# S7 super-silent intelligent control computerized post bed roller feed sewing machine training PPT

# Contents

# 1.Naming rules

| S | 7 | — | 9 | 1 | — | / | X | T |
|---|---|---|---|---|---|---|---|---|

| Brand | Model | — | Type | Needle | Feature 1 | Feature 2 |
|---|---|---|---|---|---|---|

| Brand | |
|---|---|
| S | Jack |

| Type | |
|---|---|
| 8 | Thin column |
| 9 | Standard column |

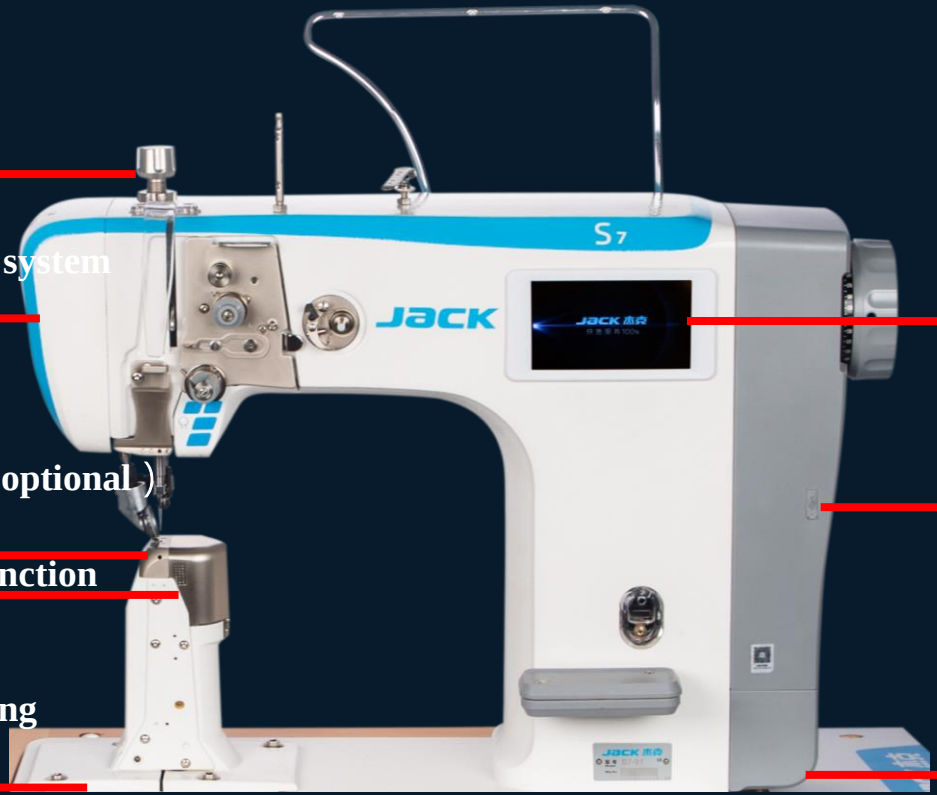
| Feature 1 | |
|---|---|
| / | Import hook |

| Model | |
|---|---|
| 7 | Stepper roller machine |
| 7+ | IoT Stepper roller machine |

| Needle no. | |
|---|---|
| 1 | Single needle |
| 2 | Double needle |

| Feature 2（optional） | |
|---|---|
| X | Short trimmer |
| D | Upper active feeding backtack (upper roller) |
| Sequence：：XD | |

| Feature 3 | |
|---|---|
| T | Touch panel |
| / | Button screen |




Rotary type pressure adjustment

Multi-needle gauge switch system

Short Thread Remaining（optional）

Bobbin thread detection function（optional）

Three stepper motors feeding

Touch operation panel
（ Without voice function ）
OR Button operation panel
（ Standard voice function ）

USB port

IoT function（optional）

# 2. Electric control operation instruction

## 1. Panel operation instructions

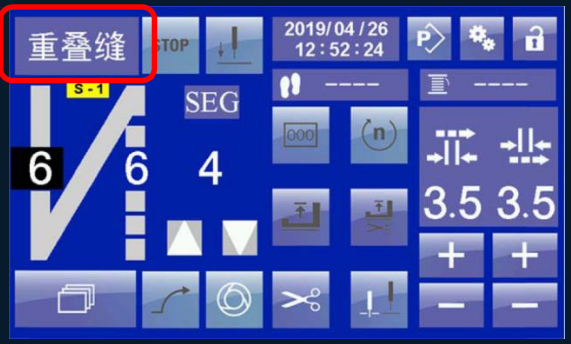

Power on:

1. Turn on the power switch; (when the machine is powered on, the machine will automatically find the upper needle stop position to avoid hurting your hands. Please do not put your hands in the needle position.)
2. 2. Touch the key to enter the sewing state.

# 2.Touch operation panel

5.0 inches big touch panel makes you easy to operate and understand. Operators can freely switch sewing mode between free sewing mode, overlap sewing mode, fixed needle sewing mode and programmable sewing mode.







Panel operation instructions-sewing mode switching :

1.Step on the pedal to trim and end the current program;

2.Touch the button shown to switch among the four modes of free sewing, overlap sewing, fixed needle sewing and programmable sewing.

# 3 Panel operating instructions - setting of speed and needle gauge under free sewing

The number of stitches cannot be set in free sewing mode.

Speed, white indicates that the setting is activated



upper roller **needle gauge**

lower roller **needle gauge**

**Speed and needle gauge setting:**

1. **The needle gauge of the upper roller is adjusted by 0.1 for the corresponding column; the needle gauge of the lower roller is adjusted by 0.1; the needle gauge of the lower roller is adjusted by 0.1; the needle gauge of the upper and lower rollers is different to realize differential sewing according to the sewing needs;**
2. **2. Touch the speed icon and the page turning button to adjust the + - of the corresponding column of the speed number, and the speed changes with 100. AB SPD is the front reinforcement speed, the maximum is 1500, and CD SPD is the rear reinforcement speed, with the maximum of 1500.**

# 4 Panel operating instructions —— setting of overlap sewing mode

Number 3: digital representation
Number of repeated segments

Number 1: digital representation
Number of stitches in the direction shown

Number 1: digital representation
Number of stitches in the direction shown


**Stitch gauge adjustment button:**

**1. Overlapping sewing is similar to W sewing, switch to overlapping sewing mode;**

**2. Tap the number 1 to modify the number of stitches, tap number 2 to modify the number of stitches,**

**3. Tap the number 3 to modify the number of segments**

# 5 Panel operating instructions ——setting of programmable sewing mode


**Pattern sewing button-segment switching:**

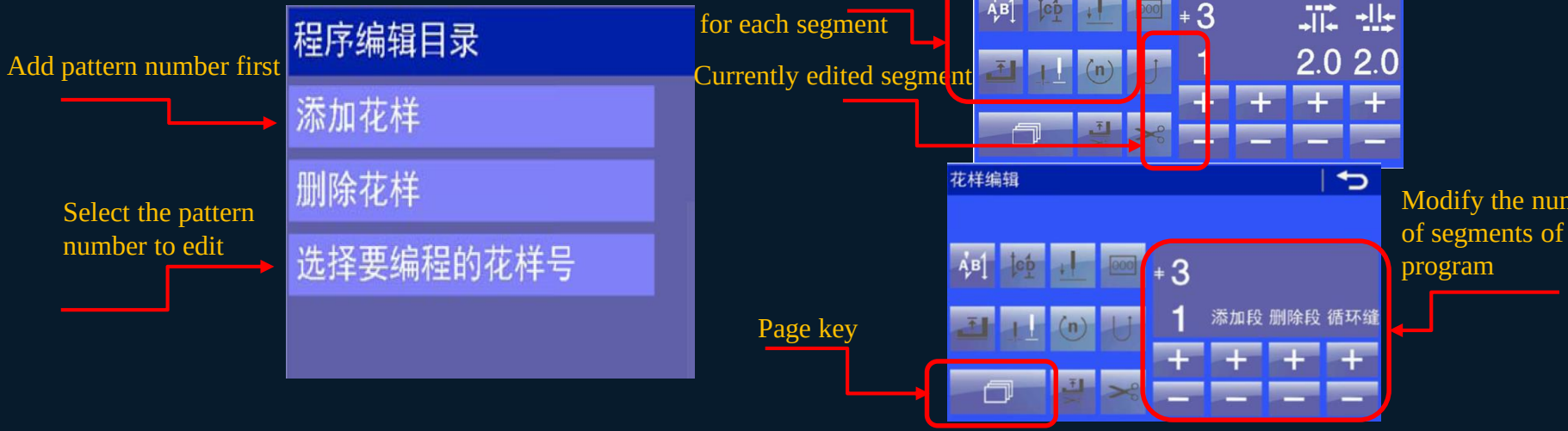
**1. The pattern number, total segment number and current segment number on the display interface are shown in the figure above;**

**2. The method of switching program segments on the display interface: when sewing is finished, touch the break key, the symbol turns white; touch the +- key corresponding to the total number of segments to switch the segment number; at this time, after "S-" The number of will change accordingly;**

**3. If the break key is not pressed, the current segment number will change, and the number after S- will remain unchanged, indicating that the currently executing segment has not changed.**

# 6 Panel operating instructions ——programmable sewing mode for patterns

Long press P to enter the edit directory interface, for example: if you want to edit 3# pattern, you need to add the pattern number 3 first, then select the pattern to edit, select 3#




**Trigger button:**

**1. The idea of pattern programming is to first determine the number of segments required for sewing, and then determine the stitch length, number of stitches, direction, speed, and reinforcement of each segment of the program;**

**2. Touch the page key to confirm the total number of segments, return to the interface, and modify the above parameters of each program segment to get a pattern.**

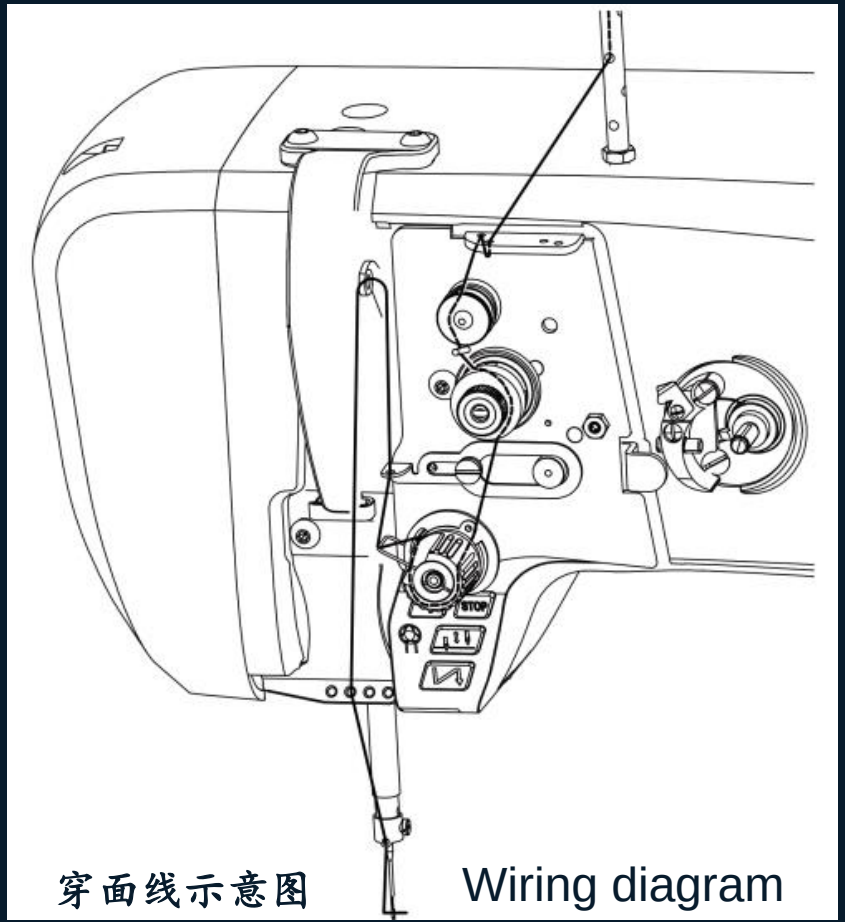
# 7 Operating instructions for fault alarm（1/2）（QiXing）

| Fault code | Code meaning | Solutions |
|---|---|---|
| 3100 | Software not licensed | Reinitialize parameters |
| 3101 | Out of range Parameter | Reinitialize parameters |
| 3110 | Pedal setting error / or pedal fault | Incorrect pedal value |
| 3111 | Encoder or reference point sensor failure or motor failure | Check whether the spindle is stuck or the encoder is faulty |
| 3112 | Data error | Data processing error, reset sewing parameters |
| 3114 | Head open | The nose is pulled down or the nose tilt sensor is faulty |
| 3118 | Electromagnet failure | Check the electromagnet for short circuit |
| 3119 | Abnormal spindle | The spindle is locked or the encoder is abnormal |
| 3120 | Abnormal needle motor | The needle does not rotate due to locked rotation or other reasons |
| 3121 | Communication failure | The data returned by the upper computer is not received |
| 3122 | Communication data validation error | Error in data received |
| 3123 | Abnormal Spindle drive | Spindle motor over current |

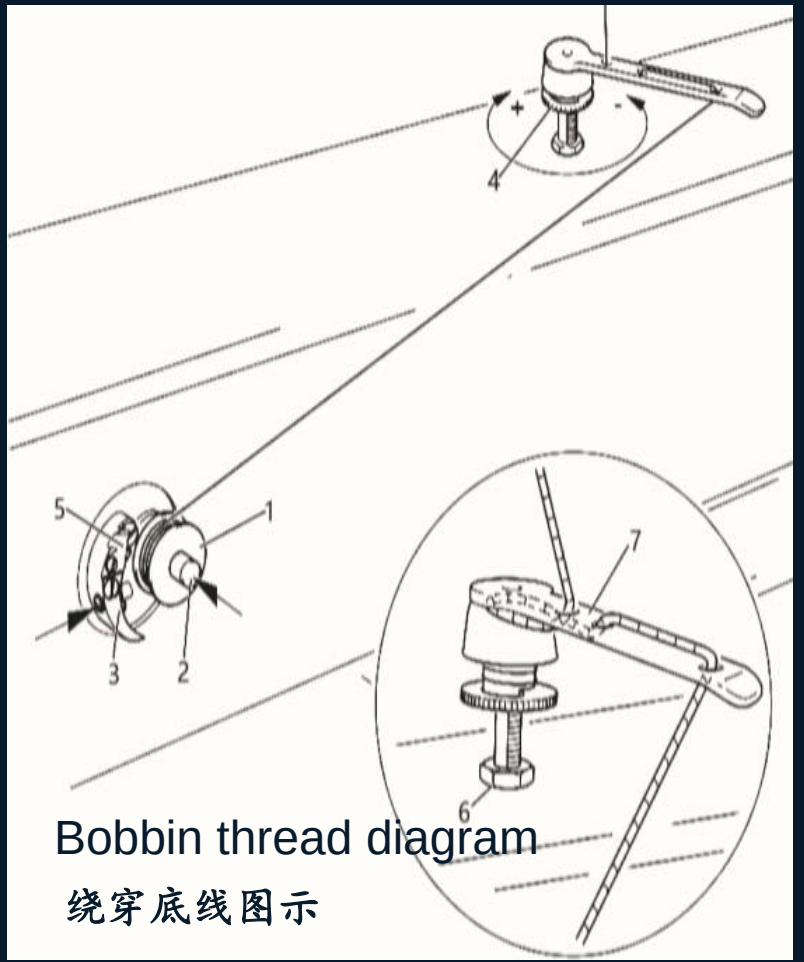
# 8 Operating instructions for fault alarm （2/2）（ QiXing ）

| Fault code | Code meaning | Solutions |
|---|---|---|
| 3124 | Abnormal needle drive | Over current of cycloid motor |
| 3125 | Pattern transmission error | Pattern transmission error, communication problem |
| 3126 | Parameter transfer error | Parameter transmission error, communication problem |
| 3127 | Knee control switch sewing section failed | When switching the sewing section, the upper computer does not respond |
| 3128 | Abnormal position of swing needle | The position of the swing needle exceeds the normal range |
| 3129 | Overvoltage | Supply voltage too high |
| 3130 | Under voltage | Supply voltage too low |
| 21 | The control board did not find the origin | The spindle or pendulum needle does not find the origin. First, judge whether the spindle works normally, and then judge the swing needle |

# 3 Mechanical adjustment




穿面线示意图 Wiring diagram




Bobbin thread diagram

绕穿底线图示

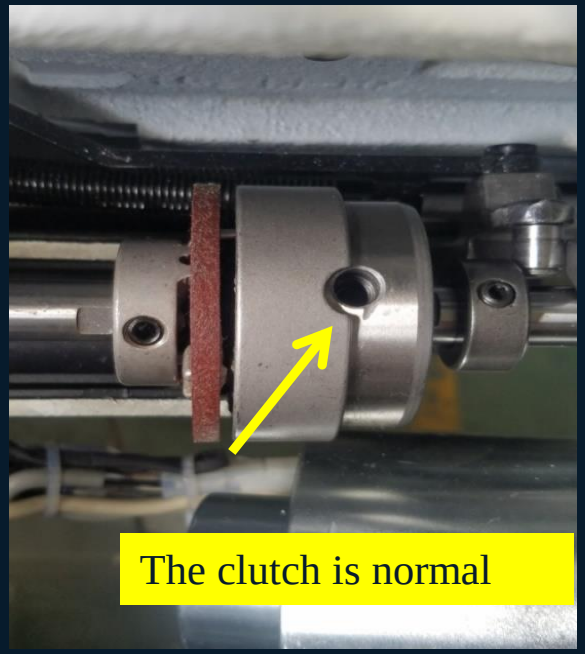
# Thread take-up stroke adjustment

**Step 1: Figure 1 The standard stroke of the thread take-up lever from bottom to top is 62mm.**

**Step 2: Stroke adjustment method: first loosen the tightening screws of Figure 2 (2 flat-blade screws) and Figure 3 (2 3mm hexagon socket screws), and then press the thread take-up lever and turn the hand wheel to fine-tune. Tighten the screws in Figure 2 and Figure 3 after the line stroke.**

# Installation of the lower shaft rotary hook clutch assembly

**Step 1: Figure 1 Align the screws in the red circle in Figure 1 with the plane of the lower shaft and tighten.**



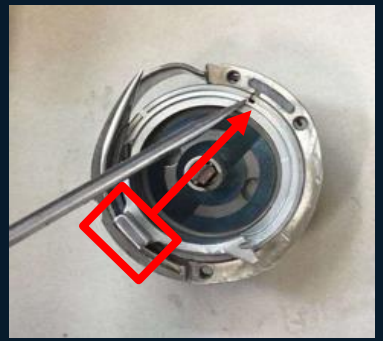

**Step 2: Figure 2 Turn the hand wheel clockwise until the clutch is turned to the pinball position (there will be a sound when it is locked)**


**Step 3: Figure 3 The three screws at the arrow in the figure 3 can adjust the clutch resistance, so that it will not easily get out of position.**

# Steps for removing and installing the hook

**Step 1: Take off the bobbin case and loosen the 3 screws of the bobbin cover.**

**Step 2: Position the shuttle bladder between the groove on the opposite side of the iron and the groove on the hook, and take out the shuttle bladder.**



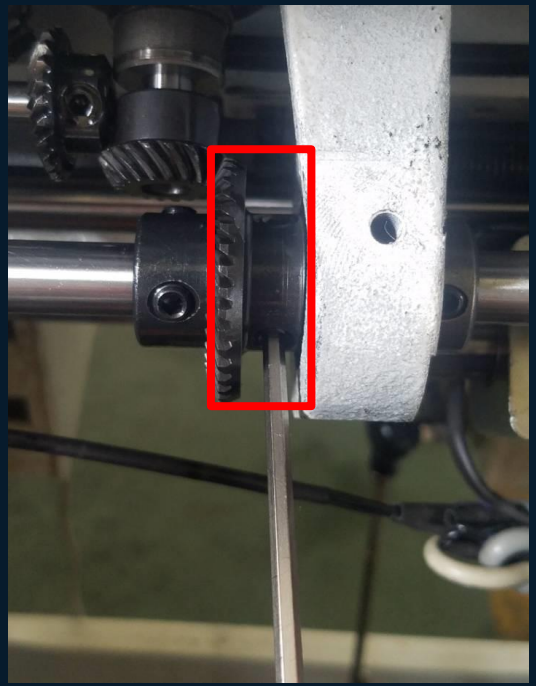
**Step 3: Install the oil supply hole gasket.**

**Step 4: Install the rotary hook and tighten the screws.**

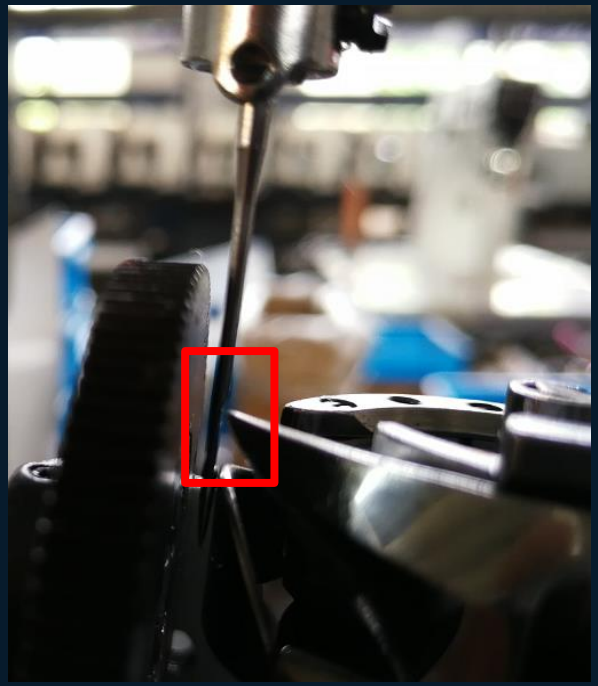
**Step 5: Position the shuttle bladder at the position of the groove on the opposite side of the iron to the groove of the rotary hook, and put the shuttle bladder.**

**Step 6: Reinstall the shuttle bladder cover and tighten the 3 screws of the cover.**

# Needle bar height positioning adjustment



Step 1: Figure 1 First, loosen the transmission gear screw that adjusts the hook thread hooking time.



Step 2: Figure 2 When lowering the needle bar to the lowest point, turn the hook so that the tip of the hook and the needle are short


Step 3: The height of the needle bar can be determined by loosening the screw in Figure 3, moving the needle bar up and down and then tightening the screw. The distance between the single needle and the double needle from the needle plate is 24.5 and 23.5mm respectively.

# Hook adjustment

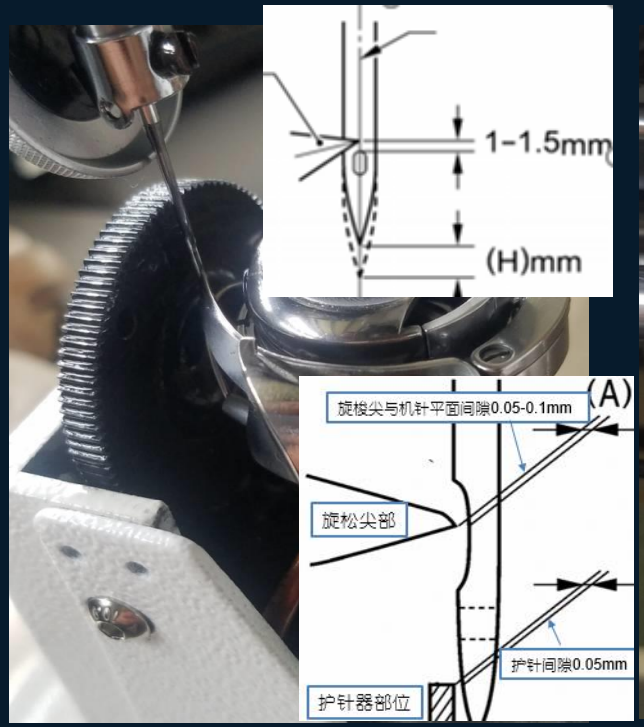



**Figure 1. When the needle rises from the lowest point, the hook thread hooking time is about 1.5mm above the needle hole, and the gap between the hook tip and the short groove side of the needle is 0.05-0.1mm.**

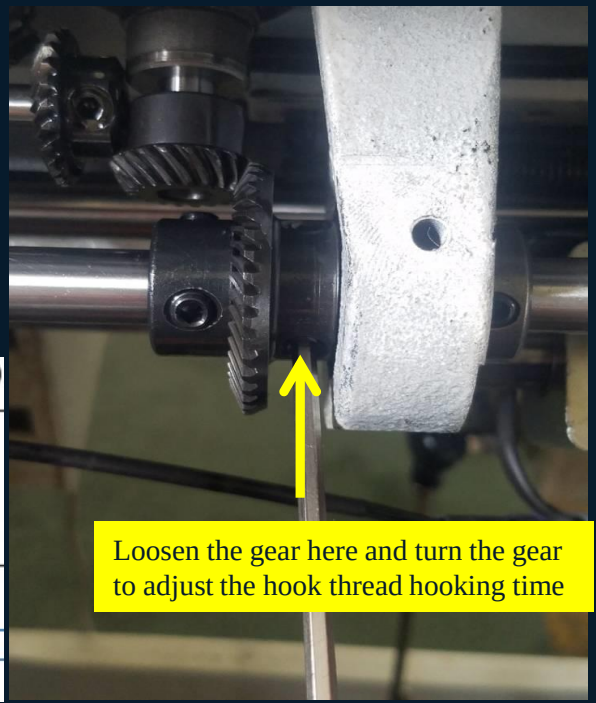



**Figure 2. The hook thread hooking time can be adjusted at the arrow.**

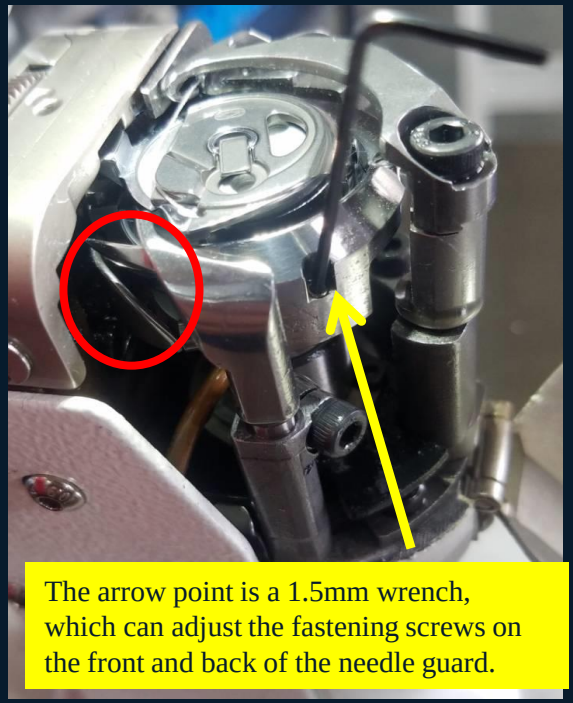
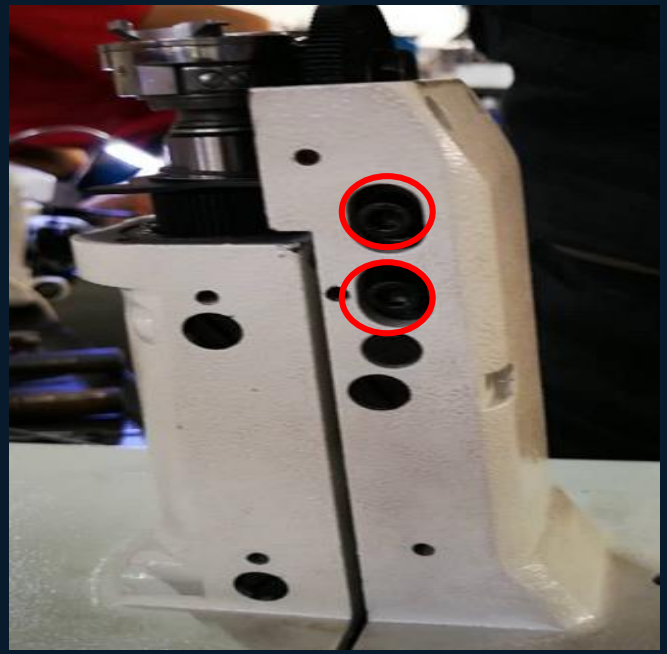



**Figure 3. The hook needle guard can be adjusted at the arrow, and the gap between the needle guard and the needle is 0.05-0.1mm.**

# Feeding golden wheel tooth height adjustment



**Picture 1: Adjust the screw of the tooth height of the feeding wheel**

**Figure 2: The teeth of the feeding wheel are 0.8-1.0mm higher than the needle plate; for ultra-thin leather, the teeth of the feeding wheel are 0.3-0.5mm higher than the needle plate.**

# Loosening electromagnet mechanism (thread trimming)

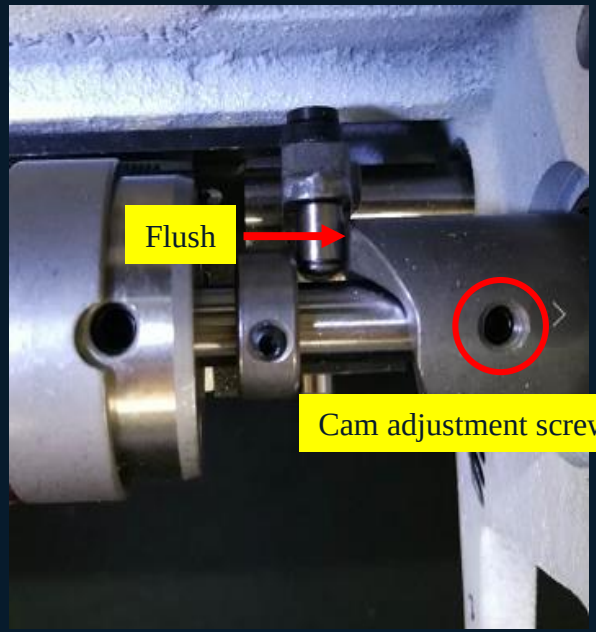

**Figure 1 The installation of the loose wire electromagnet should have a pull-in action, and the front thread clamp can open about 2mm (small picture), and the action is smooth and no jams.**

**Figure 2 The working stroke of the loose wire electromagnet is 3mm, and the stroke gap can be adjusted at the mark in the red circle.**

# Upper positioning and trimming cam position adjustment (thread trimming)

**Step 1: When the needle bar moves down, the highest point of the thread take-up lever.**

**Step 2: The distance between the needle tip and the needle plate is 8-12mm as the upper needle stop position. If there is an error, enter the P72 parameter to adjust the upper stop position.**




**Step 3: After adjusting the upper parking space, the highest point of the thread trimming cam (adjusted by two 3mm inner hexagonal fastening screws) is flush with the thread trimming drive roller. The clearance between the roller and the cam is 0.2mm.**

# Installation and adjustment of thread trimming seat mechanism


1 Fixed knife adjustment fixing screw, 2 Clamping piece clamping force adjustment fixing screw, 3 Moving knife fixing screw.

Step 2: Install the movable knife holder. The clearance between the movable knife swing gear and the rotary hook outer shaft gear is ≤0.1mm, and it can swing freely without any stuck points.

Step 3: There are two 2mm screws at the arrow point to adjust the height of the movable knife. The distance between the lower plane of the movable knife and the upper surface of the bobbin case boss is 0.1mm, and the movable knife should not rub against the bobbin case when it moves.

# Installation and adjustment of thread trimming seat mechanism

**Step 4: Here you can adjust the front and rear positions of the movable knife to fix the screws.**

**Step 5: When the movable knife is at the thread trimming position, the amount of engagement between the movable knife tip and the fixed knife edge is 2-3mm.**


**Step 6: 1 The moving knife and the fixed knife tangent smoothly, and the pressure is as small as possible to complete the tangent action, and the tangent is neat. 2 The clamping piece is stable and reliable when clamping the wire.**

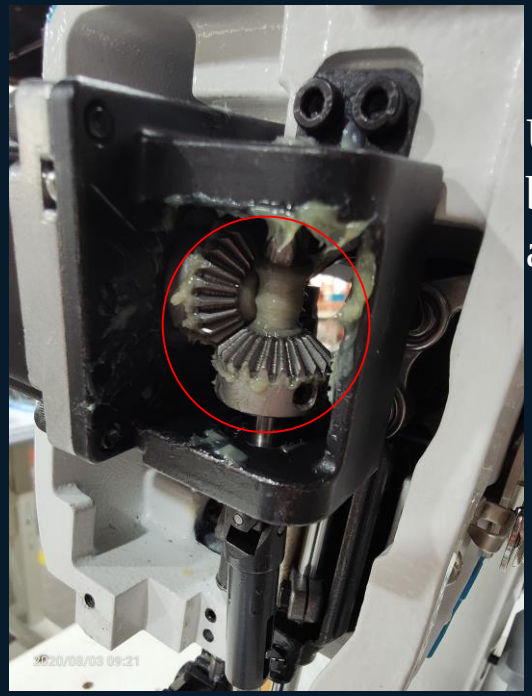
# Presser foot adjustment

**Figure 1 Automatic presser foot lifting electromagnet installation, the distance between the solenoid plunger and the presser foot lifter is 1mm. The upper hole is for the automatic presser foot lifter, and the lower hole is for the knee lifter presser foot lifter.**

**Figure 2 Height of presser foot lift: 6.5mm hand-held, 8.5mm automatic knee-rest 12mm.**

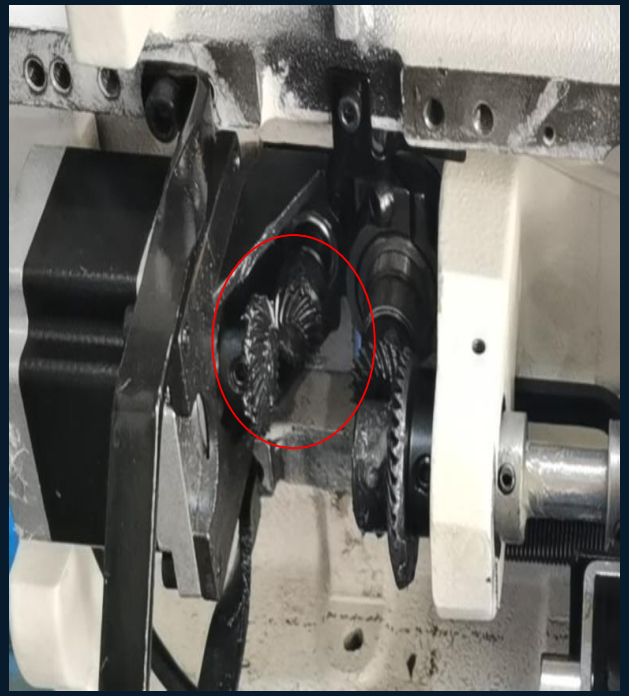
**Figure 3 The left side of the adjusting screw for adjusting the height of the presser foot, and the right side is the adjusting screw for the lowest height of the presser foot.**

# Feed assembly



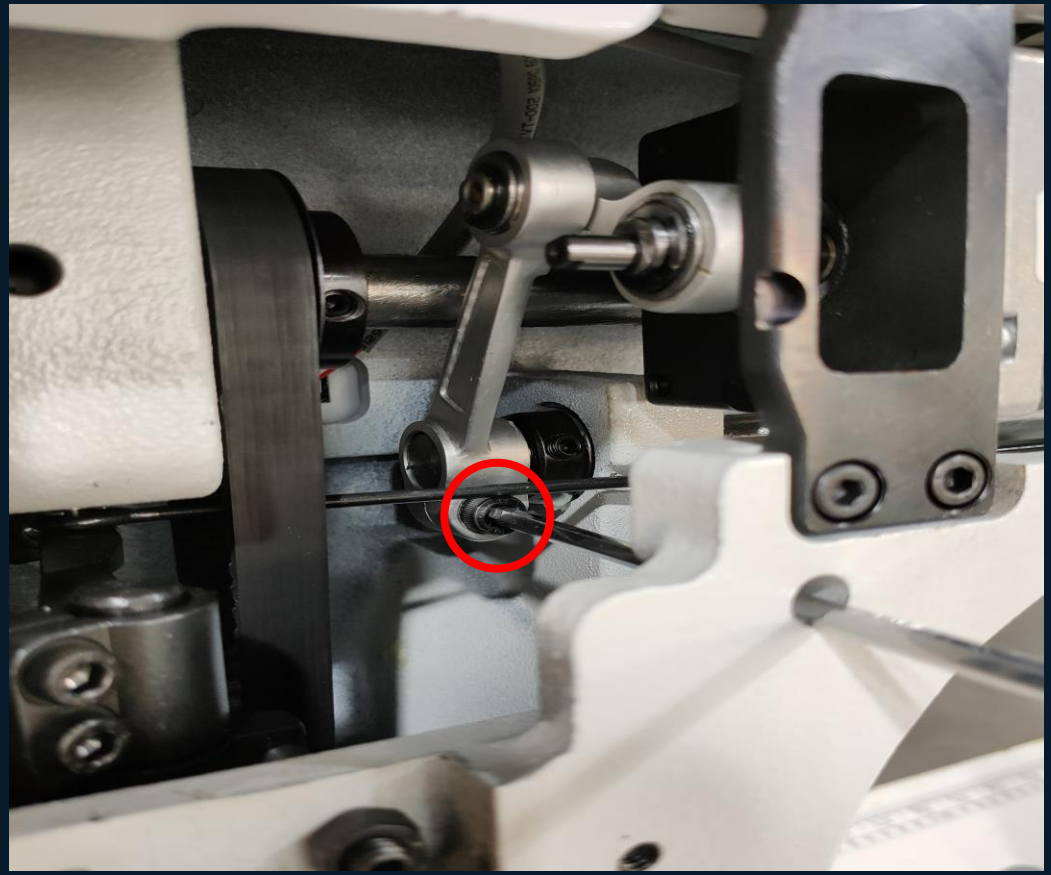
Upper backstitch assembly

Lower backstitch assembly



Adjust the clearance between the upper and lower transmission gears to be consistent without sticking point.

# Needle bar swing position adjustment



Loosen the screws with a 5mm Allen wrench, move the needle to the middle of the needle plate hole, and do not touch the needle plate during the reverse sewing, and then tighten the screws.

# Belt tightness adjustment

Loosen the hexagon screw in the red ring and move the tension pulley left and right to adjust the belt tension.