

GC0301型

工业平缝机

Single Needle Flatbed Upper & Lower
Feed industrial Sewing Machine

使用说明

零件样本

Operation Manual
Parts Book



Shanggong

上海工业缝纫机股份有限公司

SHANGHAI INDUSTRIAL SEWING MACHINE CO., LTD.

GC型中厚料皮革系列平缝机机头装箱单
GC Leather Series Flatbed Sewing Machine For Medium Heavy
Materials Machine Head Shipping Order
(GC22, GC0301, GC0601—1, GC2604)

序号 No	名称 Name	数量 Quantity
1	机头	Machine head 1
2	机针	Needle 1 bag
3	梭心	Bobbin 5
4	油壶	Oil can (fill oil) 1
5	大旋具	Screw driver (big) 1
6	小旋具	Screw driver (small) 1
7	附件袋	Accessory bag 1
8	说明书	Instruction book 1
9	合格证	Checking certificate of inspection 1
10	装箱单	Machine head shipping order 1
11	衬垫	Rubber cushion 1 set
12	机器铰链	Machine hinge plate asm 1 set

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使用説明

Instruction for Operation

一 機器簡介

這種中厚料上下送料平縫機是一種單直機針，滾針連杆挑綫高精度螺旋傘齒輪傳動，大綫量旋梭、雙綫鎖式綫迹的工業用縫紉機。它除了具有一般工業縫紉機的各項性能外，其最大特點是對膨體類縫料和其它潛移性較大的中厚縫料，在縫紉過程中能使上層和下層縫料的送料量達到一致，在縫料高低重疊縫紉和爬坡縫紉時，送料爽、針迹距穩定、綫迹平整而美觀，縫厚料性能好，操作省力等優點，同時還可以按縫紉工藝的特殊要求進行調節，以使上層縫料的送料量與下層縫料的送料量之差，達到預期的要求，所以使用該縫紉機可以明顯地提高縫制質量和縫紉效率。

該產品廣泛地適用於箱包、皮革、沙發、蓬墊、服裝、鞋帽以及勞動防護用品等制品的縫紉。

I. Brief instruction

This kind single needle, double lockstitcher with upper & lower feed, needle roller link take — up, high precise spiral bevel gear driving and the large hook industrial sewing machine. Except for all the functions of the general industrial sewing machines, the distinguished featute of the machine the feeding amount of the upper & lower materials is exactly the same when sewing elastic materials and slipped medium heavy materials. The machine performs a smooth climbing stitching, steady stitch length and beautiful stitching for wide variety of heavy duty sewing needs with its powerful feeding mechanism for materials difficult to feed. The machine can be adjusted according to the special sewing requirments to achieve the prederminhed clearance between the upper & lower materials feeding amount. The machine can improve ypur sewing quality and quantity.

This kind of machine has been largely used in cases, leather, sofa manufacturing, tent, apparel caps, shoes and uniforms.

二、主要技術規格

1.最高縫紉速度	針/分	2000
2.最長針迹距	毫米	8
3.壓腳提升高度	毫米	8.5(手動)
4.上送料與下送料同步	毫米	小壓腳 不大于2.5 同步壓腳 不大于5.5
5.能縫厚度	毫米	8(自然狀態下)
6.機頭有效空間	毫米	335.5×178
7.採用機針	GR2-2	#19~#24
8.旋梭	大容量型(1.8倍標準綫量)	
9.採用潤滑油	HA—8號縫紉機油或HJ—7號機械油	
10.電動機功率	千瓦	0.37

II. Mian specification

1. sewing speed: Max. 2000 s.p.m.
2. stitch length: Max. 8mm
3. presser foot lift (by hand): 8.5mm
4. upper & lower feeding sytem: small presser foot≤2.5mm
synchronous presser foot≤2.5mm
5. sewing material thickness: 8mm(under the natural)

6. machine head available space: 335.7mm×178mm
7. needle: GR2—2 #19—#24
8. rotating hook: large capacity (1.8 times to the standard)
9. lubrication oil: HA—8 sewing machine oil or HJ—7 mechanical oil
10. motor power: 0.37KW

三、機器安裝和操作準備

1. 機器安裝

(1) 安裝地點

為了使機器在縫紉作業時運轉平穩、振動較小，機器必須安裝在一個堅固、平坦的基礎上。同時，在機架上必須安放橡皮防振墊，以使機架更為穩固，機器運轉時的噪音也會降低。

III. Installation and operation preparation

1. Installing the machine

(1) Mounting place

To guarantee smooth operation and less vibration, the machine should be mounted on a solid steady place. Fix the rubber cushions while mounting the machine stand to prevent vibration and to reduce the noise.

(2) 安裝油盤(見圖一)

將油盤(1)放入臺板的框孔內，使抬壓腳頂銷(3)與壓腳頂杆(15)接觸，並控制圖一中的120mm的尺寸，然後釘上油盤兩側的釘子。

(2) Installing the oil reservoir (fig.1)

Install the oil reservoir(1) in the corners of the machine table. Contact the knee lifter lifting rod(3) with the knee lifter lifting lever(15) (fig.1, in 120mm). Fix the screw on two sides of the oil reservoir.

(3) 安裝機頭(見圖二)

將機頭安裝在臺板上時，應將機頭上的機頭連接鉤(A)勾住固定在臺板上的機頭連接鉤座(B)上，然後轉動機頭，使之座于臺板上的框孔中，並注意應使機頭翻轉靈活。

(3) Installing the machine head (fig.2)

When installing the machine head on the machine table, fit machine head hinge(A) into the machine table hinge(B). Turn the machine head, let it set up in the corners of the table. Keep the machine head turn flexibly.

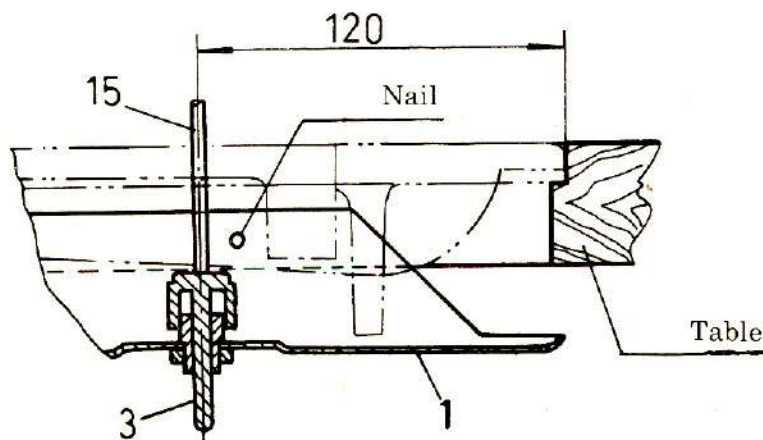


Fig.1

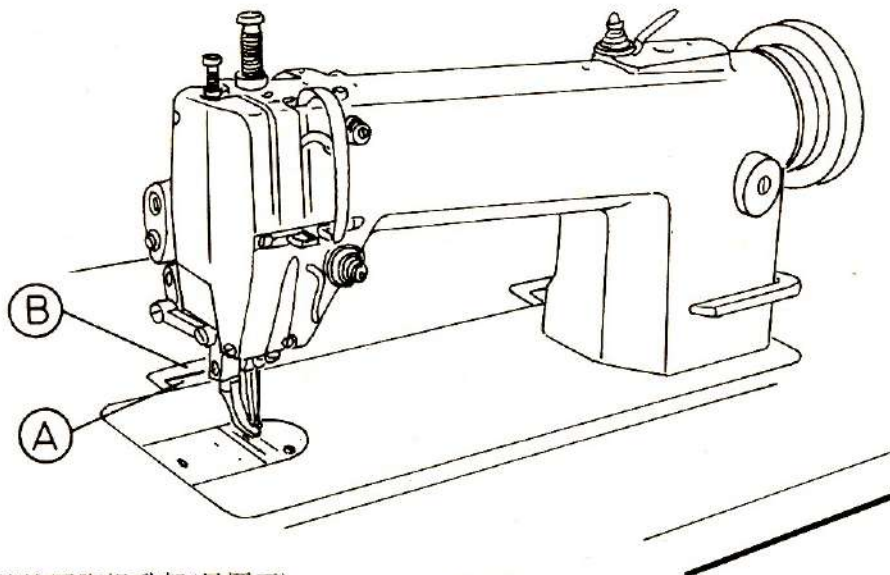


Fig.2

(4)安裝膝控壓腳提升架(見圖三)

請按下述之方法進行安裝

①膝控碰塊(18)的位置可以根據操作者的情況進行調節,以保證操作方便,用力輕、擺動角度合適。

②根據(圖三)要求調整好抬壓腳部件的安裝位置後,即可擰緊膝控提壓腳支座(7)的木螺釘(6)。

(4) Installing the knee lifter lifting lever (fig.3)

Install it for the following steps:

①Adjust the position of the knee contacting block (18) according to the operator to ensure easy operation, light running and proper swing.

②Tighten the wood screw(6) on the knee lifter mechanism(7) after adjusting the presser foot parts installing position according to fig.3.

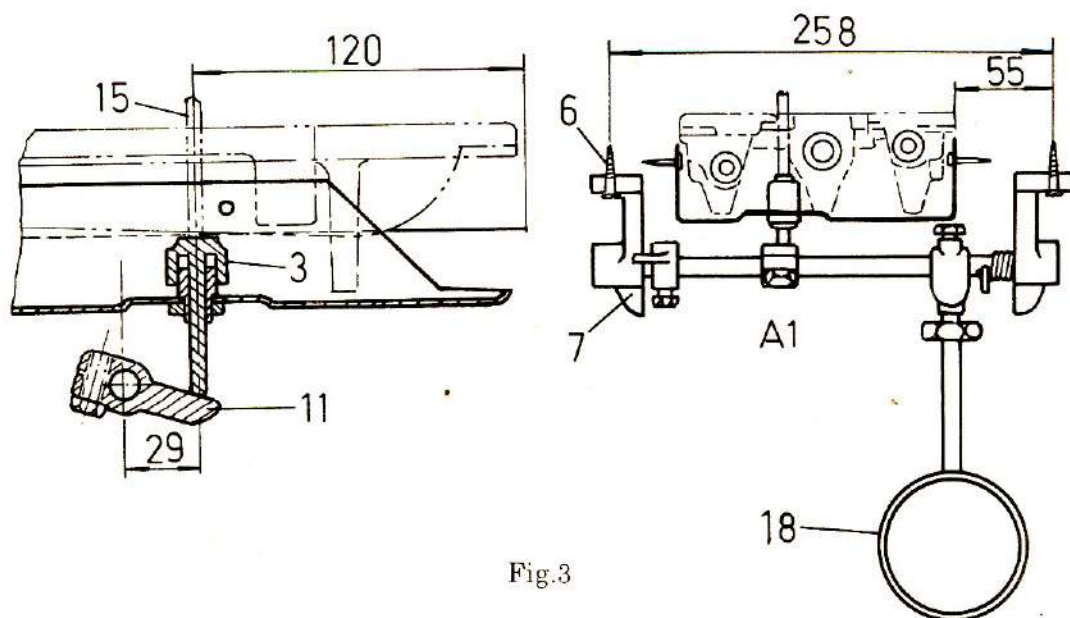


Fig.3

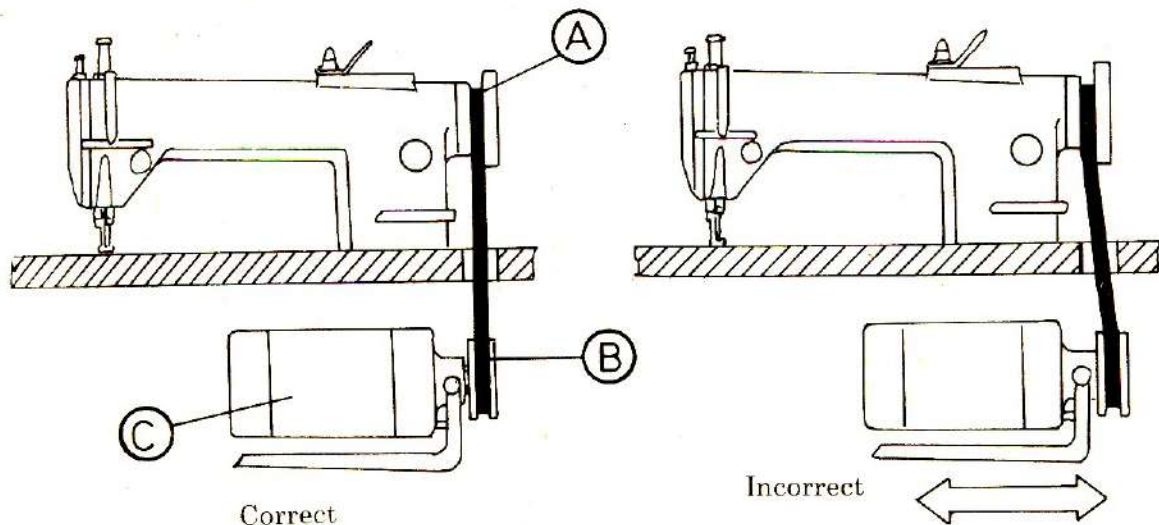


Fig.4

(5) 安裝電動機(見圖四)

將電動機(C)左右移動,使縫紉機上輪皮帶槽(A)與電動機皮帶槽(B)的位置調整成一直綫即可。

(5) Install in the motor (fig.4.)

Aligning the handwhell groove (A) with the motor pulley groove (B) by turning the motor (C) left to right.

(6) 踏板與離合器拉杆的連接(見圖五)

① 踏板安裝的傾斜度與地面成 15° 為宜

② 調整電動機離合器,使縫紉機拉杆(B)與離合器拉杆(C)如圖(五)所示連成一直綫,可使機器運轉平穩、振動減小。

③ 縫紉機的旋轉方向

面向縫紉機上輪觀察,上輪的旋轉方向應為逆時針方向旋轉,電動機皮帶輪的旋轉方向應與縫紉機上輪旋向一致。若發現上輪轉向與上述相反,則可調換電動機上的電源插頭,轉換 180° 後再插入即可。

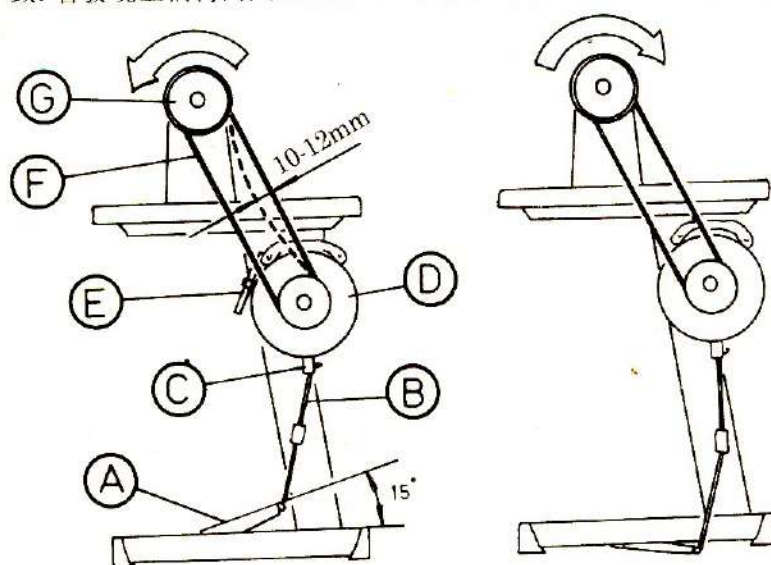


Fig.5

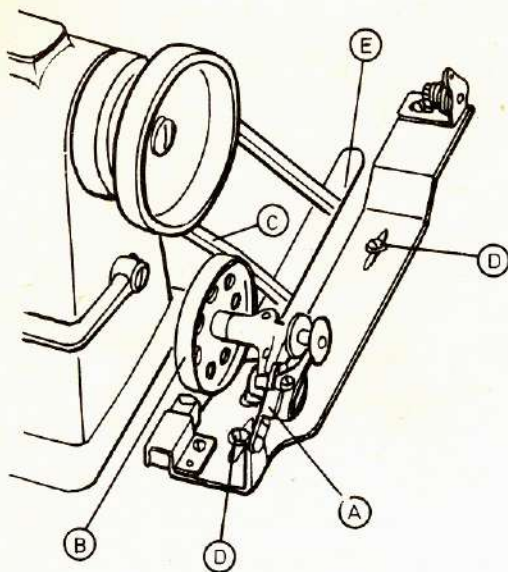


Fig.6

④縫紉機皮帶張力的調整

可用移動電動機的上下位置來調整縫紉機皮帶的張力，皮帶張力可用手指將皮帶在中間位置按下，使皮帶如圖所示彎曲下沉10~12毫米即為適宜。

(6) To connect the treadle with the clutch pull rod (fig.5)

①The proper angle of the treadle to ground is 15°

②Align the machine pull rod (B) and the clutch pull rod (C) according to fig 5 by adjusting the motor clutch to reach smooth operation and less vibration.

③Rotating direction of the machine

Watching in face of the handwheel, it should rotate counter clockwise and the motor pulley should rotate in the same direction as the handwheel. If you find that the handwheel rotates contrary to the above-stated direction, take out the motor power plug, turn it 180° and insert it again.

④To adjust the tension of the machine belt

Get the proper tension of the belt by moving the motor up and down. Press down the belt at its middle part with your finger. If it is curved down 10—12 mm as shown in fig, you've got the proper tension.

(7)安裝繞綫器(見圖六)

安裝好機頭，套上皮帶後，就可以着手安裝繞綫器。安裝繞綫器時，應先將繞綫輪(B)對准皮帶(C)的外邊，并使繞綫輪與皮帶之間留有一定的空隙，但在掀下繞綫輪擺杆(A)時，繞綫輪和皮帶相互接觸。這樣機器轉動時，皮帶將帶動繞綫輪一起轉動。請注意繞綫器安裝時的左右位置應與臺板上的皮帶孔(E)平行，最後再擰緊木螺釘(D)。

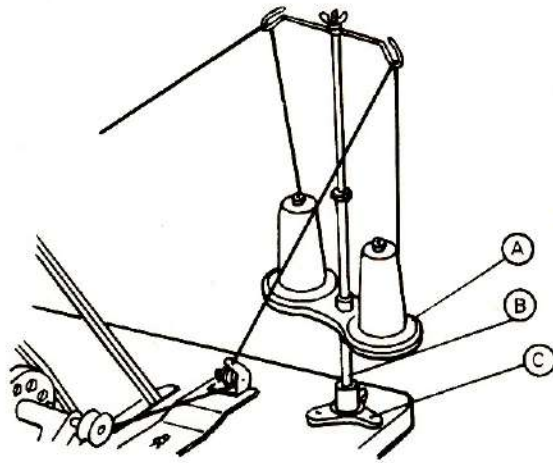


Fig.7

(7) To mount the bobbin winder (fig 6)

Mount the bobbin winder after installing the machine head and putting on the belt. First, align the bobbin winder spindle pulley (B) with the belt's outside (C), leave a clearance between the pulley and the belt. But when the bobbin winder spindle pulley swing link (A) is pressed down, they should contact with each other. So the belt will drive the bobbin winder spindle pulley when the machine is in operation. Please see to it that the right and left side of the mounted bobbin winder should be parallel to the belt hole (E) in the table. Tighten the wood screw (D) at last.

(8) 安裝綫架(見圖七)

綫架的安裝位置如(圖七)所示, 綫架應安裝在臺板的右角。放倒機頭時綫架不應與機頭相接觸, 然後擰緊木螺釘(C)即可。

(8) To mount the thread stand (fig 7)

The position of the thread stand is shown in fig 7. Mount the thread stand at the right corner of the machine table and it does not touch the machine head when the latter is turned down, then tighten the wood screw (C).

2. 操作準備

(1) 拭擦機器

機頭在裝箱前爲了防止機件的銹蝕, 在機頭的各部件處均塗有防銹油脂, 同時機頭裝箱後可能經過較長時間的貯藏或經過長途運輸, 造成防銹油脂的硬化或在機器表面結聚灰塵, 因此在機器使用前必須用汽油和潔淨的軟布將灰塵和防銹油脂拭擦干淨。

(2) 檢查

機器出廠時, 雖經過周密的檢查和試驗, 但機器在運轉、試車前必須清除油污, 并作一次周密的檢查, 用手輕輕轉動縫紉機的上輪, 檢查機器有無轉動困難、碰撞現象或其它不均勻的阻力、不正常的聲響存在, 待排除這些異常情況後, 機器方可加注潤滑油後進行正常試車。

(3) 潤滑

機器運轉之前, 用軟布揩擦干淨之後對(圖八)所示的加油位置加注潤滑油。

如果機器是連續使用的,那末應該每天加油數次。

該縫紉機,必須使用HA—8號縫紉機油或HJ—7號機械油。

2. Preparation before operation

(1) To clean up the machine

To prevent machine parts from getting rusty, every part of the machine head is smeared with anti rust grease before packaging and then the antirust grease could harden and dust would gather at the surface of the machine after a long rime storing or a long-distance transportation, so it is necessary to wipe away the antirust grease and dust with petrol and clean, soft cloth before putting the machine into operation.

(2) Checking

Though the machine is carefully checked and tested before leaving the factory, it is necessary to wipe grease and dust away from the machine and to check it thoroughly before putting it into trial running and operation. Turn the handwheel slightly by hand to see if there are running difficulties, collisions or other uneven resistance and unusual sounds. Do not oil the machine and start normal trial running before eliminating these abnormal phenomina.

(3) Lubrication

Oil the machine at all the oiling points as shown in fig.8 before putting the machine into operation and after cleaning up it with soft cloth.

Oil the machine several times per day when it is continually used.

For the machine, it is necessary to use HA—8 sewing machine oil or HJ—7 machine oil.

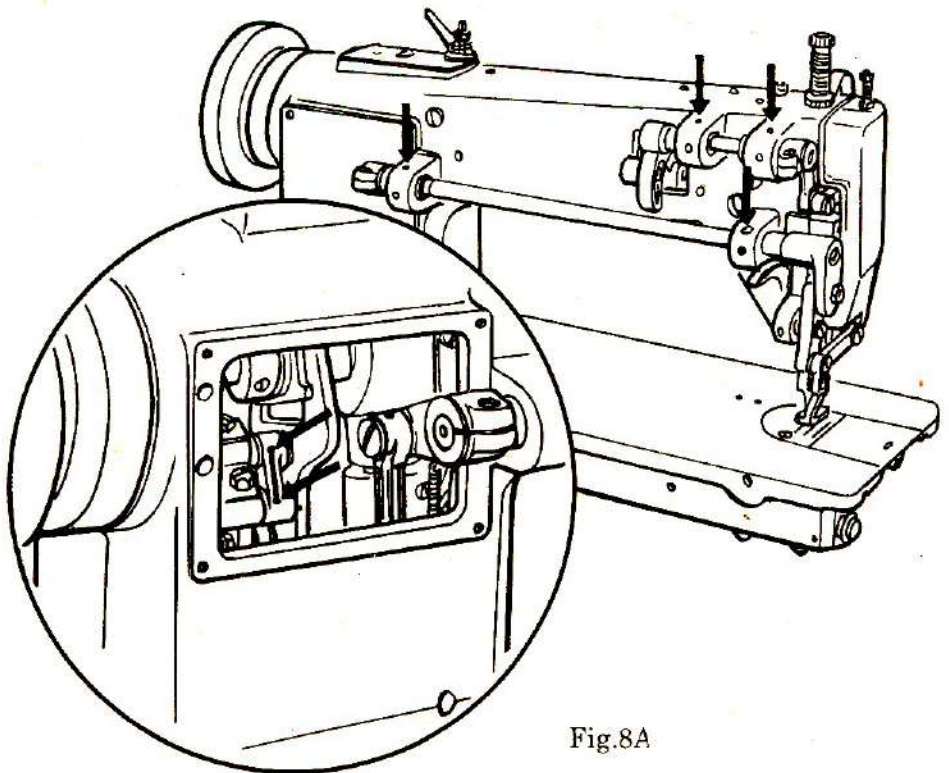


Fig.8A

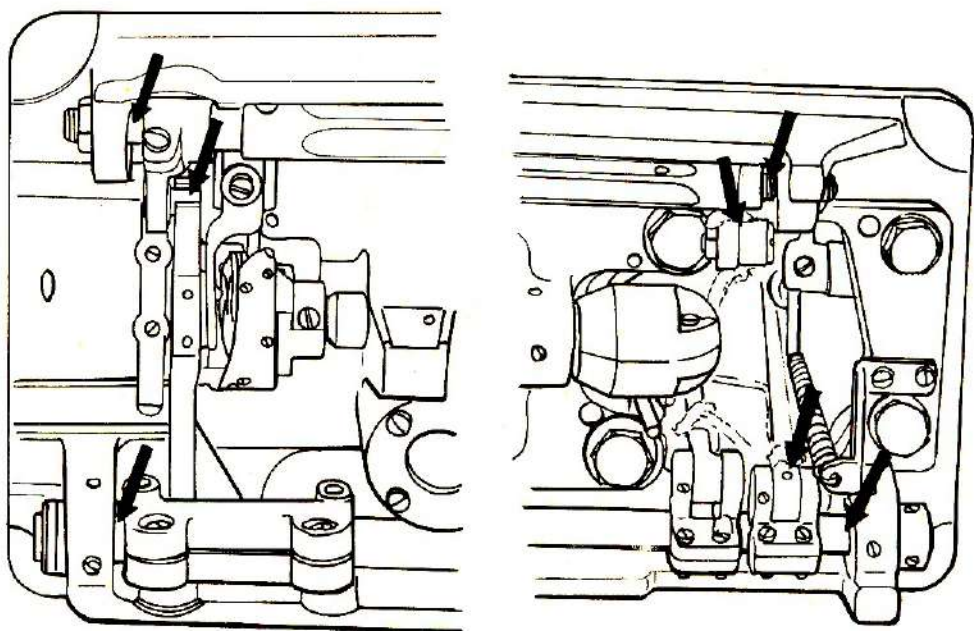


Fig.8B

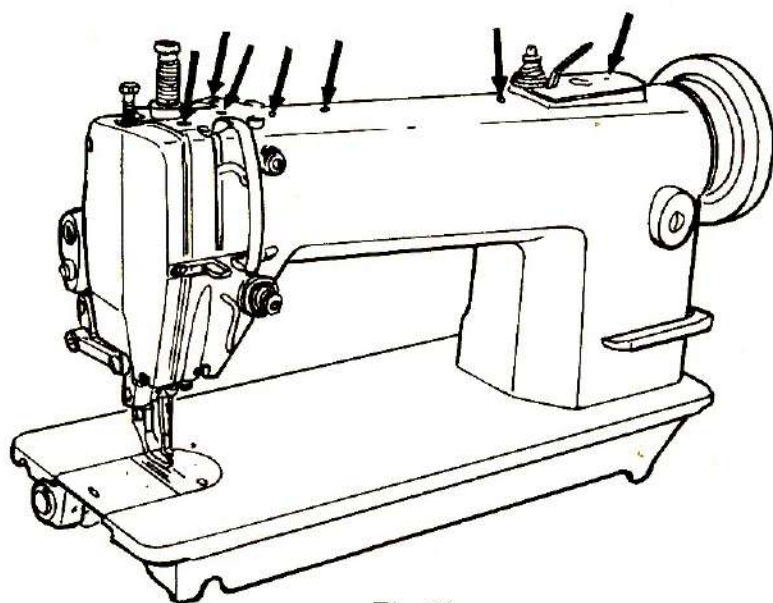


Fig.8C

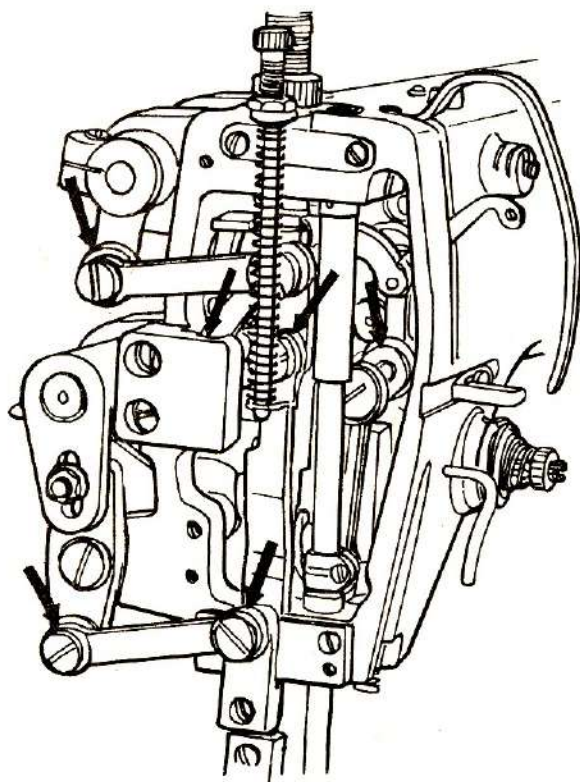


Fig.8D

(4)試車

新機器第一次使用或長期擱置一段時間後在使用時，應先進行空載運轉。此時應特別注意縫紉機上輪的旋轉方向應是逆時針方向轉動(面對上輪觀察)，並將壓腳提升。開始試運轉時，應先進行低速運行，觀察正常後，再逐步將轉速提高至2000轉/分。運轉數分鐘後停車，檢查各部位零件的磨損情況，若無異常，機器方可投入正常使用。

(4)Trial running

A no-load running is necessary when the new machine is for the first time used or used again after lying by for a long period. Now it is particularly to mind that the handwheel should rotate counterclockwise (watching in face of the handwheel), and raise the presser foot. Start the trial running at low speed and raise the speed gradually to 2,000 s.p.m. while normal conditions are watched. Stop the machine after several minutes of running, check wear and tear of all parts of the machine. If there are no abnormal phenomena, the machine can be put into normal operation.

四、機器的操作

1. 縫綫的選擇

針綫應採用左旋綫，梭綫則左、右旋綫均可使用。

縫綫旋向的鑒別，可按(圖九)所示把縫綫捏住，以右手按圖箭頭方向搓轉縫綫。若綫股越搓越緊，則是左旋綫，反之即為右旋綫。

IV. How to Operate the Machine

1. To select the thread

Left twist thread should be used as needle thread and both left and right twist thread can be used as bobbin thread.

To recognize the direction of thread twist, nip the thread as shown in fig 9, twist it with your right hand in direction shown by the arrow. If plies of the thread, are becoming tighter it is left twist thread, otherwise right twist one.

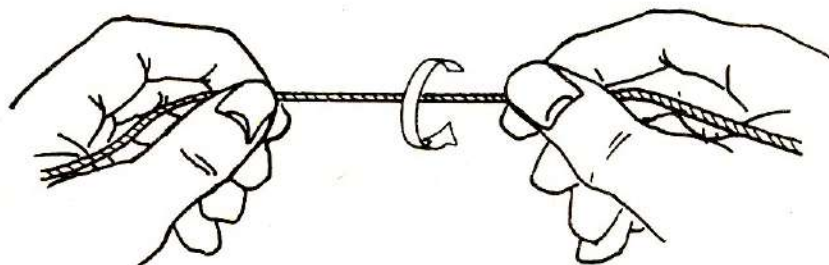


Fig.9

2. 機針、縫綫和縫料的配合

請使用GR2—2#19~#24機針，機針號數可根據使用的縫料、縫綫參照下表進行選擇。

表1

機針號碼	縫綫的種類及號碼	縫料種類
#19	麻綫 #60~#80	人革、鞋帽、拎包等
#21/ #24	滌綸綫 #20~#40	粗厚織物、人革、皮件 沙發、箱包、蓬墊等
	麻綫 #40~#60	
	臘光綫 #40~#60	
	絲光綫 #21~60	

2. Needle, thread and materials' match.

Using GR2—2#19—#24 Meedle. Select a proper needle size according to the type of material and thread used (refer to the list)

Needle size	Thread type and No.	Types of the materials
#19	linen thread #60—#80	synthetic leather, shoes, caps, bags
#21/#24	synthetic thread #20—#40	heavy thick material, synthetic leather,
	line thread #40—#60	lather, sofa manufatu-
	wax thread #40—#60	ring, cases, tent
	silk thread #21—#60	

3. 安裝機針(見圖十)

轉動上輪,使針杆上升到最高位置,旋松支針螺釘(1)并將機針的長槽朝向操作者的左面,然後把針柄插入針杆下部的針孔內,使其碰到針杆孔的底部,再旋緊支針螺釘(1),固定機針即可。

3. To attach the needle (fig 10)

Turn the handwheel until the needle bar reaches its highest position, loosen the needle clamp screw(1) and ensure that the long groove of the needle faces to the left side of operator, then insert the needle bat into the hole at the bottom of the needle bar so far as it touches the end of the hole, and tighten the needle clamp screw(1)

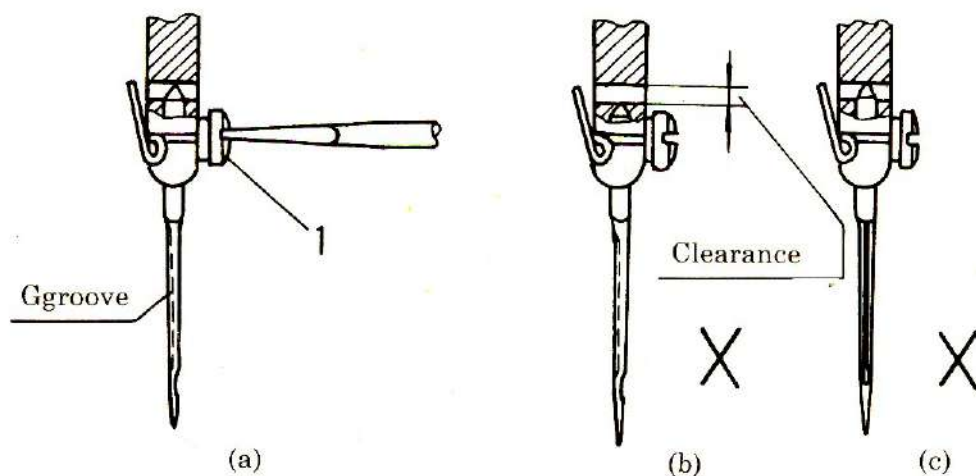


Fig.10

注意:①安裝機針時,必須先關閉電源。

②圖十中(a)所示的機針安裝位置是正確的。圖十中(b)所示的機針柄未與針杆孔底部接觸;圖十中(c)所示的機針長槽方向未按規定安裝,兩者都是錯誤的。

Notes: ①Switch off the electric power before attaching the needle;

②The position of the attached needle as shown in (a), fig 10 is correct. Both the needles as shown in (b) and (c) of fig 10 are wrongly attached, the bat of the former does not touch the end of the hole, and the long groove of the latter does not face the specified direction.

4. 繞梭綫

(1) 繞綫方法(見圖十一)

把梭心(A)插入繞綫軸(B)的頂端上, 自綫團來的縫綫(C), 先穿過綫架(E)的綫孔, 再夾入二塊過綫架夾板的中間, 然後把綫頭的梭心上繞幾圈, 把繞綫擺杆(D)向下揞壓, 繞綫輪(F)即壓向皮帶(G)。當機器運轉時, 梭心就會自動繞綫, 直至綫滿而自動停止(不縫紉作業, 而只繞綫時, 一定要抬起壓腳)。

4. To wind the bobbin thread

(1) Winding method (fig 11)

Insert the bobbin (A) onto the top end of the thread winding spindle (B). Pull the thread (C) from the spool through the hole of the thread guide bracket (E), clamp it between two discs of the thread guide bracket, wind the thread end several times round the bobbin, then press down the bobbin winder swing link (D) to let the bobbin winder spindle pulley (F) touch the belt (G). The bobbin winder will run automatically when the machine runs and will stop automatically when the bobbin is filled with thread (The presser foot must be lifted when only thread winding is underway but not sewing).

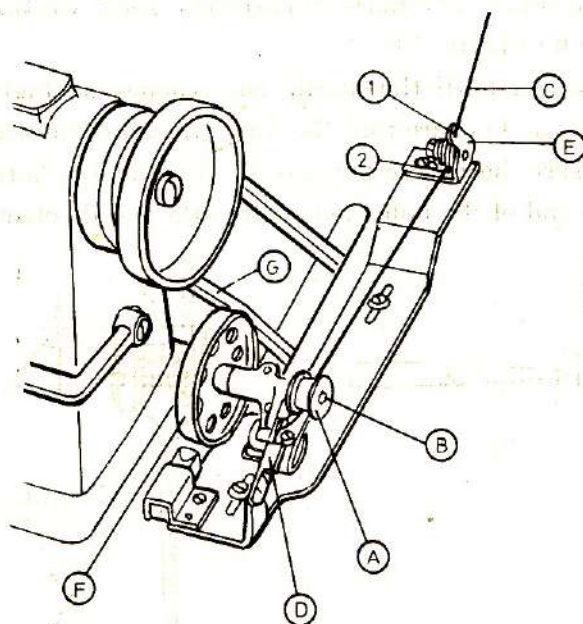


Fig.11

(2) 繞綫調節(見圖十二)

梭心綫應排列整齊而緊密。如松浮不緊, 則可以適當加大過綫架夾板(A)的壓力。如排列不齊, 則要移動過綫架(C)的位置來進行調整。調整時, 先松開過綫架螺釘(B)若出現單邊繞綫成圖十二中(b)所示狀態, 則應將過綫架向右稍作移動; 若出現單邊繞綫成圖十二中(c)所示狀態時, 則將過綫架向左稍作移動, 待繞綫成如圖十二中(a)所示狀態後再緊固之。

(2) To adjust the bobbin winder (fig 12)

The bobbin thread should be wound neatly and closely. Increase the pressure of the disc(A) of the thread guide bracket when the wound thread is slack. When the thread is wound unneatly, it is to move the thread guide bracket(C) to make an adjustment. So loosen the thread guide bracket screw(B), then move the bracket slightly rightwards

when the thread is wound unevenly as shown in (b) of fig 12, and move it slightly leftwards when the thread is wound unevenly as shown in (c) of fig 12. Retighten the screw when the thread is so wound as shown in (a) of Fig 12.

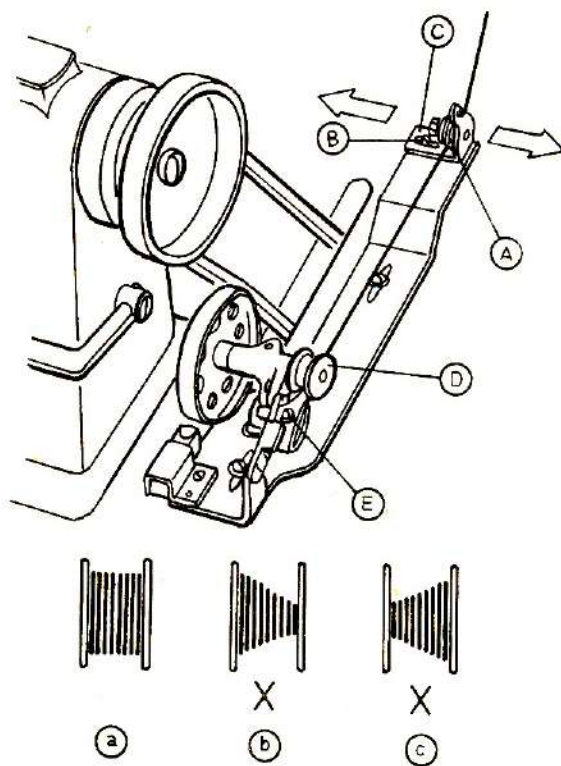


Fig.12

注意：

- ①繞滌綸、尼龍綫時，特別要放鬆繞綫壓力，否則梭心(D)可能產生變形。
- ②梭心綫不要繞得過滿，否則容易散落，適當的繞綫量為平行繞綫至梭心外徑的80%。繞綫量可由滿綫板上的滿綫調節螺釘(E)加以調節。

Notes:

- ①Do not wind the thread too tight especially when polyester thread or nylon thread is in use, otherwise the bobbin (D) would be deformed.
- ②The bobbin should not be filled with too much thread, otherwise the thread would fall off easily. Proper amount of thread is reached with parallel winding to 80% of the outside diameter of the bobbin. The winding capacity can be adjusted with the adjusting screw(E) of the bobbin winder stop latch.

5. 穿針綫和引梭綫 見圖十三

穿針綫時，針杆應在最高位置，然後將綫架上引出的綫頭按下列順序穿綫。

(1) 穿過機殼上部過綫板①上的右過綫孔，再在夾綫板間通過，然後穿過過綫板①上的左過綫孔。

(2) 穿過綫殼上面的油杯體②。

(3) 在夾綫器的夾綫板③之間通過。

(4) 向上穿過挑綫簧④，再經過緩綫調節鉤⑤和攔綫鉤⑥，向上從右向左穿過挑綫杆⑦上的穿綫孔。

(5) 向下通過面板上的攔綫鉤⑧，再往下通過機殼上的下綫鉤⑨及針杆綫鉤⑩，從左面穿過機針⑪上的針孔，並引出100毫米左右的縫綫備用。

引梭綫時，先將針綫的綫頭捏住，轉動縫紉機上輪使針杆向下運動，再回升到最高位置，然後拉起捏住的針綫綫頭，梭綫即被牽引上來，最後把針、梭綫的二根綫頭一起置于壓腳的下前方，即完成了引針、梭綫的任務。

5. To thread the needle and to draw the bobbin thread (fig 13)

To thread the needle, raise the needle bar to its highest position, then guide the thread end from the thread stand in the following order:

(1) Through the right hole of the thread guide disc① on the arm bed, then through the thread tension discs, and then through the left hole of the thread guide disc①;

(2) Through the oil cup② on the arm bed;

(3) Through the tension discs③ of the thread tensioner;

(4) Upwards through the take-up spring④, then through the thread retaining regulator⑤ and the tension thread guard⑥, and then upwards from right to left through the hole in the take-up lever⑦;

(5) Downwards through the tension thread guard⑧ on the face plate, further downwards through the lower thread guard⑨ on the arm bed and the thread guard⑩ on the needle bar, from left through the needle⑪'s eye, and the thread end drawn through the needle's eye should be about 100 mm long for possible use.

To draw the bobbin thread, nip the needle thread end, turn the handwheel to move the needle bar downwards and then back to its highest position, then pull the nipped needle thread bar up, so the bobbin thread is drawn up. As the last step, put both ends of the needle thread and the bobbin thread under the front part of the presser foot. Thus the work of threading the needle and drawing the bobbin thread is finished.

6. 裝梭心(見圖十四)

(1) 把梭心(B)裝入梭心套(A)。

(2) 把綫(E)嵌入梭心套開口槽(C)，經過梭皮簧(D)頂端叉口中間，拉出的綫頭長約100毫米左右的梭綫以作備用。

6. To insert the bobbin (Fig 14)

(1) Insert the bobbin(B) into the bobbin case(A);

(2) Set the thread(E) into the open slot(C) of the bobbin case and pull it through the dent at the top of the bobbin case spring(D). The thread end drawn out for possible use should be about 100mm long.

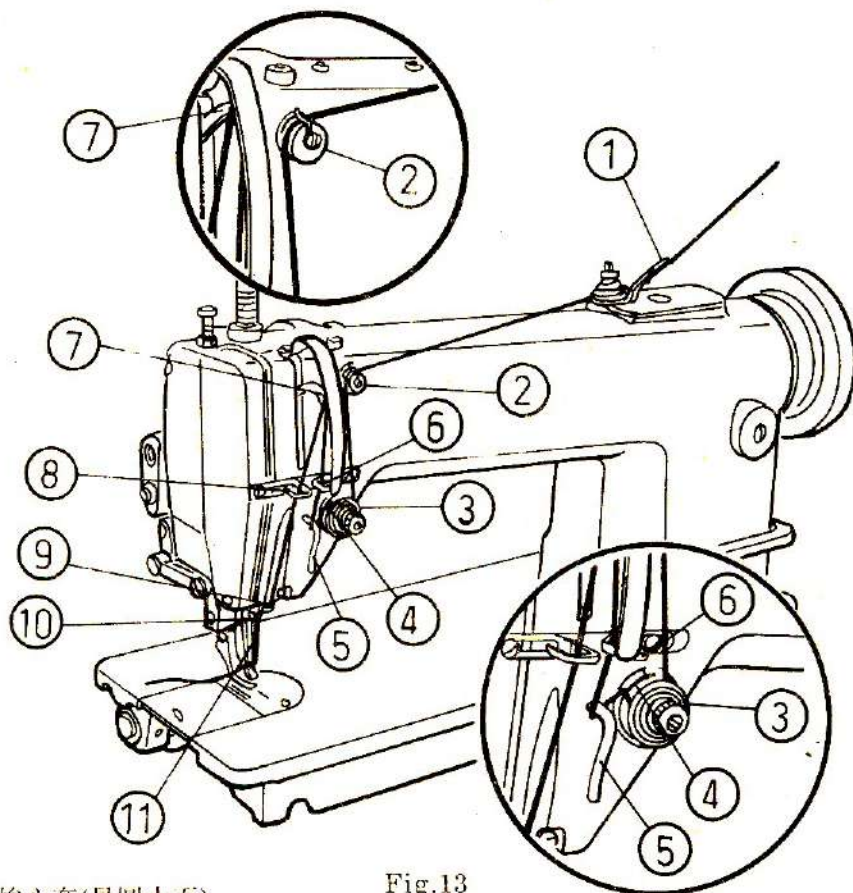


Fig.13

7. 裝卸梭心套(見圖十五)

裝梭心套時，機針應處於其最高位置。先扳開梭門蓋(A)，把梭心套(C)按(圖十五)所示位置放入旋梭(B)中，放入時請注意梭心套上的梭門底(D)是否已經和旋梭心軸上的定位槽相扣合。

卸梭心套時，必須先將梭門蓋向外扳開，並且扳足，之後捏着扳開的梭門蓋徐徐地取下梭心套，如此才能使梭心套勾住梭心而不讓其脫落。

7. To insert and to remove the bobbin case (fig 15)

To remove the bobbin case, the needle should be at its high position. Turn up the bobbin case latch lever(A) and inset the bobbin case(C) into the hook(B) as shown in fig 15. Please mind whether the bobbin case latch(D) is set into the positioning slot of the rotating hook shaft.

To remove the bobbin case, it is necessary to turn the bobbin case latch lever fully outward, then nip the turned latch and take out the bobbin case slowly. Only so the bobbin case will hold the bobbin and keep it from falling away

8. 針迹距長度及倒縫控制(見圖十六)

針迹距長度，可以用轉動針距盤(1)來調節。逆時針轉動針距盤則縫紉的針迹距長；順時針轉動針距盤則針迹距短。在縫紉中，若需要倒向送料時，可用手將倒送手柄(2)向下掀壓。手松開後，倒送手柄(2)在拉簧力作用下能自動復位，此時又將恢復順向送料。

8. Stitch Length Adjustment and Reverse Stitching Control (fig 16)

Stitch length is adjusted by turning the stitch dial (1). Stitch length is increased by a counter clockwise turn and reduced by a clockwise turn. Press down the feed reverse

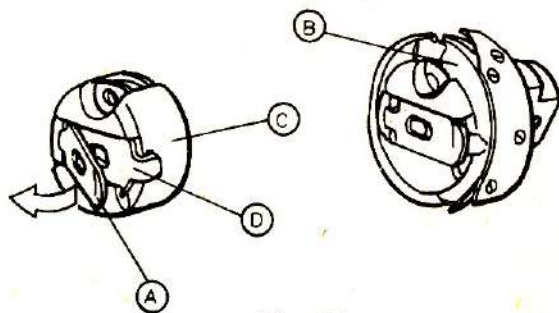


Fig.15

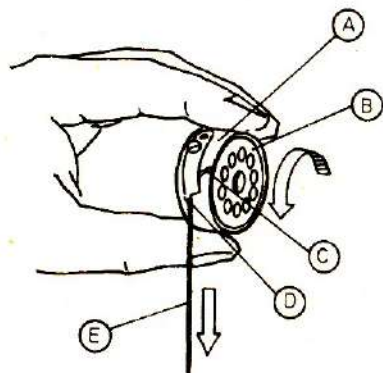


Fig.14

handle (2) by hand when reverse feed is necessary during sewing. Release your hand from the handle (2), it will go back to its original position through the action of the extension spring, and now the forward feed is restored.

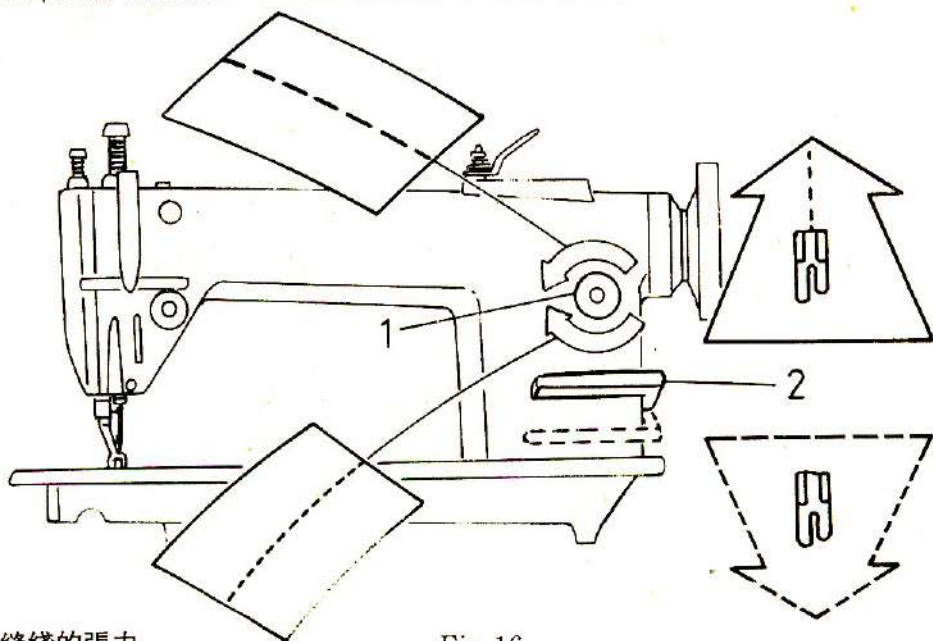


Fig.16

五、縫綫的張力

縫綫的張力應根據縫料的不同，縫綫的粗細以及其它的一些因素而變動。在實際使用中，是根據縫紉出來的綫迹來調整針、梭綫的張力，使之能獲得正常的綫迹。

調整時，針綫的張力是以梭綫的張力為基準的。梭綫張力的調整，只需用小號螺釘起子旋轉梭心套上的梭皮螺釘(A)，加大或減少梭綫的壓力，就可調整梭綫的張力(見圖十七)。

一般而言，梭綫如果采用#50棉綫，梭心裝入梭心套後，拉出的綫頭滑入梭心套與梭皮之間的槽孔，捏住綫頭并上下擺動梭心套，梭心套則能在自重的作用下緩慢地下落(見圖十八)，則梭綫的張力為合適，可以正常使用。針綫張力的調整，主要是改變針綫夾綫組件中的挑綫簧的張力，挑綫簧擺動的幅度，夾綫簧的張力，夾綫板及綫鉤的位置來實現的。具體方法下面將一一敘述。

V. Thread Tension

Thread tension is adjusted according to various types of sewing materials, thickness of threads and other factors. In practice the needle thread and bobbin thread tension is adjusted according to the stitches which have been sewn to get normal stitches.

The adjustment of the needle thread tension is based upon the bobbin thread

tension. To adjust the bobbin thread tension, you need only to turn the bobbin case spring screw (A) with a small screw driver to increase or to reduce the pressure on the bobbin thread (fig 17)

Insert the bobbin with #50 cotton thread into the bobbin case, then draw out the thread and to let it slide into the slot hole between the bobbin case and the bobbin case spring. Nip the thread end and move the bobbin case up and down so that the bobbin case falls down slowly through the action of its own weight (fig 18). Generally speaking, the bobbin thread tension is in such a case proper and ensures normal use. To adjust the needle thread tension is mainly to adjust the tension and swing range of the take-up spring of the needle thread tensioning components, the tension of the tension spring, the positions of the tension discs and the thread guards. Details are as follows:

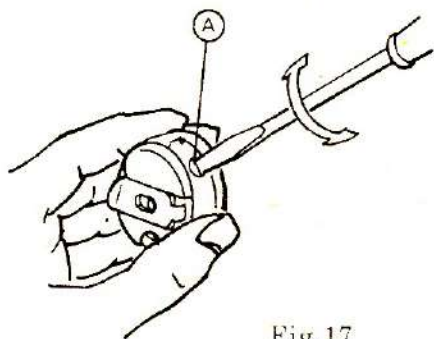


Fig.17

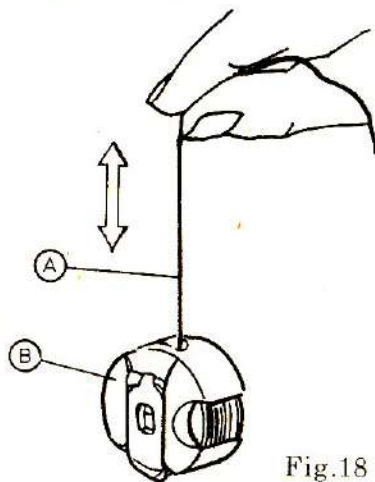


Fig.18

1. 挑綫簧的調節

挑綫簧的調節包括挑綫簧張力的調節和挑綫簧擺動幅度的調節。挑綫簧的張力35~55克之間，而挑綫簧的擺動幅度則在5~8毫米範圍內。縫紉薄的縫料(短針迹距)，則要適當減小挑綫簧的張力和加大挑綫簧的擺動幅度。縫制厚的縫料則反之。

挑綫簧擺動幅度的調節(見圖十九)

先旋松夾綫器緊固螺釘(B)然後轉動夾綫器(C)，以調節其擺動幅度。夾綫器(C)順時針轉動，則擺動幅度增大，反之則減小。

通常在機器出廠前，挑綫簧均已調整妥善，因此，只要在縫紉特殊的縫料或使用特殊縫綫時，才需要重新進行調整。

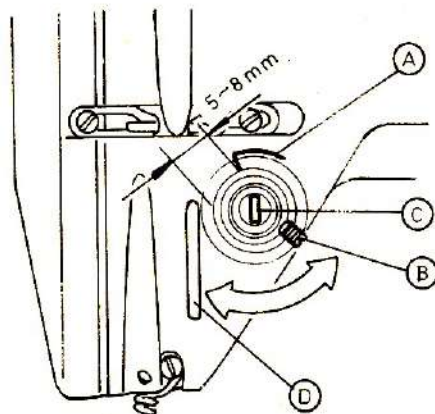
1. To adjust the thread take-up spring

To adjust the thread take-up spring is to adjust its tension and swing range. Its tension is 35-55 g, and its swing range is 5—8mm. It is to reduce its tension and to increase its swing range for thin materials (short stitch length) and vice versa for heavy materials.

Adjust the swing range of the thread take-up spring according to fig 19.

Loosen the set screw (B) of the thread tensioner, then turn the thread tensioner (C) to regulate its swing range. Its swing range is increased by a clockwise turn and vice versa.

Under normal conditions the thread take-up spring is adjusted properly before leaving the factory, therefore it is necessary to adjust it anew only when special materials are to be sewn or special threads are to be used.



2. 機殼和面板上攔綫鉤位置的調節 Fig.19

攔綫鉤裝配位置的調節，關係到縫紉質量的優劣。拉綫鉤裝配位置的調節應與縫料和縫紉條件相適應。其位置關係請參看下表進行。

2. To adjust the positions of the tension thread guards on the arm bed and the face plate

The adjustment of the fitting positions of the tension thread guards has an impact on sewing quality and should match to sewing materials and sewing conditions. Please adjust the positions in reference to the following table.

機殼、面板 攔綫鉤位置	1	2	3
縫 料	厚 料	中厚料	薄 料

Tension thread guards on arm bed & face plate	1 Large	2 Medium	3 Small
Material	Heavy	Medium heavy	Thin

3. 針、梭綫張力的調節

各種形狀的綫迹表示在圖二十中，正常的縫紉綫迹如圖中的(a)所示。如果綫迹不正常時，就會出現縫料起皺或斷綫，這時就應對針、梭綫的張力加以適當的調節，使之能獲得正常的綫迹。

3. To adjust the needle and bobbin thread tension

Fig 20 shows different stitches and the proper sewing stitch is like (a). The material will wrinkle or the thread will break when stitches are improper. It is then necessary to adjust properly the needle and bobbin thread tension to get normal stitches.

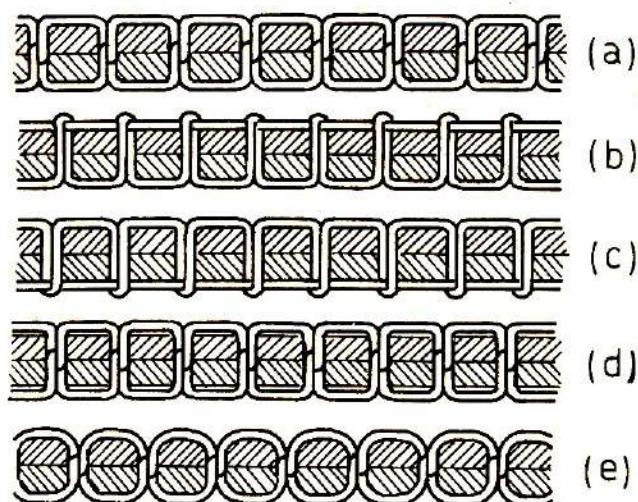


Fig.20

(1) 如果針綫太緊或梭綫太松，則應逆時針旋轉夾綫螺母，以減小針綫的張力；或用小號螺釘起子，稍稍旋緊梭皮螺釘，以加大梭綫的張力，使針、梭綫的張力達到平衡而獲得正常綫迹（見圖二十一）

(1) Turn the tension nut counterclockwise to decrease the needle thread tension

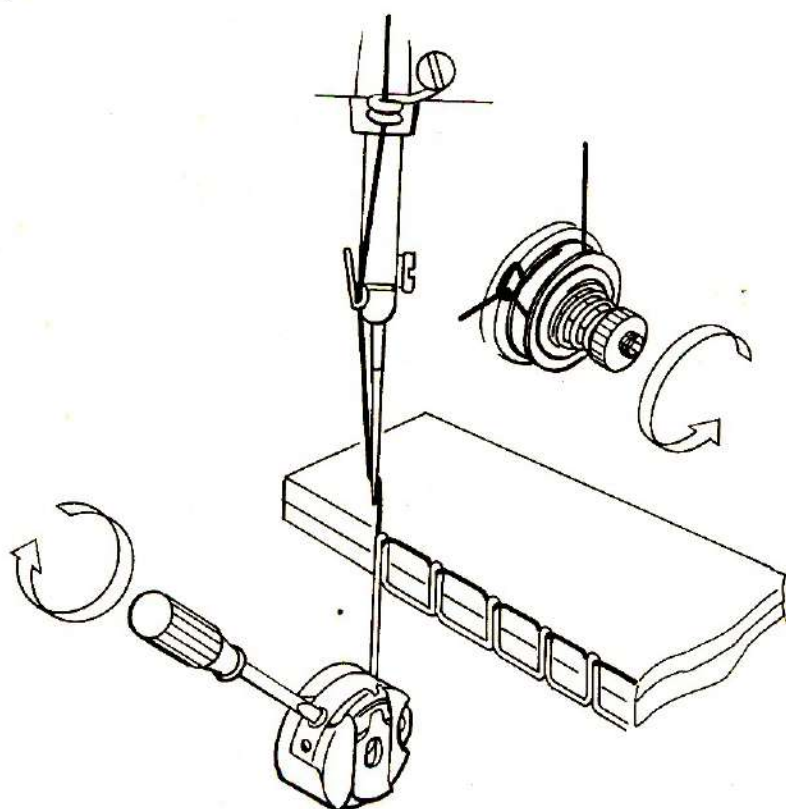


Fig.21

when the needle thread is too tight or the bobbin thread is too loose; or tighten the bobbin case spring screw slightly with a small screw driver to increase the bobbin thread tension so that the needle thread tension and the bobbin thread tension reach their balance and the normal stitches are got (fig 21).

(2) 如果針綫太松或梭綫太緊，則應順時針旋轉夾綫螺母，以增大針綫的張力，或稍稍旋松梭皮螺釘，以減小梭綫的張力(見圖二十二)。

(2) Turn the tension nut clockwise to increase the needle thread tension or loosen the bobbin case spring screw slightly to decrease the bobbin thread tension when the needle thread is too lose or the bobbin thread is too tight (fig 22)

(3) 若出現如(圖二十)中的(d)和(e)的綫迹，可以參照上述方法加以調節。

(3) If stitches like (d) and (e) appear, make adjustments in reference to the above methods.

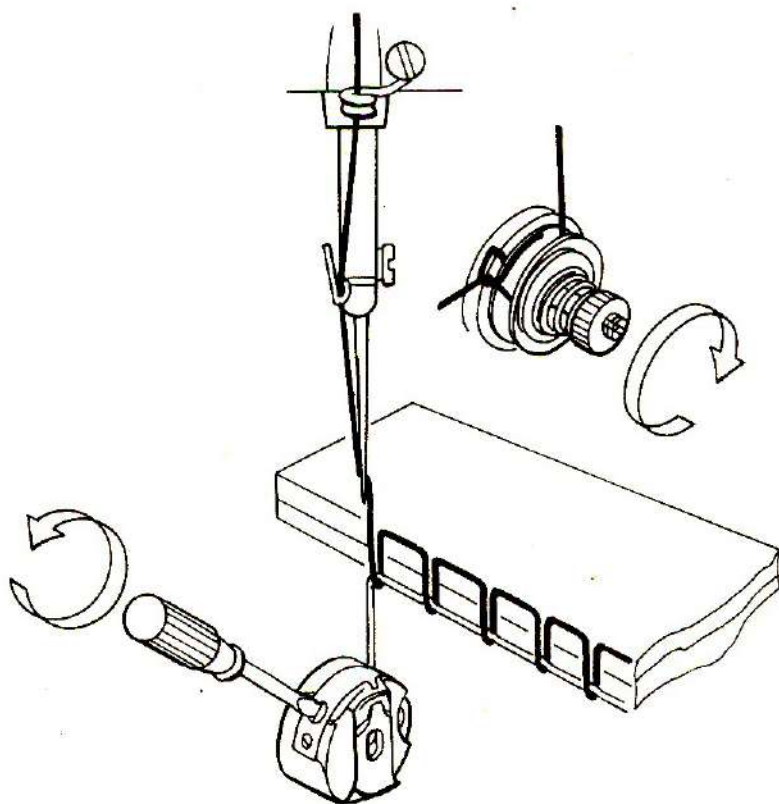


Fig.22

六、機器的調整

1、機針與旋梭的同步調整

(1) 機針位置的調整準備

用手轉動上輪，使針杆下降至最低位置，然後旋松的針杆上的針杆連接柱螺釘，使針杆能在針杆連接柱孔內上下移動，但不應使針杆脫錯。

(2) 機針與旋梭的同步調整(見圖二十三)

旋梭與機針之間的相互運動關係，對縫紉性能的影響極大，正確的旋梭勾綫時間是：當機針向

下運動到最低位置後，轉動上輪使機針最低位置向上回升2.2~2.5毫米時。

①旋轉的鉤綫尖應到達針杆的中心綫的位置(鉤綫尖與機針中心綫重合)；

②在此位置時，旋梭鉤綫尖應高出機針孔上沿1~1.5毫米(見圖二十三)。

調整方法如下：

a. 旋松下軸上固定旋梭的固定螺釘；

b. 轉動上輪，使機針下降到最低位置後再回升2.2~2.5毫米；

c. 轉動旋梭，使其鉤綫尖到達機針中心綫位置時緊固旋梭；

d. 旋松針杆連接柱緊固螺釘，調整針杆的高度，使旋梭的鉤綫尖高出機針孔上沿1~1.5毫米，最後旋梭緊固螺釘，並檢查是否達到了正確的勾綫時間要求。

在調整機針與旋梭的同步關係時，還應注意到旋梭尖與機針側面的間隙，機針(D)的缺口底部與旋梭勾綫尖(C)之間間隙約為0.05毫米(見圖二十四)。

(3)旋梭的裝卸(見圖二十五)

取下旋梭之前，應先將針杆升到最高位置，再卸下針板、機針和梭心套，然後旋下旋梭定位鉤螺釘(C)，卸下旋梭定位鉤(A)；而後鬆開旋梭的兩個緊固螺釘(D)，使旋梭在其下軸上能夠自由轉動，接着用手轉動上輪，使送料牙架升高。至此，就可以用手去轉動旋梭，使它讓過將可能與送料牙架相碰的位置，而徐徐取下。

裝旋梭的過程是上述過程的回復。

VI. Adjustment of the Machine

1. Timing adjustment of the needle to the rotating hook

(1) Preparation for adjusting the position of the needle

Turn the handwheel by hand to move the needle bar down to its bottom position, then loosen the needle bar connecting stud screw on the needle bar so that the needle bar may move up and down in the hole of the stud, but it should be kept from dropping down.

(2) Timing adjustment of the needle to the rotating hook (fig 23)

The relative motion of the rotating hook to the needle exert a great influence on the sewing performance of the machine. When the needle has moved down to its bottom position, turn the handwheel to raise it again. When it is 2.2—2.5mm above its bottom position and at the same time the hook point catches up the needle thread, the correct timing of the hook to the needle is realized. And further more:

① The hook point must reach the centreline of the needle bar (i.e. the hook point coincides with the centreline of the needle);

② At this position the hook point should be 1—1.5 mm higher than the upper edge of the needle's eye (fig 23).

The adjusting way is as follows:

a. Loosen the set screw of the hook on the rotating shaft;

b. Turn the handwheel to move down the needle to its bottom position and to raise it again until it is 2.2—2.5 mm above its bottom position;

c. Turn the hook until its point coincides with the centreline of the needle, then fix the hook;

d. Loosen the needle bar connecting stud set screw, adjust the height of the needle

bar so that the hook point is 1—1.5mm higher than the upper edge of the needle's eye. Then retighten the set screw and check whether the timing is correct.

It is also necessary to pay attention to the clearance between the hook point and the side of the needle when you adjust the timing of the needle to the hook. The clearance between the bottom of the needle recess (D) and the hook point (C) is about 0.05 mm (fig 24).

(3) To take off and to put on the hook (fig 25)

Before you take off the hook, raise the needle bar to its top position, take off the throat plate, the needle and the bobbin case, then screw out the hook bobbin case holder position bracket screw (C) to take off the bracket (A) and loosen two hook set screws (D) so that the hook may turn freely on its rotating shaft, then turn the handwheel to raise the feed bar. Now you can turn the hook by hand, keep it away from the position where it may touch the feed bar and take it off carefully.

The hook is to be put on in the reverse sequence of the above process.

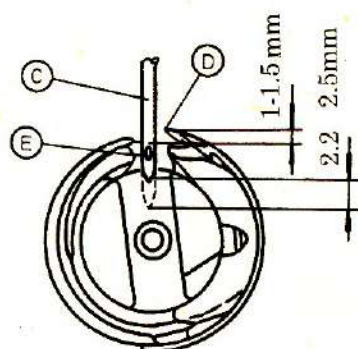


Fig.23

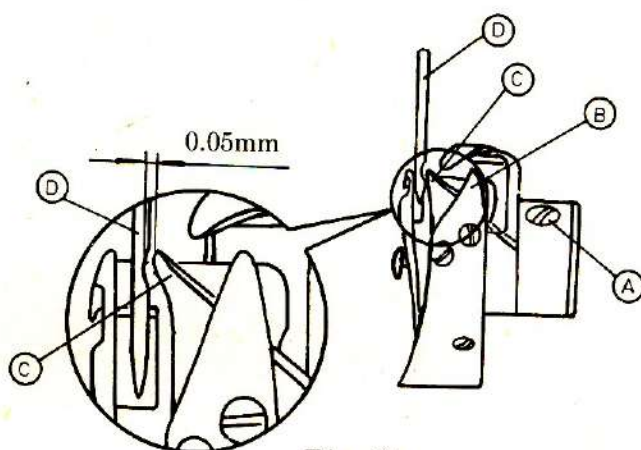


Fig.24

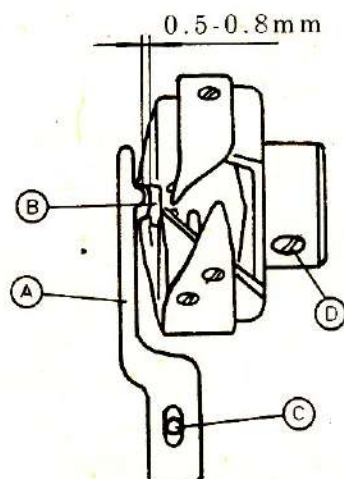


Fig.25

2. 送料牙的調整

(1) 送料牙高度的調整

轉動上輪，使送料牙齒到達最高位置，此時，送料牙齒的頂尖對針板上平面的距離大約為0.9~1.3毫米(見圖二十六)

2. To adjust the feed dog

(1) To adjust the height of the feed dog

Turn the handwheel to raise the feed dog to its top position. Now the top of the feed dog tooth is about 0.9—1.3mm above the surface of the throat plate (fig 26).

欲調節送料牙的高度時，應先松開螺釘(A)，再轉動抬牙曲柄(B)，測量送料牙的高度達到規定的要求後，即緊固螺釘(A)(見圖二十七)。

對較厚縫料或多層縫料縫紉時，送料牙的高度適取較大的數值。

To adjust the height of the feed dog, loosen the screw (A), then turn the feed lifting rock shaft crank (B), and regulate the height of the feed dog to the specified value and then tighten the screw (A) (fig 27).

When heavy or multiply materials are to be sewn, the height of the feed dog should be increased.

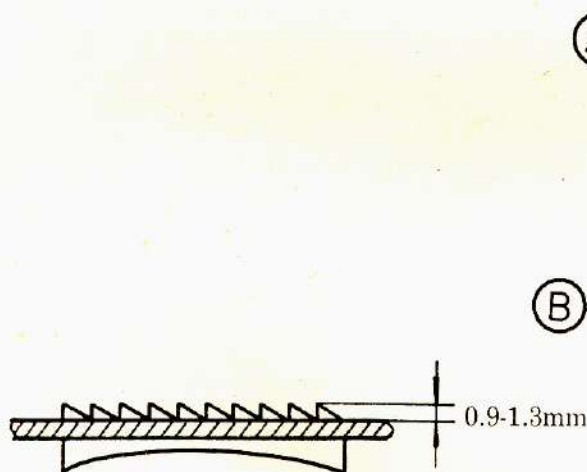


Fig.26

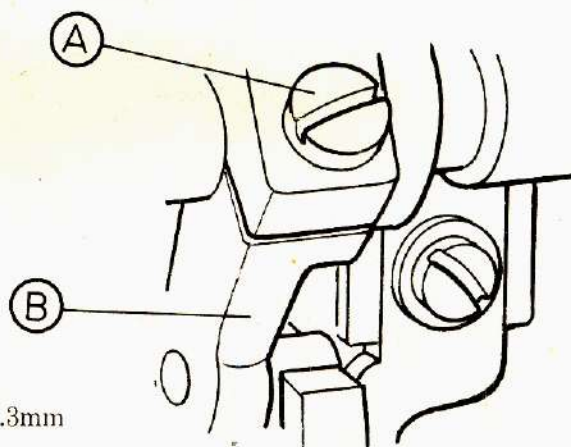


Fig.27

(2) 送料牙安裝位置和調節(見圖二十八)

① 當送料量最大，送料牙(A)前端靠近針板槽前側時，送料牙前端與針板槽前側的間距在1~1.5毫米範圍內，這是標準的送料牙的安裝位置。

② 調節送料牙位置時，先讓送料牙運動至針板槽的最前端位置停止，然後旋松送料牙架座緊固螺釘，移動牙架以調整送料牙前端與針板槽前側之間的間隙，達到要求後，再旋緊緊固螺釘。

(2) The fitting position of the feed dog and its adjustment (fig 28)

① When the front side of the feed dog which is in its max. feeding movement approaches the front edge of the throat plate slot, the clearance between them lies in the range of 1—1.5 mm In such a case the standard fitting position of the feed dog is reached.

② To adjust the position of the feed dog, move the feed dog until it is in the closest

proximity to the front edge of the throat plate slot, then loosen the set screw of the feed bar carrier and move the carrier to regulate the clearance between the front side of the feed dog and the front edge of the throat plate slot to the specified value, then retighten the set screw.

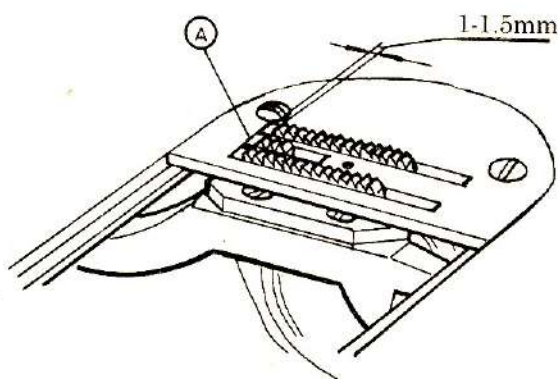


Fig.28

3. 夾綫器的挺綫調整

把壓腳扳手提升到最高位置, 松開壓紙杆上松綫架的緊固螺釘, 上下移動松綫架, 通過松綫鉤, 松綫釘, 松綫板等作用, 使夾綫器上的夾綫板張開(張開的間隙約為0.5毫米即可), 然後旋緊松綫架上的緊固螺釘, 這樣就完成了夾綫器的挺綫調整。

3.To adjust the tension of the thread tensioner

Raise the presser foot lifter to its top position, loosen the set screw of the thread tension release bracket on the presser bar to move the bracket up and down so that the tension discs of the thread tensioner open (the opened clearance is about 0.5 mm) through the actions of the tension release guide, tension release pin and tension release disc etc. Then retighten the set screw of the thread tension release bracket and the adjustment of the tension of the thread tensioner is finished.

4. 小壓壓和同步壓腳壓力的調整(見圖二十九)

合適的壓腳壓力標準為在此壓腳壓力的參與作用下, 能够使縫料通過送料牙被平齊地向前輸送, 并不得有任何縫料的打滑現象發生。

壓腳壓力的調節, 應根據縫料的厚度而加以調整。調整時, 首先旋松調壓螺母(B)及(b); 如縫紉厚料, 應加大壓腳的壓力, 這時可將機頭頂部的調壓螺(A)及(a)按(圖二十九)中(C)所示箭頭方向轉動; 反之, 縫紉薄料, 則可按圖中(D)所示箭頭方向調整, 待調整合適後即旋緊調壓螺母(B)和(b)即可。

4. adjusting the pressure of the small presser foot and synchronous presser foot (fig 29)

The optimum pressure is defined as the pressure, under the action of which the fabric to be sewn will be feeded smoothly under the feed dog without slippage.

The pressure of the presser foot should be adjusted in accordance with the thickness of the fabric. For adjusting, loosen the regulating nuts (B)&(b) at first, then for heavier fabric which needs more pressure, turn the regulating screws(A)&(a) on the top of the

arm head in the direction indicated by the arrow(c)in fig 29.

In case of thin fabrics, just turn the screws in the direction indicated by the arrow (D). After adjustment, retighten the regulating nuts(B)&(b).

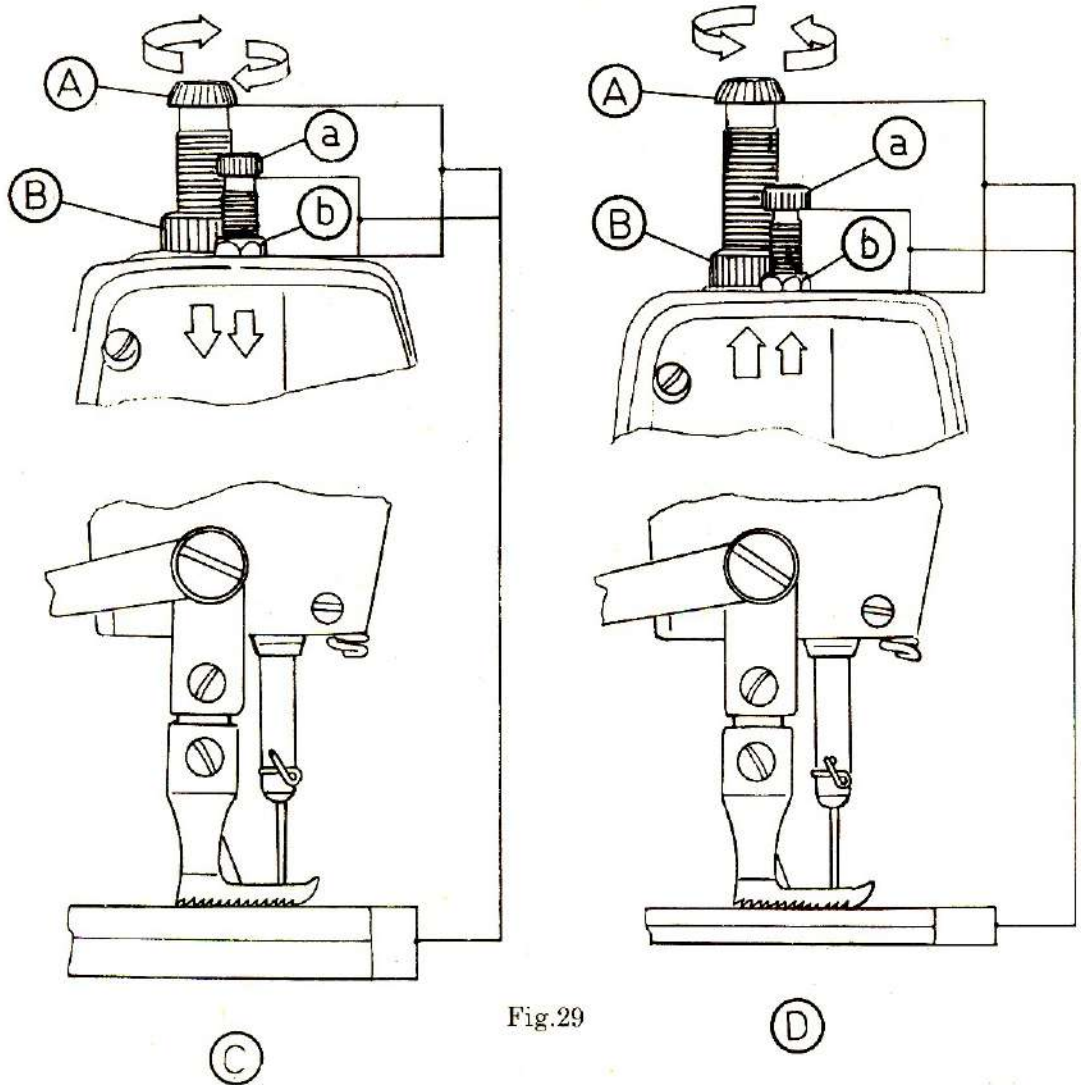


Fig.29

5、上送料機構的調整

上、下同步送料是該縫紉機的重要性能之一。在縫紉過程中，應根據各種縫料的摩擦系數的不同和縫紉工藝的不同要求對上送料機構的可調曲柄與同步滑塊軸的中心距(A)進行調整(見圖三十)。

調整方法：在常用針迹距長度，用兩層等長的上下層縫料縫紉後，如發現上層縫料較下層縫料為長時，則說明上送料量少於下送料量，此時應將圖三十中所示的中心距(A)增大，使上送料量增大與下送料量達到一致；若發現上、下層縫料情況與上述相反，則將中心距(A)適當減小，使之達到要求為止。

對於某些縫制品的特殊縫紉要求，如需使上層縫料的送料量大於(或減小)下層縫料的送料量，亦可以根據上述之原理在一定範圍內加以調整即可。

5. Adjusting the upper feeding mechanism

Synchronous upper and lower feeding is one of the important features of machine. The center distance(A) between the adjustable crank and the synchronous slide block stud of the upper feeding mechanism should be adjusted according to the coefficients of friction of different fabrics and sewing processes for diversified requirements. (fig.30)

For adjusting, try to sew a two—layer piece of same fabric of equal length with ordinary stitch length. It means that the upper feeding is less than the lower feeding, if the top layer is found to be longer than the bottom layer, the center distance(A) should be increased by the method as shown in fig. 30. And in the opposite case, the center distance(A) should be decreased.

In some special cases, more upper layer fabric feeding or less that feeding is required, the center distance(A) may be adjusted according to the principles described above.

6. 壓腳交叉提升機構的調整(見圖三十)

根據縫料的疏松和結實程度的不同,在縫紉中對同步壓腳和小壓腳的交叉提升量,可以在一定的範圍內進行適當的調整。在一般的中厚料縫紉中,同步壓腳的提升量小於5.5毫米,小壓腳的提升量小於2.5毫米。在其它機構不變的情況下,兩個壓腳的提升量之和基本是一個定值。兩個提升量的變化情況相反,即同步壓腳的提升量若增大,則小壓腳的提升量必然相應減小,反之亦然。

調整方法,按縫紉工藝要求,若要使同步壓腳的提升量增大,小壓腳的提升量減小,則先可將抬壓腳曲柄螺釘松開,使抬壓腳曲柄槽口,相對抬壓腳軸向上轉動,反之則向下轉動。其調整量有一定的範圍,不能過大。調整合適後,將螺釘擰緊。在使用前,先將壓腳板手提起,慢慢轉動上輪,觀察同步壓腳是否與針杆綫鉤等機件相碰,確認妥當後方可使用。

6. Adjusting the presser foot alternate—lifting mechanism (fig. 30)

The alternate—lifts of the small presser foot and synchronous presser foot should be adjusted in a specified range in accordance with the different densities and textures of fabrics. For medium thin fabrics, the synchronous presser foot lift should be $\leq 5.5\text{mm}$, the small presser foot lift should be $\leq 2.5\text{mm}$. With other mechanisms kept constant, the sum of the lifts of the synchronous presser foot and the small presser foot is nearly a constant. The lifts change in opposite direction, i.e., the synchronous presser foot lift increases while the small presser foot lift decreases, and vice versa.

For adjusting, if increased synchronous presser foot lift and decreased small presser foot lift are required, loosen the presser foot lifting crank screw, then turn the presser foot vertical crank groove upwards relatively to the presser foot lifter shaft. While in the opposite case, where decreased synchronous presser foot lift and increased small presser foot lift are required, turn it downwards. The adjustable range is rather limited, don't try to turn it further too much. Retighten the screw after adjustment. Before running the machine again, lift the presser foot lifter, turn the pulley slowly to see that synchronous presser foot never touch the needle bar thread eyelet etc.

7. 同步壓腳和小壓腳的總提升量的調整(見圖三十一)

在縫紉過程中,要改變同步壓腳和小壓腳的提升量,可按(圖三十一)所示的方法加以調整。其調節方法:先將同步曲柄連接螺釘旋松,然後調整螺釘中心綫與抬壓腳軸中心綫之間的距離(B)。若要

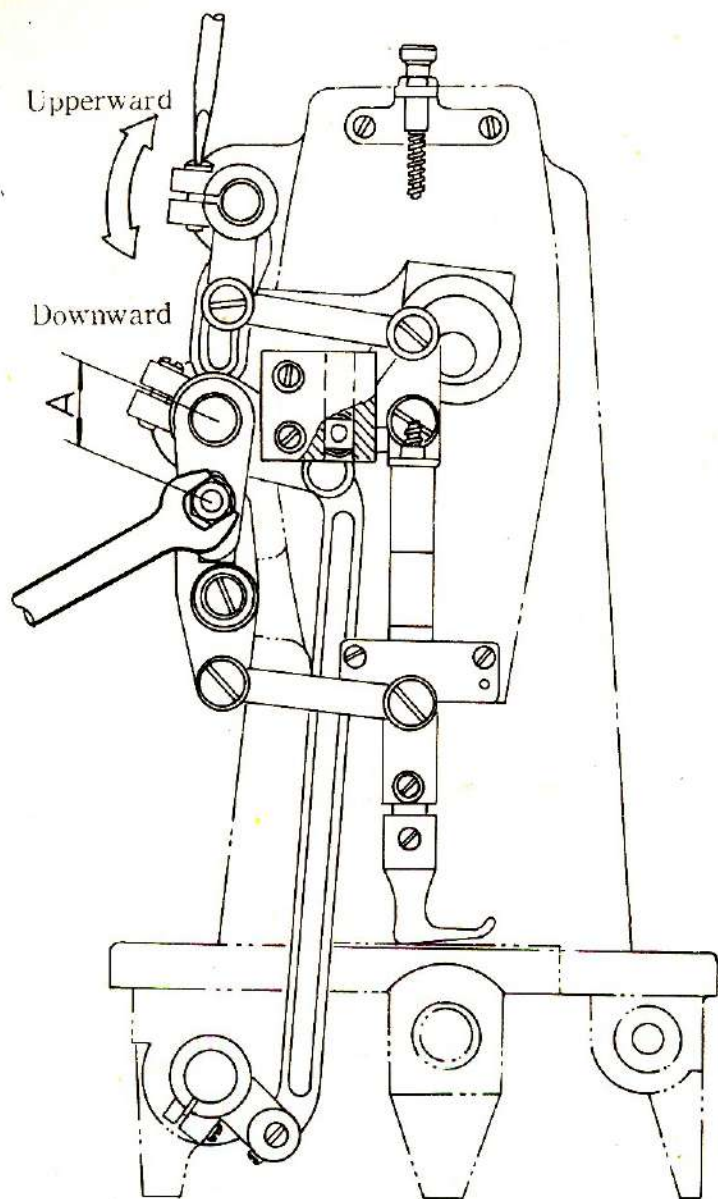


Fig.30

使同步壓腳和小壓腳的提升量都增大，則應使中心距(B)的數值減小；反之，則將使提升量都減小。調整的量是有一定範圍的，調整幅度也不宜過大。調整妥善後，應將螺釘旋緊。在使用前應先將壓腳扳手提起，慢慢地轉動上輪，觀察同步壓腳是否與針杆綫鉤等機件相碰，經調查，符合要求後方可使用。

7. Adjusting the total lifts of the synchronous presser foot and small presser foot (fig.31)

In sewing processes, the synchronous presser foot and small presser foot lifts may be adjusted as shown in fig.31.

For adjusting, at first loosen the synchronizer crank connecting stud, then adjust the distance between the center—lines of the stud and the presser foot lifter shaft(B). If both lifts of the synchronous presser foot and small presser foot are to be increased, the centerline distance(B) should be diminished. While in the opposite case, the centerline distance(B) should be increased.

The range of adjustment is rather limited, however, so do not try to turn further too much. Retighten the stud after adjustment.

Before to run the machine again, lift the presser foot lifter and turn slowly the pulley to check that the synchronous presser foot does not touch at any case the needle bar thread eyelet etc.

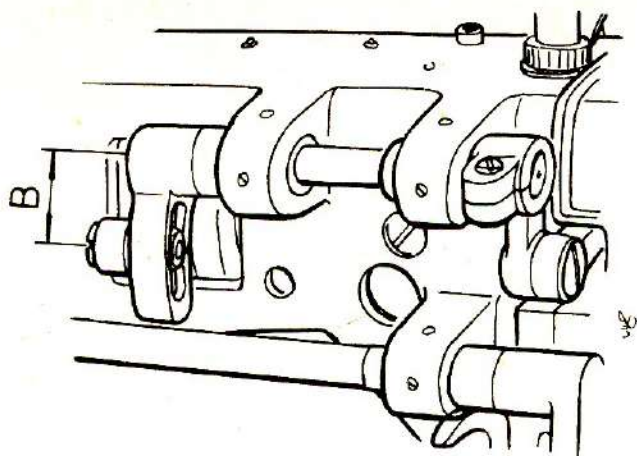


Fig.31

8. 同步壓腳、小壓腳前後方向的間隙調整(見圖三十二)

在縫紉過程中,有時用大針迹距縫紉,有時用小針迹距縫紉。在使用大針迹距縫紉時,壓腳前後方向的動程就較大,反之動程變小。爲了在縫紉過程中,使同步壓腳槽的前端與小壓腳的後端不致相碰,且保證有一定的間隙C(一般此值取1~1.5毫米爲宜),所以在小針迹距縫紉時,需要同步壓腳向針杆靠攏一些。調整方法如(圖三十二)所示。首先旋松同步曲柄螺釘,然後向上轉動同步軸,使同步壓腳向針杆靠近,調整時請保持間隙C的定值要求。

8. adjusting the horizontal clearnce between the synchronous presser foot and the small presser foot(fig.32)

During the sewing processes, sometimes longer stitches and at other times shorter stitches are required. With longer stitches, the horizontal stroke of the presser foot is also longer, while in the oposite case, it is to be shorter. for the purpose of keeping a reasonable clearnce between the front end of the synchronous presser foot and the rear end of the small presser foot the optimum value of which is between 1—1.5mm, so that the Presser foot ends never touch each other in any case during sewing processes, the synchronous presser foot should be shifted a little further towards the needle bar in case of sewing processes with short stitch lengths.

Refer of fig.32 for adjusting the clearance. At first, loosen the synchronizer crank screw, then turn the synchronizer shaft upwards in order to shift the synchronious presser foot towards the needle bar, while keeping the clearance(C) constant.

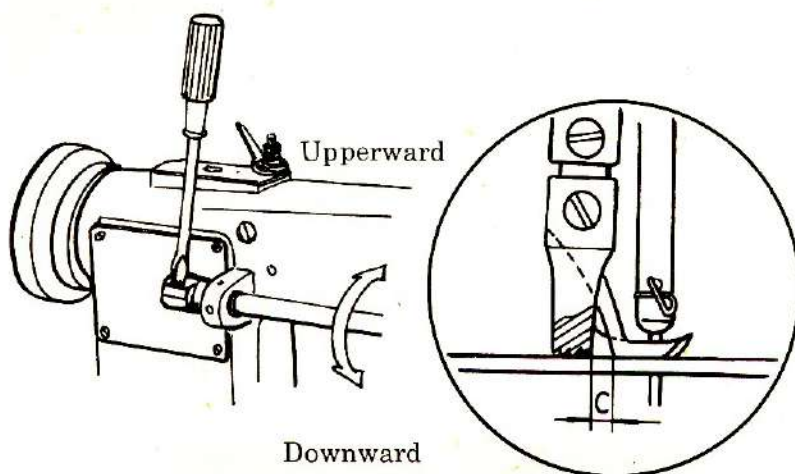


Fig.32

七、定期清掃

請根據縫紉機的使用程度,定期對送料牙、旋梭和梭心套等零部件進行清掃。

1. 送料牙的清掃的(見圖三十三)

先卸下針板,清除送料牙牙槽內的塵垢,然後再安好針板。

2. 旋梭的清掃

清除旋梭周圍的塵垢(如圖三十四所示)。同時用軟布拭擦梭心套。

VII. Clean the machine at regular intervals

Please clean the machine regular intervals. The feed dogs, the hook and the bobbin case should be cleaned to get rid of dirt, fabric debris and fibres according to the frequency and duration of sewing processes.

1. cleaning of the feed dogs (fig.33)

Take off the throat plate, clean out the dirt, fabric debris and fibres in the feed dog grooves by the aid of a brush. After thorough cleaning put on the throat plate again.

2. Cleaning of the hook

Refer to fig. 34 clean out the dirt, fabric debris and fibres around the hook by the aid of a brush, and meanwhile rub the hobbin case with a soft cloth.

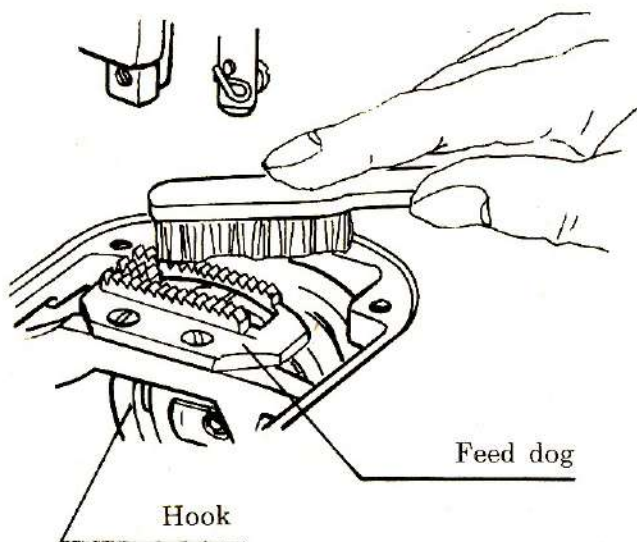


Fig.33

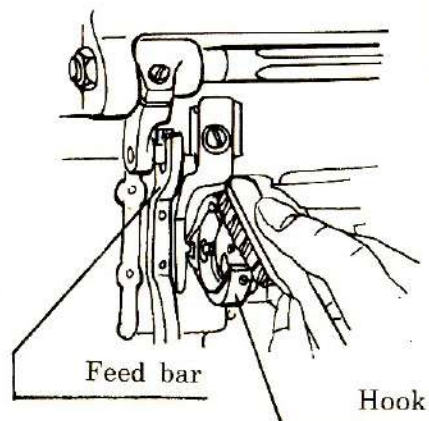


Fig.34

八、一般故障及其處理方法

故障類型	產生原因	處理方法
斷 針	1、機針太細或彎曲 2、機針裝法錯誤 3、縫紉時用手推拉縫料 4、縫料過于堅實	調換機針 參看圖十 稍加以扶持,不可推拉 按技術規格的規定使用
跳 針	1、機針彎曲或者機針粗細對縫料厚薄不相稱 2、機針裝法錯誤	調換機針 參看圖十
斷針綫	1、穿綫錯誤 2、針綫太緊 3、綫的質量差 4、機針太細、機針粗糙	參看圖十三 參看圖二十一 調換縫綫 調換機針
斷梭綫	1、梭綫太緊 2、梭心繞綫松亂、不均 3、針板孔表面粗糙或磨損過甚	參看圖二十二,減小梭綫張力 參看圖十二、重新繞梭綫 更換針板或用#0砂布擦拭,研光板孔
針迹松浮	1、針、梭綫松緊度未調整好 2、挑綫簧過松	參看圖二十一、圖二十二,重新調整針、梭綫張力 看見本文“五”中“1”的章節
縫紉起皺	1、縫料過薄而針迹距過長 2、針、梭綫張力過緊 3、同步未調整好	適當調整 調節夾綫螺母、挑綫簧和梭皮螺釘 參閱有關同步調節說明

VIII. Troubles and Troubleshooting

Troubles	Causes	Troubleshooting
Needle breaks	1. Needle too thin or bent 2. Incorrect positioning of needle 3. Material pulled or pushed by hand during sewing 4. Material too solid	Replace the needle See fig 10 Hold it lightly, not to pull or push it Use specified material
Missing stitches	1. Needle bent or its size not matched to the thickness of material 2. Faulty positioning of needle	Replace needle See fig 10
Needle thread breaks	1. Wrong threading 2. Needle thread too tight 3. Poor quality of thread 4. Needle too thin or its surface too coarse	See fig 13 See fig 21 Replace thread Replace needle
Bobbin thread breaks	1. Bobbin thread too tight 2. Bobbin thread loosely or unevenly wound 3. Surface of throat plate coarse or much worn	Reduce bobbin thread tension as in fig 22 Rewind bobbin thread as in fig 12 Replace throat plate or polish its hole with # 0 emery cloth
Loose stitches	1. Needle and bobbin thread tension not well adjusted 2. Take-up spring too weak	Readjust needle and bobbin thread tension as in fig 21 & fig 22 See "V.1" of this instruction
Puckering stitches	1. Material too thin and stitch length too long 2. Too much needle and bobbin thread tension 3. Synchronous not well adjusted	Adjust properly Adjust tension nut, take-up spring and bobbin case spring screw See the synchronous adjust

零件樣本

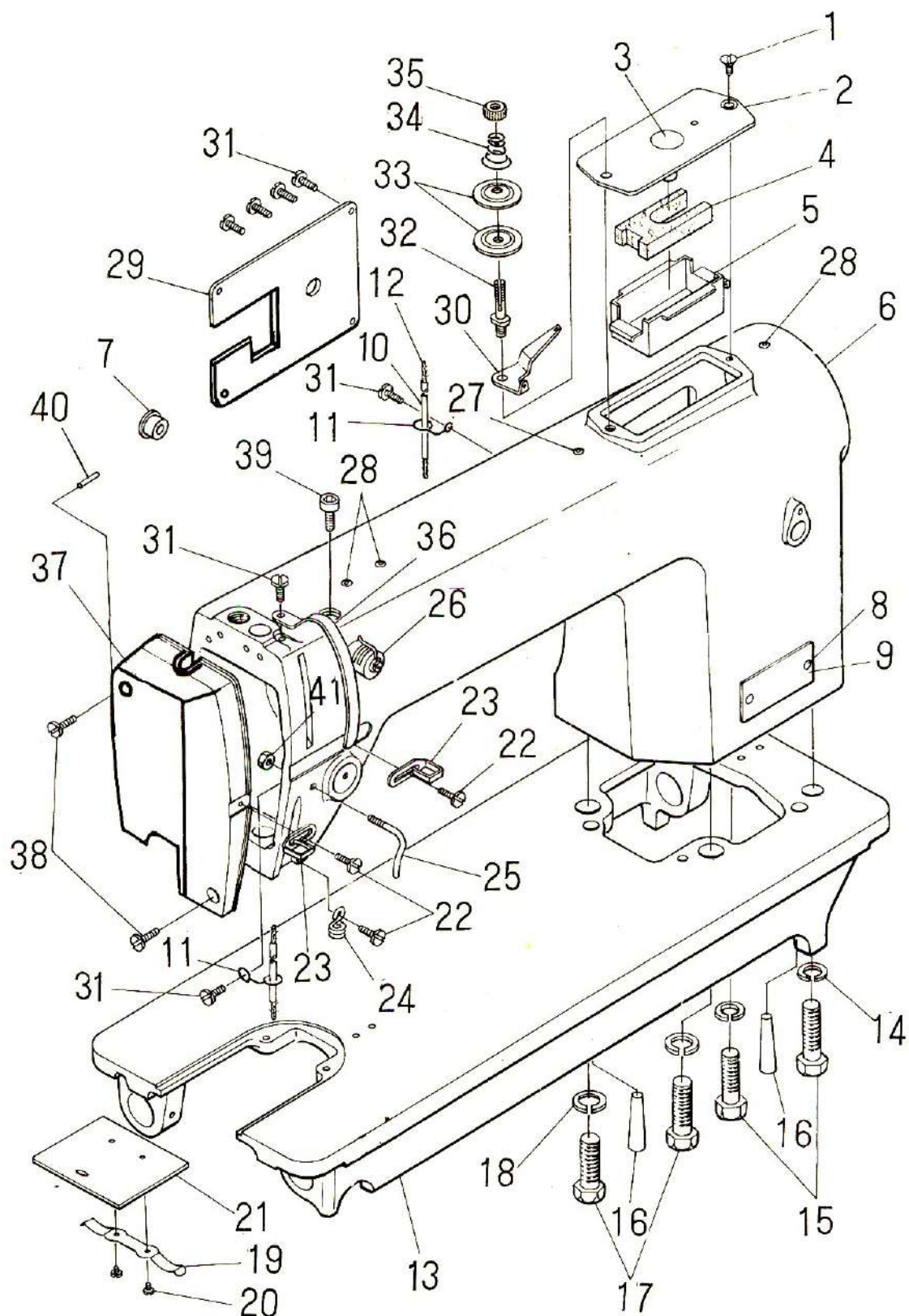
Instruction for Operation parts Book

一、機殼部件

序號	件 號	名 稱	件數	備 注
1	GS2	—9 頂蓋螺釘	1	SM 11/64"×40 $l=9$
2	GK104	—9 頂蓋	1	
3	GK105	—9 油窗	1	
4	GR204	—9 潤滑油杯油壘	1	
5	GR205	—9 潤滑油杯體	1	
6	GQ106	—9 車殼	1	
7	GR224	—9 後蓋油塞	1	
8	GX102	—9 鉚釘	2	
9	GQ107	—9 型號牌	1	
10	GR222	—9 油管	10	
11	GR221	—9 油綫定位架	2	
12	GR223	—9 油綫	16	
13	GQ103	—9 底板	1	
14	GR201	—9 彈簧墊圈	2	
15	GS101	—9 機殼後螺釘	2	M10 $l=35$
16	GX101	—9 機殼圓錐銷	2	
17	GS102	—9 機殼前螺釘	2	M12 $l=35$
18	GR202	—9 彈簧墊圈	2	
19	GW104	—9 推板簧	1	
20	GS6	—9 推板簧螺釘	2	SM 3/32"×56 $l=2.5$
21	GM102	—9 推板體	1	
22	GS5	—9 攔綫鉤螺釘	3	SM 9/64"×40 $l=8$
23	GR219	—9 攔綫鉤	2	
24	GR220	—9 下綫鉤	1	
25	GR203	—9 緩綫調節鉤	1	
26	GR214/6	—9 過綫油杯組件	1	
27	GR209/3	—9 長油管組件	1	
28	GR212/3	—9 短油管組件	3	

I Arm Bed Components

SN	Part. No.	Description	Q	Remarks
1	GS2-9	Top cover screw	1	SM 11/64"×40 l=9
2	GK104-9	Top cover	1	
3	GK105-9	Oil sight window	1	
4	GR204-9	Lubricating oil cup felt	1	
5	GR205-9	Lubricating oil cup	1	
6	GQ106-9	Arm bed complete	1	
7	GR224-9	Rear cover oil plug	1	
8	GX102-9	Rivet	2	
9	GQ107-9	Model plate	1	
10	GR222-9	Oil tube	10	
11	GR221-9	Oil wick positioning bracket	2	
12	GR223-9	Oil wick	16	
13	GQ103-9	Bed	1	
14	GR201-9	Spring washer	2	
15	GS101-9	Arm bed rear screw	2	M10 l=35
16	GX101-9	Arm bed tapered pin	2	
17	GS102-9	Arm bed front screw	2	M12 l=35
18	GR202-9	Spring washer	2	
19	CW104-9	Bed slide spring	1	
20	GS6-9	Bed slide screw	2	SM 3/32"×56 l=2.5
21	GM102-9	Bed slide	1	
22	GS5-9	Tension thread guard screw	3	SM 9/64"×40 l=8
23	GR219-9	Tension thread guard	2	
24	GR220-9	Lower thread guard	1	
25	GR203-9	Thread retaining regulator	1	
26	GR214/6-9	Thread guide oil cup complete	1	
27	GR209/3-9	Long oil tube comp	1	
28	GR212/3-9	Short oil tube comp	3	

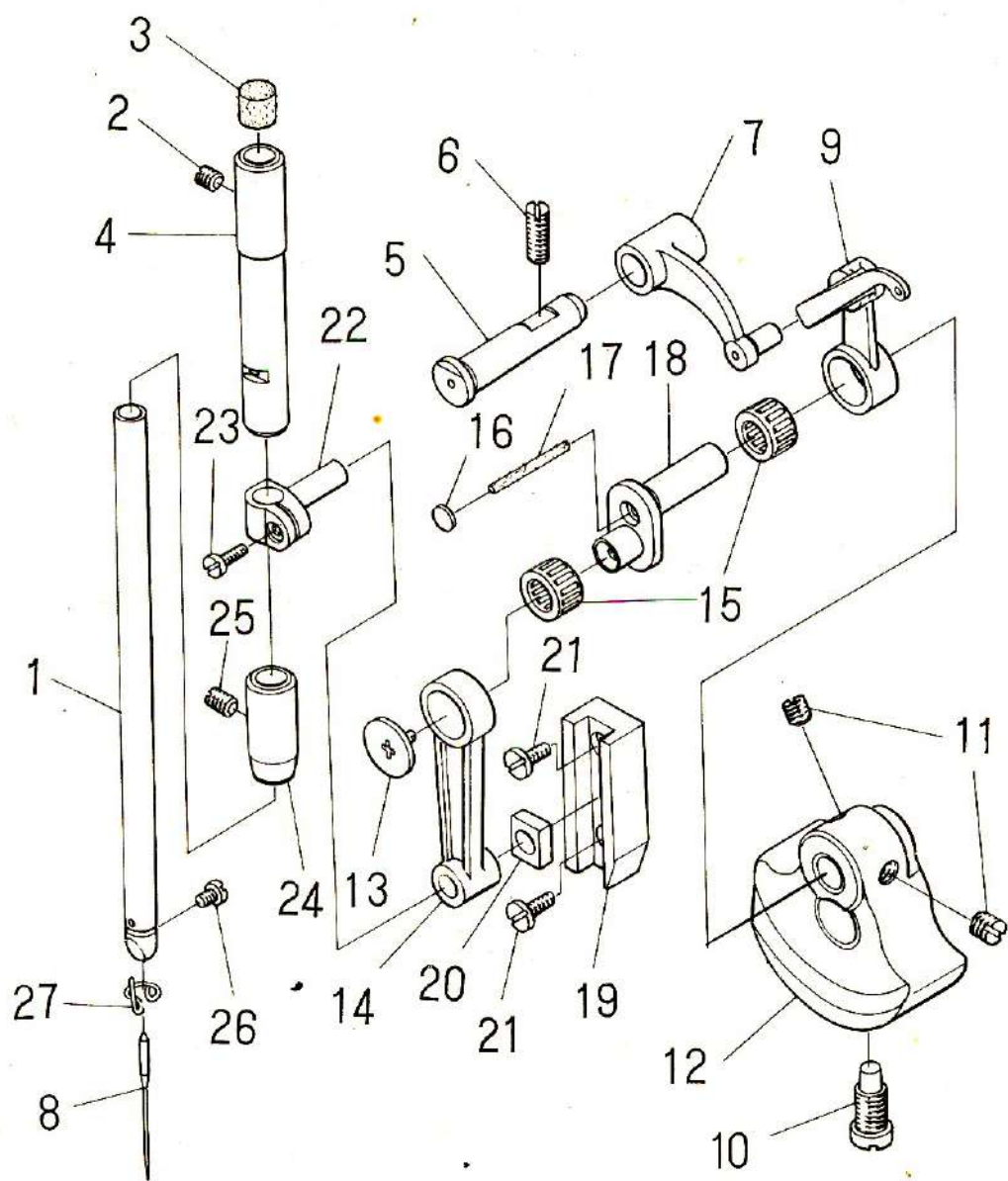


二、刺綫、挑綫部件

序號	件 號	名 稱	件數	備 注
1	GZ101	-9 針杆	1	
2	GS10	-9 針杆上套筒螺釘	1	SM 11/64"×40 $l=3.5$
3	GR229	-9 針杆油封	1	
4	GO103	-9 針杆上套筒	1	
5	GX105	-9 挑綫連杆銷	1	
6	GS11	-9 挑綫連杆銷螺釘	1	SM 15/64"×28 $l=13$
7	GH105	-9 挑綫連杆	1	
8	GV0	-9 機針	1	
9	GH104	-9 挑綫杆	1	
10	GS12	-9 挑綫曲柄緊固螺釘	1	SM 9/32"×28 $l=17$
11	GR13	-9 挑綫曲柄定位螺釘	2	SM 1/4"×40 $l=5$
12	GH106	-9 挑綫曲柄	11	
13	GS9	-9 針杆曲柄螺釘	1	SM 9/64"×40左 $l=6$
14	GH101	-9 針杆連杆	1	
15	GO102	-9 滾針軸承	2	
16	GR228	-9 針杆曲柄油塞	1	
17	GR227	-9 針杆曲柄油綫	1	
18	GH103	-9 針杆曲柄	1	
19	GR226	-9 針杆連接柱滑塊導軌	1	
20	GU101	-9 針杆連接柱滑塊	1	
21	GS1	-9 針杆滑塊導軌螺釘	2	SM 9/64"×40 $l=8$
22	GZ102	-9 針杆連接柱	1	
23	GS8	-9 針杆連接柱螺釘	1	SM 9/64"×40 $l=7$
24	GO101	-9 針杆下套筒	1	
25	GS14	-9 針杆下套筒螺釘	1	SM 11/64"×40 $l=6.5$
26	GS7	-9 支針螺釘	1	SM 1/8"×40 $l=4$
27	GR225	-9 針杆綫鉤	1	

II. Piercing & Thread Take-up Components

SN	Part. No.	Description	Q	Remarks
1	GZ101-9	Needle bar	1	
2	GS10-9	Needle bar upper bushing screw	1	SM 11/64"×40 l=3.5
3	GR229-9	Needle bar oil seat	1	
4	GO103-9	Needle bar upper bushing	1	
5	GX105-9	Thread take-up lever link pin	1	
6	GS11-9	Thread take-up lever link pin screw	1	SM 15/64"×28 l=13
7	GH105-9	Thread take-up lever link	1	
8	GV0-9	Needle	1	
9	GH104-9	Thread take-up lever	1	
10	GS12-9	Thread take-up crank set screw	1	SM 9/32"×28 l=17
11	GR13-9	Thread take-up crank positioning screw	2	SM 1/4"×40 l=5
12	GH106-9	Thread take-up crank	1	
13	GS9-9	Needle bar crank screw	1	SM 9/64"×40 l=6
14	GH101-9	Needle bar connecting link	1	
15	GO102-9	Needle bearing	2	
16	GR228-9	Needle bar crank oil plug	1	
17	GR227-9	Needle bar crank oil wick	1	
18	GH103-9	Needle bar crank	1	
19	GR226-9	Needle bar connecting stud slide block guide rail	1	
20	GU101-9	Needle bar connecting stud slide block	1	
21	GS1-9	Needle bar slide block guide rail screw	2	SM 9/64"×40 l=8
22	GZ102-9	Needle bar connecting stud	1	
23	GS8-9	Needle bar connecting stud screw	1	SM 9/64"×40 l=7
24	GO101-9	Needle bar lower bushing	1	
25	GS14-9	Needle bar lower bushing screw	1	SM 11/64"×40 l=6.5
26	GS7-9	Needle clamp screw	1	SM 1/8"×40 l=4
27	GR225-9	Needle bar thread guard	1	
			1	

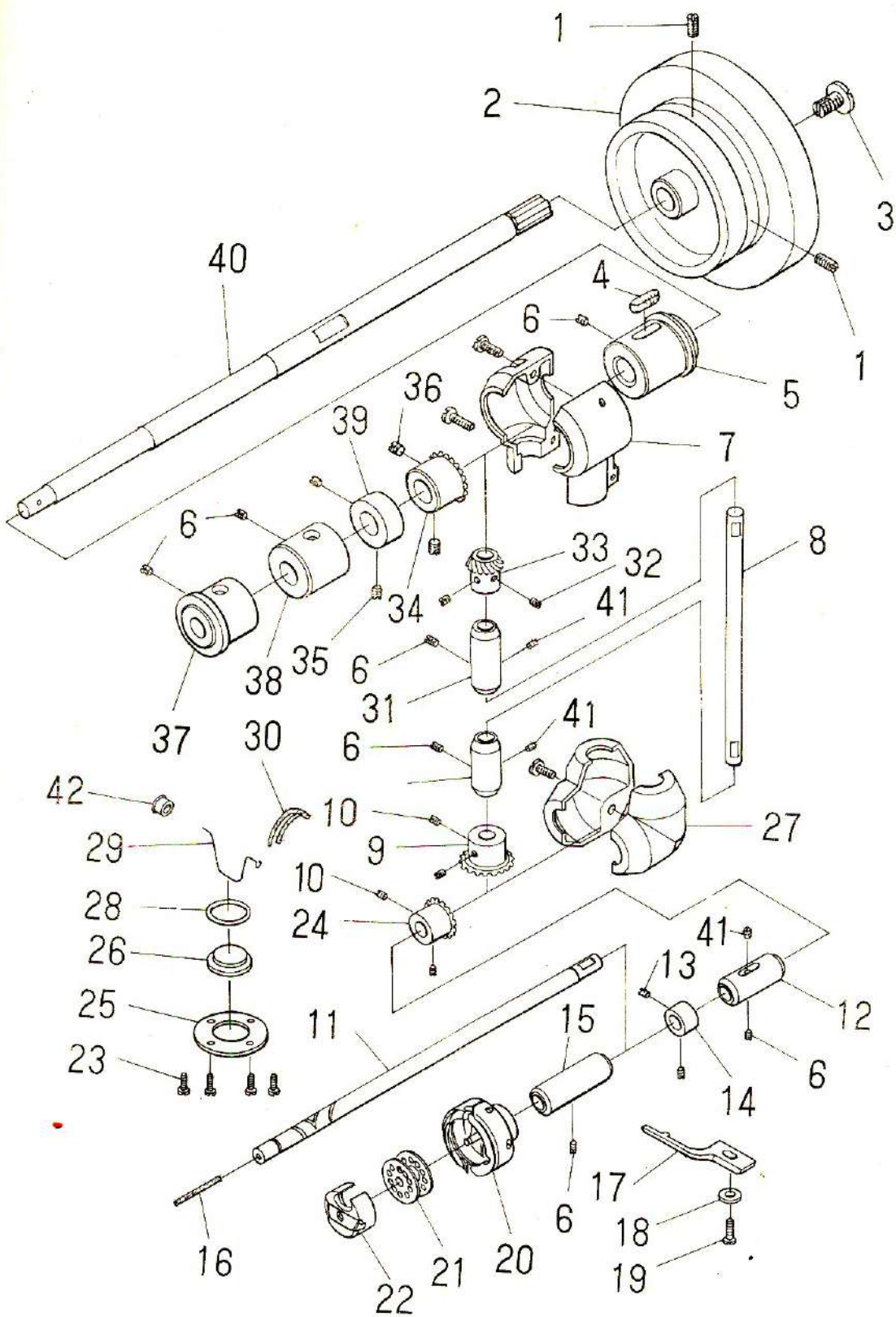


三、鈎綫、傳動部件

序號	件 號	名 稱	件數	備 注
1	GS11	上輪支頭螺釘	2	SM15/64"×28 $l=13$
2	GP101	上輪	1	
3	GS18	上輪吊緊螺釘	1	SM5/16"×24 $l=14$
4	GR232	上軸後軸套油篋	1	
5	GO107	上軸後軸套	1	
6	GS15	豎軸上軸套支頭螺釘	7	SM15/64"×28 $l=7.5$
7	GK107 GK108 GS17	上軸傘齒輪罩殼組件	1	SM15/64"×28 $l=15$
8	GZ104	豎軸	1	
9	GC104	豎軸下傘齒輪	1	
10	GS16	下軸傘齒輪支頭螺釘	4	SM1/4"×40 $l=6$
11	GZ105	下軸	1	
12	G0109	下軸後軸套	1	
13	GS24	下軸擋圈支頭螺釘	2	SM11/64"×40 $l=4.5$
14	GR237	下軸擋圈	1	
15	G0108	下軸前軸套	1	
16	GR241	下軸油綫	1	
17	GR242	旋梭定位鈎	1	
18	GR243	旋梭定位鈎墊圈	1	
19	GS25	旋梭定位鈎螺釘	1	SM11/64"×40 $l=12.5$
20	GN101/11	大容量旋梭組件	1	
21	GN111	梭芯	1	
22	GN106/7	大容量梭心套組件	1	
23	GS1	油窗蓋螺釘	4	SM9/64"×40 $l=8$
24	GC103	下軸傘齒輪	1	
25	GK112	油窗蓋	1	
26	GK111	油窗	1	
27	GK109 GK110 GS17	下軸傘齒輪罩殼組件	1	SM15/64"×28 $l=15$
28	GR239	油窗油封	1	

III. Hook & Driving Components

SN	Part No.	Description	Q	Remarks
1	GS11-9	Handnheel set screw	2	SM15/64"×28 l=13
2	GP101-9	Handwheel	1	
3	GS18-9	Handwheel lock screw	1	SM5/16"×24 l=14
4	GR232-9	Main shaft rear bushing oil felt	1	
5	GO107-9	Main shaft rear bushing	1	
6	GS15-9	Upright sheft upper bushing setion screw	7	SM15/64"×28 l=7.5
7	GK107-9 GK108-9 GS17-9	Main sheft bevel gear cover complete	1	SM15/64"×28 l=15
8	GZ104-9	Upright shaft	1	
9	GC104-9	Upright shaft lower bevel gear	1	
10	GS16-9	Rotating hook shaft bevel gear	4	SM1/4"×40 l=6
11	GZ105-9	Rotating book shaft	1	
12	G0109-9	Rotating hook shaft rear bushing	1	
13	GS24-9	Rotating hook shaft thrust collar setscrew	2	SM11/64"×40 l=4.5
14	GR237-9	Rotaing hook shaft thrust collar	1	
15	G0108-9	Rotating hook shaft front bushing	1	
16	GR241-9	Rotating hook shaft oil wick	1	
17	GR242-9	Rotating hook bobbin case holder position bracket	1	
18	GR243-9	Rotating hook bobbin case holder position bracket washer	1	
19	GS25-9	Rotating hook bobbin case holder position bracket screw	1	SM11/64"×40 l=12.5
20	GN101/11-9	Large capacity rotating hook complete	1	
21	GN111-9	Bobbin	1	
22	CN106/7-9	Large capacity bobbin casecomplete	1	
23	GS1-9	Oil sight window cover screw	4	SM9/64"×40 l=8
24	GC103-9	Rotating hook shaft bevel gear	1	
25	GK112-9	Oil sight window corer	1	
26	GK111-9	Oil sight window	1	
27	GK109-9 GK110-9 GS17-9	Rotdting hook shaft bevel gear coker complete	1	SM15/64"×28 l=15
28	GR239-9	Oil sight window seal	1	

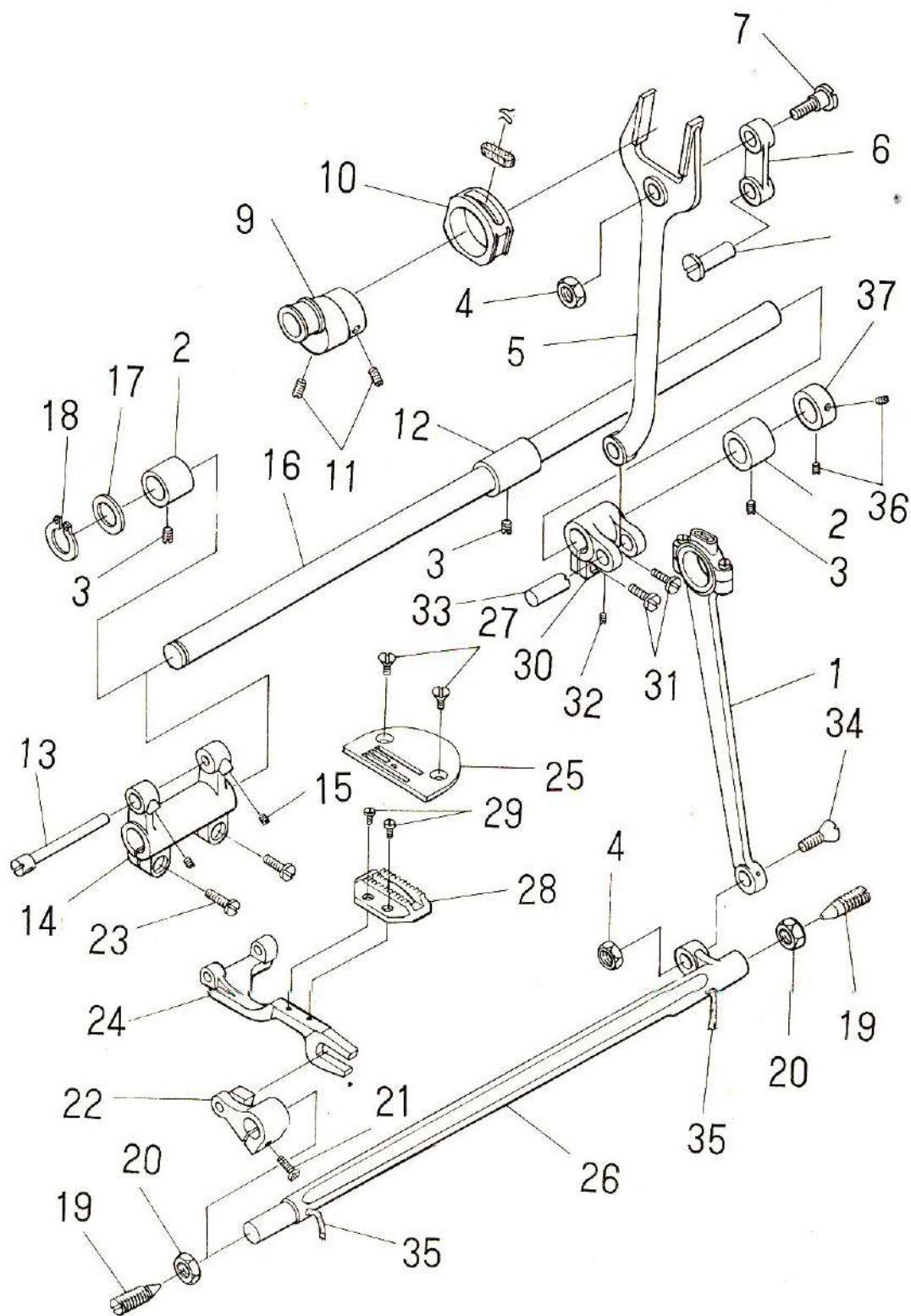


四、下送料部件

序號	件 號	名 稱	件數	Remarks
1	GH110/5	拾牙連杆組件	1	
2	GO111	送料軸前後軸套	各1	
3	GS15	送料軸軸套支頭螺釘	3	SM15/64"×28 $l=7.5$
4	GL3	螺母	2	SM9/32"×28
5	GR246	牙叉	1	
6	GH109	針距連杆	1	
7	GS26	牙叉連接螺釘	1	SM9/32"×28 $l=23$
8	GX106	連杆銷	1	
9	GT101	送料凸輪	1	
10	GR246 GW106 GU104	牙叉滑塊組件	1	
11	GS15	送料凸輪螺釘	2	SM15/64"×28 $l=7.5$
12	GO110	送料軸中軸套	1	
13	GZ110	牙架軸	1	
14	GR251	牙架座	1	
15	GS14	牙架座支頭螺釘	2	SM11/64"×40 $l=6.5$
16	GZ109	送料軸	1	
17	GR252	墊圈	1	
18	GR248	擋圈	1	
19	GS30	大頂尖螺釘	2	SM3/8"×28 $l=19$
20	GL4	大頂尖螺母	2	SM3/8"×28
21	GS25	拾牙曲柄螺釘	1	SM11/64"×40 $l=12.5$
22	GH107/2	拾牙曲柄組件	1	
23	GS17	牙架座螺釘	2	SM15/64"×28 $l=15$
24	GR244	牙架	1	
25	GM108	針板	1	
26	GZ108	拾牙軸	1	
27	GS2	針板螺釘	2	SM11/64"×40 $l=9$
28	GM109	送料牙	1	

IV. Lower Feed Mechanism Components

SN	Part No.	Description	Q	Remarks
1	GH110/5-9	Feed lifting connecting rod complete	1	
2	GO111-9	Feed rock shaft front & rear bushing	各1	
3	GS15-9	Feed rock shaft bushing set screw	3	SM15/64"×28 $l=7.5$
4	GL3-9	Nut	2	SM9/32"×28
5	GR246-9	Feed fork	1	
6	GH109-9	Feed regulator connecting rod	1	
7	GS26-9	Feed fork connecting screw	1	SM9/32"×28 $l=23$
8	GX106-9	Connecting rod pin	1	
9	GT101-9	Feed cam	1	
10	GR245 GW106 GU104 -9	Feed fork slide block complete	1	
11	GS15-9	Feed cam screw	2	SM15/64"×28 $l=7.5$
12	GO110-9	Feed rock shaft middle bushing	1	
13	GZ110-9	Feed bar shaft	1	
14	GR251-9	Feed bar carrier	1	
15	GS14-9	Feed bar carrier set screw	2	SM11/64"×40 $l=6.5$
16	GZ109-9	Feed rock shaft	1	
17	GR252-9	Washer	1	
18	GR248-9	Thrust collar	1	
19	GS30-9	Large centre screw	2	SM3/8"×28 $l=19$
20	GL4-9	Large centre nut	2	SM3/8"×28
21	GS25-9	Feed lifting rock shaft crank screw	1	SM11/64"×40 $l=12.5$
22	GH107/2-9	Feed lifting rock shaft crank complete	1	
23	GS17-9	Feed bar carrier screw	2	SM15/64"×28 $l=15$
24	GR244-9	Feed bar	1	
25	GM108-9	Throat plate screw	1	
26	GZ108-9	Feed lifting rock shaft	1	
27	GS2-9	Throat plate screw	2	SM11/64"×40 $l=9$
28	GM109-9	Feed dog	1	

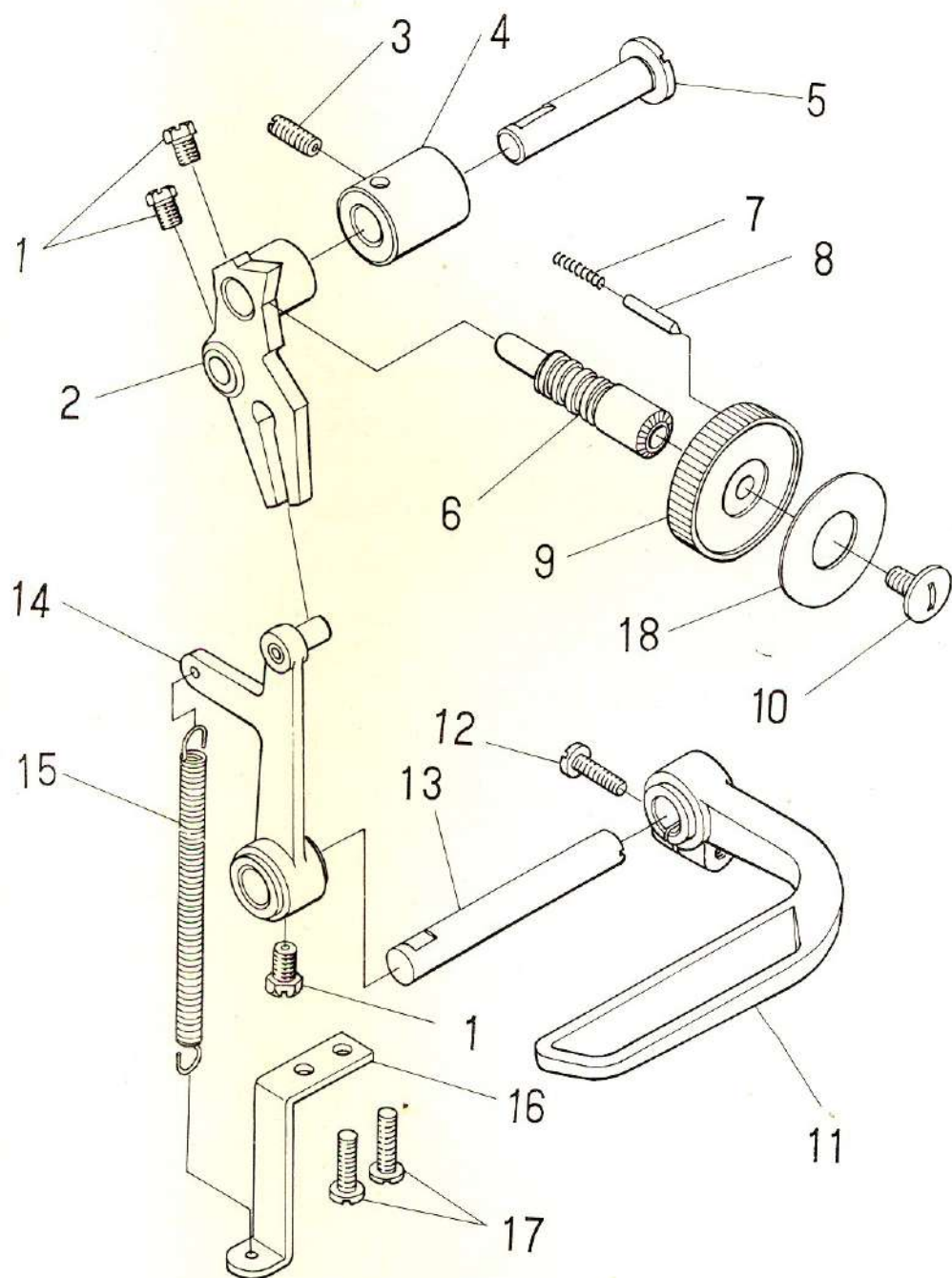


五、針距調節部件

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V.Feed Regulator Components

SN	Part No.	Description	Q	Remarks
1	GS33-9	Feed regulator screw	3	SM1/4"×40 l=7.5
2	GR254-9	Feed regulator	1	
3	GS11-9	Pin bushing lock screw	1	SM15/64"×28 l=13
4	GO112-9	Feed regulator pin bushing	1	
5	GX109-9	Feed regulator pin	1	
6	GS32-9	Feed regulator bolt	1	SM7/16"×8 l=17
7	GW108-9	Lock pin spring	1	
8	GX108-9	Lock pin	1	
9	GR253-9	Feed regulator knob	1	
10	GS28-9	Feed regulator knob screw	1	SM3/16"×28 l=15
11	GR256-9	Feed reverse handle	1	
12	GS28-9	Feed reverse handle screw	1	SM3/16"×28 l=15
13	GZ112-9	Feed reverse lever shaft	1	
14	GH113/2-9	Feed reverse lever complets	1	
15	GW109-9	Feed reverse lever entension	1	
16	GR255-9	Feed reverse lever extension spring bracket	1	
17	GS28-9	Extension spring screw	2	SM3/16"×28 l=15
18	GR257-9 GR258-9	Stitch indicator plate	1	

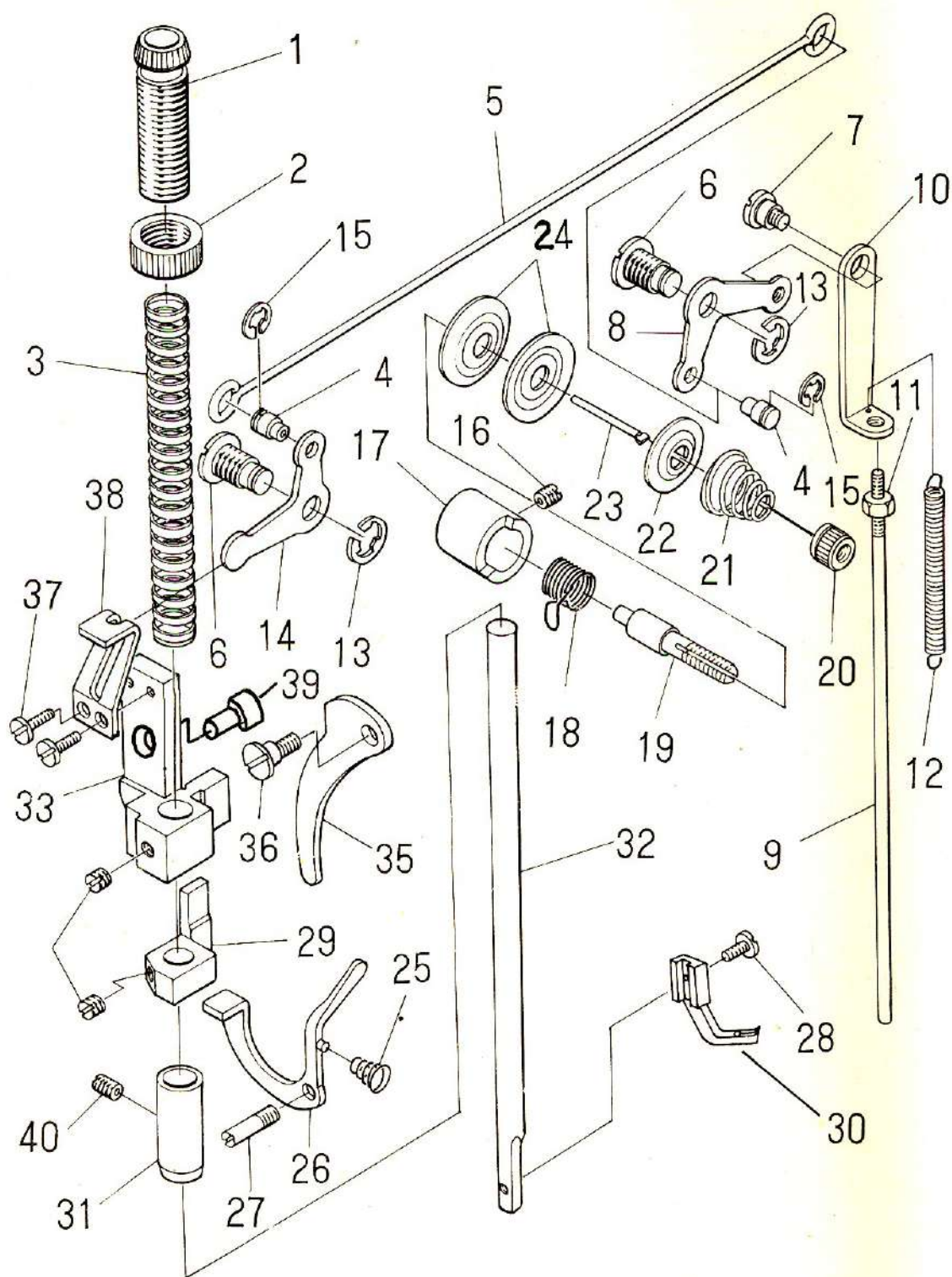


六、壓料松綫部件

序號	件 號	名 稱	件數	備 注
1	GS34	—9 調壓螺釘	1	SM1/2"×28 $l=38$
2	GL7	—9 調壓螺母	1	SM1/2"×28
3	GW110	—9 壓杆簧	1	
4	GX110	—9 拉杆銷	2	
5	GH116	—9 拉杆	1	
6	GS35	—9 前後撥杆支承螺釘	2	SM3/8"×28 $l=12$
7	GS36	—9 拉杆體接頭螺釘	1	SM3/16"×32 $l=3.7$
8	GH117	—9 後撥杆	1	
9	GZ114	—9 抬壓腳頂杆	1	
10	GR262	—9 拉杆體接頭	1	
11	GL5	—9 抬壓腳頂杆螺母	1	SM3/16"×32
12	GW114	—9 膝提拉簧	1	
13	GR260	—9 開口擋圈	2	
14	GH115	—9 前撥杆	1	
15	GR261	—9 開口擋圈	2	
16	GS15	—9 夾綫器緊固螺釘	1	SM15/64"×288 $l=7.5$
17	GL6	—9 夾綫螺釘座	1	
18	GW112	—9 挑綫簧	1	
19	GS39	—9 夾綫螺釘	1	SM1/4"×40 $l=18.5$
20	GL2	—9 夾綫螺母	1	SM1/4"×40
21	GW101	—9 夾綫簧	1	
22	GR268	—9 松綫板	1	
23	GX111	—9 松綫釘	1	
24	GR207	—9 夾綫板	2	
25	GW111	—9 松綫簧	1	
26	GR265	—9 松綫鈎	1	
27	GS38	—9 松綫鈎螺釘	1	SM9/64"×40 $l=6$
28	GS5	—9 小壓腳螺釘	1	SM9/64"×40 $l=8$

VI.Presser foot & Thread Releasing Components

SN	Part No.	Description	a	Remarks
1	GS34 -9	Pressure regulating thumb screw	1	SM1/2"×28 $l=38$
2	GL7 -9	Pressure regulating nut	1	SM1/2"×28
3	GW110-9	Presser bar spring	1	
4	GX110-9	Pull rod pin	2	
5	GH116-9	Pull rod	1	
6	GS35 -9	Front & rear setting lever supporting screw	2	SM3/8"×28 $l=12$
7	GS36 -9	Pull rod joint screw	1	SM3/16"×32 $l=3.7$
8	GH117-9	Rear setting lever	1	
9	GZ114 -9	Lifting lever crown bar	1	
10	GR262 -9	Pull rod joint	1	
11	GL5 -9	Lifting lever crown bar nut	1	SM3/16"×32
12	GW114-9	Knee lifter pull back spring	1	
13	GR260 -9	Open thrust collar	2	
14	GH115-9	Front setting lever	1	
15	GR261 -9	Open thrust collar	2	
16	GS15 -9	Thread tensioner lock screw	1	SM15/64"×28 $l=7.5$
17	GL6 -9	Thread tension screw bracket	1	
18	GW112-9	Thread take-up spring	1	
19	GS39 -9	Thread tension screw	1	SM1/4"×40 $l=18.5$
20	GL2 -9	Thread tension nut	1	SM1/4"×40
21	GW101-9	Thread tension spring	1	
22	GR268 -9	Tension release disc	1	
23	GX111 -9	Tension release pin	1	
24	GR207 -9	Thread tension disc	2	
25	GW111-9	Tension release spring	1	
26	GR265 -9	Tension release guide	1	
27	GS38 -9	Tension release guide screw	1	SM9/64"×40 $l=6$
28	GS5 -9	Little presser foot screw	1	SM9/64"×40 $l=8$



七、上送料部件

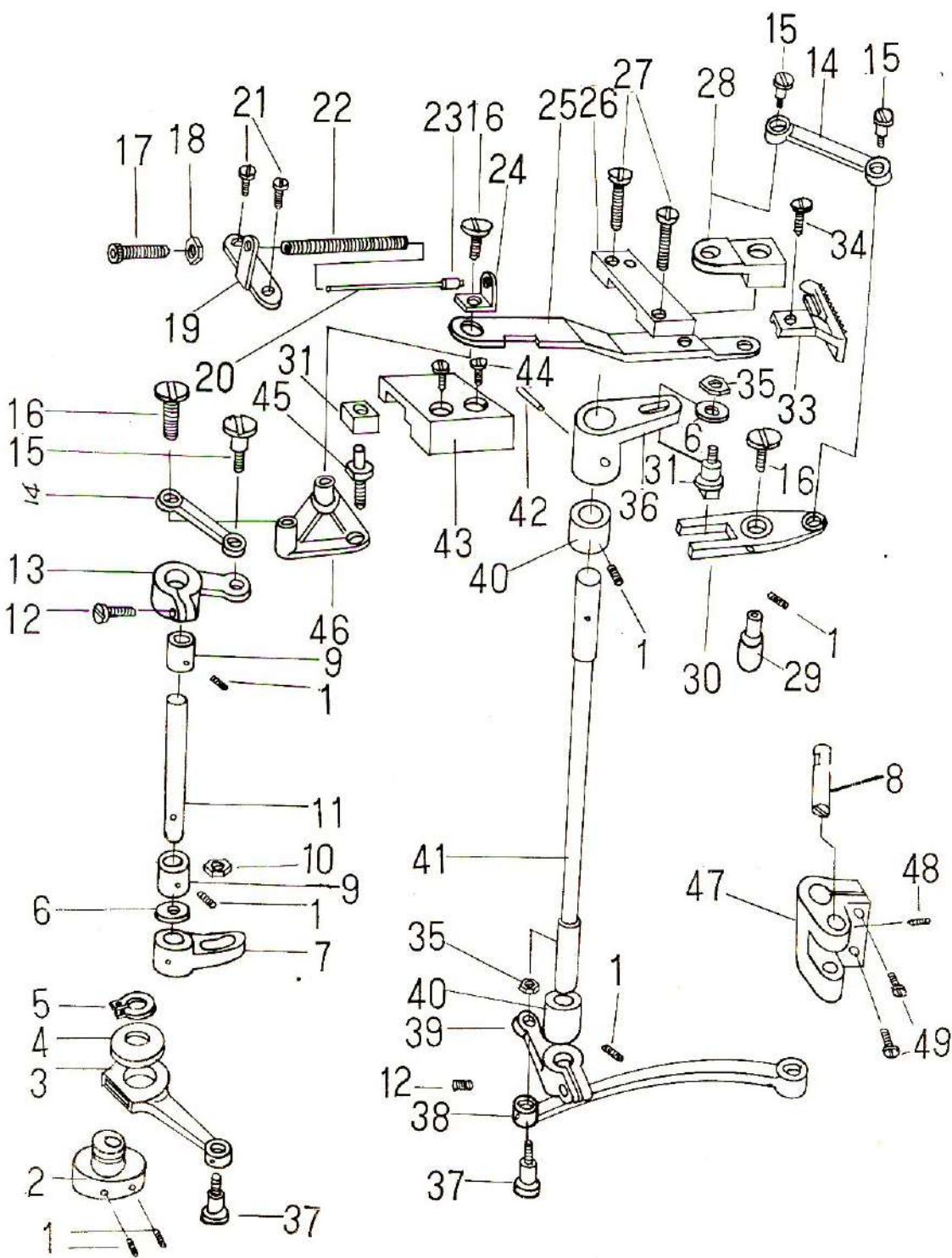
序號	件 號	名 稱	件数	備 注
1	GS15	—9 緊固螺釘	7	SM15/64"×8 $l=7.5$
2	GT102	—9 抬壓脚凸輪	1	
3	GH125	—9 抬壓脚凸輪連杆	1	
4	GR275	—9 抬壓脚凸輪墊圈	1	
5	GR274	—9 軸用彈性擋圈	1	
6	GR272	—9 墊圈	2	
7	GH126	—9 抬壓脚調節曲柄	1	
8	GX116	—9 上送料曲柄銷	1	
9	GO116	—9 抬壓脚軸襯套	2	
10	GL8	—9 螺母	2	SM15/64"×28
11	GZ121	—9 抬壓脚軸	1	
12	GS28	—9 抬壓、同步曲柄螺釘	4	SM3/16"×28 $l=15$
13	GH127	—9 抬壓脚軸曲柄	1	
14	GH123	—9 抬壓脚連杆	2	
15	GS43	—9 連杆螺釘	3	SM15/64"×28 $l=6$
16	GS42	—9 變位曲柄螺釘	3	SM11/64"×40 $l=7$
17	GS41	—9 小調壓螺釘	1	SM9/32"×28 $l=20$
18	GL3	—9 小調壓螺母	1	SM9/32"×28
19	GR271	—9 小調壓螺釘座	1	
20	GZ115	—9 壓脚簧定位杆	1	
21	GS5	—9 小調壓螺釘座螺釘	2	SM9/64"×40 $l=8$
22	GW115	—9 壓脚簧	1	
23	GR279	—9 壓脚簧定位杆座	1	
24	GR280	—9 壓脚簧支架	1	
25	GZ119	—9 上送料杆	1	
26	GR278	—9 導向板	1	
27	GS40	—9 導向板螺釘	2	SM9/64"×40 $l=16.5$
28	GR277	—9 擺動架	1	

序號	件 號	名 稱	件數	備 注
29	GX114	—9 同步杠杆銷	1	
30	GZ117	—9 同步杠杆	1	
31	GU107	—9 同步滑塊	1	
32	GZ116	—9 同步滑塊軸	1	
33	GM111	—9 同步壓腳	1	
34	GS5	—9 同步壓腳螺釘	1	SM9/64"×40 $l=8$
35	GL8	—9 螺母	2	SM15/64"×28
36	GH118	—9 可調曲柄	1	
37	GS44	—9 同步曲柄連接螺釘	2	SM15/64"×28 $l=12$
38	GH122	—9 同步連杆	1	
39	GH124	—9 同步曲柄	1	
40	GO115	—9 同步軸襯套	2	
41	GZ120	—9 同步軸	1	
42	GX117	—9 圓錐銷	2	
43	GR276	—9 滾柱導架	1	
44	GS17	—9 滾柱導架螺釘	3	SM15/64"×28 $l=15$
45	GZ118	—9 抬壓滾柱軸	1	
46	GH119/3	—9 變位曲柄組件	1	
47	GH121	—9 上送料曲柄	1	
48	GS10	—9 同步連杆銷緊定螺釘	1	SM11/64"×40 $l=3.5$
49	GS28	—9 上送料曲柄螺釘	2	SM3/64"×28 $l=15$

VII. Top Feed Mechanism Components

SN	Part No.	Description	a	Remarks
1	GS15 -9	Lock screw	7	SM15/64"×8
2	GT102 -9	Lifting lever cam	1	
3	GH125 -9	Lifting lever cam connecting lever	1	
4	GR275 -9	Lifting lever cam washer	1	
5	GR274 -9	Spring thrust collar for shaft	1	
6	GR272 -9	Washer	2	
7	GH126 -9	Lifting lever adjusting crank	1	
8	GC116 -9	Top feed crank pin	1	
9	GO116 -9	Lifting lever shaft bushing	2	
10	GL8 -9	Nut	2	SM15/64"×28
11	GZ121 -9	Lifting lever shaft	1	
12	GS28 -9	Lifting lever synchronous crank screw	4	SM3/16"×28 $l=15$
13	GH127 -9	Lifting lever shaft crank	1	
14	GH123 -9	Lifting lever connecting rod	2	
15	GS43 -9	Connecting rod screw	3	SM15/64"×28 $l=6$
16	GS42 -9	Turnable crank screw	3	SM11/64"×28 $l=7$
17	GS41 -9	Small pressure regulating thumb screw	1	SM9/32"×28 $l=20$
18	GL3 -9	Small pressure regulating thumb nut	1	SM9/32"×28
19	GR271 -9	Small pressure regulating thumb screw bracket	1	
20	GZ115 -9	Presser foot spring positioning lever	1	
21	GS5 -9	Small pressure regulating thumb screw bracket screw	2	SM9/64"×40 $l=8$
22	GW115 -9	Presser foot spring	1	
23	GR279 -9	Presser foot spring positioning lever bracket	1	
24	GR280 -9	Presser foot spring carrier	1	
25	GZ119 -9	Top feed lever	1	
26	GR278 -9	Guide plate	1	
27	GS40 -9	Guide plate screw	2	SM9/64"×40 $l=16.5$
28	GR277 -9	Oscillating bracket	1	

SN	Part No.	Description	a	Remarks
29	GX114 -9	Synchronous lever pin	1	
30	GZ117 -9	Synchronous lever	1	
31	GU107 -9	Synchronous slide block	1	
32	GZ116 -9	Synchronous slide block shaft	1	
33	GM111 -9	Synchronous presser foot	1	
34	GS5 -9	Synchronous presser foot screw	1	SM9/64" × 40 $l=8$
35	GL8 -9	Nut	2	SM15/64" × 28
36	GH118 -9	Adjustable crank	1	
37	GS44 -9	Synchronous crank connecting screw	2	SM15/64" × 28 $l=12$
38	GH122 -9	Synchronous connecting lever	1	
39	GH124 -9	Synchronous crank	1	
40	GO115 -9	Synchronous shaft bushing	2	
41	GZ120 -9	Synchronous shaft	1	
42	GX117 -9	Tapered pin	2	
43	GR276 -9	Roller guide bracket	1	
44	GS17 -9	Roller guide bracket screw	3	SM15/64" × 28 $l=15$
45	GZ118 -9	Lifting lever roller stud	1	
46	GH119/3 -9	Turnable crank complete	1	
47	GH121 -9	Top feed crank	1	
48	GS10 -9	Synchronous connecting lever pin set screw	1	SM11/64" × 40 $l=3.5$
49	GS28 -9	Top feed crank screw	2	SM3/64" × 28 $l=15$

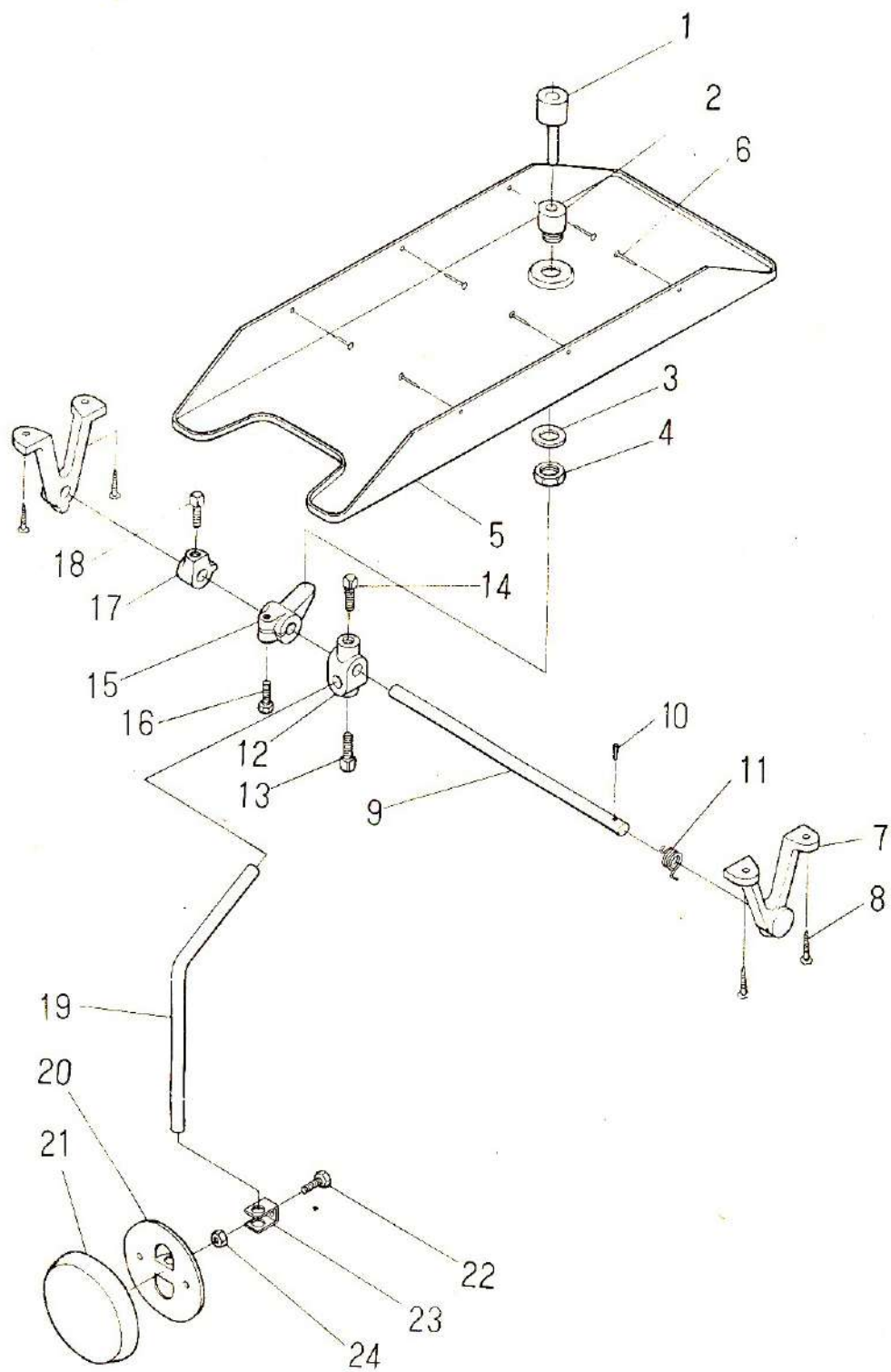


八、抬壓脚部件

序號	件 號	名 稱	數量	備 注
1	GS326/2	抬壓脚頂銷	1	GC1-3
2	GO16	頂銷襯套	1	GC1-3
3	GRO46	頂銷襯套墊圈	1	G1-3
4	GL12	頂銷襯套螺母	1	GC-3
5	GRO33	油盤	1	GC1-3
6	GBS115	油盤圓釘	6	GC1-3
7	GKR10	座架	2	GC1-3
8	GBS104	座架木螺釘	4	GC1-3
9	GZ20	騰提軸	1	GC1-3
10	GX219	膝提軸錐銷	1	GC1-3
11	GW35	膝提扭簧	1	GC1-3
12	GR1130	抬壓脚節頭	1	GC1-3
13	GS292	抬壓脚節頭螺釘	1	GC1-3
14	GS292	抬壓脚操縱杆螺釘	1	GC1-3
15	GRO34	抬壓脚曲柄	1	GC1-3
16	GS290	抬壓脚曲柄螺釘	1	GC1-3
17	GR1129	限向節頭	1	GC1-3
18	GS292	限向節頭螺釘	1	GC1-3
19	GKZ2	抬壓脚操縱杆	1	GC1-3
20	GKR14	操縱板	1	GC1-3
21	GKR13	操縱板軟墊	1	GC1-3
22	GKS103	操縱板定位架螺釘	1	GC1-3
23	GKR15	操縱板定位架	1	GC1-3
24	GKL102	操縱板定位架螺母		

VIII. Lifting Lever Components

SN	Part No.	Description	Q	Remarks
1	GX326/2	Lifting lever crown pin	1	GC1-3
2	GO16	Crown pin bushing	1	GC1-3
3	GRO46	Crown pin bushing washer	1	G1-3
4	GL12	Grown pin bushing nut	1	GC1-3
5	GRO33	Oil reservoir	1	GC1-3
6	GBS115	Oil reservoir round screw	6	GC1-3
7	GKR10	Bracket	2	GC1-3
8	GBS104	Bracket wood screw	4	GC1-3
9	GZ20	Knee lifter shaft	1	GC1-3
10	GX219	Knee lifter shaft tapered pin	1	GC1-3
11	GW35	Knee lifter torsion spring	1	GC1-3
12	GR1130	Lifting lever joint	1	GC1-3
13	GS292	Lifting lever joint screw	1	GC1-3
14	GS292	Lifting lever operating rod screw	1	GC1-3
15	GRO34	Lifting lever crank	1	GC1-3
16	GS290	Lifting lever crank screw	1	GC1-3
17	GR1129	Limit joint	1	GC1-3
18	GS292	Limit joint screw	1	GC1-3
19	GKZ2	Lifting lever operating rod	1	GC1-3
20	GKR14	Operating plate	1	GC1-3
21	GKR13	Operating plate cushion	1	GC1-3
22	GKS103	Operating plate positioing bracket screw	1	GC1-3
23	GKR15	Operating plate positioning bracket	1	GC1-3
24	GKL102	Operating plate positioning bracket nut	1	GC1-3



九、繞綫器、綫架部件

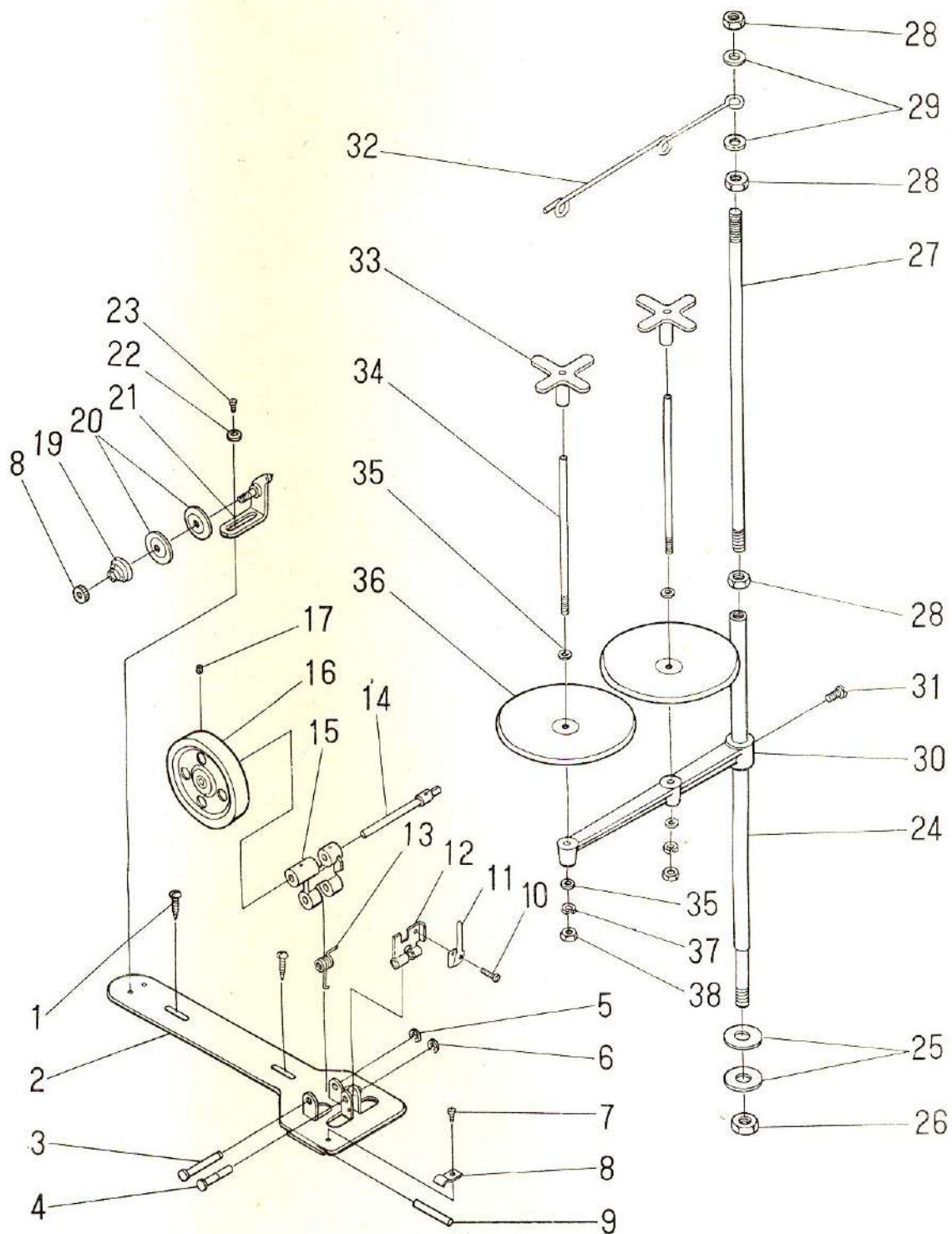
序號	件 號	名 稱	數量	備 注
1	GBS104	繞綫器木螺釘	2	GC1-3
2	GR1166	繞綫器座	1	GC1-3
3	GX120	繞綫架銷	1	GC1-3
4	GX119	滿綫跳板銷	1	GC1-3
5	GR273	繞綫架銷檔圈	1	GC1-3
6	GR273	滿綫跳板銷檔圈	1	GC1-3
7	GS137	繞綫制動夾螺釘	1	GC1-3
8	GR228	繞綫制動夾	1	GC1-3
9	GR201	繞綫制動墊	1	GC1-3
10	GS286	滿綫跳板螺釘	1	GC1-3
11	GW184	滿綫跳板簧	1	GC1-3
12	GR862	滿綫跳板	1	GC1-3
13	GW114	繞綫架簧	1	GC1-3
14	GZ224	繞綫軸	1	GC1-3
15	GR226	繞綫架	1	GC1-3
16	GP121/2	繞綫輪	1	GC1-3
17	GS134	繞綫輪螺釘	1	GC1-3
18	GL103	過綫夾綫螺母	1	GC1-3
19	W12	過綫夾綫簧	1	GC1-3
20	GR013	過綫夾綫板	2	GC1-3
21	GR1162/2	過綫架	1	GC1-3
22	GR122	過綫架墊圈	1	GC1-3
23	GS118	過綫架螺釘	1	GC1-3
24	GZ234	綫架杆下節	1	GC1-3
25	GR1243	綫架杆下節墊圈	2	GC1-3
26	GL141	綫架杆下節螺母	1	GC1-3
27	GZ233	綫架杆上節	1	GC1-3
28	GKL101	綫架杆上節螺母	3	GC1-3

序號	件 號	名 稱	數量	備 注
29	GKR122	綫架杆上節墊圈	2	GC1-3
30	GR1211	雙孔盤架	1	GC1-3
31	GS476	雙孔盤架緊固螺釘	1	GC-3
32	GR1212	雙孔過綫	1	GC1-3
33	GR1215	綫圈防松墊	2	GC1-3
34	GS477	綫盤釘	2	GC1-3
35	GKR124	綫盤釘墊圈	4	GC1-3
36	GR1213	綫盤	2	GC1-3
37	GR1214	綫盤釘彈簧墊圈	4	GC1-3
38	GL107	綫盤釘螺母	2	GC1-3

IX. Bobbin winder & Thread Stand Components

SN	Port No.	Description	Q	Remarks
1	GBS104	Bobbin winder wood screw	2	GC1-3
2	GR1166	Bobbin winder base	1	GC1-3
3	GX120	Bobbin winder frame pin	1	G1-3
4	GX119	Bobbin winder stop latch pin	1	GC1-3
5	GR273	Bobbin winder frame pin thrust collar	1	GC1-3
6	GR273	Bobbin winber stop latch pin thrust collar	1	GC1-3
7	GS137	Bobbin winder brake clamp screw	1	GC1-3
8	GR228	Bobbin winder brake clamp	1	GC1-3
9	GR201	Bobbin winder brake cushion	1	GC1-3
10	GS286	Bobbin winder stop latch screw	1	GC1-3
11	GW184	Bobbin winder stop latch spring	1	GC1-3
12	GR862	Bobbin winder stop latch	1	GC1-3
13	GW114	Bobbin winder frame spring	1	GC1-3
14	GZ224	Bobbin winder spindle	1	GC1-3
15	GP226	Bobbin winder frame	1	GC1-3
16	GP121/2	Bobbin winder spindle pulley	1	GC1-3
17	GS134	Bobbin winder spindle pulley screw	1	GC1-3
18	GL103	Thread guide tension thumb nut	1	GC1-3
19	W12	Thread guide tension spring	1	GC1-3
20	GRO13	Thread guide tension disc	2	GC1-3
21	GR1162/2	Thread guide bradket	1	GC1-3
22	GR122	Thread guide bracket washer	1	GC1-3
23	GS118	Thread guide bracket screw	1	GC1-3
24	GZ234	Thread stand lever lower part	1	GC1-3
25	GR1243	Thread stand lever lower part waswher	2	GC1-3
26	GL141	Thread stand lever lower part nut	1	GC1-3
27	GZ233	Thread stand lever upper part	1	GC1-3
28				GC1-3

SN	Part No.	Description	Q	Remarks
28	GKL101	Thread stand lever upper part nut	3	GC1-3
29	GR122	Thread stand lever upper part washer	2	GC1-3
30	GKR1211	Double hole braketa	1	G1-3
31	GS476	Double hole bracket set screw	1	GC1-3
32	GR1212	Double hole thread guide	1	GC1-3
33	GR1215	Spool cushion	2	GC1-3
34	GS477	Spool holde screw	2	GC1-3
35	GKP124	Spool holder screw washer	4	GC1-3
36	GR1213	Spool holder	2	GC1-3
	GR1214	Spool holder screw spring washer	4	GC1-3
	GL107	Spool holder screw nut	2	GC1-3

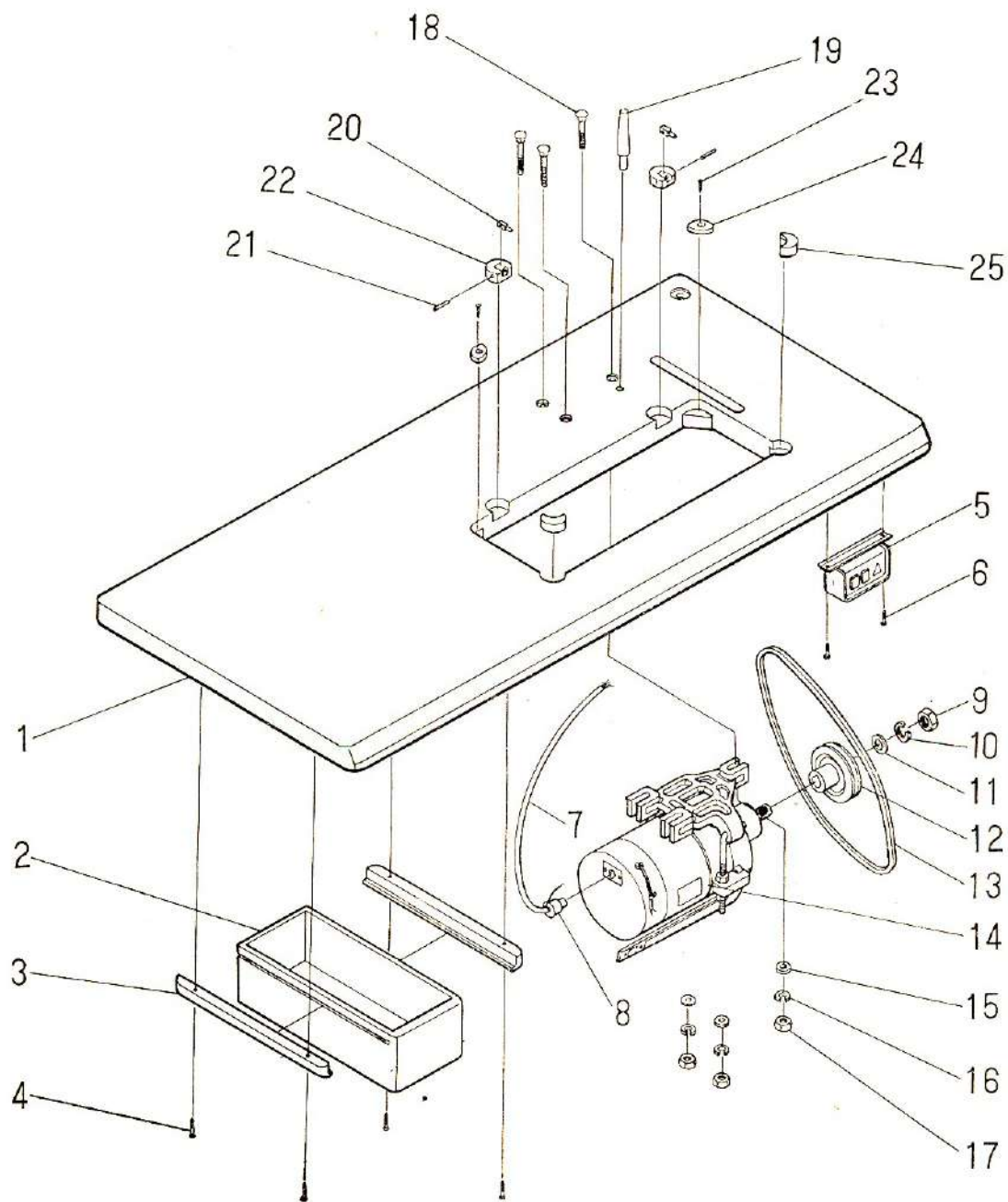


十、臺板、電機、電器部件

序號	件 號	名 稱	數量	備 注
1	GBR108	臺板	1	GC1-3
2	GBR105	抽門	1	GC1-3
3	GBR106	抽門導軌	2	G1-3
4	GBS102	抽門導軌木螺釘	4	GC-3
5	GB227	電源開關	1	GC1-3
6	GBS104	電源開關木螺釘	2	GC1-3
7	GD108	電機接綫	1	GC1-3
8	GD219	電機接綫插頭	1	GC1-3
9		電機帶輪緊固螺釘	1	
10		電機帶輪彈簧墊圈	1	
11		電機帶輪墊圈	1	
12	01-01	電機帶輪	1	
13		機頭傳動帶	1	O型1120
14		帶機械離合器電動機	1	370 4P
15	GKR209	電機臺板連接墊圈	3	GC1-3
16	GKR106	電機臺板連接彈簧墊圈	3	GC1-3
17	GKL101	電機臺板連接螺母	3	GC1-3
18	GKS121	電機臺板連接螺釘	3	GC1-3
19	GKR111/2	機頭閣柱	1	GC1-3
20	GB110	機頭連接鉤	2	GC1-3
21	GBX101	機頭連接鉤座銷	2	GC1-3
22	GBR130	機頭連接鉤座	2	GC1-3
23	GBS112	機頭小座墊木螺釘	2	GC1-3
24	GBR112	機頭小座墊	2	GC1-3
25	GBR131	機頭座墊	2	GC1-3

X、Machine Table, Motor & Electric Components

SN	Part No.	Doescription	Q	Remarks
1	GBR108	Table	1	GC1-3
2	GBR105	Drawer	1	GC1-3
3	GBR106	Drawer rail	2	GC1-3
4	GBS102	Drawer rail wood screw	4	GC-3
5	GB227	Power swithe	1	GC1-3
6	GBS104	Power switch wood screw	2	GC1-3
7	GD108	Motor wire	1	GC1-3
8	GD219	Motor wire plug	1	GC1-3
9		Motor pulley lock screw	1	
10		Motor pulley sping washer	1	
11		Motor pulley washer	1	
12	01-01	Motor Pulley	1	
13		Machine driving belt	1	O type 1120
14		Clutch motor	1	370 4P
15	GKR209	Motor & table connecting washer	3	GC1-3
16	GKR106	Motor & table connecting spring washer	3	GC1-3
17	GKL101	Motor & table connecting nut	3	GC1-3
18	GKS121	Motor & table connecting screw	3	GC1-3
19	GKR111/2	Machine head stud	1	GC1-3
20	GKR110	Machine head connecting hook	2	GC1-3
21	GBX101	Machine head connecting hook holder pin	2	GC1-3
22	GBR130	Machine head connecting hook holder	2	GC1-3
23	GBS112	Machine head small supporting washer wood screw	2	GC1-3
24	GBR112	Machine head small supporting washer	2	GC1-3
25	GBR131	Machine head supporting washer	2	GC1-3



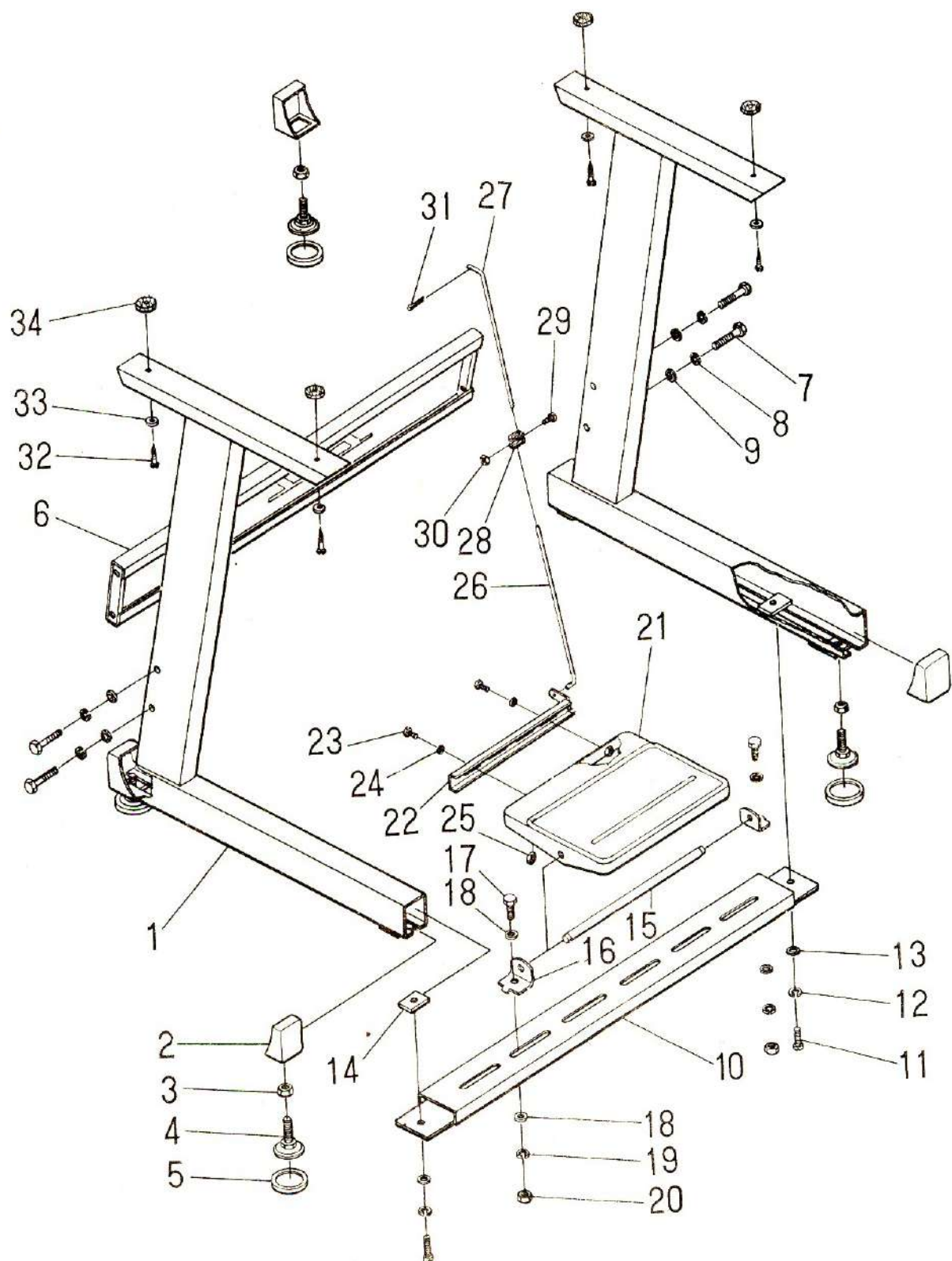
十一、機架部件

序號	件 號	名 稱	數量	備 注
1	GKR193/5	邊架部件	2	GC1-3
2	GKR194	邊架座套	4	GC1-3
3	GKL104	調節座螺母	4	GC1-3
4	GKR196/2	調節座	4	GC-3
5	GKR198	調節座膠墊	4	GC1-3
6	GKR173/3	橫檔部件	1	GC1-3
7	GKS119	橫檔連接螺釘	4	GC1-3
8	GKR176	邊架柱彈簧墊圈	4	GC1-3
9	GR253	邊架柱墊圈	4	GC1-3
10	GRK178/3	踏板軸檔部件	1	GC1-3
11	GKS110	踏板軸檔螺釘	2	GC1-3
12	GKR122	踏板軸檔墊圈	2	GC1-3
13	GKR106	踏板軸檔彈簧墊圈	2	GC1-3
14	GKR181	踏板軸檔定位螺母板	2	GC1-3
15	GKX106	踏板軸	1	GC1-3
16	GKR184	踏板軸座	2	GC1-3
17	GKS110	踏板軸座螺釘	2	GC1-3
18	GKR122	踏板軸座墊圈	4	GC1-3
19	GKR106	踏板軸座彈簧墊圈	2	GC1-3
20	GKL102	踏板軸座螺母	2	GC1-3
21	GKR182	踏板	1	GC1-3
22	GKR111	踏板杠杆	1	GC1-3
23	GKS102	踏板杠杆螺釘	2	GC1-3
24	GKR112	踏板杠杆墊圈	2	GC1-3
25	GKL102	踏板杠杆螺母	2	GC1-3
26	GKR116	下拉杆	1	GC1-3
27	GKR118	上拉杆	1	GC1-3
28	GKR183	拉杆接頭	1	GC1-3

序號	件 號	名 稱	數量	備 注
29	GKS110	拉杆接頭螺釘	1	GC1-3
30	GKL101	拉杆接頭螺母	1	GC1-3
31	GKX101	上拉杆開口銷	1	GC1-3
32	GBS114	臺板木螺釘	4	GC1-3
33	GKR112	臺板木螺釘墊圈	4	GC1-3
34	GKR186	臺板墊圈	4	GC1-3

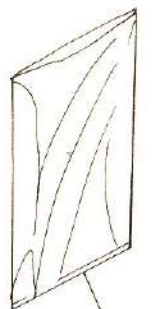
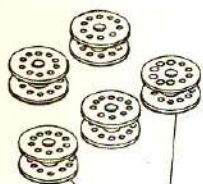
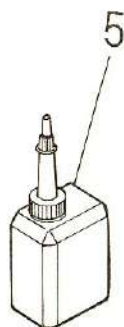
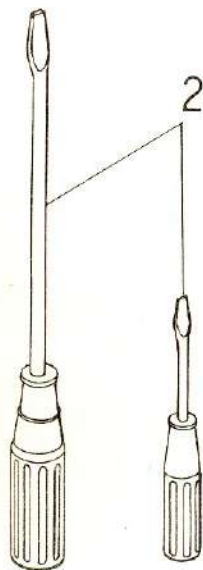
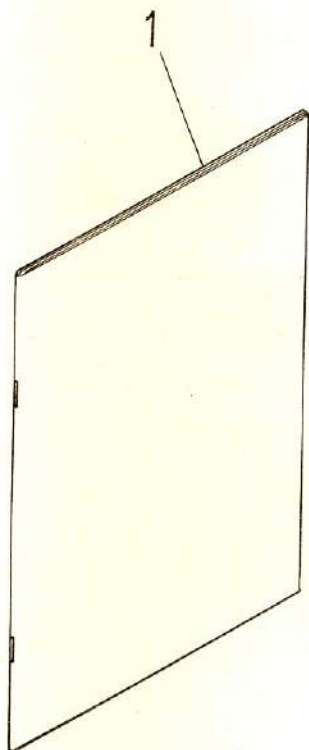
XI. Machine Stand Components

SN	Part No.	Description	Q	Remarks
1	GKR193/5	Machine stand frame components	2	GC1-3
2	GKR194	Machine stand frame rubber cushion	4	GC1-3
3	GKL104	Regulating holder nut	4	GC1-3
4	GKR196/2	Regulating holder	4	GC-3
5	GKR198	Regulating holder rubber cushion	4	GC1-3
6	GKR173/3	Stand beam components	1	GC1-3
7	GKS119	Stand beam connecting screw	4	GC1-3
8	GKR176	Machine stand frame stud spring washer	4	GC1-3
9	GR253	Machine stand frame stud washer	4	GC1-3
10	GKR178/3	Treadle shaft components	1	GC1-3
11	GKS110	Treadle shaft screw	2	GC1-3
12	GKR122	Treadle shaft washer	2	GC1-3
13	GKR106	Treadle shaft spring washer	2	GC1-3
14	GKR181	Treadle shaft positioning nut plate	2	GC1-3
15	GKX106	Treadle shaft	1	GC1-3
16	GKR184	Treadle shaft holder	2	GC1-3
17	GK110	Treadle shaft holder screw	2	GC1-3
18	GKR122	Treadle shaft holder washer	4	GC1-3
19	GKR106	Treadle shaft holder spring washer	2	GC1-3
20	GKL102	Treadle shaft holder nut	2	GC1-3
21	GKR182	Treadle	1	GC1-3
22	GK111	Treadle lever	1	GC1-3
23	GKS102	Treadle lever screw	2	GC1-3
24	GKR112	Treadle lever washer	2	GC1-3
25	GKL102	Treadle lever nut	2	GC1-3
26	GKR116	Lower pull rod	1	GC1-3
27	GKR118	Upper pull rod	1	GC1-3
28	GKR183	Pull rod joint	1	GC1-3



十二、附件

[illegible]



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shanggong

上海工业缝纫机股份有限公司

SHANGHAI INDUSTRIAL SEWING MACHINE CO.,LTD.

上海联工缝制设备制造有限公司制造

MANUFACTURER, SHANGHAI LIAN GONG SEWING EQUIPMENT MANUFACTURE CO.,LTD.

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