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金輪牌工業用縫紉機

GOLDEN WHEEL INDUSTRIAL SEWING MACHINE

CS-5940/5941
CS-5942/5942T

INSTRUCTION MANUAL

操作手冊

啟翔股份有限公司

CHEE SIANG INDUSTRIAL CO., LTD.

CONTENTS 索引

1. SETTING UP 安裝

1. Inserting the Needle 裝置機針
2. Threading the Needle Thread and Regulating its Tension 穿針線與調整線張力
3. Threading the Looper Thread and Regulating its Tension 穿底線與調整線張力

2. CARE AND MAINTENANCE 維護與保養

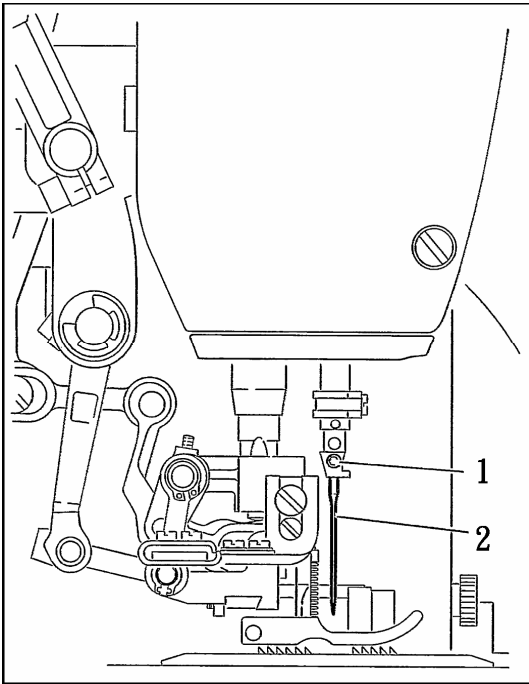
1. Machine Oil Level 油位高度
2. Lubricating the Top Feed Joints 潤滑上送料連桿
3. Checking and Adjusting the Air Pressure 檢查與調整空氣壓力

3. ADJUSTMENT 機器的調整

1. Control and Adjustment Aids 控制與輔助調整設置
2. Needle to Needle Hole 機針與針孔位置
3. Preliminary Adjustment of Needle Height 機針高度的初步調整
4. Neutral Position of Main Feed Dog 主送料齒的中立位置
5. Neutral Position of Differential Feed Dog 差動送料齒的中立位置
6. Feeding Motion of Main Feed Dog and Differential Feed Dog 送料齒的前後運動
7. Lifting Motion of Main Feed Dog and Differential Feed Dog 送料齒的上下運動
8. Lifting Motion of Main Feed Dog 主送料齒的上升運動
9. Lifting Motion of Differential Feed Dog 差動送料齒的上升運動
10. Position of Main and Differential Feed Dog 送料齒的位置
11. Position of Main and Differential Feed Dog on CS-5941 送料齒的位置
12. Neutral Position of Top Feed Dog 上送料齒的中立位置
13. Feeding Motion of Top Feed Dog 上送料齒的進給運動
14. Top Feed Stroke 上送料齒的行程
15. Lifting Motion of Top Feed Dog 上送料齒的提升運動
16. Looper Avoiding Motion 勾針的前後運動
17. Looper Motion 勾針的左右運動
18. Final Adjustment of Needle Height 機針高度的最後調整
19. Height of Rear Needle Guard 後針擋的高度
20. Position of Front Needle Guard 前針擋的位置
21. Looper Thread Regulator and Looper Thread Take-Up 底線過線器的調整
22. Looper Thread Puller 底線的收線
23. Pneumatic presser foot lifting mechanism 氣動抬壓腳機構 (CS-5942/5942T)
24. Thread tension release mechanism 沙拉組松線機構 (CS-5942/5942T)
25. Installation position of thread trimming positioner in the machine 機器切線定位器安裝位置 (CS-5942/5942T)

1. SETTING UP 安裝

1. Inserting the Needle 裝置機針



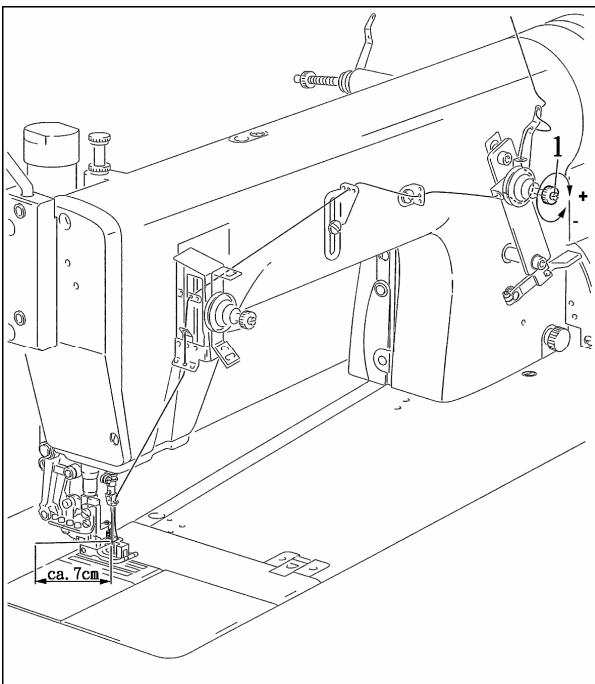
CAUTION: Switch off the machine! Danger of injury by unintentional starting of the machine!

- Set the needle bar at its highest point.
- Loosen screw 1.
- Push needle 2 fully into the needle bar (the long needle groove must face to the front.)
- Tighten screw 1.

注意：關閉電源！防止無意中啓動機器！

- ◆ 將針棒提升到最高位置
- ◆ 鬆開螺絲 1
- ◆ 將機針 2 插入至針棒底部（機針的長勾槽朝向正前方）
- ◆ 擰緊螺絲 1

2. Threading the Needle Thread and Regulating its Tension 穿針線與調整線張力

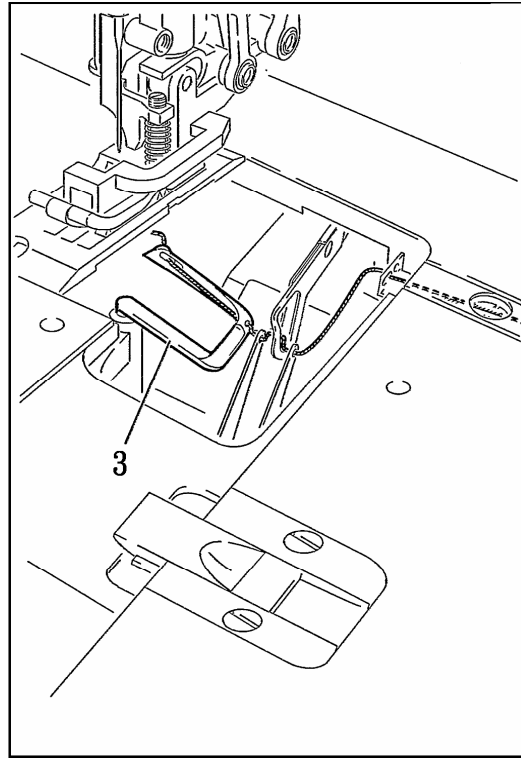
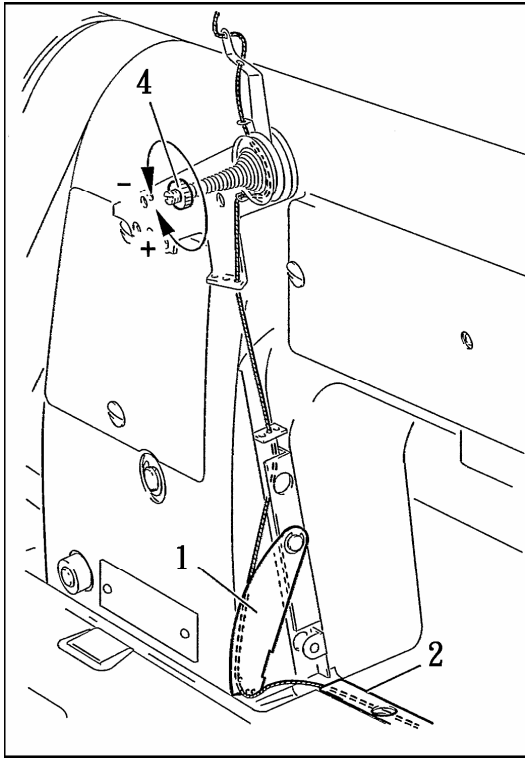


- Thread the needle thread as shown in the left figure.
- Regulate the needle thread by turning knurled nut 1.

- ◆ 如左圖所示穿針線
- ◆ 旋轉螺帽 1 調整針線的張力

3. Threading the Looper Thread and Regulating its Tension 穿底線與調整線張力

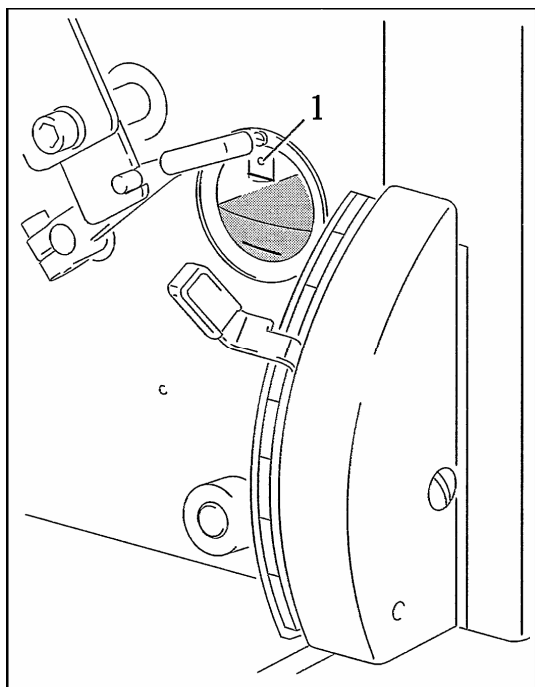
- Open the looper cover and swing out thread guide plate 1.
- Thread the looper thread as shown in the figure below and pull it under guide plate 2.
- Regulate the looper thread by turning knurled nut 4.



- ◆ 打開勾針護蓋及過線導引板 1
- ◆ 如上圖所示穿底線並繞過導線板 2 的下方
- ◆ 旋轉螺帽 4 調整底線的張力

2. CARE AND MAINTENANCE 維護與保養

1. Machine Oil Level 油位高度



Caution: Check oil level before each use.

- The oil level must be between the markings in the inspection glass.
- If required, refill oil through hole 1.

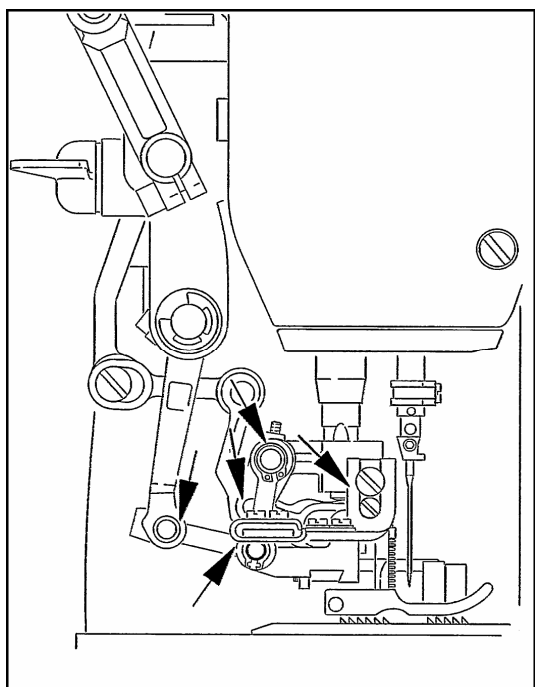
Caution: Only use oil with a mean viscosity of $22.0\text{mm}^2/\text{s}$ at 40°C and a density of 0.865 g/cm^3 at 15°C !

注意：每次使用前需檢查油位的高度

- ◆ 油位的高度須介於兩個刻度線之間
- ◆ 必要時，由加油孔 1 補充潤滑油

注意：需使用潤滑油黏度約 $22.0\text{mm}^2/\text{s}$ （在 40°C 時）且密度約 0.865 g/cm^3 （在 15°C 時）

2. Lubricating the Top Feed Joints 潤滑上送料連桿



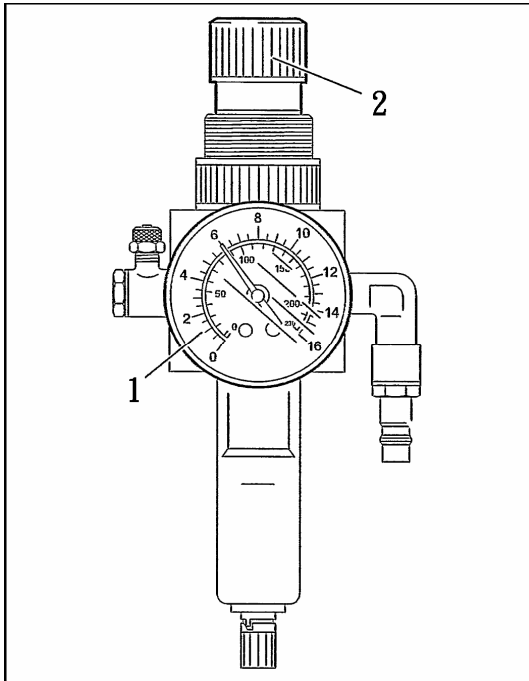
- Lubricate the points marked in the illustration with a drop of oil once a week or after the machine has stood still for longer periods.

Caution: Only use oil with a medium viscosity of $10.0\text{ mm}^2/\text{s}$ at 40°C and a density of 0.847 g/cm^3 at 15°C .

- ◆ 每週一次或長期不使用時在圖示的箭頭指示部位添加潤滑油

注意：需使用潤滑油黏度約 $10.0\text{mm}^2/\text{s}$ （在 40°C 時）且密度約 0.847 g/cm^3 （在 15°C 時）

3. Checking and Adjusting the Air Pressure 檢查與調整空氣壓力

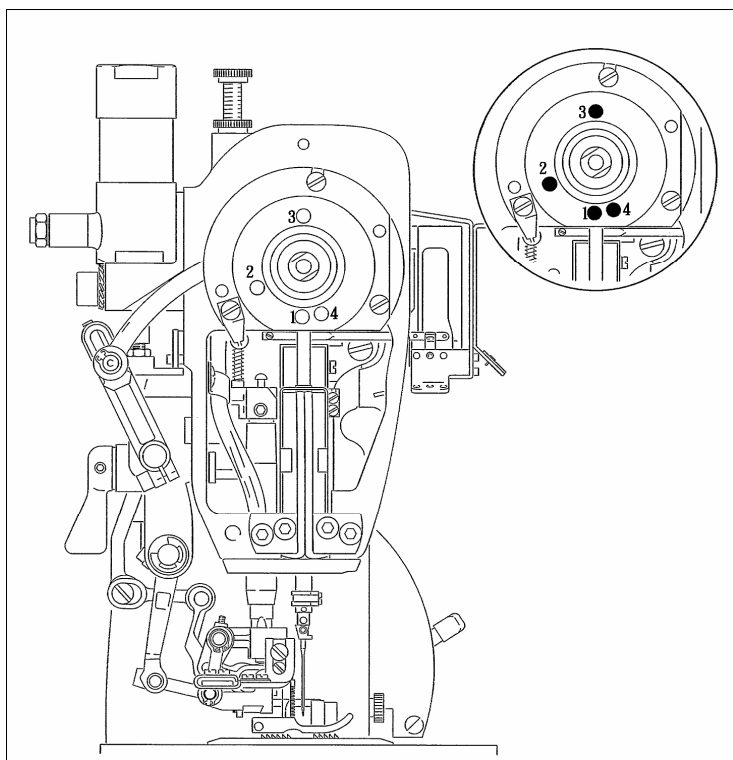


- Before operating the machine, always check the air pressure on gauge **1**.
- Gauge **1** must show a pressure of 6 bar.
- If necessary adjust to this reading.
- To do so, pull knob **2** upwards and turn it so that the gauge shows a pressure of 6 bar.

- ◆ 在操作機器之前，請檢查壓力表 **1** 的空氣壓力
- ◆ 壓力表 **1** 的壓力須指示在 6 bar
- ◆ 必要時，調整壓力至此值
- ◆ 調整時，將旋鈕 **2** 往上拉，轉到指針指示壓力在 6 bar 位置，再壓下旋鈕 **2**

3. ADJUSTMENT 機器的調整

1. Control and Adjustment Aids 控制與輔助調整設置



Note: By inserting the adjustment pin (ϕ 5mm) to the marked holes **1**, **2**, **3** and **4** with, the desired needle bar positions can fixed exactly.

備註：利用調整用平行銷(ϕ 5mm)插入對應 **1**, **2**, **3** 及 **4** 的記號孔時，可得到準確的針棒位置

- Turn the balance wheel until the needle bar is approximately in the desired position.
- Insert the adjustment pin into the appropriate hole and apply pressure.
- Turn the balance wheel slightly backwards and forwards, until the pin locks into the rear crank recess, in this way the main shaft of the machine is locked.

Adjustment hole **1** = top dead centre of the needle bar (t.d.c.)

Adjustment hole **2** = bottom position of top feed dog

Adjustment hole **3** = bottom dead centre of the needle bar (b.d.c.)

Adjustment hole **4** = neutral position of main feed dog and differential feed dog

- ◆ 旋轉手輪使針棒到達所需的大略位置
- ◆ 將調整用平行銷插入對應的記號孔，並施以適當的推力
- ◆ 稍微前後轉動手輪使平行銷插入凸輪的溝槽中，以鎖定機器的主軸

調整記號孔 **1** = 針棒上死點

調整記號孔 **2** = 上送料齒下死點

調整記號孔 **3** = 針棒下死點

調整記號孔 **4** = 主送料齒與差動送料齒的中立位置

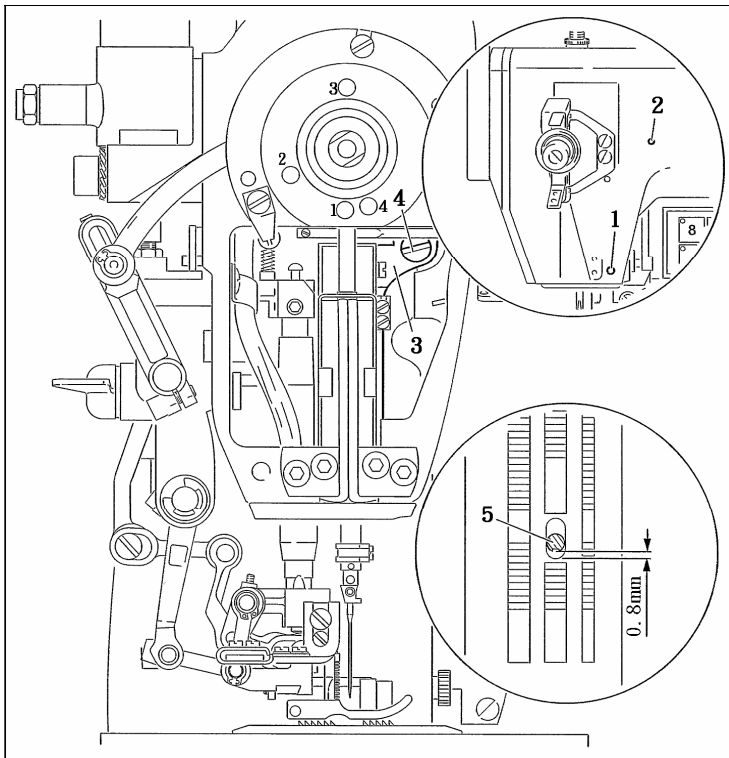
2. Needle to Needle Hole 機針與針孔位置

Requirement

1. As seen from the direction of feeding, needle 5 should be in the centre of the needle hole.
2. The distance between needle 5 and the front edge of the needle hole should be approximately 0.8mm.

調整需求：

1. 從送料方向觀察，機針 5 必須對準針孔的中心
2. 機針 5 與針孔前緣的距離需約為 0.5mm

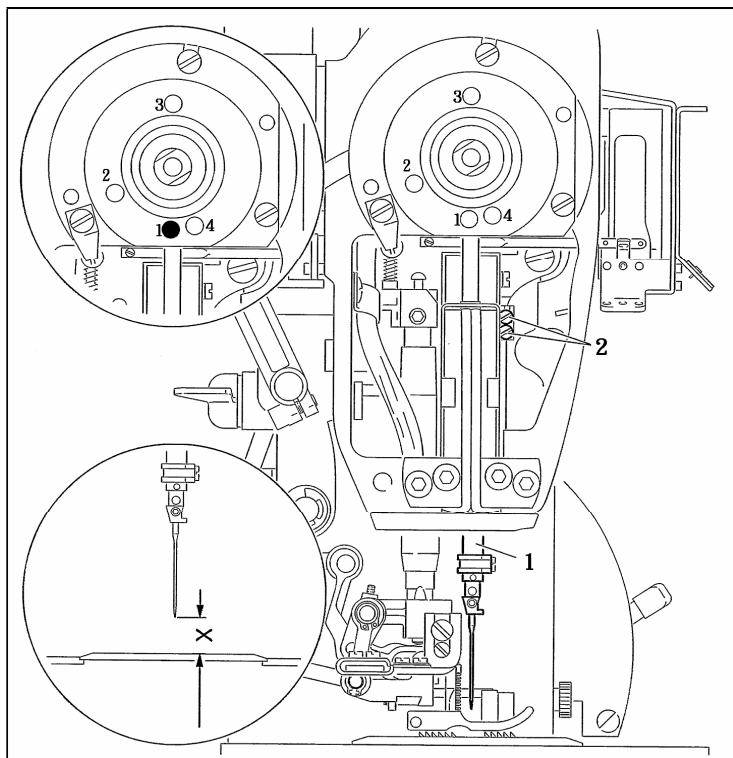


- Loosen screw 1 and 2.
- Adjust needle bar frame 3 according to requirement 1) and tighten screw 1.
- Loosen screw 4 and turn needle bar frame 3 according to requirement 2).
- Tighten screws 2 and 4.

- ◆ 鬆開螺絲 1 與 2
- ◆ 根據調整需求 1) 調整針柱座 3 的左右位置，然後擰緊螺絲 1
- ◆ 鬆開螺絲 4，根據調整需求 2) 調整針柱座 3 的前後位置
- ◆ 擰緊螺絲 2 與 4

3. Preliminary Adjustment of Needle Height 機針高度的初步調整

Requirement 調整需求	
CS-5940	With the needle bar at t.d.c. (adjustment hole 1), the distance X between the needle plate and the needle tip should be 11 mm. 當針棒在上死點時（調整記號孔 1），針尖端與針板面的距離須等於 11 mm
CS-5941	With the needle bar at t.d.c. (adjustment hole 1), the distance X between the needle plate and the needle tip should be 14 mm. 當針棒在上死點時（調整記號孔 1），針尖端與針板面的距離須等於 14 mm



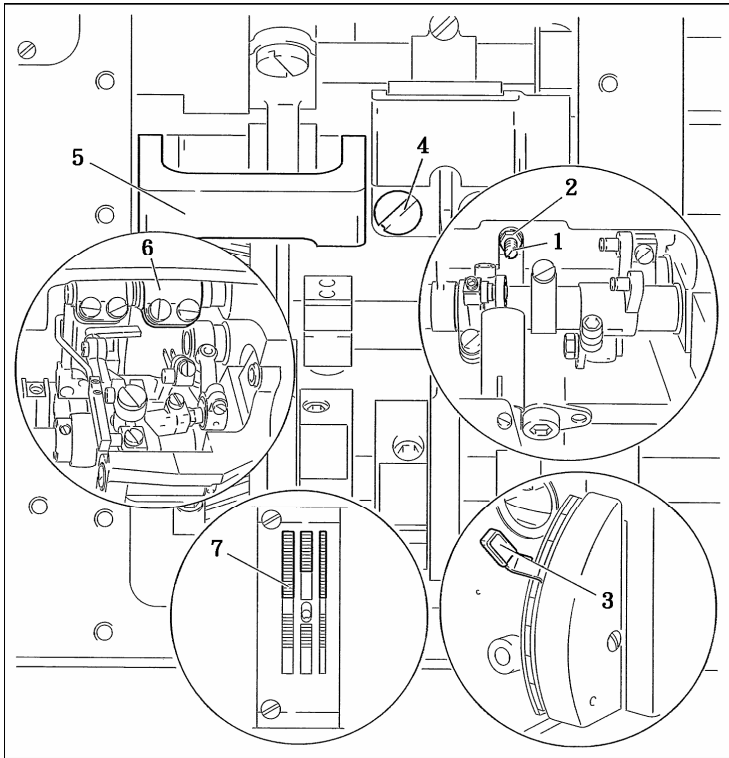
- Bring needle bar 1 to t.d.c.
- Adjust needle bar 1 (screws 2) according to the requirement.

- ◆ 將針棒 1 提升到上死點
- ◆ 根據調整需求（鬆開螺絲 2）設定針棒 1 的高度

4. Neutral Position of Main Feed Dog 主送料齒的中立位置

Requirement 調整需求

When the stitch length is set at “0”, there should be no feeding motion of the main feed dog 7.
當縫目長度設定在「0」的位置時，主送料齒無前後運動



- Unscrew set screw **1** and nut **2** (stitch length limitation disengaged).
- Bring stitch length adjustment lever **3** to “0” mark.
- Loosen screw **4** to such an extent that crank **5** can be rotated on the shaft with some resistance.
- While turning the balance wheel continuously, adjust crank **5**, so that crank **6** does not move.
- Tighten screw **4**.

Note: Screw **1** and nut **2** remains loosened for further adjustments.

(Stitch length limitation is still disengaged).

- ◆ 鬆開螺絲 **1** 與螺帽 **2**（解除縫目長度限制）
- ◆ 將縫目長度調整桿推到「0」的刻度位置
- ◆ 鬆開螺絲 **4** 至一有限的程度使擺動臂 **5** 可在軸上旋轉並具有阻力
- ◆ 連續轉動手輪，並調整擺動臂 **5**，使擺動臂 **6** 不轉動
- ◆ 擰緊螺絲 **4**

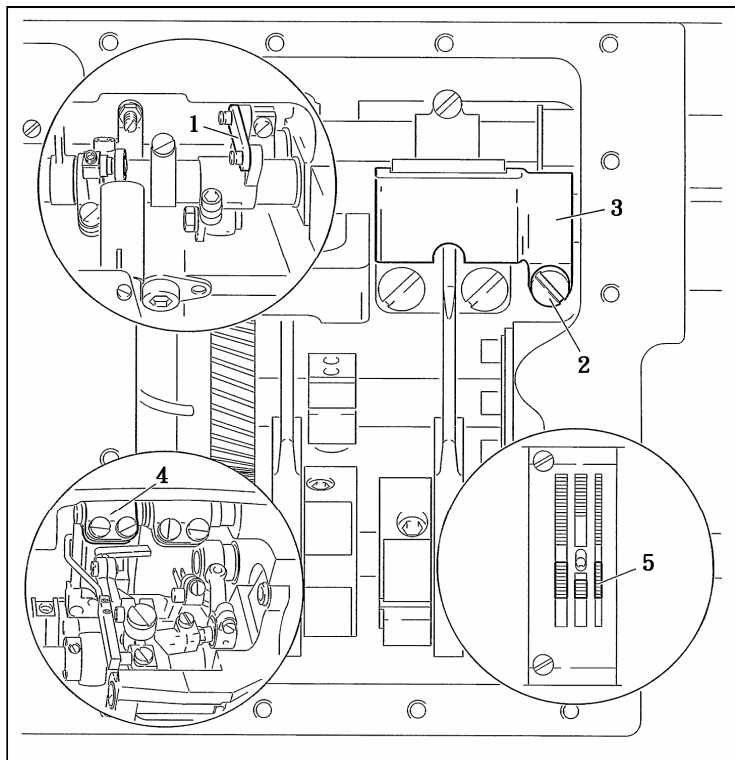
注意：螺絲 **1** 與螺帽 **2** 仍然保持鬆開狀態，以便做後續的調整
（縫目長度限制仍然保持在解除狀態）

5. Neutral Position of Differential Feed Dog 差動料齒的中立位置

Requirement 調整需求

With the stitch length set at “0” and the adjustment gauge 1 fitted, there should be no movement of the differential feed dog 5.

當縫目長度設定在「0」的位置且調整治具 1 裝入時，差動送料齒 5 無前後運動



- Set stitch length at “0”.
- Fit adjustment gauge 1.
- Loosen screw 2 to such an extent that crank 3 can be moved on the shaft with some resistance.
- While turning the balance wheel continuously, adjust crank 3, so that crank 4 does not move.
- Tighten screw 2.

Note: Adjustment gauge 1 remains fitted for further adjustments.

- ◆ 將縫目長度設定在「0」的刻度位置
- ◆ 裝入調整治具 1
- ◆ 鬆開螺絲 2 至一有限的程度使擺動臂 3 可在軸上旋轉並具有阻力
- ◆ 連續轉動手輪，並調整擺動臂 3，使擺動臂 4 不轉動
- ◆ 擰緊螺絲 2

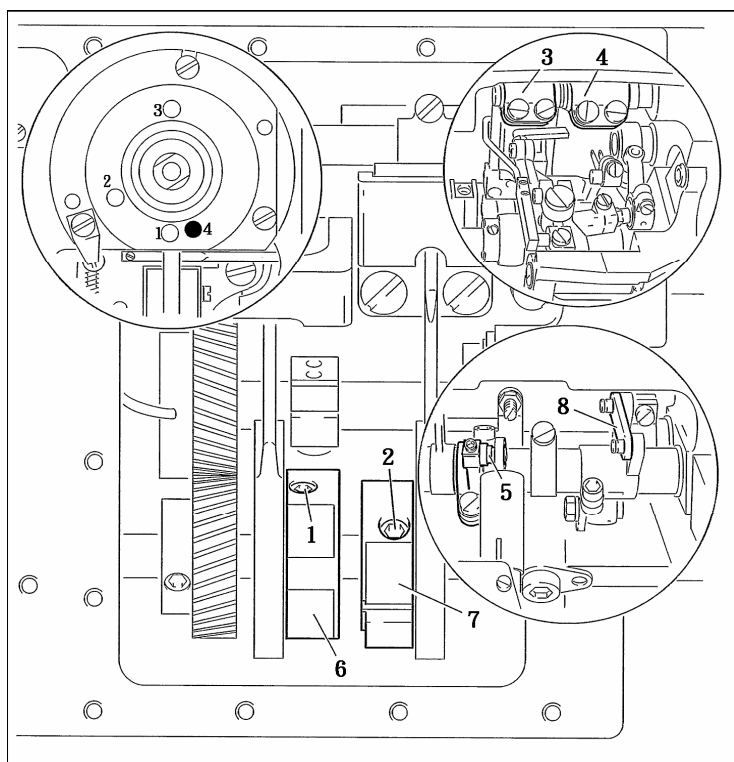
注意：調整治具 1 仍然保持裝入狀態，以便做後續的調整

6. Feeding Motion of Main Feed Dog and Differential Feed Dog 送料齒的前後運動

Requirement 調整需求

When the stitch length is set at “4” and the needle bar is positioned at neutral position of feed dog (adjustment hole 4) and the adjustment gauge 8 is fitted, the main feed dog and the differential feed dog should not move when roller 5 is operated.

當縫目長度設定在「4」的位置，針棒設定在送料齒的中立位置（調整記號孔 4），且調整治具 8 在裝入狀態，當推動滾輪 5 時，主送料齒與差動送料齒無前後運動



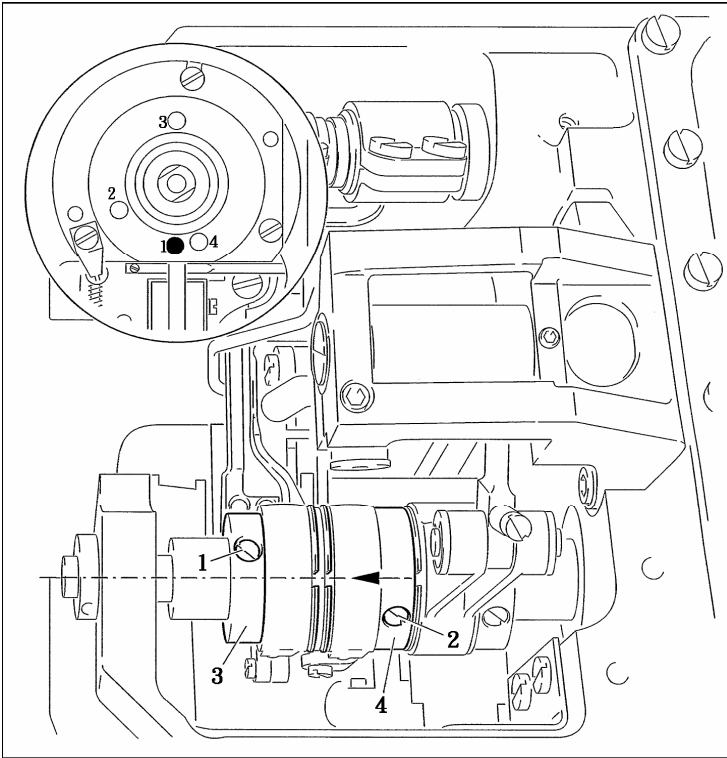
- Slightly loosen screws 1 and 2 (4 screws).
- Bring needle bar to adjustment hole 4 and adjust stitch length to “4”.
- While moving roller 5 up and down continuously, turn eccentrics 6 and 7 so that the cutout is visible and the cranks 3 and 4 do not move.
- Tighten screws 1 and 2.
- ◆ 稍微鬆開螺絲 1 與 2（共 4 個螺絲）
- ◆ 將針棒移到調整記號孔 4 的位置，以及將縫目長度設定在「4」的位置
- ◆ 上下推動滾輪 5，同時調整偏心輪 6 與 7 的位置，使擺臂 3 與 4 無運動。（此狀態時，偏心輪 6 與 7 的開槽在可見位置）
- ◆ 擰緊螺絲 1 與 2

7. Lifting Motion of Main Feed Dog and Differential Feed Dog 送料齒的上下運動

Requirement 調整需求

When the needle bar is at t.d.c. (adjustment hole **1**), the cutouts of eccentrics **3** and **4** should point straight downward.

當針棒在上死點時（調整記號孔 **1**），調整偏心輪 **3** 與 **4** 的開槽須朝向正下方



- Loosen screws **1** and **2** (4 screws).
- Bring needle bar to t.d.c.
- Turn eccentrics **3** and **4** according to the **requirement** and tighten accessible screws **1** and **2**.
- By turning the balance wheel, provide access to the remaining screws **1** and **2** and tighten them.

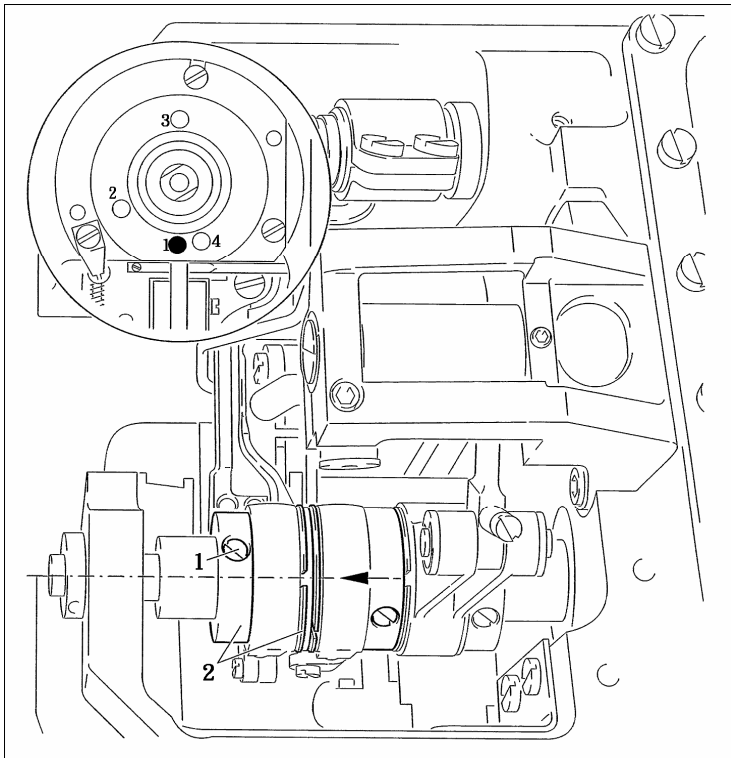
- ◆ 鬆開螺絲 **1** 與 **2**（共 4 個螺絲）
- ◆ 將針棒移到上死點（調整記號孔 **1**）的位置
- ◆ 轉動偏心輪 **3** 與 **4** 到符合上述**調整需求**的位置，擰緊可觸及的螺絲 **1** 與 **2**
- ◆ 轉動手輪，再擰緊其餘的螺絲 **1** 與 **2**

8. Lifting Motion of Main Feed Dog 主送料齒的上升運動

Requirement 調整需求

When the needle bar is at t.d.c. (adjustment hole **1**), the cutout of eccentric **2** should point straight downward.

當針棒在上死點時（調整記號孔 **1**），調整偏心輪 **2** 的開槽須朝向正下方



- Loosen both screws **1**.
- Bring needle bar to t.d.c.
- Turn eccentric **2** according to the **requirement** and tighten accessible screw **1**.
- By turning the balance wheel, provide access to the other screw **1** and tighten it.

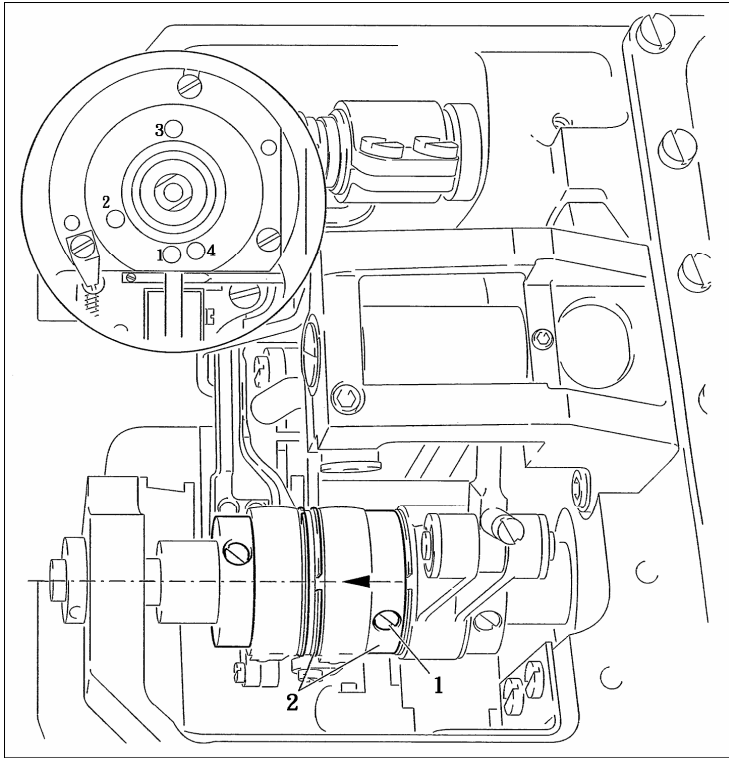
- ◆ 鬆開螺絲 **1**（共 2 個螺絲）
- ◆ 將針棒移到上死點的位置
- ◆ 轉動偏心輪 **2** 到符合上述**調整需求**的位置，擰緊可觸及的螺絲 **1**
- ◆ 轉動手輪，再擰緊另一個螺絲 **1**

9. Lifting Motion of Differential Feed Dog 差動送料齒的上升運動

Requirement 調整需求

With the needle bar positioned 5.5 mm before t.d.c., the cutout of eccentric 2 should point straight downward.

當針棒在上死點前的 5.5mm 高度時，調整偏心輪 2 的開槽須朝向正下方



- Loosen both screws 1.
- Bring needle bar to 5.5 mm before t.d.c.
- Turn eccentric 2 according to the **requirement** and tighten accessible 1.
- By turning the balance wheel, provide access to the other screw 1 and tighten it.

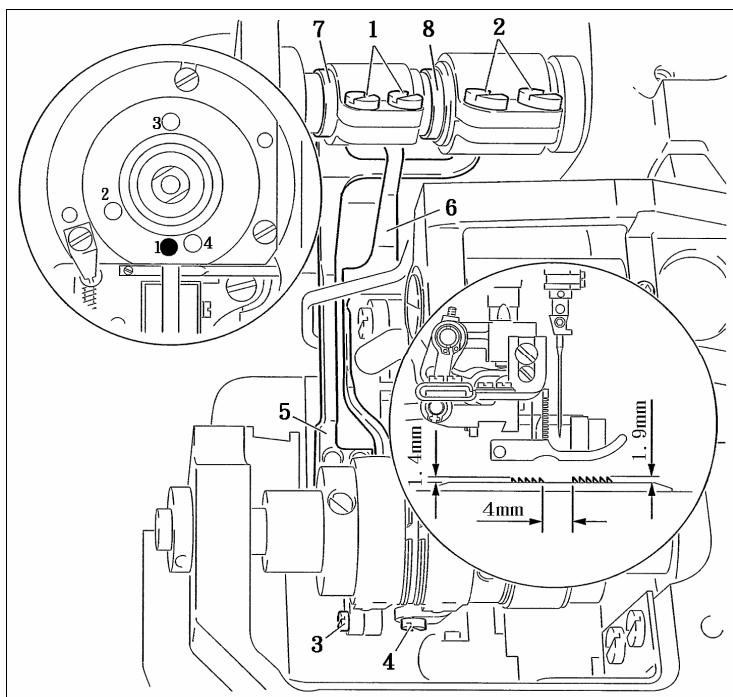
- ◆ 鬆開螺絲 1（共 2 個螺絲）
- ◆ 將針棒移到上死點前的 5.5mm 高度位置
- ◆ 轉動偏心輪 2 到符合上述**調整需求**的位置，擰緊可觸及的螺絲 1
- ◆ 轉動手輪，再擰緊另一個螺絲 1

10. Position of Main and Differential Feed Dog 送料齒的位置

Requirements 調整需求

Whit the needle bar at t.d.c. (adjustment hole **1**) and the stitch length set at longest

1. The main feed dog should be 1.4mm parallel and the differential feed dog 1.9mm parallel above the needle plate.
2. Both feed dogs should be in the centre of the needle plate cutout and
3. The two feed dogs should be spaced 4 mm apart.



當針棒在上死點（調整記號孔 **1**）且針距設定在最長時

1. 主送料齒須高出針板面 1.4mm 並與針板面平行，差動送料齒須高出針板面 0.9mm 並與針板面平行
2. 主送料齒與差動送料齒的前後位置皆須位於針板開槽的中央
3. 主送料齒與差動送料齒的前後端距離須為 4 mm

- Bring needle bar to t.d.c. and set the stitch length set at longest.
- Loosen screws **1, 2, 3** and **4**.
- Adjust feed dog carriers **5** and **6** according to **requirement 1**.
- Slightly tighten screws **1** and **2**.
- Turn eccentric bushes **7** and **8** according to **requirements 2** and **3**.
- In this position tighten screws **3** and **4**.
- In compliance with **requirement 1** tighten screws **1** and **2**.

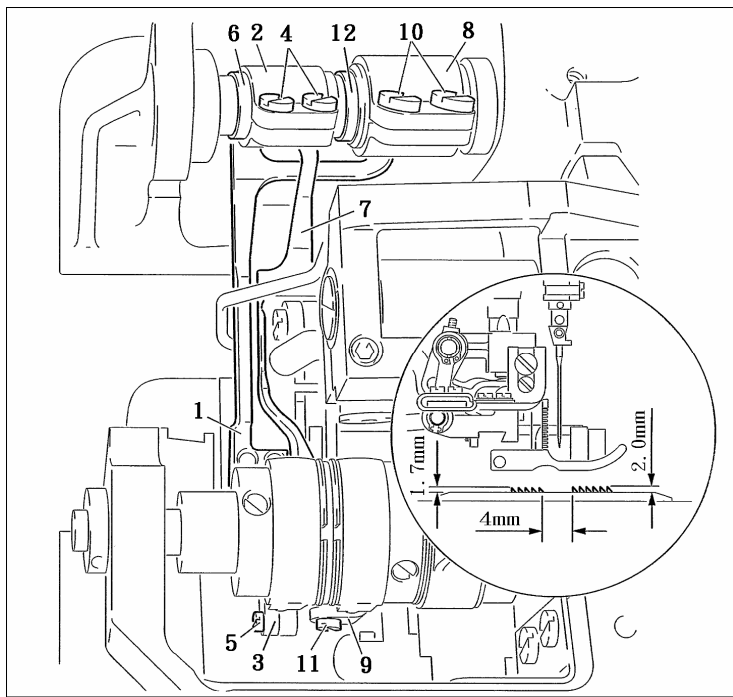
- ◆ 將針棒移到上死點的位置並將針距設定到最大
- ◆ 鬆開螺絲 **1, 2, 3** 及 **4**
- ◆ 調整送料齒台 **5** 與 **6** 到符合上述調整需求 1.的位置
- ◆ 稍微擰緊螺絲 **1** 與 **2**
- ◆ 轉動偏心軸套 **7** 與 **8** 到符合上述調整需求 2.與 3.的位置
- ◆ 在此位置擰緊螺絲 **3** 與 **4**
- ◆ 在符合上述調整需求 1.的狀態下擰緊螺絲 **1** 與 **2**

11. Position of Main and Differential Feed Dog on CS-5941 送料齒的位置

Requirements 調整需求

With the stitch length set at longest and the feed dogs in their highest position

1. The main feed dog should be 1.7mm and the differential feed dog 2.0mm parallel above the needle plate.
2. Both feed dogs should be in the centre of the needle plate cutout and be approximately 4 mm apart.



當針距設定在最長且送料齒在最高位置時

1. 主送料齒須高出針板面 1.7mm 並與針板面平行，差動送料齒須高出針板面 2.0mm 並與針板面平行
2. 主送料齒與差動送料齒的前後位置皆須位於針板開槽的中央，且其前後端距離須為 4 mm

- Set the stitch length at the longest and bring the main feed dog up to its highest position.
- According to requirement 1 and 2, adjust carrier 1 of the main feed dog by turning crank 2 and 3 (loosen screws 4 and 5) as well as the eccentric clamp bush 6.
- Bring differential feed dog carrier 7 into its highest position.
- According to requirement 1 and 2, adjust differential feed dog by turning crank 8 and 9 (screws 10 and 11) as well as the eccentric clamp bush 12.

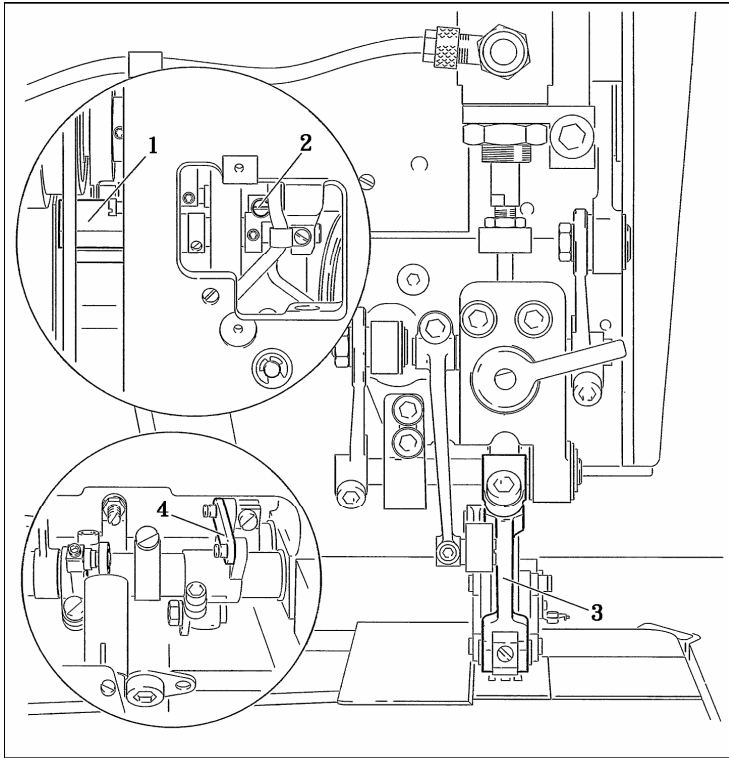
- ◆ 將針距設定到最大並將主送料齒移到最高位置
- ◆ 根據調整需求 1.與 2.轉動擺動臂 2 與 3（鬆開螺絲 4 與 5）以及偏心軸套 6 來調整主送料齒台 1 位置
- ◆ 將差動送料齒台 7 移到最高位置
- ◆ 根據調整需求 1.與 2.轉動擺動臂 8 與 9（鬆開螺絲 10 與 11）以及偏心軸套 12 來調整差動送料齒位置

12. Neutral Position of Top Feed Dog 上送料齒的中立位置

Requirement 調整需求

When the stitch length is set at “0” and with the adjustment gauge 4 fitted, there should be no feeding motion of the top feed dog.

當縫目長度設定在「0」的位置且調整治具 4 裝入時，上送料齒無前後運動



Note: The stitch length limitation must be deactivated.

- Set stitch length at “0”.
- While continuously turning the balance wheel, turn crank 1 (screw 2) so that lever 3 does not move.

注意：縫目長度限制須在解除

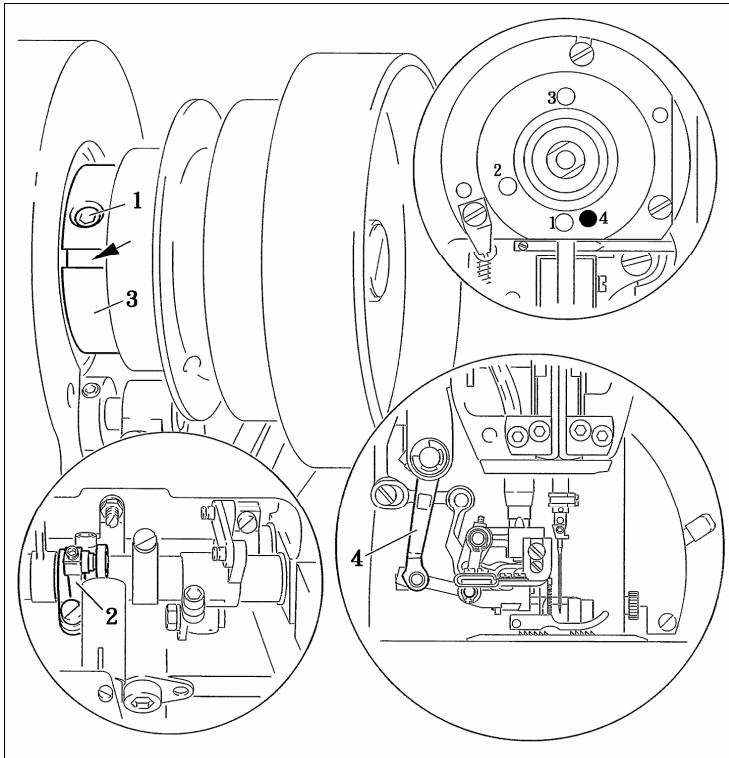
- ◆ 將縫目長度設定到「0」的刻度位置
- ◆ 連續轉動手輪，並調整擺動臂 1（螺絲 2），使擺動臂 3 不轉動

13. Feeding Motion of Top Feed Dog 上送料齒的進給運動

Requirement 調整需求

With the stitch length set at “4”, the needle bar is positioned at neutral position of feed dog. (adjustment hole 4), lever 4 should not move when lever 2 is operated.

當縫目長度設定在「4」的位置，針棒設定在送料齒的中立位置（調整記號孔 4），當推動滾輪擺臂 2 時，擺動臂 4 無前後運動



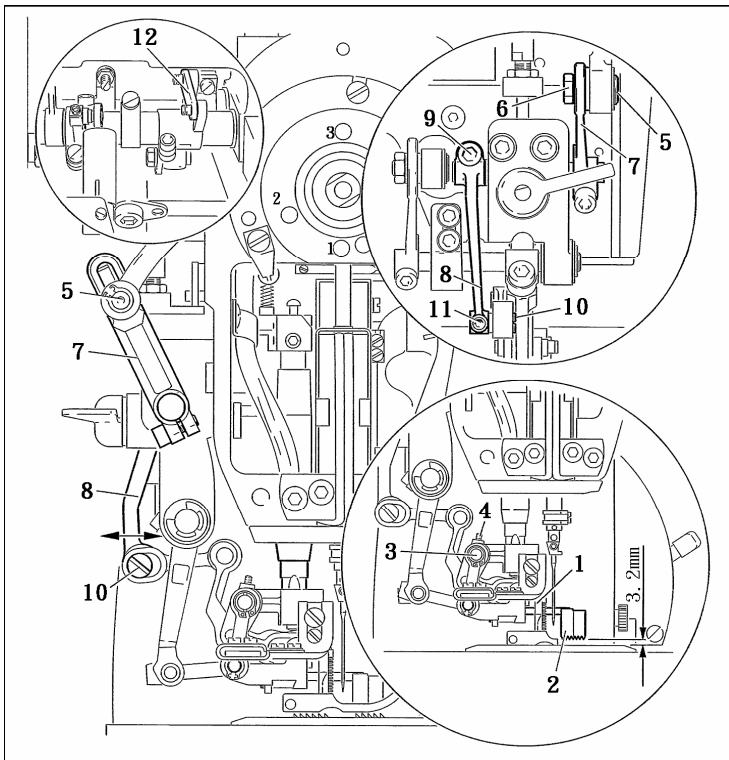
- Loosen both screws 1.
- While continuously moving lever 2 up and down, adjust eccentric 3, so that the slot is pointing towards the operator and lever 4 does not move.
- Tighten screws 1.
- ◆ 鬆開 2 個螺絲 1
- ◆ 持續撥動擺動臂 2 作上下搖動，並調整偏心輪 3，使其凹槽朝向操作者側，並且使擺動臂 4 不移動
- ◆ 擰緊 2 個螺絲 1

14. Top Feed Stroke 上送料齒的行程

Requirement 調整需求

With the stitch length set at “4” and adjustment gauge 12 fitted, at t.d.c. the top feed dog 2 should be 3.2mm from the needle plate.

當縫目長度設定在「4」的位置且調整治具 12 裝入時，在上送料齒的上死點位置時需離針板面 3.2 mm



- Allow the presser foot 1 to touch the needle plate.
- Set the stitch length “4”.
- By turning the balance wheel bring the top feed dog 2 to t.d.c.
- Adjust the eccentric pin 3 (screw 4) so that its eccentric part is pointing towards the needle.
- Move pin 5 (nut 6) to the bottom of the elongated hole of lever 7.
- To pre-set the distance of the top feed dog 2 from the needle plate adjust lever 8 (screw 9).
- Adjust eccentric pin 10 (screw 11) in accordance with the requirement.

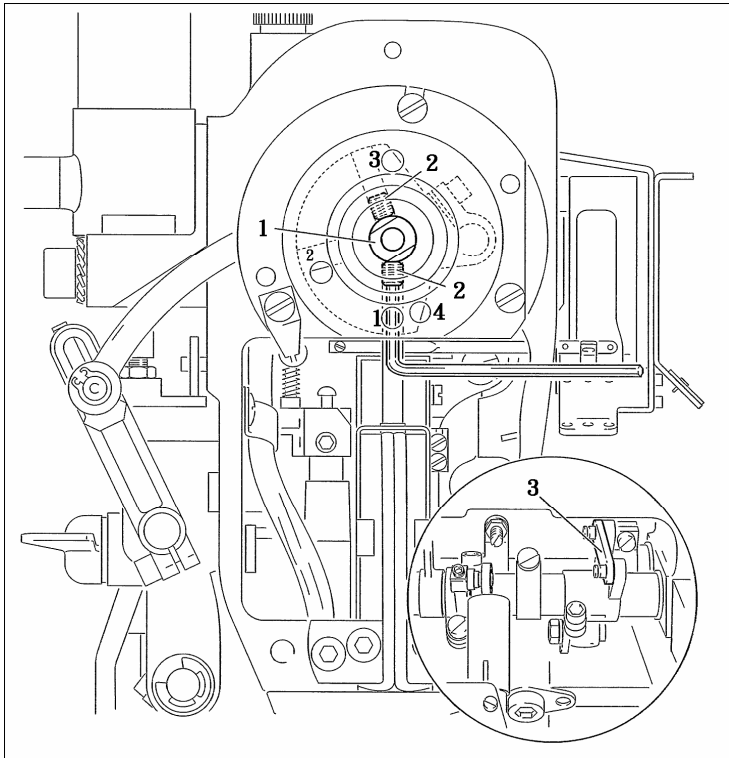
- ◆ 將壓腳 1 降下接觸針板
- ◆ 將縫目長度設定到「4」的刻度位置
- ◆ 轉動手輪使上送料齒 2 到達上死點的位置
- ◆ 調整偏心輪 3（鬆開螺絲 4）使其最大偏心量朝向機針的方向
- ◆ 將銷軸 5（鬆開螺帽 6）移到擺臂 7 的長型孔的底部位置
- ◆ 調整擺動臂 8（鬆開螺絲 9）預先設定上送料齒 2 距離針板面的高度
- ◆ 調整偏心軸 10（鬆開螺絲 11）以符合調整需求

15. Lifting Motion of Top Feed Dog 上送料齒的提升運動

Requirement 調整需求

When the stitch length is set at “4” and with adjustment gauge 3 fitted, the top feed dog should rest on the ascending bottom feed dog, when it reaches the top edge of the needle plate.

當縫目長度設定在「4」的位置且調整治具 3 裝入時，當下送料齒往上運行將浮出針板面的同時，上送料齒往下接觸到下送料齒



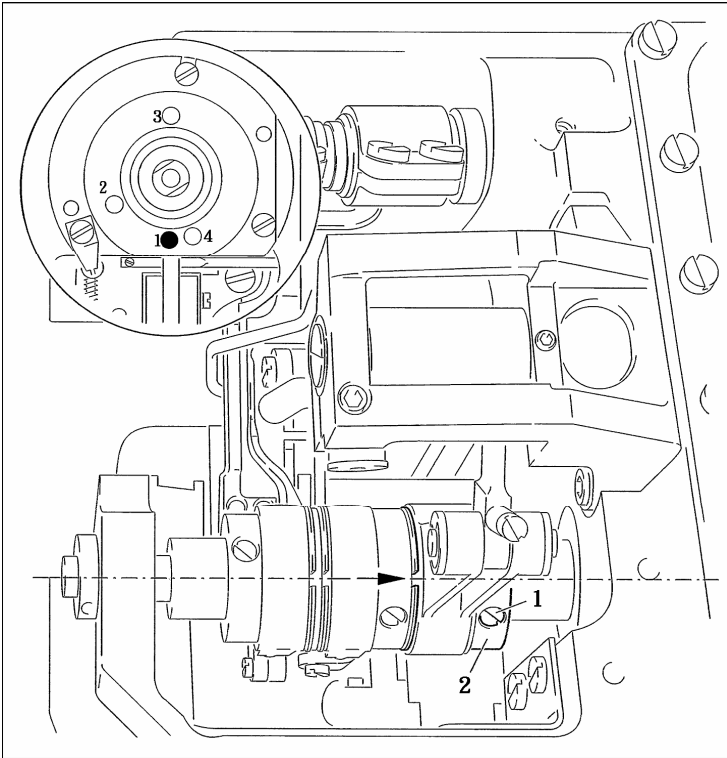
- Set stitch length to “4”.
- Adjust eccentric 1 (screws 2) according to the **requirement**.
- ◆ 將縫目長度設定到「4」的刻度位置
- ◆ 調整偏心輪 1（鬆開螺絲 2）以符合**調整需求**

16. Looper Avoiding Motion 勾針的前後運動

Requirement 調整需求

With the needle bar at t.d.c. (adjustment hole 1) the cutout of eccentric 2 should be positioned vertically below the centre of the axis.

當針棒在上死點前的位置時（調整記號孔 1），調整偏心輪 2 的開槽須朝向正下方



- Loosen both screw 1.
- Bring needle bar to t.d.c.
- Adjust eccentric 2 according to the **requirement**.
- Tighten screws 1.

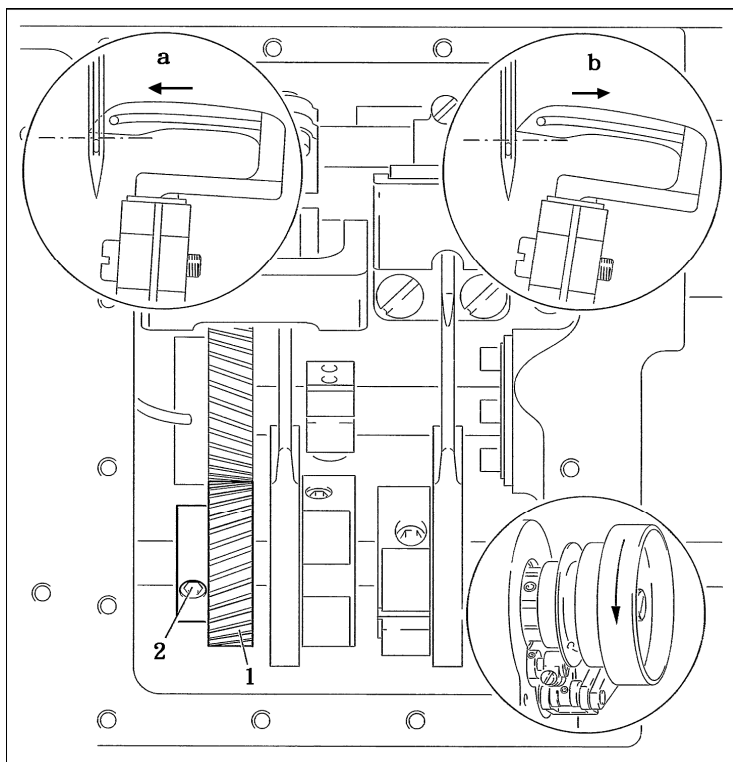
- ◆ 鬆開 2 個螺絲 1
- ◆ 將針棒移到上死點的位置
- ◆ 調整偏心輪 2 以符合調整需求
- ◆ 擰緊 2 個螺絲 1

17. Looper Motion 勾針的左右運動

Requirements 調整需求

In the following positions the of looper point the needle should be positioned at the same height:

- When, turning the balance wheel in the sewing direction while the looper is going on forward direction, the looper point is on the left side of the needle.
- When, turning the balance wheel while the looper is going on backward direction, the looper point is on the right side of the needle.



在下列的勾針尖點位置時，針棒的高度必須相同

- 順著車縫方向轉動手輪，勾針向前進方向運行，勾針尖點到達機針的左側面時
- 順著車縫方向轉動手輪，勾針向後退方向運行，勾針尖點到達機針的右側面時

- Insert a new needle.
- Turn the balance wheel until the looper point approaching from the right is positioned on the left side of the needle.
- At this position measure the vertical distance between the bottom of the needle bar frame and the top of the needle clamp.
- Turn the balance wheel against the sewing direction, until the vertical distance measured above shows the same again.
- Check **requirements**. If necessary, adjust gear **1** (screws **2**) according to the **requirements**.

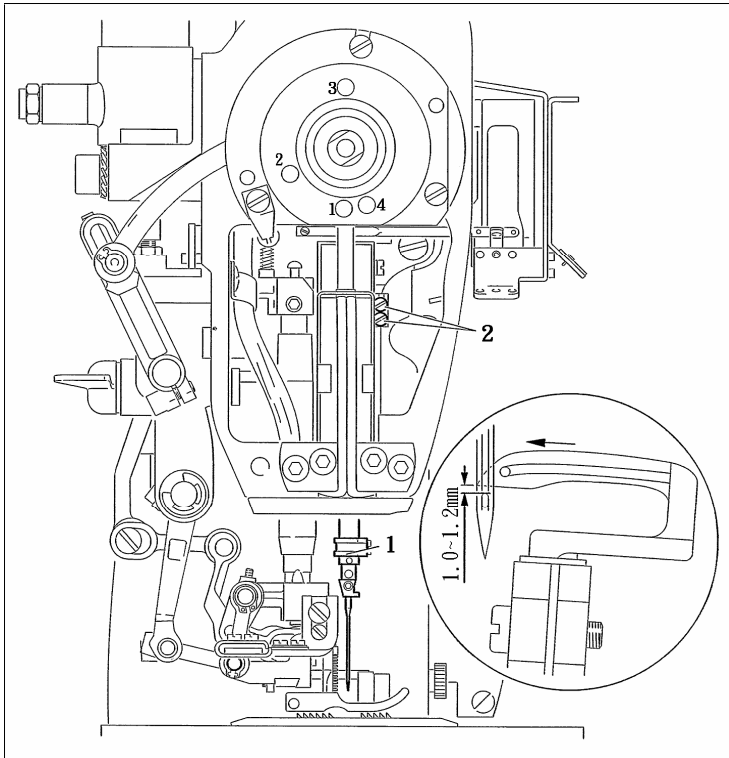
- ◆ 裝上一支新的機針
- ◆ 順著車縫方向轉動手輪使勾針從右方接進，直到勾針尖點到達機針的左側面
- ◆ 在此位置時，測量針棒座底面與針留上面之間的垂直距離
- ◆ 逆著車縫方向轉動手輪直到上述的測量垂直距離相同的位置
- ◆ 檢查**調整需求**，必要時調整齒輪 **1**（鬆開螺絲 **2**）以符合**調整需求**

18. Final Adjustment of Needle Height 機針高度的最後調整

Requirement 調整需求

When the point of the looper advancing from the right reaches the left side of the needle, the top edge of the needle eye must be 1.0~1.2mm below the bottom edge of the looper.

當勾針從右方前進使其尖點到達機針的左側面位置時，針孔上緣須距離勾針底面的下方 1.0~1.2mm



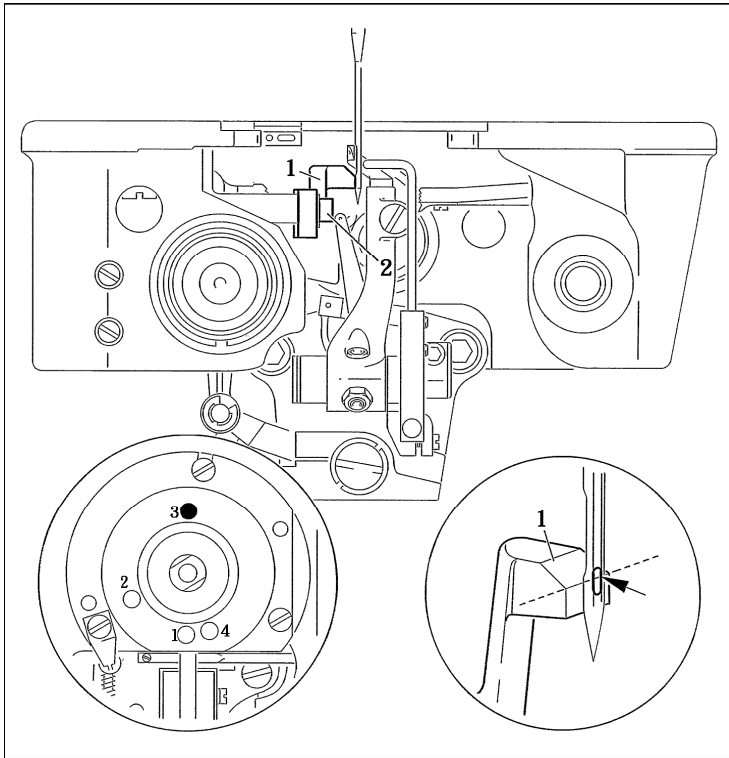
- Turn the balance wheel until the looper point, which is coming from the right, reaches the left side of the needle.
- Without turning the balance wheel, adjust the height of needle bar **1** (screw **2**) according to the **requirement**.
- ◆ 順著車縫方向轉動手輪使勾針從右方接進，直到勾針尖點到達機針的左側面
- ◆ 在不轉動手輪的狀態下，調整針棒 **1**（鬆開螺絲 **2**）高度以符合**調整需求**

19. Height of Rear Needle Guard 後針擋的高度

Requirements 調整需求

When the needle bar is at bottom dead center (pin in hole 3), the vertical surface of the needle guard **1** must cover about 2/3 of the needle eye.

當針棒在下死點前的位置時（調整記號孔 **3**），後針擋 **1** 的垂直面必須遮住機針針孔的三分之二範圍



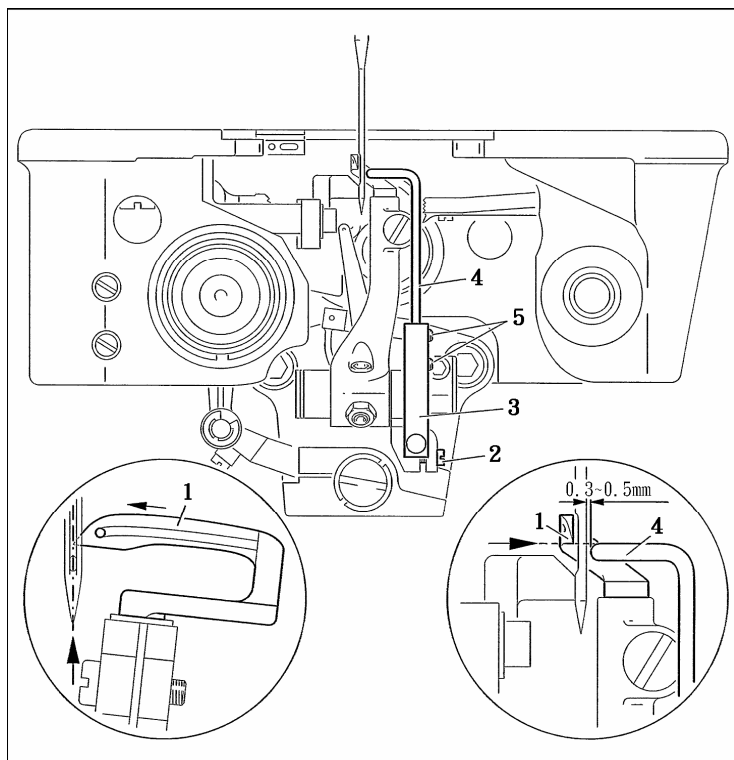
- Bring the needle bar to b.d.c.
- Adjust needle guard **1** (screw **2**) according to the **requirement**.
- ◆ 將針棒移到下死點的位置
- ◆ 調整後針擋 **1**（鬆開螺絲 **2**）以符合調整需求

20. Position of Front Needle Guard 前針擋的位置

Requirements 調整需求

When the point of the looper **1**, which is advancing from the right, is positioned in the center of the needle, the front needle guard **4** must

1. have a side clearance to the needle of 0.3~0.5mm
2. be parallel to the looper blade
3. have its top edge at the same height as the point of looper **1**.



當勾針 **1** 從右方前進使其尖點到達機針的中心位置時，前針擋 **4** 必須：

1. 距離機針間隙 0.3~0.5mm
2. 與勾針刀部平行
3. 其上端面與勾針 **1** 的尖點高度相同

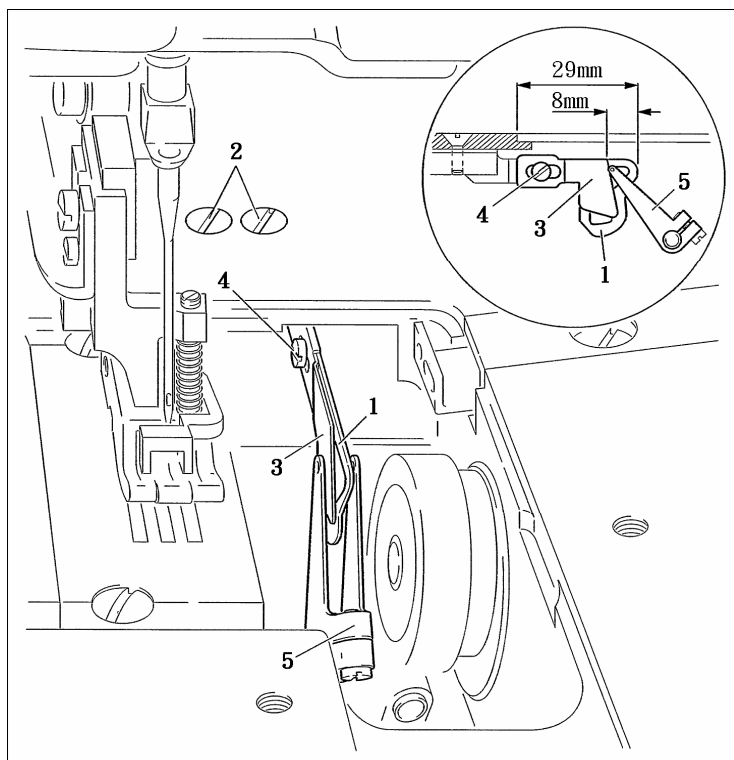
- By turning the balance wheel bring looper **1** to its left point of reversal. Loosen screws **2**.
 - Adjust needle guard bracket **3** so that in this position the front needle guard **4** is not in contact with looper **1**. Then slightly tighten screws **2**.
 - Turn the balance wheel until the point of the looper **1**, when coming from the right, is positioned in the center of the needle.
 - Adjust needle guard bracket **3** according to **requirement 1**.
 - Align front needle guard **4** (screws **5**) according to **requirement 2** and **3**.
-
- ◆ 轉動手輪使勾針 **1** 到達左極限點，鬆開螺絲 **2**
 - ◆ 調整前針擋支架 **3**，使勾針 **1** 與前針擋 **4** 不接觸，然後稍微擰緊螺絲 **2**
 - ◆ 轉動手輪使勾針 **1** 從右方前進使其尖點到達機針的中心位置
 - ◆ 調整前針擋支架 **3** 以符合調整需求 **1**。
 - ◆ 調整前針擋 **4**（鬆開螺絲 **5**）以符合調整需求 **2**及 **3**。

21. Looper Thread Regulator and Looper Thread Take-Up 底線過線器的調整

Requirements 調整需求

1. The distance between the front edge of looper thread regulator **1** and the rear edge needle plate guide must be 29mm.
2. The front edges of the thread take-up device **3** and the thread regulator **1** must be about 8mm apart.

1. 底線調節板 **1** 的前緣與針板導槽的後端面距離須為 29mm
2. 底線收線板 **3** 的前端點與底線調節器 **1** 的前緣之間的離須約為 8mm



- Adjust thread regulator **1** (screws **2**) according to **requirement 1**.
- Adjust thread take-up device **3** (screw **4**) according to **requirement 2**.

Note: Depending on the type of material and thread used, the basic setting may have to be modified.

- ◆ 調整底線調節板 **1** (鬆開螺絲 **2**) 以符合調整需求 1.
- ◆ 調整底線收線板 **3** (鬆開螺絲 **4**) 以符合調整需求 2.

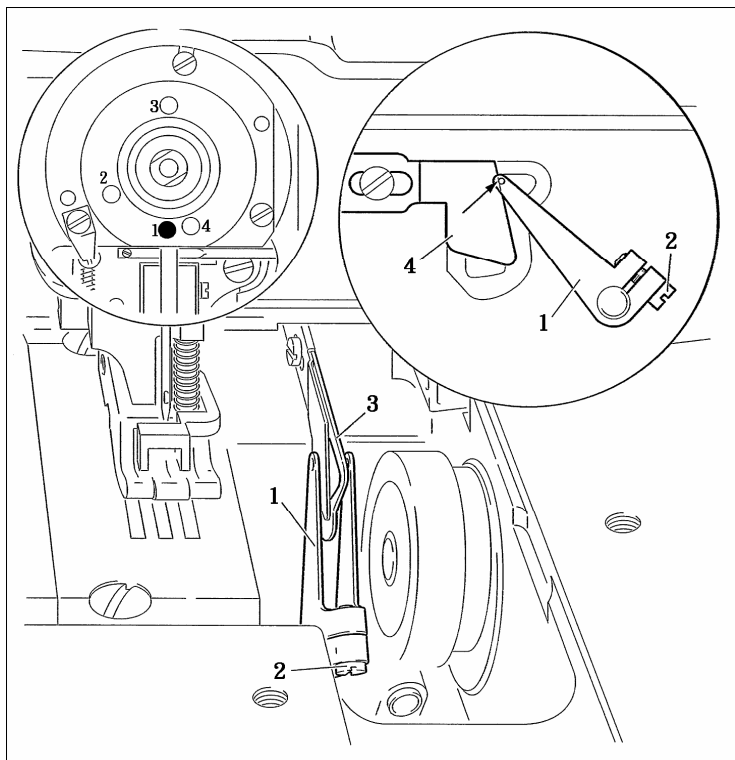
備註：根據車縫不同材質的布料和縫線，此調整可稍作修正

22. Looper Thread Puller 底線的收線

Requirement 調整需求

With the needle bar in top dead center (pin in hole **1**) both eyes of looper thread puller **1** must be at the front edge of the thread take-up device **4**.

當針棒在上死點前的位置時（調整記號孔 **1**），底線拉線器 **1** 的兩個過線孔必須位於底線收線板 **3** 的前緣



- Bring needle bar to top dead center.
- Turn thread puller **1** (screw **2**) according to the **requirement**, making sure that the prongs of thread puller **1** are in the middle of the thread regulator **3**.

Note: Depending on the type of material and thread used, the basic setting may have to be modified.

- ◆ 將針棒移到上死點的位置
- ◆ 調整底線拉線器 **1**（鬆開螺絲 **2**）以符合**調整需求**，並確認底線調節板 **3** 位於底線拉線器 **1** 的叉口中間位置

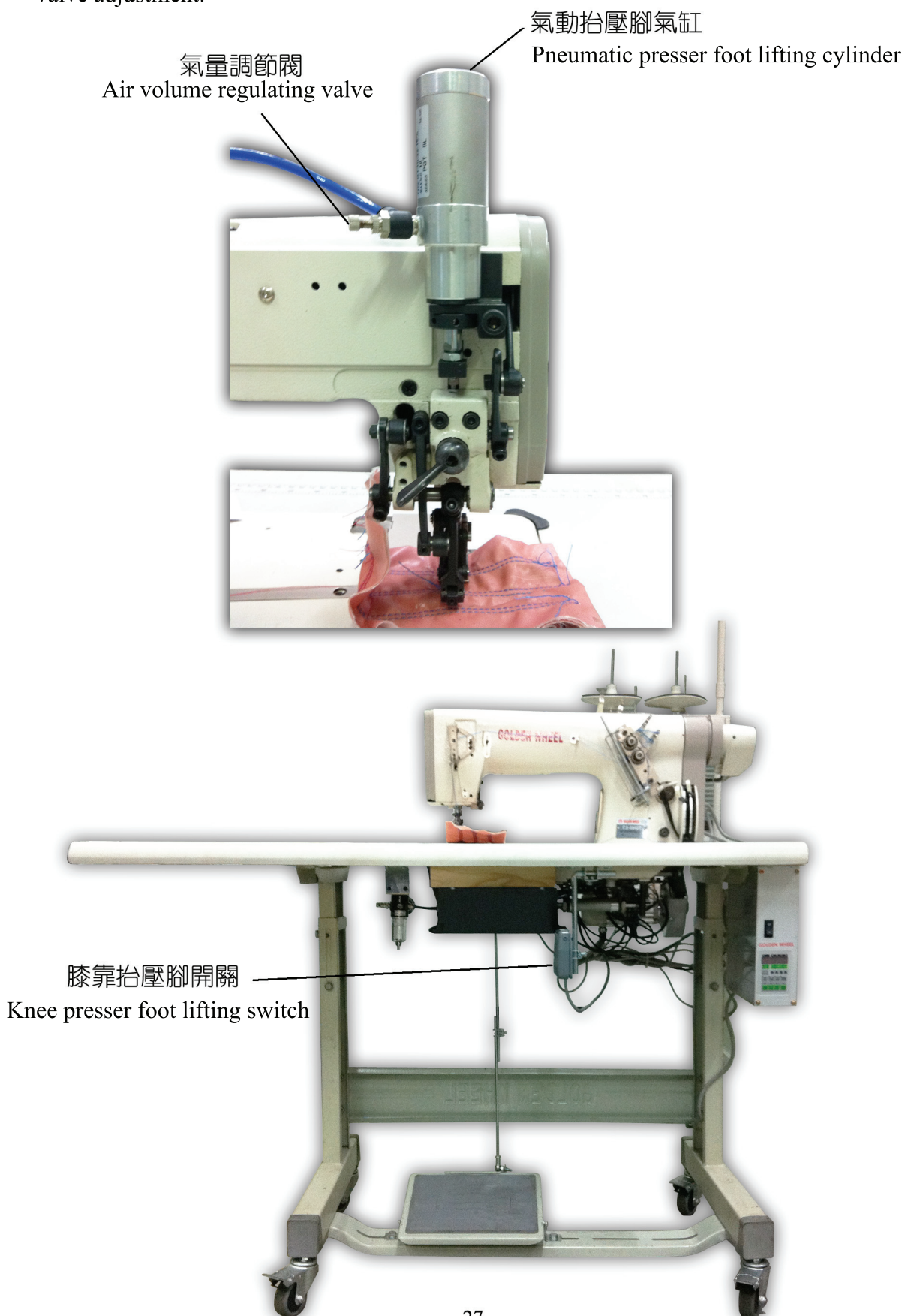
備註：根據車縫不同材質的布料和縫線，此調整可稍作修正

CS-5942/5942T 專用說明部分 Special instruction

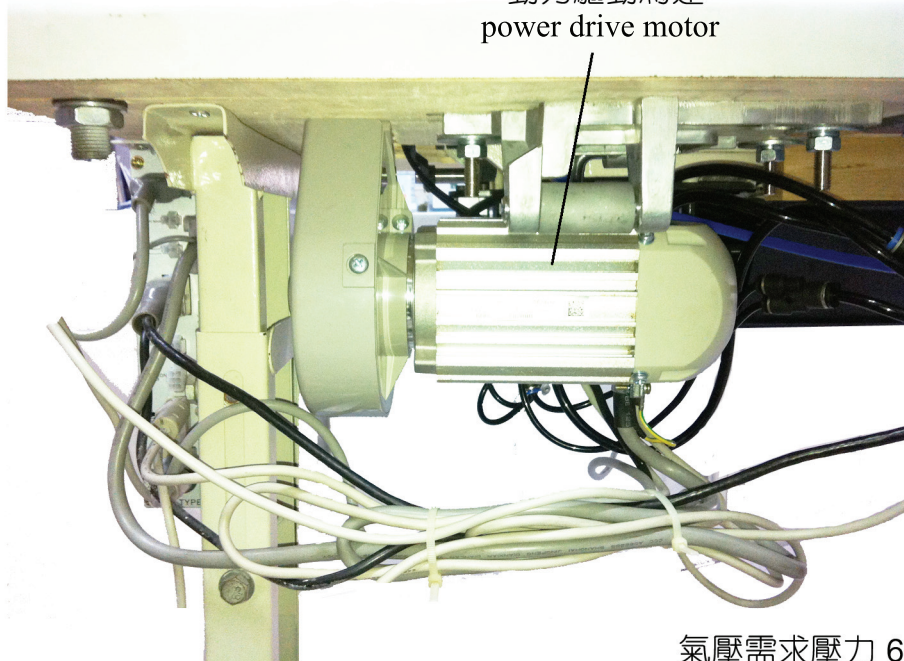
23. 氣動抬壓腳機構 Pneumatic presser foot lifting mechanism

如需調節氣動抬壓腳氣缸，可用使用氣量調節閥進行調節。

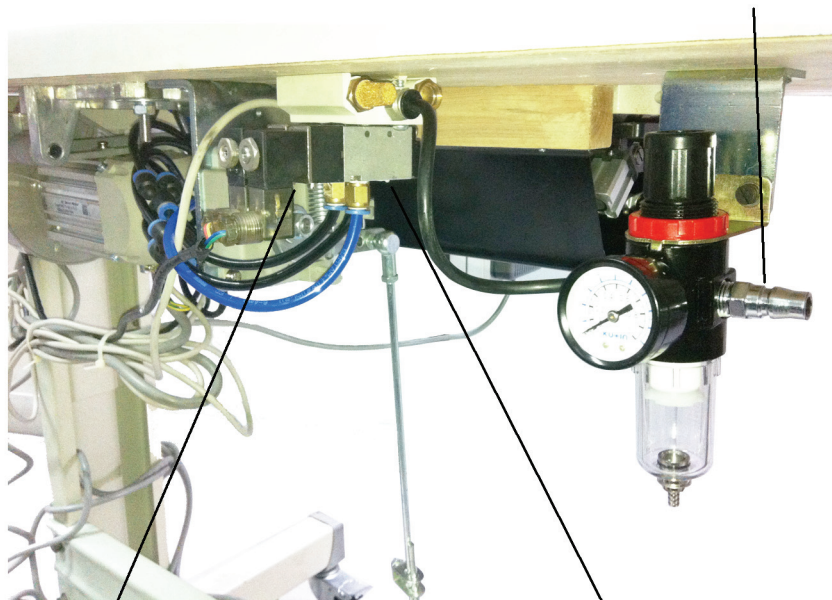
If need to adjust the pneumatic presser foot lifting cylinder, you can use air volume regulating valve adjustment.



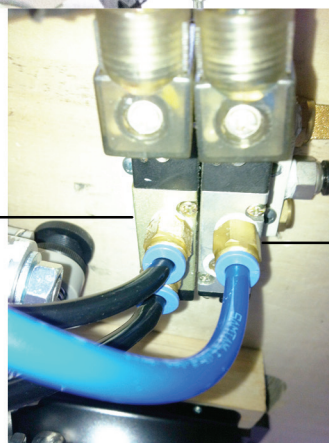
動力驅動馬達
power drive motor



氣壓需求壓力 6mpA
Pneumatic pressure of demand 6mpA



切綫鬆綫氣閥電磁鐵
Valve electric solenoid
of thread trimming and
tension release



抬壓腳氣閥電磁鐵
Valve electric solenoid of
presser foot lifting

24. 沙拉組鬆綫機構 Thread tension release mechanism

圖中所標1爲面綫打綫氣缸，手壓2處可以鬆綫。3處爲上送料調整杆，撥動上下移動可以調整上送料量。4處爲下送料調整杆，可以撥動上下移動調整下送料量。

As show in figure 1 is wiper surface thread air cylinder, presser figure 2 can release thread. Figure 3 is upper feed adjustment rod, stir upper and lower movement can adjust upper feed amount. Figure 4 is lower adjustment rod, stir upper and lower movement can adjust lower feed amount.

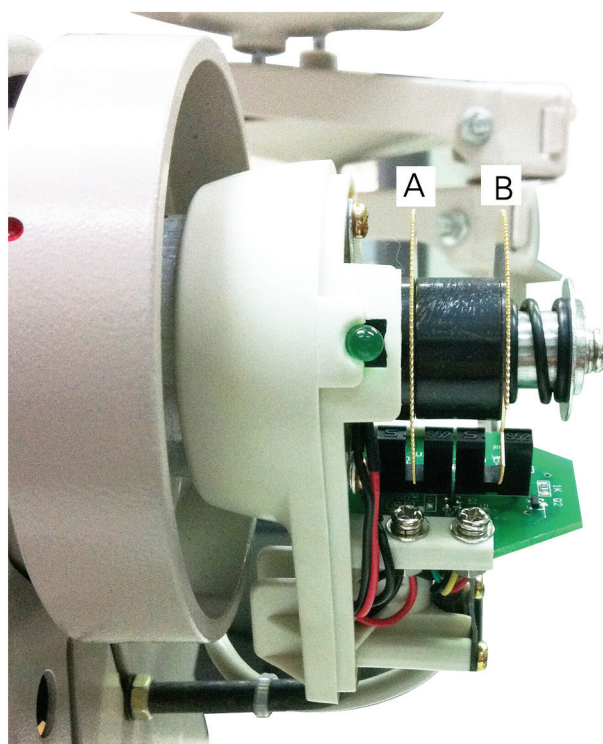
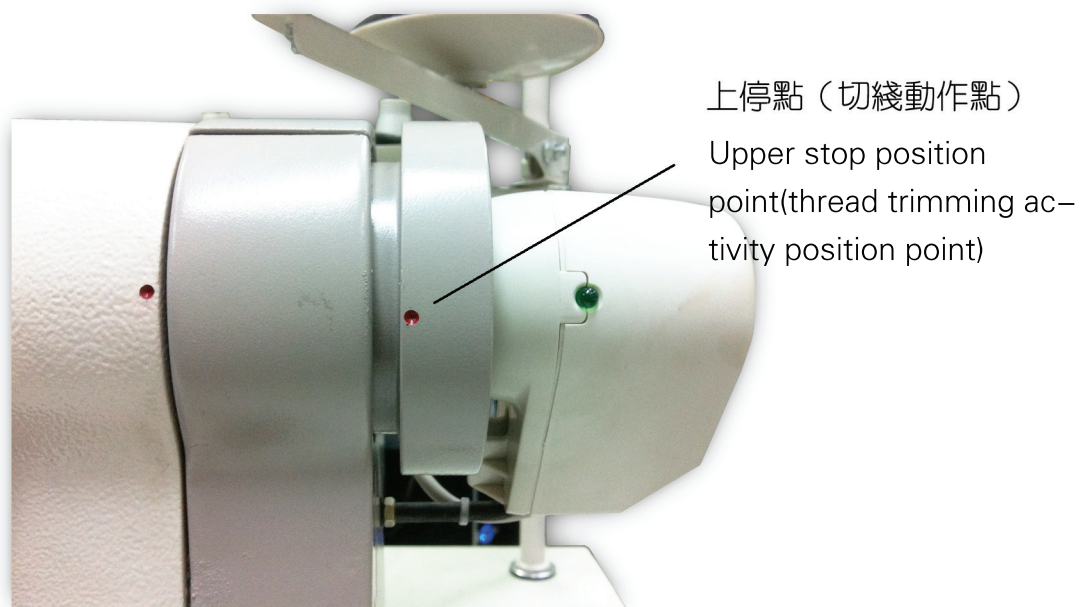


25. 機器切綫定位器安裝位置

Installation position of thread trimming positioner in the machine

調整外置定位器，使手輪紅的對齊機頭紅點。

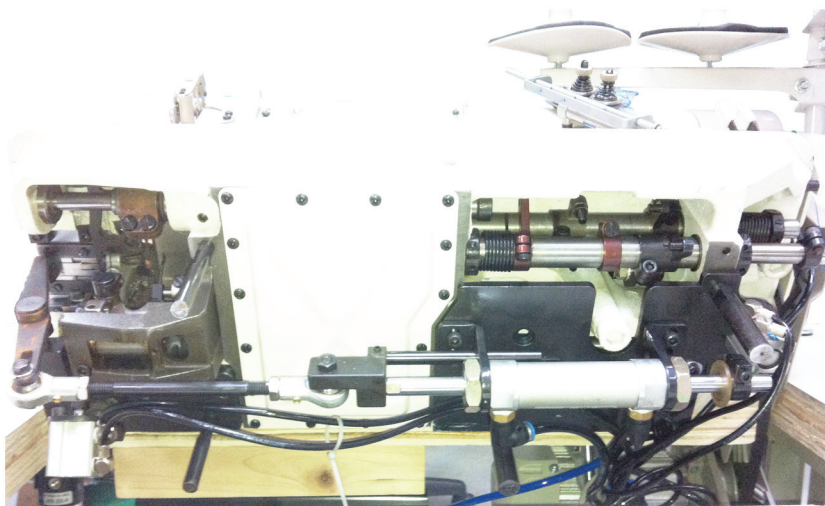
Adjust outer positioner ,in order to the red point alignment machine head red point.



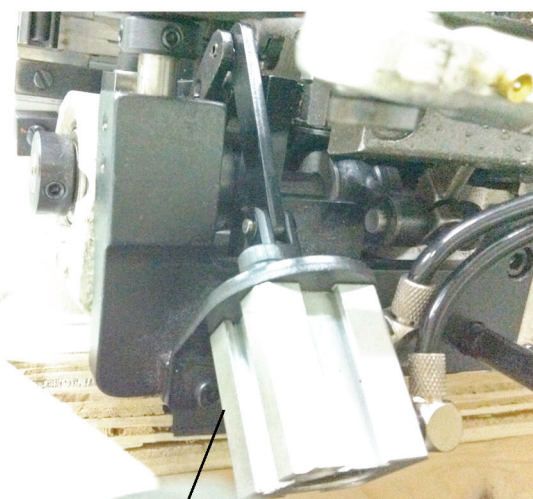
外置定位位置定位板，設置要求上下位置：A-上停，B-下停。

Outer position need to put position plate,
setting demand upper and lower position:

A-upper stop,B-lower stop.



切綫驅動機構
Thread trimming drive mechanism



切綫驅動氣缸
Thread trimming
drive air cylinder

底綫撥動氣缸
Bottom thread stir air cylinder

面綫鬆綫氣缸
surface thread release
air cylinder



Move
knife
and
fixed
knife
adjust-
ment
screw.

動定刀壓力調整螺絲

