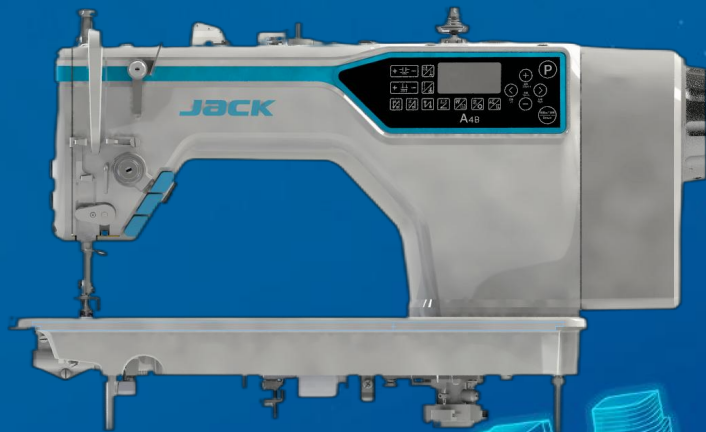


新A4B-C电脑平缝 机培训课件

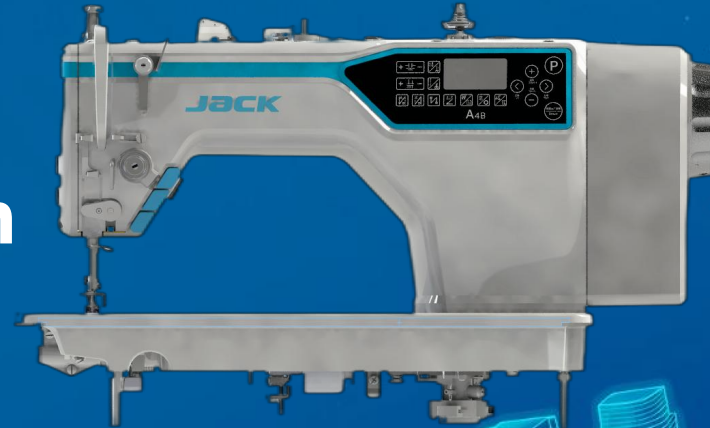
技术支持部

2022年7月1日 版3



JACK

New A4B-C stepping motor computerized lockstitch machine training









Technical Support Department

1st July, 2022 Version 3









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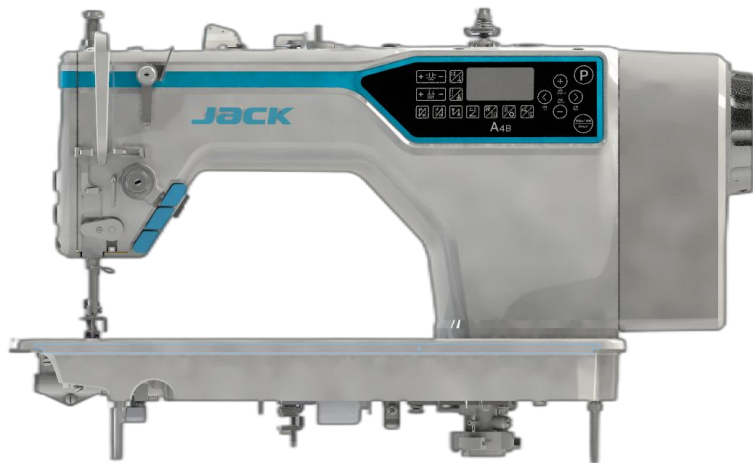
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一、产品介绍

1.1 A4B产品定位

新 A4B系列高速平缝机采用步进调针距、步进抬压脚技术，增强缝纫的声音体验，重针和抬压脚等效果。加大主轴电机的扭矩，提升布料穿透力；新分线片结构的改进，提升起缝上线率；针杆曲柄优化，减振降噪；电控的起缝微抬功能的增加，降低起缝断线率。上述优化改善，进一步提升了杰克产品竞争力，并稳固和提升市场份额。



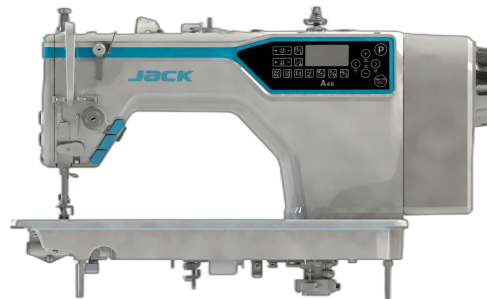
一、Product introduction

1.1 A4B product positioning

The new A4B series high-speed lockstitch sewing machine adopts stepping stitch adjustment and stepping presser foot lift technology to enhance the sound experience of sewing, and the effects of repetitive stitch and presser foot lift. Increase the torque of the spindle motor to improve the penetration for fabric; the improvement of the new splitter structure improves the sewing thread rate; the needle bar crank is optimized to reduce vibration and noise; The start-up micro-lift function of control box can reduce the start-up breakage rate. The above optimization and improvement have further enhanced the competitiveness of Jack's products, and stabilized and increased market share.

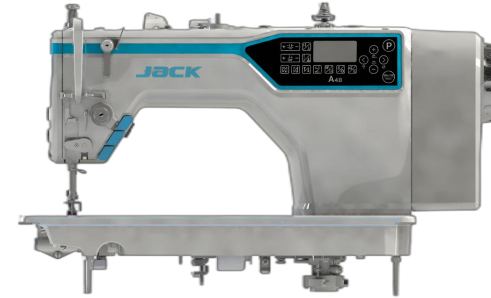


1.2 新老A4B产品功能、亮点、对比概述



老A4B产品区别		新A4B产品区别	
序号	物料描述	序号	物料描述
1	机壳、面板	1	机壳、面板(同A4F外形)
2	主轴圆形电机	2	主轴圆形电机 (加力)
3	操作面板(面膜蓝色)-控制器(罩壳配机壳带凹槽)	3	操作面板短(面膜黑色)-控制器(罩壳配机壳无凹槽)
4	零件 (老护针片、老油盘垫)	4	零件 (新分线片提升上线率、油盘垫减振)
5	电控参数 (无起缝微抬功能、无针距快速调节)	5	电控参数 (标配 起缝微抬功能、针距快速调节)

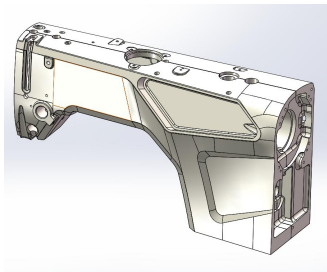
1.2 Overview of new and old A4B product features, highlights and comparisons



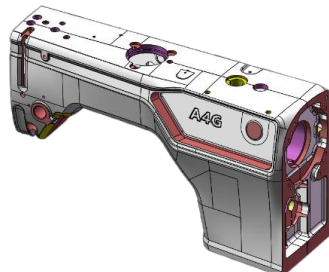
Comparisons-Old A4B product		Comparisons-New A4B product	
No.	Material Description	No.	Material Description
1	cover, panel	1	cover,panel(look like A4F)
2	Spindle circular motor	2	Spindle circular motor (strengthen)
3	operation panel(blue mask)-controller(cover with groove)	3	short operation panel(black mask)-controller(cover without groove)
4	parts(Old needle guard, old oil pan gasket)	4	parts(The new splitter improves the on-line rate, and the oil pan cushion reduces vibration)
5	Electronic control parameters (no seam micro-lift function, no quick adjustment of stitch length)	5	Electronic control parameters (Standard start-up micro-lift function, quick adjustment of stitch length))

1.3 区别点—机壳、零件

1、机壳

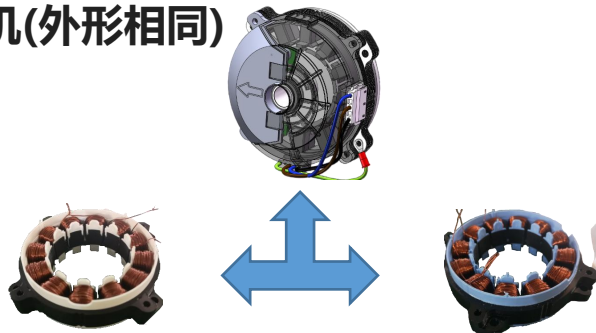


老A4B



新A4B (通新A4F)

2、电机(外形相同)



老A4B(电机骨架为白色)

新A4B (加力电机骨架为蓝色)

3、操作面板-控制器



老A4B
 (面膜底色为蓝色)
 外形-四边形



老A4B
 (控制器-罩壳)
 配机壳-带凹槽

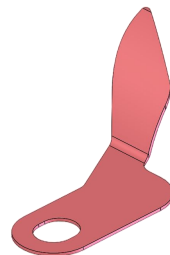


新A4B
 面膜底色为黑色)
 外形-五边形

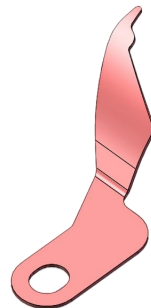


新A4B
 (控制器-罩壳)
 配机壳-无凹槽

4、零件-分线片



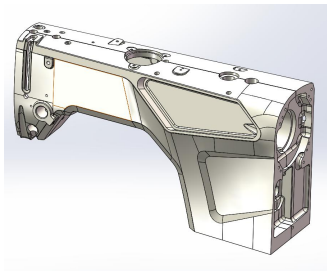
老A4B (护针片)



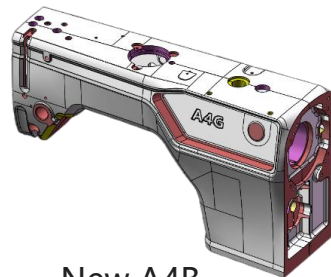
新A4B (分线片)

1.3 Comparisons—cover、 part

1、 cover

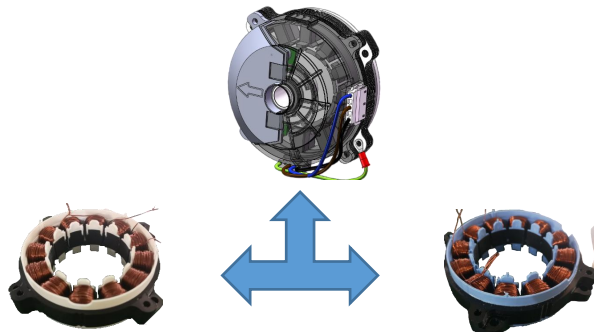


Old A4B



New A4B
 (same as New A4F)

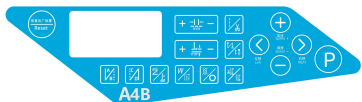
2、 motor(same looks)



Old A4B(motor frame is white)

New A4B
 (strength motor frame is blue)

3、 Operation panel, controller



Old A4B
 (blue mask)
 outline-quadrilateral



Old A4B
 (controller cover)
 cover with groove

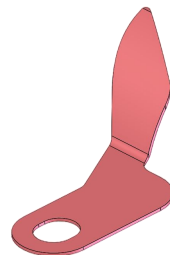


New A4B
 (black mask)
 outline-pentagon

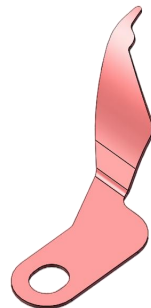


New A4B
 (controller cover)
 cover without groove

4、 part-分线片



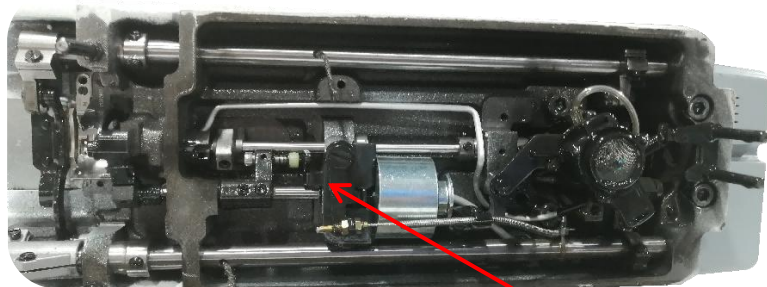
Old A4B
 (needle guard)



New A4B
 (splitter)

1.4 区别点-剪线结构

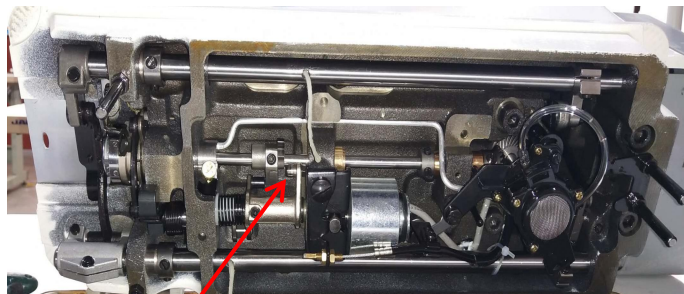
老A4B



**新型
剪线**

- 1、老A4B 系列薄料机型为新型剪线；
- 2、老A4B 系列厚料(-H)、-7机型为常规剪线；

新A4B

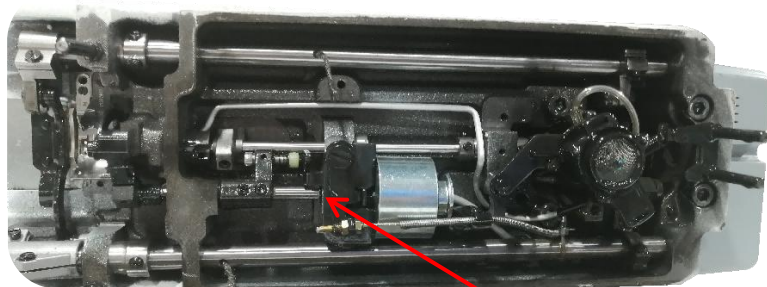


**常规
剪线**

- 1、新A4B 系列机型2022年6月30日前生产的机型为全系新型剪线；
- 2、新A4B 系列机型2022年7月1日起生产的机型为全系常规剪线；

1.4 Comparisons-trimming structure

Old A4B

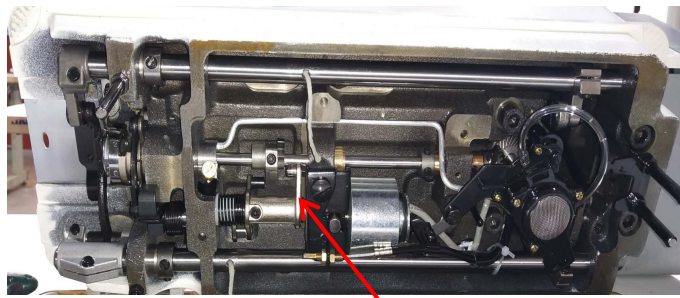


new trimming structure

1、 Old A4B series for light fabric use new trimming structure;

2、 Old A4B series for heavy fabric(-H)、 -7 model use normal trimming structure;

New A4B

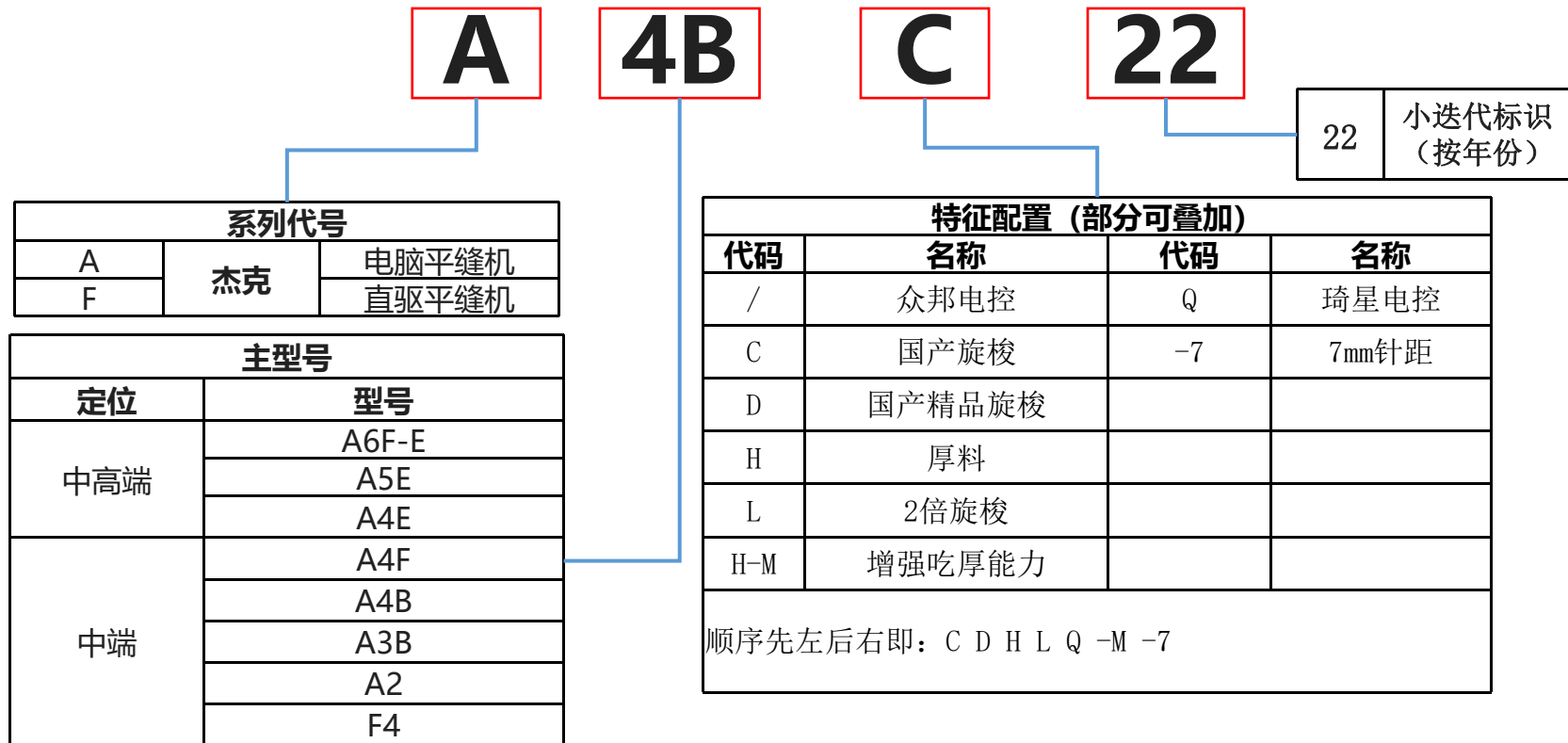


normal trimming structure

1、 New A4B series model which made before 30th June,2022 use new trimming structure;

2、 New A4B series model which made after 1st July,2022 use normal trimming structure;

1.5 新A4B产品命名定义



1.5 New A4B product Naming rules

A

4B

C

22

22 iteration logo (year)

Series code		
A	JACK	computerized lockstitch machine
F		direct drive lockstitch machine

main model	
positioning	model
middle-high level	A6F-E
	A5E
	A4E
middle level	A4F
	A4B
	A3B
	A2
	F4

Feature configuration			
code	description	code	description
/	ZHONGBANG	Q	Qixing controlbox
C	chinese hook	-7	7mm stitch length
D	chinese quality hook		
H	heavy material		
L	2times hook		
H-M	Enhance the ability to heavy duty		

the sequence is: C D H L Q -M -7

1.6 A4B产品机型及主要参数

机型	机针	线数	针迹长度 (mm)	压脚高度 (mm)	最高转速 (S. p. m)	薄料	中厚料	厚料	体积 (mm)	重量 (kg)
A4B-C-22	DB×1 11-18#	2	5	5-13	5000	√	√		695×295×550	36/42
A4B-CH-M-22	DB×1 11-18#	2	5	5-13	5000	√	√		695×295×550	36/42
A4B-C-7-22	DB×1 11-18#	2	7	5-13	3500	√	√		695×295×550	36/42
A4B-CH-22	DP×5 18-21#	2	5	5-13	3500			√	695×295×550	36/42
A4B-CH-7-22	DP×5 18-21#	2	7	5-13	3500			√	695×295×550	36/42
A4B-CHL-7-22	DP×5 18-21#	2	7	5-13	3500			√	695×295×550	36/42

A4B系列产品配置

产品型号	配置
A4B-C-22	1、步进电机调针距 2、步进抬压脚 3、单刀剪线 4、国产旋梭 5、四自动
A4B-CH-M-22	1、步进电机调针距 2、步进抬压脚 3、单刀剪线 4、国产旋梭 5、四自动
A4B-C-7-22	1、步进电机调针距 2、步进抬压脚 3、单刀剪线 4、国产旋梭 5、四自动 6、大针距
A4B-CH-22	1、步进电机调针距 2、步进抬压脚 3、单刀剪线 4、国产旋梭 5、四自动 6、厚料
A4B-CH-7-22	1、步进电机调针距 2、步进抬压脚 3、单刀剪线 4、国产旋梭 5、四自动 6、厚料 7、大针距
A4B-CHL-7-22	1、步进电机调针距 2、步进抬压脚 3、单刀剪线 4、国产旋梭 5、四自动 6、厚料 7、大针距 8、大旋梭

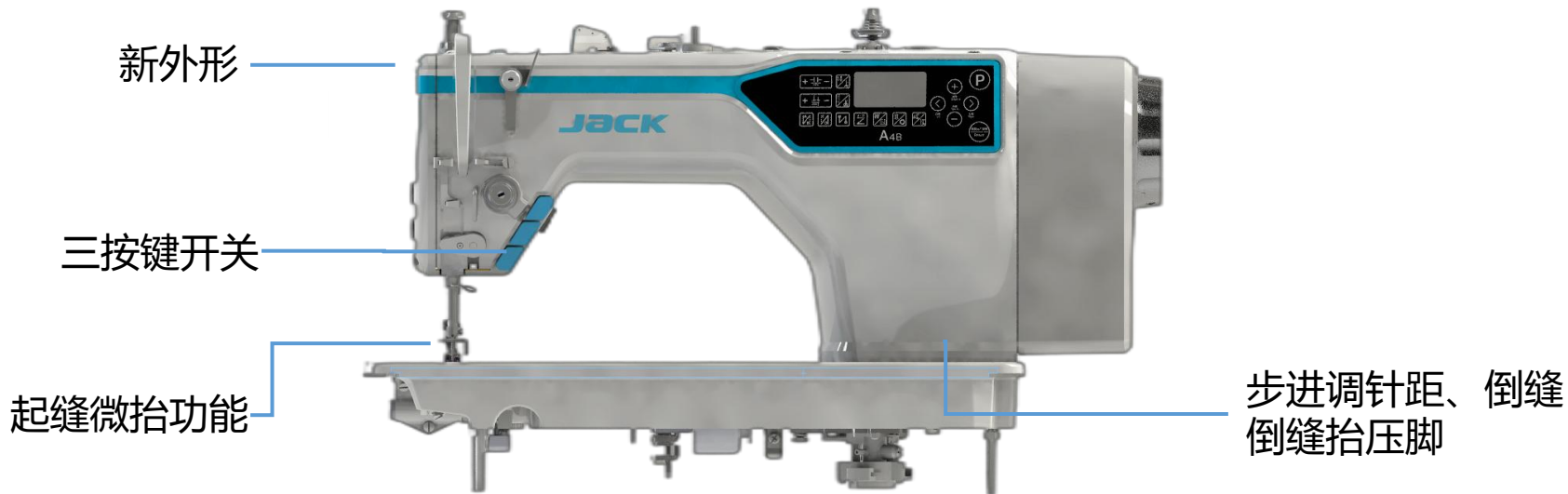
1.6 A4B product model & Technical parameter

Model	Needle Size	thread number	stitch length (mm)	Foot height (mm)	Max. speed (S. p. m)	light material	mid-heavy material	heavy material	volume (mm)	weight (kg)
A4B-C-22	DB×1 11-18#	2	5	5-13	5000	√	√		695×295×550	36/42
A4B-CH-M-22	DB×1 11-18#	2	5	5-13	5000	√	√		695×295×550	36/42
A4B-C-7-22	DB×1 11-18#	2	7	5-13	3500	√	√		695×295×550	36/42
A4B-CH-22	DP×5 18-21#	2	5	5-13	3500			√	695×295×550	36/42
A4B-CH-7-22	DP×5 18-21#	2	7	5-13	3500			√	695×295×550	36/42
A4B-CHL-7-22	DP×5 18-21#	2	7	5-13	3500			√	695×295×550	36/42

A4B series product configuration

Product Model	configuration
A4B-C-22	1. Stepper motor driving electric stitch length 2. Stepper motor driving foot lifter 3. single knife trimming 4. chinese hook 5. four automatic
A4B-CH-M-22	1. Stepper motor driving electric stitch length 2. Stepper motor driving foot lifter 3. single knife trimming 4. chinese hook 5. four automatic
A4B-C-7-22	1. Stepper motor driving electric stitch length 2. Stepper motor driving foot lifter 3. single knife trimming 4. chinese hook 5. four automatic 6. large stitch
A4B-CH-22	1. Stepper motor driving electric stitch length 2. Stepper motor driving foot lifter 3. single knife trimming 4. chinese hook 5. four automatic 6. heavy material
A4B-CH-7-22	1. Stepper motor driving electric stitch length 2. Stepper motor driving foot lifter 3. single knife trimming 4. chinese hook 5. four automatic 6. heavy material 7. large stitch
A4B-CHL-7-22	1. Stepper motor driving electric stitch length 2. Stepper motor driving foot lifter 3. single knife trimming 4. chinese hook 5. four automatic 6. heavy material 7. large stitch 8. large hook

1.7 新A4B产品功能亮点概述

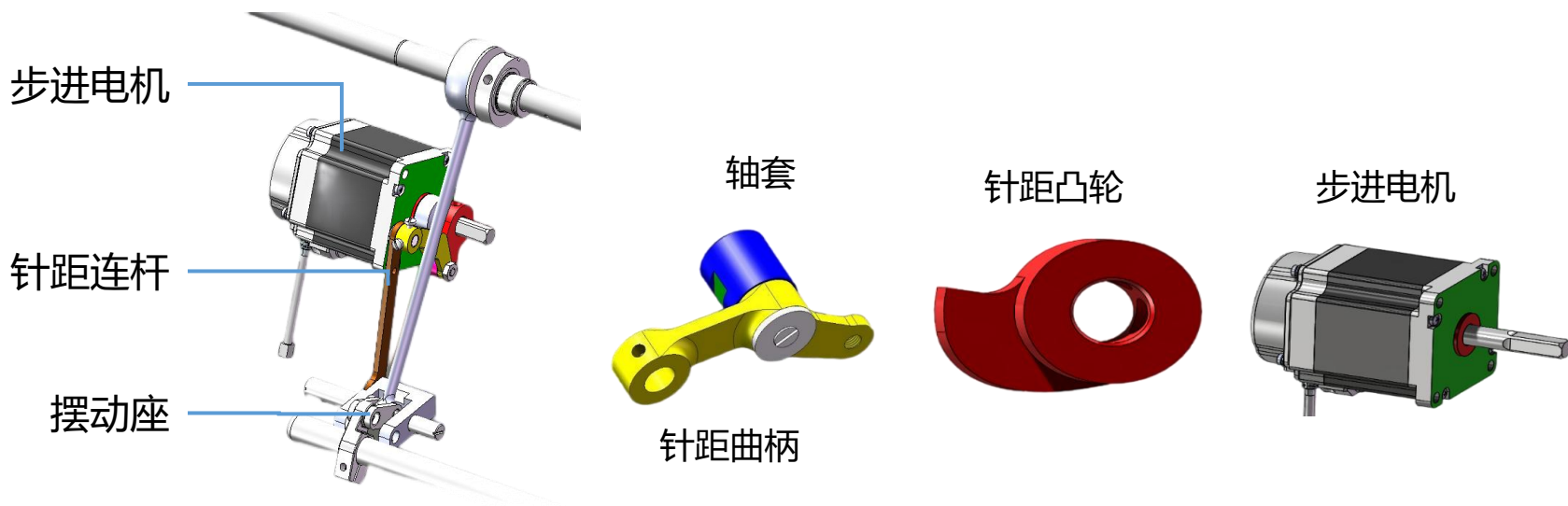


1.7 New A4B product function highlights



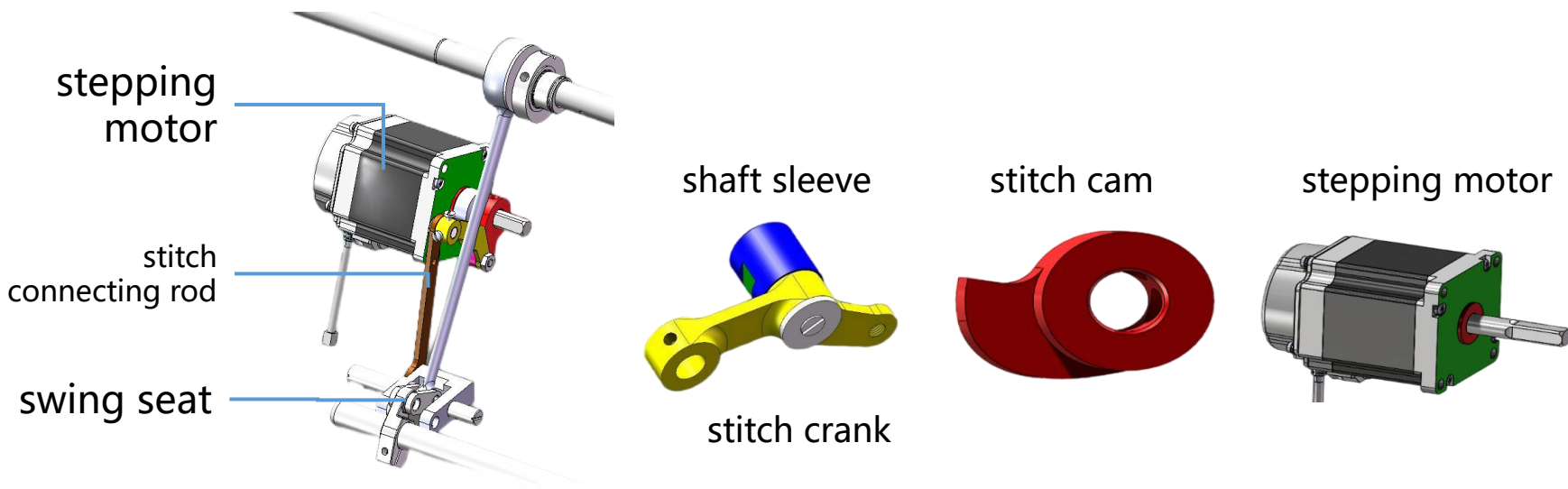
1.8 步进调针距

- **步进调针距**：1、可通过按键调节针距大小；2、倒缝无声；3、可实现花样缝纫线迹；4、针距扩展优化，普通机型正常可以扩展到5.3，扩展至6mm（定制），-7机型扩展至7.5mm。



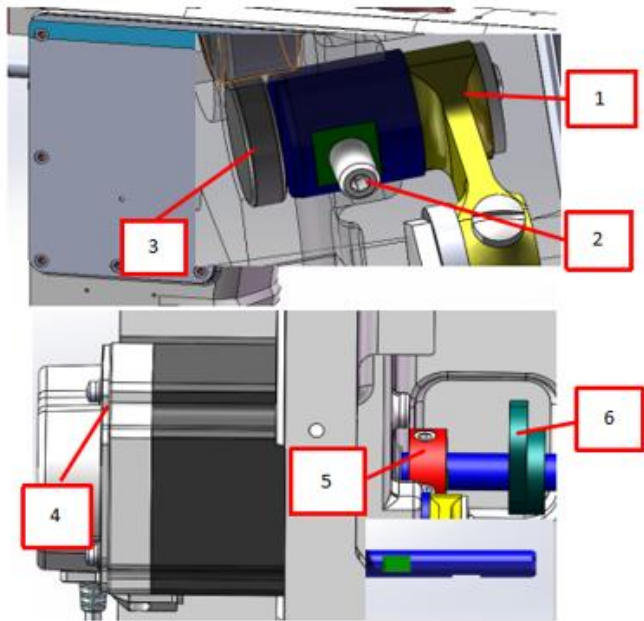
1.8 Stepping motor stitch

- Stepping motor stitch: 1、adjust the stitch length by button; 2、Back sewing silently; 3、can choose different patterns and stitches to sew,can edit the stitches;
- 4、The stitch length extension is optimized, the normal model can be extended to 5.3, or 6mm (customized), and the -7 model can be extended to 7.5mm.



1.9 步进调针距

步进调针距装配要点介绍



适应机型	序号	序号	件号	描述
A4B\A4F	1	1	\	针距曲柄组件
		2	113S14010	内六角螺丝SM15\64 "×28×12
		3	20628023	防油塞
		4	115033006	步进电机 (众邦)
		5	115410001	针距凸轮
		6	115410002	抬压脚凸轮

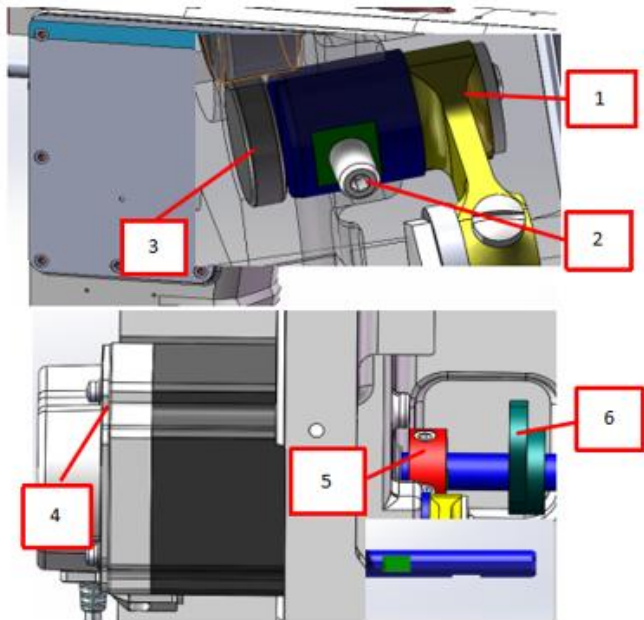
要求：

- 1、将针距曲柄组 (1) 件装入机壳针距曲柄支撑销位，用螺钉 (2) 固定，要求螺钉 (2) 作用在针距曲柄支撑销的平面上，螺钉 (2) 力矩要求3N.m，同时保证针距曲柄与机壳面1-2mm间隙；
- 2、将防油塞 (3) 打一圈704胶水，装入机壳针距曲柄支撑销孔位，要求防油塞外平面与机壳面向平；
- 3、电机 (4) 安装到机壳上，要求同A4E；
- 4、步进电机轴要从针距凸轮 (5) 抬压脚凸轮 (6) 等孔内穿过，要求针距凸轮 (5) 位于针距曲柄的左边，抬压脚凸轮 (6) 位于针距曲柄的右边。在固定步进电机后检查力距不大于0.2N.m。

注意：步进电机轴有呈90度夹角的两个平面。

1.9 Stepping motor stitch

stepping motor stitch main point introduce



model	no.	no.	part code	description
A4B\A4F	1	1	\	stitch crank set
		2	113S14010	hexangular screw SM15\64 "×28×12
		3	20628023	oil-proof plug
		4	115033006	stepping motor(zhongbang)
		5	115410001	stitch cam
		6	115410002	foot lift cam

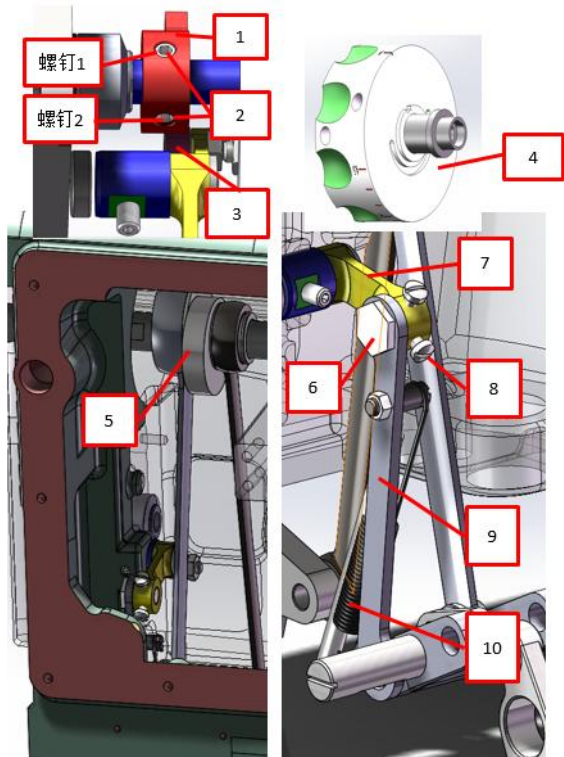
Request :

- 1、 Put the stitch crank set(1) into the stitch crank support pin position of the cover, and fix it with the screw(2). The screw(2) need act on the plane of the stitch crank support pin, and the torque of the screw(2) requires 3N.m, while ensuring a 1-2mm gap between the stitch crank and the cover surface;
- 2、 Apply 704 glue to the oil-proof plug(3), and put it into the stitch crank support pin position, make sure the level of oil-proof plug and cover surface;
- 3、 Install the motor(4) on the cover, and the requirements are the same as A4E;
- 4、 The stepper motor shaft should pass through holes such as the stitch cam(5) and the foot lift cam(6). The stitch cam need in the left side of stitch crank set, and the foot lift cam need be in the right of stitch crank set. After fixing the stepper motor, check that the force distance is not greater than 0.2N.m.

Note: The stepper motor shaft has two planes at a 90-degree angle.

1.10 步进调针距

步进调针距装配要点介绍

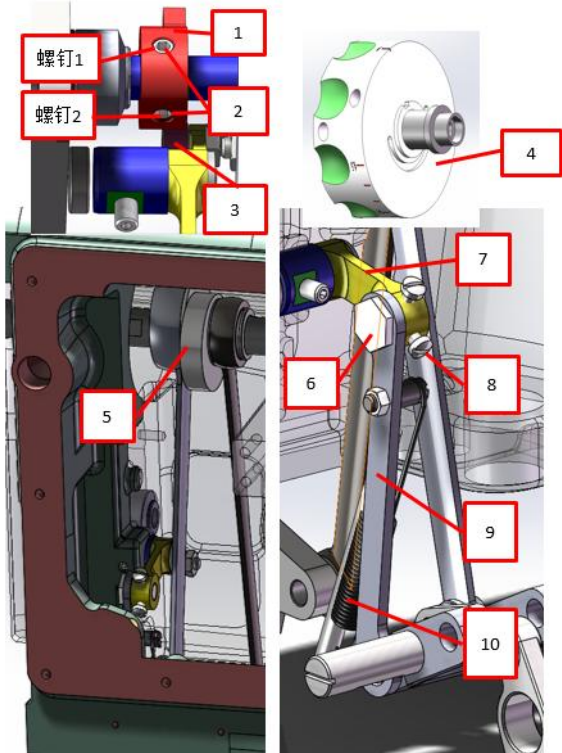


适应机型	序号	序号	件号	描述
A4B\A4F	2	1	115410001	针距凸轮
		2	101S14001	凸轮固定螺钉SM1/4 "×40
		3	13609002	滚轮
		4	\	工装手轮
		5	\	连杆组件
		6	114926001	针距曲柄销
		7	115404003	针距曲柄
		8	101S11005	螺钉SM9/64 "×40
		9	115405001	针距调节连杆
		10	115427001	针距复位簧

要求：1、将手轮工装（4）装在步进电机尾部，用于转动步进电机轴；
 2、将针距凸轮（1）靠近滚轮（3），用2颗螺钉（2）将针距凸轮（1）固定在步进电机轴上，要求针距凸轮与滚轮作用面不小于80%，且针距凸轮右平面不能高于滚轮右平面，螺钉2与电机轴平面对齐，力矩要求4N.m；
 3、装入连杆组件（5），要求同A4E；
 4、用针距连杆销（6）连接针距曲柄（7）和针距调节连杆（9），用2颗螺钉（8）固定，其中一颗螺钉作用在平面上，螺钉（8）力矩要求2.5N.m；
 4、再按A4E相同要求固定摆动座和连杆组件，最后挂针距复位簧（10），一端挂在针距调节连杆的销子上，一端挂在拉策固定板上。
注意：抬牙连杆和送料连杆与A4E不通用，检查是否有避让槽。

1.10 Stepping motor stitch

stepping motor stitch main point introduce



model	no.	no.	part code	description
A4B\A4F	2	1	115410001	stitch cam <small>成套智联服务商 TOTAL SOLUTION PROVIDER</small>
		2	101S14001	cam fix screw SM1/4 "×40
		3	13609002	roller wheel
		4	\	hand wheel tooling
		5	\	connecting rod set
		6	114926001	stitch crank pin
		7	115404003	stitch crank
		8	101S11005	screw SM9/64 "×40
		9	115405001	stitch adjusting rod
		10	115427001	stitch reset spring

- Request :**
- 1、Install the handwheel tooling(4) at the tail of the stepping motor to rotate the stepping motor shaft;
 - 2、Place the stitch cam(1) close to the roller wheel(3), and fix the stitch cam(1) on the stepping motor shaft with 2pcs screws(2). It is required that the working surface of the stitch cam and the roller is not less than 80%, And the right plane of the stitch cam cannot be higher than the right plane of the roller, the screw 2 is aligned with the plane of the motor shaft, and the torque requirement is 4N.m;
 - 3、Install the connecting rod set(5), the requirements are the same as A4E;
 - 4、stitch adjusting rod(9) with the stitch crank pin(6), and fix it with 2pcs screws(8), one of which acts on the plane, and the screw (8) The torque requirement is 2.5N.m;
 - 4、Then fix the swing seat and connecting rod set according to the same requirements of A4E, and finally hang the stitch return spring (10). one side connect with stitch adjusting rod, other side connect with the fixed board.

Note : The tooth-lifting rod and the feeding rod are not common with A4E, check whether there is an escape groove.

1.11 步进调针距 (众邦25C) 步进调针距电控参数定义和说明

长按P+针距加键，进入“快速调参模式”，短按加号键或减号键切换选项，该模式有以下选项：

- ①选项“0”：选项“0”进行步进电机“0”位设置，放一张纸在针板上，踏板踩到底进行不带线空缝，检查机针是否在一个孔内运行，通过调节选项“0”的值进行校准，设置好后短按P键保存；
- ②选项“4”：选项“4”调节顺缝4.0针距大小，踩10个针距，测量针距实际数值3.9-4.1mm，针距偏小把范围值调大，偏大把范围值调小，短按P保存；
- ③选项“-4”：选项“-4”调节倒缝4.0针距重合(要求至少对10针)，倒缝偏小就调大范围值，偏大就调小范围值，短按P保存；
- ④选项“5”：选项“5”调节顺缝5.0针距大小，踩10个针距，测量针距实际数值4.8-5.2mm；短按P保存；
- ⑤选项“-5”：选项“-5”调节倒缝5.0针距重合(要求至少对5针)，短按P保存；如倒缝调不大导致不能对针，可以将顺缝调小一些比如调为4.8mm，P145参数值不要超过630。
- ⑥选项“-3”：选项“-3”调节倒缝3.0针距重合(要求至少对5针)，短按P保存。
- ⑦选项“-2”：选项“-2”调节倒缝2.0针距重合(要求至少对5针)，短按P保存。
- ⑧选项“L”：选项“L”调节压脚高度，中途停车时用量块测量压脚抬起高度，设置合适的值（调大增加高度，调小降低高度），测量抬压脚抬起高度为1mm，设置好后短按P保存；再次短按P退出快速调参模式。

PS：调整线迹重合度时为了便于调试，速度会自动变成200 rpm，离开此界面后，速度恢复正常。

1.11 stepping motor stitch (ZHONGBANG 25C)

Definition and description of stepping motor stitch electronic control parameters

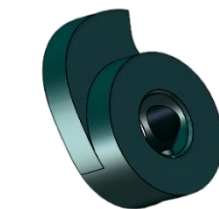
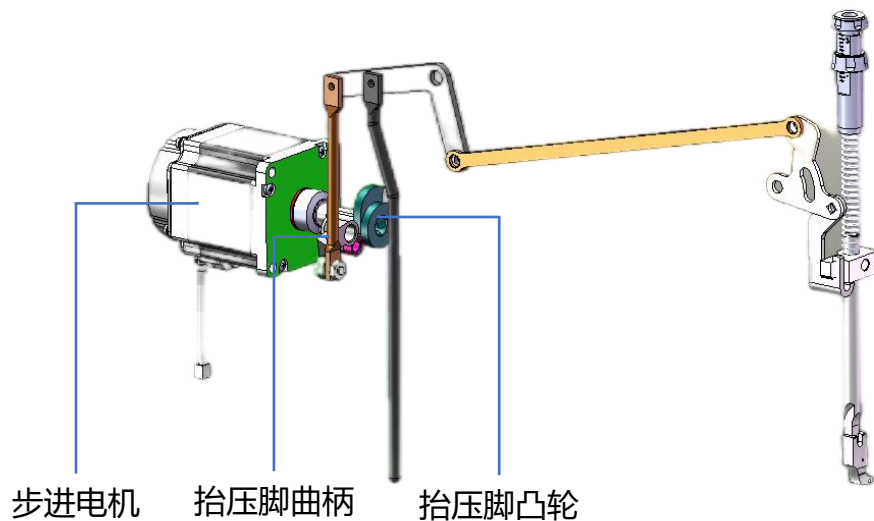
Long press the P + stitch plus key to enter the "quick parameter adjustment mode", short press the plus or minus key to switch options, this mode has the following options:

- ① Option "0": Option "0" is used to set the "0" position of the stepper motor, put a piece of paper on the needle plate, step on the pedal to the end to sew without thread, check whether the needle is running in a hole, and through adjust the value of option "0" for calibration, after setting, short press the P key to save;
- ② Option "4": Option "4" adjusts the size of 4.0 stitch length along the stitching, step on 10 stitch lengths, and measure the actual stitch length of 3.9-4.1mm. If the stitch length is smaller, increase the range value, and if it is larger, reduce the range value, short press P to save;
- ③ Option "-4": Option "-4" adjusts the 4.0 stitch overlap of backstitching (requires at least 10 stitches). If the backstitching is too small, adjust the range value to a larger value, and if it is too large, adjust the range value to a smaller value. Short press P to save;
- ④ Option "5": Option "5" adjusts the stitch length of 5.0 stitch length along the stitch, step on 10 stitch lengths, and measure the actual stitch length of 4.8-5.2mm; short press P to save;
- ⑤ Option "-5": Option "-5" adjusts the backstitch 5.0 stitch overlap (requires at least 5 stitches), and short press P to save; For example, if it is adjusted to 4.8mm, the parameter value of P145 should not exceed 630.
- ⑥ Option "-3": Option "-3" adjusts backstitch 3.0 stitch distance overlap (requires at least 5 stitches), short press P to save.
- ⑦ Option "-2": Option "-2" adjusts the backstitch 2.0 stitch distance overlap (requires at least 5 stitches), short press P to save.
- ⑧ Option "L": Option "L" adjusts the height of the presser foot, measure the height of the presser foot with a measuring block when machine pause, set the appropriate value (increase the height to increase, decrease the height to decrease), and measure the height of the presser foot as 1mm. After setting, short press P to save; short press P again to exit the quick parameter adjustment mode. PS: In order to easy debugging when adjusting the stitch coincidence, the speed will automatically change to 200 rpm. After leaving this interface, the speed will return to normal.

1.12 步进抬压脚

① 步进抬压脚效果介绍

- 步进抬压脚：1、可通过按键调节抬压脚高度；



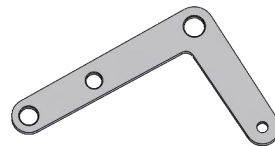
抬压脚凸轮



抬压脚曲柄



连杆

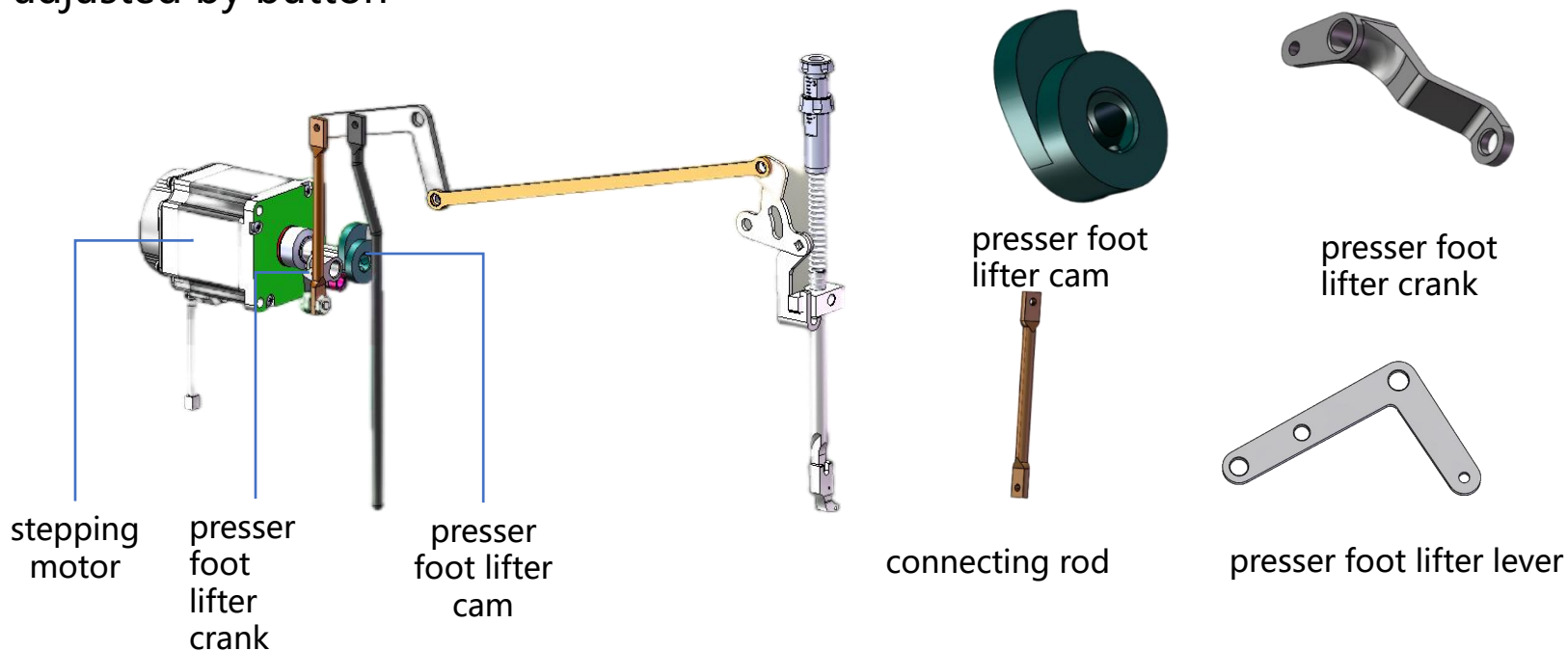


抬压脚后杠杆

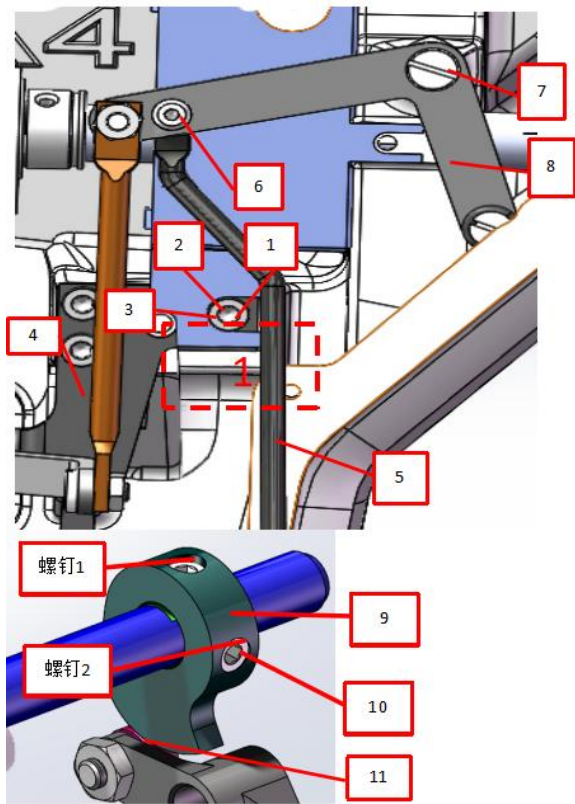
1.12 stepping motor presser foot lifter

①stepping motor presser foot lifter introduce

- **stepping motor presser foot lifter:** 1.The height of the presser foot can be adjusted by button



1.13 步进抬压脚

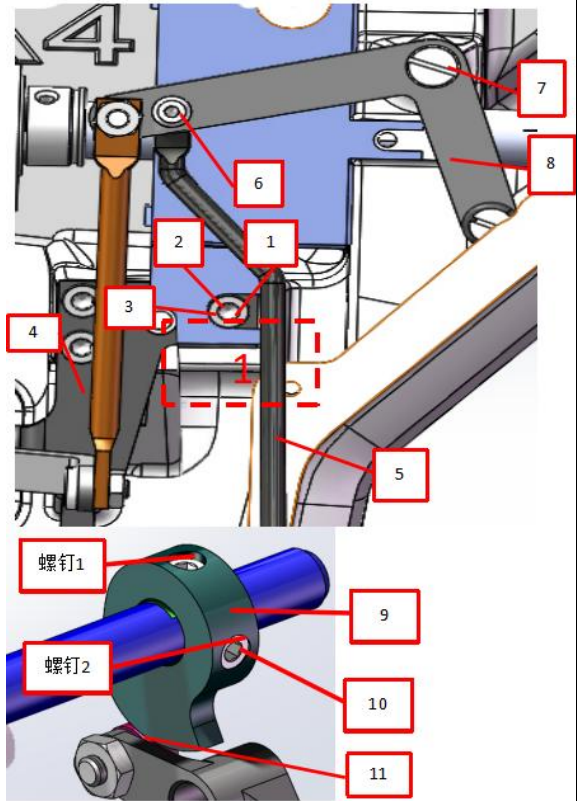


适应机型	序号	序号	件号	描述	序号	件号	描述
A4B\ A4F	3	1	1150NS13002	组合螺钉 SM3/16"×28L=10	7	101S20003	后杠杆轴位螺钉
		2			8	115412002	抬压脚后杠杆
		3			9	115410002	抬压脚凸轮
		4	115401001	抬压脚曲柄支架	10	S10028	凸轮固定螺钉M5*6
		5	115412003	抬压脚顶杆	11	13609002	滚轮
		6	144S20003	抬压脚顶杆螺钉			

- 将抬压脚曲柄支架（4）按图示方向放置，用力将其靠在图示虚线框1位置的凸台上；
 - 用3组按平垫卷（3）、弹管垫圈（2）及六角圆柱头螺钉（1）顺序，按图示将抬压脚曲柄支架（4）固定在机壳平面上。螺钉力矩要求4.5Nm；
 - 用后杠杆轴位螺钉（7）将抬压脚后杠杆（8）安装在机壳平面上，螺钉力矩要求4.5Nm；
 - 将抬压脚凸轮（9）近滚轮（11），用2颗螺T（10）将抬压脚门轮（9）固定在步进电机轴上，要求抬压脚凸轮与滚轮作用面不小于80%，且抬压脚凸轮的左平面不得高于滚轮的左平面，图示的螺钉（1）固定与步进电机平面对齐，螺钉力矩要求4N.m；
 - 用（6）抬压脚顶杆螺钉将（5）抬压脚顶杆固定在（8）抬压脚后杠杆上，螺钉力矩要求4N.m。
- 注意：自动抬压脚放下且手提抬压脚放下后牙齿在针板以下时，抬压脚凸轮与抬压脚驱动曲柄的滚轮间隙不得小于0.3mm（确保压脚可以正常落下）。

1.13 stepping motor presser foot lifter

②stepping motor presser foot lifter assembly main point introduce



model	No.	N o.	Part no.	Description	no.	Part No.	Description
A4B\A4 F	3	1	1150NS13002	combine screw SM3/16"× 28L=10	7	101S20003	lever shaft screw
		2			8	115412002	presser foot lifter lever
		3			9	115410002	presser foot lifter cam
		4	115401001	foot lifter crank bracket	10	S10028	cam fix screw M5*6
		5	115412003	foot lifter ejector rob	11	13609002	roller wheel
		6	144S20003	foot lifter ejector rob screw			

- Place the presser foot crank bracket(4) in the direction shown in the figure, and firmly press it at the position of dotted line frame 1 shown in the figure;
 - Use three sets of flat washer rolls(3), spring tube washers(2) and hexagonal cylinder head screws(1) to fix the presser foot crank bracket(4) on the plane of the cover as shown in the figure. Screw torque requirement is 4.5Nm;
 - Use the lever shaft screw(7) to install the presser foot lifter lever(8) on the plane of the cover, and the screw torque is required to be 4.5Nm;
 - Move the presser foot lifter cam(9) to the roller(11), and use 2 screws T(10) to fix the presser foot lifter door wheel(9) on the stepping motor shaft. It is required that the presser foot lifter cam and the roller work surface Not less than 80%, and the left plane of the presser foot lifting cam should not be higher than the left plane of the roller. The screw (1) shown in the figure is fixed and aligned with the plane of the stepper motor, and the screw torque is required to be 4N.m;
 - Fix the presser foot lifter rod(5) on the presser foot lifter lever(8) with the presser foot lifter rod screw(6). The torque of the screw is required to be 4N·m.
- Note: When the automatic presser foot lifter is lowered and the tooth is below the needle plate after the hand lifter foot lifter is lowered, the clearance between the rollers of the presser foot lifter cam and the presser foot lifter driving crank shall not be less than 0.3mm (to ensure that the presser foot can fall down normally).

1.14 步进抬压脚

③ 步进抬压脚电控参数定义说明

抬压脚高度校准说明：

长按P+针距加键，进入"快速调参模式"，短按加号键或减号键切换选项，该模式有以下选项：

⑧选项“L”：选项“L”调节压脚高度，中途停车时用量块测量压脚抬起高度，设置合适的值（调大增加高度，调小降低高度），采用标准量块测量抬压脚抬起高度为**1mm**，设置好后短按P保存；再次短按P退出快速调参模式。

剪线后抬压脚高度调节电控调试说明：

按住P键开机，进入以下参数进行调整

- ①、**长按P键进入参数P174**，默认9，调节范围1-13设置好后按P保存退出；
- ②、采用标准量块可对压脚高度进行校对，误差不超多1mm；

1.14 stepping motor presser foot lifter

③ Definition and description of stepping motor presser foot lifter electronic control parameters

Instructions for height calibration of presser foot

Hint: Press the P + stitch plus key to enter the "quick parameter adjustment mode", short press the plus or minus key to switch options, this mode has the following options:

⑧ Option "L": Option "L" adjusts the height of the presser foot, measure the lifting height of the presser foot with a gauge block when machine pause, set the appropriate value (larger to increase the height, smaller to decrease the height), and use a standard gauge block to measure the foot lift height as 1mm. After setting, short press P to save; short press P again to exit the quick parameter adjustment mode.

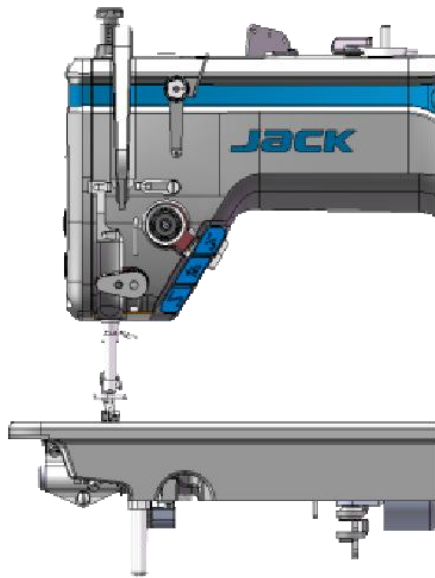
Adjust instructions of Electronic Control for Height Adjustment of Presser Foot after Thread Trimming:

Press the P key to power on, enter the following parameters to adjust

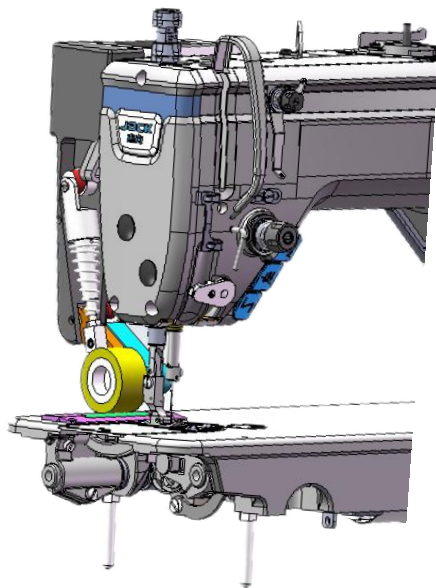
- ①, long press the P key to enter the parameter P174, the default is 9, after set the adjustment range 1-13 , press P to save and exit;
- ②. The height of the presser foot can be calibrated by using a standard gauge block, and the error is not more than 1mm;

1.15 改善电控兼容性

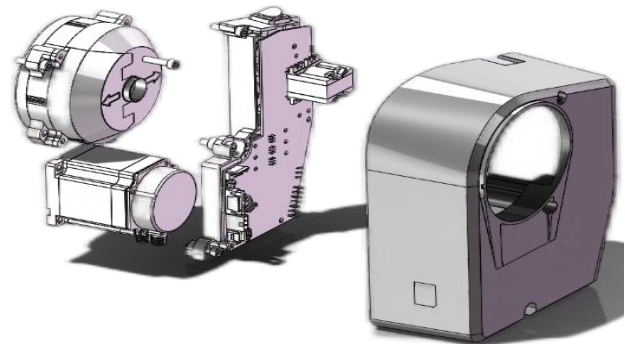
起缝微抬压脚改善起缝断线率



可以匹配外购后拖轮

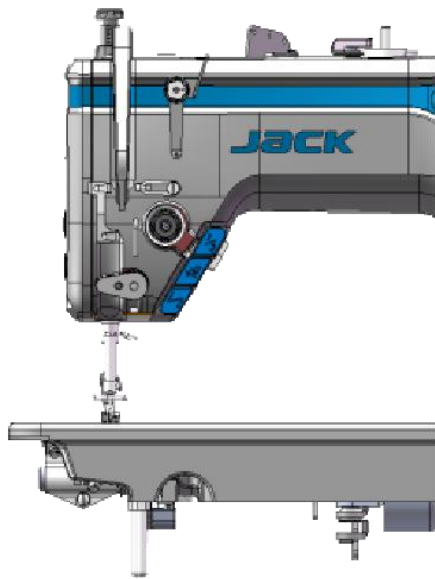


电控向下兼容、不同厂家互换使用，通用性增强

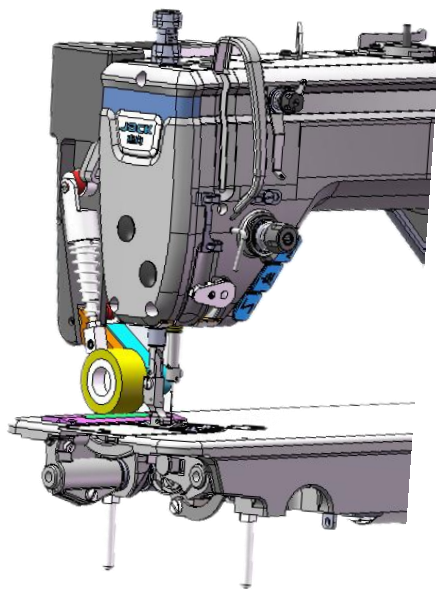


1.15 Improve electronic control compatibility

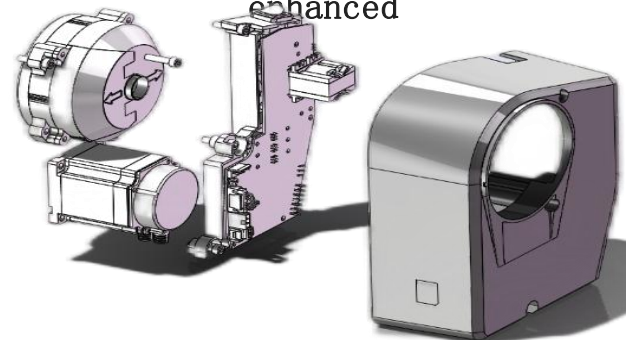
start-up micro-lift
function improve the
start breakage rate



can work with
optional puller

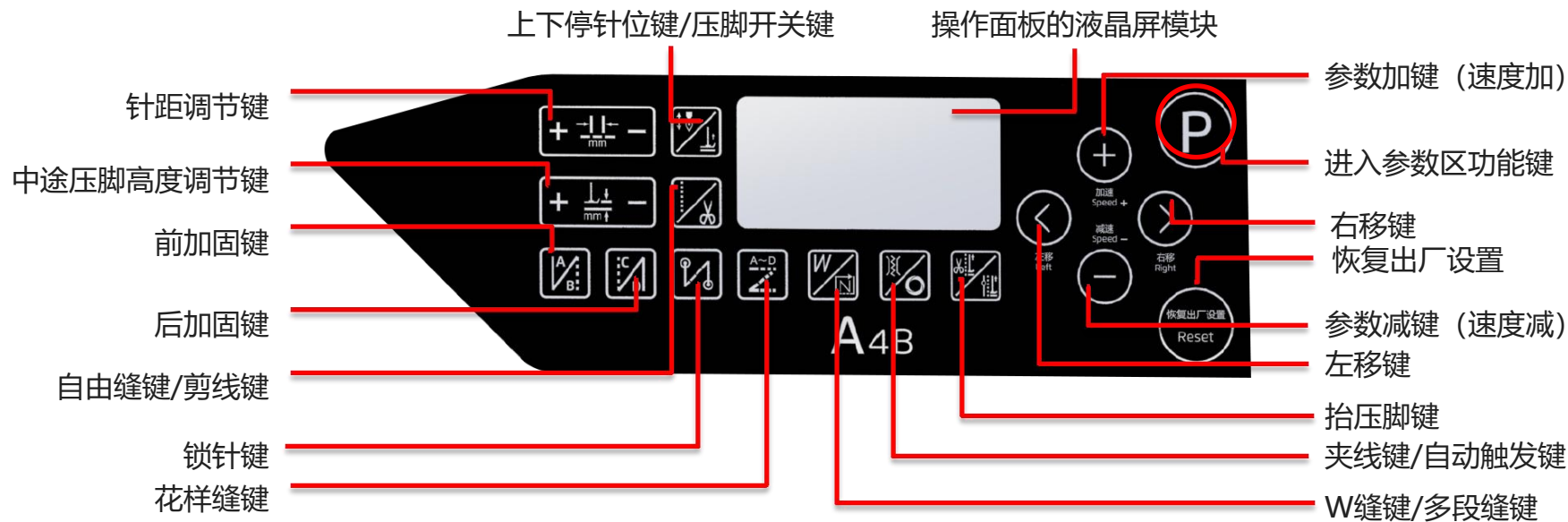


Electronic control is
compatible, interchangeable
by different manufacturers,
and the versatility is
enhanced



二、操作面板使用说明

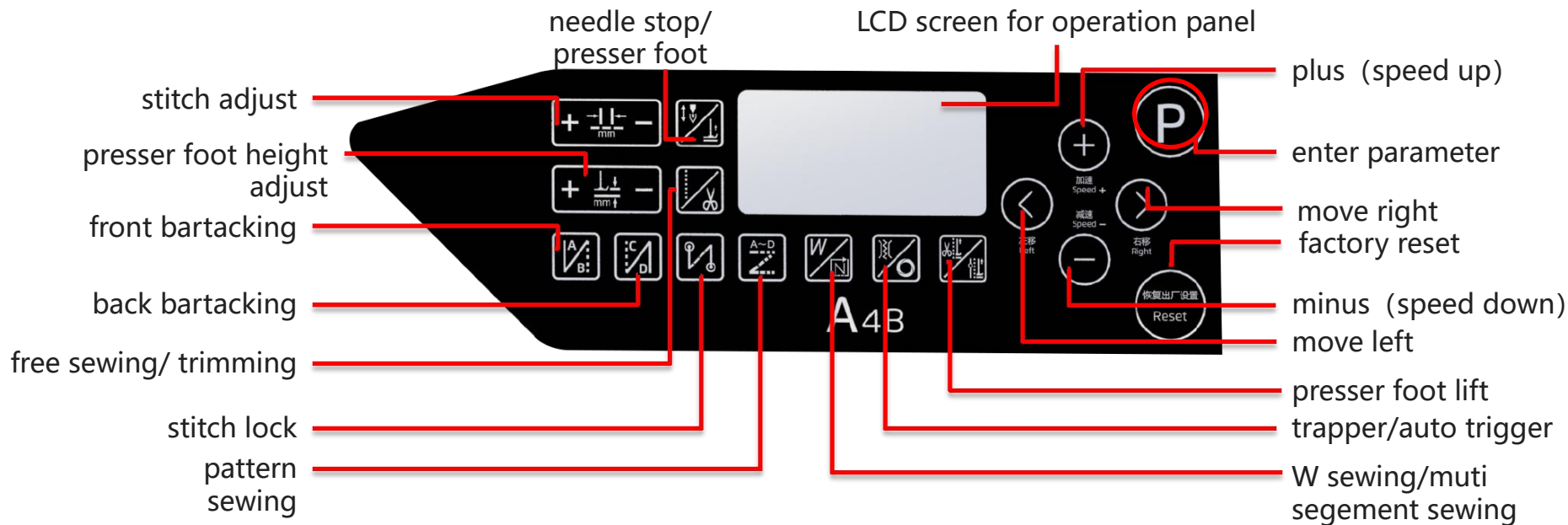
2.1 操作面板各按键说明



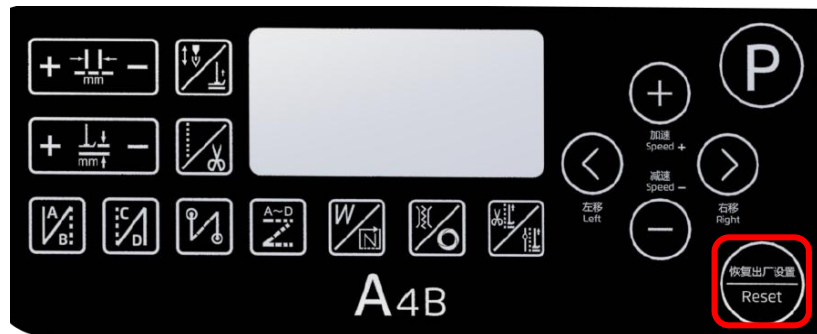
二、Operation panel

instructions

2.1 Operation panel instructions for each button



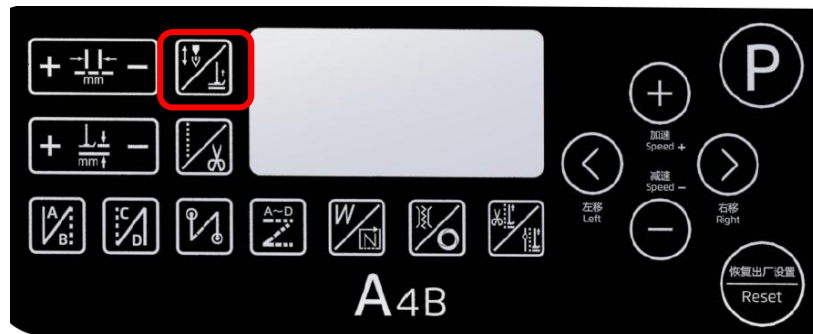
2.2 恢复出厂说明



恢复出厂：

- 1、长按  3秒恢复出厂、

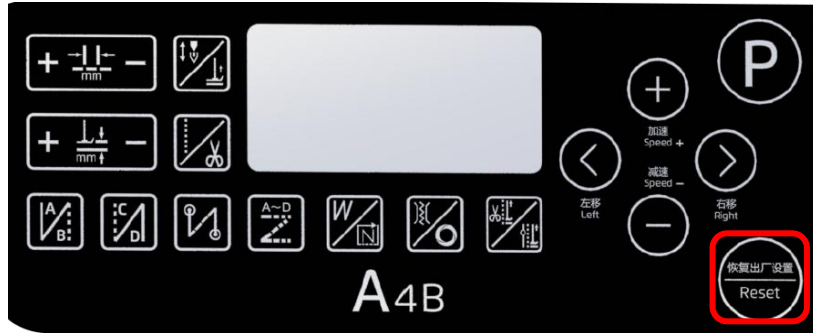
2.3 上下停针/抬压脚开关按键



上下停针/抬压脚开关按键：

- 1、短按：切换上下停针；
- 2、长按3秒：抬压脚功能开关；
- 3、机器报错误代码时，短按该按键会有语音指导如何操作。

2.2 factory reset

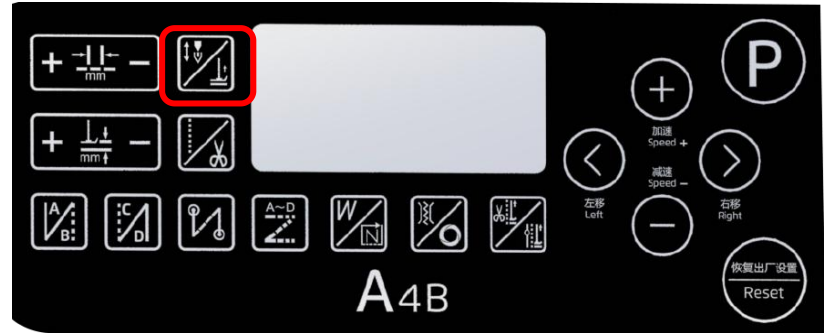


factory reset:

- 1、long press  3 seconds to restore manufacturer defaults

2.3 needle stop/presser foot switch button

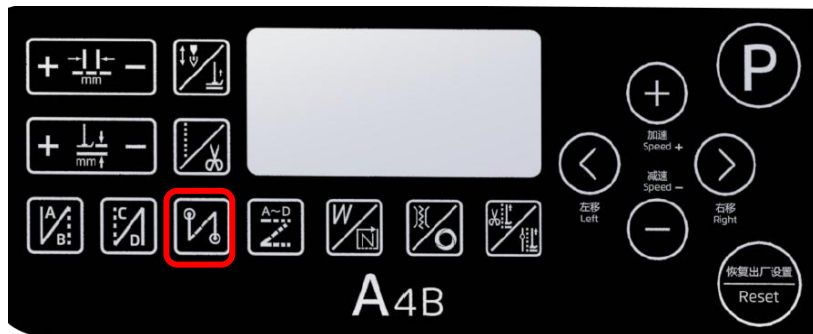
JACK 杰克
成套智联服务商
TOTAL SOLUTION PROVIDER



needle stop/presser foot switch button:

- 1、short press: switch needle stop up or down;
- 2、long press 3seconds: presser foot function on/off;
- 3、When the machine reports an error code, a short press of the button will give voice guidance on how to operate.

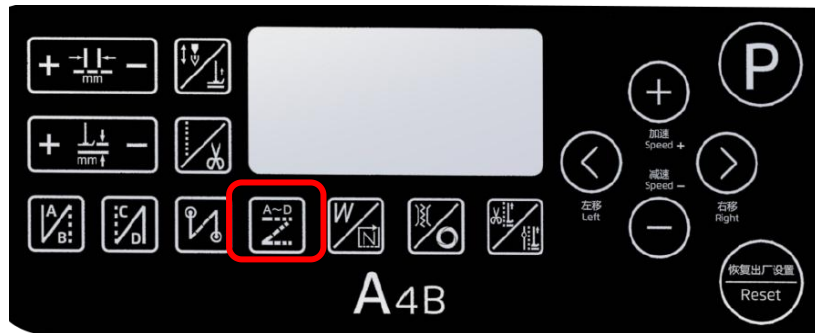
2.4 前后锁针按键



前后锁针按键：

1、短按：在后锁针、关闭、前后锁针、前锁针，之间切换，默认出厂关闭；

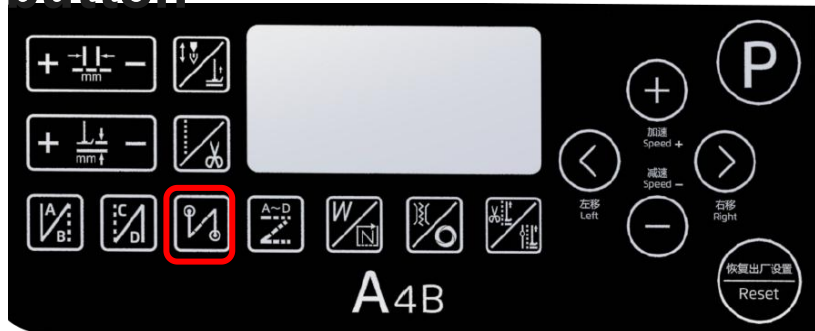
2.5 花样缝按键说明



花样缝按键：

- 1、短按花样键进入花样缝模式显示 N 1-P 2
N1表示花样号，调节范围N1-N9，P2表示段数，调节范围1-9；
- 2、再短按花样键进入花样缝设置编辑模式显示3.0
1-03-3 3.0表示针距，通过针距加减调节；1表示第1段；03表示针数；3表示重缝次数。

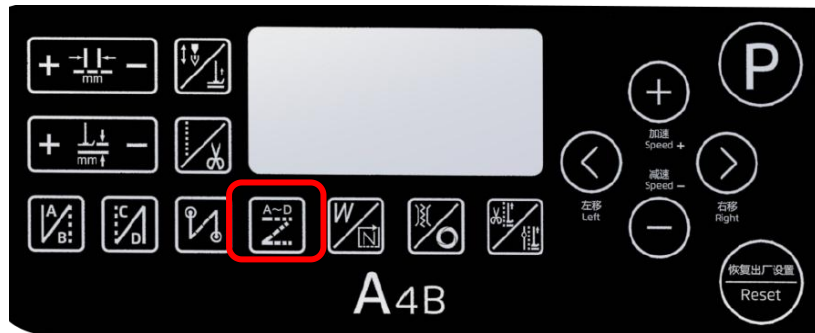
2.4 stitch lock button



stitch lock button:

1、short press: switch between back stitch lock, close, front and back stitch lock, front stitch lock, factory default off;

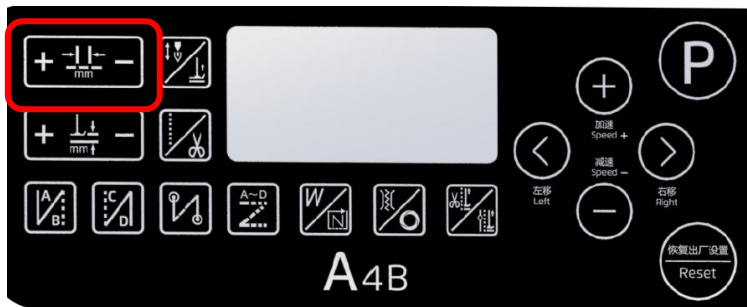
2.5 pattern sewing



pattern sewing button:

1. Short press the pattern key to enter the pattern sewing mode and display N 1-P 2
N1 represents the pattern number, the adjustment range is N1-N9, P2 represents the number of segments, and the adjustment range is 1-9;
2. Short press the pattern key again to enter the pattern sewing setting editing mode, and display 3.0 1-03-3
3.0 means the stitch distance, which can be adjusted by stitch adjust button; 1 means the first segment; 03 means the number of stitches; 3 means the number of re-stitches.

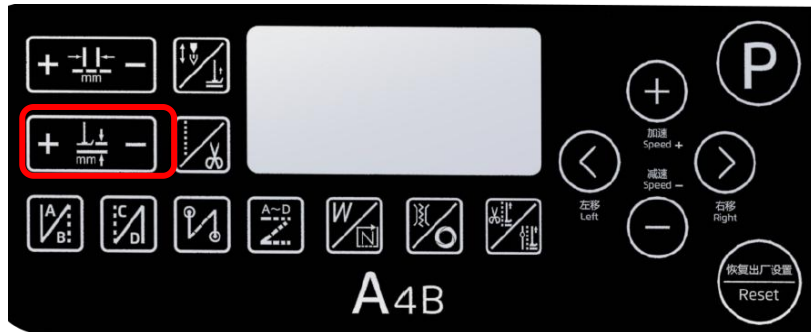
2.6 针距调节按键



针距调节按键:

- 1、短按+ -调节针距，以0.1 变化，长按连续变化；
- 2、针距范围0-5mm（A4F-7针距范围0-7mm）；

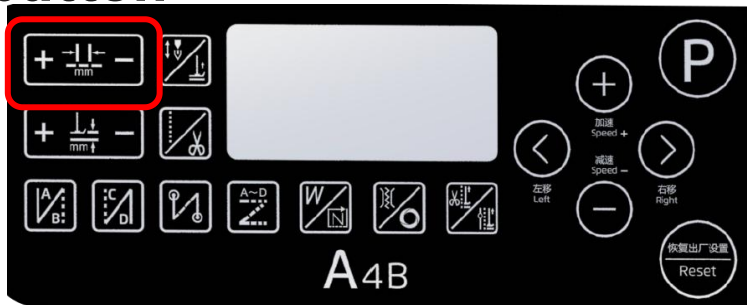
2.7 抬压脚高度调节按键



抬压脚高度调节按键:

- 1、短按+ -调节抬压脚高度，以1 变化，长按连续变化；
- 2、压脚高度调节范围0-13mm（默认出厂为9mm）；
- 3、压脚高度调节分，剪线后和中途抬压脚高度调节，中途抬压脚可直接通过面板抬压脚高度调节按键修改，剪线后抬压脚高度需进入参数调节。

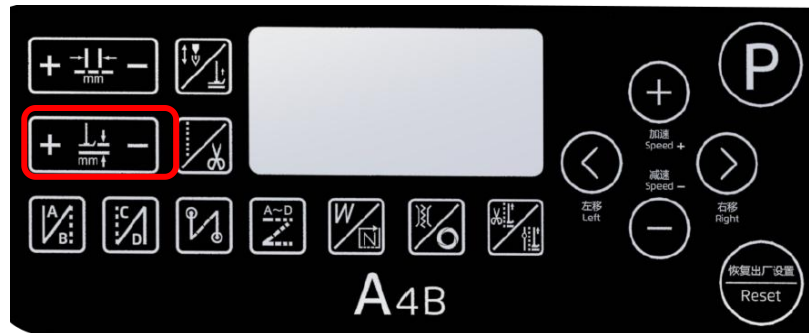
2.6 stitch adjust button



stitch adjust button:

- 1、 short press + - adjust the stitch distance,change by 0.1, Long press to change continuously;
- 2、 stitch range 0-5mm (A4F-7 stitch range is 0-7mm) ;

2.7 presser foot height adjust button



presser foot height adjust button:

1. Short press + - to adjust the height of the presser foot, change by 1, and long press to change continuously;
2. The height adjustment range of the presser foot is 0-13mm (the default factory is 9mm);
3. The height adjust of the presser foot includes after trimming and during the midway. During the midway the height of the presser foot can be adjusted directly through the height adjustment button on the panel. After the thread is trimmed, the height of the presser foot needs to be adjusted by parameters.

2.8 进入操作员参数模式及保存

空闲模式下，长按 **P** 键进入操作员参数模式。按 **<** 或 **>** 移动光标，相应位数值闪烁，再按 **+** 或 **-** 修改该位数值，按键 **P** 保存参数。如果参数未修改，按 **P** 键退出参数模式；如果参数已经修改，第一次按键保存参数，第二次按 **P** 键退出参数模式。

2.9 进入技术员参数模式及保存

按住 **P** 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。

2.10 速度调节

在空闲模式下，按上键 **+** 下键 **-** 调速度。向上调快，向下调慢，每按一次调整数值50，可以长按连续加减。

2.8 Enter operator parameter mode and save

when machine not work, long press **(P)** button enter operator parameter mode. Press **(<)** or **(>)** to move cursor, the corresponding digit value flashes, press **(+)** or **(-)** to modify the digit value. Press **(P)** to save it. If the parameter is not modified, press the **(P)** button to exit the parameter mode; if the parameter has been modified, press the **(P)** button for the first time to save the parameter, and press the **(P)** button for the second time to exit the parameter mode.

2.9 Enter technician parameter mode and save

Press **(P)** turn on machine, then enter Technician Parameter Mode. The parameter adjustment method is the same as the operator parameter adjustment method.


2.10 Speed adjust

In idle mode, press the **(+)** up button and **(-)** down button to adjust the speed. Up-fast, down-slow, each time you press can adjust the value by 50, long press can add or subtract continuously.



2.9 恢复出厂设置

长按  恢复出厂设置，作为恢复出厂设置的快捷方式。

2.10 进入监控模式

在空闲模式下，按  +  键进入，按上下键调整监控参数项，按P键退出。



(若为24、25、26、28项，长按P键保存当前监控值为对应参数，若保存成功，显示OK，短按P键退出监控模式)



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  退出监控模式。

2.9 Factory reset

Long press  to restore factory settings as a shortcut to restore factory settings.

2.10 Enter monitor mode

In idle mode, press the  +  button to enter, press the up and down keys to adjust the monitoring parameters, and press the P button to exit. (If it is 24, 25, 26, 28, long press the P button to save the current monitoring value to the corresponding parameter, if the save is successful, it will display OK, and short press the P button to exit the monitoring mode)

Note: Setting of the upper needle stop position: enter the monitoring parameter item 24, adjust the handwheel to the upper needle stop position (parameters will change with the position of the handwheel),  long press to save the parameters (after saving, the lower needle position will be automatically adjusted accordingly), Press  to exit monitor mode.

2.11 进入计针、计件快捷显示及修改

在空闲模式下，按 **(P)** + **[计件]** 键进入计针、计件快捷显示及修改界面，在该界面按 **(←)** 或 **(→)** 键切换计针、计件显示界面，可通过按 **(+)** 或 **(-)** 键直接修改针数或件数，按 **(P)** + **(-)** 键清除当前计针或计件数，短按 **(P)** 退出当前界面。

2.12 步进电机位置校正

长按 **(P)** + **(+)** 键，进入“快速调参模式”，短按 **(+)** 键或 **(-)** 键切换选项，该模式有以下选项：

①选项“0”：选项“0”进行步进电机“0”位设置，放一张纸在针板上，踏板踩到底进行不带线空缝，检查机针是否在一个孔内运行，通过调节选项“0”的值进行校准，设置好后短按

(P) 键保存；

②选项“4”：选项“4”调节顺缝4.0针距大小，踩10个针距，测量针距实际数值3.9-4.1mm，针距偏小把范围值调大，偏大把范围值调小，短按 **(P)** 保存；

③选项“-4”：选项“-4”调节倒缝4.0针距重合(要求至少对10针)，倒缝偏小就调大范围值，偏大就调小范围值，短按 **(P)** 保存；

2.11 Enter needle counting, piece counting quick display and modification

In idle mode, press the **(P)** + **[Z]** key to enter the quick display and modification interface of hand counting and piece counting. On this interface, press the **(←)** or **(→)** key to switch the hand counting and piece counting display interface. You can directly modify the number of needles or pieces by pressing the **(+)** or **(-)** key, and press the **(P)** + **(-)** key to clear the current To count hands or pieces, short press **(P)** to exit the current interface.

2.12 Stepper motor position correction

Long press the **(P)** + **(+)** key to enter the "Quick Parameter Adjustment Mode", short press the **(+)** or **(-)** key to switch options, this mode has the following options:

- ① Option "0": Option "0" is used to set the "0" position of the stepper motor, put a piece of paper on the needle plate, step on the pedal to the end to sew without thread, check whether the needle is running in a hole, and pass Adjust the value of option "0" to calibrate, after setting, short press **(P)** key to save;
- ② Option "4": Option "4" adjusts the size of 4.0 stitch length along the stitching, step on 10 stitch lengths, and measure the actual stitch length of 3.9-4.1mm. If the stitch length is too small, increase the range value, and if it is too large, adjust the range value. Small, short press **(P)** to save;
- ③ Option "-4": Option "-4" adjusts the 4.0 stitch overlap of back stitching (requires at least 10 stitches), if the back stitch is too small, adjust the range value to a larger value, and if it is too large, adjust the range value to a smaller value, and short press **(P)** to save;

2.12 步进电机位置校正

④选项“5”：选项“5”调节顺缝5.0针距大小，踩10个针距，测量针距实际数值4.8-5.2mm，短按Ⓟ保存。

⑤选项“-5”：选项“-5”调节倒缝5.0针距重合(要求至少对5针)，短按Ⓟ保存；如倒缝调不大导致不能对针，可以将顺缝调小一些比如调为4.8mm，P145参数值不要超过630。

⑥选项“-3”：选项“-3”调节倒缝3.0针距重合(要求至少对5针)，短按Ⓟ保存。

⑦选项“-2”：选项“-2”调节倒缝2.0针距重合(要求至少对5针)，短按Ⓟ保存。

⑧选项“L”：选项“L”调节压脚高度，中途停车时用量块测量压脚抬起高度，设置合适的值（调大增加高度，调小降低高度），测量抬压脚抬起高度为1mm，设置好后短按Ⓟ保存；再次短按Ⓟ退出快速调参模式。

PS：为了便于调试，速度会自动变成200 rpm，离开此界面后，速度恢复正常。

2.12 Stepper motor position correction

④ Option "5": Option "5" adjusts the size of 5.0 stitch length along the stitching, step on 10 stitch lengths, measure the actual value of stitch length 4.8-5.2mm, and short press **(P)** to save.

⑤ Option "-5": Option "-5" adjusts the backstitch 5.0 stitch overlap (requires at least 5 stitches), short press **(P)** to save; Adjust it to 4.8mm, and the parameter value of P145 should not exceed 630.

⑥ Option "-3": Option "-3" adjusts backstitch 3.0 stitch distance overlap (requires at least 5 stitches), short press **(P)** to save.

⑦ Option "-2": Option "-2" adjusts the 2.0 stitch overlap of reverse stitching (requires at least 5 stitches), short press **(P)** to save.

⑧ Option "L": Option "L" adjusts the height of the presser foot, measure the height of the presser foot with a measuring block when stopping halfway, set the appropriate value (larger-increase the height, smaller-decrease the height), and measure the height of the presser foot as 1mm. After setting, short press **(P)** to save; short press **(P)** again to exit the quick parameter adjustment mode.

PS: In order to easy for debugging, the speed will automatically become 200 rpm, after leaving this interface, the speed will return to normal.

三、电控参数及故障排除

3.1 操作员参数(长按P键进入) 表(1)

参数项	参数描述	默认值	参数范围	
P00	起缝速度(r/min)	200	100-800	
P01	自由缝最高转(r/min)	3700	200-5000	
P02	多段缝速度(r/min)	3500	200-3500	
P03	上下停针选择	1	0-1	0: 上停针1: 下停针
P04	前固缝速(r/min)	1800	200-3000	
P05	后固缝速(r/min)	1800	200-3000	
P06	W缝速度(r/min)	1800	200-3000	
P07	慢速起缝速(r/min)	800	100-2000	
P08	慢速起缝针数	2	1-9	
P09	慢速起缝开关	0	0-1	0: 关闭1: 打开

三、Electronic control parameters and troubleshooting

3.1 operator parameter(long press P button)

figure(1)

parameter term	parameter description	Defaults	parameter range	
P00	start speed(r/min)	200	100-800	
P01	free sewing Max.RPM(r/min)	3700	200-5000	
P02	several segment speed(r/min)	3500	200-3500	
P03	Up and down needle stop selection	1	0-1	0: upper stop 1: lower stop
P04	front bartacking speed(r/min)	1800	200-3000	
P05	back bartacking speed(r/min)	1800	200-3000	
P06	W segment speed(r/min)	1800	200-3000	
P07	Slow starting speed(r/min)	800	100-2000	
P08	slow start stitches number	2	1-9	
P09	slow start switch	0	0-1	0: close 1: open

表(2)

参数项	参数描述	默认值	参数范围	说明
P10	W缝补偿1	0	-20-20	正缝切倒缝
P11	W缝补偿2	0	-20-20	倒缝切正缝
P12	补半针延迟时(ms)	150	1-180	
P13	补一针延迟时(ms)	180	150-250	
P14	补针速度(r/min)	200	100-500	
P15	按键补针模式	0	0-2	0: 按时间补针1: 补半针2: 补一针
P18	起始回缝补偿A	0	-20-20	
P19	起始回缝补偿B	0	-20-20	
P21	手动倒缝最高(r/min)	2800	200-3200	
P22	补针时倒缝关闭阈值	8	0-9999	
P23	脚踏板控速曲线模式	0	0-3	0: 直线1: 两段斜率2: 曲线(平方、开方) 3: S曲线
P24	踏板剪线位置	350	0-4095	
P25	终止回缝补偿C	0	-20-20	
P26	终止回缝补偿D	0	-20-20	
P27	无抬压脚时剪线电压值	550	0-4095	

figure(2)

parameter term	parameter description	Defaults	parameter range	Remark
P10	W seam compensation 1	0	-20-20	Forward sewing change to reverse sewing
P11	W seam compensation 2	0	-20-20	reverse sewing change to forward sewing
P12	half stitch delay(ms)	150	1-180	
P13	one stitch delay(ms)	180	150-250	
P14	darn stitch speed(r/min)	200	100-500	
P15	press darn stitch mode	0	0-2	0: darn stich by time 1:half stitch 2: one stitch
P18	Start back sewing compensation A	0	-20-20	
P19	Start back sewing compensation B	0	-20-20	
P21	Max.manual reverse stitching(r/min)	2800	200-3200	
P22	Backstitch closing threshold value when darn stitching	8	0-9999	
P23	Foot pedal speed control curve mode	0	0-3	0: straight line 1: Two slopes 2: Curve (square, square root) 3: S curve
P24	pedal trimming position	350	0-4095	
P25	End backstitch compensation C	0	-20-20	
P26	End backstitch compensation D	0	-20-20	
P27	trimming voltage without foot lifter	550	0-4095	

表(3)

参数项	参数描述	默认值	参数范围	说明
P29	幂次控速曲线辅助参数	1	0-1	0: 平方s 1: 开方
P30	电机低速加力功能开关	0	0-2	0: 正常1: 电机加力2: 电机加力+反拉控制
P31	剪线加力系数 (电机加力)	35	10-60	
P32	夹线电磁铁全出力时间	40	1-200	
P33	夹线电磁铁保持占空比	60	1-100	
P34	多段缝运动模式选择	0	0-1	0:一键触发功能关1:一键触发功能开
P35	夹线开关	1	0-1	0: 关闭1: 打开
P38	剪线开关	1	0-1	0: 关闭1: 开启
P39	缝中抬压脚开关	0	0-1	0: 关闭1: 开启
P40	剪线后抬压脚开关	0	0-1	0: 关闭1: 开启
P41	计针数计数单位	1	1-50	
P42	计针数总数设定	9999	1-9999	
P43	计针数模式选择	0	0-6	0: 关闭off 1: 升序循环计数 2: 降序循环计数 3: 升序计数, 计满报警并停止运行 4: 降序计数, 减为0报警并停止运行 5:升序计数, 计满报警提示, 继续运行 6: 降序计数, 减为0报警提示, 继续运行 注: 短按P取消报警

figure(3)

parameter term	parameter description	Default s	parameter range	Remark
P29	Power speed control curve auxiliary parameters	1	0-1	0: square s 1: square root
P30	Motor low speed boost function switch	0	0-2	0: normal 1: motor afterburner 2: motor afterburner + reverse pull control
P31	Trimming force rate (motor force)	35	10-60	
P32	Clamping electromagnet full output time	40	1-200	
P33	Pinch solenoid maintains duty cycle	60	1-100	
P34	Multi-segment sewing motion mode selection	0	0-1	0: One-key trigger function off 1: One-key trigger function on
P35	Clamp switch	1	0-1	0: off 1: on
P38	Thread trimmer switch	1	0-1	0: off 1: on
P39	Presser foot lift switch during sewing	0	0-1	0: off 1: on
P40	Presser foot lift switch after thread trimming	0	0-1	0: off 1: on
P41	Counting stitch unit	1	1-50	
P42	Setting the total number of stitches	9999	1-9999	
P43	Hand count mode selection	0	0-6	0: off 1: ascending loop count 2: Counting in descending order 3: Counting in ascending order, full alarm and stop running 4: Count in descending order, reduce to 0 and alarm and stop running 5: Count up in ascending order, alarm when full, continue to run 6: Count in descending order, reduce to 0, alarm prompt, continue to run Note: Short press P to cancel the alarm

3.2技术员参数表（按住P键再开机进入） 表(4)

参数项	参数描述	默认值	参数范围	说明
P44	轻前踏抬压脚确认延迟时间	0	0-300	0: 关闭1-300: 根据延迟时间开启
P47	剪线后反拉	360	200-360	
P49	剪线速度(r/min)	250	100-500	
P52	放压脚延迟时间(ms)	2	0-500	
P53	抬压脚功能选择	1	0-1	0: 关闭1: 开启
P54	背光亮度	100	0-100	
P56	上电自动找上针位	1	0-1	0: 关闭1: 开启
P58	上停针调整角度	83	0-359	
P59	下停针调整角度	176	0-359	
P60	测试速度(r/min)	3800	200-5000	
P61	老化运行时间(s)	3	1-255	
P62	特殊运行模式	0	0-3	0: 正常1: 简易缝2: 初始角测试 3: 自动测试模式
P63	老化停止时间(s)	2	1-255	
P66	机头保护开关检测	1	0-1	0: 关闭1: 开启
P67	机头保护开关逻辑	1	0-1	0: 正1: 反
P70	踏板抬压脚位置设定	800	0-4095	
P71	起缝延迟时间	80	0-900	

3.2 technical parameter list (press P button to power on)

parameter term	parameter description	Defaults	parameter range	Remark
P44	Presser foot slightly forward to confirm delay time	0	0-300	0: Off 1-300: On according to the delay time
P47	Pull back after trimming	360	200-360	
P49	trimming speed(r/min)	250	100-500	
P52	Presser foot release delay time (ms)	2	0-500	
P53	Presser foot lift function selection	1	0-1	0:off 1:on
P54	Backlight brightness	100	0-100	
P56	Automatically find the needle position when powered up	1	0-1	0:off 1:on
P58	Upper stop needle adjustment angle	83	0-359	
P59	Lower stop needle adjustment angle	176	0-359	
P60	Test speed (r/min)	3800	200-5000	
P61	Aging running time (s)	3	1-255	
P62	special operating mode	0	0-3	0: Normal 1: Simple sewing 2: Initial angle test 3: Automatic test mode
P63	Aging stop time (s)	2	1-255	
P66	Machine head protection switch detection	1	0-1	0:off 1:on
P67	Machine head protection switch logic	1	0-1	0: Positive 1: Negative
P70	Pedal lifter position setting	800	0-4095	
P71	Seam start delay time	80	0-900	

表(5)

参数项	参数描述	默认值	参数范围	说明
P72	踏板前踩运行开始位置(相对于回中位置)	400	0-4095	
P73	踏板低速运行结束位置(相对于回中位置)	800	0-4095	
P74	踏板模拟量最大值	4000	0-4095	
P75	踏板回中位置设定	1650	0-4095	
P78	夹线开始角度	130	10-359	
P79	夹线结束角度	320	0-359	
P80	剪线开始角度	0	0-359	
P81	剪线加力角度	70	0-359	
P82	剪线结束角度	180	0-359	
P83	踏板抬压脚确认时间(ms)	150	1-500	
P84	安全开关报警确认时间(ms)	300	1-500	
P85	安全开关报警恢复时间(ms)	50	1-200	
P86	两段斜率转折点速度(r/min)	1500	0-4000	
P87	两段斜率中间模拟量	2700	0-4095	
P88	计件数计数单位	1	1-50	
P89	计件数总数设定	9999	1-9999	

Figure(5)

parameter term	parameter description	Defaults	parameter range	Remark
P72	The starting position of the operation before the pedal is pressed (relative to the return to the center position)	400	0-4095	
P73	End position of pedal low speed operation (relative to return to center position)	800	0-4095	
P74	Pedal analog maximum	4000	0-4095	
P75	Pedal return to center position setting	1650	0-4095	
P78	Clamp start angle	130	10-359	
P79	Clamp ending angle	320	0-359	
P80	Trimming start angle	0	0-359	
P81	Trimming force angle	70	0-359	
P82	Trimming end angle	180	0-359	
P83	Pedal lift and presser foot confirmed time (ms)	150	1-500	
P84	Safety switch alarm confirmation time (ms)	300	1-500	
P85	Safety switch alarm recovery time (ms)	50	1-200	
P86	Two-stage slope turning point speed (r/min)	1500	0-4000	
P87	Two-stage slope intermediate analog	2700	0-4095	
P88	Piece count unit	1	1-50	
P89	Piece count total setting	9999	1-9999	

表(6)

参数项	参数描述	默认值	参数范围	说明
P90	计件数模式选择	0	0-6	0: 关闭 1: 升序循环计数 2: 降序循环计数 3: 升序计数, 计满报警并停止运行.4: 降序 计数, 减为0报警并停止运行.5: 升序计数, 计满报警提示, 继续运行. 6: 降序计数, 减为 0报警提示, 继续运行。 注: 短按P取消报警
P91	针数计数值	0	0-9999	
P92	件数计数值	0	0-9999	
P93	语音开关	1	0-1	0关闭1开启
P94	开机语开关	1	0-1	0关闭1开启
P95	语音国家切换	0	0-1	0第一国家语言 1第2国家语言
P97	主要部针距	35	0-50	
P98	密缝模式选择	0	0-3	0关闭1-前加密2-后加密3-前后加密
P99	针距锁	0	0-1	0关闭1开启
P100	手动倒缝切换限速功能选择	0	0-1	0关闭1开启
P101	1/2针距按键重定义选择	0	0-1	0关闭1开启
P107	防断针功能选择开关	1	0-1	0: 关1: 开

figure(6)

parameter term	parameter description	Defaults	parameter range	Remark
P90	Piece counting mode selection	0	0-6	0: Off 1: Counting in ascending order 2: Counting in descending order 3: Counting in ascending order, alarm when full and stop running. 4: Counting in descending order, reduce to 0 and alarm and stop running. 5: Count in ascending order, alarm when full, continue running . 6: Count down in descending order, reduce to 0, alarm prompt, continue to run. Note: Short press P to cancel the alarm
P91	Stitch count value	0	0-9999	
P92	Piece count value	0	0-9999	
P93	voice switch	1	0-1	0 off 1 on
P94	boot language switch	1	0-1	0 off 1 on
P95	Voice country switch	0	0-1	0 first national language 1 second national language
P97	Main part needle distance	35	0-50	
P98	Close stitch mode selection	0	0-3	0 off 1-before encryption 2-after encryption 3-before and after encryption
P99	Stitch lock	0	0-1	0 off 1 on
P100	Manual reverse sewing switching speed limit function selection	0	0-1	0 off 1 on
P101	1/2 stitch key redefine selection	0	0-1	0 off 1 on
P107	Anti-pin function selector switch	1	0-1	0 off 1 on

表(7)

参数项	参数描述	默认值	参数范围	说明
P108	防断针开始机械角度	20	0-359	
P109	防断针结束机械角度	90	0-359	
P110	定针缝中途剪线后加固缝功能选择开关	0	0-1	0: 关1: 开
P111	起缝微抬压脚开关	0	0-1	0: 关1: 开
P112	起缝压脚微抬开始角度	0	0-359	
P113	起缝压脚微抬结束角度	200	0-359	
P114	起缝抬压脚开持续时间限制	200	0-1000	
P116	单固缝功能开关	0	0-1	0: 关1: 开
P123	抬压脚全开通阶段占空比	100	0-100	
P124	起始密缝针距	8	0 - 50	
P125	起始密缝方向	0	0-1	0-正缝 1-倒缝
P126	起始密缝速度	1000	100 - 2500	
P127	起始密缝针数	2	0 - 12	
P128	终止密缝针距	5	0 - 50	
P129	终止密缝速度	1800	100 - 2500	
P130	终止密缝针数	2	0 - 12	

figure(7)

parameter term	parameter description	Defaults	parameter range	Remark
P108	Anti-broken needle start mechanical angle	20	0-359	
P109	Anti-broken needle end mechanical angle	90	0-359	
P110	Backtack function selection switch after thread trimming in the middle of fixed stitch sewing	0	0-1	0: Off 1:On
P111	Seam start micro-lift switch	0	0-1	0:off 1:On
P112	Start angle of sewing foot slightly raised	0	0-359	
P113	Slightly raised end angle of sewing foot	200	0-359	
P114	Seam start and presser foot lift open duration limit	200	0-1000	
P116	Single bartacking function switch	0	0-1	0: off 1: on
P123	Duty ratio of presser foot lift fully open stage	100	0-100	
P124	Starting condense stitch length	8	0 - 50	
P125	Starting condense stitch direction	0	0-1	0-forward seam 1-reverse seam
P126	Starting condense stitch speed	1000	100 - 2500	
P127	Starting condense stitch number	2	0 - 12	
P128	End condense stitch distance	5	0 - 50	
P129	End condense stitch speed	1800	100 - 2500	
P130	End condense stitch number	2	0 - 12	

表(8)

参数项	参数描述	默认值	参数范围	说明
P131	终止密缝方向	0	0 - 1	0-正缝 1-倒缝
P132	花样缝最高速	2000	200~3000	
P133	步进Z信号相对于0mm的偏移量	-10	-999 ~999	
P134	步进Z信号相对于步进停车的偏	1050	0 -2500	
P161	正缝针距速度补偿比例	100	70-130	
P162	倒缝针距速度补偿比例	100	70-130	
P163	花样缝倒针距补偿 (百分比)	100	70-130	
P164	花样缝正针距补偿 (百分比)	100	70-130	
P165	正缝针距速度补偿(大针距)	100	70-130	
P166	倒缝针距速度补偿(大针距)	100	70-130	
P171	正缝针距补偿比例	100	70-130	
P172	倒缝针距补偿比例	100	70-130	
P173	中途抬压脚高度	9	1-13	
P174	剪线抬压脚高度	9	1-13	
P175	抬压脚高度微调	0	-999~999	

figure(8)

parameter term	parameter description	Defaults	parameter range	Remark
P131	End condense stitch direction	0	0 - 1	0-forward seam 1-reverse seam
P132	Max.speed of pattern sewing	2000	200~3000	
P133	Offset of step Z signal relative to 0mm	-10	-999 ~999	
P134	Offset of step Z signal relative to step stop	1050	0 -2500	
P161	Forward stitch speed compensation ratio	100	70-130	
P162	Backstitch stitch speed compensation ratio	100	70-130	
P163	Backstitch compensation for pattern sewing (percentage)	100	70-130	
P164	Positive stitch compensation for pattern sewing (percentage)	100	70-130	
P165	Forward stitch speed compensation (large stitch length)	100	70-130	
P166	Backstitch stitch speed compensation (large stitch length)	100	70-130	
P171	Forward stitch compensation ratio	100	70-130	
P172	Backstitch compensation ratio	100	70-130	
P173	Halfway up the presser foot height	9	1-13	
P174	Thread trimmer and presser foot height	9	1-13	
P175	Presser foot height adjustment	0	-999~999	

表(9)

参数项	参数描述	默认值	参数范围	说明
P177	压脚下落速度	300	100-800	
P179	压脚抬起速度	400	200-800	
P181	抬压脚最大高度	13	0-13	
P182	步进抬压脚超时保护时间(s)	10	1-20	
P183	步进针距切换动作角度	150	0-359	
P193	1/2按键针距选择	0	0-5	0: 1/2针距 1: 1/4针距 2: 1/8针距 3: 倒1/2针距 4: 倒1/4针距 5: 倒1/8针距
P194	起缝第一针速度	600	100-1500	
P195	起缝第二针速度	1200	100-2000	
P196	起缝第三针速度	0	100-3000	
P197	针距单位	0	0-1	0:mm 1:英制
P202	母线电压补偿	0	-30~30	
P204	花样缝补偿1	0	-20-20	正缝切倒缝
P205	花样缝补偿2	0	-20-20	倒缝切正缝
P220	步进送布最大电流	15	5-18	

figure(9)

parameter term	parameter description	Defaults	parameter range	Remark
P177	Presser foot down speed	300	100-800	
P179	Presser foot lift speed	400	200-800	
P181	Maximum height of presser foot	13	0-13	
P182	Stepping presser foot overtime protection time (s)	10	1-20	
P183	Stepping stitch switching action angle	150	0-359	
P193	1/2 button stitch selection	0	0-5	0: 1/2 gauge 1: 1/4 gauge 2: 1/8 stitch gauge 3: 1/2 stitch gauge backward 4: Inverted 1/4 stitch gauge 5: Inverted 1/8 stitch gauge
P194	The speed of the first stitch	600	100-1500	
P195	Second stitch speed	1200	100-2000	
P196	The third stitch speed	0	100-3000	
P197	stitch unit	0	0-1	0:mm 1:inch
P202	Bus voltage compensation	0	-30~30	
P204	Pattern sewing compensation 1	0	-20-20	Forward seam change to reverse seam
P205	Pattern sewing compensation 2	0	-20-20	Back seam change to straight seam
P220	Step feeding maximum current	15	5-18	

表(10)

参数项	参数描述	默认值	参数范围	说明
P230	最大针距限制	70	0-70	限制最大针距
P240	微抬压脚高度	1	1-13	mm
P241	微抬压脚允许角度最小值	180	0-359	
P242	微抬压脚允许角度最大值	240	0-359	
P245	W缝首段针数增减	0	-99-99	
P246	W缝末段针数增减	0	-99-99	
P247	多段缝每段剪线开关	0	0-2	
P248	加固缝打开时的夹线开始角度	100	0-359	
P249	加固缝关闭时的夹线开始角度	270	0-359	
P250	密缝打开时的夹线开始角度	130	0-359	
P251	密缝关闭时的夹线开始角度	320	0-359	

figure(10)

parameter term	parameter description	Defaults	parameter range	Remark
P230	Maximum stitch length limit	70	0-70	Limit the maximum stitch length
P240	Slightly the presser foot lift height	1	1-13	mm
P241	The minimum allowable angle of the slightly presser foot lift	180	0-359	
P242	The maximum allowable angle of the slightly presser foot lift	240	0-359	
P245	Increase or decrease in the number of stitches in the first section of W sewing	0	-99-99	
P246	Increase or decrease in the number of stitches at the end of the W seam	0	-99-99	
P247	Multi-segment sewing thread trimmer switch for each segment	0	0-2	
P248	The starting angle of the thread clamp when the bartack is opened	100	0-359	
P249	The starting angle of the thread clamp when the bartack is closed	270	0-359	
P250	The starting angle of the clamping when the condense stitch is opened	130	0-359	
P251	The starting angle of the clamping when the condense stitch is closed	320	0-359	

3.3 监控参数表 (开机后按P键+抬压脚键进入)

参数编号	参数描述	参数编号	参数描述
M10	针数计数值	M23	初始角度
M11	件数计数值	M24	机械角度
M13	操作面板软件版本号	M25	踏板前踩模拟量最大值
M18	控制器主板软件版本号	M26	踏板回中模拟量采样值
M20	母线电压	M28	踏板剪线模拟量采样值
M21	机头速度	M30-M37	历史故障代码
M58	步进电机开机找电角度值	M59	步进电机电流值

3.3 Monitoring parameter list (press P key + presser foot lift key to enter after power on)

parameter No.	parameter description	parameter No.	parameter description
M10	Stitch count value	M23	initial angle
M11	Piece count value	M24	Mechanical angle
M13	software version number of operation panel	M25	The maximum value of analog quantity before pedal
M18	software version number of controller mainboard	M26	Pedal back to the analog sample value
M20	bus voltage	M28	Pedal trimming analog sample value
M21	head speed	M30-M37	Historical fault codes
M58	Stepper motor startup to find the electric angle value	M59	Stepping motor current value

3.4 故障代码表

若系统出现报错或报警，请首先检查如下项：

1 先确认机器的连接线是否连接完好；2 确认电控和机头是否匹配；3 确认恢复出厂是否准确。

故障代码	代码含义	解决措施
Err-01	主轴电机硬件过流	1、关闭系统电源，30秒后重新接通电源。2、检查主轴电机编码器、电控是否有损坏等不良现象若有则及时更换。3、拨打4008876858。
Err-03	系统欠压	断开控制器电源，检查输入电源电压是否低于176V。若电源电压低于176V，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。请联系当地服务商或拨打4008876858。
Err-04	停机时过压	断开控制器电源，检查输入电源电压是否高于264V。若电源电压高于264V，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。请联系当地服务商或拨打4008876858。
Err-05	运行时过压	断开控制器电源，检查输入电源电压是否高于264V。若电源电压高于264V，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。请联系当地服务商或拨打4008876858。
Err-06	电磁铁回路故障	1、关闭系统电源，检查电磁铁连线是否正确，是否有松动、破损等现象若有则及时更换。2、拔掉电控上电磁铁接口确认电控是否正常，如电控正常请排查各路电磁是否损坏。3、排除后重启系统若仍不能工作，请联系当地服务商或拨打4008876858。

3.4 Fault code

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

1. First confirm whether the connection line of the machine is well connected;
2. Confirm whether the electric control and the machine head match;
3. Confirm whether the factory reset is accurate.

fault code	description	solution
Err-01	Spindle motor hardware overcurrent	1. Turn off the power of the system, and then turn on the power again after 30 seconds. 2. Check whether the spindle motor encoder and electric control are damaged or not, if any, replace them in time. 3. Call 4008876858.
Err-03	System undervoltage	Disconnect the controller power and check whether the input power voltage is lower than 176V. If the power supply voltage is lower than 176V, please restart the controller after the voltage returns to normal. If the voltage returns to normal, the starter controller still cannot work normally. Please contact your local service provider or call 4008876858.
Err-04	Overvoltage during shutdown	Disconnect the controller power and check whether the input power voltage is higher than 264V. If the power supply voltage is higher than 264V, please restart the controller after the voltage returns to normal. If the voltage returns to normal, the starter controller still cannot work normally. Please contact your local service provider or call 4008876858.
Err-05	Overvoltage during operation	Disconnect the controller power and check if the input power voltage is higher than 264V. If the power supply voltage is higher than 264V, please restart the controller after the voltage returns to normal. If the voltage returns to normal, the starter controller still cannot work normally. Please contact your local service provider or call 4008876858.
Err-06	Electromagnet circuit failure	1. Turn off the power of the system, check whether the electromagnet is connected correctly, whether there is looseness or damage, and replace it in time. 2. Unplug the electromagnet interface on the electric control to confirm whether the electric control is normal. If the electric control is normal, please check whether the electromagnet is damaged. 3. If the system does not work after restarting after exclusion, please contact the local service provider or call 4008876858.

故障代码	代码含义	解决措施
Err-07	主轴电机电流检测回路故障	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。请联系当地服务商或拨打4008876858。
Err-08	主轴电机堵转	1、请检查是否有异物缠绕在机头上，检查机器旋梭是否有线头卡死，机器偏心轮是否有卡死现象。2、断开控制器电源，检查主轴电机电源输入插头是否脱落、松动、破损。3、排除后重启系统仍不能正常工作。请联系当地服务商或拨打4008876858。
Err-10	面板通讯故障	1、请检查操作面板与电控的连线是否脱落、松动、断裂。2、排除后重启系统若仍不能正常工作。请联系当地服务商或拨打4008876858。
Err-12	主轴电机初始角度检测故障	1、请进入参数项里检查主轴电机初始角度。2、请断电后再尝试2-3次，若仍报故障。请联系当地服务商或拨打4008876858。
Err-13	主轴电机零位故障	1、关闭系统电源，检查主轴电机编码器接头是否松动或脱落，将其恢复正常后重启系统。2、更换主轴电机编码器。3、排除后重启系统若仍不能正常工作请联系当地服务商或拨打4008876858。
Err-14	主控eeprom元器件读写故障	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，请联系当地服务商或拨打4008876858。
Err-15	主轴电机超速保护	
Err-16	主轴电机反转	
Err-17	面板参数读写故障	

fault code	description	solution
Err-07	Spindle motor current detection circuit fault	Turn off the power of the system, and then turn on the power again after 30 seconds to see if it can work normally. Retry several times, if the failure occurs frequently. Please contact your local service provider or dial 4008876858.
Err-08	Spindle motor blocked	1. Please check whether there is any foreign matter wrapped around the machine head, check whether the thread head of the rotary hook of the machine is stuck, and whether the eccentric wheel of the machine is stuck. 2. Disconnect the power supply of the controller and check whether the input plug of the spindle motor power supply is off, loose or damaged. 3. Restart the system after exclusion and still cannot work normally. Please contact your local service provider or dial 4008876858.
Err-10	Panel communication failure	1. Please check whether the connection between the operation panel and the electric control is off, loose or broken. 2. Restart the system after exclusion if it still does not work properly. Please contact your local service provider or dial 4008876858.
Err-12	Spindle motor initial angle detection failure	1. Please enter the parameter item to check the initial angle of the spindle motor. 2. Please try again 2-3 times after the power is turned off, if the fault is still reported. Please contact your local service provider or dial 4008876858.
Err-13	Spindle motor zero position fault	1. Turn off the system power, check if the spindle motor encoder connector is loose or fall off, restore it to normal and restart the system. 2. Replace the spindle motor encoder. 3. Restart the system after exclusion, if it still does not work properly, please contact the local service provider or call 4008876858.
Err-14	The main control eeprom component read and write failure	Turn off the power of the system and turn it on again after 30 seconds. If the controller still does not work properly, please contact your local service provider or dial 4008876858.
Err-15	Spindle motor overspeed protection	
Err-16	Spindle motor reverse	
Err-17	Panel parameter read and write failure	

故障代码	代码含义	解决措施
Err-18	主轴电机过载	检查主轴电机是否堵转，若未堵转，请联系当地服务商或拨打4008876858。
Err-19	电机类型不匹配	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，请联系当地服务商或拨打4008876858。
Err-20	调速器异常	1、请检查脚踏控速器连接线是否脱落、松动或脚踏控速器是否损坏。2、排除后重启系统仍不能正常工作。请联系当地服务商或拨打4008876858。
Err-21	倒缝步进电机硬件过流	1、关闭系统电源，30秒后重新接通电源。2、检查机器倒缝步进电机、摆动座、牙齿是否卡死，恢复正常状态后，重启系统。3、排除后重启系统若仍不能正常工作，请联系当地服务商或拨打4008876858。
Err-22	倒缝步进电机软件过流	1、关闭系统电源，30秒后重新接通电源。2、检查机器倒缝步进电机、摆动座、牙齿是否卡死，恢复正常状态后，重启系统。3、排除后重启系统若仍不能正常工作。请联系当地服务商或拨打4008876858。
Err-23	倒缝步进电机电流检测回路故障	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，请联系当地服务商或拨打4008876858。
Err-24	倒缝步进电机堵转	1、关闭系统电源，30秒后重新接通电源。2、检查机器倒缝步进电机、摆动座、牙齿是否卡死，恢复正常状态后，重启系统。3、检查倒缝步进编码器、电控是否有损坏等不良现象若有则及时更换。4、排除后重启系统若仍不能正常工作。请联系当地服务商或拨打4008876858。

fault code	description	solution
Err-18	Spindle motor overload	Check whether the spindle motor is blocked, if not, please contact the local service provider or dial 4008876858.
Err-19	Motor type mismatch	Turn off the power of the system and turn it on again after 30 seconds. If the controller still does not work properly, please contact your local service provider or dial 4008876858.
Err-20	pedal abnormal	1. Please check whether the cable of the pedal controller is disconnected, loose or the pedal controller is damaged. 2. Restart the system after exclusion and still cannot work normally. Please contact your local service provider or dial 4008876858.
Err-21	Backstitch stepper motor hardware overcurrent	1. Turn off the power of the system, and then turn on the power again after 30 seconds. 2. Check whether the stepping motor, swing seat and teeth of the machine are stuck. After returning to normal state, restart the system. 3. If the system still does not work after restarting after exclusion, please contact the local service provider or dial 4008876858.
Err-22	Backstitch stepper motor software overcurrent	1. Turn off the power of the system, and then turn on the power again after 30 seconds. 2. Check whether the stepping motor, swing seat and teeth of the machine are stuck. After returning to normal state, restart the system. 3. Restart the system after exclusion if it still does not work properly. Please contact your local service provider or dial 4008876858.
Err-23	Backstitch stepper motor current detection circuit fault	Turn off the power of the system and turn it on again after 30 seconds. If the controller still does not work properly, please contact your local service provider or dial 4008876858.
Err-24	Backstitch stepper motor blocked	1. Turn off the power of the system, and then turn on the power again after 30 seconds. 2. Check whether the stepper motor, swing seat and teeth of the machine are stuck. After returning to normal state, restart the system. 3. Check whether the reverse sewing step encoder and electric control are damaged or not, if any, replace them in time. 4. Restart the system after exclusion if it still does not work properly. Please contact your local service provider or dial 4008876858.

故障代码	代码含义	解决措施
Err-28	倒缝步进电机零位故障	1、检查机器倒缝步进电机、摆动座、牙齿是否卡死，恢复正常状态后，重启系统。2、检查倒缝步进编码器是否有损坏等不良现象若有则及时更换。3、排除后重启系统若仍不能正常工作。请联系当地服务商或拨打4008876858。
Err-29	步进光编AB信号异常	1、检查机器倒缝步进电机、摆动座、牙齿是否卡死，恢复正常状态后，重启系统。2、检查倒缝步进编码器是否有损坏等不良现象若有则及时更换。3、排除后重启系统若仍不能正常工作。请联系当地服务商或拨打4008876858。
Err-30	密码锁定停机报警	达到机器使用设定时间，如需继续使用，请联系当地服务商或拨打4008876858。

fault code	description	solution
Err-28	Backstitch stepper motor zero position fault	1. Check whether the stepper motor, swing seat and teeth of the machine are stuck. After returning to normal state, restart the system. 2. Check whether the reverse sewing step encoder is damaged or not, and replace it in time if any. 3. Restart the system after exclusion if it still does not work properly. Please contact your local service provider or dial 4008876858.
Err-29	Stepping optical encoder AB signal is abnormal	1. Check whether the stepper motor, swing seat and teeth of the machine are stuck. After returning to normal state, restart the system. 2. Check whether the reverse sewing step encoder is damaged or not, and replace it in time if any. 3. Restart the system after exclusion if it still does not work properly. Please contact your local service provider or dial 4008876858.
Err-30	Password lock stop alarm	When the set time of the machine is reached, if you want to continue to use it, please contact the local service provider or dial 4008876858.

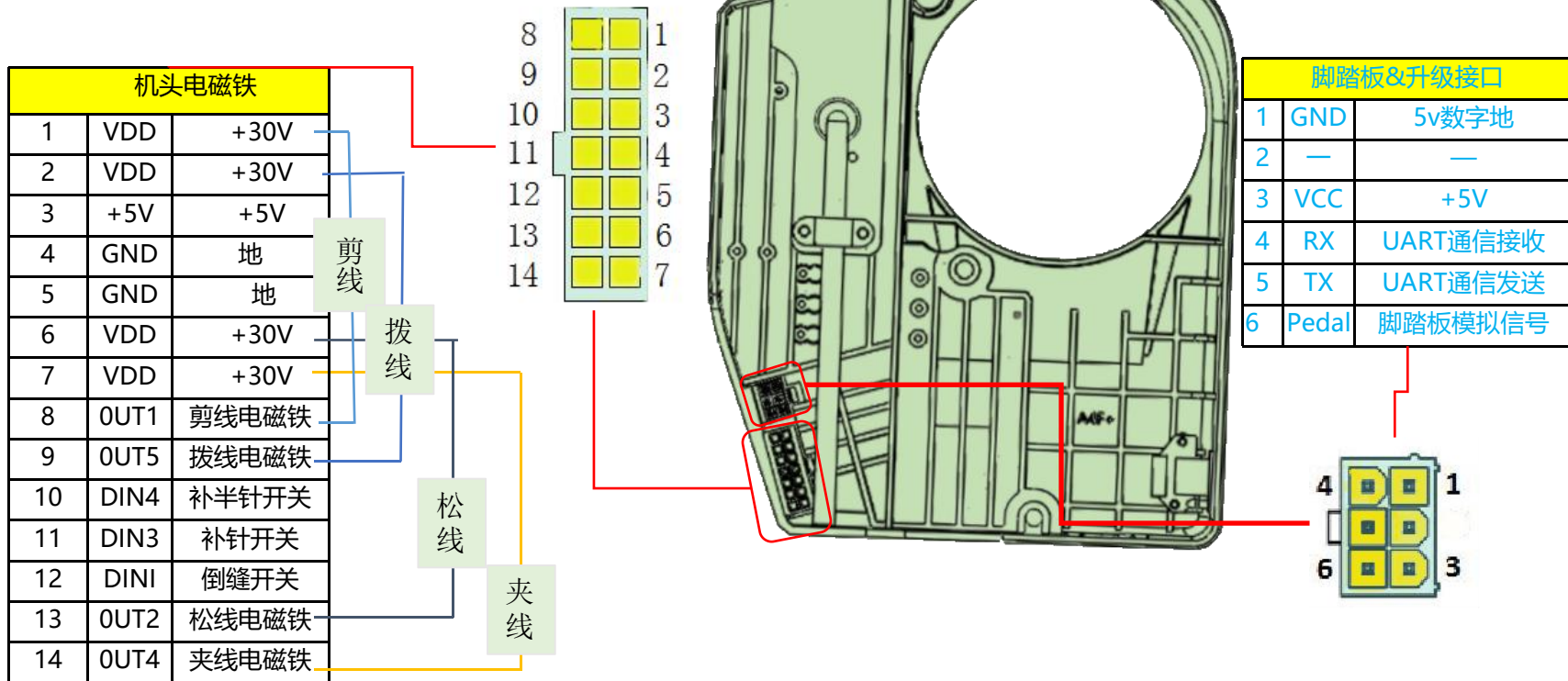
3.5 安全报警表

报警代码	代码含义	解决措施
A-UP	翻抬开关报警	摆正机头,确保翻抬开关复原
ALR-1	机头按钮短路报警	关闭系统电源, 更换机头灯按钮
ALR-2	计针数计满报警	短按P键取消报警
ALR-3	计件数计满报警	短按P键取消报警

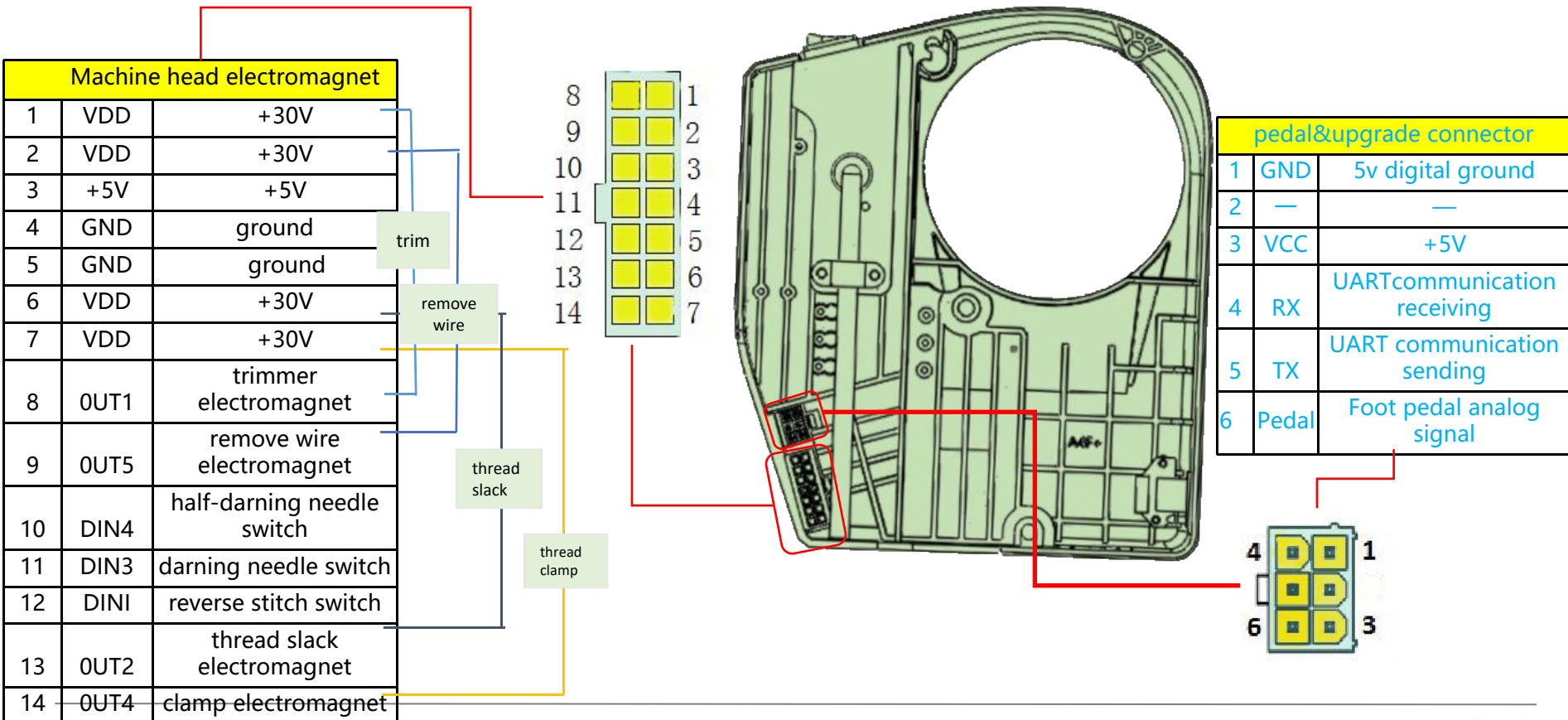
3.5 security alarm

alarm code	description	solution
A-UP	flip switch alarm	Straighten the nose to ensure that the flip switch is restored
ALR-1	Machine head button short circuit alarm	Power off the system, replace the headlight button
ALR-2	Needle counting full alarm	Short press the P key to cancel the alarm
ALR-3	Piece count full alarm	Short press the P key to cancel the alarm

3.6电控接口定义说明

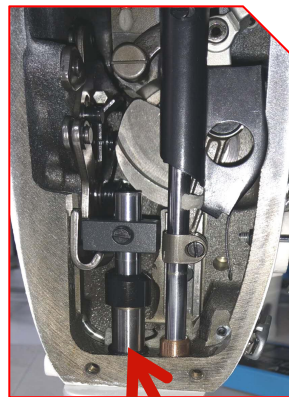


3.6 Definition of electronic control interface

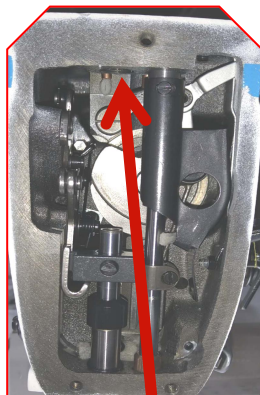


四、机械部分调整

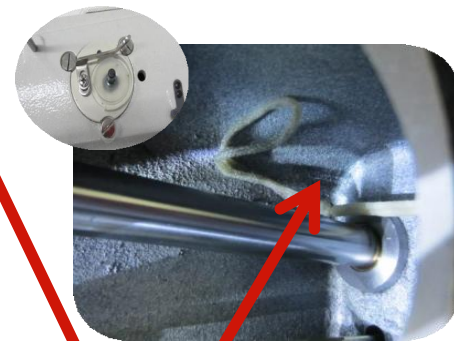
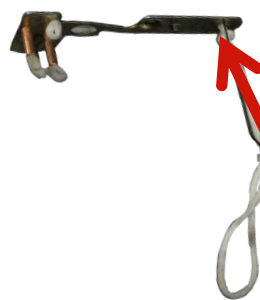
4.1、上轴供油



回油管：主要把多余的油量吸回去，降低头部漏油风险



挑线杆高速运转会出现发热与磨损现象，容易卡死，采用油棉润滑



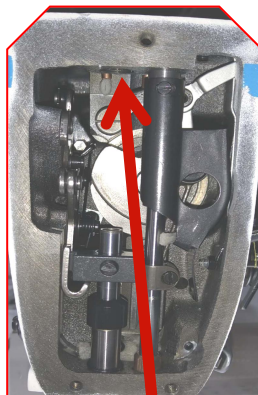
此油线主要是把上轴机壳里的油供给挑线杆与针杆

四、Mechanical adjustment

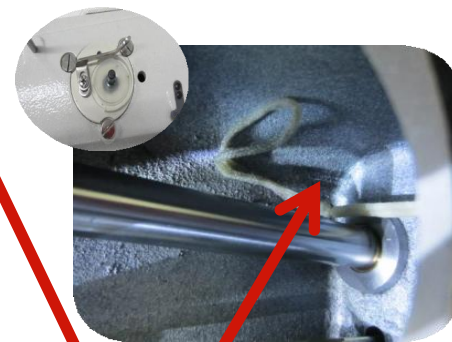
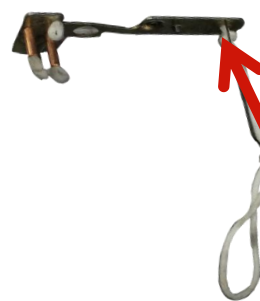
4.1、Upper axle oil supply



oil return tube: mainly sucks the excess oil back to reduce the risk of oil leakage from the head

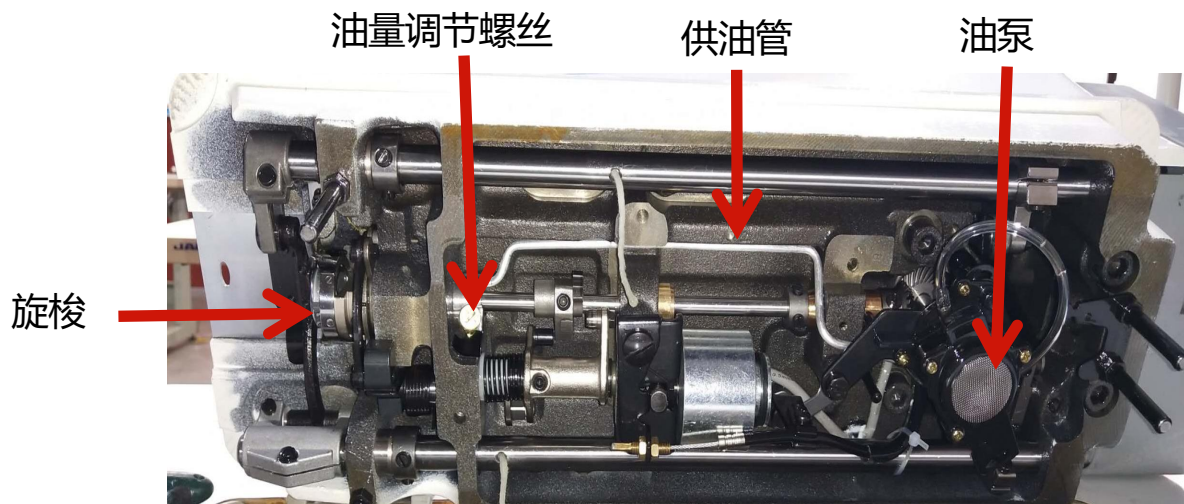


The high-speed operation of the thread take-up lever will cause heat and wear, and it is easy to get stuck. It is lubricated with oil cotton.



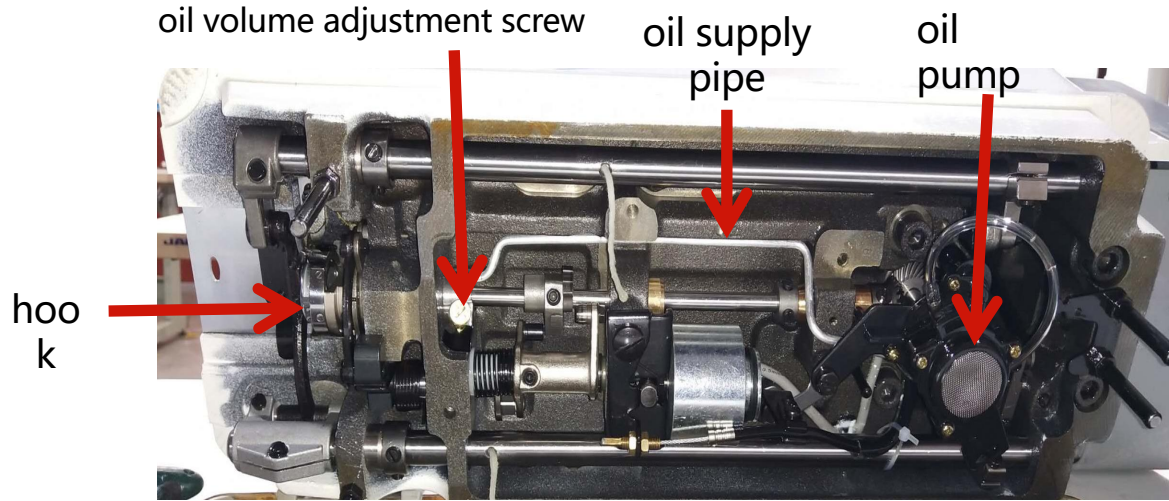
This oil line mainly supplies the oil in the upper shaft casing to the thread take-up rod and the needle bar

4.2、下轴供油



油泵吸油通过供油管，把油供给旋梭轴，通过油量调节螺丝，控制好油量大小，在供给旋梭，确保高速运转不卡死，降低旋梭温度

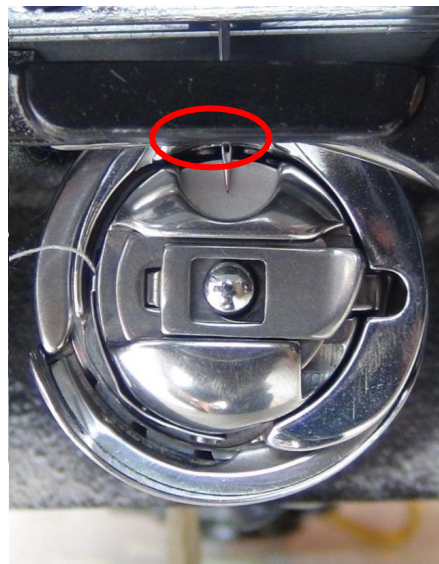
4.2、 Lower axle oil supply



The oil pump sucks oil through the oil supply pipe and supplies the oil to the hook shaft, and controls the oil amount through the oil volume adjustment screw. When supplying the hook, it ensures that the high-speed operation does not get stuck and reduces the temperature of the hook

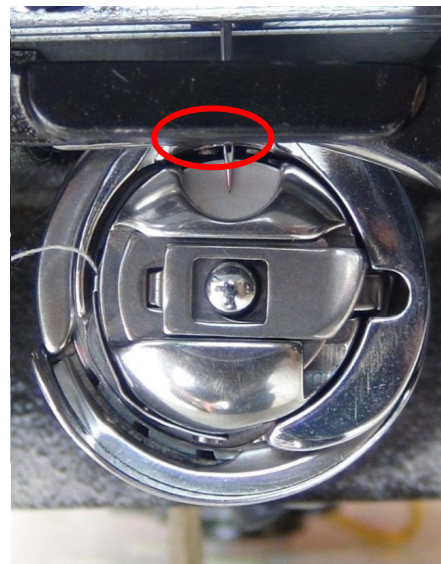
4.3、针杆定位

针杆定位：标准为参考针杆上的刻线作为针杆的高度定位。另外还可以选择旋梭作为参考，当针杆在最低位时，旋梭内露出半个针孔为准。



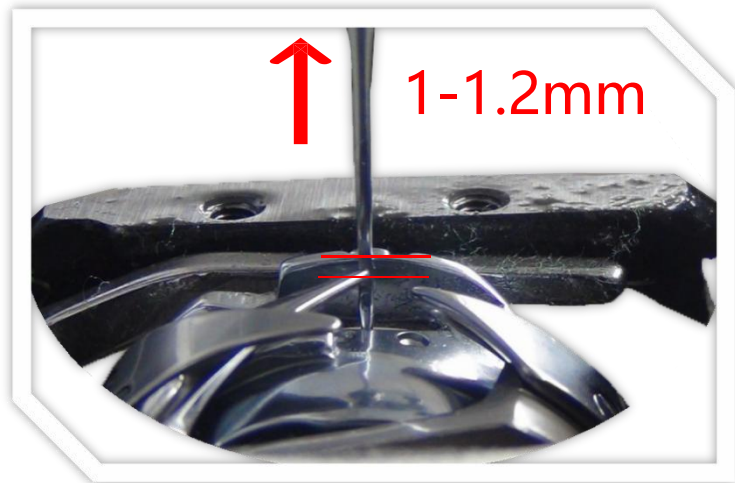
4.3、Needle bar positioning

Needle bar positioning: The standard is to refer to the marking line on the needle bar as the height positioning of the needle bar. In addition, the rotary hook can also be selected as a reference. When the needle bar is at the lowest position, half of the needle hole is exposed in the rotary hook.



4.4、旋梭勾线

旋梭勾线：转动手轮使机针由最低点向上回升2.2mm，这时旋梭尖要保持在针孔上方1-1.2mm之间，同时机针与旋梭尖的左右距离0.02-0.07mm之间。



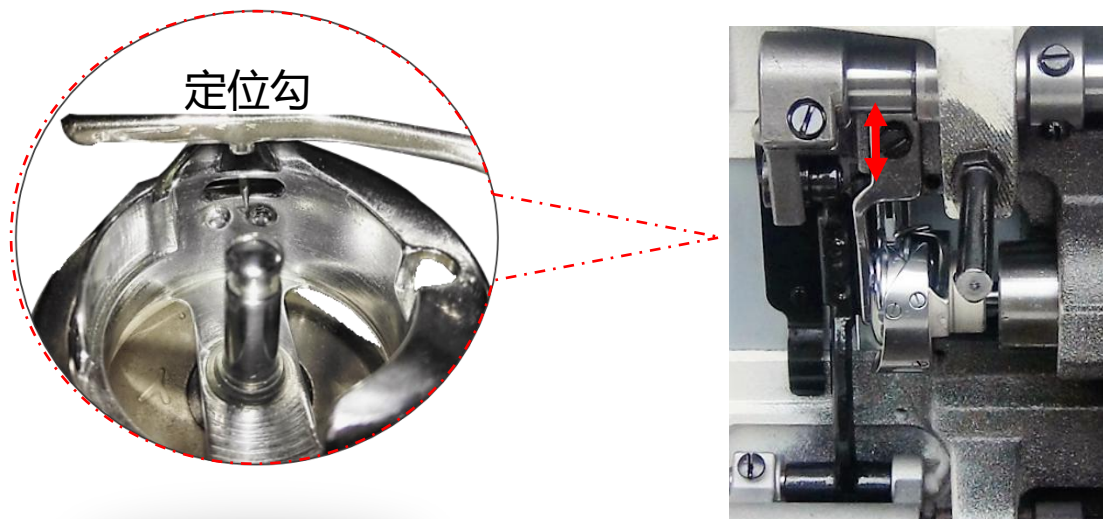
4.4、rotating hook

rotating hook: Turn the handwheel to make the needle rise up 2.2mm from the lowest point. At this time, the tip of the hook should be kept between 1-1.2mm above the needle hole, and the left and right distance between the needle and the tip of the hook should be between 0.02-0.07mm.



4.5、定位勾定位调整

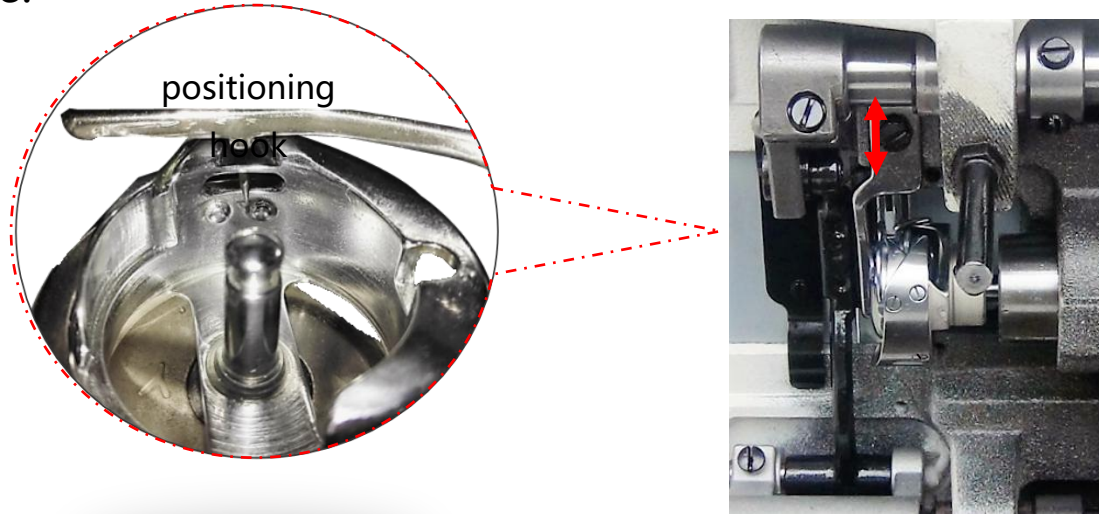
定位勾左右间隙一般在0.5-1.0mm之间。间隙太大，声音响，间隙太小，过线不顺。
上下移动定位勾，使机针基本在旋梭容孔中间位置。



4.5、Positioning hook position adjustment

The gap between the left and right of the positioning hook is generally between 0.5-1.0mm. The gap is too large, the sound is loud, the gap is too small, and the line is not smooth.

Move the positioning hook up and down so that the needle is basically in the middle of the hook hole.

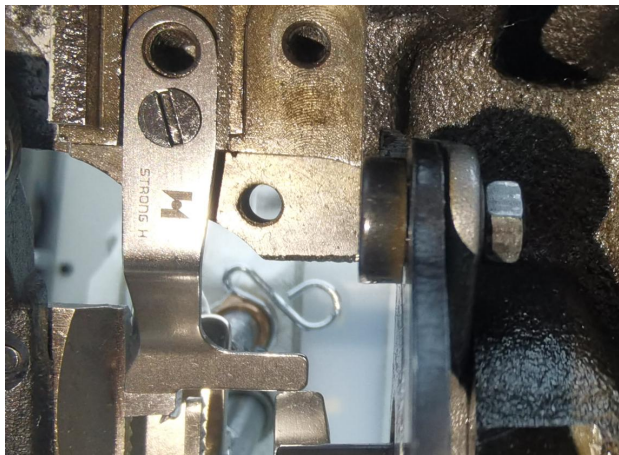


4.6新型分线片安装说明

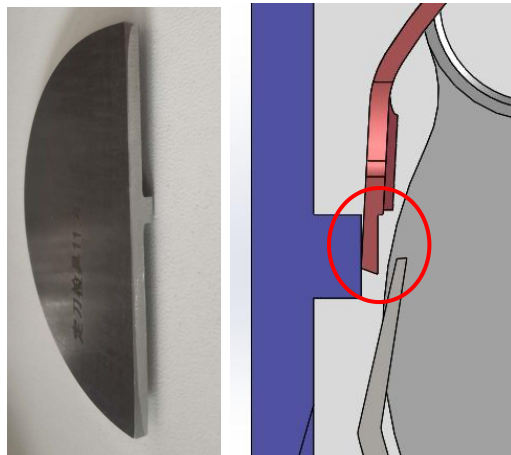
第一步 装定刀

1、拧紧定刀安装螺钉-113S17001($T=1.5n \cdot M$),
确认定刀安装到槽底平面;

注: (装前确认安装槽底无铁屑、无毛刺)。



2、通过将定刀检具放入针板面, 查看定刀高度是否正确, 要求定刀和检具间隙控制在0-0.05mm之间, 过盈推动控制在0-0.1mm之间。



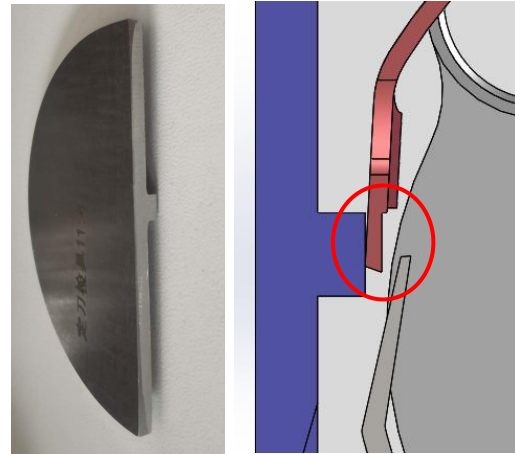
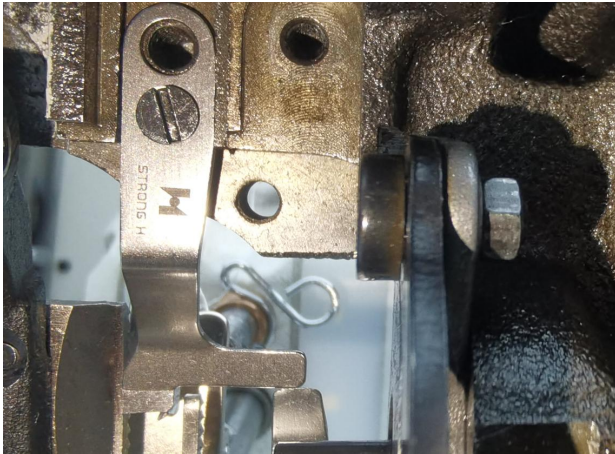
定刀检具分为薄料和厚料

4.6 New Splitter Installation Instructions

The first step is install the knife

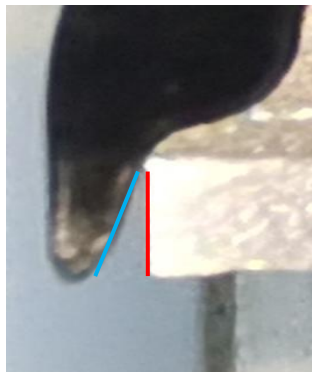
1. Tighten the fixed knife installation screw - 113S17001 ($T=1.5n \cdot M$), and confirm that the fixed knife is installed on the bottom plane of the groove; Note: (Before installation, make sure that the bottom of the installation groove is free of iron chips and burrs).

By placing the fixed knife inspection tool on the needle plate surface, check whether the height of the fixed knife is correct. The gap between the fixed knife and the inspection tool is required to be controlled between 0-0.05mm, and the interference push is controlled between 0-0.1mm.

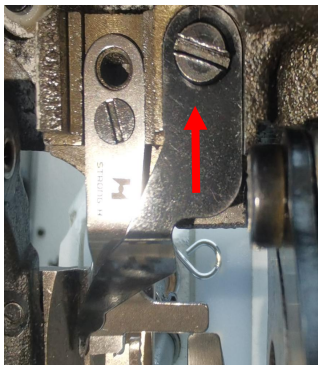


第二步 装分线片

拧紧分线片螺钉-125S11020(T=2.5n·M)，拧紧时注意：调节分线片，调整成图中效果；



1、分线片斜边(蓝线)完全露出定刀刀口蓝色(红线)，两者呈现剪刀口样式。



2、分线片安装预先处于槽位顶端(箭头方向)，并依据定刀位置微调。



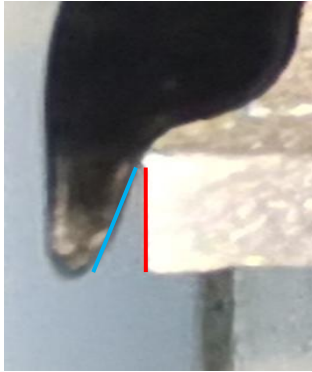
3、动刀不能向上顶分线片，动刀要在分线片与定刀中间(检查剪刀口是否过大或下移0.1mm分线片来解决)，并且分线片不能碰旋梭。



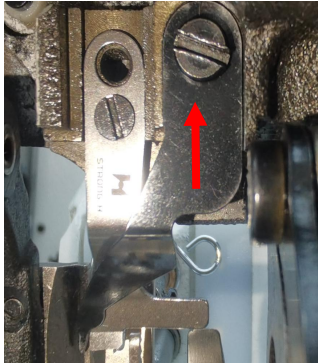
4、按压图中定刀位置，确认分线片有轻微浮动；定刀与分线片贴合(0-0.1mm)。

Second step: Install splices

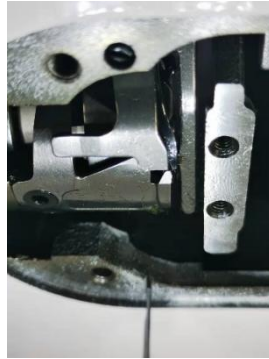
Tighten the splitter screw -125S11020 (T=2.5n M), be careful when tightening: adjust the splitter to achieve the effect shown in the figure;



1. The beveled edge (blue line) of the splitter is completely exposed to the blue (red line) of the fixed knife edge, and the two are in a scissors-like style.



2. The splitter is installed at the top of the slot in advance (in the direction of the arrow), adjust according to the position of the fixed knife.



3. The moving knife can't lift up the splitter, the moving knife should be in the middle of the splitter and the fixed knife (check whether the scissors mouth is too large or move the splitter down 0.1mm to solve the problem), and the splitter can't touch the hook.

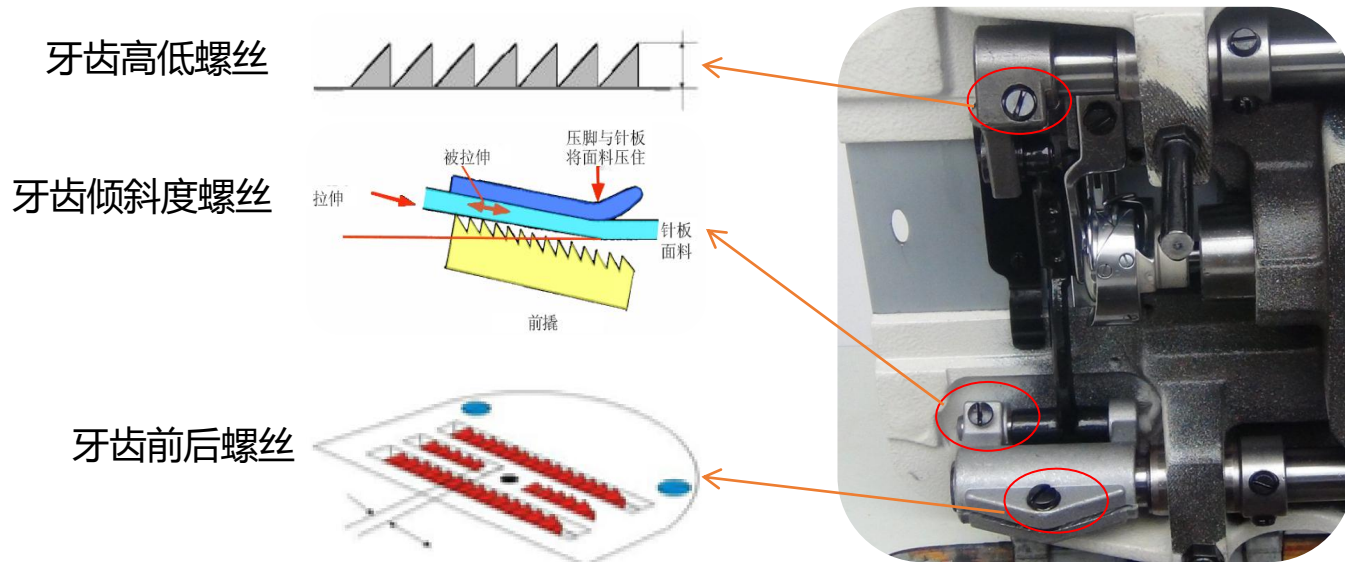


4. Press the position of the fixed knife in the picture to confirm that the splitter is slightly floating; the fixed knife and the splitter are attached (0-0.1mm).



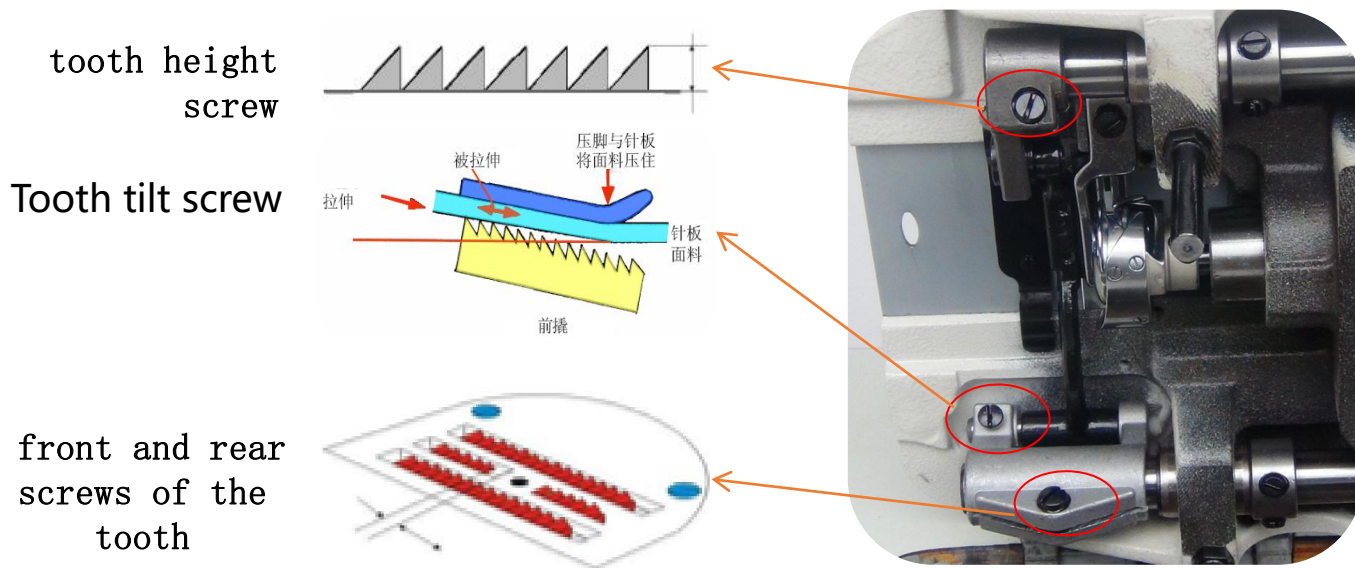
4.7、送料牙前后、高低倾斜调节

送料牙调节：当针距达到最大时，通过调节牙齿前后螺丝，使牙齿前后不碰针板，通过调节牙齿高低螺丝，使牙齿在最高时，露出针板平面1-1.2mm



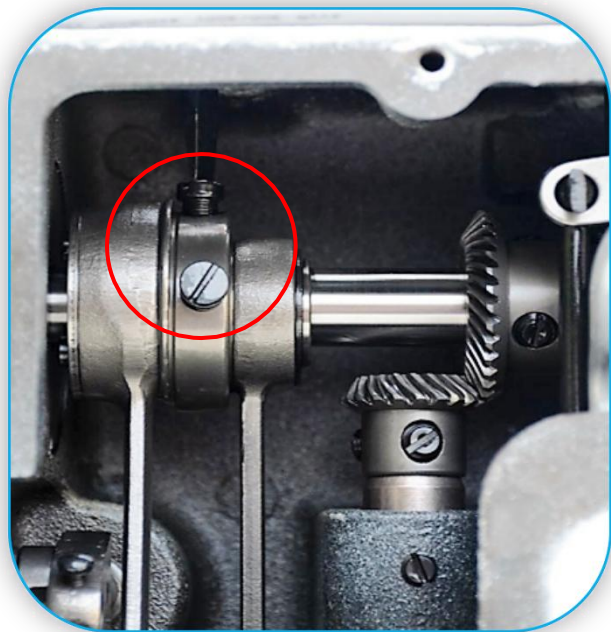
4.7、 Feed tooth front and rear, high and low tilt adjustment

Feed tooth adjustment: When the needle distance reaches the maximum, adjust the front and rear screws of the tooth so that the tooth does not touch the needle plate before and after, By adjusting the tooth height screw, when the tooth is at the highest, the plane of the needle plate is exposed by 1-1.2mm



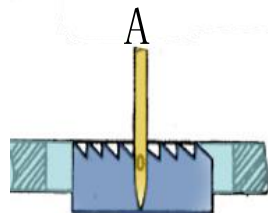
4.8、送料同步

机针与送布时间的同步调整：（针板、牙齿顶端、针孔下口平齐）当送布牙太慢时容易断针，打倒缝时更加明显。送布牙太快时线迹收不紧，特别用粗线时更加明显。

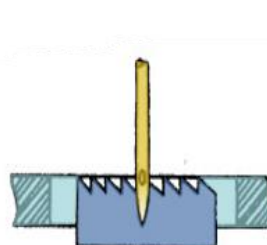


需要增加线的张力 则
向A方向转动

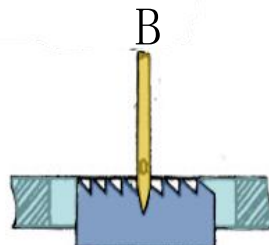
为避免机针折弯 则
向B方向转动



机针同步提前



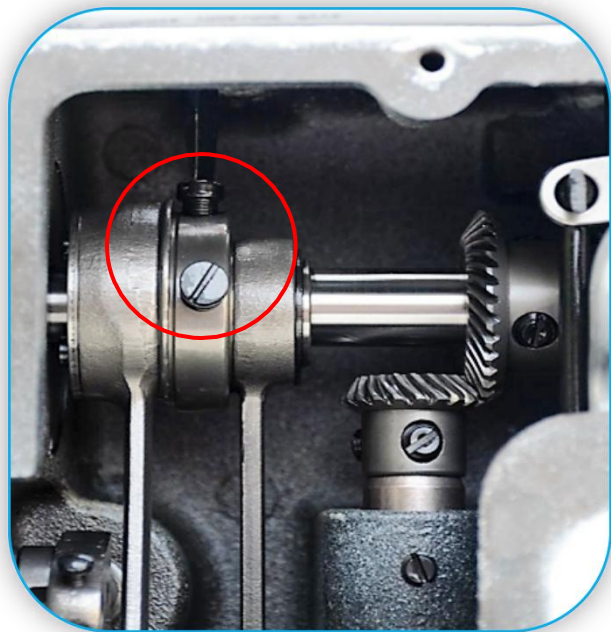
标准



机针同步滞后

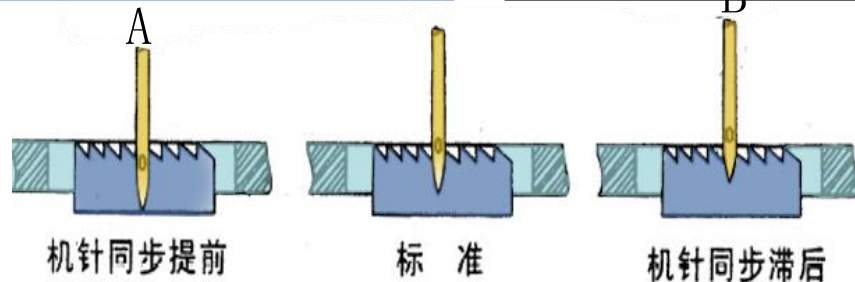
4.8、 Feed synchronization

Synchronous adjustment of the needle and feeding time: (the needle plate, the top of the teeth, and the bottom of the needle hole are flush), it is easy broken needles when the feeding dog is too slow, more obvious when reserve stitching. When the feed dog is too fast, the stitches are not tightened, especially when thick thread is used.



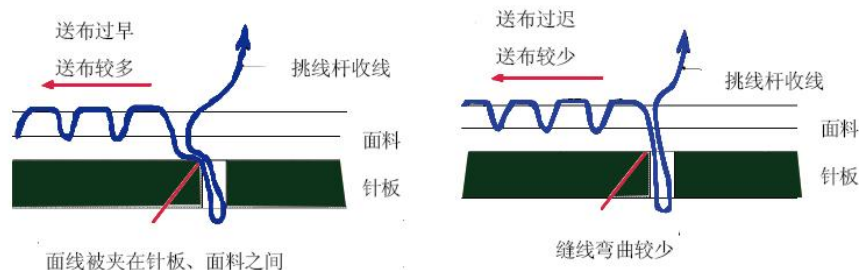
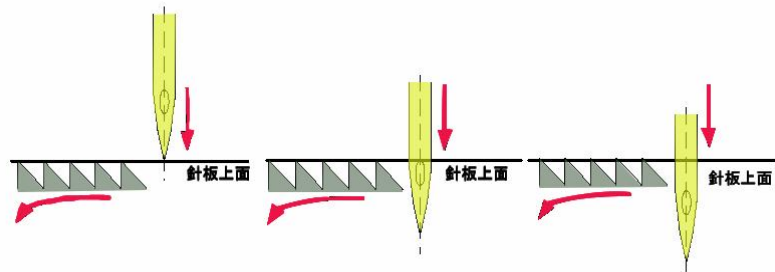
increase the tension of the thread, turn it in the direction of A

To avoid bending the needle, turn it in the direction B



4.9、送布配合（送料同步）

送布牙下降到与针板平面相平时，确认针孔的位置。

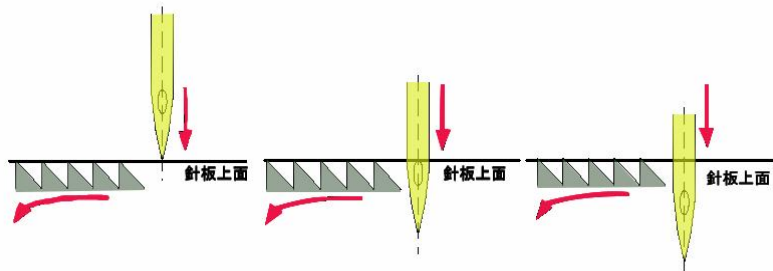


1. 送布过早时挑线杆将缝线收起时。送布时间如果过早，则针板与面料会把缝线夹住而造成收线不良。

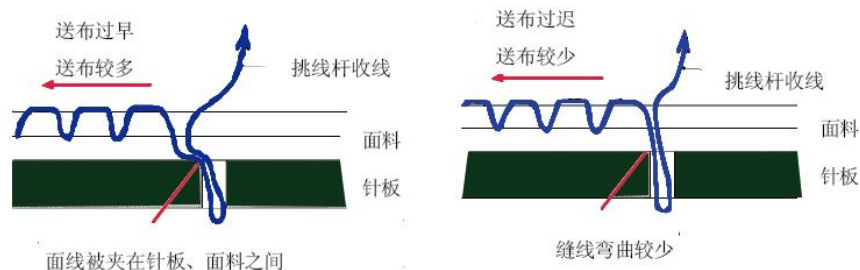
2. 送布过晚时缝线的弯曲较小，缝线的收线良好。但是送布时间过晚，则会使机针弯曲，而造成断针故障。

4.9、 Cloth feed coordination (feed synchronization)

When the feed tooth is lowered to the level of the needle plate, check the position of the needle hole.



1. The thread will be taken up by the thread take-up lever when the feed is too early. If the feeding time is too early, the needle plate and the fabric will clamp the sewing thread, resulting in poor thread take-up.

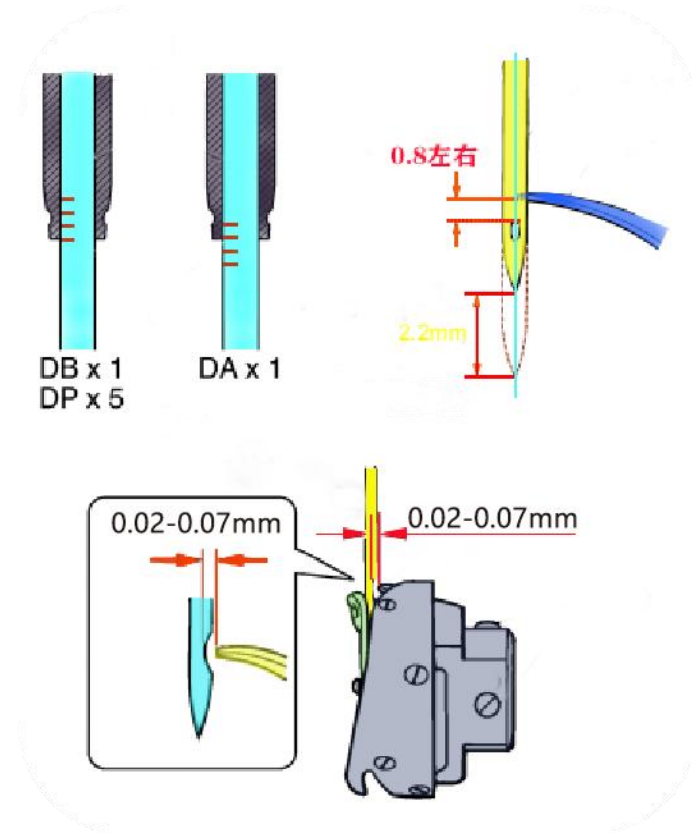


2. When the feeding is too late, the bending of the sewing thread is small, and the thread take-up of the sewing thread is good. However, if the feeding time is too late, the needle will be bent, resulting in a broken needle.

4.10、针与旋梭的配合标准

在针杆上有刻度的情况下，当针杆处于最低点的时候，首先应确认针杆的上刻线应与针杆套筒的下端面一致。

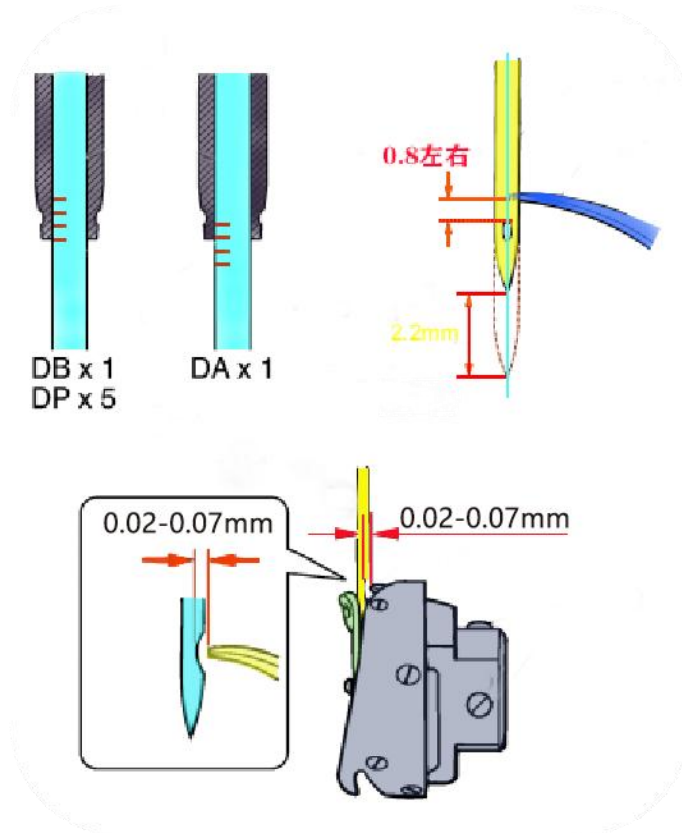
其次、在针杆从最下点上升到针杆的下刻线对准针杆套筒下平面时，旋梭的梭尖应对准机针的中心。



4.10、 Matching standard of needle and hook

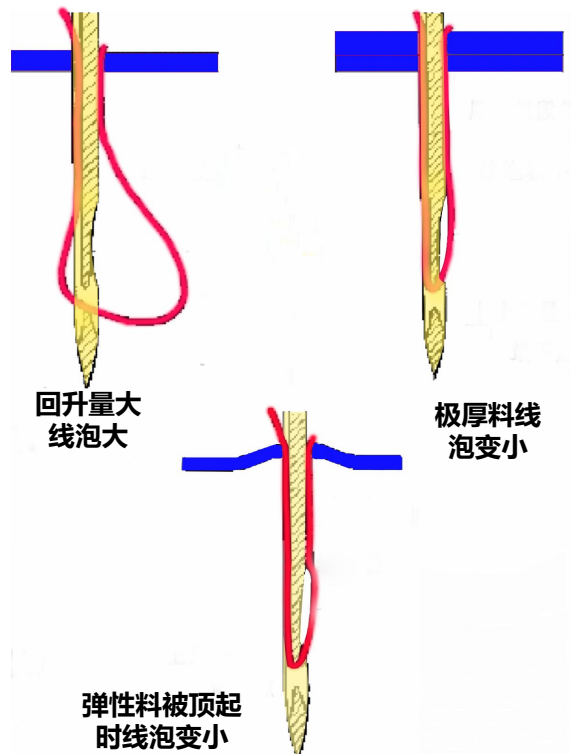
In the case of a scale on the needle bar, when the needle bar is at the lowest point, firstly make sure that the upper scale line of the needle bar is consistent with the lower end face of the needle bar sleeve.

Secondly, when the needle bar rises from the lowest point to the lower engraved line of the needle bar, the hook tip of the rotary hook should be aligned with the center of the needle.



4.11、机针的线泡

- 1、线泡形成原因；机针从最下点上升时，由于面料与缝线的摩擦力要比缝线与机针的摩擦力大，所以就形成了线泡。
- 2、线泡的大小:主要取决于针杆回升量大小。
- 3、线泡偏小的主要原因：①因针上升量小、线不良、缝线的弹性太大、面料没压牢固、等原因照成。②面料的阻力太大（缝线被拉长）极厚料刺穿阻力过大。

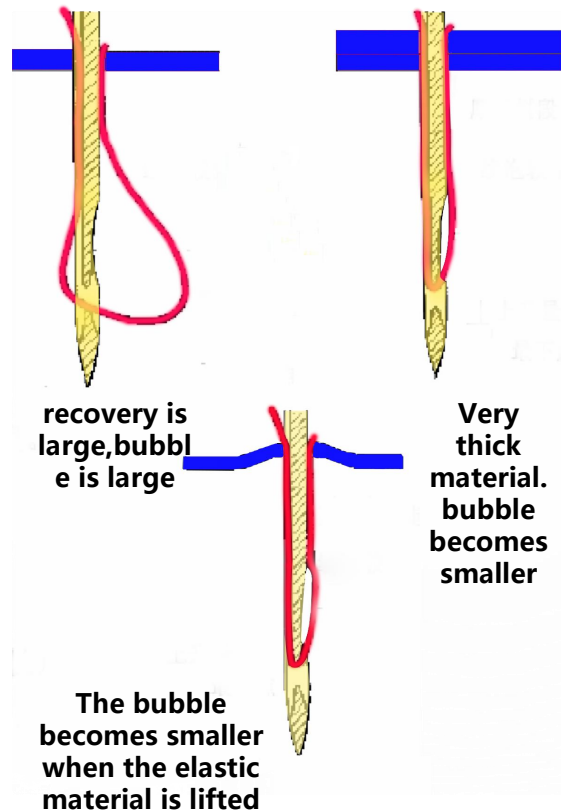


4.11、needle thread bubbles

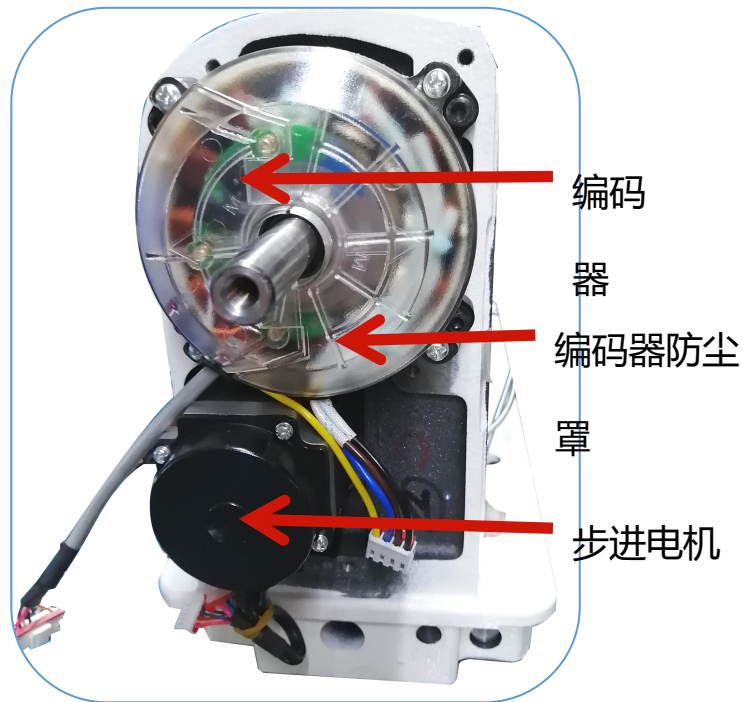
1. Reasons for the formation of thread bubbles: When the needle rises from the lowest point, because the friction between the fabric and the suture is greater than the friction between the suture and the needle, a thread bubble is formed.

2. The size of the thread bubble: mainly depends on the size of the needle bar recovery.

3. The main reasons for the small thread bubbles: ①The needle lift is small, the thread is not good, the elasticity of the suture is too large, the fabric is not pressed firmly, etc. ②The resistance of the fabric is too large (the stitches are stretched), and the piercing resistance of extremely thick materials is too large.



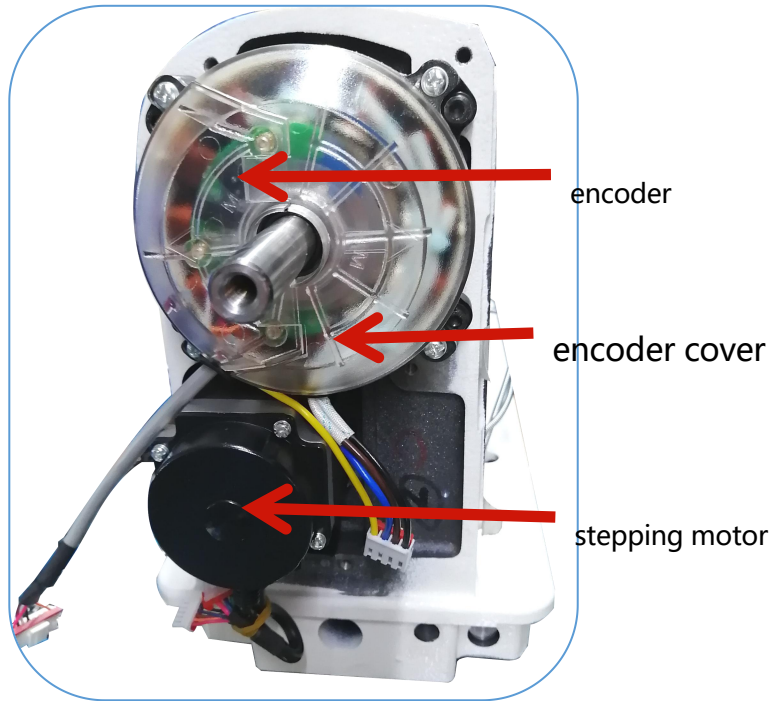
4.12、编码器拆装



拆装步骤:

- 1、首先拆掉电控罩壳四个螺丝，拿掉电控罩壳，
- 2、拆掉编码器防尘挡圈（新改的）
- 3、拆掉编码器罩壳螺丝，拿掉编码器罩壳
- 4、拆掉编码器固定螺丝，顺着箭头方向平拉编码器，一定要顺着箭头所示方向，不然会损坏光栅片
- 5、安装的方法顺势向前推即可。

4.12、Encoder disassembly



Disassembly steps:

1. First remove the four screws of the electric control cover, remove the electric control cover,
2. Remove the encoder dust retaining ring (newly modified)
3. Remove the encoder cover screws and remove the encoder cover
4. Remove the fixing screw of the encoder, and pull the encoder in the direction of the arrow. Be sure to follow the direction shown by the arrow, otherwise the grating sheet will be damaged.
5. The installation method is pushed forward.

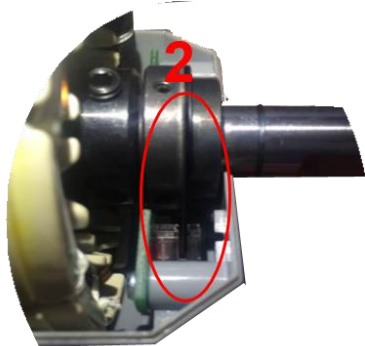
4.13、光栅片安装

安装要求:

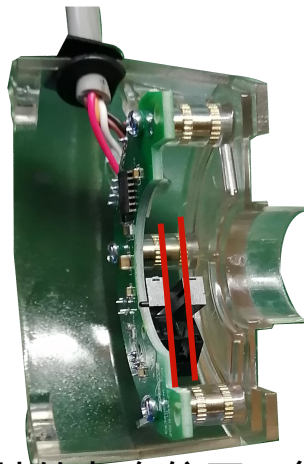
- 1、电机光栅片顺时针转的第一颗螺丝固定平面
- 2、更换光栅片后一定要确认光栅片的左右位置，不能碰编码器。



第一颗螺丝



第二颗螺丝

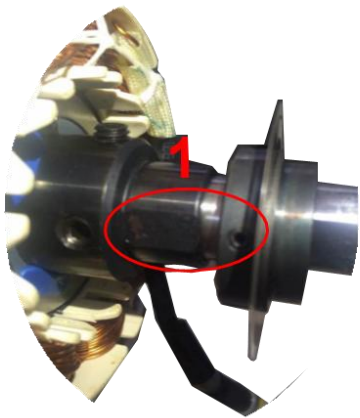


光栅片的左右位置不能碰编码器

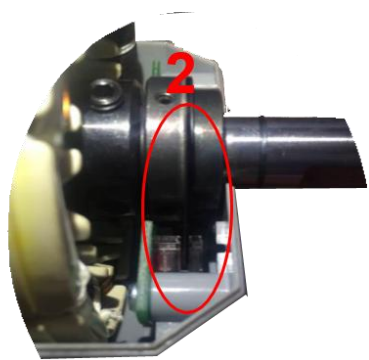
4.13、Grating sheet installation

Installation requirements:

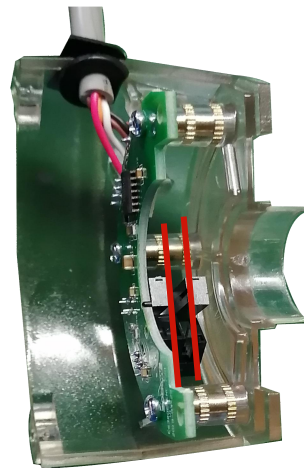
1. The first screw that turns the motor grating sheet clockwise to fix the plane
2. After replacing the grating sheet, be sure to confirm the left and right positions of the grating sheet, and do not touch the encoder.



first screw

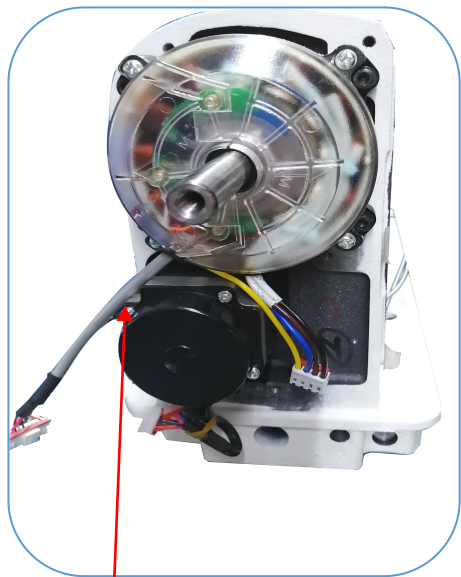


second screw

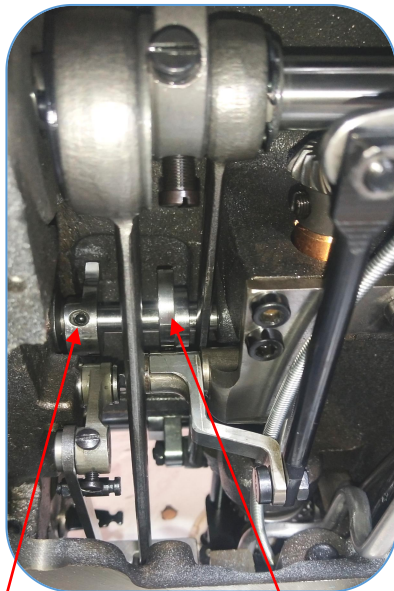


The left and right positions of the grating sheet cannot touch the encoder

4.14、步进电机拆装



步进电机固定
螺丝X4



针距凸轮
螺丝X2

抬压脚凸
轮螺丝X2

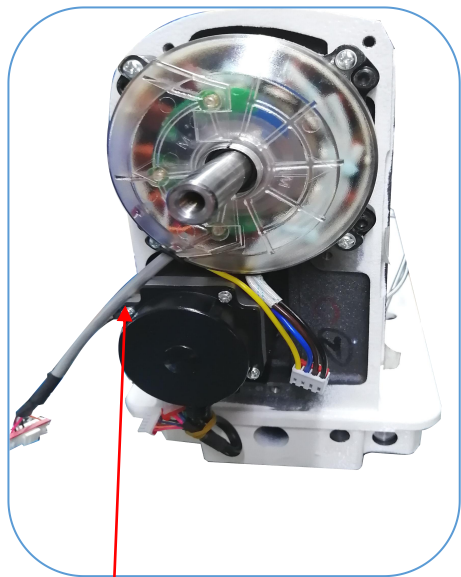
步进电机的拆卸：

- 1、拆掉步进电机固定螺丝X4。
- 2、松掉针距凸轮、抬压脚凸轮螺丝X2。
- 3、拔掉步进电机。

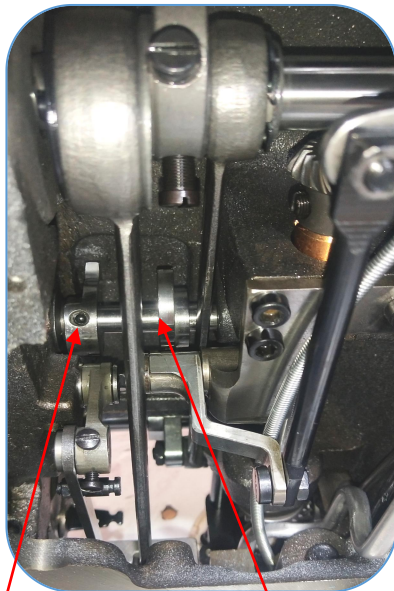
步进电机的安装：

- 1、把步进电机有线的一面朝下，插入到两个凸轮里，确保两个凸轮正转方向第一颗螺丝对着电机轴平面，拧紧两个凸轮螺丝。
- 2、安装电机固定螺丝X4。
- 3、调节电机零位，请参考《2.12 步进电机位置校正》

4.14、Stepper motor disassembly



Stepper
motor fixing
screw X4



Pitch cam
screw X2

Presser foot
lifter cam
screw X2

Disassembly of the stepper motor:

1. Remove the stepper motor fixing screw X4.
2. Loosen the stitch cam and presser foot lifter cam screw X2.
3. Unplug the stepper motor.

Installation of stepper motor:

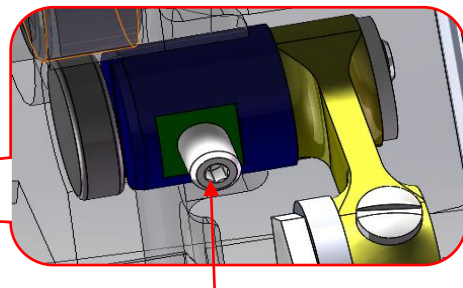
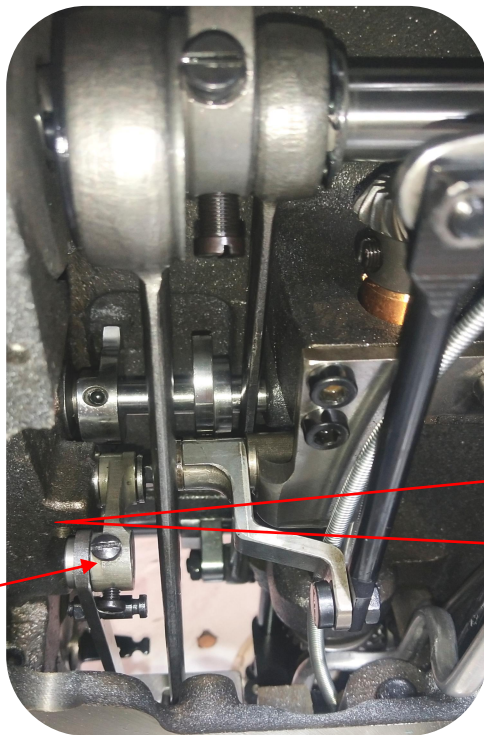
1. Put the wired side of the stepper motor down, insert it into the two cams, make sure that the first screw in the forward rotation direction of the two cams faces the plane of the motor shaft, and tighten the two cam screws.
2. Install the motor fixing screw X4.
3. To adjust the zero position of the motor, please refer to "2.12 Stepper Motor Position Correction"

4.15、针距曲柄拆装

针距曲柄的拆卸：

- 1、松掉针距曲柄固定螺丝。
- 2、向右抽出针距曲柄。
- 3、安装时，针距曲柄固定螺丝要对准针距曲柄平面，并且确保针距曲柄距离机壳1-2mm距离，锁紧针距曲柄固定螺丝。

针距曲柄



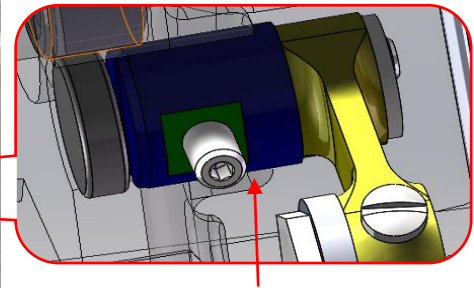
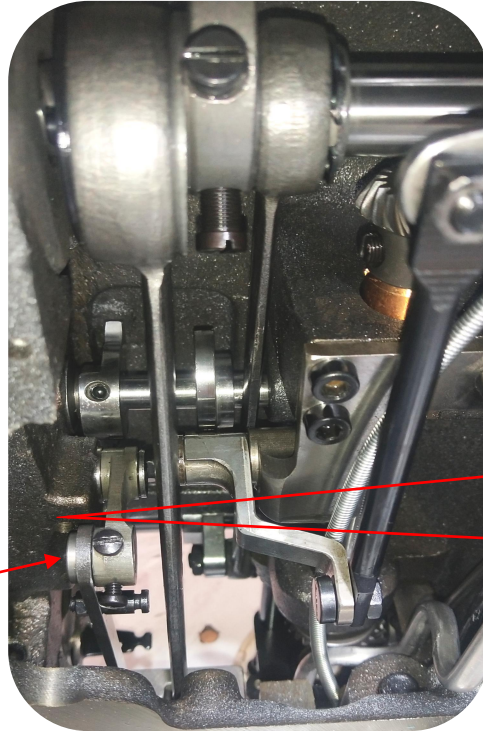
针距曲柄固定螺丝

4.15、 Disassembly and assembly of stitch crank

Disassembly of the stitch crank:

1. Loosen the fixing screw of the stitch crank.
2. Pull out the stitch crank to the right.
3. During installation, the needle-to-crank fixing screw should be aligned with the needle-to-crank plane, and to ensure that the needle-to-crank is 1-2mm away from the casing, and the needle-to-crank fixing screw should be tightened.

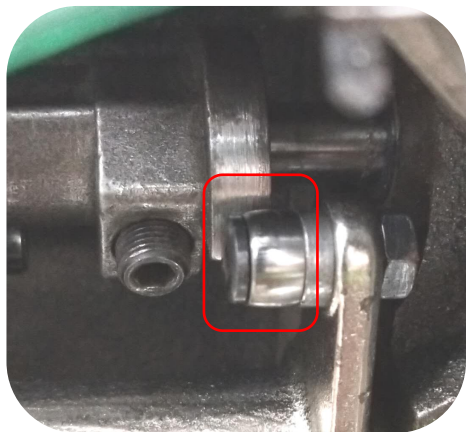
stitch
crank



Pitch crank set screw

4.16、动刀定位调整

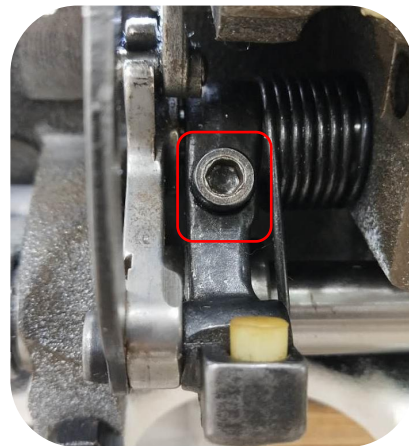
- 1、确保停车位正确（参照前面停车位调整方法即可）
- 2、调节动定刀咬合量



针杆打至最高点，手动使滚珠与剪线凸轮最高点完全接触



拉动切线曲柄，定刀刀口将动刀口向前覆盖1-1.5mm，并保持位置不动

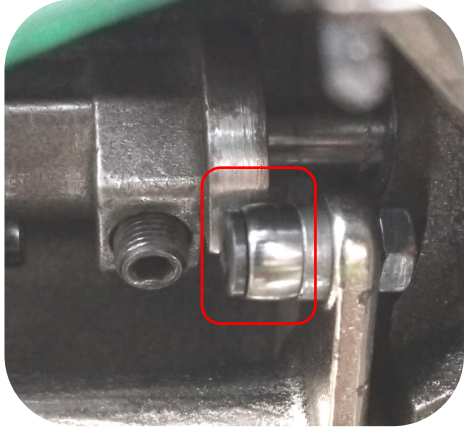


拧紧切线曲柄固定螺丝

注意：完成以上调整后，再次确保上述位置正确：1、滚珠与凸轮之间无间隙； 2、动定刀完全咬合； 3、动刀架连杆左右间隙0.1-0.2mm。

4.16、 Moving knife positioning adjustment

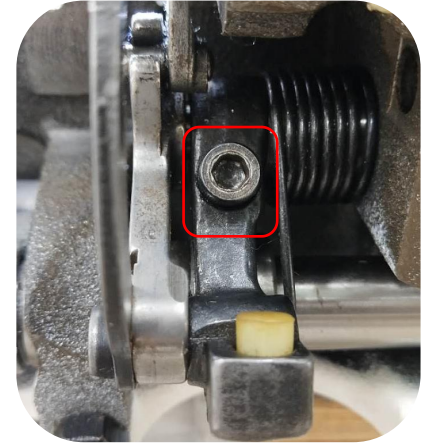
1. Ensure that the parking space is correct (refer to the previous parking space adjustment method)
2. Adjust the occlusion of the movable and fixed knives



Hit the needle bar to the highest point, and manually make the ball fully contact the highest point of the thread trimmer cam



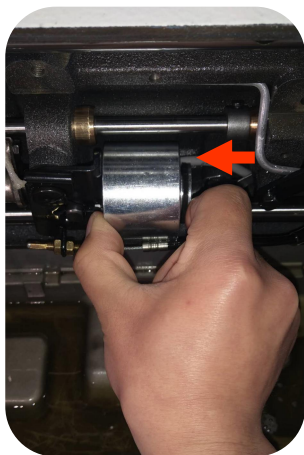
Pull the tangent crank, the fixed knife edge will cover the moving knife edge forward by 1-1.5mm, and keep the position unchanged



Tighten the tangent crank fixing screw

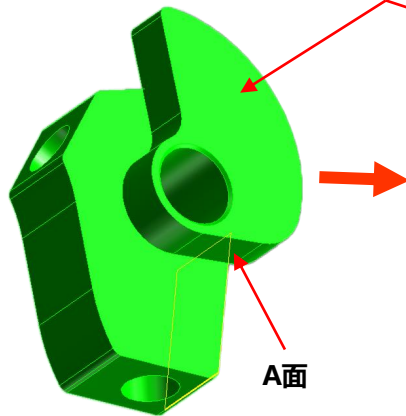
Note: After completing the above adjustments, make sure that the above positions are correct again: 1. There is no gap between the ball and the cam; 2. The movable and fixed knives are completely engaged; 3. The left and right gaps between the moving knife rest connecting rods are 0.1-0.2mm.

4.17、剪线凸轮时间调整



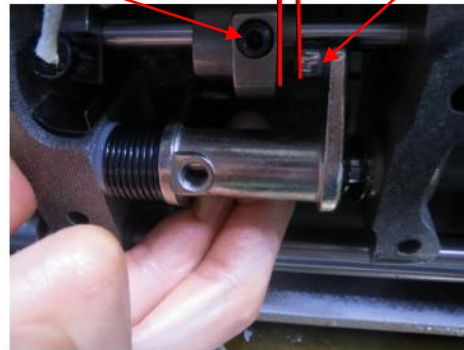
转动手轮，挑线杆在最低点开始回升时(切线曲柄不运动)

用手推动电铁至吸合状态



剪线凸轮

A面



0.3-0.4mm

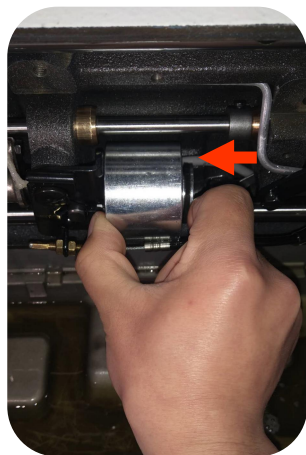
滚柱

滚柱紧靠剪线凸轮A面,调整凸轮使滚柱端面与剪线凸轮端面间隙为0.3-0.4mm(复位驱动组件,滚柱端面与凸轮间隙为0.2-1mm)

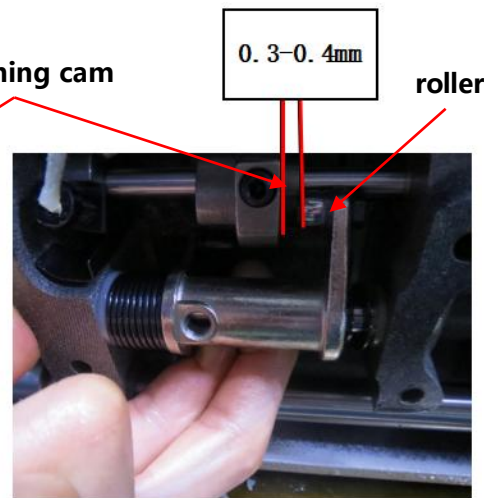
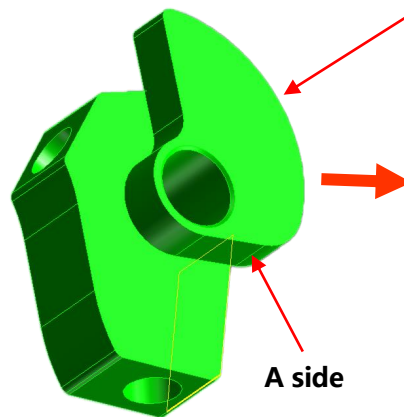
4.17、 Thread trimming cam time adjustment



Turn the handwheel, when the thread take-up lever starts to rise at the lowest point (the tangent crank not exercising)



Push the electric iron by hand to the pull-in state



The roller is close to face A of the trimmer cam, adjust the cam so that the gap between the end face of the roller and the end face of the trimmer cam is 0.3-0.4mm (reset the drive assembly, the gap between the end face of the roller and the cam is 0.2-1mm)

五、常见故障分析与处理方法

TOTAL SOLUTION PROVIDER

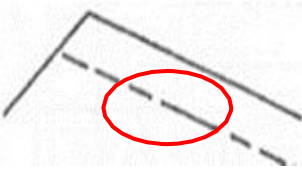
序号	断底面线	断线现象	处理方法
1	断底面线	1、机针弯曲。	(1) 更换机针。
2		2、机针装偏。	(2) 重装机针到正确的位置。
3		3、缝纫线质量不好。	(3) 更换好的缝纫线。
4		4、针板孔有毛刺、针板孔小。	(4) 用细砂布拉光针板孔的毛刺、更换大孔针板。
5		5、针杆高度位置不对。	(5) 调整针杆高度到正确的位置。
6		6、旋梭有毛刺、旋梭尖磨损。	(6) 修正旋梭毛刺、更换旋梭。
7		7、送布牙送料不对。	(7) 调整同步送布凸轮到正确位置。
8		8、针杆行程不对。	(8) 调整针杆曲柄行程。
9		9、定位钩有毛刺。	(9) 修正或更换定位钩。
10		10、底面线张力太紧。	(10) 调整底面线张力。
11		11、旋梭与机针的配合是否正确。	(11) 调整旋梭与机针的配合。

V.Common fault analysis and processing methods




TOTAL SOLUTION PROVIDER

No.	bottom line	disconnection	处理方法
1	bottom line	1、 The needle is bent.	(1) Replace the needle.
2		2、 The needle is installed offset.	(2) Reinstall the needle to the correct position.
3		3、 The quality of the sewing thread is not good	(3) Replace the sewing thread.
4		4、 There are burrs in the needle plate hole, and the needle plate hole is small.	(4) Use fine sand cloth to smooth out the burr in the needle plate hole and replace the large hole needle plate.
5		5、 The height of the needle bar is incorrect.	(5) Adjust the height of the needle bar to the correct position.
6		6、 The hook has burrs and the tip of the hook is worn.	(6) Correct the burr of the rotary hook and replace the rotary hook.
7		7、 The feeding tooth is incorrect.	(7) Adjust the synchronous feed cam to the correct position.
8		8、 The needle bar stroke is incorrect.	(8) Adjust the needle bar crank stroke.
9		9、 The positioning hook has burrs.	(9) Correct or replace the positioning hook.
10		10、 The thread tension on the bottom surface is too tight.	(10) Adjust the bottom thread tension.
11		11、 Check whether the match between the hook and the needle is correct.	(11) Adjust the fit between the hook and the needle.

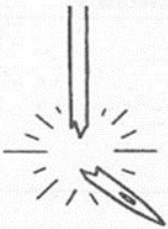
序号	跳线图片	跳线现象	处理方法
1	 <p>缝纫时跳针/跳线</p>	1、机针弯曲。	(1) 更换机针。
2		2、机针装偏。	(2) 重装机针到正确位置。
3		3、缝纫线质量不好。	(3) 更换好的缝纫线。
4		4、机针没有在针板孔中心。	(4) 更换或调整到机针在针板孔中心。
5		5、针杆高度不对。	(5) 调整针杆的高度到正确的位置。
6		6、旋梭尖磨损。	(6) 修磨旋梭尖角度。
7		7、机针柄没有装到装针孔顶部。	(7) 重装机针到针杆孔顶部。
8		8、旋梭位置不对。	(8) 调整旋梭左右位置和勾线时间到正确位置。
9		9、挑线弹簧不在正确位置。	(9) 调整挑线弹簧到正确位置。
10		10、压脚没有放下。	(10) 把机针转到下方，调整抬压脚螺丝。





No.	Jump stitch picture	Jump reason	solution
1	Jump stitches/jumps while sewing 	1、 The needle is bent.	(1) Replace the needle.
2		2、 The needle is installed sideways.	(2) Reinstall the needle to the correct position.
3		3、 The quality of the sewing thread is not good.	(3) Replace the sewing thread.
4		4、 The needle is not in the center of the needle plate hole.	(4) Replace or adjust until the needle is in the center of the needle plate hole.
5		5、 The height of the needle bar is incorrect.	(5) Adjust the height of the needle bar to the correct position.
6		6、 The hook tip is worn.	(6) Grinding the angle of the hook tip.
7		7、 The needle handle is not installed on the top of the needle hole.	(7) Reinstall the needle to the top of the needle bar hole.
8		8、 The position of the rotary hook is incorrect.	(8) Adjust the left and right position of the hook and the hooking time to the correct position.
9		9、 The thread take-up spring is not in the correct position.	(9) Adjust the thread take-up spring to the correct position.
10		10、 The presser foot is not lift down.	(10) Turn the needle down and adjust the presser foot lifter screw.


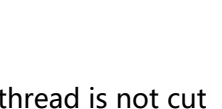


序号	浮线图片	浮线现象	处理方法
1	<p>布料上出现抛线 底线不紧</p>  <p>面线不紧</p>  	1、缝纫线质量不好。	(1) 更换好的缝纫线。
2		2、底线太松或太紧。	(2) 调整梭套的梭皮压力。
3		3、面线太松或太紧。	(3) 调整夹线器的张力。
4		4、针杆太低。	(4) 薄料时机针线收不上来浮线。
5		5、送布牙送料时间不对。	(5) 调整同步送布凸轮时间到正确位置。
6		6、针板孔太小。	(6) 更换大号孔的针板。
7		7、旋梭定位钩位置不对。	(7) 调整定位钩与旋梭的间隙。
8		8、粗线浮线，过线曹太小。	(8) 修正加大出线曹。
9		9、压脚没有放下。	(9)把机针转到下方，调整抬压脚螺丝。
10		10、压脚压力太松或太紧。	(10) 调整压脚压力的大小。

no.	floating threads pictures	floating thread reason	solution
1	<p data-bbox="189 263 484 390">Threads appear on the fabric The lower thread is not tight</p>   <p data-bbox="170 699 504 729">upper thread is too loose</p> 	1、 The quality of the sewing thread is not good.	(1) Replaced sewing thread.
2		2、 The bottom thread is too loose or too tight.	(2) Adjust the pressure of the shuttle core cover
3		3、 The upper thread is too loose or too tight.	(3) Adjust the tension of the thread tensioner.
4		4、 The needle bar is too low.	(4)When the material is thin, the needle thread cannot be taken up to float.
5		5、 The feeding time of the feeding tooth is incorrect.	(5) Adjust the timing of the synchronous feed cam to the correct position.
6		6、 The needle plate hole is too small.	(6) Replace the needle plate with the large hole.
7		7、 The position of the hook positioning hook is wrong.	(7) Adjust the clearance between the positioning hook and the hook.
8		8、 The thick thread is floating, and the crossing trough is too small.	(8) Correction to increase the crossing trough
9		9、 The presser foot is not lift down	(9)Turn the needle down and adjust the presser foot lifter screw.
10		10、 The presser foot pressure is too loose or too tight.	(10)Adjust the pressure of the presser foot.

序号	断针图片	断针现象	处理方法
1	<p>断针</p> 	1、机针柄没有装到装针孔顶部。	(1) 重装机针到针杆孔顶部。
2		2、机针弯曲。	(2) 更换机针。
3		3、机针没有在针板孔中心。	(3) 更换或调整到机针在针板孔中心。
4		4、针杆高度位置不对。	(4) 调整针杆高度到正确的位置。
5		5、送布牙送料时间不对。	(5) 调整同步送布凸轮时间到正确位置。
6		6、旋梭位置不对。	(6) 调整旋梭左右位置和 勾线时间到正确位置。
7		7、缝厚料断针。	(7) 更换大号机针。
8		8、机针型号有误。	(8) 更换对应型号机针。
9		9、压脚与机针位置不对。	(9) 调整压脚，使机针在压脚孔中心。
10		10、缝纫线张力太大。	(10) 调整夹线器的松紧度，检查过线器。
11		11.压脚压力太松。	(11) 加大压脚压力。

no.	break stitch picture	break stitch reason	solution
1	break stitch 	1、 The needle handle is not installed on the top of the needle hole.	(1) Reinstall the needle to the top of the needle bar hole.
2		2、 The needle is bent.	(2) Replace the needle.
3		3、 The needle is not in the center of the needle plate hole.	(3) Replace or adjust the needle to the center of the needle plate hole.
4		4、 The height of the needle bar is incorrect.	(4) Adjust the height of the needle bar to the correct position.
5		5、 The feeding time of the feeding teeth is wrong.	(5) Adjust the timing of the synchronous feed cam to the correct position.
6		6、 The position of the rotary hook is wrong.	(6) Adjust the timing of the synchronous feed cam to the correct position.
7		7、 The needle is broken when sewing thick materials.	(7) Replace the large needle.
8		8、 The needle type is wrong.	(8) Replace the needle of the corresponding model.
9		9、 The position of the presser foot and the needle is not correct.	(9) Adjust the presser foot so that the needle is in the center of the presser foot hole.
10		10、 The sewing thread tension is too high.	(10) Adjust the tightness of the thread tensioner and check the thread guide.
11		11.The presser foot pressure is too loose.	(11) Increase the presser foot pressure.

序号	启缝不上线图片	启缝不上线现象	处理方法
1	始缝时跳针/挑线 	1、底线太紧，剪完线线头短，	(1) 调整梭皮压力，使底线张力减小。
2		2、底线太松，剪完线停车，梭心冲击旋转。	(2) 调整梭皮压力，使底线张力加大。
3		3、启缝速度太快。	(3) 降低启缝速度，参数调整。
4		4、梭心变形。	(4) 更换梭心。
5		5、梭心与梭壳配合不良。	(5) 更换梭心或梭皮。
1	剪不断线 	1、剪线凸轮没有到正确位置。	(1) 调整剪线凸轮到正确位置。
2		2、动刀与定刀接触不良。	(2) 调整动刀与定刀接触到合适位置
3		3、动刀的刀口不良。	(3) 更换动刀片。
4		4、定刀的刀口不良。	(4) 修磨或更换定刀片。
1	停车位置不正确 	1、停车后，挑线、停车位置不良。不在指定的位置。	(1) 调整停车位到正确位置。调线杆离最高处差1-1.5mm即可。
1	面料不平 	1、压脚压力是否太小。	(1) 调整合适的压脚压力。
2		2、送料牙高低，平整度是否适合	(2) 调整送料牙的高度和平行度。
3		3、底面线松紧度是否合适。	(3) 调整底面线松紧度。

no.	no threading when start sewing	no threading when start sewing reason	solution JACK 杰克 TOTAL SOLUTION PROVIDER
1	Jump stitch/thread take-up at the beginning of sewing 	1.The bottom thread is too tight. After cutting, the thread end is short.	(1) Adjust the bobbin cover pressure to reduce the bobbin thread tension.
2		2.The bottom thread is too loose, stop after cutting the thread, and the bobbin rotates under impact.	(2) Adjust the bobbin cover pressure to increase the bobbin thread tension.
3		3.The sewing speed is too fast.	(3) Reduce the sewing speed and adjust the parameters.
4		4.The bobbin is deformed.	(4) Replace the bobbin.
5		5.The bobbin and the bobbin case do not cooperate well.	(5) Replace the bobbin or bobbin skin.
1	thread is not cut 	1.The thread trimming cam is not in the correct position.	(1) Adjust the thread trimming cam to the correct position.
2		2.Poor contact between the moving knife and the fixed knife.	(2) Adjust the contact between the movable knife and the fixed knife to an appropriate position
3		3. The blade of the moving knife is not good.	(3) Replace the moving blade.
4		4. The edge of the fixed knife is bad.	(4) Grinding or replacing the fixed blade.
1	Incorrect parking position 	1. After parking, the line pick-up and parking position are not good. not in the specified location.	(1) Adjust the parking space to the correct position. The difference between the adjustment rod and the highest point is 1-1.5mm.
1	uneyen fabric 	1. Whether the presser foot pressure is too small.	(1) Adjust the appropriate presser foot pressure.
2		2. The height of the feeding teeth and whether the flatness is suitable	(2) Adjust the height and parallelism of the feed tooth.
3		3. Whether the tightness of the bottom thread is appropriate.	(3) Adjust the tightness of the bottom thread.

序号	故障现象	处理方法
1	剪线不正确 (面线和底线均未断)	1、定刀或动刀的刀部是否受损或磨损? 更换定刀或动刀。 2、动、定刀的咬合量是否不足。请调整动刀刀刃与定刀的咬合位置能重合1.5-2.0mm.
2	看不见油量计视窗中的油量位置	· 油箱里的油量是否太少? 补充润滑油。
3	膝动压脚柄不能使压脚上升	1. 是否在使用不切线功能状态的针上位置时用腿驱动膝动压脚柄? 2. 请使用自动功能。 3. 是否在缝纫机停止之前用腿驱动膝动压脚柄?请调整松线切换板向上方调整, 延迟松线时间。
4	操作盘显示屏上没有任何显示图像	· 电源插头是否从控制箱上断开? 将插头插牢。 · 控制箱内的操作盘插头是否断开? 将插头插牢。
5	剪线不正确(面线或底线未被剪断)	1. 机针是否正确安装? 如果机针安装不正确, 应正确加以安装。 2. 定刀或动刀是否钝化? 更换定刀或动刀。 3. 上下动刀的咬合量是否不足。请调整上动刀刀刃的咬合位置到下动刀刻度记号位置。
6	面料背面的剩余线头过长	1.切线切刀的咬合位置是否在针孔的正下方。· 请用切线处理程序缩小切线前密针 (最终针和最终针前 1 针) 的针码。2.请用切线处理程序缩小切线时的针码。
7	断线后, 上线从机针上脱掉	1. 切线后的上线剩余线头长度是否适中。请降低第一夹线器的张力。 2.过线路是否不够光滑? 用细粒锉刀或砂纸将线路打磨光滑。3 正确调整剪线凸轮时间。4、检测夹线器顶起量再08-1毫米

No.	Fault condition	Solution
1	Incorrect thread trimming (both upper and lower threads are not broken)	1. Is the knife part of the fixed knife or movable knife damaged or worn? Replace the fixed or movable knife. 2. Whether the occlusion of the movable and fixed knives is insufficient. Please adjust the occlusal position of the movable knife blade and the fixed knife to overlap by 1.5-2.0mm.
2	Can't see the oil level position in the oil gauge window	Is the amount of oil in the fuel tank too low? Add lubricating oil.
3	The knee presser handle cannot raise the presser foot	1. Do you drive the knee presser handle with your legs when using the needle up position in the non-thread trimming function state? 2. Please use the automatic function. 3. Did you drive the knee-operated presser handle with your legs before the sewing machine stopped? Please adjust the thread release switch plate upward to delay the thread release time.
4	There is no display image on the panel display	Is the power plug disconnected from the control box? Insert the plug firmly. Is the operation panel plug in the control box disconnected? Insert the plug firmly.
5	Incorrect thread trimming (upper or lower thread is not cut)	1. Is the needle installed correctly? If the needle is not installed correctly, install it correctly. 2. Is the fixed or movable knife dull? Replace the fixed or movable knife. 3. Whether the bite amount of the upper and lower moving knives is insufficient. Please adjust the engagement position of the blade of the upper movable knife to the position of the scale mark of the lower movable knife.
6	The remaining thread on the back of the fabric is too long	1. Check whether the bite position of the thread tangent cutter is directly below the pinhole. · Use the thread trimming procedure to reduce the stitch size of the stitches before thread trimming (the last stitch and 1 stitch before the last stitch). 2. Please use the thread trimming program to reduce the stitch size at the time of thread trimming.
7	After the thread is broken, the needle thread is removed from the needle	1. Whether the remaining thread length of the upper thread after thread trimming is moderate. Please reduce the tension of the first thread tensioner. 2. Is the crossing line not smooth enough? Sand the lines smooth with a fine-grained file or sandpaper. 3. Correctly adjust the thread trimming cam time. 4. The lifting amount of the detection clamp is 08-1 mm

六、新A4B专用件清单

TOTAL SOLUTION PROVIDER

序号	序号	物料代码	备注
1	11543005000	操作面板 (众邦)	A4B专用
2	11543004900	一体机控制器 (T19-2.8M) (众邦)	A4B专用
3	11543004800	操作面板 (琦星)	通用琦星电控
4	11543004700	一体机控制器 (琦星)	琦星电控专用
5	113804014	A4B-0214针杆曲柄	(通新A4F)
6	115404010	A4B-H-0214针杆曲柄	-H专用
7	11380302600	上轴前套组件	(通新A4F)
8	110233015	ZB-MA5F-G-25B光电伺服电机	(通新A4F)

序号	序号	物料代码	备注
9	113813029	分线片	(通新A4F)
10	115022007	A4B-0908油盘座垫	(通新A4F)
11	115022008	A4B-5550-0909油盘支架	(通新A4F)
12	115412006	A4F-0104后窗板	(通新A4F)

VI. List of new A4B special parts and wearing parts

TOTAL SOLUTION PROVIDER

no.	code	description	remark
1	11543005000	Operation panel (Zhongbang)	A4B only
2	11543004900	All-in-one controller (T19-2.8M) (Zhongbang)	A4B only
3	11543004800	Operation panel (Qixing)	universal Qixing panel
4	11543004700	All-in-one controller (Qixing)	Qixing controller only
5	113804014	A4B-0214 Needle bar crank	(same as new A4F)
6	115404010	A4B-H-0214 Needle bar crank	-H only
7	11380302600	Upper axle front sleeve assembly	(same as new A4F)
8	110233015	ZB-MA5F-G-25B photoelectric servo motor	(same as new A4F)

no.	code	description	remark
9	113813029	Splitter	(same as new A4F)
10	115022007	A4B-0908 Oil pan seat cushion	(same as new A4F)
11	115022008	A4B-5550-0909 Oil pan bracket	(same as new A4F)
12	115412006	A4F-0104 Rear Window Panel	(same as new A4F)

JACK 杰克

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技术支持部

2022年7月1日





JACK QUICKLY SERVICE 100%

Technical Support department

1st July 2022

