

HIKARI® 富山

FOCUSING ON
NEW TECHNOLOGY AND AUTOMATION
专注新技术与自动化

HW800T C系列
COMPUTERIZED DIRECT-DRIVE
MULTI-NEEDLE MACHINE
电脑直驱多针一体机

使用说明书

INSTRUCTION MANUAL BOOK

CE



通过 ISO9001:2008
质量管理体系认证

使用说明书 INSTRUCTION MANUAL

对于您购买敝公司的多针机系列缝纫机，我们表示衷心的感谢！

Thank you very much for purchasing multi-needle series machine.

在使用缝纫机之前，请认真阅读此说明书。

Please read this manual in detail before operating the machine.

愿您自始至终爱护并使用敝公司的产品。

We hope you could use and love products from our company throughout.

另外，为使您的缝纫机高效率的使用，此说明书介绍了有关日常中检查与安全的事项。

In order to use the machine efficiently, this instruction manual describes daily routine maintenance and safety precautions.

在平时，除了对缝纫机进行检查之外，也请您多加注意自身的安全，做到安全使用。这是我们的心愿。

Besides inspecting the machine, please note the safety of yourself, we hope you could use our machine safely.

注记 Note

- 此使用说明书所记载的内容只是以提供信息为目的，有未通告而变更的可能。
请正确掌握这些信息，如错误理解本书中任何信息，而导致任何损失，本公司将不承担任何责任。
All contents in the manual are in order to provide information of how to use machine, it is possible that we do not notice change.
Please master the information in the manual correctly, such as the wrong interpretation of any information in this manual, which results in any loss, the company will not bear any responsibility.
- 敝公司本着不断优化产品结构和改良产品性能的方针，本产品将有可能引入最先进的技术，因此，保留未预告而变更规格、设计的权利。这对于本书的规格一章中记载的所有型号及子型号的产品有效。
In order to optimize the product series and improve product characteristics, we maybe introduce advanced technology to this product, so we keep the right to revise specification, design without notice in advance. This provision shall be valid to all the models and sub-models in the chapter of specification.

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1. 前言 Preface

- 本操作说明书将描述如何安全使用本产品。 This operation manual will describe how to use the machine safely.
- 在使用本产品之前，务必阅读此书，在充分理解掌握缝纫机的操作、检查、调整、维修等方法之后，方可使用。 Before using this machine, be sure to read this manual in detail and master the operation, inspection, adjustment and maintenance.
- 工业用缝纫机是在缝制作业时，操作者近距离操作缝纫机，有接触缝纫机运动部件的危险，这点应充分认识。因此，为了确保操作者的人身安全，本公司提供了安全的产品和安全操作的使用说明。使用缝纫机的有关人员务必熟读此说明书，在实施必要的安全对策之后，再使用缝纫机。 Please fully recognize that the operator may be under the danger of contact with moving parts of sewing machine during operation. So we supply safe product and safety operation manual in order to insure the safety of operator. Only after the operator read this manual in detail and carry out necessary safety measures, the operator can use the machine.

2. 安全措施 Safety measures

➤ 用途·目的 Usage

本公司的缝纫机用于服装业，是以提高服装业的质量和生产率为目的而研究开发的产品。因此除以上用途外，请绝对不要使用。 We R&D products to improve the quality and productivity of garment industry. The sewing machines from our company are for garment industry. Apart from above purpose, please do not use it.

➤ 使用环境 Working environment

本公司的缝纫机因使用环境的不同，有可能对缝纫机的寿命和性能产生不良影响。为了确保安全，请勿在下述环境条件之下使用。 The life and characteristics will be affected if use our machines in different working environment. In order to ensure safety, please do not use machines under following condidtions.

1. 高频焊接机等产生干扰的机器设备旁边。 Near High-frequency welding machines and other machines which will generate interference.
2. 产生药品蒸气气氛的地方，及受药品飞溅等地方。 Place where generate drug atmosphere or where drug splash.
3. 屋外、高温高湿、直接曝晒阳光的地方。 Outside, high temperature and high humidity, exposure to sunlight directly.
4. 周围的温度、湿度很大的地方。 In place where temperature and humidity are high.
5. 额定电压常超过±10%以上的电压变动较大的地方。 The rated voltage always beyond ±10% or the rated voltage always change largely.

➤ 安全措施 Safety measures

(1) 进行维修保养、检验时的安全保护 Security protection during maintenance and inspecting machines.

- 对缝纫机进行检查、修理、清扫等维护作业时，请切断电源，将电源插头从插座上拔下之后进行。当有必要接通电源进行作业时，请制定防止缝纫机意外转动或操作错误而导致危险的安全操作准则，并遵守一切安全防护准则。 Please turn off the power switch when inspect, repair and

clean machines. If it is necessary to operate with power on, please make the safety operation regulation to avoid any danger caused by accidental rotation or wrong operation, and please comply with the regulation during operation.

- 在进行以下作业时，务必关掉电源开关，将电源插头从插座上拔下之后进行。Please be sure to turn off the power switch when conduct the following operations.
 - 加油 refueling
 - 穿线 threading the needle
 - 打扫缝纫机 Cleaning the machine
 - 换机针 Replacing needle
 - 进行供油元件的清扫和更换 Cleaning or replacing oil components
 - 更换机油 Replacement of oil
- 实施定期检修、保养时，应限由专业技术员进行。Should be detected and maintained by the professional technician regularly.
- 请勿擅自改造或更改缝纫机，以免导致事故的发生。Please don't change the machine parts or functions to avoid accident.

※如有改造或更改的需要，应与经销商或本公司销售部联系。If necessary to change, please contact the agents or contract our company sales department.

(2) 开始运转前的检验事项 Inspection before running.

- 在开始操作运转缝纫机前，先检查缝纫机缝纫部分，看是否有损伤、功能不良等问题。万一有异常现象时，应马上修理或采取必要的措施。Before running, please check the sewing portion, check if there is any damage or problems, if have any problem, please send to repair immediately.
- 在使用缝纫机之前，务必确认压脚是否处于正确位置。（用手轻轻转动手轮，看针尖是否落在压脚的槽口中心）Before sewing, please check if the presser foot is on the right position. (turn round the hand wheel slowly, check if the needle is in the middle of presser foot hole.
- 务必检查压脚是否固定牢固。（使用抬压脚机构抬起压脚，用手前后左右扳动，检查压脚是否松动）have to check if the presser foot is firm. (lift the presser foot with presser foot lifting ASM, checking the presser foot is firm or not with hands).

(3) 培训·进修 Training

- 为了防止事故的发生，缝纫机的操作人员及维修保养专员，应先学会所需知识和有关技能，以保证工作的安全。To avoid accident, operators and technicians need to master the skills to insure the security.

3. 各操作过程的注意事项 Cautions.

➤ 开箱 Opening

1. 缝纫机出厂时是包装好后装入纸箱运出的。从印刷在纸箱上的标记字样确认上下后，请从上到下按顺序开箱。Sewing machine are packed with cartons. Please open the carton from top to bottom.
2. 把缝纫机机头从缓冲包装材料里拿出时，不要提拿与机针部位或过线器等有关的部件，以免会发生危险或损伤机器。When take out the machine head from cartons ,please don't touch needle portion or thread tension ASM to avoid accident.
3. 在取出缝纫机机头时，请注意重心的位置，小心谨慎的取出。Be careful of focus when take out

the machine head.

4. 开箱用过的纸箱如果以后还用的话，请保存放好。Please keep the carton after take out the machines.

包装材料的处理 package treatment.

- 请客户负责的将包装材料正确适当的进行处理。Please deal with packages in right way.
- ※有油污的部件务必遵照当地环境保护的有关规定，分别进行处理。Polluted parts should be treated according to the local environment laws.

➤ 搬运 Moving

1. 缝纫机的搬运一定要两个人以上进行。另外，人工搬运应只限于搬往缝纫机台板或小台车上。Please move the machine with at least 2 persons.
2. 移动缝纫机机头时，用右手抓住扳手，左手垮在机头里，牢固的搬起。在往缝纫机台板上或小台车上搬运时，请注意不要过分冲击或震动，以免缝纫机倒斜造成危险。When move machine heads. Hold the hand wheel with right hand, hold machine head with left hand. Soft landing.
3. 如果要第二次运送缝纫机并要包装时，请一定擦干净机头上的油污。否则，搬运时会滑脱摔坏机头或油污使包装材料变质穿底。If need to pack after using, please clean the oil first to avoid slip or package pollution.

➤ 安装·准备 Installation& preparation.


缝纫机台板 Sewing machine table

1. 请使用能充分承受缝纫机机头重量的缝纫机台板（台板、铁架）。Please use table&stand strong enough for the weight of machine head
2. 应充分考虑操作光线的明亮度，放置在光线明亮的环境中作业。如果光线不是十分明亮时，应根据需要安装照明电灯。Please operate under brightness, if the brightness is not enough, please install lights according to actual situations.
3. 在运转缝纫机时，为了防止操作者脚踏板时脚滑脱造成事故，一定要在缝纫机踏板上安装防止滑脱的垫子。When running sewing machine, to avoid operators slip on the padels, please install padel pat.
4. 在考虑操作者操作姿势的前提下，决定台板面的高度（工作时的高度）。Adjust the height according to the requirement of operators.

接线 Line connections.

1. 务必在将电源切断的状态下，把缝纫机与电控箱相对应的连接线连接好。Power off when connect the lines between sewing machine and control box.
2. 在连接时请不要用力地拉、拽连接线。Please don't use too heavy strength to pull the connection lines.
3. 请不要过度弯曲连接线。Please don't band connection lines too much.
4. 连接线与运动部件的最小距离为 25mm。Connection line should be away from moving parts more than 25mm.
5. 必要时考虑加防护罩来保护连接线。Use covers to protect lines when necessary.
6. 固定连接线时绝对不要使用金属丝捆绑。Don't bunch connection lines with metal line.

接地 Land connect line

1. 接地线是按每台缝纫机分别装设专用的接地线，不应与其他机器共用。One machine uses one line.
2.  在缝纫机机头的规定位置正确地装好接地线。Connect the line in right way.

➤ **使用缝纫机油 Sewing machine oil**

1. 在油盘内没有注入油以前绝对不要进行运转。机油请使用指定的缝纫机专用润滑油。(相当于 ISO 粘度等级 VG22)。Don' t run machine before filling oil. Please lubricate machine with special oil. (ISO VG22)
2. 机油进入眼睛会使眼睛发炎, 所以在使用时请戴防护眼镜以免机油进入眼睛。Oil can injure eyes, please ware glasses to protect eyes.
※万一进入眼睛, 请用干净水冲洗, 再请医生治疗。If the oil get into eyes, please clean eyes with clean water then go to doctor.
3. 绝对不要使机油进入口腔。Never let oil touch your mouth.
4. 机油请保管在孩子摸不到的地方。万一进入口腔, 不要硬性呕吐, 马上请医生进行治疗。Please put oil away from children. If oil get into mouth, don' t vomit only, must go to see doctor immediately.
5. 废油、废容器的处理必须遵照相关法令正确处理。如不知道时请与购买部门联系后, 正确进行处理。Waste oil and waste containers should be treated according to local laws.

➤ **运转缝纫机前的注意事项 Cautions before running.**

1. 打开电源前, 请确认接线或接头没有损伤、脱落、松动等外观上的异常。Before power on, please check the wire and plug is safe and firm.
2. 打开电源时, 请不要将手放在机针附近。When opening, don' t put hands near needle.
3. 操作者应受过适当训练、充分理解使用说明书的内容之后再进行操作使用。Operator should be trained and read the manual book then start to operate.
4. 关于缝纫机机头上的危险、警告标志应熟读并理解。Please read and understand all caution notes on the machine head.
5. 最初使用的一个月应降低速度。请用在最高转速的 3/4 以下的转速。During the first month of using, please turn down the speed, the speed should be less than 3/4 of MAX speed.

➤ **运转缝纫机中的注意事项 Cautions when running**

1. 在拆卸下护目镜、传动护罩等安全装置后, 请不要运转缝纫机。When taking off the eyes' guard or motor cover or any else security equipments ,please don' t run machines.
2. 缝纫机在运转中是很危险的, 绝对不要将手放入机针下。When machine running, it is dangerous, please don' t put hands under needle.
3. 缝纫机在运转中有危险, 手指、头发、衣服请勿靠近针杆等运动部件附近。When machine running ,it is dangerous. Please don' t make fingers ,hair, cloth close to needle bar or other moving portion.
4. 在不使用缝纫机时或者操作者离开缝纫机时, 一定要切断电源。When no need to use sewing machine or leave seats, please power off.
5. 停电时务必将电源关掉。When have no power please take off the plug.
6. 在操作缝纫机时, 请穿着不易被机械卷入的服装。When operate sewing machines, please ware cloth which not easy to be involved by machine.
7. 缝纫机在运转中, 请不要在缝纫机台板上放置工具及其他与缝纫无关的物品。When machine runs, don' t put tools or other things on the table.

➤ **维护、检查、修理 Maintenance, inspection, repair**

1. 维护、检查、修理的作业应由受过特别训练的人并在充分理解使用说明书的内容之后，再进行作业。Maintenance , inspection, repair should be operate by trained person who read& understand this manual book.
2. 对于缝纫机的日常检查或定期检查，应按照使用说明书的指示，切实认真的进行。The daily maintenance& inspection should be done according to the manual book.
3. 缝纫机的修理或部件的更换请使用本公司的原装部件。对于不恰当的修理、调整或使用假冒伪劣部件所造成的事故，本公司将不负一切责任。When need to change or repair spare parts, please use the original one from our company, if accidence happen by wrong operation or fake parts, our company will not take the responsibility.
4. 请不要根据顾客自己的判断对缝纫机进行改造。否则因改造而发生事故，本公司将不负一切责任。Please don' t change machine according to your own way. If accidence happen by this, our company will not take the responsibility.
5. 临时因修理、调整而拆卸下的安全装置、安全护罩，待作业完成后务必按原来的状态安装好。If take off the security equipments to repair or adjust machines, please fix all security equipments after finish.
6. 维护、检查、修理的作业完成后，请检查接通电源之后是否确实没有危险。After maintenance, inspection or repair, please power on then check security again.

4. 安全保护装置 Security Equipments

➤ **护目镜 Eyes' Guard**

为了眼睛的安全，绝对不要在打开护目镜的状态下操作缝纫机。护目镜是为了在缝纫中断针时，阻挡断针飞入眼睛的安全装置。To protect eyes, please don' t operate sewing machines without eyes' guard. Eyes' guard is to protect broken needle hurt eyes.

➤ **压脚 Presser Foot**

压脚抬起时有夹伤手指的危险，请不要把手指放在压脚下面。Presser foot may hurt finger when get up, please don' t put fingers under presser foot.

5. 日常操作中了解的常识问题 General Knowledge of Operations

➤ 机器速度 Machine Speed

表 1 显示的是:机器的最大转速和标准转速。为了保证机器的寿命,请在开始使用的前 200 个小时(即一个月)使用最大转速的 75%,然后再用标准转速。

Refer to the table 1 below for maximum and standard speeds of the Series. To extend machine life, run the machine approximately 75% below the maximum speed for the first 200 hours of operation(approx.1 month).Then run the machine at the standard speed.

表 1

机型	最大速度	标准速度
-0485UTC/AK/PL	3500	3200
-1264UTC/AK/PL	3500	3200
-1332 • 0864UTC/AK/PL	3500	3200

Table 1

Model	Maximum speed	Standard speed
-0485UTC/AK/PL	3500	3200
-1264UTC/AK/PL	3500	3200
-1332 • 0864UTC/AK/PL	3500	3200

➤ 台板加工图 (图 1) Table drawing (picture 1)

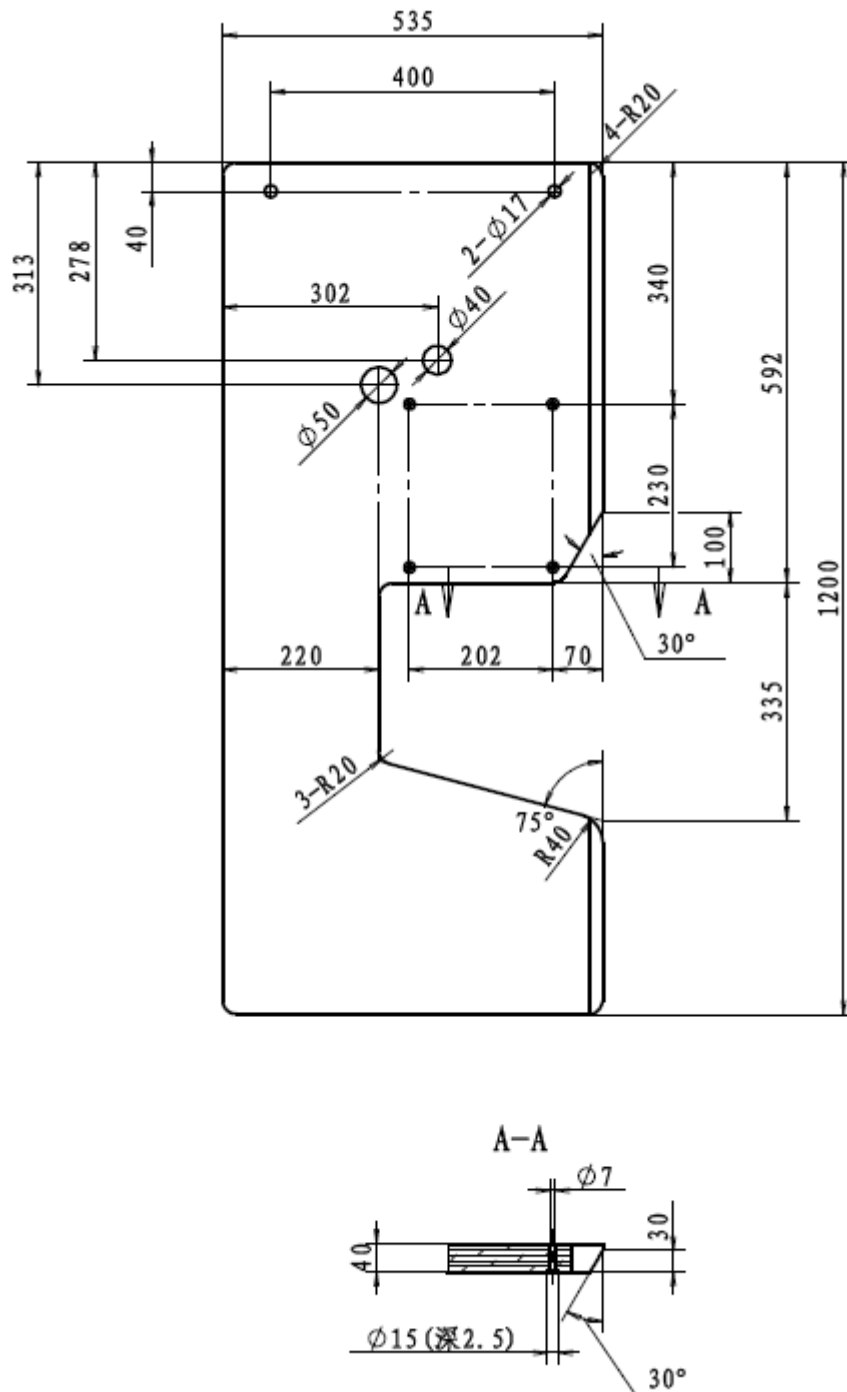


图 1

➤ 机器的安装 Machine Installation

依本机器所附台板图和零件组合图（图 2）所列之配件，依次安装防震机座。

Install the machine base according to the table & Part picture (picture 2)

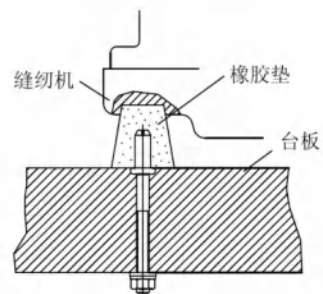


图 2

➤ 润滑油的注入与更换

Oil filling and changing.

1. 注入 Filling Oil

将 A（图 3）旋开，以包装箱内所附的超高速润滑油或选用 MOBIL# 或 ESSO#32 等级的润滑油加入，油位在油窗 C（图 4）内的两油位线之间即可，然后再旋紧 A。

Open A (picture 3), fill the oil (from attachment box) Or use MOBIL# or ESSO#32 oil, oil line should be between Two lines of window C (picture 4), then tighten A.

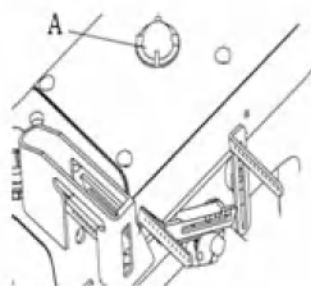


图 3

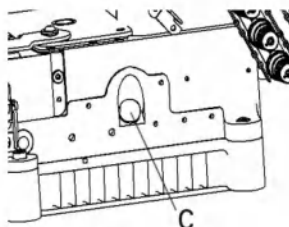


图 4

2. 更换润滑油 Changing oil

将螺钉 A（图 5）松开，使油盘内油完全排出后再锁紧。为延长本机器寿命，请于开始使用四星期后更换新油。而后约每四个月更换一次。

Release screw A (picture 5), the oil will discharge out, then fasten screw A. To make the machine life longer, please change Oil after 4 weeks from the date of using, then change oil 4 months one time;

3. 更换滤油器 change oil filter

本机器装有滤油器 A（图 6），约每使用一个月后应卸下清洗，必要时更换新品。

This machine has oil filter A (picture 6), please clean the filter every month, and change the filter when necessary.

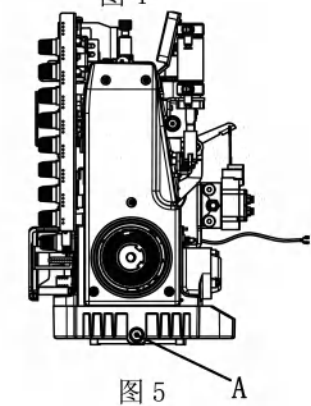


图 5

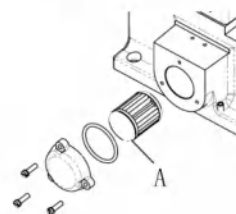


图 6

➤ 更换针 Change Needle

针的规格与尺寸选用请参照（表 1）。

The needle size and specificant please refer to Table.

1. 旋松螺钉 A（图 7）并取下针。

Release screw A (picture 7), and take off the needle.

2. 将新针插入针夹的针孔至最底端，并使针的凹弧向左。

Please insert the new needle to the bottom of needle clamp. And make the slot on left side.

3. 锁紧螺钉 A（图 7）。

Fasten the screw A (picture 7).

4. 如果针安装不正确，不但会引起跳针断线还会损坏弯针，务必注意。

If the needle installation is wrong, may happen needle breaking, thread breaking or damage the looper, please be careful.

Needle System 针规格	Needle Size 针号
ORGAN	#11- #16
UOX113GS	#75- #100

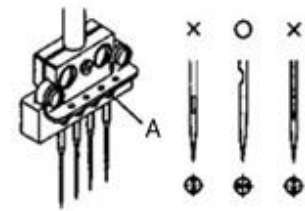


图 7

➤ 穿线方法 Threading Method

1. 请按照（图 8）（下页）给缝纫机穿线。

穿线错误将引起断线，跳针或线迹不平坦等现象。

please treading according (picture 8).

Wrong threading will course thread breaking, stitch Jumping or stitch not smooth.

2. 在穿下弯针线时应将下弯针架拉杆 A（图 9）沿箭头方向拉出使下弯针架向前弹出，然后进行穿线。

When threading lower looper please

Pull out the looper bracket as (picture 9) then threading.

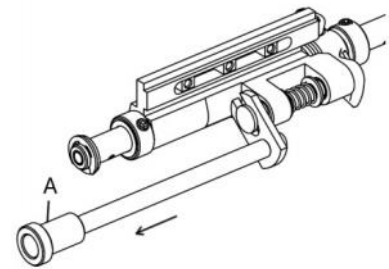


图 9

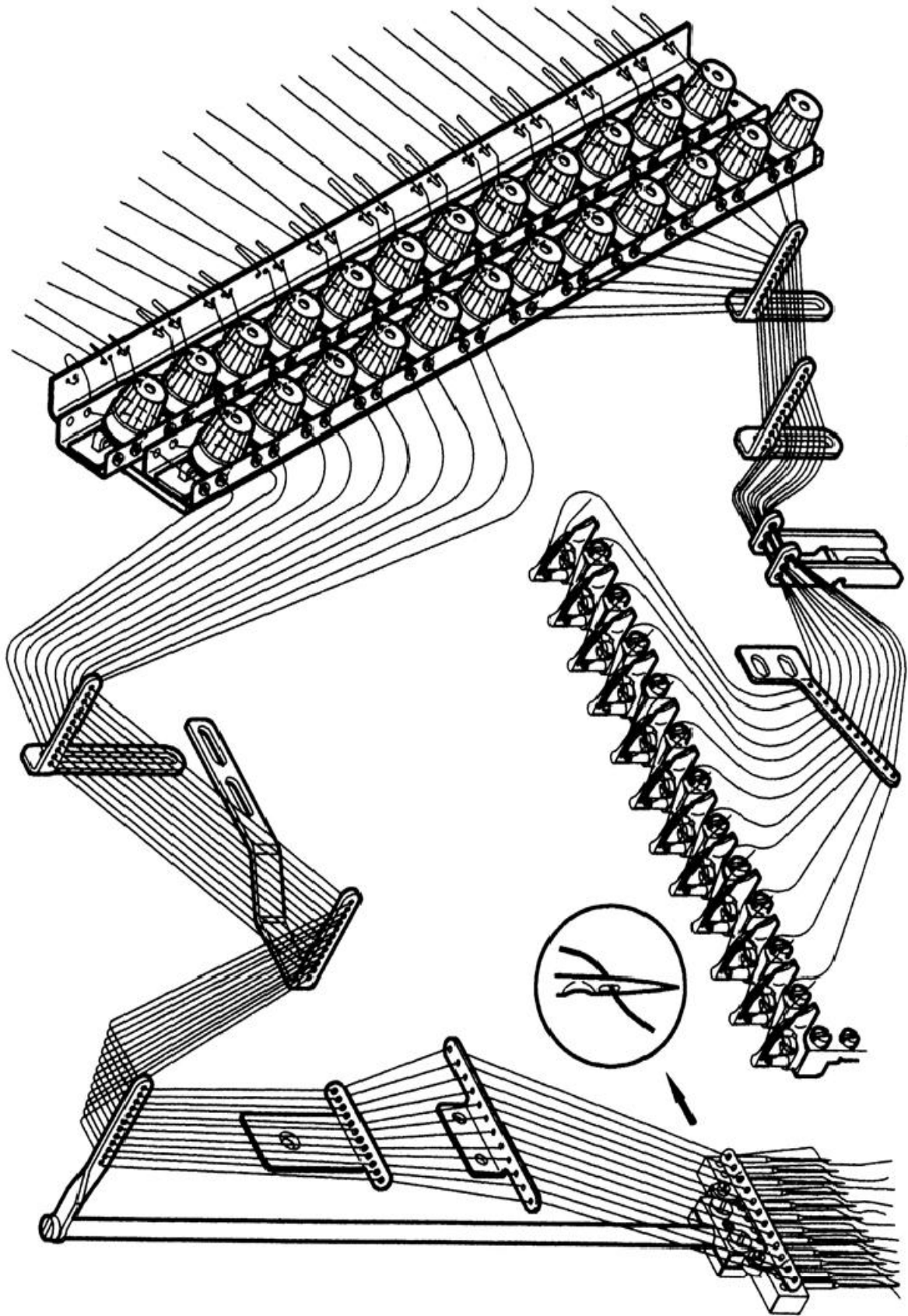


图 8

➤ 缝线张力调整 Stitch Tension Adjusting

1. 缝线张力的强弱必须根据缝料层数、料质、线的种类与车缝的针距等不同而做不同的调整。压线螺母顺时针方向旋转时线越紧，反之则越松。

Stitch tension need to adjust according to the thickness, material, thread and stitch length. Turn the presser nuts clockwise can fasten stitch; Turn the presser nuts counterclockwise can release stitch tension.

2. 针线导杆调整 (图 10) Thread Guard Adjusting (picture10)

针线导杆 B 依缝迹使用种类来选择使用状态，旋松螺钉 A 将 B 上下移动调整，在使用伸展性大的缝线时将 B 上移，反之下移。

Raising the thread guard B increases the size of the needle thread Loop, Lowering the thread guard B decreases the size of the needle thread loop.

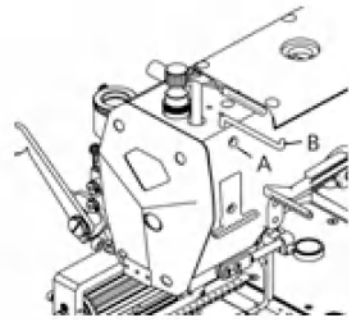


图 10

➤ 针距调整 Stitch Length Adjusting

首先确认马达已关掉。然后压下针距调节按钮 A (图 11)，并转动手轮，会感觉“咔”一声，即按钮已卡入针距调节槽，继续转动手轮至所需针距。调长针距：将手轮往顺时针方向旋转针距加大，反之则小，最后放开按钮。针距范围为 2~5mm。

Please power off first. Then Press stitch length adjusting button A (picture 11), then turn hand wheel, after hear & feel “KA” sound, the button has insert into stitch length adjusting slot, turn on the hand wheel to the lenth you need. Turn clockwise to enlarge stitch length; turn counterclockwise to reduce sitch length, then release button, stitch length can adjust from 2 to 5mm.

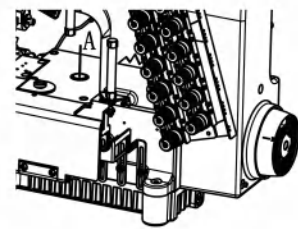


图 11

➤ 压脚压力调整 Presser Foot Pressure Adjusting

在缝料送料顺畅且线迹完美的情况下，压脚压力尽量轻些。松开螺母 A（图 12），转动螺钉 B，顺时针调整则压力加强，反之则减少。调整至适当的压力后再锁紧螺母 A。

As long as feeding smooth and stitch perfect, low down the presser foot pressure. Release nut A (picture 12), turn nut B, turn clockwise to enlarge foot pressure, turn counterclockwise to reduce pressure. Adjust to a suitable tension then lock nut A.

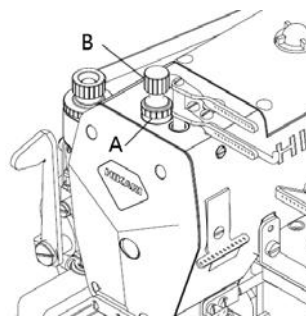


图 12

➤ 压脚调整 Presser Foot Adjusting

放下压脚，拧松螺钉 A（图 13）调整压脚，使针对准压脚孔中心，拧紧螺钉 A。拧松螺母 B，调整螺钉 C，保证螺钉 C 下平面与压脚板上平面的距离为 0.5mm。拧紧螺钉 B。

Lay down presser foot, release screw A (Picture 13) then adjust presser foot, make needle in the center of foot holes, then fasten screw A. release nut B, adjusting screw C, insure the distance as picture 13 (0.5mm), tighten nut B.

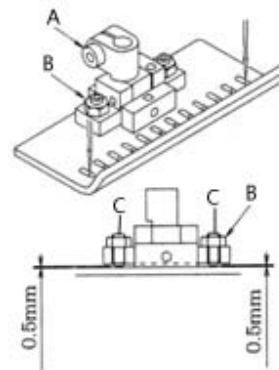


图 13

➤ 压脚高度调整 Presser Foot Height Adjusting

拧松螺母 D（图 14），调整螺钉 C 使抬压脚高度为 10mm。拧紧螺母 D。

Release nut D (picture 14), adjusting screw C to make the presser foot height 10mm. tighten nut D.

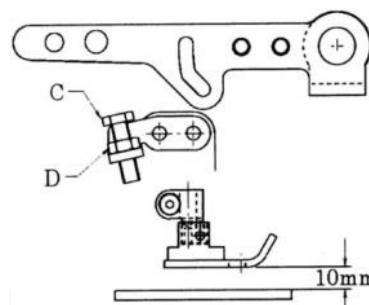


图 14

➤ 气路部分安装示意 (图 15) Air Portion Installation Drawing (picture 15)

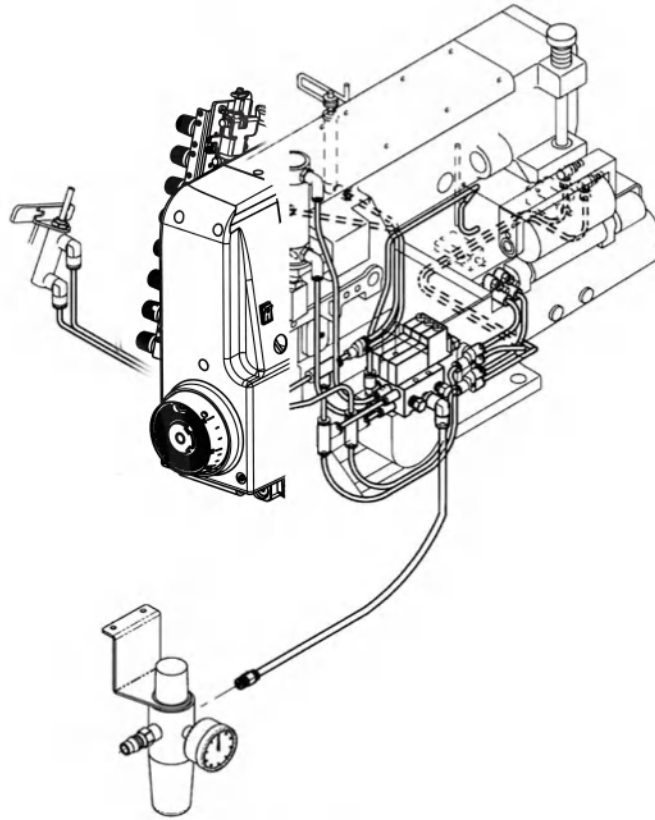


图 15

➤ 调整切线速度 Adjusting Cutting Speed

节流阀 A (图 16) 是调节剪线刀切入时的速度。节流阀 B 是调节切线的速度。如果节流阀 A 调节过松, 将导致切入速度过快和切入时位置不准确, 造成切线错误。如果节流阀 B 调节过松会引起切线速度太快。导致线头过短。

Air valve A (picture 16) controls the speed of when the thread trimming knife holder protrudes. Air valve B controls the speed when the thread trimming knife holder retracts. If screw A is too loosened, the knife holder will protrude too fast and then the position of the knife holder will become unstable, causing cutting errors. If screw B is too loosened, the knife holder will retract too fast and then the looper thread may not be held properly.

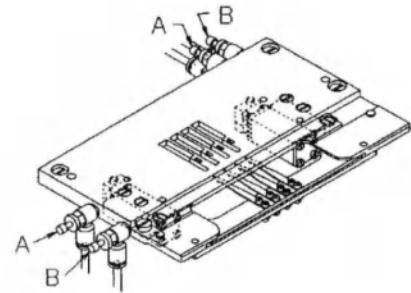


图 16

➤ 调整工作气压 Adjusting Air pressure

调节旋钮 A (图 17), 使气压达到 $4.5 \sim 5.5 \text{kg/cm}^2$, 气压过高将会损坏运动部件。

Turn Knob A (picture17), make air pressure $4.5 \sim 5.5 \text{kg/cm}^2$, to high pressure will damage moving parts.

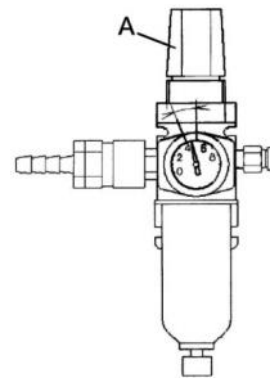


图 17

➤ 踏板控制器 Pedal Control Asm.

A: 脚踏板向前踩, 启动机器

Press foot pedal forward to start machine.

B: 脚踏板在常态, 针停在最高位置。

Foot pedal in normal position, needle stop on the top.

C: 向后踩, 针停在最高位置时开始剪线和抬压脚。(图 18)

Foot pedal (picture18) backward position for cutting and raising the presser foot.

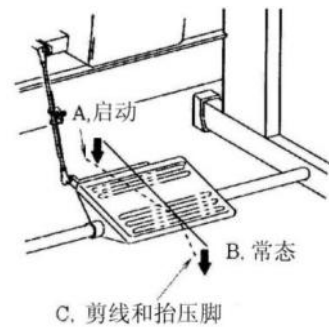


图 18

➤ 调整动刀 Adjusting The Movable Knife

拧松螺钉 B (图 19), 调节动刀 A, 使动刀刀尖位于针孔中心左侧 $0 \sim 0.5 \text{mm}$, 然后螺钉拧紧 B。

Release screw B (picture 19), adjust the movable knife A, make the movable knife tip on the left of needle hole $0 \sim 0.5 \text{mm}$, then tighten screw B

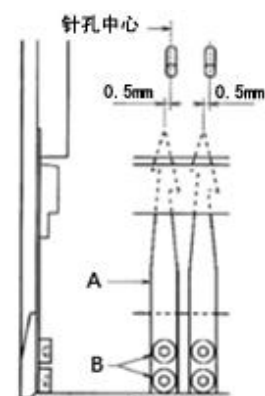


图 19

➤ 调整定刀 Adjusting The Stationary Knife

当动刀退到底时，使动刀刃过定刀刃 0.6mm。
(图 20)

When the movable knife retracted fully, make the movable knife edge over the stationary knife edge 0.6mm (picture 20).

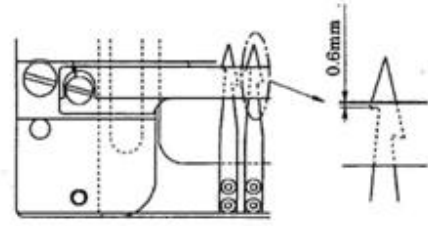


图 20

➤ 剪线过程示意图 Cutting Procedure Sketch Map

剪线时，动刀往回退。动刀刃口 A (图 21) 勾住面线，动刀刃口 B 勾住底线移向定刀。然后底线压在动刀弹簧片和定刀之间。

To cut the needle and looper threads, the movable knife moves to the stationary knife with the needle thread hooked on cutting edge A (picture 21) and the looper thread hooked on cutting edge B while entering the needle thread loop. Then the looper thread is held by the stationary knife and the back spring.

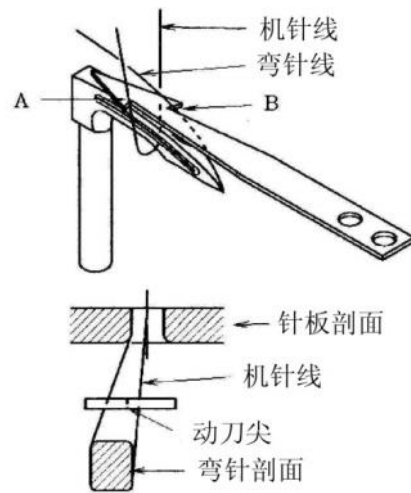


图 21

〈注意〉调整弹簧片使得在剪线后不压住面线。(图 22)
(cautions) adjust sping plate to make sure after cutting not press upper thread. (picture 22)

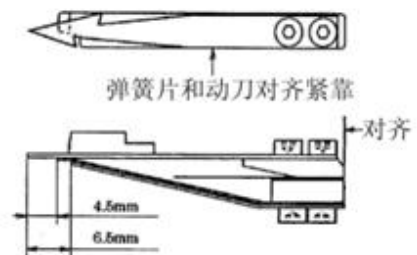


图 22

➤ 调整吹气口 Adjusting The Air Wiper

拧松螺钉 A (图 23), 调节 C 对准机针孔, 使出气口到最近一根针尖的距离为 10mm, 拧紧螺钉 A。
Release screw A (picture 23), adjust C to needle hole, make the distance between the air wiper and nearest needle 10mm, then tighten screw A.

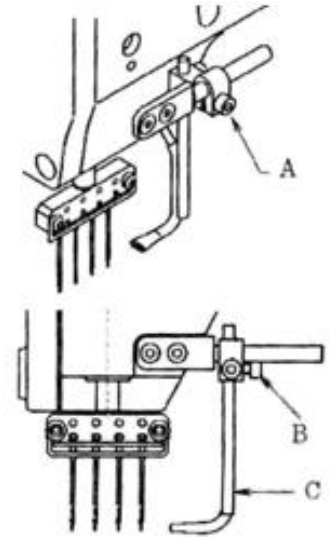


图 23

拧松螺钉 B, 调节 C (图 24), 使出气口中心到针孔中心的距离为 2~3mm, 拧紧螺钉 B。
Release screw B, Adjust C (picture 24), make distance between air outlet and needle hole center 2 to 3mm, tighten screw B.

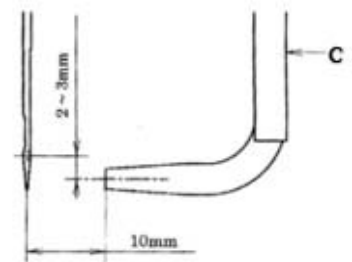


图 24

➤ 护针的安装与调试 Needle Guard Installation & Testing

拧松螺钉 B (图 25), 调整护针 A 与机针的间隙为 0~0.1mm 然后锁紧螺钉 B。
Release screw B (picture 25), adjust distance between needle Guard A and needle to 0 to 0.1mm then tighten screw B.

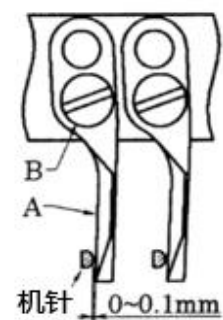


图 25

➤ 弯针的安装与调试 Looper Installation & Testing

将弯针 A (图 26) 完全插入弯针座内, 稍微锁紧螺钉 C, 转动手轮, 使机针上升, 并使弯针柄中心线与机针的中心线重合。

Insert looper A (picture 26) to looper base, tighten screw C, a little then turn hand wheel, lift needle, make looper holder centre line ahead to needle centre line.

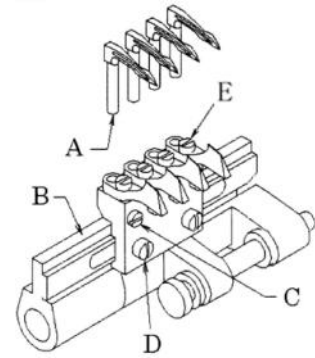


图 26

调整弯针尖使其与机针的间隙为 0~0.05mm (图 27), 然后再锁紧螺钉 C。

Adjust looper tip to make distance between looper tip & needle 0-0.05mm (picture 27), then tighten screw C.

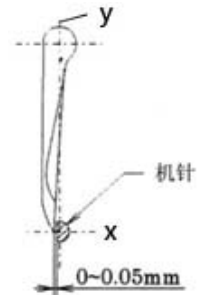


图 27

➤ 弯针退距调整 Looper Back Distance Adjusting.

当针在下死点时, 拧松螺钉 B (图 28), 调整弯针连杆 A 使弯针尖与机针中心线之间的距离为 2.8mm (图 29), 拧紧螺钉 B。

When the needle bar is at the bottom of its stroke, loosen screw B (picture 28), there should be a distance of 2.8mm (picture 29) from the point of the looper to the center of the needle bar. Then tighten screw B.

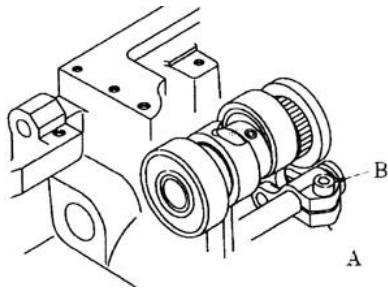


图 28

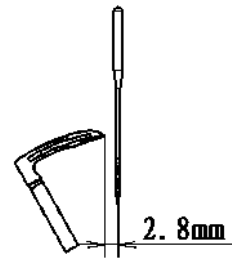


图 29

➤ 机针高度调整 Needle Height Adjusting

当针在最高点时，拆开面板上的油塞 A（图 30），
拧松螺钉 B，调节针杆，使针尖到针板上平面的
距离为 13.4mm，拧紧螺钉 B。

When needle on the top, open plug A (picture 30)
on face plate, release screw B, adjust needle
bar, make distance between needle tip and needle
plate upper side 13.4mm.

Then tighten screw B.

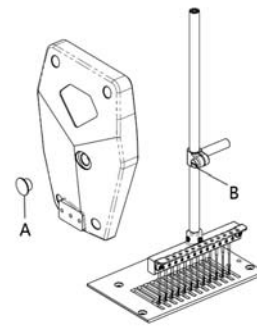


图 30

〈注意〉确保每根针都能插入针板针孔中心。
如（图 31）。

(caution) make sure every needle
insert on needle plate hole centre.
Please refer to picture 31.

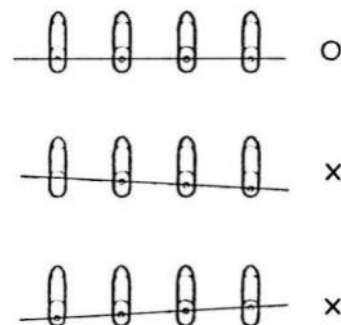


图 31

➤ 弯针调整 Looper Adjusting

弯针尖向右移至机针中心，如（图 32）所示位置时，弯针尖到针孔上边缘距离为 2mm。弯针尖向左移至机针中心时，弯针尖到针孔上边缘距离为 3.8mm。需要调整时将偏心轮 A（图 33）的固定螺钉 B、C 放松，转动偏心轮 A，使得弯针与针的时位关系满足以上要求，然后拧紧螺钉 B、C。

The timing of the looper to the needle is as follows;When the point of the looper, moving to the right, has reached the center of the needle, The point of the looper should be 2mm above the top of the needle's hole. When the point of the looper, moving to the left, has reached the center of the needle, The point of the looper should be 3.8mm above the top of the needle's hole. Loosen screw B and C, Then move eccentric A, made the timing of the looper to the needle as above.

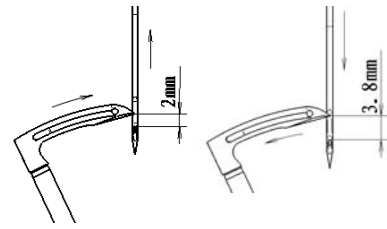


图 32

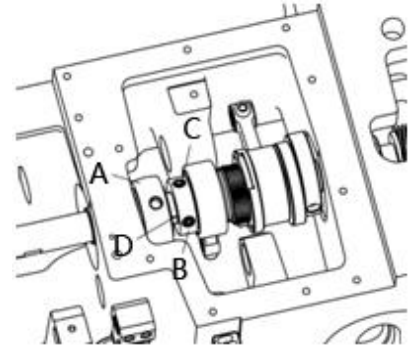


图 33

➤ 拨针的定位 Adjusting The Retainer Looper

拧松固定螺钉 B，调整拨针 A，使拨针 A 顶端与机针的间隙如（图 34）所示为 0.3~0.5mm，拧紧螺钉 B。

Release screw B, adjust the gap between the retainer looper A and needle (as picture 34) 0.3 to 0.5mm. tighten screw B.

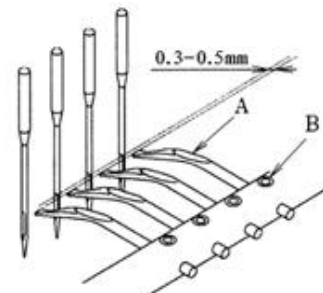


图 34

〈注意〉各拨线杆的位置如（图 35）中所示正确位置后再锁紧。

(caution) adjust wiper bar position as picture 35 Then tighten.

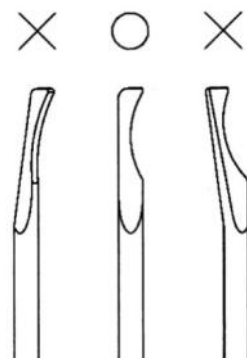


图 35

➤ 送料牙调整 Feed Dog Adjusting

送料牙升至上死点时，送料牙齿尖与针板面的距离为 0.8~1mm（图 36）。调整时将高度固定销 D（图 38）的螺钉 B 放松，使固定销顶到送料牙底部。再锁紧螺钉 B。此时亦应确认送料牙左右方向的平行。从 H（图 37）伸入螺丝刀，拧松螺钉 G，调整螺钉 F 使送料牙前后水平，锁紧螺钉 G。

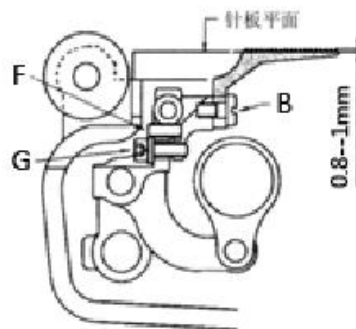


图 36

Feed dog lift to the top, feed dog tip 0.8-1mm higher than needle plate (picture 36). Release screw B (picture 38) to adjust height pin D. then tighten screw B. This time need to confirm that feed dog is parallel. Insert screw driver from H (picture 37), release screw G, adjust screw F to make feed dog in the same level, tighten screw G.

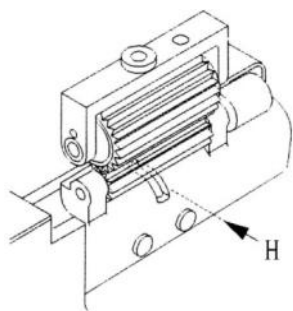


图 37

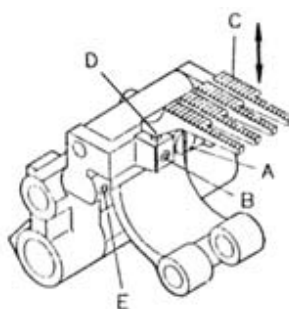


图 38

➤ 勾针与拨针的时位关系 Timming Of The Loper And The Retainer Loper

当机针位于最高点位置时，拨针应完全覆盖在弯针背上（图 39）。

勾针上端面与拨针下端面的间隙为 0~0.1mm。

When the needle bar on the highest position, the retainer looper cover on the back of the looper (as picture 39), Looper upper side and the retainer looper lower side gap about 0~0.1mm.

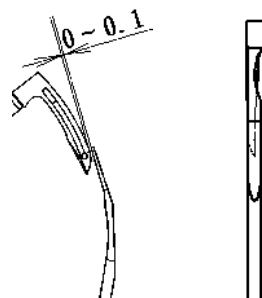


图 39

➤ 上下滚轮的调整 Upper& Lower Puller Adjusting.

放下上滚轮，拧松螺母 C（图 40），调整螺钉 B，使上下滚轮的间隙为 0.5mm，拧紧螺母 C。

Put down upper puller wheel, release screw C (picture 40), adjust screw B, make the gap between upper&lower puller wheel 0.5mm, then tighten screw C.

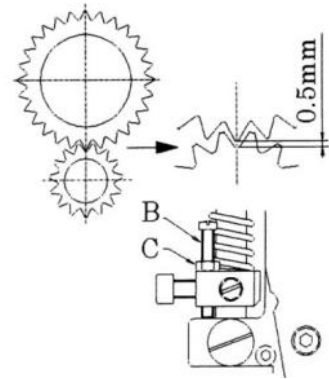


图 40

➤ 上滚轮压力的调整 Upper Puller Pressure Adjusting

将压力调节螺钉 D（图 41）往顺时针方向转动，压力加大，反之则减小。

Turn screw D (picture 41) clockwise will increase the pressure, otherwise will reduce the pressure.

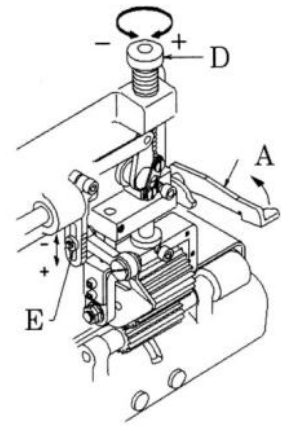


图 41

➤ 线的张力调节 Thread Tension Adjusting

线的张力要根据缝料，线的种类，针距的长短来调节。旋钮 A（图 42）是调节面线的，旋钮 B 是调节底线的。

Thread Tension need to adjust according to the thread and stitch_length. Button A (picture 42) for upper thread button B for bottom thread.

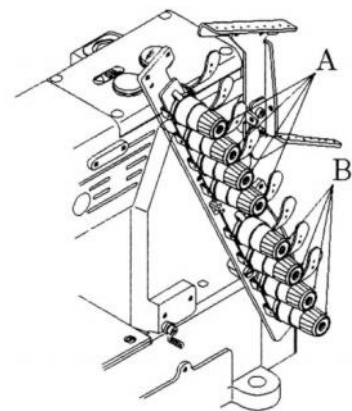


图 42

➤ 线量控制板位置调整

Thread Amount Control Board Position Adjusting.

过线孔（图 43）到螺钉中心约 40mm，距离增大使线迹变松。

Hole (picture 43) away from screw centre about 40mm. Increase distance can release stitch.

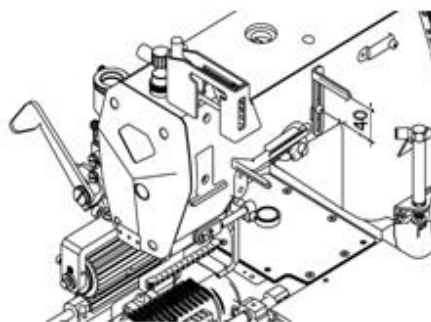


图 43

➤ 面线收紧调节 Upper Thread Tightening Adjusting

针杆在下死点时，拧松螺钉 C（图 44），调节挑线板 B，使挑线板 B 与针线导架 A 平行，然后锁紧螺钉 C。

When needle bar is in the bottom position, release screw C (picture 44), adjust board B, make board B parallel with bracket A. then tighten screw C.

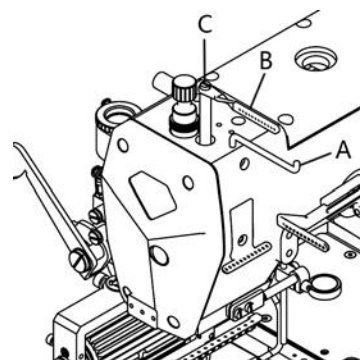


图 44

➤ 打线杆的时位关系 Timming Of The Wiper Bar

当机针往下到针板上平面以下 15mm 时，打线杆从下死点往上抬，紧线杆导线 A 往上抬线量加大，往下降线量减小。（图 45）

When needle move down to presser foot board upper side, wiper bar move from bottom position, move A upper increase thread length, Move A lower deduce thread length.

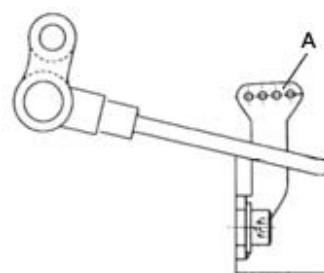


图 45

➤ **清洁机器 Cleaning**

清扫机器时，拆掉压脚和针板，清扫针板、牙齿、弯针、护针等。（图 46）

When clean the machine, take off the presser foot and needle plate ,clean needle plate, gear, looper, needle guard.

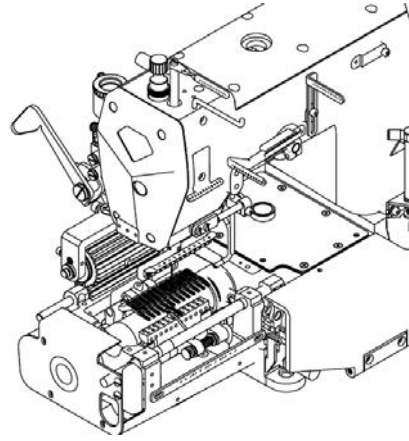


图 46

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此说明书仅作参考，如有更改恕不另作通知。

This manual is only for reference.
IF there is any modification , we apologize for the changing hence caused.