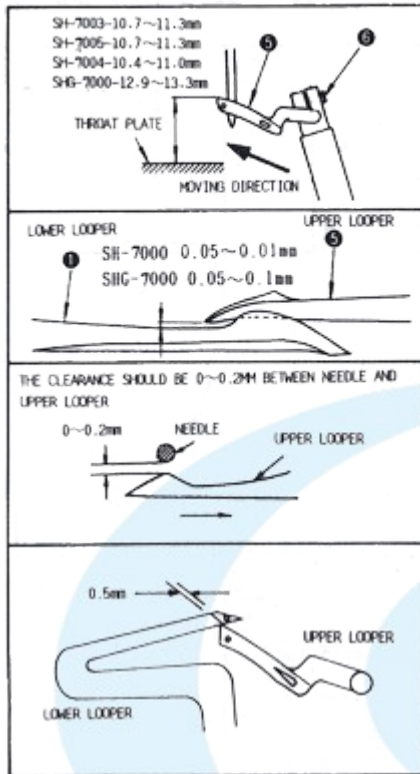


## 12. SETTING THE UPPER LOOPER



NOVELTY MODEL

MODEL	INTERVAL
SH-7000-B33	11 ± 0.3mm
SH-7000-B53	10.8 ± 0.3mm
SHG-7000	13.1 ± 0.2mm

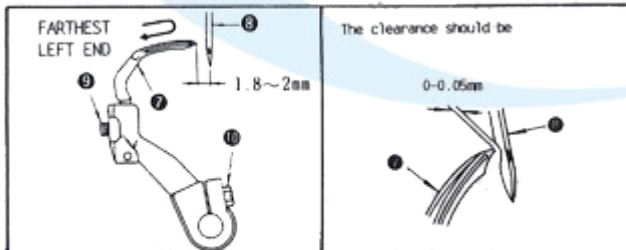
### ★ Upper looper

- When upper looper ② has advanced farthest, it should be distanced 10.4 to 11.0 mm from the overedging needle for SH-7004, and 10.7 to 11.3 mm for SH-7003 and SH-7005.
  - The clearance between upper looper ② and lower looper ① when they are crossed each other should be 0.05 to 0.1 mm.
  - To make adjustment, loosen setscrew ③ and move the upper looper ②.
- ★ Use a proper upper looper according to the count of the needle used in accordance with the table shown below. When placing orders, specify the bracketed numbers [ ].

MODEL	NUMBER ENGRAVED ON UPPER LOOPERS	COUNT OF NEEDLE
SH-7003 SH-7005	1188 [80]	#8~#13(#14)
	1188 [81]	#14~#20(#13)
SH-7004	1188 [83]	#21
	1188 [81]	#6~#8(#9)
SH-7094	1188 [83]	#9~#14
	1188 [82]	#14

★ AVOID USING NEEDLES WITH THE BRACKETED COUNTS AS MUCH AS POSSIBLE

## 13. Adjusting the double chain looper



### DOUBLE CHAIN LOOPER

- Returning amount of the double chain looper point of the double chain looper should be 1.8 to 2 mm when the looper is at the extreme left of its travel.
- Clearance between the double chain looper ② and the needle ①. The clearance should be 0.00 to 0.05 mm.
- To perform the adjustment, loosen setscrew ③ and move DOUBLE-CHAIN looper holder ④.

### Longitudinal motion (Avoid motion)

The standard minor axis of the elliptical motion should be 2.93 mm (central value).



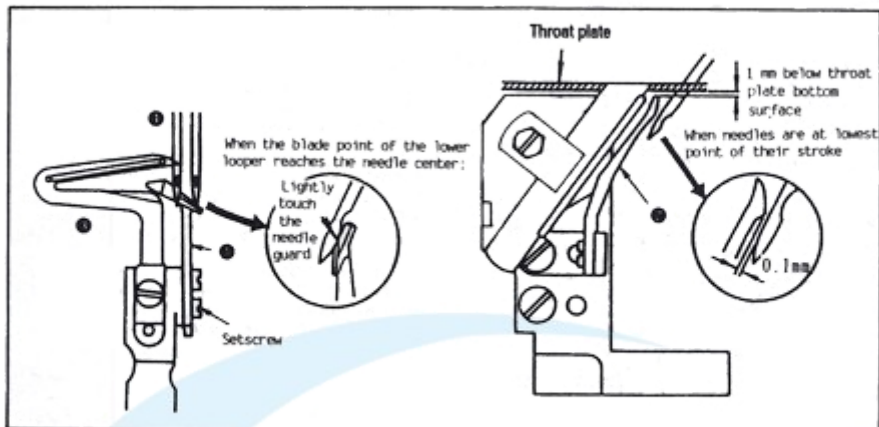
SH-7000 2.8~3.06mm  
SHG-7000 3.2~3.5mm

Note: The avoid motion should be adjusted in accordance with Needle No.



The tilt of the double chain looper should be  
SH7000 1mm  
SHG7000 1.6mm

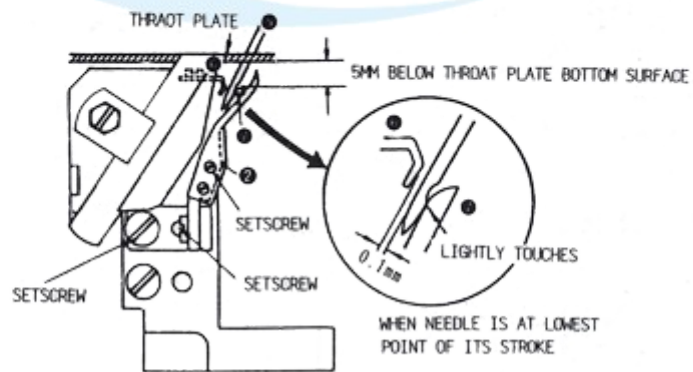
## 14. THE NEEDLE GUARD



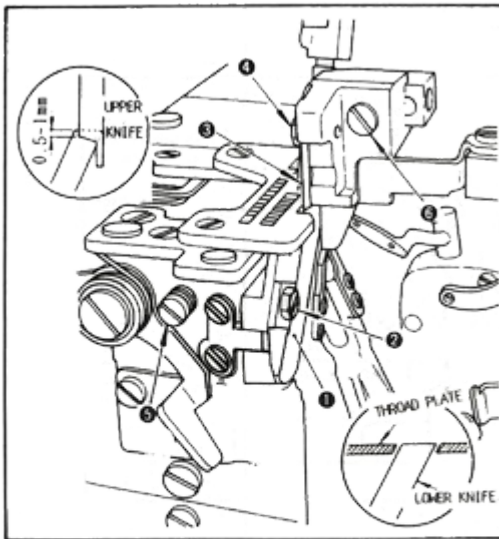
For 1-NEEDLE OR 2-NEEDLE OVERLOOK MACHINE THE OVERLOOK MACHINE HAS TWO NEEDLE GUARDS. ① AND ②, WHEN THE BLADE POINT OF THE LOWER LOOPER REACHES THE NEEDLE CENTER, THE NEEDLE ① WILL LIGHTLY TOUCH THE NEEDLE GUARD. THE FRONT NEEDLE GUARD WILL BE 1MM BELOW THE THROAT PLATE AND WHEN NEEDLES ARE LOWEST POINT OF THEIR STROKE, THE CLEARANCE WILL BE 0.1MM BETWEEN NEEDLES AND FRONT NEEDLE GUARD

### 2) For safety stitch machine

① The safety stitch machine has four needle guards, ①, ②, ③ and ④. The needle guards ① and ② are positioned in the same manner as those for the overlook machine. above. The needle guard ③ should be positioned 5 mm below the throat plate bottom surface. THE CLEARANCE WILL BE 0.1MM BETWEEN NEEDLE ① AND NEEDLE GUARD ① WHEN NEEDLE IS AT LOWEST POINT OF THEIR STROKE AND NEEDLE GUARD ② WILL LIGHTLY TOUCH THE NEEDLE.



## 15. KNIVES AND OVEREDGE WIDTH



### ★Height of the lower knife

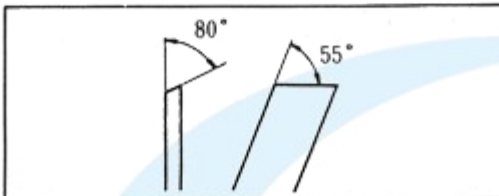
Loosen setscrew ⑥ and adjust the height of lower knife ① so that its edge is 0~0.5MM LOWER THAN THROAT PLATE THEN TIGHTEN THE SETSCREW ⑥

### ★Height of the upper knife

Loosen setscrews ①, ② and perform adjustment so that upper knife ③ overlaps lower knife ④ by 0.5 to 1 mm when the upper knife is at its lowest point.

### ★Overedge width

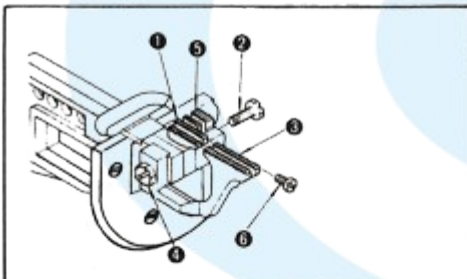
DEPEND ON VARIOUS MODEL OF MACHINES THE WIDTH OF OVEREDGING ARE DIFFERENT WHEN ADJUSTING: LOOSENING THE SETSCREW ④ PUSH LOWER KNIFE ⑤ TO THE LEFT AND FIX. LOOSENING THE SETSCREW ⑥ AND ADJUST THE UPPER KNIFE TO ITS PROPER POSITION AND FIX THE SETSCREW ⑥ AND LOOSENING SETSCREW ④ THEN TIGHTEN THE SETSCREW ④ WHEN THE LOWER KNIFE COMES IN CONTACT WITH THE UPPER KNIFE.



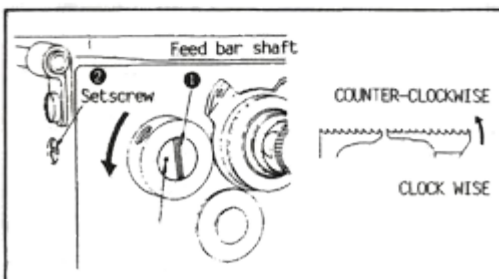
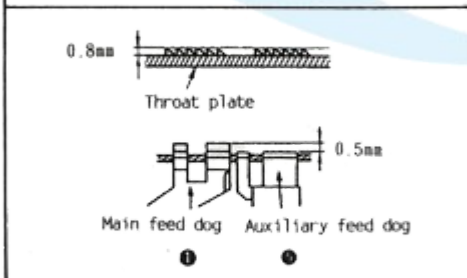
### ★Resharpener the lower knife

When the lower knife has become dull, resharpen it as shown in the figure left.

## 16. POSITIONING OF THE FEED DOG

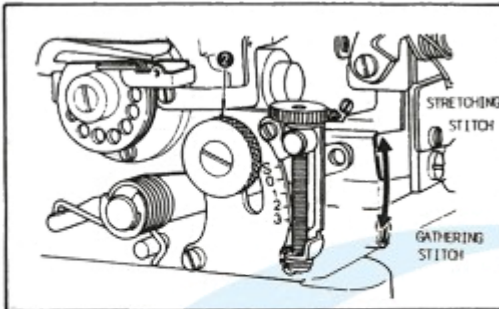


- ADJUSTING THE HEIGHT OF THE FEED DOG
1. THE MAIN FEED DOG ①, ② WHICH SHOULD PROTRUDE 0.8MM FROM THE THROAT PLATE TOP SURFACE WHEN THEY ARE AT ITS HIGHEST POSITION AND IT CAN ADJUST A LITTLE HIGHER WHEN SEWING THE THICK MATERIAL AND ALSO CAN BE LOWER A LITTLE WHEN SEWING THE LIGHT MATERIAL. (FOR SHG-7004 ADJUST TO 1.2MM HIGHER AND FOR SHG-7005 ADJUST TO 1.3 MM HIGHER)
  2. LOOSENING SETSCREW ③ IN ORDER TO ADJUST THE HIGH OF FEED DOG
  3. THE HEIGHT OF DIFFERENTIAL FEED DOG IS SAME AS THE MAIN FEED DOG
  4. THE HEIGHT OF AUXILIARY FEED DOG SHOULD BE 0.5 MM LOWER THAN THE MAIN FEED DOG



1. LOOSEN THE SETSCREW ① AND TWIST THE ECCENTRIC SHAFT TO ADJUST THE TILT OF FEED DOG
2. WHEN TURN THE ECCENTRIC SHAFT CLOCKWISE, THE FEED DOG WILL BE TILTED WITH THE FRONT UP. IF TURN THE ECCENTRIC COUNTER-CLOCKWISE THEN THE FEED DOG WILL BE TILTED WITH THE FRONT DOWN.

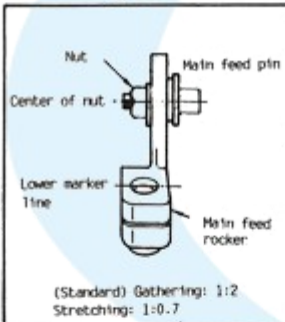
## 17. DIFFERENTIAL FEED MECHANISM



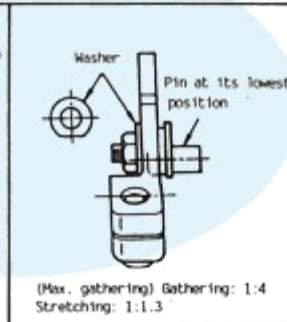
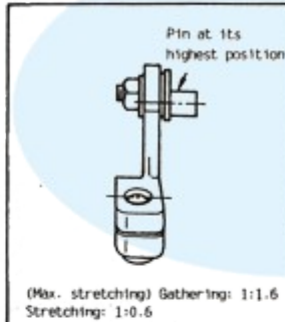
1. LOOSEN THE DIFFERENTIAL LOCK NUT (●) AND MOVE THE ROCKER SHAFT UPWARD FOR STRETCHING AND MOVE DOWN WARD FOR GATHERING.
2. Position "S" is for stretching stitch of a ratio of 1:0.7 and position "0" provides a differential feed ratio of 1:1. POSITION 3 PROVIDES MAXIMUM DIFFERENTIAL FEED RATIO OF 1:2
3. When you want to move the lever only slightly, use differential feed minute-adjust screw (●)

Generally, the adjustment of differential feed is made by the differential feed adjusting lever. However, if a desired adjustment cannot be made by this lever, the differential feed ratio should be changed.

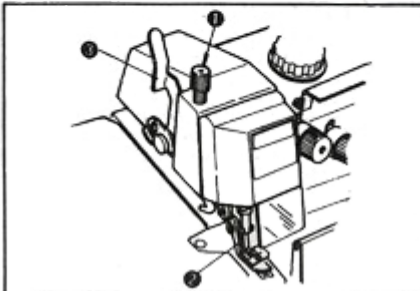
SH-7000



SH-7043 SH-7044 SH-7045  
SH-7074 SH-7075



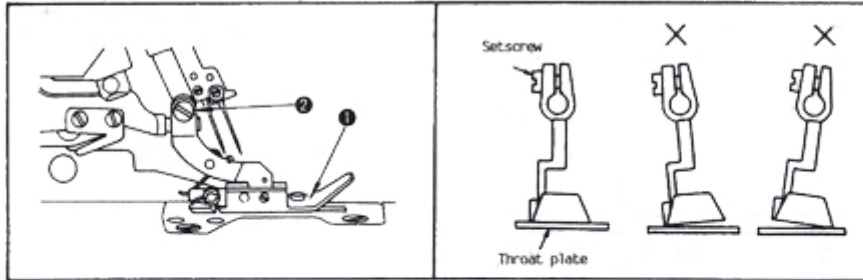
## 18. PRESSER FOOT PRESSURE AND LIFTER



INCREASE THE PRESSURE BY TURNING THE PRESSER FOOT ADJUST SCREW (●) CLOCKWISE AND FOR DECREASING THE PRESSURE BY TURNING ADJUST SCREW (●) COUNTER- CLOCK WISE.

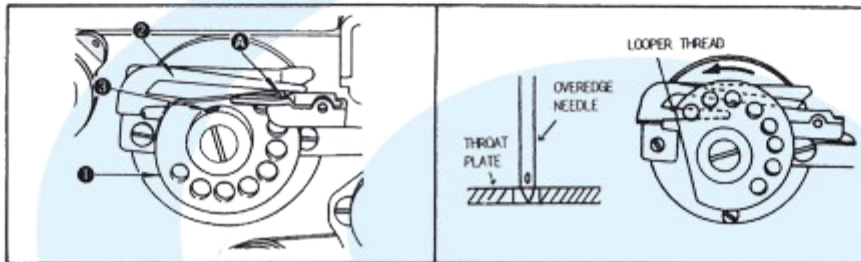
When you turn presser foot assembly (●) side-ways, bring down presser lifting lever (●). Whenever the presser foot is returned to its original position, be sure to bring up the presser lifting lever.

## 19. Positioning the presser foot



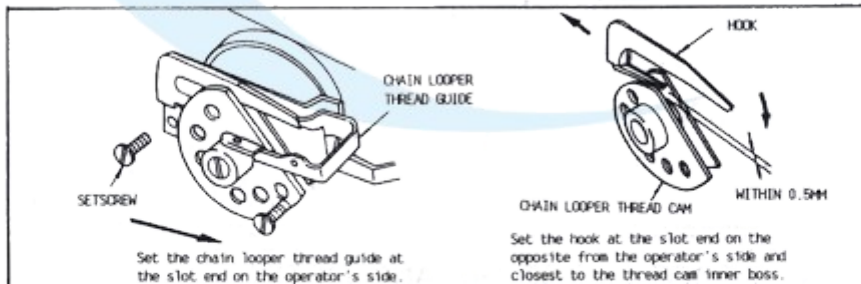
The presser foot should be positioned so that the feed dogs go down under the specified presser foot pressure, and the presser foot sole comes in contact evenly with the throat plate surface.

## 20. CHAIN LOOPER THREAD CAM



Position the thread cam so that a corner of the thread cam contacts with the bottom surface of the hook when the needles are at the highest point of their stroke.

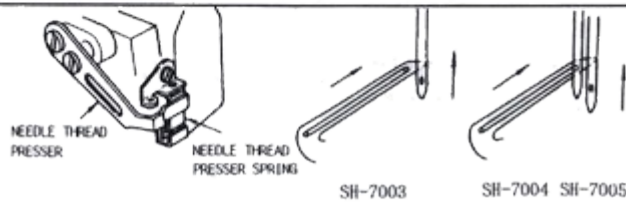
Loosen setscrew ①, and adjust chain looper thread cam ② so that (A) of the chain looper thread cam meets the bottom of looper thread cam pawl ③ when the needle is at its highest position. Make sure that the chain looper thread cam releases the looper thread at the moment the needle point starts to go below the bottom of the throat plate under this condition.



Set the chain looper thread guide at the slot end on the operator's side.

Set the hook at the slot end on the opposite from the operator's side and closest to the thread cam inner boss.

## 21. Mounting position of the needle thread presser



FROM LOWEST POINT OF ITS STROKE WHEN NEEDLE RAISED FROM ITS LOWEST DEAD POINT AND REACH TO THE TIP OF LOWER LOOPER, THE NEEDLE THREAD PRESSER IS LIGHTLY KEEP TOUCHING THE NEEDLE THREAD PRESSER SPRING