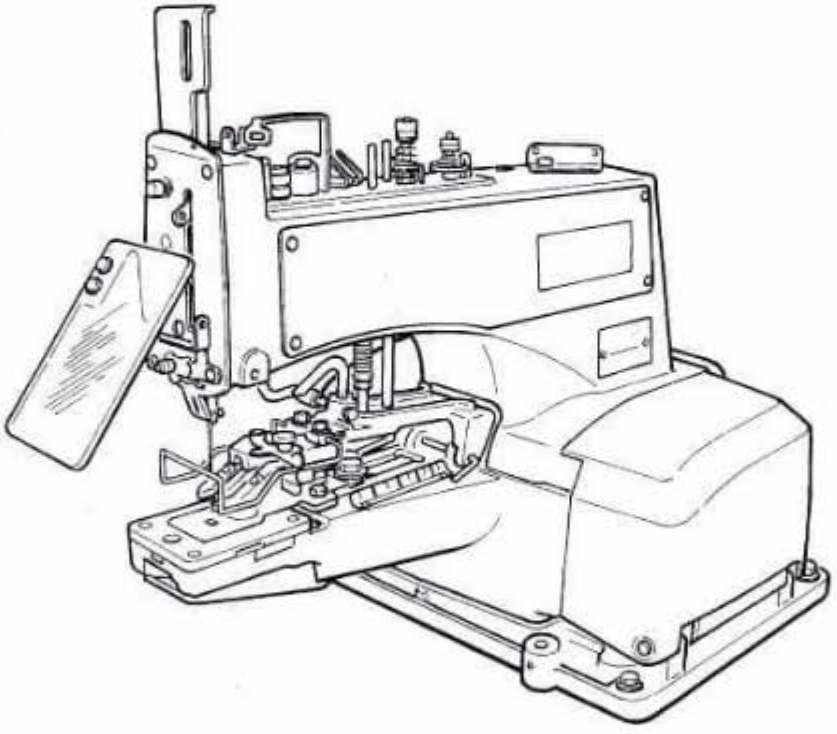
1373
1377

取扱説明書　INSTRUCTION MANUAL
使用说明书



注意：	このたびは、当社の製品をお買い上げいただきまして、ありがとうございました。 安全に使用していただくために使用前に、必ずこの取扱説明書をお読みください。 また、いつでもすぐに読めるように、この取扱説明書を保管してください。
NOTE :	**Read safety instructions carefully and understand them before using.** **Retain this Instruction Manual for future reference.**
注意：	为了安全地使用，请您在使用之前一定阅读本使用说明书。 另外，请您注意保管本使用说明书，以便随时查阅。

目　　录

CONTENTS

重要安全事项

1.使用此缝纫机时，必须遵守包括如下项目的基本安全措施。
2.使用此缝纫机之前，请阅读本说明书在内的所有指示文件。同时应将此使用说明书妥善保管，以便能够
3.此缝纫机与贵国的安全规定一起使用。
4.使用此缝纫机和缝纫机动作中，所有的安全装置应安装到规定的位置。没有安装规定的安全装置的缝纫机禁止使用
5.此缝纫机应由接受过培训的操作人员来操作。
6.使用缝纫机时，建议戴安全防护眼镜。
7.发生下列情况时，应立即关掉电源开关，或拔下电源线插头。
7-1 机针、弯针、分离器等穿线和更换旋梭时
7-2 更换机针、压脚、针板、弯针、分离器、送布牙、护指器、支架、布导向器等时。
7-3 修理时
7-4 工作场所无人或离开工作场所时
7-5 使用离合马达时，请等待马达完全停止之后再进行
8.缝纫机以及附属装置使用的机油、润滑脂等液体流入眼睛或沾到皮肤上时，或被误饮时，应立即清洗有关部分并去医院治疗。

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

9.禁止用手触摸打开了缝纫机开关通电的零件或装置。
10. 有关缝纫机的修理、改造、调整应由受过专门训练的技术人员或专家来进行。
11. 一般的维修保养应由受过训练的人员来进行
12. 有关缝纫机的电气方面的修理、维修应由有资格的电气技术人员或专家的监督和指导下进行。
13. 修理、保养有关空气、汽缸等压缩空气的零件时，应切断空气压缩机供气源后再进行。如有残留压缩空气时应放掉压缩空气。但，受过相当训练的技术人员或专家进行有关调整或确认动作时除外。
14. 缝纫机的使用期间应定期进行清扫.

9.Tampering with the live parts and devices ,regardless of whether the machine is powered ,is prohibited.

10. Repair ,remodeling and adjustment works must only be done by appropriately trained technicians or specially skilled personnel .Only spare parts designated by JOYEE can be used for repairs.
11. General maintenance and inspection works have to be done by appropriately trained personnel.
12. Repair and maintenance works of electrical compinents shall be conducted by qualified elecreic technicians or under the audit and guidance of specially skilled personnel.
13. [redacted]king repair and maintenance works on te\he machine equipped with pneumatic parts such as an air cylinder,the air compressor has to be detached from the machine and the compressed air supply has to be cut off.Existingresidual air pressure after disconnecting the air compressor from the machine has to be expelled.Exceptions to thisare only adjuustments and performance checks done by appropriately trained technicians or specially skilled persinnel.
14.Periodecally clean the machine throughout the period of use.

15.为了正常安全运转,应安装地线,同时应在不受高频焊接机等强噪音源影响的环境下使用.
16. 电源插头应用具有电气专门知识的人来安装.电源插头必须连接到接地插座上
15.Grounding the machine is always nessary for the normal operation of the normal operation of the machine .The machine has to be operated in an environment that is free from strong noise sources such as high-frequency welder.
16. An appropriate power plug has to be attached to the machine by electric technicians .Power plug has to be connected to a grounded receptacle.

17. 缝纫机指定用途以外不能使用.
18. 对缝纫机的改造、变更应符合安全规格,并采取有效的安全措施.另外,对于有关改造和变更,JOYEE公司概不负责.
17. The machine is only allowed to be usd for the purpose intended .Other used are not allowed.
18. Remodel or modify the machine in accorance with the safety rules/standards while taking all the effective safety measures. JOYEE assumes no responsibility for damage caused by remodeling or modification of the machine .

有发生中度轻伤、重伤、死亡的危险。触摸了活动部分的话有发生负伤的危险。
应安装安全防护器；然后再进行缝纫
应安全护罩；然后再进行缝纫
应安装保护装置；然后再进行缝纫
应关掉电源之后，再进行穿线、更换梭芯、机针、清扫、调整、加油

These is the possibility that slight to serious injury or death may be caused ,These is the possinility that injury may be caused by touching moving part .
To perform sewing work with safety guard ; To perform sewing work with safety cover
To perform sewing work with safety protection device.
Turn off the power and perform "threading' ,replacement of bobbin or needle ,cleaning ,adjustment ,and lubrication.

危险

1. 接通电源开关时和缝纫机运转中，请不要把手指放到机针下附近。
2. 放倒缝纫机时，请关闭电源开关。
3. 缝纫机运转中，请不要把手指、头发、衣服靠近飞轮、挑线杆附近。也不要把物品放到上面。
4. 请不要在卸下针杆护罩、手指防护罩、眼睛防护罩等安全装置的状态运转缝纫机。
5. 放倒缝纫机时，请注意不要夹到手指。

1. To avoid personal Injury,never put your fingers under the needle when you turn ON the power switch or operate the sewing machine.
2. To avoid personal injury,turn OFF the power switch when you tilt the machine head.
3. To prevent possible personal Injury caused by being caught In the machine, keep your tingers. head and clothes away from the handwheel and the thread take-up while the sewing machine is in operation. In addition. place nothing around it.
4. Never operate the machine with the safety devices such as needle bar cover,finger guard, eye guard cover,etc. removed.
5. To avoid personal Injury,be careful not to allow your fingers in the machine when tilting the machine head.

注意

1. 为了安全，在卸下电源地线的状态下，请不要运转缝纫机。
2. 拔插电源插头时，请一定先关闭电源开关。
3. 打雷时，为了安全请不要进行操作，同时请把电源插头拔下。
4. 从寒冷的地方移动到暖和的地方等时，因为会结露，所以请待水分完全干后再接通电源。
5. 为了防止火灾，请定期地从插座拔下电源插头，清扫插头的根部和插簧之间。

1. For the safety,never operate the sewing machine with the ground wire for the power supply removed.
2. Be sure to turn OFF the power switch in prior when connecting / disconnecting the power plug.
3. When thunders occurs, stop the work for the safety and disconnect the power plug.
4. When the sewing machine is suddenly moved from a cold place to a warm place, there is a case where dew condensation may occur. Turn ON the power after there is no worry of the drop of water.
5. To prevent fires, periodically draw out the, power plug from the plug socket and clean the root of the pins and the space between pins.

· 请使用适合缝纫机规格的机油。
· 第一次使用缝纫机之前，请把缝纫机打扫干净。
· 请把运送中积的灰尘打扫干净。
· 请确认是否设定的电压是否正确。
· 请确认电源插头是否正确地插好。
· 电源规格不同的情况时，请绝对不要使用缝纫机。
· 缝纫机的转动方向是，站在飞轮侧看为时针方向，请注意不要让缝纫机反向转动。
· 缝纫机出货时虽然完全地进行了调整，但是初次使用肘，请卸下遮挡，用手稍稍转动之后再打开电源开关。
· 设置缝纫机时，请一定把机头支撑杆插进机台之后再进行设置。
· 运转缝纫机时，正确地设置到机台之后再打开电源开关。
· 待缝纫机确实停止之后再操作飞轮。

· Use the oil adaptable to the machine specifications.
· Clean the sewing machine thoroughly before using it for the first time.
· Remove all dust collected on the sewing machine during the transportation.
· Confirm that the voltage and phase are correct.
· Confirm that the power plug is properly connected.
· Never use the sewing machine in the state where the voltage type is different from the designated one.
· The direction of rotation of the sewing machine is clockwise as observed from the handwheel side. Be careful not to rotate It In reverse direction.
· Before applying power, release the stop-motion mechanism and turn by hand the needle driving pulley in order to ensure that the machine is in order.
· To install the machine, the frame support bar has to be firstly inserted into the table.
· When operating the sewing machine, turn ON the power switCh after properly setting the head on the table.
· Operate the handwheel after the sewing machine has totally stopped.

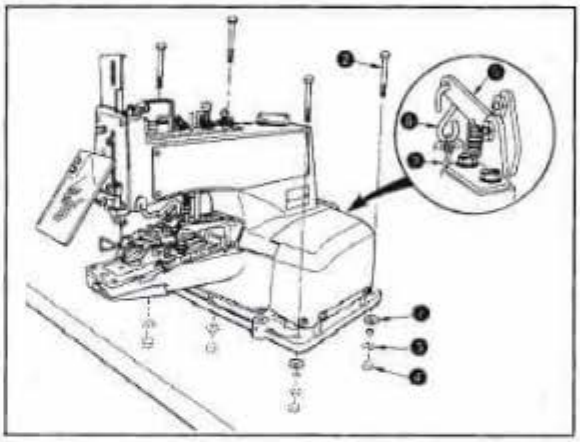
一、规格　SPECIFICATIONS

	JY-K777
缝纫速度 Sewing speed	正常1300rpm (最大1500rpm)　Normal 1300rpm (Max 1500rpm)
针数 Number of stitches	8 ,16和32针　8 ,16 and 32 stitches
送布量 Feed amount	横向送布 2.5~6.5mm　Lateral feed 2.5 to 6.5mm 纵向送布 0 , 2.5~4.5mm　Longitiudinal feed 0 , 2.5 to 4.5mm
纽扣尺寸 Button size	10~28mm　10 to 28mm
使用机针 Needle used	TQx1 #16(#14~#20) Tqx7 #16(#14~#20)
机油 Lubricating oil	缝纫机专用油 Oil for sewing machine

二、缝纫机的准备　PREPARATION OF THE SEWING MACHINE

把防震胶垫①放到机台上，然后把机头放到上面，用固定螺丝②、垫片③、螺母④固定好。然后把S型挂钩⑥和铁链⑦安装到起动环⑤上

Put rubber cushion①on the table place the machine head on the rubber cushion and fix it to the table using screw ②, plain washers③and nuts④. Attach "S" chain hook⑥and chain⑦to stop motion trip lever ⑤.

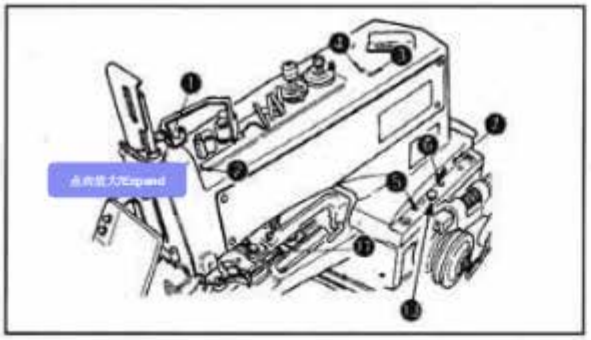


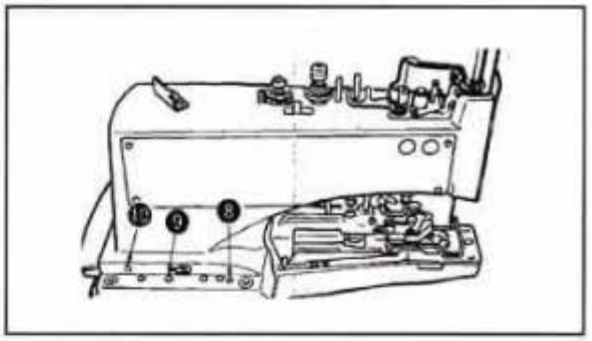
三、加油　LUBRICATION

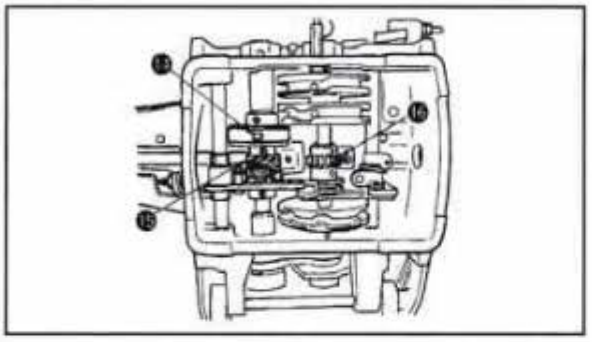
1)打开侧面护罩，向红色标记的部分①~⑫加入机油（每星期1~2次，每次大约加油1cc).
2)拧送安装螺丝⑬，放倒缝纫机，把润滑脂加到螺丝齿轮⑮和蜗轮齿轮⑯上。
3）每周检查1次机座安装台内的加油毛毡上面是不是吸满油，油不够时请加油，同时往曲轴⑭上加油。

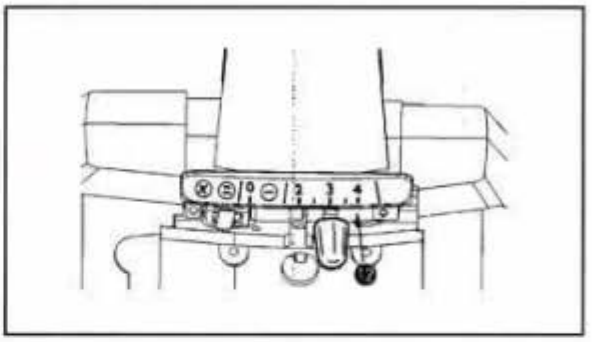
1) Open the side cover,and apply oil to the portions shown by the red red marks①to ⑫(Apply approximately 1 cc of oil to the respective lubricating places one to two times a week)
2)Loosen connecting screw ⑬ tilt the machine head backward and apply grease to crossed helical gear ⑮ and worm gead ⑯
3)Check ,approximately once a week ,that oil amout is sufficient to reach the top of the oil felt placed inside the bed bed mounting base .If the amout of oil is insufficient ,add an adequate amount of oil .At this time ,also apply oil to crank rod ⑭

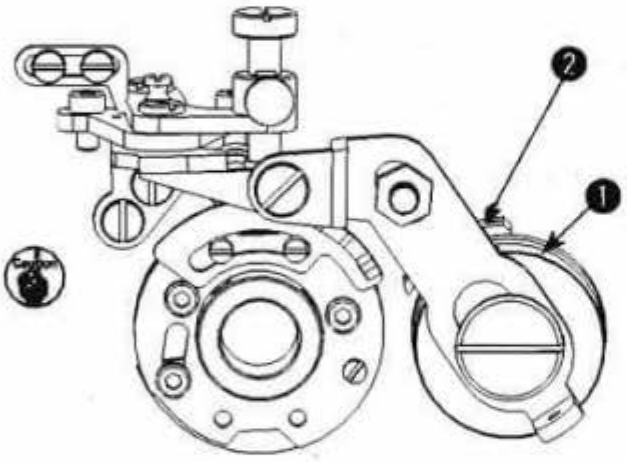
注意 WARNING：为了防止突然起动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injury due to abrupt start of the machine,be sure to start the following work after turning the power off and ascertaining that the motor is at rest











加油时的注意事项

1.预备停止摩擦轮❶和摩擦板❷具有防止减速性能降低的功能，因此请注意不要粘附油类。如果粘附到油时，请擦拭干净

2.为了防止缝纫机皮带劣化，请注意不要让缝纫机皮带粘附油类物质

Caution at the time of lubricating

1.Take care not to allow speed slowing friction wheel and friction plate to be clogged with oil to prevent them from the deterioration of retardation performance In addition, when the components are clogged with oil wipe the oil from them

2.Take care not to allow the machine belt to be clogged with oil to prevent it from the deterio-ration.

四、针杆防护罩的安装方法 Attaching the needle

1)拧松固定螺丝②，卸下线调整导线器③。

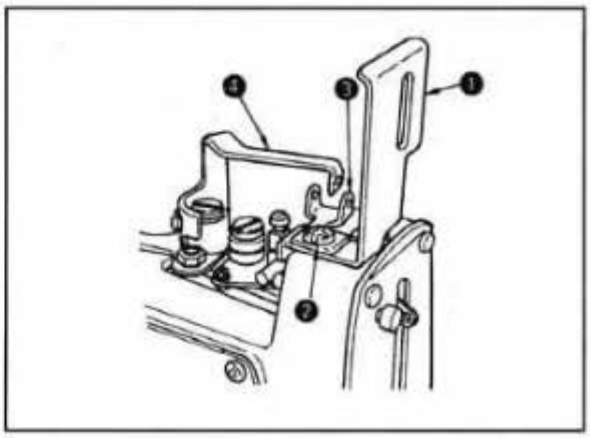
2）把针杆护罩①安装到线调节导线器③的下面，启动时让紧线杆④移动导线调节导线器③的中心。

3）用固定螺丝②固定针杆罩

1)Loose screw②and remove thread guide③

2)Place needle bar guard①under thread guide③ and attach guide ③so that lever ④comes to the center of it at the start of the machine .

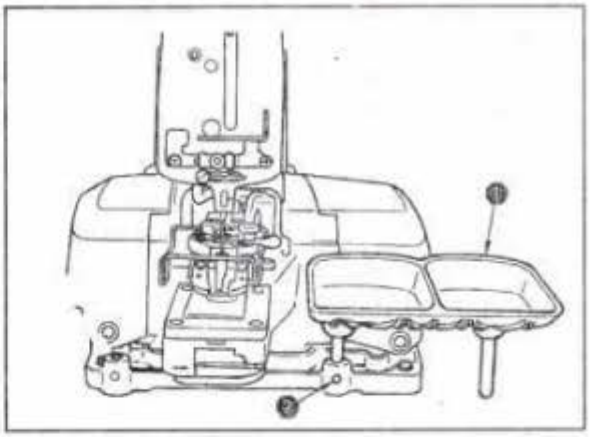
3)Fix the cover with screw②



五、纽扣盘的安装 Attaching the needle bar cover

把纽扣盘❶插进机座前部的右侧的孔上，并把固定螺丝❷拧紧固定，如果，右侧抓纽扣不方便的话，请改装到左侧。

Insert the posts of button tray ❶ in hole on the right of the machine sub-base and tighten each setscrew❷.



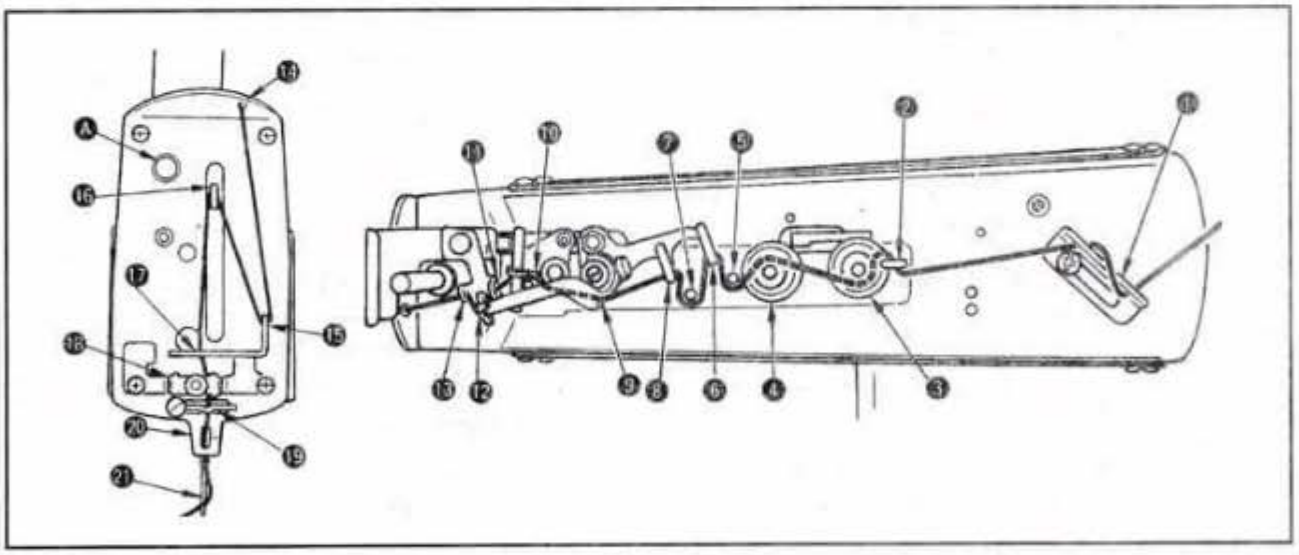
六、上线的穿线方法 Threading the machine

按照图的❶~㉑的顺序穿线，从针孔的前面向后方按压夹线器松线杆螺母 ，并把线拉出约60~70mm标准机针是TQx1 #16缝纫机针Ⓐ

Thread themachine head in the order of ❶to ㉑ as shown in the illustration given above ,then ,pass the thread through the needle eye from the front for approximately 60 to 70mm as you depress nipper releasing knurled thumb nut

Standard needle is Tqx1 #16Ⓐ

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest



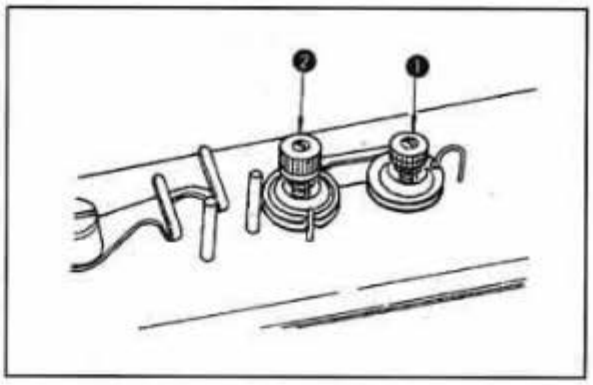
七、线张力 Thread tension adjustment

第一线张力螺母❶是调整钉扣强度用的，仅能调整微小的张力。

第二线张力调整螺母❷是调整背面的紧线程度的，其张力比第一线张力螺母❶强，根据使用的机线、布料、纽扣厚度等情况进行调整。

向右转动各线张力螺母之后，线张力变强，向左转动则张力变弱。

Tension post No1❶is used to adjust the thread tension to sew on the button and a relatively low tension will be enough,Tension post No2❷is used to adjust the thread tension applied to the root of the button sewing stitches , Thistension must be det[illegible]ording to the type of thread ,fabric and thickness of the button and must be higher than that of tension post No1 ❶Turn the tension nuts clockwise to increase or counterclockwise to reduce the thread tension

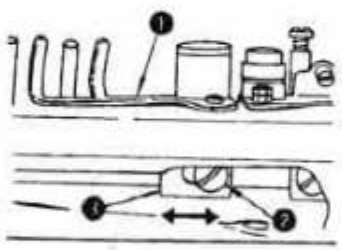


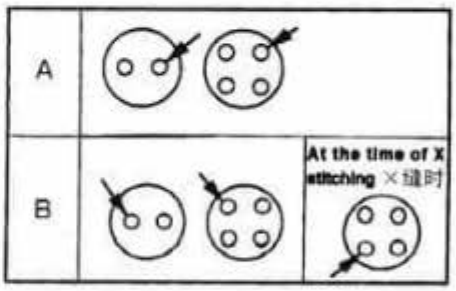
八、线调整杆的调整 Adjustment of the thread pull-off lever

调整线调整杆 时，请把螺丝刀插进左侧面板上的孔中，拧松固定螺丝 ，然后左右移动调整杆的活动滑块进行调整。缝制结束。如果线头从A部箭头的孔中露出时，请把线调整杆活动滑块 向左移动，如果线头从B部箭头的孔中露出时，请把滑块向右移动，不让线头露出来。

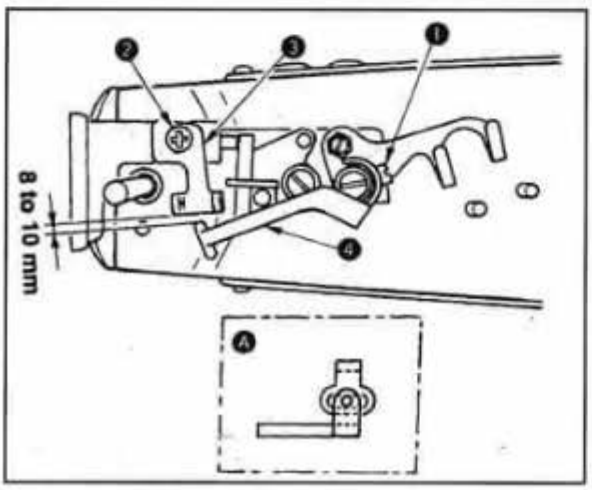
To adjust the thread pull-off lever insert a screwdriver through an opening in the machinearm side cover (left),loosen screw and adjust the position of nipper bre block(rear) to the left or the right. If the end of thread is drawn from arrow hole A in the button after sewing, changethe position of nipper bar block (rear) to the left.Move the lever to the right when the thread endcomes out from arrow hole B.

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest





九、紧线拨杆的调整 Adjustment of the thread pull-off lever



1）在分离时，拧松固定螺丝❶

2）把线张力导向器 ❸ 的端面和紧线杆❹ 的端面的距离调整为8~10mm，然后拧紧固定螺丝❶

When the machine is in the stop-motion state, loosen screw❶Tighten setscrew❶so that there is a clearance of 8 to 10 mm as a standard between the end ofthread tension guide ❸ and ❹ end of lever.

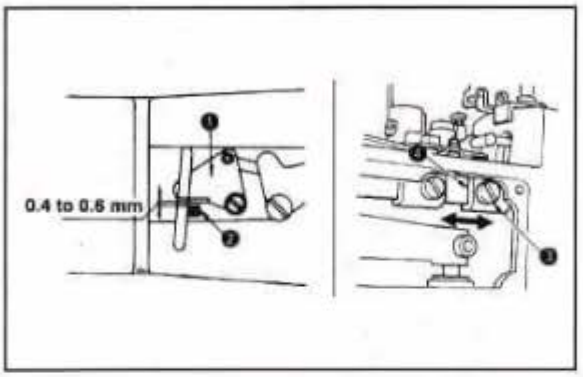
注意：调整后，请确认启动时线道如图Ⓐ所示在长孔的范围内。如果不正确时，请拧松线张力导线器固定螺丝 ❷ ，进行调整。

Afher the adjustiment,make sure that the thread path is within the slot as illustrated in fig❹.When the machine starts,ifthe thread paths do not coincide with each other,loosen screw❷in the tension thread guide and adjust it properly.

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十、紧线拔杆的调整 Adjustment of the thread pull-off lever

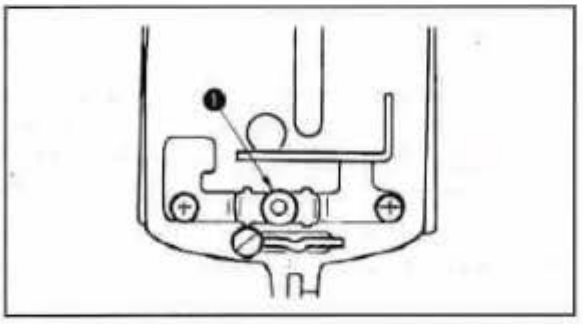
1)运转时，把针器❶的方块❷和拔针器❶的间隙调整为04~0.6mm，不让拔针器❶压住机线
2）调整方法是，拧松固定螺丝❸，左右移动拔针器活动滑块❹
1)Provide a 0.4 to 0.6mm clearance between nipper block ❷ and nipper❶ to prevent the nnipper❶ from holding the thread while the machine is in operation
2)loosen screw❸ and move nipper bar block ❹ to the right or the lift.



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To proter against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十一、面线张力器的调整 Adjusting the thread tension guide on the face plate

缝制开始不能形成缝迹，而是从中途形成的缝迹，调整了线调节杆也不能纠正时，请转动旋纽螺母❶,减弱线张力
If the formation of seams at the start of sewing is failed and the seams are formedon the way even , when the thread pull-off lever is adjustied ,turn thumb nut❶ to decrease the thread tension.



十二、机针和弯针的关系 Need-to-looper relation

机针和弯针按如下方法进行调整
1）在把踏板踩到底的状态下，用手向转动方向转动驱动皮带轮下降到最低点，然后拧松固定螺丝 （决定针杆高度）
2）TQX1针时，请把针杆❷的上方2条刻线中的上刻线❹对准针杆下滑块❸的下端；TQX7针时，请把下方的2条刻线❹对准针杆下滑块❸的下端，然后拧紧固定螺丝❶。此时，请把针的槽❻调整到上面。（决定弯针的位置）
3）拧松螺钉❹，转动皮带驱动轮，把针杆❷的2条一组的刻线中的下刻线❺对准针杆下滑块❸的下端。
4）在此状态，把弯针的针尖❺对准机针的中心，然后拧紧固定螺丝❹
5）拧松固定螺丝❻，把弯针间隙调整为0.01~0.1mm，然后拧紧螺丝❻。

Adjust the needle-to-looper relation as follows:

1)Depress the pedal fully forward ,turn the needle driving pully in the normal sewing direction by hand to bring down the needle bar to the lowest position of its stroke and loosen screw ❶(adjusting the needle bar height)

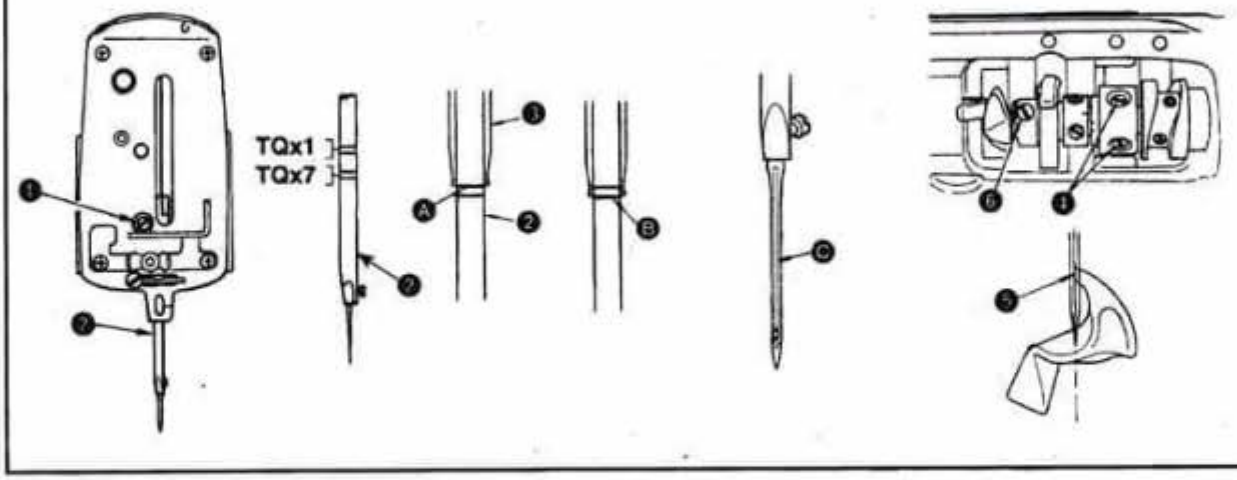
2)Adjust the height of the needle bar using the top two lines engraved on the needle bar❷for the TQX1 needle and using the button two lines foe the TQX7needle ,Align the upper line Ⓐ with the buttom end face of needle bar bushing (lower)❸ and tighten screw ❶ ,At this time ,tighten the screw so that groove Ⓒ of the needle faces the front.

3)Loosen screw ❹ and turn by hand the needle driving pully until lower line Ⓑ of two lines aligns with the bottom end face of needle bar bushing (lower)❸

4)By keeping the ❻achine in this state ,align looper blade❺with the center of the needle and tighten screws❹

5)Loosen screws and provide a 0.01 to 0.1mm clearance between the looper and the needle tighten screws ❻

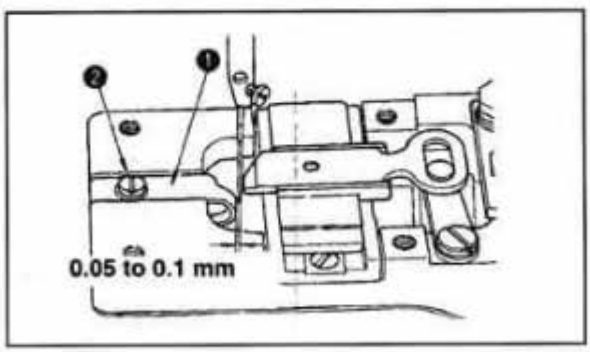
注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest



十三、针导向器的位置 Position of needle guide

在针杆最下点，拧松螺丝❷ ，左右移动针导向器❶ ，把机针和导向器❶ 的间隙调整为0.05~0.1 mmm.

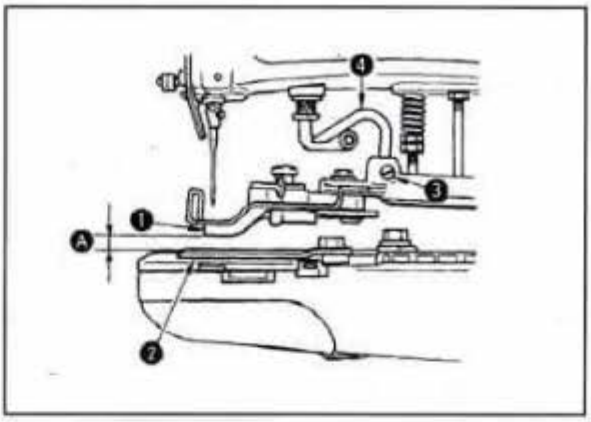
Loose screw❷and provide a 0.05 to 0.1mm clearance between the needle guide❶and the needle by moving the needle guide ❶ to the left or the right when the needle is in the lowest position.



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十四、抓扣装置的高度 Height of the button clamp

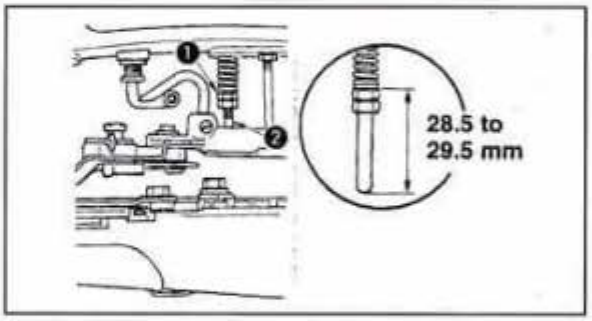
1)在缝制后停止的位置，纽扣抓爪❶的底面里侧和压脚下板❷的间隙Ⓐ是8mm
2）调整时，拧松抓脚提升钩固定螺丝❸，上下移动抓脚装置提升钩❹。
1)The standard clearance Ⓐbetween the rear side of the bottom face of button clamp jaw lever❶and the top surface of feed plate❷ is 8mm at the position where the machine has stopped after sewing.
2)To adjust the height of the button clamp unit , loosen screw ❸ in the button clamp lifting hook and move button clamp lifting hook ❹ up or down.



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十五、压脚压力的调整 Work pressing force

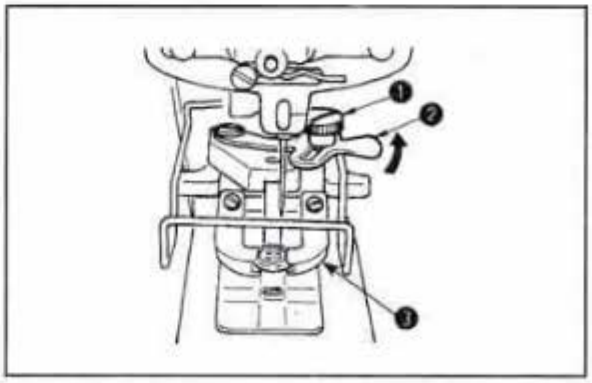
螺母❶的上端和压脚压力调节杆❷下端的间隔为28.5~29.5mm时的布压脚压力是标准压力。请转动螺母❶进行调节。
The standard work pressing force is by providing a 28.5 to 29.5 mm between the top end of nut ❶ and the bottom end of pressure adjusting bar ❷. Turn nut ❶ to adjust it



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十六、抓脚打开拨杆的调整 Adjustment of the button clamp stop lever

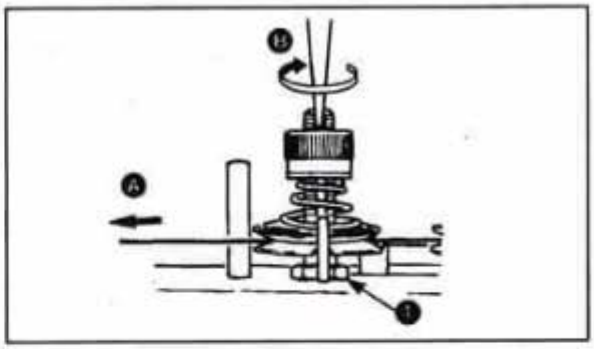
在遮挡状态，拧松了固定螺丝❶的话，可以用爪脚张开杆❷开闭纽扣爪脚❸。把纽扣安放到正确的位置，然后在纽扣容易放入取出的位置用固定螺丝❶固定爪脚张开杆❷。
When clamp screw❶is loosened in the state of stop-motion ,button clamp jaw levers ❸ opens/closes with button clamp stop lever ❷ ,Set a button to the correct position and fix button clamp stop lever ❷ at the position where taking in and fix button clamp stop lever ❶ at the position where taking in and out of the button is easily performed with clamp screw



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十七、松线同步时间的调整 Timing of thread tension release

一边向箭头Ⓐ方向拉线，一边转动驱动皮带轮时，第二线张力盘浮起，有个线迅速脱线的点。此时，从针杆上金属滑块上面到针杆上端的高度为44~47 mm（TQX7针时为54~57mm）是标准。特别是经常发生下列现象时，请进行以下调节。
拧松螺母❶，把螺丝刀插入第二线张力杆，向箭头Ⓑ方向转动之后，线盘浮起，针杆高度变低，向相反的方向转动之后则针杆高度变高。



Turn the needle driving pully as you draw the thread in the direction of arrow mark Ⓐ and you will find a point at which the tension discs on the tension post No.2 release the thread . At this moment ,the standard distance from the top end of the needle bar bushing (upper) to the end of the needle bar is 44 to 47mm(in case of the needle of TQX7,54 to 57mm). Perform the following adjustments especially when the undermentioned troubles occur frequently,Loosen nut ❶, insert the blade of a screwdriver to the top slot of the tension post No.2 and turn it in the direction of arrow markⒷto the lower the height of the thread floating bar and in the opposite direction to raise the height.

现象	针杆高度
1.布料里侧的紧线不好时	稍稍高一点
2.断开时，机线中途断线时	稍稍低一点
3.经常断线	稍稍低一点

Phenomenon	Height of thread floating bar
1.When the stitch made on the wrong side of the workpiece is too loose	Make the needle bar slightly higher
2.When the thread is broken at the time of stop-motion	Make the needle bar slightly lower
3.When the thread is broken frequently	Make the needle bar slightly lower

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

十八、2眼和4眼扣的调整 Setting for 2-or 4-hole buttons

请确认了缝纫机在遮挡位置之后再进行调整

首先量一下纽扣孔间隔有几mm，4眼纽扣的竖送量和横送量值应设为相同。

竖送量

向下压竖送调整杆❶，2眼纽扣时设到0的位置，4眼纽扣时根据测定值进行设定。

横送量

拧松螺母❷，把指针❸的Ⓐ部对准对应测定值的刻度，然后拧紧固定螺母❷。

花样的选择：

4扣眼时请根据缝制需要按下列方法进行调整。放下压脚，将❹压下并且向需要的方向转动，然后落下

Perform the adjustment after confirming that the sewing machine is located at the position of the stop-motion

Measure the distance between two holes in a button and set equally crosswise and lengthwisefeed regulators for 4-hole buttons.

Lengthwise feed

Push down lengthwise feed adjusting lever ❶ and set it to "0"for 0-hole buttons or a correspondingamount for 4-for buttons.

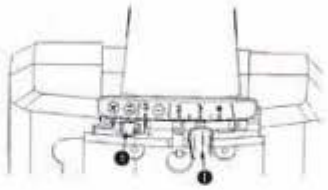
Crosswise feed

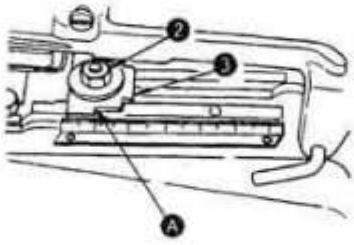
Loosen nut❷and set section❸of pointer Ⓐ to a corresponding amount. Then tighten nut❷a corresponding amount for 4-hole butto ns by the respective procedures below according to the sewing methods

The choice of pattern

When you need to sewing 4-hole buttons ,put down press foot ,

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

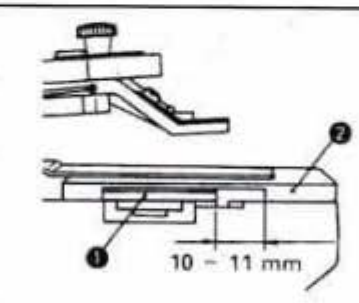


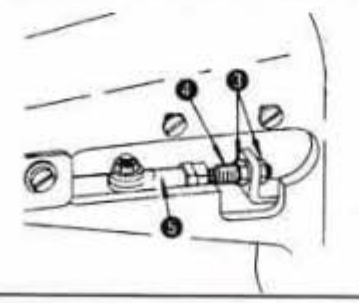


十九、切线装置 Automatic thread trimmer

在遮挡位置压脚完全上升到最高位置，切线连接板（前）❶和针板❷槽端面的标准间隙是10~10mm。调整10~11mm时，请放倒缝纫机，卸下防油板，拧松螺母❸（2个），前后移动连接螺丝 ❹ ，进行调整 。另外拧紧螺母❸ 时，请注意切线连接头❺ 应基本保持水平。

When the presser has completely lifted at the stop motion position ,it is the standard that the clearance between thread trimming connecting plate (front) ❶ ,and the end face of the slit of throat plate❷is 10 to 11mm.To adjust the aforementioned clearance,tilt the machine herd,remove the oil shield, loosen two nuts ❸ and move connecting screw back or forth.When you tighten nuts❸,ensure that joint ❺ stays in the horizontal position.



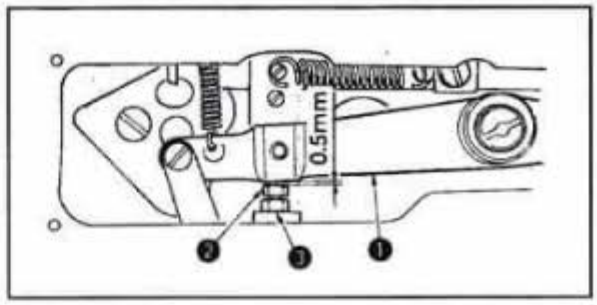


注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

二十、提升拨杆和调整螺丝的间隙
Clearance between the button clamp lifting lever and the adjusting screw

在遮挡位置请把提升杆❶的端面和调节螺丝❷的间隙调整为0.5mm，然后用调节螺丝螺母 ❸ 拧紧固定.

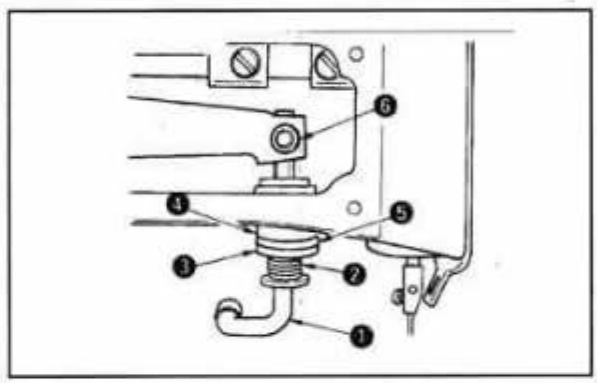
Provide a 0.5mm clearance between the end face of button clamp lifting lever ❶ and adjustinf screw ❷ at the stop-motion position ❸ .



二十一、L型提升杆的安装方法 How to set the L-shaped lifting rod

按移动刀反弹簧❷ 、分离垫片❸、分离垫 ❹ 、分离垫片 ❺ 的顺序安装到L型提升杆 ❶上。
在遮挡位置让机臂的鄂部和遮挡缓冲垫片的端部紧密接触，安装时注意不要有松动，然后用螺丝 ❻ 拧紧固定。

Put moving knife push-back spring❷,stop-motion rubber cushion washer ❸, stop-motion rubber cushion❹and stop-motion rubber cushion washer ❺, in this order, to L-shaped lifting rod❶.Make the jaw of the machine arm come into close contact with the end face of the stop-motion rubber cushionwadher at the stop-motin position and set the L-shaped lifting rod without a play. Then tighten it with screw❻.



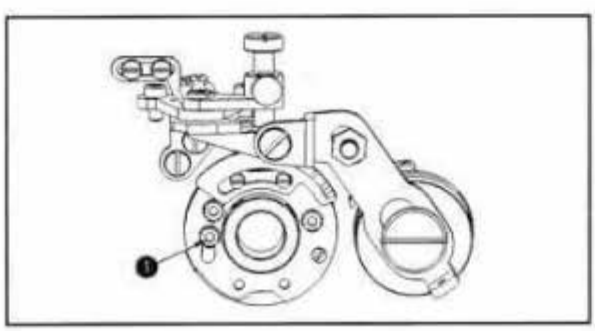
二十二、针数 Setting a number of stitches

变换针数时，请打开左侧面护罩，然后用针数调节螺丝 和针数调节杆 （属于附属品）进行变换

To change the number of stitches , open the left-hand side cover and change the number of stitches using stitch number adjusting screw and stitch number adjusting lever (optional)

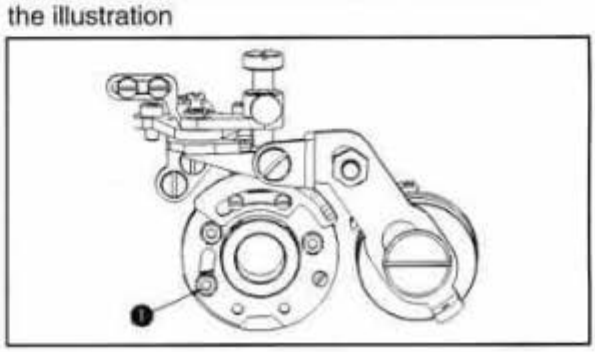
8针的调整方法： 调整为8针时， 请拧松针数调节螺丝 ❶ ，调整到图示的位置后进行固定。

How to adjust 8 stitches: To make 8 stitches, loosen stitch number adjusting screw ❶ and fix it to the position as shownin the illustration

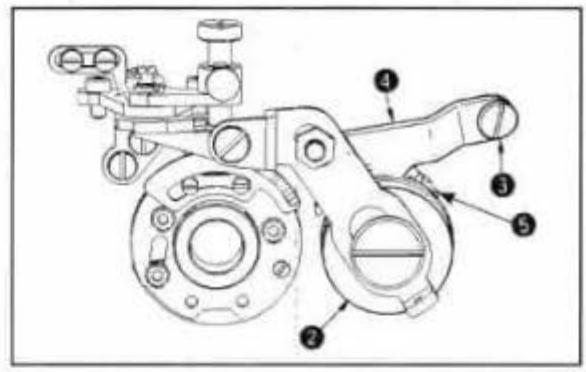


16针的调整方法：调整为8针后，请拧松针数调节螺丝 ❶ ，移动到左侧，然后拧松针数调节螺丝❶，调整到图示的位置后进行固定

How to adjust 16 stitches: When stitch number adjusting screw ❶ being set for "8 stitches" has arrived at the left end ,loosen stitch number adjusting screw❶and fix it to the position as shown in the illustration



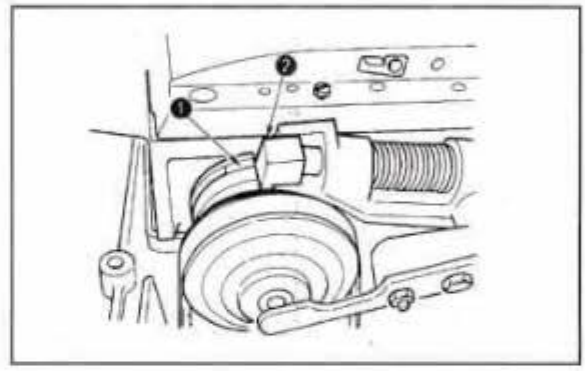
32针的调整方法：在16针的状态安装在大齿轮上的针数调节齿轮凸起❷转到下侧后，请用梯形螺丝❸（附属品）组装针数调节杆❹（附属品）
How to adjust 32 stitches: In the state of 16 stitches ,stitch number adjusting gear roller which is attached to the large gear comes to the lower side ,assemble stitch number❷adjusting lever❸ (supplied as accessories) using hinge screw❹ (supplied as accessories)



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

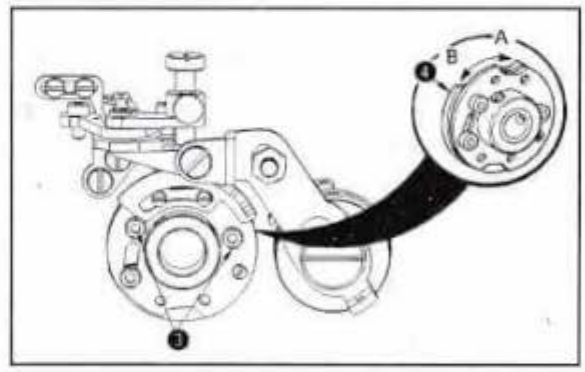
二十三：遮挡位置的调整 Adjusting the position of the stop-motion

缝纫机缝制结束停止后，请把遮挡凸轮的爪❶和遮挡钩❷ 调整为相接
Adjust so that claw❶of the stop-motion cam comes in contact with stopmotion hook❷when the sewing machine completes the sewing and stops



注意：更换马达皮带轮，转速变更为1300rpm ⟷ 1500rpm时，请一定重新调整遮挡位置。
Caution: When replacing the motor pulley and changing the sewing speed from 1300rpm to 1500rpm, and vice versa, be sure to readjust the position of the stop-motion.

调整方法：遮挡钩碰到遮挡凸轮反弹时（爪❶和遮挡钩❷之间有间隙时）请拧松遮挡位置调整螺丝❸（2处）向A方向转动遮挡调节凸轮❹，然后固定遮挡位置调整螺丝❸遮挡钩碰到遮挡凸轮爪之前停止不动时，请拧松遮挡位置调整螺丝❸（2处），向B方向转动遮挡调节凸轮❹然后固定遮挡位置调整螺丝❸。
Adjusting procedure :When the stop-motion hook comes in contact with the stop-motion cam and rebounds ,(when there is a clearence between claw❶and stop-motion hook❷)

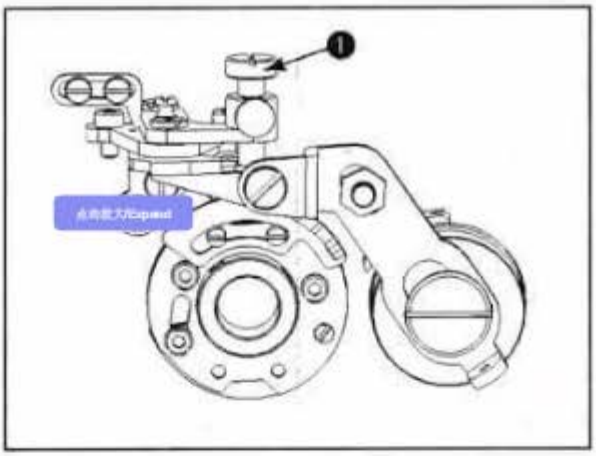


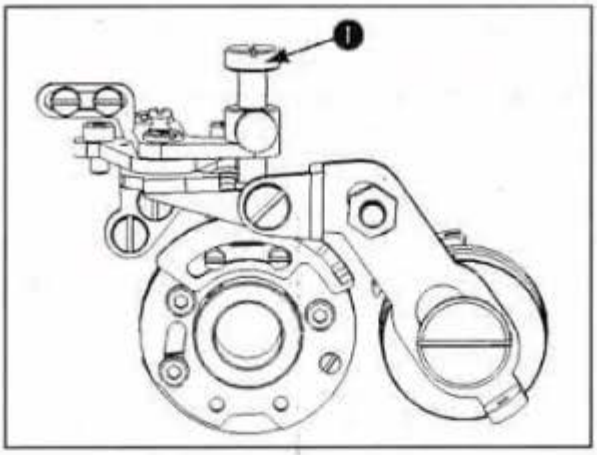
loose two stop-motion position adjusting screw❸turn Stop-motion adjusting cam❹in the direction of A,and fix stop-motion position adjusting screws❸When the stop-motion hook stops before it comes in contact with the stop-motion cam claw Loose two stop-motion position adjusting screws❸turn stop-motion adjusting cam❹in the direction of B and fix stop-motion position adjusting screws❸

二十四：有无结线的变换 Changeover of with/without knot-tying

设定为有结线时，请把结线变换旋钮❶压下
To make "with knot-tying ",pull knot-tying changeover knob❶toward the down

设定为无结线时，请把结线变换旋钮❶拉起
To make "with knot-tying ",pull knot-tying changeover knob❶toward the up

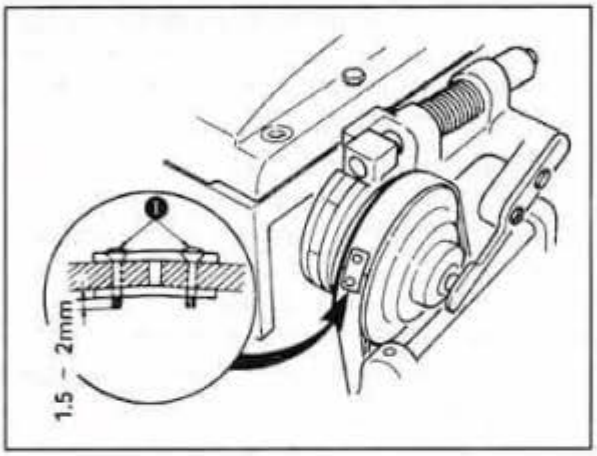




二十五、皮带金属部件的连接方式 How to connect the metal fittings of the belt

安装皮带的联接螺丝 ❶ 时， 请让螺丝背面突出1.5~2mm左右，然后拧紧固定。

Tighten connecting screws ❶ of the belt so that the screws protrude approximately 1.5 to 2mm from the reverse side as the standard.



注意：1.把皮带安装到皮带轮上，盖上侧盖，转动马达后，请确认侧盖和皮带金属器具不相碰。

2.组装皮带时，请注意不要让缝纫机皮带沾附油类物质。

Caution :1.When assembling the belt to the pully and rotating the motor after closing the side cover ,confirm that the side cover dose not interfere with the metal fitting of the belt.

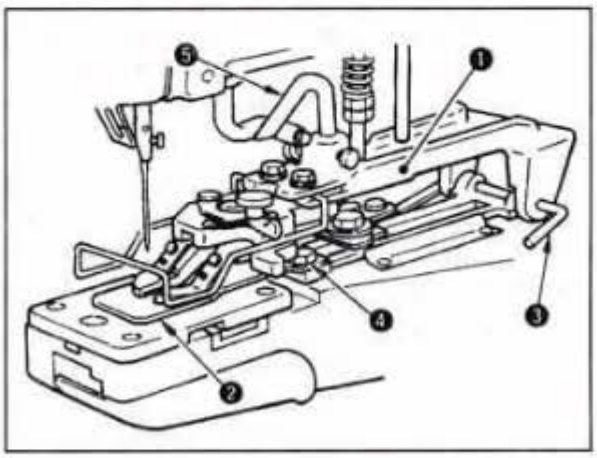
2. Take care not to allow the belt to be clogged with oil when assembling it

1）安装各附件时，有的机种不能拆卸抓扣装置 ❶、布压脚下板 ❷

2）抓扣装置 ❶ 可以卸下安装轴 ❸ 上的拉环，布压脚下板 ❷ 可以卸下固定螺丝 ❹

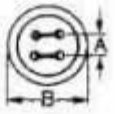
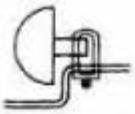
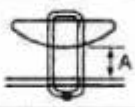
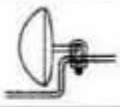
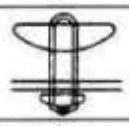
1) In order to install the attachment on the machine ,you may have to remove button clamp mechanism ❶ or feed plate ❷

2) Detach the snap ring from button clamp installing stud ❸,and you will be able to move button clamp mechanism assembly ❶ Remove screw ❹,and you can remove feed plate ❷



注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。

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

用途 Use	平扣用 Flat buttons				子母扣用 Snaps
	大纽扣 Large-size	中纽扣 Medium-size	一般纽扣 General		
	A	B	C		D
示意图 Schematic drawing					
备注 Remarks	纽扣尺寸Button size A;3 to 5 mm B: φ20 to φ28 mm	纽扣尺寸Button size A;3 to 5 mm B: φ12 to φ20 mm	柄扣直径 Button diameter 6mm 柄尺寸 厚 Thickness 6.5mm 宽 Width 3，2.5mm		尺寸 Snap size A:8mm
用途 Use	纽扣绕线用 Wrapped-around buttons		金属纽扣用 Metal buttons	力扣用 Stay button	钉标牌 Labels
	第一工序 Frist process	第二工序Second process	一般 General		
	E	F	G	H	I
示意图 Schematic drawing					
备注 Remarks	钉扣高度 Thread shank height A:5.5 mm			钉扣高度 Thread shank height A:5.5 mm	折边宽度Stitch width 3 to 6.5mm

二十六、柄扣（珍珠扣）钉扣附件 Attachments for shank buttons(Pearl buttons)

安装方法：
卸下抓扣装置和布压脚下板，安装上珍珠扣用抓扣装置❶，拧松固定螺丝❸，前后移动抓脚安装台❹，让机针正好落在抓脚❷的落针沟中间。同时，让珍珠扣用布压脚下板台❺正好落在压脚下板❻的落针沟中间，然后用固定螺丝❼固定起来。把钮扣压开杆❽插进机架凸部的孔里，再用固定螺丝❾固定起来。

（使用方法）

1）拧松固定螺丝⓬，把布压脚下板❻拉到离抓脚❷的左端面0.5~1.0mm的地方，然后拧紧固定螺丝⓬。

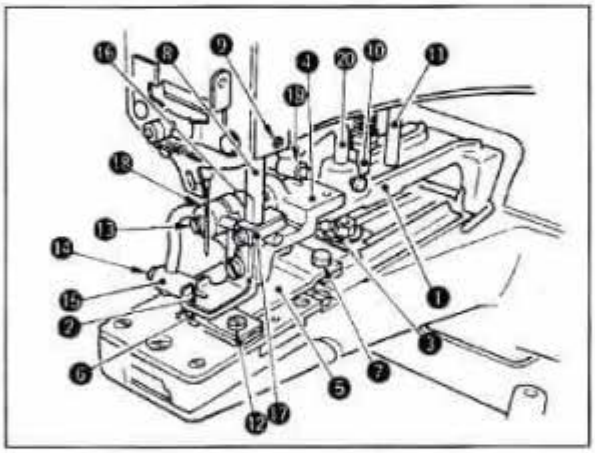
2）装上拗扣，拧松固定螺丝⓭和⓮，调整钮扣压脚⓯使其稍稍压住钮扣和中心。

3）调整钮扣压脚⓯的压力时，请拧松推力环固定螺丝，转动推力环⓰调节强度，以便在缝制中不让钮扣移动。

4）打开钮扣压脚，把滑块⓱固定到使用方便的位置。

注意：1.转动推力环后,不要让转动轴⓲在轴方向产生松动。

2.抓扣装置上升时,请调整抓扣装置的提升钩⓴和抓扣装置的止动销⓫,让L型提升杆凸块⓳和抓脚安装台❹不相碰。



（INSTLLATION）

Remove both the button clamp mechanism assem -bly and the feed plate from the machine and install attachment❶in place.Loosen screws❸and adjust button clamp bracket❹to permitthe needle to come down in the middle of the needie slot in shank button adaptor❷.Attach button clamp feed plate❺using screws❼in the way that it permits the needle to come down in the middle of the needle slot in feed piate❻.Insert the top end of button clamp stud❽into an opening in the jaw of the machine arm and fasten it by screw❾.

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

(ADJUSTMENT AND OPERATION)

1)Loosen screw ⑫ .let feed plate ⑥ recede 0.5 to 1.0 mm from the left end of button clamp jaw lever ② and retighten screw ⑫ .

2)Set a button in place.loosen screws ⑬ and ⑭ and align shank button holding clamp ⑮ with the center of the button.

3)Shank button holding clamp ⑮ must give proper pressure to the button so that the buttonstays steadily in position while being sewn. Loosen a setscrew in thrust collar ⑯ and potate the thrust collar until shank button holding clamp ⑮ provides proper pressure.

4)You may fix button clamp block ⑰ in a convenient position for operation.

CAUTION:1.When you fix the thrust collar, ensure that button clamp rotating shaft ⑱ does not play axially in its bracket.

2.Adjust liting hook ⑳ and stoppef pin ⑲ so that L-shaped lifting rod roller ⑱ does not come in contack with button clamp bracket ④

二十七、绕线钉扣第一工序 Attachment for the first process of wrapped-aroud button

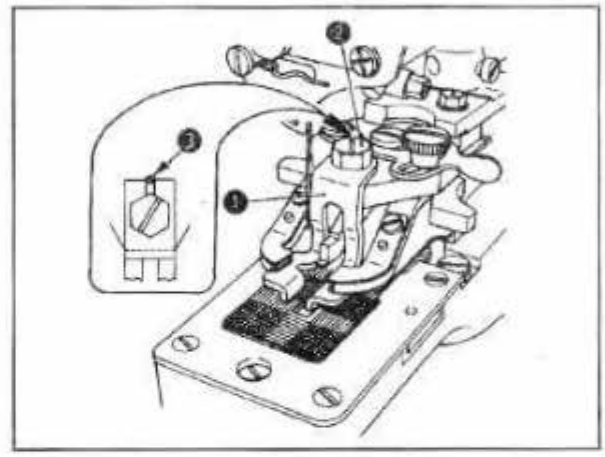
(安装方法)

用安装螺丝❷和导销螺丝❸把绕线用爪❶固定到普通的钮扣抓爪部❶此时，把钮扣抓爪 安装到钮扣中心左右均等的位置。

(使用方法)

与钉普通的平扣一样，但是从钮扣到布之间的距离变长了，所以需要调节线调节拨杆把线量弄长。

(参照3-2线调节拨杆的调节 P.4页)



(INSTALLATION)

Attach wrapped-around button foot ❶ to the ordinary button clamp jaw levers using screw ❷ and guide pin screw ❸Align foot ❶ with the jaw levers so that they permit a button to rest in the middle.

(ADJUSTMENT AND OPERATION)

Adjustment and operation are almost same as those for the flat buttons,but you mustadjust the thread pull-off lever to provide more amount of thread in order to make the thread loose below the button for thread shank formation.(refer to 3-2.Adjustment of the thread shread pull-off lever,P.4)

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

二十八、绕线钉扣第二工序 Attachment for the second process of wrapped-around buttons

(安装方法)

卸下抓扣装置、压脚压力调详杆和布压脚底板，安装上绕线第2工序用附件❶。

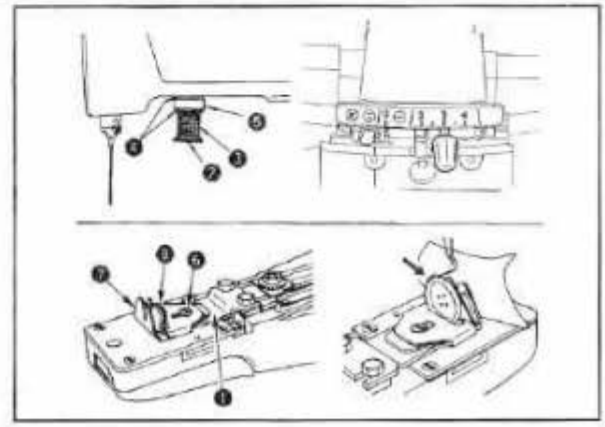
但是，Z035需要卸掉L型拉杆，按照移动刀反弹弹簧❸、分离垫片❺、分离垫圈❹的顺序安装杆❷，确认了完全分离之后，把机架和分离缓冲器❺的端面紧紧地安装起来不让它松动。

(使用方法)

1)拧松安装螺丝❻绕线用金属部件(大)❼和绕线用金属部件(小)❽移动到落针位置的中心，调整绕线长度。

2)放进钮扣，把线从剪头部穿进。

3)把竖送刻度设为0。



(INSTALLATION)

Remove the button clamp mechanism assembly,button clamp pressure adjusting bar and feed plate from the machine and install attachment for the second processof wrapped-around buttons ❶ .When you install a Z035 attachment,you must

Remove also the L-shaped lifting rod. Lnsert moving knife push-back spring❸,washer❹,cushion❺ and washer❺in Spring Guide shaft❷ in this order. Make certain that the stop-motion Mechanism has completely engaged and install The attachment assembly in place in the way that cush-ion comes in close contact with the surface of the machine arm without play.

(ADJUSTMENT AND OPERATION)

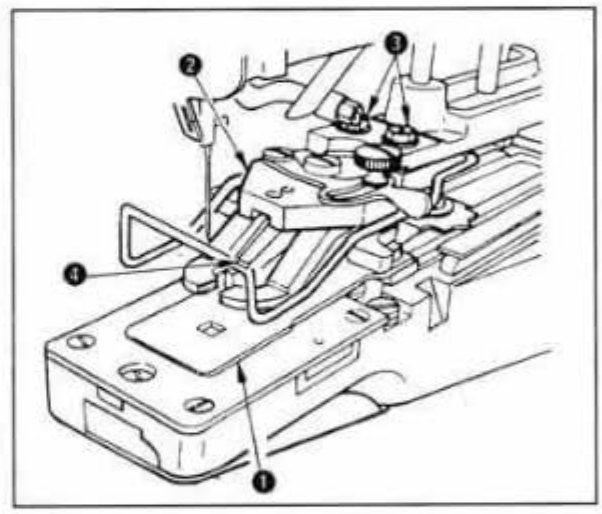
1)Loosen screw❻ and adjust the thread shank length by moving guide (large) ❼and guide(small) ❽ in line with the point of needle entry.

2)Set a button (tilt it slightly for easy insertion)and pass the thread as the arrow shows.

3)Set the lengthwise feed to"0".

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

二十九、钉子母扣 Attachment for snaps



(安装方法)

卸下抓扣装置和布压脚下板，横送布刻度和竖送布刻度设定为4mm以后，安装子母扣用下布压板❶，让针均匀地落到四角孔里。然后，在子母扣抓脚抓住子母扣的状态，安装上子母扣抓扣装置❷，让机针正确地落到扣孔里。如果落针不正确的话，请拧松六角螺丝 ❸ 进行调整。最后，请确认下布压板❶的凸形和子母扣用钮扣导爪❹下面的凹形是否完全一致。

(INSTALLATON)

Remove the button clamp mechanism assembly and the feed plate. Set both the crosswise feed and lengthwise feed graduated plates to"4mm". Install snap clamp feed plate ❶ in the way that the needle drops evenly at four corners of its square opening. Install snap attachment assembly ❷ on the machine, place a snap on the snap clamp jaw levers and make sure that the needle drops accurately in each hole in the snap.if necessary.Loosen hex head screws❸and Adjust the position accurately. Lastly, make sure that the concave section on the bottom face of snap clamp slide guide ❹ accurately matches the convex section on snap clamp feed plate❶.

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

三十、钉金属扣 Attachment for metal buttons

(安装方法)

卸下抓扣装置和布压脚下板，安装金属扣用抓扣装置❶，拧松固定螺丝帽❸，前后移动抓爪安装台❹，让机针正好落在抓爪❷的落针沟的中间。另外，用固定螺丝❼固定金属扣用布压脚下板❺，让机针正好落在压脚下板❻的落针槽中。把钮扣压开杆❽ 插进机架头部的孔里，然后用固定螺丝❾拧紧固定。

（使用方法）

1）拧紧固定螺丝⑩，把布压脚下板❺从抓爪❷的左端面拉进1.0-1.5mm,然后拧紧固定螺丝⑩.

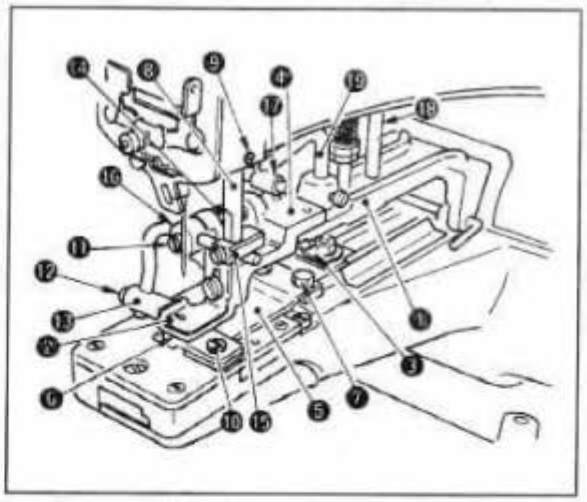
2)安放钮扣,拧松固定螺丝⑪和⑫,让钮扣压脚⑬正好压住钮扣的中心.

3)拧松固定螺丝,转动轴环⑭进行调整,让钮扣压脚⑬的压力在缝制中不让钮扣移动.

4)把钮扣压脚打开凸轮⑯移动到使用方便的位置固定起来.

1.转动轴环时,旋转轴⑮在轴方向不能有松动.

2.抓扣装置上升时,请调整抓扣装置的提升钩⑱和抓扣装置止动销⑲,让L型提升杆凸块⑰和抓脚安装台❹不相碰.



(INSTALLATION)

Remove both the button clamp mechanism assem-bly and the feed plate from the machine and install attachment ❶ in place.Loosen screws ❸ and adjust button clamp bracket ❹ to permit the needle to come down in the middle of the needle slot in metal button adaptor ❷ . Attach button clamp feed plate ❺ using screws ❼ in the way that it permits the needle to come down in the middle of the needle slot in feed plate .Insert the top end of button clamp stud ❽ into an opening in the jaw of the machine arm and fasten it by screw ❾.

(ADJUSTMENT AND OPERATION)

1)Looen screw ⑩,let feed plate ❺ recede 1.0 to 1.5mm form the left end of button clamp jaw lever ❷ and retig-hten screw ⑩。

2)Set a button in piace,loosen screws ⑪ and ⑫ and align metal button holding clamp ⑬ with the center of the button.

3)metal button holding clamp ⑬ must give proper pressure to the button so that the button stays steadily in position while being sewn.Loosen a setscrew in thrust coolar ⑭ and rotate the thrust collar until metal button holding clamp ⑬ provides proper pressure.

4)You may fix button clamp block ⑯ in a convenient position for operation.

CAUTION：1.When you fix the thrust collar, ensure that button clamp rotating shaft ⑮ does not play axially in its bracket.

2.Adjust lifting hook ⑱ and stopper pin ⑲ so that L-shaped liting rod roller ⑰ does not come in contact with button clamp bracket ❹ .

注意WARNING 为了防止突然启动造成人身事故，请关掉电源，确认马达确实停止转动后再进行。
To protect against possible personal injure due to abrupt start of the machine ,be sure to the start the following work after turning the power off and ascertaining that the motor is at rest

三十一、马达皮带轮和皮带 Motor pully and belt

1)马达使用单相、输入功率200W（1/4马力）的通用马达。

2）请使用V型皮带。

3）马达皮带轮和缝纫机转速的关系如下表所示。

HZ	Rpm	电机带轮图号 Motor pully part Number	mm
50	1500		φ76
	1300		φ64.5
60	1500		φ64.5
	1300		φ57

马达的转动方向，从马达皮带轮侧看是逆时针转动。请注意不要让皮带轮逆转。
更换马达皮带轮，转速变更为1300rpm　1500rpm时，请一定重新调整遮挡位置。（参照3-14，遮挡位置的调整P.8)

1)For this machine a single-phase or 3-phase 200 watts (1/4HP)induction motor is used.
2)Use a V belt.
3)The sewing speed depends on the diameter of the motor pulley as listed below;
The rotating direction of motor is counterclockwise when viewed from the motor pulley side.
Be careful not to rotate in reverse direction.
When replacing the motor pulley and changing the sewing speed from 1300rpm to1500rpm and vice versa,be sure to re-adjust the position of the stop-motion.(Refer to "Adjusting the position of the stop-motion",p.8.)

故障	原因	对策
1.断线	1.靠线动作不良. 2.紧线拨杆调整不良. 3.第二线张力盘的同步不好. 4.抓扣装置的上升量太高. 5.拔针器压线,拨针器调整不良.(间隙小) 6.机针没有落到钮扣的中心. 7.针与扣眼相比太粗.	调整靠线器的前后左右同步 调整紧线拨杆. 提早线张力盘浮起同步. 把抓脚上升量调整为8mm. 调整拨针器摆动滑块. 用抓脚安装台调整.. 换为细针.
2.始缝时形成不了缝迹,中途开始出缝迹.	1.线调详拨杆的调整不良. 2.面板线张力太大.	调整线张力拨杆摆动轴. 减弱面板线张力.
3.紧线不良	1.靠线动作不良. 2.第二线张力盘的同步不好, 3.第二线张力盘的张力不良. 4.机针没有落到钮扣的中心. 5.布压脚压力不良.	调整靠线器的前后左右同步. 稍稍推迟线张力盘浮起同步时间. 用第二线张力盘调整. 用抓脚安装台调整. 调整布压脚压力.
4.最终针的加固缝紧线弱.	1.紧线拨杆调整不良. 2.结线板的同步不良. 3.拔针器调整不良.(间隙过大)	调整紧线拨杆. 提早结线板的同步时间.(调整结线打结) 用拔针器摆动滑块调整.
5.钮扣上第一针的线出得太长	线张力拨杆调整不良.	调整线张力拨杆摆动轴
6.分离时切线不良	1.第二线张力盘的同步不好 2.机针碰到钮扣孔 3.拔针器压线不良 4.布压脚压力太大	稍微推迟线张力盘浮起同步,使紧线变好. 调整落针 调整拔针器摆动滑块. 用布压脚压力调整螺母进行调整.
7.切线不断	1.移动刀分线爪不能把布侧的线确实分开. 2.机针没有落到钮扣的中心. 3.最后落针跳针 4.移动刀分线爪高度不良	调整移动刀位置 用抓脚安装台调整. 调整弯针 调整移动刀分线爪的高度.
8.面线和底线2根都断线	1.移动刀位置不良. 2.移动刀分线爪高度不良.	调整分离时移动刀的位置. 调整移动刀分线爪的高度
9.切线后布里侧线出得太长	1.线移动刀切线同步不良 2.抓扣装置上升量过大.	调整移动刀位置 把抓脚上升量调整为8mm
10.切断后布背面出线长度有长有短	1.移动刀位置不正确 2.抓扣装置的上升量过高	调整分离时移动刀的位置.(10-11mm) 把抓脚上升量调整为8mm

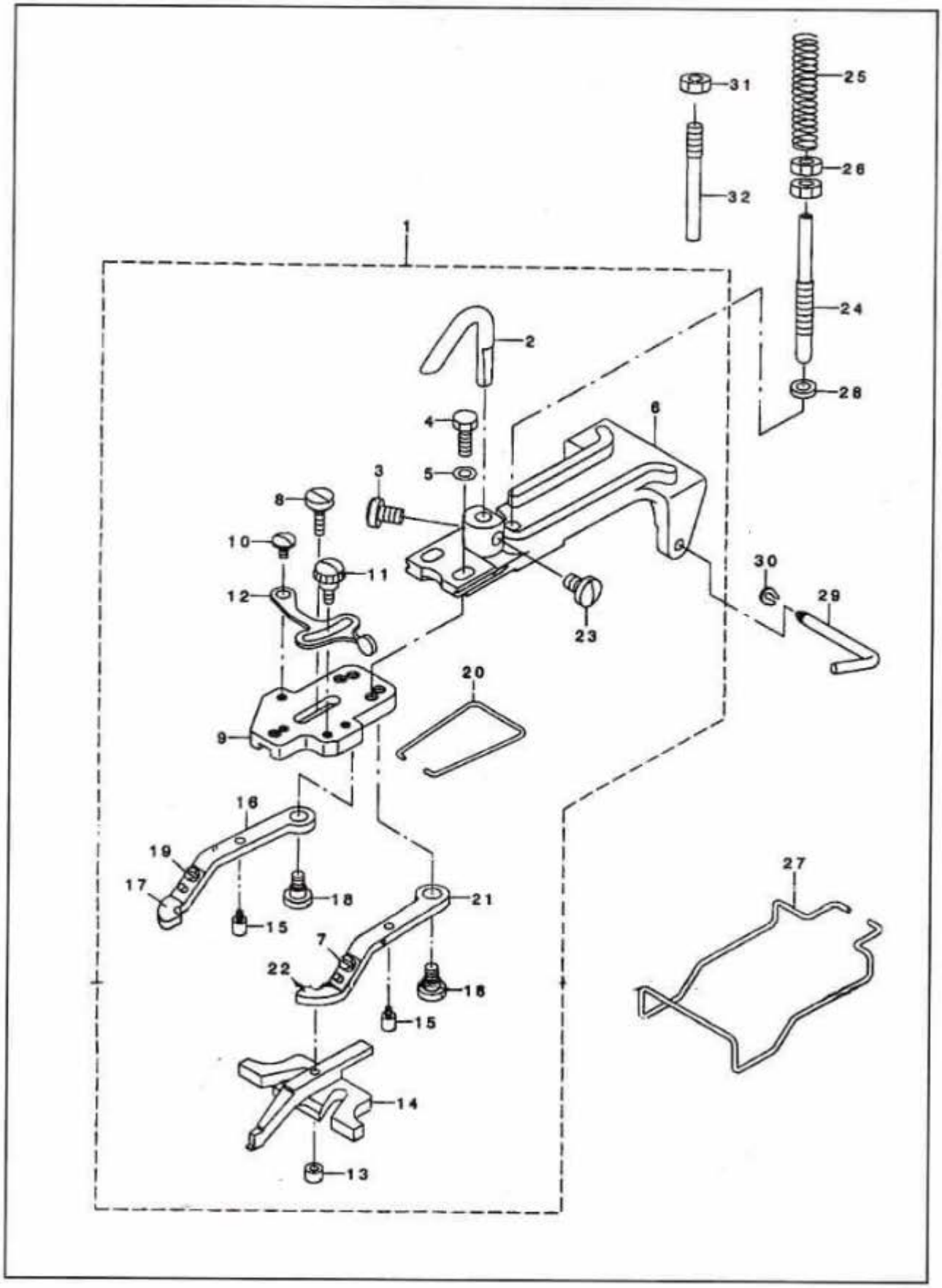
TROUBLES	CAUSES	CORRECTIVE MEASURES
1.Thread breakage	1.The yoke slide does not move in the correct way. 2.The tension lever has been improperly adjusted. 3.The thread tension post No.2 fails to release the thread at correct timing. 4.Lifting amount of the button clamp jaw unit is excessive. 5.The thread nipper catches the thread The nipper has been improperly adjusted. (The clearance is too small.) 6.The needle does not ebter the center of the holes in the button, 7.The needle is too thick for the diameter of the hole in the button.	Adjust the timing of forward,backward and sideways of the yoke slide. Properly adjust the tension lever. Make the thread release timing slightly earlier. Adjust the lifting amount of the button clamp jaw lever to 8 mm. Adjust the position of the nipper bar block. Adiust the button clamp jaw lever holder. Replace the needle the needle by a thinner one.
2.The machine foms a seam after it has run for a while instead of for-ming it fom the start of sewing.	1.The thread pull-off lever has been improperly adjusted, 2.Tension of the thread tension guide on the face plate is excessive.	Adjust the thread tension guide on the face plate so that it provides a lower tension. Properly adjust the tension lever.
3.Buttons are not sewn tightly	1.The yoke slide does not move in the correct way. 2.The threadp post No.2 fails to release the thread at correct trming. 3.The threadp post No.2 does not give sufficient tension. 4.The need does not enter the center the holes in the botton. 5.The work pressing force is too high or too low.	Adjust the timing of the motion of the yoke slide at each end. Make the thread release timing slightly later. Tighten the tension nut of tension post No.2. Adjust the button clamp jaw lever holder. Adjust the work pressing force properly.
4.The last back-tack stitch is poorly tensed	1.The tension lever has been improperly adjusted. 2.Timing of the knot-tying plate is incorrect. 3.The nipper has been improperly adjusted. (The clearance is too large.)	Properly addjust the tension lever. Advance the timing of the knot-tying plate. (Adjustment of the knot-tying notch) Adjust the nipper with the nipper bar block.
5.The first stitch trails pelatively long thread from the right side of the button	The thread pull-off lever does not work properly.	Adjust the thread pull-off lecer by the nipper bar block(rear)
6.Thread trimming failure in the state of stop-motion	1.The thread tension post No.2 fails to release the thread at correct timing. 2.The needle hits the edge of the holes in the button. 3.The thread nipper fails to press the thread. 4.The work pressing force is too high.	Mawe the thread release timing slightly later to give more tension to the stitches. Adjust the button clamp jaw lever holder. Adjust the nipper bar block. Adjust the work pressing force by the pressure adjusting nut.
7.Thread trimming failure	1.The moving knife does noy separate the thread on the fabric with its separation nail. 2.The needle does not enter the center of the holes in the button. 3.The last stitch skips. 4.The moving knife thread separation nail is too high or too low.	Adjust the position of the moving knife. Adjust the button clamp jaw lever holders. Adjust the looper. Adjust the height of the moving knife thread separation nail
8.The needle thread is cut in two places on the wrong side of the fabric	1.The moving knife is set in wrong pice. 2.The moving knife thread separation nail is too high or too low.	Adjust the position of the moving knife when the machine is in the stop-motion state. Adjust the height of the thread separation nail.

高速单针筒式底板锁式线迹加固缝纫机
High Speed 1-needle Cylinder Bed Lockstitch Bar Taching Industrial Sewing Machine

零 件 目 录
PARTS LIST
目　　录
CONTENTS

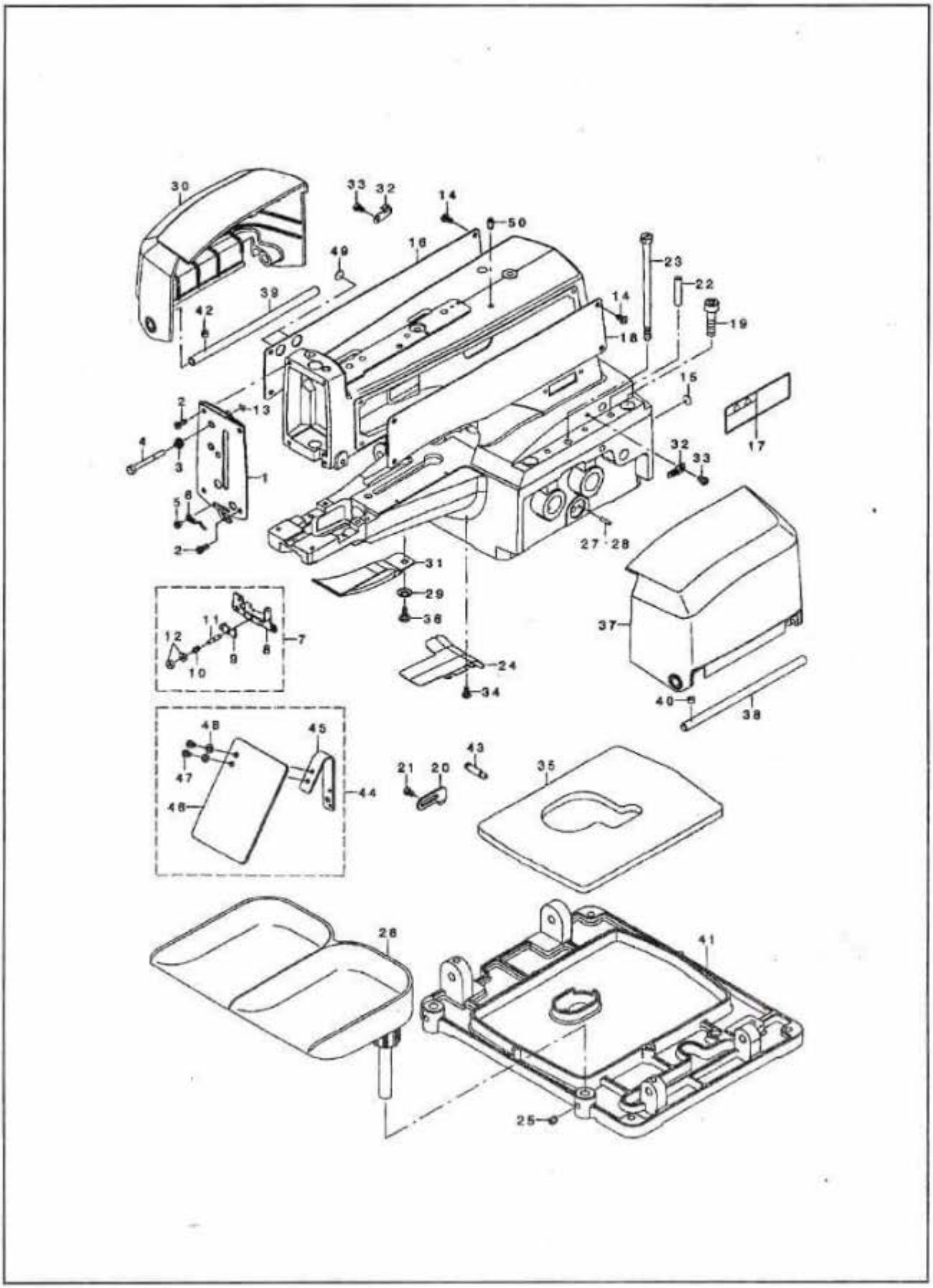
一 标准型零件目录部分

一、钮夹部件
BUTTON CLAMP MECHANISM COMPONENTS



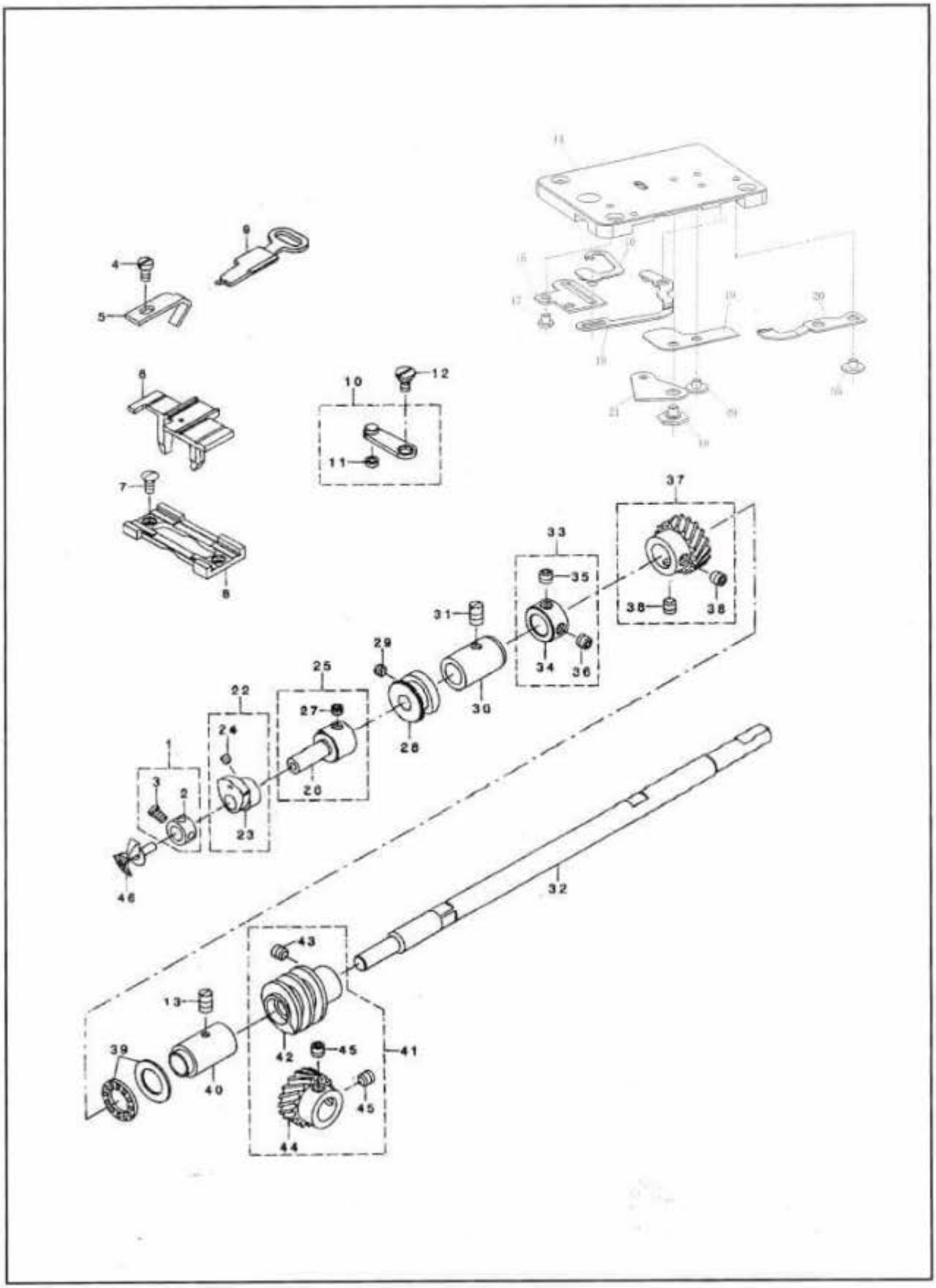
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.1-00	钮夹组件	PICK-UP DEVICE ASM	1
2	85.1-1	抬压臂提升钩	BUTTON CLAMP LIFTING HOOK	1
3	95.7-12	抬压臂提升钩紧固螺钉	SCREW 15/64"X28 L=9	2
4	85.1-2	钮夹底座安装螺钉	SCREW 3/16"X32 L=13.5	2
5	95.10-7	钮夹底座安装螺钉垫片	WASHER 5X10.5X1	1
6	85.1-3	压臂	BUTTON CLAMP HOLDER	1
7	90.3-13-5	钮夹板弹簧安装螺钉	SCREW 9/64"X40 L=13.5	1
8	85.1-4	钮夹后安装段螺钉	HINGE SCREW D=5.5 H=3	1
9	85.1-5	钮夹底座	JAW LEVER HOLDER	1
10	85.1-6	钮夹尺寸调节板段螺钉	HINGE SCREW D=5.5 H=1.8	1
11	85.1-7	钮夹尺寸调节板紧固螺钉	CLAMP SCREW A	1
12	85.1-8	钮夹尺寸调节板	SNAP FASTENER CLAMP STOP LEVER	1
13	85.1-9	钮夹后安装段螺钉螺母	NUT	1
14	85.1-10	钮夹后	BUTTON CLAMP SLIDE	2
15	85.1-11	钮夹止动销	BUTTON CLAMP STOP PIN	1
16	85.1-12	钮夹L	BUTTON CLAMP LEVER JAM (LEFT)	1
17	85.1-13	钮夹板弹簧L	BUTTON HOLDING SPRING ,LEFT	2
18	90.4-19	钮夹连接段螺钉	HINGE SCREW D=6.35 H=3.9	1
19	90.3-13-5	钮夹板弹簧安装螺钉	SCREW 9/64"X40 L=3.5	1
20	85.1-14	钮夹弹簧	BUTTON CLAMP SPRING	1
21	85.1-15	钮夹R	BUTTON CLAMP LEVER JAM (RIGHT)	1
22	85.1-16	钮夹板弹簧R	BUTTON HOLDING SPRING ,RIGHT	1
23	95.7-12	抬压臂提升钩定位螺钉	SCREW 15/64"X28 L=9	1
24	85.1-17	钮夹压力调节杆	BUTTON CLAMP PRESSURE ADJUSTING	1
25	85.1-18	钮夹压力调节弹簧	PRESSURE ADJUSTING SPRING	2
26	95.13-6	钮夹压力调节杆螺母	NUT M6	1
27	85.1-19	护指器	FINGER GUARD	1
28	85.1-20	钮夹压力调节杆垫	SPRING HOLDING SPRING	1
29	85.1-21	压臂轴	HINGER PIN	1
30		压臂轴异形卡簧	SNAP RING	1
31	95.13-6	压臂止动销钉螺母	NUT M6	1
32	85.1-22	压臂止动销	PICK-UP DEVICE STOPPER PIN	

二、机壳底座部件
ARM & MISCELLANEOUS COVERS COMPONENTS



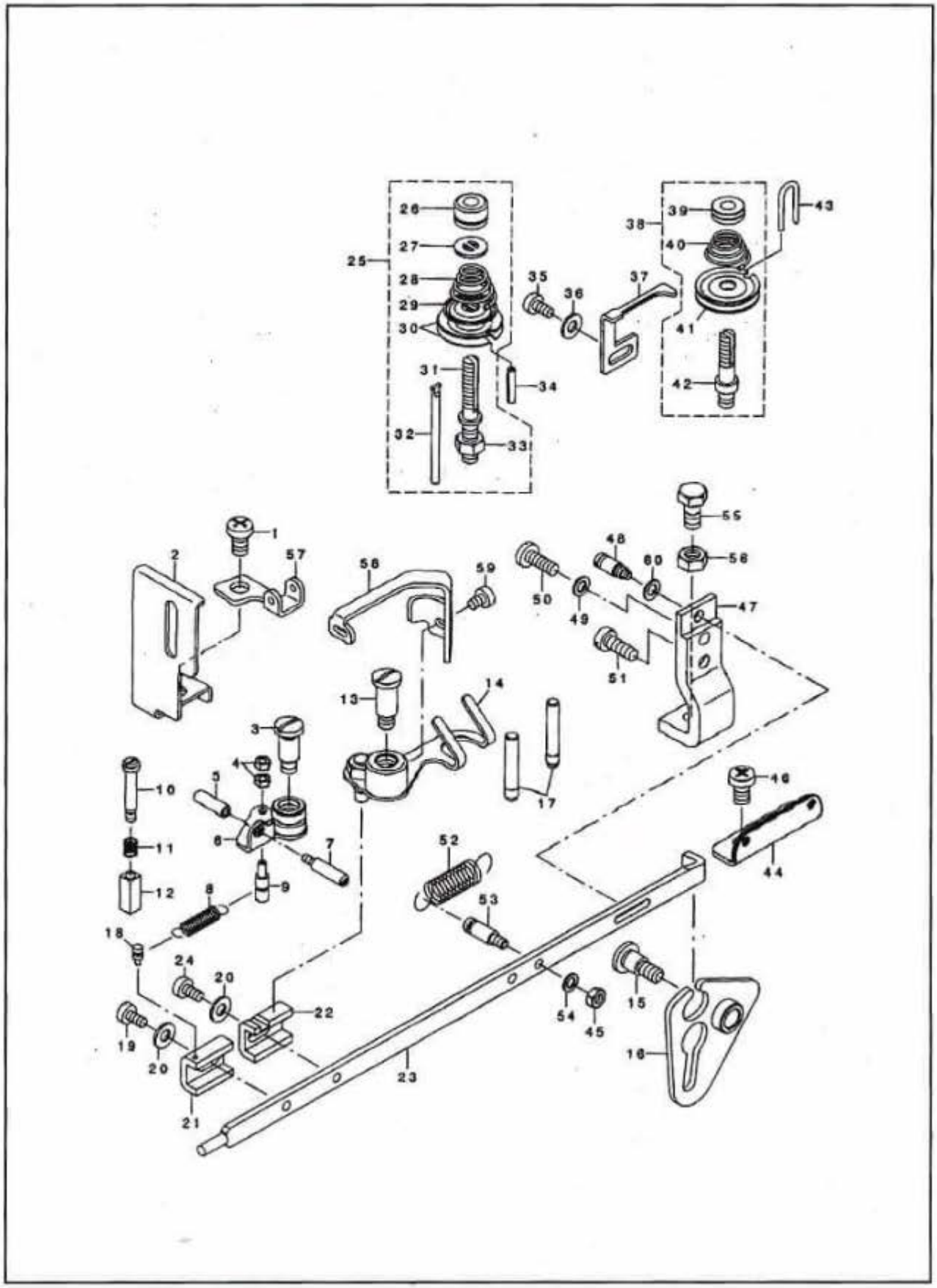
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.2-3	面板组件	FACE PLATE COMPL.	1
2	85.2-4	面板螺钉	SCREW	4
3	85.2-5	松线按钮销弹簧	TENSION SPRING	1
4	85.2-6	松线按钮销	NIPPER RELEASING STUD	1
5	85.2-7	过线钩No4安装螺钉	SCREW	1
6	85.2-8	过线钩No4	THREAD GUIDE NO.4	1
7	85.2-9	压线板组件No3	THREAD TENSION NO.3 ASM.	1
8	85.2-9-1	压线板座No3	TENSION ADJUSTING BASE NO.3	1
9	85.2-9-2	压线板No3	THREAD PRESSER PLATE	1
10	85.2-9-3	压线板弹簧No3	TENSION SPRING B	1
11	85.2-9-4	压线板销No3	THREAD TENSION STUD	1
12	85.2-9-5	压线调节螺母	THREAD TENSION NUT	2
13		松线按钮销E形卡簧3.2	E-RING 3.2	1
14	85.2-4	左右侧盖螺钉	SCREW	8
15	85.2-34	橡皮塞	RUBBER PLUG	1
16	85.2-11	机头左侧盖	SIDE COVER RIGHT	1
17		注意标贴	SAFETY LABEL	1
18	85.2-13	机头右侧盖	SIDE COVER LEFT	1
19		拼装螺钉	SCREW M8 L=30	4
20	85.2-14	止动块	STOPPER	1
21	85.2-15	止动块螺钉	SCREW M5L=8	2
22	85.2-35	拼装定位销	GUIDE PIN	2
23	85.2-16	机壳锁紧螺钉	SET SCREW	1
24	85.2-17	底板挡油板	BED OIL SHIELD	1
25	85.2-18	钮口盘支紧螺钉	SCREW	1
26	85.2-19	钮口盘组件	BUTTON TRAY ASM	1
27		送布凸轮位置定位销A	CAN INDICATING PIN A	2
29	85.2-20	弯勾盖安装段螺钉弹簧垫片	SPRING WASHER 6.5x14x17	2
30	85.2-21	底板侧盖(左)	SIDE COVER LEFT	1
31	85.2-22	弯勾盖	LOOPER COVER	1
32	85.2-23	侧盖止动板弹簧	SIDE COVER SPRING	1
33	85.2-24	侧盖止动板弹簧螺钉	SCREW M4 L=6	2
34	85.2-4	底板挡油板螺钉	SCREW	2
35	85.2-25	底板油毡	OIL DRIP FELT	2
36	85.2-26	弯勾盖安装段螺钉	SHOULDER SCREW D=6 H=2.7	1
37	85.2-27	底板侧盖(右)	SIDE COVER RIGHT	1
38	85.2-28	底板侧盖(右)铰链轴	SIDE COVER HINGE SHAFT RIGHT	1
39	85.2-29	底板侧盖(左)铰链轴	SIDE COVER HIGE SHAFT LEFT	2
40	85.2-30	底板侧盖(右)铰链轴支紧螺钉	SCREW M6 L=6	1
41	85.2-31	底座	MACHINE SUB BASE	1
42	85.2-30	底板侧盖(左)铰链轴支紧螺钉	SCREW M6 L=6	1
43	85.2-32	下剪线作动板连杆弹簧挂钩	SUSPENSION SCREW	1
44	85.2-33	护眼板组件	ASSY SAFETY PLATE	1
45	85.2-33-1	护眼板支架	SAFETY PLATE INSTANLLING BASE	1
46	90.1-46-1	护眼板	SAFETY PLATE	1
47	85.2-33-2	护眼板安装螺钉	SCREW M4 L=6	2
48	85.2-33-3	护眼板安装螺钉垫片	WASHER M4	2
49	35.1-4	机头左侧盖橡皮塞	RUBBER PLUG D=12.5 L=4	2
50		开口销	SPRING PIN 5X10	1

三、旋勾轴相关部件
LOOPER SHAFT MECHANISM COMPONENTS



REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.3-1-00	弯针紧圈组件	THRUST COLLAR ASM	1
2	85.3-1	弯针紧圈	THRUST COLLAR D=7.94 W=7	1
3	90.4-14	弯针紧圈螺钉	SCREW 9/64"X40 L=6.1	1
4	85.3-2	护针板螺钉	SCREW	1
5	85.3-3	护针板	NEEDLE GUARD	1
6	85.3-4	送料器导向台	POSITIONING FINGER YOKE SLIDE	1
7	85.3-5	送线器底座安装螺钉	SCREW M4 L=9	2
8	85.3-6	送线器底座	YOKE SLIDE INSERT	1
9	85.3-7	送线器	YOKE SLIDE	1
10	85.3-8	送线器铰链组件	ASSY LOOP POSITIONING FINGER L	1
11	85.3-8-2	送线器铰链滚轮	LOOP POSITIONING FINGER CAM RO	1
12	85.3-10	送线器铰链安装段螺钉	HINGE SCREW D=6.35 H=2.4	1
13	85.3-11	下轴后轴套支紧螺钉	SCREW	1
14	85.3-12-1	针板	THROAT PLATE	1
15	85.3-12-8	滚动线板导轨	THREAD BIND PLATE GUIDE	1
16	85.3-12-3	滚动线板	THREAD BIND PLATE ASM	1
17	85.3-12-9	滚动线板导轨安装螺钉	SCREW	1
18	85.3-12-10	连杆	LINK	1
19	85.3-12-3	滚动线板支撑板	THREAD BIND SUPPORT PLATE	2
20	85.3-12-4	固定刀	COUNTER KNIFE	1
21	85.3-12-6	移动刀	MOVING KNIFE	1
22	85.3-13-00	履角凸轮组件	ASSY LOOP POSITIONING FINGER C	1
23	85.3-13	履角凸轮	LOOP POSITIONING FINGER CAM	1
24	40.3-30	履角凸轮螺钉	SCREW 11/64"X40 L=3.5	2
25	85.3-14-00	旋勾轴组件	ASSY CAM AND LOOPER SLEEVE	1
26	85..3-14	旋勾轴	CAM AND LOOPER SLEEVE	1
27	43.5-26	旋勾轴螺钉	SCREW 15/64"X28 L=4.0	2
28	85.3-15	带槽凸轮	LOOP POSITIONING FINGER CAM RE	1
29	40.2-34	带槽凸轮螺钉	SCREW 11/64"X40L=2.8	2
30	85.3-16	下轴前套	LOOPER SHAFT BUSHING FRONT	1
31	85.3-11	下轴前套支紧螺钉	SCREW	1
32	85.3-17	下轴	LOOPER SHAFT	1
33	85.3-18-00	下轴紧圈组件	THRUST COLLER ASM	1
34	85.3-18	下轴紧圈	THRUST COLLER D=11.11 W=10	1
35	95.3-13	下轴紧圈螺钉	SCREW 1/4"X40 L=5	1
36	85.3-19-00	下轴螺旋齿轮组件	SCREW 1/4"X40 L=5	1
37	85.3-19	下轴螺旋齿轮	LOOPER SHAFT DRIVEN GEAR ASM	1
38	90.2-36	下轴螺旋齿轮螺钉	SCRE 1/4"X40 L=6	2
39	85.3-20	下轴后轴承组件	THRUST BALL BEARING	1
40	85.3-21	下轴后套	LOOPER SHAFT BUSHING REAR	1
41	85.3-22-00	蜗杆组件	WORM WHEEL ASM	1
42	85.3-22	蜗杆	WORM	1
43	85.3-23	蜗杆螺钉	SCREW 1/4"X40 L=7.0	2
44	85.3-24	蜗轮	CAM SHAFT DRIVEN GEAR	1
45	90.2-36	蜗轮螺钉	SCREW 1/4"X40 L=6	2
46	85.3-25	弯勾	LOOPER	1
47	85.3-26	针板安装螺钉	SCREW M4 L=9	3
48	85.3-12-7	移动刀安装段螺钉	HINGE SCREW D=6 H=0.85	1
49	85.3-12-5	固定刀安装螺钉	SCREW	3

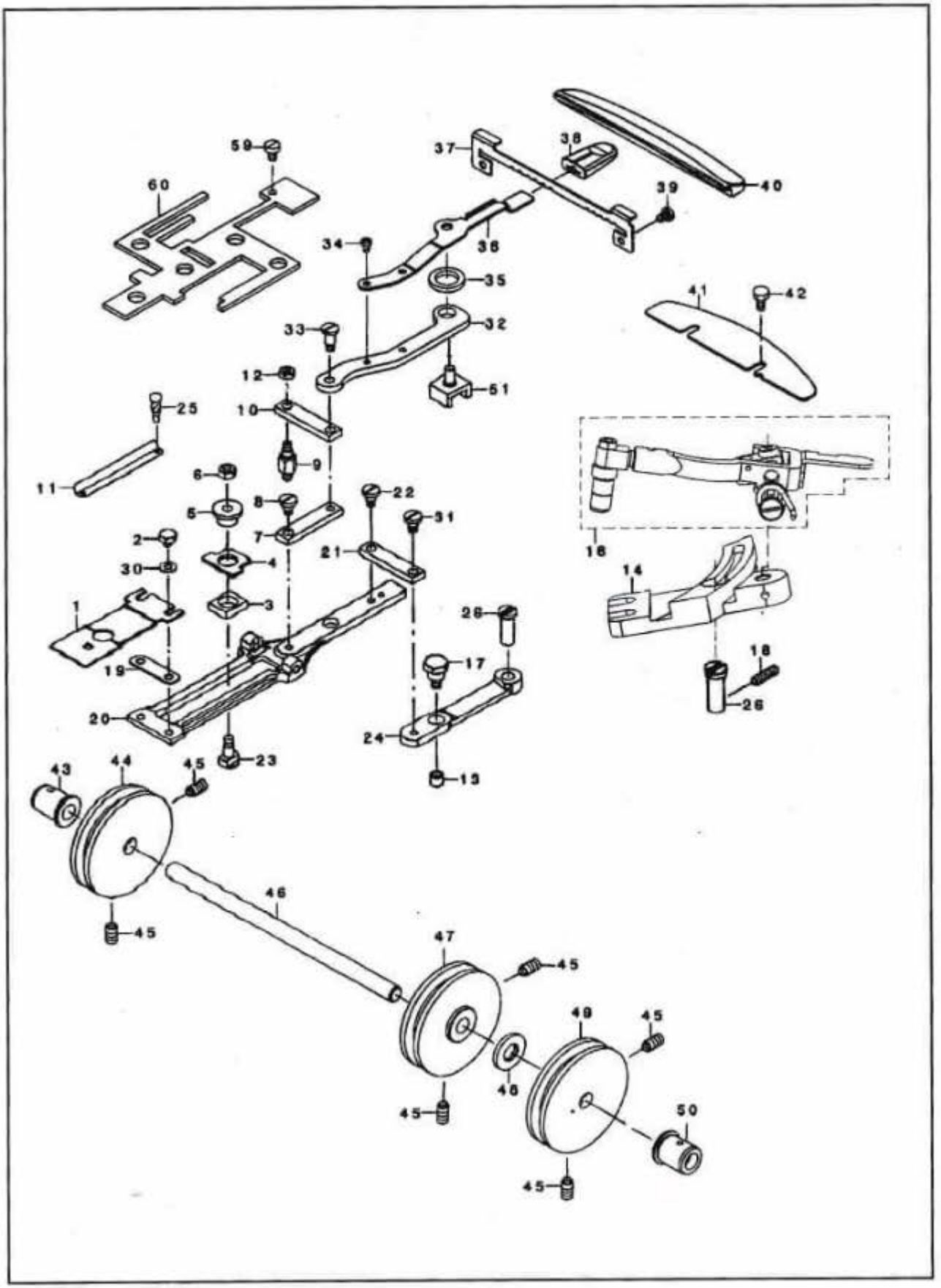
四、过线松线相关部件
NIPPER & THREAD TENSION PARTS COMPONENTS



REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.4-1	线调整导线器安装螺钉	SCREW M6 L=12	1
2	85.14-5	针杆罩	NEEDLE BAR GUARD	1
3	85.4-3	导线装置安装段螺钉	SHOULDER SCREW	1
4	85.4-4	导线装置弹簧挂钉螺母	NUT	2
5	85.4-5	导线装置内螺纹杆	NUT	1
6	85.4-6	导线装置	NIPPER COMPL	1
7	85.4-7	导线装置外螺纹杆	LOOPER SHAFT BUSHING REAR	1
8	85.4-8	导线装置弹簧	NIPPER BAR BLOCK SPRING	1
9	85.4-9	导线装置弹簧挂钉	NIPPER BAR BAR BLOCK SPRING SCREW	1
10	85.4-10	夹线座段螺钉	HINGE SCREW D=4 H=20	1
11	85.4-11	夹线座弹簧	NIPPER SLIDE BLOCK SPRING	1
12	85.4-12	夹线座	NIPPER BLOCK	1
13	85.4-13	线调整杆组件段螺钉	SHOULDER SCREW D=7.94 H=15	1
14	85.4-14	线调整杆组件	THREAD PULL OFF LEVER ASM	1
15	85.4-15	夹线驱动杆段螺钉	SHOULDER SCREW D=7.94 H=8	1
16	85.4-16	夹线驱动杆组件	NIPPER BAR ACTUATING LEVER ASM	1
17	85.4-17	导线柱	THREAD GUIDE PIN	2
18	85.4-18	夹线杆底座弹簧销	NIPPER BAR BLOCK SPRING PIN	1
19	85.3-2	夹线杆底座安装螺钉	SCREW	1
20	90.1-26	夹线杆底座安装螺钉垫片	WASHER	2
21	85.4-19	夹线杆底座	NIPPER BAR BLOCK	1
22	85.4-20	线调整杆活动滑块	TENSION LEVER ROCKING PIECE	1
23	85.4-21	夹线杆	NIPPER BAR	1
24	85.3-2	线调整杆活动滑块安装螺钉	SCREW	1
25	85.4-22	2号夹线器组件	TENSION POST ASM NO.2	1
26	85.4-22-1	2号夹线器调节螺母	TENSION NUT	1
27	30.1-28-2	2号夹线器止动垫圈	ROTATION STOPPER	1
28	85.4-22-2	2号夹线器压力弹簧	THREAD TENSION SPRING	1
29	85.4-22-3	2号夹线器夹线压盘	THREAD TENSION DISK PRESSER	1
30	85.4-22-4	2号夹线器夹线板	THREAD TENSION DISK NO.1	2
31	85.4-22-5	2号夹线器螺杆	TENSION POST NO.2	1
32	85.4-22-6	2号夹线器挺线钉	TENSION RELEASE PIN	1
33	95.13-6	2号夹线器锁紧螺母M6	NUT M6	1
34		夹线圆盘开口销	SPRING PIN 3X16	1
35	85.4-38	释压杆安装螺钉	SCREW	1
36	90.1-46-2	释压杆安装螺钉垫片	WASHER	1
37	85.4-23	释压杆	THREAD TENSION RELEASING LEVER	1
38	85.4-24	1号夹线器组件	ASSY THREAD TENSION NO.1	1
39	85.4-24-1	1号夹线器调节螺母	THREAD TENSION NUT	1
40	85.4-24-2	1号夹线器压力弹簧	FIRST THREAD TENSION SPRING	1
41	85.4-22-4	1号夹线器夹线板	THREAD TENSION DISK NO.1	2
42	85.4-24-3	1号夹线器螺杆	THREAD TENSION POST NO.1	1
43	85.4-25	导线勾	THREAD GUIDE	1
44	85.4-26	1号导线勾	THREAD GUIDE NO.1	1
45	85.4-27	夹线杆复位弹簧挂钉螺母	NUT M4	1
46	85.4-1	1号导线勾安装螺钉	SCREW M6 L=12	1
47	85.4-28	夹线杆导向座	NIPPER BAR BEARING BLOCK	1

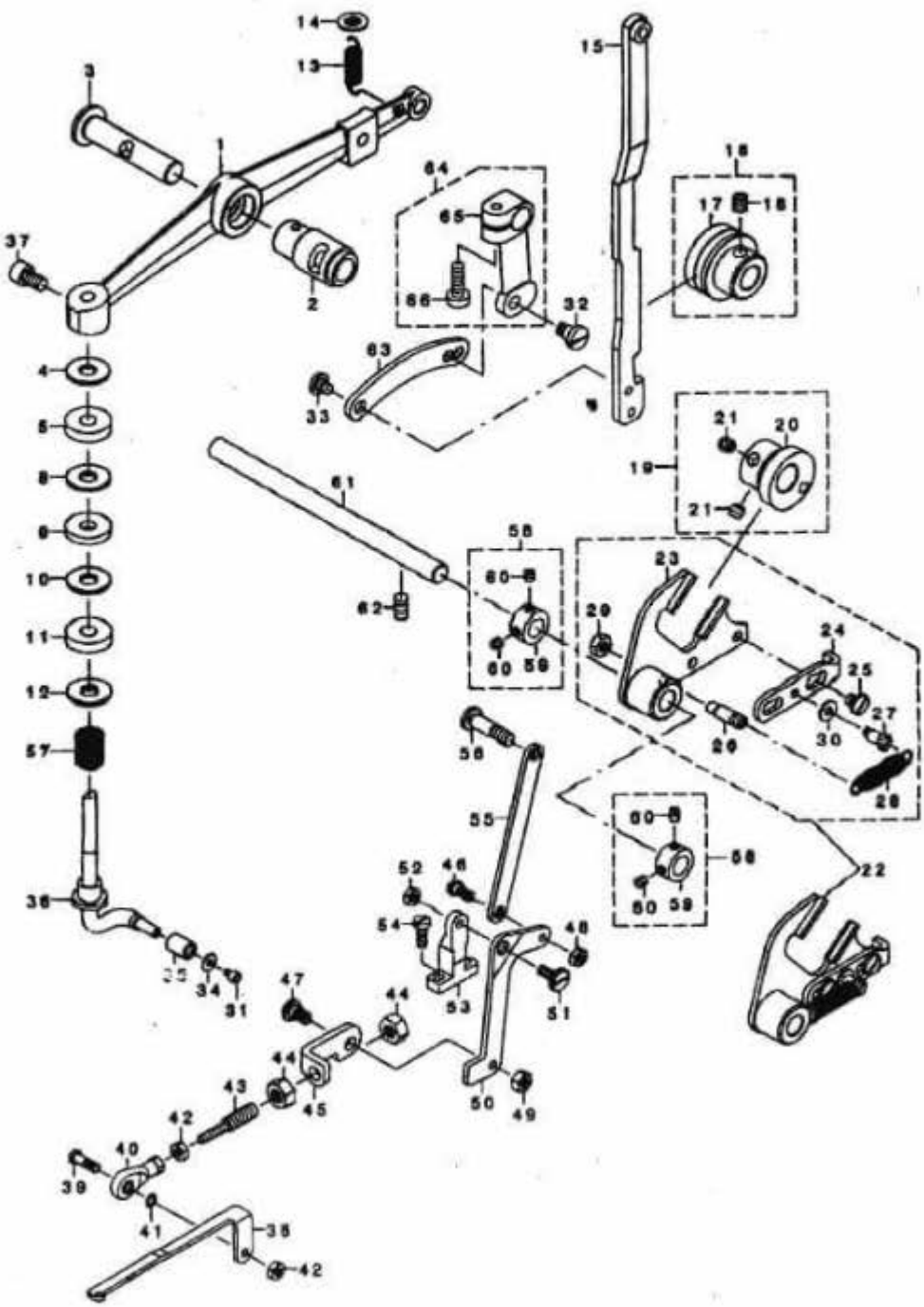
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
48	85.4-29	夹线杆导向座导向销	ADJUSTING SCREW	1
49	85.4-30	夹线杆导向座螺钉A垫圈	WASHER 5.5X10X0.8	1
50	85.4-31	夹线杆导向座螺钉A	SCREW M5 L=14	1
51	85.4-32	夹线杆导向座螺钉B	SCREW	1
52	85.4-33	夹线杆复位弹簧	THREAD TENSION SPRING	1
53	85.4-34	夹线杆复位弹簧挂钉	NIPPER BAR SPRING SCREW	1
54	90.3-13-11	夹线杆复位弹簧挂钉垫圈	WASHER	1
55	85.4-35	夹线杆导向座安装螺钉	SCREW M6 L=14	1
56	95.13-6	夹线杆导向座安装螺钉螺母	NUT M6	1
57	85.4-36	线调整导线器	THREAD GUIDE	1
58	85.4-37	紧线杆	LEVER	1
59	85.4-24	紧线杆安装螺钉	SCREW M4 L=6	1
60	95.10-7	夹线杆导向座导向销钉垫片	WASHER 5X10.5X1	1

五、送料相关部件
FEED PLATE COMPONENTS



REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.5-1	送料板	FEED PLATE SMALL BUTTON	1
2	85.5-2	送料板安装螺钉	SCREW 3/16"X28 L=6	2
3	85.5-3	左右送料调节块	LNDICATOR PIN BEARING BLOCK	1
4	85.5-4	左右送料指示器	CROSSWISE FEED INDICATION	1
5	85.5-5	左右送料指示器销	CROSSWISE FEED INDICATION PIN	1
6	95.13-6	左右送料指示器螺母	NUT M6	1
7	85.5-6	滑板连接板	SLIDE PLATE CONNECTING LINK	1
8	85.5-7	滑板连接板段螺钉	HINGE SCREW D=6.35 H=4.8	1
9	85.5-8	双头螺栓	STUD	1
10	85.5-9	中部连杆	INTERMEDI CONNETING LINK	1
11	85.5-10	左右送料刻度盘	CROSSWISE FEED GRADVATED PLATE	1
12	85.5-11	双头螺栓螺母	NUT M5	1
13	85.5-12	送料杆滚轮	CAM ROLL	
14	85.5-58	纵向送料摆杆	FEED LEVER	
16	85.5-60	变换杆组件		
17	85.5-13	送料杆滚轮轴	CAM ROLL SCREW STUD	
18	85.5-14	送料杆销轴支紧螺钉	SCREW M6X12	2
19	85.5-15	送料板垫板	SPACER PLATE	2
20	85.5-16	送料台	FEED PLATE	1
21	85.5-9	送料连杆	INTERMEDI CONNECTING LINK	1
22	85.5-7	送料连杆连接段螺钉A	HINGE SCREW D=6.35 H=4.8	1
23	85.5-18	左右送料螺钉	HINGE SCREW FOR CROSSWISE FEED	1
24	85.5-19	左右送料杆	CROSSWISE FEED LEVER	1
25		左右送料刻度盘铆钉	RIVET	1
26	85.5-20	送料杆销轴	FEED STUD	2
31	85.5-40	送料连杆连接段螺钉B	SHOULDER SCREW	3
32	85.5-58	纵向送料杆	FEED LEVER	
33	85.5-34	纵向送料调节杆台段螺钉	SHOULDER SCREW	1
34	85.2-33-3	纵向送料调节杆螺钉	SCREW	1
35	85.5-44	纵向送料调节台油毡	OIL RETAINING FELT	1
36	85.5-30	纵向送料调节杆	HANDLE AND INDICATOR SPRING	1
37	85.5-28	纵向送料刻度盘底座	PLATE BASE	1
38	85.5-32	纵向送料调节杆手柄	KNOB	2
39	85.5-31	纵向送料刻度盘底座安装螺钉	SCREW	1
40	85.5-29	纵向送料刻度盘	GRADATE PLATE	1
41	85.5-26	纵向送料调节罩板	FEED KNOB GUIDE PLATE	
42	85.5-27	纵向送料调节罩板螺钉	SCREW	
43	85.5-37	送料凸轮轴套(左)	CAM SHAFT BUSHING LEFT	
44	85.5-38	左右送料凸轮	FEED CAM (X)	
45	85.5-41	送料凸轮螺钉	SCREW	
46	85.5-35	送料凸轮轴	CAM SHAFT	
47	85.5-39	纵向送料凸轮A	FEED CAM A(Y)	
48	85.5-42	纵向送料凸轮垫圈	WASHER	
49	85.5-36	纵向送料凸轮	FEED CAM (Y)	
50	85.5-43	送料凸轮轴套（右）	CAM SHAFT BUSHING RIGHT	
51	85.5-23	纵向送料轴滑块	LENGTHWISE FEED LEVER SLIDE	

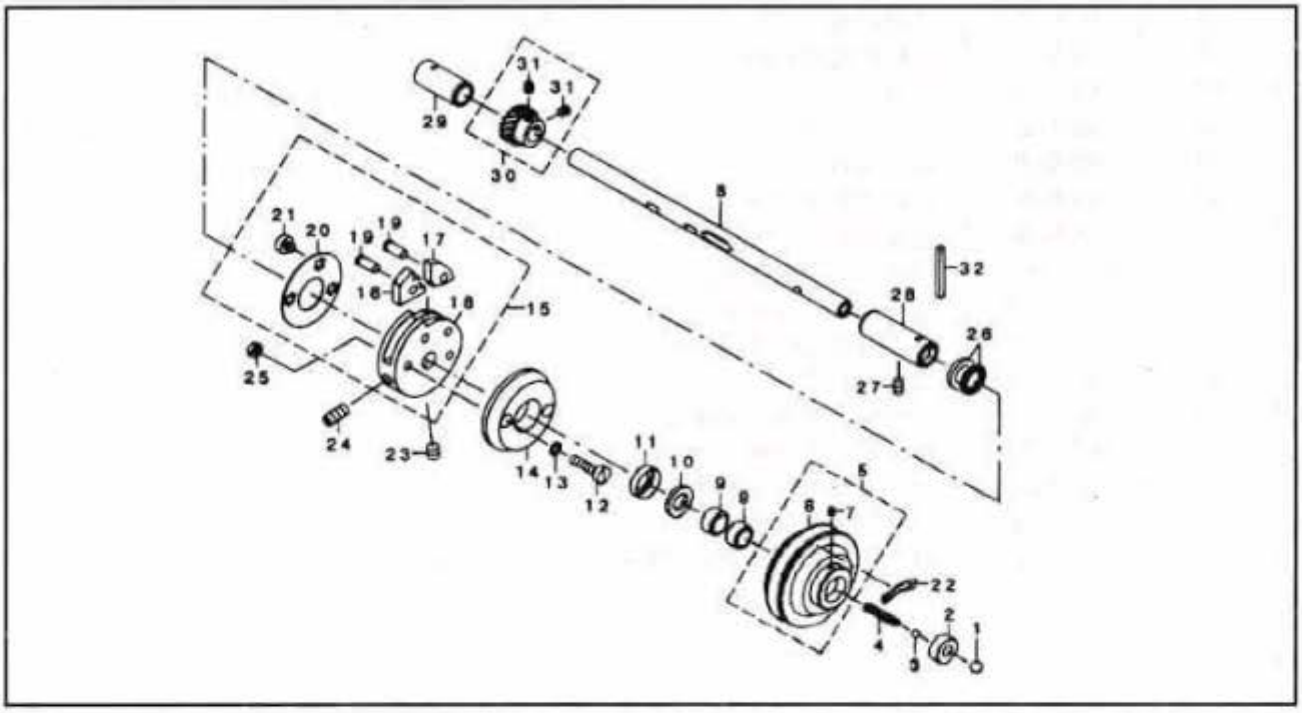
六、钮夹提升相关部件
BUTTON CLAMP LIFTER COMPONENTS



REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.6-1	钮夹提升杠杆	LIFTING LEVER	1
2	85.6-2	钮夹提升杠杆轴套	BUSHING	1
3	85.6-3	钮夹提升杠杆轴	NEEDLE BAR LEVER	1
4	85.6-4	钮夹提升杆垫圈A	WASHER 8.5X18X1.2	1
5	85.6-5	钮夹提升杆缓冲垫	CUSHION	1
8	85.6-4	钮夹提升杆垫圈A	WASHER	1
9	90.9-20	钮夹提升杆垫圈B	WASHER 7.5X19X1.5	1
10	90.9-20	钮夹提升杆垫圈B	WASHER 7.5X19X1.5	1
11	85.6-5	钮夹提升杆缓冲垫	CUSHION	1
12	85.6-7	钮夹提升杆垫圈C	WASHER 7X20X3.5	1
13	85.6-8	钮夹提升杠杆拉簧	SPRING	1
14	85.6-9	钮夹提升杠杆拉簧垫圈	WASHER	1
15	85.6-10	钮夹提升拉簧组件	BUTTON CLAMP LIFTING LINK	1
16	85.6-11-00	滑动滚筒组件	ASSY SLIDING ROLLER	1
17	85.6-11	滑动滚筒	SLIDING ROLLER	1
18	85.2-30	滑动滚筒螺钉	SCREW M6 L=6	1
19	85.6-12-00	提升凸轮组件	ECCENTRIC CAM	1
20	85.6-12	提升凸轮	ECCENTRIC CAM	1
21	85.6-13	提升凸轮螺钉	SCREW	2
22	85.6-14	钮夹传动叉组件	BUTTON CLAMP LIFTING LINK SET	1
23	85.6-14-1	钮夹传动叉	BUTTON CLAMP LIFTING LINK	1
24	85.6-14-2	钮夹传动叉挂钩	LIFTING HOOK	1
25	85.6-14-3	钮夹传动叉挂钩段螺钉	SHOULDER SCREW D=6.35 H=2.7	2
26	85.6-14-4	钮夹传动叉弹簧挂轴B	TENSION SPRING RACK B	1
27	85.6-14-5	钮夹传动叉弹簧挂轴段螺钉	SHOULDER SCREW D=5 H=7.2	1
28	85.6-14-6	钮夹传动叉弹簧	LIFTING HOOK SPRING	1
29	85.5-11	钮夹传动叉弹簧挂轴B螺母	NUT M5	1
30	85.6-14-7	钮夹传动叉弹簧挂轴段螺钉垫圈	WASHER	1
31	85.6-15	钮夹提升杆滚轮螺钉	SCREW M3X0.5 L=4	1
32	85.5-7	钮夹提升连接杆段螺钉A	HINGE SCREW D=6.35 H=4.8	1
33	90.4-31	钮夹提升连接杆段螺钉B	HINGE SCREW D=6.35 H=2.1	1
34	85.6-16	钮夹提升杆滚轮垫圈	WASHER M3	1
35	85.6-17	钮夹提升杆滚轮	L TYPE LIFTING BAR ROLLER	1
36	85.6-18	钮夹提升杆组件	BUTTON CLAMP LIFTING ROD A	1
37	90.8-16	钮夹提升杆组件安装螺钉	SCREW M6 L=10	1
38	85.6-19	剪线连接杆(前)	CONNECTING LINK FRONT	1
39	85.6-20	剪线连接杆(前)连接螺钉	JOINT STUD	1
40	85.6-21	剪线连接杆(前)球型连接组件	FEED ADJUSTING JOINT	1
41	85.6-22	剪线连接杆（前）连接螺钉垫圈	WASHER 5.1X7.5X0.5	1
42	85.5-11	剪线连接杆（前）连接螺钉螺母	NUT M5	.1
43	85.6-23	球型连接连接螺钉	CONNECTING SCREW	2
44	85.6-24	球型连接连接螺钉螺母	NUT M8 TYPE	1
45	85.6-25	剪线连接杆（后）	CONNECTING LINK REAR	2
46	85.6-26	切线连杆段螺钉A	HINGE SCREW D=6.35 H=3.2	1
47	90.7-19-2	切线杆段螺钉A	HINGE SCREW D=7.94 H=4	1
48	40.6-32	切线杆连杆段螺钉A螺母	NUT 13/16X32	1
49	43.5-12	切线杆段螺钉A螺母	NUT 15/64"X28	1
50	85.6-27	切线杆	THREAD TRIMMING LEVER	1

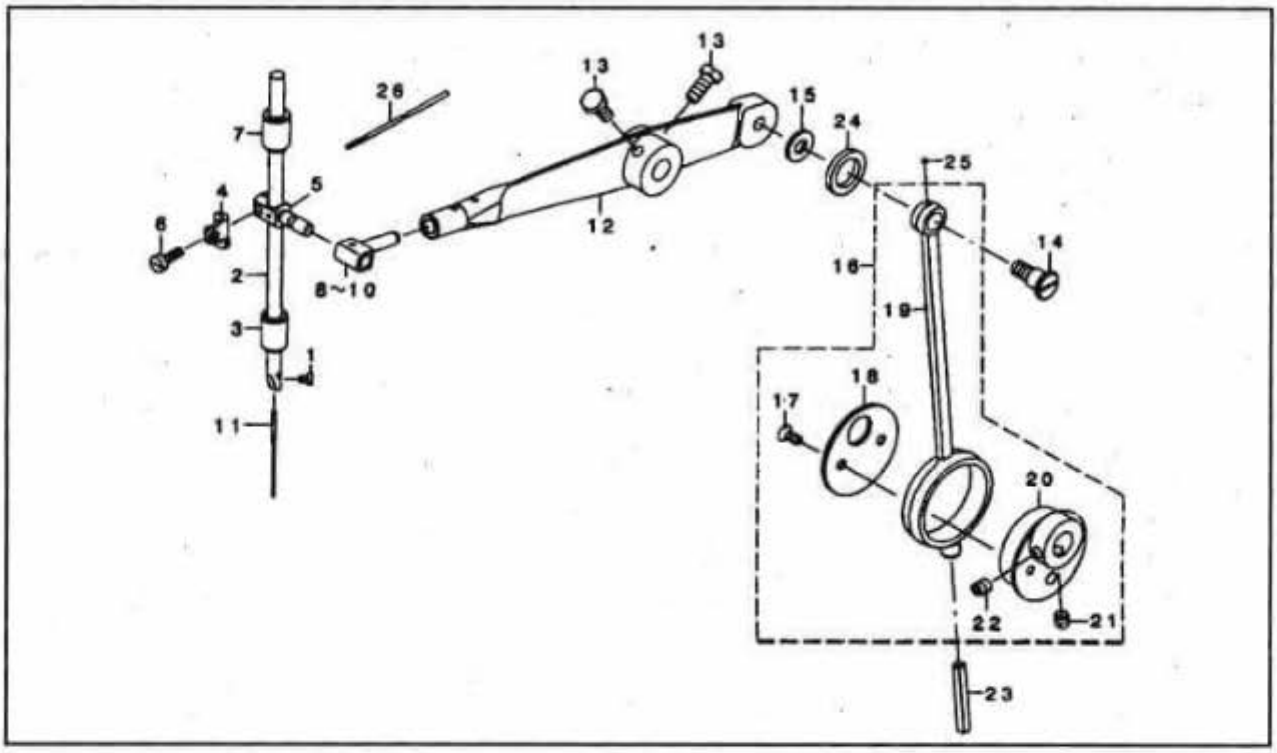
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
51	85.6-28	切线杆段螺钉B	SHOULDER SCREW D=6.35 H=3.1	1
52	35.5-11	切线杆段螺钉B螺母	NUT M5	1
53	85.6-29	切线杆座	THREAD TRIM LEVER BASE	1
54	85.4-31	切线杆座螺钉	SCREW M5 L=14	2
55	85.6-30	切线连杆	THREAD TRIMMING LINK	1
56	85.6-31	切线连杆段螺钉B	HINGE SCREW D=6.35 H=13.2	1
57	85.6-32	钮夹提升杆弹簧	SPRING	1
58	85.6-33-00	钮夹传动叉轴紧圈组件	THRUST COLLAR ASM D=9.5 W=8	2
59	85.6-33	钮夹传动叉轴紧圈	THRUST COLLAR D=9.5 W=8	1
60	40.3-30	钮夹传动叉轴紧圈螺钉	SCREW 11/64"X40 L=3.5	2
61	85.6-34	钮夹传动叉轴	LEVER SHAFT	1
62	85.3-11	钮夹传动叉轴支紧螺钉	SCREW	2
63	85.6-35	钮夹提升连接杆	LIFTING LINK	1
64	85.6-36-00	钮夹提升连接杆曲柄组件	LIFTING PLATE GUIDE ROD ASM	1
65	85.6-36	钮夹提升连接杆曲柄	LIFTING PLATE GUIDE ROD	1
66	85.6-37	钮夹提升杆连接杆曲柄螺钉	SCREW M5 L=16	1

七、驱动轴相关部件
NEEDLE DRIVING PULLEY SHAFT COMPONENTS



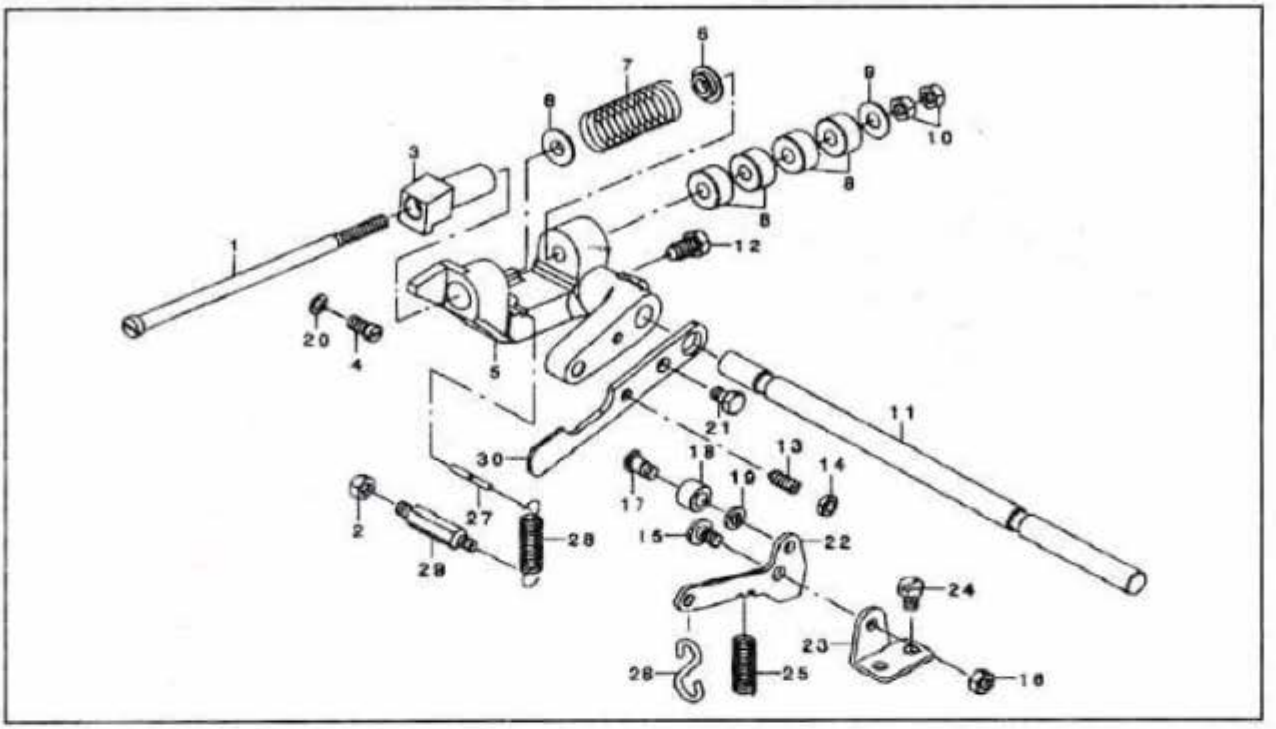
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1		驱动大滚珠	BALL LARGE	1
2	85.7-1	驱动转动承座	PULLEY INSERT	1
3		小滚珠	BALL SMALL	1
4	85.7-2	驱动小滚珠弹簧	SPRING	1
5	85.7-3-00	驱动轮组件	DRIVING PULLEY ASM.	1
6	85.7-3	驱动轮	DRIVING PULLEY	1
7	85.7-4	驱动轮螺钉	SCREW M4 L=6	2
8	85.7-5	驱动轴	NEEDLE DRIVING PULLEY SHAFT	1
9		驱动轮滚针轴承	NEEDLE BEARING	2
10	85.7-6	驱动轮油毡	GREASE RTETAINING WICK	1
11	85.7-7	驱动轮油封	RETAINING WASHER	1
12	85.7-8	离合从动轮螺钉	SCREW M6 L=23.5	2
13	85.7-9	离合从动轮螺钉垫圈	WASHER 6.2X9.5X1	2
14	85.7-10	离合从动轮	NEEDLE DRIVING PULLEY CLUTCH D	1
15	85.7-13-00	停车凸轮组件	STOP MOTION DISC ASM	1
16	85.7-11	停车爪A	STOP MOTION DISC LATCH A	1
17	85.7-12	停车爪B	STOP MOTION DISC LATCH B	1
18	85.7-13	停车凸轮	STOP MOTION DISC	1
19	85.7-14	停车爪销	STOP MOTION PAWL SHAFT	2
20	85.7-15	停车凸轮垫片	STOP MOTiON DISC WASHER	1
21	85.7-16	停车凸轮垫片螺钉	SCREW M6 L=4.5	1
22	85.7-17	驱动轮转动方向标志	DIRECTION LABEL	1
23	85.7-18	停车凸轮螺钉A	SCREW M8X8	1
24	85.7-19	停车凸轮螺钉B	SCREW M8 L=17	1
25	85.7-20	离合器从动轮螺钉螺母	NUT M6	2
26	85.7-21	驱动轴套（右）端面轴承	THRUST BALL BEARING	1
27	85.3-11	驱动轴套（右）支紧螺钉	SCREW	1
28	85.7-22	驱动轴套（右）	PULLEY SHAFT BUSHING RIGHT	1
29	85.7-23	驱动轴套（左）	PULLEY SHAFT BUSHING LEFT	1
30	85.7-24	驱动齿轮	DRIVING GEAR	1
31	85.7-25	驱动齿轮螺钉	SCREW 1/4 "X40 L=6	1

八、针杆驱动机构部件
NEEDLE BAR DRIVING MECHANISM COMPONENTS



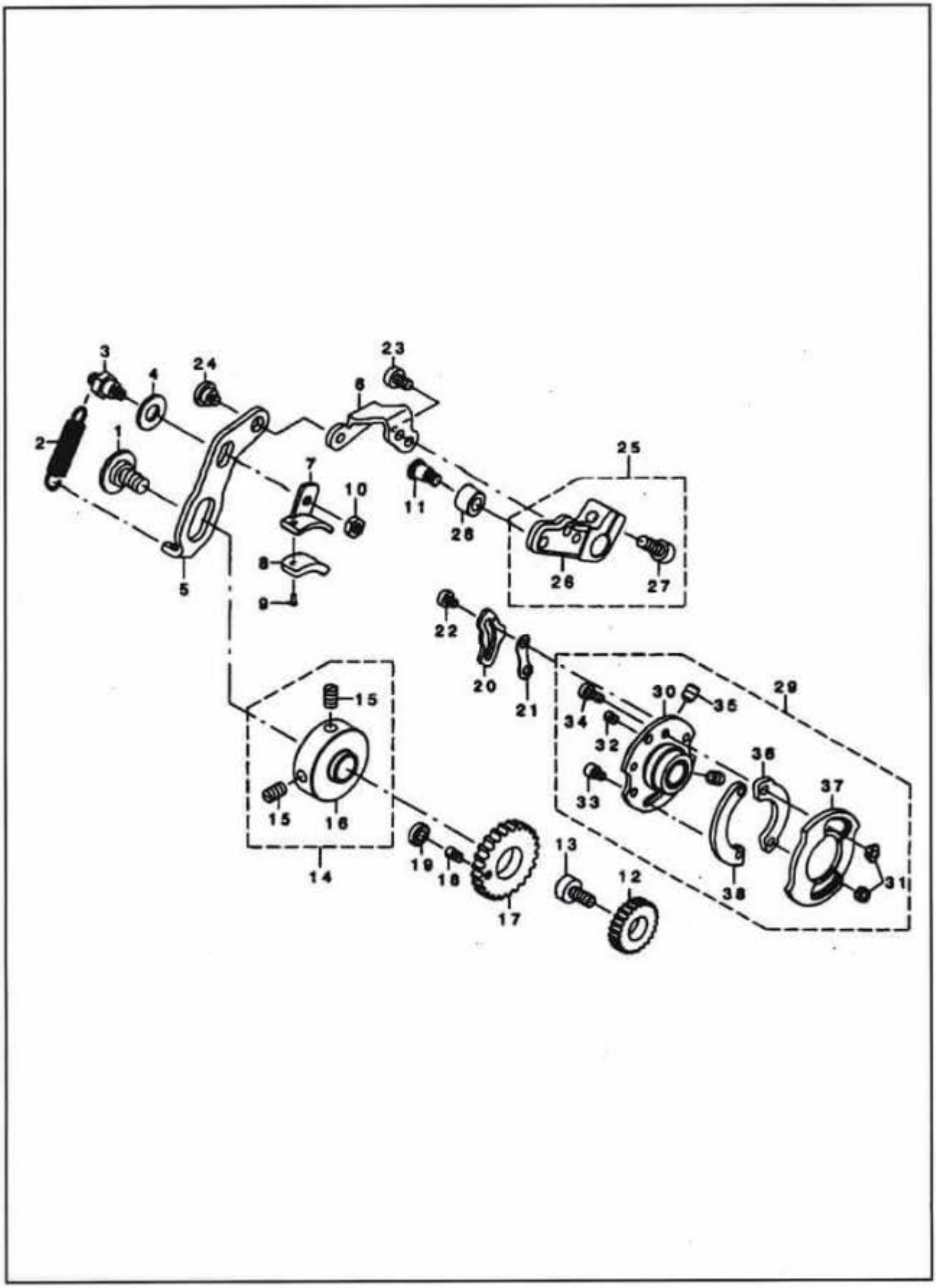
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	10.2-44	夹针螺钉	SCREW 1/8" X44 L=4.5	1
2	85.8-1	针杆	NEEDLE ROD	1
3	85.8-2	针杆下套	NEEDLE BAR BUSHING LOWER	1
4	85.8-3	导线勾	NEEDLE BAR BALANCE	1
5	85.8-4	针杆接头	NEEDLE BAR CLAMP	1
6	85.8-5	针杆接头螺钉	SCREW M4 L=12	1
7	85.8-6	针杆上套	NEEDLE BAR BUSHING UPPER	1
10	85.8-7	针杆接头连接块	NEEDLE BAR SLIDE BLOCK	1
11		机针	NEEDLE TQX1 16#	1
12	85.8-8	针杆驱动杠杆	NEEDLE BAR DRIVING LEVER	1
13	85.4-35	针杆驱动杠杆螺钉	SCREW M6 L=14	2
14	85.8-9	针杆驱动连杆段螺钉	SHOULDER SCREW D=9.53 H=8	1
15	85.8-10	针杆驱动连杆段螺钉垫圈	WASHER	1
16	85.8-13-00	针杆驱动凸轮组件	CRANK ROD ASM	1
17	30.1-32	针杆驱动凸轮压板螺钉	SCREW 11/64 "X40 L=8.5	2
18	85.8-11	针杆驱动凸轮压板	THRUST HOLDER	1
19	85.8-12	针杆驱动 连杆	CRANK ROD	1
20	85.8-13	针杆驱动凸轮	ECCENTRIC CAM	1
21	90.2-36	针杆驱动凸轮螺钉A	SCREW 1/4" X40 L=6	1
22	85.8-14	针杆驱动凸轮螺钉B	SCREW 1/4 "X40 L=8.5	1
23	85.8-15	针杆驱动连杆下油毡	OIL WICK	1
24	85.5-44	针杆驱动 连杆段螺钉油毡	OIL RETAINING FELT	1
25	85.8-17	针杆驱动连杆上油线	OIL WICK	1
26	85.8-18	油线	OIL WICK	1

九、止动机构部件
STOP MOTION MECAHNISM COMPONENTS



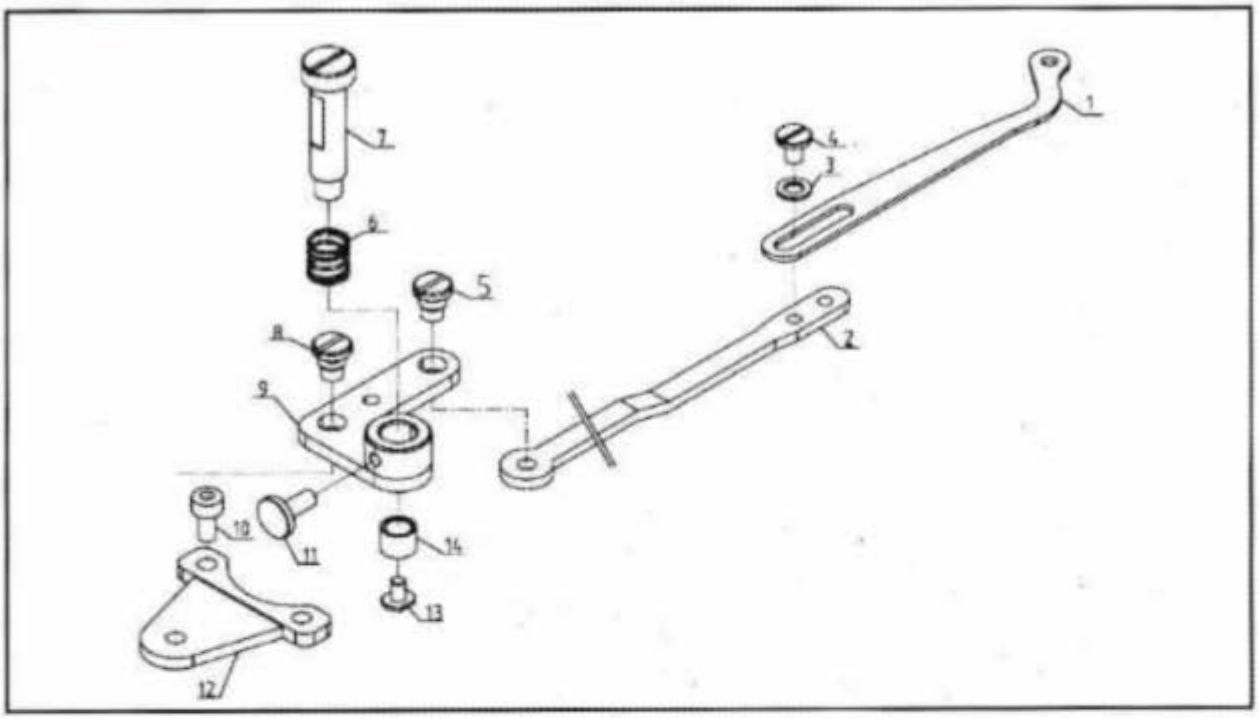
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	90.9-15	止动柱塞杆	STOP MOTION PLUNGER	1
2	85.7-20	挂弹簧销钉锁紧螺母	NUT M6	1
3	85.9-1	止动块	CROSSING HOOK	1
4	85.9-2	止动架本体限位螺钉	SCREW M6 L=11	1
5	85.9-3	止动架本体	STOP MOTION PLUNGER LEVER	1
6	90.9-19	止动块垫圈（前）	WASHER	2
7	85.9-4	止动块弹簧	STOP MOTION SPRING	1
8	90.9-17	止动块橡胶垫圈	RUBBER CUSHION	4
9	85.9-5	止动块垫圈后	WASHER	1
10	40.3-14	止动柱塞杆螺母	NUT 9/32" X28	2
11	85.9-6	止动杆轴	STOP MOTION SHAFT	1
12	85.9-7	止动轴螺钉	SCREW	1
13	85.9-8	钢球压板调节螺钉	SCREW 15/64X28 L=15	1
14	43.5-12	钢球压板调节螺钉螺母	NUT 15/64X28	1
15	85.9-9	止动杠杆段螺钉	SHOULDER SCREW D=6.8 H=2.7	1
16	95.13-6	止动杠杆段螺钉螺母	NUT M6	1
17	85.9-10	止动杠杆滚轮段螺钉	SHOULDER SCREW D=7.14 H=4	1
18	85.9-11	止动杠杆滚轮	STITCH ADJUSTING ROLLER	1
19	85.9-12	止动杠杆滚轮垫圈	WASHER 6.1X11X2	1
20	85.9-13	止动架本体限位螺钉垫圈	WASHER	1
21	85.9-14	钢球压板安装螺钉	SCREW M6 L=10	1
22	85.9-15	止动杠杆	STOP MOTION TRIP LEVER	1
23	85.9-16	止动杠杆架	STOP MOTION TRIP LEVER BARACKET	1
24	85.9-17	止动杠杆架螺钉	SCREW M6 L=12	2
25	85.9-18	止动杠杆弹簧	SPRING	1
26	43.8-10	S型挂钩	S SHAPED HOOK	1
27	85.9-20	止动架本体弹簧挂销	STOP MOTION LEVER SPRING PIN	1
28	85.9-21	止动架本体弹簧	STOP MOTION LEVER SPRING	1
29	85.9-22	止动架本体弹簧销钉	SCREW STUD	1
30	85.9-23	钢球压板	PRESSURE APPLYING LEVER	1

十、针数调节相关部件
STITCH SELECTING PARTS COMPONENTS



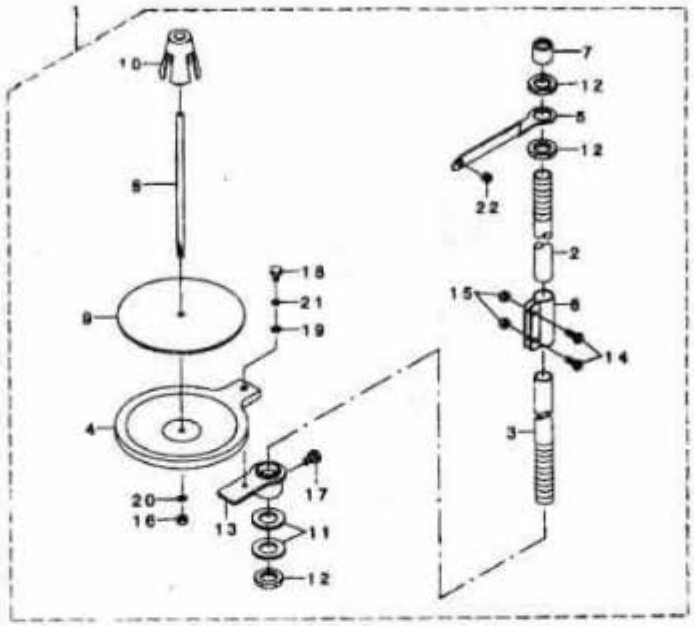
REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.10-1	减速杆段螺钉(大)	SHOULDER SCREW D=12.7 H=3.4	1
2	85.10-2	摩擦片弹簧	SPRING FOR FRICTION PLATE	1
3	85.10-3	摩擦片转动轴	FRICTION PLATE ROTATING SHAFT	1
4	85.10-4	减速摩擦片转动轴垫圈	WASHER 8.5X18X1.6	1
5	85.10-5	减速杆	SPEED SLOWER LEVER	1
6	85.10-6	调节板	FITING PLATE	1
7	85.10-7	减速摩擦片座	FRICTION PLATE HOLDER	1
8	85.10-8	减速摩擦片	SPEER SLOWER FRICTION PLATE	1
9		减速摩擦片销钉	POSITIONING PIN	2
10	40.7-7	减速摩擦片转动轴螺母	NUT 11/64"X40	1
11	85.9-10	针数调节臂滚轮段螺钉	SHOULDER SCREW D=7.14 H=7	1
12	85.10-9	针数齿轮(中)	STITCH SELECTING SPUR GEAR	1
13	85.10-10	齿轮轴	INTERMEDIATE GEAR SHAFT	1
14	85.10-11-00	减速摩擦轮组件	ASSY SPEED SLOWER FRICTION	1
15	85.3-11	减速摩擦轮螺钉	SCREW	2
16	85.10-11	减速摩擦轮	SPEED SLOWER FRICTION WHEEL	1
17	85.10-12	针数齿轮(大)	GEAR LAGER	1
18	85.10-13	针数齿轮(大)滚轮螺钉	SCREW	1
19	85.10-14	针数齿轮(大)滚轮	ROLLER	1
20	85.10-15	线约束槽	THREAD BIND NOTCH	1
21	85.10-16	线约束垫片	SPACER	1
22	85.10-17	线约束槽螺钉	SCREW M4X0.5 L=4.5	2
23	85.2-15	调节板螺钉	SCREW M5 L=8	2
24	90.1-29-5	减速杆段螺钉(小)	HINGE SCREW D=8 H=3.4	1
25	85.10-18-00	针数调节臂组件	STITCH ADJUSTING ARM ASM	1
26	85.10-18	针数调节臂	STITCH ADJUSTING ARM	1
27	85.10-19	针数调节臂螺钉	SCREW M6 L=16	1
28	85.9-11	针数调节臂滚轮	STITCH ADJUST ROLLER	1
29	85.10-20-00	针数调节凸轮组件	STITCH ADJUST CAM ASSY	1
30	85.10-20	针数调节凸轮	STITCH ADJUST CAM	1
31	85.10-21	针数调节凸轮螺母	NUT	2
32	85.10-22	针数调节凸轮螺钉A	SCREW	1
33	85.10-23	针数调节凸轮螺钉B	SCREW M4X0.7 L=5	1
34	40.4-30	针数调节凸轮螺钉C	SCREW	2
35	85.10-24	针数调节凸轮支紧螺钉	SCREW	1
36	85.10-25	针数调节凸轮垫片	SOACER	1
37	85.10-26	针数凸轮A	STITCH CAM	1
38	85.10-27	针数凸轮片	STOP MOTION CAM SHOE	1

十一、打结相关部件
THREAD BIND NOTCH COMPONENTS



REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.11-1	打结短连杆	THREAD BIND LEVER	1
2	85.11-2	连接长连杆	CONNECTING PLATE LARGE	1
3	85.2-33-3	连接短连杆垫圈	WASHER	2
4	85.2-7	连接短连杆螺钉	SCREW	2
5	85.11-10	打结曲柄螺钉	SCREW	2
6	85.1-9	打结曲柄销弹簧	SPRING	2
7	85.11-4	打结曲柄控制销	PIN	1
8	85.11-10	打结曲柄固定螺钉	SCREW	1
9	85.11-3	打结曲柄组件	THREAD BIND ARM	1
10	85.4-38	打结曲支撑板安装螺钉	SCREW	2
11	85.11-5	打结控制螺钉	SCREW	1
12	85.11-6	打结曲柄支撑板	THREAD BIND SUPPORT PLATE	1
13	85.11-8	滚轮安装螺钉	SCREW	1
14	85.11-7	打结曲柄滚轮	ROLLER	1

十二、线架部件
THREAD STAND COMPONENTS



REF No 序号	RART NO 件 号	DESCRIPTION 名 称		Q'TY 数量
1	85.12-1	线架	THREAD STAND ASM	1
2	85.12-1-2	线架杆上节	SPOOL REST ROD,UPPER	1
3	20.8-6-1	线架杆下节	SPOOL REST ROD,LOWER	1
4	85.12-1-4	线盘	THREAD STAND HOLDER PLATE	1
5	85.12-1-3	线架过线柱	THREAD RAISING THREAD GUIDE A	2
6	20.8-6-5	支撑柱连接套	SPOOL REST ROD JOINT	2
7	20.8-6-4	线架杆顶防护皮套	SPOOL REST ROD RUBBER CAP	1
8	20.8-6-6	插线钉	SPOOL PIN	1
9	20.8-6-9	线盘轮垫	SPOOL REST CUSHION	2
10	20.8-6-7	线盘防松垫	SPOOL RETAINER	2
11	20.8-6-2	线架杆垫片	WASHER 16X30X2.6	2
12		线架过线柱螺母	NUT M16X1.5	3
13	85.12-1-1	托架	SPOOL REST BRACKET ASM	1
14		支撑柱连接螺钉	SCREW M5 L=14	2
15		支撑柱连接螺母	NUT M5	2
16		线架支撑螺母	NUT M5	1
17		托架安装螺钉	SCREW M6 L=10	1
18		线盘安装螺钉	SCREW M5X0.8 L=8	1
19		线盘安装螺钉平垫片	WASHER 5.2X9.5X0.6	1
20		线架杆垫片	SPRING WASHER	1
21		线盘安装螺钉弹簧垫圈	SPRING WASHER 5.2X8.2X1	1
22	20.8-6-11	过线环护套	THREAD GUIDE	1
				1
				1

钉扣机系列

Button Mounting Machine Series

Instruction Manual

使用说明书

Illustrated Parts List

零件样本

目　　录

CONTENTS

一、用途与规格:

GJ4 型钉扣机专供服装、内衣、针织等工厂作钉钮扣之用。品种有以下几种:

GJ4—1 型——钉带柄钮扣。

GJ4—2 型——钉二眼和四眼钮扣，直径 9—26毫米。

GJ4—3 型——钉衬衫 18# 钮扣自动喂扣专用。

二、主要技术参数:

1．机器速度	1400转/分
2．机针摆动	2~4.5 毫米
3．钮夹移动	0~4.5 毫米
4．缝纫针数	20 针(16线)
5．线迹型式	单线链式线迹
6．机针型号	GJ4x100(#16) GJ4x110(#18) GJ4x130(#20)
7、钮扣直径范围	Φ9～Φ26毫米
8、缝线	棉线、丝线、涤棉线
9、电动机型号和功率	JW6324，380V，250W或 JY7124，220V，250W。
10、机头净重	23公斤

三、按装和试车:

参照安装图的布局进行安装（图1）。先装机架、台板、电动机、然后安装机头和三角胶带。在安装皮带时，只要松开螺钉 1，卸下启动板 3，即可安装皮带（见图 2）。切勿拧动涂有红漆的螺钉 2（因螺钉 2 是调节螺钉，在出厂校车时已调整到最佳位置）。最后装上皮带罩、线架，以及机头前端的垫块，钮扣盘则由操作者（挡车工）选定安装位置。踏脚板安装的坡度要大，链条不能太松，为了松紧适度，有时可能加半个链条节，安装得当能减少踏板踩动幅度，操作较省力。

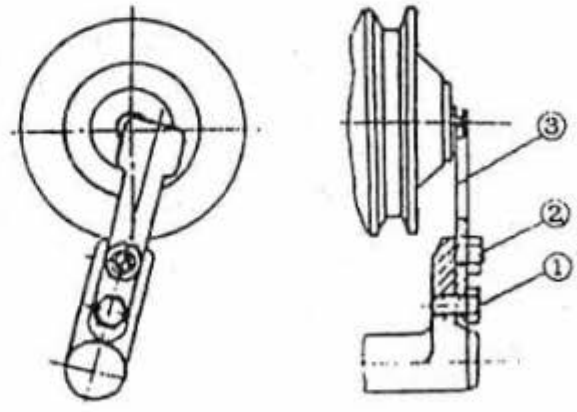


图 2 Fig.2

机器经运输和贮藏后，可能使机件变动或损伤，因此在接通电源之前，先检查机器有无运转困难，碰撞现象和不均匀阻力。接电时注意主轴旋向，开动前把机器各轴孔和活动部位，储油毡等全部加注润滑即可空车试运转，以观察启动制动是否正常。

如果空车运转振动大，试把机架用手抬起离开地面，若能减少振动，就表明机器没摆平，可在机架下垫软物，四个脚着地要平均。

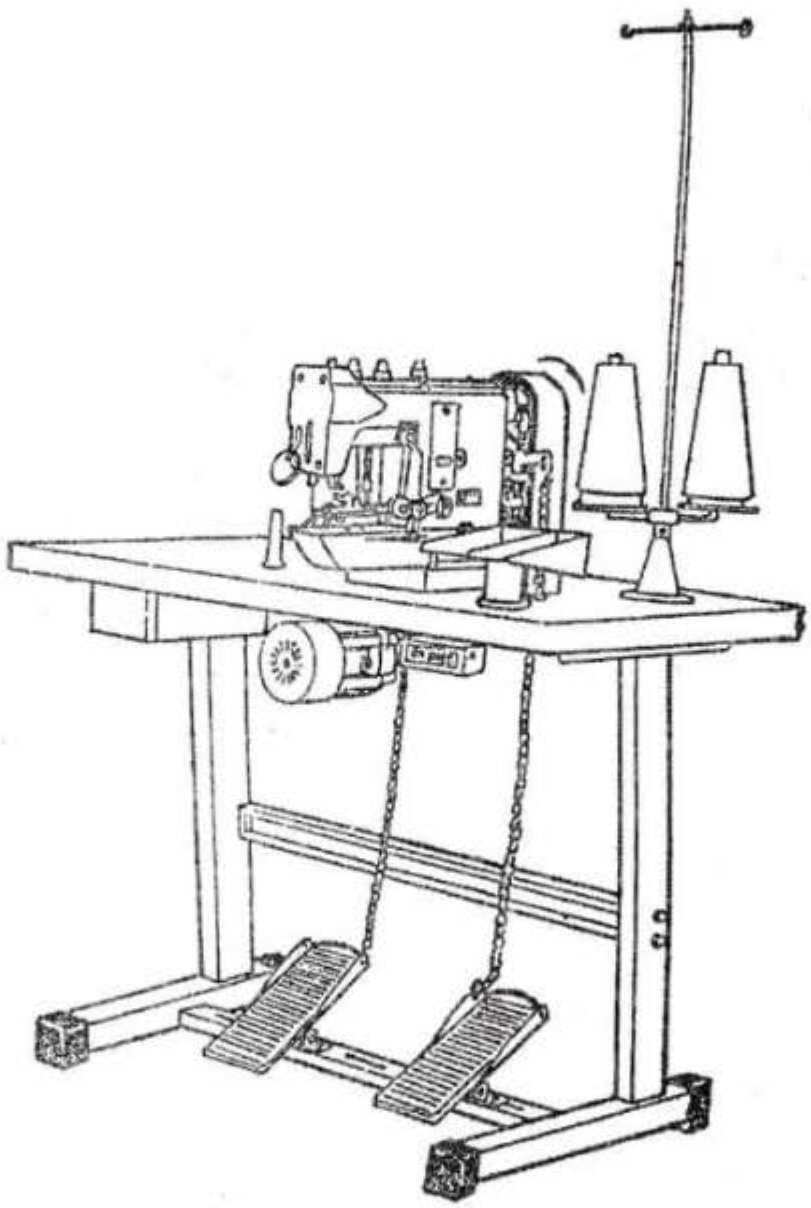
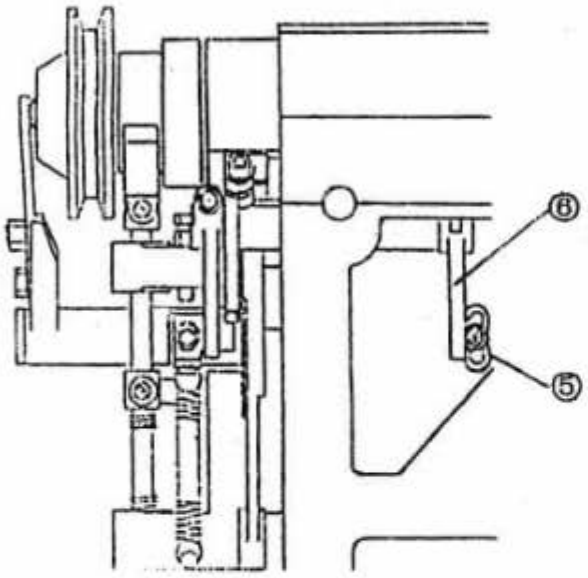


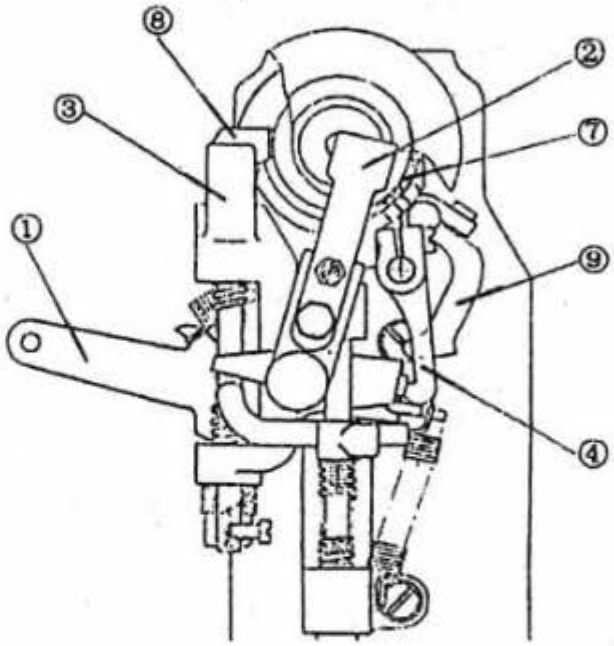
图 1 Fig.1

四、结构简介和使用说明:

1、启动及制动

主轴采用磨擦离合方式传动(图 3)。启动时脚踏右踏板，链条把启动扳手(1)拉下，由启动板(2)的斜面驱动带轮，啮合磨擦轮，使主轴旋转。脚踩下去后应随即放开，此时启动架(3)已被吊勾(4)勾着，直至旋转到第19针末，蜗轮侧面的一个停车顶块(5)推开停车顶杆(6)，使启动吊勾(4)脱开，磨擦轮分离、同时制动块(7)向上，顶住轮子，使主轴速度降低，当靠惯性力走完第 20 针时速度已很低，因此，制动闩(8)进入缺口起定位作用。冲击声较小和机器耐用。



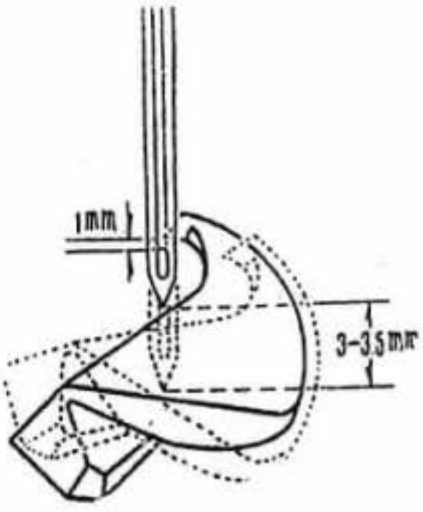


制动皮块(7)的磨擦压力可以调节，以达到较小的停车冲击声。机器在停用几小时后再用，往往会发生几次停车未到缺口的情况，只要开几次空车就会正常起来，故不必作任何调整。

2、启动安全爪

为了避免因操作者疏忽误踩踏板而造成事故,本缝纫机在机器后部安装了一套安全装置，其主要部件为启动安全爪，见图 3 中 (9)。

当压脚 (即钮夹) 提升时，安全爪就阻止启动杠杆开车，以防止打坏机针、勾针、割线刀等。当启动杠杆向下，驱动主轴旋转时，安全爪被阻，使压脚不能上升。



3、针杆及勾针机构

主轴和勾针轴间采用螺旋伞齿轮传动。上下两轴等速，针杆和勾针同步摆动。使左右二个针步的勾线距离一致，对大小钮扣都能适应。

机针和勾针的安装位置（见图4），机针左右摆动时，勾针始终跟着同步摆动，针尖对准勾针轴的中心，机针从最下点上升3—3.5毫米时，勾针的尖头刚好到达机针中心，而勾针尖头在针孔上边距离为1毫米。

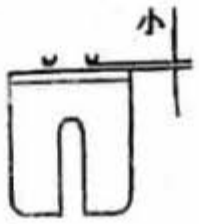


图5Fig.5

在上述勾线位置，勾针头部接触机针之间的间隙极微，机针对挡块的间隙要小（见图5），但不宜擦着。应特别注意针左右摆动的时候，机针对挡块的间隙要一样。机针的槽子要对正，长槽向外，有时为了适应捻度大的线，也可以背面短槽向勾针尖头进入方向微偏，即长槽略向左，但有时将针槽装偏以后，更加引起跳针。

4、怎样对准钮扣孔

机针必须对准钮扣四孔。要调整时有二个步骤，横向孔距由摆针调节曲柄控制，将连杆向外可增加摆针距，向里则减少摆针距（见图6）。

纵向孔距由跨针曲柄调节，连杆向下移，跨针距大，向上移，跨针距小，移至最高点跨针距为0，用于钉二眼钮扣（见图7）。

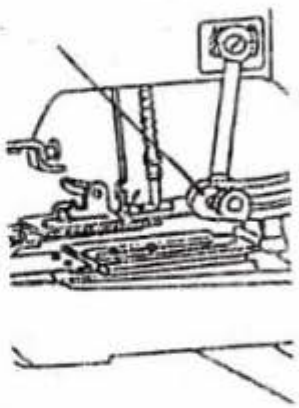


图6Fig.6

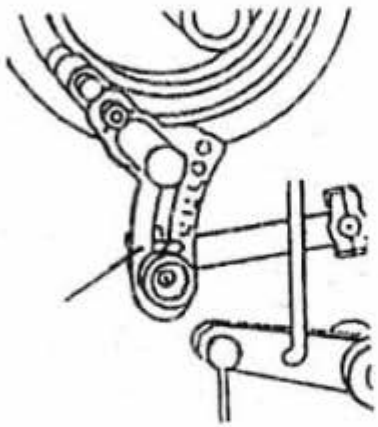


图7Fig.7

如果钮夹位置不正确，机针不能对准钮扣孔时，则要调整钮夹，旋松尾部的二个六角螺钉即可移动钮夹。注意在调整钮夹前检查一下机针是否对准在方孔板的方孔中间位置。

机针对钮扣孔准不准，对缝纫性能关系极大。调节时要仔细核对(经访问用户，发现缝纫性能差，大多由于钮扣孔未对准而引起)，选取孔形误差小的钮扣塞进钮夹，位置拨正踩动踏板，让压脚自由落下，不要把压脚碰歪，自由落下时发现压脚有滑动还要垫布，然后缓慢地旋转主轴，要使机针刺入钮扣各孔中心，不能有某一孔偏，以免跳针和断针。

若机件磨耗压脚松动，则主轴缓慢转动时的压脚纵向拖动，距离没有电动时快速拖动的距离大，因为快速时有冲力，松动间隙越大，移动距增加亦多，在运转时用手摸一下压脚，就可觉察冲力之大，因此核对钮扣时必须用手帮助推拉压脚，使其移足行程，这样调好的跨距，才符合启动运转的要求。当松动过大时，

则要更换另件。

对于一件衣服同时钉大钮和小钮二种规格时，要求二种钮扣的孔距较接近，调节时一般按照钮孔小的对中，钮孔大的则稍偏（见图 8）。但是要注意某此钮扣孔上大下小，成喇叭口，不要让机针擦着孔边。

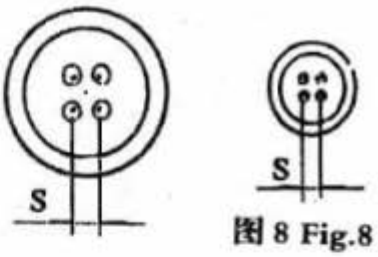


图 8 Fig.8

5. 穿线方法和压线器压力的调节(见图9)

当穿线错误时，会直接影响缝纫质量。请按图9正确穿线。

机器顶部三个压线器，作用各不相同。压线器(4)在缝纫时必须顶开，使缝线的流动阻力极小，特别是缝第一针时，阻力稍大就通不过，形成空针。停车后，当压脚开始提升，压线器应即关闭，以防止机针内的线往回拖。

压线器(2)的作用相反，在缝纫时起压线作用，而停车后提升压脚之初，必须顶开，让输线杆(3)从线团抽线，以备下一次缝纫之用。

压线器(1)是帮助压线器(2)增加收紧线迹的能力。单靠压线器(2)压紧，虽然也能收紧线，但容易断线，因此压线器(2)尽可能放松些。压线器(1)在缝纫时压紧，防止线团线流动，到线环收上，针杆上升接近最高点时顶开，放出线团的线补充消耗在缝料中的线。

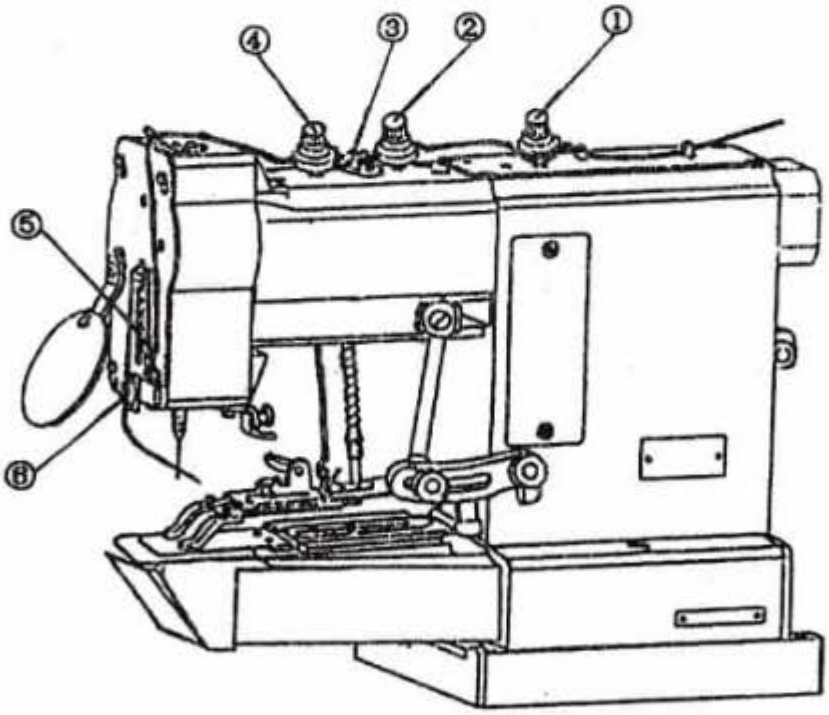


图 9 Fig.9

面板下部的一个小压线器(6)，压力很小，用于减少针尖破线，以及线环、线三角的稳定。

面板穿线(5)的高度调节：要求针杆到最低点时，缝线全部拉直，但又不很紧，

使针杆回升时线环稳定，防止扭曲而引起跳针。如发现线的捻度大，线环经常逃跑，则必须细心调到上述要求，形成最佳线环，如图 10 所示。

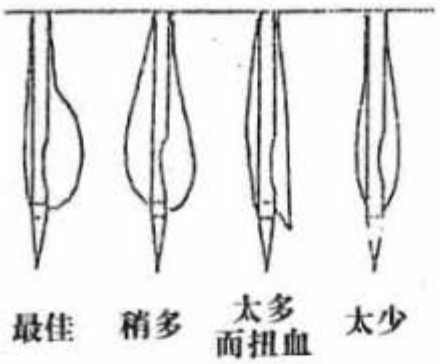


图 10 Fig.11

6、自动割线

由抬压脚杠杆推动割线轴曲柄，使割线刀运动，割断勾针内侧的一根线，割线刀的运动要先割断线，后提升压脚，否则压脚上升时，割刀未到达割线位置，而线已绷断，钮扣容易掉落。压脚迟后于割线刀动作的时间与吊勾的空隙大小有关 (见图11) 。可以移动吊勾上的曲柄，得到足够的活动间隙。应注意勿使刀架碰到勾针轴，刀架退回后，不妨碍勾针旋转。

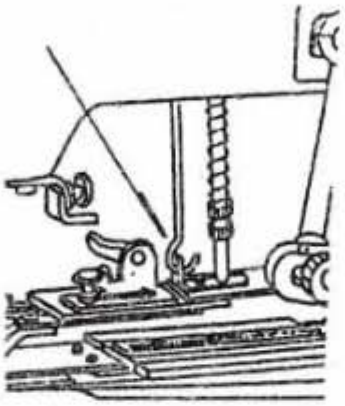


图 11 Fig.11

7、钮夹的调整(见图 12)

本机钮夹适宜订9~26mm直径的四眼或二眼钮扣，大小钮扣都能对准中心。钮夹的夹脚可伸缩，松开螺钉 (1) 调节钮夹夹脚，钉大钮扣时可把夹脚拉出，钉小钮扣时把夹脚缩短。

夹脚钳口大小可以调节，旋松螺钉(2)，把夹脚钳口调节到所需宽度，然后旋紧螺钉 (2) 。夹脚钳口宽度以钳口中无钮扣比有钮扣略小些为适宜，此时即能正常夹住钮扣，操作起来又省力。如果钳口闭合太多，不利塞钮，又容易磨耗。

在一件衣服上同时钉大小相差较多的二种钮扣时，就使钳口适应小钮扣，并把碰块 (3)降低，使压脚升至最高点时碰在挡块上，钳口扩大，能塞大钮子。塞小钮扣时压脚也要升足，然后回落少许，脱开碰块，再塞钮扣。

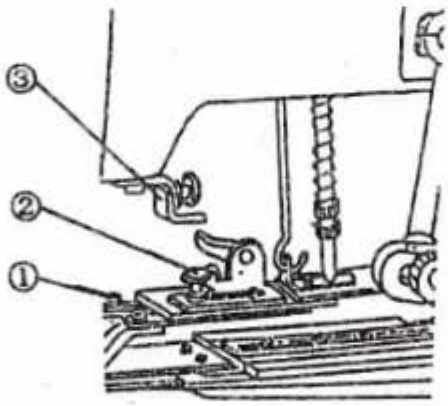


图 12 Fig.12

五、润滑和保养:

应注意保养，才能保持优良的性能，并延长使用寿命。各轴孔、摩擦部位，每天要加润滑油，用清洁的缝纫机油或锭子油，不要乱加动物油和植物油，以免机件凝结。轴套大部分采用铁基粉墨材料，具有含油性，润滑性能好，某些重要部位还有储油毡，应保持润湿。各盖板要定期打开检查，是否有缺油现象。断油是加速零件磨耗的主要原因之一。离合制动轮及皮块不应加油，以免影响传动及制动。

六、简单故障分析:

1. **断针**

a. 压脚位置不正，机针对钮孔偏，运转时机针打在钮扣上。

b. 方孔板错位，机针擦着方孔。

c. 机针挡块碰针。

d. 勾针与机针接触时有碰撞。

e. 针杆弯曲或插针孔斜。

f. 蜗杆定位不正，应使机针在刺入钮孔前停止横向及纵向运动。

g. 钮扣质量差，孔偏或未放准。

2. **断线**

a. 线久藏变脆，变涩或受潮。

b. 针尖碰损，机针孔及针槽不光滑。

c. 中间一个夹线器太紧或跳动的夹线器开放太迟（跨线断）。

d. 输线杆处的线弯曲。

e. 勾针有锈斑或毛刺。

f. 机针挡块或针板孔毛刺划伤。

g. 跳针引起断线。

h. 面板穿线过低引起少量激烈断线。

3. **跳针**

a. 勾线距离过大过小，或针的高度不正确。

b. 机针对勾针或对挡块间隙大。

c. 压脚位置不正确，机针对钮孔偏。

d. 压脚三爪压布不匀或方孔凸台磨损，布随针上下浮动。

e. 机针弯曲，偏转或针柄未插到底。

f. 勾针轴前后松动。

g. 针碰方孔。

h. 零件严重磨耗或勾针损坏。

4. **线结抽散**

钮扣钉好衣服取下，线迹全部散掉，是由于最后一针发生跳针即“重针”跳。但是当线迹抽散而勾针上挂着线，这就不是重针跳针，因为重针跳针时的特征，线由针鼻拉出与勾针无牵连。发生原因与一般跳针基本相同，如果单纯重针跳针抽散就属于勾针形状的差错，须更换新勾针（增大勾线距离时亦可改善）。

5. **线迹太松**

a. 中间一个夹线器压力小。

b. 跳动的夹线器开放时间太早。

c. 压脚底板厚。

6. **线缚勾针**

采用涤棉线钉钮扣，针尖不宜锋利，更不能碰伤，应成光滑小球形。否则在重针时容易刺破线而致缚住勾针头。

棉线亦会有破线机会，但较少发生。

7. 开始几针走空针

空针就是一针也没有钉牢或只钉后半只。原因是线头短，应把输线杆的输线量增大，但输线杆退回时，不能使线弯曲。另外割线刀割断了外侧一根线，或夹线器（4）顶开太小，亦要出现空针。

8. 割线不断

除刀锋变纯外，割线刀位置及割线时间可能不符合，按（图11）的要求调整之。

9. 制动冲击增大

JK-T4型钉扣机的制动停车声很轻微，如果制动皮块沾了过多的油，制动阻力减低，冲击声就增大，必须把油揩干，用干布压在皮块上吸油，并适当增强皮块向上的弹簧压力。另外启动时皮块与轮子的间隙调节得小一些也有效果（必要时更换新皮）。前面已经说明，机器每次启动共转20圈，其中最后一圈是滑行的，这一点很重要。

10. 缝一、二针后机器就停

a. 踏脚板没有踩到底.。

b. 弹筑勾装得太高与启动吊勾距离过大，以致弹出。

I. General description and specifications

Model GJ4 sewing machine are specially made for factories producing suits, underwear , knitting fabrics etc .to sew on buttons, There are the following types:

-1———for sewing shank buttons.

2———for sewing flat buttons having 2 or 4 holes with the sizes of diameters of 9—26 mm.

3 ———provided with automatic feeding buttons function for sewing #18 buttons on shirts only.

II. Main specifications.

Sewing speed: 1400rpm

Width of needle vibrating: 2-4.5mm

Button clamp movement: 0-4.5mm

Number of stitches per button: 20 needles (16 threads)

Stitch type: single thread chain stitch

Size of buttons: 9-26mm in outside diameter

Needle type: 4x100 (#16), 4x110 (#18), and 4x130 (#20)

Thread: polyester threads

Motor: JW6324, 380V, 250W, or JY7124, 220V, 250W

Net weight of machine head: 23Kg

III. Installation and trial operation

The complete machine should be mounted as shown in Fig.1. The arm bed and the V-belt are put on after the treadle stand, table and motor are assembled. During installing the V-belt, please loosen the screw 1,and then remove the starting latch (Fig .2). Don't loosen the screw 2 coated with red paint, because it has been adjusted to the ideal place during regulation before leaving the factory. Finally mount belt cover, spool stand and the "pillow" at the front of the machine. The button tray will be placed in the suitable position chosen by the operator himself. The pedal should be mounted with a steeper inclination to ensure easy operation, The chain connecting the pedal to the machine should not be slack, its correct tightness may be adjusted by taking away the links of chain, on some occasions half-link is necessary, in order to obtain the appropriate length, such as to limit the pedal movement to facilitate the operation.

Owing to probable damage or accidental loose of some of the machine parts in transit or in period of storage, before the connecting of the machine to the main electric power, a thorough check upon the machine is necessary. To find out whether there is any interference, uneven resistance, abnormal phenomena. Attention is called to note the direction of rotation of the main shaft. Before switching on the power, lubricate all bushings and moving parts, oil accumulated pads etc., and then try to see whether the start and brake are in normal condition while running under no-load.

Should abnormal vibrations be observed, try to lift by your hands the treadle stand

to leave the floor to see whether the vibration can be reduced. The reduction of vibration tells that the machine set does not stand properly on the floor. Some soft pads may be placed underneath the stands. Keep four legs stand evenly on the floor.

IV. Brief illustration of the mechanism and instructions for operation

1. Starting and Braking

The rotation of the main shaft is transmitted by means of the action of a friction clutch (Fig.3). Starting is actuated by stepping on the right pedal which drags the chain to pull down the starting handle (1) which move the wedge (2), whose sloping surface forces the pulley to contact with friction pulley, and finally cause the main shaft to rotate. After stepping, release should be immediately followed, as the starting bracket (3) has already been caught by hook (4). The rotation continues until the end of the 19th stitch, a stop block (5) pushes away the stopping lever (6), which pushes the hook (4) to disengage from the friction pulley, and at the same time the braking block (7) moves upwards to force the pulley to retard the rotation of the main shaft. As the needle finishes the 20th stitch (the motion is now actuated by the inertia of itself only) the speed has been considerable lowered, so that enabling the brake latch (8) plugging into the notch actuating as a positioner, All these ensure less impact and more durable of the machine.

The pressure applied on the braking block (7) to cause friction is adjustable, so as to attain an impacting noise as possible while braking. While the machine has been spared in use for several hours and is again to run, there always happens that the notch can not be reached while stopping. This will come back to normal after several trials on running under to load. Therefore, there will be no need of further adjustment afterwards.

2. The starting safety paw.

To avoid accident caused by careless operating, a safety device is installed at rear of the machine. The main part of the device is starting safety paw (9) (as shown in Fig.3).

The starting safety pawl should prevent the work clamp from being lifted when machine is in operation and should prevent machine from starting when button clamp is raised. This will prevent needle, looper and thread trimmer from being damaged.

3. Needle Bar and Rotating Hook Mechanism

The rotation of rotating hook shaft is transmitted from the main shaft by means of spiral bevel gears. The upper and lower shaft rotate at the same speed, the needle bar synchronizes to swing with the rotating hook, thus to enable the rotating hook at the same instant, entering the loop either at the right or left side of the needle penetration.

This is applicable to all sizes of button within the specified range.

The assembled relative position between the needle and the rotating hook is shown in Fig.4. When the needle oscillates from right to left, the rotary hook follows to oscillate in synchronism. The correct relative position is shown in Fig.4. That is when the needle point is exactly at the centre of the rotating hook shaft, and the needle rises from its lowest position by 3-3.5mm,the rotating hook just reaches at the centre line of the

needle, and is above the upper edge of the needle eye by 1 mm.

In the above mentioned position the clearance between the point of the rotating hook and the needle is very small, and the clearance between the needle and the needle guard (Fig.5) should also be very small so far they do not rub each other. Special attention should be called when the needle oscillates to and fro from right and left, the clearance against the needle guard should always be the same. The thread groove of the needle must be mounted in correct direction. Occasionally, in order to suit to introduce heavily twisted threads, the short groove at back side of the needle can be purposely turned slightly towards the direction in which the point of the rotating hook enters, that is in the direction the long groove turns leftwards. It should be specially noted that it is not allowed to turn in the opposite direction, otherwise skipped stitch will occur.

4. The Aligning of Button Hole

The needle should be aligned with the 4 holes of the button while sewing. There are two steps of processing : 1) The crosswise hole distance can be adjusted by means of needle bar oscillating regulating crank. When connecting rod is moved out, the pitch will be increased, and vice versa (Fig.6). 2) The longitudinal hole distance is controlled by a button clamp feeding adjusting crank. When its connecting link moves downwards. The button clamp feeding increases & vice versa. When it is moved to highest point, the clamp feeding is 0. This position is used only for buttons with 2 holes. (Fig.7)

If the position of the button clamp is incorrect, and the needle can not align with the button hole, the button clamp must be adjusted. This is done by moving properly after loosening 2 hexagonal screws at the rear, It should be noticed that before adjusting the clamp the position of the needle should be at the centre of the square hole.

The alignment of the needle with button hole is closely related to sewing performance. Close and careful check should be watched while adjusting. (it is experienced that complaints made by users about the bad sewing performance is majorly due to this cause). Choose a button with holes of good shape and little difference in hole distance, and insert it into the clamp. Check its position and press the pedal so as to let the button clamp fall down freely. Notice, do not allow the button clamp to be impinged askew. Then turn the main shaft slowly to check whether the needle should go through the centre of each hole. Any deviation off the centre may cause to break the needle and the thread.

If the machine parts have worn out and button clamp loosens, the distance of the longitudinal movement of the button clamp when the main shaft rotates slowly, is smaller than that when the main shaft is driven by the motor at high speed. Because the existence of an impulse force at high speed will push the worn parts farther due to its big clearance. Bigger the loosen clearance, greater is the distance moved. It can be sensed by touching with your finger the presser foot that the existence of a great impulse force when the main shaft rotates at high speed. Therefore when checking the position of the button, the

help of the hand must be used to push and pull the presser foot, to make sure that the travel is at its whole possible distance. This checked clamp feeding distance is the real distance that it actuates when the motor is switched on. On the other hand, when the clearance are too big, worn parts must be replaced.

When buttons of 2 different sizes are to be sewn on one suit, the hole distances of the buttons of two sizes should be chosen in closer range. The holes of the small button are the specimen for aligning the needle to the centres of the holes, and it is allowed to have certain eccentricity existing to the hole of the bigger button, as shown in Fig.8. Some buttons holes have tapered shape, bigger at the top and smaller at the bottom. Care should be taken, don't let the needle rub the edge of the button hole at its bottom.

5. Threading and thread tension discs (as shown in Fig.9).

Thread the machine in accordance with the diagram as shown in Fig.9. Threading improperly will affect the sewing quality directly.

There are three thread tension discs installed at the top of the machine and each of them has different functions. The thread tension disc No.4 must be opened to let the thread pass smoothly in sewing. Especially in sewing the first stitch, stitches skipping is easy to happen because the thread can not pass due to the friction drag. The thread tension disc should be closed as soon as possible to prevent the end of the thread from being pulled out of the needle when the button clamp begins to lift at the end of cycle.

The thread tension disc No.2 has the function just contrary. It holds the thread in sewing. And it will not hold the thread and control the amount of thread that is pulled through the disc at the end of a sewing cycle to provide sufficient thread for the first stitch of the following cycle.

The thread tension disc (1) helps the thread tension disc (2) to ensure the capability of making the seam tight. Although thread tension disc (2) can make thread tight, it is easy to break thread. The thread tension disc (2) should be as loose as possible. The thread tension disc (1) will close in sewing to prevent reel thread from being pulled out. As soon as the thread loop draw-up and the continuous lift of the needle bar pushes the disc (1) open to release the thread from its spool to compensate the thread which has been consumed in the sewing material after the formation of the loop and needle bar lifting to the highest position.

There is a small thread tension disc (6) below the faceplate with only a slight tension. It reduces the chances of splitting of thread around needlepoint, and keeps the stability of the formation of thread loop and thread triangle.

To adjust the height of upper thread (5): When the needle bar is at its lowest position, the thread should be straight, but not too tight. The loop should be stable and prevent stitch skipping from being twisted when the needle bar moves upward. If thread twist is so strong that the loop runs away frequently. Adjust carefully to reach the above requirement, as shown in Fig.10.

6. Automatic thread trimming.

The button clamp-lifting rod will drive the crank of thread trimming shaft, and the motion of thread trimmer will cut inside thread. The motion of thread trimmer is to cut thread first, then lift button clamp. Or if the button clamp is lifting while the trimming knife fails to reach the trimming position, the thread will break and the stitches easily tend to loose. The time the button clamp is later than that of the trimming knife is relative with the space of hook (as shown in Fig.11). Carefully move the crank to achieve enough space. Make certain that the trimmer holder should not strike with looper shaft, and it will not interfere with looper when it moves backward.

7. To adjust button clamp (as shown in Fig.12).

The button clamp is suitable for attaching two or four or bar buttons of 9-26mm in outside diameter. Button clamp foot can be adjusted. Loosen screw (1), pull out button clamp foot for holding big button, and push button clamp foot in for holding small button.

To adjust the clamp jaws, loosen screw (2), and adjust the clamp jaws to the desired width, then securely tighten the screw. The width between clamp jaws with button should be slightly smaller than width between clamp jaws without button. It is easy for the button to be inserted or taken out. If the opening of the clamp jaws is not wide enough, it is difficult to insert button in and at the same time will cause unnecessary wearing of the clamp.

When buttons of two kinds of big difference in size are to be sewn on the same suit, adjust the clamp jaws in accordance with the small button, and lower the stop block (3), raise the button clamp to the highest position to contact with it, the clamp jaws will open and big button can be inserted. For small button, raise the button clamp to the highest position, then bring it down a little to disengage from stop block, the button can be inserted.

V. Lubrication and maintenance.

In order to keep excellent performance and ensure a long life of the machine, the machine should be carefully maintained. All holes and moving parts should be oiled daily with sewing machine oil and spindle oil. Don't use animal oil and vegetable oil to prevent the machine from binding. Most of the bushing adopt ferroalloy which features of a thin film of oil and good lubrication. Some key parts are fitted with oil felt and should keep good lubrication. Regularly remove cover to check and see if the oil comes up to the surface of the felt and if not, fill up with oil. Clutch wheel and brake should not be oiled in order to affect driving and braking

VI. Analysis of troubles

1. Needle Breaks

a. The position of the button clamp is incorrect, the needle does not align with the centre of the hole of the button. The needle rubs again the button.

b. Wrong positioning of the square-hole plate cause the needle rubbing against the edge of the square hole.

c. The needle guard impacts with the needle.

d The rotating hook touches the needle when comes to meet.

e. The needle bar is not straight or the hole for inserting is slant.

f. The position of the worm has been moved. The lengthwise feed of the button clamp and movement of the needle before the needle entering to the button hole must be stopped.

g. Poor quality of the button, the button holes are oblique or improper positioning of the button itself.

2. Thread Breaks

a. Thread becomes fragile due to prolonged storage, or to be moistened, causing rough rubbings against its passages.

b. The needle point has been spoiled and the eye and grooves of the needle not smooth enough.

c. The tension in one of the thread tension discs is too great, or the jumping tension disc opens too late (cause the break of striding thread).

d. The thread at thread-feed-lever crooks.

e. There are rust or rough surfaces on the rotating hook.

f. The needle guard or the hole of the throat plate has been scratched.

g. Thread breaks due to skipped stitch.

h. Too low is the thread guide on the face plate, produces occasionally abrupt break of the thread.

3. Skipped Stitches

a. The distance of thread hooking is too big or too small, or the height of the needle is incorrect.

b. The gap between the needle and rotating hook or between the needle and needle guard is too big.

c. The position of the button clamp is incorrect, the needle bar dose not align with the button hole.

d. The paws of the button clamp press the cloth unevenly or due to the wearing of the projected portion round the square hole so that the cloth follows the movement of the needle "floating" up and down.

e. The needle is bent, fitted not in proper direction of its groove or the shank of the needle has not been plugged up to its full extent.

f. Too much end play of rotating hook shaft.

g. The needle impacts with square-holed plate.

h. There is severe wearing of the parts or the rotating hook has been worn out.

4. Thread Knot Disbands

After the suit being button-sewn, all the seamed thread disbands, this is caused by the skipped stitch happening at the last stitch, the skip of the "repeating stitch". But when disbanding occurs accompanied with a thread hanging on the rotating hook, this is not the case of the skip of the "repeating stitch", because when the skip of the "repeating stitch" happens, the thread will be pulled out from the needle eye, and is irrelevant to the rotating hook. The cause of this happening is basically the same as that of usual skipped stitch. If the skip happens only at the "repeating stitch" to cause disbanding, then, this should be the cause of incorrect in shape of the rotating hook. Improvement will be obtained simply by replacing a new rotating hook. (The delay of the time of thread hooking will sometimes give improvements.)

5. Stitches Too Loose

a. The tension of the middle tension disc is too weak.

b. The jumping thread-tension-disc opens too early.

c. Too thick is the base plate of button clamp.

6. The Binding of Thread around the Rotating Hook

When synthetic thread are used the needle point should not be sharp, but not be impaired, it should be in the form of a small smooth sphere as shown, otherwise the sharp needle point will always have the tendency to pierce the thread to make it bind around the point of rotating hook when performing the repeating stitch. There are also chances of piercing the thread when cotton thread is in use, but the case is few.

7. The Vacant Stitches at the Beginning of Sewing

"Vacant stitch" is that no stitch at all is secured or the latter half only is secured. This is due to too short a thread end, the quantity of the thread feed by the thread-feed-lever should be increased, but attention should also be paid that the thread-feed at the starting should avoid the formation of bent thread. The another cause is that when the trimmer cuts a thread at the outer side instead of the inner one or the opening of the thread tension disc (4) is not wide enough.

8. Fail to Trim

The cause is, too blunt is the trimmer and the position of the trimmer does not match with the time of trimming. It should be adjusted according to Fig.11.

9. The increase of Impact during Brake Operation

Generally, the noise taking place when braking and stopping in GJ4 button-sewer is very little. The noise of impact may increase as the existence of excessive oil in leather brake shoe, which reduces the brake resistance. A piece of dry cloth is used to be pressed upon the leather to soak up the oil and the spring pressure applied upwards to the leather should be appropriately increased. The other method is to decrease the gap between the pulley and leather while starting would give improvements. (The replacement of a piece of leather brake shoe whenever necessary.) Each cycle of sewing on one button the machine makes 20 turns, the last turn is idle. This is very important

10. The Machine Stops after a Few Stitches

a. The pedal plate has not been pressed in full extent.

b. The spring bracket has been mounted too high so that the gap between hook and spring bracket is too big. Sometimes it will jump out of the position.