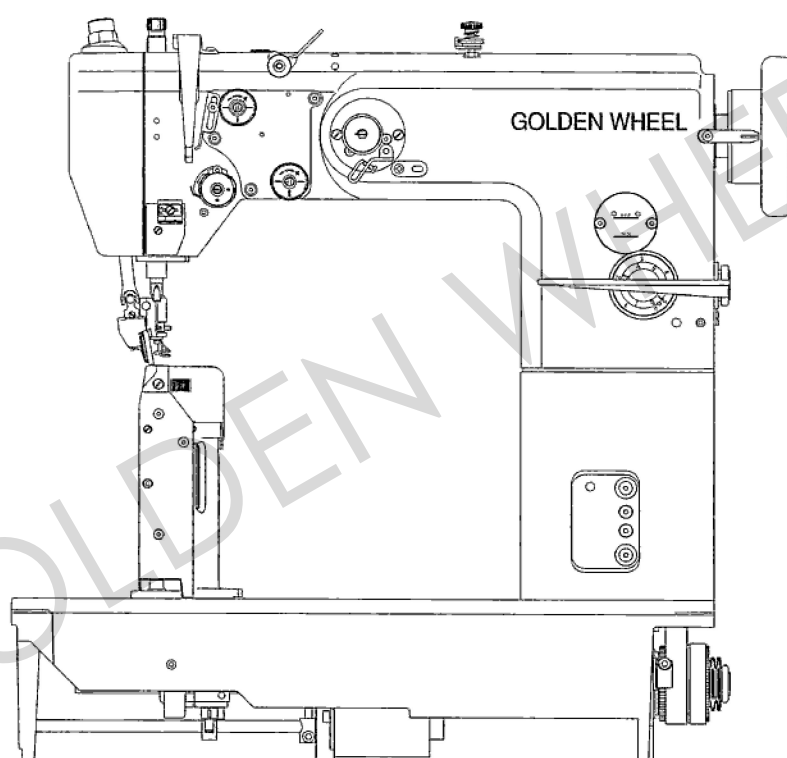


金輪牌工業用縫紉機

GOLDEN WHEEL INDUSTRIAL SEWING MACHINE

CS-8812/8822 系列

CS-8812/8822 **Series**



操作說明書

INSTRUCTION MANUAL

啟翔股份有限公司

CHEE SIANG INDUSTRIAL CO., LTD.

■ 重要安全事項 ■

1. 使用此縫紉機之前，所有安全裝置應安裝到規定的位置。沒有安裝規定的安全裝置時禁止使用。
2. 此縫紉機須由接受過培訓的操作人員來操作。
3. 操作縫紉機時，應戴安全防護眼鏡。
4. 在下列情況下，應關閉電源開關或拔下電源線插頭：
 - 穿線或更換梭子時
 - 更換機針、針板、旋梭、壓腳等零件時
 - 保養、調整或修理時
 - 離開工作場所時
5. 使用離合器馬達時，請等待馬達完全停止之後再進行穿線或更換零件等工作。
6. 禁止用手觸摸縫紉機通電的零件或裝置，不論電源開關是否打開。
7. 縫紉機的修理或調整應由受過專門訓練的技術人員來進行。
8. 縫紉機的使用期間應定期清掃及潤滑。
9. 電源插頭應由具有專門知識的技術人員來安裝。電源插頭必須連接到接地插座上。
10. 縫紉機指定用途以外不得使用。
11. 對縫紉機的變更或改造應符合安全規定，並採取有效的安全措施。

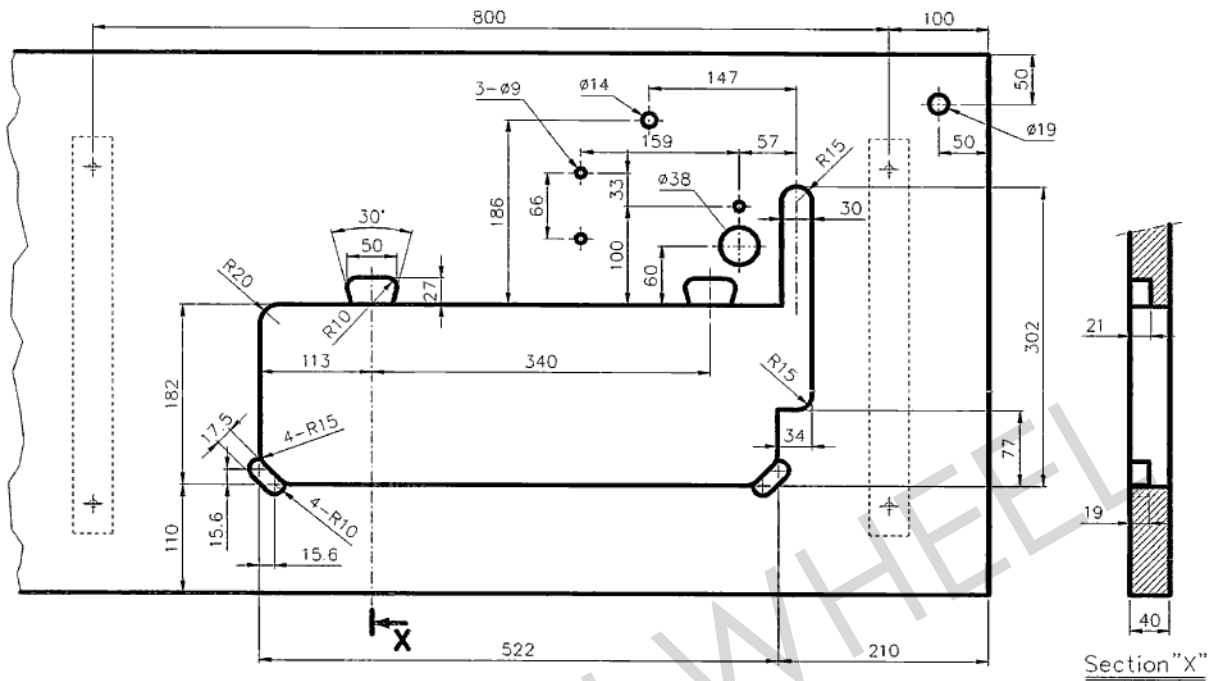
◆ IMPORTANT SAFETY INSTRUCTION ◆

1. All safety devices must in position when the machine is ready for work. Operation without the specified safety devices is not allowed.
2. This machine should be operated by appropriately trained persons.
3. Wear safety glasses when operating this machine.
4. Under following circumstances, turn off the power switch or disconnect the power plug of the machine from the receptacle:
 - Threading needle(s) or replacing bobbin(s)
 - Replacing needle(s), throat plate, hook(s) or presser foot etc.
 - Maintaining, adjusting or repairing
 - Leaving the working place
5. When using a clutch motor, please wait for the motor stops completely before threading or replacing parts.
6. Do not tampering live parts or devices, regardless of whether the machine is powered.
7. Repair and adjustment works should only be done by appropriately trained technicians.
8. Periodically clean and lubricate the machine throughout the time in use.
9. The power plug should be attached to the machine by electric technicians. The power plug has to be connected to a grounded receptacle.
10. This machine is only allowed to be used for the purpose intended. Other uses are prohibited.
11. Modifying or remodeling the machine should be made in accordance with the safety regulations and should apply effective safety measures.

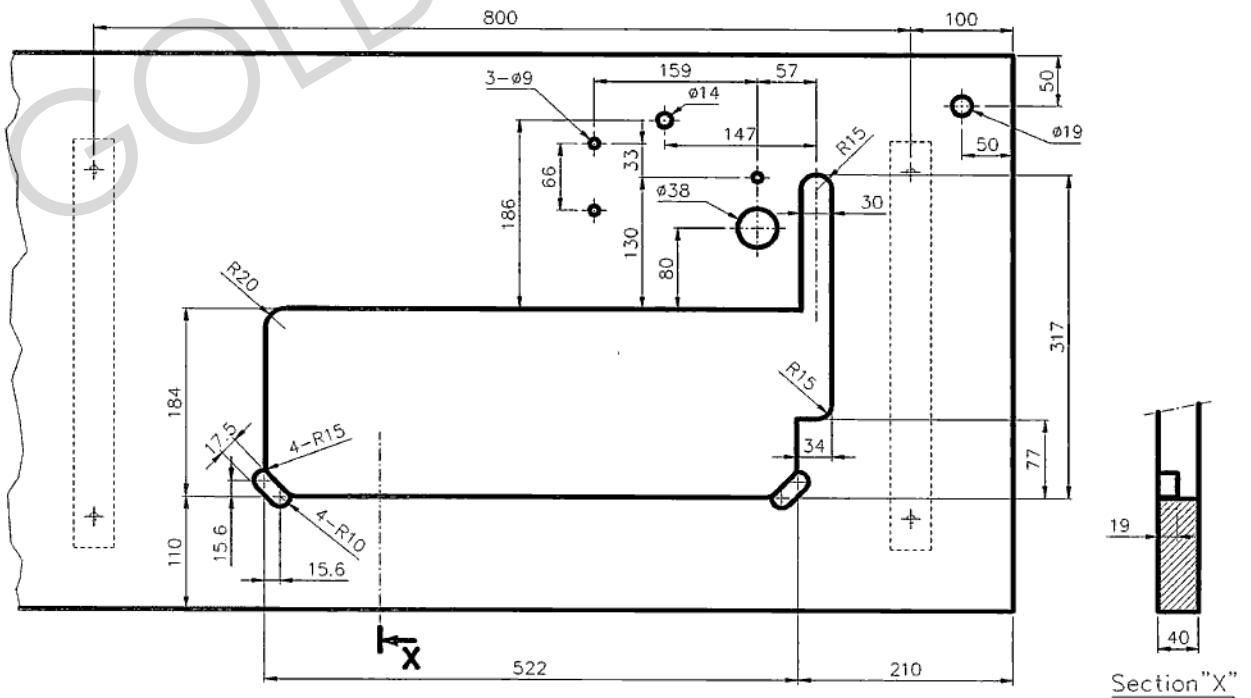
■ 台板開孔圖

◆ Drawing of Table Cut-out

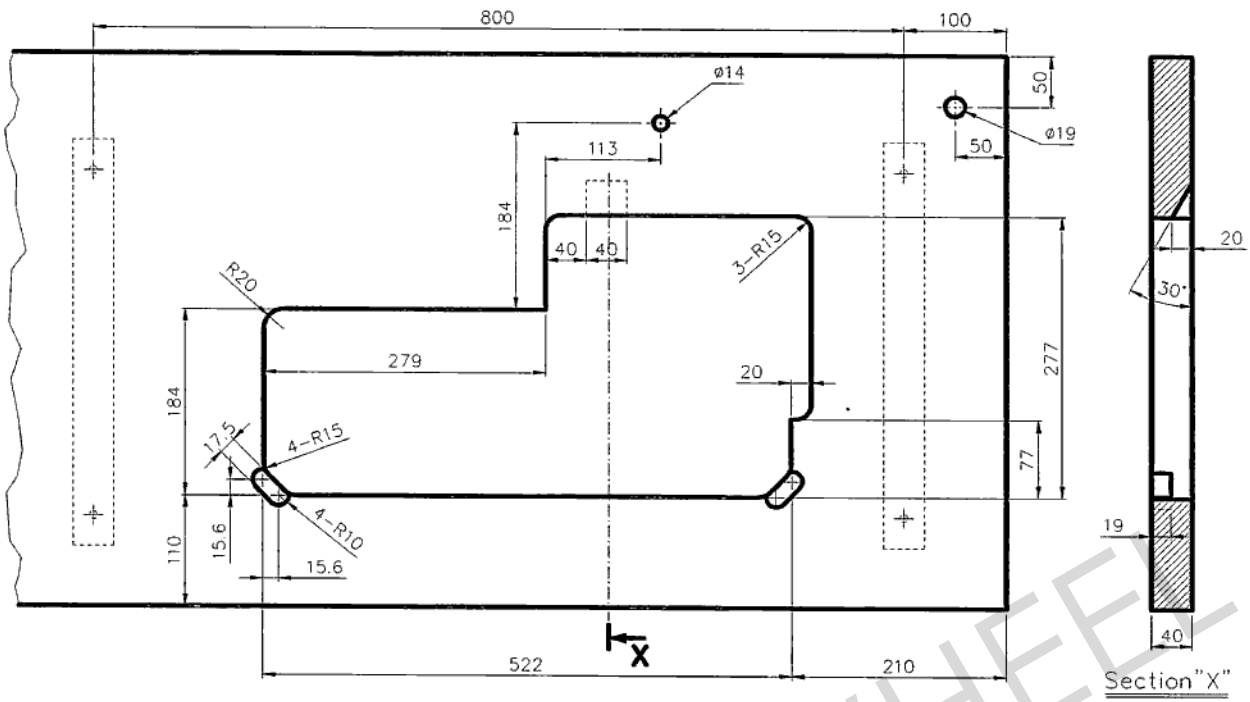
① 台板開孔 —— 裝離合器馬達及不裝斜台用
Table Cut-out for Clutch-motor and without Tilt Board



② 台板開孔 —— 裝離合器馬達及裝斜台用
Table Cut-out for Clutch-motor and with Tilt Board

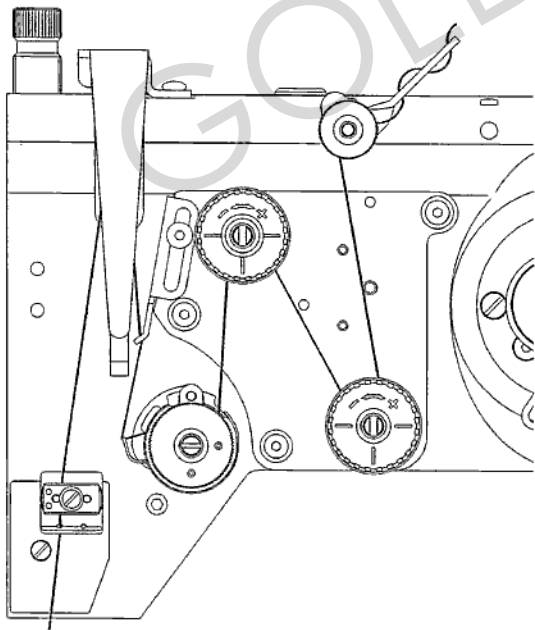


③台板開孔 —— 裝迷你馬達及裝斜台用
 Table Cut-out for Mini-motor and with Tilt Board

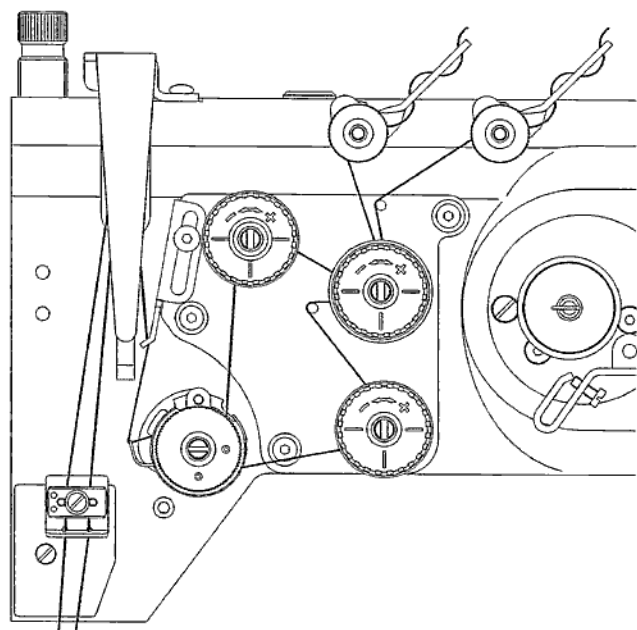


- 穿線示意圖
- ◆ Threading Illustration

CS-8812



CS-8822



■ 手輪參考角度

針棒上死點	0°
針上停位置	64°
針下停位置	135°
旋梭勾針線	205°

◆ Reference Angles of Hand-wheel

Needle Bar Top Dead Center	0°
Needle Up Stop Position	64°
Needle Down Stop Position	135°
Needle to Hook Point	205°

■ 天秤行程的調整

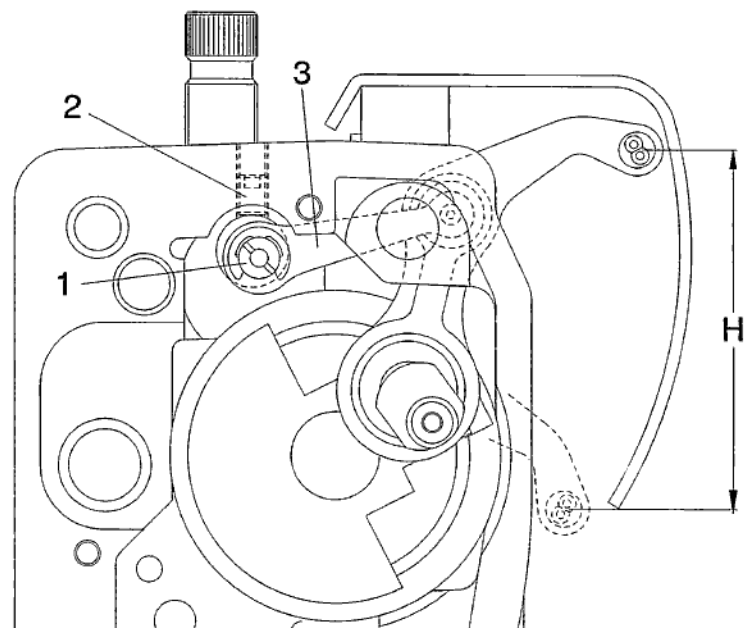
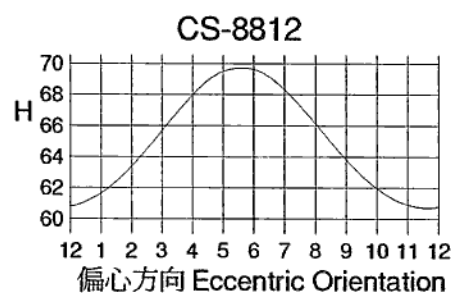
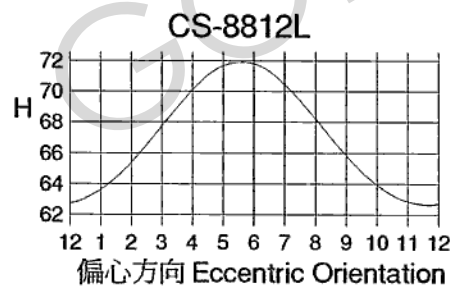
天秤的行程(H)可藉由轉動偏心銷(1)的方向作微量調整。調整方法如下：

- 拆下面板蓋，鬆開固定螺絲(2)，可轉動偏心銷(1)。
- 偏心銷(1)的偏心方向與天秤總行程(H)的關係如下表所示。偏心角度以面向軸心觀看時的時鐘方向為代表（例如右圖所示的偏心銷角度約在 4 點鐘與 5 點鐘方向之間。）
- 因偏心銷(1)後端有油管相連接，轉動偏心銷時不可超過一圈或強行轉動，以免油管脫落。調整好行程後擰緊固定螺絲(2) 並檢查連桿(3)的軸向間隙變化。

◆ Adjusting Stroke of Thread Take-up Lever

The stroke (H) of the thread take-up lever can be adjusted within a small range according to the orientation of Eccentric Pin (1). The method is as follow:

- Remove the front cover. Loosen Set Screw (2) so that Pin (1) can be rotated.
- The relation between the orientation of Eccentric Pin and the stroke (H) is shown in the diagram below. Eccentric orientation is calibrated as the dial of clock and viewed from the axial direction. (For instance, the right figure shows the eccentric orientation is approximately between 4 and 5 o'clock.)
- Because there is an oil tube connecting to the rear end of the Eccentric Pin (1), do not rotate Eccentric Pin more than a full turn or force it to rotate, lest the oil tube may become separate. Pay attention to the change in the axial clearance of the Connecting Rod (3) after tightening Set Screw (2).

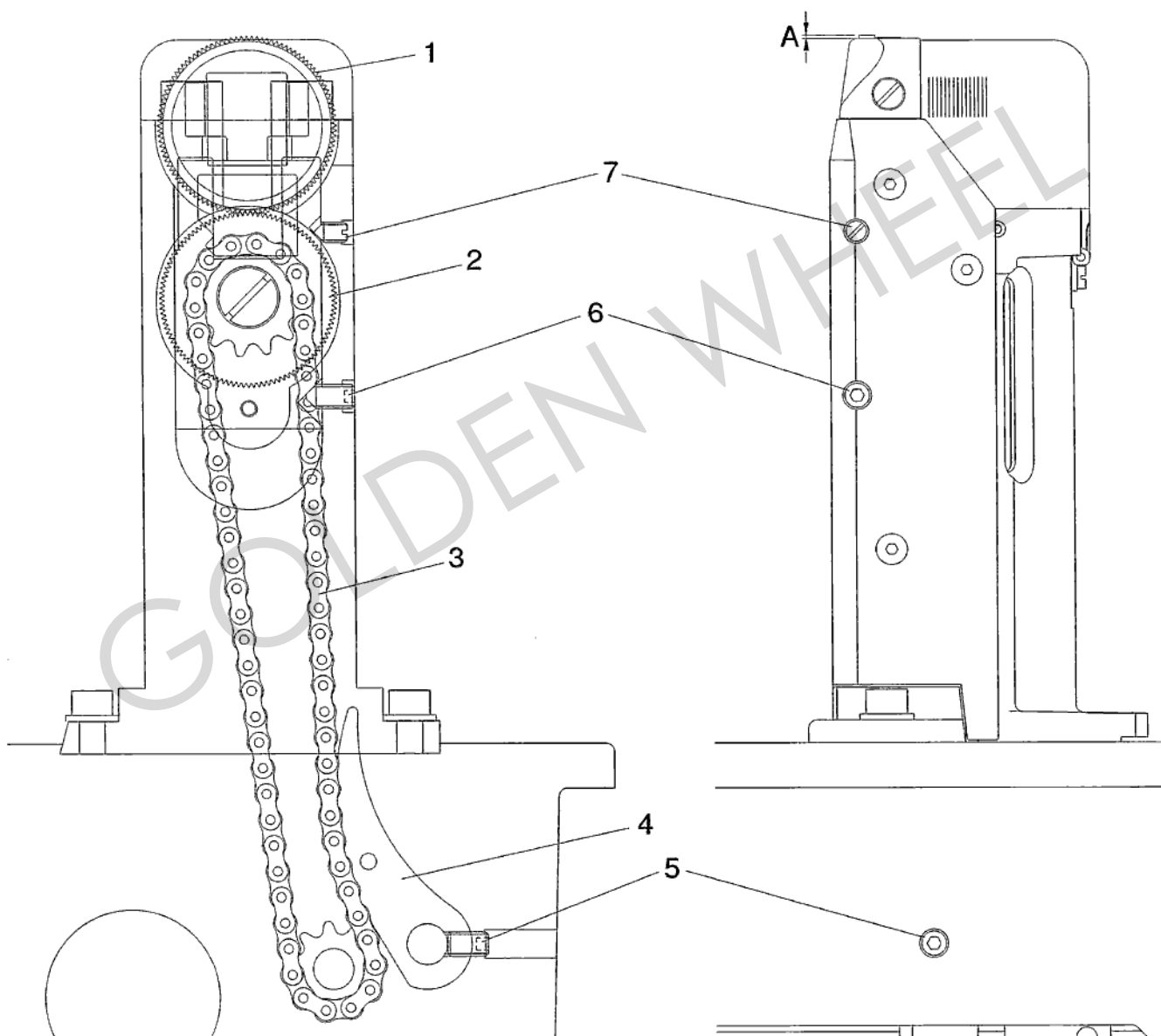


■ 送料輪高度的調整

送料輪(1)的高度(A)係受其下方的齒輪(2)支撐，齒輪又由鏈條(3)所帶動。因此要調整上升送料輪(1)的高度時須先鬆開固定螺絲(5)以便釋放鏈條壓板(4)。調整尖頭螺絲(6)與(7)的進退以增減送料輪的高度(A)。調整完成時重新固定鏈條壓板(4)需注意鏈條(3)不可太緊繃或太過鬆弛。

◆ Adjusting Height of Feed Wheel

The height (A) of Feed Wheel (1) is supported by Gear (2) below it. And the Gear is driven by Roller Chain (3). So it is necessary to loosen Set Screw (5) to release Chain Tensioner (4) before raising the Feed Wheel (1). Drive the Cusp-tip Screws (6) and (7) in or out reversely to increase or decrease the height (A) of Feed Wheel. Be sure to retain an adequate tension in Roller Chain (3) when resetting Chain Tensioner (4) over.



左視 Left View

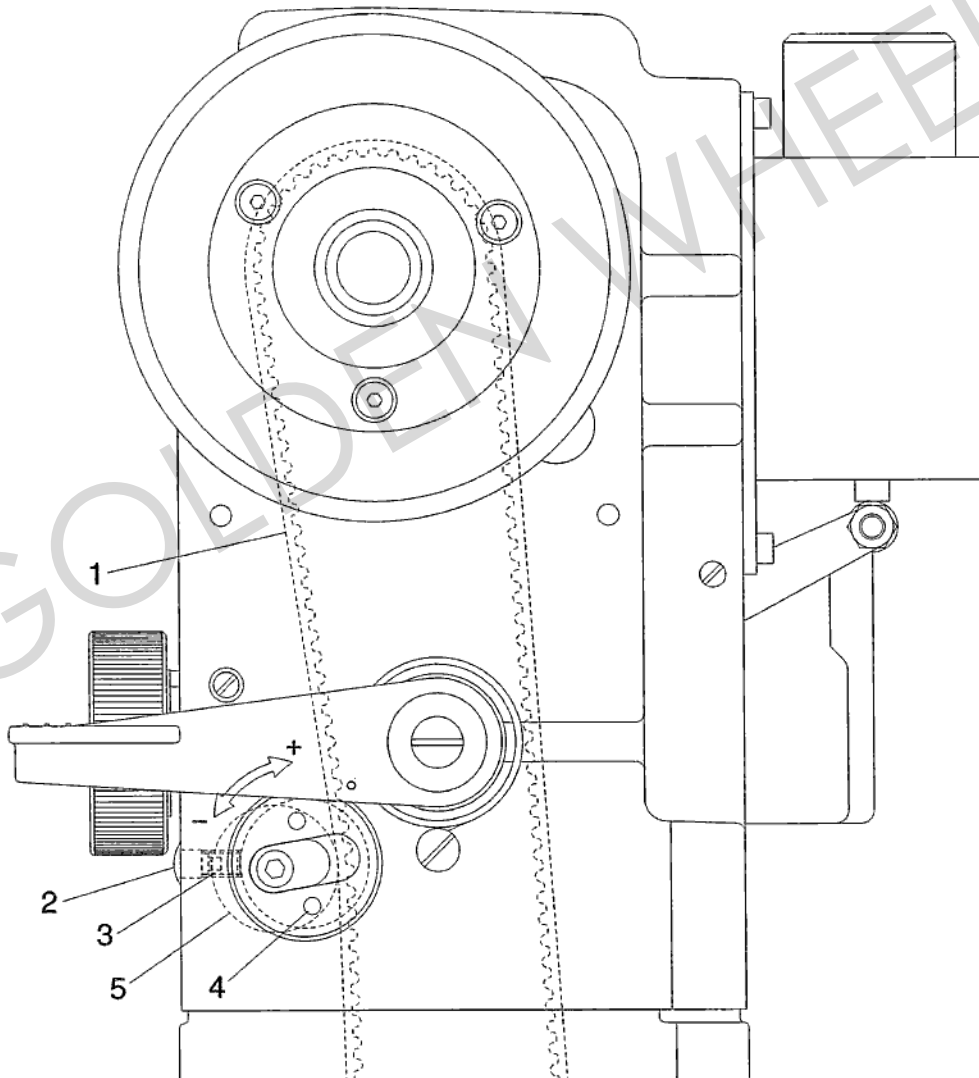
前視 Front View

■ 上軸皮帶張力的調整

上軸皮帶(1)的張力在出廠時皆已設定到合適的緊度，不需要調整。若在特殊的情況下需要調整時，請拔出孔塞(2)並鬆開固定螺絲(3)，使用適當的工具轉動偏心座(4)以改變張力惰輪(5)的位置。順時針方向轉動偏心座(4)繃緊皮帶，反之則放鬆。由於惰輪軸的偏心量相對皮帶輪的中心距離很小，稍微施力扭轉偏心座即可產生很大的皮帶張力，調整後請從底座開口處用手指試壓皮帶感測彈力，避免過度繃緊皮帶。

◆ Adjusting Tension of Timing Belt of Main Shaft

The tension of Timing Belt (1) had been set properly before forwarding. No further adjustment is need. In other cases when it is required to adjust, please pull out Plug (2) and loosen Set Screw (3), then use a suitable tool to rotate Eccentric Base (4) for changing the position of Tension Idler (5). Rotate Eccentric Base (4) clockwise to increase tension of Timing Belt, reversely to decrease. Because the eccentricity of the axis of Idler is small comparing to the center distance between belt pulleys, exerting a little torque on the Eccentric Base may produce a great tension in the Timing Belt. Please press the Timing Belt by fingers from the opening under the machine to check its tension after adjusting to prevent excess tensioning.



右視 Right View

■ 送料驅動偏心輪角度的設定

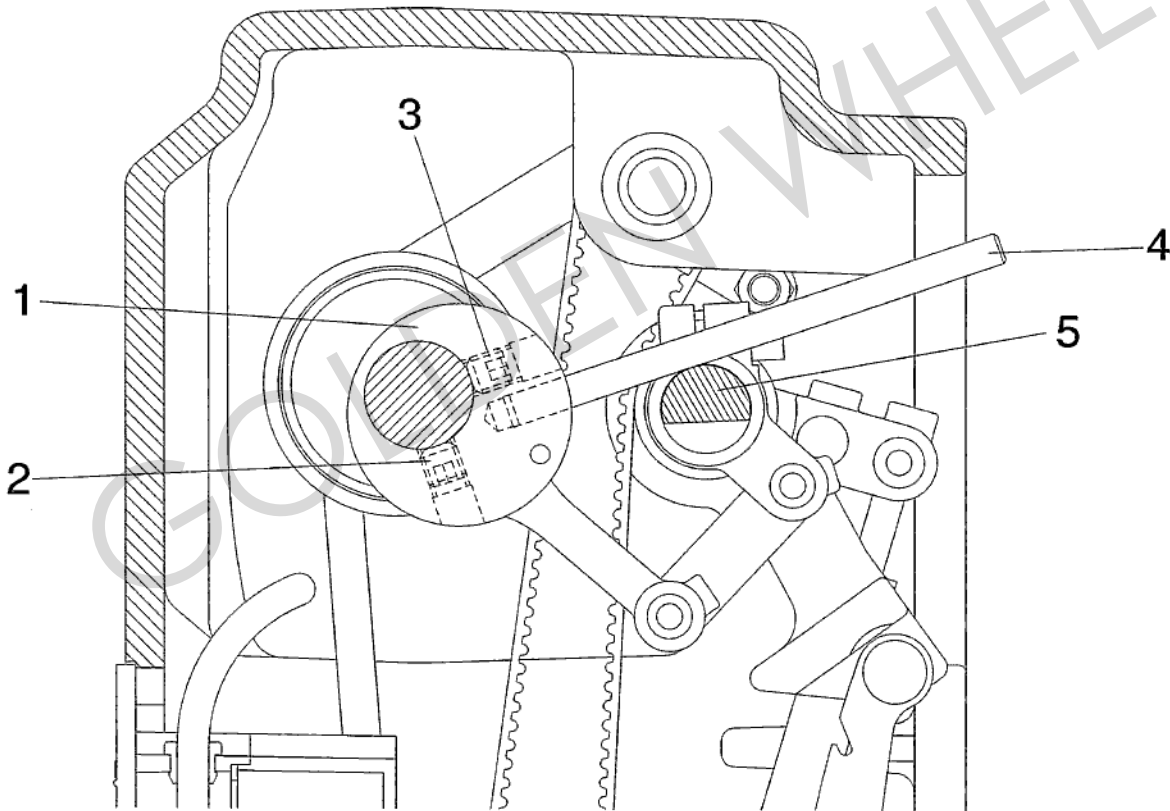
送料驅動偏心輪(1)控制針桿擺動與送料齒轉動的時序。調整方法如下：

- 拆下機頭的後蓋板，可看到下圖所示的偏心輪(1)。
- 轉動手輪，先鬆開固定螺絲(2)，再鬆開固定螺絲(3)。
- 使用附件箱的圓棒(4) (品號 AC7047-0A)插入偏心輪(1)的定位孔。
- 旋轉手輪到 285 度的位置，並使圓棒(4)接觸擺動軸(5)，此時擰緊固定螺絲(3)。
- 取出圓棒(4)，轉動手輪，再擰緊固定螺絲(2)。

◆ Setting Angle of Feeding Eccentric

The Feeding Eccentric (1) controls the timing of movement of needle bar frame and Feeding Wheel. The setting method is as follow:

- Remove the rear cover of the machine head to see the Eccentric (1) inside.
- Turn hand-wheel and loosen Set Screw (2) first, and then Set Screw (3).
- Insert the Setting Pin (4) (Part No. AC7047-0A), included in the accessory, into the locating hole of Eccentric (1).
- Turn hand-wheel to angle 285° and rest Setting Pin (4) against Rocker Shaft (5), at this position tighten Set Screw (3).
- Remove Setting Pin (4) to turn hand-wheel and then tighten Set Screw (2).



右剖視 Right Sectional View

■ 送料驅動离合器的調整

送料驅動离合器左盤(1)與右盤(2)交替帶動送料軸(3)的轉動。當錐形凸輪(4)向左移動推擠並撐開左盤的制爪(5)時，使左盤釋放送料軸，而離開錐形凸輪的右盤則夾緊送料軸，反之則動作相反。离合器的調整方法如下：

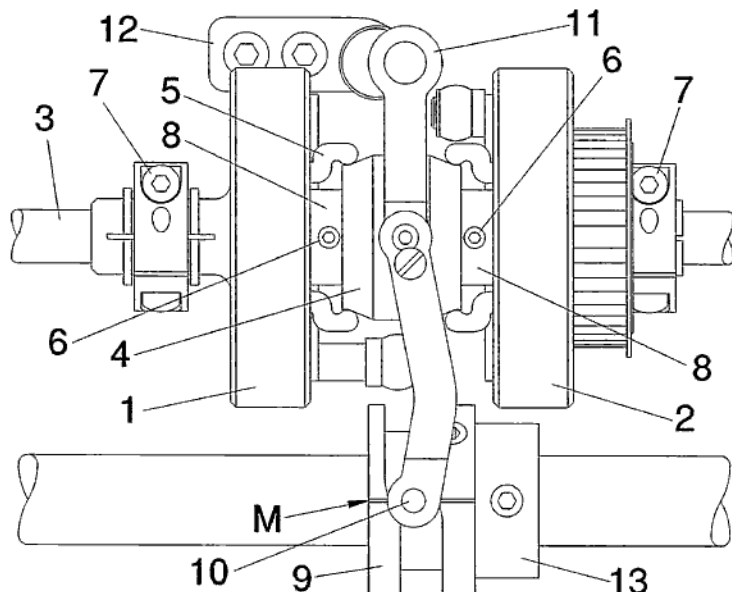
- 鬆開螺絲(6)及(7)，使左盤(1)與右盤(2)的制爪可脫離錐形凸輪(4)。
- 旋轉手輪到 285 度的位置。將左盤(1)緩慢的向右推，在錐形凸輪(4)撐開制爪(5)的瞬間，感覺到一明顯的停頓阻力(此時是离合器開始釋放的臨界點)，在此位置擰緊左盤的螺絲(7)。右盤(2)的固定方法相同。
- 旋轉手輪觀察离合器的動作。如果左盤與右盤間距太大，會造成有一段時間手輪過緊；如果間距太小，會造成有一段時間送料軸(3)可空轉，兩者均需再重新調整。
- 擰緊左右的固定螺絲(6)，並使定環(8)與左右盤保持最小的間隙。
- 在上述的 285 度的位置時，如果凸輪(9)的刻線(M)沒有對準滾輪(10)的中心，須先進行校正。或撥叉(11)的左右位置不適當而導致零件有干涉時，須先調整支座(12)及擋圈(13)的左右位置，再進行以上的步驟。

◆ Adjusting the Feed Driving Clutch

Left Clutch (1) and Right Clutch (2) are set to drive Feeding Shaft (3) alternately. When Conic Cam (4) moves to left and pushes Claws (5) of Left Clutch (1) to open, Left Clutch (1) is released from Feeding Shaft (3); while the Right Clutch (2), being away from Conic Cam (4), will be holding to Feeding Shaft (3), and vice versa. The setting method is as follow:

- Loosen all Screws (6) and (7) to allow the Claws of Left Clutch (1) and Right Clutch (2) free from Conic Cam (4).
- Turn hand-wheel to angle 285°. Move Left Clutch (1) slowly to the right till Conic Cam (4) is about to push its Claws (5) to open, at this moment a sudden rise of resisting force will be felt, tighten Screw (7) of Left Clutch at this position. Fix Right Clutch (2) in like manner.
- Rotate hand-wheel to observe the functioning of clutch. If Left Clutch and Right Clutch are too far apart, there will be an interval when hand-wheel is tightened; if they are too closer, there will be an interval when Shaft (3) is free from grip. In both situations adjustment should start over again.
- Tighten Screw (6) of both sides while keeping the clearance between Collars (8) and their adjoining clutches as small as possible.
- At abovementioned angle 285° if Mark (M) of Cam (9) does not align to the center of Roller (10), correction should be made beforehand. Or if the right-left position of Fork Rod (11) is so misaligned that some parts become interfere to the others, the position of Support (12) and Collar (13) should be corrected before above procedures.

底視 Bottom View



■ 切線驅動機構的設定

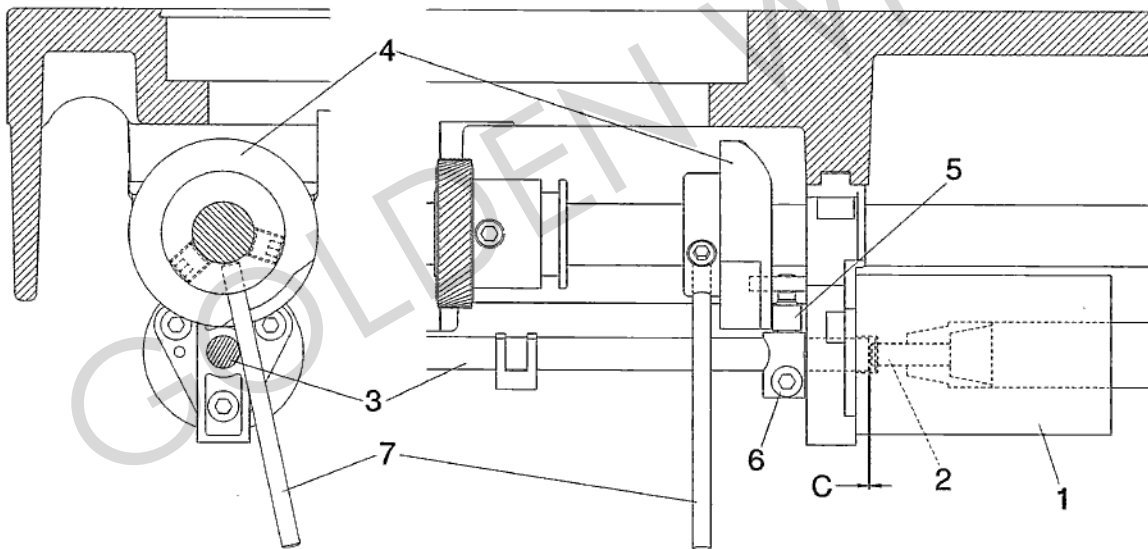
自動切線機構藉由切線電磁鐵(1)的衝頭(2)推動橫桿(3)帶動切刀旋轉，同時下軸轉動切線凸輪(4)限制滾輪(5)移動並使切刀歸位。其設定標準如下：

- 鬆開螺絲(6)可調整衝頭(2)與橫桿(3)端面之間間隙 $C=0.2\sim0.4$ 。
- 旋轉手輪到 108° 的位置，使用附件箱的圓棒(7) (品號 AC7047-0A) 插入凸輪(4)的定位孔，圓棒(7)剛好接觸橫桿(3)。(如下圖所示)
- 在電磁鐵(1)不動作的狀態下，凸輪(4)與滾輪(5)之間間隙須儘可能小，但是兩者不可接觸，以免車縫時產生噪音。

◆ Setting of Thread Trimming Mechanism

The thread trimming mechanism employs Plunger (2) of Solenoid (1) to push Rod (3) then to rotate the trimming knife, at the same time the displacement of Roller (5) is restricted by Face Cam (4) which drives the trimming knife to return. The setting standards are as follow:

- Loosen Screw (6) to adjust the clearance between the ends of Plunger (2) and Rod (3). Set $C=0.2\sim0.4$ mm.
- Turn hand-wheel to angle 108° and insert the Setting Pin (7) (Part No. AC7047-0A), included in the accessory, into the locating hole of Face Cam (4), then the Setting Pin (7) should be touching Rod (3) (as shown below).
- Under normal condition, when Solenoid (1) is not magnetized, the gap between Face Cam (4) and Roller (5) should be kept as small as possible but not to contact each other, otherwise it may generate noise during sewing.



■ 8812LM 旋梭護針片的調整

旋梭護針片(1)的位置需使用附件箱內的 L 形六角扳手(1.3mm)調整螺絲(2)。

◆ Adjusting Needle Guard of 8812LM

The position of Needle Guard (1) of the hook can be adjusted via Screw (2) using the Allen key (1.3mm) included in the accessory.

