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CE

通过 ISO9001:2008
质量管理体系认证

HIKARI® 富山

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

HW762T

COMPUTERIZED DIRECT DRIVE
HIGH-SPEED CHAINSTITCH
电脑直驱高速绷缝机

使用说明书
INSTRUCTION MANUAL BOOK

安全须知请先仔细阅读

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Be sure to study very carefully for safety

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●Hikari Precise Machinery Science & Technology Co, Ltd. has a policy that we always modify the performance and/or specifications of this product introducing the state-of- the-art technology. Accor change the specifications and/or design without notice.

●This instruction manual is valid for all the models and subclasses listed in the chapter “Specfication”

Directives

This machine is constructed in accordance with the European regulations contained in the conformity and manufacturer' s declarations. In addition to this instruction manual, strictly observe all the generally accepted, statutory regulations, legal requirements and all the environmental protection regulations. Also rigidly adhere to the regionally valid regulations of the social insureance society for occupational accide-nts or other supervisory organizations.

1.前言

●该书是为了安全使用本产品的使用说明书。

●在使用该产品之前，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，再进行使用。

●工业用缝纫机是在缝纫操作中，操作者距机针等运动着的缝纫机部件近距离进行操作的。所以时常有接触缝纫机运动部件的危险性，这点应充分认识。
因此，为了确保安全，需要本公司提供安全产品，使用者正确安全的操作。对于顾客也有一些必要的安全对策和要求。缝纫机使用的有关人员务必熟读本书与驱动装置的使用说明书，在实施必要的安全指导之后，再充分使用缝纫机。

1. Introduction

●This is the instruction manual that describes how to use this product safely.

●Read this instruction manual and learn very carefully hwo to operate,abjust and service this sewing machine before beginning any of the procedures.

●You should realize first that there is always the risk of contacting moving parts,such as needles be cause you have to work at point-blank range to them when you are operating industrial sewing machines.
For safety it is essential that we supply safe products and you ues them correctly ang safely.
There may be some safely measures that you yourself must take.Therefore,you should read and understand very carefully this instruction manualtogether whih that of the driving equipment and take necessary safety measures in order to use this machine effciently and effectively.

2.警告标记

在本公司的产品及本书中，为了安全使用产品，根据危险程度将警告表示分别使用。请充分理解其内容，务必遵守书中的提示。
警告标签应贴在时常清楚地明显看得出来的地方。
如那些标签剥落或污损时，应及时更换，贴上新的标签。
如需要换用新的标签，请随时向本公司或代理商联系。

2. Indications of dangers, Warning and cautions

To prevent accidents and ensure safety, warning indications which show the degree of danger are used on our products and in this manual.
Study the contents of these indications carefully and follow all warnings and instructions.
Indication labels should be found easily. Attach new labels when they are stained or removed.
Contact our sales office when mew labels are needed.

提醒注意的标记以及警告用语

Symbols,signs and/or signal words which attract users’ sattention

危险 DANGER	表示危险性极大。弄错操作等时会有可能导致死亡或受重伤的危险 Indicates an immediate hazard to life or limb.
警告 WARNING	操作有误时，会导致受重伤，甚至发生死亡事故的危险 Indicates a potential hazard to life or limb
注意 CAUTION	操作有误时，有可能受轻伤或中等伤害，或会发生损伤物件的危险 Indicates a possible mistake that could result in injury or damage

安全须知请先仔细阅读 Be sure to study very carefully **for safety**

说明图表记号 Symbols and messages

	必须遵守指示，应按其内容准确操作为要。 Be sure to follow the instructions when you operate the machine and/or labor saving device.
	万一操作失误，会有触电的危险。 If you use the machine and/or labor saving device incorrectly, you may get an electrical shock
	操作失误，会导致手指受伤。 If you use the machine and/or labor saving device incorrectly, you hands and/or fingers may be injured.
	有接触高温烫手受伤的危险。 Indicates a danger of bum injury due to hightemperature.
	绝对不可做 Never do this
	需要进行修理、调整等维修工作时，或有可能雷电时，应预先把电源插头由供电的插座拔掉，以免意外。 Unplug the machine or shut off the power when checking, adjusting and/or repairing the machine and/or labor saving device, or when lightning may strike.
	必须连接地线，以保护为要。 Be sure to ground the machine and labor saving device securely.
→	表示缝纫机传动轮旋转方向。 Denotes the normal rotating direction of the machine pully.

3. 安全措施

①用途，目的

本公司的工业用缝纫机，是以提高服装业的质量和生产率为目的而研究开发的商品，因此除以上用途以外，请绝对不要使用。

②使用环境

本公司的工业用缝纫机，由于使用的环境，有可能给缝纫机的寿命、性能及安全性带来不良影响。

为了安全，请勿在下述条件下使用。

1. 在靠近高频焊接机等产生干扰的机器设备旁。
2. 产生药品蒸汽的地方，及受药品飞溅等地方使用或保管。
3. 屋外、高温高湿、直接曝晒的地方。
4. 周围的温度、湿度很大，会给缝纫机带来坏影响的地方。
5. 额定电压常超过±10%以上的电压变动较厉害的地方。
6. 电源容量无法确保控制马达规格上所需要的容量时。

3. Safety precautions

①Application. purpose

Our industrial sewing machines have been developed in order to increase quality and/or produ ction in the sewing industry. Accordingly never use our prod-ucts for other than intened use described above.

②Circumstances

The environment in which our industrial sewing mach-ines are used may seriously affect their lives, functions, performance and/or safety.

For safety, to not use the machine under the circumstances below.

1. Do not use the machine near objects which make noise such as a high-frequency welder, etc.
2. Do not use or store the machine in the air which has vapor from chemicals, or do not expose the device to chemicals.
3. Do not leave the machine outside, in high tempera-tures or the dirct sun.
4. Do not use the machine in the places of high ambient temperature and humidity that seriously affects sewing machines.
5. Do not use the machine on the condition that the voltage fluctuation range is more than±10% of the rated voltage.

③安全措施

(1)进行维修保养，检验时的安全保护

●在对缝纫机进行检查、修理、清扫等维护作业时，请关掉电源开关，将电源插头从插座上拔下，并确认踩缝纫机踏板也不会转动之后，再进行操作。
但是，有必要接通电源进行操作时，请制定防止缝纫机意外转动或操作者错误而导致危险的安全操作准则，并遵守一切安全防护规则。

●在进行以下操作时，务必关掉电源开关，将电源插头从插座上拔下之后进行。

.加油
.穿线
.打扫缝纫机
.换机针
.进行供油元件清扫和更换时。
.更换机油

●在进行以下操作时，请务必关掉电源开关之后进行。

.调节针脚时
.调节差动比时

●实施定期检修、保养时，应先由充分熟练省力装置以及缝纫机的维修工作的专门技术员来进行。

●请勿按客户的任意判断而加以改造或更改，会导致事故的原因。

※如有改造或更改的需要，应先联系经销商或本公司营业所询问。

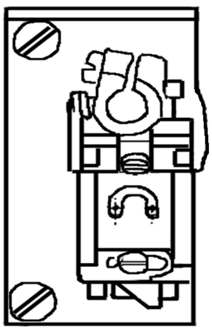
(2)机器开始运转前的检验事项

●在开始操作运转缝纫机时，应先检查缝纫机是否能正常转动，看是否有损伤、功能不良等问题。

●务必用手触摸来确认针夹是否固定好。

※请注意针尖有危险。

●在使用缝纫机之前，务必确认压脚是否在正确的位置。（用手轻轻转动手轮，看针尖是否落在压脚的针孔中心）(图1)



(Fig.1)
（图1）

6.Do not use the machine in the place where the supply voltage specified for the control motor cannot be properly obtained.

③Safety measures

(1) Safety precautions when you perform maintenance on the machine.

●Always turn off the power,unplug the machine and then make sure that the machine does not run by pressing the treadle before performing any maintenance, such as checking,repairing, cleaning,etc.However ,if you need to perform these procedures with the power on, to prevent accidents due to the unexpected start of the machine and users′ misoperation, estabish your oun procedures for safety and follow them.

●Always turn off the power and unplug the machine before performing the procedures shown below.

.Lubrication
.Treading
.Cleaning
.Replacing the needle
.Checking/replacing the oil element
.Replacing the oil

●Always turn off the power before performing the procedures shown below.

.Adjusting the stitch length
.Adjusting the differential feed ratio

●Only well-trained people should perform routine daily maintenance and/or repair the machine.

●Do not modify the machine yourself

※Consult your local Pegasus′ sales office or representative for modification.

(2) Before operating the machine

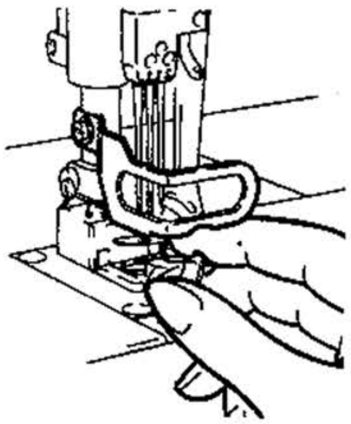
●Check the machine head and unit for any damage and/or faulty function at the start of each day. If there should be something wrong with the machine, immediately perform repairs and/or other necessary procedures.

●Check by hand to see if the needle holderis secured.
※Be careful of the needle point.

●Before starting the machine, make sure that the presser foot is positioned correctly (turn the machine pulley slowly by hand to see if the needle point is centered in the needle dorp hole on the presser foot).(Fig.1)

安全须知请先仔细阅读

●务必检查压脚是否牢固的固定好。（使用抬压脚机构抬起压脚，用手前后左右扳动，检查看压脚是否松动）(图2)



(图2)
(Fig 2)

(3)培训.进修

●为了防止事故，缝纫机机头或缝纫系统的操作人员及维修保养专员，应先学会所需要知识和有关技能，来保证工作的安全。为此，请由客户的管理单位给她们安排培训计划，而实施充分的训练。

4. 各操作过程的注意事项

注意

①开箱

1. 缝纫机机头在出厂时包装好后装入纸箱运出的，从印刷在纸箱上标记字样确认上下后，请从上到下按顺序开箱。
2. 把缝纫机机头缓冲包装材料里拿出时，绝对不要提拿与机针部位或过线器等有关的部位。否则会发生危险或损伤机器。
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。
4. 开箱用过的纸箱如果以后还用的话，请妥善保存放好。

包装材料的处理

●包装材料包括木头、纸张、纸箱、VCE 纤维。恳请顾客负有责任的将包装材料正确适当的进行处理。

缝纫机废物的处理

1. 缝纫机的废物，请客商负责进行处理。
2. 制造缝纫机所使用的材料有铁、铝、锌及各种塑料。
3. 缝纫机的废物应遵照当地环境保护的有关规定进行处理。必要时委托专门的厂家进行处理。

※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。

●在顾客场地内移动缝纫机时造成的损失本公司没有责任。移动时为了避免缝纫机掉落摔坏，请注意不要倾斜缝纫机。

Be sure to study very carefully for safety

●Check to see if the presser foot is secured (raise the presser foot by the foot lifter and press it by hand front to back and left to right.) (Fig 2)

(3) Training

●To prevent accidents, operators and service/mainte-nance personnel should have proper knowledge and skills for safe operation. To ensure so, managers must design and conduct training for these people.

4. Notes for each procedure

CAUTION

① Unpacking

1. The machine is packaged in a cardboard box before shipping. Unpack your machine in orderly sequence while checking them right-side up by referring to the indications, such as logo, etc. printed on the boxes.
2. Never hold the area near the needle and/or thread guide related parts when taking out the machine from the cushion. Otherwise it may cause injury and/or damage to the machine .
3. Take out the machine very carefully while checking the position of the center of the gravity.
4. Keep the cardboard box and packing carefully in case secondary transport is needed in the future.

Disposal of the packaging

●The packaging material of the machine consists of wood, paper, cardboard and VCE fiber. The proper disposal of the packaging is the responsibility of the customer.

Disposal of machine waste

1. The proper disposal of machine waste is the respon-sibility of the customer.
2. The materials used on the machine are steel, aluminum, brass and various plastics.
3. The machine waste is to be disposed of in accordan-ce with the locally valid environmental. protection regulations. A specialist should be commissioned if necessary.

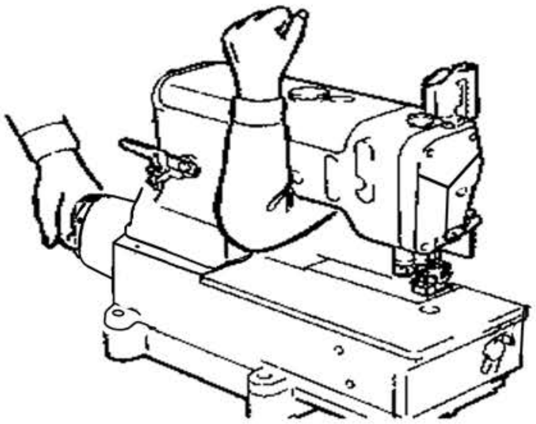
※The parts contaminated with lubricants should be disposed off separately according to the locally valid environmental protection regulations. Transport within the customer' s premiss

●The manufacturer assumes no liability for transport within the customer' s premises. Careshould be taken to transport the machine in an upright position avoiding it from dropping or falling down to the ground when it is moved.

⚠ 警告

② 搬运

1. 缝纫机机头的搬运一定要两个人以上进行。另外，用人直接搬运应只限于搬往缝纫机台板或小台车。其他搬运务必使用小台车进行。
2. 移动缝纫机机头时，用右手抓住传动轮，左手垮在机头里，扎实牢固的搬起。缝纫机上沾有油污在搬运时容易滑脱摔坏，搬运前请好好擦净机头上的油污。(图3)



(图3)
(Fig 3)

3. 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，以免缝纫机倾斜造成危险。
4. 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。

⚠ 注意

③ 安装.准备

缝纫机台板

1. 请使用能充分承受缝纫机机头重量及搬运时产生的反作用力的缝纫机台板（台板、铁架）。
2. 应充分考虑缝纫机装配部件和操作光线的明亮度，放置在容易操作的环境中。如果光线不是十分明亮时，应根据需要安装照明电灯。
3. 在运转缝纫机时，为防止操作者踩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。
4. 在考虑操作者姿势的前提下，决定台板面的高度（工作时的高度）。

⚠ 警告

接线

1. 请牢固的插好缝纫机机头与电机连接线的插头。缝纫机机头与电机用连接线进行连接时，务必使电源开关在关闭的状态下进行操作。
2. 在使用中请不要给连接线过多的力。

3 ⊘ 请不要过度弯曲连接线

4. 接近运动部件（如传动轮、V型皮带等）的连接线，最小距离应在25mm处进行安装。

⚠ WARNING

② Transportation

1. The machine should be carried by at least more than two people when it is mounted on the table and/or a hand truck. Be sure to use hand truck for other transportation.
2. To carry the machine ,hold the machine pulley tightly with your right hand and the machine arm with your left upper arm. If the machine and/or your hands are stained with oil, the machine may be easy to slip out of your hands and fall to the floor. Therefore, wipe off the oil carefully. (Fig 3)
3. Care should be taken to avoid excessive shock and shake when the machine is mounted on the table and/or transferred using a hand truck. Otherwise the machine may fall down.
4. Wipe off the oil from the machine before packaging it again for secondary transport. Otherwise the machine may easily slip out ofyour hands or the bottom of the box may come off while in transit.

⚠ CAUTION

③ installation, preparation

Machine table

1. Use the machine table (table board. metal legs) that completely carries the machine and is fully resistant to warping while the machine is running.
2. Arrange the working environment for easy operation by considering where to place the machine and the brightness around working area if the illumination is insufficient, control or change lighting as requ-ired.
3. Attach a non-slip pad to the treadle (foot switch). Otherwise the operator may slip off the treadle while running the machine, causing trouble.
4. Adjust the height of the table according to a working posture of the operator.

⚠ WARNING

Cables

1. When connecting the cables between the machine and the motor, be sure to turn off the power and connect each cable connectors securely.
2. Do not strain the cables in use.

.

3. ⊘ Do not bend the cables escessively
4. When connecting the cables that are close to the moving parts. such as pully or V belt, keep a distance of 25mm at least between them.
5. Protect each cable using a cover or adjusting its position if necessary.

安全须知请先仔细阅读

5. 必要时考虑连接线位置或加设护照来保护连接线。
6. 固定连接线时绝对不要使用订书钉，以免发生 漏电或火灾。

⚠注意

接地

1. 接地线是按每台缝纫系统分别装设专用的接地线，不应与其他机器共用。
2. 在缝纫机机头的规定地点准确地装设接地线为要。

⚠警告

④ 使用缝纫机油

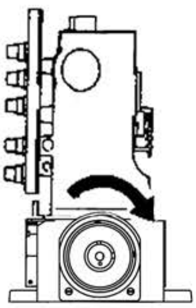
1. 在油盘内没有注入油以前绝对不要进行运转。机油请使用指定的缝纫机专用润滑油（相当于ISO粘度等级VG22）。
2. 机油进入眼睛会使眼睛发炎，所以在使用时请戴防护眼镜以免机油进入眼睛。
※万一进入眼睛，请用干净水冲洗15分钟再请医生进行治疗。
3. 机油接触皮肤后，请马上用水和肥皂洗干净。
4. 绝对不要使机油进入口腔。
5. 机油请保管在孩子摸不到的地方。
※万一进入口腔，不要硬性呕吐，马上请医生进行治疗。
6. 废油、废容器的处理方法有必须遵照法令的义务、请根据法令正确处理。如不知道时请与购买部门联系后，正确进行处理。
7. 为了防止灰尘、水分的混入，使用完后保管机油时请盖紧油箱盖，放在没有阳光直射的荫凉处保管。

⚠警告

⑤ 运转缝纫机前的注意事项

缝纫机台板

1. 打开电源前，请确认接线或接头是否有损伤、脱落、松动等外观上的异常。
2. 在打开电源时请不要将手放在机针附近或传动轮附近。
3. 最初开始运转缝纫机时，打开电源确认传动轮的运转方向 。缝纫机的正运转从传动轮侧来看是向右旋转。（图4）



(图4)
(Fig 4)

Be sure to study very carefully for safety

5. Protect cable using a cover of adjuting its position if necessary.
6. Never use staples to fasten the cables. Othe -rwise it causes a short circuit and/or a fire.

⚠CAUTION

Ground

1. Connent each of the ground wires in the sewing machine system to the ground terminal. Do not connect to another devices'.
2. Connect the ground wires securely to the indicated ground points on the machine head.

⚠WARNING

④ Handing machine oil

1. Never start the machine with no oil the reservoir. Use HIGH SPEED SEWING MACHINE OIL (Equivatent of ISO requirements: Viscosity index of Vg22).
2. If machine oil gets in your eyes, it may cause eye irritation. To prevent the machine oil from getting in your eyes, wear a pair of protective glasses.
※ Shonld machine oil gets in your eyes, wash them with fresh water for 15 minutes and then go to see a doctor.
3. Avold skin contact. Immendatelywash contacted areas completely with water and soap
4. Never swallow machine oil.
5. Keep machine oil out of the reach of children.
※If swallowed, do not induce vomiting. Immediately go to see a doctor.
6. Dispose of the waste oil and/or containers properly as demanded by law. If you have further questions on its dispasal, consult the store or shop at which you purchased it.
7. After opening the oil container, be sure to seal it to prevent dust and water from getting into the oil and keep it in the dark to avoid direct unlight.

⚠WARNING

⑤ Before starting the machine

Machine table

1. Before turning the power on, visually check the cables and connctors for defective conditions , such as damage , disconnection and/ or loosening.
2. Never bring your hands close to the needle. and/or pulley when turning on the power.
3. When the machine is used for the first time, turn on the power and then check the rotaing direction of the machine pulley. The machine pulley should turn clockwise as seen from the machine pulley. (Fig 4)

4. 操作缝纫机者应为受过适当训练、充分理解本使用说明书的内容之后，再进行操作使用。

5. 关于缝纫机机头上的危险、警告标志应熟读并理解（“2”警告表示，必要时应对使用者进行安全教育。

6. 最初使用的一个月应降低速度。请使用在最高转速的3/4以下的转速。

⚠警告

⑥ 运转缝纫机中的注意事项

1. 🚫在拆卸下防护板、护指架、传动轮护罩等安全装置的状态下，请不要运转缝纫机。

2. 🚫缝纫机在运转中是很危险的，绝对不要将手放入机针下。

3. 使用离合器式电机时关掉电源之后电机仍然会继续旋转一会儿。这时踩缝纫机踏板后缝纫机会运动是很危险的，请特别小心。

4. 🚫缝纫机在运转中是很危险的，所以绝对不要将手指、头发、衣服接近手轮、V型皮带、电机传动轮、挑线器、针棒。同时。也不要将剪刀、镊子、工具等放在以上部位。

5. ⚠使用带有切刀装置的缝纫机时，请不要将手指太靠近切刀部位，特别在缝纫机中很容易发生事故，是很危险的。

6. 请不使用缝纫机时或者操作者离开缝纫机时，一定要将电源开关关掉。

7. 停电时务必将电源关掉。

8. 在操作缝纫机时，请穿着不易被机器卷入的服装。

9. 🚫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。

⚠注意

⑦ 维护、检查、修理

1. 维修、检查、修理的作业应由受过专业训练的人并在充分理解本使用说明书的内容之后，再进行作业。

2. 为了维护、检查、修理要将缝纫机机头放倒时、务必将电源开关关掉，把电源插头从插座上拔下，并确认即使踩缝纫机踏板缝纫机也不会转动之后再进行操作。

3. 在安装或拆卸V型皮带时，务必将电源开关关掉，把电源插头从插座上拔下，并确认即使踩缝纫机踏板，缝纫机也不会转动之后再进行操作。

4 . 对于缝纫机机头的日常检查和定期检查，应按照本书及使用说明书的指示，切实认真的进行。

4. Well trained operators should use the machine after studying these precautions and the instruction manual carefully.

5. Regarding symbols that indicate a danger or a warning ,read and study”2.Waning indications”carefully and give training on safety to the operators as required.

6. Run the machine at the speed less than 3/4 of its maximum for the first one month.

⚠ WARNING

⑥ Precautions while you are running the machine

1. 🚫 Do not run the machine with the safety devices removed, such as eye guard ,finger guard, pulley, cover etc.

2. 🚫Never bring your hands under the needle while running the machine.

3. A cluth motor keeps on running for a while after the power is turned off. Therefore,be careful even after the power is turned off as the machine could start running by pressing the machine treadle.

4. 🚫 To prevent accidents. never bring any part of your fingers. hair and clothes near the machine pulley ,thread take-up and needle bar. Also never leave sclssors、tweezers、tools,etc. around these areas.

5. ⚠If you use the machine with knife device ,do not bring any part of your hands and fingers too close to the knife during sewing. Otherwise it may cause accidents and physical in jury.

6. Always turn off the power while the machine is not used or before leaving the machine table.

7. In the event of a power failure, be sure to turn off the power.

8. While operating the machine,wera clothes that cannot be caught in the machine.

9. 🚫Do not put any tools or other unnecessary objects on the machine table while running the machine.

⚠ CAUTION

⑦ Maintenance, check ,repair

1. Well trained people should perform maintenance, check and repiar of the machine after studying these precautions and the instruction manual carefully.

2. If it is necessary to lay the machine backward for maintenance, check and repair, always turn off the power,unplug the machine and press the treadle to make sure that the machine does not operate before beginning any of the procedures.

3. Before installing/removing the V belt ,always turn off the power,unplug the machine and press the teradle to the make sure the machine does not operate.

4. .Carry out daily maintenance work and periodical inspections propperly by folloeing these precautions and the instruction manual.

6.安全保护装置

这个项目是为了使大家都知道各种安全保护装置，并记载了各部分的注意事项。

⚠ 注意

安全保护装置

（1）护眼板

不要打开

为了眼睛的安全，绝对不要在打开护眼板的状态下操作缝纫机。护眼板是为了在缝纫中针断时，使断针不会飞入眼睛而安装的护眼罩。

（2）护指架

不要把手指伸入

为了防止上下运动的机针与人接触而产生危险，在机针附近安装了护指架。但是，在护指架上方为了便于穿线而留有间隙，如果将手指从间隙伸入，机针有可能会刺伤手指造成危险。

（3）传动轮

请确认缝纫机传动轮的旋转方向，正确的旋转方向在传动轮侧看时向右转的。

（4）压脚

不要把手指伸入

从针板表面压脚的上升量是5 mm以上，这个间隙有夹手指的危险。在用膝盖开关抬升压脚时或用踏板自动抬升压脚时，请不要将手指伸入压脚下方。

（5）前护盖

不要打开

弯针的运动从缝纫机正面看时，是进行左右往复的圆弧运动。为了避免进行圆弧运动的弯针与人接触，务必请在前盖板闭合的状态下操作缝纫机。

（6）插板

不要打开

下线挑线器在缝纫时为了挑出一定量的下线在做旋转运动，为了避免进行旋转运动的下线挑线器与人接触，务必请在插板闭合的状态下操作缝纫机。

6.Protectors for safety

This chapter describes each protector for safe-ty.Therefore, read and study the following carefully.

⚠ CAUTION

Protectors for safety

(1)Eye guard

Never leave the eye guard open.

For the safety of eyes, do not operate the machine with the eye guard open. The eye guard will prevent any pieces of the broken needle from getting into your eyes if the needle should break during sewing.

(2)Finger guard

Never insert any of your fingers.

To prevent the needle that moves up and down from contacting any of your body, the finger guard is installed close to the needle. However, there is clearance above the finger guard for easy threading. Be careful that the needle may penetrate any of your fingers if you insert it into this clearance.

(3)Pulley

Check the direction in which the machine pulley rotates. It should rotate clockwise as seen from the pulley.

(4) Presser foot

Never insert any of your fingers.

There is a clearance of more than 5mm between the top surface of the needle plate and the press-er foot.Be careful that none of your fingers are caught in this clearance.Never insert any of your fingers under the presser foot when raising the presser foot with the knee switch or automatically raising it with the treadle.

(5) Front cover

Never leave the front cover open

The looper travels left to right while drawing an arc as seen from the front of the machine. To prevent the looper from contacting any part of your body, be sure to operate the machine whith the front cover closed securely.

(6)Sliding plate

Never leave the sliding plate open

The looper thread take-up rotates in order to supply the required amount of looper thread during sewing. To prevent the looper thread take-up from contacting any of your body, be sure to operate the machine with the front cover closed securely.

请参照下图进行台板的加工（图6）　　Cut the table referring to the diagram.(Fig6)

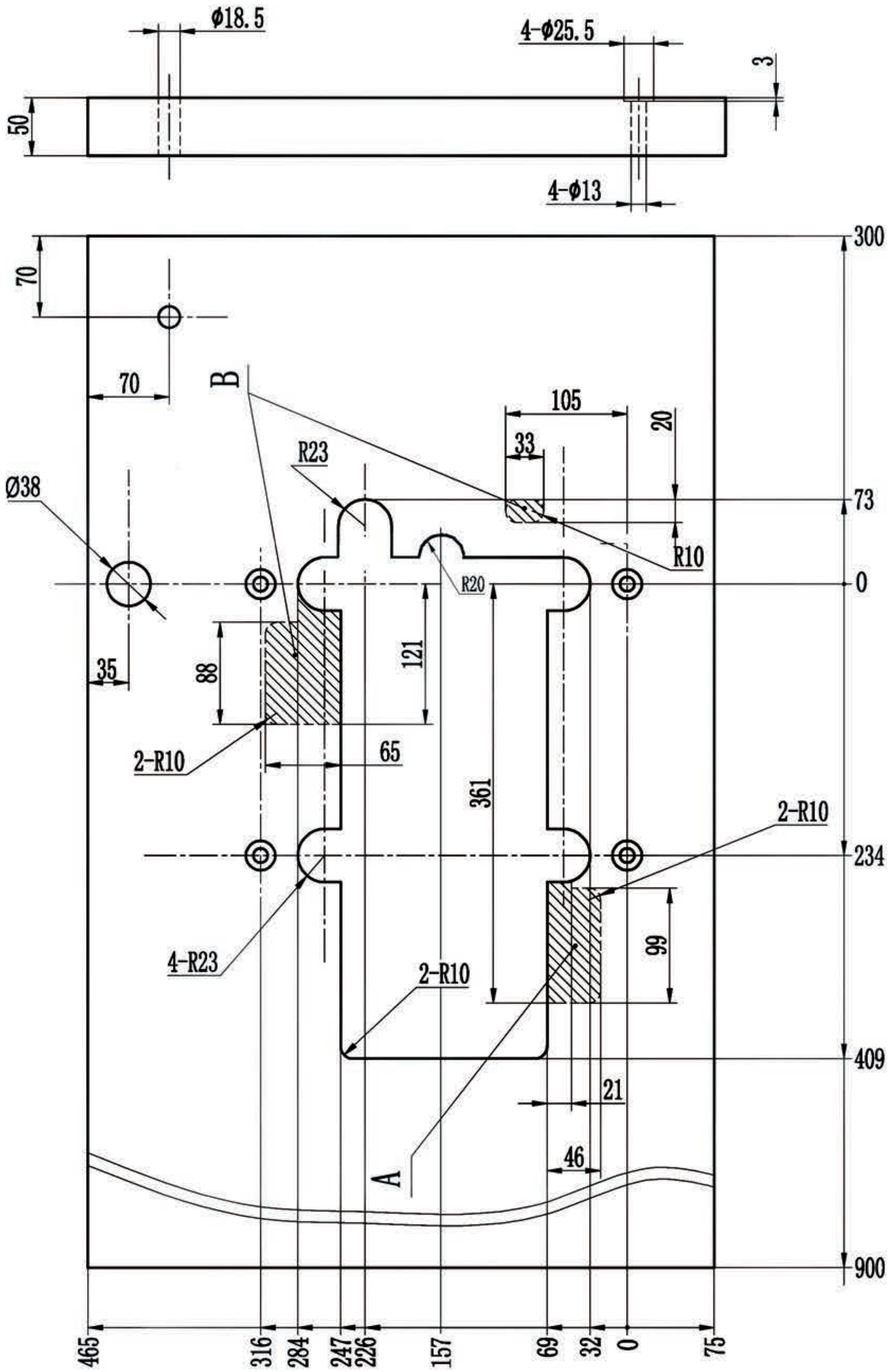


图6　（Fig6）

Not:1. if the machine is equipped with -05M8 device, cut area A
2. If you use -1UTD device, cut area B.

注：1. 在安装 -05M8（带有切刀装置）的缝纫机时，请剪掉A。
2. 在安装 -1UTD装置时，请剪掉B。

安装台的组装

请参照下图组装安装台
组装时注意不要留缝隙或松动的地方，确实可靠的进行安装。(图7)

缝纫机的安装

⚠ 注意

安装缝纫机时，务必将缝纫机的电源关掉，将插头从电源插销上拔下之后再进行。

缝纫机的旋转方向

缝纫机的旋转方向从手轮一侧看是向右旋转的。

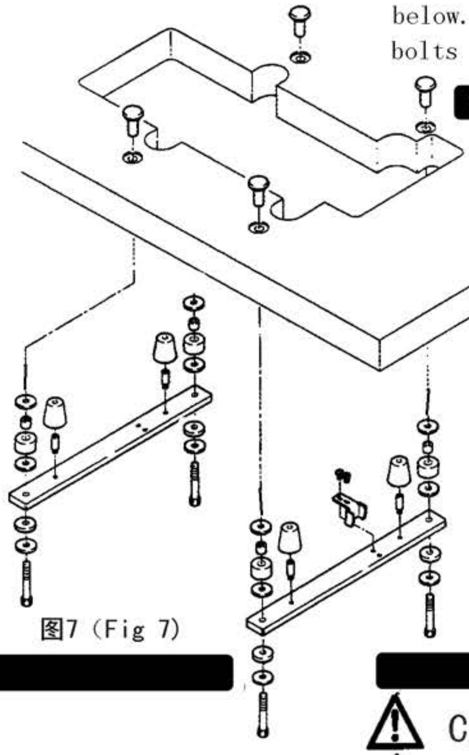


图7（Fig 7）

Assembling the machine rest board

Assemble the components comprising the machine rest board by referring to the illustration below. Be sure to secure all rods, nuts and bolts firmly with no shake. (Fig 7)

Sewing machine installation

⚠ CAUTION

Alaways turn off the power, unplug the machine and then wellqualified technicians should install the machine.

Operating direction of the machine pulley

the machine pulley rotates clockwise as seen from the end of the machine pulley.

关于供油

⚠ 注意

⚠ 在加机油时或换机油时，请务必使用本公司指定的机油。如果使用指定以外的机油，有可能损坏缝纫机。

1. 使用的油类

请使用本公司指定的（HIGH SPEED SEWING MACHINE OIL）（高速低粘度润滑油ISO粘度等级/VG22）。

2. 供油的方法

揭开供油口的盖子1，加油至油面到达油标尺的H线和L线中间。加完油后，请盖好供油口的盖子1.

3. 油的规定量

游标尺2的H线和L线表示着油量的上限和下限。为使油面经常保持在H线和L线之间，请常常检查注意加油。(图 8)

Lubrication

⚠ CAUTION

⚠ When lubricating the machine and/or replaceing the oil ,use Pegasus recommended oil. Using other oils may damage the machine.

1. Oil

Use the following oil.
Peg asus designated oil:(HIGH SPEED SEWING MACHINE OIL)specified by our company(ISO Viscosi -ty Grade 22.)

2. Tofill the machine with oil

Remove cap 1.Add the oil until the oil level (see oil gauge 2) reaches(H).
After filling the tank with oil,replace cap 1.

3. Required amount of oil

(H) on oil gauge 2:Upper limit.
(L) on oil gauge 2:Lower limit.
The oil level should always lie between (H) and (L). (Fig 8)

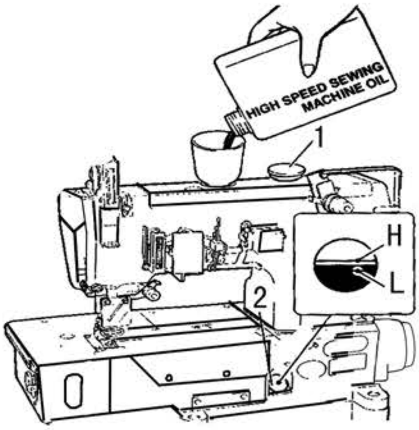


图 8（Fig 8）

4.用手加油

⚠ 注意

在用手加油时，务必将缝纫机的电源关掉，将插头从电源插座上拔下来之后再进行。

在开始使用缝纫机时，或者使用长期未使用的缝纫机时，用油壶给针杆3各加2-3滴油。(图9)

4. Manual lubrication

⚠ CAUTION

Always turn off the power and unplug the machine when you apply oil by hand.

Apply two or three drops of oil to needle bar 3 by hand when the machine is used for the first time or left unused for some time. (Fig 9)

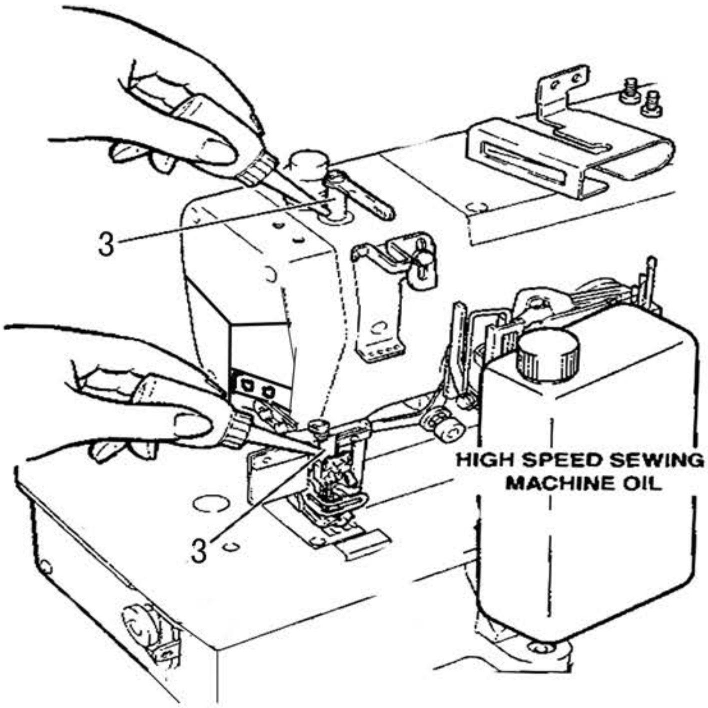


图9 (Fig 9)

5.检查机油的循环状况

请在加完油后，踩下缝纫机踏板，使缝纫机运转。通过油窗4检查机油的循环状况是否良好。(图10)

5.Checking oil circulation

Once the machine has been properly filled with oil ,press the machine treadle to run the machine and check oil gauge window 4 to see if the oil is flowing. (Fig 10)

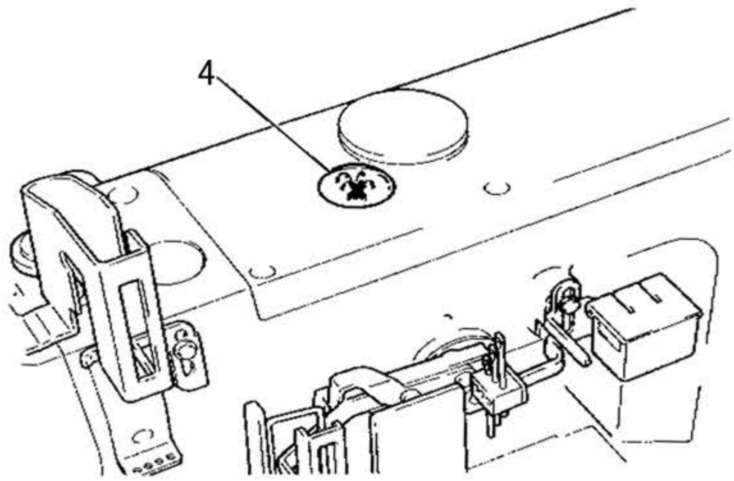


图10 (Fig 10)

给HR装置供油

Silicone oil for H.R.device

⚠ 注意

在给HR装置供油时，务必将缝纫机的电源关掉，将插头从电源插座上拔下来之后再进行。

在HR装置的硅油盒1、2中，为了防止针线断线加有硅油，请经常检查，尽早补充硅油.（图11）

⚠ CAUTION

Always turn off the power and unplug the machine when you fill the HR device with silicone oil.

Fill silicone oil tanks 1、2 with silicone oil. To prevent thread breakage or fabric damage, and the silicone oil before it is too low. （Fig 11）

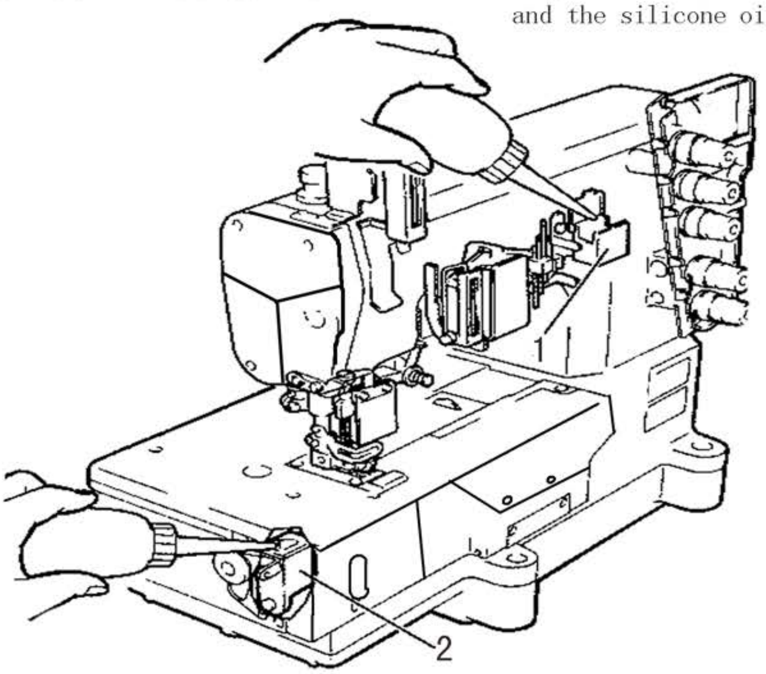


图11（Fig 11）

穿线的方法

Threading

⚠ 注意

在进行穿线时，务必将缝纫机的电源关掉，将插头从电源插座上拔下之后再进行.

1.请打开护眼罩1和护盖2、3、4.

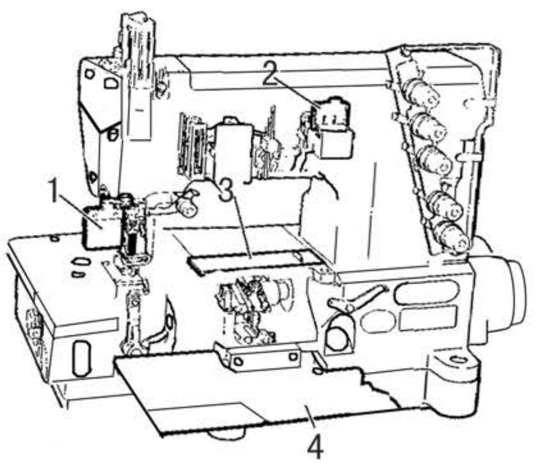
2.请按扳手5.这时下线挑线器6会挑出来。穿好线后，在返回原来的位置时，请按下下线挑线器.(图12)

⚠ CAUTION

Always turn off the power and unplug the machine when you thread the machine.

1.Open eye guard 1 and covers 2. 3 and 4.

2.Press lever 5 and bracket 6 comes out toward you. After threading, press bracket 6 into place. (Fig 12)



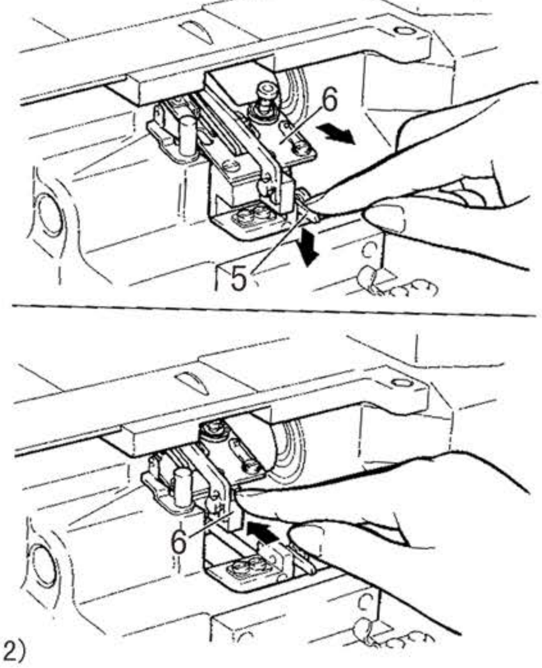


图12（Fig 12）

3.(如果已穿好线时)(图13)

A部：请将已穿好的线与缝纫用线连接起来。

B部：针线
将连接的针线穿到针眼前后，剪掉接头，再重新穿针线。
C部：弯针线、上装饰线
可一直将连接的线头穿好后，再用剪刀剪掉线头整好。

缝纫机如果没有穿线的话，请参照穿线图穿好线。(见16页)

3. In case the machine is threaded previusly (Fig15)
A:Knot the preset thread and the thread being used together to thread the machine .
B:Needle thread
Trim the knots off neatly before passing through the eye of the needle to thread.
C:Looper thread, Top cover thread
Trim the knots off neatly after passing through the eye of the looper.

Be sure to thread the machine correctly by referring to the threading diagram.(see page 15)

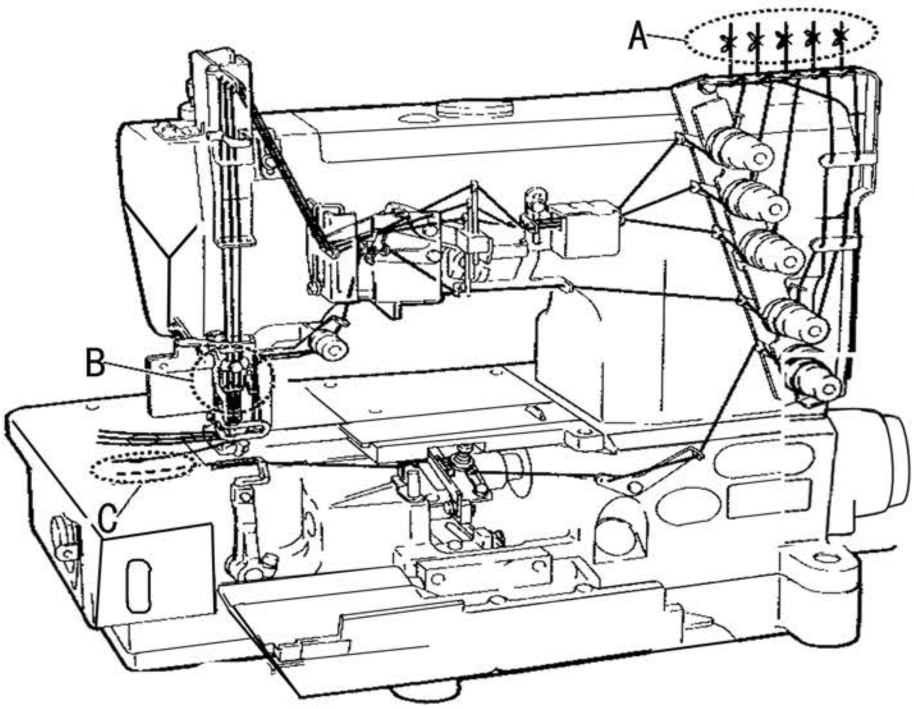
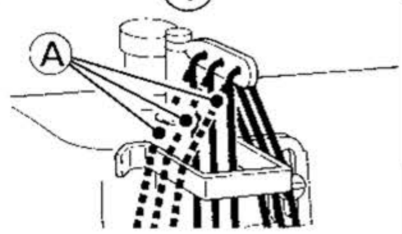
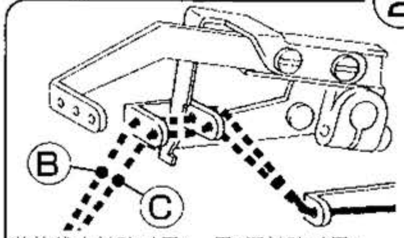


图13(Fig 13)

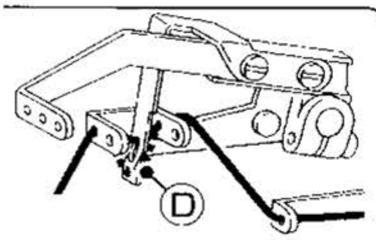
4.穿线图 4. Threading diagram



穿伸缩大的线时用点线A方向。
Ⓐ: For more stretchable thread.

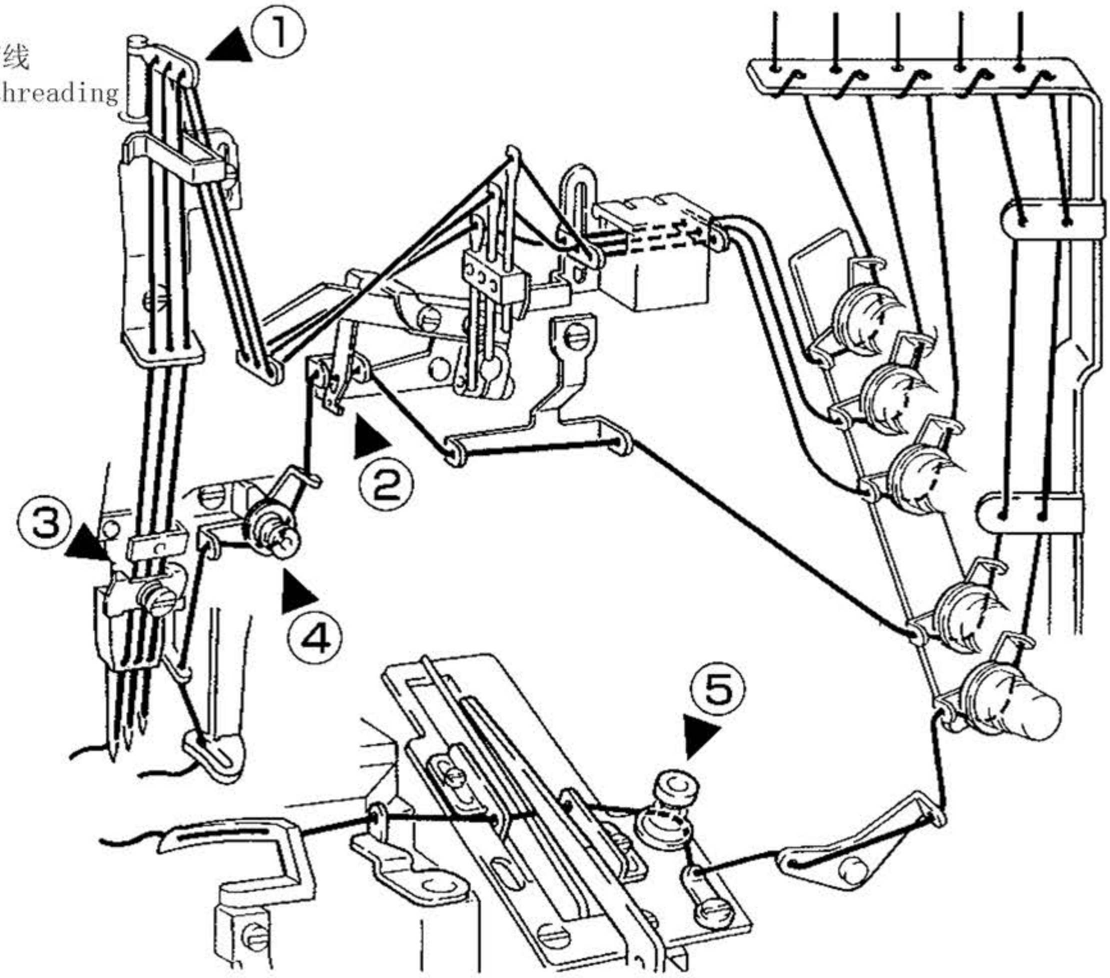


装饰线太松弛时用B，用B还松弛时用C。
If the top cover thread is too loose, thread the guide by referring to line B. If the top cover thread is still too loose, thread the guide by referring to line C.



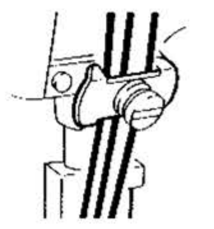
装饰线太紧时用D
If the top too cover thread is too tight, thread the guide by referring to line Ⓓ

通常的穿线
Normal threading

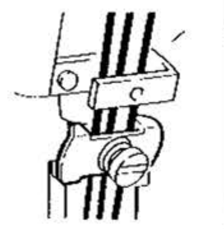


③

穿伸缩大的线时
For more stretchable threads.

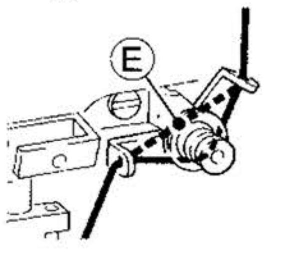


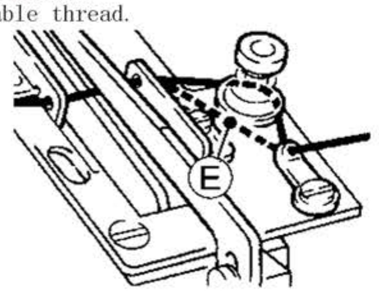
穿伸缩小的线时
For less stretchable threads.



④ ⑤

Ⓔ:穿伸缩大的线时用点线E方向
Ⓔ: For more stretchable thread.





压脚压力的调节

压脚的压力在送布能正确的进行，并且能缝出稳定针脚的范围内，请尽量使用较小的压力为宜。松开螺母1，旋转螺丝2进行调节。调节完后拧紧螺母1。(图14)

Adjusting presser foot pressure

The presser foot pressure should be as light as possible, yet sufficient to feed the fabric correctly and provide the uniform stitch formation. (Fig 14)

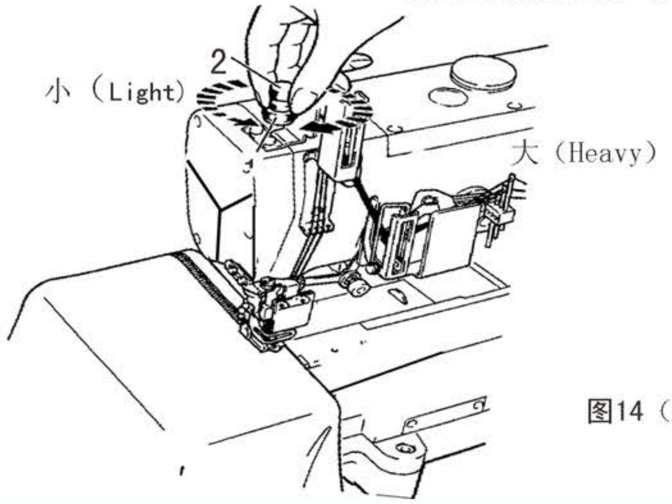


图14（Fig 14）

差动比的调节

1. 松开螺母3，将扳手4向下扳，则差动比变大，缝好的布料会收缩。将扳手4向上扳，则差动比变小，缝好的布料会伸长。
2. 调节完后，请将螺母3拧紧。(图15)

Adjusting the differential feed ratio

1. Looaen nut 3 for the differential feed ratio adjustment. To increase the differential feed ratio, lower lever 4. The finished fabric is shrunk .To decrease the differential feed ratio, raise lever 4.The finished fabric is stretched.
2. After this adjustment tighten nut 3. (Fig 15)

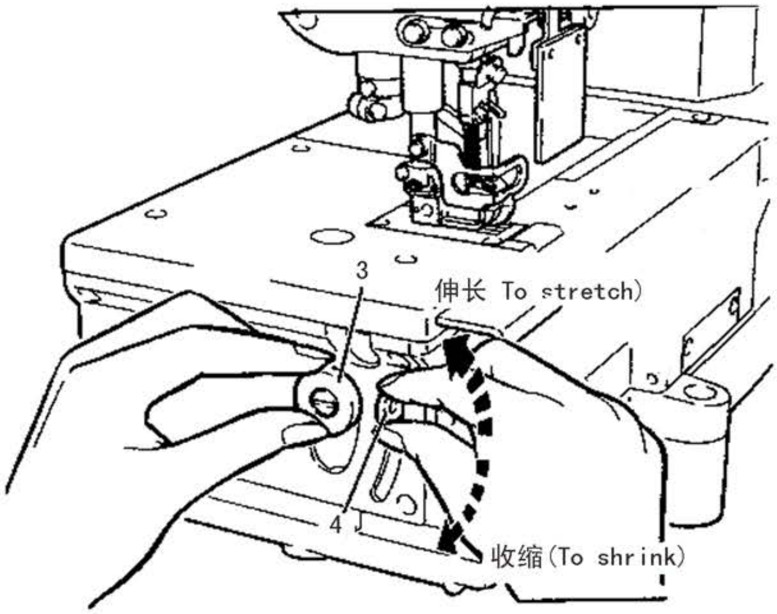


图15（Fig 15）

针脚长度的调节

⚠ 注意

在调节针脚长度时，务必将缝纫机的电源关掉，并将插头从电源插座上拔下来之后，再请专门的技术人员进行操作。

1. 一边轻轻按着套式按钮5，一边转动手轮6，这时套式按钮会陷下去一些。

Adjusting stitch length

⚠ CAUTION

Always turn off the power and unplug the machine when adjusting the stitch length.

1. While pressing the push button 5, turn the handwheel 6 to seek the position at which the push button 5 goes further into the depth.

2. 请继续按着套式按钮5，并转动手轮6，使所希望的刻度与记号A相吻合。

注：
缝纫针脚长度的调节，请务必在调节差动比之后进行。（图16）

2. Then keeping the push button 5 pressed, turn the handwheel 6 and set the desired scale to the aligning mark A.
Note
Stitch legth adjustment must only be made after the differential feed ratio has been changed (Fig 16)

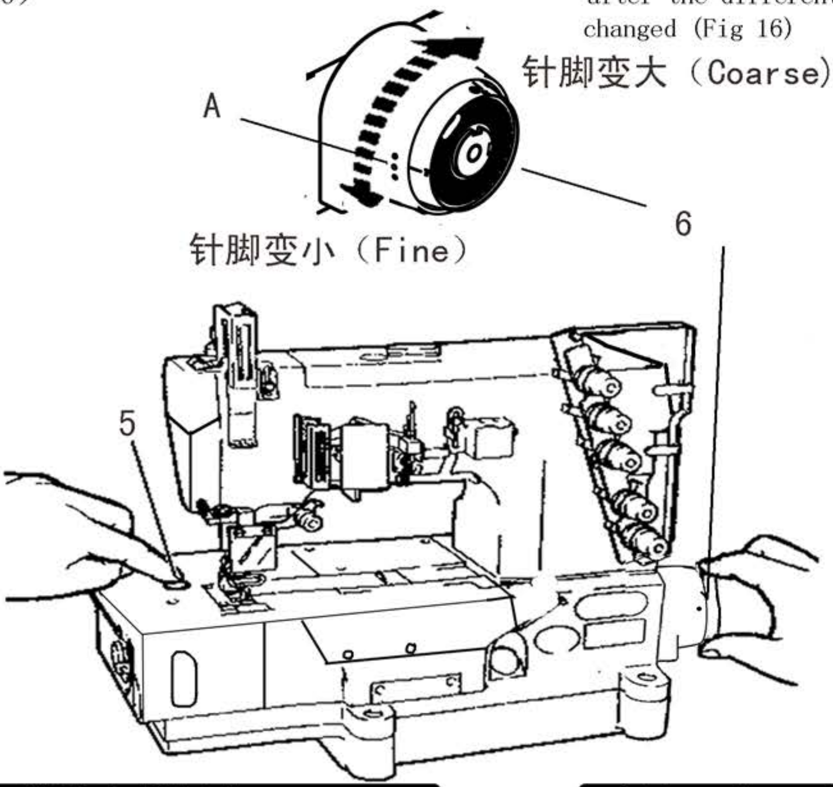


图16　(Fig 16)

线状态的调节

线状态的调节请用针线调节旋钮1、上装饰线调节旋钮2和下弯针调节旋钮3进行调节。
想将线拉紧一些时，可将各旋钮向右旋转，想松一些时向左旋转。在能取得均匀且漂亮缝纫效果的情况下，尽量采用较松的夹线状态。（图17）

Adjusting the thread tension

To obtain the proper thread tension, adjust need-le thread tension knibs 1, top cover thread tension knobs 2 and looper thread tension knob 3. To tighten the thread, turn each knob clock-wise To loosen the thread, turn each knob coun-terclockwise.
Each thread tension should be as light as poss-ible, yet be sufficlent to produced balanced and beautiful, stitches. (Fig 17)

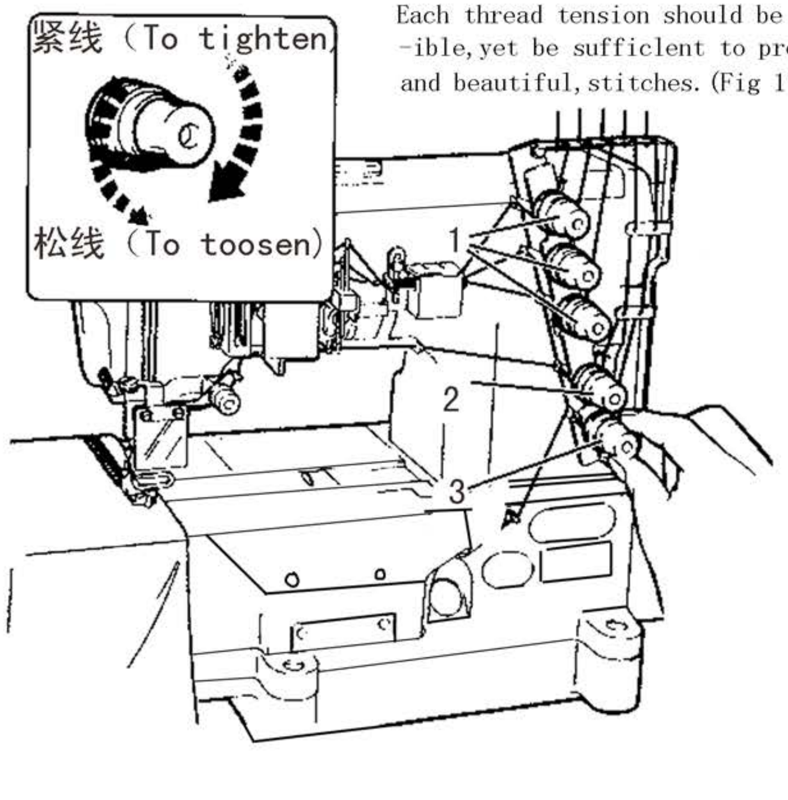


图17　(Fig17)

缝纫机的清扫

注意

在清扫缝纫机时，务必将缝纫机的电源关掉，将插头从电源插座上拔下来之后再进行。

1. 打开前罩板4和插板5，请松开螺钉6，卸下针板7。
2. 请打扫针板的空槽和送布牙周围。
3. 请用螺钉6安装针板7，并且关闭前罩板4和插板5。（图18）

Cleaning the machine

AUTION

Always turn off the power and unplug the machine when you clean the machine.

1. Open front cover 4 and slide plate 5. Loosen screws 6 and remove needle plate 7.
2. Clean the grooves of the needle plate and the area around the feed dogs.
3. Replace needle plate 7 with screws 6. Then close front cover 4 and slide plate 5. (Fig 18)

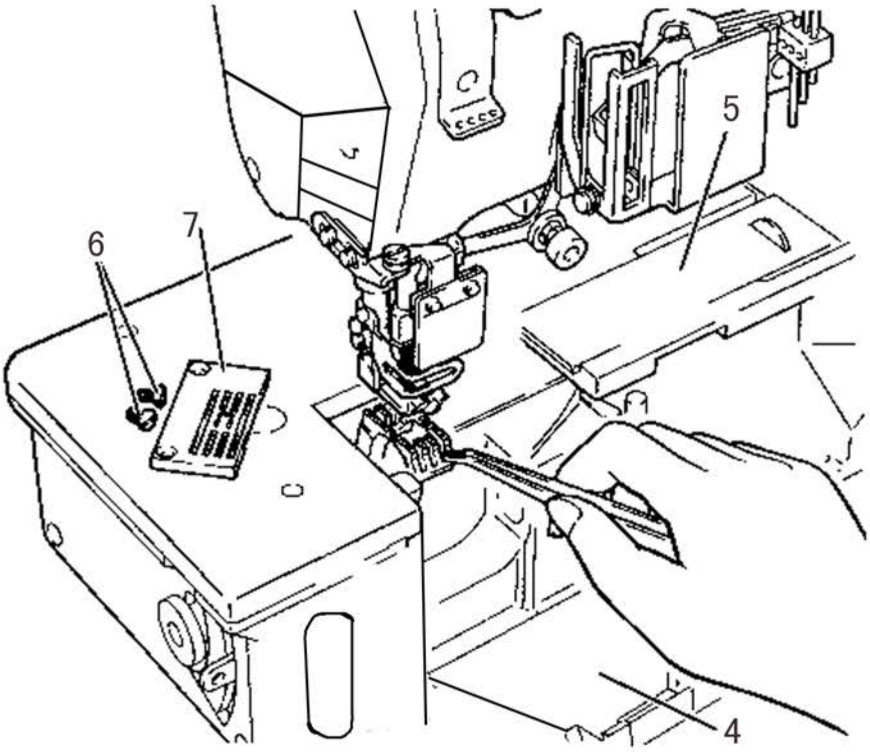


图18（Fig 18）

机针的更换

注意

在更换机针时，务必将缝纫机的电源关掉，将插头从电源插座上拔下来之后再进行。

1. 请使用带柄（1.5mm)的六角螺丝刀松开固定螺钉1。
2. 用附带工具箱的镊子将旧针取下来。
3. 将机针的凹槽朝着缝纫机后面进行安装。
4. 用镊子将新针插入到针箍孔的最深处。
5. 然后使用带柄（1.5mm)的六角螺丝刀拧紧固定螺钉1。（图19）

Replacing the needle

CAUTION

Always turn off the power and unplug the machine when you replace the needle(s).

1. Loosen screw(s) 1 using a red-handled key wrench(1.5mm).
2. Remove the old needle(s) by using a pincette (provided as accessories).
3. Fix the needle so that its scarf faces the rear side of machine.
4. Insert a new needle into the needle hole as far it will go by using a pincette.
5. Tighten screw(s) 1 using a red-handled key wrench(1.5mm). (Fig 19)

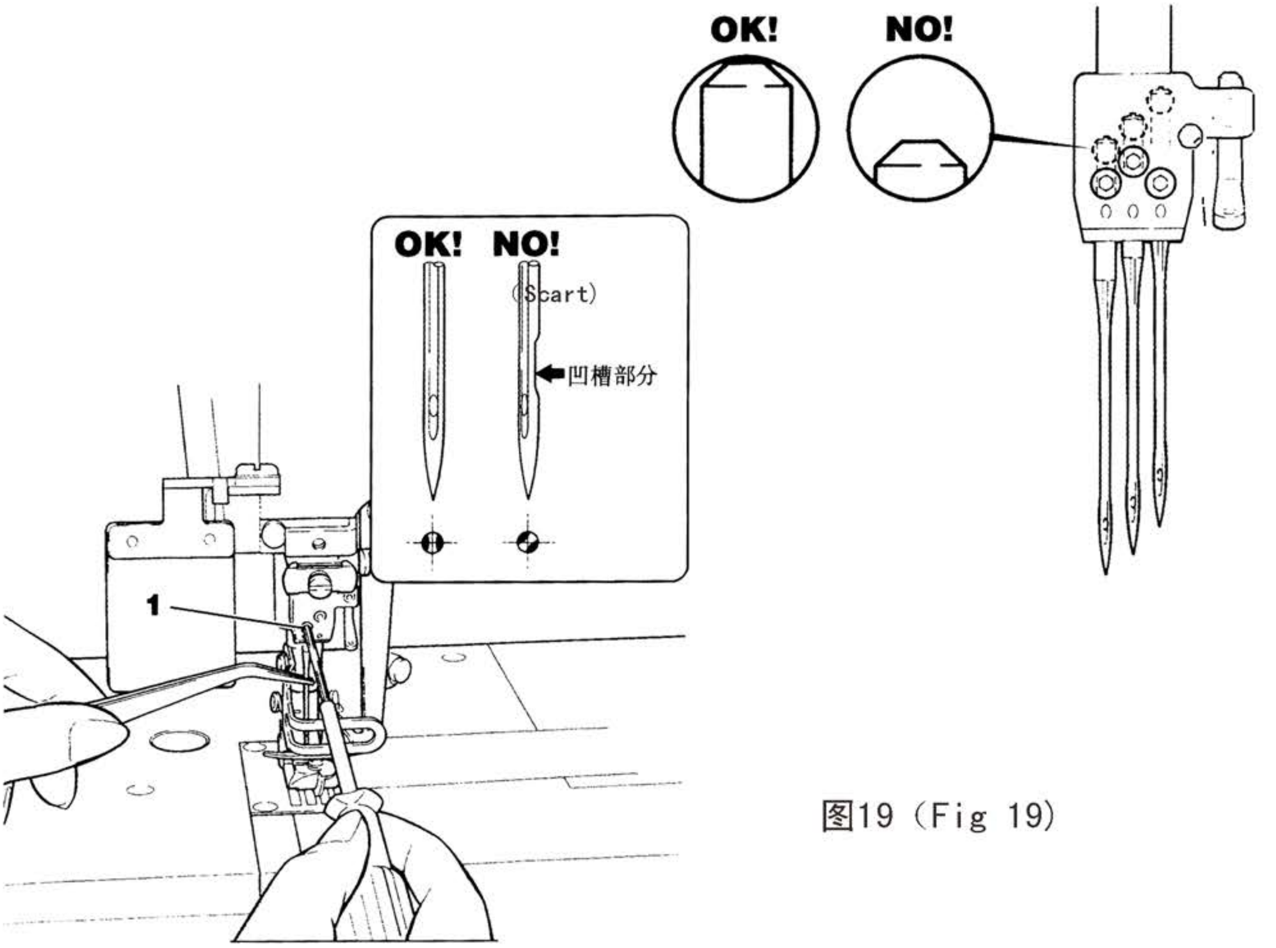


图19（Fig 19)

机油的更换

缝纫机在开始使用1个月后更换一次机油，然后请每6个月更换一次机油。如果不更换机油继续使用，缝纫机有可能发生故障。

Oil replacement

Replace the oil one month after the first use and thereafter every six months. If you keep using the old oil, it may cause the damage to the machine.

排油的方法

1. 请卸开油箱底座排油孔盖螺钉2，排出旧油。
2. 排完油后，将排油孔盖螺钉2拧紧。(图20)
3. 加新油时参照供油说明。(图8)

To drain the oil

1. Drain the oil by removing screw 2 on the left side of the oil pan.
2. Tighten screw 2 after draining.(Fig 20)
3. As for replenishment of new oil. (Fig 8)

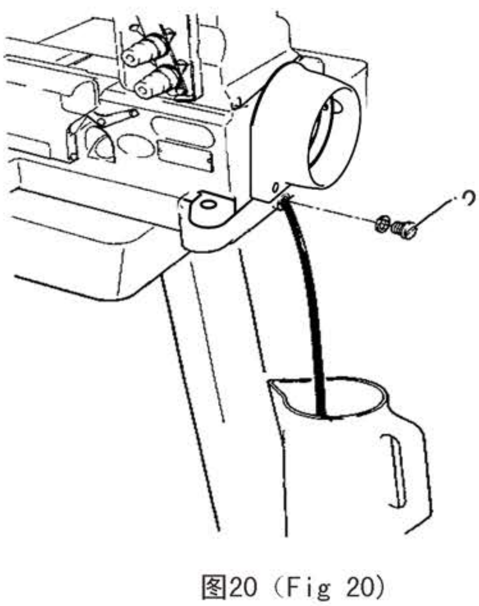


图20（Fig 20)

机油过滤器的检查与清扫

⚠注意

在进行过滤器的检查与清扫时，务必将缝纫机的电源开关关掉，将电源插头从插座上拔下来之后，请专门的技术人员进行操作。

每6个月请将机油过滤器卸下来检查、清扫一次。

1. 卸下螺钉1、2，然后请卸下油盘3。

2. 松开螺钉4，拆卸下过滤网5（内）和过滤网6（外），然后请进行检查和清扫。

3. 请将油盘3、过滤网5（内）和过滤网 6（外）按原来的样子进行安装。(图21)

Checking and cleaning the oil filter

⚠CAUTION

Always turn off the power, unplug the machine and then well qualified technicians should check and clean the oil filter.

Check and clean the oil filter every six months. To check and clean the oil filter.

1. Remove screws 1 and 2. Remove oil reservoir 3.

2. Loosen screw 4. Remove inner and outer filters 5 and 6. Then check and/or clean these filters.

3. Reinstall oil reservoir 3, filters 5 (inner) and 6 (outer). (Fig 21)

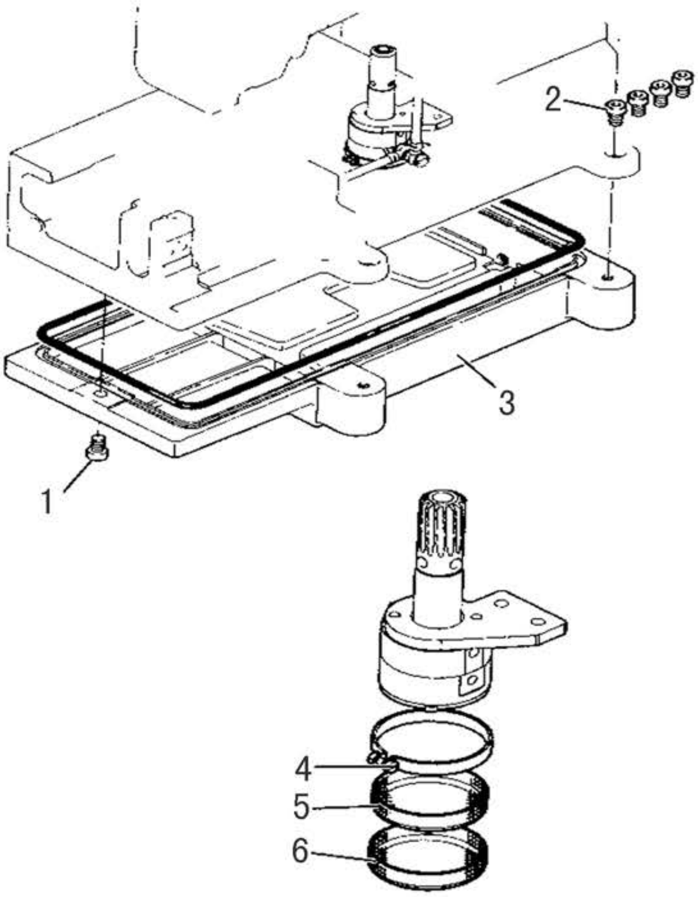


图 21（Fig 21）

调整基准数值

Adjustment dimentions

(mm)

	x□□□								
HW762T-1・2	240	9.3	4.0~4.3	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
HW762T-1・2 x□□□-1	348	9.4	3.6~3.9	8.8~9.2	4.5~5.0	17	0.8~1.2	5,000	
HW762T-1・2 x□□□-2	356	8.5	3.2~3.5	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
HW762T-1・2-1UTD/AK	364	8.1	2.8~3.1	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
HW762T-05M8	232	9.8	4.4~4.7	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
	240	9.3	4.0~4.3	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
	248	8.9	3.6~3.9	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
	356	8.5	3.2~3.5	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	
	364	8.1	2.8~3.1	8.3~8.7	4.5~5.0	17	0.8~1.2	5,000	

针号对照表

Comparison table of equivalent sizes

日本针号 Japanese size (Organ)	#	9	11	14	16	18	21
德国针号 German needle(Schmetz)	Nm	65	75	90	100	110	130

标准用针

Needle standard

	x□□□	Organ UY128GAS
HW762T-1・2 HW762T-1・2-1 HW762T-1・2-2 HW762T-1・2 UTD/AK HW762T-05M8	232	9S
	240	9S
	348	11S
	356	11S
	364	11S

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零件手册

PARTS BOOK

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通过ISO9001:2008
质量管理体系认证

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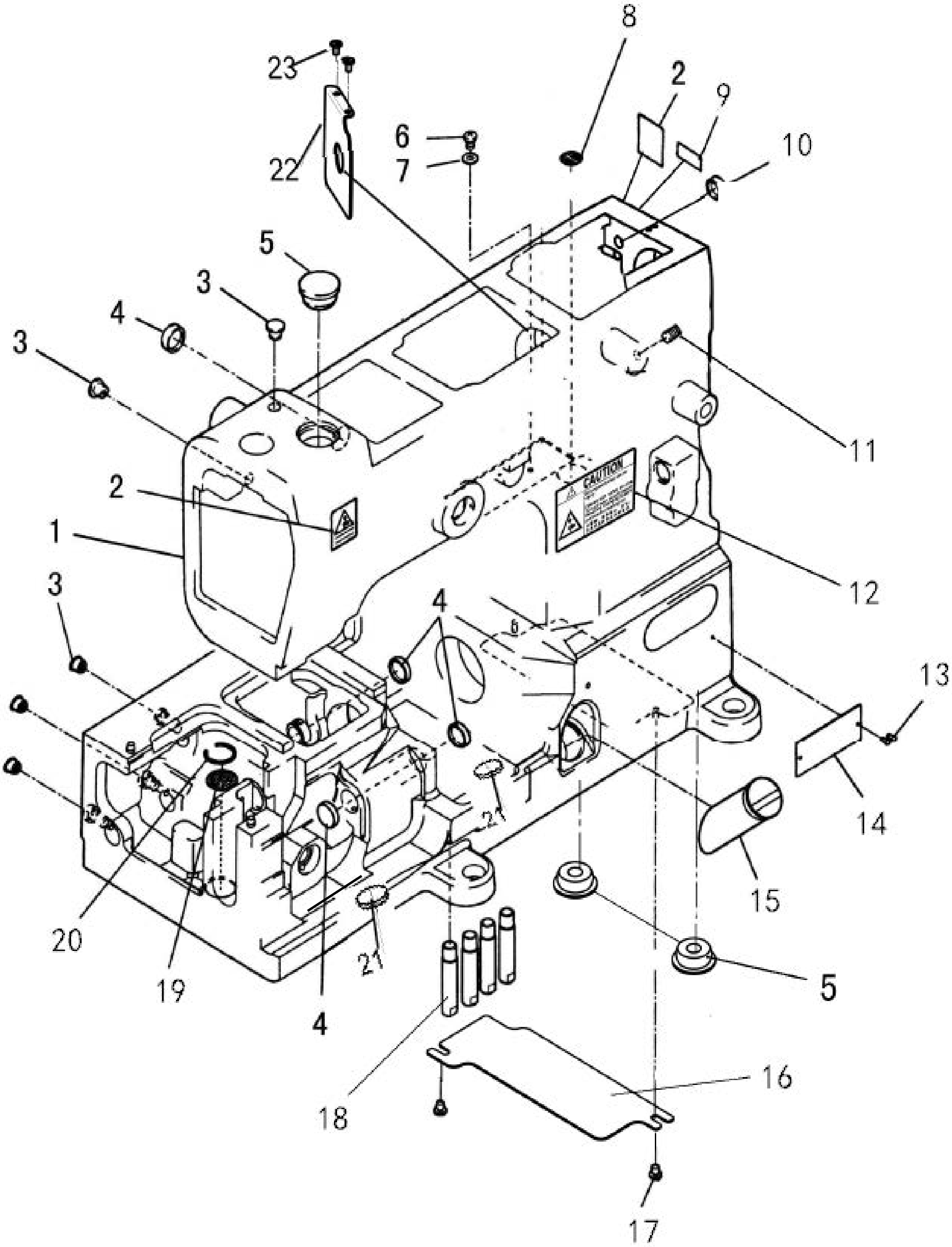
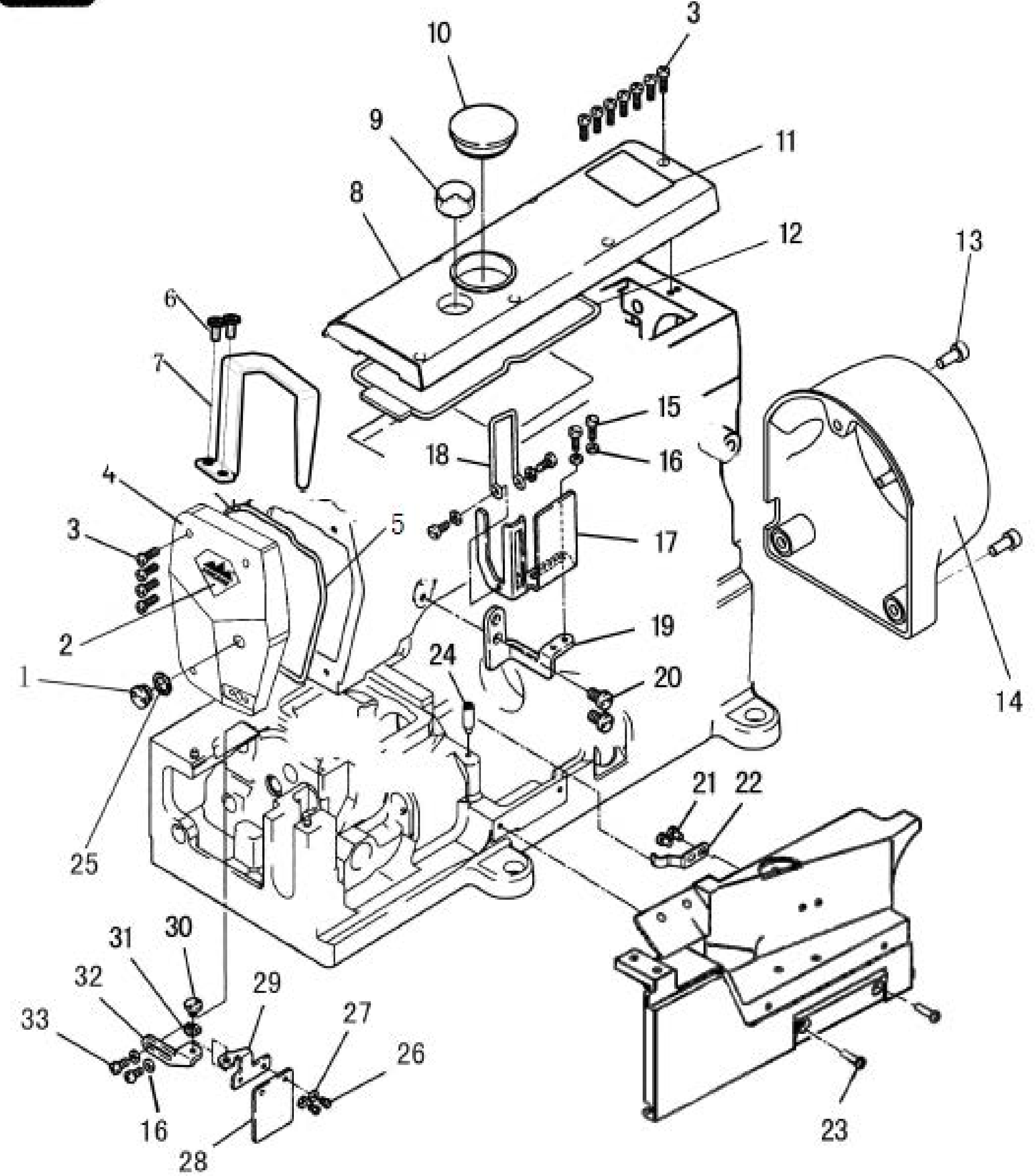


1.机壳部分 Machine bed frame

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311. 01-01G	机壳组件	Machine frame unit	1	1	
2	201. 02-10	安全标识	Safety-indicating	2	2	
3	22-07405009	橡胶塞	rubber plug	5	5	
4	22-15004000	油封	Oil Seal	4	3	
5	22-19807024	油塞	Oil Plug	3	3	
6	01-404000623-1	螺钉	Screw	1	1	
7	05-043080900-4	垫片	Spacer	1	1	
8	101. 01-14	接地标识	Ground mark	1	1	
9	311. 01-05	旋转标识	Rotating direction mark	1	1	
10	22-08005000	油封	Oil Seal	1	1	
11	01-806000814-1	螺钉	Screw	1	1	
12	101.01-13	安全标识	Safety-indicating	1	1	
13	17-3200500-5	铆钉	Rivet	2	2	
14	H0-004	综合型号牌紫色	Model Plate	1	1	
15	311.01-09	油标	Oil sight window	1	1	
16	311.01-10G	挡油板	Dust proof cover	1	1	
17	01-404000523-1	螺钉	Screw	2	2	
18	311.01-11	机壳支柱	Machine frame supporting	4	4	
19	311.01-12	油网	Oil filter net	1	1	
20	311.01-13	孔用弹簧	Ring	1	1	
21	311.01-16	烧结铜滤芯	copper filter element	1	1	
22	311.01-17	挡油板	Dust proof cover	1	1	
23	01-503000521-1	螺钉	Screw	1	1	

2



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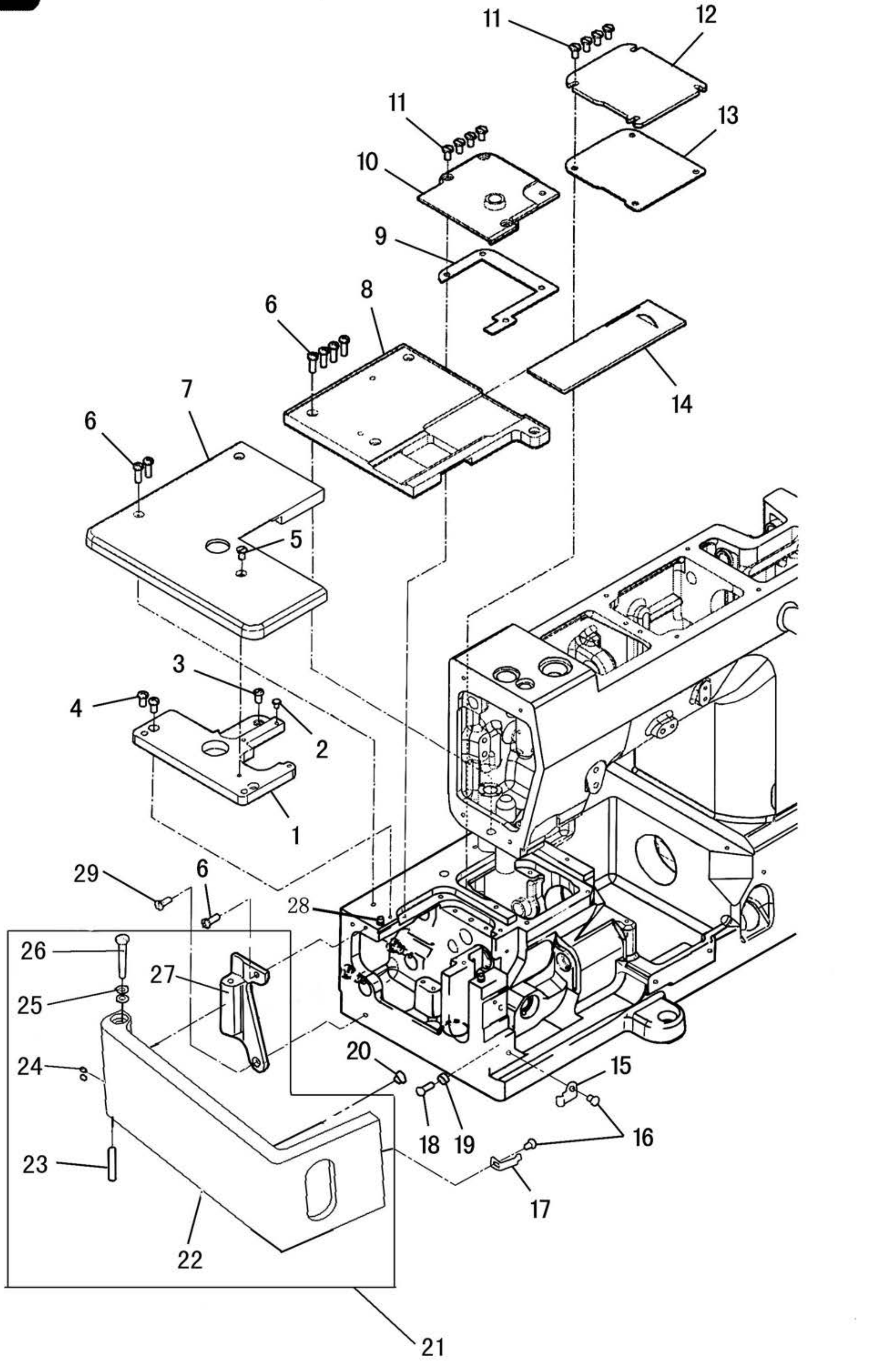
2.机壳外装件I　　Cover I

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.02-01G	面板堵油螺钉	Screw	1	1	
2	H0-001	富山标牌	Plate agsket	1	1	
3	01-404001223-1	螺钉	Screw	11	11	
4	311.02-03G1	前面板	Front cover	1	1	
5	311.02-04	面板油封垫	Front cover gasket	1	1	
6	01-404000823-1	螺钉	Screw	2	2	
7	351.02-16	挑线杆护罩	Needle bar guarde	1	1	
8	311.02-06G	上盖板	Top cover	1	1	
9	201.02-04	油窗	Oil Sight Window	1	1	
10	22-36609041	注油孔堵	Oil Plug	1	1	
11	311.02-08	安全标识	Safety-indicating	1	1	
12	311.02-09	上盖板油封	Top cove washer	1	1	
13	01-505001224-1	电机罩螺钉	Screw	3	3	
14	311.02-10G1	电机罩	Motor Cover	1	1	
15	01-504000621-1	螺钉	Screw	4	4	
16	05-043080900-3	垫片	Washer	6	4	
17	311.02-11	挑线护罩i	Thread takup cover I	1		
	313.02-11	挑线护罩i	Thread takup cover I		1	
18	311.02-12	挑线护罩II	Thread takup cover II	1		
19	311.02-13	挑线护罩支架	Thread takup cover holde	1		
20	01-606001021-1	螺钉	Screw	2	2	
21	01-404000623-1	螺钉	Screw	2	2	
22	311.02-14	前罩板簧	Positioning spring plate	1	1	
23	01-404001623-1	螺钉	Screw	2	2	
24	311.02-15	螺钉	Screw	1	1	
25	311.02-02	面板堵油螺钉垫	Washer	1	1	
26	01-503000521-1	螺钉	Screw	2		
27	05-032050700-1	垫片	Washer	2		
28	311.02-18	防护镜	Safety plate	1		
29	311.02-17	防护支架I	Safety plate holder!	1		
30	201.03-08	台螺钉	Screw	1		
31	08-0700311-1	波形弹性垫片	Elastic washer	2		
32	311.02-16	防护支架i	Safety plate holderl	1		
33	01-404001023-1	螺钉	Screw	2		

3



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3.机壳外装件II Cover II

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.03-01	针板架	Needle plate base	1	1	
2	22-03105006	防震塞	Needle plate base gasket	1	1	
3	01-604000821-1	螺钉	Screw	1	1	
4	01-404000823-1	螺钉	Screw	2	2	
5	01-104000721-1	螺钉	Screw	1	1	
6	01-404001223-1	螺钉	Screw	7	7	
7	311.03-03G	左缝台	Left cover	1		
	313.03-03	左缝台	Left cover		1	
8	311.03-04	右缝台	Right cover	1	1	
9	311.03-05	送布密封垫	Gasket	1	1	
10	311.03-06	送布密封盖	Top cover plate (left)	1	1	
11	01-704000821-1	螺钉	Screw	8	8	
12	311.03-07	盖板	Top cover plate(ringht)	1	1	
13	311.03-08	盖板垫	Gasket	1	1	
14	311.03-09	推板	Slip plate	1	1	
15	311.03-10	弹簧片	Spring patch	1	1	
16	01-404000623-1	螺钉	Screw	2	2	
17	311.03-11	弹簧片	Spring patch	1	1	
18	01-404001023-1	螺钉	Screw	1	1	
19	03-604000320-1	螺母	Nut	1	1	
20	22-05004009	防震垫	Cushion	1	1	
21	311.03-13	左缝台下罩壳组件	Left cover (lower),c.set	1		
	313.03-13	左缝台下罩壳组件	Left cover (lower),c.set		1	
22	311.03-13-01	左缝台下罩壳	Left cover (lower)	(1)		
	313.03-13-01	左缝台下罩壳	Left cover (lower)		(1)	
23	311.03-13-02	销轴	Pin	(1)	(1)	
24	01-803000414-1	螺钉	Screw	(2)	(2)	
25	09-0520309-1	垫片	Washer	(3)	(3)	
26	311.03-13-04	销轴螺钉	Pin	(1)	(1)	
27	311.03-13-05	下罩壳支架	Hinge	(1)	(1)	
28	311.03-18	针板架定位销	Needle plate base pin	2	2	
29	01-104001221-1	螺钉	Screw	1	1	

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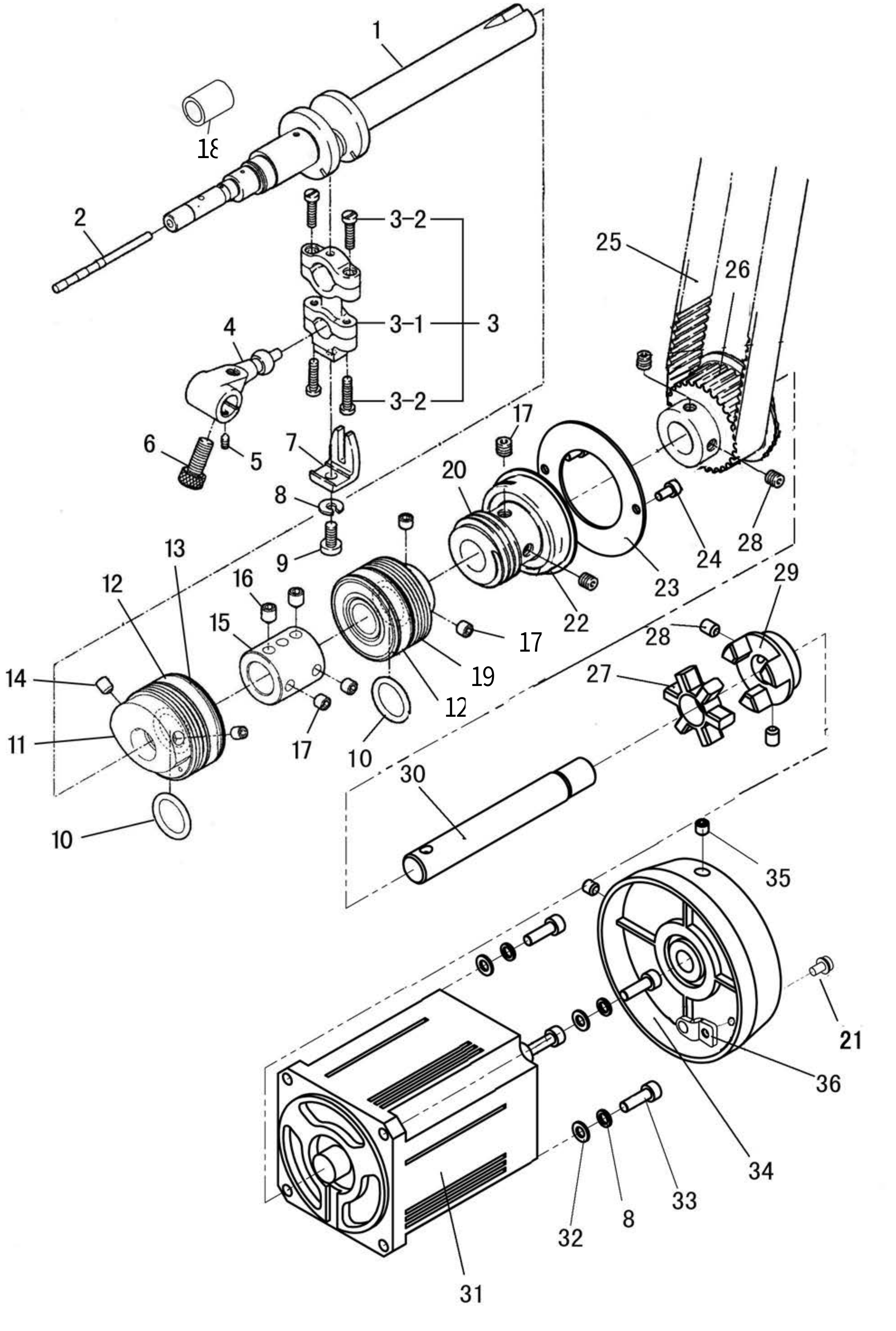
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4.下轴部分 Crankshaft drive mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.04-01	下曲轴组件	Lower crankshaft,c.set	1	1	
2	311.04-02	下曲轴油销	Lower crankshaft pin	1	1	
3	311.04-03	球连杆组件	Connecting rod,c.set	1	1	
	311.04-03-01	球连杆	Connecting rod	(1)	(1)	
	311.04-03-02	螺钉	Screw	(4)	(4)	
4	311.04-04	球曲柄	Crank	1	1	
5	01-803000444-1	螺钉	Screw	1	1	
6	01-506751424-1	螺钉	Screw	1	1	
7	311.04-05	比叉	Crank guide block	1	1	
8	07-0521313-1	弹簧垫5mm	Spring washer	5	5	
9	01-545001021-1	螺钉	Screw	1	1	
10	12-148240	O型圈	O-ring	2	2	
11	311.04-08	主轴左轴承衬套	Bushing	1	1	
12	14-6004-2Z/1	轴承	Bearing	2	2	
13	12-380130	轴承O型圈	O-ring	4	4	
14	01-805000614-1	螺钉	Screw	2	2	
15	311.04-11A	连轴器	Connecting shaft bushing	1	1	
16	01-806750844-1	螺钉	Screw	2	2	
17	01-806750514-1	螺钉	Screw	6	6	
18	311.04-12	下曲轴左套筒	Bushing	1	1	
19	311.04-13	轴承衬套	Bearing Bush	1	1	
20	311.04-14	蜗杆	Worm	1	1	
21	18-404000823-3	磁钢座螺钉	Screw	1套	1套	
22	14-6204-2RS/2	轴承	Bearing	1	1	
23	311.04-21G	轴承盖	Bearing cover	1	1	
24	01-604000821-1	螺钉	Screw	2	2	
25	331.10-03A	同步带	Driving belt	1	1	
26	331.10-04-01	下轴同步带轮	Lower shaft driving belt	1	1	
27	331.10-04-02	同步带轮缓冲垫	Tube structure	1	1	
28	01-806750814-1	螺钉	Screw	4	4	
29	331.10-04-03	电机连轴器	Clutch	1	1	
30	311.04-22G	下轴	Lower shaft	1	1	
31	331.10-05	直驱电机	Motor	1	1	
32	05-056101000-4	垫圈	Washer	4	4	
33	01-505001624-1	直驱电机螺钉	Screw	4	4	
34	311.04-25	手轮组件	Motorwheel	1	1	
35	02-815281014-1	手轮组件螺钉	Screw	2	2	
36	103.13-107	磁钢座组件	Alnico seat	1	1	

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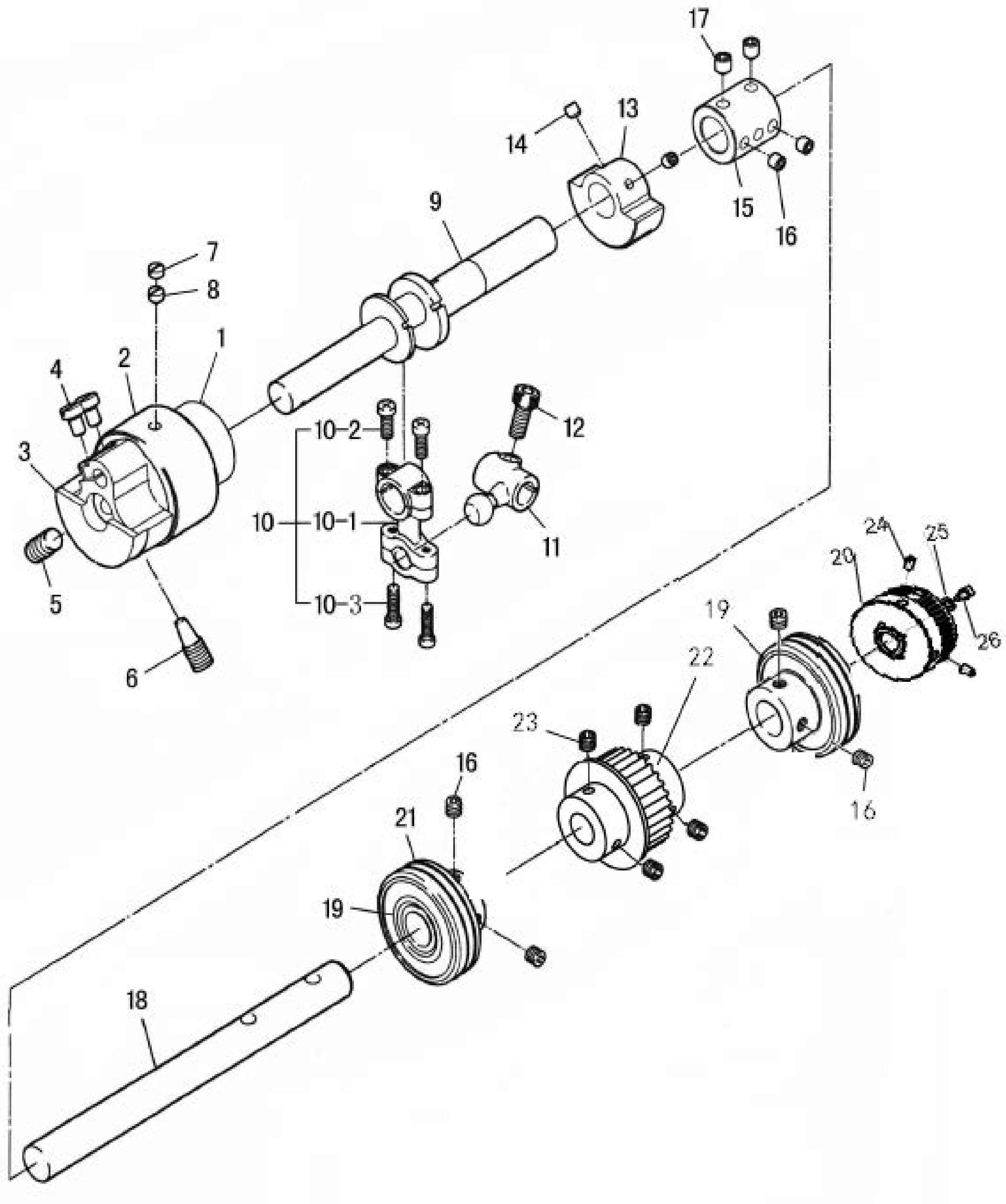

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5.上轴传动部分 Arm shaft mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	14-6203-2Z	上轴前轴承	Bearing	2	2	
2	311.05-02	上轴前轴承套	Bushing	1	1	
3	311.05-03	针杆曲柄	Needle bar crank	1	1	
4	01-505001021-1	螺钉	Screw	2	2	
5	01-808101514-1	螺钉	Screw	1	1	
6	01-808102034-1	螺钉	Screw	1	1	
7	01-806750411-1	螺钉	Screw	1	1	
8	01-806750641-1	螺钉	Screw	1	1	
9	311.05-04	上曲轴	Upper crankshaft	1	1	
10	311.05-05	挑线连杆组件	Connecting rod,c.set	1	1	
	311.05-05-01	挑线连杆	Connecting rod	(1)	(1)	
	01-404001223-1	螺钉	Screw	(2)	(2)	
	01-435001223-1	螺钉	Screw	(2)	(2)	
11	311.05-06	挑线球曲柄	Crank	1	1	
12	01-506751424-1	螺钉	Screw	1	1	
13	311.05-07	上轴配重	Upper shaft counterweigh	1	1	
14	01-805000514-1	螺钉	Screw	2	2	
15	311.04-11	连轴器	Connecting shaft bushing	1	1	
16	01-806750514-1	螺钉	Screw	6	6	
17	01-806750844-1	螺钉	Screw	2	2	
18	311.05-08A	上轴	Upper shaft	1	1	
19	14-6204-2RSNR/2	上轴中、后轴承	Bearing	2	2	
20	311.05-12G	手轮	Motorwheel	1	1	
21	12-420160	轴承O型圈	O-ring	4	4	
22	311.05-10G	上轴同步带轮	Upper shaft driving belt	1	1	
23	01-806750814-1	螺钉	Screw	4	4	
24	01-806000814-1	螺钉	Screw	2	2	
25	05-056101000-4	平垫片	washer	1	1	
26	01-505001424-1	螺钉	Screw	1	1	

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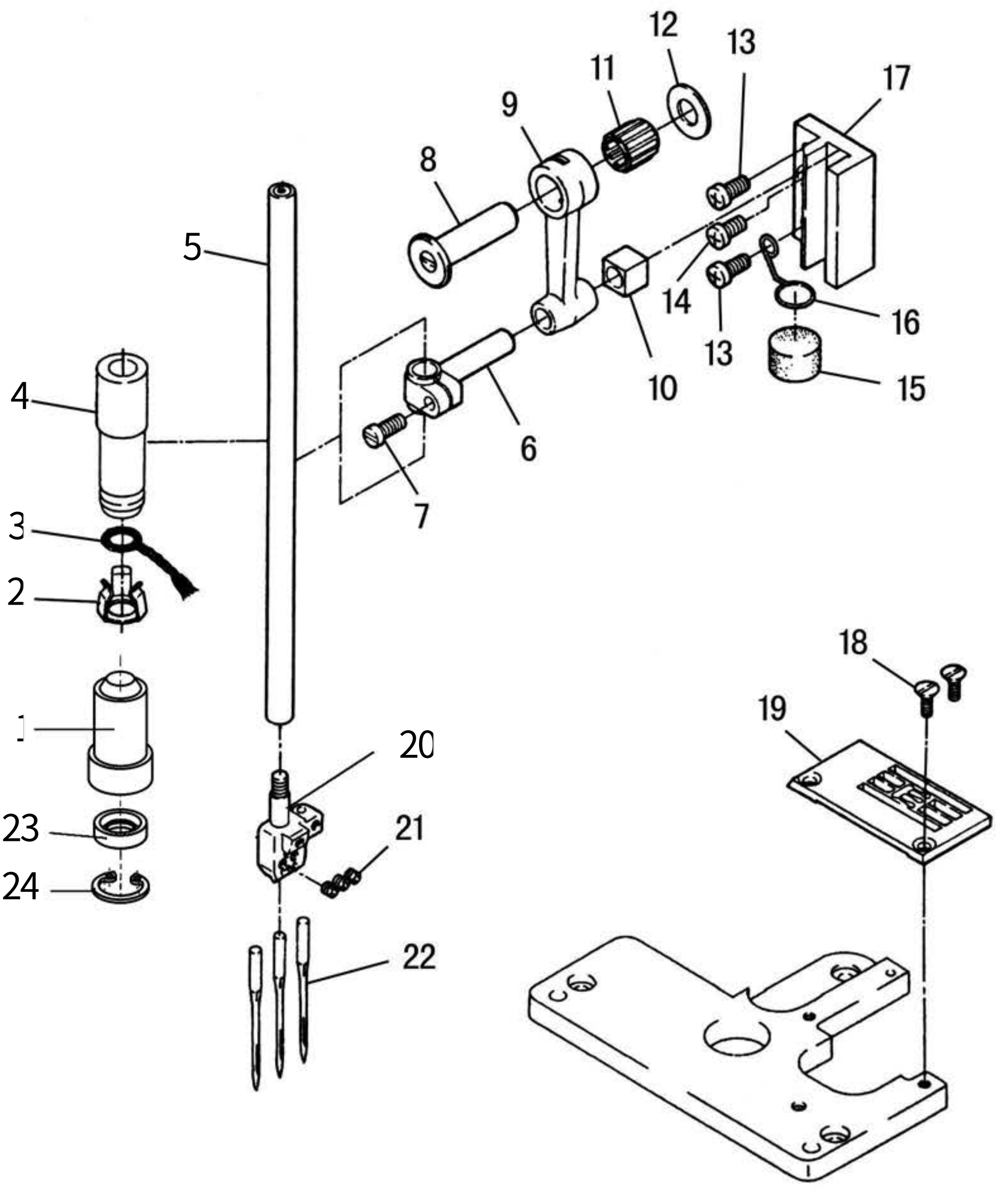

6.针杆传动部分 Needle bar mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311. 06-01G	针杆下套筒	Bushing	1	1	
2	311. 06-02	针杆油线卡簧	Oil wick retainer	1	1	
3	311. 06-03	针杆油线	Oil wick, c. set	1	1	
4	311.06-04A	针杆上套筒	Bushing	1	1	
5	311. 06-05	针杆	Needle bar	1	1	
6	351.06-19	针杆扎头	Needle bar bracket	1	1	
7	01-504001021-1	螺钉	Screw	1	1	
8	311. 06-07	针杆连杆销组件	Connecting rod pin, c. s	1	1	
9	311. 06-08	针杆连杆	Connecting rod	1	1	
10	311. 06-09	针杆连杆滑块	Slide block	1	1	
11	14-K81212	滚针轴承	Roller bearing	1	1	
12	05-081101553-5	塾圈	Washer	1	1	
13	01-404001223-1	螺钉	Screw	2	2	
14	01-404001023-1	螺钉	Screw	1	1	
15	311.06-12	海棉	Sponge	1	1	
16	311.06-13	油毡卡簧	Latch	1	1	
17	311.06-14	针杆滑块导轨	Slide block orbit	1	1	
18	02-209400921-2	针板螺钉	Screw	2	2	
19	311.06-15	针板	Needle plate	1		
	313.06-15	针板	Needle plate		1	
20	311.06-16	针夹	Needle clamp	1	1	
21	01-803000314-1	螺钉	Screw	3	3	
22	311.06-17	机针	Needle	3	3	
23	13-07040140A	骨架油封	oil seal	1	1	
24	11-1511017-1	孔用弹性挡圈	Washer	1	1	

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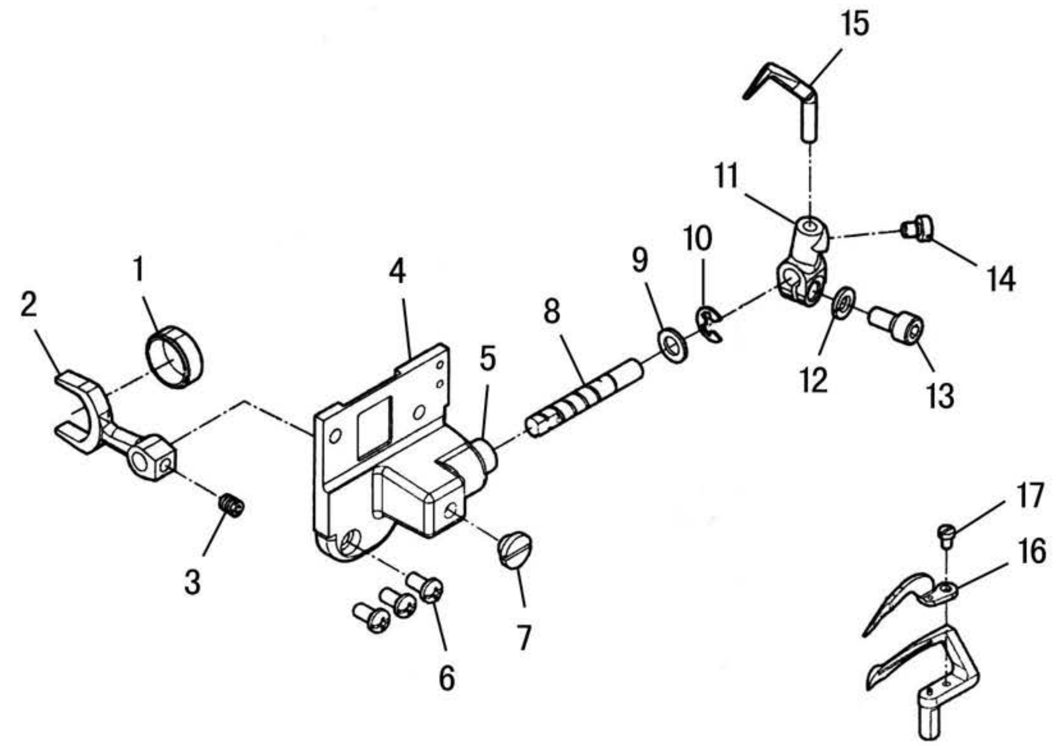

7.护针传动部分 Needle guard mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.07-01	后护针滑块	Slide block	1	1	
2	311.07-02	后护针拨叉	Slide block orbit	1	1	
3	01-805000514-1	螺钉	Screw	1	1	
4	311.07-03	后护针传动轴座组件	Shaft seat c.set	1	1	
5	311.07-03-01	套筒	Bushing	(1)	(1)	
6	01-404000823-1	螺钉	Screw	3	3	
7	01-606750421-1	螺钉	Screw	1	1	
8	311.07-04	后护针传动轴	Shaft	1	1	
9	05-063101002-1	挡圈	Washer	1	1	
10	06-0500611-1	轴用卡簧	Retaining ring	1	1	
11	311.07-07	后护针架	Needle guard (rear) hold	1	1	
12	07-0521313-1	垫片	Washer	1	1	
13	01-505001024-1	螺钉	Screw	1	1	
14	01-504000521-1	螺钉	Screw	1	1	
15	311.07-09	后护针挡	Needle guard (rear)	1	1	
16	311.07-10	前护针挡	Needle guard (front)	1	1	
17	01-525000421-1	螺钉	Screw	1	1	

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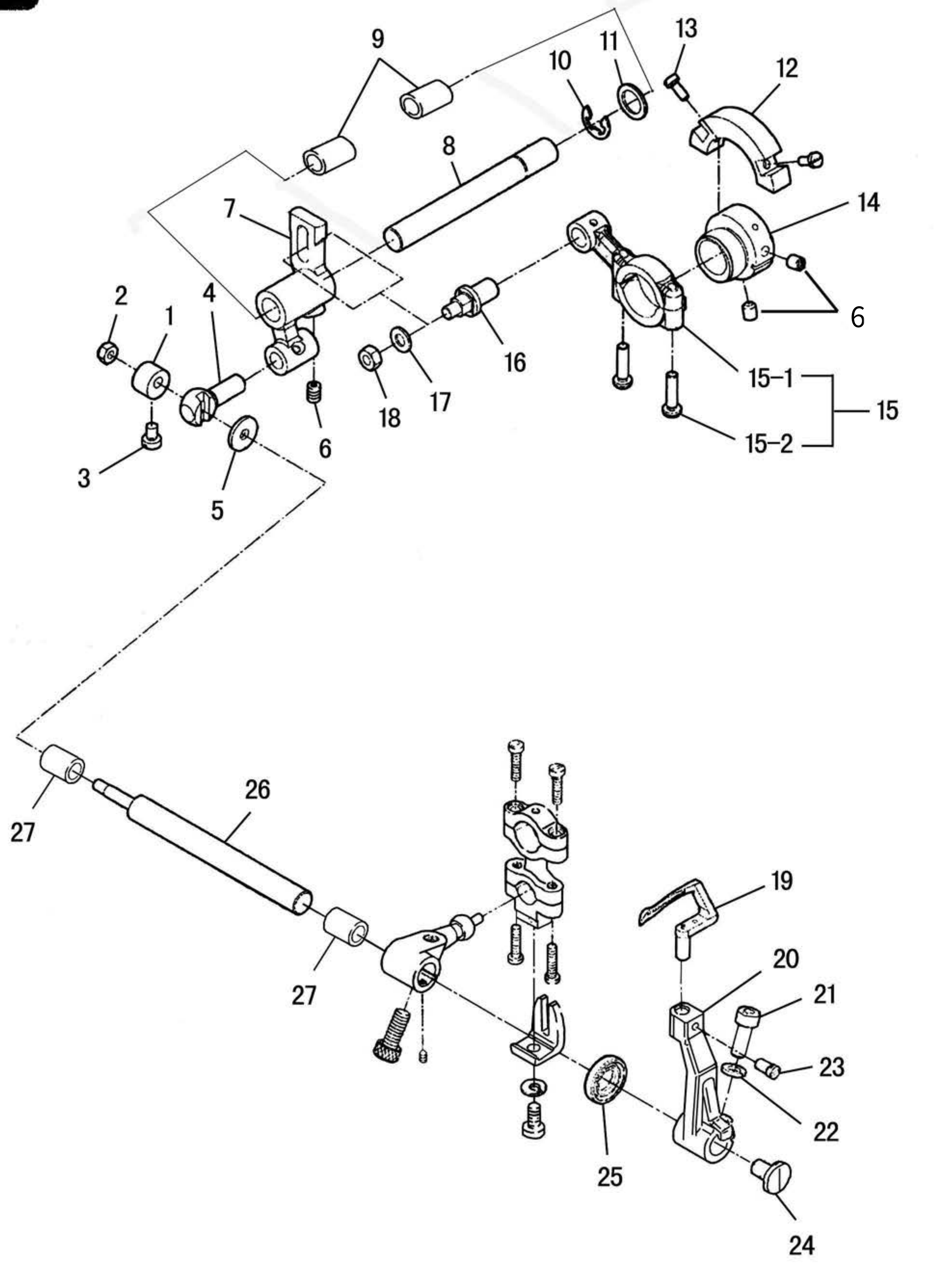
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8.弯针传动部分 Looper drive mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311．08-01	挡圈	Spacer	1	1	
2	03-604000400-1	锁紧螺母	Nut	1	1	
3	01-504000621-1	螺钉	Screw	1	1	
4	311．08-02	弯针推移曲柄销	Pin	1	1	
5	05-046151403-5	墊圈	Washer	1	1	
6	01-805000614-1	螺钉	Screw	3	3	
7	311．08-04	弯针推移曲柄	Crank	1	1	
8	311．08-05	弯针推移轴	Shaft	1	1	
9	311．08-06	弯针推移轴套筒	Bushing	2	2	
10	06-0700814-1	开口挡圈	Retaining ring	1	1	
11	05-101111453-5	墊圈	Washer	1	1	
12	311.08-08	推移偏心配重	Counterweight	1	1	
13	01-503000821-1	螺钉	Screw	2	2	
14	311.08-09	偏心轮	Eccentric wheel	1		
	313.08-09	偏心轮	Eccentric wheel		1	
15	311.08-10	连杆组件	Connecting rod，c. set	1	1	
	311.08-10-01	连杆	Connecting rod	(1)	(1)	
	01-404001623-1	螺钉	Screw	(2)	(2)	
16	311.08-11	连接销	Pin	1	1	
17	05-053101001-5	墊圈	Washer	1	1	
18	03-605000400-1	螺母	Nut	1	1	
19	311.08-13-00	弯针组件	Looper	1	1	
20	311.08-14	弯针架	Looper holder	1	1	
21	01-505001424-1	螺钉	Screw	1	1	
22	07-0521313-1	垫片	Washer	1	1	
23	01-904000711-1	螺钉	Screw	1	1	
24	01-606751021-1	螺钉	Screw	1	1	
25	13-09340190	油封	Oil seal	1	1	
26	311.08-15	弯针摆轴	Shaft	1	1	
27	311.08-16	铜套筒	Bushing	2	2	

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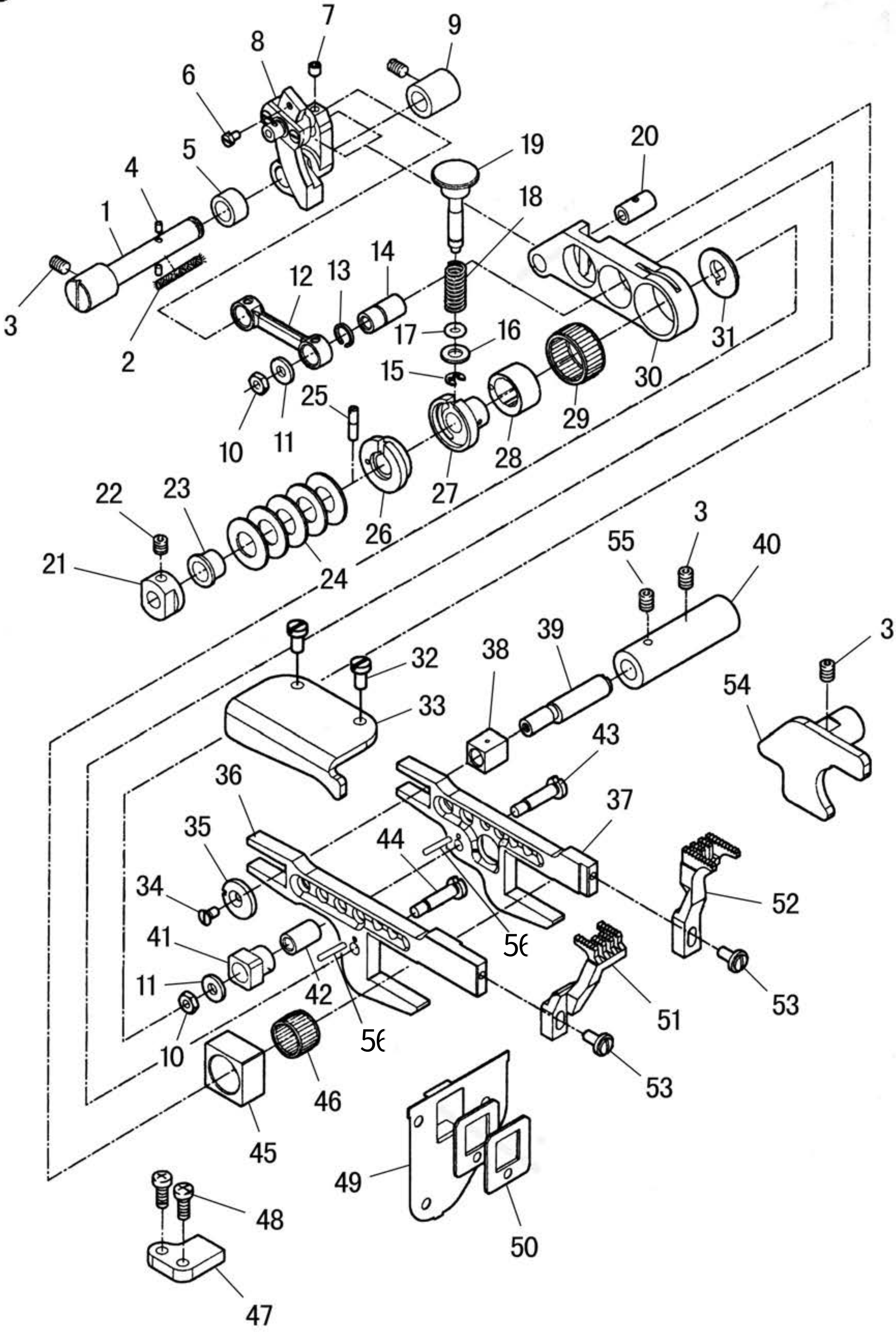

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9.送布传动部分I feed mechanism I

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.09-01	送布轴	Shaft	1	1	
2	311.09-02	油线	Oil wick	1	1	
3	01-805000614-1	螺钉	Screw	4	4	
4	311.09-03	油毡	Oil wick	2	2	
5	311.09-04	送布曲柄挡圈	Spacer	1	1	
6	01-525000421-1	螺钉	Screw	1	1	
7	01-804000544-1	螺钉	Screw	1	1	
8	311.09-05	送布曲柄组件	Crank,c.set	1	1	
	311.09-05-01	送布曲柄	Crank	(1)	(1)	
	311.09-05-02	调节滑座	Seat	(1)	(1)	
	311.09-05-03	调节滑座盖	Cover	(1)	(1)	
	311.09-05-04	螺钉	Screw	(2)	(2)	
9	311.09-06	送布轴套筒	Bushing	1	1	
10	03-604000220-1	螺母	Nut	2	2	
11	05-046151002-1	塾圈	Washer	2	2	
12	311.09-10	差动连杆	Connecting rod	1	1	
13	311.09-11	挡圈	Retaining ring	1	1	
14	311.09-12	差动连杆衬套	Bushing	1	1	
15	06-0300607-1	开口挡圈	Retaining ring	1	1	
16	05-056101000-4	垫片	Washer	1	1	
17	12-038180	O型圈	O-ring	1	1	
18	311.09-15	针距调节按钮弹簧	Spring	1	1	
19	311.09-16	针距调节按钮	Pin	1	1	
20	311.09-17	送布连杆销	Pin	1	1	
21	311.09-18	主轴锁母	Lower crankshaft nut	1	1	
22	01-805000514-1	螺钉	Screw	1	1	
23	311.09-19	碟形垫圈衬套	Elastic washer space	1	1	
24	09-1021020-1	碟形垫圈	Elastic washer	5	5	
25	311.09-21	定位螺钉	Screw	1	1	
26	311.09-22	送布凸轮座组件	Eccentric bushing seat,c.	1	1	
	311.09-22-01	送布凸轮座	Eccentric bushing seat	(1)	(1)	
	311.09-22-02	定位销	Pin	(1)	(1)	
27	311.09-23	针距调节偏心	Needlepoit adjusting par	1	1	
28	311.09-24	送布凸轮	Eccentric bushing	1	1	
29	14-K172110	滚针轴承	Roller bearing	1	1	
30	311.09-26	送布连杆	Connecting rod	1	1	
31	311.09-27	抬牙滑块挡圈	Washer	1	1	

9.送布传动部分 II feed mechanism II

序号	图号	名称		1-2	05M8	备注
		中文	英文			
32	01-504000821-1	螺钉	Screw	2	2	
33	311.09-28	牙叉左上挡板	Differential feed dog ho	1	1	
34	01-103000621-1	螺钉	Screw	1	1	
35	311.09-29	调牙滑块挡圈	Washer	1	1	
36	311.09-30	左牙叉	Differential feed dog ho	1	1	
37	311.09-31	右牙叉	Main feed dog holder	1	1	
38	311.09-32	调牙滑块	Slide block	1	1	
39	311.09-33	调牙滑块销轴	Pin	1	1	
40	311.09-34	调牙滑块销轴套筒	Bushing	1	1	
41	311.09-35	送布连杆滑块	Slide block	1	1	
42	311.09-36	送布连杆滑块衬套	Bushing	1	1	
43	311.09-37	送布连杆滑块销轴	Pin	1	1	
44	311.09-38	差动连杆销轴	Pin	1	1	
45	311.09-39	抬牙滑块	Slide block	1	1	
46	14-K121510	滚针轴承	Roller bearing	1	1	
47	311.09-41	牙叉左下挡板	Differential feed dog ho	1	1	
48	01-404001023-1	螺钉	Screw	2	2	
49	311.09-42	牙叉前挡板	Feed dog holder plate (f	1	1	
50	311.09-43	牙叉油封	Feed dog holder oil seal	2	2	
51	311.09-44	差动送布牙	Differential feed dog	1		
	313.09-44	差动送布牙	Differential feed dog		1	
52	311.09-45	主送布牙	Main feed dog	1		
	313.09-45	主送布牙	Main feed dog		1	
53	19-509400821-1	螺钉	Screw	2	2	
54	311.09-46	牙叉右挡板	Main feed dog holder pla	1	1	
55	01-804000414-1	螺钉	Screw	1	1	
56	15-1200504-1	弹性销（小2）	Elastic pin	2	2	

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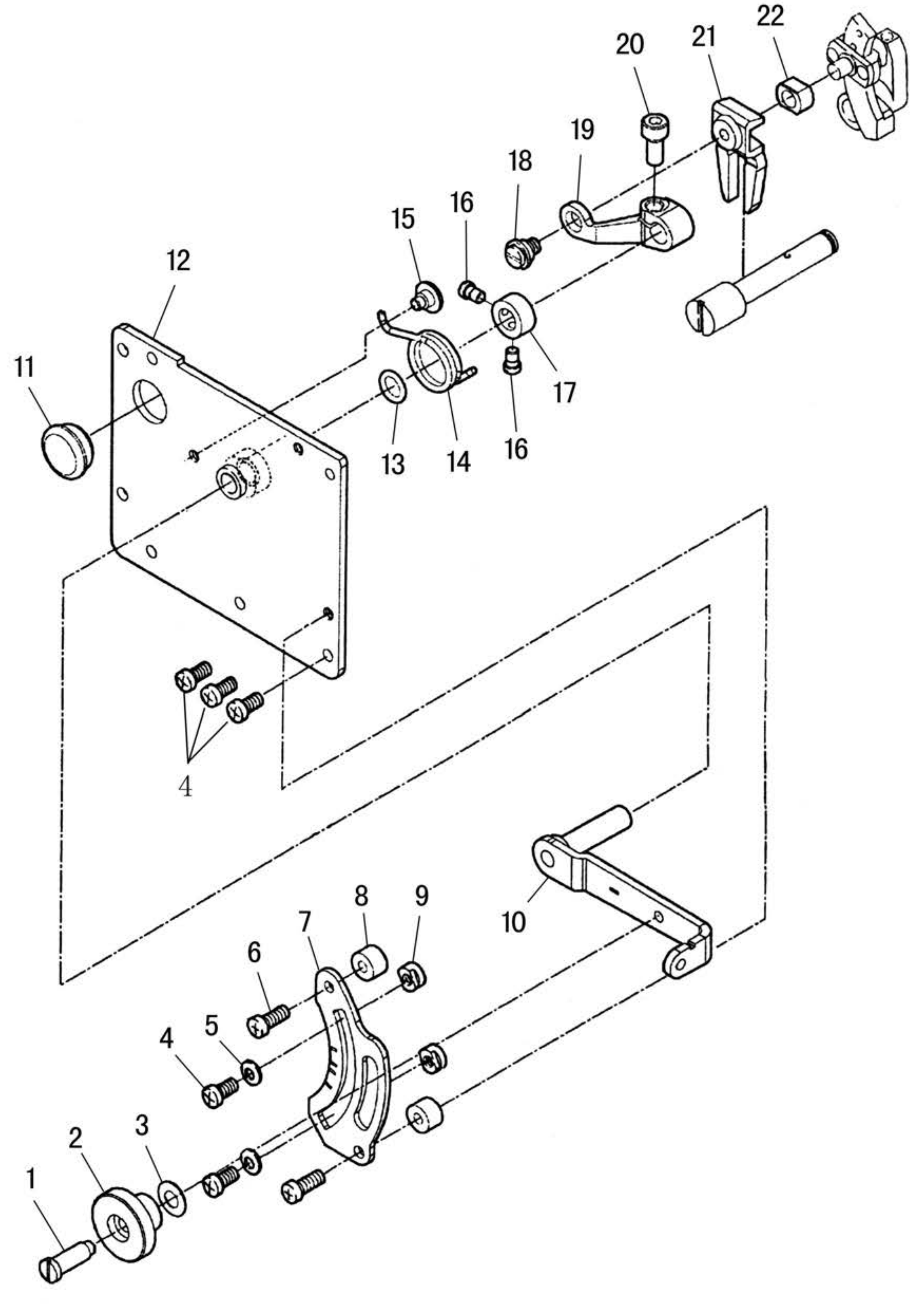

10.差动调节部分 Differential adjusting mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	201.09-38	差动调节螺钉	Screw	1	1	
2	201.09-37	差动调节螺母	Differential adjusting nu	1	1	
3	09-0620513-1	弹性垫片(碟形)	Elastic washer	1	1	
4	01-404000823-1	螺钉	Screw	5	5	
5	05-043080900-4	垫片	Washer	2	2	
6	01-404001223-1	螺钉	Screw	2	2	
7	311.10-01	差动导板	Differential plate	1	1	
8	311.10-02	差动导板垫	Spacer	2	2	
9	201.09-41	定位块(螺母)	Positioning ring	2	2	
10	311.10-03	差动调节杠杆	Differential adjusting le	1	1	
11	22-16506019	橡胶堵	rubber plug	1	1	
12	311.10-05	左侧板	Differential adjusting p	1	1	
13	12-078180	O型圈	O-ring	1	1	
14	311.10-07	差动扭簧	Spring	1	1	
15	201.03-08	台螺钉	Screw	1	1	
16	01-904000621-1	螺钉	Screw	2	2	
17	311.10-08	轴箍	Collar	1	1	
18	201.09-24	台螺钉	Screw	1	1	
19	311.10-09	差动曲柄	Differential crank	1	1	
20	01-505001224-1	螺钉	Screw	1	1	
21	311.10-10	差动拨叉	Differential slide block	1	1	
22	311.10-11	差动滑块	Differential slide block	1	1	

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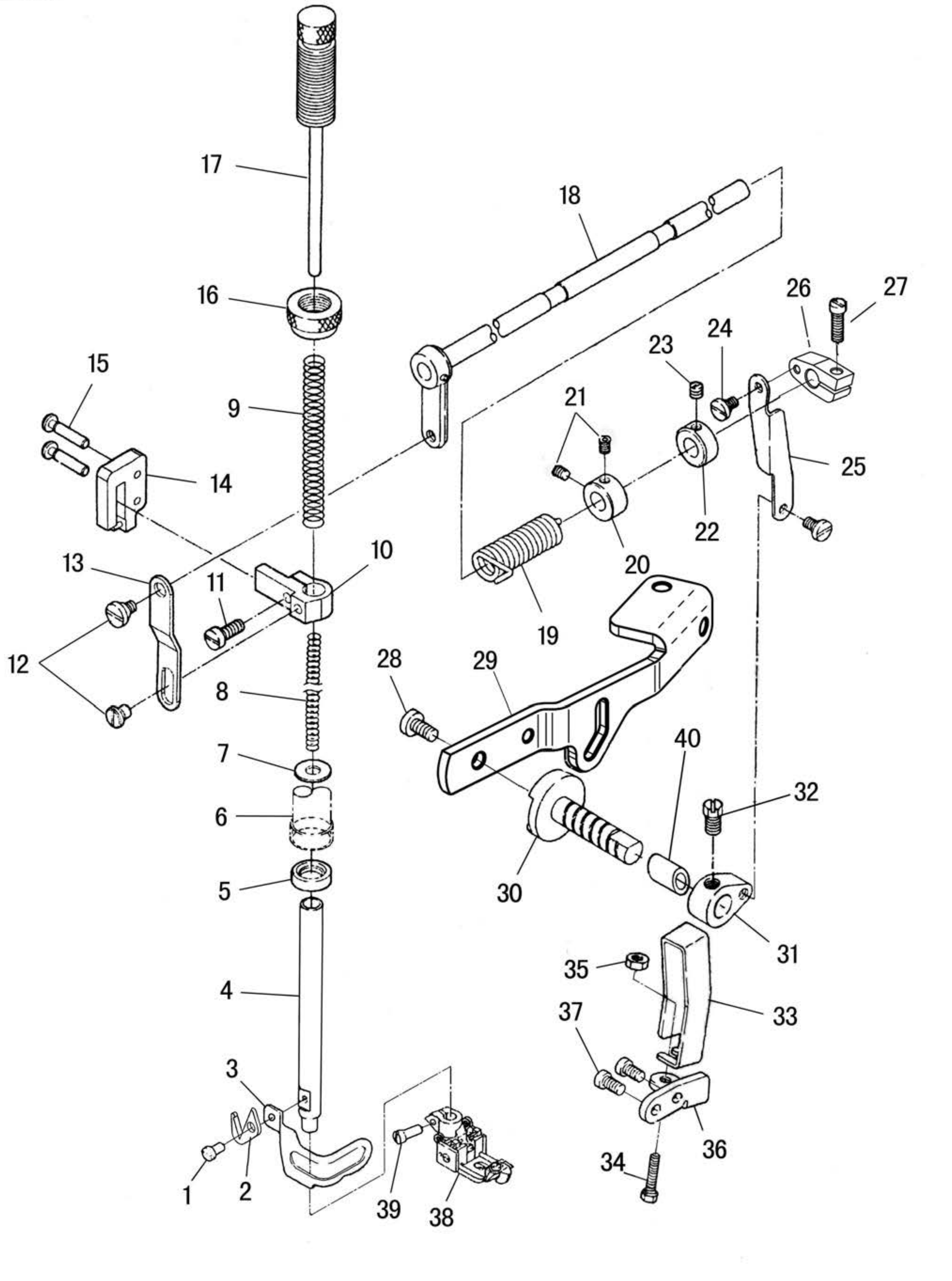
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11.压布传动部分 Presser foot mechanism

序号	图号	名称 中文	名称 英文	1-2	05M8	备注
1	01-503000621-1	螺钉	Screw	1	1	
2	201. 13-25	割线刀	Thread cutting knife	1		
	05-032050700-3	垫圈	Washer		1	
3	311. 11-02	防护架	Safety holder	1		
4	311. 11-03	压脚梗	Presser bar	1	1	
5	13-08240150	油封	oil seal	1	1	
6	311. 11-05	压脚梗套筒	Presser bar bushing	1	1	
7	311. 11-06	压杆油封	Oil protector ring	1	1	
8	311. 11-07	调压簧II	Presser bar springII	1	1	
9	311. 11-08	调压簧I	Presser bar spring I	1	1	
10	311. 11-09	压脚梗导向曲柄	Presser bar clamp	1	1	
11	01-504001221-1	螺钉	Screw	1	1	
12	311. 11-10	台螺钉	Screw	2	2	
13	311. 11-11	压脚梗提板	Lifter link	1	1	
14	311. 11-12	压脚梗导板组件	Presser bar guide, c. se	1	1	
	311.11-12-01	压脚梗导板	Presser bar guide	(1)	(1)	
	15-1201004-1	弹性销	Spring pin	(1)	(1)	
15	01-404002023-1	螺钉	Screw	2	2	
16	311. 11-13	调压螺母	Lock nut	1	1	
17	311. 11-14	调压螺丝	Regulation screw	1	1	
18	311. 11-15G	拉杆组件	tension rod, c. set	1	1	
	311. 11-15G-01	拉杆	tension rod	(1)	(1)	
	311. 11-15-02	拉杆曲柄	tension rod crank	(1)	(1)	
	311. 11-15-03	销轴	Pin	(1)	(1)	
19	311. 11-16	拉杆扭簧	Spring	1	1	
20	311. 11-17G	拉杆轴固I	Collar	1	1	
21	01-804000614-1	螺钉	Screw	2	2	
22	311. 11-18G	拉杆轴固II	Collar	1	1	
23	01-804000614-1	螺钉	Screw	1	1	
24	311. 11-19G	台螺钉	Screw	2	2	
25	311. 11-20	压脚曲柄拉板	tension board	1	1	
26	311. 11-21G1	拉杆转块	tension rod block	1	1	
27	01-504001421-1	螺钉	Screw	1	1	
28	01-405001021-1	螺钉	Screw	1	1	
29	311.11-22G1	抬挡	Lever	1	1	
30	311. 11-23	压脚曲柄轴	Presser foot crank shaft	1	1	
31	311. 11-24G	压脚曲柄	Presser foot crank	1	1	
32	01-706750911-1	螺钉	Screw	1	1	
33	311. 11-25	定位板架	Bracket holder	1	1	
34	01-705002521-1	开槽六角头螺钉	Screw	1	1	
35	03-605000400-1	螺母	Nut	1	1	
36	311. 11-26	定位板	Bracket	1	1	
37	01-404000823-1	螺钉	Screw	2	2	
38	311. 11-27	压脚组件	Presser foot, c. set	1		
	313.11-27	压脚组件	Presser foot, c. set		1	
39	02-909400921-1	螺钉 9/64x40	Screw	(1)	(1)	
40	311.11-29	压脚曲柄轴轴套	Bushing	1	1	

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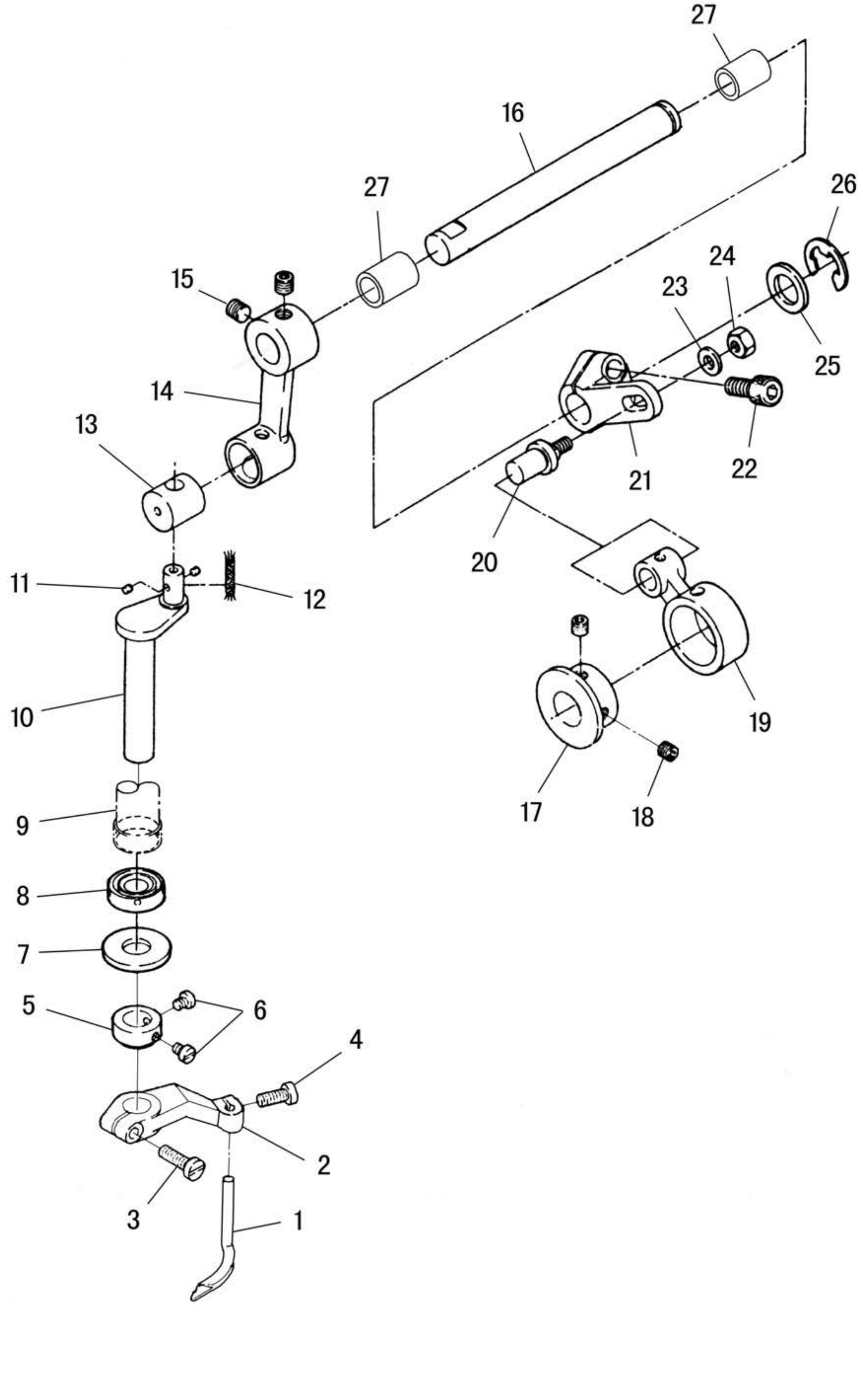

12.喂针传动部分 Spreader mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.12-01	喂针	Spreader	1	1	
2	311.12-02	喂针架	Spreader holder	1	1	
3	01-504001421-1	螺钉	Screw	1	1	
4	01-504001021-1	螺钉	Screw	1	1	
5	311.12-03	轴固	Collar	1	1	
6	01-503000421-1	螺钉	Screw	2	2	
7	05-101202303-5	挡圈	Washer	1	1	
8	13-09340190	油封	Oil Seal	1	1	
9	311.12-05	喂针曲柄套筒	Bushing	1	1	
10	311.12-06	喂针曲柄	Spreader crankshaft	1	1	
11	311.12-07	毛毡头	Oil wick	2	2	
12	311.12-08	油线	Oil wick	1	1	
13	311.12-09	喂针连杆销	Needle driving bar link	1	1	
14	311.12-10	喂针连杆	Needle driving lever	1	1	
15	01-806750514-1	螺钉	Screw	2	2	
16	311.12-11	喂针轴	Needle driving shaft	1	1	
17	311.12-12	喂针偏心	Eccentric bushing	1	1	
18	01-805000514-1	螺钉	Screw	2	2	
19	311.12-13	喂针偏心连杆	Needle driving eccentric	1	1	
20	311.12-14	调节曲柄销	Adjusting crank pin	1	1	
21	311.12-15	喂针调节曲柄	Needle driving adjusting	1	1	
22	01-506751424-1	螺钉	Screw	1	1	
23	05-053101001-5	垫圈	Washer	1	1	
24	03-605000400-1	螺母	Nut	1	1	
25	05-121201903-5	挡圈	Washer	1	1	
26	06-1001020-1	轴用开口挡圈	Retaining ring	1	1	
27	311.12-18	喂针轴套筒	Bushing	2	2	

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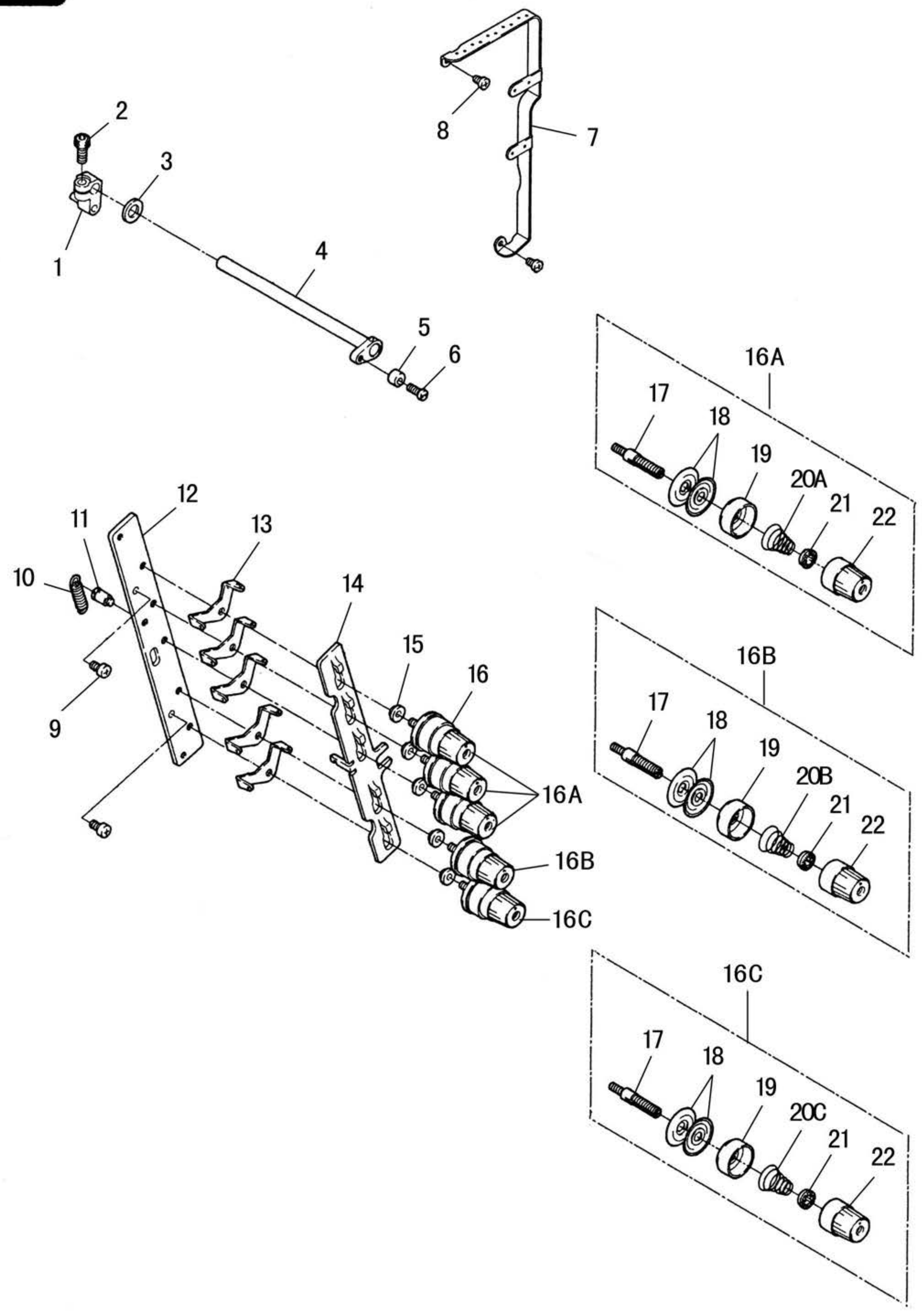

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13.夹线器部分 Thread tension mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.13-01	松线曲柄组件	Crank	1	1	
2	01-505001224-1	螺钉	Screw	1	1	
3	05-081201553-5	松线曲柄垫	Washer	1	1	
4	311.13-03G	松线轴组件	Tension release shaft,c.	1	1	
5	311.13-04	偏心套	eccentricity bushing	1	1	
6	01-504001421-1	螺钉	Screw	1	1	
7	311.13-05	过线板I	Thread guide I	1	1	
8	01-404000523-1	螺钉	Screw	2	2	
9	01-404000823-1	螺钉	Screw	2	2	
10	311.13-06	松线拉簧	Spring	1	1	
11	311.13-07	拉簧螺钉	Screw	1	1	
12	311.13-08	过线板架	Thread guide II	1	1	
13	311.13-09	过线板II	Thread guide III	5	5	
14	311.13-10	松线板	Tension disk separator	1	1	
15	311.13-11	垫片	Washer	5	5	
16	311.13-12A	夹线器组件(A)	Thread tension,c.set(A)	3	3	
	311.13-12B	夹线器组件(B)	Thread tension,c.set(B)	1	1	
	311.13-12C	夹线器组件(C)	Thread tension,c.set(C)	1	1	
17	311.13-12-01	夹线螺钉	Thread tension screw	(5)	(5)	
18	201.16-02-03	夹线片	Thread tension disk	(10)	(10)	
19	201.16-02-04	夹线器座	Thread tension base	(5)	(5)	
20	201.16-02-05A	夹线簧(A)	Thread tension spring(A)	(3)	(3)	
	201.16-02-05B	夹线簧(B)	Thread tension spring(B)	(1)	(1)	
	204.16-02-05C	夹线簧(C)	Thread tension spring(C)	(1)	(1)	
21	201.16-02-06	止动套	Stopping bushing	(5)	(5)	
22	201.16-02-07	夹线调节螺母	Thread tension knob	(5)	(5)	

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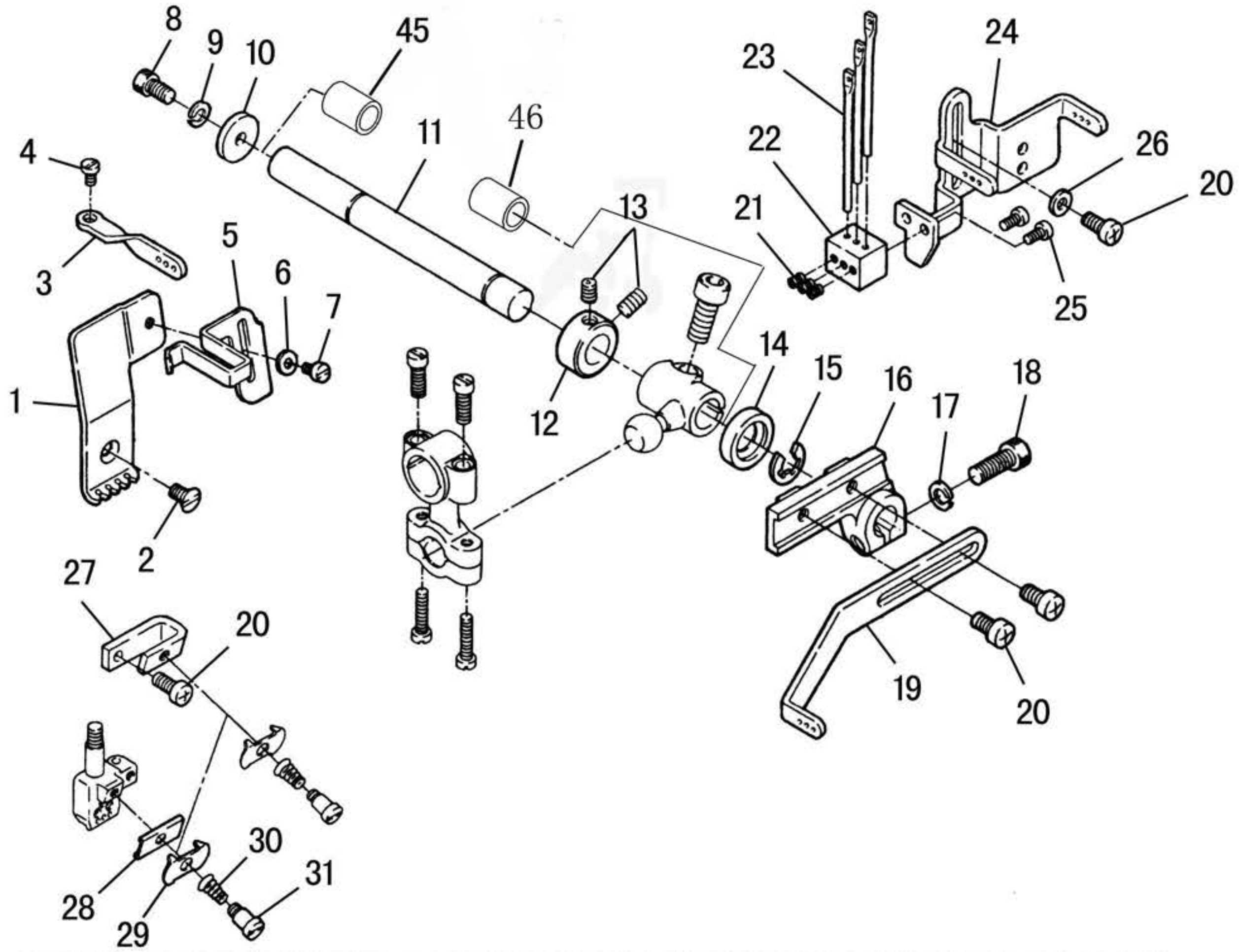

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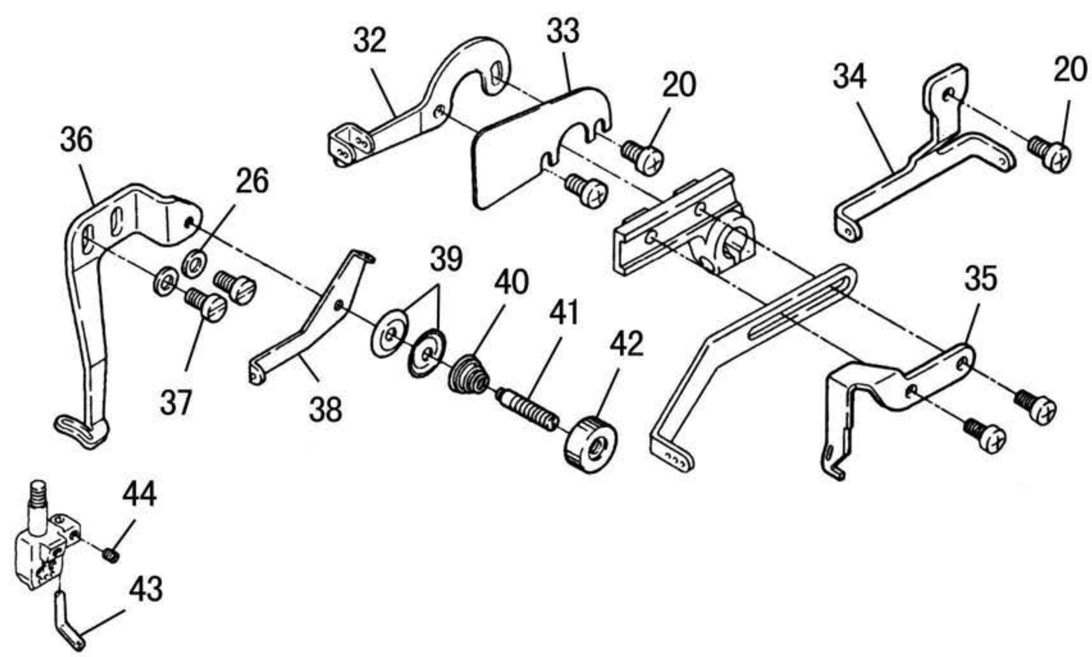

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14.挑线、过线器部分 Needle-spreader thread handling

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.14-01	针杆过线	Thread guide plate	1	1	
2	01-104000721-1	螺钉	Screw	1	1	
3	311.14-02	针杆挑线	Thread guide	1	1	
4	01-503000521-1	螺钉	Screw	1	1	
5	311.14-03	针杆打线架	Thread support	1	1	
6	05-032050700-1	垫圈	Washer	1	1	
7	01-503000421-1	螺钉	Screw	1	1	
8	01-504000824-1	螺钉	Screw	1	1	
9	07-0421111-1	弹性垫圈	Elastic washer	1	1	
10	05-046201453-5	垫圈	Washer	1	1	
11	311.14-06	挑线轴	Shaft	1	1	
12	311.14-07G	挡圈	Collar	1	1	
13	01-804000614-1	螺钉	Screw	2	2	
14	13-09340190	油封	Oil Seal	1	1	
15	06-0700814-1	开口挡圈	Retaining ring	1	1	
16	311.14-08	打线架座	Holder	1	1	
17	07-0521313-1	垫片	Washer	1	1	
18	01-505001424-1	螺钉	Screw	1	1	
19	311.14-09	针线打线架	Thread guide	1	1	
20	01-404000823-1	螺钉	Screw	7	7	
21	01-803000414-1	螺钉	Screw	3	3	
22	311.14-10	过线柱座	Holder	1	1	
23	311.14-11	过线柱	Thread guide	3	3	
24	311.14-12	硅油盒过线架	Thread guide	1	1	
25	01-503000621-1	螺钉	Screw	2	2	
26	05-043080900-4	垫片	Washer	3	3	
27	311.14-13	夹线座	Thread tension base	1	1	
28	311.14-14	针杆夹线板(A)	Thread tension plate(A)	1	1	
29	311.14-15	针杆夹线板(B)	Thread tension plate(B)	1	1	
30	311.14-16	针杆小夹线簧	Thread tension spring	1	1	
31	311.14-17	针杆小夹线螺钉	Thread tension screw	1	1	
32	311.14-18	喂针过线架I	Thread guide	1	1	
33	311.14-19	中间板	Mideel board	1	1	
34	311.14-20	喂针过线架II	Thread guide	1	1	
35	311.14-21	喂针打线架	Thread takeup	1	1	
36	311.14-00-00	喂针过线架	Thread guide	1		
	313.14-22	喂针过线架	Thread guide		1	
37	01-504000821-1	螺钉	Screw	2	2	
38	311.14-23	喂针过线板	Thread guide	1	1	
39	203.19-06-06	夹线片	Thread tension disk	2	2	
40	203.19-06-07	压线簧	Thread tension spring	1		
41	203.19-06-05	压线螺钉	Thread tension screw	1		
42	203.19-06-08	压线螺母	Thread tension nut	1		
43	311.14-24	喂针护线勾	Thread guarding hook	1	1	
44	01-803000314-1	螺钉	Screw	1	1	
45	311.14-25	挑线轴后套筒	Bushing	1	1	
46	311.08-16	铜套筒	Bushing	1	1	

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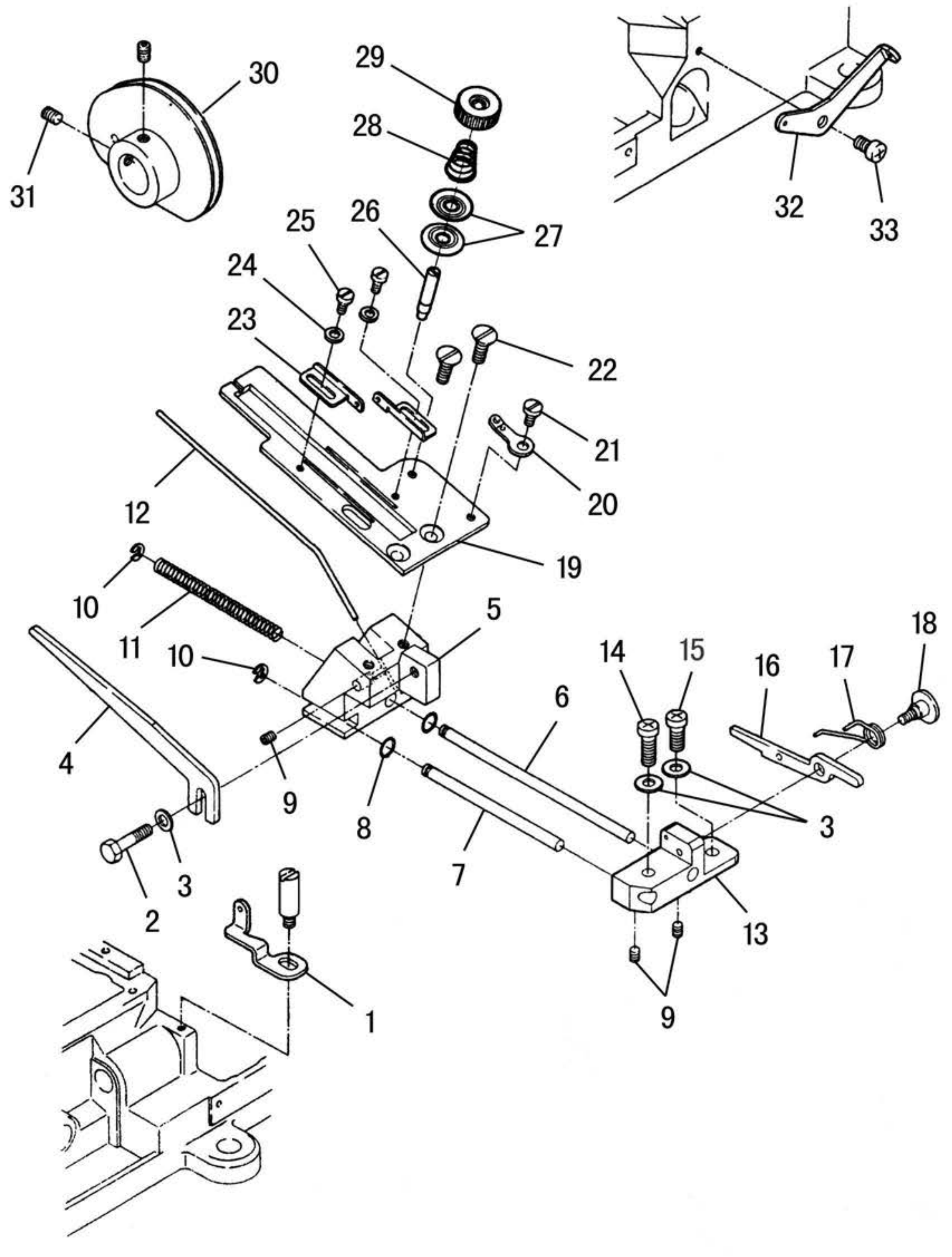
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15.打线架部分 Looper thread mechanism

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.15-01	弯针过线II	Thread guide	1	1	
2	01-704000625-1	螺钉	Screw	1	1	
3	05-043080900-4	垫片	Washer	3	3	
4	311.15-02	拦线板	Thread wiper	1	1	
5	311.15-03	打线架滑动座	Bracket	1	1	
6	311.15-04	打线架导柱I	Shaft I	1	1	
7	311.15-05	打线架导柱I	Shaft I	1	1	
8	12-048180	O型圈	O-ring	2	2	
9	01-803000314-1	螺钉	Screw	3	3	
10	06-0300607-1	开口挡圈	Retaining ring	2	2	
11	311.15-07	压簧	Spring	1	1	
12	311.15-08	拦线钢丝	Thread partiton stick	1	1	
13	311.15-09	打线架固定座	Bracket	1	1	
14	01-404001623-1	螺钉	Screw	1	1	
15	01-404000823-1	螺钉	Screw	1	1	
16	311.15-10	滑动座定位板	Stop plate	1	1	
17	311.15-11	滑动座定位扭簧	Spring	1	1	
18	311.15-12	台螺钉	Screw	1	1	
19	311.15-13	打线架固定板	Bracket	1	1	
20	203.19-08	过线板	Thread guiding part	1	1	
21	01-503000421-1	螺钉	Screw	1	1	
22	01-104000721-1	螺钉	Screw	2	2	
23	311.15-15	打线架过线II	Thread guiding part	2	2	
24	05-027050600-1	垫片	Washer	2	2	
25	01-525000421-1	螺钉	Screw	2	2	
26	203.19-06-05	压线螺钉	Thread tension screw	1	1	
27	203.19-06-06	夹线片	Thread tension disk	2	2	
28	203.19-06-07	压线簧	Thread tension spring	1	1	
29	203.19-06-08	压线螺母	Thread tension nut	1	1	
30	311.15-17	打线凸轮组件	Thread takeup	1	1	
31	01-805000514-1	螺钉	Screw	2	2	
32	311.15-18	过线板	Thread guide	1	1	
33	01-404000623-1	螺钉	Screw	1	1	

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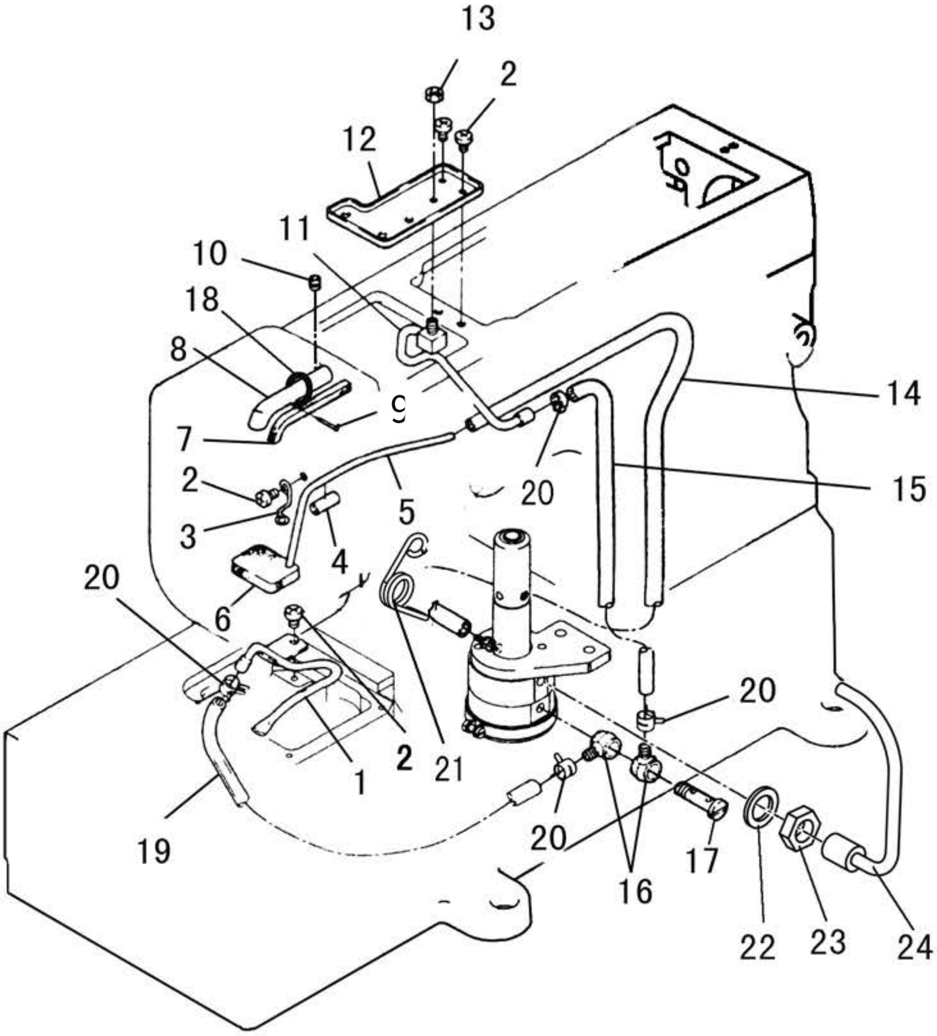

16.润滑部分 I Lubrication mechanism I

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311. 16-01	三孔喷油管组装	Oil sprinkcer	1	1	
2	01-404000623-1	螺钉	Screw	4	4	
3	311. 16-02	回油管勾	Latch	1	1	
4	311. 16-03	回油管套	Suction pipe bushing	1	1	
5	311. 16-04	吸油管	Suction pipe	1	1	
6	311. 16-05	毛毡	Felt	1	1	
7	311. 16-06	油毛毡	Oil wick	1	1	
8	311. 16-07	铜油管	Oil pipe	1	1	
9	201. 20-13	机针冷却器油线钉	Tack	1	1	
10	01-805000514-1	螺钉	Screw	1	1	
11	311.16-08	喷油嘴组装	distributor	1	1	
12	311.16-09	托油盘	Oil receiver	1	1	
13	03-604000320-1	螺母	Nut	1	1	
14	311.16-10	油管I	Oil tube I	1	1	
15	311.16-11	油管n	Oil tube II	1	1	
16	201. 14-10	油管单接头	Oil tube joint	2	2	
17	311.16-12	油管接头螺钉	Oil tube joint screw	1	1	
18	311.11-06	油封	Oil seal	1	1	
19	311.16-13	白油管	Oil tube	1	1	
20	201.14-12	油管卡簧	Oil tube spring	4	4	
21	201.20-08	卡簧	Oil tube spring	1	1	
22	311. 16-14	密合垫片	Gasket	1	1	
23	311.16-15	螺帽	Nut	1	1	
24	311.16-16	喷油嘴	Oil nozzle	1	1	

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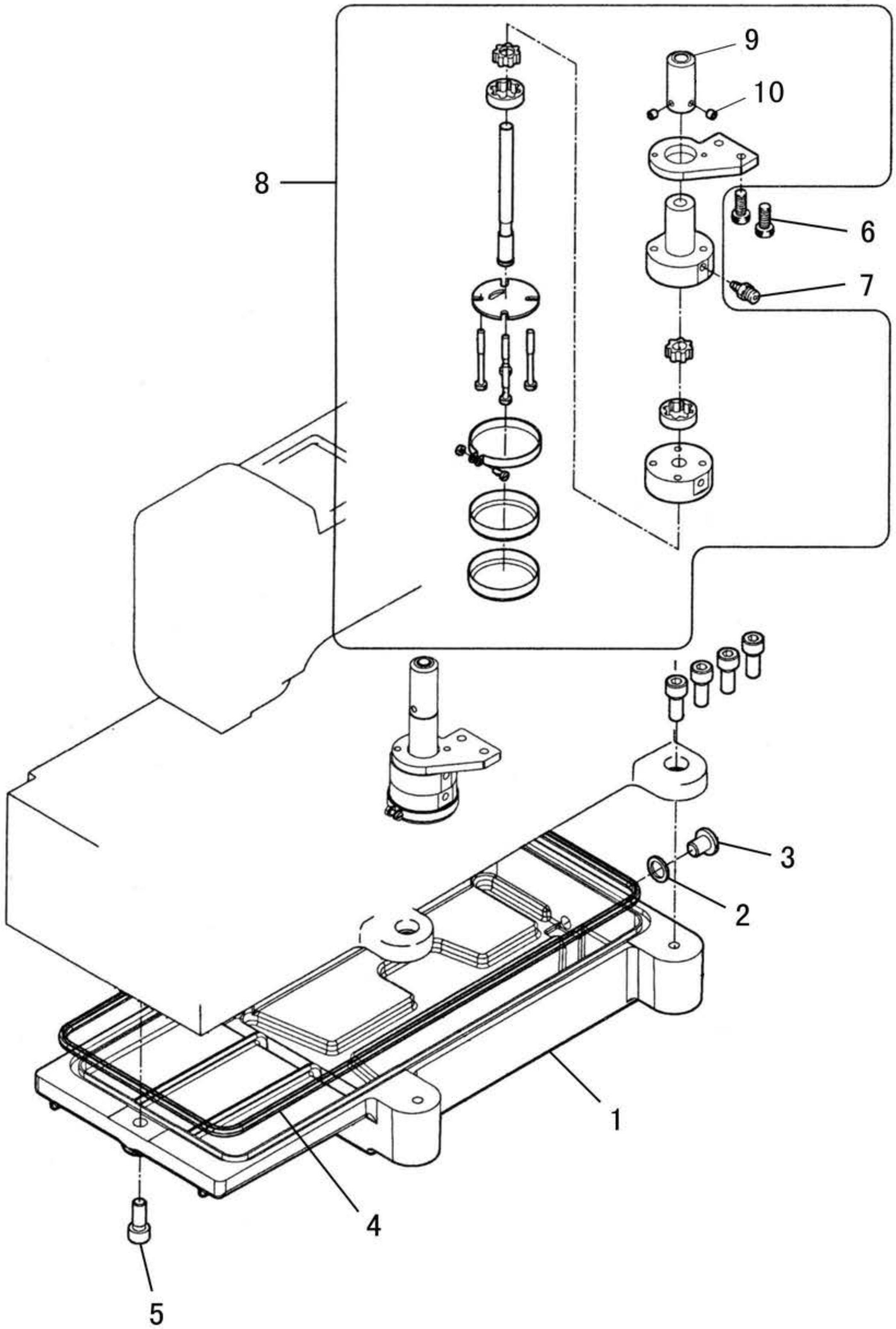

17.润滑部分 II Lubrication mechanism II

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.17-01	油盘组件	Oil reservoir,c.set	1	1	
	311.17-01-01	油盘	Oil reservoir	(1)	(1)	
2	201.15-01-02	放油螺钉油封	Gasket	(1)	(1)	
3	201.15-01-03	放油螺钉	Screw	(1)	(1)	
4	311.17-02	油盘密封圈	Oil reservoir gasket	1	1	
5	01-508002024-1	螺钉	Screw	5	5	
6	01-505001224-1	螺钉	Screw	2	2	
7	201.15-07	油管接头	Oil tube joint	1	1	
8	311.17-03	油泵组件	oil pump,c.set	1	1	
9	311.17-03-01	蜗轮	Worm wheel	(1)	(1)	
10	311.17-03-03	螺钉	Screw	(2)	(2)	

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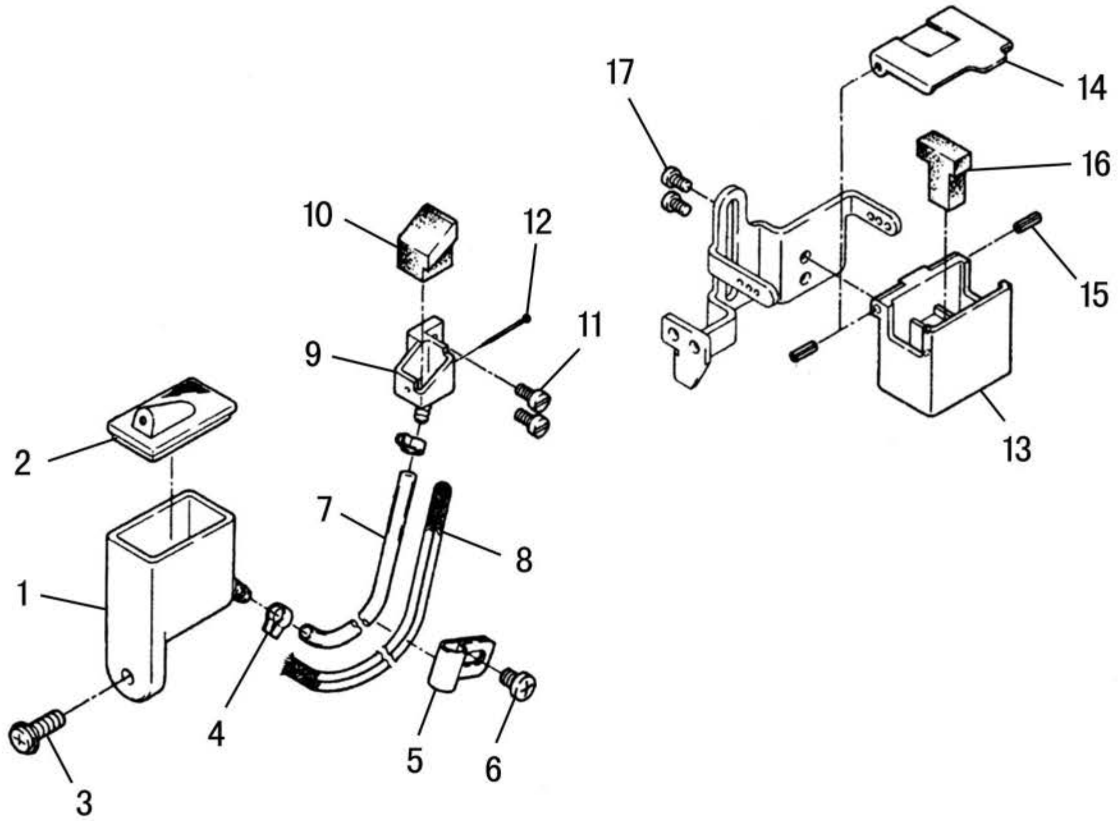

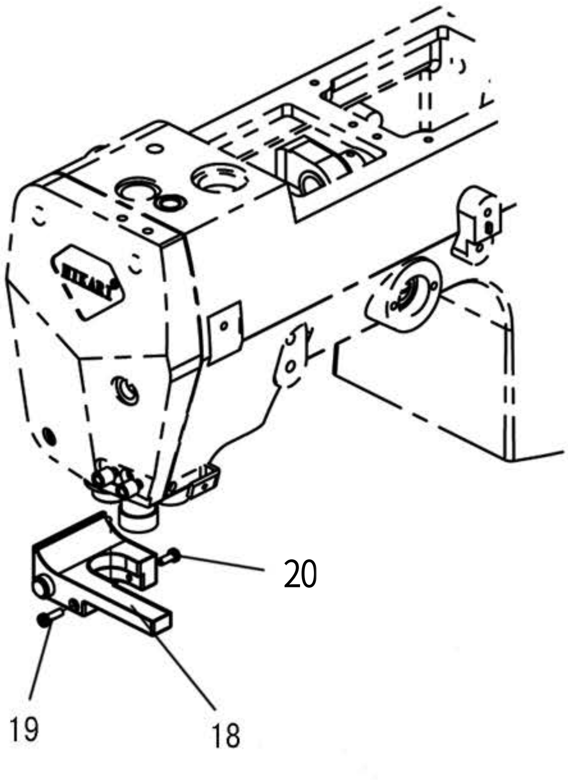

18.桂油装置部分及照明灯H.R.device and Jacklight

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.18-01	机针桂油盒	Needle oil receiver	1	1	
2	311.18-02	机针桂油盒盖	Needle oil receiver cove	1	1	
3	01-404001123-4	硅油合螺钉	Screw	1	1	
4	201.20-08	油管卡簧	Tube clamp	2	2	
5	203.19-02	过线管卡	Oil tube holder	1	1	
6	01-404000523-1	螺钉	Screw	1	1	
7	311.18-03	油线管	Oil tube	1	1	
8	311.18-04	油线	Oil wick	1	1	
9	311.18-05	机针冷却器	Needle cooler	1	1	
10	311.18-06	机针冷却器毛毡	Needle cooler felt	1	1	
11	01-503000621-1	螺钉	Screw	2	2	
12	201.20-13	机针冷却器油线钉	Tack	1	1	
13	351.18-08	针线硅油盒组件	Needlework oil receiver	1	1	
14	311.18-08	针线硅油盒盖	edlework oil receiver cov	1	1	
15	15-1200804-1	弹性销轴	Elastic pin	2	2	
16	311.18-10	针线润滑毛毡	Needlework felt	1	1	
17	20-4350672-3	自攻螺钉(刮削端)	Screw	2	2	
18	JL-09-35B	节能照明灯组件	Jacklight,c.set	1	1	
19	20-4291072-3	螺钉	Screw	1	1	
20	20-4220632-3	螺钉	Screw	1	1	

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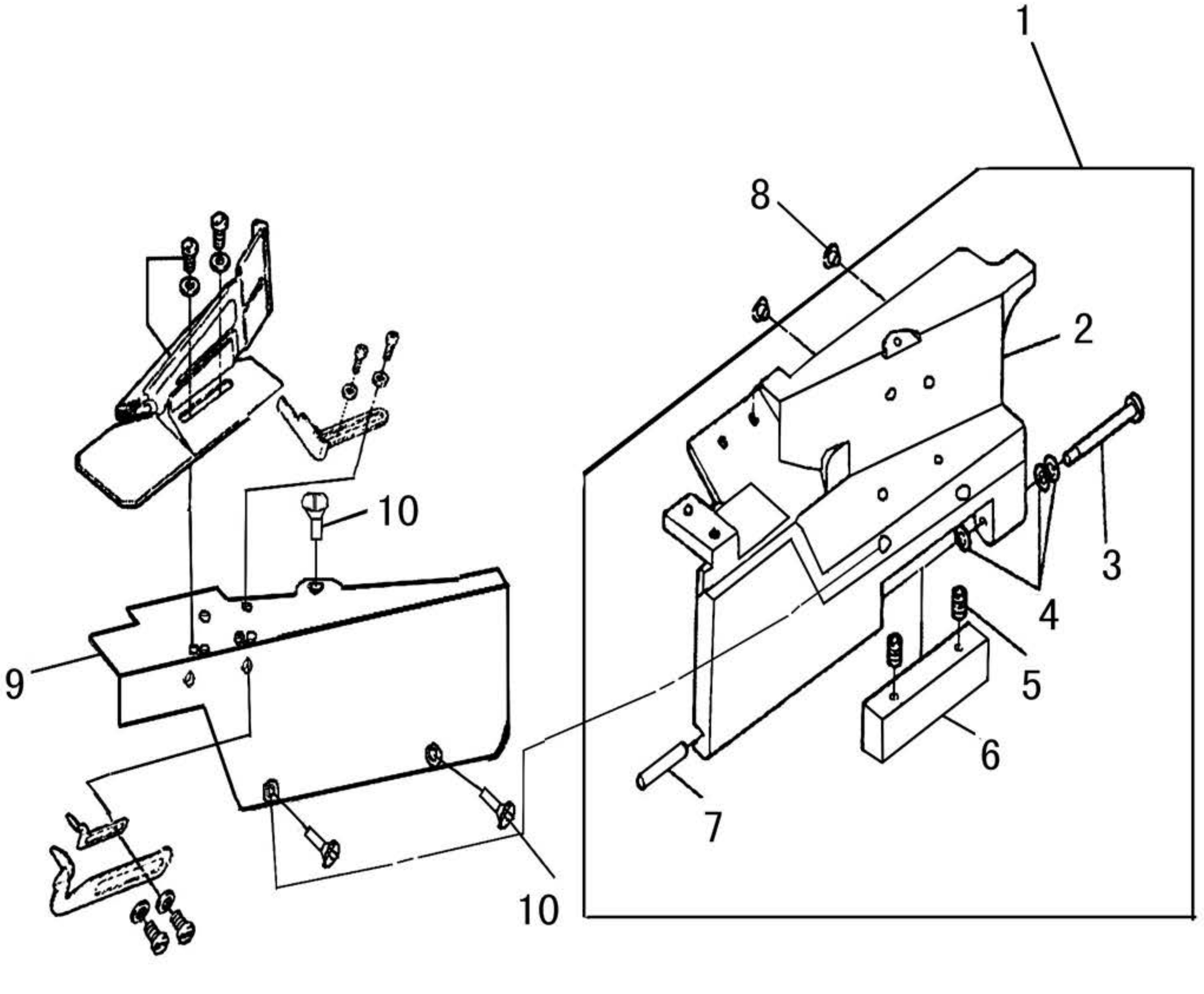

19.前罩板部分 Front cover parts

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.19-01G	前罩板组件	Front cover,c.set	(1)		
	313.19-01	前罩板组件	Front cover,c.set		1	
2	311.19-01-01	前罩板	Front cover	1		
	313.19-01-01	前罩板	Front cover		(1)	
3	311.19-01-02	销轴螺钉	Bolt	1	(1)	
4	09-0520309-1	垫片	Washer	3	(3)	
5	01-805000614-1	螺钉	Screw	2	(2)	
6	311.19-01-03	前罩板固定块	Hinge	1	(1)	
7	311.03-13-02	罩板连接销轴	Pin	1	(1)	
8	22-05004009	防震垫	Gasket	2	1	
9	311.19-02G	前罩板挡板	Cover plate	1		
10	01-104000721-1	螺钉	Screw	3		

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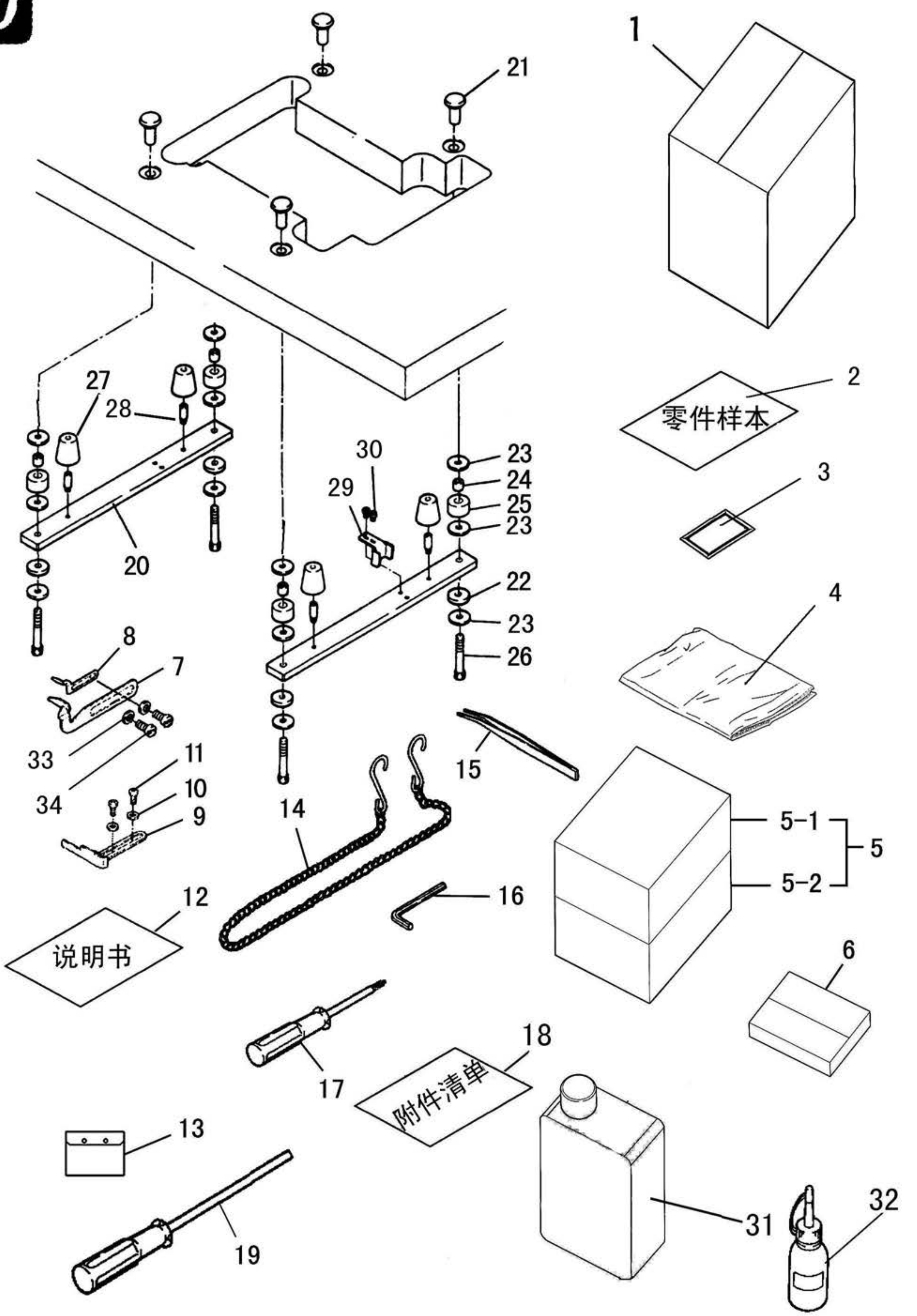
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20.附件部分I Accessories parts I

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.20-01	外包装箱	Packing box(outside)	1	1	
2	311.20-21	零件样本	Parts book	1	1	
3	311.06-17	机针(UYx128GAS#10S)	Needle	3	3	
4	103.20-52	防尘罩	Dustproof cover	1	1	
5	311.20-05	泡沫箱组件	Foam box,c.set	1	1	
	311.20-05-01	泡沫箱(上)	Foam box(up)	(1)	(1)	
	311.20-05-02	泡沫箱(下)	Foam box(down)	(1)	(1)	
6	311.20-06	大附件箱	Big attachment box	1	1	
7	311.20-07	挡布板i	Cloth guide I	1		
8	311.20-08	挡布板II	Cloth guide I	1		
9	311.20-09	挡布板in	Cloth guide!	1		
10	05-043080900-4	垫片	Washer	2		
11	01-404001023-1	螺钉	Screw	2		
12		【零件说明书光盘】	Instruction manual	1	1	
13	201.22-07-08-11	附件袋	Accessories bag	1	1	
14	311.20-22	链勾	Chain hook	1	1	
15	201.22-07-08-13	镊子	Tweezers	1	1	
16	201.22-07-08-15	六角扳手	Hexagon Spanner	1	1	
17	201.22-07-08-16	有手柄六角扳手	Hexagon Spanner	1	1	
18	311.20-11	附件清单（I、II、III)	Packing list	1		
	313.20-11	附件清单（II、III、IV	Packing list		1	
19	311.20-12	大螺丝刀	Screwdriver	1	1	
20	311.20-13	托盘架	Bracket	2	2	
21	201.22-07-08-04	台板固定螺套	Nut	4	4	
22	311.20-14	垫片	Washer	4	4	
23	311.20-15	垫片	Washer	12	12	
24	311.20-16	内套	Gasket	4	4	
25	311.20-17	橡胶套	Gasket	4	4	
26	01-508005524-1	台板螺钉	Screw	4	4	
27	311.20-18	机头防震垫	Gasket	4	4	
28	311.20-19	机头防震垫螺钉	Bolt	4	4	
29	311.20-20	挂钩架	Treadle chain guide	1	1	
30	01-505000821-1	螺钉	Screw	2	2	
31	201.22-06	大油壶	Oil Pot	1	1	
32	201.22-07-08-09	小油壶	Oil Container	1	1	
33	05-056101000-4	垫片	Washer	2		
34	01-405001021-1	螺钉	Screw	2		

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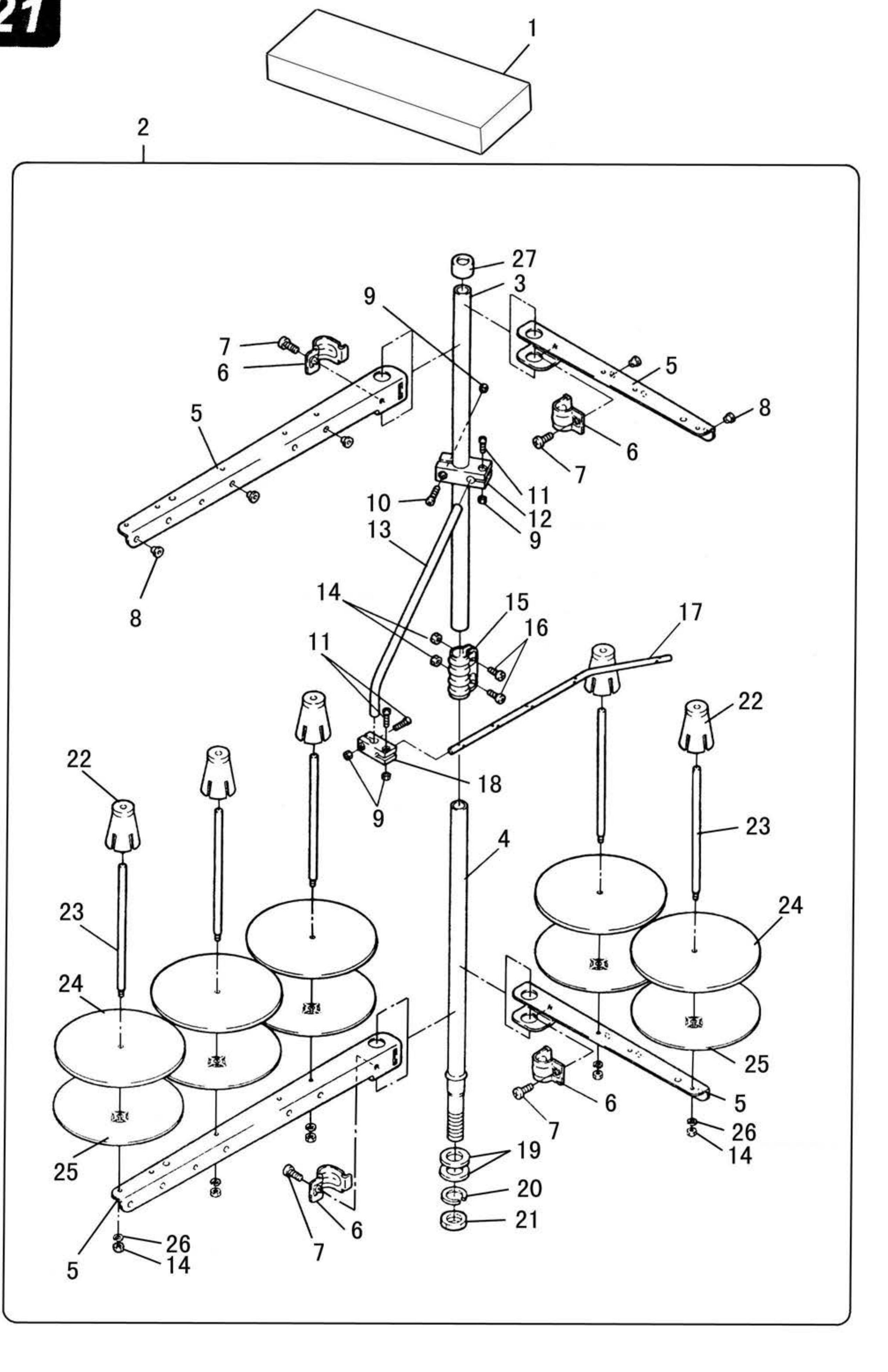

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21.附件部分 II Accessories part II

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	311.21-01	小附件箱	Small attachment box	1	1	
2	311.21-02	线架组件	Thread stand,c.set	1	1	
3	311.21-02-01	线架上管	Thread Standing Pipe (up	(1)	(1)	
4	311.21-02-02	线架下管	Thread Standing Pipe (lo	(1)	(1)	
5	201.22-07-09-04	过线臂（长）	Thread Guide Arm (long)	(2)	(2)	
	202.22-07-09-04	过线臂（短）	Thread Guide Arm (short)	(2)	(2)	
6	201.22-07-09-05	张扣	Joint	(4)	(4)	
7	201.22-07-09-06	张扣螺钉	Screw	(4)	(4)	
8	201.22-07-09-07	过线磁眼	Thread guide hole	(5)	(5)	
9	201.22-07-09-08	螺母	Nut	(4)	(4)	
10	201.22-07-09-09	大固定夹螺钉A	Screw	(1)	(1)	
11	201.22-07-09-10	固定夹螺钉B	Screw	(3)	(3)	
12	201.22-07-09-11	大固定夹	Thread guide holder(larg	(1)	(1)	
13	201.22-07-09-12	固定夹连接杆	Thread guide pole	(1)	(1)	
14	201.22-07-09-13	螺母	Nut	(7)	(7)	
15	201.22-07-09-14	上下管接头	Column pipe connector	(1)	(1)	
16	201.22-07-09-15	接头螺钉	Screw	(2)	(2)	
17	201.22-07-09-16	穿线杆	Thread guide pole	(1)	(1)	
18	201.22-07-09-17	小固定夹	Thread guide holder(smal	(1)	(1)	
19	201.22-07-09-18	下管垫片	Washer	(2)	(2)	
20	201.22-07-09-19	弹簧垫	Elastic washer	(1)	(1)	
21	201.22-07-09-20	大螺母	Nut	(1)	(1)	
22	201.22-07-09-21	线圈芯	Spool cushion	(5)	(5)	
23	201.22-07-09-22	线圈轴	Spool pin	(5)	(5)	
24	201.22-07-09-23	线盘垫	Spool mat	(5)	(5)	
25	201.22-07-09-24	线盘	Spool seat disc	(5)	(5)	
26	201.22-07-09-25	弹性垫圈	Elastic washer	(5)	(5)	
27	201.22-07-09-26	上管盖帽	Column cap	(1)	(1)	

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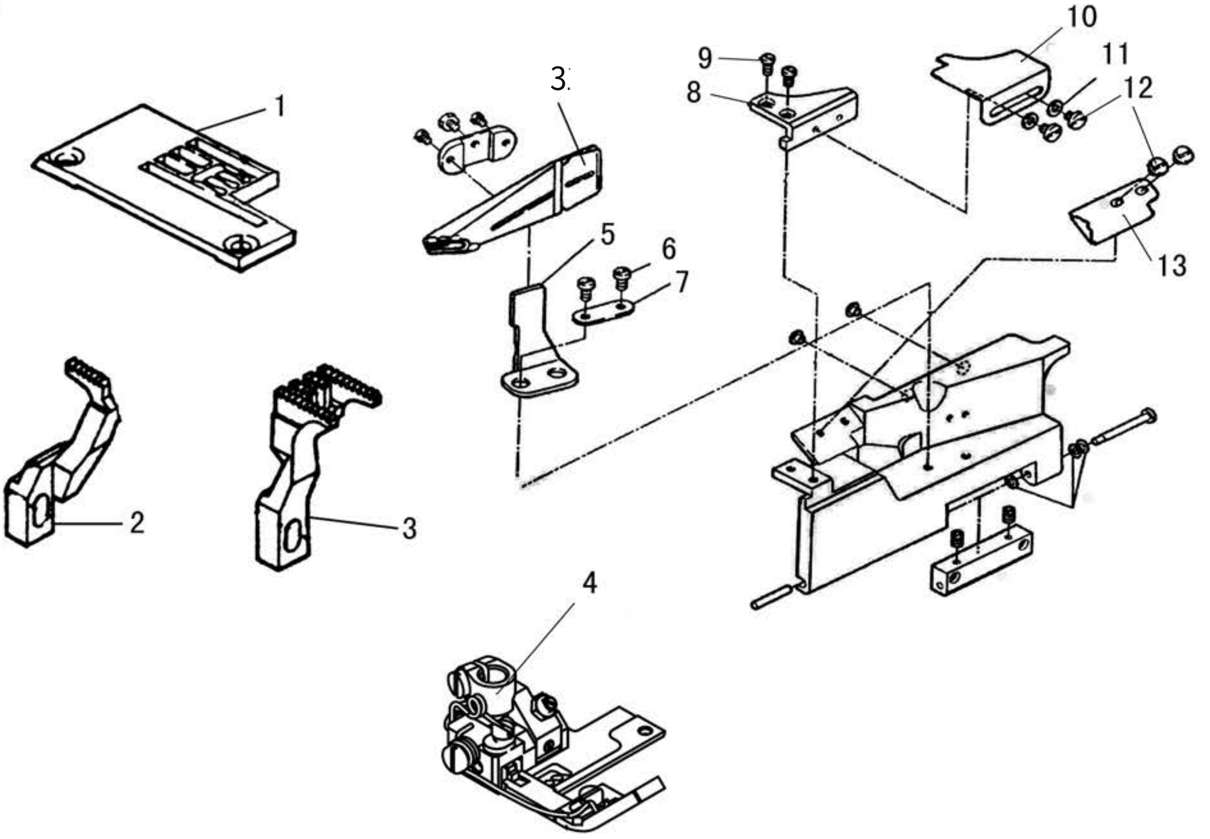
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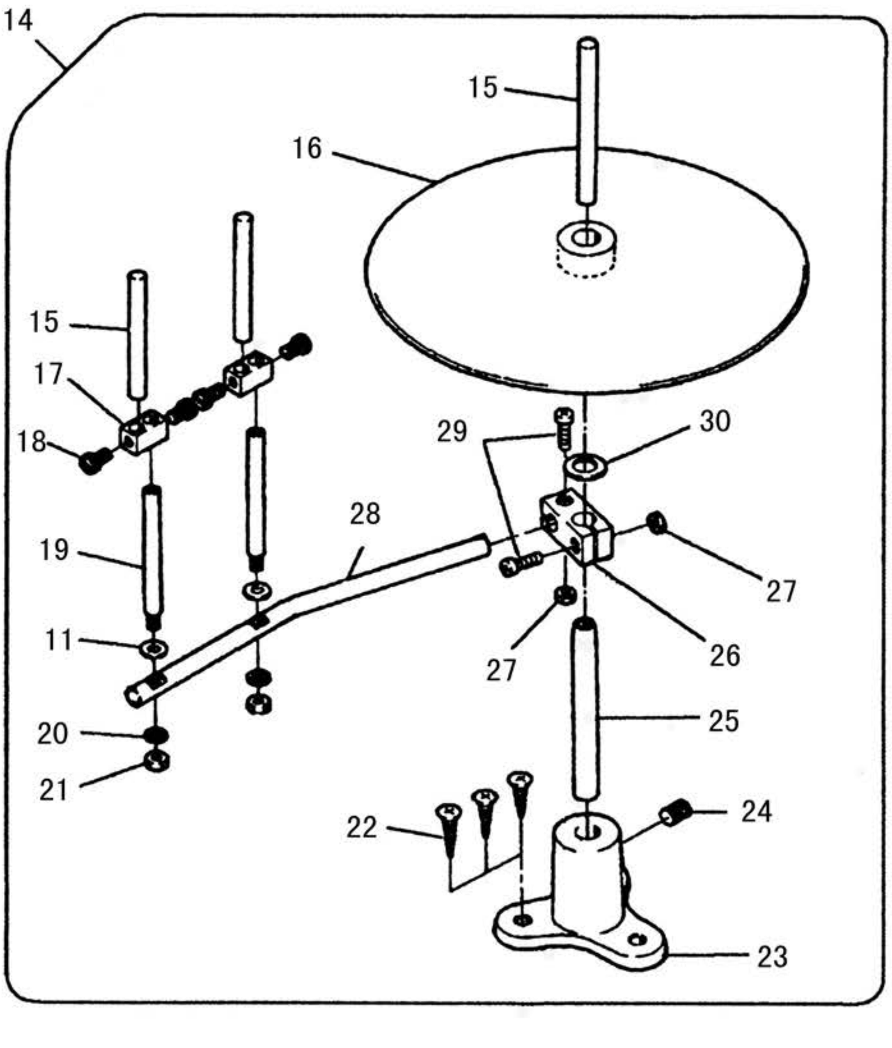
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22.02型专用件部分　　02 Specific part

序号	图号	名称 中文	名称 英文	1-2	05M8	备注
1	312.06-15	针板	Needle plate	1		
2	312.09-44	差动送布牙	Differential feed dog	1		
3	312.09-45	主送布牙	Main feed dog	1		
4	312.11-27	压脚组件	Presser foot,c.set	1		
5	312.22-01	卷具支架	Trumpet bracket	1		
6	01-705001021-1	螺钉	Screw	2		
7	312.22-02	垫片	Washer	1		
8	312.22-03	前罩板挡板	Front cover baffle	1		
9	01-505000821-1	螺钉	Screw	2		
10	312.22-04	挡板I	Baffle I	1		
11	05-056101000-4	垫片	Washer	4		
12	01-505000621-1	螺钉	Screw	4		
13	312.22-05	挡板II	Baffle II	1		
14	312.22-06	布条盘组	Tape disc c.set	1		
15	312.22-06-01	连接杆I	Pin	(3)		
16	312.22-06-02	托盘	Tope disc	(1)		
17	312.22-06-03	连接块	Thread guide holder	(2)		
18	312.22-06-04	螺钉	Screw	(4)		
19	312.22-06-05	线圈轴	Shaft	(2)		
20	07-0521313-1	垫片	Washer	(2)		
21	03-605000400-4	螺母	Nut	(2)		
22	313.25-05-12	螺钉	Screw	(3)		
23	312.22-06-08	托盘座	Tope disc seat	(1)		
24	01-806000614-1	螺钉	Screw	(1)		
25	312.22-06-10	连接杆I	Tape disc post	(1)		
26	312.22-06-11	固定夹	Thread guide holder	(1)		
27	201.22-07-09-08	螺母	Nut	(2)		
28	312.22-06-12	固定夹连接杆	Thread guide pole	(1)		
29	01-404001623-4	螺钉	Screw	(2)		
30	312.22-06-14	垫片	Washer	(1)		
31	312.22-07	拉筒组件(卷具）	Trumpet c.set	1		

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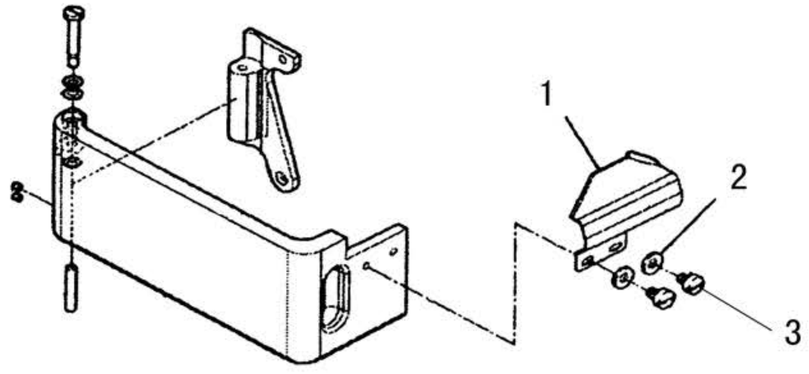
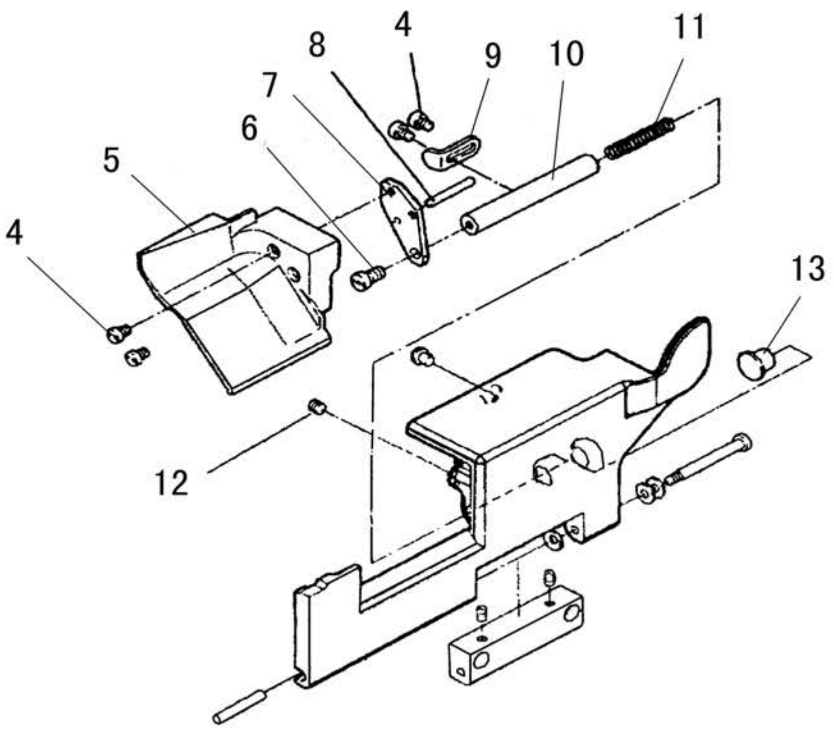
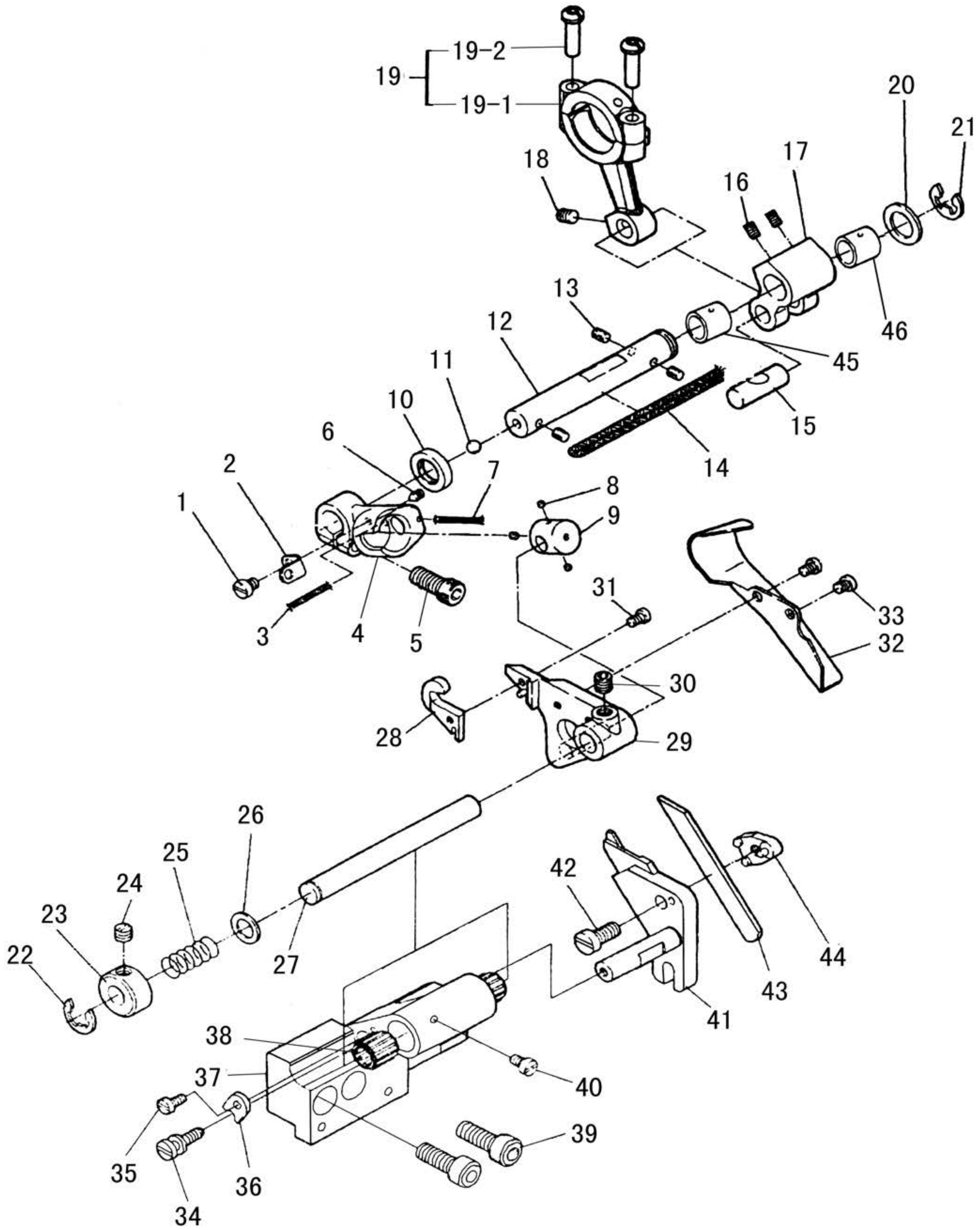




23.05M8型专用件部分I 05M8 Specific parti

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	313.23-01	挡板	Fabric guide		1	
2	05-056101000-4	垫片	Washer		2	
3	01-505000621-1	螺钉	Screw		2	
4	01-404000623-1	螺钉	Screw		4	
5	313.23-02	前挡板	Front baffle		1	
6	01-505001021-1	螺钉	Screw		1	
7	313.23-03	拉杆挡板	Bracket		1	
8	313.23-04	拉杆i	Pin I		1	
9	313.23-05	压板	Stopper		1	
10	313.23-06	拉杆II	Pin II		1	
11	313.23-07	拉杆弹簧	Spring		1	
12	01-805000514-1	螺钉	Screw		1	
13	313.23-08	塞子	Washer		1	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24.05M8型专用件部分II 05M8 Specific partll

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	01-503000521-1	螺钉	Screw		1	
2	313.24-01	挡片	Latch		1	
3	313.24-02	油线	Oil wick		1	
4	313.24-03	左曲柄	Left crank		1	
5	01-505001424-1	螺钉	Screw		1	
6	01-803000444-1	螺钉	Screw		1	
7	313.24-04	油线	Oil wick		1	
8	311.12-07	毛毡头	Oil wick		3	
9	313.24-05	销子	Pin		1	
10	13-09330150	油封	Oil Seal		1	
11	103.02-04-16	闷头	Plug		1	
12	313.24-07	轴	Shaft		1	
13	313.24-08	毛毡头	Oil wick		3	
14	313.24-27	油线	Oil wick		1	
15	201.05-13	销子	Pin		1	
16	01-805000614-6	螺钉	Screw		2	
17	313.24-10	右曲柄	Right crank		1	
18	01-804000614-1	螺钉	Screw		1	
19	313.24-11	连杆组件	Connecting rod,c.set		1	
19-1	313.24-11-01	连杆	Connecting rod		(1)	
19-2	01-404001623-1	螺钉	Screw		(2)	
20	201.08-06	铜垫片	Washer		1	
21	06-0700814-1	开口挡圈	Retaining ring		1	
22	06-0600812-4	开口挡圈	Retaining ring		1	
23	311.10-08	轴箍	Collar		1	
24	01-804000414-1	螺钉	Screw		1	
25	313.24-13	弹簧	Spring		1	
26	05-081101201-5	垫片	Washer		1	
27	313.24-15	轴	Shaft		1	
28	313.24-16	上刀	Upper knife		1	
29	313.24-17	上刀曲柄组件	Upper knife crank,c.set		1	
30	01-806750514-1	螺钉	Screw		1	
31	02-608440621-1	螺钉	Screw		1	
32	313.24-18	上刀挡板	Chip guard		1	
33	01-503000421-1	螺钉	Screw		2	
34	313.24-19	调节螺钉	Screw		1	
35	01-503000621-1	螺钉	Screw		1	
36	313.24-20	挡板	Guide		1	
37	313.24-21	刀架底座	Bracket		1	
38	14-HK0810	滚针轴承	Roller bearing		2	
39	01-506001424-1	螺钉	Screw		2	
40	01-904000621-1	螺钉	Screw		1	
41	313.24-23	下切刀架	Lower knife holder		1	
42	01-505001021-1	螺钉	Screw		1	
43	313.24-24	下切刀	Lower knife		1	
44	313.24-25	下切刀固定板	Lower knife clamp		1	
45	313.24-09	左套筒	Bushing		1	
46	313.24-26	右套筒	Bushing		1	

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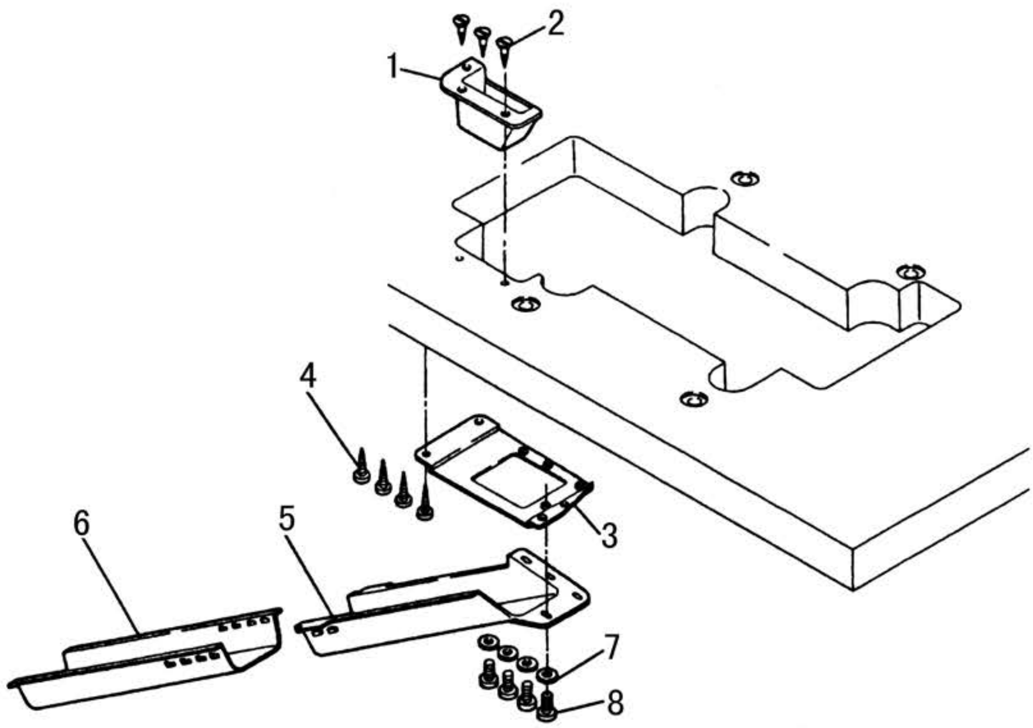

25.05M8型专用件部分ni 05M8 Specific partlll

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	313.25-01	漏斗槽接头	Waste Chute top		1	
2	201.22-07-04	漏斗槽接头螺钉（木）	Screw		3	
3	313.25-02	漏斗固定板	Bracket		1	
4	21-3450253-4	螺钉	Screw		4	
5	313.25-04-01	漏斗槽上段	Cloth Waste Chute Upper		1	
6	313.25-04-02	漏斗槽下段	Cloth Waste Chute Lower		1	
7	05-043080900-4	垫片	Washer		4	
8	01-404001223-1	螺钉	Screw		4	

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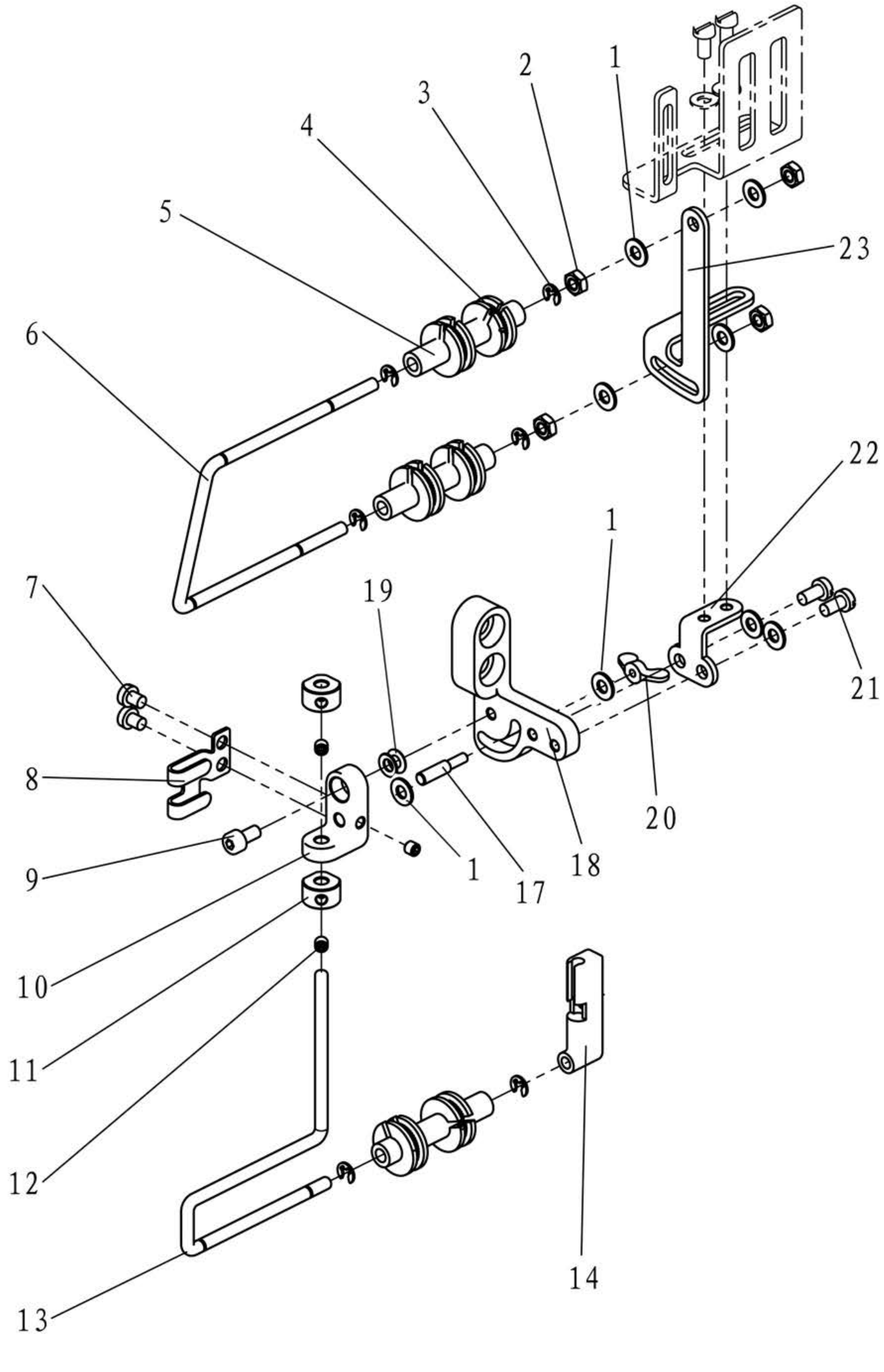
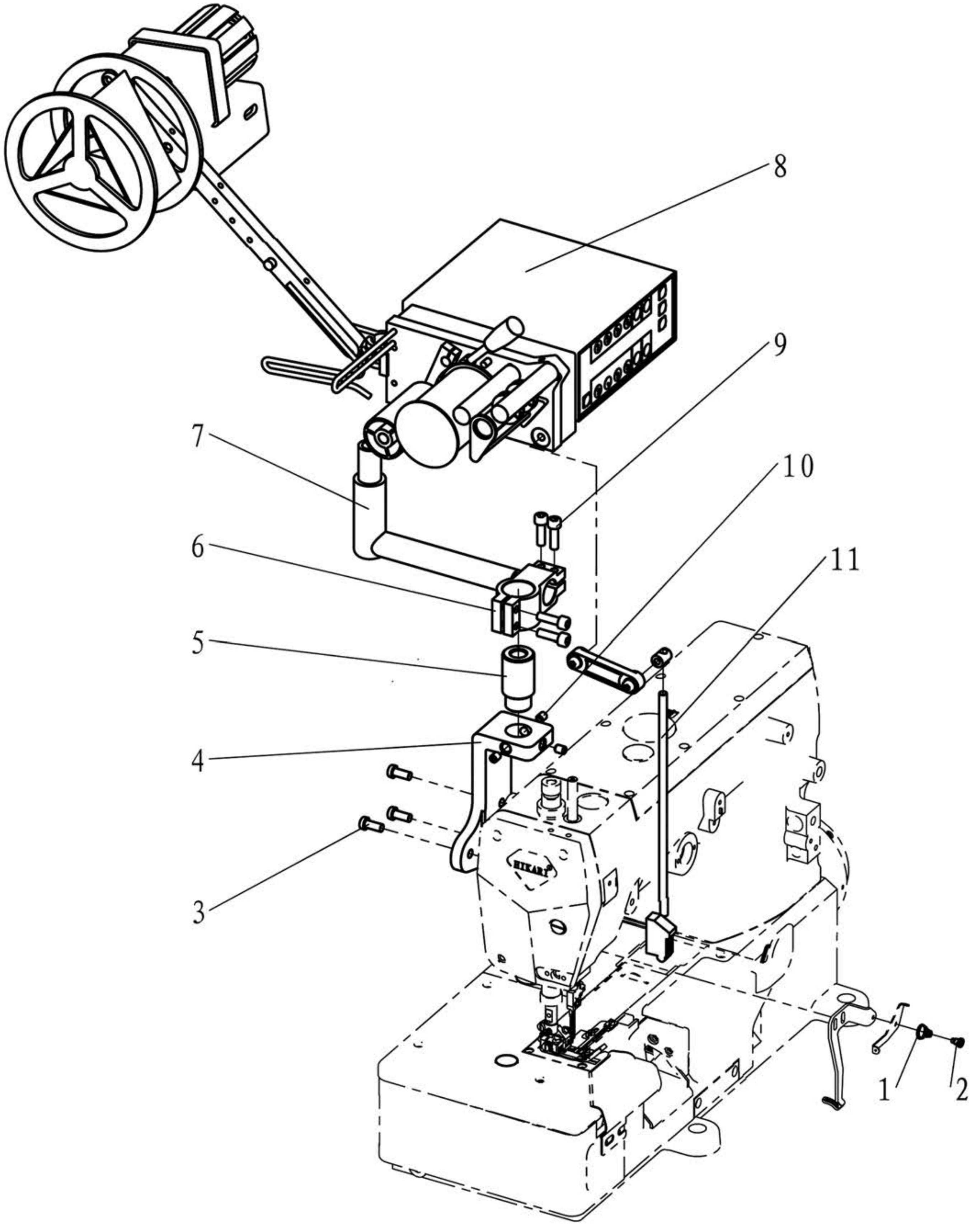


26. 05M8型专用件部分IV 05M8 Specific partIV

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	05-043080900-3	垫片	Washer		8	
2	03-604000320-1	螺母	Nut		4	
3	06-0300607-1	开口挡圈	Retaining ring		6	
4	313.26-31	挡圈(辅助轮）	Auxiliary Roller		6	
5	313.26-32	套管	Bushing		3	
6	313.26-34	过带架II	Holder		1	
7	01-404000423-1	螺钉	Screw		2	
8	313.26-29	弹簧片	spring		1	
9	01-504000824-1	螺钉	Screw		1	
10	313.26-27	摆动座	Sway seat		1	
11	313.26-28	轴箍	Collar		2	
12	01-804000414-1	螺钉	Screw		3	
13	313.26-30	过带架I	Holder		1	
14	313.26-33	过带护套	Jacket		1	
17	313.26-26	销轴	Pin		1	
18	313.26-25	固定座	Immobility seat		1	
19	09-0420408-1	碟形垫片	Washer		2	
20	313.26-36	蝶形螺母	Papilionaceous nut		1	
21	01-404000823-1	螺钉	Screw		2	
22	313.26-37	固定板	plank		1	
23	313.26-35	支架	Bracket		1	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27.05M8型专用件部分V 05M8 Specific partV

序号	图号	名称		1-2	05M8	备注
		中文	英文			
1	313.27-01	压线簧	Thread tension spring		1	
2	313.27-02	螺钉	Screw		1	
3	01-506001224-1	螺钉	Screw		3	
4	313.27-32	安装座I	Setting I		1	
5	313.27-33	安装座II	Setting II		1	
6	313.27-34	安装座连接架	Connect rack		1	
7	313.27-35	连接杆	Connect pole		1	
8	313.27-36	电子橡筋装置	Electric elastic set		1套	
9	01-506002024-1	螺钉	Screw		4	
10	01-806000814-1	螺钉	Screw		3	
11	313.27-37	辅助杆	Auxiliary ship		1	

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HW762T 系列 Series

自动剪线装置
AUTOMATISM THREAD TRIMMER

使用说明·零件手册
INSTRUCTION MANUAL&PARTS BOOK

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说明书　INSTRUCTION　MANUAL

零件手册　PARTS BOOK

电磁阀组的安装方法:

注意

1. 请参考图示，按照 1、2 的顺序，让曲柄 3 与机壳的上端在同一高度，在水平位置处安装（如图所示）。

2. 电磁阀组行程的调整
请取下橡胶塞 4，并将螺母 5 放松，用螺母 6 将行程调整为 17.9mm。

◇将螺母 5 放松时，用扳手调整

3. 电磁阀固定位置的调整
请将电磁阀固定板 7 的端面到曲柄 3 的 A 面之间的距离调整为 117.5mm。

◇弹簧 8 在未固定状态时,请确认曲柄 3 是否能轻轻摇动。

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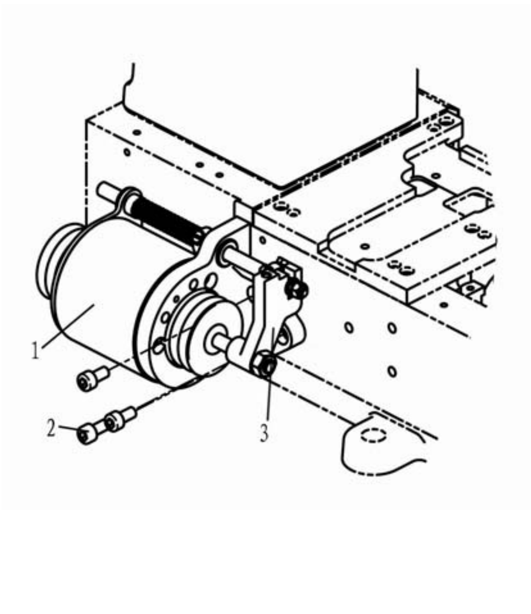


Solenoid valve installation

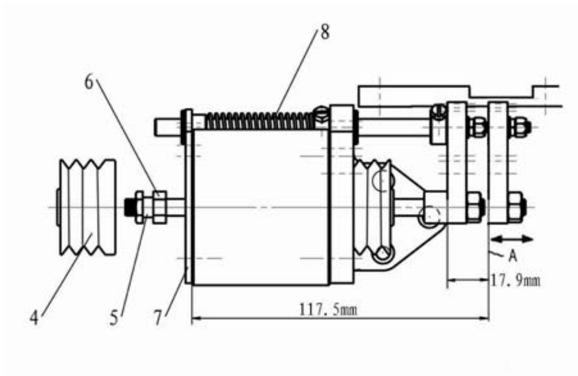
CAUTION

1. Please refer to the picture according to the order of 1、2, make crank 3 at the same height with the machine frame ,installed in horiz -ontal position.(as picture)
2. Solenoid valve adjusting.
Remove the rubber plug 4, release nut 5,
Adjust nut 6 travel to 17.9mm.

◇ Use a wrench to release nut 5

3. Solenoid valve fixed position adjusting.
Adjust solenoid valve face plate 7 crank 3 the A side distance to 117.5mm.

◇ Spring 8 is not a fixed state, please confirm, whether the crank 3 gently shake .



下切刀组的安装方法

注意

在调整刀片时，务必将电源开关关掉之后，请专门的技术人员进行操作

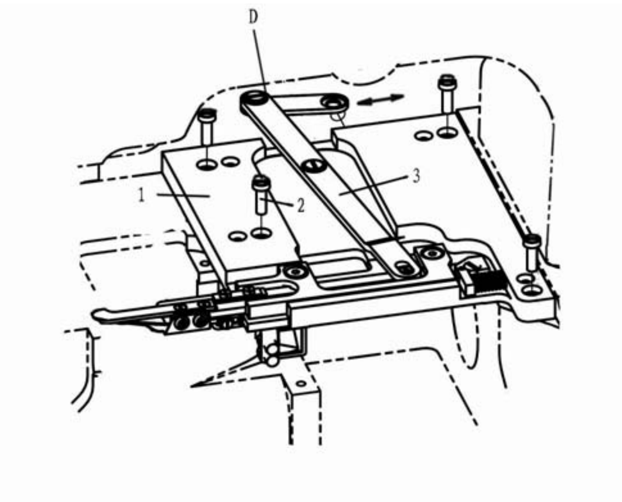
请参考图示，按照 1、2 的顺序安装，安装后，请在 D 点轻摇切刀传动杆 3 确认。

Lower knife group installation

CAUTION

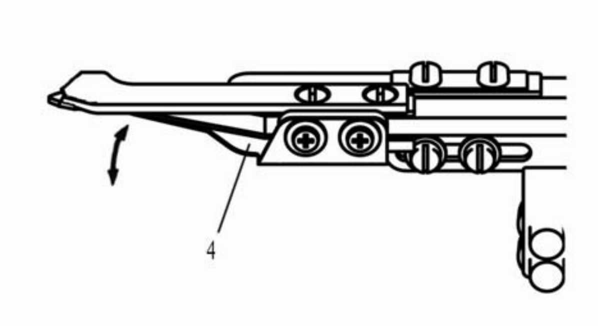
Always turn off the power, and ask professional technicians to adjust the lower knife.

Please refer to picture, install according to order 1、2 , After installation, confirm by gently shaking rod 3 at the point D.



◇切刀切断动作的确认
请使用一条棉线确认切刀切断的动作。如切断的效果不好时，请调整弹簧片 4

◇ Knife to cutting confirm.
please use the knife to cut off a cotton thread to confirm the action. If the effect of cutting is bad, please adjust the spring plate 4



电磁阀与切刀座的连接

注意

在调整刀片时，务必将电源开关关掉之后，
请专门的技术人员进行操作

请参考图示,用螺钉 3 将连杆 1 与曲柄 2 连接.
确认各部分的尺寸(针杆的最高点)

1. 安装状态时,A 的尺寸为 1mm。
.
2. 行程的调整，请将轴箍 4 调为 B=2mm。

Solenoid valve connected with the knife seat

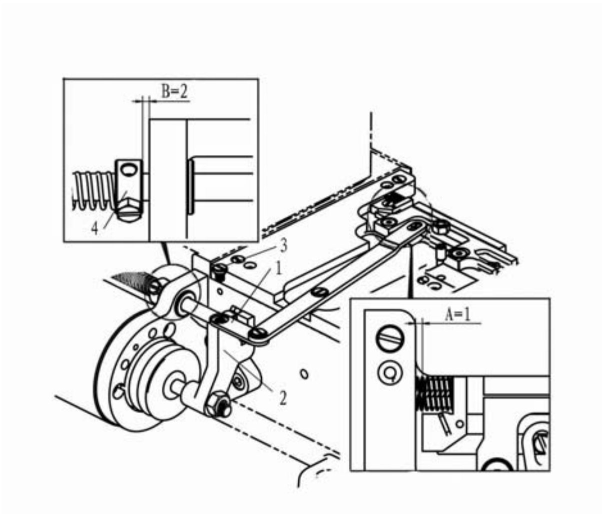
CAUTION

Always turn off the power, and ask professional technicians are allowed to adjust the lower knife.

Please refer picture, Connecting rod 1 and Crank 2 with a screw 3. To confirm the size of various parts (the highest point of the needle bar).

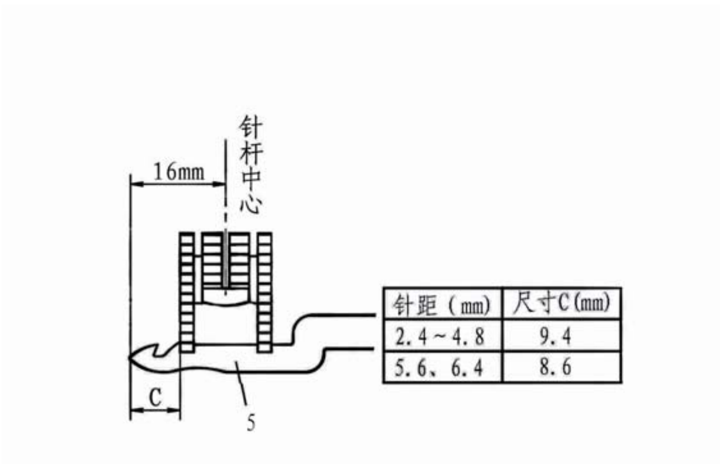
1. Installation state, size A is 1mm.

2. Adjust the distant, please adjust the collar 4 B=2mm.



3. 活动刀 5 的移动范围，活动刀刀刃 C 尺寸。

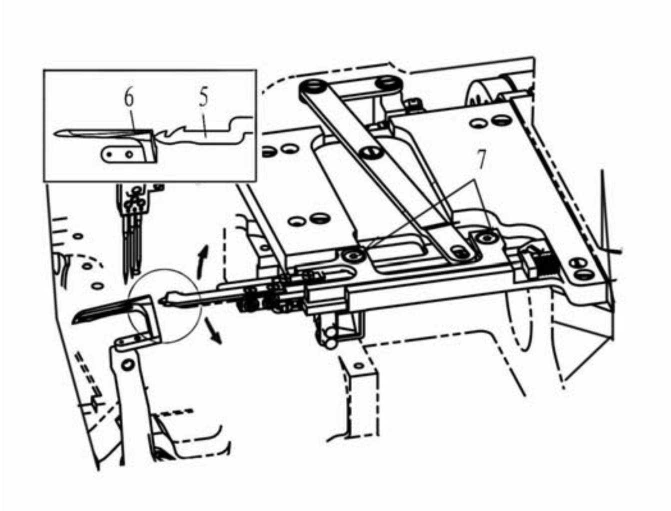
3.Range of movement activities knife 5, Activities knife blade is size C.



针距（mm）	尺寸C(mm)
2.4~4.8	9.4
5.6、6.4	8.6

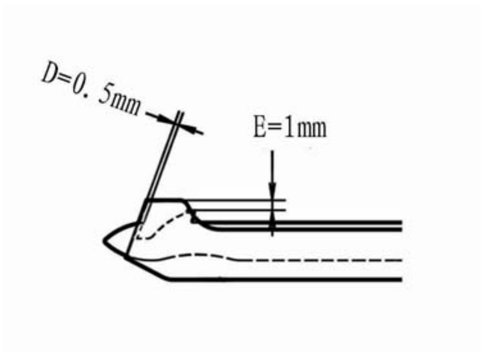
4．活动刀入口位置应为弯针 6 的中央，请用螺丝 7 进行调整并固定。

4. The entrance of the activities knife should be in the central Of lopper 6, please use screw 7 to adjust and fix.



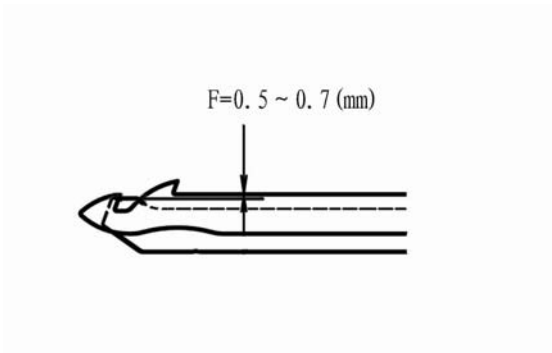
5. 活动刀与固定刀刀刃的交会 D 的尺寸为 0.5mm，活动刀刀刃之顶点尺寸 E 为 1mm。

5. Activities knife and fixed knife blade intersec-tion size D is 0.5mm, Activities knife blade of the vertex size E is 1mm.



6. 弹簧片后端与下切刀第 2 钩下面 F 的尺寸为 0.5～0.7mm.

6. Spring plate back and second hook below under the knife the size F is 0.5～0.7



下切刀座的安装方法：

Lower knife seat installation

注意

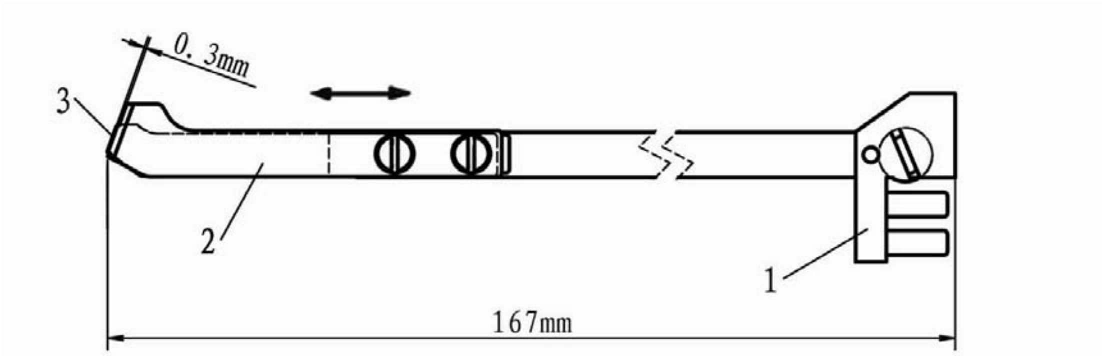
CAUTION

在调整刀片时，务必将电源开关关掉之后，请专门的技术人员进行操作

Always turn off the power, and ask professional technicians are allowed to adjust the lower knife.

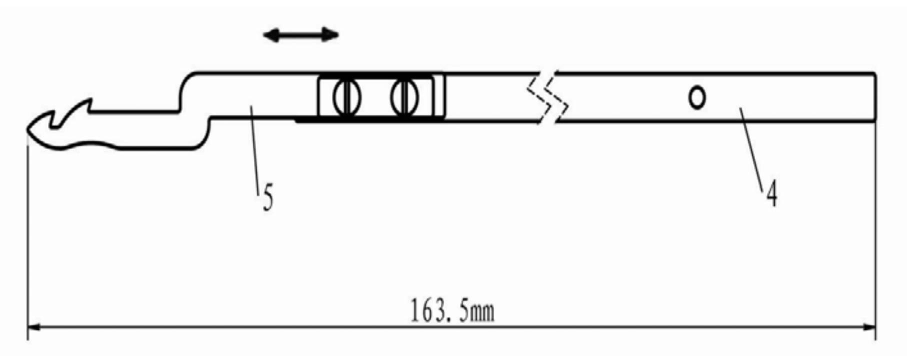
1. 固定座 1 的端面到固定刀 2 的端面之间的距离为 167mm 的位置处。
固定刀刀刃至弹簧片 3 顶端的距离为 0.3mm

1. The position should be at distance of 167mm which is from holder 1 to the fixed knife 2.
The distance between fixed knife blade to the top spring plate 3 is 0.3mm.



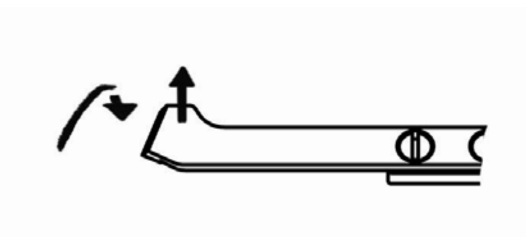
2. 固定杆 4 的顶点与活动刀 5 刀尖之间的距离为 163.5mm，并请固定杆与活动刀平行时安装。

2. Distance from fixed lever 4 vertex to activities knife 5 knifepoint is 163.5mm. And please install when the fixed lever and activities knife is in parallel .



● 将切刀的前端往箭头的方向稍微旋转，则其剪切的效果会更好。

●Turn the cutter’s front a little as the arrow shows, then the cat linr would be better.



松线组调整

Adjusting the thread releaser

注意

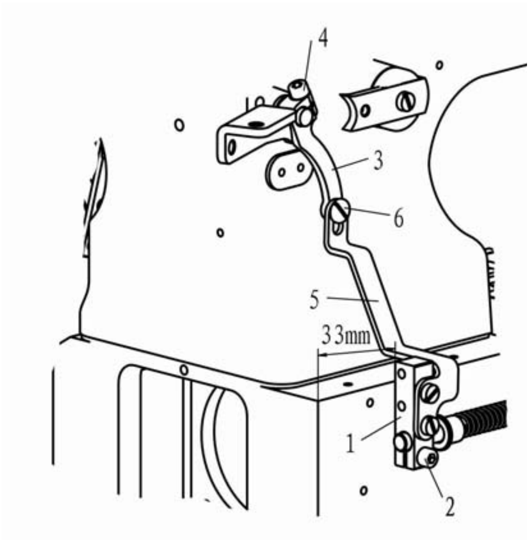
在调整松线组时，务必将电源开关关掉之后，请专门的技术人员进行操作。

CAUTION

Always turn off the power, and ask professional technicians are allowed to adjust the thread releaser.

1. 曲柄块 1，应从机壳的侧面到固定座侧面为止约 33mm 处用螺丝 2 安装。
2. 当曲柄 3 的螺丝 4 未完全锁紧时，松线连接板 5 与曲柄块 1 固定之后再与曲柄 3 连接。

1. Crank cake 1,should install with screws 2 at the position around 33mm from the side of machine frame to side of crank cake.
2. When screws 4 of the crank 3 is not all the tighten, Connect crank 3 after link lever 5 and rank cake 1 fixation.



3. 当松线板槽口与松线轴 7 的间隙为 0.05mm 时，请将曲柄 3 的螺丝 4 锁紧。

2. When clearance between notch of tension disk separator and tension release shaft is 0.05mm, please tighten screws 4 .

4. 轴 8 在 A 的尺寸为 30mm 时，请将螺丝 9 紧。

4. Shaft 8 in A size 30mm, please tighten screws 9 .

◇每条线的张力，与导线架和引线勾的位置有关。棉线时，请调整为 B=6mm、C=7mm、D=8.5mm、E=6.5mm、F=9mm。如使用具有伸缩性的纱线时，请将上述调整稍短些。

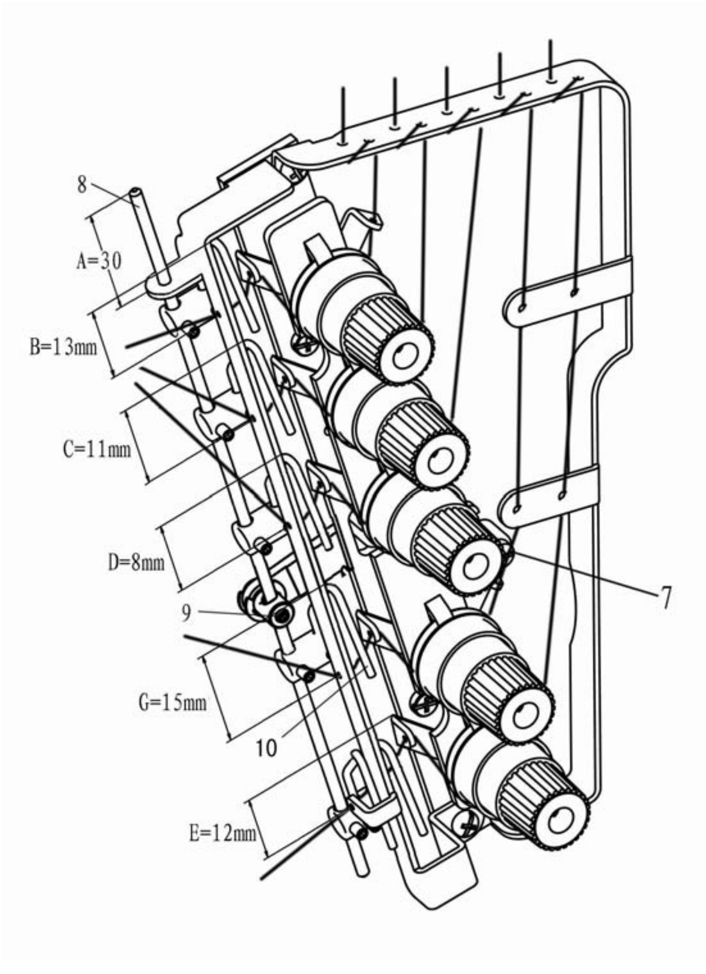
◇Eensile force of each thread is made by the Relationship between thread guide and thread releaser .Cotton threads：B=6mm、C=7mm、D=8.5mm、E=6.5mm、F=9mm。For stretchable threads, all the distances above from B to F should be slightly shortened.

◇ 不使用上装饰线剪线器时
请将引线勾 10(上装饰线用)应设置在机针线、弯针线松开时也不会影响的位置。

◇ Without top cover thread trimmer
Position thread releaser10 (for top cover thread) so that the top cover thread will not be affected if needle and looper threads are loosened.

◇使用上装饰线剪线器时，按 G=15mm 进行调整

◇ With top cover thread trimmer
Set G at 15mm.



动作感应器的调整

注意

在调整动作感应器时，务必将电源开关关掉之后，请专门的技术人员进行操作。

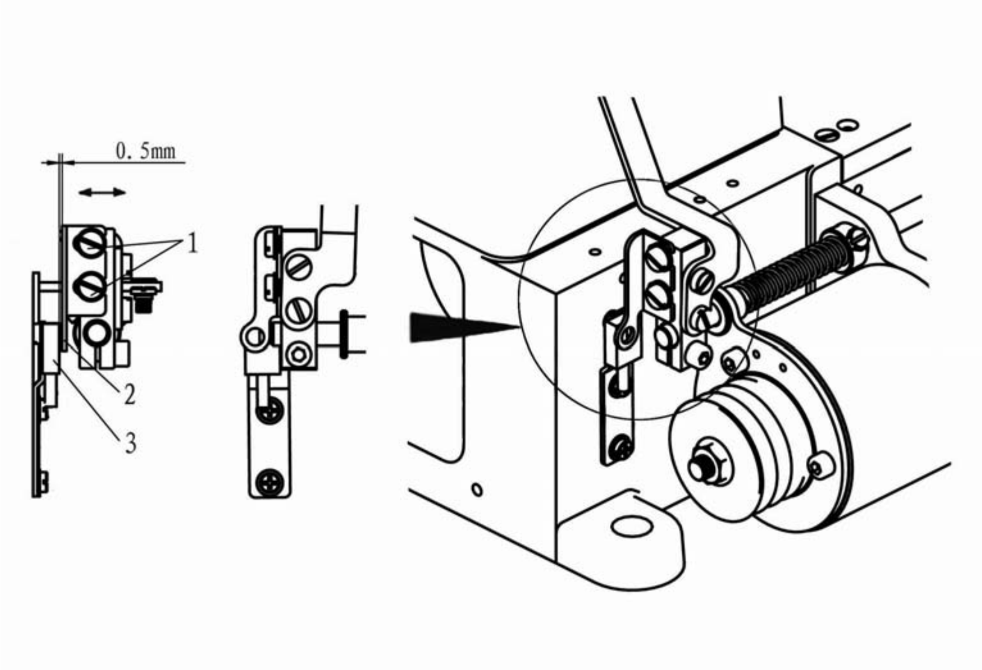
松开螺丝 1，将动作感应器 3 与电磁阀 2 之间的间隙调节到 0.5mm。调节好后，请将螺丝 1 拧紧。

Adjusting the operation detector

CAUTION

Always turn off the power, and ask professional technicians are allowed to adjust the operation detector.

Loosen screws 1,Set a clearance of 0.5mm between operation detector 3 and magnet 2 . After this adjustment tighten screws 1 .



上装饰线切刀组调整

注意

在调整上装饰切刀时，务必将电源开关关掉之后，请专门的技术人员进行操作。

刀片的刃部有划破手指的危险,操作时要特别小心注意。

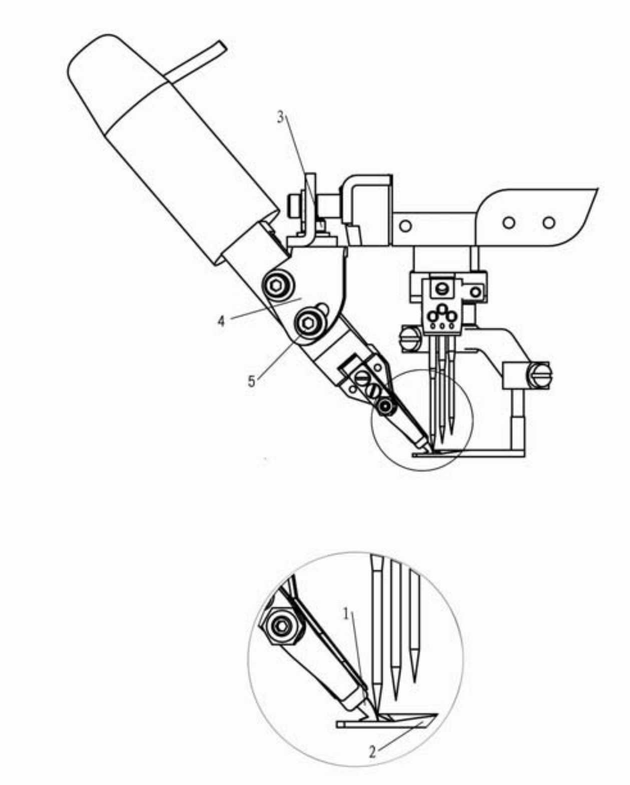
1. 在机针提升至最高点时，将活动刀 1 行程调至最长，也不碰触左端的针及喂针 2 且离压脚的距离约 2～3mm，使活动刀勾线时勾到线。
2. 调节切刀方向：松开切刀座 4 上的螺丝 3（2 个），调至最适合方向。调好后锁紧螺钉 3。
3. 调节切刀角度：松开切刀座 4 上的螺丝 5（2 个），调至活动尖与喂针尖重合（如图），调好后锁紧螺钉 5。

Adjusting the top cover thread trimmer

CAUTION

Always turn off the power, and ask professional technicians are allowed to adjust the top cover thread trimmer.
Please be careful, because the knives easy to your fingers.

1.When the needle is at the top ,turn the journey of the activities knife 1 to the maximum, keep it not touching the left needle and spreader 2. So the distance between it and presser foot should keep 2-3mm, keep the activities knife can draw the line.
2.Adjusting the cutters direction：loosen screw 3 of the knife bracket 4 , To the right direction. After this adjustment tighten screws 3.
3.Adjusting the cutters angle：loosen screw 5 of he knife bracket 4，To superposition with tip of activities knife and tip of spreader.(view fig.), After this adjustment tighten screws 5.



拨线组调整

Adjusting the top cover thread wiper

注意

在调整拨线器组时，务必将电源开关关掉
之后，请专门的技术人员进行操作。

在机针提升至最高点时，

1. 拨线组高度：松开固定座 1 上的螺丝 2(2 个)，将该装置行程调至最长（最左端)，使拨线钩尖端 3 与左端机针位置最高距离约 0.5mm。

2. 拨线组方向：拨线钩尖端至左端机针中心距离 2～3mm。

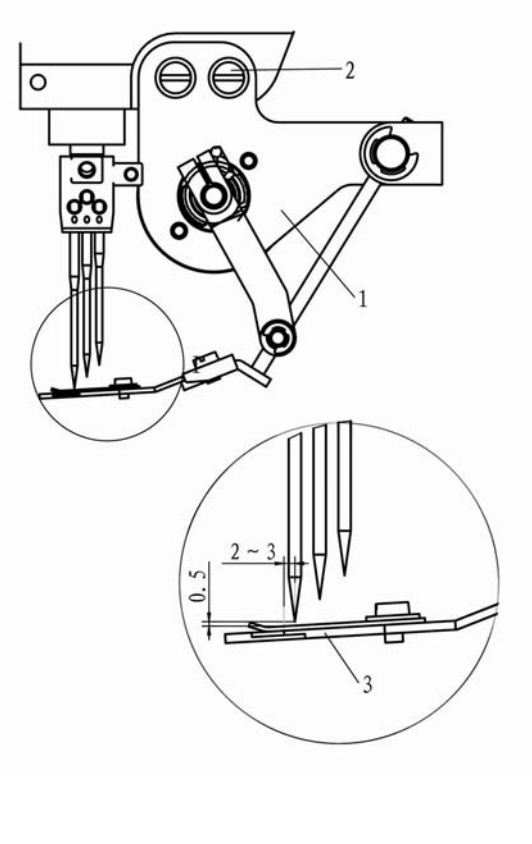
CAUTION

Always turn off the power, and ask professional technicians are allowed to adjust the top cover thread wiper.

When needle is on the top,

1.Hight of the top cover thread wiper：loosen 2 screw of solenoid bracket 1, The distance of device turns to the maximum (the left end), Made to tip thread wiper 3 to the lift needle topmost distance about 0.5mm.

2.The top cover thread wiper direction：The distance between the tip thread wiper and the center line of the left needle centre should be about 2～3mm.



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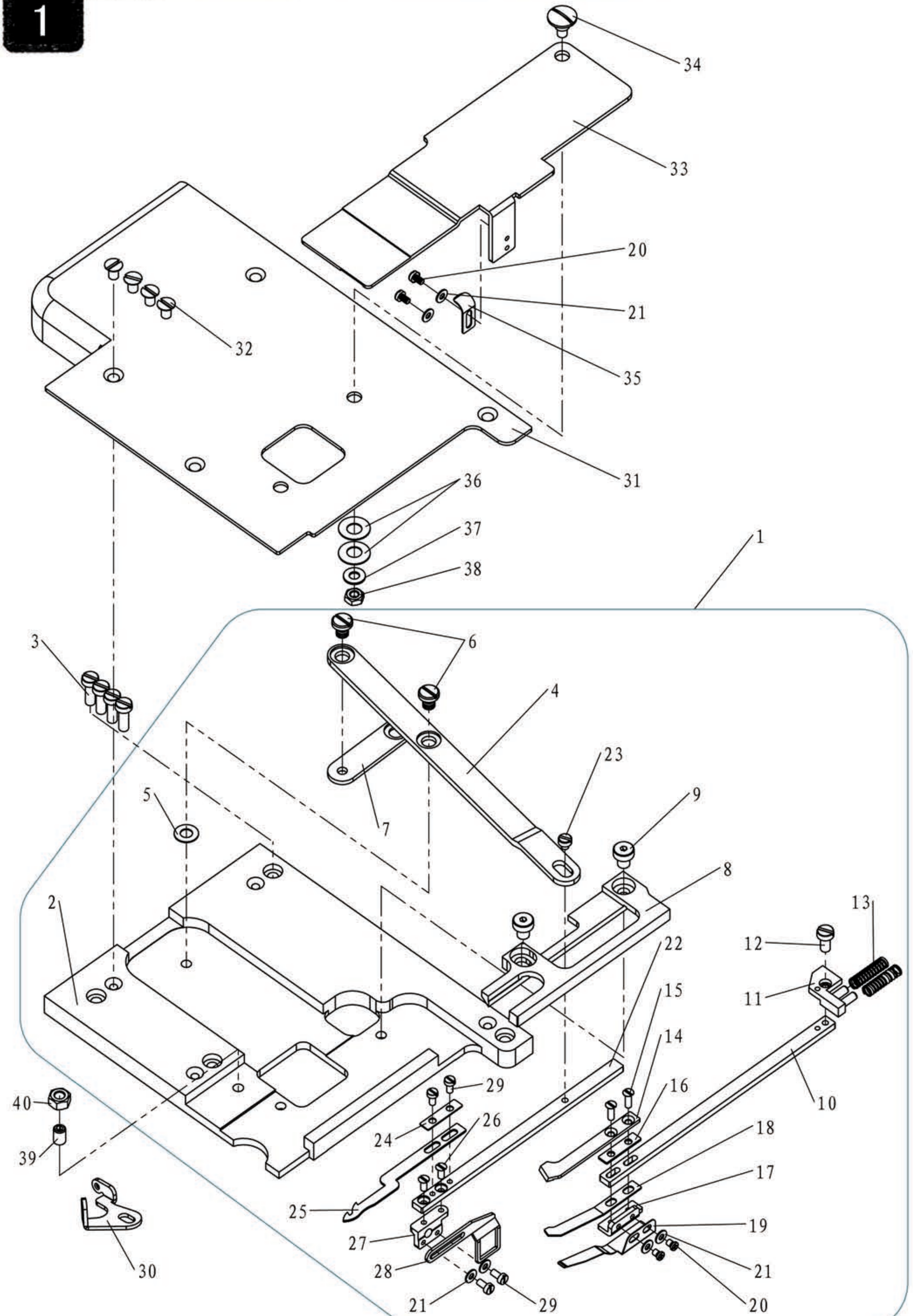
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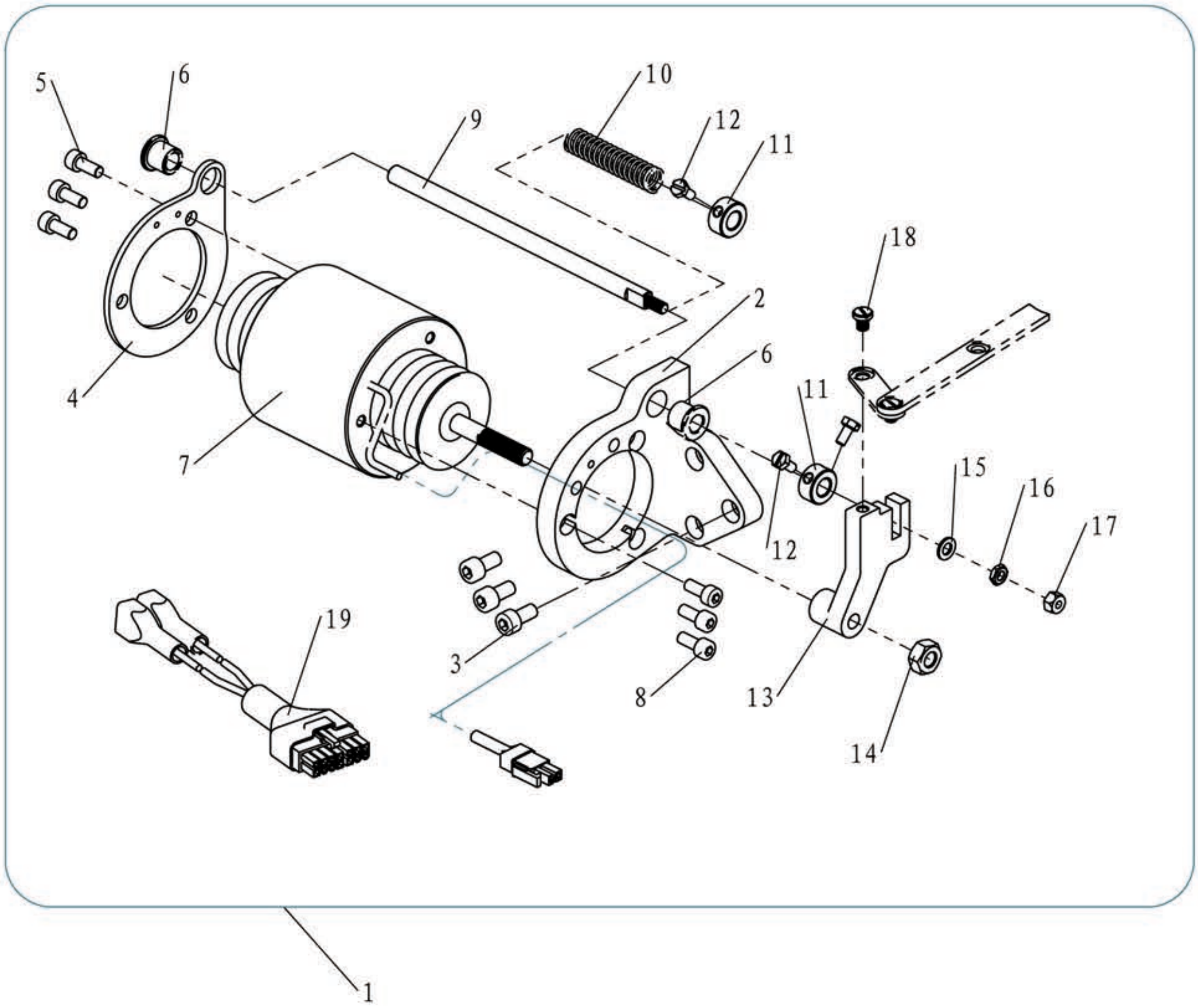
1.UT自动切线机构(一)　　Thread Trim Mechanism(一)

序号	图 号	名 称		数量	备 注
		中 文	英 文		
1	361.01-01	下剪线组件	Knife Holder Assembly	1	
2	361.01-02	切刀固定座	Knife Holder	1	
3	01-404001223-1	螺钉/M4X12	Screw	4	
4	361.01-03	切刀传动杆	Knife Lever	1	
5	05-050051003-5	垫圈	Washer	1	
6	361.01-04	台阶螺钉	Screw	2	
7	361.01-05	切刀连接杆	Knife Link	1	
8	361.01-06	切刀导向座	Knife guide	1	
9	361.01-07	螺钉/M5×6	Screw	2	
10	361.01-08	上切刀固定杆	Upper Knife Holder	1	
11	361.01-09	弹簧座组件	Spring Bracket Assembly	1	
12	01-903000421-1	螺钉/M3×3.5	Screw	1	
13	361.01-10	压缩弹簧	Spring	2	
14	361.01-11	上切线刀	Upper Knife	1	
15	01-125000821-1	沉头螺钉/M2.5X8	Screw	2	
16	361.01-12	隔片	Spacer	1	
17	361.01-13	夹线弹片座	Flat Spring Holder	1	
18	361.01-14	辅助夹线弹片	Flat Spring	1	
19	361.01-15	夹线弹片	Flat Spring	1	
20	01-525000321-1	螺钉/M2.5×2.8	Screw	4	
21	05-027050600-1	垫片	Washer	6	
22	361.01-16	下切刀固定杆	Lower Knife Holder	1	
23	361.01-17	螺钉/M3X2.8	Screw	1	
24	361.01-18	垫片	Washer	1	
25	361.01-19	下切线刀	Lower Knife	1	
26	01-125000621-1	沉头螺钉/M2.5X6	Screw	2	
27	361.01-20	拨线板固定架	Thread Takeup Bracket	1	
28	361.01-21	拨线板	Thread Takeup	1	
29	01-525000421-1	螺钉/M2.5X4	Screw	4	
30	361.01-22	过线片	Thread Guide	1	
31	361.01-23	切线底座盖板	Thread Trim Cover	1	
32	01-104000721-1	沉头螺钉/M4X7	Screw	4	
33	361.01-24	切刀盖板	Knife Cover	1	
34	361.01-25	台阶螺钉	Screw	1	
35	361.01-26	固定卡簧	Flat Spring	1	
36	09-0620513-1	蝶形弹性垫片	Elastic Disk Washer	2	
37	05-043080900-4	垫片	Washer	1	
38	03-604000320-1	螺母	Nut	1	
39	01-805000814-1	螺钉	Screw	1	
40	03-605000400-1	螺母	Nut	1	

2



2.UT自动切线机构(二)　　　　Thread Trim Mechanism(二)

序号	图　号	名　称		数量	备　注
		中　文	英　文	1/2	
1	361.02-01	电磁铁传动组件	Solenoid Assembly	1	
2	361.02-02	电磁铁固定座	Solenoid Bracket	1	
3	01-506001224-1	窝头螺钉/M6×12	Screw	3	
4	361.02-03	固定板	Bracket	1	
5	01-505001024-1	窝头螺钉/M5×10	Screw	3	
6	361-02-04	套筒	Bushing	2	
7	381.02-03	电磁铁	Solenoid	1	
8	01-505001224-1	窝头螺钉/M5×12	Screw	3	
9	381.02-04	传动轴	Shaft	1	
10	381.02-05	压缩弹簧	Spring	1	
11	381.02-06	轴固	Collar	2	
12	01-704000611-1	外六角螺钉/M4×6	Screw	3	
13	361.02-05	曲柄	Crank	1	
14	03-608000520-1	螺母/M8	Nut	1	
15	05-053101001-5	垫片	Washer	1	
16	03-605000320-1	螺母/M5	Nut	1	
17	03-605000461-1	锁紧螺母/M5	Nut	1	
18	361.01-04	台阶螺钉	Screw	1	
19	381.02-08	中继线	Relay Cord	1	

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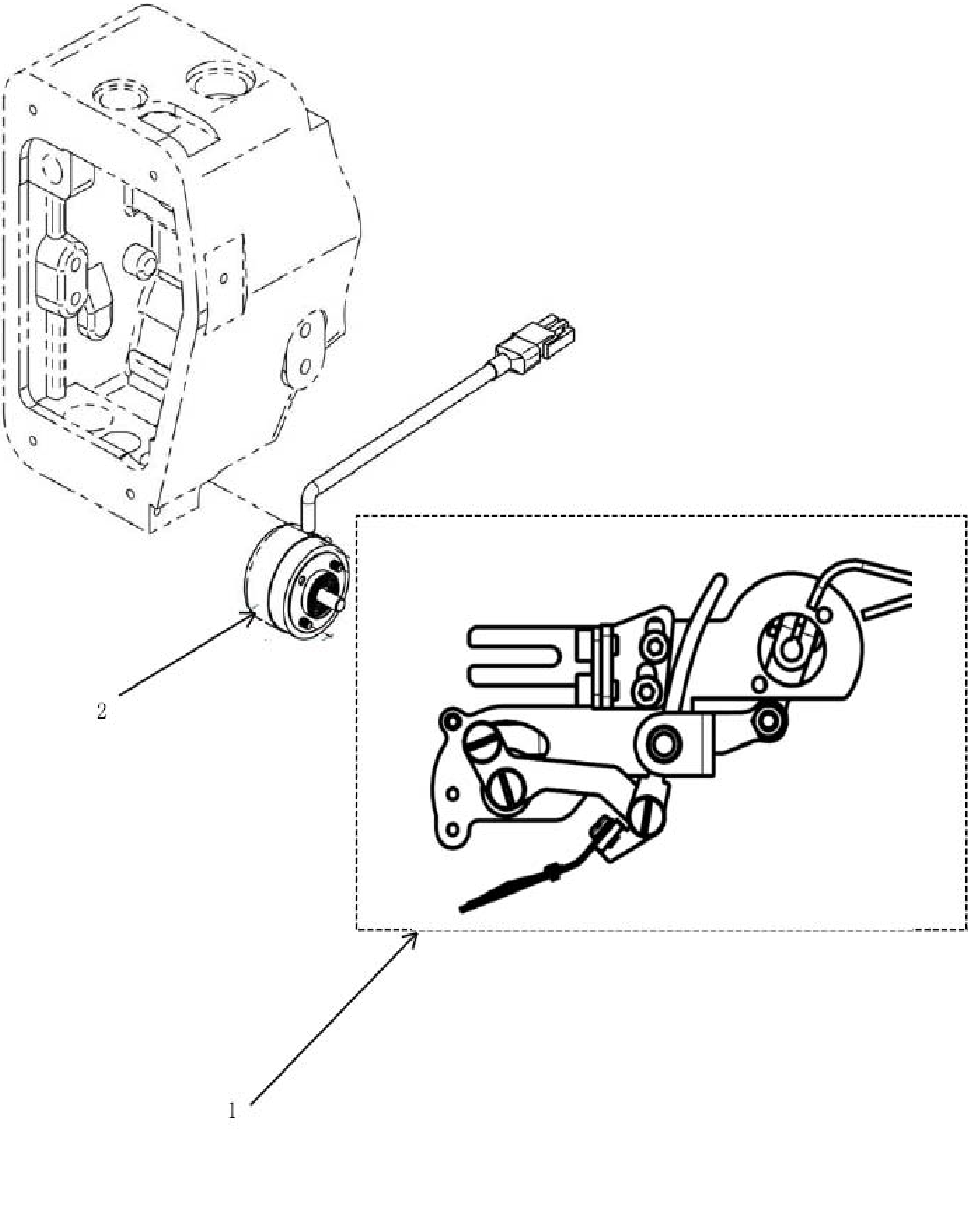
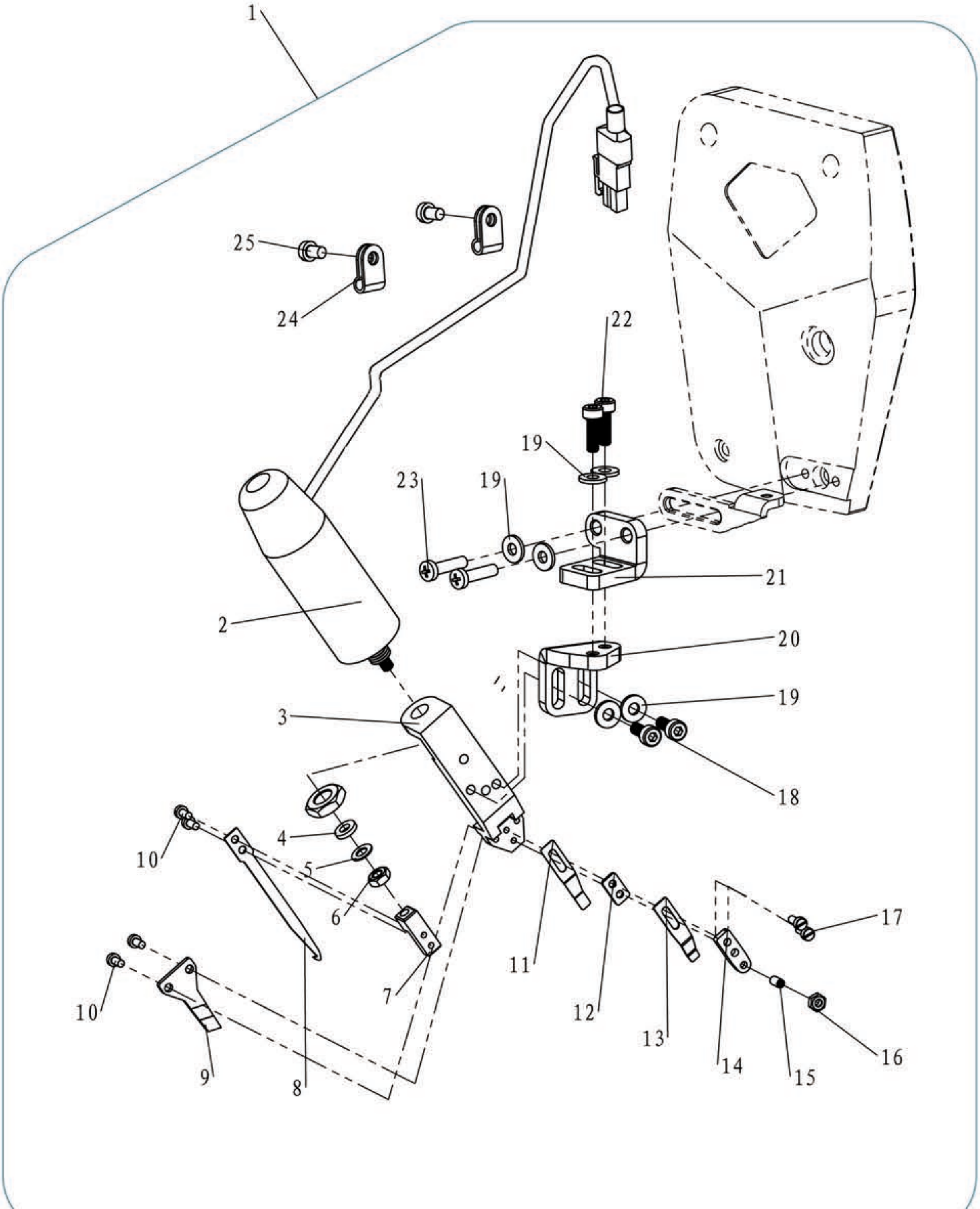


3.拨线机构 Thread Wiper Mechanism

序号	图　号	名　称		数量	备　注
		中　文	英　文		
1	381.03-01-00C	电磁式拨线组件	Thread Wiper Assembly	1	
2	381.03-02	电磁铁	Solenoid	1	

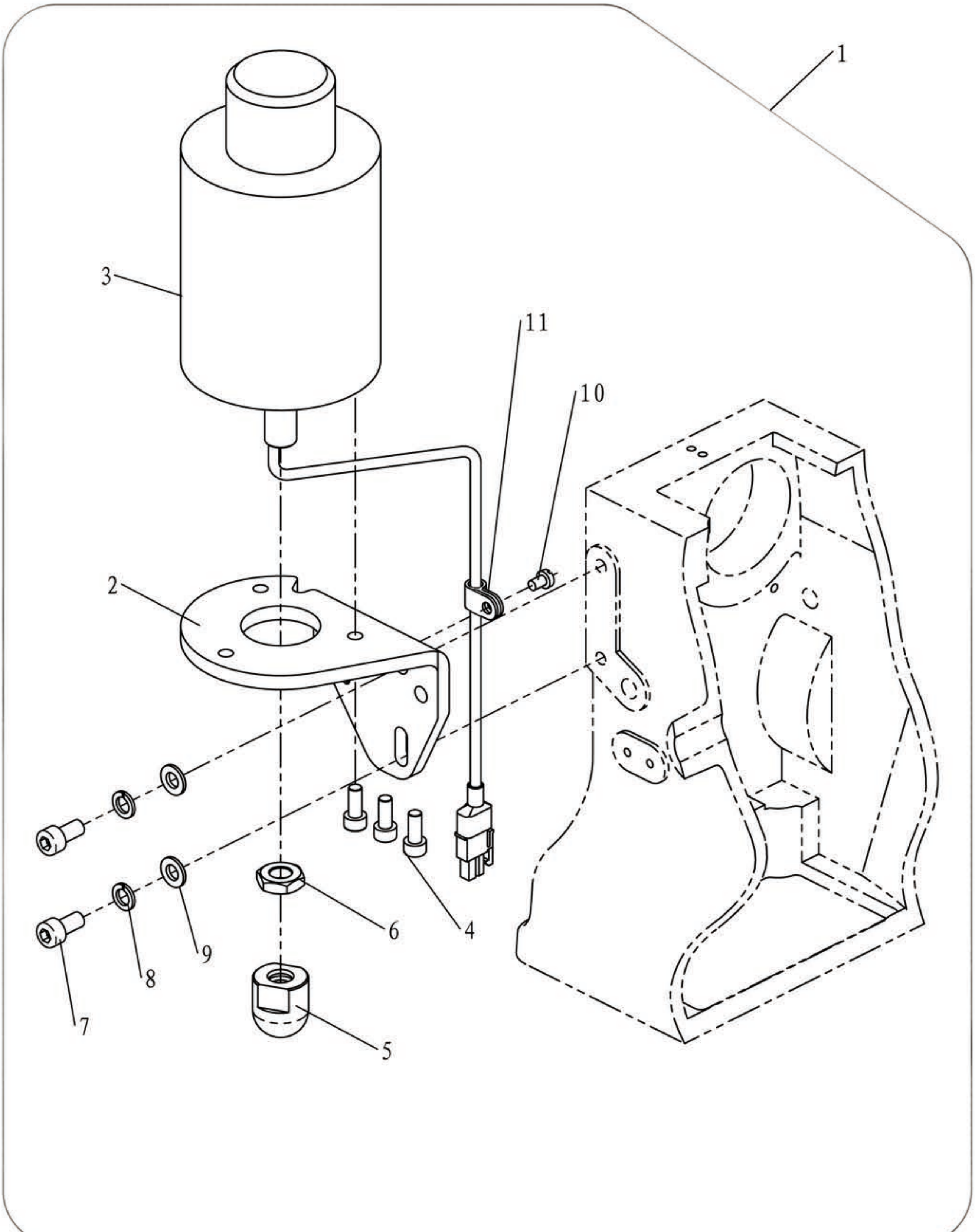
4



4.上饰线切线机构　　　Top Cover Thread Trim Mechanism

序号	图 号	名 称		数量	备 注
		中 文	英 文		
1	381.04-01	上切线组件	Top Cover Thread Trim Assembly	1	
2	381.04-03	电磁铁	Solenoid	1	
3	381.04-02	上切线刀座	Top Cover Thread Trim Bracket	1	
4	381.04-04	缓冲垫圈	Cushion	1	
5	05-041050801-1	垫圈	Washer	1	
6	03-604000320-1	螺母/M4	Nut	2	
7	381.04-05	上切刀固定台	Upper Knife Holder	1	
8	381.04-06	上切线刀	Upper Knife	1	
9	381.04-07	下切线刀	Lower Knife	1	
10	01-525000521-1	螺钉/M2.5×5	Screw	4	
11	381.04-08	夹线弹片	Flat Spring	1	
12	381.04-11	垫片	Washer	1	
13	381.04-09	夹线压力片	Clamp Spring Pressure	2	
14	381.04-10	压力调节片	Pressure Adjusting Plate	1	
15	01-803000624-1	螺钉/M3×6	Screw	1	
16	03-603000250-1	螺母/M3	Nut	1	
17	01-525000721-1	螺钉/M2.5×7	Screw	2	
18	01-504001024-1	螺钉/M4×10	Screw	2	
19	05-043080900-3	垫圈	Washer	6	
20	361.04-13G	切刀调整架	Kinfe Adjusting Bracket	1	
21	361.04-12G	切刀固定架	Kinfe Bracket	1	
22	01-504001224-1	螺钉/M4×12	Screw	2	
23	01-404001623-1	螺钉/M4×16	Screw	2	
24	381.03-11	中继线管夹	Cord Clip	2	
25	01-404000623-1	十字螺钉	Screw	2	

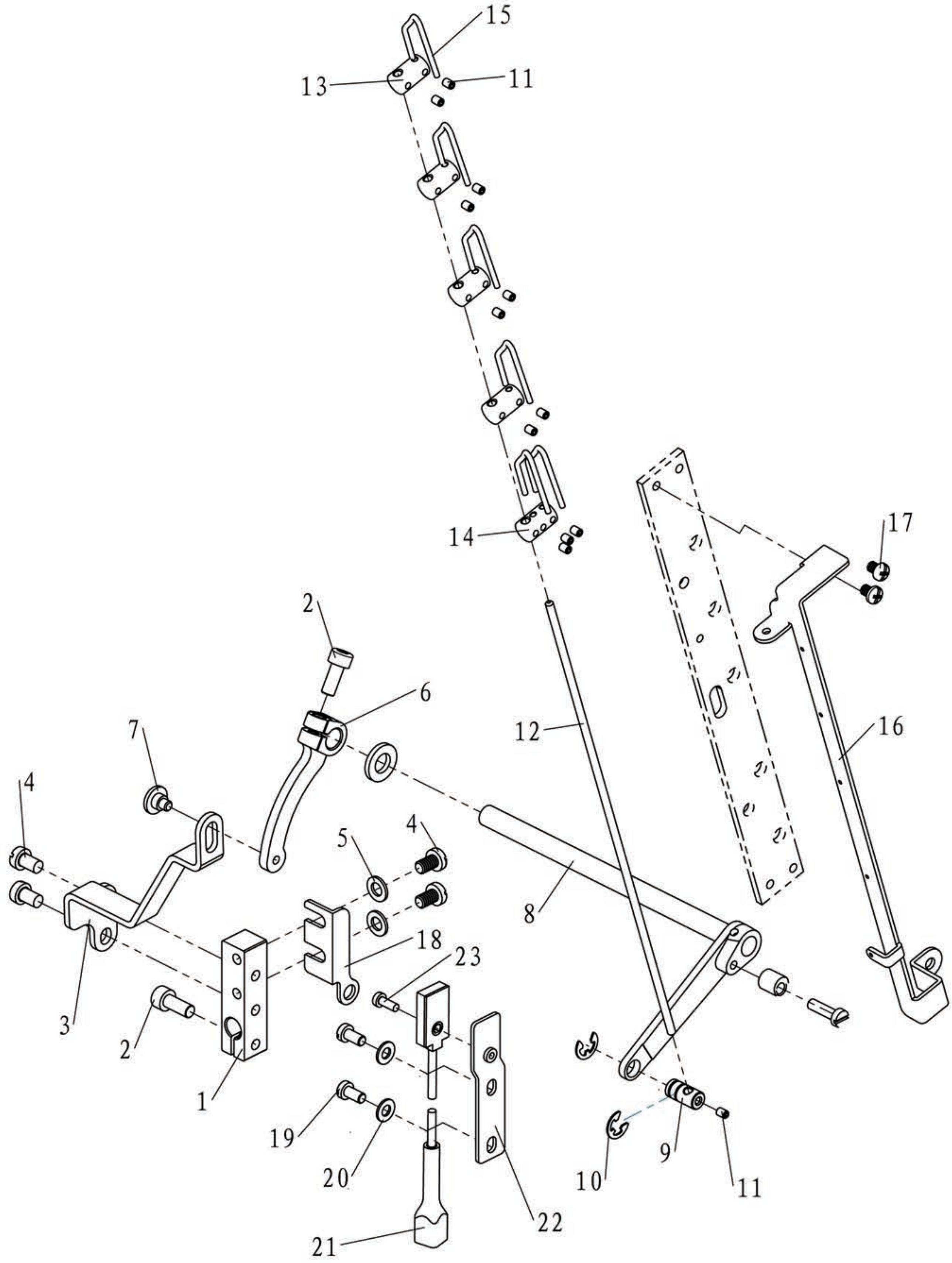
5



5.抬压脚机构　　　　Foot Lifter Mechanism

序号	图 号	名 称		数量	备 注
		中 文	英 文		
1	381.05-01	电磁式抬压脚装置组件	Solenoid Foot Lifter Assembly	1	
2	381.05-02	电磁铁固定架	Solenoid Bracket	1	
3	381.05-03	电磁铁	Solenoid	1	
4	01-505001224-1	螺钉/M5×12	Screw	3	
5	381.05-04	推动块	Pushing Block	1	
6	03-610000600-3	螺母/M10	Nut	1	
7	01-506001224-1	螺钉/M6×12	Screw	2	
8	07-0621320-4	弹性垫片	Washer	2	
9	05-062081301-1	垫片	Washer	2	
10	01-404000623-1	螺钉/M4×6	Screw	1	
11	381.03-11	中继线管夹	Cord Clip	1	

6



6. 自动切线松线机构　　Thread Releaser Mechanism

序号	图 号	名 称		数量	备 注
		中 文	英 文		
1	361.06-01	曲柄块	Crank	1	
2	01-505001224-1	窝头螺钉/M5×12	Screw	2	
3	361.06-02	松线连接板	Link Lever	1	
4	01-505000821-1	螺钉/M5×8	Screw	4	
5	05-056101000-4	垫圈	Washer	2	
6	381.06-03	曲柄	Crank	1	
7	201.03-08	台阶螺钉	Screw	1	
8	361.06-03	松线轴组件	Tension Release Shaft,C.Set	1	
9	381.06-05	插销	Pin	1	
10	06-0500611-1	开口挡圈	Ring	2	
11	01-803000314-1	止付螺钉/M3×3	Screw	12	
12	381.06-06	松线杆传动轴	Thread Guide Shaft	1	
13	381.06-07	松线杆固定块Ⅰ	Thread Release HolderⅠ	4	
14	381.06-08	松线杆固定块Ⅱ	Thread Release HolderⅡ	1	
15	381.06-09	松线杆	Thread Releaser	6	
16	381.06-10	切线用过线板	Thread Guide Plate	1	
17	01-404000523-1	十字螺钉/M4×5	Screw	2	
18	361.06-04	磁缸座组件	Magnet Bracket	1	
19	01-404000823-1	十字螺钉/M4×8	Screw	2	
20	05-043080900-4	垫圈	Washer	2	
21	381.06-13	检测器	Detector	1	
22	361.06-05-01	动作检出器座	Detector seat	1	
23	01-503000821-1	螺钉/M3×8	Screw	1	

上海富山精密机械科技有限公司
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专注高端 电脑包缝机的领导者
FOCUSING ON HIGH-END
COMPUTERIZED OVERLOCK MACHINE LEADER

HP-005 ELECTRONIC CONTROL BOX 电控箱

使用说明书
INSTRUCTION MANUAL BOOK

前　　言

感谢您选用本公司的产品，该手册提供了此系统所需的操作指导说明。

为了您更好地使用该产品，在使用之前请仔细阅读本手册。

- 由于产品的改进，本手册内容可能随时变更，恕不另行通知。
- 您在使用中若有任何疑问或对我们的产品和服务有任何意见，请随时与我们售后服务部联系。

PREFACE

Thank you for selecting our product. The introduction provides necessary knowledge and notes for using.

Please read safety introduction carefully and understand them before using.

- The content of the introduction will be amended with the improvement of our product, the notice is not announced.
- If you have any doubts or comments about our product and service, please contact after-sale service.

目　　录

0. 主要技术数据

供电电压范围：AC220V±15%
供电电源频率：50Hz/60Hz

1、 安全注意事项

1.1 使用范围

本伺服控制器是为工业缝纫机开发设计的，如果在其它方面使用，请注意使用者的安全。

1.2 工作环境

1.2.1 电源电压请遵照控制箱铭牌所标示电压±15%范围内。
1.2.2 请远离高频电磁波发射器等，以免所产生的电磁波干扰本控制器而发生错误动作。
1.2.3 温湿度 :
a.请在室温 5°C 以上、 45°C 以下的场所操作。
b.禁止在日光直接照射的场所或室外运作。
c.请不要过于接近暖气 (电热器) 旁运作。
d.请保持 30 % ~ 95 % 相对湿度（无凝露）。
1.2.4 请不要在可燃气体或爆炸物附近操作。

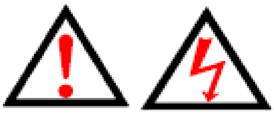
1.3 安装

1.3.1 控制器请遵照说明书进行正确安装。
1.3.2 安装前请先关闭电源并拔掉电源线插头，然后进行安装。
1.3.3 装钉电源线时请避免靠近会转动部件，最少要离开 3 公分以上。
1.3.4 为防止噪声干扰或触电事故，请将缝纫机、控制箱接地。
1.3.5 打开电源之前，确定此供应电压必须符合标示在控制箱铭牌上的指定电压±15%范围内。

1.4 保养维修的规定

1.4.1 在操作保养或维修动作前，请先关闭电源。
1.4.2 翻抬机头时，与更换机针或梭子或穿线时，请确认电源已关闭。
1.4.3 控制箱里面有危险高压电，所以关闭电源后要等 5 分钟以上方可打开控制箱盖。
1.4.4 修理及保养的作业，要请经过训练的技术人员执行。
1.4.5 不能在电机及控制箱运转的状态下进行保养或维修。
1.4.6 所有维修用的零件，须由本公司提供或认可，方可使用。

1.5 危险提示



这个标示符号表示机器在安装时，安全上需要特别加以注意的事项，忽视此标记而进行错误操作可能会导致人员或是机器损伤。

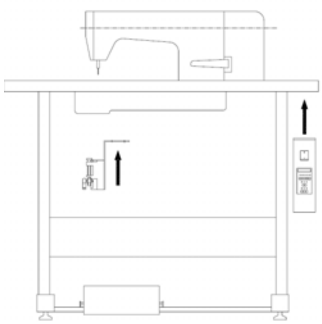
1.6 其它安全规定

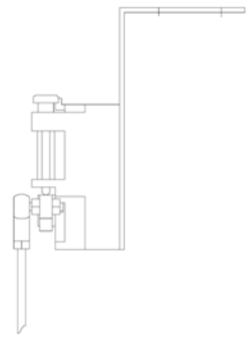
1.6.1、在第一次接通电源后，请先以低速操作缝纫机并检查转动方向是否正确。
1.6.2、缝纫机运转时，请不要去触摸上轮、机针等会动作的部位。
1.6.3、所有可动作的部份，必须以所提供的防护装置加以隔离，防止身体接触并请勿在装置内塞入其它物品。
1.6.4、请不要在拆下电机护罩及其它安全装置的情形下操作。
1.6.5、不要使电机或控制箱掉在地上。
1.6.6、不要让茶水等液态物体流入控制箱或电机内部。

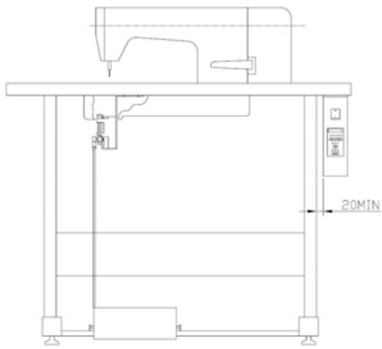
2. 安装与调整

2.1 控制箱的安装

1).将控制箱及脚踏控速器安装于台板下方　2). 将踏板与控速器安装连结　3).安装后示意图



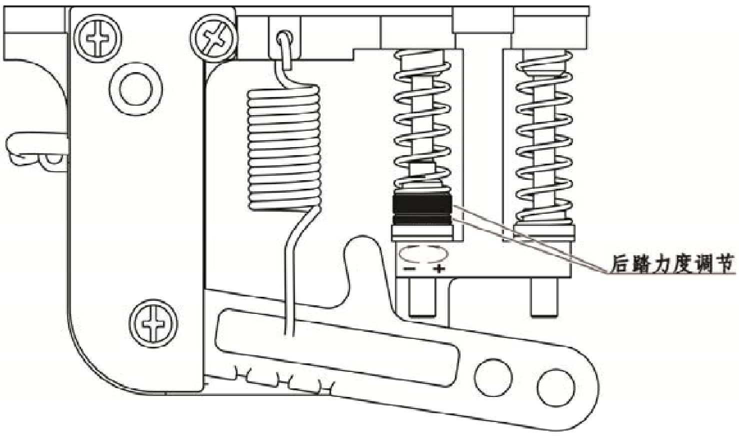




2.2 停针位的调整

2.2.1、 松开手轮上的磁钢固定螺丝，调整位置后重新固定；
2.2.2、 如果实际上停针位超过了预期上针位，将信号磁钢固定盘顺手轮旋转方向调节，反之，逆手轮旋转方向调节。

2.3　脚踏板后踏力量的调整



调整需求	调　整　结　果
踏板后踏力量的调整	当螺栓愈向上时，则后踏力量愈重。当螺栓愈向下时，则后踏力量愈轻。

3.　接线与接地

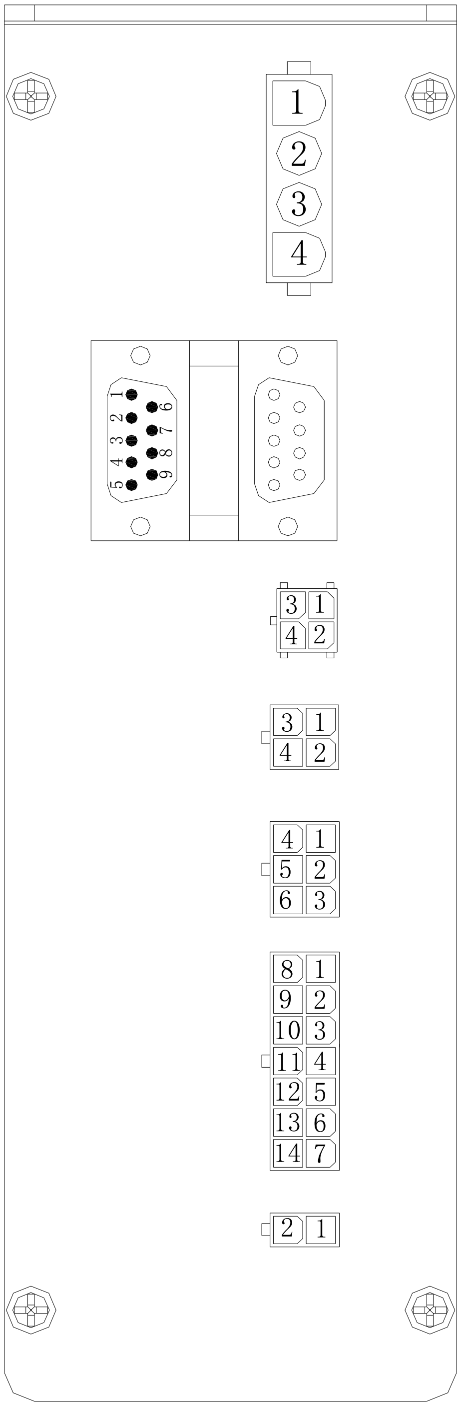
3.1　电源线的接法

本控制器适用于AC220V单相电源，电压输入范围为铭牌标示电压±15%。

注意：
黄/绿色电源线为接地线，为了人员安全及设备可靠工作，一定要做好系统的接地工程。

3.2　控制器接线端子图：

3.2.1 通用型接线端子图（平缝、绷缝和包缝等）



1、大地
2、U相输出
3、V相输出
4、W相输出

1、+5V
2、速度信号
3、立式脚踏剪线控制
4、立式脚踏识别
5、GND
6、GND
7、GND
8、立式脚踏抬压脚控制
9、+5V

1、TXD
2、+12V
3、RXD
4、GND

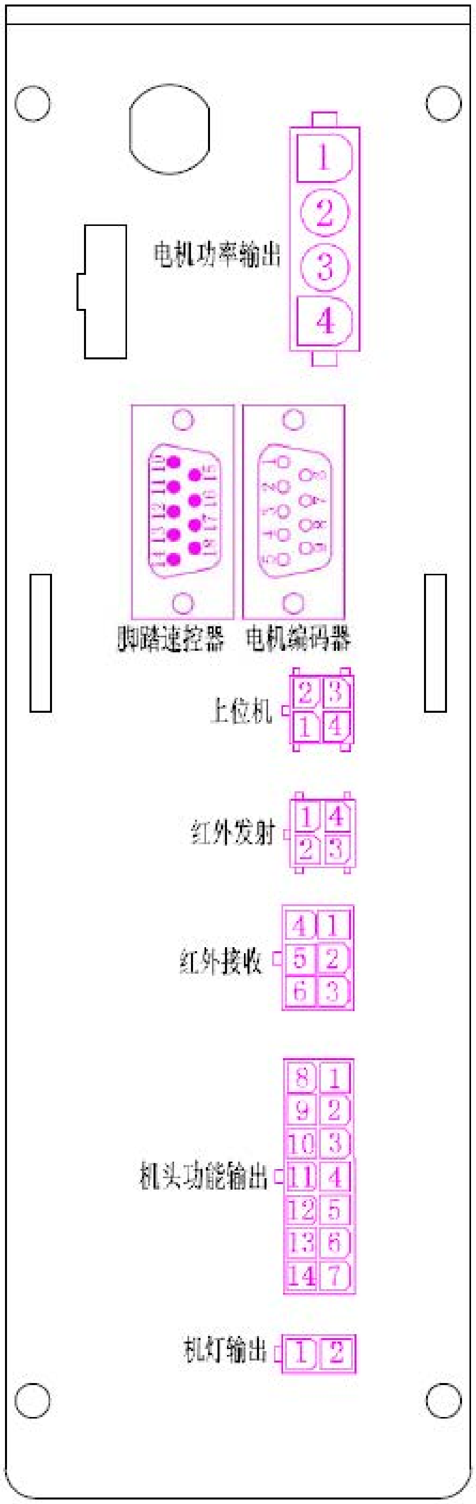
2、安全开关
4、+5v

1、针位输出
2、GND
3、GND
4、布边传感器信号
5、GND
6、布边传感器电源

1、+30v	8、剪线输出
2、+30v	9、挑线输出
3、大地	10、+30V
4、+30v	11、NC
5、GND	12、手动到缝开关
6、+30V PWM	13、到缝输出
7、GND	14、+5V照明

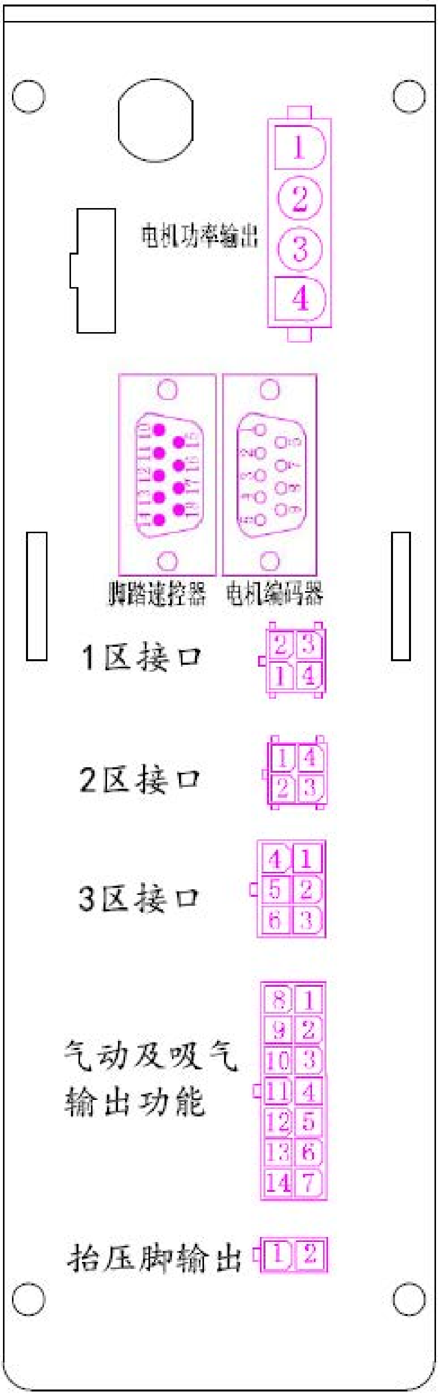
1、+30V PWM　2、抬压脚输出

3.2.2 专用型接线端子图（包缝（含第三光眼功能））



1	接地线			电机功率输出			
2	电机U相						
3	电机V相						
4	电机W相						
脚踏控速器				电机编码器			
10	+5V	15	GND	1	+5V	6	UH
11	定速信号	16	GND	2	上针位	7	VH
12	立式脚踏剪线控制	17	立式脚踏抬压脚控制	3	下针位	8	WH
13	立式脚踏识别	18	+5V	4	码盘B	9	GND
14	GND			5	码盘A		
2	RXD	3	TXD	上位机			
1	GND	4	+12V				
1	红外发射前	4	+5V	红外发射			
2	红外发射中	3	红外发射后				
4	红外接收前	1	+5V	红外接收			
5	红外接收中	2	+5V				
6	红外接收后	3	+5V				
8	剪线电磁铁	1	+30V	机头输出功能			
9	压脚电磁铁	2	+30V				
10	吸风电磁铁	3	预留				
11	拉轮电磁铁	4	预留				
12	压脚安全开关	5	GND				
13	手动开关	6	GND				
14	缝台安全开关	7	+5V				
1	+12V	2	照明输出	机灯输出			

3.2.3　专用型接线端子图（细嘴）



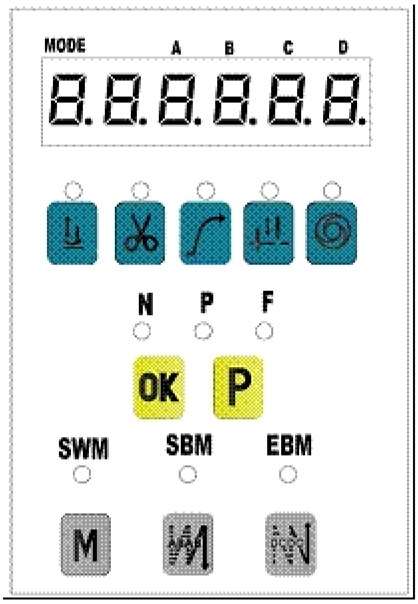
1	接地线			电机功率输出			
2	电机U相						
3	电机V相						
4	电机W相						
脚踏控速器				电机编码器			
10	+5V	15	GND	1	+5V	6	UH
11	定速信号	16	GND	2	上针位	7	VH
12	立式脚踏剪线控制	17	立式脚踏抬压脚控制	3	下针位	8	WH
13	立式脚踏识别	18	+5V	4	码盘B	9	GND
14	GND			5	码盘A		
2	无	3	无	1区接口			
1	无	4	无				
1	无	4	无	2区接口			
2	无	3	无				
4	无	1	无	3区接口			
5	无	2	无				
6	无	3	无				
8	无	1	无	气动及吸气输出功能			
9	膝控开关	2	+30V				
10	无	3	无				
11	无	4	无				
12	气动支撑架输出	5	GND				
13	吸气输出	6	+30V				
14	无	7	无				
1	+30V	2	抬压脚输出	抬压脚输出			

各部的连接插头于插入控制箱的插座时，要注意其形狀和方向性，并确实插好。

4. 主控制箱操作说明

4.1 主控制箱面板的布局如下示意图

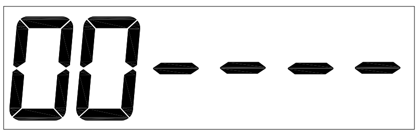
主控制箱（简称下位机）面板的布局如下示意图，共包含 T1~T6 六个数码管、十一个 LED 以及十个按键。面板有待机、缝纫模式设置、前固缝方式设置、后固缝方式设置、工艺参数设置共五种状态。



4.2 待机状态

1. 上电后，面板显示待机状态，N、P、F、SWM、SBM、EBM 全熄；各功能键上方的 LED 灯按当前参数值显示；

数码管 T1 T2 显示当前缝纫模式代码(00：自由缝；01：定长缝；02：四段缝；03：七段缝；04：八段缝；05：W 缝)，其余各数码管显示“-”。以当前缝纫模式是自由缝为例，显示如下：



2. 选择  键，对应的抬压脚、剪线、慢启动、停针位、自动触发等功能将被设置或取消，同时对应的 LED 点亮或熄灭；

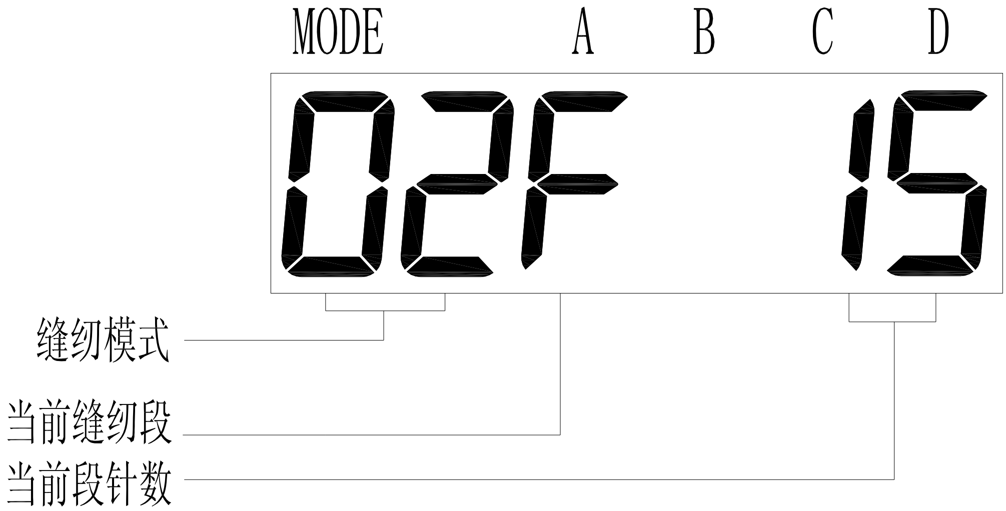
4.3 缝纫模式及各段针数设置

待机状态下按

键，进入缝纫模式设置状态:SWM 亮，其余 LED 全熄;

数码管 T1 T2 显示当前缝纫模式代码（00：自由缝；01：定长缝；02、四段缝；03：七段缝；04：八段缝；05：W 缝），若为定长缝或多段缝，数码管 T3 显示当前段代号“E、F、G、H”，数码管 T5、T6 显示当前段针数；

以四段缝为例，显示如下：



若为自由缝，不显示当前缝纫段;

缝纫模式及段号针数选择:

1. 按下

键，数码管 T1T2 可在 00~05 之间循环显示当前缝纫模式;

2. 按下键，数码管 T3 可在 “E、F、G、H”之间循环显示当前段号;

3. 按下或键，对应的针数加 10 或加 1，0—99 之间循环；.、键无效;

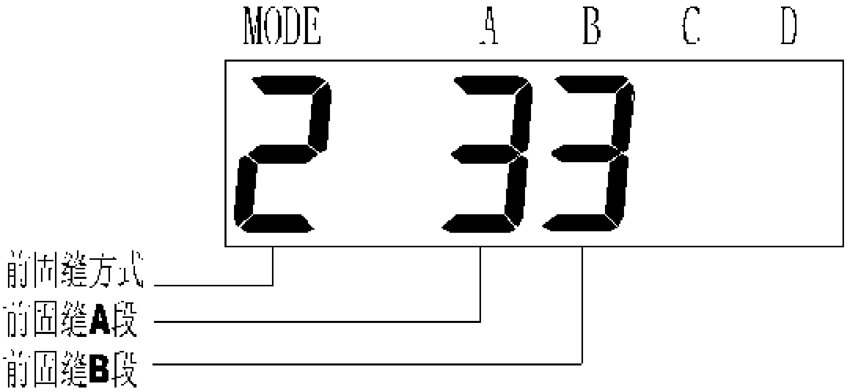
按下

键，返回待机模式。

4.4 前固缝方式及针数设置

1. 在待机状态下、缝纫模式设定状态下或后固缝设定状态下:按键，均可进入前固缝方式设置状态，此时 SBM 灯亮，其余 LED 熄灭，T1 显示当前的前固缝方式;

2. 按下键，数码管 T1 循环显示前固缝方式:0（无前固缝)、1（单前固缝)、2（双前固缝)、3（四前固缝)，T3、T4 分别显示当前的固缝针数，以前双固缝为例，显示如下：



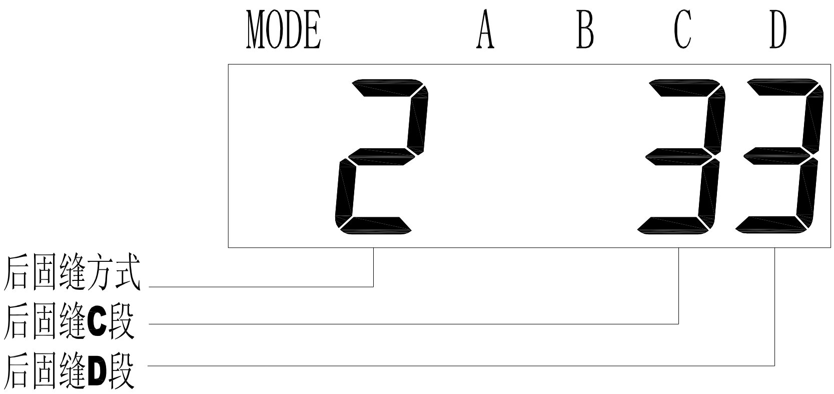
按，其上方对应的针数加一，在 0~F 之间循环切换，按键返回待机状态。

4.5 后固缝方式及针数设置

1. 在待机状态下、缝纫模式设定状态或后固缝设定状态下，按键，均可以进入后固缝方式设置状态，此时 EBM 亮，其余 LED 熄灭，T2 显示当前的后固缝方式;

2 .按下键,数码管 T2 循环显示后固缝方式:0（无后固缝)、1（单后固缝)、2（双后固缝)、3（四后固缝)，

3. T5、T6 分别显示当前的固缝针数，以后双固缝为例，显示如下：。

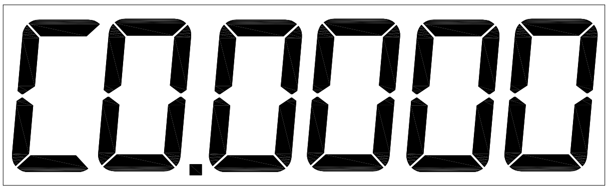


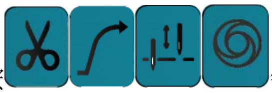
按，其上方对应的针数加一，在 0~F 之间循环切换，按键返回待机状态。

4.6 工艺参数设置

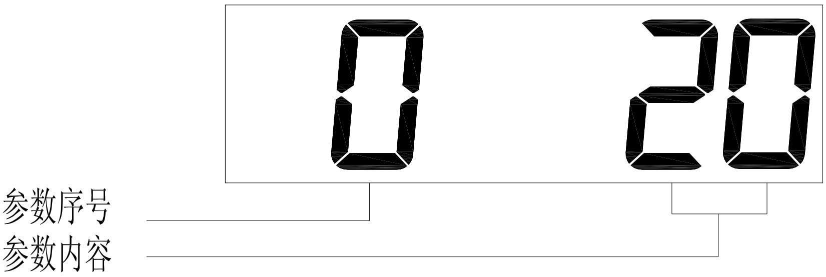
4.6.1 密码输入

1.在待机状态下连续按两次键，P 灯点亮，其它 LED 灯全熄，此时便进入了工艺参数设置状态，数码管显示密码输入:界面如下图所示：



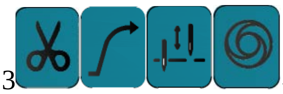
2.,按键,可以输入密码，(出厂密码 2222 输入后，按确认。如果所输入的密码正确，则进入工艺参数修改状态。显示如下：

4.6.2 工艺参数修改



1.在工艺参数设定状态下,键为序号递增键,按该键可进行加 1 操作.,(序号值:0-99)

2 在状工艺参数设定态下,键为序号递减键,按该键可进行减 1 操作,,(序号值:0-99)

3各键在此状态下为参数设定键，每按一键，参数的对应位加 1（如果加 1 后的参数值超出该参数的范围则不加）；每一个参数设置完后按键，保存该参数值，再按一次键返回待机模式。

4.7 常用参数说明表

(单位说明: RPM 转/分钟; ms 毫秒; s 秒; hour 小时;)
序号带*表示该参数修改后需要重新上电才能生效.

序号	功能参数	默认值	设定范围	单位	参数说明
P0	踏板斜率	20	1~100	%	斜率越大，低速区域越大，速度变化越大；斜率越小，低速区域越小，速度变化越小。
P1	速度比例	8	1~8		自由缝最高速度的限定比例。将自由缝最高速度分成 8 等分，通过调整等分值来改变当前自由缝最高速度
P2	系统最低转速	200	150~500	RPM	缝纫时，机头最低转速限制
P3	自由缝最高转速	4000(平缝系列) 3000(双针系列) 5500(包缝系列)	150~5000 150~4000 150~7500	RPM	自由缝模式时，机头最高转速
P4	定速缝速度	3500(平缝系列) 3000(双针系列)	200~4000	RPM	定长缝自动触发时的缝纫速度
P5	前固缝速度	1800	200~3000	RPM	执行前固缝时的缝纫速度
P6	后固缝速度	1800	200~3000	RPM	执行后固缝时的缝纫速度
P7	前固缝完暂停	off	On/off		前固缝完毕暂停，需要踏板触发后模式才继续运行
P8	后固缝前暂停	off	On/off		后固缝前暂停，需要踏板触发才执行后固缝
P9	W 缝速度	1800	200~3000	RPM	W 缝模式时的缝纫速度
P15	倒缝最高速度	2500	200~3000	RPM	倒缝时的最高速度
P16	扫线通电时间	50	20~1000	ms	扫线电磁铁的动作时间
P17	暂停过程中按键是否吸合倒缝电磁铁	on	On/off		当电机不运转时，按倒缝键是否允许倒缝电磁铁动作
P18	针迹/速度优先	0	0~1		缝纫时，针迹或速度的优先级别设定 0：针迹优先 1：速度优先
P19*	抬压脚开关	On	On/off		开启或关闭抬压脚功能
P21	计数功能选择	0	0~2		0:无计数功能 1:底线计数功能 2:剪线计数功能

P22	慢启动针数	2	0~15		以慢启动速度缝纫的针数
P23	慢启动速度	500	200~3000	RPM	慢启动缝纫时的速度
P24	底线基数	10	1~100		底线变化多少针时,当前计数变化 1 个单位。
P25	底线总数	2000	1~9999		设定的底线总数
P26	当前计数	2000	0~9999		当前的底线数量
P27	倒缝全额启动时间	200	20~500	ms	倒缝电磁铁的初始出力时间
P28	倒缝通电时间	2	1~50	ms	倒缝电磁铁力度保持时的高电平时间
P29	倒缝断电时间	2	1~50	ms	倒缝电磁铁力度保持时的低电平时间
P34*	上电找针位	On	On/off		上电后，是否自动找到上针位点。
P36	剪线速度	250	200~500	RPM	剪线时的运转速度
P37*	半后踏自动抬压脚	on	On/off		开启或取消半后踏自动抬压脚
P39	第一针速度限定	3000	200-4000	RPM	第一针缝纫时的速度限定
P40	前固缝补偿参数 1	7（平缝系列） 12（双针系列）	0-16		前固缝针迹补偿参数 1
P41	前固缝补偿参数 2	5	0-16		前固缝针迹补偿参数 2
P42	后固缝补偿参数 1	7（平缝系列） 12（双针系列）	0-16		后固缝针迹补偿参数 1
P43	后固缝补偿参数 2	5	0-16		后固缝针迹补偿参数 2
P44	W 缝补偿参数 1	7（平缝系列） 12（双针系列）	0-16		W 缝针迹补偿参数 1
P45	W 缝补偿参数 2	5	0-16		W 缝针迹补偿参数 2
P46	手动老化开关	0	0/1		0：正常操作模式 1：老化拖车模式
P47	老化停顿时间	2000	100-9999	ms	老化时每次运行之间的时间间隔
P48	老化运行时间	2000	100 —9999	ms	老化时每次运行的时间（在没有定位器时有效）
P49*	电机运转方向	1	0/1		0:CCW 1:CW
P51*	剪刀模式	0	0/1		0: 内置剪刀 1: 外置剪刀。
P52	外剪刀工作时间	100	30~9999	ms	外剪线的动作时间
P53	外扫线工作时间	70	20~9999	ms	外扫线的动作时间
P54	安全开关信号型式	0	0/1		0：常开 1：常闭

P56	机头工作时间	0	0~9999	hour	机头已经工作了多长时间(每个小时加 1)
P57	抬压脚启动时间	250	20~1000	ms	抬压脚电磁铁的初始出力时间
P58	抬压脚通电时间	2	1~50	ms	抬压脚电磁铁的力度保持时的高电平时间
P59	抬压脚关断时间	3	1~50	ms	抬压脚电磁铁的力度保持时的低电平时间
P60	抬压脚保护时间	20	1~120	s	抬压脚工作保护时间
P61	抬压脚延迟时间	50	20~800	ms	电机停转后，多长时间开始抬压脚
P62	放压脚延迟时间	50	20~800	ms	压脚放下后，多少时间才允许启动
P64 *	上电后自动抬压脚时间	0	0-900	s	上电后自动抬压脚的时间
P65	布边传感器功能选择	0	0－1		0：无布边传感器 1：有布边传感器
P66	布边传感器类型选择	2	0－3		0：N 输出低有效 1：N 输出高有效 2：P 输出低有效 3：P 输出高有效
P67	布边速度	800	200-5000	RPM	检测到布头信号后的运转速度
P68	全人工后踏剪线	311			311-剪线开启 非 311-剪线关掉
P69	布边延时启动时间	1000	100-9999	ms	检测到布头信号后的延时启动时间
P70	布头针数	10	1-100		布边传感器信号到针孔之间的距离
P71	布尾针数	10	1-100		布边传感器信号到针孔之间的距离
P73	有无布边传感器	off	On/off		是否有外接布边传感器
P74	倒缝/抬压脚气动选择	0	0－3		0：全部电动 1：倒缝气动 2：压脚气动 3：全部气动
P76	剪线次数	0	0-9999		每剪一次线计数加 1,加满清零
P77	针位信号输出控制	0	0-3		0:上针位输出低电平有效 1:下针位输出低电平有效 2:上针位输出高电平有效 3:下针位输出高电平有效
P98	参数恢复默认值	0000h	0-9999		
P99	工艺参数密码	2222h	0-9999		

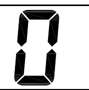
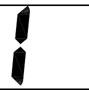
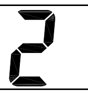
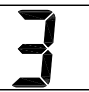
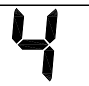
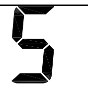
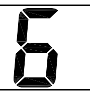
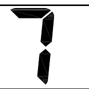
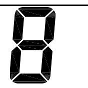
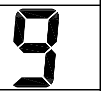
5. 故障码/故障原因/故障排除方法表

故障显示代码	故障原因	故障排除方法
Err 1	系统故障	断电后检查机头是否卡住，然后重新上电，如果还不能解决，请联系售后服务人员
Err 2	系统过压	请检查电源电压是否正常？如果电源电压高于265V，关机，请等电源电压恢复正常再开机
Err 3	系统欠压	请检查电源电压是否正常？如果电源电压低于160V，关机，请等电源电压恢复正常再开机
Err 4	电机码盘故障	请检查电机连线是否正常。
Err 5	系统故障	重新上电，如果还不能解决，请联系售后服务人员
Err 6	系统故障	重新上电，如果还不能解决，请联系售后服务人员
Err 7	电机缺相	请检查电机电源线是否脱落或松动。
Err 8	电机堵转	1、电机电源线是否脱落 2、机头是否堵住 3、电机码盘线是否松动 4、上针位是否正确（有剪线动作的情况下）
Err 9	电机过载	1、布料是否太厚 2、机头是否堵住 3、上针位是否正确（有剪线动作的情况下）
Err 10	电机超速	1.电机码盘信号丢失； 2.光栅信号与电控版本不匹配
Err 11	电机码盘故障	请检查电机码盘线是否松动
Err 12	脚踏脱落故障	请检查脚踏连接线是否松动
Err 13	脚踏上电时被踩下	请检查脚踏是否被卡住
Err 14	电磁铁投入时间过长	1、上针位是否正确 2、布料是否太厚或线太粗导致剪线动作不正常
Err 15	制动回路故障	请检查刹车电阻连接线是否松动
Err 17	电磁铁过流故障	电磁铁故障，请检查电磁铁是否损坏或短路。
Err 18	制动回路故障	请检查刹车电阻连接线是否松动
Err 19－21	定位系统故障	电机可继续运转，但无针数记数、针位定位及剪/扫线及倒缝功能 请检查磁钢是否正常。 请检查机头是否被卡住。
Err 22	上位机通信故障	请检查控制面板与驱动器的连线是否正常
Err 23	存储器故障	重新上电，如果还不能解决，请联系售后服务人员
Err 24	机头润滑时间到	加上机器润滑油，然后恢复机头运转时间
Err 25	布边传感器故障	
Err 26	上电时检测到有布	1、将布拿开机器再重新来一次即可 2、布边传感器设定错误,重新设定布边传感器类型 3、布边传感器损坏

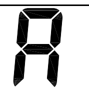
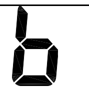
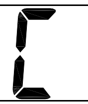
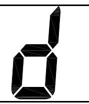
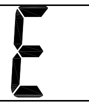
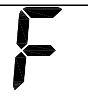
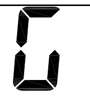
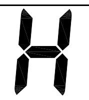
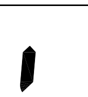
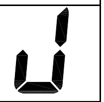
如果在现场仍然消除不了，请联系供应商。

6. 七段数码管显示值与实际数值对照表

数字部分：

实 际 字 符	0	1	2	3	4	5	6	7	8	9
显 示 字 符										

英文字符：

实 际 字 符	A	B	C	D	E	F	G	H	I	J
显 示 字 符										
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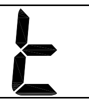
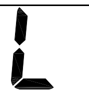
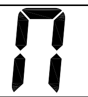
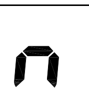
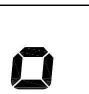
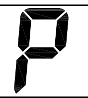
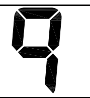
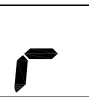
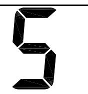
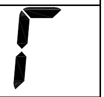
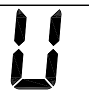
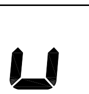
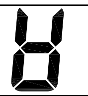
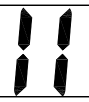
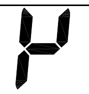
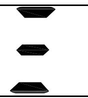
显 示 字 符										
实 际 字 符	U	V	W	X	Y	Z				
显 示 字 符										

LIST

0. Main technical data

Range of voltage：AC220V±15%
Power frequency：50Hz/60Hz

1. Safety notice

1.1 Range of use

The server-motor is designed for industry sewing machine, when using for other applications, please make sure that the users are safe.

1.2 Working conditions

1.2.1 Any fluctuations in the power voltage should be within the range of ±15% according to the control box marked.
1.2.2 In order to avoid error caused by disturbing control box, please keep away from high frequency electromagnetic emitter.
1.2.3 Humidity
  a. The ambient temperature should be within the range of 5℃ to 45℃ during using.
  b. Avoid exposure to direct sun or outdoors during using.
  c. Keep away from the heating (heater) during using.
  d. The relative humidity should be within the range of 30% to 95%.

1.2.4 Keep away from flammable gases or explosive during using.

1.3 Installation

1.3.1 Please install the controller correctly according to the introduction.

1.3.2 Please turn off and disconnect the power cord before installation.

1.3.3 Please keep away from rotating parts when installing the power cord, the distance should be at least 3cm.

1.3.4 In order to prevent noise interference or electric accident, make sure that the sewing machine and the control box are connected to ground.

1.3.5 Make sure that the fluctuation in the power voltage should be within the range of ±15% according to the control box marked before turning on.

1.4 Maintenance and inspection

1.4.1 Please turn off before maintenance or inspection.

1.4.2 Make sure that the power switch is turned off when turning the machine head, replacing needle or rotary hook.

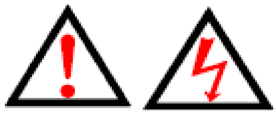
1.4.3 It is very dangerous because of high voltage inside the control box, if you want to uncover the control box, more than 5 minutes is needed to wait after power off.

1.4.4 Maintenance and inspection of the sewing machine should only be carried out by a qualified technician.

1.4.5 Forbidden to do maintenance and inspection when the motor is running.

1.4.6 All components for repair should be provided or approved before using.

1.5 Dangerous tips



This symbol indicates something you should be careful of when installing, failing to follow the instruction could cause injury when using the machine physical damage to equipment and surroundings.

1.6 Other safety requirements

1.6.1 Please operate the sewing machine at low-speed and check whether the direction of rotation is correct for the first time to power on.

1.6.2 Please don’t touch the up wheel ,needle and other action parts when the sewing machine is running .

1.6.3 To prevent physical contact, all action parts must be isolated by protective devices, and please don’t put anything into the devices.

1.6.4 Forbidden to operate at the circumstance of motor hood and other safety devices removed.

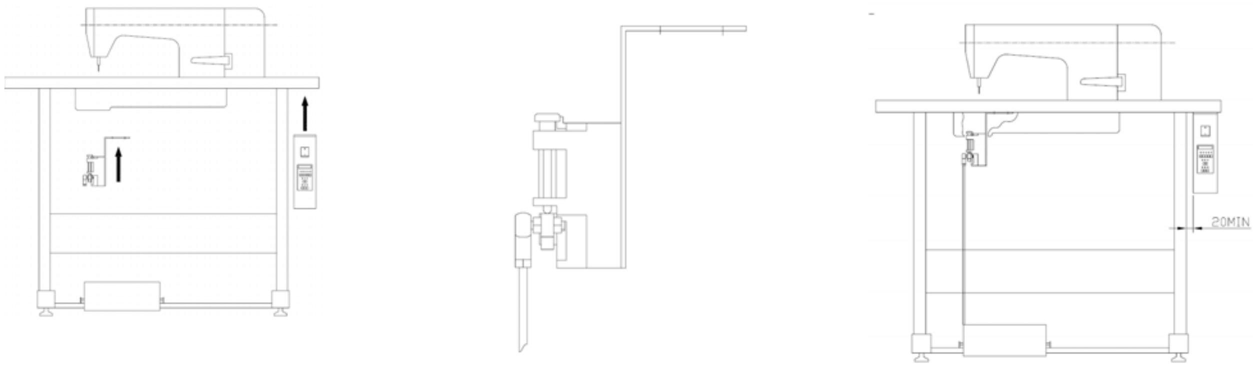
1.6.5 Don’t let motor or control box fall to ground.

1.6.6 Don’t let liquid ,such as tea, flow into the control box or motor.

2. Installation and adjustment

2.1 Installation of the control box

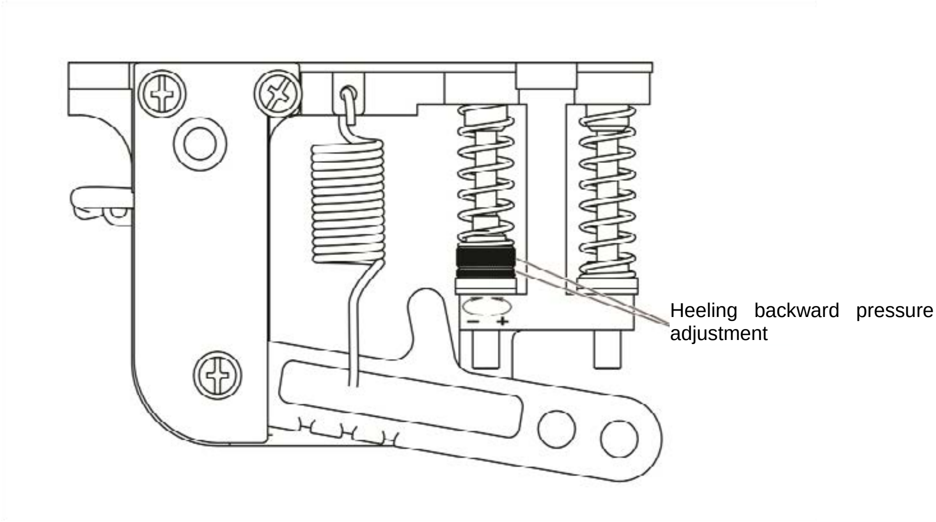
2.1.1 Install the control box and the foot-controllor beneath the table.
2.1.2 Please connect the pedal with the control device
2.1.3 Installation diagram



2.2 Adjustment of needle stop position

2.2.1 Release the magnet fixed screw of the hand wheel, re-fix after position adjustment.
2.2.2 If the actual needle stop position exceed the expected needle up position, adjust the magnet fixed plate on the indicative direction of the hand wheel rotation, conversely, adjust the hand wheel on the reverse direction of hand wheel rotation.

2.3 Adjustment of the reverse pressure for foot presser



Adjustment requirements	Adjustment result
Adjustment of the reverse pressure for foot presser	Rotate the bolt at up, the reverse pressure will be heavy. Rotate the bolt at down, the reverse pressure will be light.

3. Connection and grounding

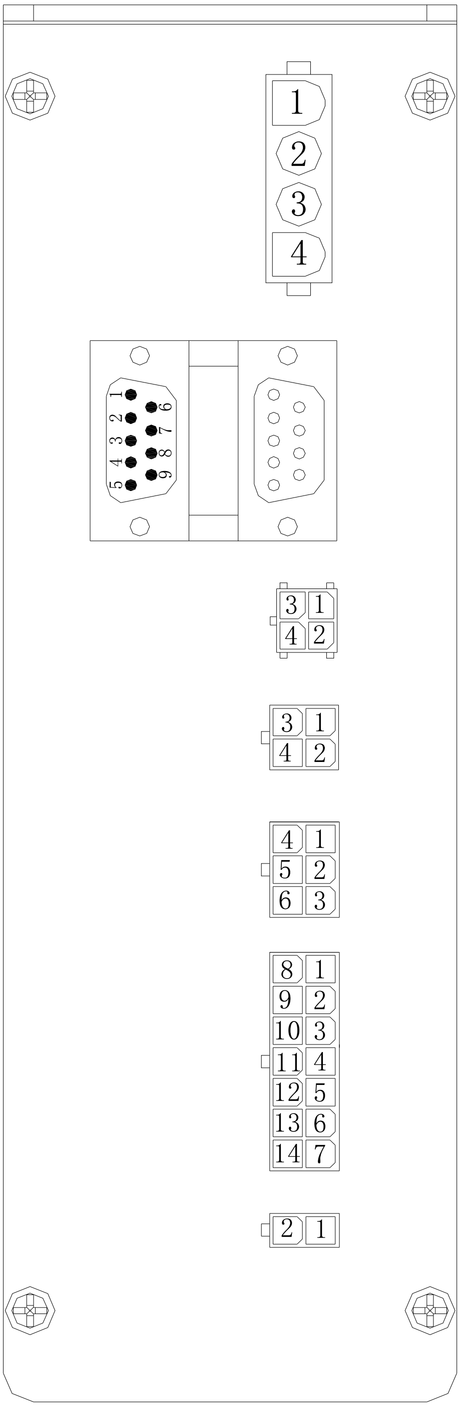
3.1 Connection of power supply

The controller is suitable for power supply of AC220V (one phase), the fluctuation of input voltage is within ±15% as the plate marked.

Notice:
The yellow /green power line are connected to ground, the connection to ground must be well done for insurance of safety and devices reliable to work.

3.2 Controller connection terminal map）

3.2.1 General terminal connection diagram(lockstitch. interlock and overlock)



1. Ground
2. U phrase output
3. V phrase output
4. W phrase output

1. +5V
2. speed signal
3. stand foot pedal trimming control
4. stand foot pedal identify
5. GND
6. GND
7. GND
8. stand foot pedal foot presser control
9. +5V

1. TXD 2. +12V
2. RXD 4. GND

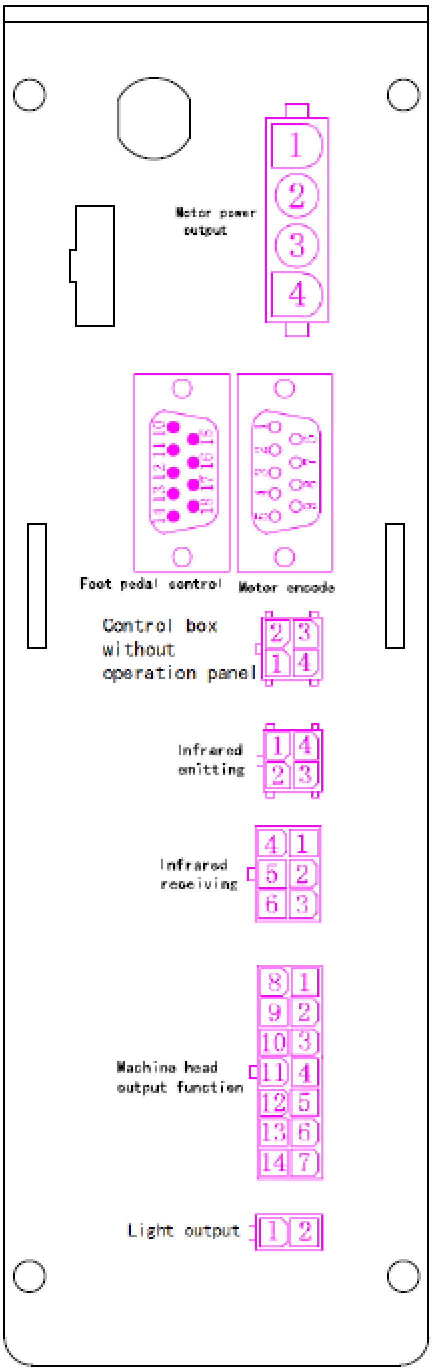
1. NC 2. safety switch
3. NC 4. +5v

1. needle position output 2. GND 3. GND
4. cloth edge sensor signal 5. GND
6. cloth edge sensor power

1. +30V 2.+30V 3.ground 4.+30V
5. GND 6. +30 PWM 7. GND 8.trimming output
9. thread sweep output 10. +30V 11.NC
12. manual reverse sewing switch
13. reverse sewing output
14. +5V lighting

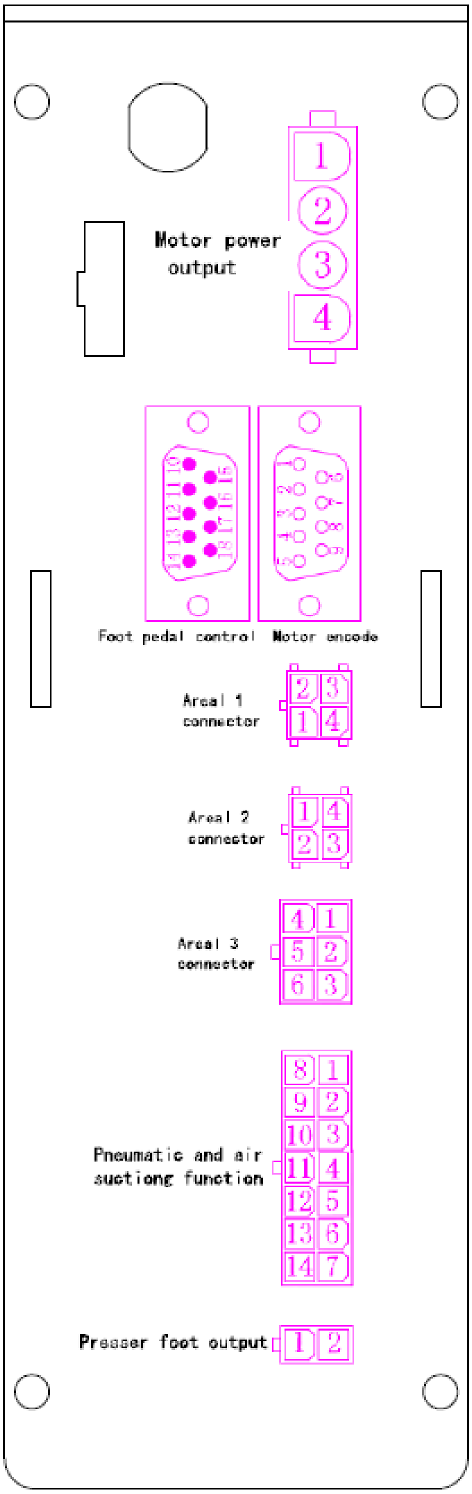
1. +30V PWM
2. foot presser output

3.2.2 Special terminal connectiondiagram（overlock with the third sensor function）



1	Ground			Motor power output			
2	U phrase output						
3	V phrase output						
4	W phrase output						
Foot pedal control				Motor encode			
10	+5V	15	GND	1	+5V	6	UH
11	speed signal	16	GND	2	upper needle position	7	VH
12	stand foot pedal trimming control	17	Stand foot pedal foot presser control	3	lower meedle position	8	WH
13	Stand foot pedal identify	18	+5V	4	Encoder B	9	GND
14	GND			5	Encoder A		
2	RXD	3	TXD	Control box without operation panel			
1	GND	4	+12V				
1	Before the infrared feceiving	4	+5V	Infrared emitting			
2	Infrared emitting	3	After infrared emitting				
4	Before infrared receiveng	1	+5V	Infrared receiving			
5	Infrared receiving	2	+5V				
6	After infrared feceiving	3	+5V				
8	Thread trimmer solenoid	1	+30V	Machine head output function			
9	Presser foot solenoid	2	+30V				
10	Air suction	3	Reserved				
11	Puller solenoid	4	Reserved				
12	Presser foot safety switch	5	GND				
13	Manual switch	6	GND				
14	Operation bed safety switch	7	+5V				
1	+12V	2	Lighting output	Light output			

3.2.3 Special terminal connection diagram（cylinder bed overlock）

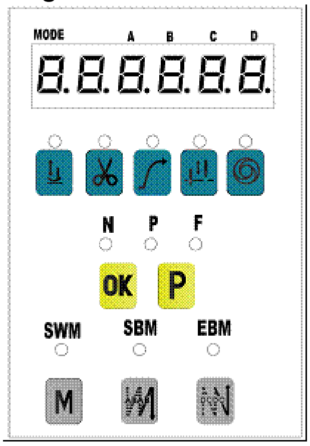


1	Ground			Motor power output			
2	U phrase output						
3	V phrase output						
4	W phrase output						
Foot pedal control				Motor encode			
10	+5V	15	GND	1	+5V	6	UH
11	speed signal	16	GND	2	upper needle position	7	VH
12	stand foot pedal trimming control	17	Stand foot pedal foot presser control	3	lower meedle position	8	WH
13	Stand foot pedal identify	18	+5V	4	Encoder B	9	GND
14	GND			5	Encoder A		
2	Reserved	3	Reserved	Areal 1 connector			
1	Reserved	4	Reserved				
1	Reserved	4	Reserved	Areal 2 connector			
2	Reserved	3	Reserved				
4	Reserved	1	Reserved	Areal 3 connector			
5	Reserved	2	Reserved				
6	Reserved	3	Reserved				
8	Reserved	1	Reserved	Pneumatic and air suctiong function			
9	Knee control switch	2	+30V				
10	Reserved	3	Reserved				
11	Reserved	4	Reserved				
12	Presser foot safety switch	5	GND				
13	Manual switch	6	GND				
14		7	+5V				
1	+12V	2	presser foot output	Presser foot output			

4. Operation description of the main control box panel

4.1 Layout of the main control box panel as follows

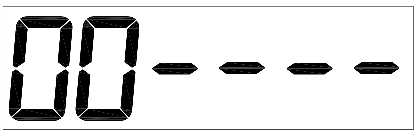
Layout of the main control box panel as follows, it includes six digital tube (T1-T6),eleven LED and ten buttons, the panel includes five states: holding mode, sewing mode set, fore-tacking mode set, back-tacking mode set, technical parameter set.



4.2 Holding state

1.The panel displays holding state when power on, N、P、F、SWM、SBM、EBM are turned off, the LED lamps at the top of function keys display according to the current parameter.

T1,T2 digital tube display current sewing mode(00:free sewing; 01:constant-dimension sewing; 02: four- segment sewing ; 03: seven -segment sewing; 04: eight-segment sewing; 05:W sewing),other digital tubes display “-”。Take current sewing mode free sewing for example, it displays as follows :



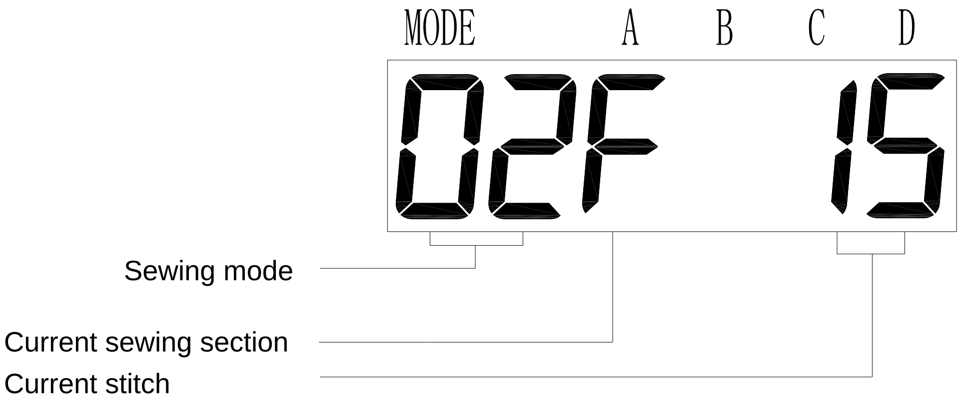
2.Choose  button, the corresponding functions of foot presser, thread trimmer ,slow start-up, needle stop position,automatic triggers and so on will be set or canceled, meanwhile the corresponding LEDs are on or off.

4.3 Sewing mode and each section stitches setting

Press  button at the holding state, then it goes into sewing mode set state: SWM is on, and other LEDs are off.

T1,T2 digital tube display current sewing mode(00:free sewing;01: constant-dimension sewing;02:four-segment sewing; 03:seven-segment sewing; 04:eight-segment sewing; 05:W sewing), if it is constant-dimension sewing or multi-segment sewing ,T3 digital tube display current section code “E、F、G、H”,T5 and T6 digital tube display current section stitch.

Take four-segment sewing for example, it displays as follows:



It doesn’t display current sewing section if it is at free sewing .

Selection of sewing mode、section number and stitches:

1.Press  button, T1,T2 digital tube can display circulately current sewing mode among 00~05;

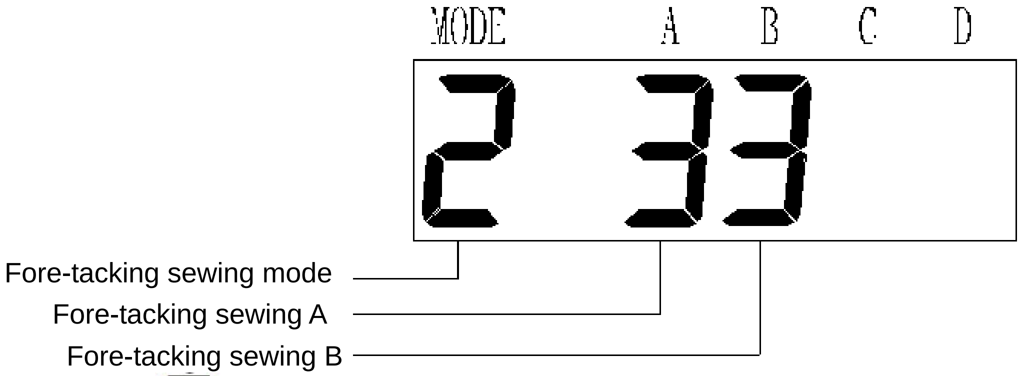
2. Press  button ,T3 digital tube can display circulatly current section number among “E、F、G、H”.

3. Press  or  button, corresponding stitches added 10 or 1 and circulae among 0-99; 、 is invalid; press  button, it returns to the holding mode .

4.4 Fore- tacking sewing mode and stitches set

1. Press button at the state of holding, sewing mode set or fore-tacking set, it all can go into the state of fore-tacking set, meanwhile SBM is on, other LED is off, T1 display current fore-tacking sewing mode.

2.Press button, T1 digital tube display circularly fore-tacking sewing mode : 0(no fore-tacking sewing),1(single fore-tacking sewing),2(double fore-tacking sewing) 3(four fore-tacking sewing),T3、T4 display current tacking sitches respectively, take double fore-tacking sewing for example ,it displays as follows:



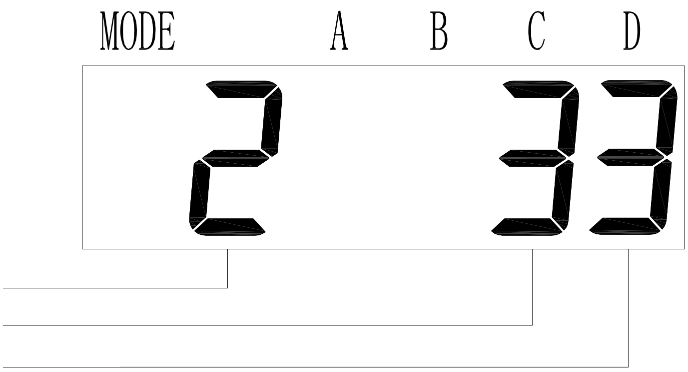
Press button, the corresponding stitches above added 1,switch circularly among 0-F ,press button, it returns to the holding state.

4.5 Back-tacking sewing and stitches set

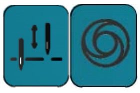
1.Press button at the state of holding, sewing mode set or back-tacking set,it all can go into back-tacking mode setting state, meanwhile EBM is on, other LED is off, T2 display current back-tacking mode .

2. Press button, T2 digital tube display circularly back-tacking sewing mode: 0(no back-tacking sewing)、1（single back-tacking sewing）、2（double back-tacking sewing）、3（four back-tacking sewing）.

3. T5、T6 display current stitches of back-tacking sewing respectively ,take double back-tacking sewing for example ,it displays as follows:



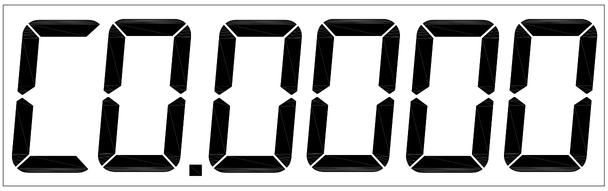
Back-tacking sewing mode
Back-tacking sewing C
Back-tacking sewing D

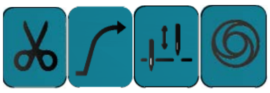
Press  button, the corresponding stitches above added 1, switch circularly among 0-F, press  button, it returns to the holding state.

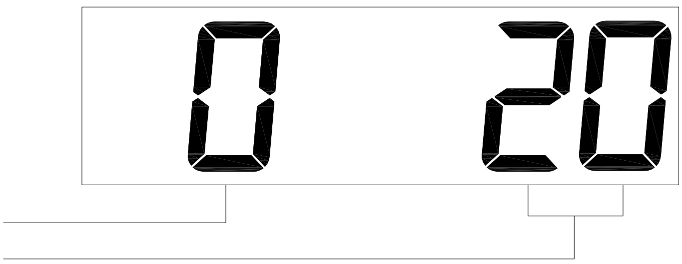
4.6 Technical parameter set

4.6.1 Password input

1. Press  twice continually at the holding state, P light is on ,other LED is off, it goes into the state of technical parameter setting, digital tube display password input as follows :



2. Press  button,it can input password, the inital input password is 2222,press  to confirm, if the entered password is correct ,then it goes into the state of modifying technical parameter ,display as follows :

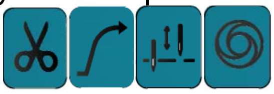


Parameter number
Parameter contents

4.6.2 Modify the technical parameter

1. At the technical parameter setting state,  is sequence increasing key,press this key can do operation of added 1(sequence:0-99)

2.At the technical parameter setting state,  is sequence descending key,press this key can do operation of minus 1(sequence :0-99).

3.  are parameter setting key at this state, press the key once, parameter of corresponding bit adds 1(it will not continue if the parameter overflow after adding);press 

key to save the parameter after setting, press 

key again to return to the holding state .

4.7 Common parameter description

The parameters marked with *mean that they should re-power after amended.
(Unit: RPM; ms ; s ; hour)

Sequence	Function parameter	Default	Setting range	unit	Parameter description
P0	Pedal slope	20	1~100	%	The bigger the slope is, the larger the low-speed region is, and the faster the speed change is; the smaller the slope is, the narrower the low-speed region is, and the lower the speed change is.
P1	Speed proportion	8	1~8		Presser proportion of the maximum speed of reverse sewing. The maximum seed is equally divided into eight parts, current speed can be modified through adjusting parts.
P2	System minimum speed	200	150~500	RPM	The minimum speed of machine head when sewing.
P3	Maximum speed of the reverse sewing	4000(lockstitch series) 3000(double needle series) 5500(overlock stitch series)	150~5000 150~4000 150~7500	RPM	The maximum speed of machine head at the reverse sewing.
P4	Fixed sewing speed	3500(lockstitch series) 3000(double needle series)	200~4000	RPM	Sewing speed of fixed sewing speed.
P5	Fore-tacking sewing speed	1800	200~3000	RPM	Sewing speed of fore-tacking.
P6	Back-tacking sewing speed	1800	200~3000	RPM	Sewing speed of back-tacking.

P7	Suspend when the fore-tacking finished.	off	On/off		Pedal trigger is needed to continue operating when suspend at fore-tacking finishing.
P8	Suspend when the back-tacking finished.	off	On/off		Pedal trigger is needed to continue operating when suspend at back-tacking finishing.
P9	W sewing speed	1800	200~3000	RPM	Sewing speed at W sewing mode.
P15	Maximum speed of reverse sewing.	2500	200~3000	RPM	Maximum speed of reverse sewing.
P16	Working time of thread sweep	50	20~1000	ms	Working time of thread sweep electromagnet.
P17	Whether the reverse sewing key will be absorbed when the motor stops.	On	On/off		When the motor stops, and the key pressed, whether the electromagnet act or not.
P18	Stitch/speed priority	0	0~1		Stitch or speed priority setting during sewing: 0:stitch priority 1:speed priority
P19*	Foot presser switch	On	On/off		Turn on/off the function of foot presser.
P21	Selection of counting function	0	0~2		0:Non-counting function 1:Bobbin thread counting function 2:Trimming thread counting function
P22	Slow-startup counting	2	0~15		Stitches when sewing at slow -startup speed
P23	Slow-startup speed	500	200~3000	RPM	The sewing speed at slow-startup.
P24	Bobbin–thread base number	10	1~100		How many stitches changes on bobbin–thread, the current count change one unit.
P25	Total number of bobbin–thread	2000	1~9999		Total number of bobbin-thread setting.
P26	current counting	2000	0~9999		Current amount of bobbin -thread.
P27	Full PWM on time of reverse sewing	200	20~500	ms	Initial startup time of reverse sewing electromagnet.
P28	PWM on time of reverse sewing	2	1~50	ms	PWM on time of reverse sewing when the electromagnet holding on.

P29	PWM off time of reverse sewing	2	1~50	ms	PWM off time of reverse sewing when the electromagnet holding on.
P34*	Automatic finding needle position	On	On/off		Whether automatic finding the needle up position at PWM on time.
P36	Trimming speed	250	200~500	RPM	Operating speed when trimming.
P37*	Automatic lift foot presser of half back step	on	On/off		Start or cancel automatic lift foot presser of half back step.
P39	Speed limitation of the first stitch	3000	200-4000	RPM	The limitation for the speed of the first sewing stitch.
P40	Fore-tacking sewing compensation parameter 1	7（lockstitch serie） 12（two-needle lockstitch serie ）	0-16		Fore-tacking stitch sewing compensation parameter 1.
P41	Fore-tacking sewing compensation parameter 2	5	0-16		Fore-tacking sewing stitch compensation parameter 2.
P42	Back-tacking sewing compensation parameter 1	7（lockstitch series） 12（two-needle lockstitch series）	0-16		Back-tacking sewing stitch compensation parameter 1.
P43	Back-tacking sewing compensation parameter2	5	0-16		Back-tacking sewing stitch compensation parameter 2.
P44	W sewing compensation parameter 1	7（lockstitch series） 12（two needle lockstitch series）	0-16		W sewing stitch compensation parameter 1.
P45	W sewing compensation parameter 2	5	0-16		W sewing stitch compensation parameter 2.
P46	Manual test mode switch	0	0/1		0： normal operation mode 1： test mode
P47	Manual test mode switch	2000	100-9999	ms	The interval time between each operation at test mode
P48	Operating time of test mode	2000	100－9999	ms	Each operating time of the test mode.

P49*	Motor operation direction	1	0/1		0:CCW 1:CW
P51*	Scissors mode	0	0/1		0: built-in scissors 1: built-out scissors
P52	Working time of built-out scissors	100	30~9999	ms	Working time of built-out scissors.
P53	Working time of external thread sweep	70	20~9999	ms	Working time of external thread sweep.
P54	Type of safety switch signal	0	0/1		0: open 1:shut
P56	Working time of machine head	0	0~9999	hour	How many hours the machine head have worked.(add 1 per hour)
P57	Startup time of lifting foot presser	250	20~1000	ms	Initial startup time of lifting foot presser electromagnet.
P58	PWM on time of lifting foot presser	2	1~50	ms	PWM on time of lifting foot presser when the electromagnet holding on.
P59	PWM off time of lifting foot presser	3	1~50	ms	PWM off time of lifting foot presser when the electromagnet holding on.
P60	Protection time of foot presser lifting	20	1~120	s	Protecting time of foot presser lifting during working.
P61	Delay time of lifting foot presser	50	20~800	ms	How long will it be to start to lift foot presser after the motor stop.
P62	Delay time of downing foot presser	50	20~800	ms	How long is it allowed to startup after foot presser is down.
P64*	Automatic foot presser lifting time with power on	0	0-900	s	Time of automatic lifting foot presser with power on.
P65	Function selection of cloth edge sensor	0	0—1		0：no cloth edge sensor 1：cloth edge sensor
P66	Selection of cloth edge sensor type	2	0—3		0：N output is effective at low 1：N output is effective at high 2：P output is effective at low 3：P output is effective at high
P67	Speed of cloth edge	800	200-5000	RPM	Operating speed when detecting cloth edge signal.
P68	Thread trimming(bac k step) Manual type	311			311 thread trimmer turned on Non 311, thread trimmer turns off

P69	Delay-startup time of cloth margin	1000	100-9999	ms	Delay-startup time when detecting cloth head signal.
P70	Stitch of cloth head	10	1-100		The distance between Cloth edge sensor signal and needle hole.
P71	Stitches of fabric edge	10	1-100		Distance of the fabric edge sensor signal to the needle plate hole
P73	Cloth edge sensor	off	On/off		Whether there is an external cloth edge sensor.
P74	Selection of back stitch/ foot presser lifting air-operated	0	0—3		0：all electric-operated 1：reversing air-operated 2：presser foot air-operated 3：all air-operated
P76	Number of trimming	0	0-9999		Adding 1 to the counter per trimming, clear to zero when the counter is full.
P77	Control of needle position signal output	0	0-3		0: The output of needle up position is effective at low 1: The output of needle down position is effective at low 2: The output of needle up position is effective at high 3: The output of needle down position is effective at high
P98	Parameter recover to default	0000h	0-9999		
P99	Technical parameter password	2222h	0-9999		

5. Table of error codes/cause/remedy

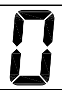
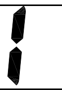
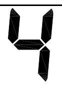
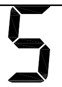
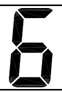
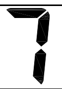
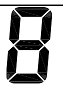
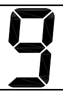
Error code	Cause	Remedy
Err 1	System error	Check whether the machine head is stuck, and then re-power, if the malfunction have not been solved yet, please contact after-sale service.
Err 2	Overload voltage	Please check whether the power supply voltage is normal, if the power supply voltage is higher than 265V, turn off the machine, and restart the machine until the power supply voltage is normal .
Err 3	Download voltage	Please whether check the power supply voltage is normal, if the power supply voltage is lower than 160V, turn off the machine, and restart the machine until the power supply voltage is normal.
Err 4	Motor code wheel error	Please check whether the motor electrical connection is normal.
Err 5	System error	Re-power , if the malfunction have not been solved yet ,please contact the after-sale service person.
Err 6	System error	Re-power , if the malfunction have not been solved yet ,please contact the after-sale service person.
Err 7	Motor lack phase	Please check whether the motor power cord is off or loose.
Err 8	Motor locked-rotor	1. Check whether the motor power cord is off. 2. Check whether the machine head is stuck. 3. Check whether motor code wheel cord is loose. 4.Check whether the needle up position is correct (at the case of thread trimming movement).
Err 9	Motor overload	1. Check whether the fabric is too heavy. 2. Check whether the machine head is stuck. 3. Check whether the needle up position is correct (at the case of thread trimming movement).
Err 10	Motor over speed	1.Motor encode signal lost 2. Grating signal doesnot match the control box version
Err 11	Motor code wheel error	Please check whether the motor code wheel cord is loose.
Err 12	Foot-controller dropped off error	Please check whether the foot-controller connection is loose.
Err 13	Foot-controller was off when turning on the electricity	Please check whether the foot-controller is stuck.
Err 14	The time of using Electromagnet is too long	1. Check whether the needle up position is correct. 2. Check whether the fabric is too heavy or the line is too thick to cut the line normally.
Err 15	Brake circuit error	Please check whether the brake resistor cable is loose.
Err 17	Electromagnet overload current error	Electromagnet error, please check whether the electromagnet is broken or short circuit.
Err 18	Brake circuit error	Please check whether the brake resistor cable is loose.

Err 19—21	Located system error	Motor can continue to operate, but there are no needle count, needle location ,trimming/sweep and reverse stitch function. Please check whether the alnico is normal. Please check whether the machine head is stuck.
Err 22	Machine up position communication error	Please check whether the connection of the control panel and the drive is normal.
Err 23	Memory error	Re-power, if the error has not been solved yet ,please contact the after-sale service person.
Err 24	Machine head lubrication time is up	Add the lubrication oil , and then recover the operate time of machine head.
Err 25	Fabric edge sensor error	
Err 26	Detected cloth when turning on the electricity	1. Take the cloth away and retry. 2.The cloth edge sensor setting is wrong, reset the type of cloth edge sensor. 3.The cloth edge senor is broken.

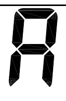
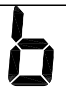
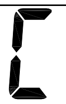
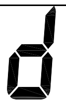
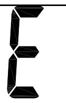
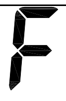
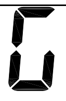
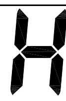
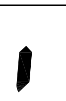
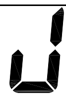
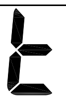
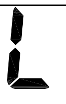
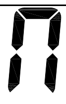
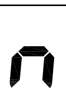
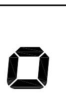
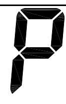
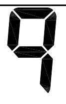
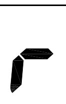
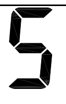
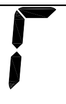
If the error still can not be resolve, please contact the supplier .

6. Table of the Seven-Segment LED display value and actual value comparison

Figure part：

Actual character	0	1	2	3	4	5	6	7	8	9
Display character										

English character：

Actual character	A	B	C	D	E	F	G	H	I	J
Display character										
Actual character	K	L	M	N	O	P	Q	R	S	T
Display character										
Actual character	U	V	W	X	Y	Z				
Display character