Lockstitch Pocket Hemming Automat

JTR-LH3578 / PHA Series

INSTRUCTION MANUAL

No.JTR000

LH3578PHA-TM

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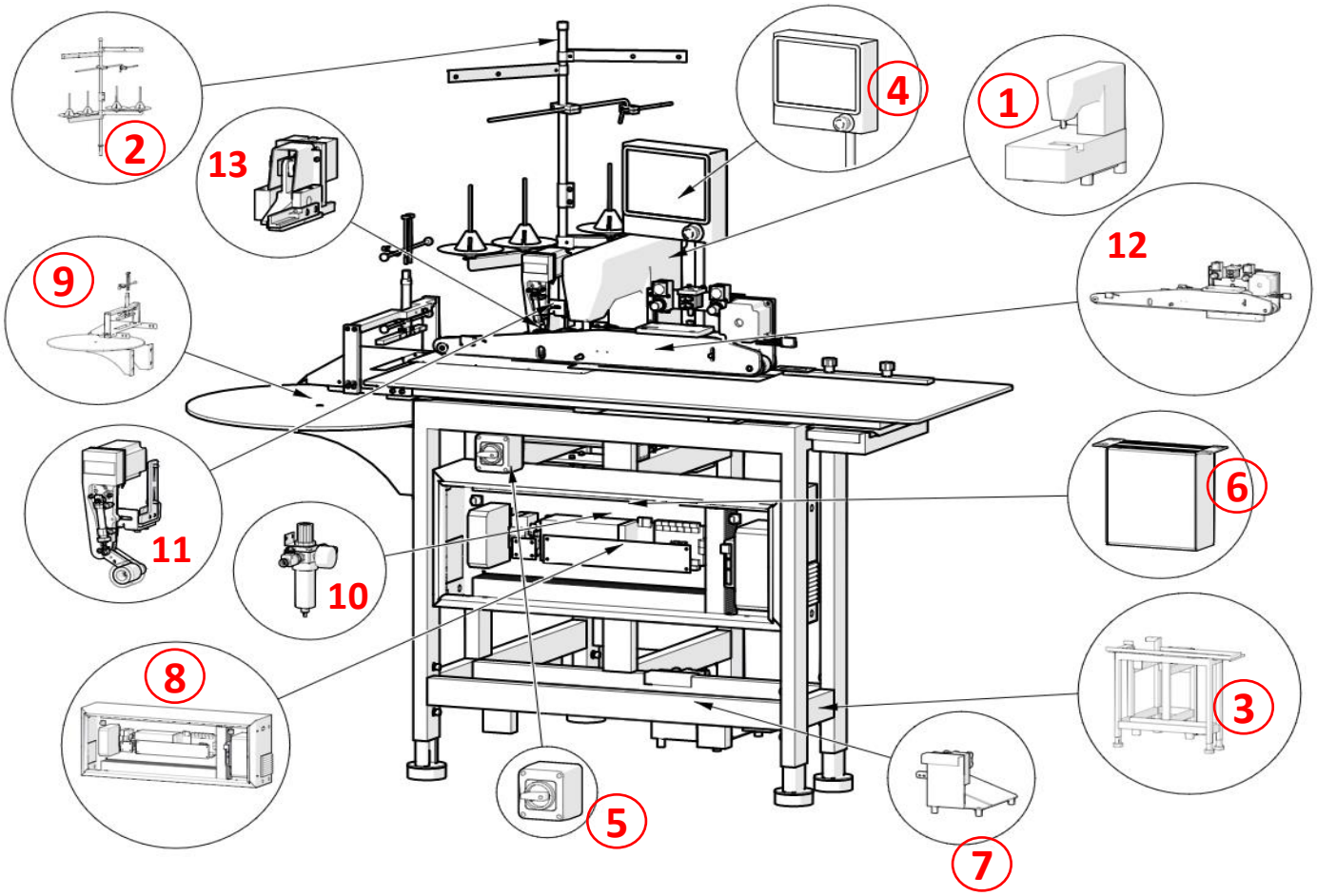
1) CONFIGURATION OF THE MACHINE



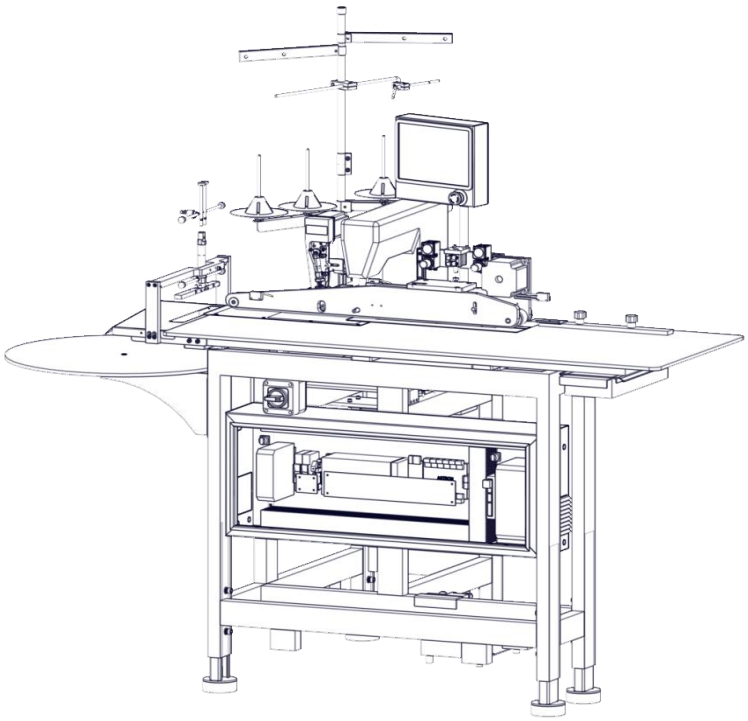
1	MACHINE HEAD	8	PLC BOX
2	THREAD STAND	9	STACKING GROUP
3	CHASSIS GROUP	10	AIR PRESSURE
4	PANEL	11	ROLLER GROUP
5	MAIN SWITCH	12	CONVEYOR BAND SYSTEM
6	JTRON CONTROL BOX	13	KNIFE GROUP
7	PEDAL		

2) SPECIFICATION

No.	Category	Description
1	MACHINE HEAD	LH-3578AGF
2	MODEL NAME	JTR-LH3578/PHA
3	MOTOR	Efka - DC1500
4	CONTROL BOX	Efka - IP40 P1
5	MAXIMUM SEWING SPEED	Max: 2300 sti/min DELIVERY SPEED : 2000 sti/min
6	STITCH LENGTH	Delivery stitch length : 3 mm - 3.1 mm
7	NEEDLE TYPE	GB / DPX5 / #21
8	GAUGE	JTRON ORIGINAL GAUGE (4.8 - 6.4 - 7.2)
9	HEMMING SIZE	9 - 15 mm
10	FABRIC CUTTNG SYSTEM	ORIGINAL JTRON CUTTING SYSTEM
11	SEWING SPECIFICATIONS	THIN TO MEDIUM THICKNESS
12	TARGET PROCESS	Pocket Hemming
13	AIR PRESSURE	MIN: 0.6 MPa MAX: 0.8 MPa Standard: 0.6 Mpa
14	VOLTAGE CLASSSIFICATION	Single-phase 200-240V/50Hz
15	AIR CONSUMPTION	10 L/min
16	POWER CONSUMPTION	550VA
17	CAPACITY	9000 - 10.000 pcs / 9 hours
18	DAILY PIECE COUNTER	YES

3) INSTALLATION

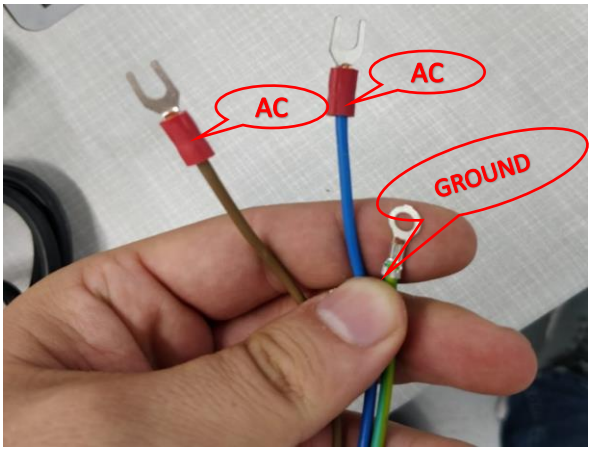
3.1) The machine is delivered as below



There is not any special occasion for transportation of the machine thus there is no need for extra installation notes.

3.2) The supply air to the machine

3.3) Connecting the power supply

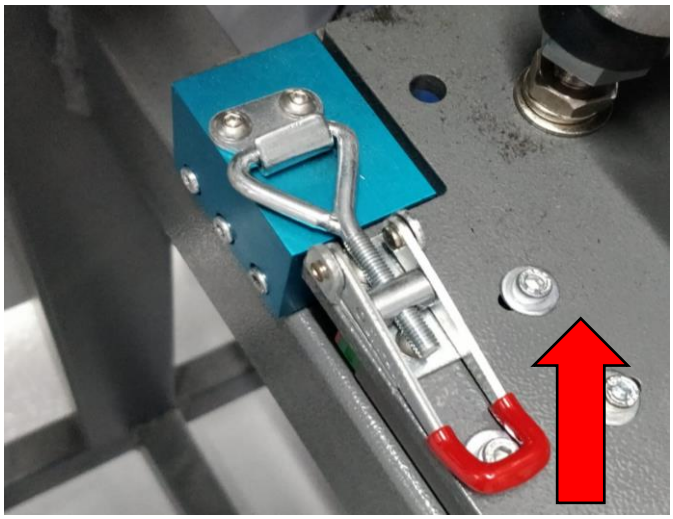


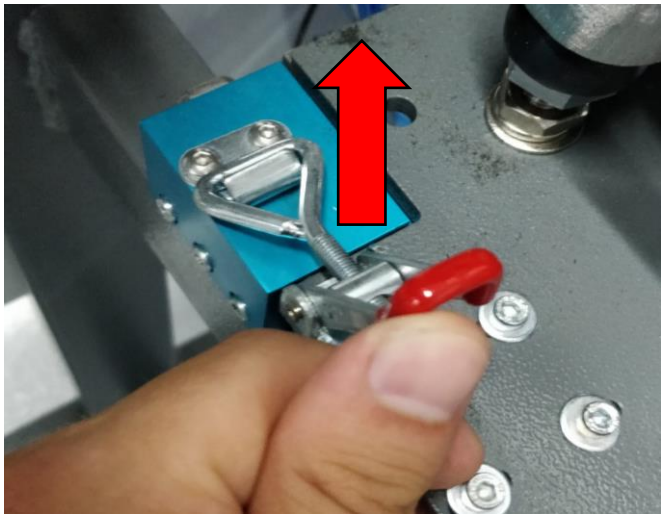
The machine is not supplied with a power plug. It is therefore necessarry for you to select to plug that maches the receptacle availabe under a given operating environment and attach it to the power cable.

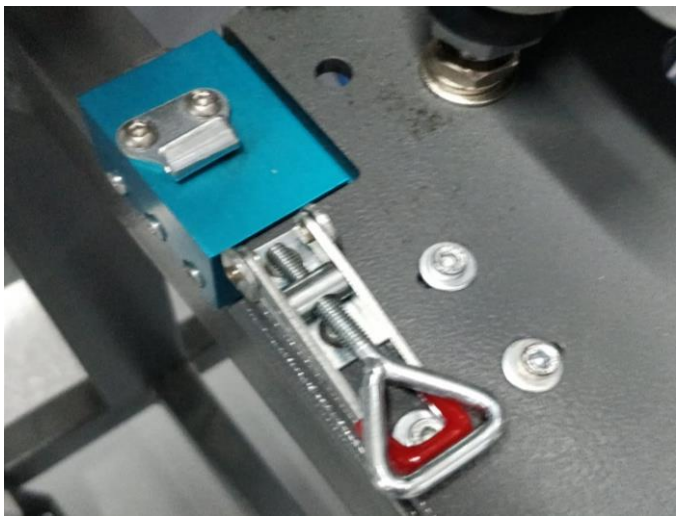
4) PREPARATION FOR OPERATION

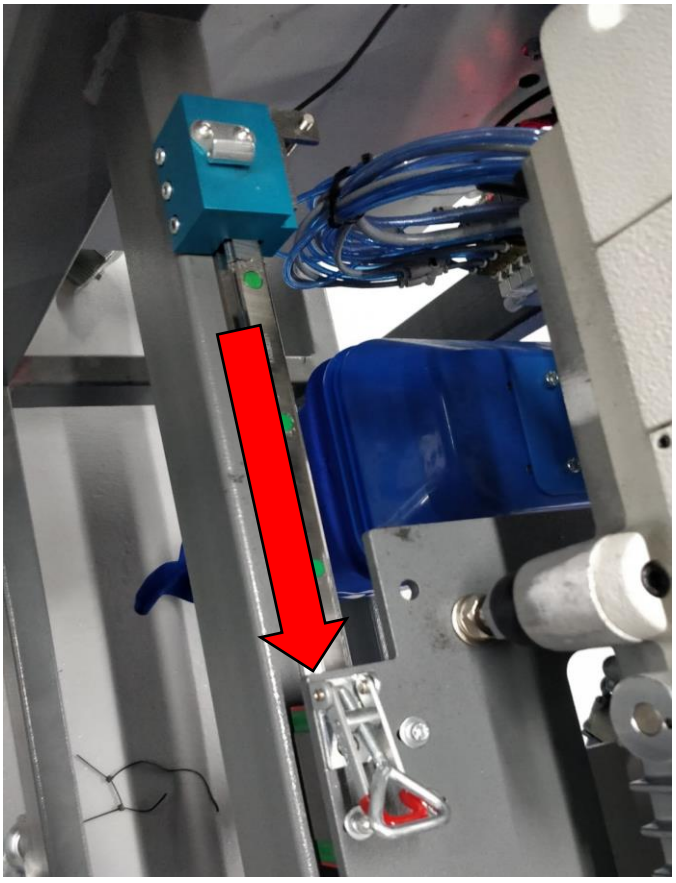
4.1) Please put the Juki NEW DEFRIX OIL No. 1 or JUKI MACHINE OIL #7 from upper cover of the machine head. (Please refer to machine head instructions – LH3578A)

4.2) Move the machine head to behind.

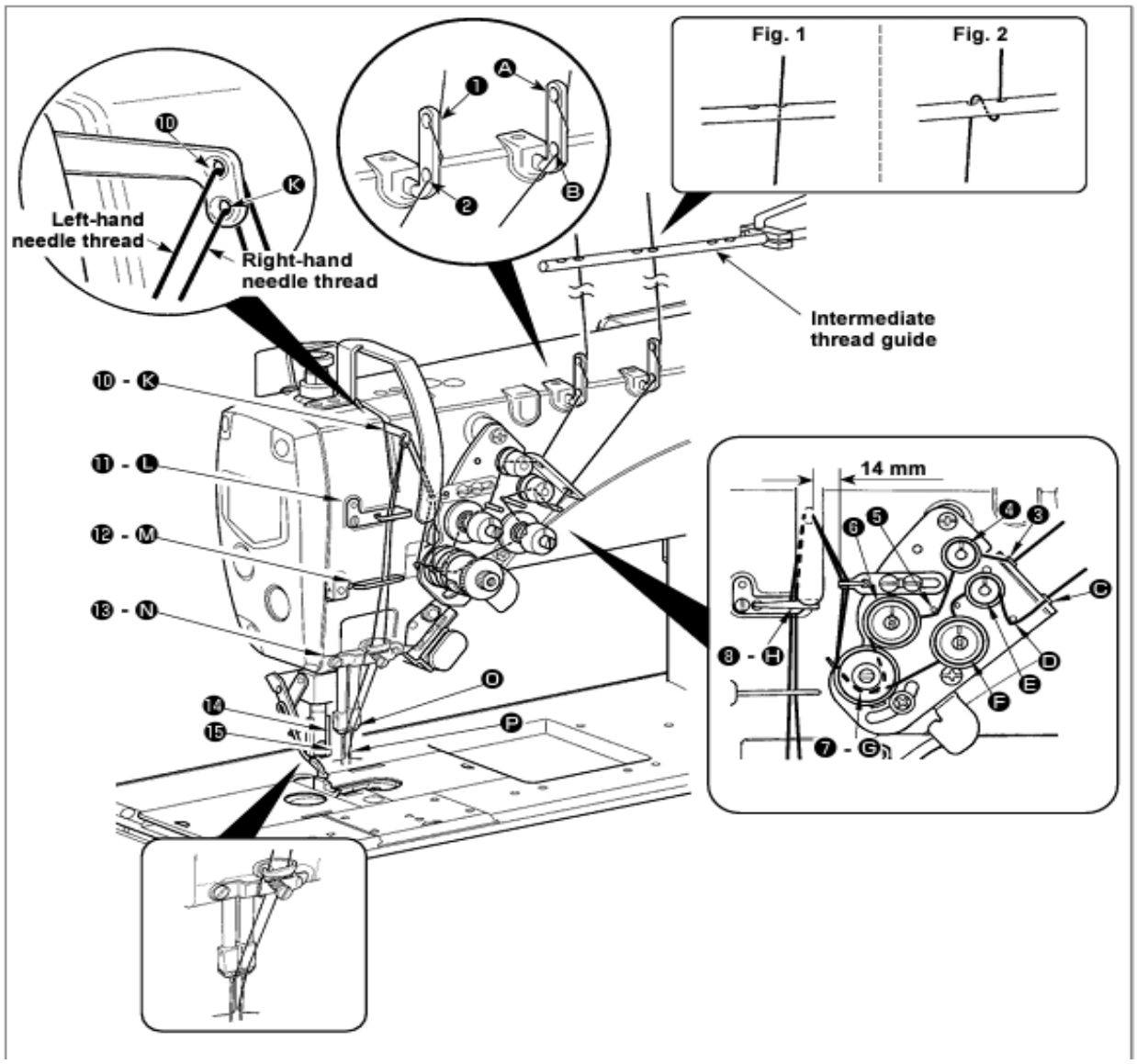








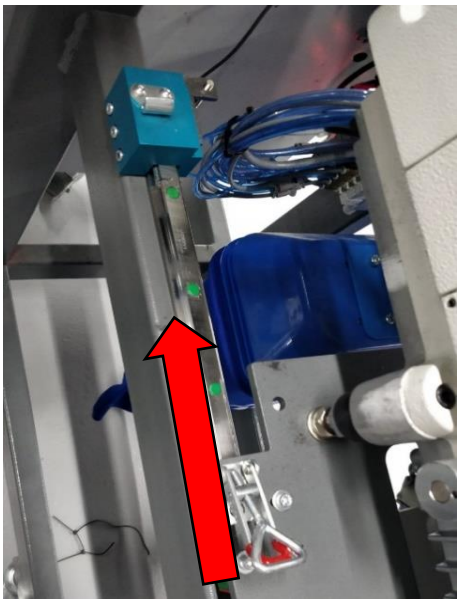
4.3) Threading the machine. (Please refer to machine head instructions – LH3578A)

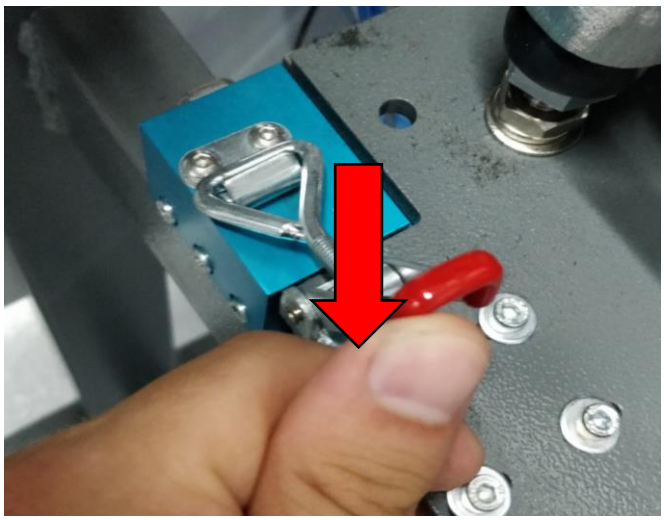


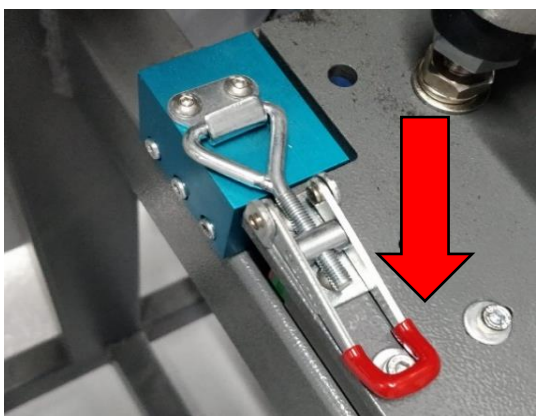
4.4) Run the machine.

4.5) Sample sewing should be made by using the pedal manually.

4.6) Move the machine head to front.



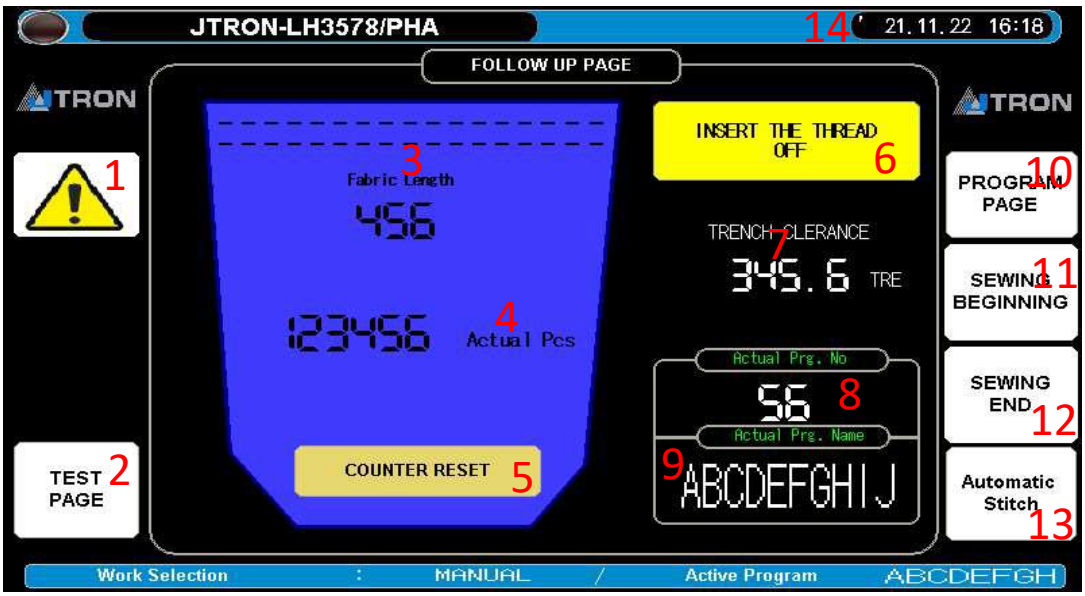




5) PANEL

5.1) Intro Screen (Select Language)

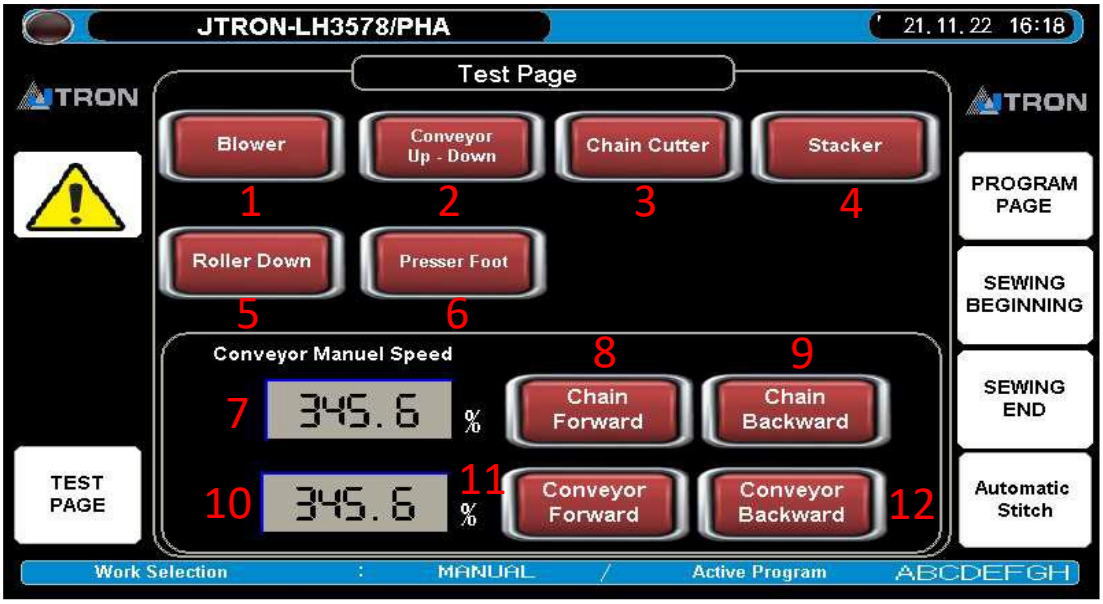
5.2) Follow Up Page



1-Alarm Page [Ref; 5.3)]	6-Insert The Thread Off	11-Sewing Beginning [Ref; 5.6)]
2-Test Page [Ref; 5.4)]	7-Bobbin MT	12-Sewing End [Ref; 5.7)]
3-Fabric Length	8-Actual Prg. No	13- Automatic Stitch
4-Actual Pcs	9-Actual Prg. Name	14- Date and Time
5-Counter Reset	10-Program Page [Ref; 5.5)]	

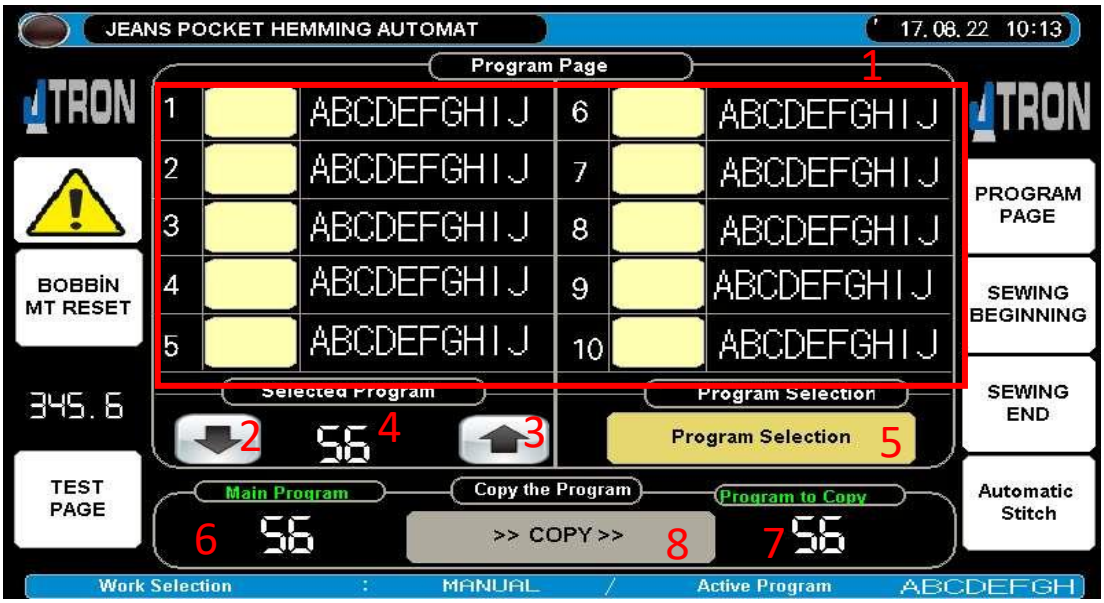
5.3) Alarm Page

5.4) Test Page



1-Vacuum & Blower	5-Roller Down	9-Chain Backward
2-Conveyor Up - Down	6-Presser Foot	10-Conveyor Manual Speed Rate
3-Chain Cutter	7-Chain Manual Speed Rate	11-Conveyor Forward
4-Stacker	8-Chain Forward	12-Conveyor Backward

5.5) Program Page



1-Program List	4-Actual Prg. Number	7-Program to Copy
2-Program Down	5-Program Selection	8-Copy Button
3-Program Up	6-Main Program	

5.5.1) Copy the Program

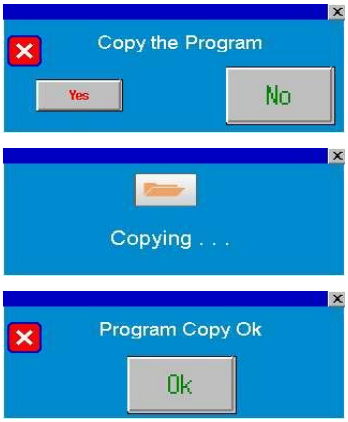
Press the number of main program (6).

Enter the number of the program that you want to copy.

Press the number of program to copy (7).

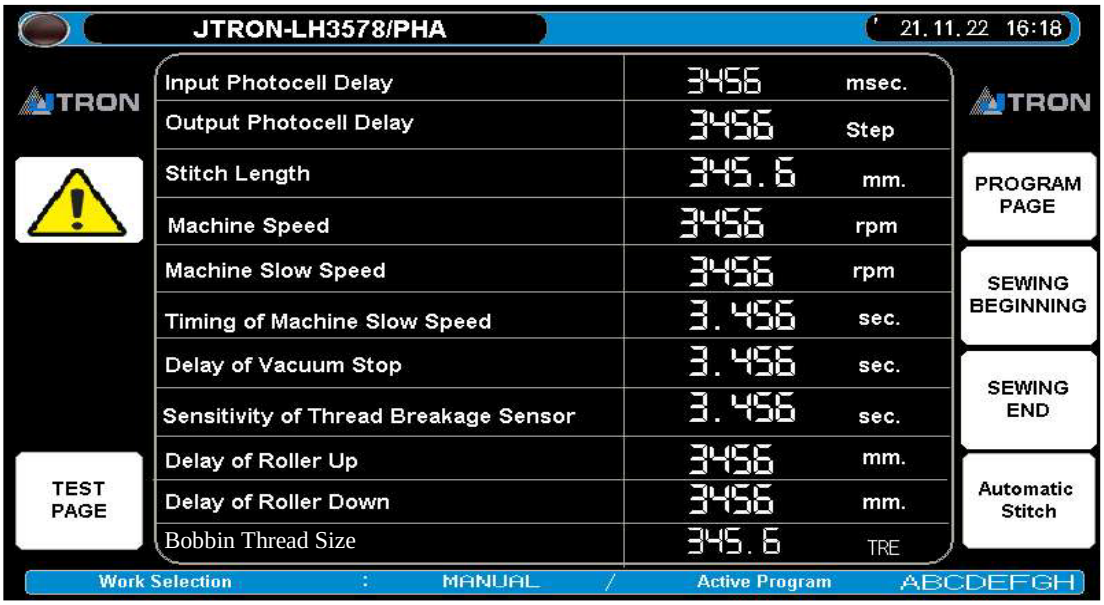
Enter the number of the program that you want to target.

Press the ">> COPY >>" button (8).



Important note! If the program is active it is not possible to copy(duplicate) the selected program. In order to copy(duplicate) a program the actived program should be different than the main(to be copied) program.

5.6) Sewing Page



1 - Input Photocell Delay : It is the delay time between the input sensor detecting the fabric and the conveyor starting.

2 - Output Photocell Delay : It is the step of the delay's between the input sensor does not detecting fabric and the conveyor stopping.

3 - Stitch Length: It is the length of the stitch

4 - Machine Speed : It is the speed of the machine in terms of rpm

5 - Machine Slow Speed: It is the speed of the machine run in a slower pace

6 - Timing of Machine Slow Speed: It is the time at machine start-up with slow-paced running.

7 - Delay of Vacuum Stop : It is the delay time between cutting chain and stopping vacuum.

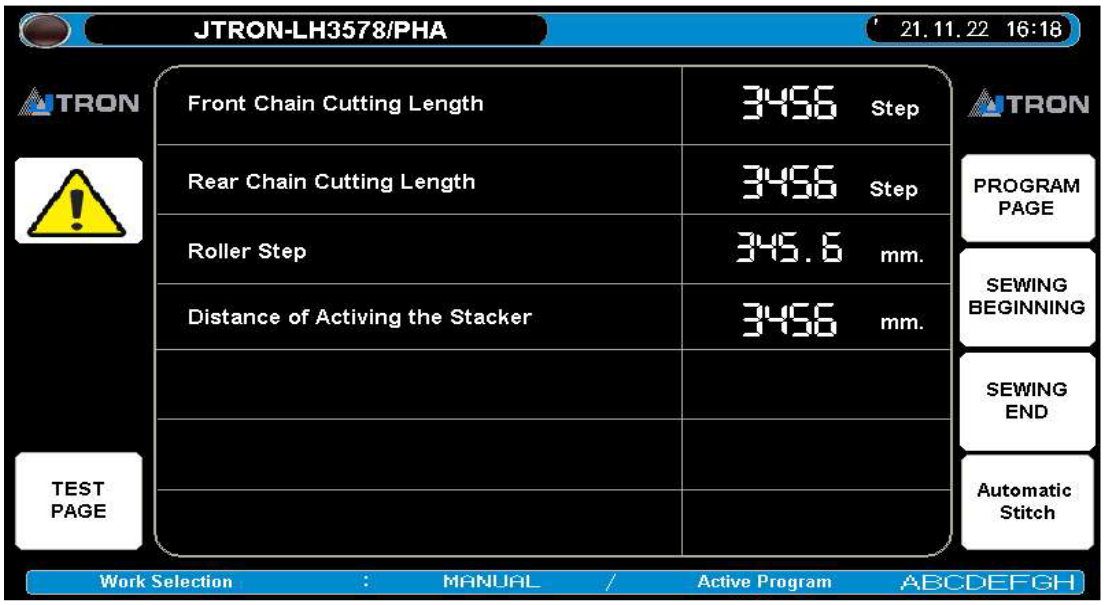
8 - Sensitivity of Thread Breakage Sensor : It is the delay of the machine stop after the thread breakage occurs.

9 - Delay of Roller Up : It is the delay distance between the roller lifting and the middle sensor detecting the fabric.

10 - Delay of Roller Down : It is the delay distance between the roller descend and the output sensor does not detecting the fabric.

11 - Bobbin Thread Size : It is the lenght of the thread on the bobbin in terms of meter.

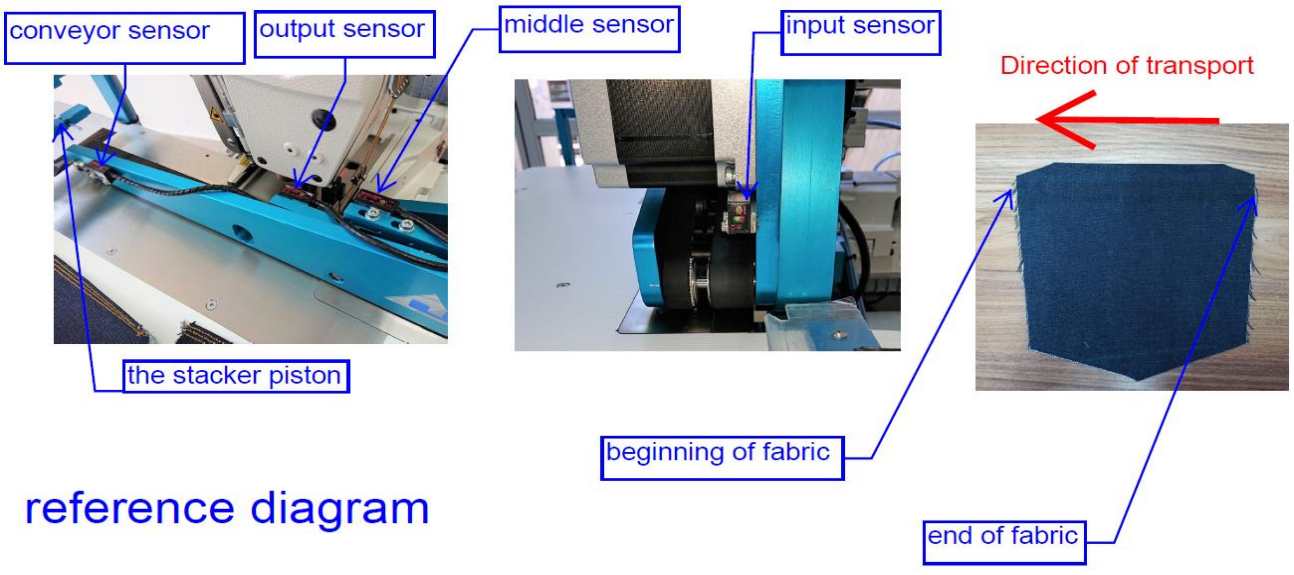
5.7) Sewing End Page



1 - Front Chain Cutting Lenght : The step between the output sensor detects the end of fabric and cutting the chain of the end of the fabric .
2 - Rear Chain Cutting Lenght : The step between the output sensor detects the beginning of fabric and cutting the chain of the beginning of the fabric

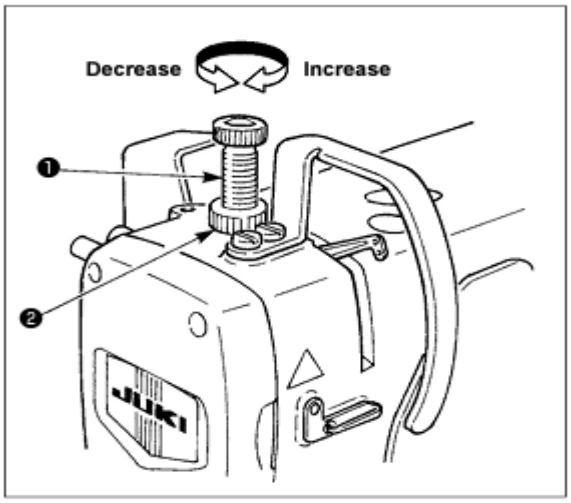
3 - Roller Step : It is the synchronization between the roller and stitch length of the machine.

4 - Distance of Actibing the Stacker : It is the distance between the conveyor sensor and stacker piston.



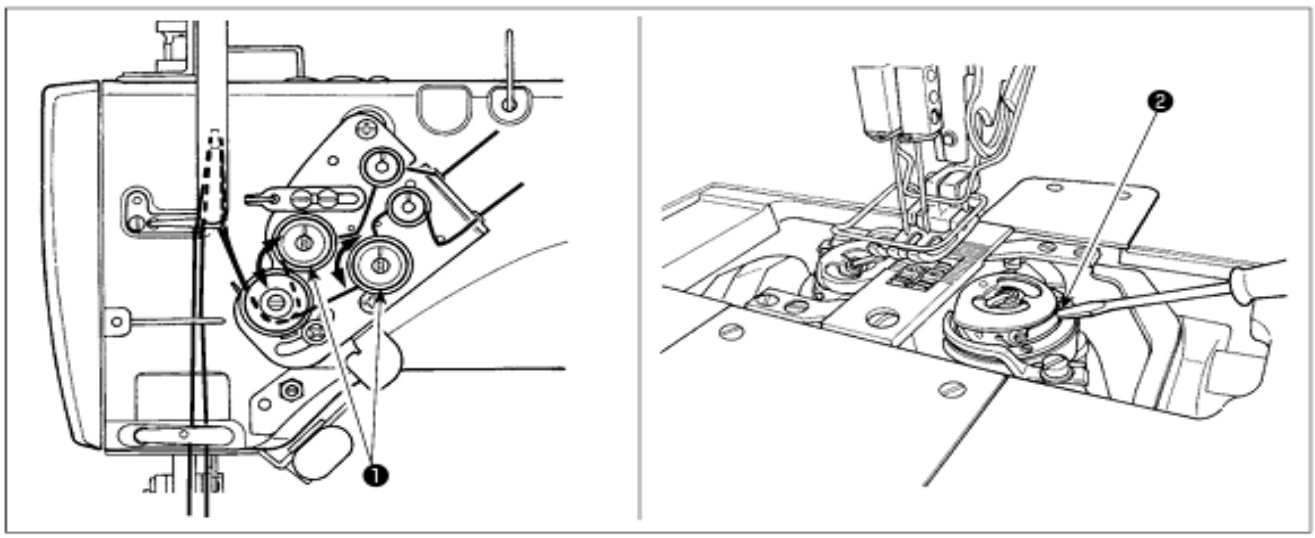
6) ADJUSTMENT

6.1) Adjusting the presser foot pressure



Loosen nut(2) by turning counter-clockwise, and turn presser spring regulator(1) to adjust the pressure. Turn the regulator clockwise to increase the pressure and turn it counter-clockwise to decrease the pressure.After the adjustment, tighten nut(2).

6.2) Adjusting the thread tension



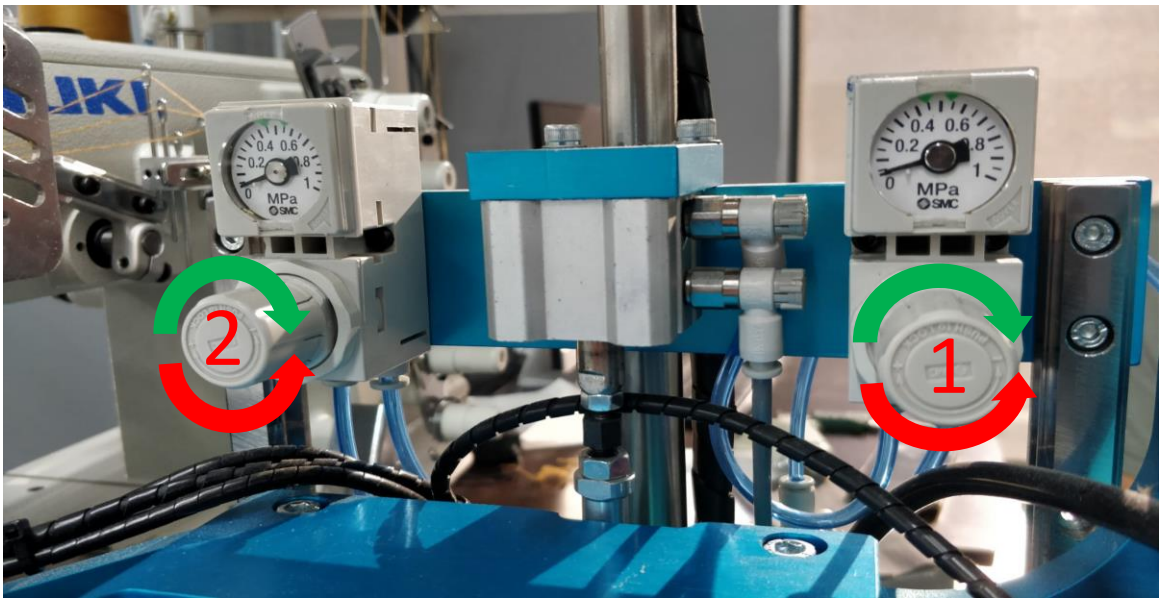
1) Needle thread tension

Turn thread tension nut No. 2 (1) clockwise to increase or counter-clockwise to reduce the needle thread tension.

2) Bobbin thread tension

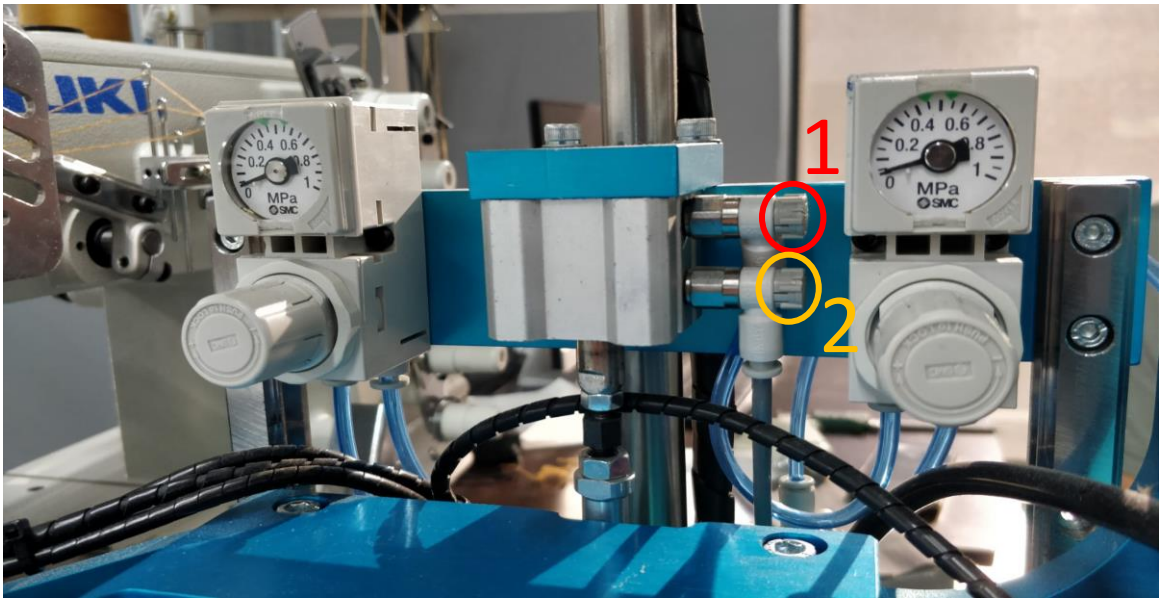
Turn tension adjusting screw (2) clockwise to increase or counter-clockwise to reduce the bobbin thread tension.

6.3) Adjusting the regulator pressure for Roller and Conveyor



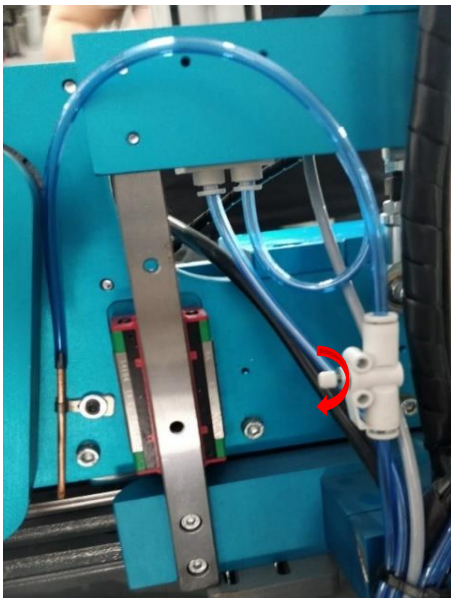
1 - Rotate the knob clockwise to increase the pressure of the conveyor. Rotate the knob counter-clockwise to decrease the pressure of the conveyor.
2 - Rotate the knob clockwise to increase the pressure of the roller. Rotate the knob counter-clockwise to decrease the pressure of the roller.

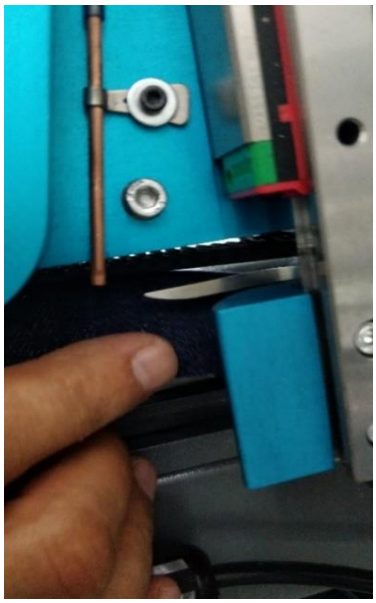
6.4) Adjusting the speed for Conveyor lifting and descent



1 - Rotate the knob clockwise to decrease the speed of the conveyor lifting. Rotate the knob counter-clockwise to increase the speed of the conveyor lifting.
2 - Rotate the knob clockwise to decrease the speed of the conveyor descent. Rotate the knob counter-clockwise to increase the speed of the conveyor descent.

6.5) Adjusting the air flow rate for curving fabric

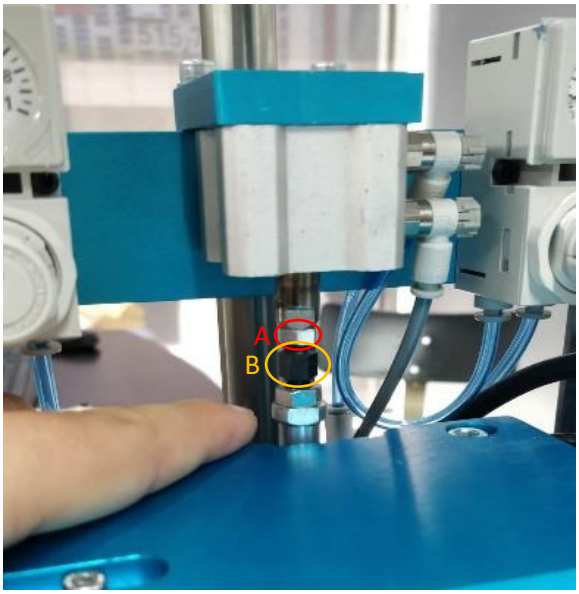




Rotate the knob clockwise to decrease the air flow rate for curving fabric.

Rotate the knob counter-clockwise to increase the air flow rate for curving fabric.

6.6) Adjusting the conveyor height between base ground and conveyor belt



1 - Lifting the conveyor.[Refer 5.4) Test Page : Conveyor Up - Down)

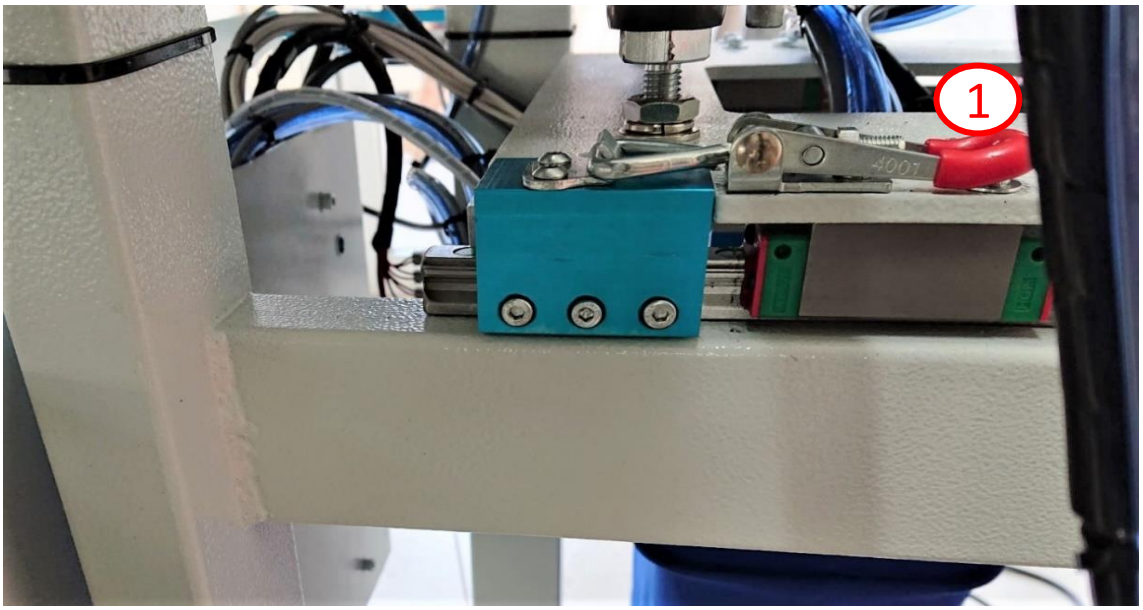
2 - Loosen the nut(A).

3 - By locating the special screw(B) adjust the height of the conveyor.

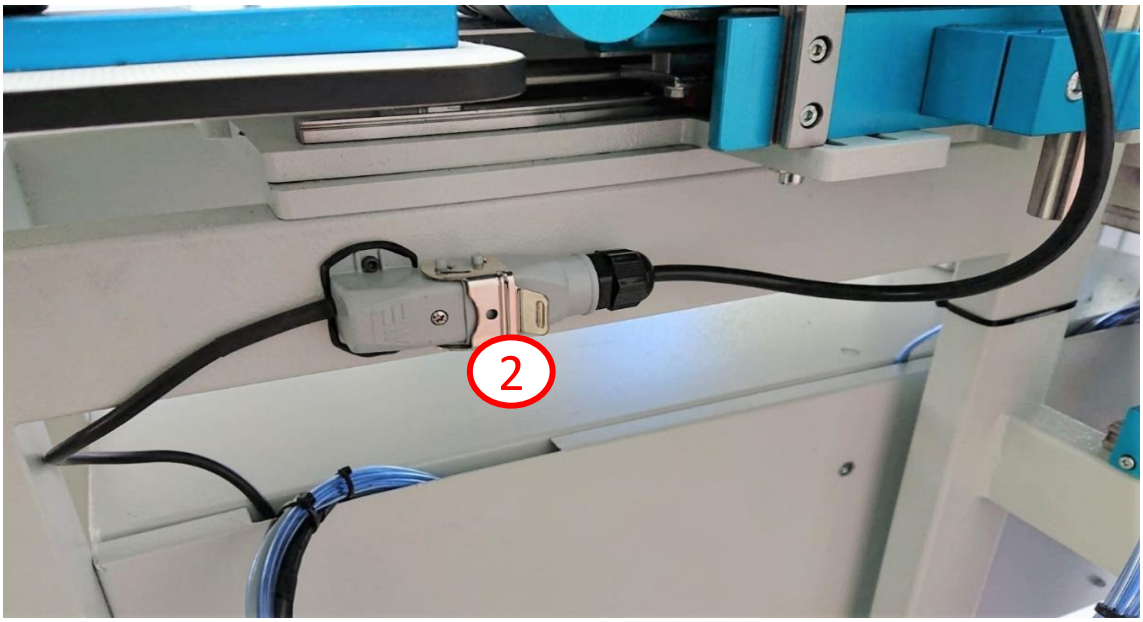
4 - Tighten the nut(A).

6.7) Assembling and adjusting the fabric curving equipment

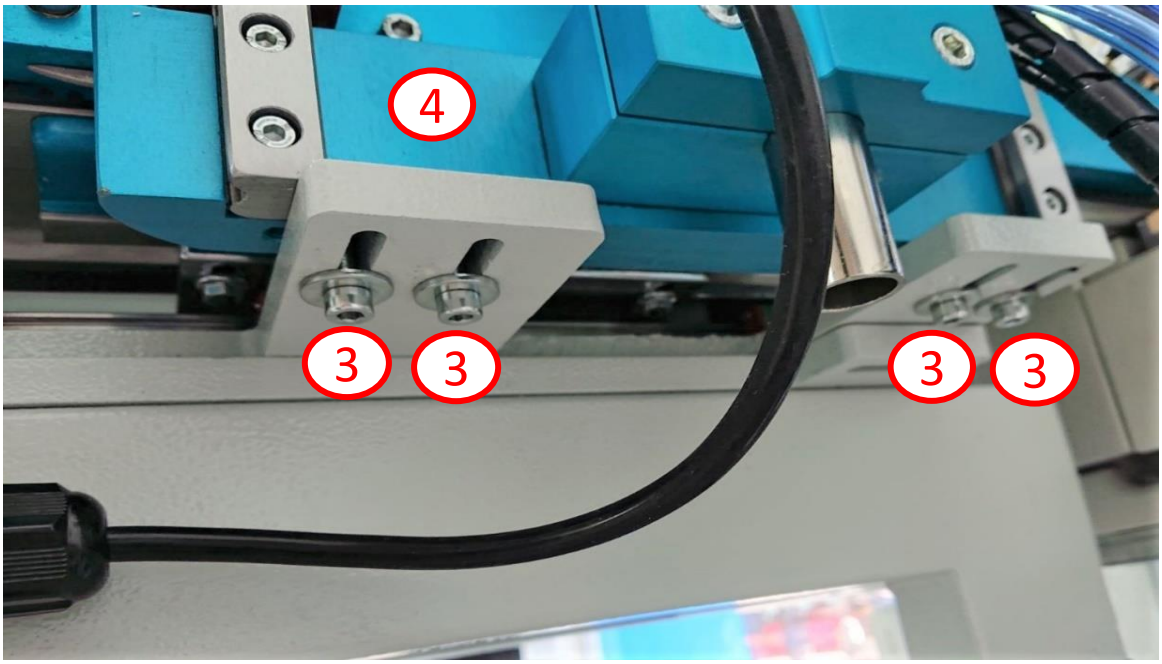
6.7.1) Raise lever ① and unlock the head.



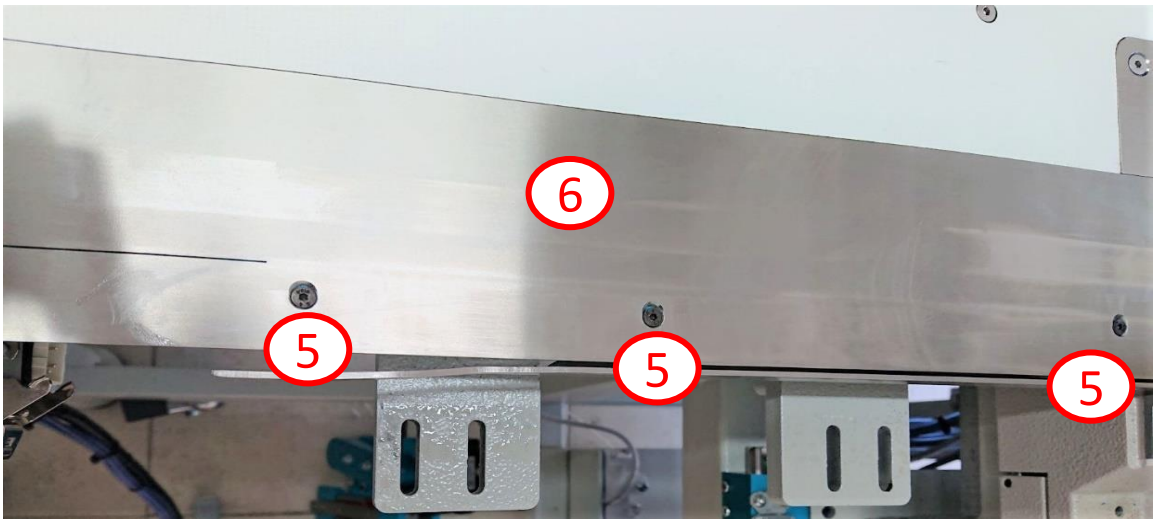
6.7.2) Raise lever ② to unlock the connector.



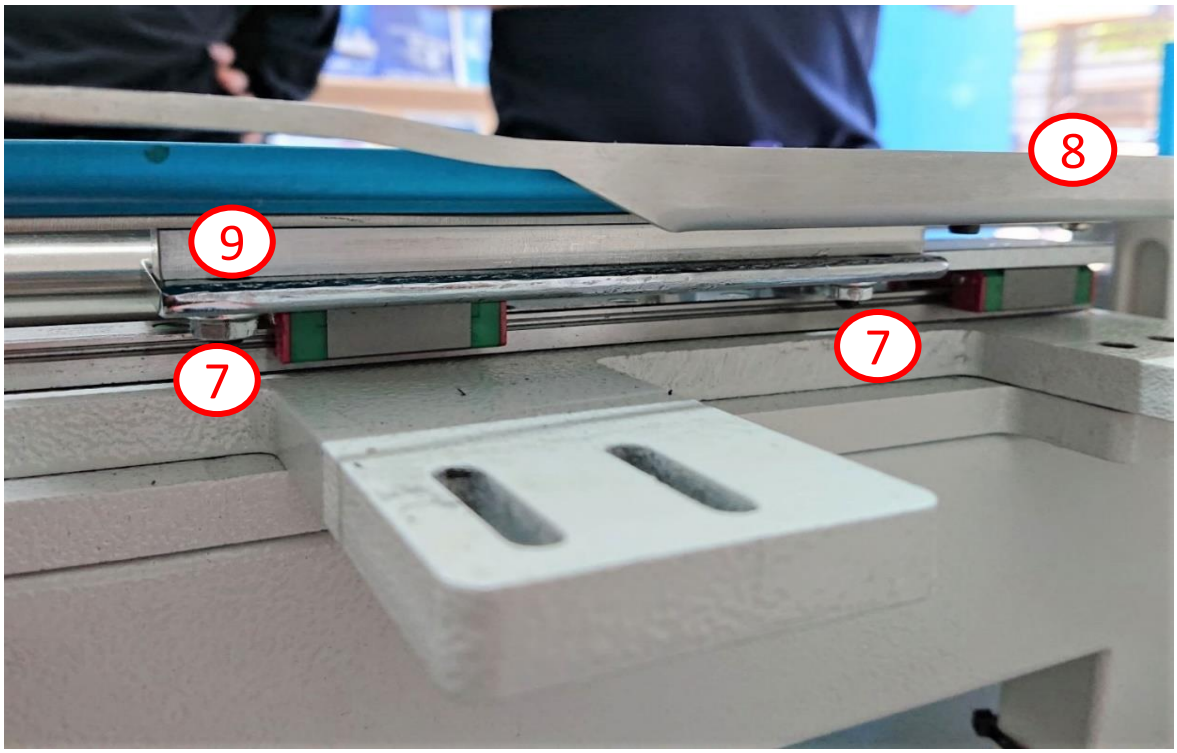
6.7.3) Remove the 4 screws ③ and remove the CONVEYOR BAND SYSTEM ④.



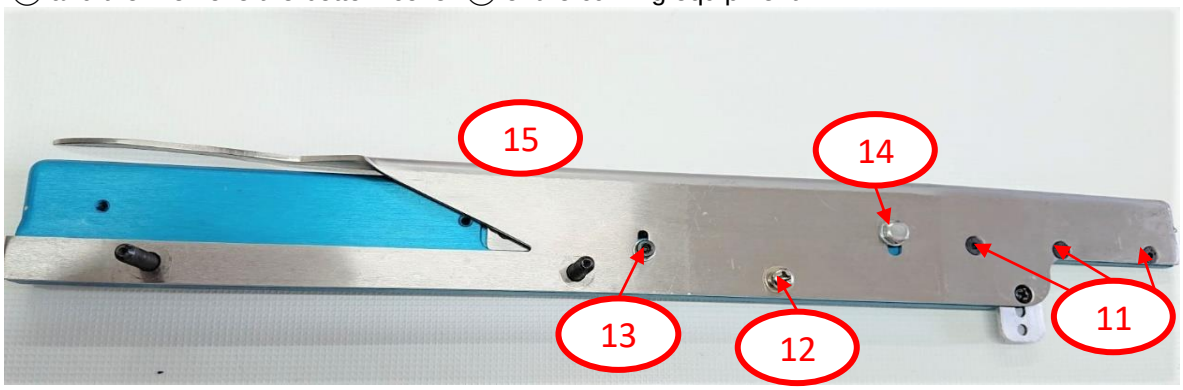
6.7.4) Remove the 3 screws ⑤ and remove the curving equipment cover ⑥.



6.7.5) Remove the 2 nuts ⑦ and remove the curving equipment ⑧ and spacer ⑨.

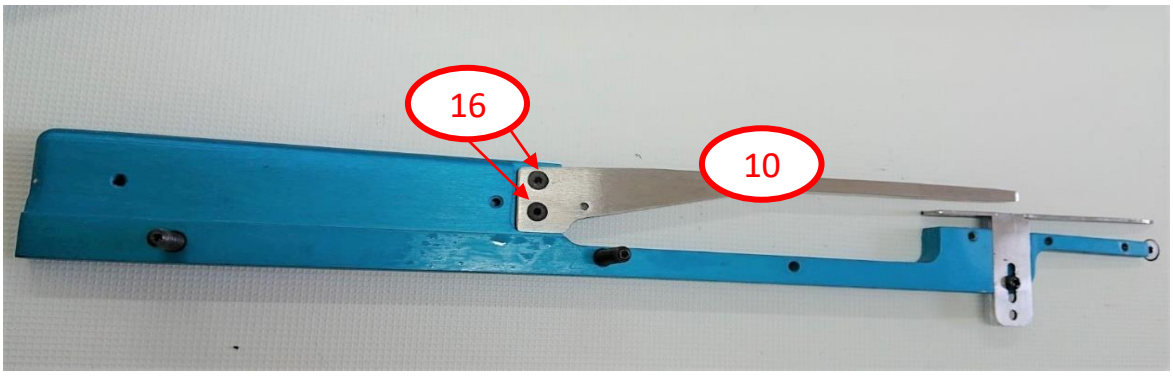


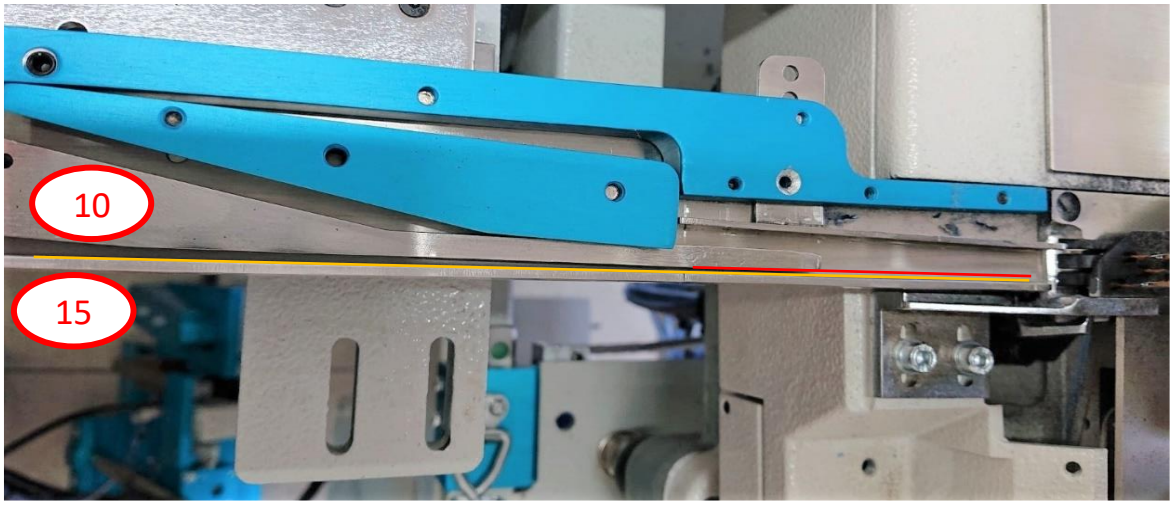
6.7.6) If you adjust the position of guide A ⑩, first, remove the 3 screws A ⑪, screw B ⑫, screw C ⑬ and nuts ⑭ and then remove the bottom cover ⑮ of the curving equipment.



6.7.7) If you adjust the position of guide A ⑩, first, remove the 3 screws A ⑪, screw B ⑫, screw C ⑬ and nuts ⑭ and then remove the bottom cover ⑮ of the curving equipment.

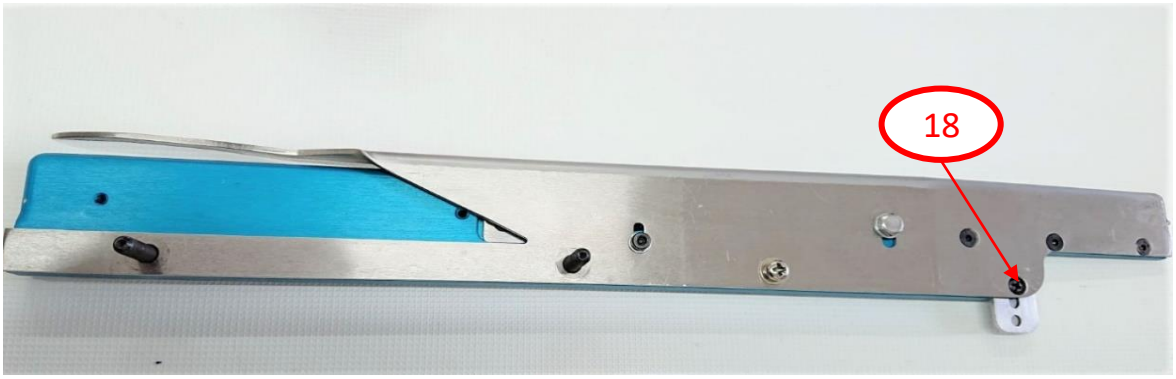
Adjust the gap between guide A ⑩ and bottom cover ⑮ according to the thickness of the fabric to be folded. After adjustment, assemble the bottom cover ⑮ of the curving equipment with 3 screws A ⑪ and screw B ⑫. However, screws C⑬ and nuts⑭ should be temporarily fixed.



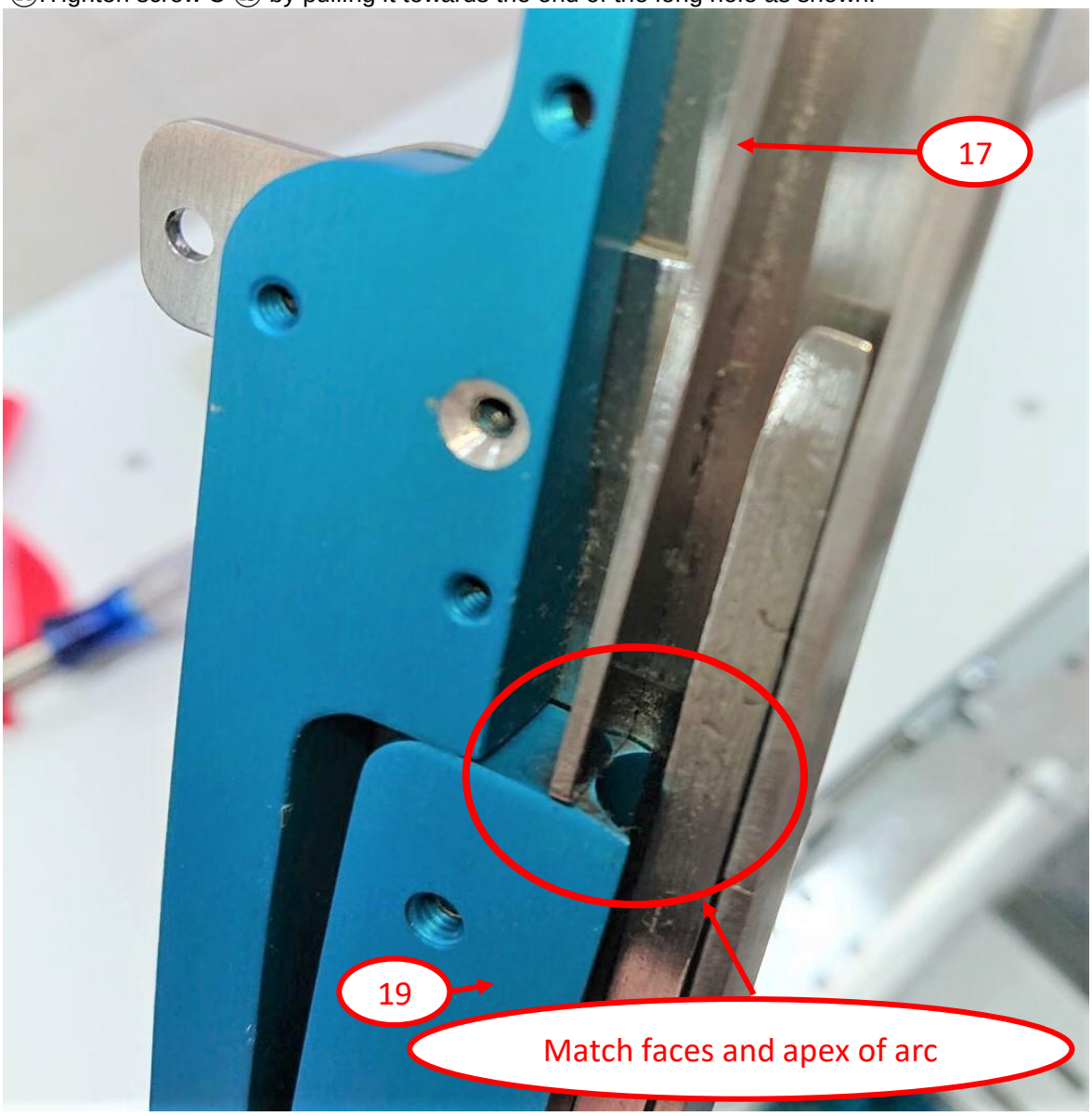


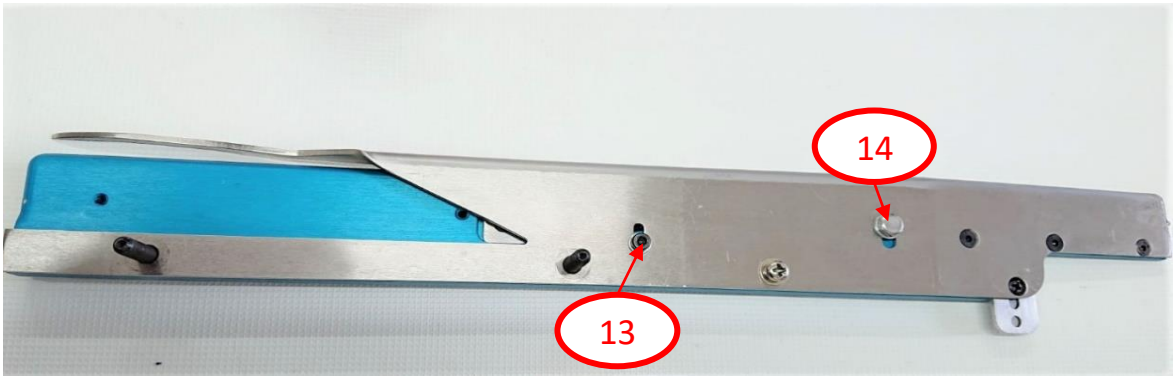
Two lines should be parallel.

6.7.8) Loosen screw ⑱ and adjust the position of guide B ⑰ to suit around the hem width + fabric thickness.



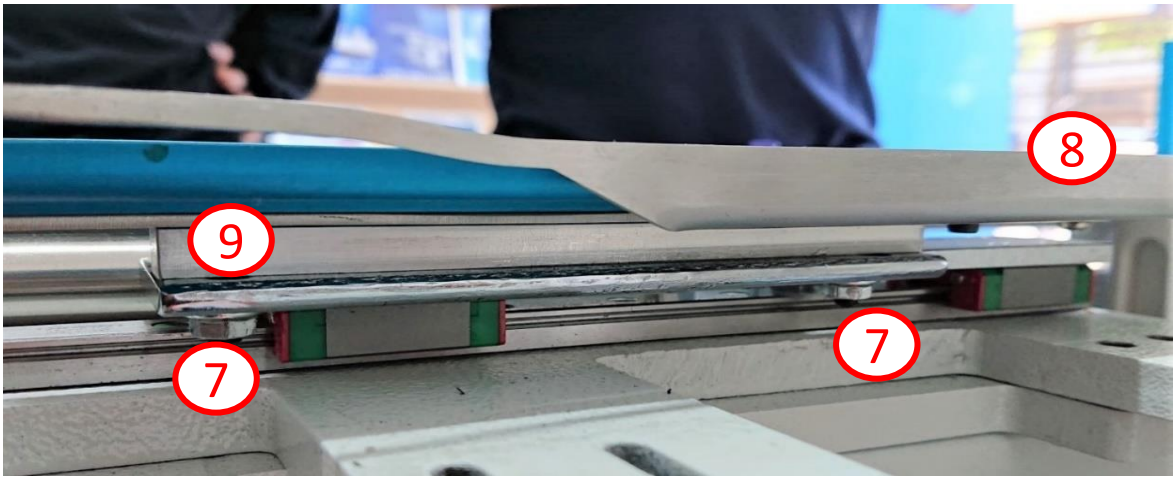
6.7.9) Adjust the face of guide B ⑰ so that it is aligned with the apex of the arc of guide C ⑲ and tighten nut ⑭.Tighten screw C ⑬ by pulling it towards the end of the long hole as shown.

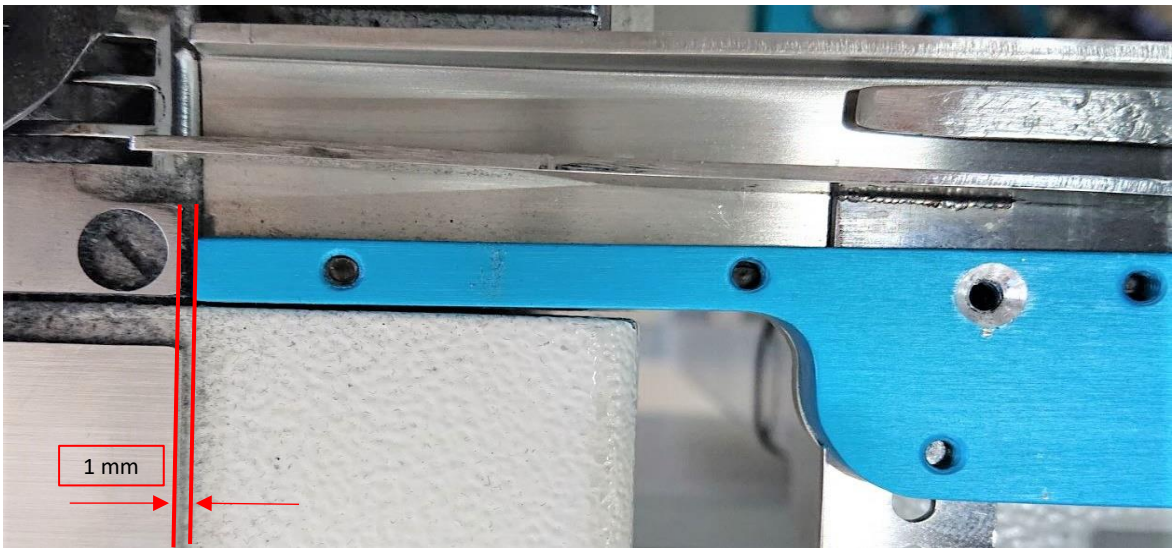


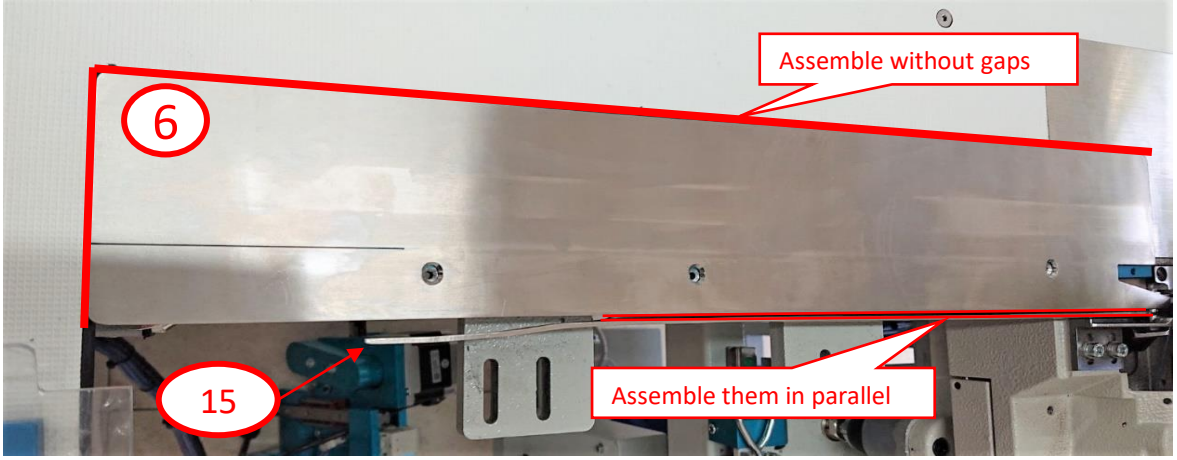


6.7.10) Assemble the curving equipment ⑧ and spacer ⑨ with 2 nuts ⑦.

The gap between the curving equipment ⑧ and the needle plate of the sewing machine head should be positioned with a gap of 1 mm.Assemble the curving equipment so that the gap between the guides on bottom cover ⑮ of the curving equipment and the cover ⑥ is parallel and that no gap occurs between the table and the cover ⑥.

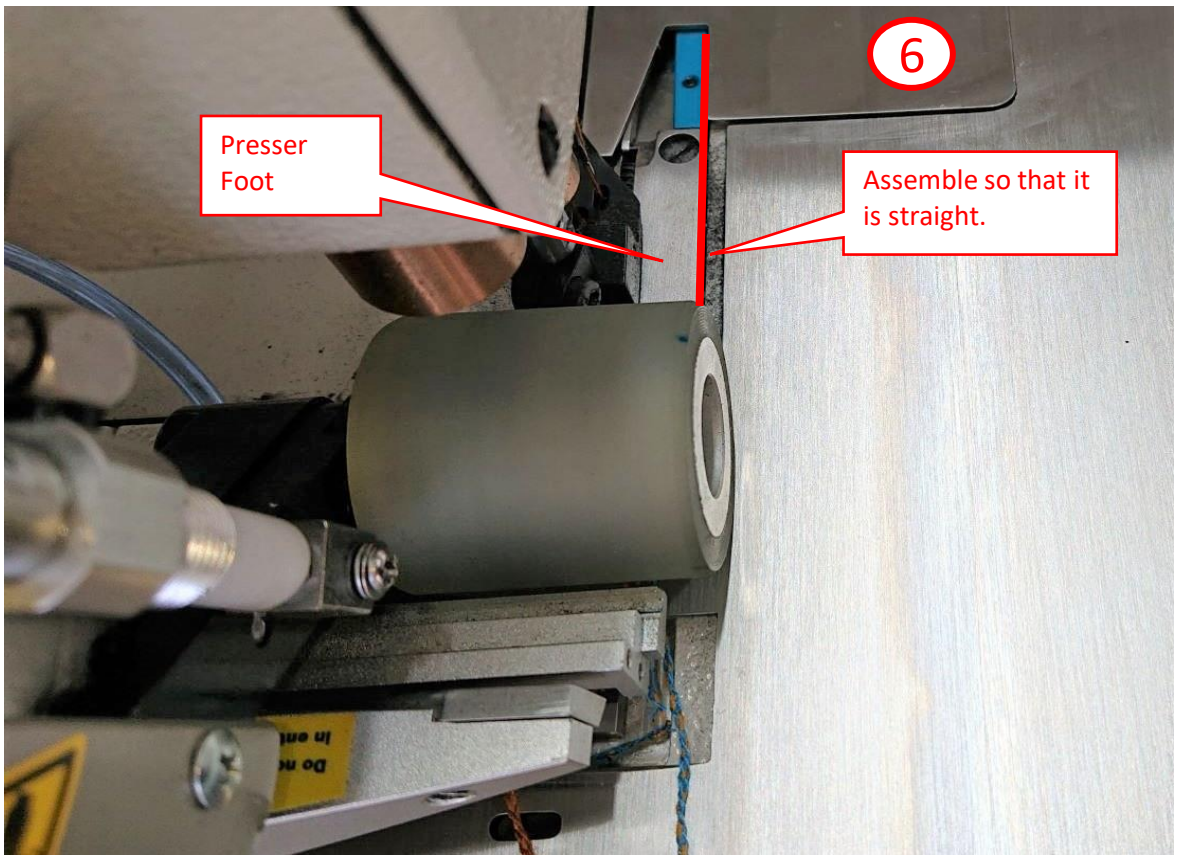


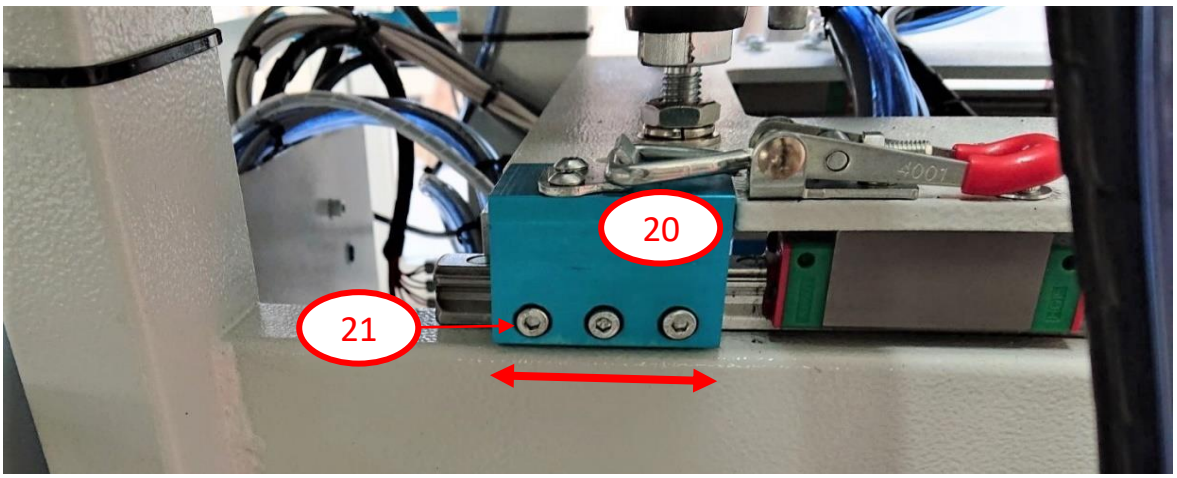




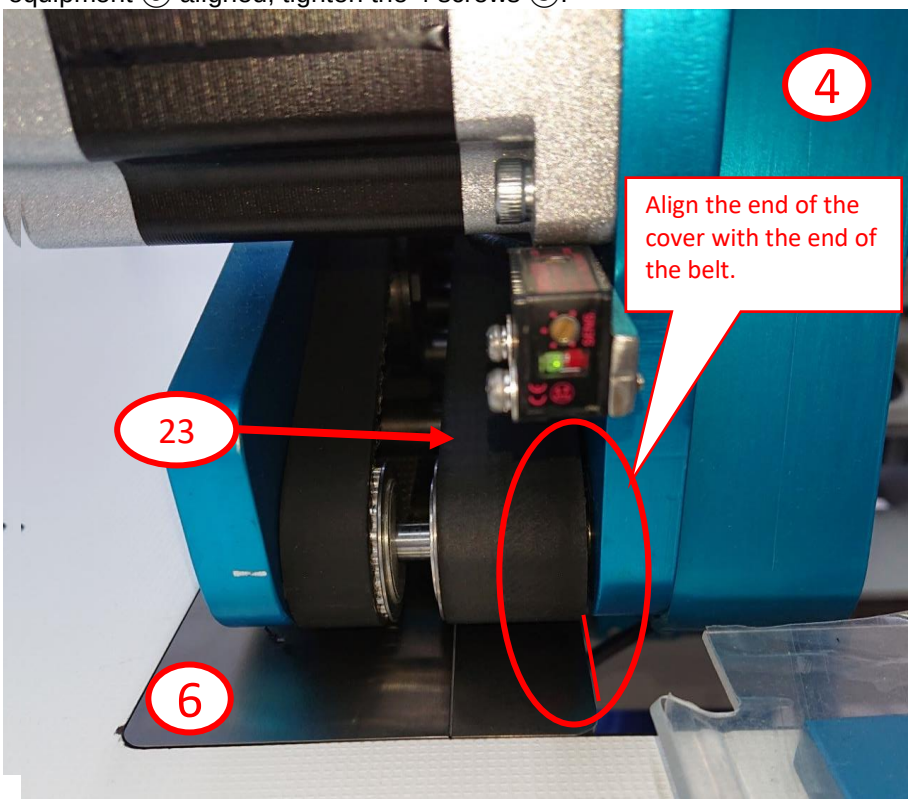
6.7.11) Attach the curving equipment cover ⑥ with 3 screws ⑤.

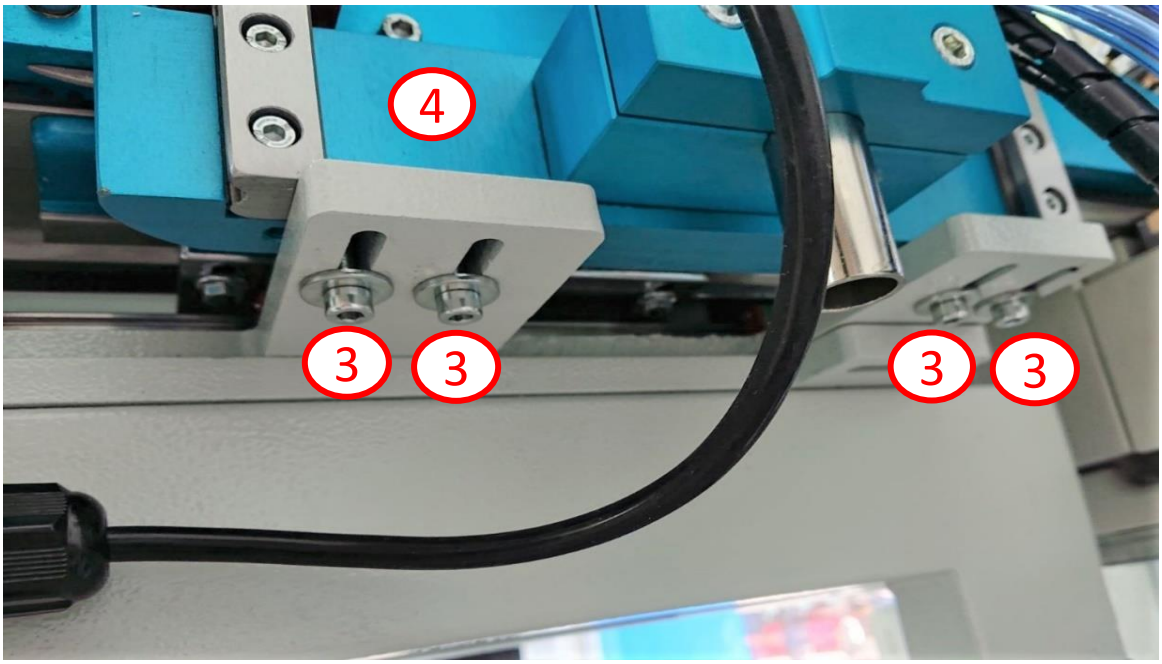
6.7.12) If the Presser foot of the sewing machine head and curving equipment cover ⑥ are not straight as shown, adjust the position of the sewing machine head. Loosen the 3 screws ㉑ of the stopper ⑳, and adjust the position so that the presser foot and the cover ⑥ are straight.



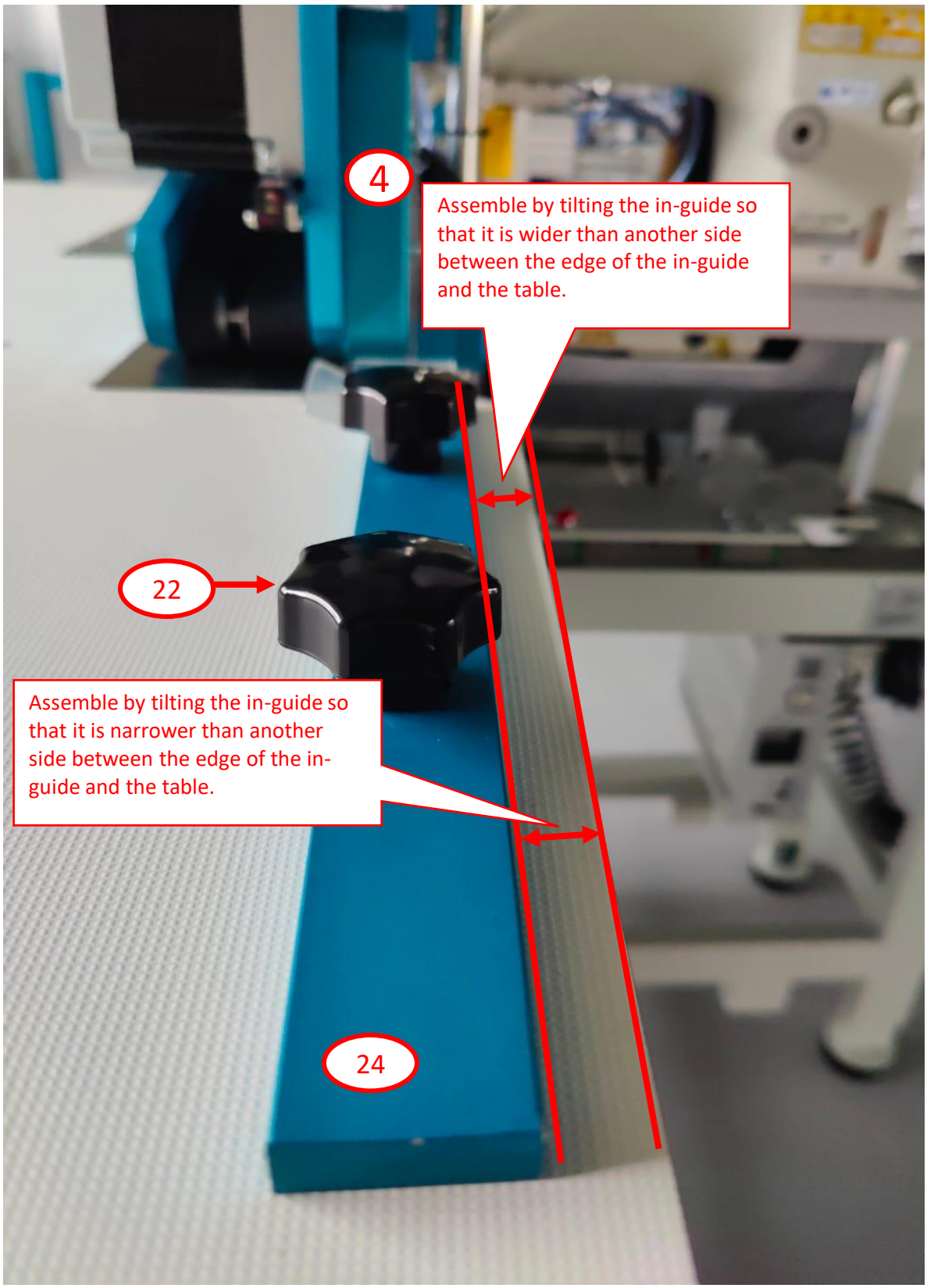


6.7.13) With the end of the belt ㉓ of the CONVEYOR BAND SYSTEM ④ and the end of the cover of the curving equipment ⑥ aligned, tighten the 4 screws ③.





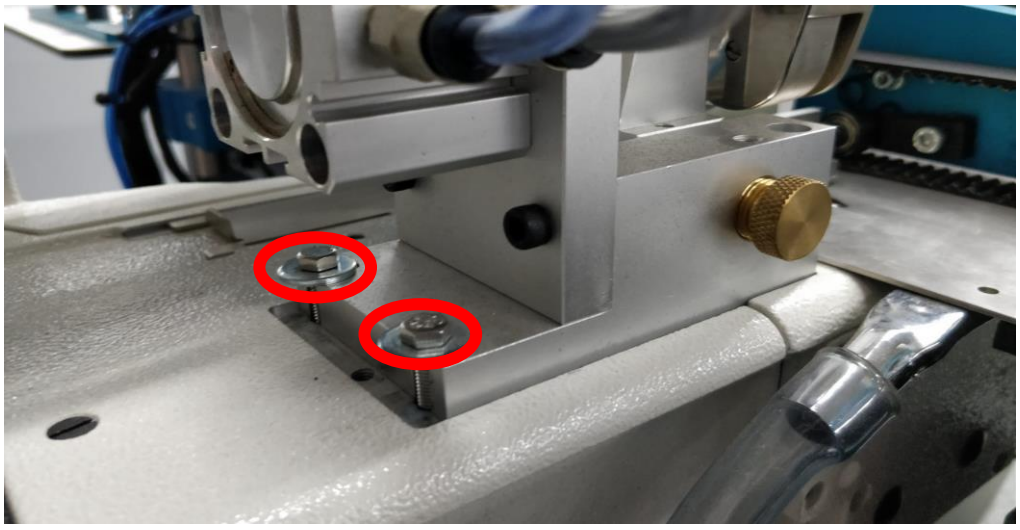
6.7.14) Loosen the two knobs㉒ and assemble the in-guide㉔ with a slight tilt as shown. If assembled straight, the left and right pockets will not be aligned. Let the pocket hem several times and adjust the CONVEYOR BAND SYSTEM ④ transport speed, pitch and in-guide direction so that the left and right positions of the pocket match.



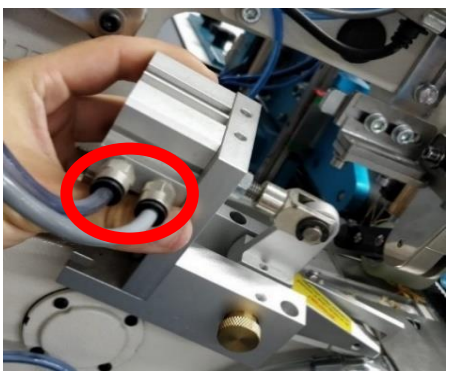
6.8) Knife replacement

Note! Cut the air compresser of the machine at first!

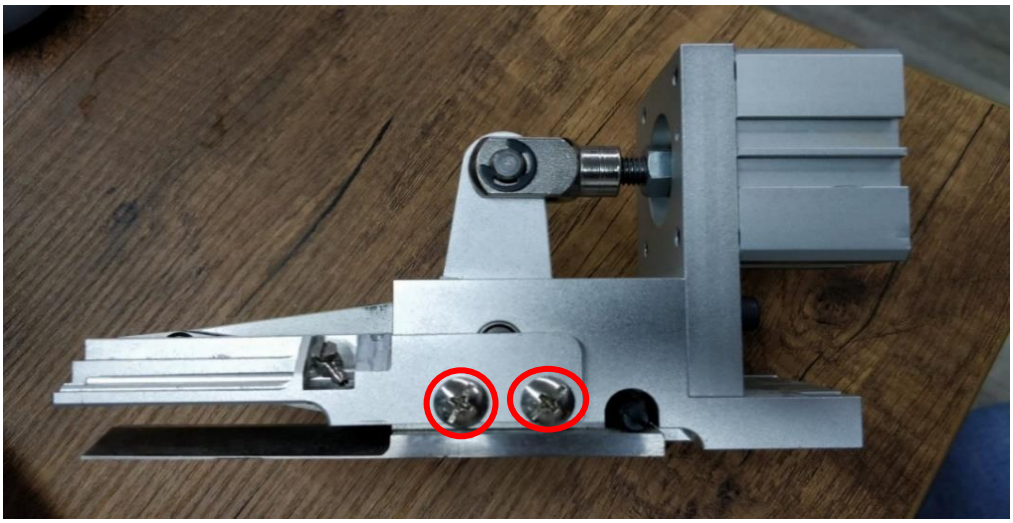
6.8.1) Remove the screws.

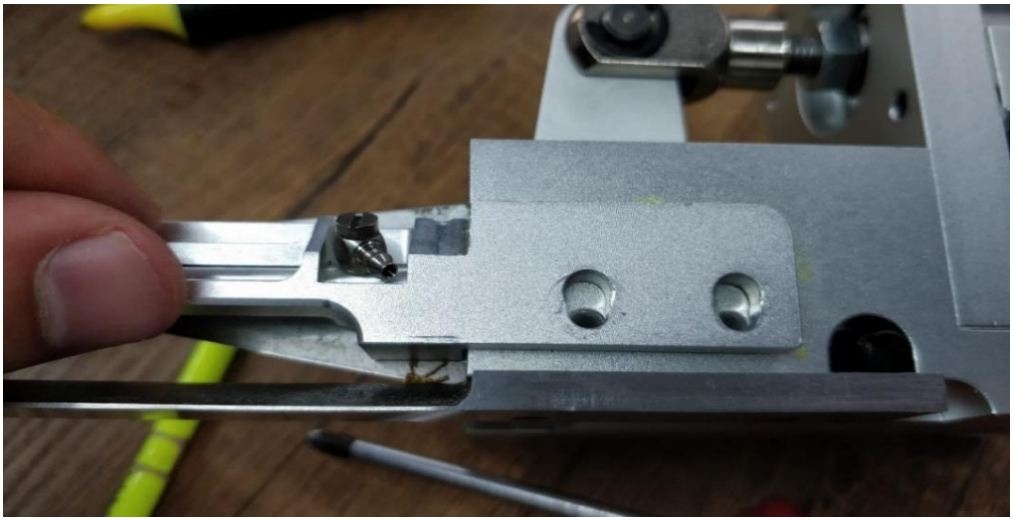


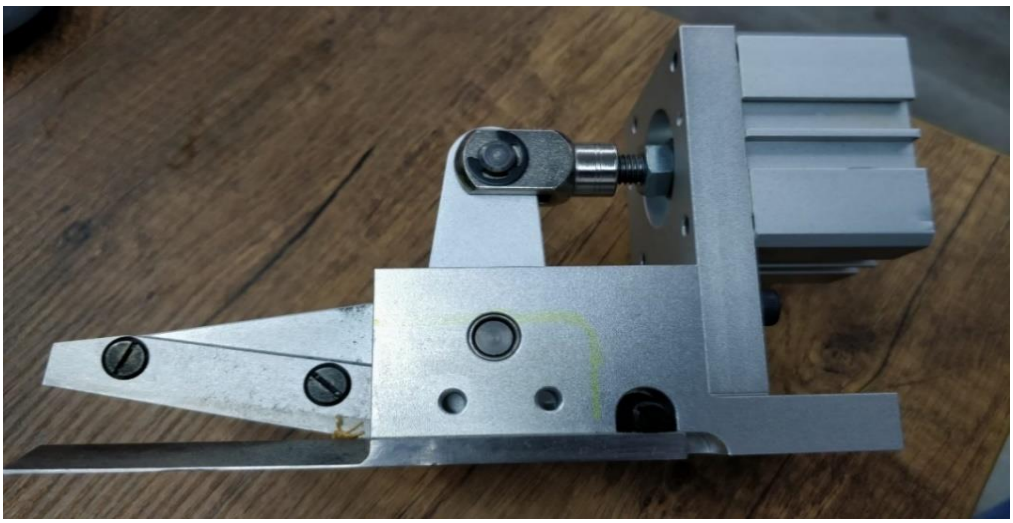
6.8.2) Remove the knife assembly and air hoses.



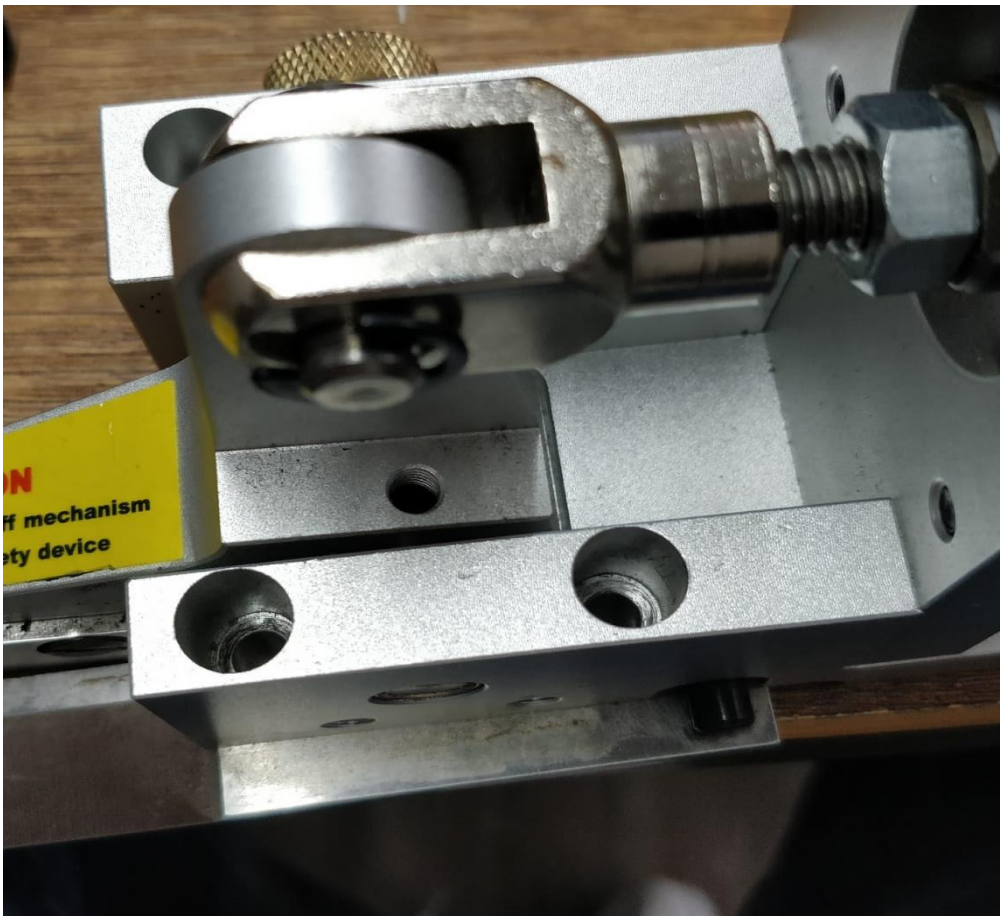
6.8.3) Remove the blower by removing the screws.



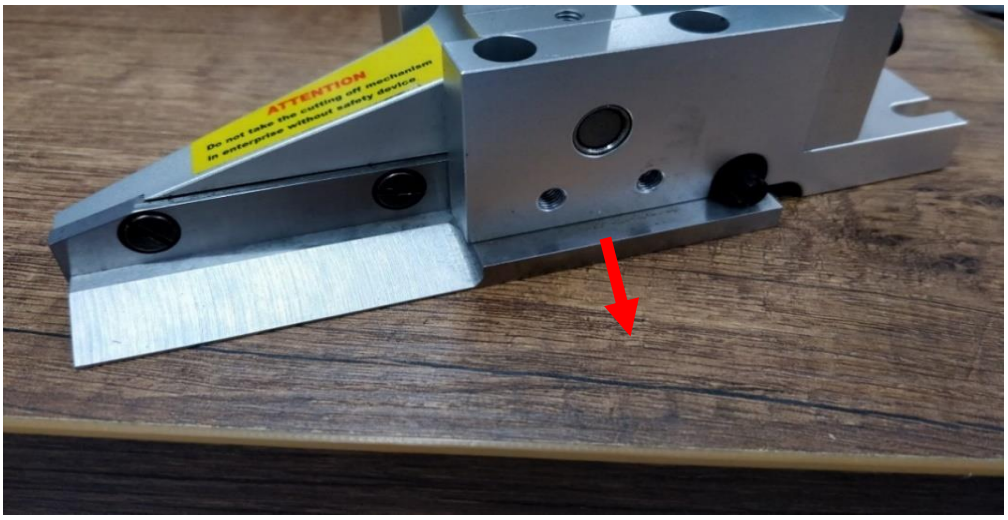




6.8.4) Remove the screws.

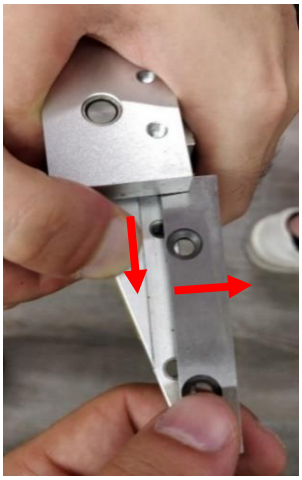


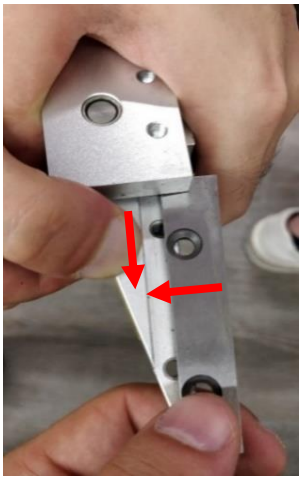
6.8.5) Remove the lower knife.



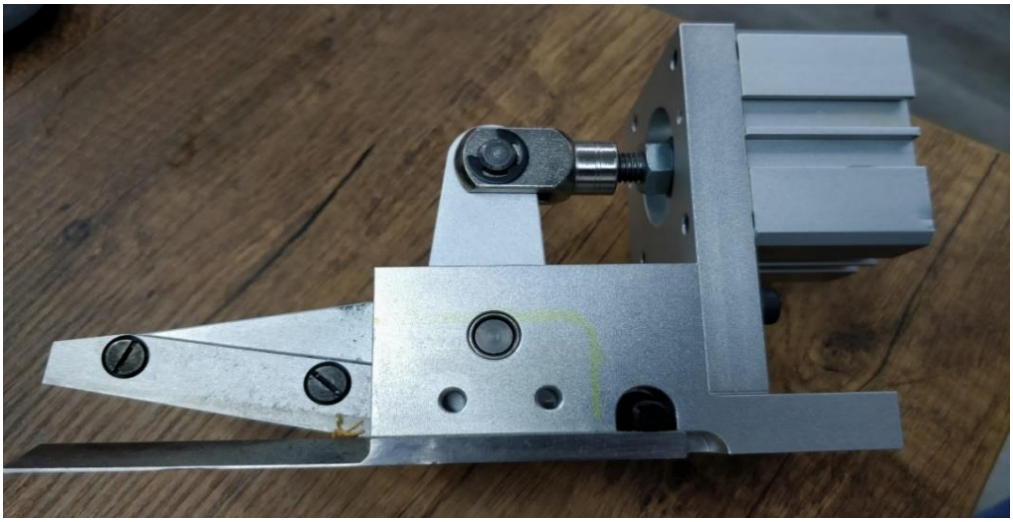
6.8.6) Remove the screws.

6.8.7) Remove the old upper knife and install the new upper knife.

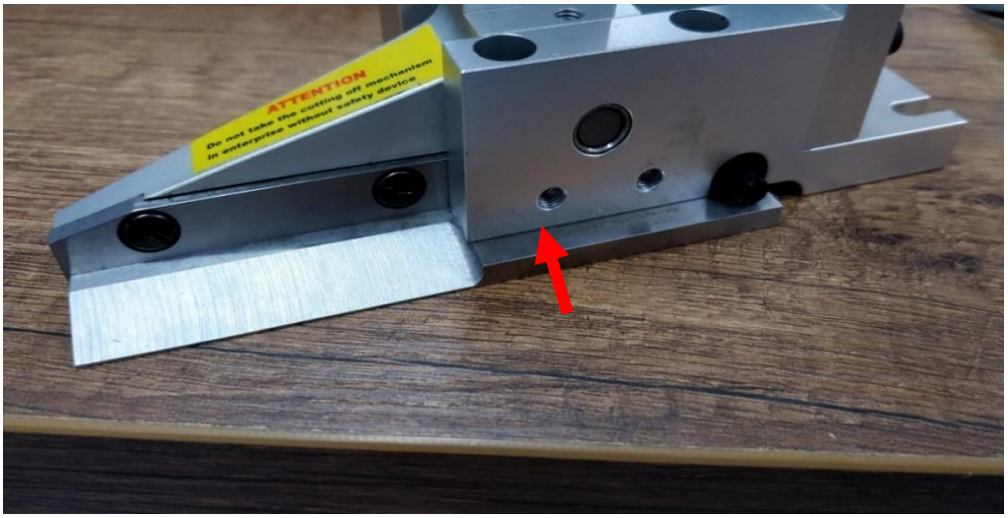




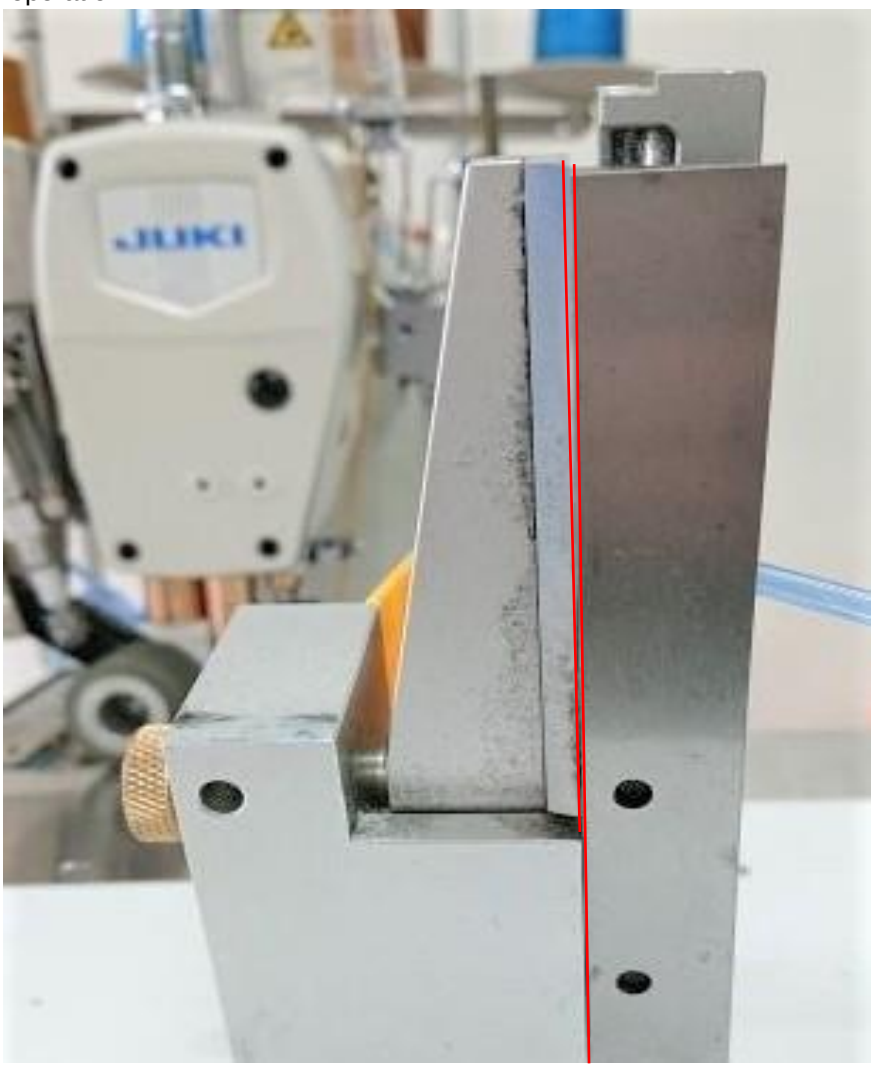
6.8.8) Install the screws.



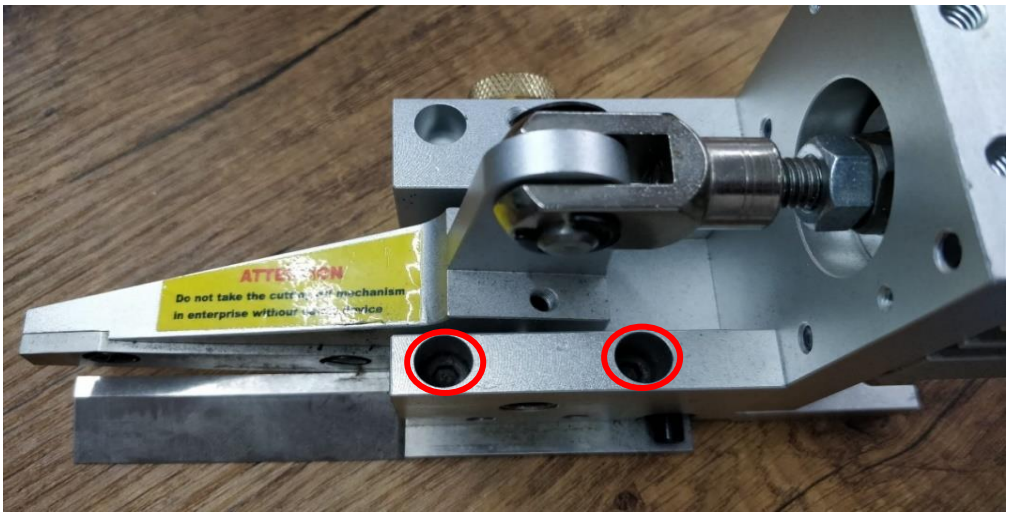
6.8.9) Install the new lower knife.



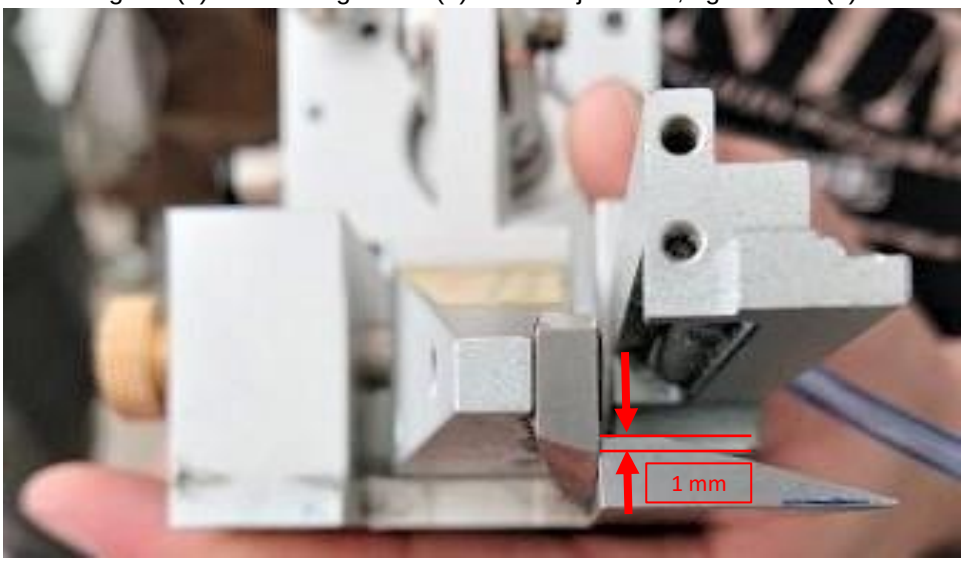
6.8.10) The upper and lower knives should be placed parallel to each other or with the tip of the lower knife inclining towards the upper knife.
Note: Assemble the upper and lower knives in such a way that there is no gap between them when the cut is in operation.

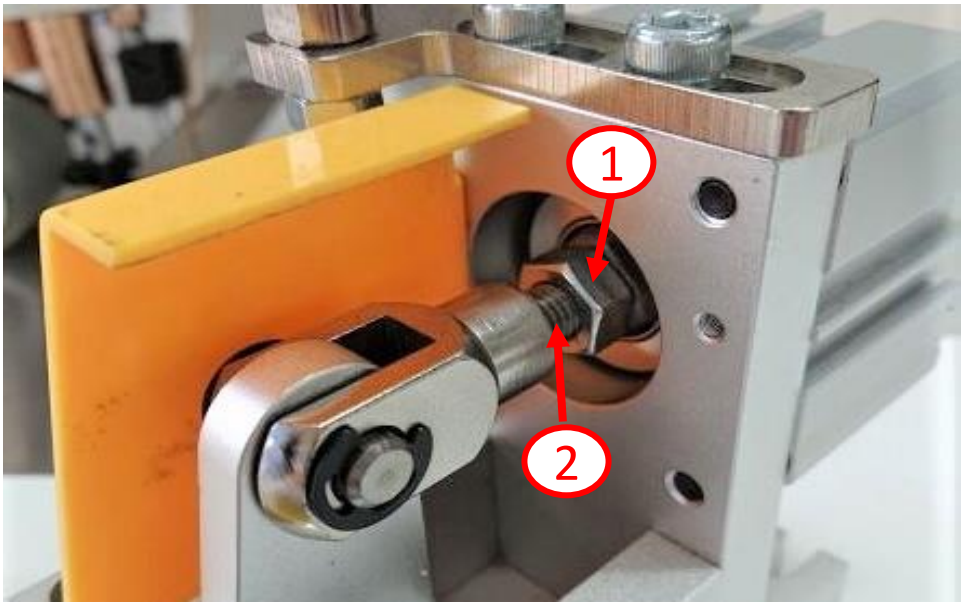


6.8.11) Install the screws.

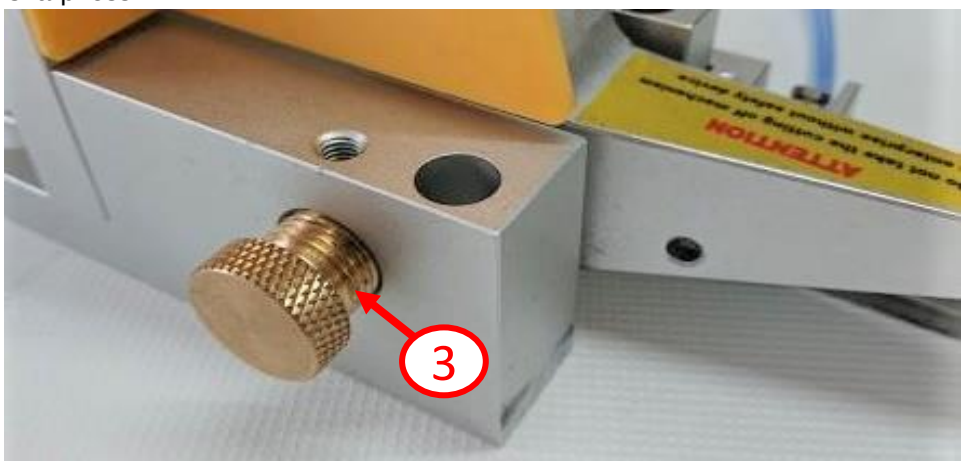


6.8.12) The overlap between the upper and lower knife should be 1 mm.The width of the overlap is adjusted by loosening nut (1) and turning screw (2). After adjustment, tighten nut (1).

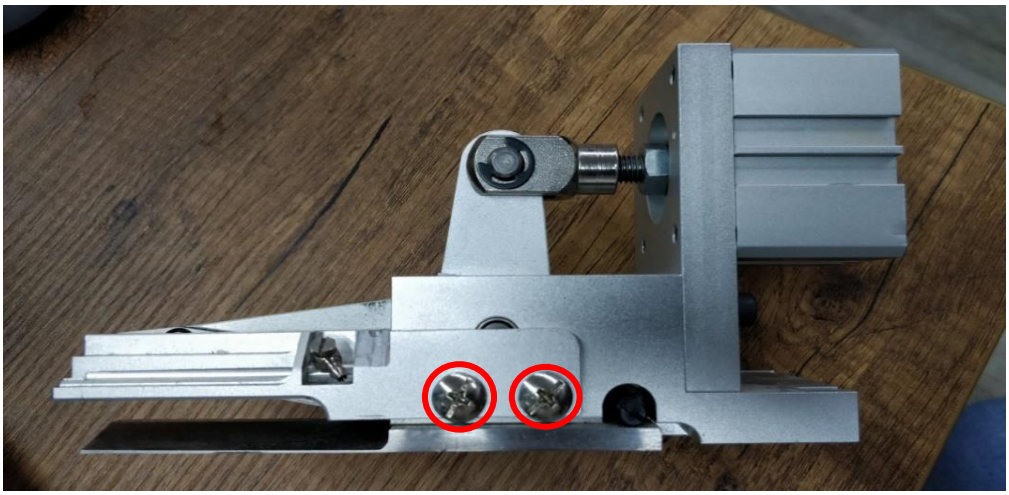




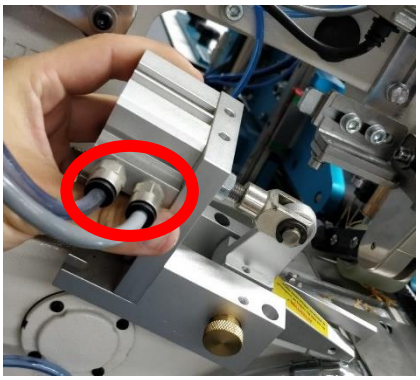
6.8.13) Turn the knob (3) and press the upper knife against the lower knife. Low pressure will result in poor sharpness.



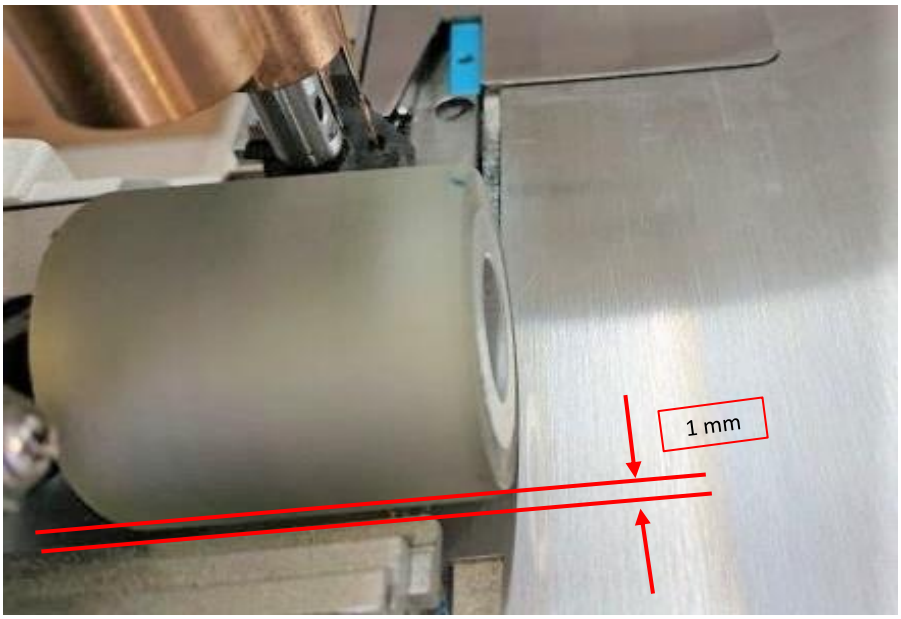
6.8.14) Install the blower and screws.



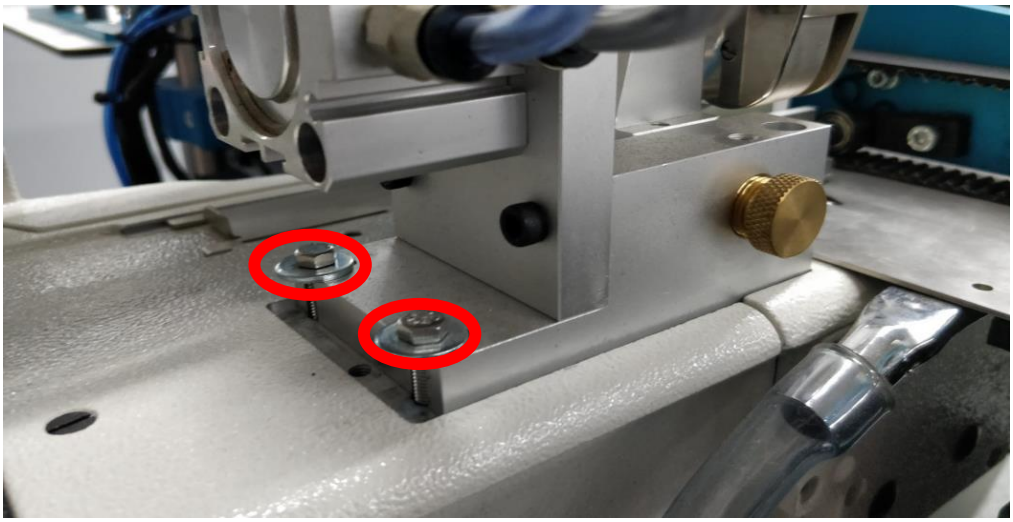
6.8.15) Install the knife assembly and air hoses.



6.8.16) The target gap between the roller and blower is 1 mm.

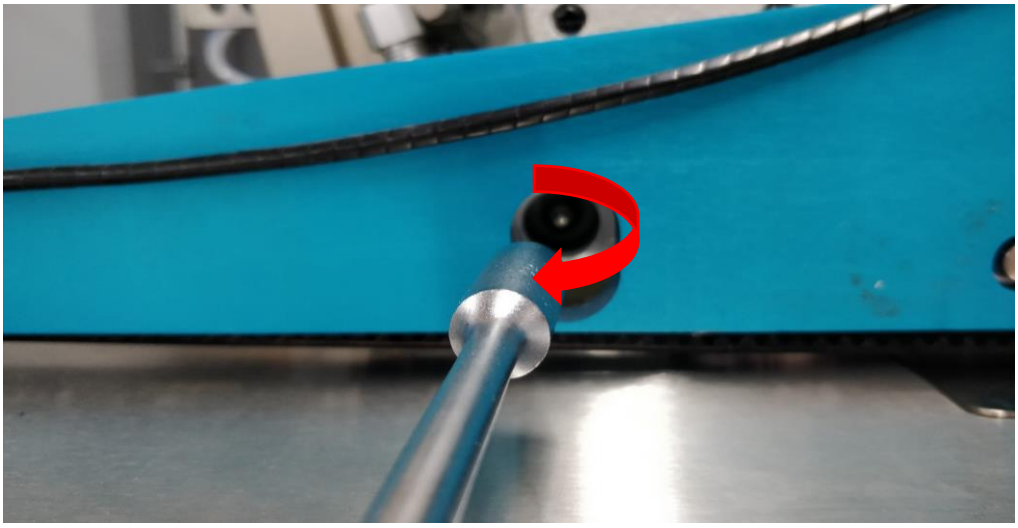


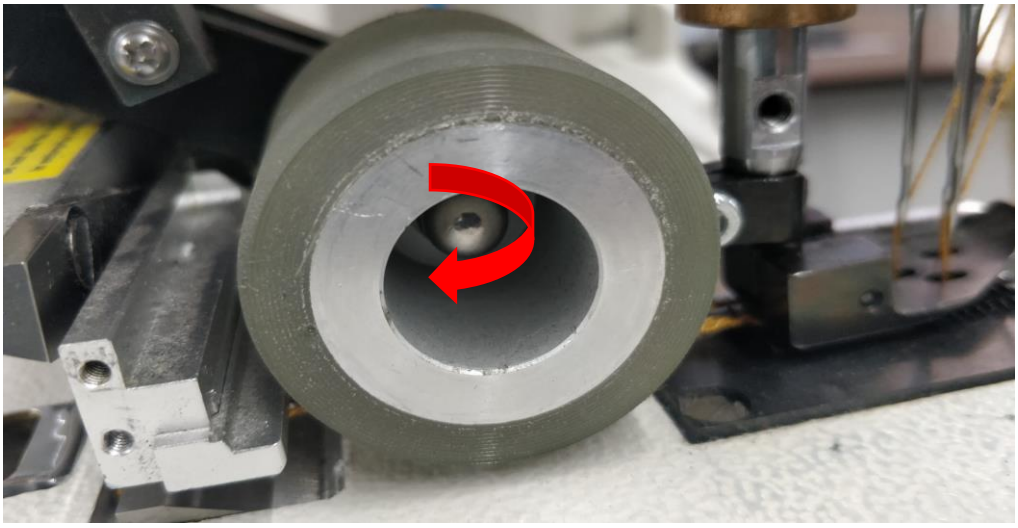
6.8.17) Install the screws.



6.9) Roller replacement

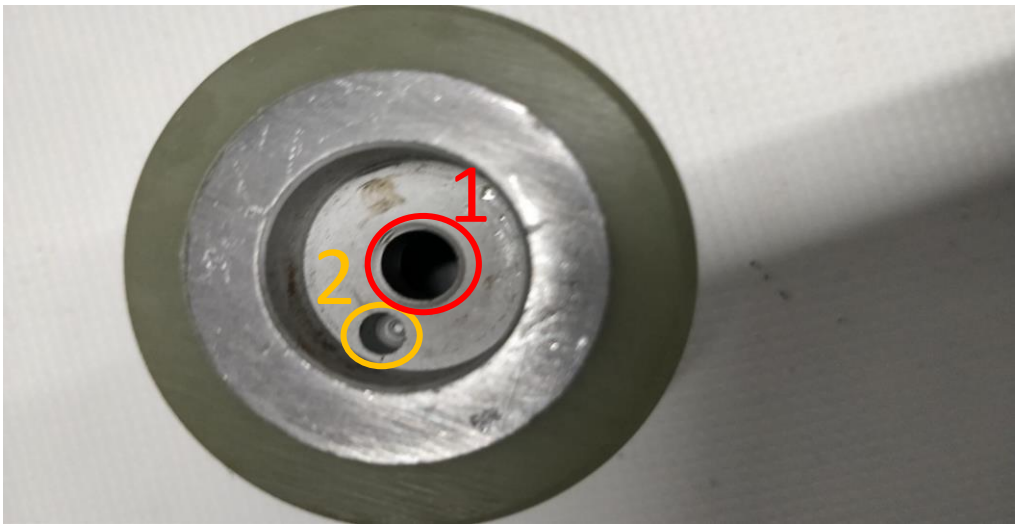
6.9.1) Remove the reverse thread nut(***Turn clockwise for loosening!***).

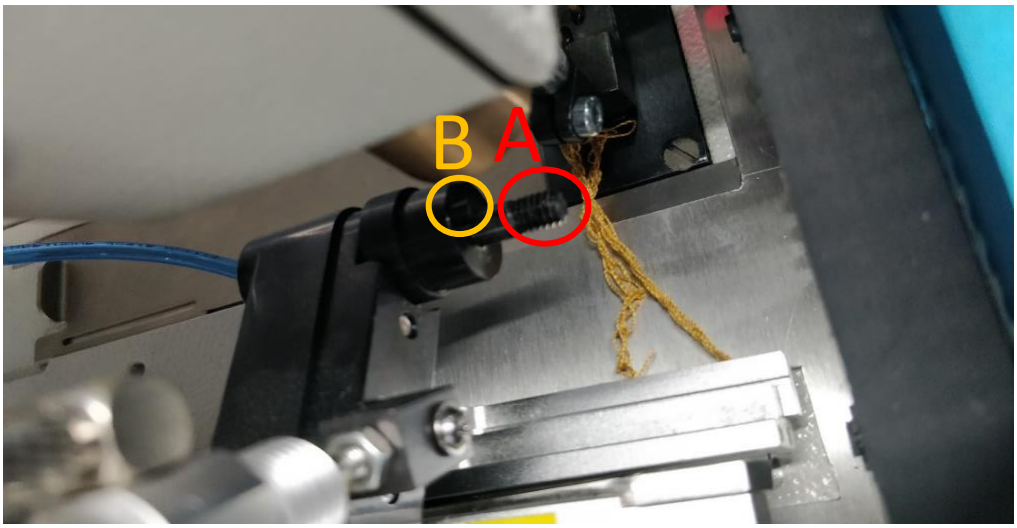




6.9.2) Remove the roller.

6.9.3) Install the new roller(***Match the pin and bolt with the related holes***).



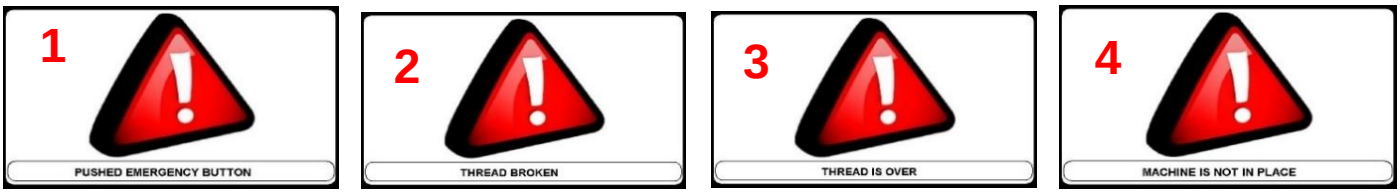


Make sure that bolt(A) should match with hole(1).

Make sure that pin(B) should match with hole(2).

If required parts do not match, try to rotate the roller to match.

7) LISTING OF ERROR CODES



No.	Messages	Workaround
1	Pushed Emergency Button	When emergy button is pressed, machine stops immediately
2	Thread Broken	Indicates that the thred breakage has occurred. When the thread breakage occurs the red light becomes on. When the light is green, it means the machine is ready for sewing. **Note**：Turn off the power when threading.
3	Thread is over	There is no thread in the bobbin.
4	Machine is not in place.	When the machine is not at the sewing area. Please locate the machine into the sewing area and lock the clamp.

8) MAINTENANCE

Machine head is standard JUKI.Please refer to original machine heads instructins manual.
The machine could be cleaned with pressed air blowing where it is unclean.
If the thread tangled the part should be removed and should be cleaned separetly.

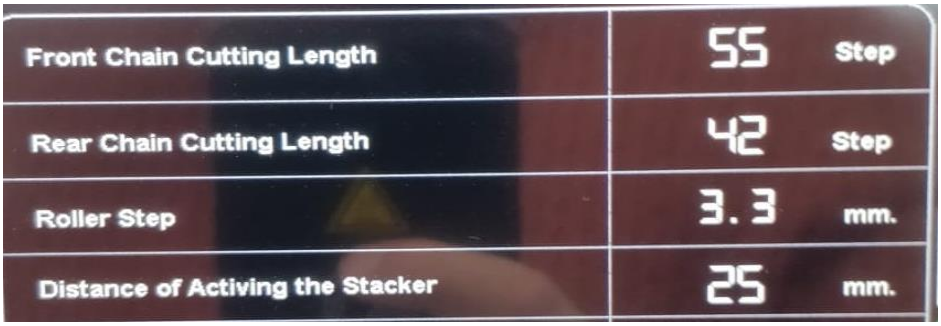
9) DISPOSAL OF BATTARIES

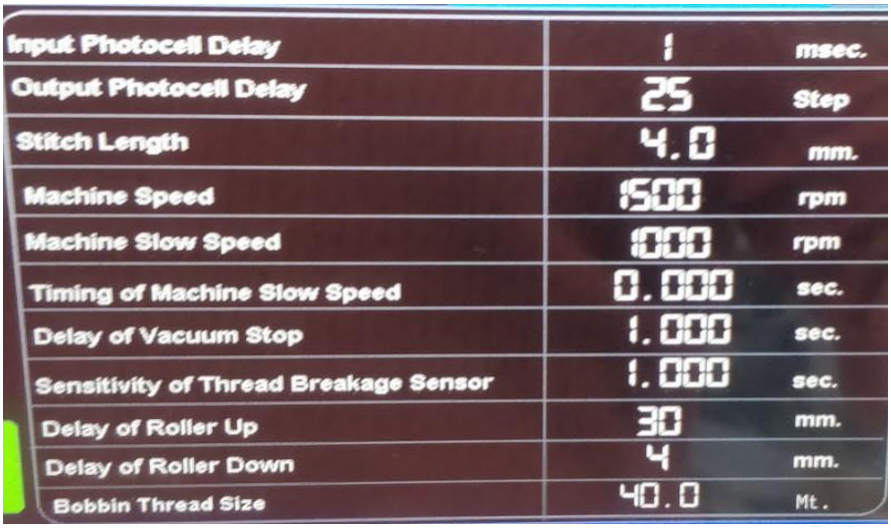
The operation panel incorporates batteries for operating the clock while the power is turned OFF. Dispose of the batteries appropriately according to the relevant local laws and regulations in your country / region.

10) CAUSES AND COUNTERMEASURES

No.	Trouble	Causes and Countermeasures
1	Thread breakage	Adjust the needle thread tension.
2	Loose stitches are produced	Adjust the thread tension and correct the threading in the bobbin case.
3	Stitch skipping	Please check the needle.

11) LIST OF PATTERN DATA (SHIPPING VALUES)





Company Name	:	JUKI SINGAPORE PTE LTD.
ADD	:	20 BENDEMEER ROAD,#04-12 BS BENDEMEER CENTRE SINGAPRE 339914
PHONE	:	(65) 6553-4388
HTTP	:	http://www.juki.com.sg
E-Mail	:	we.sgp-sales@ml.juki.com
Company Name	:	JUKI Machinery Vietnam Company Ltd
ADD	:	153 HOA LAN STR.,WARD 2, PHU NHUAN DIST., HO CHI MINH CITY, VIETNAM
PHONE	:	(84) 28-35178833
FAX	:	(84) 28-35178318
E-Mail	:	sales@jukimv.com
Company Name	:	JUKI Machinery Bangladesh Ltd
ADD	:	NATORE TOWER(5TH FLOOR) PLOT#32-D & 32-E, ROAD#2, SECOR#03 ,UTTARA MODEL TOWN, DHAKA, BANGLADESH
PHONE	:	(880)2-48954731
FAX	:	(880)2-48954733
E-Mail	:	vl.mbl-info@ml.juki.com
Company Name	:	JUKI India Private Limited
ADD	:	GAOUND AND 1ST FLOOR, NO.1090/I, 18TH CROSS ROAD,3RD SECTOR, HSR LAYOUT BANGALORE-560 102, KARNATAKA STATE, INDIA
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FAX	:	(91)80-4251-1999
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Company Name	:	JUKI America INC
ADD	:	8500 NW 17TH STREET, SUITE 100, DORAL, FL 33126-1035, U.S.A.
PHONE	:	(1)305-594-0059
HTTP	:	https://juki.com
Company Name	:	JUKI MIDDLE EAST (JUKI SINGAPORE PTE. LTD. UAE BRANCH)
ADD	:	OFFICE NO, 2511. BLOCK A JAFZA 1, PO BOX 18031, JEBEL ALI, DUBAI UAE
PHONE	:	(971)4-8833228
FAX	:	(971)4-8833230
HTTP	:	http://www.juki.com.sg
Company Name	:	JUKI (China) CO LTD.
ADD	:	ROOM 901-903, HAILIANG BUILDING, NO.22, LANE 118 ZHONGJIANG ROAD, PUTUO DISTRICT SHANGHAI, CHINA, 200062
PHONE	:	8621-6236-8888
HTTP	:	http://www.jukichina.com

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