬A按照支架的尺寸由針杆中心分配調節。

■ 調節方法

1. 擰松螺釘B，C，解放左右上刀片。
2. 擰松螺釘D，E，决定左右下刀片的刀片寬度。
3. 把左右下刀片安裝臺F，G頂住導軌板H，然后擰緊螺釘D，E。
4. 把上刀片右P頂住下刀片，然后用螺釘C擰緊。
5. 把上刀片左O頂住下刀片，上刀片支架I移到右邊，按壓彈簧J把螺釘B平放着擰緊。



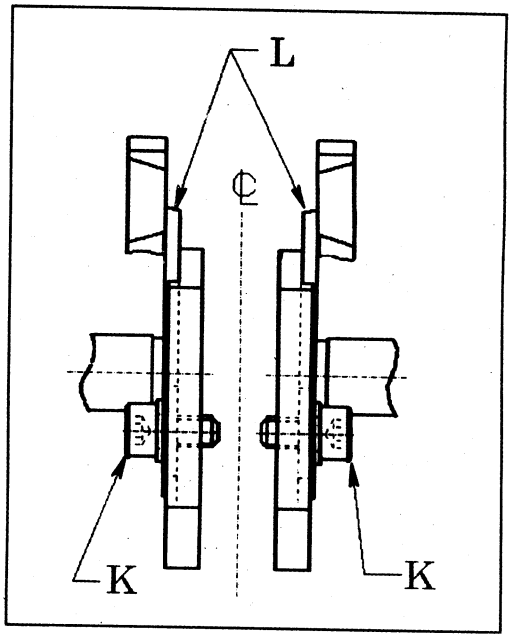
13-2 下刀片的拆卸及安裝方法

■ 下刀片的拆卸方法

1. 擰松螺釘B，把上刀片支架I向左移，彈簧在放松狀態。
2. 取下下刀片定位螺釘K和取下下刀片。

■ 下刀片的安裝方法

1. 把下刀片L的刀頭向外；安裝在下刀片安裝臺F和G上。
2. 下刀片L的刀頭對齊輔助推送板M的上面，然后擰緊定位螺釘K。
3. 把上刀片支架I向右移，按壓彈簧J用螺釘B平放着擰緊。



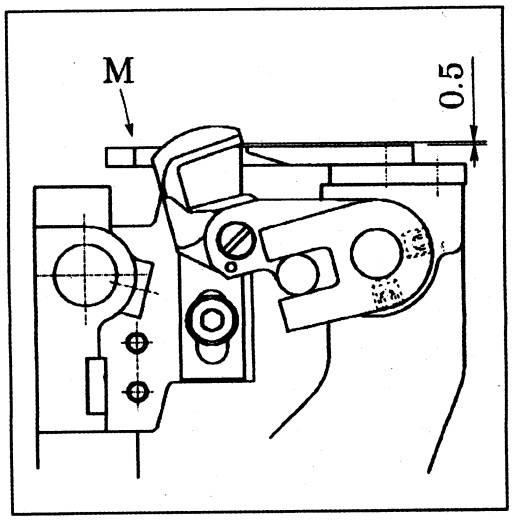
13-3 上刀片的拆卸及安裝方法

■ 上刀片的拆卸方法

1. 擰松螺釘B，把上刀片支架I向左移，彈簧處于放松狀態下。
2. 擰松上刀片的定位螺釘N，把上刀片O，P向上方拔出。

■ 上刀片的安裝方法

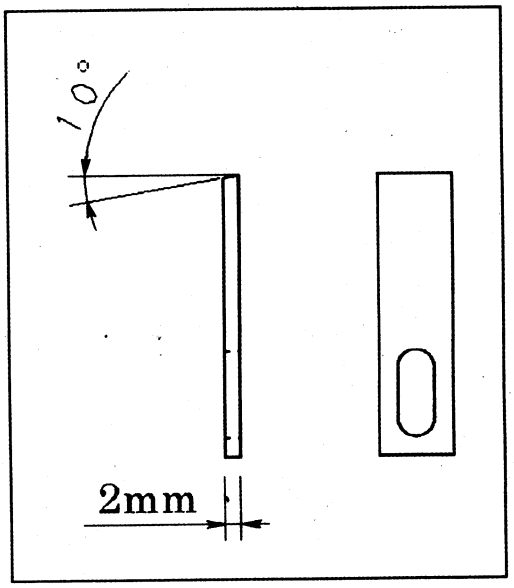
1. 把上刀片沿上刀片支架Q，R的導軌插入最裏面，擰松定位螺釘N。
2. 把上刀片支架I向右移，按壓彈簧J，把螺釘B平放着擰緊。



13-4 上刀片與下刀片的嚙合

當上刀片O，P降到最下部時，上刀片與下刀片的嚙合如圖所示，刀頭之間有0.5mm的間隙。

調節方法：擰松上刀片驅動拉杆S的定位螺釘T進行調節。



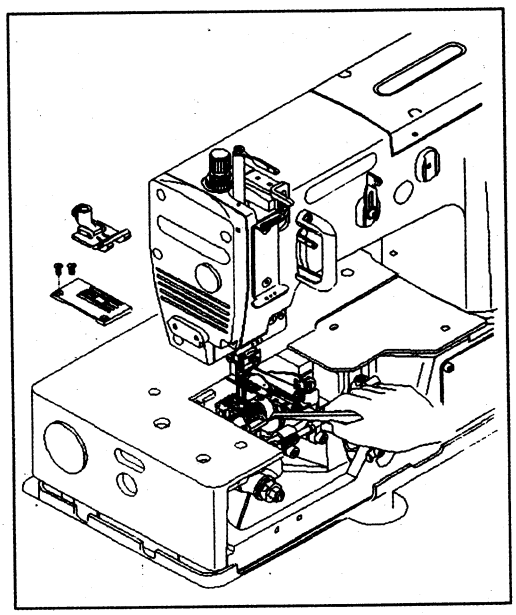
13-5 下刀片的研磨方法

當刀片的切割狀況變壞時，請研磨下刀片。

此外，建議時常准備備用的上刀片、下刀片。

[14] 縫紉機的清掃

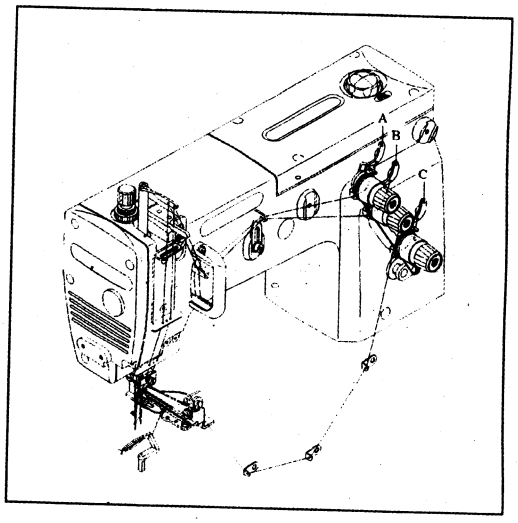
作業結束后，請拆下壓脚和針板，將針板的槽、送布牙的周圍打掃干净。



CONTENTS

[1] NEEDLES & THREADING THE MACHINE

1-1 Needles



UY128GAS of Schmetz or Organ
Select the proper needle for the fabric and thread.

< Needles and needle size> Except 1701, 1702EHD

Schmetz	Nm75	Nm80	Nm90	Nm100	Nm110
Organ	#11	#12	#14	#16	#18

■ 1701EHD·· ·····DR2 Nm200, #25
■ 1702EHD·····UY143GS Nm200, #25

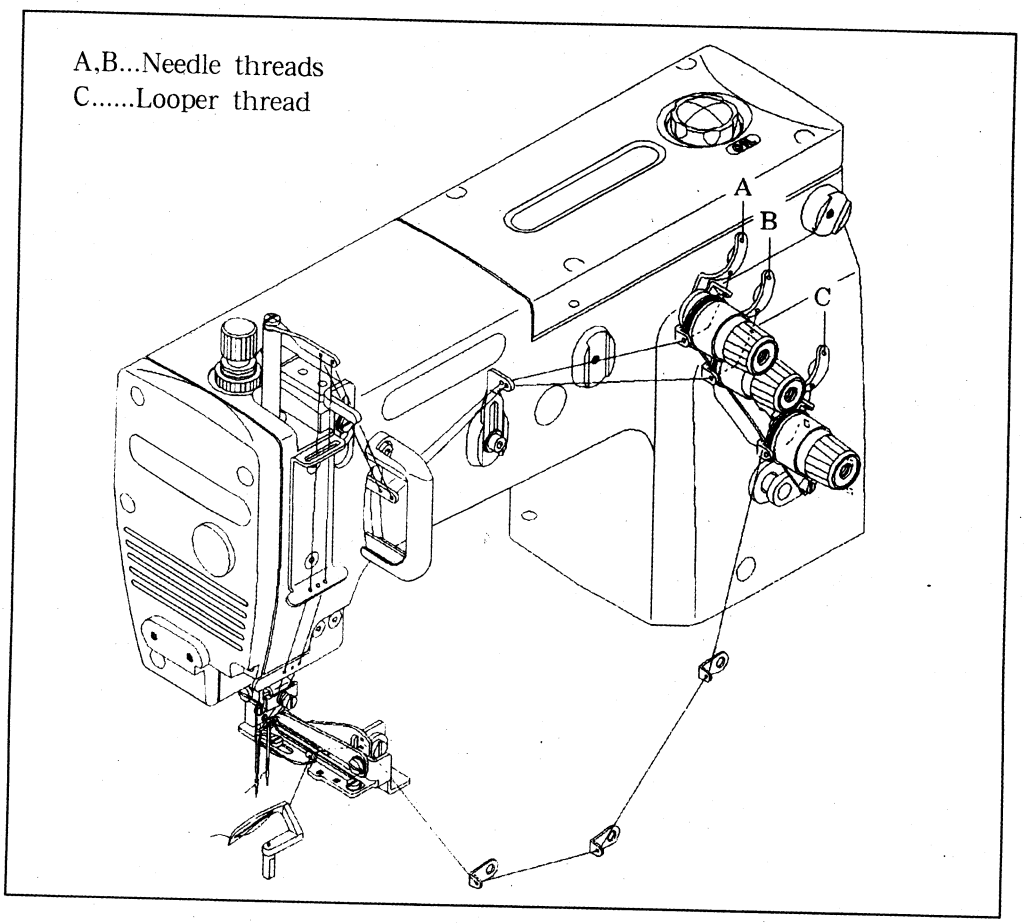
1-2 Replacing the needle

When replace the needle, check the needle carefully to see that the scarf is turned to the rear of the machine (see the illustration). Then install the needle correctly.

<Note>
Before replacing the needle, be sure to turn off the machine. A clutch motor continues running for a while after the machine is turned off. Therefore keep on pressing the pedal until the machine stops.

1-3 Threading the machine

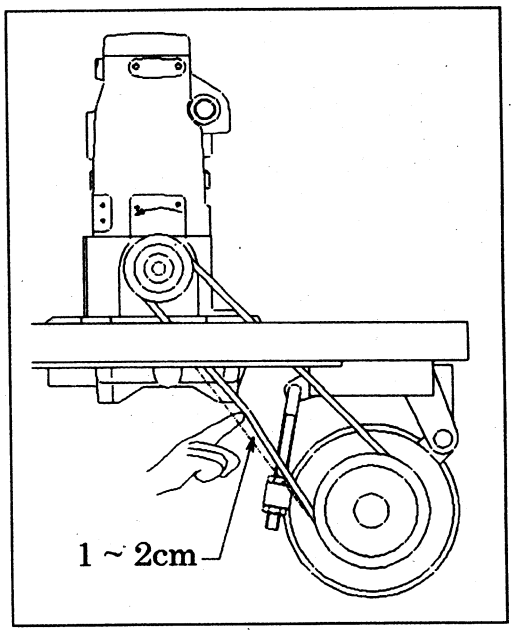
Thread the machine correctly by referring to the illustration below.
Threading the machine incorrectly may cause skip stitching, thread breakage and/or uneven stitch formation.



[2] MACHINE SPEED

2-1 Machine speed & direction in which the machine pulley runs

Refer to the table below for maximum and standard speeds of the Series. To extend machine life, run the machine approximately 15-20% below the maximum speed for the first 200 hours of operation (approx. 1 month). The machine pulley turns counterclockwise as seen from the end of the machine pulley.



2-2 Motor & belt

Motor: 3-phase, 2-pole, 400 W clutch motor
Belt: M type V belt

Select the proper motor pulley according to the machine speed (refer to the motor pulley outer diameter on the table below). Adjust where to position the motor by pressing the finger onto the middle of the belt so that 1-2cm deflection can be obtained (see the illustration on the right).

<Machine speed>

Type	Maximum speed	Standard speed
P, PMD, B	4500SPM	4000SPM
BK, EHD, MLH	4000SPM	3500SPM

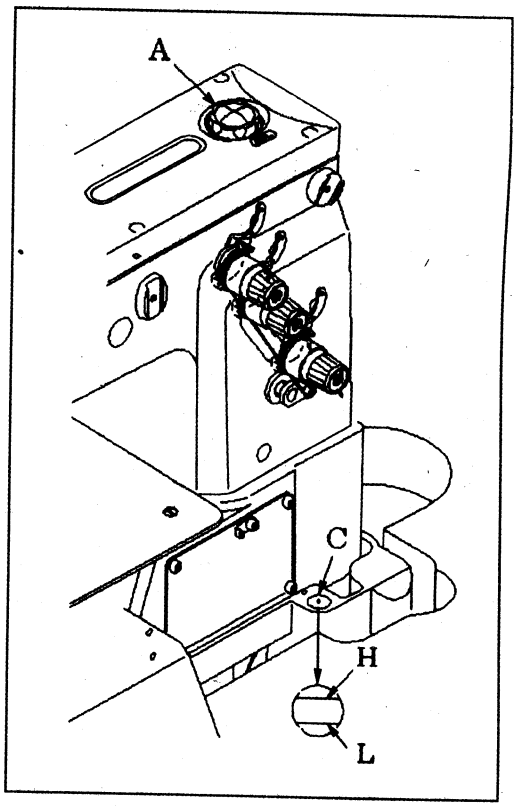
<Motor pulley selection table>

Motor pulley outer diameter (mm)	Machine speed (SPM)	
	50Hz	60Hz
70	2900	3450
80	3300	3900
90	3700	4400
100	4100	(4900)
110	4500	

[3] LUBRICATION

3-1 Oil

Use Our Special`s genuine oil.
(Part No. 28-611)



3-2 Oiling

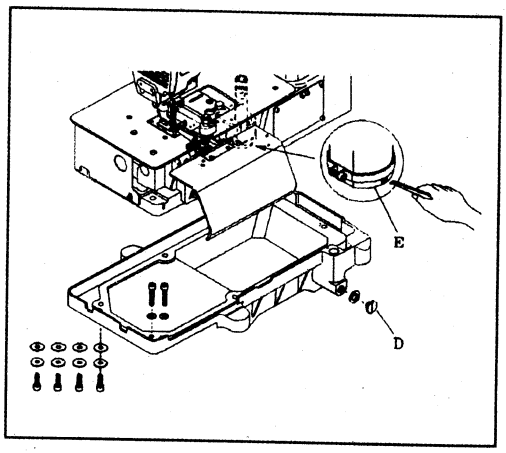
To fill the machine with oil Remove oil plug A from the oil hole. Fill the machine with oil until the oil level is at the top line (see H in the illustration) on oil gauge C. After the first lubrication, add oil so that the oil level will be between H and L.

To check for proper oil flow
After filling the machine with oil, run the machine to check the oil is splashing from oil pipe outlet B.

3-3 Replacing the oil and the filter element

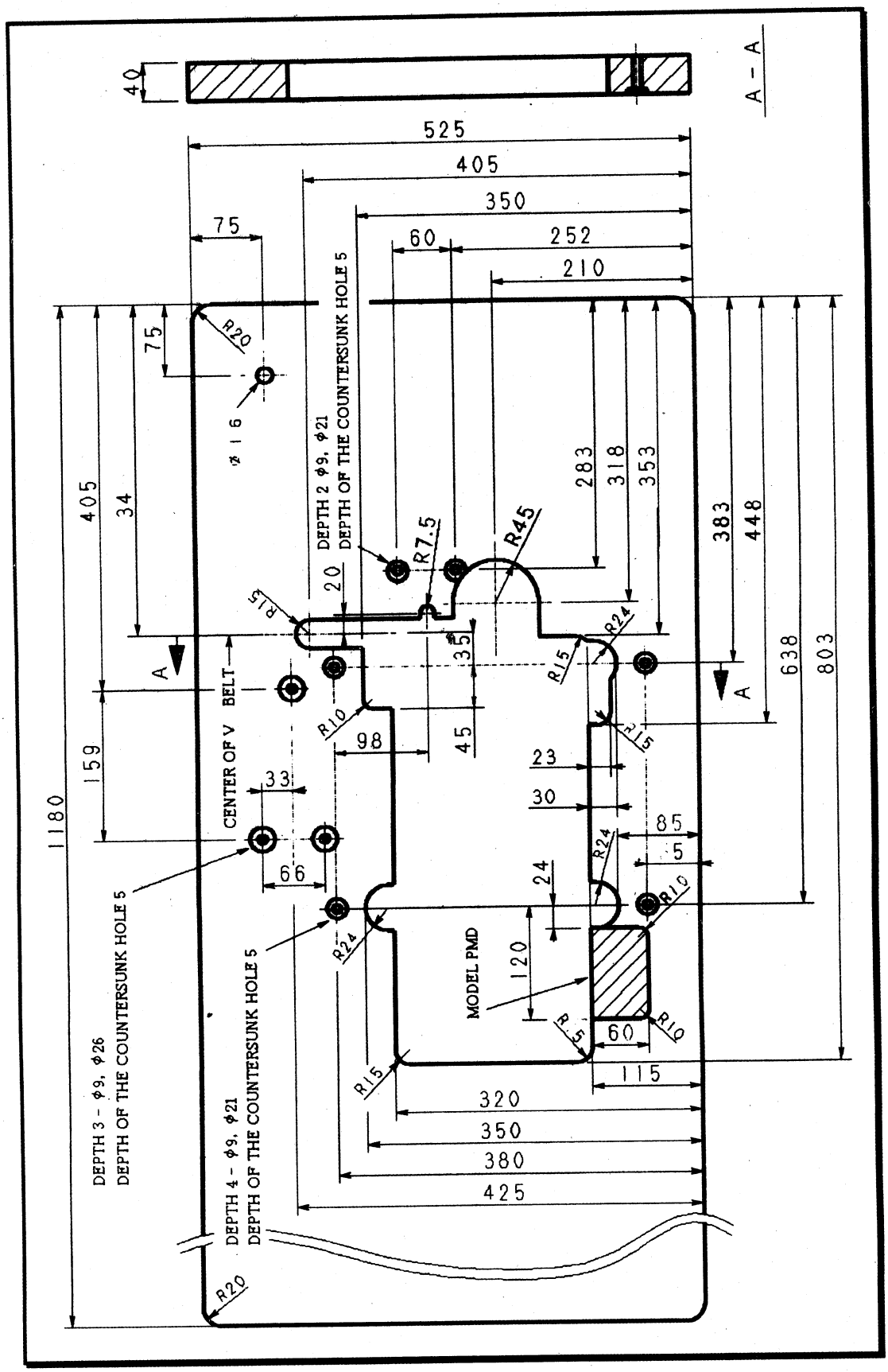
To extend machine life, be sure to replace the oil after the first 250 hours of operation.
To replace the oil ,follow the procedures below,

1. Remove the V belt from the motor pulley and then remove the machine from the table.
2. Remove screw D and then drain the oil. Be careful not to stain V belt with the oil.
3. After draining the oil, be sure to tighten screw D.
4. Fill the machine with oil by referring to 3-2 shown above.



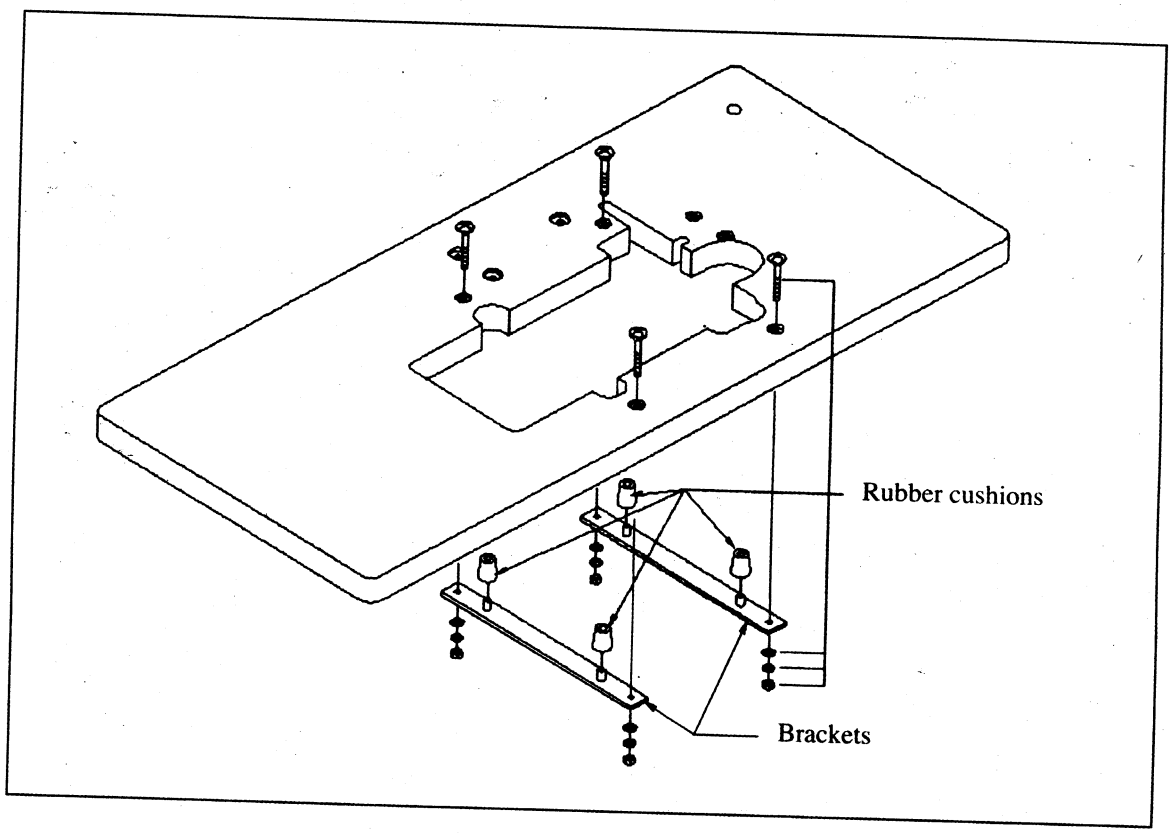
If filter element E is contaminated, proper oiling may not be performed.
Clean the filter element every six months. If just a little or no oil fows out from the nozzle with the proper amount of oil in the machine, check the filter element.
To clean the filter element, remove oil reservoir.

4-1 Cutting the machine table



4-2 Installing the machine

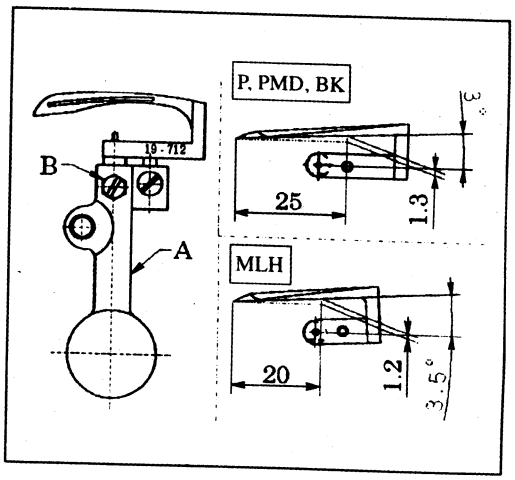
Install the brackets on the undrside of the table board (see the illustration below).
Fit the rubber cushions onto the brackets.
Mount the machine head on the rubber cushions.



[3] TIMING OF THE LOOPER TO THE NEEDLES

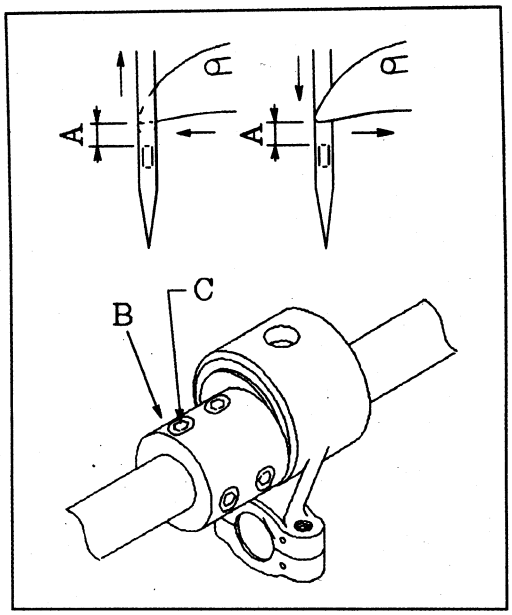
5-1 Angle and height for installing the looper

To obtain the proper angle and height, insert the looper fully into looper holder A and then tighten screw B. The proper angle for the looper on P, PMD, B, BK is 3° . Distance at 25mm from the point of the looper between the bottom of the looper blade and the extension line from the point of the looper: Approximately 1.3mm.
The proper angle for the looper on MLH is 3.5°
Distance at 20mm from the point of the looper between the bottom of the looper blade and the extension line from the point of the looper;
Approximately 1.2mm. The proper angle for the looper on EHD is O .



5-2 Looper left-to-right movement

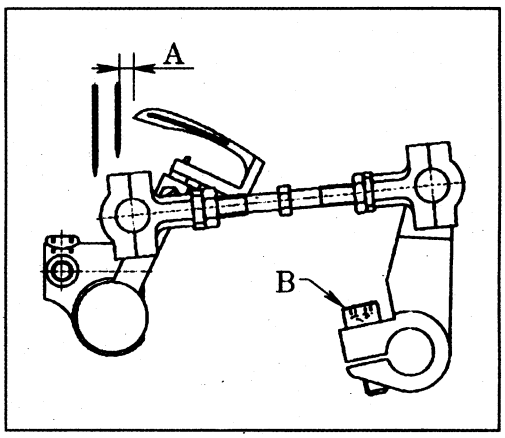
When the point of the looper moves from the right/left to the left/right, distance A from the top of the left neele's eye to the point of the looper at the left side of the left needle should be equal (see the illustration on the right). To make this adjustment, remove the machine cover, loosen three screws C on looper eccentric B and then shift looper eccentric B by turning the machine pulley while holding looper eccentric B.



5-3 Looper setting distance

When the looper is at the extreme right end of its travel, adjust distance A from the point of the looper to the right side of the right needle. This distance varies by model and/or gauge size (see the table below). Adjustment is made by loosening screwB.

Model (gauge size)	Setting distance A (mm)
P, PMD, MLH(1/8, 5/32)	5.2
P, PMD, (3/16, 7/32, 1/4)	4.4
B, BK, PBK	4.0
EHD	5.0

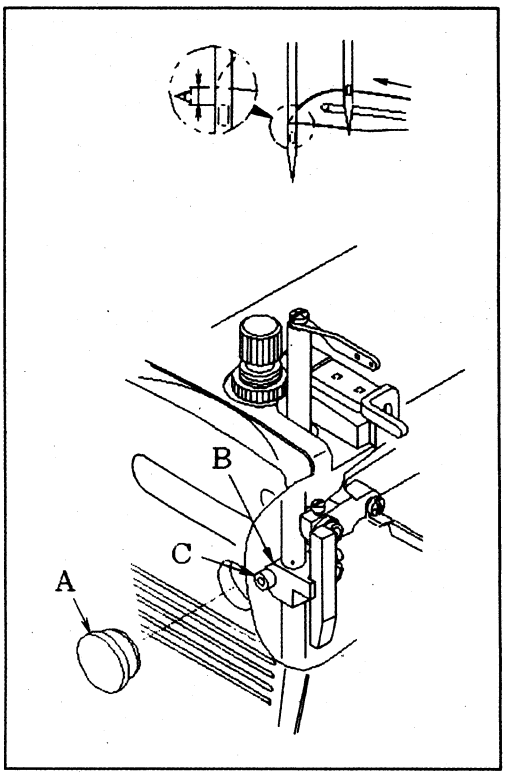


5-4 Needle height

When the point of the looper has reached the left side of the left needle with the machine pulley turned in the operating direction adjust distance A from the top of the left needle`s eye to the point of the looper on the back side of the needle.
This distance varies by model and/or gauge size (see the table below).

<Note>
After the above adjustment is made, install the needle plate and then check ot make sure each needle drops correctly into the center of the each needle drop hole.

Model	A (mm)
P, PMD, MLH	1.2~1.5
B, BK. PBK	0~0.5
EHD	2~2.5



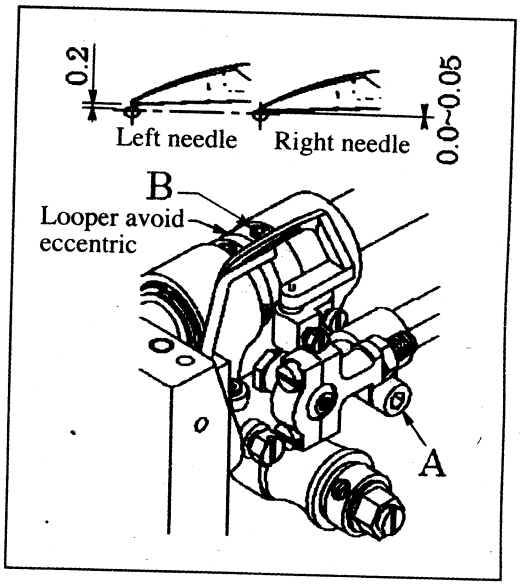
5-5 Needle/looper front-to-back relationship

When the looper passes on the back side of the needle, the clearance between the right needle and the looper should be 0~0.05mm. Adjustment is made by loosening screw A. The clearance between the left needle and the looper should be 0.2mm

Adjustment is made by loosening screw B on the looper avoid eccentric.

To increase the clearance, turn the looper avoid eccentric toward the back side of the machine.

To decrease the clearance, turn the looper avoid eccentric toward the front side of the machine.



[6] ADJUSTING THE NEEDLE GUARDS

6-1 Position of the needle guard (rear)

■ Movable type (for models except BK, PBK)

When the point of the looper has reached the center of the right needle, the distance from the point of the right needle, the distance from the point of the right needle to line (a) on needle guard A should be 1mm (approximately 2mm on EHD). Then the clearance between the needle and the needle guard should be 0mm.

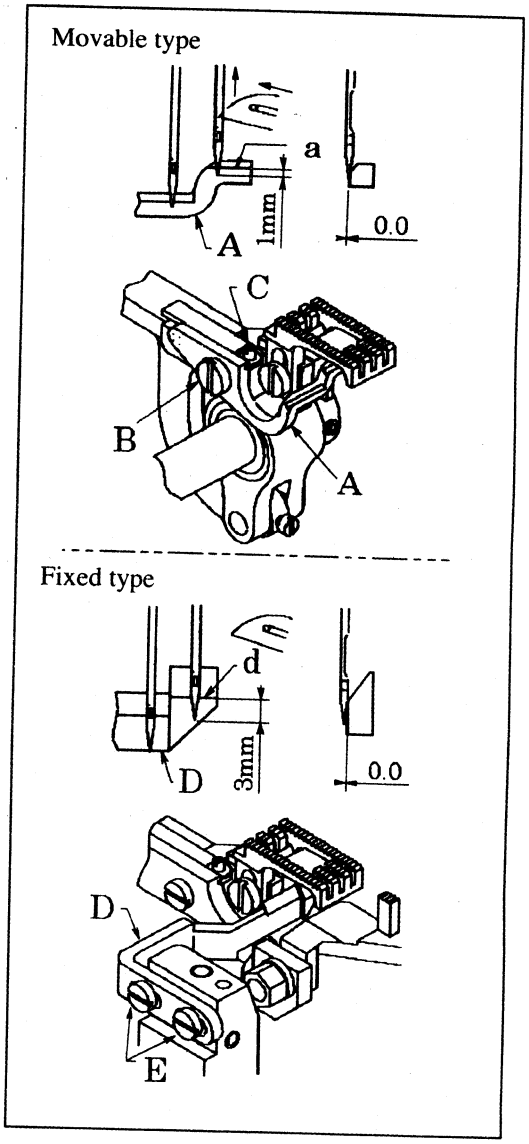
Adjustment is made by loosening screw B and turning screw C to move the needle guard up or down and/or front or back as required.

■ Fixed type (for BK, PBK)

When the needle bar is at the bottom of its stroke, the distance from the point of the right needle to line (d) on needle guard D should be approximately 3mm.

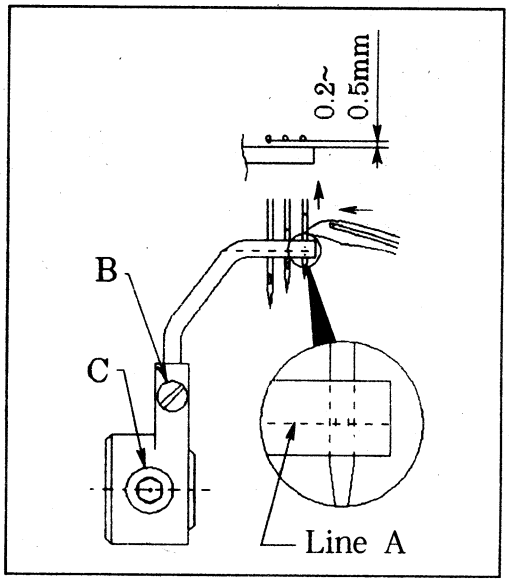
Then the clearance between the needle and the needle guard should be 0mm.

Adjustment is made by loosening screws E.



6-2 Position of the needle guard (front)

When the point of the looper has reached the center of the right needle, the center of the right needle`s eye should be aligned with line A on the needle guard (front).
In addition, the left and right needles should be parallel with the needle guard (front).
Adjustment is made by loosening screw B.
The clearane between the needles and the needle guard (front) should be 0.2~0.5mm.
Adjustment is made by loosening screw C.

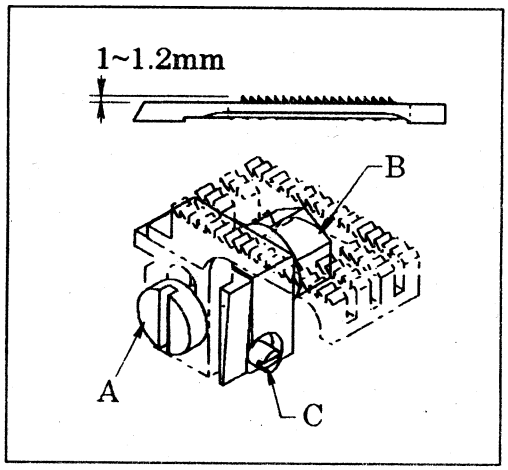


[6] ADJUSTING THE FEED DOG & STITCH LENGTH

7-1 Feed dog height & tilt

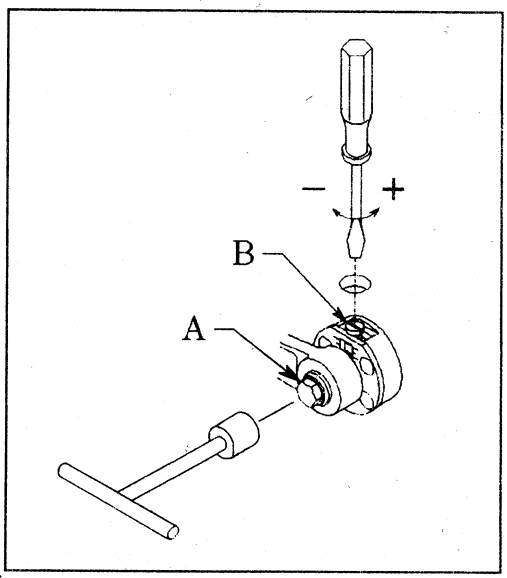
■ Height adjustment
The feed dog is at the top its stroke, the feed dog teeth should be 1.0~1.2mm (1.5mm on EHD) above the top surface of the needle plate.
Adjustment is made by loosening screw A.

■ Tilt adjustment
When the feed dog is at the top of its stroke, the feed dog teeth should be parallel with the top surface of the needle plate. Adjustment is made by loosening screw B and turning screw C.



7-2 Stitch length

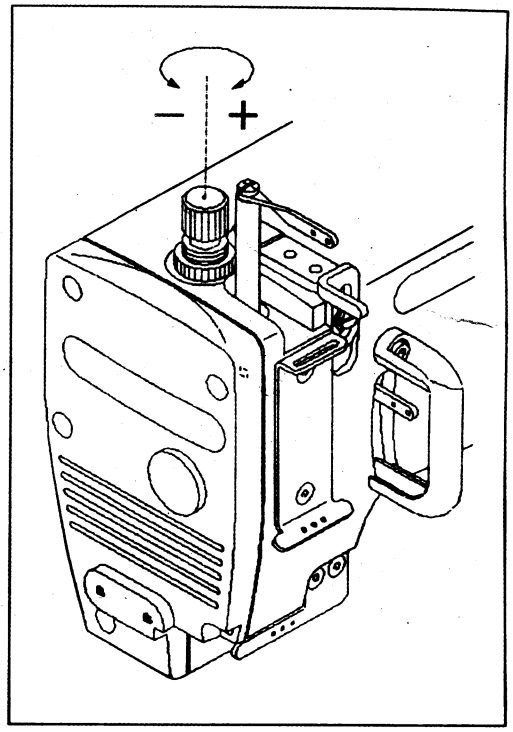
Loosen bolt A (left-hand thread) with a 9.5mm T-wrench.
Then turn screw B. To increase the stitch length, turn screw B counterclockwise.
To decrease the stitch length, turn screw B clockwise.



[8] ADJUSTING THE PRESSER FOOT

8-1 Presser foot pressure

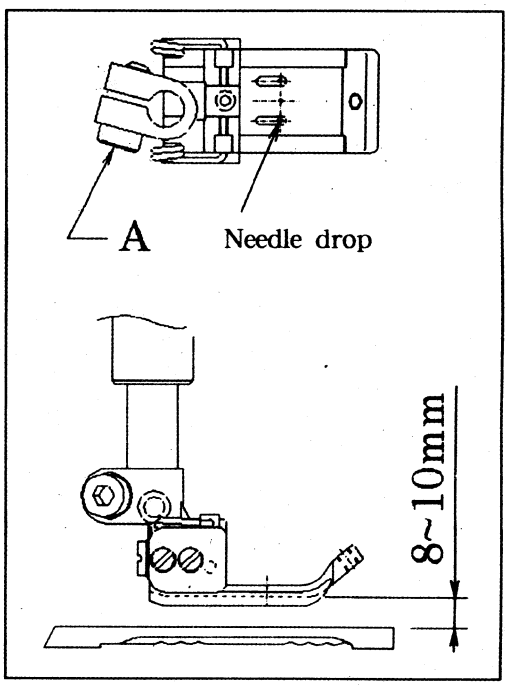
The presser foot pressure should be as light as prossible, yet be sufficient to feed the fabric and produce uniform stitches.
To increase the presser foot pressure, turn the adjusting knob clockwise.



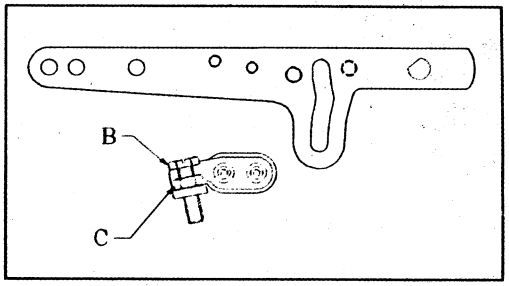
8-2 Position of the presser foot & foot lift

Fit the presser foot onto the presser bar so that the needle can dop correctly to the center of the presser foot needle drop hole.

- Position of the presser foot
  Loosen screw A. Adjust by moving the presser foot left or right while checking to make sure the needle drops correctly to the center of the presser foot needle drop hole.
- Foot lift
  The presser foot should be 8~10mm above the top surface of the needle plate.



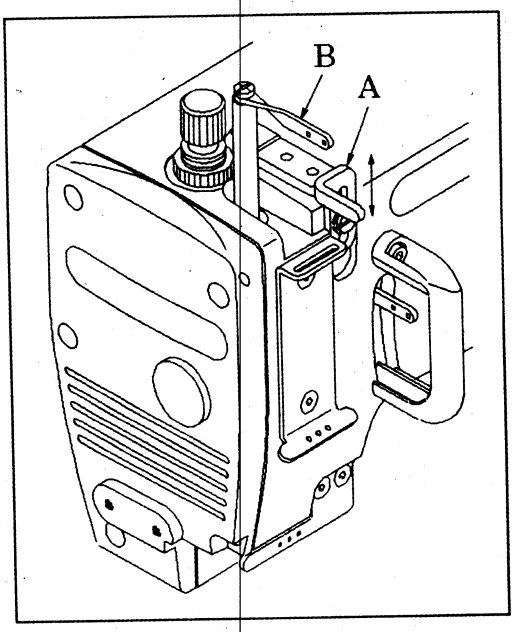
Set stopper B at the required position.
Fasten the presser foot lift lever with nut C so that the lever cannot be lowered.



[9] LUBRICATION

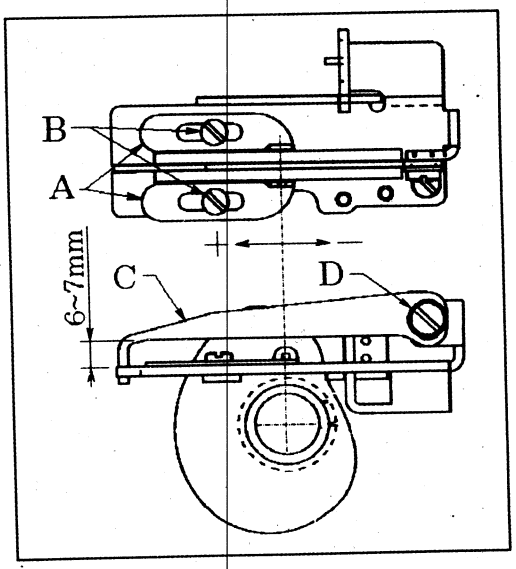
9-1 Position of the thread support

When the needle bar is at the bottom of its stroke, the centers of the eyes on thread eyelet A should be level with the top surface of thread support B, and A should be parallel with B.
Height adjustment of thread support B is made by loosening screw C and moving thread support B up or down. Moving thread support B up tightens the needle thread. Moving thread support B down loosens the needle thread.



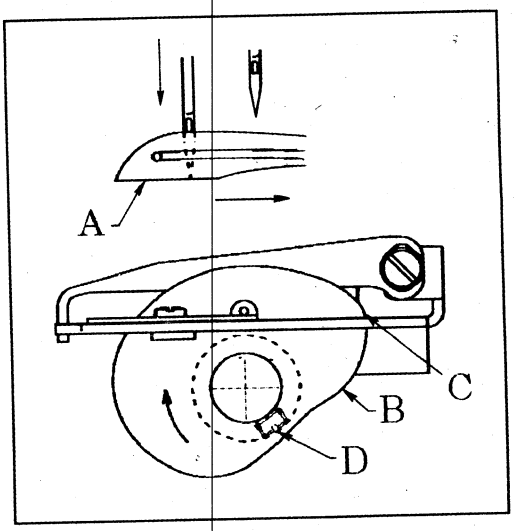
9-2 Postion of the looper thread eyelets

Align the eyes on looper thread eyelets A with the center of the shaft. Adjust the position of the eyes on looper thread eyelets A by loosening screws B according to the sewing conditions such as the fabric and/or thread to be used.
To increase the amount of the looper thread to be supplied, move looper thread eyelets A toward the rear side of the machine.
To decrease the amount of the looper thread to be supplied, move looper thread eyelets A toward the front side of the machine.
Thread guide C should be 6-7mm above the top surface of the guide plate.
Adjustment is made by loosening screw D.



9-3 Position of the looper thread take-up

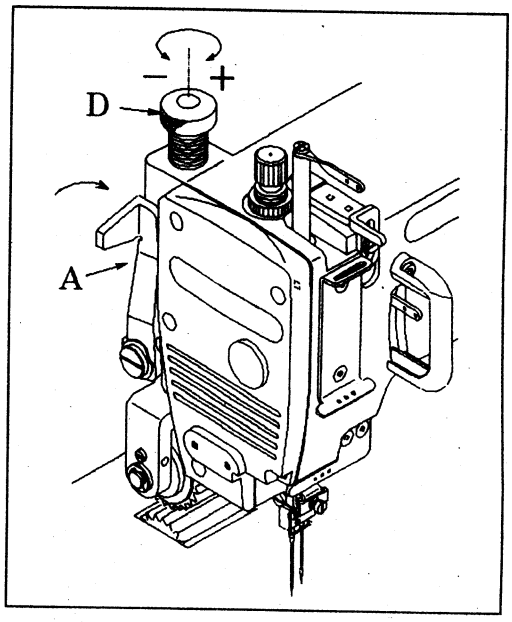
When the point of the needle has reached bottom surface A of the looper blade while the looper is moving to the right from the extreme left end of its travel, the looper thread should be removed from point C on looper thread take-up B.
Adjustment is made by loosening and then tightening screw D.



[10] ADJUSTING THE REAR PULLER DEVICE

10-1 Manual lever

To position or remove the fabric, raise manual lever A.

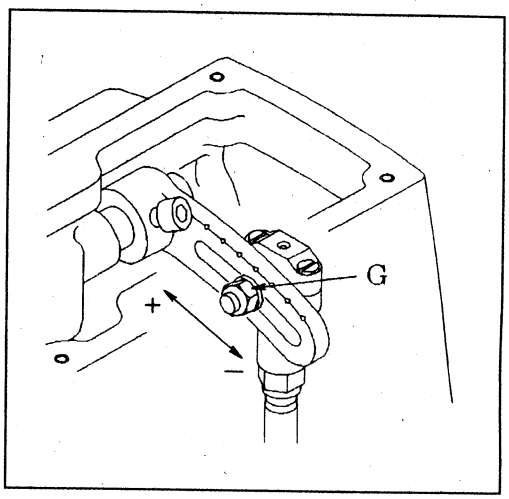


10-2 To adjust the puller pressure

The puller pressure should be as light as possible, yet be sufficient to feed the fabric smoothly.
To increase the pressure, turn adjusting knob D clockwise. To decrease the pressure, turn adjusting knob D counterclockwise.

10-3 Adjusting the feeding amount of the rear puller

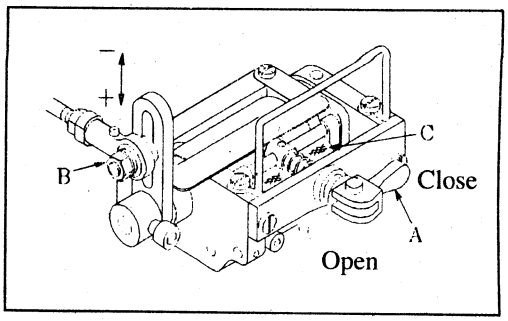
Adjusting the feeding amoun of the rear puller according to that of the feed dog.
To increase the amount, loosen nut G and move it to the left. To decrease the amount, move it to the right.



[11] ADJUSTING THE FRONT PUTTER DEVICE

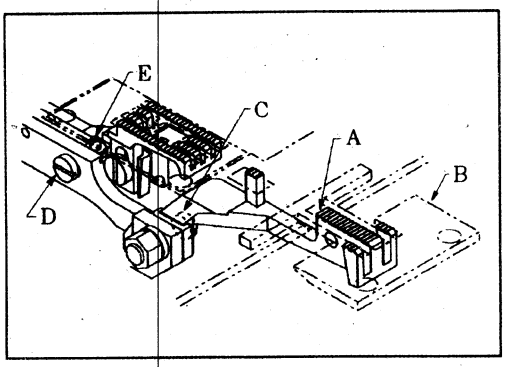
11-1 To insert elastic and adjust the feeding amount of the front puller

Insert elastic by opening/closing small roller C with lever A (see the illustration).
Adjust the feeding amount of the front puller according to that of the feed dog.
To decrease the amount, loosen screw B and move it up.
To increase the move it down.



[12] ADJUSTING THE BK AUXILIARY FEEDING DEVICE

12-1 Auxiliary feed dog height & tilt



■ Height adjustment

When auxiliary feed dog A is at the top of its stroke, the auxiliary feed dog teeth should be 1.5mm above the top surface of auxiliary feed dog plate B.

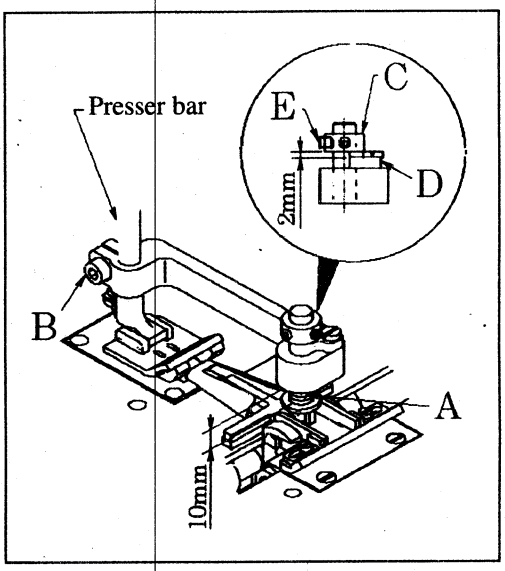
Adjustment is made by loosening screw C.

■ Tilt adjustment

When auxiliary feed dog A is at the top of its stroke, auxiliary feed dog A should be parallel with auxiliary feed dog plate B.

Adjustment is made by loosening screw D and turning screw E.

12-2 Installing the auxiliary presser foot



Install the auxiliary presser foot on the presser bar with spring A pressed down to approximately 10mm.

Then tighten screw B.

Position collar C so that there is a clearance of 2mm between collar C and guide plate D.

Then tighten screw E.

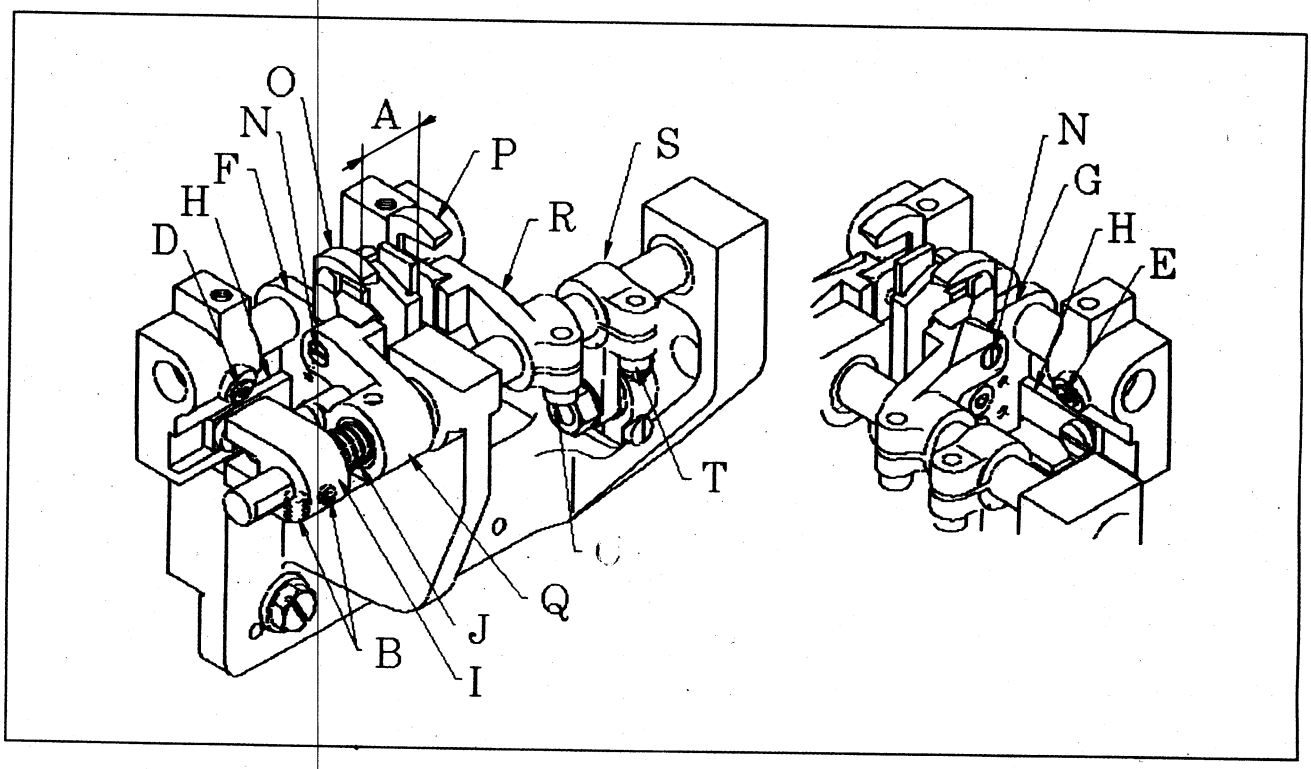
[13] ADJUSTING THE BK FRONT KNIFE DEVICE

13-1 Adjusting the clearance between the left and right knives

Clearance A should be divided into half by the center line of the needle bar.

■ To make the above adjustment

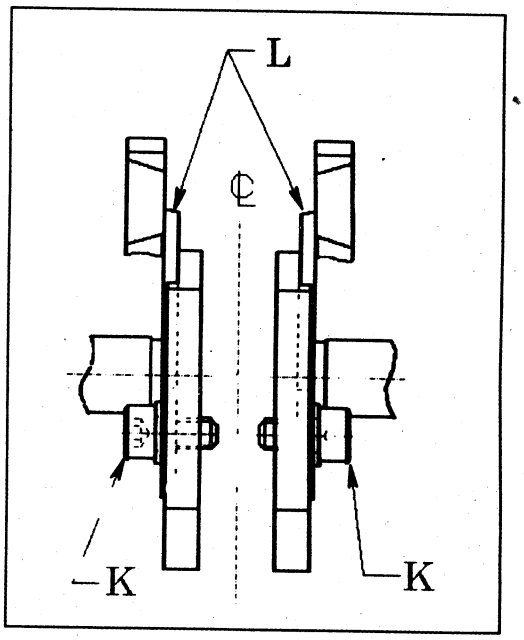
1. Loosen the upper (left and right) knives by loosening screws B and C.
2. To adjust the clearance between the lower left and right knives, loosen screws D and E.
3. Fit lower knife (left and right) holders F and G onto guide plates H.
4. Fit upper knife (right) P onto the lower knife (right). Then tighten scrw C.
5. Fit upper knife (left) O onto the lower knife (left). Move upper joint bracket I to the right to press spring J. Then tighten screws B while pressing them to the flat spot.



13-2 Disassembling/reassembling the lower knives

■ To disassemble the lowe knives

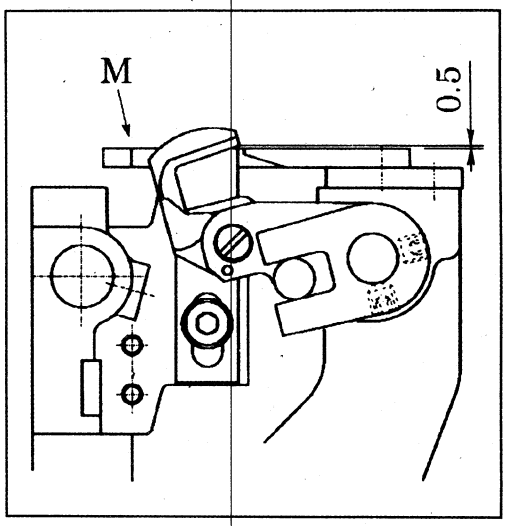
1. Loosen screws B.
   Move upper knife joint bracket I to the left so that the spring can be released.
2. Remove the lower knives by removing screws K.



■ To reassemble the lower knives

1. Install lower knives I on knife holder F or G with the point of each cutting edge turned outside.
2. Adjust lower knives L so that each cutting edge of lower knives L is fluch with the top surface of auxiliary feed dog plate. Then tighten screws K.
3. Move upper joint bracket I to the right to press spring J. Then tighten screws B while pressing them to the flat spot.

13-3 Disassembling/reassembling the upper knives



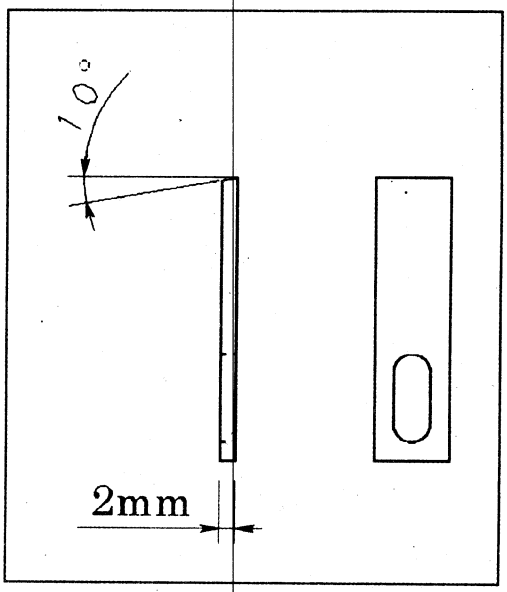
■ To disassemble the upper knives

1. Loosen scrwes B.
   Move upper knife joint bracket I to the left so that the spring can be released.
2. Loosen scrwes N. Remove upper knives O and P by moving them up.

■ To reassemble the upper knives

1. Insert the upper knives to the proper depth along the guides on upper knife brackets Q and R. Then tighten scrwes N.
2. Move upper joint bracket I to the right to press spring J. Then tighten screws B while pressing them to the flat spot.

13-4 Overlap of the upper and lower knives



When upper knives O and P are at the bottom of their stroke, there should be a clearance of 0.5mm between the points of the cutting edges of the upper knives and those of the lower knives.
Adjustment is made by loosening screw T on upper knife drive lever S.

13-5 Resharpening the lower knives

Resharpen the lower knives when they become dull.
It is recommended spare upper and lower knives are always kept for replacement.

[14] CLEANING THE MACHINE

At the end of each day, remove the presser foot and the needle plate and then clean the slots of the needle plate nd the area around the feed dogs.