

NFS6604GF Series

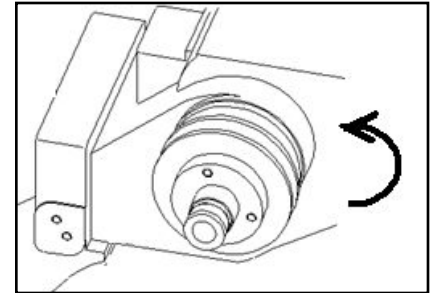
Gauge adjustment 2021



Machine speed

	Maximum	Standard
SPEED	4200 RPM	3500 RPM

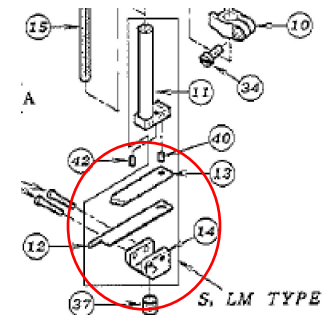
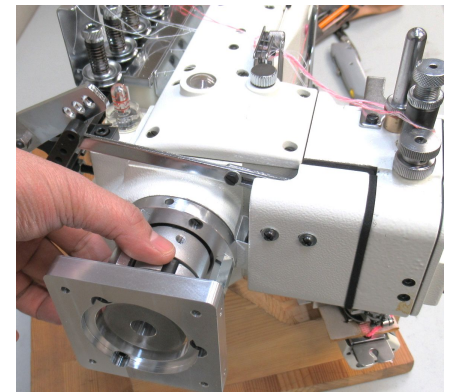
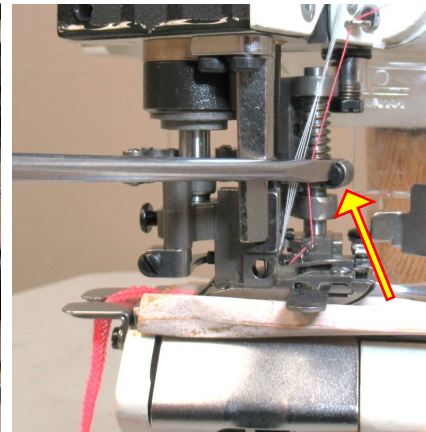
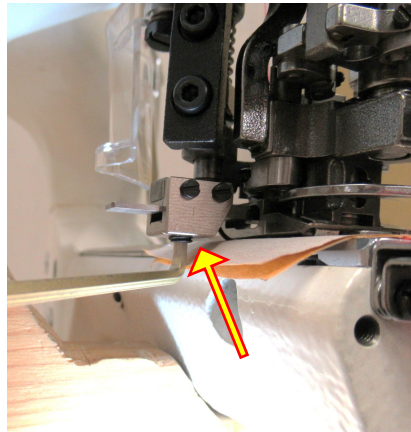
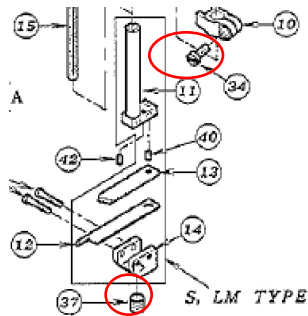
Machine direction



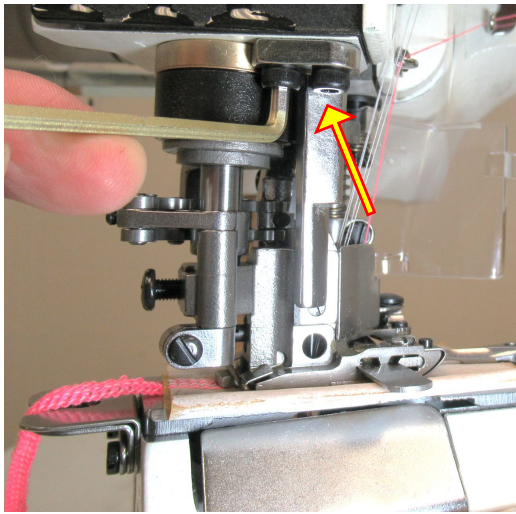
1. Removing gauge parts (Presser foot)

★ Bring the needle to the top of their stroke and take out needles.

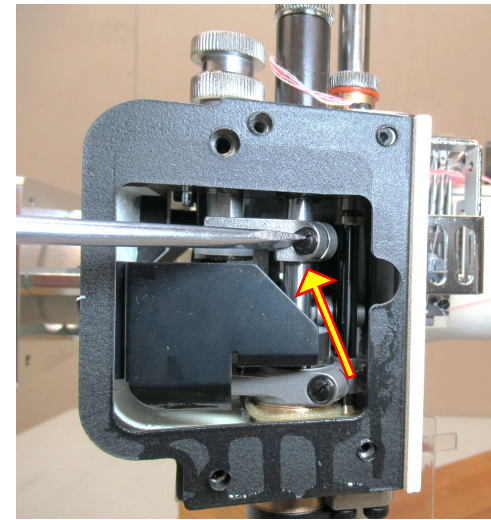
(1) Loosen screws



(2) Take out movable knife



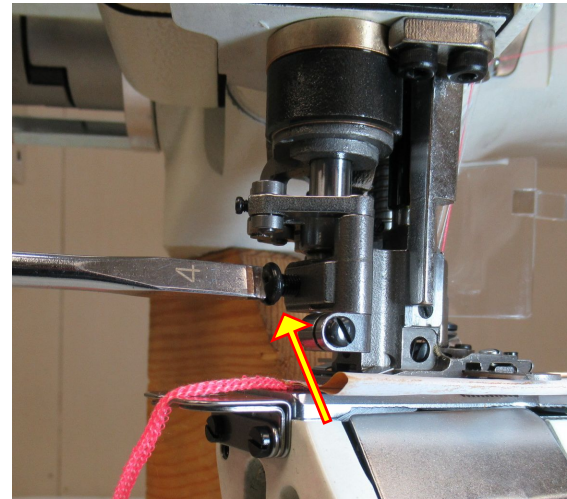
(3) Loosen two screws



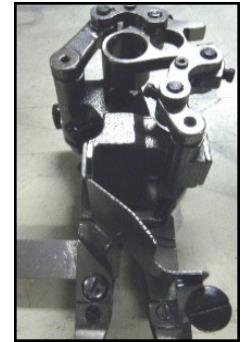
(4) Loosen screw



(5) remove nut and screw and spring



(6) Loosen screw and pull up the pressor foot bar and Remove presser foot

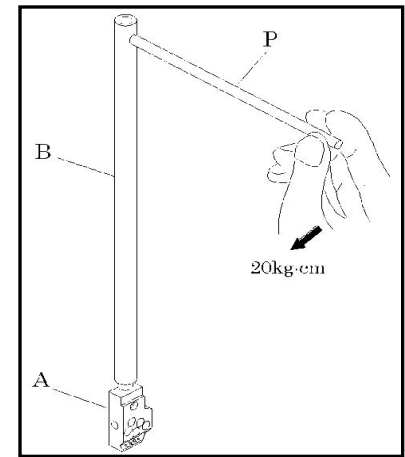
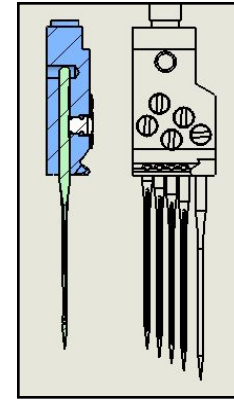
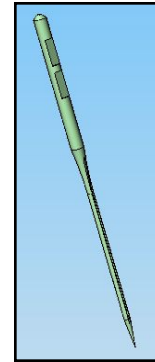


2. Needle bar height

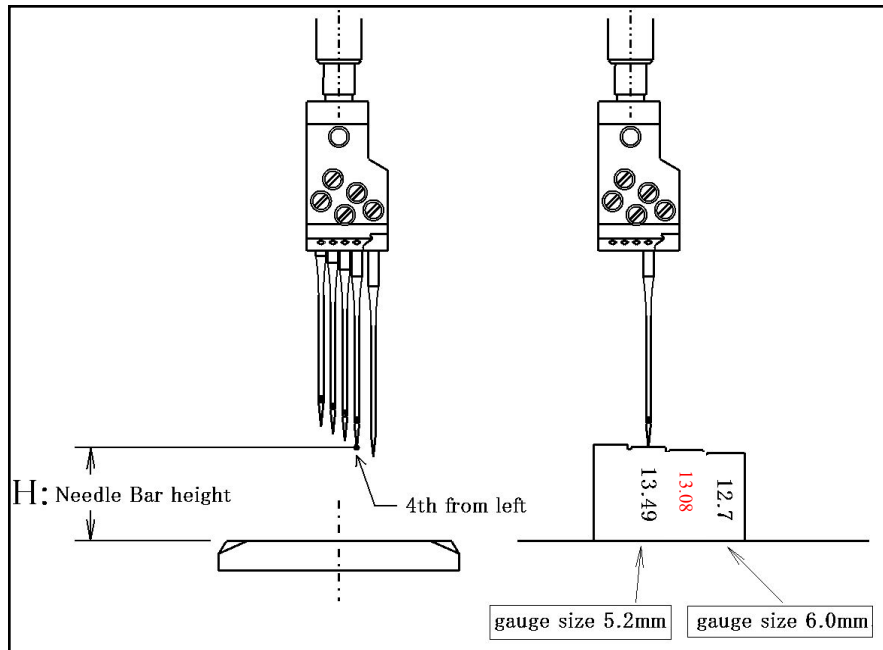
Needles

Needle type : FLX118GCS (Organ)

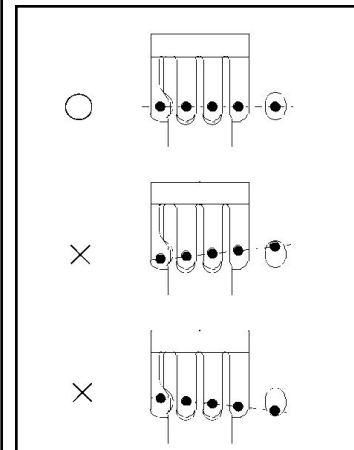
Needle size : #10 (standard)



Retainer needle type: FLG-8 (Organ)

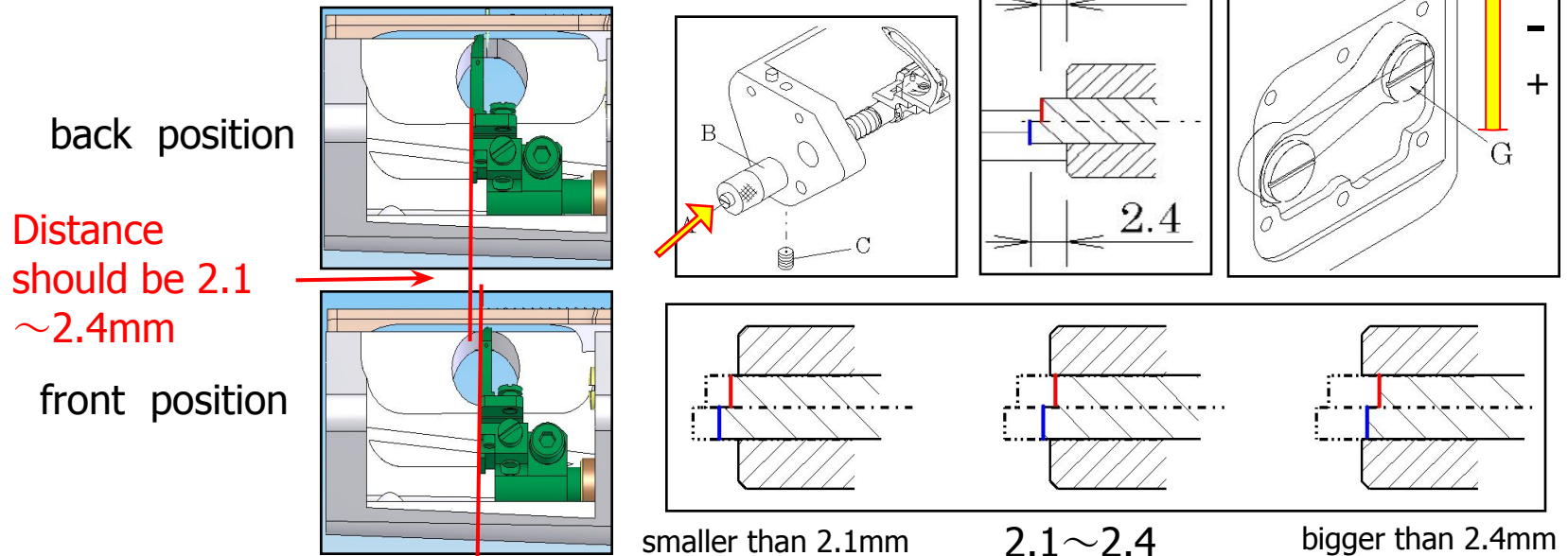


Gauge size	Needle height
5.2mm	13.08mm or 13.49mm
6.0mm	12.7mm



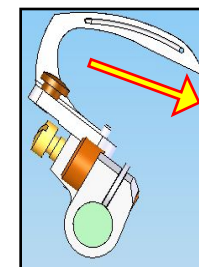
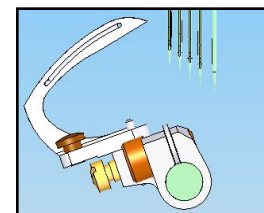
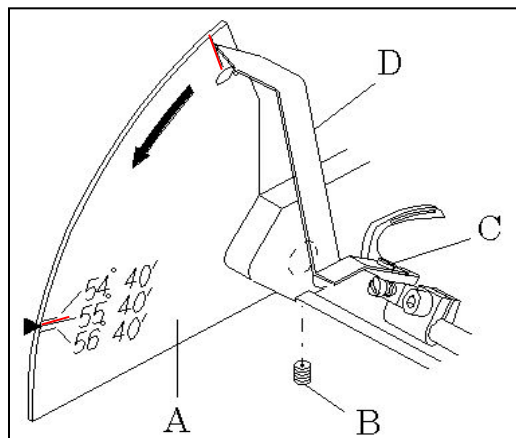
3. Looper front and back stroke

Adjust looper stroke 2.1mm~2.4mm.

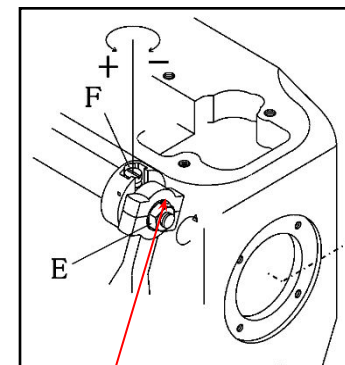


4. Looper right and left momentum amount

To be suitable looper right & left amount of stroke is looper shaft in 55°40'

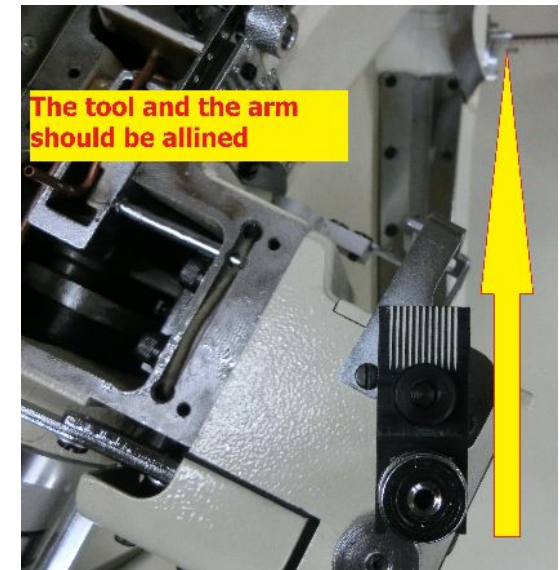
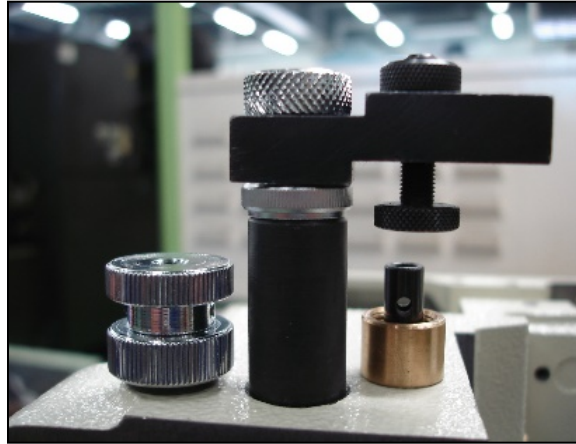
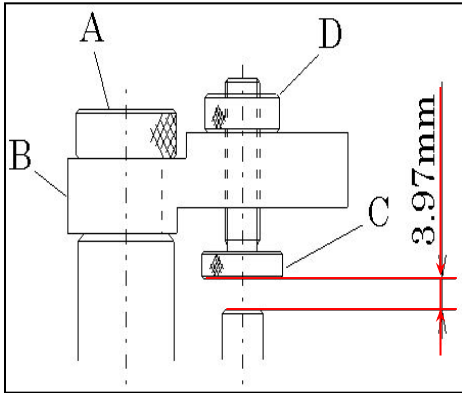


Reverse-threaded bolt and Nut Size is 3/8"



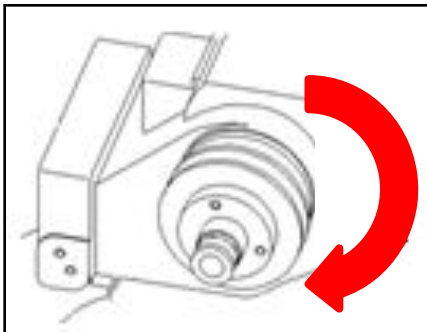
5. Needle & looper timing (relationship)

(1) Needle bar set to extreme bottom position.

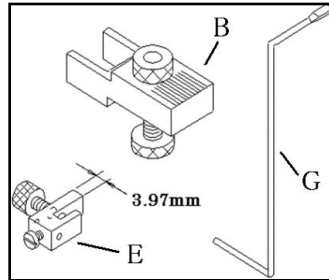
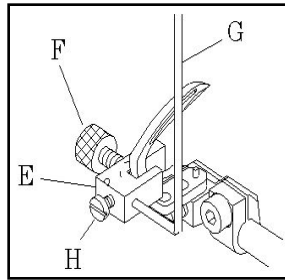


Turning screw C to make space 3.97mm between needle bar top point by tighten with nut D.

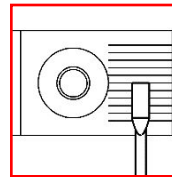
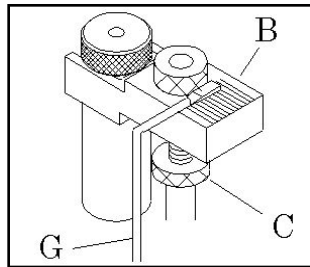
(2) Turn hand-wheel slowly to the **right** until needle bar top **touch** to screw C.



(3) Tighten loop-cramp E by looper screw F and install gauge-lot G by screw H.

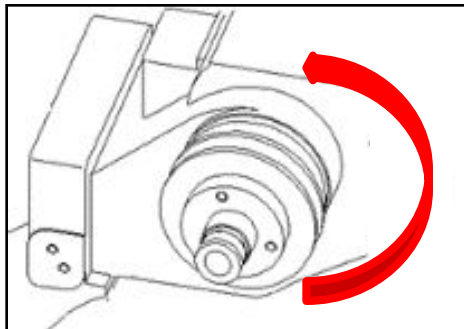


(4) Point of gauge-lot G point locate **any place** on dial scale B.

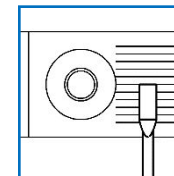


Point of G can be **any place**.
Check the position of G.
Call this position as "First Position"

(5) Turn hand-wheel slowly to the **left** until needle bar top **touch** to screw C.

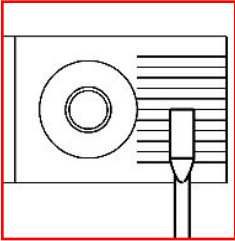
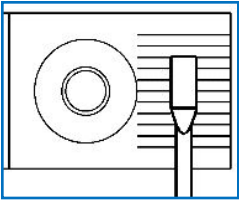
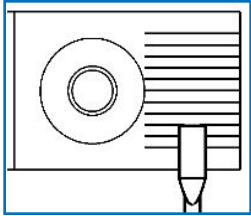
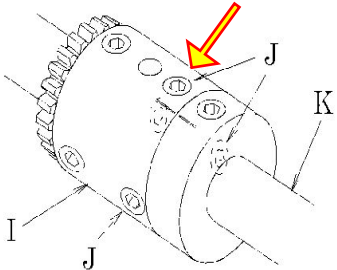
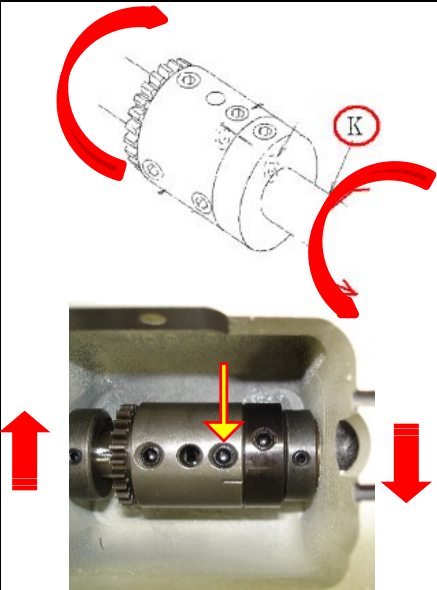
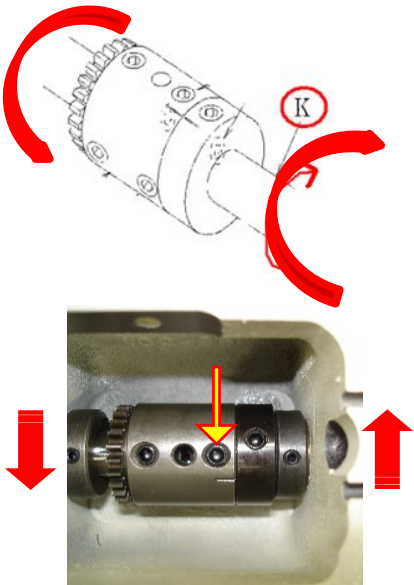


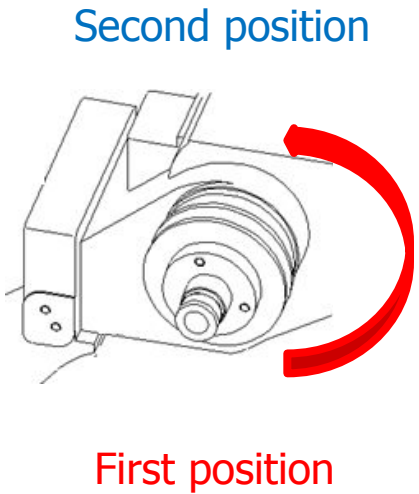
Check the position of G.
Call this position as "Second Position"



First Position and **Second Position**
should be located at the same position.

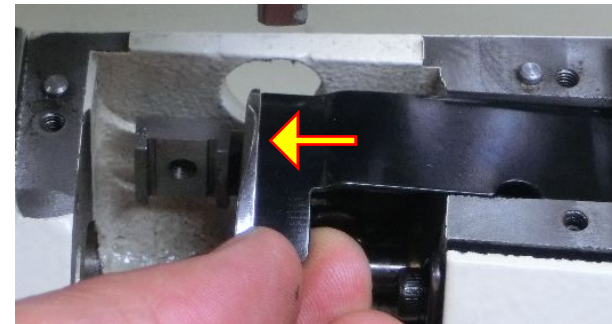
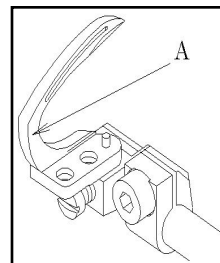
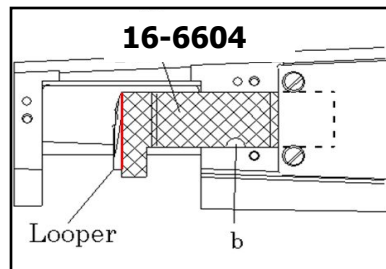
If it isn't synchronized, go to next procedure to adjust it.

<p>First position</p>		
<p>Second position</p>		
<p>Loosing joint-color screw J (3 places) And adjust with one screw.</p> 	<p>looper timing is early</p> 	<p>Looper timing is slow</p> 



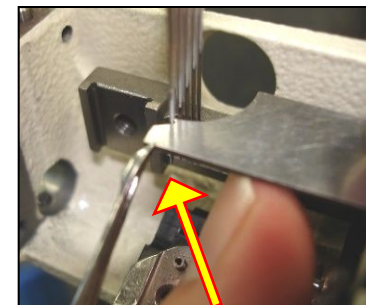
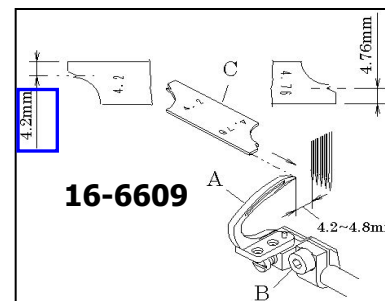
6. Height and Angle of the looper

Surface A of looper is right-angled to the looper shaft

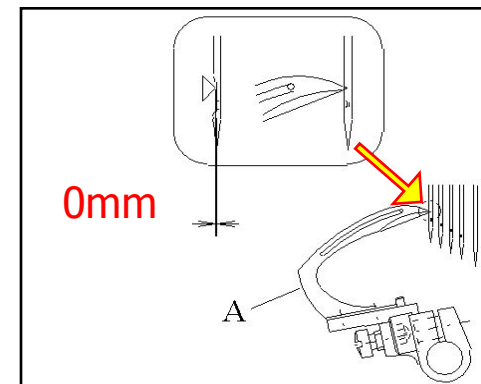
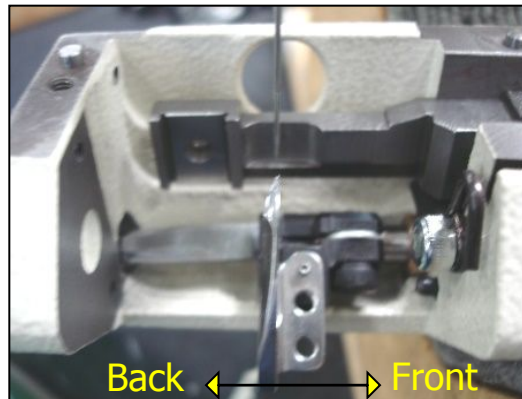
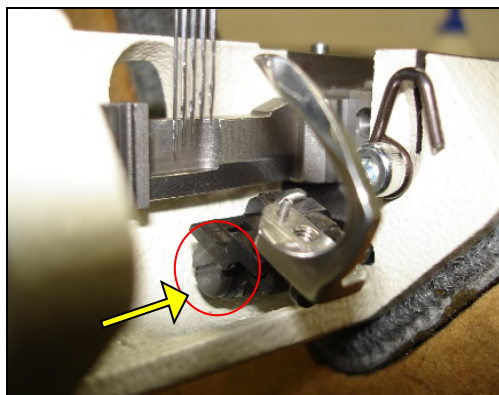


7. Looper and needle distance

- (1) Looper and 1st needle has to be 0mm clearance
- (2) Looper should go through bottom scarf of 4th needle.

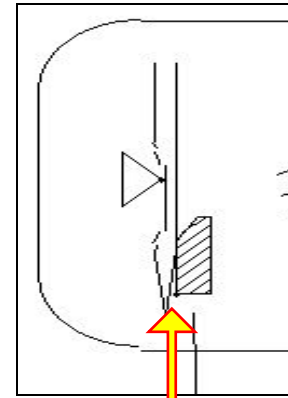
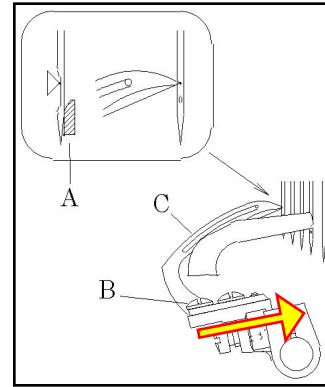
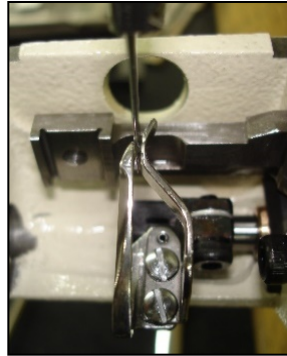
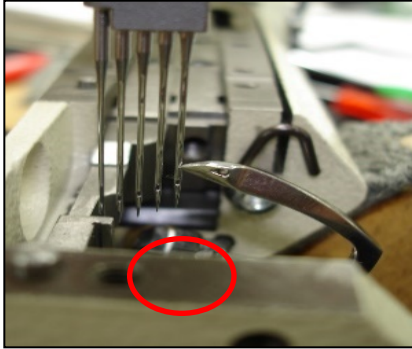


If achieve these 2 points, looper and needle's distance will be **4.2mm to 4.76mm**
If you could not achieve this, please go back to previous adjustment.



8. Needle guide

Looper, Needle, Needle guide has to be 0mm clearance

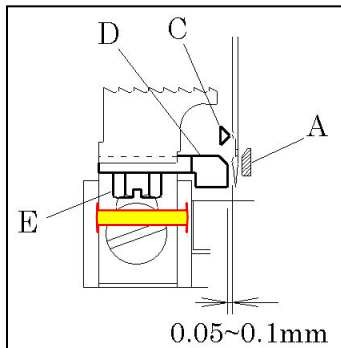
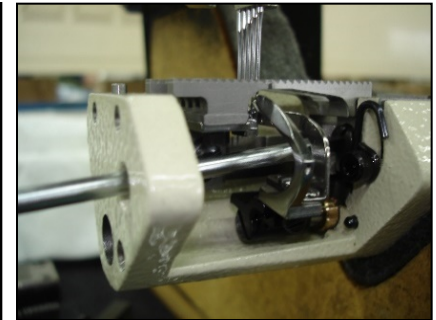
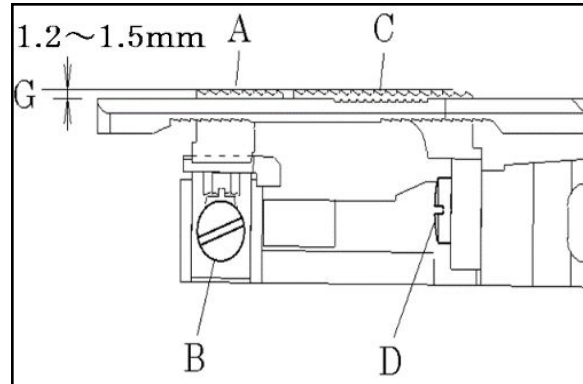


0mm

9. Feed dog and needle guard

(1) Adjusting feed dog height

When feed dogs are at the highest point of travel, there should be a distance of 1.2mm to 1.5mm from the top surface of needle plate to the top surface of the feed dog.



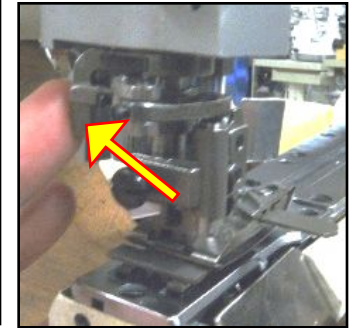
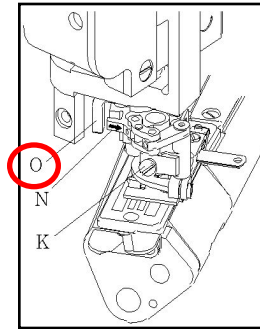
(2) Needle guard

Basic clearance is 0.05-0.1mm but, if 8. Needle guide was adjusted perfectly, needle guard can have more space

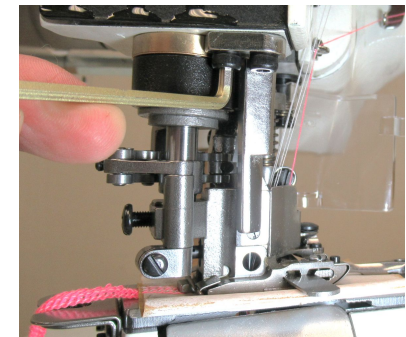
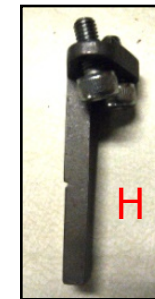
10 Installing presser foot

[1] Check the shape of presser foot shoe (left and right)

[2] When presser-foot install, decoration drive sleeve's lever **O** sets to carrier hook **N** and paralleled.

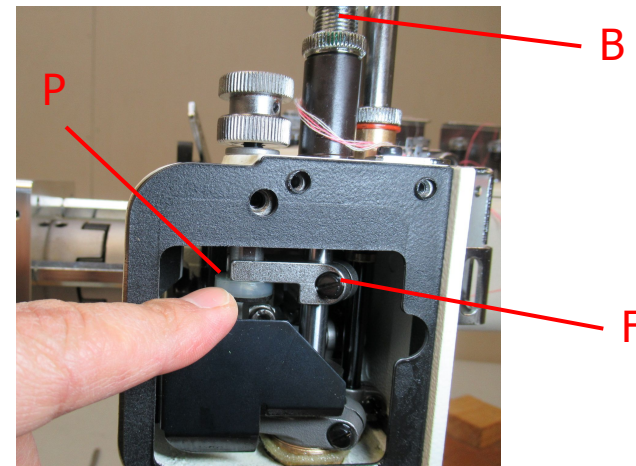
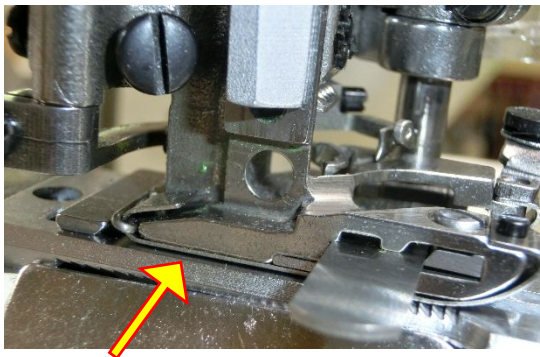


[3] When guide **H** install, presser foot should not be shaken horizontally and should move upward & downward smoothly.



[4] Give more pressor at pressor foot by turning screw **B** and make needle position at the lowest position and pressor foot and shoes stick to the needle plate.

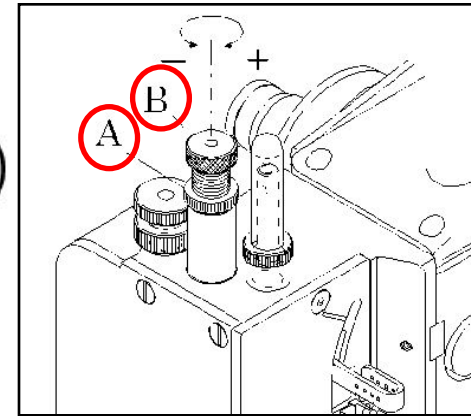
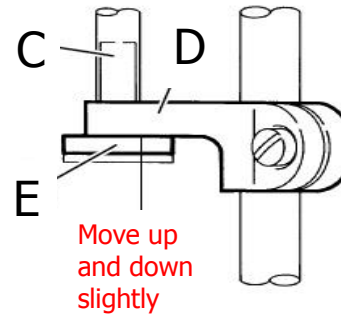
lightly push the presser foot bar-guide **P** at same time tighten the screw **F**.



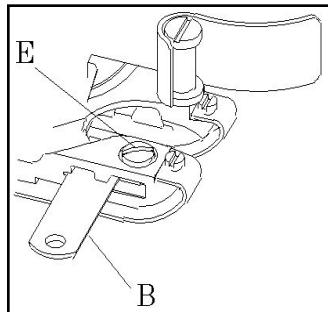
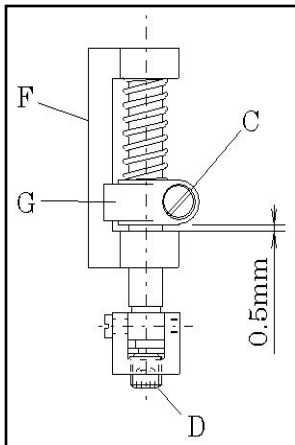
[5] Adjusting presser foot

The presser of the pressure foot should be as low as possible to avoid mark on the garment. Adjust by turning B

Move guide pin C up and down by turning screw A. Check to see if presser bar guide D contacts cushion rubber E on the guide pin and slightly move up and down by turning hand wheel.



11. Installing moving knife



[1] To removing the knife

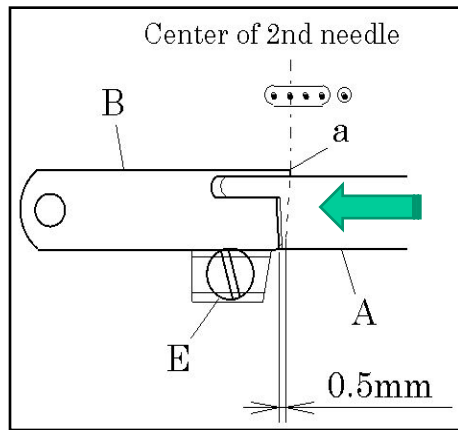
Upper knife: Loosen screw C and D then remove upper-knife

Lower knife: Loosen screw E and remove the lower knife B

[2] To adjusting knife

Under knife: B is installed tighten by screw E

Upper knife: A is installed tighten by screw D



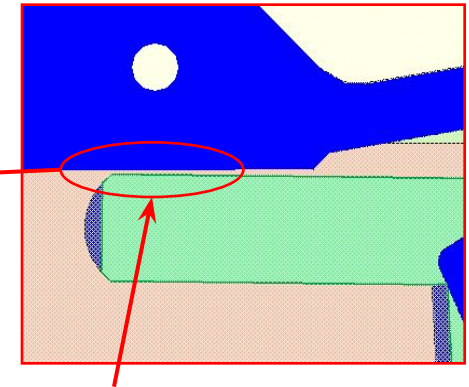
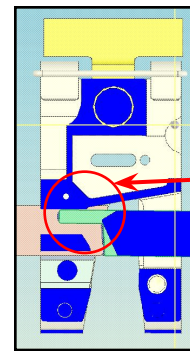
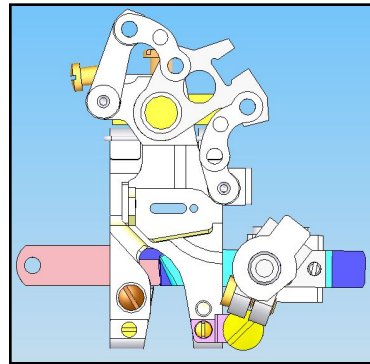
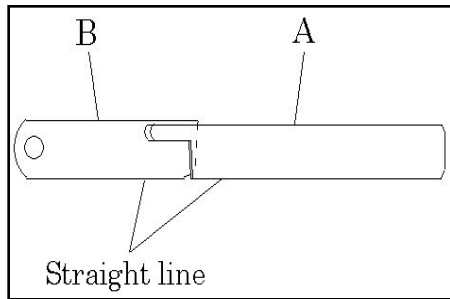
[3] Lower-knife standard position is;

When under knife **B**'s head point "a" set to center of 2nd needle.

[4] Upper knife position is;

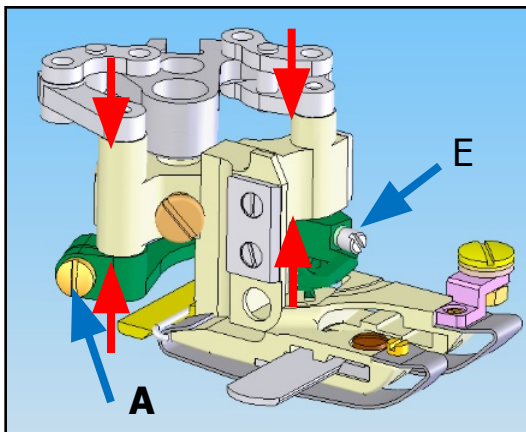
When upper knife **A** is at extremely left side position, set the position.

Under knife **B** and upper knife **A** engagement gap at 0.5mm.



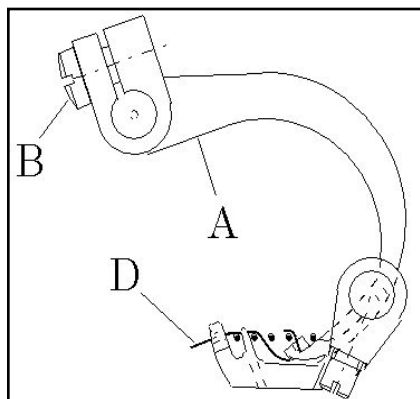
clearance

12. Spreader (hook) & carrier

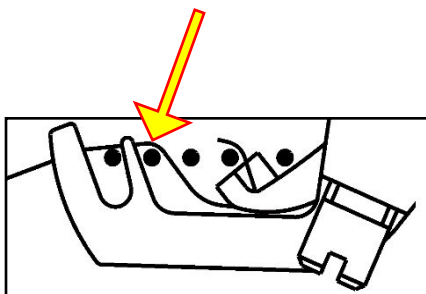


[1] spreader and carrier are attached by screw **A** and **E**.

There should not have any space between pressor foot and spreader and carrier. (no up and down shaking)

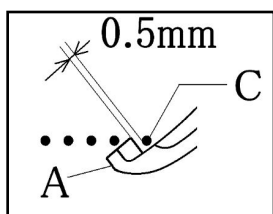
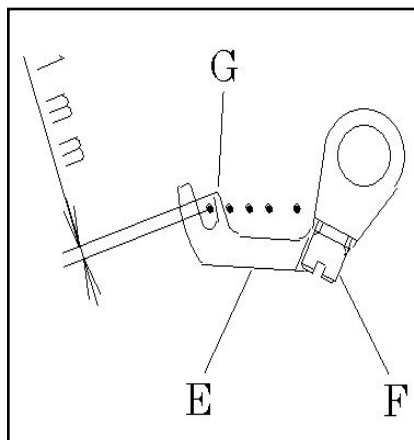


Thread position



[2] Adjusting spreader (hook)

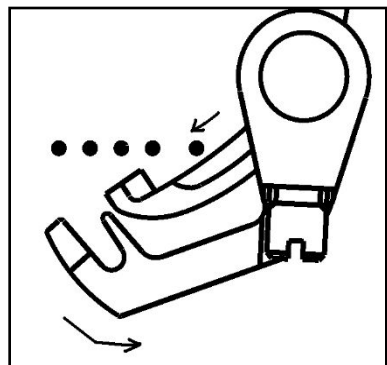
Set the spreader **A** to extreme right position. Loosen screw **B** to adjust hook **A** & retainer needle gap at 0.5mm.



[3] Adjusting the carrier

When carrier **E** extremely approach to first needle, Loosen screw **F** to adjust that set the distance at 1mm from carrier point **G** to center of first needle.

[4] Hook **A** and carrier **E** should not touch.

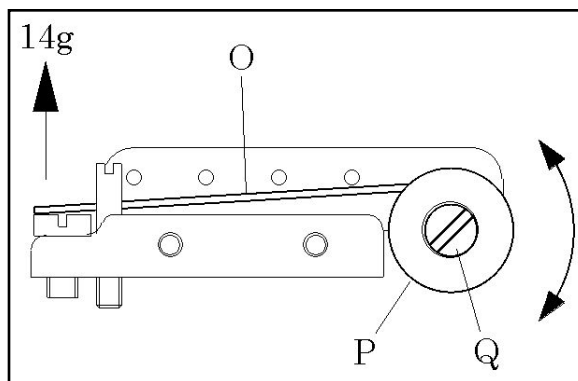
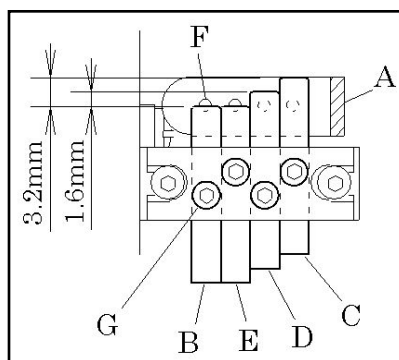
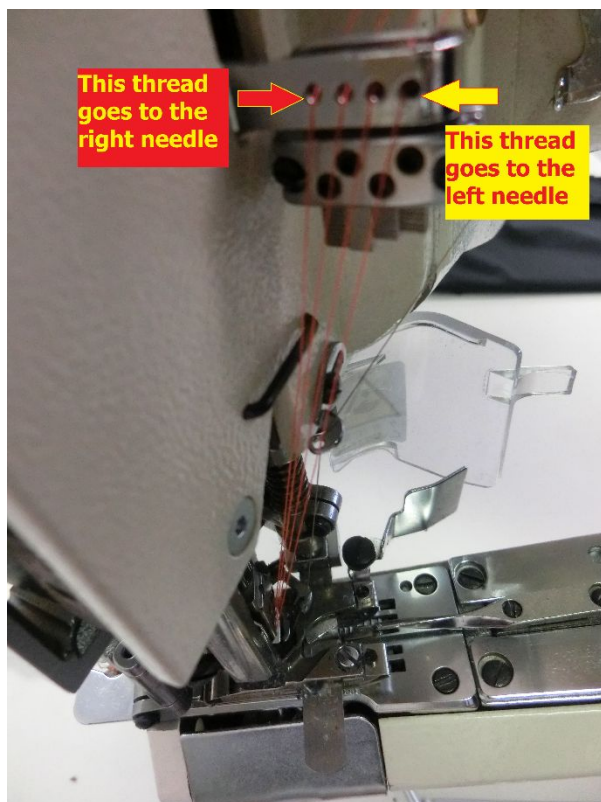
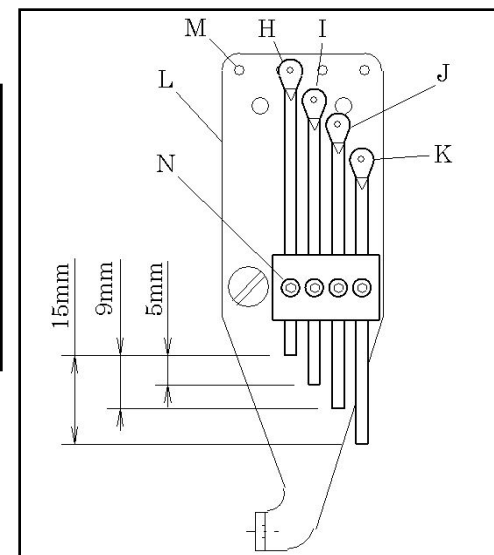
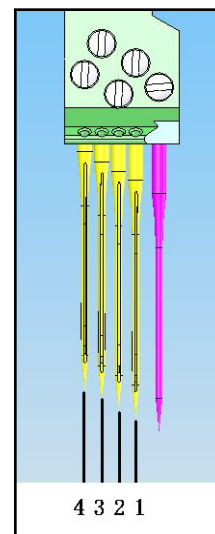
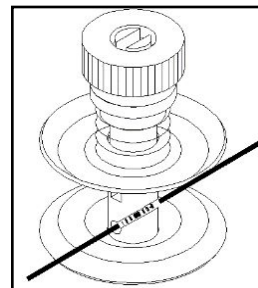
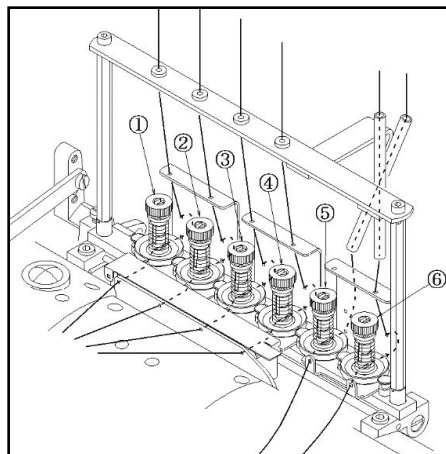


13. Adjusting the stitch formation

[1] Adjusting thread tension

- ① ~ ④ Needle thread
- ⑤ Decoration thread
- ⑥ Looper thread

[2] Adjusting needle tension



[3] Adjusting looper-thread-tension

Looper thread control

Thread guide **A**'s right edge has to match to plate **B**'s right edge

Timing of looper thread tension

When needle bar come **2.8mm down** from extreme high position, looper thread take up **D** should locate as above "a" position. In other words, looper thread has to release the tension after needle bar come **2.8mm down** from extreme high position.

Adjusting thread eyelet

Thread eyelet **F, G** is positioning the extremely right edge as standard. For adjustment, loosen screw **H, I** to move right-to-left.

[4 Adjusting decoration-thread tension

Timing of decoration thread tension

Decoration thread hold distance 0~1mm from decoration thread tension **E**'s extreme height point when thread synchronized hangs hook **D**.

