

使用说明目录

MANUAL BOOK CONTENTS

1、产品安装	1
Installation instructions	
2、操作面板使用说明	4
Panel operation specifications	
3、参数调节	7
Parameter adjustment	
4、错误代码	13
Error code	
5、安装说明	18
Installation instructions	
6、规格	20
Specification	
7、线迹形式	21
Types of stitches	
8、缝纫机头的安装	21
Setting up the machine head	
9、梭心的安装方法	22
Attaching the bobbin	
10、梭壳的安装方法	22
Installation/Removal of bobbin case	
11、机针的安装方法	23
How to install the needle	
12、线架的安装	23
Serring up the thread stand	
13、加油	24
Lubrication	
14、底线的绕线方法	24
Winding the bobbin	
15、上线的穿线方法	25
Threading the needle-thread	
16、手动送布手柄	25
Manual feed handle	
17、防止切刀掉落	25
How to hold the descending knife	
18、针数的变换方法	26
Changing the number of stitches	
19、机针和旋梭的关系	27
Needle-to-hook relation	

20、线张力	28
Thread tension	
21、缝边长度(送布量)的调节	29
Adjusting the overedging length(buttonhole length)	
22、锁眼宽度以及缝锁基准位置的调节	29
Adjusting the overedging width and overedging reference position	
23、压脚的压力调整	30
Adjusting the presser bar pressure	
24、切刀的更换	30
Replacing the knife	
25、上线切线的调整	31
Adjustment of the needle thread trimmer	
26、上线切线动作曲轴和限制板的调整	32
Adjustment of needle thread trimmer holder and limiting plate	
27、切刀落刀时期的调整	32
Timing for dropping the knife	
28、有关缝制的故障、原因及处理方法	33
Trouble,cause,and remedy	

安全事项 Safety instruction

- 在使用本产品之前，请先阅读《产品说明书》及所搭配的缝纫机机械说明书。
- Users are required to read the operation manual completely and carefully before installation or operation.
- 本产品必须由接受过专业培训的人员来安装或操作。
- The product should be installed and pre-operated by well trained persons.
- 请尽量远离电弧焊接设备，以免产生的电磁波干扰本控制器而发生误动作。
- Please keep away from arc welding equipment to avoid malfunction of control system caused by electromagnetic waves .
- 请不要在室温 45°以上或者 0°以下的场所使用。
- Do not use in places where the temperature is above45° or below 0° .
- 请不要在湿度 30%以下或者 95%以上或者有露水和酸雾的场所使用。
- Please do not operate at dew area or at the humidity below 30% or above 95%.
- 安装控制箱及其他部件时，请先关闭电源并拔掉电源插头。
- Please switch off the power and unplug before installing control box and other parts.
- 为防止干扰或漏电事故，请做好接地工程，电源线的接地线必须牢固的与大地有效连接。
- To prevent interference or leakage accidents, please make sure of grounding, and the grounding wire of the power cord must be firmly and effectively connected to the earth.
- 所有维修用的零部件，须由本公司提供或认可，方可使用。
- All spare parts for repairmen must be provided or approved by our company before using.
- 在进行任何保养维修动作前，必须关闭电源并拔掉电源插头。控制箱里有高压危险，必须关闭电源五分钟后方可打开控制箱。
- Before any maintenance and repair operations , the power must be switched off and the power plug must be unplugged. There is a high voltage danger in the control box. You must turn off the power for five minutes before opening the control box.

1 产品安装 Installation instructions

1.1 产品规格 Product specification

产品型号 MODEL No.	781G	电源电压 VOLTAGE	AC 220 ± 20% V
电源频率 POWER FREQUENCY	50Hz/60Hz	最大输出功率 MAX.OUTPUT POWER	550W

1.2 接口插头的连接 Connection of interface and plug

将脚踏板及机头的各连接插头安插到控制器对应的插座上，各插座名称如图 1-1 所示。连接好，请检查插头是否插牢。

Insert the connecting plugs of the pedals and the machine head into the corresponding sockets of the controller. The names of the sockets are shown in Figure 1-1. Then pls check if the plug is inserted firmly.

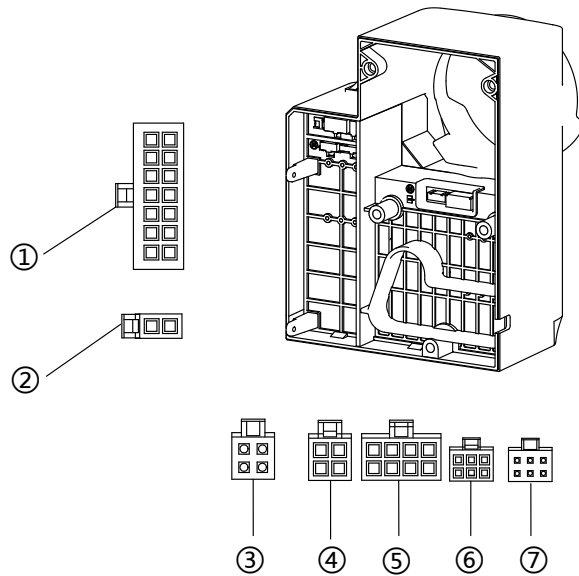
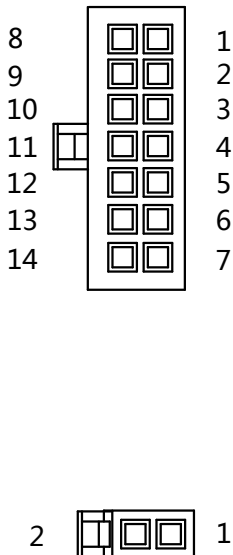


图 1-1 781G 控制器接口图

①步进电机&机头灯；②面线检测；③面板通信接口；④行程传感器；
⑤大盘传感器；⑥脚踏板&升级接口；⑦底线检测&气动阀。

Figure 1-1 781G controller interface diagram

①stepping motor and headlight; ②upper thread detection; ③panel communication interface;
④stroke sensor; ⑤large gear sensor; ⑥interface for pedal and upgrading use;
⑦bottom line detection and pneumatic valve.



步进电机&机头灯			Step motor&machine head light
1	VDD	+30V	+30V
2	GND(+5V)	机头灯的地	Machine head light (GND)
3	-	-	-
4	-	-	-
5	GND(+5V)	步进限位传感器的地	Step motor location limit sensor (GND)
6	A+	步进电机A相动力线	Step motor A phase power wire
7	B+	步进电机B相动力线	Step motor B phase power wire
8	EM-QX	预留夹线电磁铁	Thread tension magnet (reservation)
9	+5V	机头灯5V	Machine head light 5V
10	-	-	-
11	+5V	步进限位传感器电源	Step motor location limit sensor power
12	STEP-Z	步进限位传感器	Step motor location limit sensor
13	B-	步进电机B相动力线	Step motor B phase power wire
14	A-	步进电机A相动力线	Step motor A phase power wire
面线检测			Upper tread detection
1	MXS	面线断线检测信号	Upper thread breakage detection signal
2	-	-	-

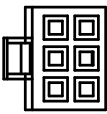
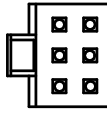
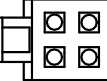
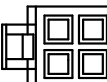
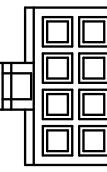
		脚踏板&升级接口		Foot pedal&upgradation port		
4 5 6		1 2 3	1	GND	5V数字地	5V(GND)
			2	-	-	-
			3	VCC	+5V	+5V
			4	RX	UART通信接受	UART communication receive
			5	TX	UART通信发送	UART communication send
			6	PEDAL	脚踏板模拟信号	Foot pedal monitoring signal
		底线检测&气动阀		Bottom line detection&Pneumatic valve		
4 5 6		1 2 3	1	VCC	24V	24V
			2	-	-	-
			3	VCC	-24V	-24V
			4	QDF	气动阀	Pneumatic valve
			5	GND	地	GND
			6	DX-IN	底线检测信号	Bottom thread detection signal
		面板通讯接口		Panel communication port		
3 4		1 2	1	TX	主板发送	Main board send
			2	GND	地	GND
			3	RX	主板接收	Main board receive
			4	VCC	L+5V	L+5V
		行程传感器		Stroke sensor		
3 4		1 2	1	GND	地	GND
			2	-	-	-
			3	VCC	L+5V	L+5V
			4	XC	行程传感器信号	Route sensor signal
		大盘传感器		Crank sensor		
5 6 7 8		1 2 3 4	1	VCC	L+5V	L+5V
			2	DPS3	预留大盘信号	Crank signal (reserved)
			3	-	-	-
			4	GND	地	GND
			5	VCC	L+5V	L+5V
			6	SC	大盘刹车信号	Crank braking signal
			7	JS	大盘减速信号	Crank slow down signal
			8	GND	地	GND

图 1-2 控制器接口定义

注：使用正常力量插不进去时，请检查插头与插座是否匹配，插入方向或针的方向是否正确！

Note: please check whether plug matches socket or not, or the pins direction is correct or not if can't connect with normal power!

1.3 接线与接地 Connect and grounded

必须要做好系统的接地工程，请合格的电气工程人员予以施工。产品通电及投入使用前，必须确保电源插座 AC 输入端已安全可靠的接地。系统的接地线为黄绿线，该地线请务必可靠连接至电网安全保护接地上，以保证安全使用，并可防止出现异常情况。

Please invite professional electrical engineer to make systematic grounding project. And make sure AC port was safely grounded before power on and operation. Grounded connection wire is yellow&green, make sure it's connected to power grid and grounded safely to avoid any abnormal situation.

注：所有电源线、信号线、接地线等接线时不要被其它物体压到或过度扭曲，以确保使用安全。

Note: make sure all power wires, signal wires, grounded wires etc are not covered or twisted to ensure its safety condition.

2 操作面板使用说明 Panel operation specifications

2.1 操作面板的显示说明 Panel display specifications

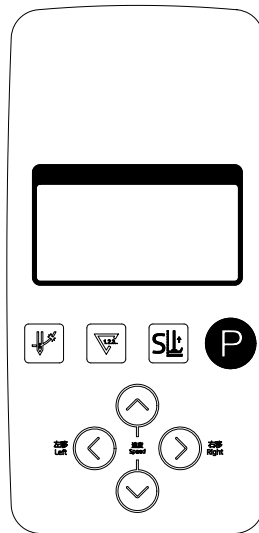


图 2-1 操作面板外观界面
Chart 2-1 Operation panel

2.2 液晶屏显示 LCD display

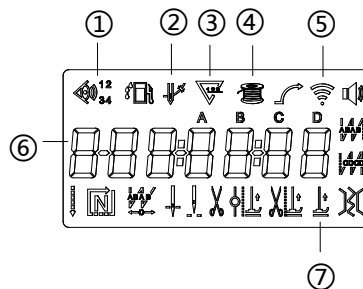





图 2-2 操作面板液晶显示屏图示
Chart2-2 LCD display of Operation panel

索引 NO.	图标 Icon	描述 Description	索引 NO.	图标 Icon	描述 Description
①		传感器状态 State of the sensor	⑤		物联网状态 State of the IOT
②		面线状态(报警时闪烁) State of the up thread(Flashing when alarming)	⑥		计数/参数值显示 Count/Parameter display
③		计数界面 Count interface	⑦		抬压脚状态(压脚抬起时图 标亮, 压脚放下时图标灭) State of the presser foot(icon bright when presser foot up, and out when presser foot down)
④		底线状态 (报警时闪烁) State of the down thread (Flashing when alarming)	⑧	/	/

2.3 开机启动显示 Boot Screen

开机界面首先图标与数码管全亮，其次显示软件版本号 Vx.xx，最后显示待机界面。待机界面下机器解锁后电机未运行时界面显示跑马灯,当电机运行时显示当前缝纫速度和跑马灯。

Boot interface, first the icon and the digital tube will bright all, then shows software version Vx.xx and shows standby interface at last. In standby interface, if machine is unlocked, the interface will display the digital flash when the motor is not running, and the current sewing speed and digital flash will be displayed when the motor is running.

2.4 按键各按键功能说明 Function description of each button

序号 NO.	外观 Icon	名称 Description	功能描述 Function Description
1		参数进入、返回键 Parameter entry and return key	1、短按 P 键进入用户参数设置界面（待机界面时）； 2、短按 P 键退回待机界面； 1. Short press P to enter the user parameter setting interface (on standby interface) 2. Short press P to return the idle screen
2		参数递增键 Parameter adding key	参数设定中，参数值递增键。（待机界面下速度加快捷键） When adjust the parameter, press this key to add the value of the parameter.
3		参数递减键 Parameter decrement key	参数设定中，参数值递减键。（待机界面下速度减快捷键） In parameter setting, the parameter value decrement key. (Shortcut key for speed reduction in the standby interface)
4		向左选择键 Left selection key	短按左移光标（参数调节、监控界面时） Short press. to move the cursor left (when parameter adjustment, monitoring interface)
5		向右选择键 Right selection key	1、短按右移光标（参数调节、监控界面时） 2、按下右键开始吹气（待机界面时） 1. Short press, to move the cursor right (when parameter adjustment, monitoring interface) 2. Press the right button to start blowing (in standby interface)
7		参数保存/抬压脚键 Parameter save/presser foot lift key	1、短按 S/抬压脚键，锁机或解锁（待机界面时） 2、参数界面下短按 S/抬压脚键保存参数 1. Short press the S/presser foot button to lock or unlock the machine (in standby interface) 2. In the parameter interface, short press the S/presser foot key to save the parameters
8		面线键 Upper thread key	短按面线键，开启/关闭面线检测功能（待机界面时） Short press the upper thread button to turn on/off the upper thread detection function (in standby interface)
9		计锁眼数键 Keyhole counting key	短按计锁眼数键，进入/退出计锁眼数显示界面（待机界面时） Short press the keyhole count key to enter/exit the keyhole count display interface (in standby interface)

3 参数调节 Parameter adjustment

3.1 进入用户参数模式及保存 Enter user parameter mode and save

在待机界面下短按 **P** 键进入用户参数模式。按 **←** 或 **→** 移动光标，相应位数值闪烁，再按 **↑** 或 **↓** 修改该位数值，当参数值被修改后，短按 **SAVE** 键，保存参数并显示 "OK"。短按 **P** 键退出参数模式。

In the standby interface, short press the key to enter the user parameter mode. Press **←** or **→** to move the cursor, the corresponding digit value flashes, and then press **↑** or **↓** to modify the digit value. When the parameter value is modified, short press the key to save the parameter and display "OK". Short press key to exit parameter mode.

3.2 进入技术员参数模式及保存 Enter the technician parameter mode and save

按住 **P** 键 + **SAVE** 键开机进入技术员参数模式。参数调节方式同操作员参数调节方式。

Press and hold **P** key + **SAVE** key to power on and enter the technician parameter mode. The parameter adjustment method is the same as the operator parameter adjustment method.

3.3 速度调节 Speed adjustment

在待机界面下，短按/长按参数递增键 **↑**、参数递减键 **↓** 快速调速度。向上调快，向下调慢，每按一次调整数值 50 并自动保存。与内部调速参数 P01 显示一致。









In the standby interface, short/long press the parameter increment key **↑** and the parameter decrement key **↓** to quickly adjust the speed. Up to speed up, down to slow down, each time you press to adjust the value 50 and automatically save. The display is consistent with the internal speed control parameter P01.







3.4 恢复出厂设置 reset

在待机界面下，长按 **←** + **→**，作为恢复出厂设置的快捷方式，参数恢复成功后显示 "OK"。








In the standby interface, long press **←** + **→** as a shortcut to restore factory settings. After the parameters are restored successfully, "OK" is displayed.








3.5 计件功能设置 Piece counting function setting



在待机界面下，短按  键进入计锁眼数显示界面，计锁眼数显示界面下长按  键快速清零当前计数，按  或  移动光标，再按  或  增加或减少锁眼计数值。短按  键或  键退出计锁眼数界面。



In the standby interface, shortly press the key  to enter the keyhole count display interface, in the keyhole count display interface, long press the key  to quickly clear the current count, press  or  to move the cursor, and then press  or  to increase or decrease the keyhole count. Short press or key to exit the buttonhole counting interface.

3.6 进入监控模式 Enter monitoring mode

在待机界面下，长按  +  键进入监控模式，按  或  调整监控参数项，短按  键退出。（若为 24、26 项，长按  键保存当前监控值为对应参数，保存成功后显示“OK”，短按  键退出监控模式）。

In the standby interface, long press the  +  key to enter the monitoring mode, press  or  to adjust the monitoring parameter items, short press the key  to exit. (If it is 24 or 26, long press the key  to save the current monitoring value to the corresponding parameter, after the save is successful, it will display "OK", short press the key  to exit the monitoring mode).

注：上停针位置设置：进入监控参数项 24，将手轮调整至上停针（参数会随着手轮位置而变化），长按  键保存参数（保存后，下针位会自动进行相应调整），按  键退出监控模式。

Note: Up needle position setting: enter monitoring parameter number 24, adjust the handwheel to up needle position (parameter will change with the position of the handwheel), long press the key  to save the parameter (after saving, the down needle position will automatically be adjusted accordingly), Press the key  to exit the monitoring mode.

3.7 参数表 Parameter list

3.7.1 用户参数表 User parameter list

参数项 Parameter item	参数定义 Parameter definition	默认值 Default	单位 Unit	范围 Range	备注 Note
P01	最高转速 Highest speed	3000	r/min	100-3600	
P03	切刀动作速度 Knife movement speed	800	r/min	100-3600	
P04	第一针限速 Speed limit for first stitch	800	r/min	100-3600	
P05	第二针限速 Speed limit for second stitch	1200	r/min	100-3600	
P06	第三针限速 Speed limit for third stitch	2000	r/min	100-3600	
P07	第四针限速 Speed limit for fourth stitch	2500	r/min	100-3600	
P08	第五针限速 Speed limit for fifth stitch	3600	r/min	100-3600	

3.7.2 技术员参数表 Technician parameter list

参数项 Parameter item	参数定义 Parameter definition	默认值 Default	单位 Unit	范围 Range	备注 Note
P16	保护针数 Protection stitch numbers	30	-	1-9999	大盘信号异常报警针数 Stitch numbers for big cam abnormal signal alarm
P17	开机自动找上针位 Automatically find up needle position when starting up	2	-	0-3	0: 关闭; 1: 正转; 2: 不下扎; 3: 区域不找 0: Off; 1: Forward rotate; 2: No down stab; 3: Area not found
P18	上针位调节角度 Up needle position adjustment angle	25	°	0-359	
P19	切刀动作针数 Knife movement stitch numbers	0	-	0-10	
P20	过厚加力选择 Over-thick pressure picking	0	-	0-1	0: 普通模式; 1: 加力模式 0: Normal mode mode; 1: Add pressure mode
P24	机头保护开关 Machine head protection switch	1	-	0-1	0: 关闭; 1: 开启 0: Off; 1: Open;
P26	内部限速 Internal speed limit	3000	r/min	100-3600	
P27	锁眼计数开关 Keyhole count switch	1	-	0-1	0: 关闭; 1: 开启 0: Off; 1: Open;
P28	压脚最高位置步数 Number of steps at the highest position of the presser foot	480	-	0-800	
P29	压脚中间位置步数 Number of steps in the middle position of the presser foot	60	-	0-800	
P30	防止起缝切刀 Avoid start knife cutting	100	-	0-800	中途停止时, 步进动作位置 When stopping halfway, stepping action position
P31	运行中后踩暂停开关 Back step on the pause switch when running	1	-	0-1	0: 关闭; 1: 开启 0: Off; 1: Open;
P32	启动时伺服等待时间 Servo waiting time at startup	20	ms	0-100	

P33	结束时步进提前角度 Stepping advance angle at the end	30	°	0-270	
P34	断线检测开关 Thread breakage detection switch	1	-	0-1	0 : 关闭 ; 1 : 开启 0: Off; 1: Open;
P35	底线检测开关 Bobbin thread detection switch	0	-	0-1	0 : 关闭 ; 1 : 开启 0: Off; 1: Open;
P36	锁眼计数单位 Buttonhole counting unit	1	-	1-100	
P37	锁眼计数总数 Buttonhole total counting quantity	9999	-	1-9999	
P38	调速器回中位置 Speed controller back to middle position	1500	-	0-4095	
P40	断线检测起缝延迟针数 Thread breakage detection starting delay stitch numbers	5	-	0-20	
P41	断线报警延迟针数 Thread breakage alarm delay stitch numbers	5	-	3-10	
P42	断线报警自动恢复时间 Automatic recover time of thread breakage alarm	0	0.01s	0-9999	如设置为0, 则报警必须 手动短按P键解除 If set to 0, the alarm must be manually released by short pressing the P key
P44	底线用完报警自动恢复时间 Automatic recover time of bobbin thread finish alarm	0	0.01s	0-9999	如设置为0, 则报警必须 手动短按P键解除 If set to 0, the alarm must be manually released by short pressing the P key
P45	吹气电磁阀保持时间 Solenoid blowing holding time	20	0.01s	0-9999	如设置为0, 则关闭吹气功能 If set to 0, means blowing function off
P46	吹气频率 Blowing frequency	100	-	1-9999	每锁多少眼吹气一次 Number of Button hole finish then blowing one time
P47	底线用完预报警后继续锁眼个数 Number of Button hole after bottom thread finish Pre-alarm	0	-	0-10	如设置为0, 则信号到后当前锁眼缝制完立即报警无预报警功能, 不为0则当前锁眼缝制完进行预报警 If set to 0, then warning after finished current button hole, without pre-alarming. If not set with 0, then pre-alarming after current button hole

P48	预报警自动解除针数 Number of stitches for pre-alarm automatic release	0	-	0-100	预报警后检测确认有底线则自动解除预报警；如设置为0，则预报警无法自动解除 After the pre-alarm is detected and confirmed that there are bottom thread, the pre-alarm will be automatically released; if set to 0, the pre-alarm cannot be automatically released
P49	物联网功能开关 IoT function switch	0	-	0-1	0：关闭；1：开启 0: Off; 1: Open;
P50	物联网通讯信道 IoT communication channel	1	-	0-30	
P61	测试工作时间 Test working time	3	s	1-100	
P62	特殊工作模式选择 Special working mode selection	0	-	0-6	0：正常 2：初始角测试 3：传感器检测停止跑合模式 4：一直运行跑合模式 5：循环启动-停止跑合模式 6：车间用跑合模式（工装测试用，请勿在机头上使用该模式） 0: Normal 2: Initial angle test 3: Sensor detection stop running-in mode 4: Keeping running-in mode 5: Cycle start-stop running-in mode 6: Running-in mode for workshop (for tooling test, please do not use this mode on the machine head)
P63	测试停止时间 Test stop time	2	s	1-100	
P65	电控参数操作 Electronic control parameter operation	0	-	0-4	0：无操作 1：恢复参数为电控出厂参数 2：恢复参数为研发出厂参数 3：恢复用户自定义参数 4：保存用户自定义参数 0: No operation 1: Restore the parameters to the factory parameters of the electronic control 2: Restore parameters to R&D factory parameters 3: Restore user-defined parameters 4: Save user-defined parameters
P75	停机时欠压报警功能开关 Under-voltage alarm function switch when stopping	0	-	0-1	0：关闭；1：开启 0: Off; 1: Open;
P76	停机时过压报警功能开关 Over-voltage alarm function switch when stopping	1	-	0-1	0：关闭；1：开启 0: Off; 1: Open;

3.7.3 监控参数表 Monitoring parameter table

参数项 Parameter item	参数描述 Parameter description	参数项 Parameter item	参数描述 Parameter description	参数项 Parameter item	参数描述 Parameter description
M10	针数计数 Needle counting	M22	相电流 Phase current	M39	传感器信号1 (千位:限位信号; 百位:行程信号; 十位:底线检测信号; 个位:面线检测信号;) Sensor signal 1 (Kilobit: limit signal; Hundred bit: travel signal; Ten bits: bottom line detection signal; Lndividual bit: surface line detection signal;)
M11	锁眼计数 Button hole counting	M23	初始角度 Initial angle		
M13	面板主副版本号 Panel version number	M24	机械角度 Mechanical angle		
M18	电控主副版本号 Control-box version number	M26	踏板回中模拟量采样值 Sampling value of pedal return analog	M40	传感器信号2 (千位:预留; 百位:预留; 十位:停车块信号; 个位:减速块信号;) Sensor signal 2 (Kilobit: reserved; Hundred bit: reserved; Ten bits: stop signal; Lndividual bit: deceleration block signal;)
M20	母线电压 Bus voltage	M29	交流电压 AC voltage		
M21	机头速度 Machine head speed	M30-M37	历史故障代码 Historical fault code		

4 错误代码 Error code

4.1 故障代码表 Fault code table

若系统出现报错或报警，请首先检查如下项：

If an error or alarm occurs in the system, please check the following items first:

- 1、 先确认机器的连接线是否连接完好；
 - 2、 2 确认电控和机头是否匹配；
 - 3、 3 确认恢复出厂是否准确。
1. First confirm whether the connection line of the machine is well connected;
 2. Confirm whether the electric control and the machine head is matched;
 3. Confirm whether the factory restoration is accurate.

故障代码 Error Code	代码含义 Description	解决措施 Solution
Err-01	硬件过流 Hardware overcurrent	关闭系统电源，30 秒后重新接通电源，控制器若仍不能正常工作，请更换控制器并通知厂方。 Turn off the power switch, and restart after 30 seconds. If the controller still does not work, please replace it and inform the manufacturer.
Err-02	软件过流 Software overcurrent	

Err-03	系统欠压 Under-voltage	断开控制器电源，检查输入电源电压是否偏低（低于 154V）。若电源电压偏低，请在电压恢复正常后重新启动控制器。若电压恢复正常后，启动控制器仍不能正常工作，请更换控制器并通知厂方。 Disconnect the power to the controller; check the input power supply voltage is low or not (less than 154V). If the power supply voltage is low, please start the controller after recovers the voltage. If the controller still does not work, please inform the manufacturer and replace the controller.
Err-04	停机时过压 Over-voltage when the machine is off	断开控制器电源，检查输入电源电压是否偏高（高于 264V）。若电源电压偏高，请在电压恢复正常后重新启动控制器。若电压恢复正常后，启动控制器仍不能正常工作，请更换控制器并通知厂方。 Disconnect the controller power and check if the input voltage is too high (higher than 264V). If yes, please restart the controller when the normal voltage is resumed. If the controller still does not work when the voltage is at normal level, please replace the controller and inform the manufacturer.
Err-05	运行时过压 Over-voltage in operation	断开控制器电源，检查输入电源电压是否偏高（高于 264V）。若电源电压偏高，请在电压恢复正常后重新启动控制器。若电压恢复正常后，启动控制器仍不能正常工作，请更换控制器并通知厂方。 Disconnect the controller power and check if the input voltage is too high (higher than 264V). If yes, please restart the controller when the normal voltage is resumed. If the controller still does not work when the voltage is at normal level, please replace the controller and inform the manufacturer.
Err-06	步进感应异常 Step sensing abnormal	关闭系统电源，检查步进位置是否在原点附近，同时检查步进电机连线是否正确，是否有松动、破损等现象。若有则及时更换。确认无误后重启系统，若仍不能工作，请更换控制器并通知厂方。 Turn off the system power. Check whether the stepping position is near the origin, and check whether the stepping motor connection is correct, whether there is looseness, damage, etc. If so, replace it in time. Restart the system after confirming that it is correct. If it still does not work, please inform the manufacturer and replace the controller.
Err-07	电流检测回路故障 Current detection circuit failure	关闭系统电源，30 秒后重新接通电源观察是否能正常工作。重试几次，若该故障频繁出现，请更换控制器并通知厂方。 Turn off the system power, restart after 30 seconds to see if it works well. If such failure happens frequently, please inform the manufacturer and replace the controller.
Err-08	电机堵转 Sewing motor blocked	断开控制器电源，检查电机电源输入插头是否脱落、松动、破损，是否有异物缠绕在机头上。排除后重启系统仍不能正常工作，请更换控制器并通知厂方。 Turn off the system power. Check whether the motor power input plug is off, loose or broken, or there is something tangled on the machine head. Please make them correct then restart the system. If it still does not work, please inform the manufacturer and replace the controller.
Err-09	大盘保护 Crankset protection	断开控制器电源，检查大盘信号连接线是否脱落、松动、断裂。排除后重启系统仍不能正常工作，请更换控制器并通知厂方。 Disconnect the power supply of the controller, and check whether the signal connection line of the crankset is off,

		loose or broken. After troubleshooting, restarting the system still does not work normally, please inform the manufacturer and replace the controller.
Err-10	HMI 通讯故障 HMI Communication failure	检查控制面板与控制器的连线是否脱落、松动、断裂，将其恢复正常后重启系统。若仍不能正常工作，请更换控制器并通知厂方。 Check carefully, if the connection between the control panel and controller is off, loose, or broken, please make it correct then restart the system, if it still does not work, please inform the manufacturer and replace the controller.
Err-12	电机初始角度检测故障 Initial motor electrical angle failure	请断电后再尝试 2-3 次，若仍报故障，请更换控制器并通知厂方。 - Try 2 to 3 more times after power down - if it still does not work, please replace the controller and inform the manufacturer.
Err-13	电机光编码器信号丢失故障 Motor optical encoder signal loss failure	关闭系统电源，检查电机传感器接头是否松动或脱落，将其恢复正常后重启系统。若仍不能正常工作，请更换控制器并通知厂方。 Turn off the system power, check if the motor sensor plug is loose or dropped off, restore it and restart the system. If it still does not work, please replace the controller and inform the manufacturer.
Err-14	主板读写 EEPROM 故障 DSP Read/Write EEPROM failure	关闭系统电源，30 秒后重启系统，若仍不能正常工作，请更换控制器并通知厂方。 Turn off the system power, restart the system after 30 seconds, if it still does not work, please replace the controller and inform the manufacturer.
Err-15	伺服电机超速保护 Motor over-speed protection	
Err-16	伺服电机反转 Motor reversion	
Err-19	电机类型不匹配 Motor type does not match	关闭系统电源，检查电机传感器接头是否松动或脱落，将其恢复正常后重启系统。若仍不能正常工作，请更换控制器并通知厂方。 Turn off the system power, check whether the motor sensor connector is loose or fall off, restore it to normal and restart the system. If it still does not work, please replace the controller and notify the factory.
Err-20	调速器异常 Governor abnormal	请检查脚踏板是否复位，同时检查调速器插件/插针是否有松动或者脱落； 如果不能消除错误，请更换调速器；如果还不能消除错误，可能电控调速器信号异常，请更换控制器并通知厂方。 Please check whether the pedal is reset, and check whether the governor plug-in/pin is loose or falling off;

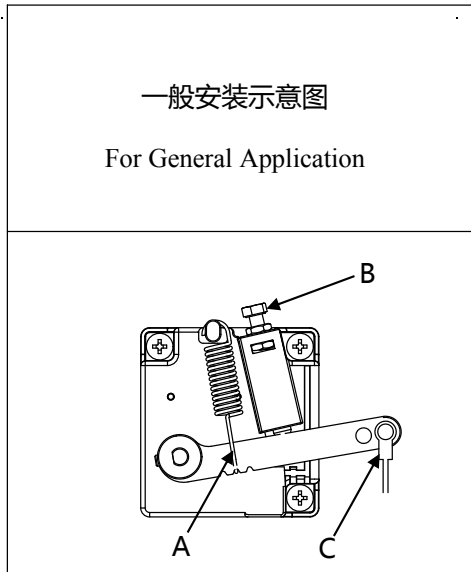
		If the error cannot be eliminated, please replace the governor; if the error cannot be eliminated, the signal of the electrical control governor may be abnormal. Please replace the controller and notify the manufacturer.
Err-21	步进硬件过流 Stepping hardware overcurrent	关闭系统电源，30 秒后重新接通电源，控制器若仍不能正常工作，请通知厂方。 Turn off the power of the system and turn on the power again after 30 seconds. If the controller still does not work normally, please notify the factory.
Err-22	步进软件过流 Step software overcurrent	
Err-23	步进电流检测回路故障 Step current detection circuit fault	
Err-25	大盘信号 1 异常，减速块 Market signal 1 is abnormal, deceleration block	断开控制器电源，检查大盘接线是否异常，确认接线无异常后开机，启动控制器仍不能正常工作，请更换控制器并通知厂方。 Disconnect the power supply of the controller, check whether the wiring of the main board is abnormal, and turn on the power after confirming that there is no abnormality in the wiring, and the controller still cannot work normally after starting. Please replace the controller and notify the factory.
Err-26	大盘信号 2 异常，停车块 Market signal 2 is abnormal, parking block	
Err-27	步进板通讯故障 Stepping board communication failure	检查步进板和电控的连线是否脱落、松动、断裂，将其恢复正常后重启系统。短按 P 键可以清除报错。 Check whether the connection between the stepping plate and the electric control falls off, becomes loose or breaks, and restart the system after restoring it to normal. Short Press The P key to clearly report an error.

4.2 安全报警表 Security Alarm Table

报警代码 Alarm code	代码含义 Code meaning	解决措施 solution
ARM UP	翻抬开关报警 Flip switch alarm	摆正机头，确保翻抬开关复原 Straighten the head of the machine to ensure that the flip switch is restored
ALR-3	计锁眼数报警 Count the number of keyholes and alarm	表示计锁眼数已达到所设上限，短按 P 键可取消报警并重新计数 Indicates that the number of keyholes in the count has reached the set upper limit, short press the P key to cancel the alarm and restart the count
ALR-4	底线用完报警 Alarm when the bottom line runs out	更换底线，短按 P 键取消报警 Change the bottom line, short press the P key to cancel the alarm
底线状态图标闪烁 The bottom line status icon flashes	底线用完预报警 Pre-alarm when the bottom line runs out	更换底线 Replace the bottom line
ALR-7	面线断线报警 Upper thread break alarm	检查面线是否断线，短按 P 键取消报警 Check whether the upper thread is broken, short press the P key to cancel the alarm

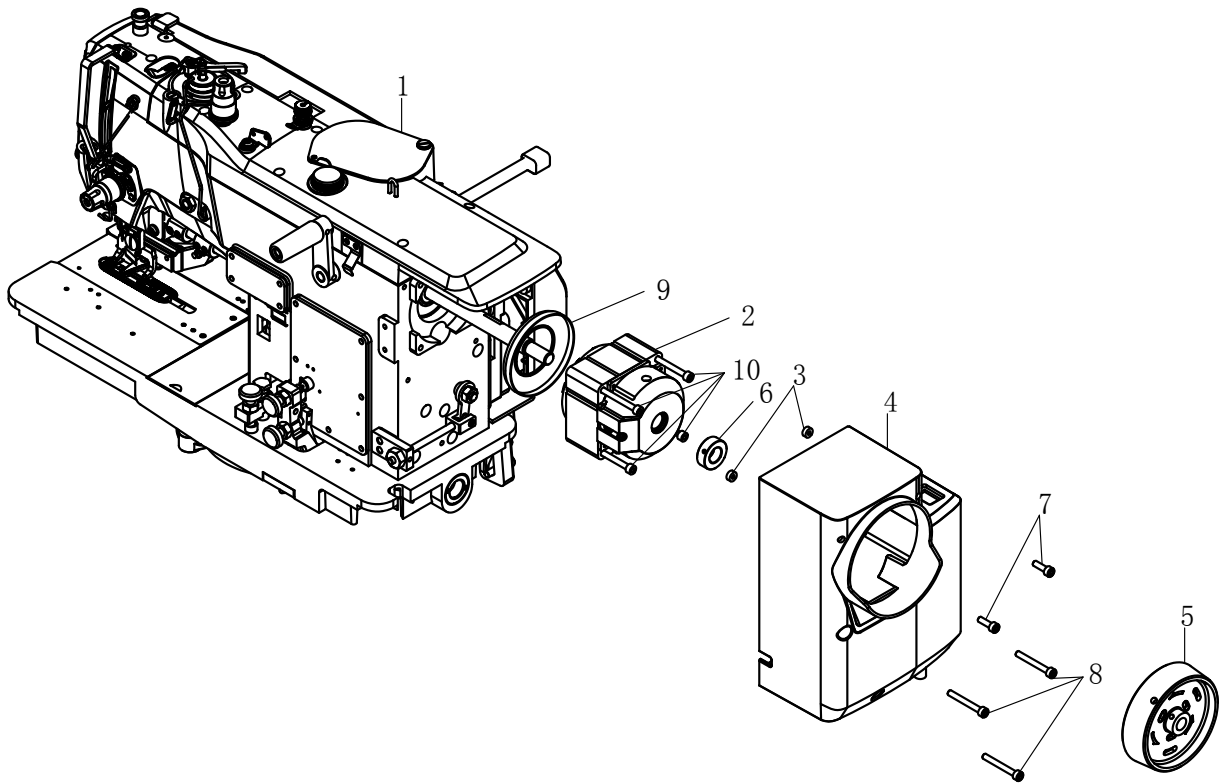
5 安装说明 Installation instructions

5.1 控速器踏板拉力的调整 Speed control pedal pull adjustment



- A:前踏拉力弹簧
Spring A:Downward force
Adjustment
B:后踏紧度制退的调整螺丝组
Bolt B:Heeling back force
Adjustment
C:踏板旋臂拨杆挂钩孔
Hole C:Pedal stroke
Adjustment

5.2 一体化电控安装操作说明 Integrated electronic control installation instructions



- 1 : 机头 machine head
- 2 : 无壳电机 Caseless motor
- 3 : 橡胶垫圈×2 Rubber washer×2
- 4 : 电控 Electric control
- 5 : 手轮 Handwheel
- 6 : 电机防尘罩 Motor dust cover
- 7 : 上紧固螺钉×2 Upper fastening screw×2
- 8 : 中、下间紧固螺钉×3 Middle and bottom fastening screws×3
- 9 : 电机绝缘防护罩 Motor insulation shield
- 10 : 电机紧固螺钉 Motor fastening screw×4

安装说明：Installation Notes

- 一、把无壳电机 2 出线口方向朝上，将电机套入主轴，上电机四个固定螺钉，电机定位同心棒转动灵活、无卡点，再将转子装到上轴上，注意主轴上的平面和转子平面的方向关系（转子定位），拧紧固定螺钉，在转子上装上光栅片，注意转子上的平面和光栅平面的方向关系（光栅定位），预紧固定螺钉，再安装编码器电机盖，调整光栅片居于编码器中间位置，拧紧光栅固定螺钉，再装上电机上盖，拧紧电机盖固定螺钉，最后装上电机防尘罩 6，拧紧固定螺钉，电机安装完毕。
Put the direction of the outlet of the caseless motor 2 upwards, insert the motor into the main shaft, and install the four fixing screws of the motor. The motor positioning concentric rod rotates flexibly and has no stuck points. Then install the rotor on the upper shaft. Pay attention to the main shaft The direction relationship between the plane of the rotor and the plane of the rotor (rotor positioning), tighten the fixing screws, install the grating sheet on the rotor, pay attention to the direction relationship between the plane on the rotor and the grating plane (grating positioning), pre-tighten the fixing screws, and then install the encoder motor Cover, adjust the grating sheet in the middle of the encoder, tighten the grating fixing screws, then install the motor cover, tighten the motor cover fixing screws, and finally install the motor dust cover 6, tighten the fixing screws, and the motor is installed.
- 二、取电控放置于电机旁，抽出电控上的编码器线插至电机编码器口，再取电机电源线头和电控电源口对接，在电控内部穿上紧固 7，电控上在装上橡胶垫圈 3。
Take out the electric control and place it next to the motor, pull out the encoder wire on the electric control and insert it into the encoder port of the motor, then take the power cord of the motor and the electric control power port to connect, put on the fastening 7 inside the electric control, on the electric control Then install the rubber gasket 3.
- 三、将电控 4 的电机室对准电机慢慢套入机头，调整两条连接线置于电控右端，完全套入后穿入电控中间紧固螺钉 8 不打紧，旋转上紧固螺钉与机头螺孔连接不打紧，再穿入电控下紧固螺钉 8，检查并调整电控轮廓与机头轮廓配合适当，依次打紧螺钉 8、螺钉 7，电控安装完毕。
Align the motor room of the electric control 4 with the motor and slowly insert it into the machine head, adjust the two connecting wires to the right end of the electric control, and insert them into the middle of the electric control. Rotate the upper fastening screw and the screw hole of the machine head without tightening, and then insert the fastening screw 8 under the electric control, check and adjust the electric control contour and the machine head contour to match, tighten the screw 8, screw 7 in turn, and install the electric control complete.
- 四、在电机后轴上套上手轮5，注意定位螺钉与轴平面对齐上紧。
Put hand wheel 4 on the rear axle of motor, pay attention to the positioning screw axis plane aligned
在运行你的锁眼机之前，请仔细阅读本使用说明书内的指令并以正确、有效的方式里操作它。
Before operating your lockstith machine, please read this indtruction manual carefully in order to operate it in the correct and efficient manners.

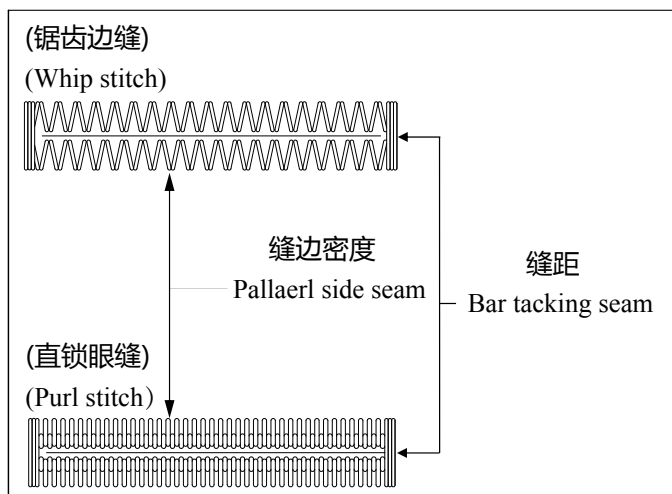
运行中警告 Cautions in operation

1. 机器从滑轮的正面观察应该逆时针方向旋转，注意不要让缝纫机反方向旋转。
2. 在没有加油之前，不允许开动机器。
3. 在试运行前，请从机器中拿出线轴箱和针线。
4. 每天在缝工作之后应及时清理缝钩和机器线轴，另外应经常检查缝纫机油的油量。
5. 为防止人身事故的发生，缝纫机在运行电机在转动过程中，请不要将手指、头发、衣服等靠近手轮，也不要任何东西放到机器上。
6. 如果你的机器配有封带，为了保护你的手指和眼睛，在进行操作前，请将它们除去。
1. The machine should rotate counterclockwise as observed from the pulley. Take care not to rotate the machine in the opposite direction.
2. Never start the machine before filling the machine base with lubricating oil.
3. Remove the bobbin case and the needle thread from the machine before performing the trial operation.
4. Clean up the sewing hook and the bobbin thread trimmer every day after sewing work. Also check the level of the lubricating oil.
5. Never bring your fingers or hair close to, or place anything on the hand wheel during operation. It may lead to serious personal injuries.
6. If your machine is provided with a belt cover, finger guard and eye guard, never operate your machine with any of them removed.

6 规格 Specification

型号 Model	JK-T781G	JK-T782G	JK-T783G	JK-T781GX	JK-T781GK
用途 Use	棉纺、化纤等织物钮孔的缝锁 Sewing lock of button hole on cotton and chemical fiber fabrics				针织 Knitting
钮孔长度 Buttonhole length	22mm	33mm	40mm	22mm	22mm
缝迹宽度 Stitch width	2.5~4mm	2.5~5mm	2.5~5mm	2.5~4mm	2.5~4mm
切刀长度 Cutter length	6.4~19mm (1/4"~3/4")	6.4~25.4mm (1/4"~1")	6.4~31.7mm (1/4"~1 1/4")	6.4~19mm (1/4"~3/4")	6.4~19mm (1/4"~3/4")
缝纫机转速 Speed of sewing machine	100~3600 转/分 100~3600 rpm				
针杆行程 Needle bar stroke	34.6mm				
压脚高度 Presser foot height	10mm				
机针 Needle	DP×5 (#11~#14)				
加油方式 How to add oil	全自动加油 Fully automatic				
缝制厚度 Sewing thickness	4mm				
针数 Stitches	G(225,83) J(190,100) L(170,110) N(152,123)				

7 线迹形式 Types of stitches



本缝纫机有两种线迹形式，它们是：
锯齿边缝和直锁眼缝

- 1、锯齿边缝：
布的表面只有上线，背面是底线的锯齿状线迹。
- 2、直锁眼缝：
增强上线张力，上线直线通过，底线左右锁缝的线迹

This machine is capable of forming two different types of stitches, namely whip stitch and purl stitch.

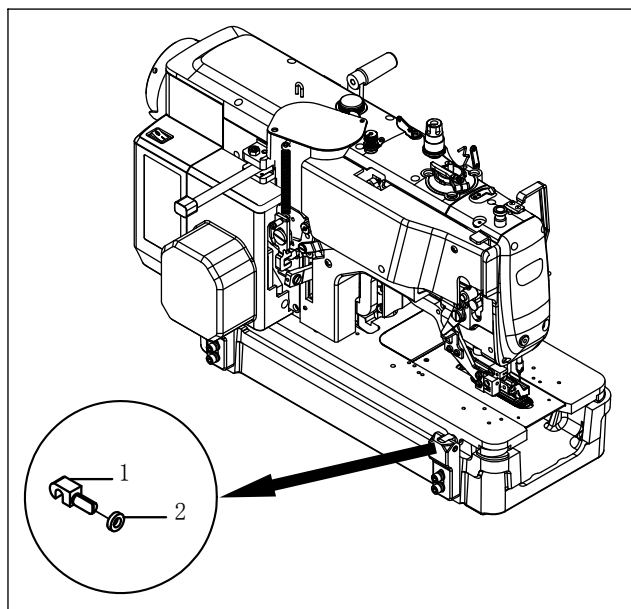
1. Whip stitch

The whip stitch is formed in zigzag showing the needle thread only on top of fabric, and the bobbin thread on the bottom.

2. Purl stitch

When applying higher tension to the needle thread to permit it to pass straight through fabric, the purl stitch is formed by the bobbin thread which is pulled over from both sides to the center line.

8 缝纫机头的安装 Setting up the machine head



将铰链钩①装入机头。然后将机头放在机座上。

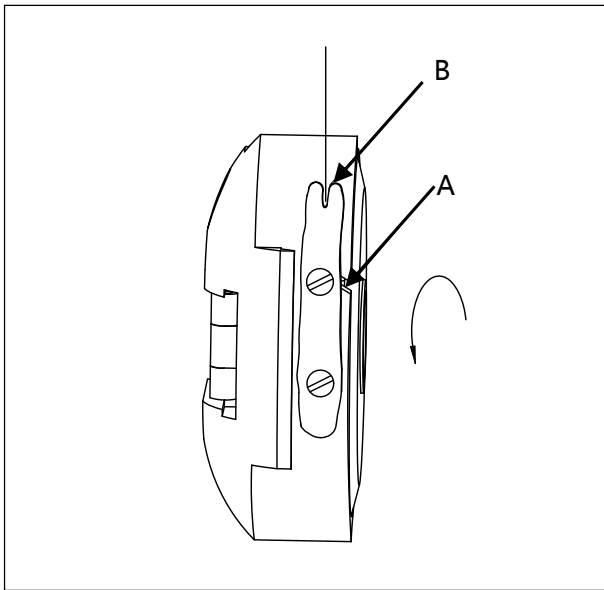
Insert hinge ① into machine head.

Then, place the machine head on the machine base.

不得抬压电控部位及剪线部件。

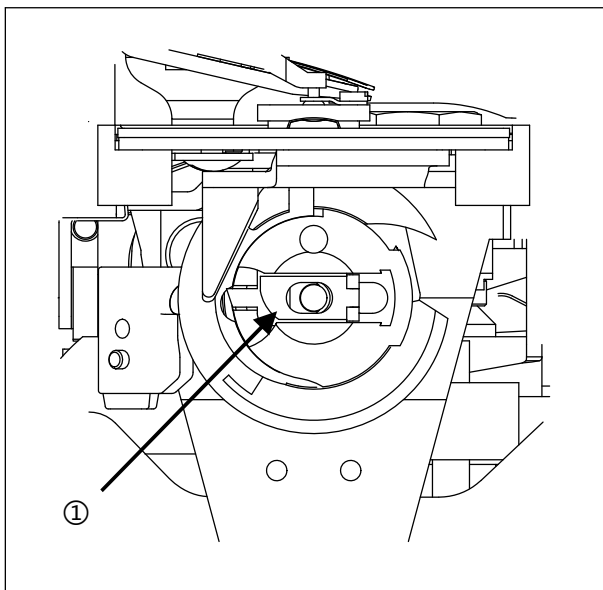
Do not press the electric control part and thread cutting parts.

9 梭心的安装方法 Attaching the bobbin



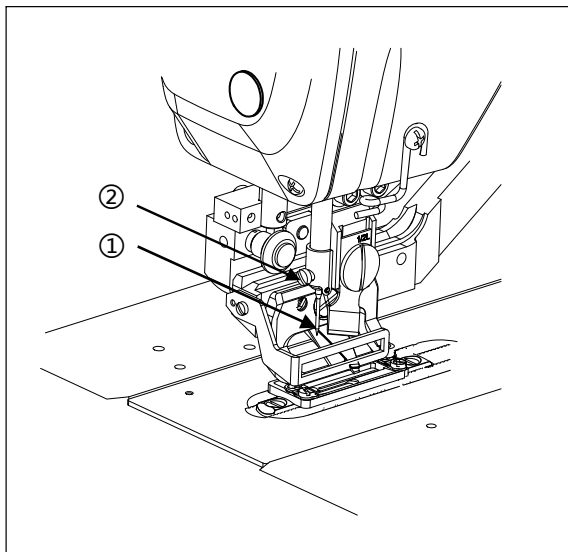
- 1、手拿梭心,让线往左绕的方向,把它放入梭壳。
 - 2、把线穿过梭壳的穿线口 A,然后把线往 B 方向拉,从线张力弹簧下面的穿线口 B 拉出来。
- ★ 拉底线 C,确认底线是否梭心与箭头的方向相同。
1. Hold and place a bobbin into the bobbin case so that the bobbin is wound counter clock wise.
 2. Passing the thread through thread outlet A of the bobbin case, pull the thread, and the thread can be drawn out form thread outlet B, passing under the bobbin winder tension spring.
- ★ Set the bobbin so that it rotates in the arrow direction when the bobbin thread is pulled.

10 梭壳的安装方法 Installation/Removal of bobbin case



- 1、撬起梭壳扣爪①,取下梭壳。撬起扣爪拿旋时梭心不会掉出来。
 - 2、安装时请把梭壳插到底,扣爪闭上。
1. Life up and hold bobbin case latch lever ① between two fingers to remove it from the hook. A bobbin does not fall off the bobbin case while the latch lever is lifted up.
 2. For installation of the bobbin case, push the bobbin case into the hook so that it is supported by the hook shaft, and then snap in the latch lever.

11 机针的安装方法 How to install the needle



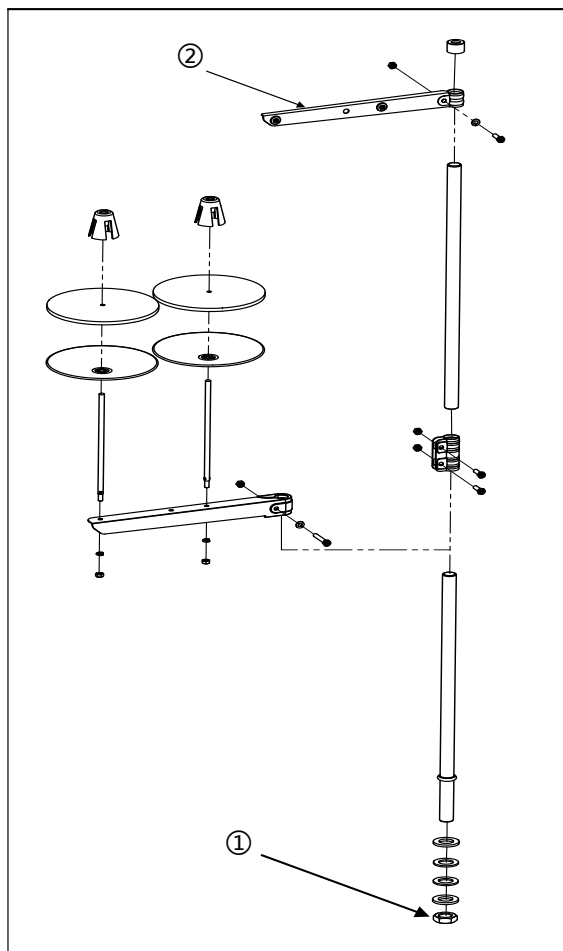
★ 切断电源。使用 DP×5 机针

- 1、 拧松机针固定螺丝②，手拿机针，把机针①凹部横向转到前侧。
- 2、 然后把机针插进针杆孔的深处。
- 3、 拧紧机针固定螺丝。

★ Turn off the motor power. Use a DP×5 needle

1. Loosening needle setscrew ②, hold needle ① with its recessed part facing toward the operator.
2. Insert the needle fully into the needle clamping hole.
3. Securely tighten the needle setscrew.

12 线架的安装方法 Serrring up the thread stand

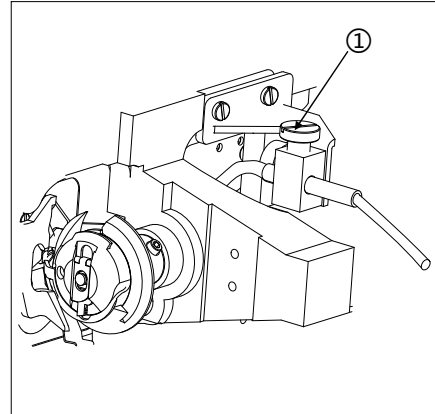
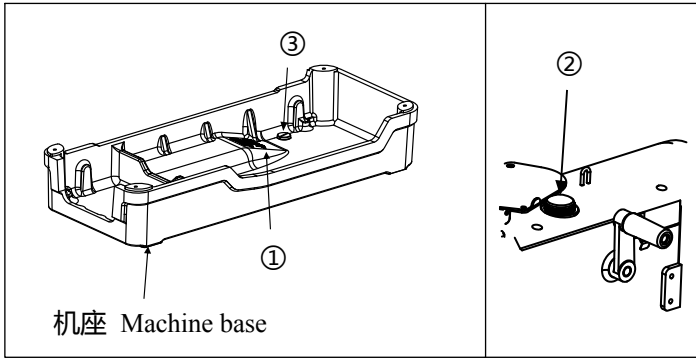


把立式线架放入台板孔，拧紧螺母①固定在台板上。调整配线的高度，让电源线从杆②中穿过。

Assemble the thread stand, and fix it in the table, Then tighten lock nut ① to fix the thread Stand.

If ceiling wiring can be made, pass the power Cable through spool rest rod ②.

13 加油 Lubrication



- 1、把10#工业白油加入到油槽，加到 HIGH 标记
- 2、油量低于游标①时，应往油槽里加油。
- 3、当机器正常运转时可以通过油视窗②看到机油。
(低速运转时油量会少一些。)

★ 油脏污之后，请拧松放油螺丝③排出脏油，并换新机油。

Before starting the machine

1. Fill the oil reservoir of the machining base with Industrial white oil up to the level indicated by “HIGH”.
 2. Supplement the oil when the oil level has lowered Below the bottom line of oil gauge ①.
 3. When the machining has been properly lubricated, the oil is seen to run through the pipe from oil sight window ② (Low speed operation permits easier observation of the Lubricating oil)
- ★ Drain dirty oil by loosening oil drain screw ③ and fill The oil reservoir with fresh oil.

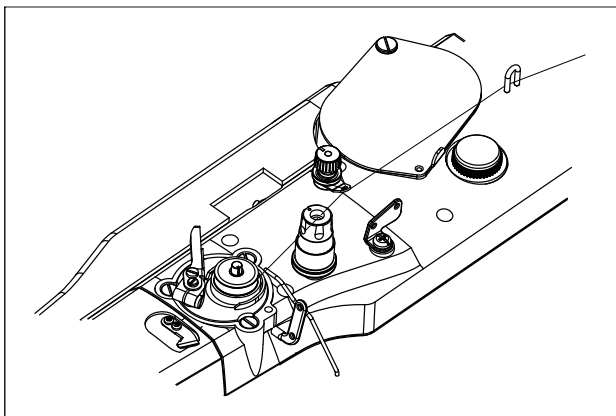
★ 旋梭油量的调节

用调节螺丝①调节大旋梭的油量，把调节螺丝往里拧油量变少，往外拧油量变多。

★ Adjusting the lubrication for the sewing hook

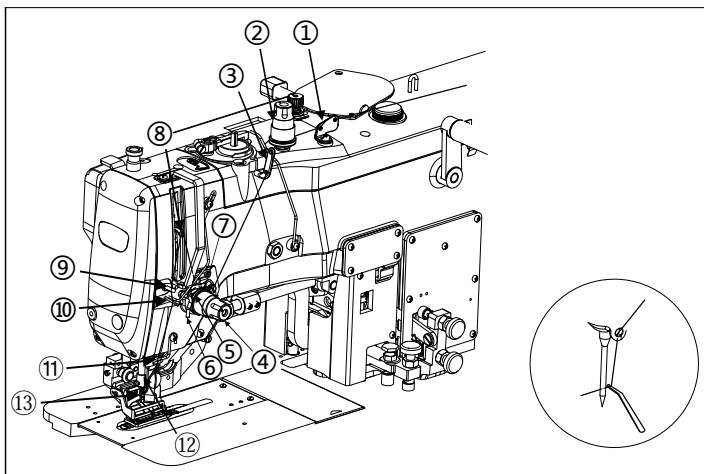
Adjust the volume of lubricating oil supplied to the sewing hook by turning oil adjusting screws ① for rough adjustment, oil volume is reduced when turning the screws clockwise.

14 底线的绕线方法 Winding the bobbin



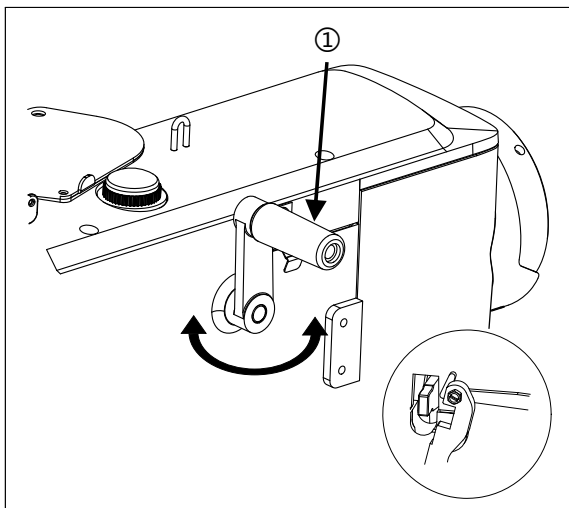
- 1、把梭心插到绕线轴上。
- 2、如图所示进行穿线，并把线在梭心上绕几圈。
 1. Fit a bobbin onto the bobbin winder shaft.
 2. Take the thread from the spool and pass it through the guides in the numerical order shown in the figure, and wind the end of the thread several turns around the bobbin.

15 上线的穿线方法 Threading the needle-thread



- 1、 如图所示穿上线。
 - 2、 穿线时，使用附属的穿线器穿线非常方便。
1. Pass the needle thread in the order as shown in the figure.
 2. The threading can be done easily by using the needle threader supplied with the machine.

16 手动送布手柄 Manual feed handle



紧急停止后，或中途线断后，再次开始缝纫时，转动手动送布手柄①送布机构就开始动作。

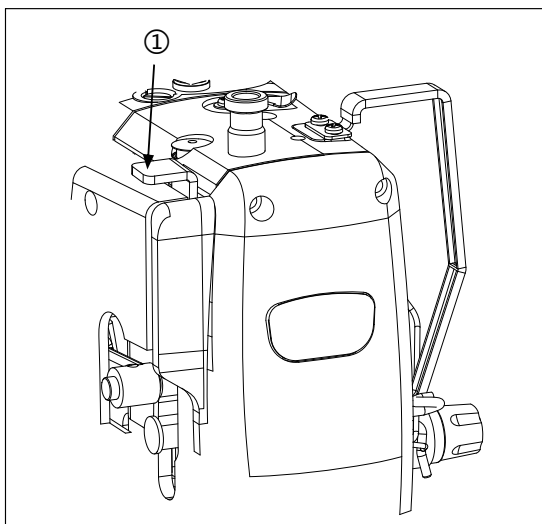
(注意) ① 手动送布应在确认机针没有扎到布之后再转动。
② 转动手轮时要做半圈的前后转动，如遇到卡住转不动时，请检查刀杆传动杆(确保刀杆传动杆脱离刀杆传动杆曲柄)。

When you want to feed fabric manually after giving an emergency stop or to resume sewing from the point at which thread was broken, rotate manual feed handle ① to operate the cloth feeding mechanism.

(NOTE) ① Confirm that the needle does not stick in fabric before turning the manual feed handle.

② When turning the handwheel, turn it back and forth for half a turn. If it is stuck and cannot be turned, please check the driving lever of knife bar (make sure the driving lever of knife bar is separated from the driving crank of knife bar).

17 防止切刀掉落 How to hold the descending knife



紧上线和底线被切断时，或不想让刀落下时，在缝纫机停止之前把固定拨杆①轻轻向下按压。切刀就不会下落。

When you do not want to cut fabric after sewing because of thread breakage or some other reasons, keep on pressing down knife stop lever ① lightly until the machine stops. Then the knife will not descend.

18 针数的变换方法 Changing the number of stitches

代号 Symbol	小齿轮针号 No. of stitches of small gears	大齿轮针号 No. of stitches of large gears	代号 Symbol	小齿轮针号 No. of stitches of small gears	大齿轮针号 No. of stitches of large gears
A	54	345	I	93	200
B	62	300	Ⓜ	100	190
C	66	285	K	105	180
D	70	268	Ⓛ	110	170
ⓔ	74	252	M	115	160
F	79	238	Ⓝ	123	152
ⓐ	83	225	O	130	145
H	88	212			

★ 更换齿轮

- 1、 更换齿轮，可以变为表中所述的针数。
- 2、 齿轮上均刻有 A、B、C...的英文字母和 123、156 的数字。
- 3、 用英文字母相同的齿轮进行组合。
- 4、 后面安装的齿轮上刻的数字表示此时的针数。(○里的为标准附属品。其他则为另外订购零件。)

★ 齿轮的安装

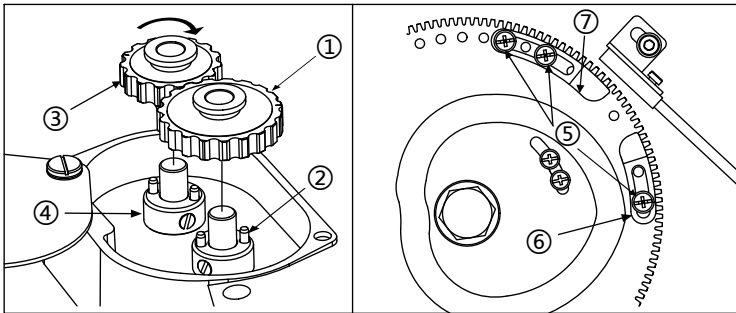
- 1、 从操作人员方面看，把齿轮①插进面前的更换齿轮座②的铰链上。
- 2、 把齿轮③向箭头方向转动，插进后面的更换齿轮座④的铰链。

★ 减速凸轮位置的调整

- 1、 拧松固定螺丝⑤，调整减速凸轮⑥的位置。

★ 停车凸轮位置的调整

- 1、 拧松固定螺丝⑤，调整停车凸轮⑦的位置。



★ Spur gears

1. By selecting the spur gears, you can control the number of stitches as shown in the table.
2. Alphabetical marks like A, B, C, etc, and numerals like 123, 152, etc are both engraved on each spur gear for identification.
3. Use a combination of gears which have the same alphabetical marks.
4. The numeral engraved the gear installed in the rear position will represent the number of stitched provided by the then combination of spur gears.(The circled alphabetical symbols in the above table show that the gears are included in the standard accessories. All other gears are optional attachments.)

★ Attaching the spur gears to their shafts

1. Push gear ① into the shaft so that it is securely fixed by the pin on gear bushing ② located nearer to an operator.
2. For installing gear ③ on the pin of rear gear bushing ④, push gear ③ into the shaft while turning it in the arrow direction.

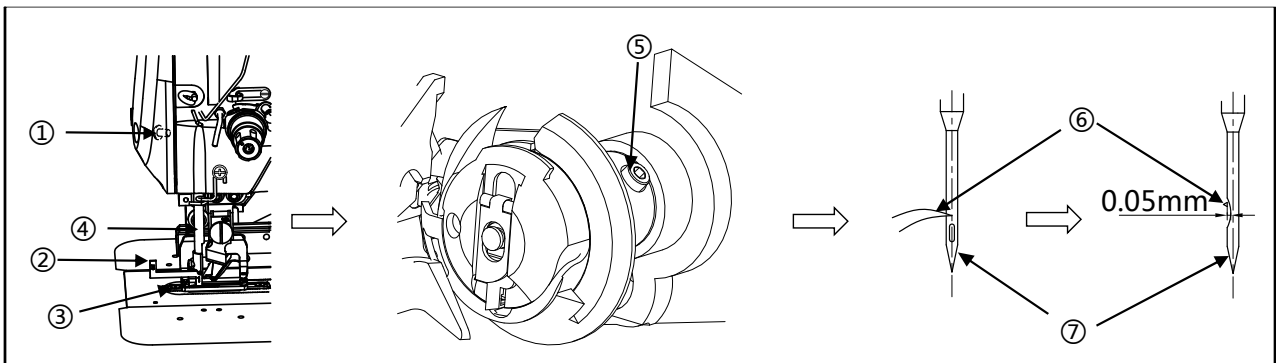
★ Adjusting the deceleration cam position

1. Loosen setscrews ⑤, and adjust the position of deceleration cam ⑥.

★ Adjusting the stop cam position

2. Loosen setscrews ⑤, and adjust the position of stop cam ⑦.

19 针和旋梭的关系 Needle-to-hook relation



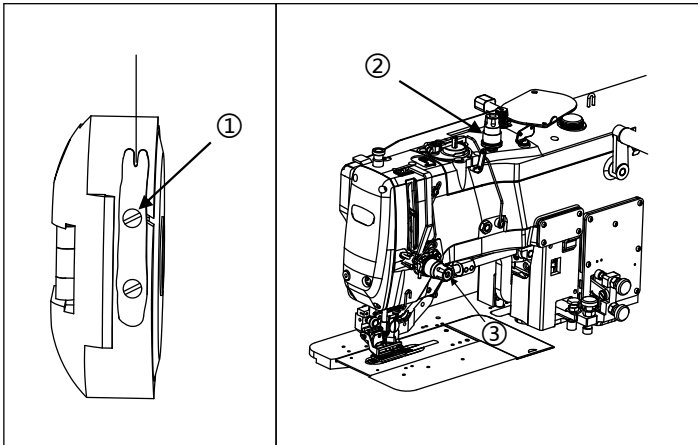
★ 机针和旋梭请按如下所述进行调节。

- 1、把机针降到最低点，让机针落到针板的针孔中央。
- 2、拧松针杆套管固定螺丝①。
(决定针杆的高度)
- 3、用同步尺②的“1”的部分放入针板③和针杆④下端之间，并让针杆顶到标尺。
- 4、拧紧针杆套管固定螺丝。
(决定旋梭的位置)
- 5、用附属的棒扳手拧松两个旋梭轴接头固定螺丝⑤。
- 6、向正规方向转动驱动皮带轮，针杆成为从最低点开始上升的状态。
- 7、让旋梭尖⑥对准机针⑦的中心，旋梭尖和机针之间的间隙约 0.05mm，把旋梭轴接头固定螺丝拧紧。
(注意)发生跳针时，请让针杆的高度比同步尺“1”低 0.5mm 左右。

★ Set the needle to hook relation in the following way.

1. Bring down the needle bar to the lowest point when needle is coming down through the center of the needle hole on the throat plate.
2. Loosen needle bar connection screw ①, and adjust the height of the needle bar.
(Seeting the needle bar).
3. Insert the part "1" of timing gauge ② into the gap between the bottom end of needle bar ④ and throat plate ③.
4. Retighten the needle bar connection screw to adjust the position of the sewing hook.
(Seeting the hook).
5. Loosen setscrew ⑤ of the hook sleeve by the bar spanner supplied with the machine.
6. Rotate the driving pulley in the correct direction until the needle starts to go up from its lowest point.
7. Aligh blade point ⑥ of the sewing hook with the center of needle ⑦, and make adjustment so that a clearance of approx 0.05mm (1/64") is provided between the needle and the blade point of the hook. Then securely retighten the setscrew of the hook sleeve.
(NOTE): If stitches are skipped. lower the needle bar by approx 0.5mm (1/64") from the timing gauge "1".

20 线张力 Thread tension



★ 直锁眼缝的线张力

- 1、用梭壳张力螺丝①把底线张力调节 0.15~0.2N 左右。
- 2、调整第一线张力器②缝制出漂亮的锯齿边缝那样的缝迹。如果背面线头露出的话，请调紧第一线张力器。
- 3、对于平行部 A 的锯齿形状，请用第二线张力器③调节。

★ 锯齿边缝的线张力

- 1、用张力螺丝①把底线张力调节为 0.4~0.5N 左右。

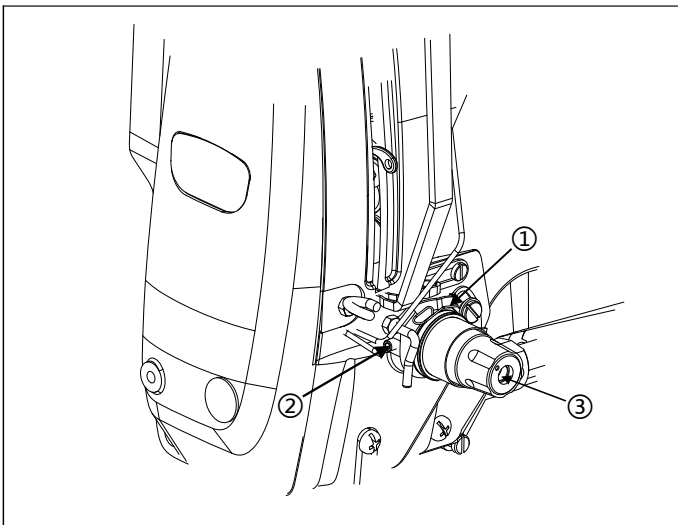
- 2、更换第一线张力器②和第二线张力器③的调节弹簧。(第二线张力器要稍弱一些)
- 3、用第二线张力器③进行调节，不让缝纫完了后脱线。
- 4、用第一线张力器②调节平行部、加固缝部的缝迹。

★ Adjusting the thread tension for purl stitch:

1. Adjust the bobbin thread tension to approx. 15 to 20g by adjusting screw ① of the bobbin case.
2. Adjust tension controller No. 1 ② for proper needle thread tension so that the bar-tack part is formed by well-shaped whip stitches. If the tension is too low bar tacking seam may form thread knots on the rear face of fabric.
3. Adjust tension controller No. 2 ③ for proper tension of the parallel side seams by judging from the stitch formation.

★ Adjusting the thread tension for whip stitch:

1. Adjust the bobbin thread tension to approx 40 to 50g by adjusting screw ① of the bobbin case.
2. Exchange the adjusting springs of tension controllers No.1 ② and No. 2 ③ each other (the tension controller No. 2 will have a weak spring).
3. Adjust tension controller No. 2 ③ to prevent ravelling off at the end of a seam.
4. The stitches of the parallel sides or bar-tack can be adjusted by tension controller No.1 ②.



★ 拉线弹簧（直锁缝）

把拉线弹簧①的拉线量调节成 8~10mm、把始动时的张力强度调节为 0.1~0.2N。

变更拉线弹簧的动作范围时，请拧松螺丝②，把细螺丝刀插到线张力杆③的切缝处转动调节。

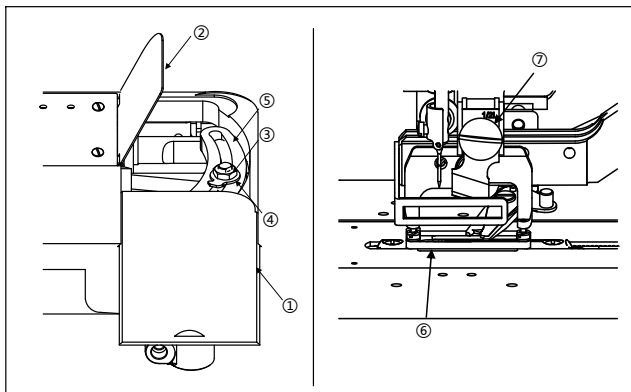
变更拉线弹簧的强度时，请在螺丝②拧紧的状态下，把细螺丝刀插到线张力杆③的切缝处转动调节。向右转动拉线弹簧和强度变大，向左转动变弱。

★ Adjusting the thread take-up spring (for purl stitch)

The suitable range of the stroke of thread take-up spring ① is from 6 to 8mm with a starting tension of 20 to 50g. For adjusting the stroke of the thread take-up spring ,loose screw ② and insert a thin screwdriver into the slit of tension post③to turn the tension post.

To adjust the tension of the thread take-up spring insert a thin screwdriver into the slit of tension post③)to turn it,with screw ② tightened. The tension of the thread take-up spring increases when the tension post is turned clockwise,and decrease when turned counterclockwise.

21 缝边长度(送布量)的调节 Adjusting the overedging length (buttonhole length)



- 1、拉出外罩①, 就可以抬起外罩②.
 - 2、用附属的扳手拧松螺母③, 把指针④对准送布曲柄⑤上希望的刻度 (与切布刀宽度相同的尺寸), 然后拧紧螺母③. 请不要把螺母③拧下来.
 - 3、进行试验缝制, 微调整让切刀不切加固缝部.
- ★ 压脚的更换
请使用接近钮扣眼长度的压脚步⑥.
拧松压脚固定螺⑦, 就可以更换压脚.

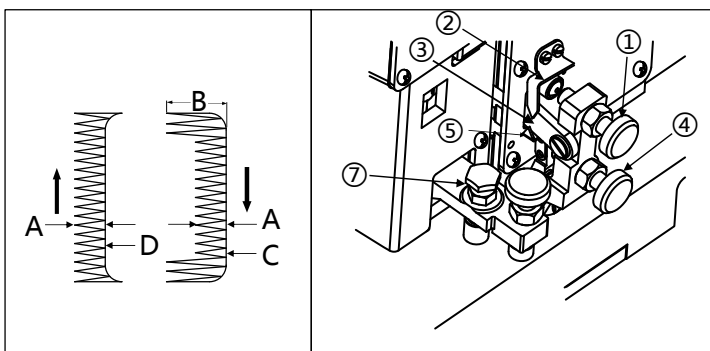
1. Pull out cover ①, and raise cover ②.
2. Loosen nut ③ by the spanner supplied with the machine, Set point ④ to a desired length on scale (this length is the same with the knife width) , and then retithten nut ⑤.
3. Through your trial sewing, adjust the overedging length accu rately to the extent that the bar tacking seams are not cut by the knife.

★ Changing the work clamp check

Use work clamp check ⑥ having the size nearly the same as that of a buttonhole length.

By removing setscrew ⑦, a work clamp checks can be changed together with a work clamp check holder as a set.

22 锁眼宽度以及缝锁基准位置的调节 Adjusting the overedging width and overedging reference position



机针的摆动以机针摆动的右侧为基准。调整时请按照以下要领进行。

- 1、摆动宽度 A, 移动螺丝①把指针②对准刻度板③上希望的刻度。实际的摆动宽度是刻度的 1/2 的量 (单位: mm) .
- 2、加固缝宽度 B, 移动螺丝④把指针⑤对准刻度板的指针② 指示的刻度, 设定为摆动宽度的 2 倍。

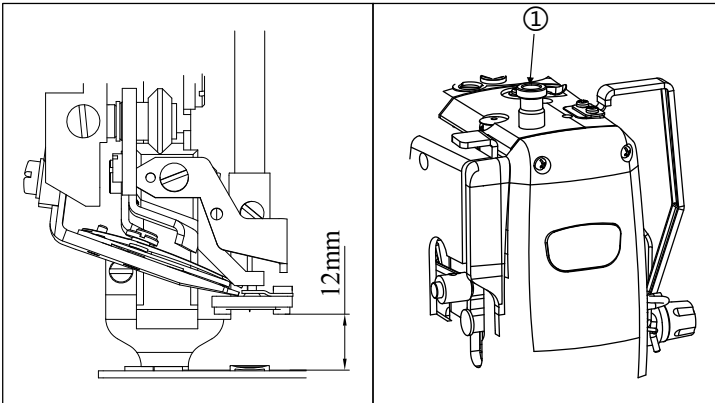
- 3、右基线 C 的位置，移动螺丝⑥，设定到切刀切不了线的位置。拧紧螺丝⑥右基线向左移动。
- 4、进行试验缝，以进行上述的微调整，
- 5、左基线 D 的位置，因变更摆动宽度的位置也不变动，所以不需调整。但是切刀切左基线时，拧紧螺丝⑦让其向左移动。

The needle swings from right to left with the right base line established as the reference position.

Perform the adjustment as follows:

1. To adjust stitch width A, screw in or out screw ①, and set pointer ② to a desired value on scale plate ③. The actually sewn stitch width will be the half of the set scale value (mm).
2. For adjustment of bar tacking width B, screw in or out screw ④, and set pointer ⑤ to the value indicated by scale plate pointer ②, making the bar tacking width twice as large as the stitch width.
3. Adjust the position of right base line C by screwing in or out screw ⑥ so that it is kept away from the cutting line of the knife. As screw ⑥ is screwed in, the right base line moves to the left.
4. Through your trial sewing, further perform fine adjustment.
5. It is not necessary to adjust the position of left base line D since it remains unchanged when the stitch width is changed. However, the left base line should be moved to the left by screwing in screw ⑦ if it is cut by the knife.

23 压脚的压力调整 Adjusting the presser bar pressure

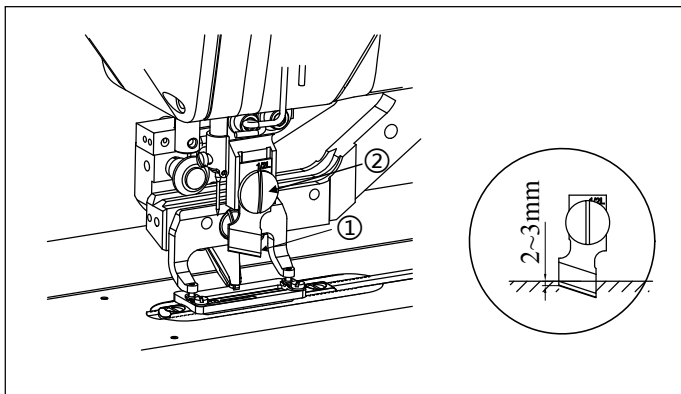


压脚自动抬起时的压脚最大提升量为 12mm。布压脚的压力用压脚调节螺丝①调节。拧紧调节螺丝后，布压脚压力变大，布不容易出褶。

The presser bar maximum goes up 12mm when the presser foot lifted automatically.

To adjust the pressure applied by the presser bar to fabric, turn presser spring regulator ①. When the pressure is not enough to prevent fabric from puckering, turn regulator ① clockwise.

24 切刀的更换 Replacing the knife



研磨切刀或更换新切刀时，请按照如下要领进行更换。

- 1、拧松切刀固定螺钉②，把切刀①和垫片一起卸下。
- 2、组装时，下降到切刀最低点，让切刀和护针器上面的距离为 2~3mm，拧紧切刀固定螺丝。

(注意) 请一定放上垫片，及切刀安装方向。

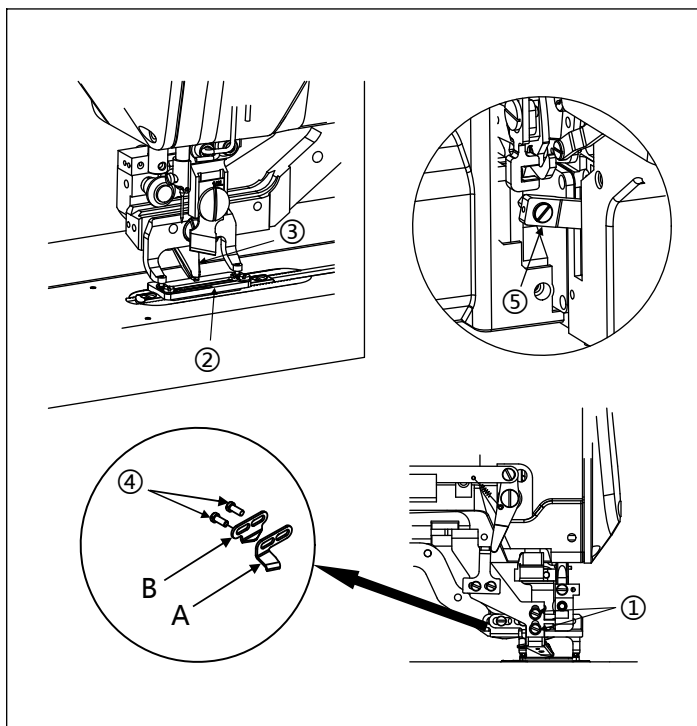
When sharpening or replacing the knife, remove it as follows:

1. Loosen setscrew ②, and remove knife ① together with the washer.
2. Attach the knife to the knife holder so that the

higher end of the slanted knife blade comes down 2 to 3mm above the surface of the throat plate when the knife is brought down to the lowest position.

(NOTE) : Do not forget to install the washer when retightening the setscrew, and knife installation direction.

25 上线剪刀的调整 Adjustment of the needle thread trimmer



★剪刀的安装

拧松螺丝①, 下降压脚使压脚②和剪刀③不相碰。上线可以剪短。

但是缝纫布层时, 压脚会倾斜所以把剪刀的位置安得稍高一点。

★剪刀关闭的同步时间

剪刀伸到最长时, 调整剪刀关闭的同步时间。拧松螺丝④, 把上线剪刀动作板A前后移动来调节。往前移动关闭的同步时间推迟, 同时关闭量也变少。

(注意) 剪刀关闭之后, 请确认还应有 0.3~0.5 mm 左右的富裕。没有关闭富裕时, 上线剪刀动作板相接触的压脚提升拔杆⑤变重。

★剪刀张开的同步时间

调整剪刀使剪刀在从开始缝的 2.5~3mm 左右的地方, 渐渐的开始张开。拧松螺丝④, 前后移动上线剪刀动作板B来进行调节。向前移动张开时间提前。

(注意) 定位的上线剪刀动作板 A 一定不能偏斜。

★ Attaching the trimmer

Loosen setscrew ①, and adjust the height of trimmer ③. Set the height of trimmer ③ as low as possible, provided that it does not touch work clamp check ②, in order to minimize the length of remaining thread on the needle after trimming

★ Closing timing of the needle thread trimmer

Adjust the closing timing of the needle thread trimmer so that the trimmer completely closes when it advances farthest. To perform the adjustment, loosen screw ④, and move needle thread trimmer driving plate A back and forth. When the needle thread trimmer driving plate is moved towards you, the closing timing is delayed with reduced amount of closing.

(NOTE) Confirm that an allowance of 0.3 to 0.5mm is left between the blades of the trimmer when the trimmer has completely closed.

If there is no such allowance the trimmer would interfere with the operation of the needle thread trimmer driving plate, preventing smooth movement of lifting lever ⑤.

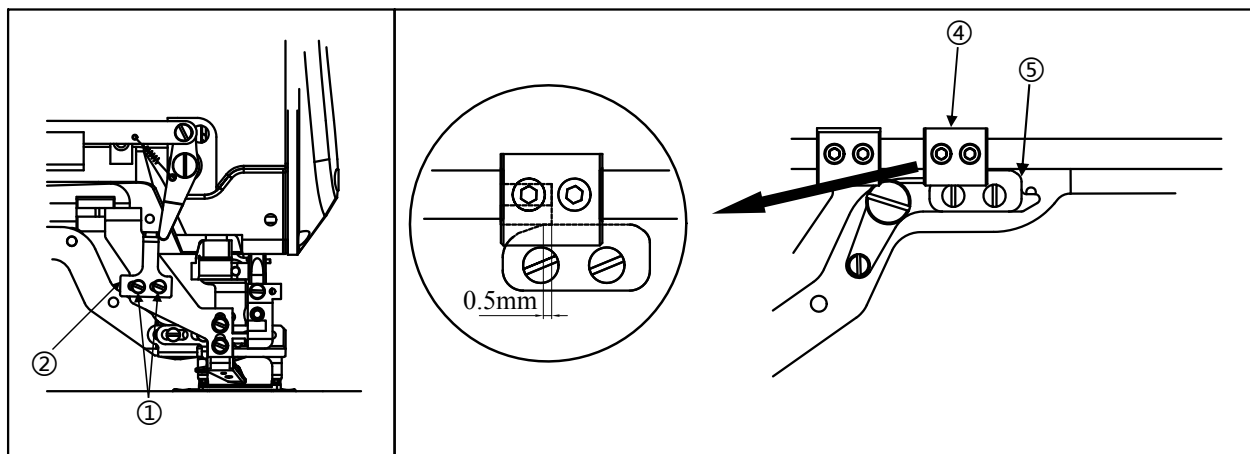
★ Opening timing of the needle thread trimmer

Adjust the timing of the thread trimmer so that the trimmer begins to open gradually at a distance of approx. 2.5 to 3mm (3/32" to 1/8") from the start.

To perform the adjustment loosen screw ④, and move needle thread trimmer driving plate B back and forth. As it moves towards you, the trimmer begins to open earlier.

(NOTE) Take care not to cause the already fixed needle thread trimmer driving plate A to get out of position.

26 上线切线动作曲轴和限制板的调整 Adjustment of needle thread trimmer holder and limiting plate



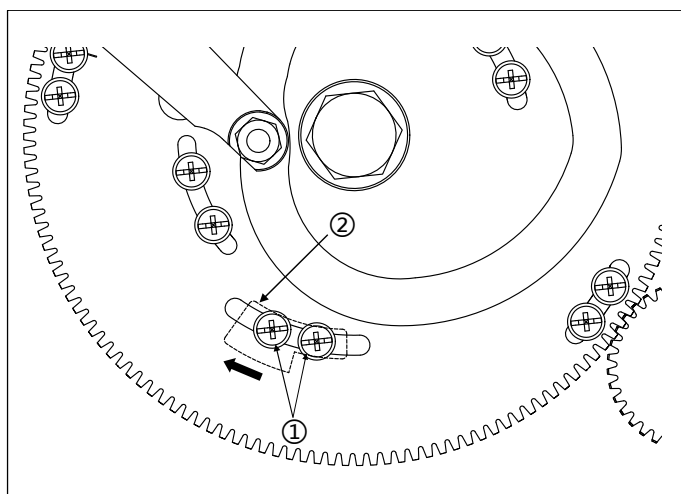
缝纫机低速启动时，拧松固定螺丝①，让限制板②顶到阻挡曲柄③。

上线切刀张开时，让上线切线动作曲柄④和动作凸轮⑤咬合 0.5mm。

Loosen setscrew ①, and install and adjust limiting plate ② so that it comes in contact with the blocking arm ③ at the time of slow start of the machine.

Needle thread trimmer holder ④ should be installed in such manner that it engages with cam ⑤ by 0.5mm (1/64") when the needle thread trimmer opens.

27 切刀落刀时期的调整 Timing for dropping the knife



拧松固定螺丝①，向箭头方向移动切刀动作凸轮②，切刀落刀时间提前，反则推迟。缝纫机停止的 2~3 针前让切刀落刀。

Loosen screw ①, and move knife tripping segment ② in the direction shown by the arrow, and the knife will drop earlier. adjust it so the knife drops two to three stitches before the machine stops.

28 有关缝制的故障、原因及处理方法 Trouble, cause, and remedy

现象	原因	处理方法
1、上线断线	(1) 第二线张力器过强。 (2) 拉线弹簧的强度、移动量过大。 (3) 旋梭尖有刺或有伤痕。 (4) 旋梭不同步。 (5) 线道有伤痕。 (6) 机针过细。	<ul style="list-style-type: none"> ● 减弱第二线张力器的张力。 ● 减弱拉线弹簧的弹力，或缩小移动量。 ● 磨平旋梭尖，或更换旋梭。 ● 用同步尺调整旋梭的同步。 ● 用布或锉刀磨平。 ● 更换成粗针。
2、上线脱线	(1) 上线切线剪打开过早。 (2) 放下压脚上线切刀便打开。 (3) 开始缝时不能为直锁眼缝。 (4) 上线的穿线方法不对。	<ul style="list-style-type: none"> ● 往后移动上线切线动作板B。 ● 往后移动上线切线动作板B。 ● 减弱第一线张力器的张力。 ● 正确穿线。
3、平行部缝迹不整齐	(1) 第二线张力器过弱。 (2) 挑线簧过强，活动范围小。 (3) 底线张力过强。	<ul style="list-style-type: none"> ● 增强第二线张力器。 ● 重新调整挑线弹簧。 ● 减弱底线张力。 (锯齿边缝0.15~0.2N)
4、始缝缝迹不整齐	(1) 第一线张力器过弱。 (2) 上线切线位置过高。 (3) 挑线簧活动范围过大。	<ul style="list-style-type: none"> ● 增强第一线张力器。 (0.15~0.3N) ● 降低高度，但不要碰到压脚。 ● 缩小挑线簧的活动范围，增大弹簧压力。
5、第一加固缝部上线从布的下面堆线	(1) 第一线张力器过弱。 (2) 底线张力过强。	<ul style="list-style-type: none"> ● 增强第一线张力器。 ● 减弱底线张力。 (0.15~0.2N)
6、缝迹鼓起	(1) 底线张力过弱。 (2) 底线从梭壳脱出。	<ul style="list-style-type: none"> ● 加强底线张力。 ● 正确的穿线。
7、跳线	(1) 压脚大，纽扣孔小。 (2) 布料薄。	<ul style="list-style-type: none"> ● 换成小压脚。 ● 推迟机针和旋梭的同步时间。 (把针杆约下降0.5mm左右)

Trouble	Cause	Remedy
1. Needle thread is broken.	<ol style="list-style-type: none"> (1) The tension of the tension controller No.2 is too tight. (2) The tension or the stroke of the take-up spring is too great. (3) Blade point of sewing hook has burr or scratches. (4) Poor timing of the sewing hook. (5) The thread path has scratches. (6) The needle is too thin. 	<ul style="list-style-type: none"> ● Decrease the tension of the tension controller No.2 ● Decrease the tension or the stroke of the take-up spring. ● Buff the blade point of the sewing hook or replat the sewing hook. ● Readjust the sewing hook s timing by the timing gauge. ● Buff the thread path by cloth files etc. ● Replace by a thick needle.
2. Thread slips out of the needle.	<ol style="list-style-type: none"> (1) The needle thread trimmer opens too early. (2) The needle thread trimmer opens when the work clamp check is coming down. (3) The whip stitch is not formed at the start of sewing. (4) Wrong threading. 	<ul style="list-style-type: none"> ● Move back the needle thread trimmer driving plate B. ● Move back the needle thread trimmer driving plate B. ● Decrease the tension of the tension controller No.1. ● Perform correct threading.
3. Wobbling stitches are formed in the overedging seams.	<ol style="list-style-type: none"> (1) The tension disc No.2 is too loose. (2) The tension and stroke of the take-up spring is not enough. (3) Bobbin thread tension is too high. 	<ul style="list-style-type: none"> ● Increase the tension of the tension disc No.2 ● Readjust the take-up spring. ● Decrease the bobbin thread tension (15 to 20g for purl stitches).
4. Wobbling stitches are formed at the start of sewing.	<ol style="list-style-type: none"> (1) The tension disc No.1 is too loose. (2) The position of the needle thread trimmer is too high. (3) The stroke of the take-up spring is too great. 	<ul style="list-style-type: none"> ● Increase the tension of the tension disc No. 1 (15 to 30g) ● Lower the trimmer as low as possible provided it does not come in contact with the work clamp check . ● Decrease the stroke of the take-up spring and increase the spring pressure.
5. The needle thread at the first bar tacking comes out and lumps on the bottom of cloth.	<ol style="list-style-type: none"> (1) The tension disc No.1 is too loose. (2) The bobbin thread tension is too high. 	<ul style="list-style-type: none"> ● Increase the tension of the tension disc No.1. ● Decrease the bobbin thread tension (15 to 20g).
6. Stitches float over cloth.	<ol style="list-style-type: none"> (1) Bobbin thread tension is not enough. (2) Bobbin thread slips out of the thread path of the bobbin case. 	<ul style="list-style-type: none"> ● Increase the bobbin thread tension. ● Properly thread the bobbin case.
7. Stitches are skipped .	<ol style="list-style-type: none"> (1) The work clamp check is too large for the buttonhole. (2) The cloth is made of light-weight materials . 	<ul style="list-style-type: none"> ● Change the work clamp check with a smaller one. ● Delay the time of the needle and the sewing hook . (Lower the needle bar by approx. 0.5mm (1/2"))

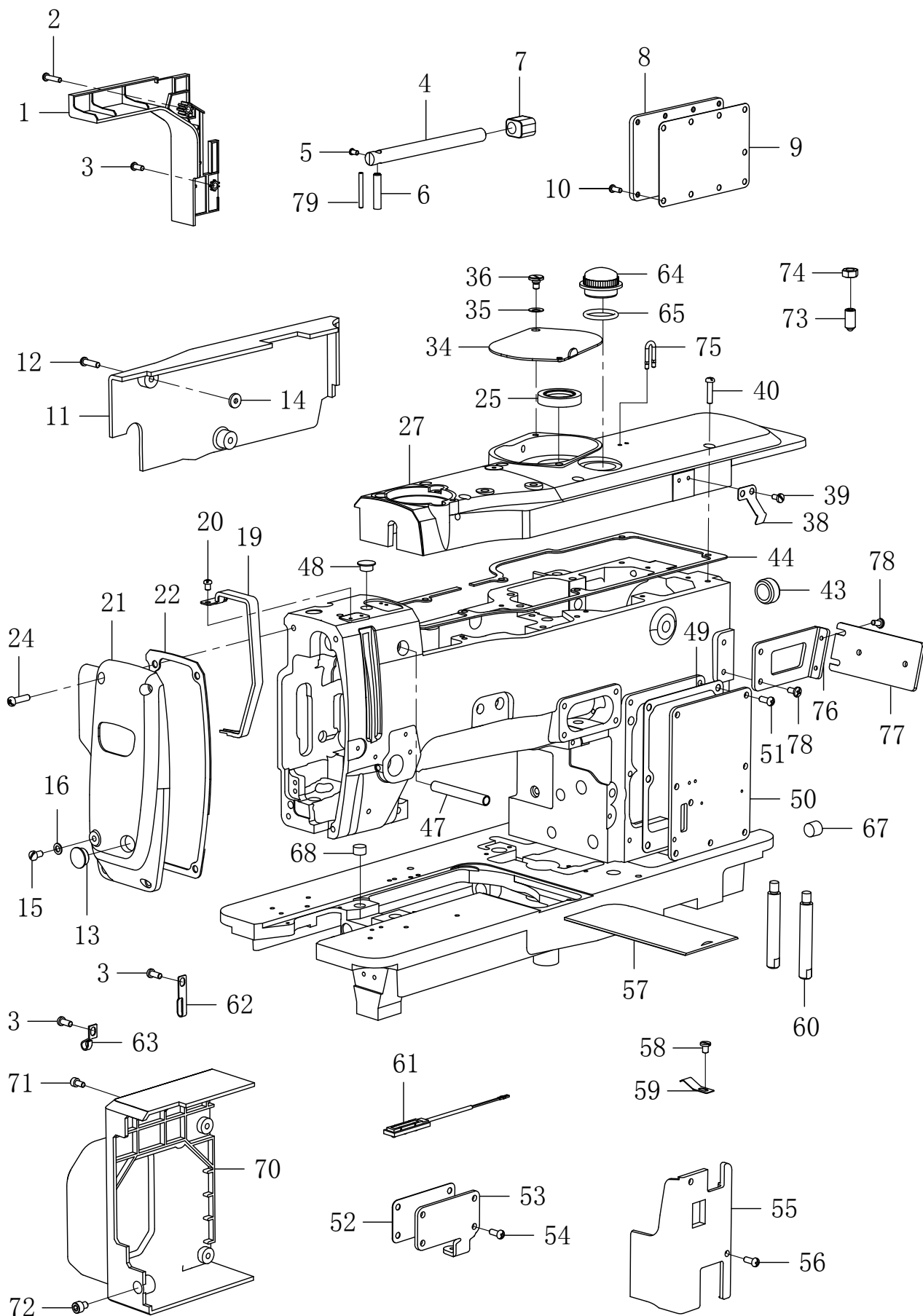
零件样本目录

Parts book contents

1、头部外装置部件.....	1
Frame & miscellaneous cover components	
2、上轴部件.....	3
Main shaft components	
3、下轴部件.....	5
Hook driving shaft components	
4、压脚棒、送布板部件.....	7
Presser bar.work clampcarrier components	
5、针棒摇动台部件.....	9
Needle bar frame components	
6、针摆幅调整部件	11
Overedging width adjusting components	
7、面线切刀部件	13
Needle thread trimmer components	
8、底线切刀部件	15
Bobbin thread trimmer components	
9、刀杆部件	17
Knife bar components	
10、送布凸轮部件.....	19
Feed cam & tripping segment components	
11、电控部件.....	21
Control box components	
12、手动停止部件.....	23
Safe protection components	
13、压脚提升架、绕线器部件.....	25
Lifting lever & bobbin winder components	
14、夹线器部件.....	27
Thread tension components	
15、给油装置部件.....	29
Lubrication mechanism components	
16、底线检测部件(选配).....	31
Bottom line detection mechanism(option parts)	
17、特殊类型部件	33
Special specifications components	

1、头部外装置部件

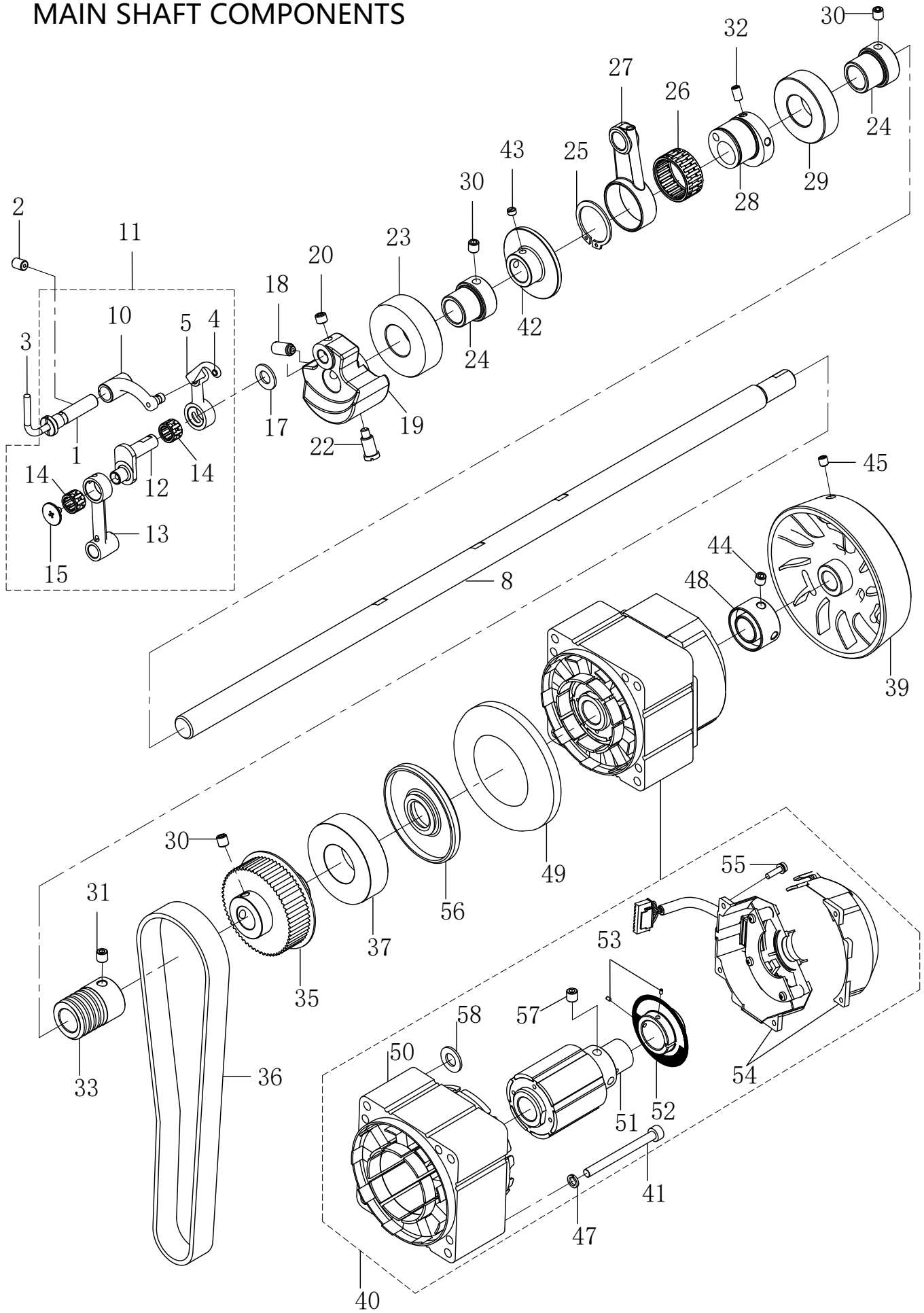
Frame & miscellaneous cover components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40211031	机壳侧盖	Frame side cover	1
2		402S11001	螺钉	Screw	3
3		402S11003	螺钉	Screw	1
4		40202001	机头支撑臂	Machine arm support rod	1
5		101S11002	螺钉	Screw	1
6		40226001	弹性圆柱销	Pin	1
7		40222001	橡胶缓冲垫	Rubber cushion	1
8		40212111	侧盖板	Side cover	1
9		40222002	侧盖板衬垫	Side cover gasket	1
10		402S11003	螺钉	Screw	7
11	140201010(漆前)	930000281 (漆后)	机壳侧盖	Frame side cover	1
12		402S11045	螺钉	Screw	2
13		40222005	面板塞	Face cover complete plug	1
14		140222002	缓冲垫	Cushion	2
15		402S11036	螺钉	Screw	1
16		40228008	垫片	Spacer	1
19	140204003(漆前)	930000278 (漆后)	挑线杆防护罩	Thread take-up lever oil gua	1
20		402S11004	螺钉	Screw	2
21	140201009(漆前)	930000283 (漆后)	面板	Face cover complete	1
22		140222003	面板衬垫	Gasket	1
24		402S11045	螺钉	Screw	4
25		40222007	油封	Oil seal	2
27	140201008(漆前)	930000282 (漆后)	顶盖	Top cover	1
34	140212016(漆前)	930000288 (漆后)	齿轮箱盖	Gear case cover	1
35		40228001	蝶形垫片	Butterfly gasket	1
36		402S20001	轴位螺钉	Hinge screw	1
38		40212004	手制动勾	Hand stop latch	1
39		402S11014	螺钉	Screw	2
40		402S11001	螺钉	Screw	6
43		40222009	橡胶插塞	Rubber plug	1
44		140222001	上顶盖衬垫	Top cover gasket rear	1
47		40203001	停刀杆轴导向	Knife stop lever shaft guide	1
48		40222011	橡胶插塞	Rubber plug	3
49		40222012	右侧盖板衬垫	Side cover gasket	1
50	40212098(漆前)	301293 (漆后)	左侧盖板	Side cover	1
51		402S11003	螺钉	Screw	7
52		40222013	油视窗衬垫	Gasket	1
53	40212006(漆前)	300509 (漆后)	侧盖	Side cover	1
54		402S11003	螺钉	Screw	4
55		40211032	侧盖板	Side cover	1
56		402S11003	螺钉	Screw	2
57		40212007	推板	Bed slide	1
58		101S11002	螺钉	Screw	1
59		40227041	推板簧	Bed slide spring	1
60		402S30003	底板支撑螺钉	Bed screw stud	2
61		40230011	LED灯	LED	1
62		41312003	线夹	Cable clamp	3
63		40112091	线夹	Cable clamp	3
64		40211003	油视窗	Oil sight window	1
65		40222014	油视窗垫片	Oil sight window gasket	1
67		40222016	盲孔塞	Rubber plug	5
68		40223001	油毡	Oil felt	2
70		140211004	步进电机侧盖	Motor side cover	1
71		413S13016	螺钉	Screw	2
72		413S13001	螺钉	Screw	1
73		402S30062	柱塞螺钉	Screw	1
74		402S16006	螺母	Nut	1
75		40913009	导线钩	Wire hppk	1
76		140212005	面板固定支架	Panel fixing bracket	1
77		140212006	面板连接板	Panel connection plate	1
78		403S11013	螺钉	Screw	6
79		40226056	弹性圆柱销	Pin	1

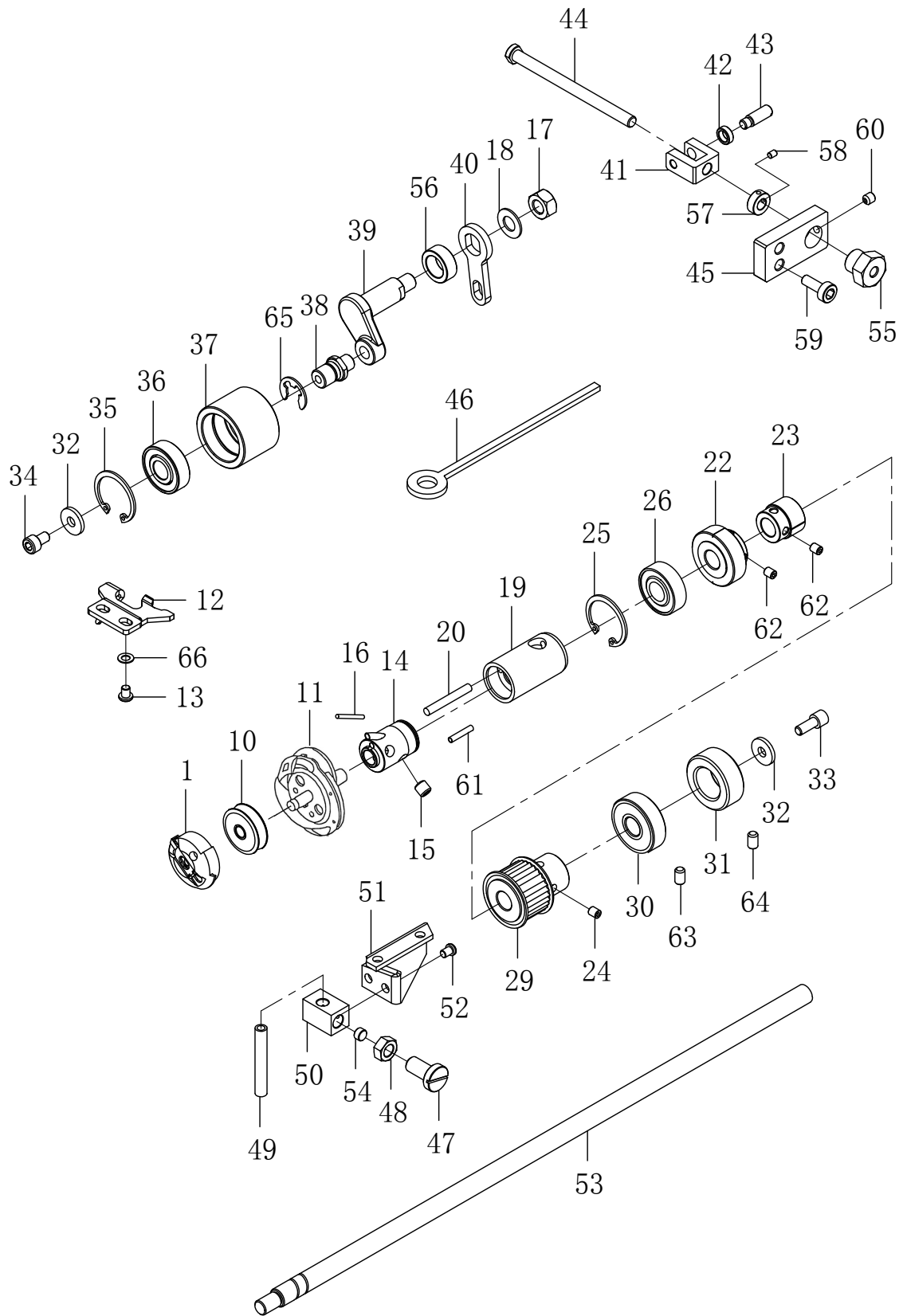
2、上轴部件

MAIN SHAFT COMPONENTS



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40226002	铰链销	Hinge stud	1
2		402S14001	螺钉	Screw	3
3		12923018	油线	Oil wick	1
6		40203002	过线套	Thread sleeve	1
7		40838003	挑线杆	Pikez line link	1
8		140202001	上轴	Main shaft	1
10		40238001	挑线连杆	Thread take up crank	1
11		4023800200	挑线杆组件	Link take up	1
12		40204001	针杆曲柄	Needle bar crank	1
13		40205001	针杆曲柄连杆	Needle bar crank connection rod	1
14		B07015	滚针轴承	Needle bearing	2
15		402S30004	左旋螺钉	End screw left	1
17		40228002	止推垫圈	Thrust washer	1
18		101S15004	螺钉	Screw	1
19		40204002	平衡块	Counter weight	1
20		402S14002	螺钉	Screw	2
22		101S11003	螺钉	Screw	1
23		B04009	轴承	Ball bearing	1
24		40203003	轴套	Ball bearing	2
25		H03012	挡圈	Thrust collar	1
26		B07016	滚动轴承	Roller bearing	1
27		40205002	刀杆驱动连杆	Knife bar driving connection rod	1
28		40210001	刀杆传动偏心凸轮	Knife bar driving eccentric cam	1
29		B02004	轴承	Ball bearing	1
30		402S14006	螺钉	Screw	6
31		409S14001	螺钉	Screw	2
32		402S14003	螺钉	Screw	2
33		40225001	蜗杆	Worm	1
35		4023503000	同步带轮组件	Shaft sprocket	1
36		40235003	同步带	Timing belt	1
37		40224006	轴承	Bearing	1
39	40235027(漆前)	302113 (漆后)	手轮	Hand weel	1
40		140233001	主轴电机	Servo mortor	1
41		S05157	电机安装螺钉	Screw	4
42		40235028	绕线轮	Bobbin winder driving wheel	1
43		402S15006	绕线轮螺钉	Screw	2
44		S09002	螺钉	Screw	2
45		207S11042	螺钉	Screw	2
47		W02057	弹簧垫片	Spring washer	4
48		10208001	电机防尘套	Dust cover	1
49		13811060	电机绝缘防护罩	Insulation shield	1
50		95100171	定子组件	Stator assembly	1
51		95100182	转子总成	Rotor assembly	1
52		95100116	光栅组件	Grating assembly	1
53		S09022	螺钉	Screw	2
54		19540000800	罩壳组件	Housing as	1
55		951S15011	螺钉	Screw	5
56		140222005	上轴油封	Oil seal	1
57		S09162	螺钉	Screw	1
58		20728006	垫片	Washer	1

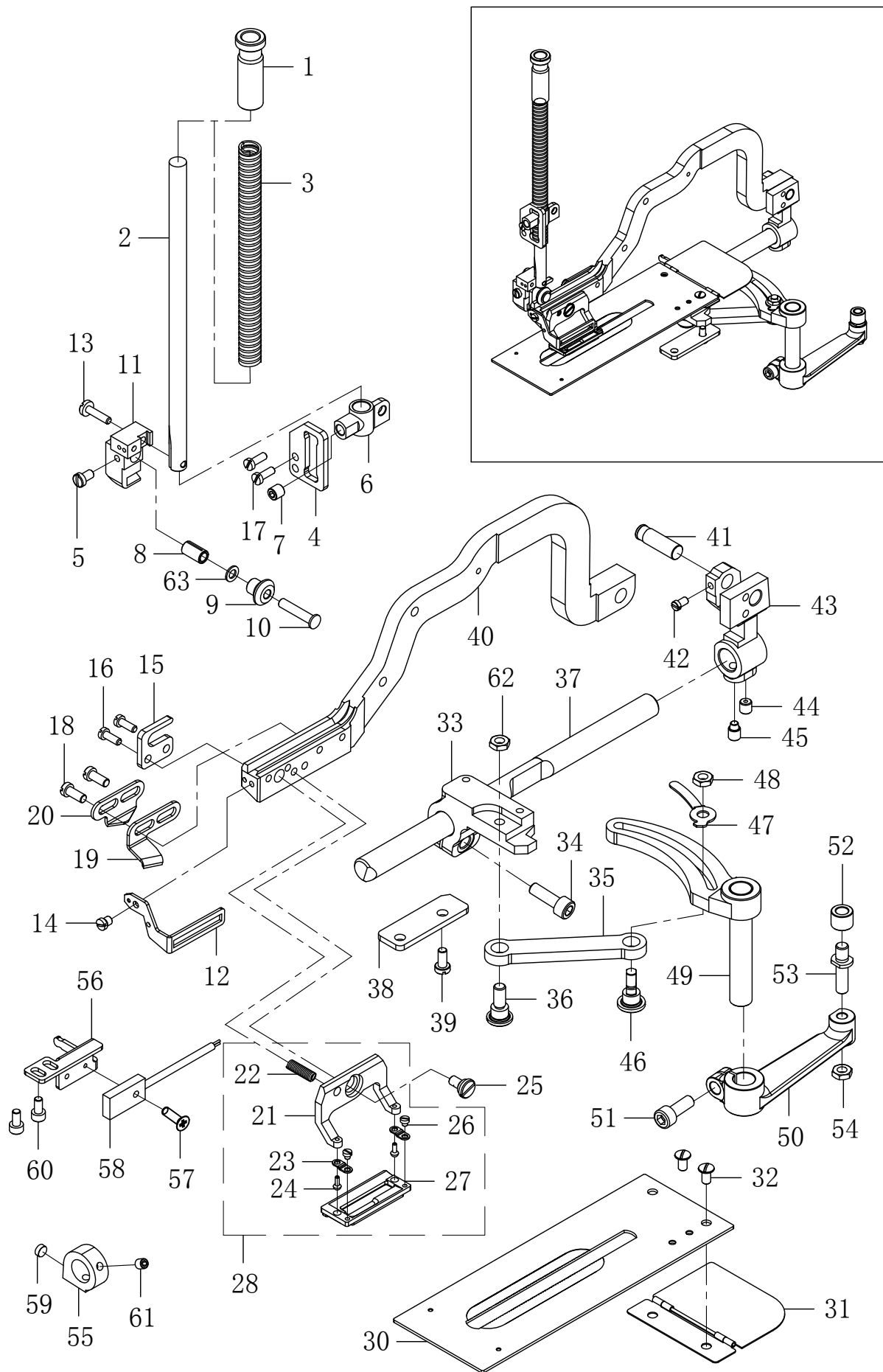
3、下轴部件 Hook driving shaft components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		4021800100	梭壳组件	Bobbin case asm	1
10		4021800200	梭子	Bobbin	2
11		4021800500	旋梭套组件	Hook c asm	1
12		40212010	梭壳定位板	Bobbin case positioning plate	1
13		402S11006	螺钉	Screw	2
14		4020300700	旋梭筒组件	Oil sleeve asm	1
15		101S14001	螺钉	Screw	4
16		40323013	油线	Oil wick	1
17		N01008	螺母	Nut	1
18		40228002	垫圈	Shrust washer	1
19		40203009	下轴前套	Bushing asm	1
20		12923018	油线	Oil wick	2
22		40225002	蜗杆	Worm lever	1
23		40225003	小齿轮	Pinion	1
24		402S14006	螺钉	Screw	2
25		H01009	挡圈	Thrust collar	1
26		B04012	轴承	Ball bearing	1
29		4023500700	小皮带链轮组件	Blet sprocket	1
30		40224004	轴承	Ball bearing	1
31		40208001	轴承固定挡圈	Collar	1
32		20628006	垫圈	Washer	2
33		402S13001	内六角平头螺钉	Screw	1
34		S05038	螺钉	Screw	1
35		H01009	挡圈	Thrust collar	1
36		B04012	轴承	Ball bearing	1
37		40235008	皮带张紧轮	Tension pulley	1
38		40226005	调节杠杆针	Adjusting lever pin	1
39		40205023	张紧轮连杆	Tension pulley link	1
40		40212102	调节配件	Adjusting guide	1
41		40204037	连接接头	Connector	1
42		40228031	垫片	Spacer	1
43		40226051	连接销	Connection pin	1
44		40205024	调节连杆	Adjusting link	1
45		40212103	固定板	Fixed plate	1
46		40223005	油毡	Oil felt	1
47		402S30009	旋梭调节润滑螺钉	Hookoil adjusting screw	1
48		402S16002	螺母	Nut	1
49		12921005	油管	Oil tube	0
50		40209002	调节润滑螺钉座	Oil adjusting screw base	1
51		40221004	调节润滑螺钉座架	Oil adjusting screw bracket	1
52		402S11004	十字槽盘头螺钉	Screw	2
53		40202039	下轴	Hook driving shaft	1
54		40226006	调节销	Adjusting oin	1
55		402S16026	调节螺母	Nut	1
56		40208014	挡圈	Thrust collar	1
57		41303002	挡圈	Thrust collar	1
58		413S14004	螺钉	Screw	2
59		S05004	固定板安装螺钉	Screw	2
60		S10002	螺钉	Screw	1
61		140221002	油管	Tube	1
62		201S14002	螺钉	Screw	4
63		403S14008	螺钉	Screw	1
64		403S14008	螺钉	Screw	1
65		H05011	卡簧	Card spring	1
66		W01024	垫圈	Washer	2

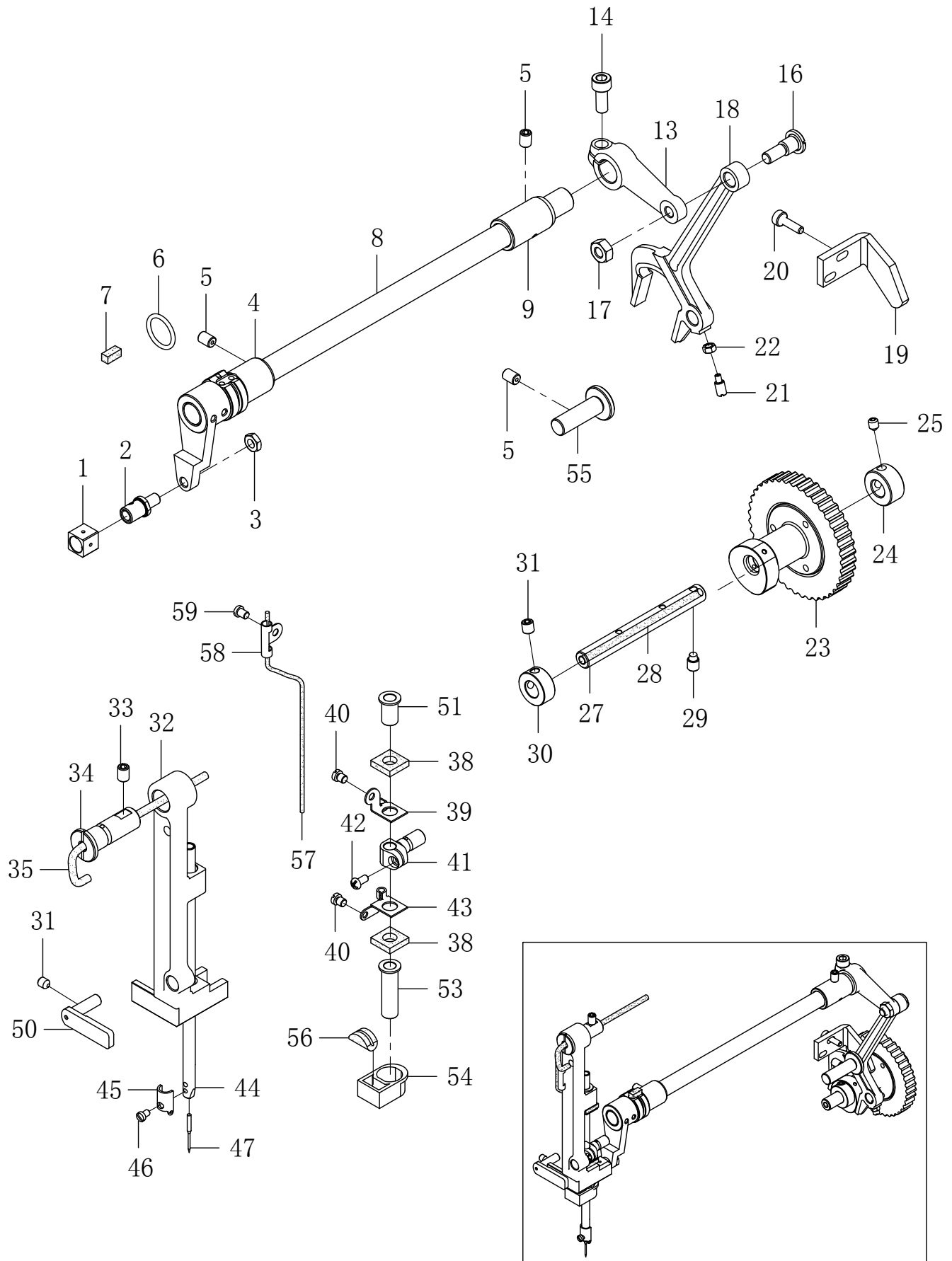
4、压脚棒、送布板部件

Presser bar.work clampcarrier components



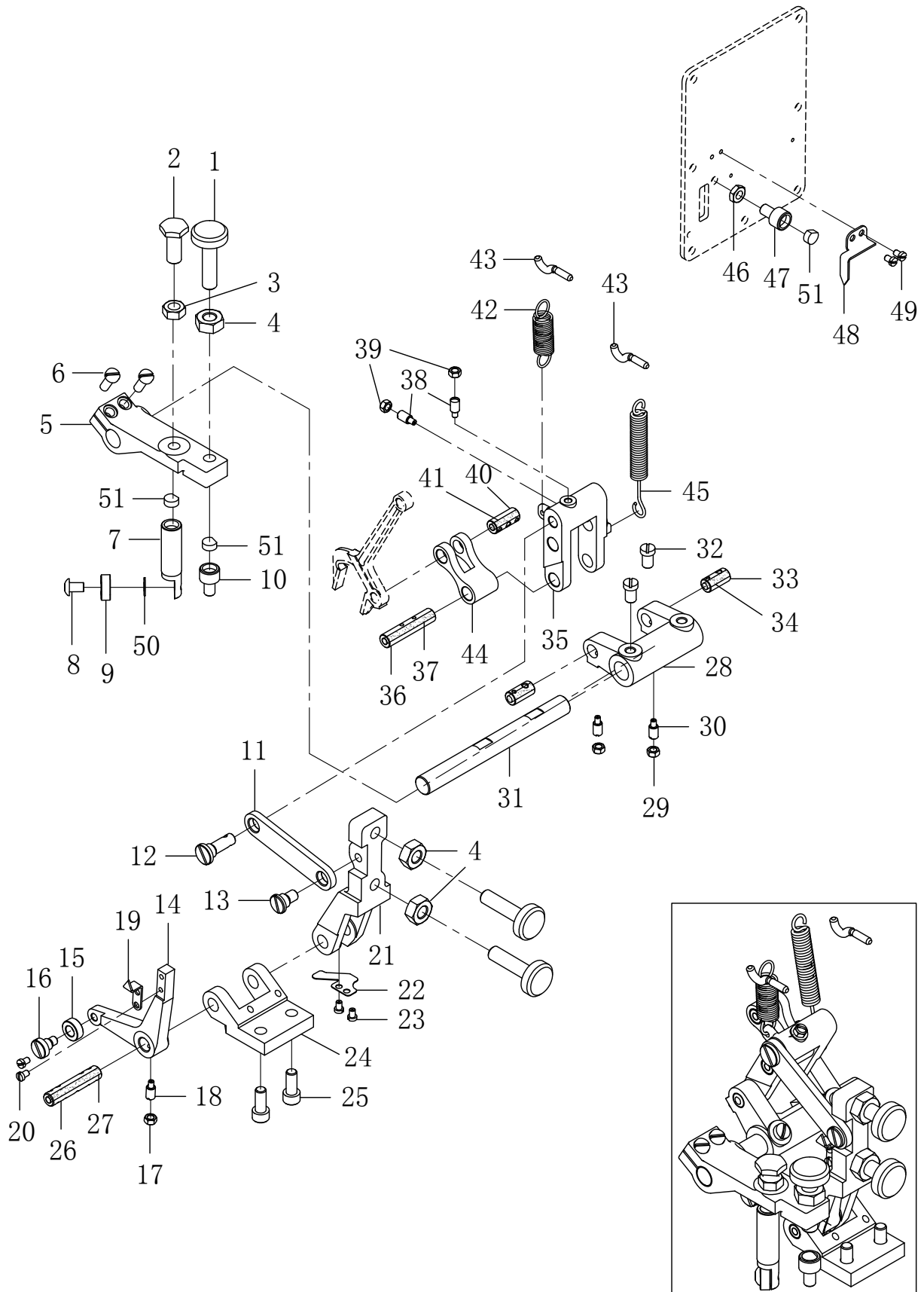
序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		402S30010	压簧调节手柄	Presser spring regulator	1
2		40202004	压棒	Presser bar	1
3		40227002	压簧	Presser spring	1
4		40212107	导向支架	Guide bracket	1
5		402S11036	螺钉	Screw	1
6		40209003	压棒定位架	Presser bar position bracket	1
7		409S14001	内六角平端紧定螺钉	Screw	1
8		40203010	套管	Collar	1
9		40209004	滑动滚轮	Slide roller	1
10		40226007	滑动滚轮销	Connecting pin	1
11		40209005	支架	Bracket	1
12		40212014	安全防护	Safe defend guide	1
13		402S30011	压棒螺钉	Screw	1
14		402S11022	螺钉	Screw	1
15		40212015	导向支架	Guide bracket	1
16		206S11002	螺钉	Screw	2
17		206S11002	螺钉	Screw	2
18		101S11020	螺钉	Screw	2
19		40212016	面线剪断器导架	Needlethread trimmer guide	1
20		40212017	面线剪断器导架	Needlethread trimmer guide	1
21		40216001	压脚板座	Work clamp check holder spring	1
22		40227003	压脚板座弹簧销	Work clamp check holder spring	1
23		40212018	压脚弹簧板	Work clamp check spring	2
24		40226008	压脚弹簧定位销	Work clamp check spring set pin	2
25		402S20002	轴位螺钉	Hinge screw	1
26		101S11019	螺钉	Screw	1
27		40216002	压脚板	Work clamp check	1
28		4021600300	压脚板座组件	Work clamp check holder asm	1
30		40212019	送布托板	Stitch plate	1
31		4021202000	支架盖板组件	Bracket cover	1
32		402S11007	螺钉	Screw	2
33		40201004	送布支架	Work clamp arm bracket asm	1
34		402S13011	螺钉	Screw	1
35		40205004	压脚臂支架	Work clamp carrier bracket pitman	1
36		402S20003	轴位螺钉	Hinge screw	1
37		40202005	压脚臂滑杆	Work clamp arm slide rod	1
38		40212023	送布托板支架导块	Work clamp carrier bracket guide	1
39		101S11011	螺钉	Screw	2
40		40201033	布料夹支架	Work clamp bracket	1
41		40226010	连接销	Connecting pin	1
42		201S11007	螺钉	Screw	1
43		40204031	托架	Bearing arm	1
44		402S14006	螺钉	Screw	1
45		402S30016	螺钉	Screw	1
46		402S30013	螺钉	Screw	1
47		40212024	调节送料长度轴导板	Length regulation shaft guide	1
48		401S16002	螺母	Nut	1
49		4020400400	调节送布长度刻度盘组件	Length regulation scale asm	1
50		40205005	送料臂	Bell crank	1
51		S05040	螺钉	Screw	1
52		40209006	滚子	Roller	1
53		40226012	曲柄滚子销	Bell crank roller stud	1
54		402S16003	螺母	Nut	1
55		40201074	磁铁座	Magnet base	1
56		40212118	传感器安装板	Sensor mounting platr	1
57		114S17001	螺钉	Screw	1
58		195430005	传感器	Sensor	1
59		40230006	磁铁	Magnet	1
60		413S13016	螺钉	Screw	2
61		207S11042	螺钉	Screw	2
62		402S16003	螺母	Nut	1
63		40228008	垫片	Space	1

5、针棒摇动台部件 Needle bar frame components



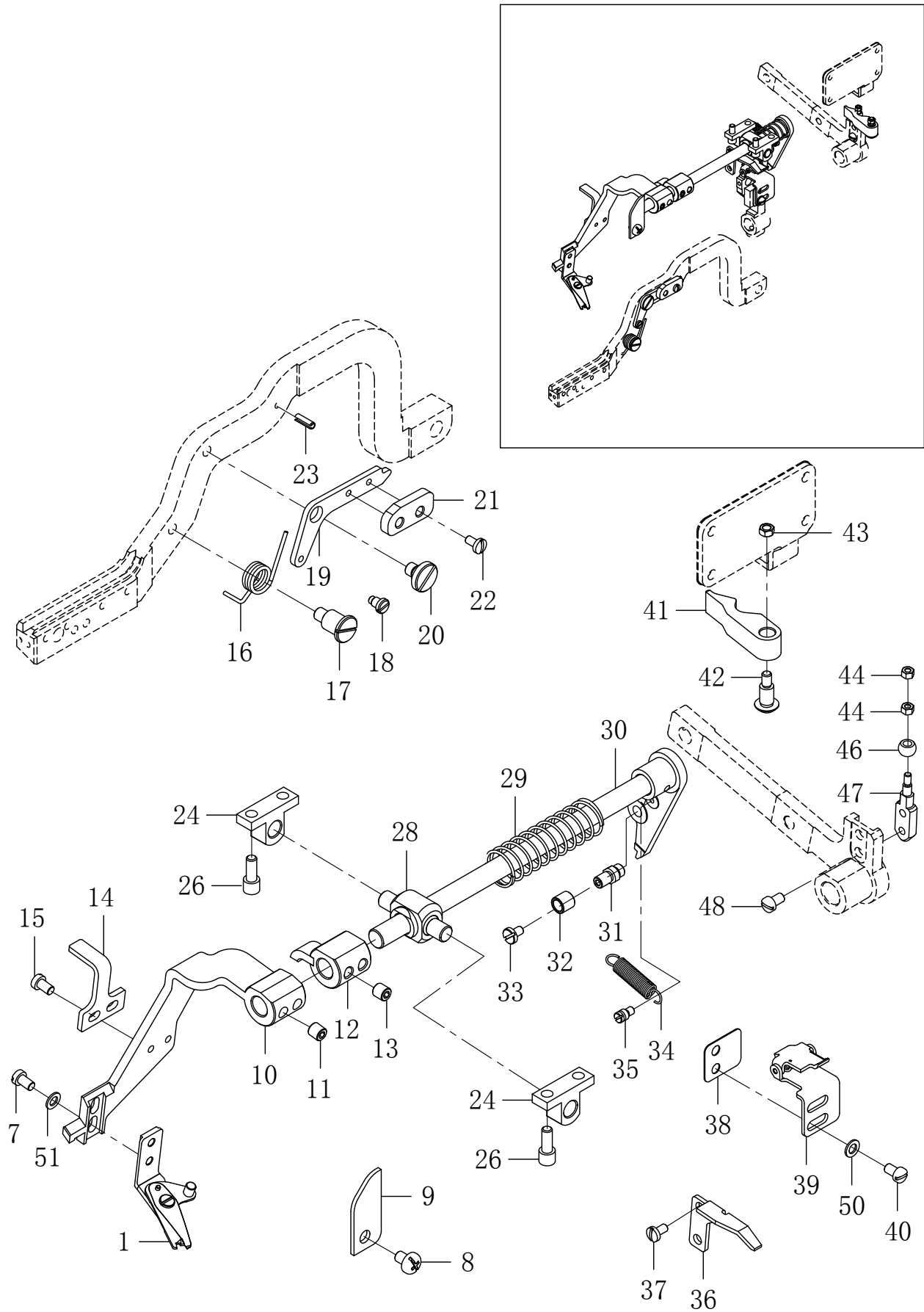
序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40209007	针杆架滑块	Needle bar connection slide block	1
2		1402NS30001	滑块销螺钉	Screw	1
3		402S16003	螺母	Nut	1
4		40203011	摇杆后轴套	Frame rock shaft bushing front	1
5		402S14001	螺钉	Screw	4
6		40222019	O型圈	Rubber	1
7		40223023	油芯	Oil wick	1
8		4020200700	摇杆轴组件	Frame rock shaft	1
9		40204006	摇杆后轴衬	Frame rock shaft bushing rear	1
13		40204007	摇杆后柄	Frame rock shaft crank front	1
14		402S13002	螺钉	Screw	1
16		402S20004	轴位螺钉	Hinge screw	1
17		409S16012	螺母	Nut	1
18		40204008	针杆摇杆	Needle bar pitman	1
19		40212025	摇杆连接导板	Rock shaft connection guide	1
20		S05049	螺钉	Screw	2
21		402S30015	螺钉	Screw	1
22		402S16005	螺母	Nut	1
23		4022500400	针驱齿轮组件	Needle driving gear	1
24		40208002	挡圈	Thrust collar	1
25		402S14006	螺钉	Screw	2
27		40203013	切刀驱动轴	Cam shaft	1
28		12923018	油线	Oil wick	1
29		402S30016	螺钉	Screw	1
30		40208003	挡圈	Thrust collar	1
31		S09011	螺钉	Screw	2
32		401009	针杆架	Needle bar frame	1
33		402S14001	螺钉	Screw	1
34		40226014	铰链销	Hinge stud	1
35		12923018	油线	Oil wick	1
38		40223009	油毡	Felt	2
39		40212028	油线高端固定板	Oil Felt retainer high	1
40		402S11022	螺钉	Screw	2
41		40205006	针杆连接杆	Needle bar connection	1
42		401S11003	螺钉	Screw	1
43		40212029	油线底端固定板	Oil Felt retainer lower	1
44		40202057	针杆	Needle bar	1
45		40213001	针杆导线架	Needle bar bobbin thread guide	1
46		201S11005	螺钉	Screw	1
47		40217002	机针 DP X5 12#	Needle DP X5 12#	5
50		40209028	固定导片	Position bracket	1
51		40203014	针杆套筒	Needle bar bushing	1
53		40203015	针杆套筒	Needle bar bushing	1
54		40211005	油毡架	Oil Felt retainer	1
55		40226015	轴心	Shaft	1
56		40223010	油毡	Oil Felt	1
57		40323013	油线2x2进口	Oil wick	1
58		40212026	油线夹	Clip	2
59		402S11004	螺钉	Screw	1

6、针摆幅调整部件 Overredging width adjusting components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		402S30017	线迹宽度调节螺钉	Stitch width regulation screw	3
2		402S11034	螺钉	Screw	1
3		402S16006	螺母	Nut	1
4		N01008	螺母	Nut	3
5		40201008	复位杆	Repositioning lever	1
6		101S11021	螺钉	Screw	2
7		40202010	离合杆	Tripping rod	1
8		402S30018	螺钉	Screw	1
9		B04013	轴承605Z	Ball bearing Regulating	1
10		402S30020	调节杆螺钉	lever stopper	1
11		40205007	调节杆连接板	Regulating lever cobbection	1
12		40226016	调节销	Regulatin hinge pin	1
13		402S20005	轴位螺钉	Hinge screw	1
14		40204009	指示曲柄	Bell crank	1
15		40209008	滚轮	Roller	1
16		402S20006	轴位螺钉	Hinge screw	1
17		402S16005	螺母	Nut	1
18		402S30015	螺钉	Screw	1
19		40212031	刻度指示针	Barred width indicator	1
20		101S11006	螺钉	Screw	2
21		40201009	调节叉杆	Regulating lever	1
22		40227004	弹簧板	Spring	1
23		101S11006	螺钉	Screw	2
24		40204038	调节叉杆座	Regulating lever bracket	1
25		401S13001	螺钉	Screw	2
26		40202011	调节曲柄	Regulating lever shaft	1
27		12923018	油线	Oil wick	1
28		40204011	轴承座	Bearing bracket	1
29		402S16005	螺母	Nut	2
30		402S30015	紧定螺钉	Screw	2
31		40202012	针摆复位轴	Needle throw repositioning shaft	1
32		402S11012	螺钉	Screw	2
33		40226017	连接销	Bearing bracket	2
34		12923018	油线	Oil wick	2
35		40204012	叉型连杆	repositioning lever link	1
36		40226019	连接销	Connecting forked link pin	1
37		12923018	油线	Oil wick	1
38		402S30015	螺钉	Screw	2
39		402S16005	螺母	Nut	2
40		40226018	连接销	Connecting stud	1
41		12923018	油线	Oil wick	1
42		40227005	弹簧	Spring	1
43		402S30021	悬挂螺钉	Suspension screw	2
44		40204013	叉型连杆	Connecting forked link	1
45		40227006	拉簧	Spring	1
46		402S16003	螺母	Nut	1
47		402S30020	调节限位螺钉	Regulating lever stopper	1
48		40212032	缝宽指示针	Seam width indicator	1
49		101S11006	螺钉	Screw	2
50		40228028	轴承垫片	Space	1
51		40211006	止动橡皮	Stop rubber	3

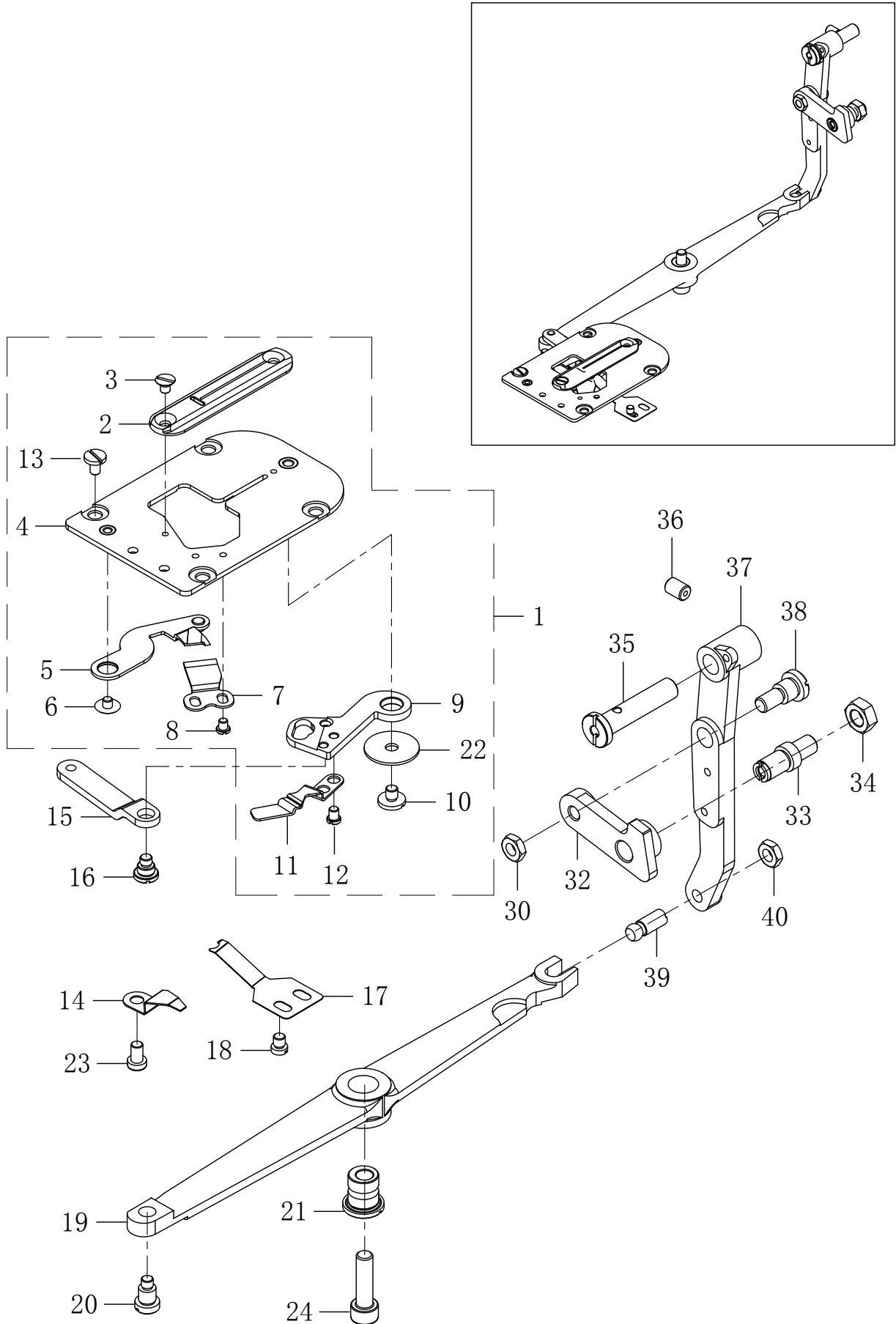
7、面线切刀部件 Needle thread trimmer components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		4021900100	面线剪刀组件	Needle thread trimmer asm	1
7		402S11036	螺钉	Screw	2
8		402S11013	螺钉	Screw	1
9		40212033	面线器轴导板	Needle thread trimmer shaft guide	1
10		40212094	保持架组件	Thread trimmer	1
11		409S14001	螺钉	Screw	2
12		4020301600	微调保持组件	Thread trimmer holder	1
13		409S14001	螺钉	Screw	2
14		40212036	限位板	Limiting plate	1
15		402S11036	螺钉	Screw	2
16		40227008	转矩弹簧	Driving cam spring	1
17		402S20008	传动凸轮转矩弹簧轴	Driving cam spring axle	1
18		402S20009	轴位螺钉	Hinge screw	1
19		40212037	传动凸轮安装板	Driving cam installing plate	1
20		402S20010	轴位螺钉	Hinge screw	1
21		40212038	传动凸轮板	Driving cam	1
22		402S11014	螺钉	Screw	2
23		P03029	销3x10	Spring pin	1
24		40201010	支架	Bracket	2
26		402S13001	螺钉	Screw	4
28		40226022	万象接头	Universal joint	1
29		40227009	弹簧	Spring	1
30		4020201300	面线剪刀轴组件	Needle thread trimmer shaft	1
31		40226023	滚轮销	Stud	1
32		40209029	滚子	Cam roll	1
33		402S11015	螺钉	Screw	1
34		40227010	切刀弹簧	Spring	1
35		402S30022	悬挂螺钉	Suspension screw	1
36		40212039	压脚臂锁	Latch presser arm	1
37		402S11014	螺钉	Screw	2
38		40212040	垫片(选用)	Spacer	1
39		4021204100	锁架组件	Locking bracket latch	1
40		402S11036	螺钉	Screw	2
41		40209010	剪线轴顶块	Thread trimming shaft segment	1
42		402S20011	轴位螺钉	Hinge screw	1
43		402S16005	螺母	Nut	1
44		402S16007	螺母	Nut	2
46		40209011	滚柱	Roller	1
47		40204015	嵌件	Stud	1
48		402S11036	螺钉	Screw	2
50		40228008	垫片	Washer	2
51		40228008	垫片	Washer	2

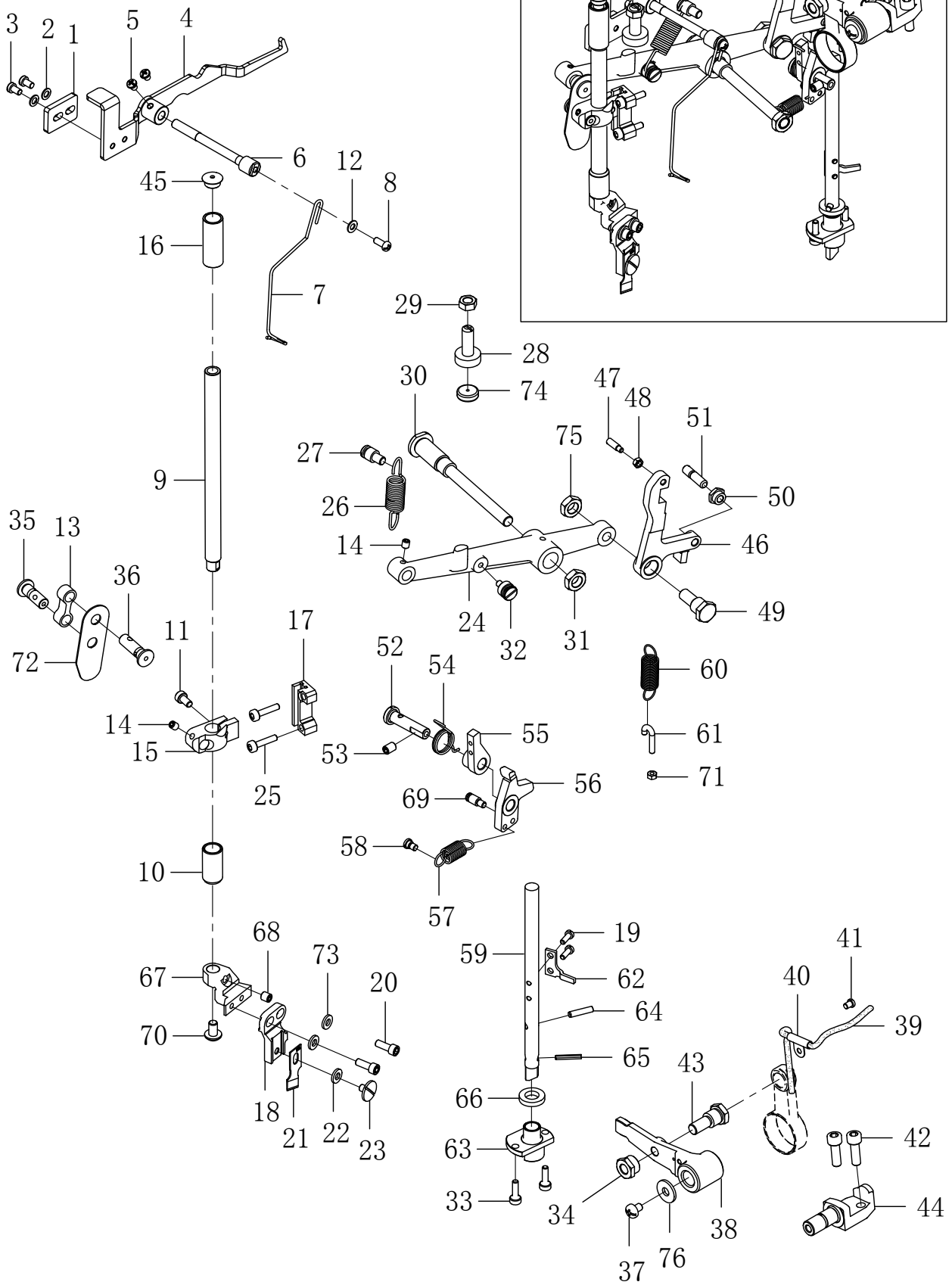
8、底线切刀部件

Bobbin thread trimmer components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		4021500100	剪底线器组件	Bobbin thread trimmer asm	1
2		40215002	针板组件	Needle plate	1
3		402S17001	螺钉	Screw	2
4		4021500300	针板座组件	Throat plate base	1
5		4021900500	剪底线动刀	Bobbin thread trimmer	1
6		402S30023	螺钉	Screw	1
7		40219007	底线切刀固定刀	Counter knife	1
8		402S11016	螺钉	Screw	2
9		40204016	底线切刀杆	Bobbin thread trimmer lever	1
10		40S11017	螺钉	Screw	1
11		40219008	底线拉杆	Bobbin thread puller	1
12		402S11018	螺钉	Screw	2
13		402S11030	螺钉	Screw	4
14		40227012	压板	Presser plate	1
15		40212044	剪底线连杆	Bobbin thread trimmer link	1
16		402S20012	铰链螺钉	Screw	1
17		40227013	底线导向板	Bobbin thread guide	1
18		402S11022	螺钉	Screw	2
19		40205008	剪底线传动杆	Bobbin thread trimmer driving levi	1
20		402S20013	螺钉	Screw	1
21		40210004	套筒	Sleeve	1
22		40228009	垫圈	Washer	1
23		402S11036	螺钉	Screw	1
24		S05042	螺钉	Screw	1
30		402S16003	螺母	Nut	1
32		40205019	凸轮连杆	Connecting link	1
33		402S30058	止动限位螺钉	Stope screw	1
34		402S16008	螺母	Nut	1
35		40226026	铰链螺栓	Hinge stud	1
36		402S14001	内六角凹端紧定螺钉	Screw	1
37		40205010	底线剪刀驱动杆	Bobbin thread trimmer driving arm	1
38		402S20014	轴位螺钉	Hinge screw	1
39		402S30025	球形螺钉	Ball screw	1
40		402S16003	螺母	Nut	1

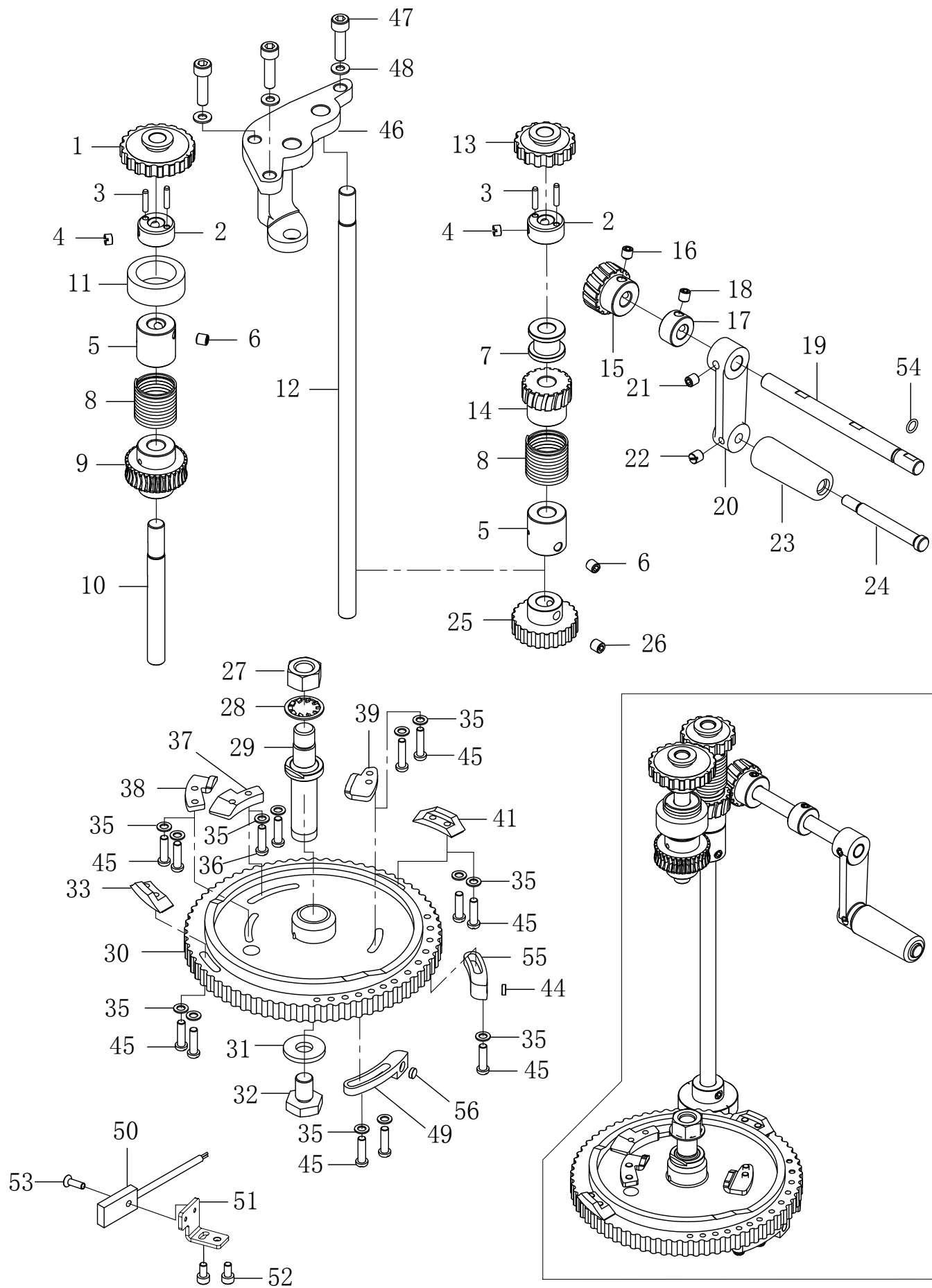
9、刀杆部件 Knife bar components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40212045	停刀杆架平衡块	Knife stop lever bracket	1
2		40228008	垫片	Washer	2
3		402S11036	螺钉	Screw	2
4		14021201500	停刀杆架组件	Knife stop lever	1
5		402S11006	螺钉	Screw	2
6		140202002	停刀杆架铰链螺栓	Knife stop lever hinge stud	1
7		40213002	线检测钢丝	Thread check wire	1
8		402S11003	螺钉	Screw	1
9		40202016	刀杆	Knife bar	1
10		40203021	刀杆套筒	Knife bar bushing	1
11		402S13009	螺钉	Screw	1
12		W01013	垫片	Spacer	1
13		40205011	刀杆连杆	Knife bar connecting link	1
14		402S30052	螺钉	Screw	2
15		40201011	刀杆定位架	Knife bar position bracket	1
16		40203022	套筒	Knife bar bushing	1
17		40209037	刀杆导引	Knife bar guide	1
18		40209013	刀固定架	Knife holder	1
19		206S11002	螺钉	Screw	2
20		402S13005	螺钉	Screw	2
21		40219009	刀片1/2"	Knife 1/2"	1
22		40228010	垫片	Washer	1
23		125S11015	螺钉	Screw	1
24		40201012	刀杆传动杆	Knife bar driving lever	1
25		302S09010	螺钉	Screw	2
26		40227014	拉簧	Spring	1
27		402S30026	铰链销螺钉	Hinge screw	1
28		402S30027	螺钉	Screw	1
29		402S16002	螺母	Nut	1
30		40202046	刀杆传动杆轴	Knife bar driving lever shaft	1
31		402S16025	螺母	Nut	1
32		402S20015	轴位螺钉	Hinge screw	1
33		S05049	螺钉	Screw	2
34		402S16010	刀杆传动曲柄螺母	Knife bar driving crank nut	1
35		40226027	连杆销	Connecting link pin	1
36		40226028	连杆销	Connecting link pin	1
37		402S11013	螺钉	Screw	1
38		40204017	刀杆传动杆曲柄	Knife bar driving crank	1
39		12923018	油线	Oil wick	1
40		40212026	油线支架	Oil wick holder	1
41		402S11004	螺钉	Screw	1
42		402S13011	螺钉	Screw	2
43		402S20016	铰链螺钉	Hinge screw	1
44		40204018	刀杆传动曲柄轴	Knife bar driving crank shaft	1
45		40222020	橡皮塞	Rubber plug	1
46		40201013	刀杆传动杆	Knife bar driving lever bell crank	1
47		402S30028	螺钉	Screw	1
48		402S16005	螺母	Nut	1
49		402S20017	轴位螺钉	Hinge screw	1
50		402S16011	螺母	Nut	1
51		40226029	偏心销	Pin	1
52		40226030	铰链螺栓	Hinge stud	1
53		402S14001	螺钉	Screw	1
54		40227015	扭簧	Tension screw	1
55		40210005	棘轮爪(B)	Ratchet pawl(B)	1
56		40210006	棘轮爪(A)	Ratchet pawl(A)	1
57		40227016	拉簧	Tension spring	1
58		402S20018	轴位螺钉	Hinge screw	1
59		40202018	传动杆	Driving rod	1
60		40227017	拉簧	Tension spring	1
61		402S30030	悬挂螺钉	Suspension screw	1
62		40212048	指形板	Finger	1
63		40203023	传动杆定位架	Driving rod position bracket	1
64		P01008	销4×18	Position pin	2
65		P01011	销钉	Position pin	1
66		40222023	止推垫圈	Thrust washer	1
67		40209014	刀座固定架	Knife holder position bracket	1
68		402S14006	螺钉	Screw	1
69		402S30029	弹簧悬置螺钉	Screw	1
70		402S30031	螺钉	Screw	1
71		402S16017	螺母	Nut	1
72		40222021	垫片	Spacer	1
73		40228010	垫片	Washer	2
74		40222022	止动垫	Spacer	1
75		402S16021	螺母	Nut	1
76		40228011	垫片	Spacer	1

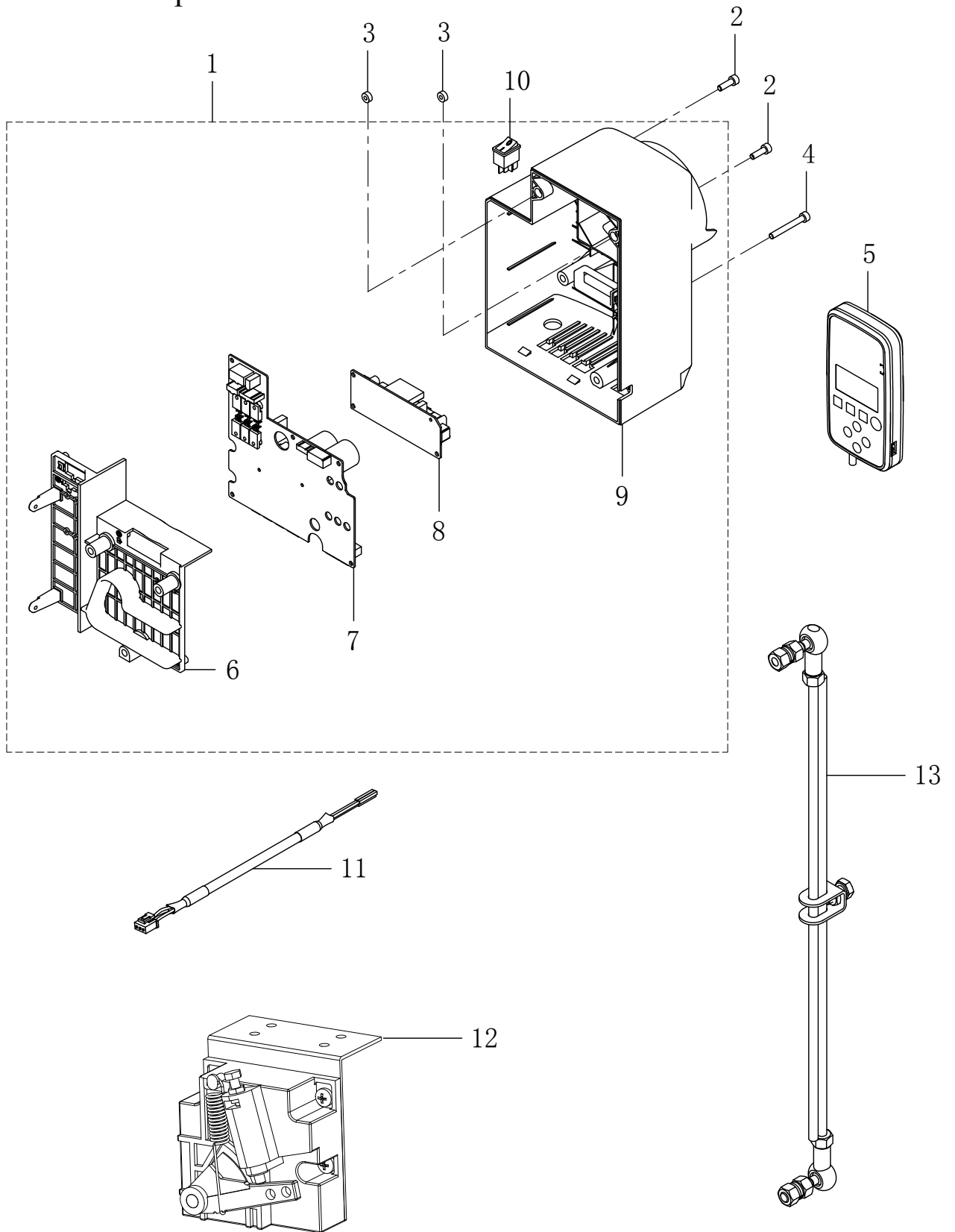
10、送布凸轮部件

Feed cam & tripping segment components



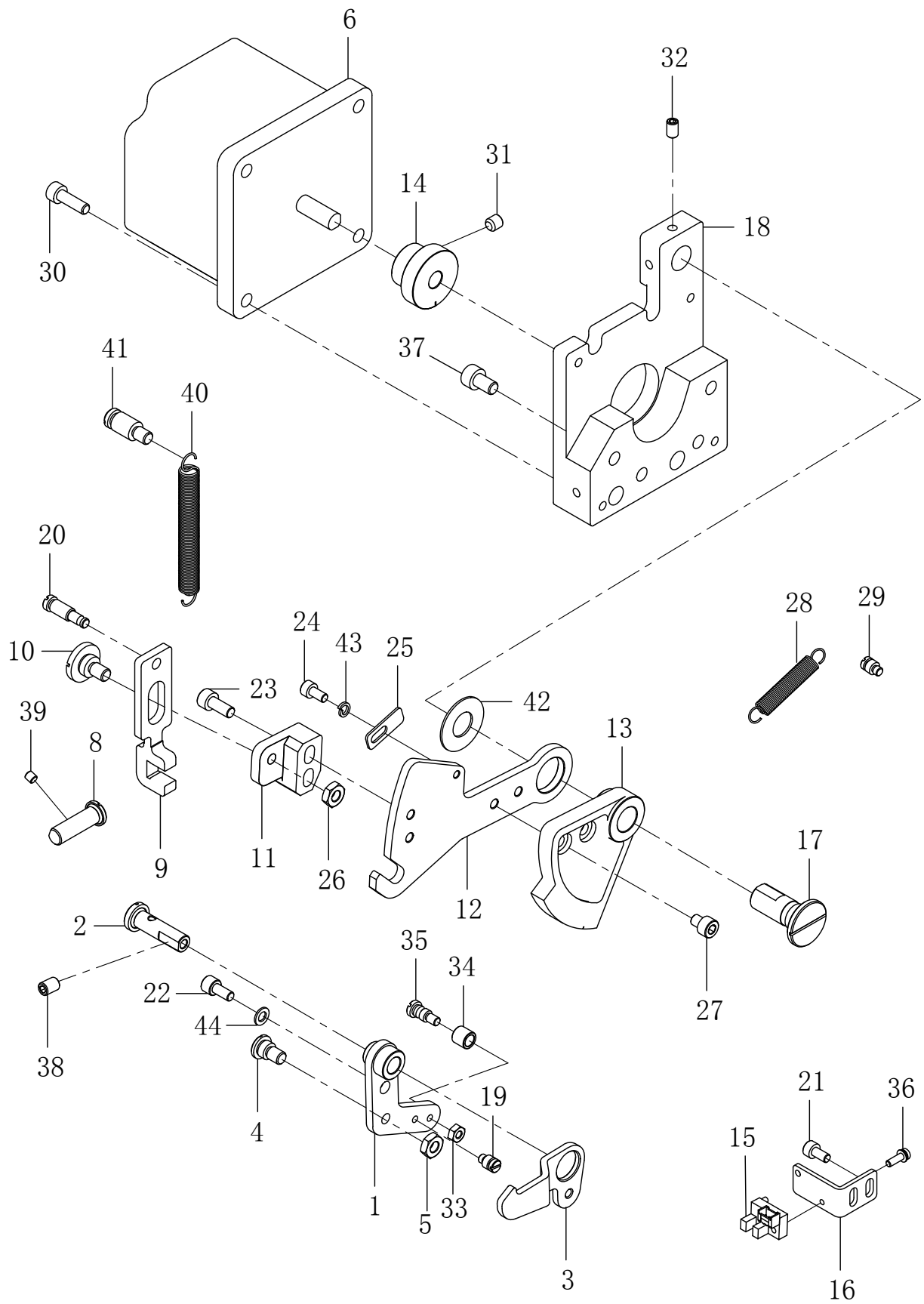
序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40225006	直齿轮	Spur gear	1
2		4020800400	正齿轮轴套组件	Spur gear bushing	2
3		40226031	正齿轮定位销	Spur gear bushing pin	4
4		409S15004	螺钉	Screw	4
5		40203024	离合环	Clutch collar	2
6		402S14006	螺钉	Screw	4
7		40203025	固定套管	Position bushing	1
8		40227018	离合器弹簧	Clutch spring	2
9		40225007	传动蜗轮	Feed cam driving worm wheel	1
10		40202019	传动蜗轮轴	Feed cam driving worm wheel shaet	1
11		40223016	油毡	Collar	1
12		40202020	送布凸轮传动蜗轮轴	Feed cam driving	1
13		40225008	直齿轮	Spur gear	1
14		40225009	手摇曲柄左齿轮	Handle crank bevel gear left	1
15		40225010	手摇曲柄右齿轮	Handle crank bevel gear reght	1
16		S09002	螺钉	Screw	2
17		40208006	挡圈	Thrust collar	1
18		402S14006	螺钉	Screw	2
19		40202021	手摇曲柄轴	Handle crank shaft	1
20	40204019 (漆前)	300847 (漆后)	手摇曲柄	Handle shaft	1
21		402S14006	螺钉	Screw	1
22		402S15002	螺钉	Screw	1
23		140211006	手柄	Handle shaft	1
24		40202022	手柄轴	Handle shaft	1
25		40225011	送布凸轮传动齿轮	Feed cam driving gear	1
26		409S14001	螺钉	Screw	2
27		N01010	螺母	Nut	1
28		40228012	垫片	Thrust washer	1
29		40202023	送布凸轮轴	Feed cam shaft	1
30		40210007	送布凸轮	Feed cam	1
31		40228013	垫片	Washer	1
32		402S11027	螺钉	Screw	1
33		40209015	加固离合块	Bar tripping segment	1
35		40228008	垫片	Washer	13
36		402S11001	螺钉	Screw	2
37		40209016	切刀离合块	Knife tripping segment	1
38		40212049	松线离合块	Tension release tripping segment	1
39		40212050	松线离合块	Tension release tripping segment	1
41		40209015	加固离合块	Bar tripping segment	1
44		40230006	磁铁	Magnet	1
45		402S11045	螺钉	Screw	11
46		40209020	齿轮定位架	Gear position bracket	1
47		125S13001	螺钉	Screw	3
48		40228017	垫片	Spacer	3
49		40209038	低速感应块	Low speed sensing block	1
50		195430004	传感器	Sensor	1
51		140212019	传感器安装板	Sensor fitting plate	1
52		413S13016	螺钉	Screw	2
53		114S17001	螺钉	Screw	1
54		40222050	O型圈	Collar	1
55		40209040	减速块	Deceleration block	1
56		140230010	磁铁	Magnet	1

11、电控部件 Control box components



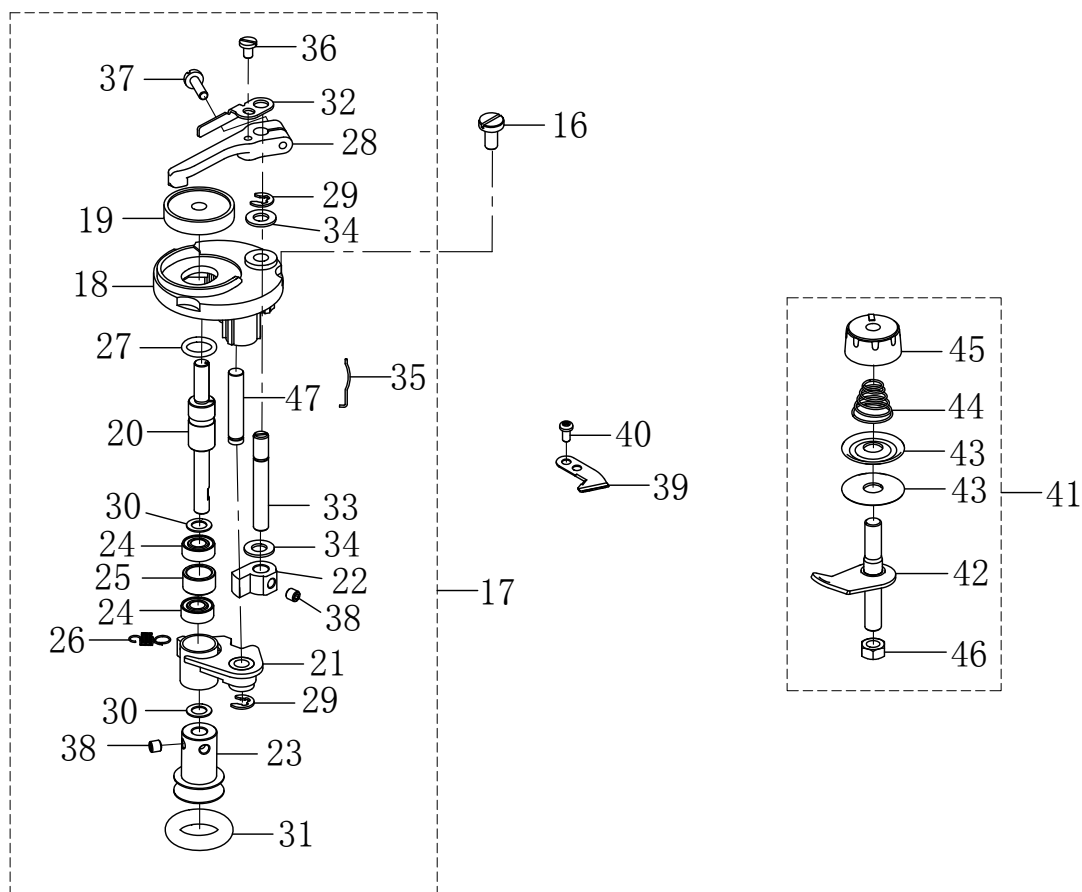
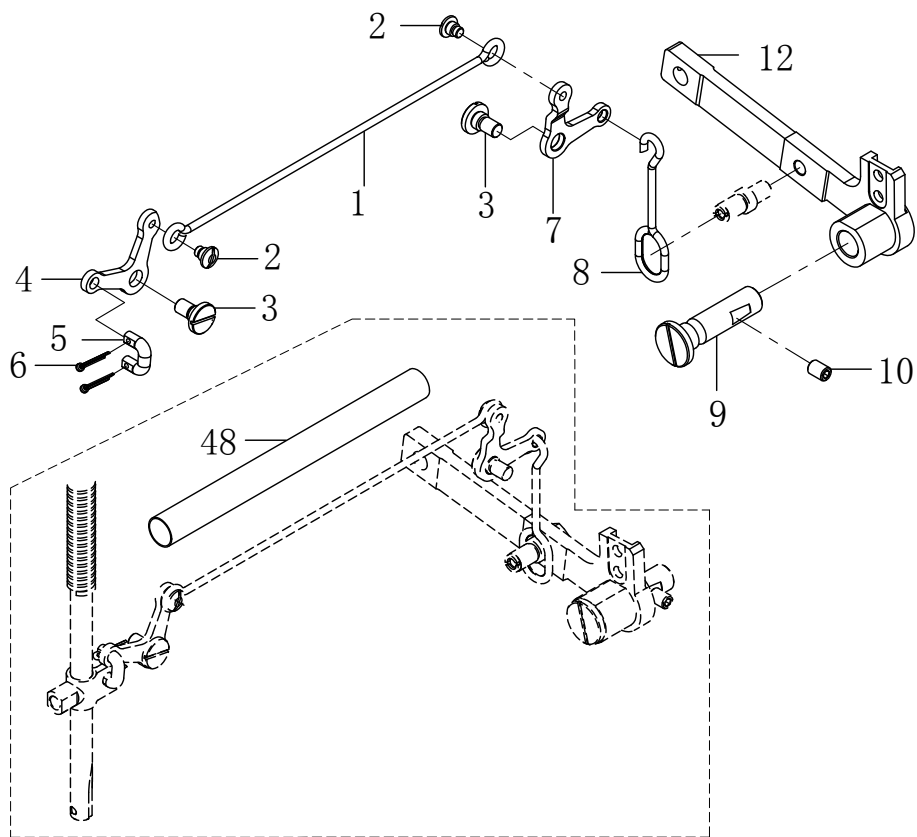
序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		14023000200	电控组件	Control box asm	1
2		114S13001	螺钉	Screw	2
3		140222004	橡胶垫圈	Bubber washer	2
4		S05069	螺钉	Screw	3
5		140230003	操作屏	Operation panel	1
6		195401006	散热底板	Thermolytic baseplate	1
7		199500203	主板电路板	Main circuit board	1
8		195400014	步进电路板	Stepping circuit board	1
9		195411002	控制器罩壳	Controller housing	1
10		99000024	开关	Switch	1
11		199300061	XHB-3Y转接线	Adapter line	1
12		140231029	调速器	Speed controller	1
13		195000025	拉杆组件	Drawber	1

12、手动停止部件 Safe protection components



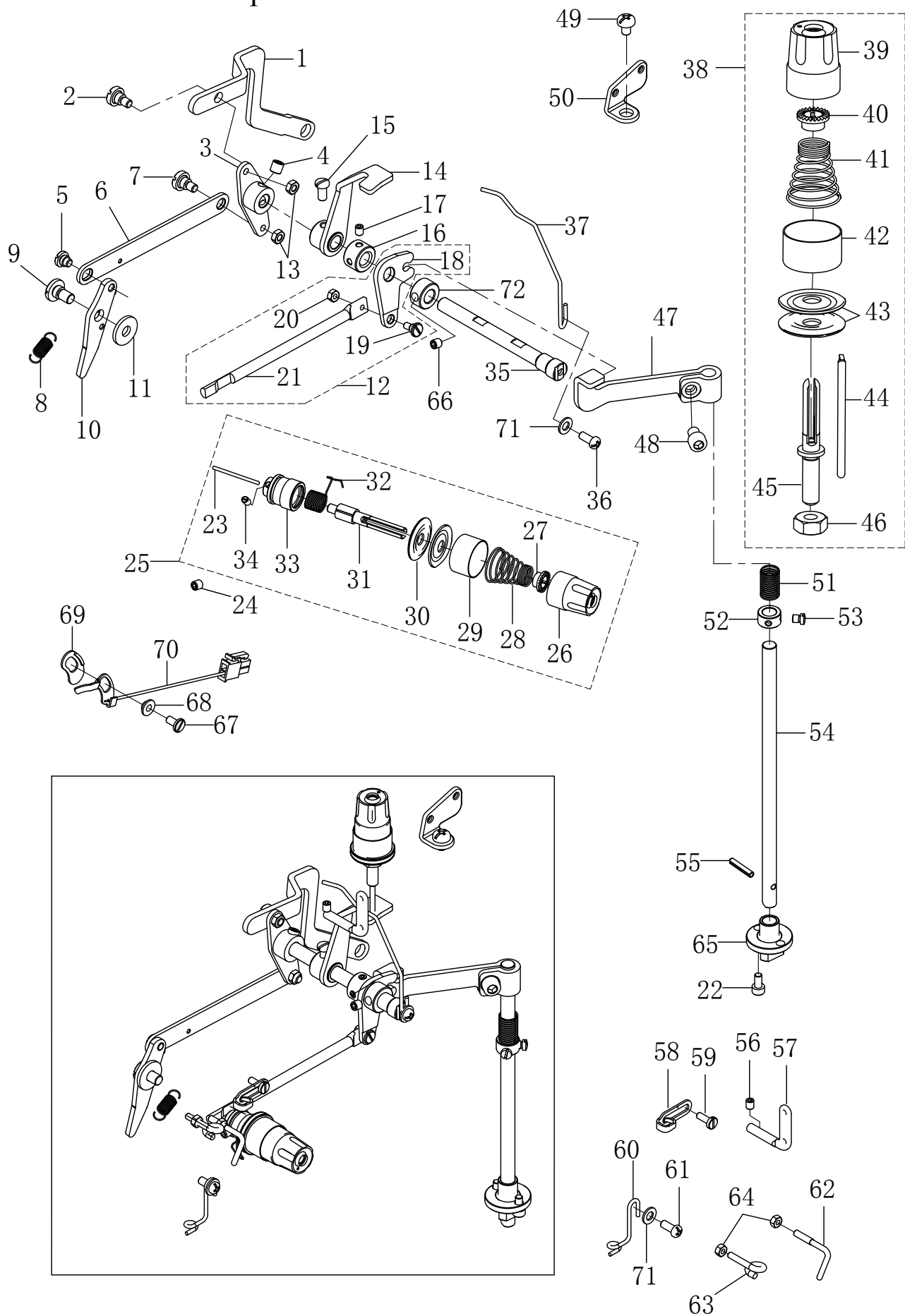
序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		4021212400	启动架组件	Starting material	1
2		40226053	铰链螺栓	Hinge bolt	1
3		40212133	安全底座	Security base	1
4		402S20005	轴位螺钉	Hinge screw	1
5		402S16003	螺母	Nut	1
6		40230008	步进电机	Stepping motor	1
8		402S30061	滚子连接销	Roller connecting pin	1
9		40201071	压板	Pressing plate	1
10		402S20037	轴位螺钉	Hinge screw	1
11		40209049	压板座	Clamp holder	1
12		40212112	机械锁启动板	Mechanical lock start	1
13		40225019	从动齿轮	Follower gear	1
14		40225020	主动齿轮	Drive gear	1
15		195430003	传感器	Sensor	1
16		40212113	传感器安装板	Sensor mounting panel	1
17		40226052	连接销	Connecting link pin	1
18		40201072	电机安装座	Motor mounting	1
19		413S30016	螺钉	Screw	1
20		413S30013	挂簧螺钉	Screw	1
21		413S13016	螺钉	Screw	2
22		402S13014	螺钉	Screw	1
23		207S13009	螺钉	Screw	2
24		413S13016	螺钉	Screw	1
25		41312096	传感器检测板	Sebsor	1
26		N01012	螺母	Nut	2
27		413S13001	螺钉	Screw	2
28		41327008	弹簧	Presserspring	1
29		413S30016	挂簧螺钉	Screw	1
30		S05124	螺钉	Screw	4
31		S09002	螺钉	Screw	2
32		403S14008	螺钉	Screw	2
33		N01001	螺母	Nut	1
34		41303024	滚柱	Pin roller	1
35		413S30015	滚子连接螺钉	Screw	1
36		413S13026	螺钉	Screw	1
37		413S13005	螺钉	Screw	4
38		402S14001	螺钉	Screw	1
39		413S14006	螺钉	Screw	1
40		40227054	弹簧	Spring	1
41		402S30032	悬挂螺钉	Suspension screw	1
42		40228034	垫片	Washer	1
43		W02002	弹簧垫圈	Washer	1
44		40228008	垫片	Washer	1

13、压脚提升架、绕线器部件 Lifting lever & bobbin winder components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40205012	压棒提升拉杆	Presser bar lifting rod long	1
2		402S20020	螺钉	Screw	2
3		402S20021	轴位螺钉	Hinge screw	2
4		40205013	前杠杆板	Lever front	1
5		40204022	链环	Link	1
6		40229001	开口销2×11	Split pin	2
7		40205014	后杠杆板	Lever rear	1
8		40205015	压棒提升拉杆	Presser bar lifting rod	1
9		40226036	离合杆铰链销	Tripping lever hinge rod	1
10		402S14001	螺钉	Screw	1
12		40201073	压棒提升杆	Presser bar lifting lever	1
16		402S11037	绕线器安装螺钉	Screw	3
17		4023103000	绕线器组件	Bobbin winder asm	1
18		40211021	绕线器安装座	Bobbin winder base	1
19		40211020	梭心垫片	Washer	1
20		40202041	绕线器轴	Btw shaft	1
21		4020403500	转动曲柄组件	Btw shaft base	1
22		40210010	转动凸轮	Rotary caw	1
23		40235025	转轮	Btw wheel	1
24		B04025	轴承686Z	Bearing	2
25		40208013	挡圈	Bobbin bearing spacer	1
26		40227045	弹簧	Spring	1
27		40222034	缓冲橡胶	Rubber	1
28		40201062	梭心压杆	Btw lever	1
29		H05003	E型卡簧5	E-ring	2
30		40228029	垫片	Washer	2
31		40222033	橡皮圈	Btw wheel rubber	1
32		40212100	绕线调节板	Adjusting plate	1
33		40202042	梭心压杆轴	Btw lever shaft	1
34		40228030	压杆轴垫片	Washer	2
35		40227044	卡紧弹簧	Spring	1
36		402S11039	螺钉	Screw	1
37		402S11040	螺钉	Screw	1
38		402S14007	螺钉	Screw	3
39		11419001	割线刀	Thread cutter	1
40		403S11020	螺钉	Screw	2
41		4131300800	夹线器组件	Bobbin thread tension asm	1
42		4131301800	过线销	Bobbin thread tension rod asm	1
43		41313015	夹线片	Thread thension disk	2
44		41327017	夹线簧	Connecting rod spring	1
45		101S16019	夹线螺母	Thread tension nut	1
46		413S16012	固定螺母	Nut	1
48		40203030	拉杆套管	Tube	1

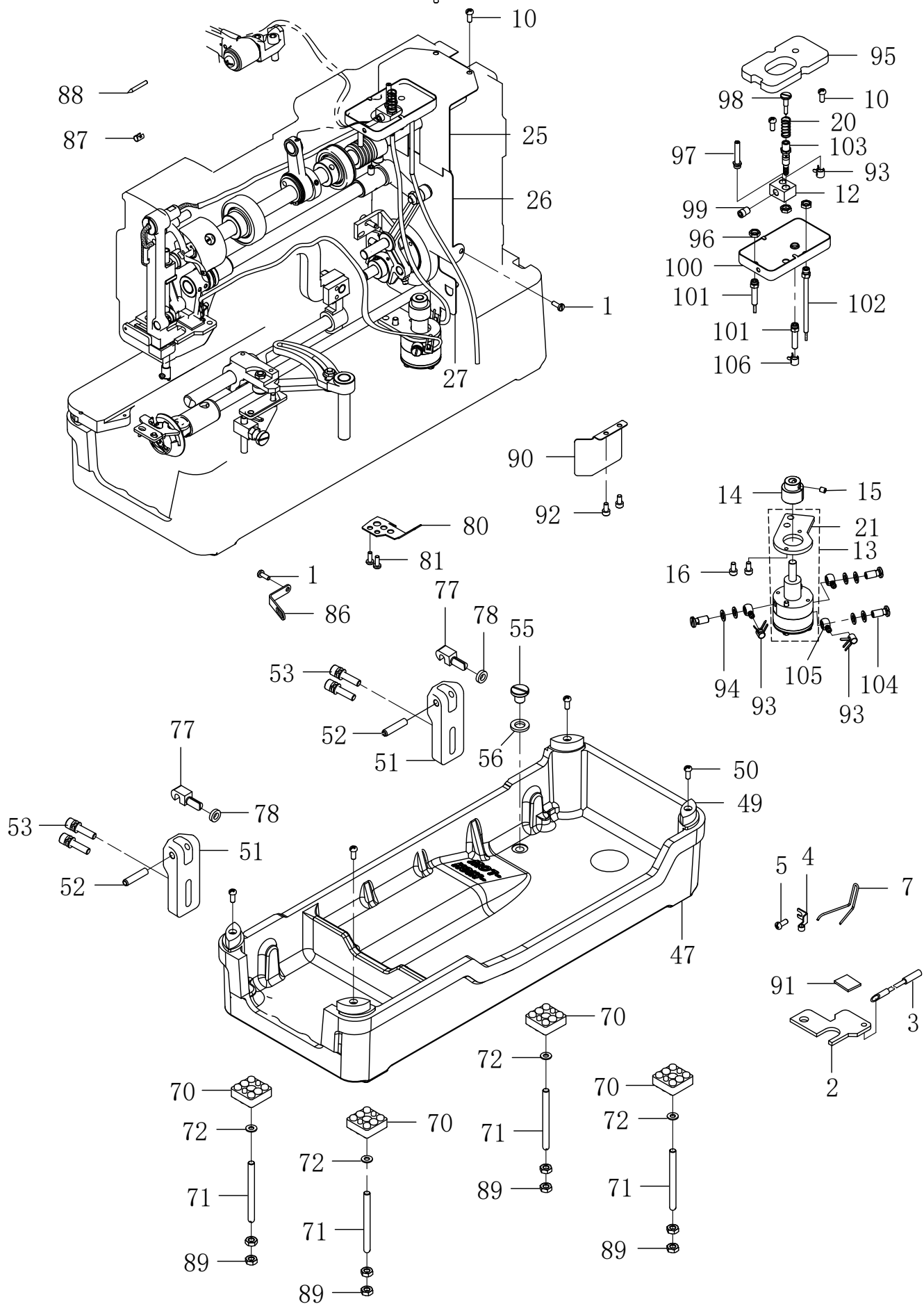
14、夹线器部件 Thread tension components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		40212127	松线连杆	Tension release link	1
2		402S20025	轴位螺钉	Hinge screw	1
3		40205017	松线杆	Tension release lever	1
4		409S14001	螺钉	Screw	2
5		402S20026	轴位螺钉	Hinge screw	1
6		40212062	连杆板	Blocking link	1
7		402S20025	轴位螺钉	Hinge screw	1
8		40127020	弹簧	Blocking arm spring	1
9		402S20021	轴位螺钉	Hinge screw	1
10		40212063	杠杆板	Blocking arm	1
11		40228018	垫圈	Washer	1
12		40202034	松线杆组件	Tension release rod	1
13		402S16001	螺母	Nut	2
14		4021212300	松线杆	Tension release lever	1
15		402S11023	螺钉	Screw	1
16		40108006	拉力环	Tension ring	1
17		201S14002	螺钉	Screw	2
18		40204023	松线杆曲柄	Tension release lever crank	1
19		402S20028	轴位螺钉	Hinge screw	1
20		402S16017	螺母	Nut	1
21		40202028	松线杆	Tension release rod	1
22		S05049	螺钉	Screw	2
23		40226037	松线销	Tension release pin	1
24		S09011	螺钉	Screw	1
25		4021300200	夹线器2号组件	Tension controller No.2 asm	1
26		21311034	夹线器螺母	Tension nut	1
27		40211009	夹线弹簧轴套	Thread pulling wire	1
28		40227030	夹线弹簧	Tension spring	1
29		40212066	夹线盘压板	Tension disc presser tube	1
30		40213005	夹线盘	Tension disc	2
31		402S30040	夹线柱	Tension post	2
32		40227031	挑线簧	Thread take-up spring	1
33		40203032	夹线柱座	Thread post socket	1
34		402S11024	螺钉	Screw	1
35		40202029	松线杆轴	Tension release lever shaft	1
36		402S11003	螺钉	Screw	1
37		40213006	拉线钢丝	Anchor wire	1
38		4021300100	1号夹线器组件	Tension controller No.1 asm	1
39		40211030	夹线螺母	Tension nut	1
40		40211009	夹线器弹簧轴套	Tension disc stopper	1
41		40227030	夹线弹簧	Tension spring	1
42		40212066	夹线压板	Tension disc presser tube	1
43		40213005	夹线盘	Tension disc	2
44		40226038	松线销	Tension release pin	1
45		402S30041	2号夹线杆	Tension post	1
46		402S16018	螺母	Nut	1
47		40212068	松线臂	Tension release arm	1
48		402S30042	螺钉	Screw	1
49		402S11013	螺钉	Screw	1
50		40113004	导线板	Thread guide plate	1
51		40227023	弹簧	Spring	1
52		40208010	挡圈	Thrust collar	1
53		402S11022	螺钉	Screw	2
54		40202030	松线柱	Tension release rod	1
55		P03030	销3×18	Spring pin	1
56		201S14002	螺钉	Screw	1
57		40213009	二眼线钩	Thread eyelet	1
58		40213010	右线钩	Frame thread guide	1
59		206S11002	螺钉	Screw	1
60		40212070	针杆过线钩	Needle bar tyhread guide	1
61		402S11003	螺钉	Screw	1
62		11413011	固定式缓线钩	Tension tyhread guide	1
63		40213012	挑线过线钩	Take-up tyhread guide	1
64		402S16017	螺母	Nut	2
65		40203033	定位架	Position bracket	1
66		207S11042	螺钉	Screw	1
67		403S11019	螺钉	Screw	1
68		41328005	垫片	Washer	1
69		141811007	传感器内绝缘片	Insulating sheet	1
70		19543000600	面线感应器	A Sensor	1
71		W01013	垫片	Washer	2
72		40208009	挡圈	Thrust collar	1

15、给油装置部件

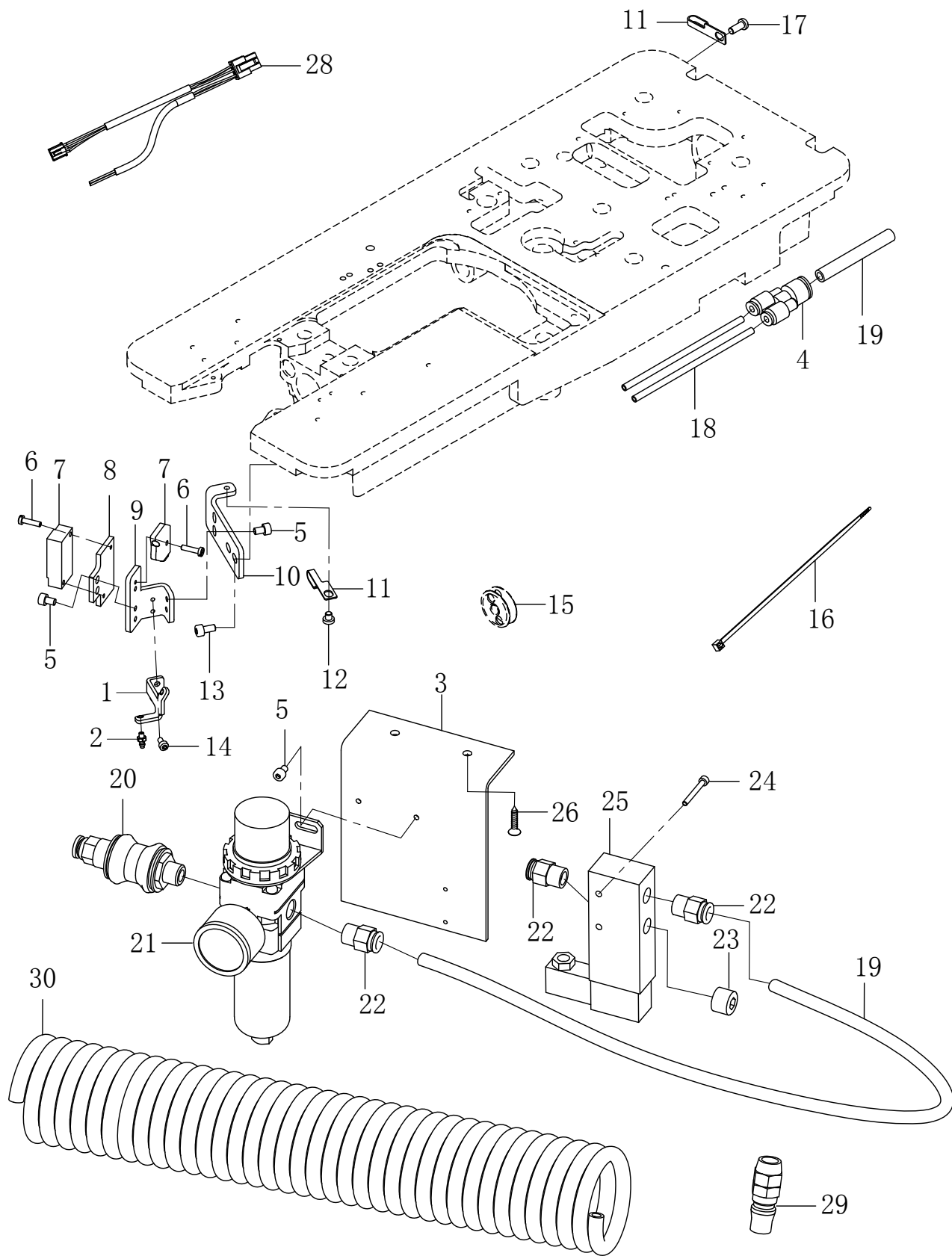
Lubrication mechanism components



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		206S11002	螺钉	Screw	2
2		40223017	回油毡	Oil return felt	1
3		40221003	回油管	Oil return tube	1
4		40212071	油管压板	Cable holder	1
5		402S11003	螺钉	Screw	1
6		-----	-----	-----	
7		40227034	油管压板	Cable holder	1
10		402S11003	螺钉	Screw	2
12		40209026	调节润滑螺钉座	Oil adjusting screw base	1
13		4022000100	油泵座组件	Oil pump	1
14		40225012	油泵驱动涡轮	Oil pump driving worm gear	1
15		201S14002	螺钉	Screw	2
16		S05003	螺钉	Screw	2
20		40227035	弹簧	Spring	1
21		40212076	油泵板	Oil pump plate	1
25		40212108	油罩	Oil shield	1
26		40212078	油罩	Oil shield	1
27		40212079	油罩	Oil shield	1
47		40201066	油盘	Oil reservoir	1
49		40222026	橡胶缓冲垫	Rubber cushion	4
50		402S11003	螺钉	Screw	4
51		40201020	铰链座	Hinge holder	2
52		P03031	销P6×28	Pin	2
53		421S13036	螺钉	Screw	4
54		-----	-----	-----	
55		402S11026	螺钉	Screw	1
56		40222027	垫片	Washer	1
70		40222028	油盘缓冲垫	Machine base felt pad	4
71		402S30048	油盘螺栓	Machine base Screw stud	4
72		40228019	垫圈	Washer	4
77		40226039	连接销	Connection stud	2
78		40222031	橡胶垫圈	Rubber washer	2
80		40212081	油管固定板	Pipe retainer	1
81		206S11002	螺钉	Screw	2
86		40212082	油管导架	Pipe guide	1
87		40212099	油线固定夹	Oil wick latch	1
88		20626004	油线销	Oil wick pin	1
89		401S16002	螺母	Nut	8
90		40212106	挡油板	Oil baffle	1
91		40223024	油毡	Oil felt	1
92		413S13016	螺钉	Screw	2
93		11412055	油管卡簧	Card spring	3
94		20122033	垫片(大)	Gasket	6
95		140223001	油毡	Oil felt	1
96		402S16019	螺母	Nut	3
97		40221009	供油柱	Oil supply column	1
98		402S30044	油量调节螺钉	Hook Oil adjusting screw	1
99		402S13006	螺钉	Screw	1
100		140212007	盛油架	Oil rack	1
101		40221006	回油柱	Oil return column	2
102		40221007	回油柱	Oil return column	1
103		40221010	调节柱	Adjusting column	1
104		402S30045	过油螺钉	Screw	3
105		40221011	油管接头	Tubing head	3
106		20429001	油管卡簧	Card spring	1

16、底线检测部件(选配)

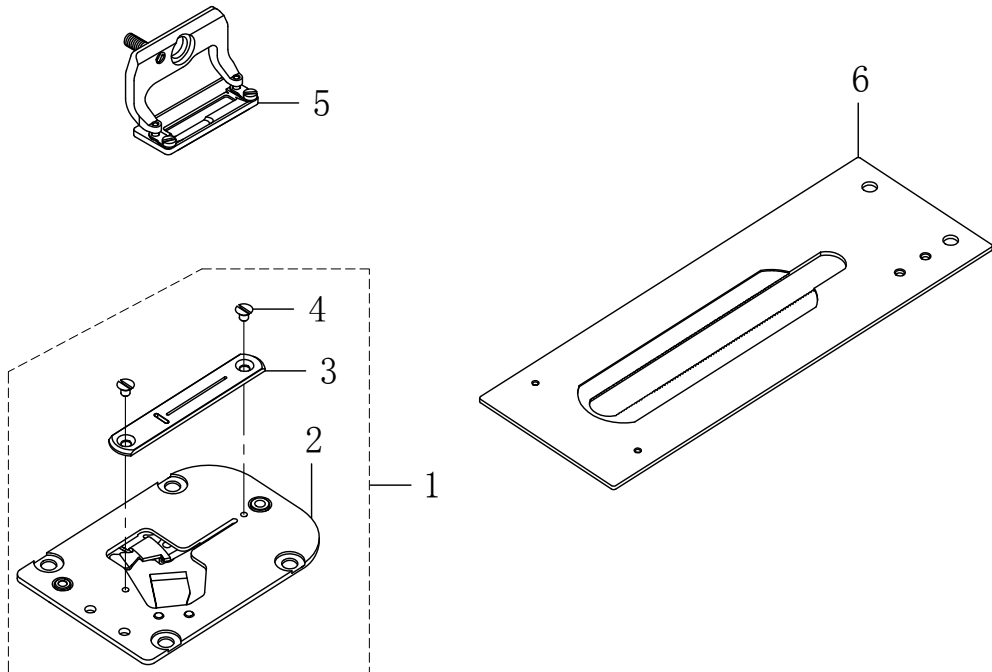
Bottom line detection mechanism(option parts)



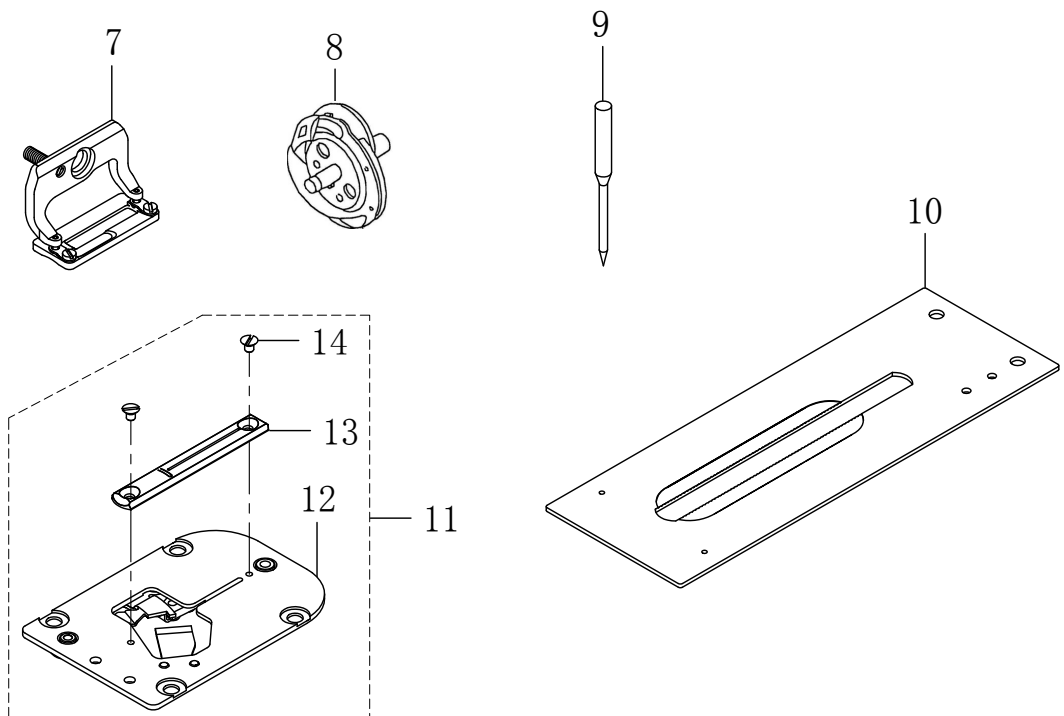
序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		140212014	吹气支架	Bracket	1
2		42136010	气管接头	Tracheal connector	2
3		140212018	阀安装板	Mounting plate	1
4		140236002	Y型三通	Tracheal connector	1
5		S05115	螺钉	Screw	6
6		421S13049	螺钉	Screw	3
7		1431100600	底线检测传感器	Sensor	1
8		140212002	感应器安装板1	Mounting plate	1
9		140212003	感应器安装板2	Mounting plate	1
10		140212004	感应器安装板3	Mounting plate	1
11		41312003	油管固定夹	Fixing clip	2
12		S04080	螺钉	Screw	1
13		421S13035	螺钉	Screw	2
14		421S13038	螺钉	Screw	2
15		141318001	底线检测窄槽梭心	Bobbin	3
16		40111005	线扣	Therad buckle	4
17		402S11003	螺钉	Screw	1
18		41845224	气管 $\phi 4 \times \phi 2.5$	Trachea	2
19		42221503	气管 $\phi 8$	Trachea	1
20		42130096	VHK3手动开关	Manual switch	1
21		141845004	气源处理装置	Air source treatment unit	1
22		40736021	$\phi 8$ 接头	Tracheal connector	3
23		41845219	堵头	Plug	1
24		S05215	内六角螺钉	Screw	2
25		4073000600	电磁阀	Solenoid valve	1
26		403S30020	自攻螺钉	Screw	2
27		42130028	反射纸	Reflective paper	1
28		199300065	转接线	Adapter line	1
29		40736001	螺纹套管接头	Screw joint	1
30		40730010	螺旋气管	Spiral tracheal	1

17、特殊类型部件 Special specifications components

短线头类型/Short thread type



针织类型/Knitting type



序号 No.	注解 Note	件号 Part No.	名称 Name	描述 Description	数量 Qty
1		14021500300	针板组件(短线头)	Needle plate assembly (short thread head)	1
2		14021500500	针板座组件	Holder as-needle plate	1
3		41315011	针板(短线头)	Needle plate (short thread head)	1
4		413S17002	沉头螺钉	Screw	2
5		4131602700	压脚组件(短线头)	Presser foot assembly (short thread head)	1
6		140212001	送布拖板	Cloth carriage	1
7		14131600100	压脚组件	Presser foot assembly	1
8		14021800200	旋梭套组件 (771K)	Rotary shuttle sleeve assembly (771K)	1
9		40317011	机针DP×5 11#	Needle DP × 5 11#	1
10		140212013	送布拖板	Cloth carriage	1
11		14021500400	针板组件(针织)	Needle plate assembly (knitting)	1
12		14021500500	针板座组件	Holder as-needle plate	1
13		41315001	针板	Needle plate	1
14		413S17002	沉头螺钉	Screw	2