

GOLDEN WHEEL

No. 008038

CS-8330	SINGLE NEEDLE, UNISONFEED, POST BET. LOCKS -TITCH MACHINE
CS-8330-BT	SINGLE NEEDLE, UNISONFEED, POST BET. LOCKS -TITCH MACHINE WITH AUTOMATIC THREAD TRI -MMER
CS-8350	TWIN NEEDLE, UNISONFEED, POST BET. LOCKSTI -TCH MACHINE
CS-8350-BT	TWIN NEEDLE, UNISONFEED, POST BET. LOCKSTI -TCH MACHINE WITH AUTOMATIC THREAD TRIMM -ER

Please read this Instruction Manual carefully before using the unit in order to get the most out of it and to enjoy using it for a long time. Please keep this Instruction Manual at hand taking care not to lose it.

INSTRUCTION MANUAL

BEFORE OPERATION

1. Do not operate the machine even for trial before lubrication it.
2. Confirm that the voltage and phase (single or 3-phase) are correct by checking them against the ratings shown on the motor nameplate.
3. When running your machine for the first time after the set-up, check the rotational direction of the handwheel. ★ Turn on the power switch. Run the machine at a low speed while checking the rotational direction of the handwheel. (The handwheel should turn counterclockwise as observed from the handwheel side.)
4. For the first month, run the machine at speed of 1800s.p.m. or less.

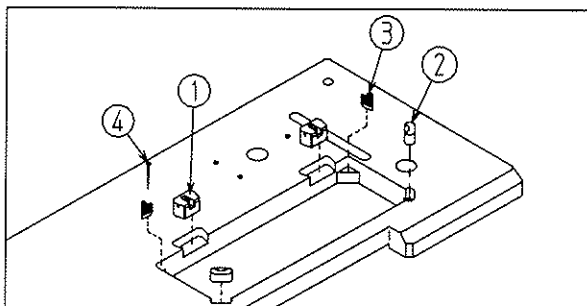
CAUTIONS IN OPERATION

1. Keep your hands away from the needle when you turn on the power switch or while the machine is operating.
2. During operation, be careful not to allow your or any other person's head or finger to come close the handwheel, V-belt, bobbin winder or motor. Also do not place anything close to them.
3. Do not turn the machine with the finger guard, beltcover or any other protectors removed.
4. Be sure to turn off the power switch and confirm that the motor is completely stopped before removing the V-belt.

SPECIFICATIONS

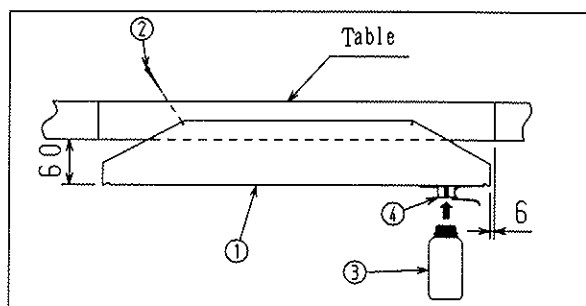
Spec	Model	CS-8330	CS-8330-BT	CS-8350	CS-8350-BT
Application		Heavy material			
Sewing speed (Max)		2000 (spm)			
Stitch length		0~6 (mm)			
Needle bar stroke		36 (mm)			
Presser foot stroke	Knee lifter	16 (mm)			
	Hand lifter	8 (mm)			
Needle		DP×17 #22		DP×17 #18	
Lubricating oil		Machine oil (white spindle oil)			

1. SETTING UP THE SEWING MACHINE



(1) Installing the cushion

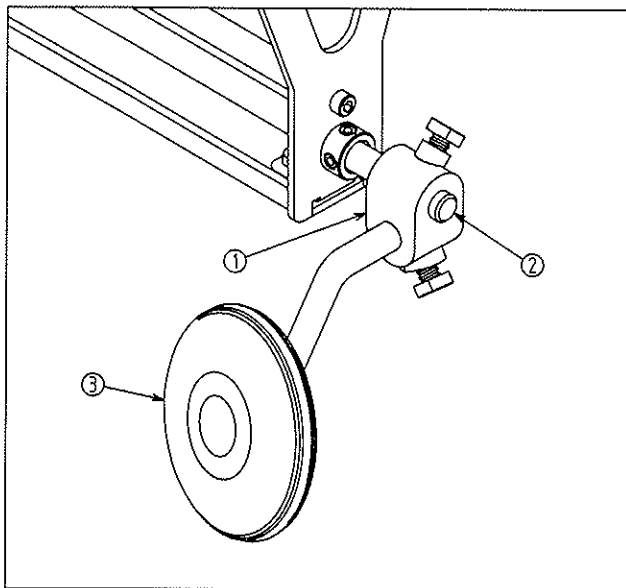
Fasten the hinge supporter ① and rubber cushion ②, ③ on the table using the nail ④.



(2) Installing oil pan

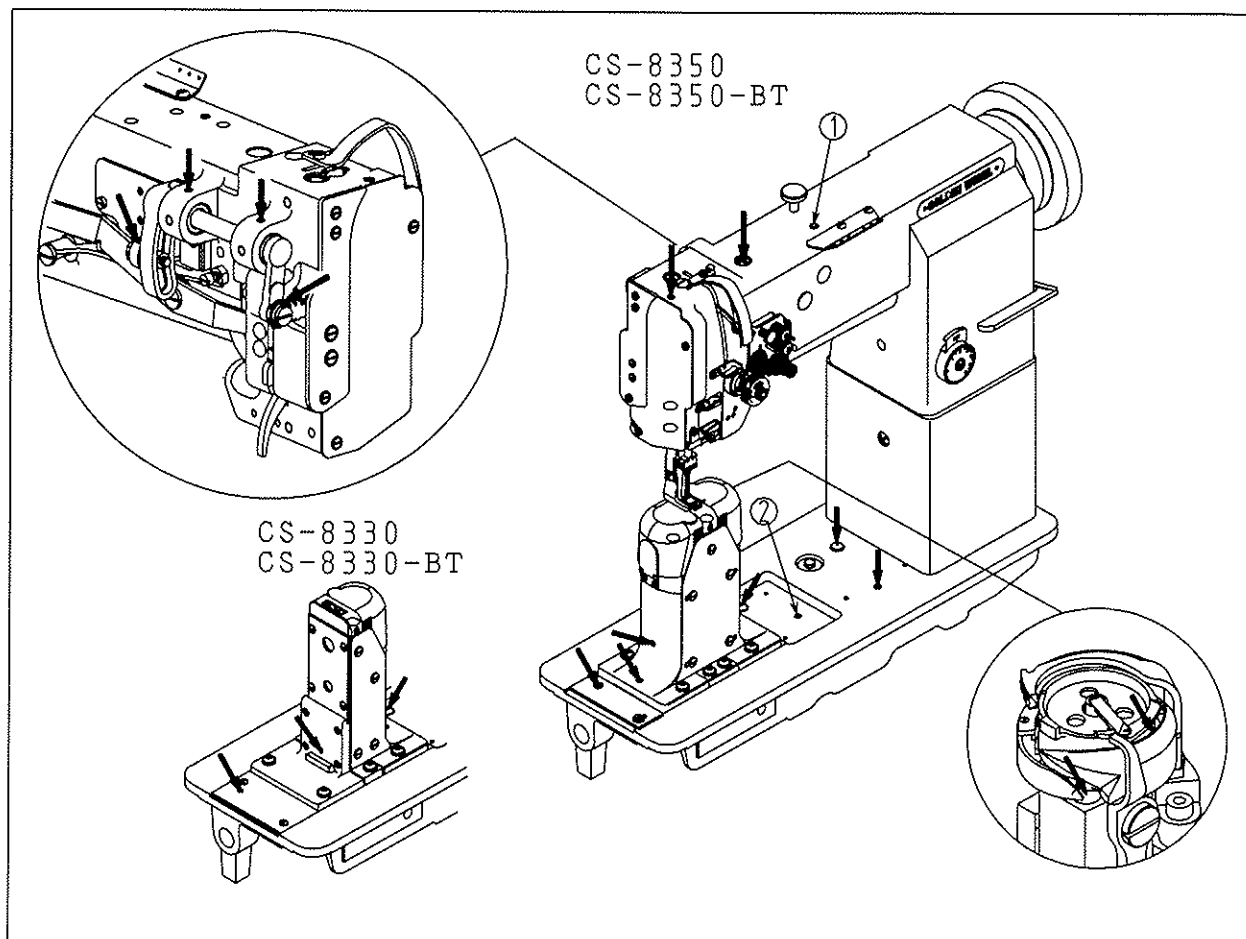
- 1) Fasten the oil pan ① on the table using nails ② (at 4 places).
- 2) Install the oiler ③ to the oiler supporter ④.

2. MOUNTING POSITION OF THE KNEE LIFTER



- 1) Insert knee lifter crank ① in the knee lifter shaft ②.
- 2) Attach knee lifter plate rod asm. ③ to the knee lifter crank ①.

3. LUBRICATION



Before starting the machine.

- 1) Prior to operation, be sure to properly lubricate the points marked with the arrows.
- 2) Filling the oil reservoir ①, ②.

When oiling all sections requiring lubrication, after installation of the machine has been completed, wait for a while (approximately 10 minutes) so that oil can penetrate each section sufficiently before starting continuous operation.

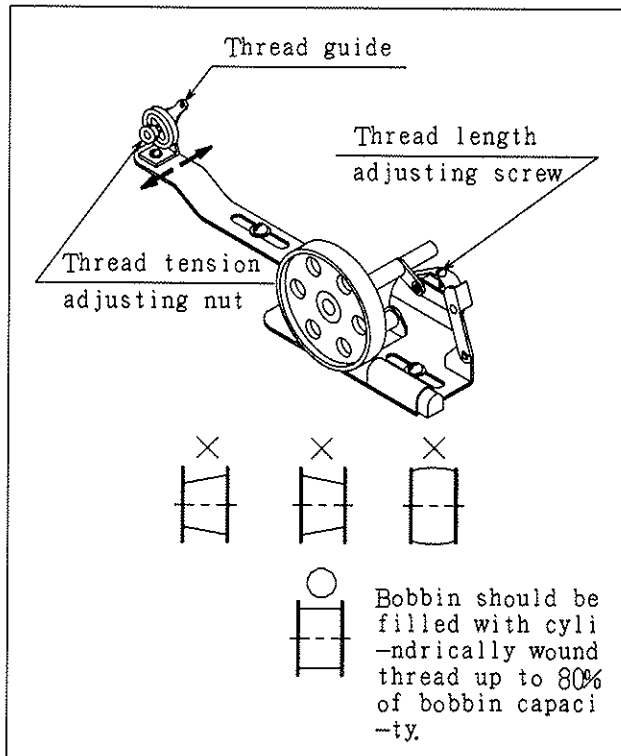
When starting the machine initially and after kept away for a long time without using at all, apply two or three drops of oil each section noted with an arrow mark, and to operate the machine continuously, apply two or three drops of oil each section whenever starting operation in the morning and in the afternoon.

4. WINDING OF BOBBIN THREAD



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



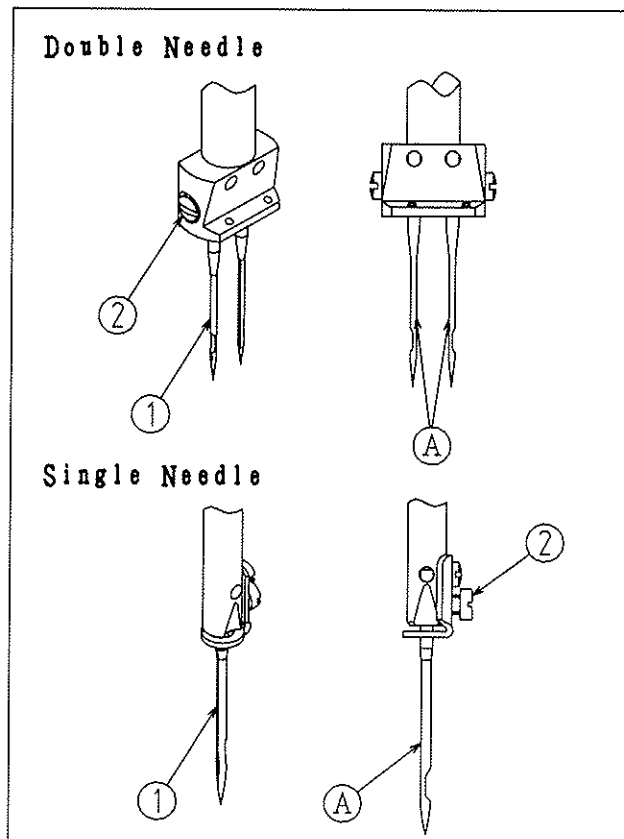
- Tension of wound thread
Slack winding is recommended for polyester thread and nylon thread.
- Conically wound thread
Move the thread guide toward smaller diameter of wound thread layer.
- Length of wound thread
Loosen the thread length adjusting screw to increase length of thread and tighten the screw to decrease length of thread.

5. INSTALLATION OF NEEDLES



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



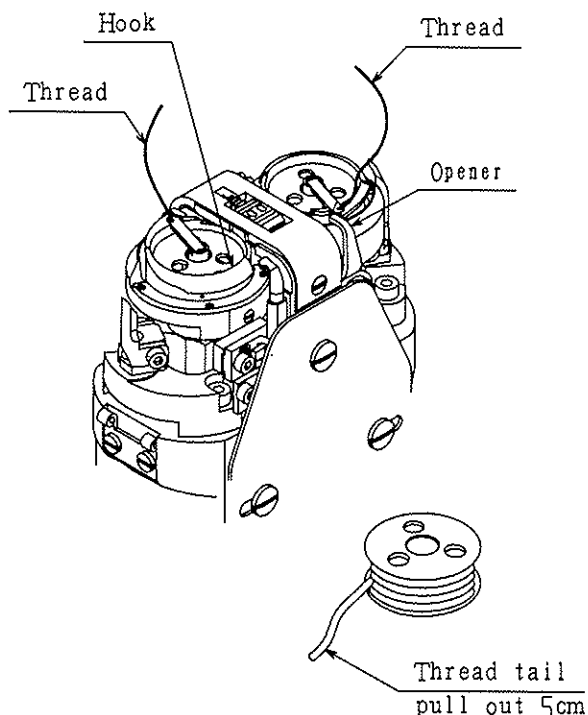
- 1) Turn the handwheel to move the needle bar up to its highest position.
- 2) Loosen needle setscrew ②, and hold needle ① so that long groove A oppositely each other. (For Double needle)
And so that long groove A left side. (For Single needle)
- 3) Insert the needle into the needle bar until it will go no further.
- 4) Securely tighten the needle set screws ②.

6. THREADING OF BOBBIN THREADS

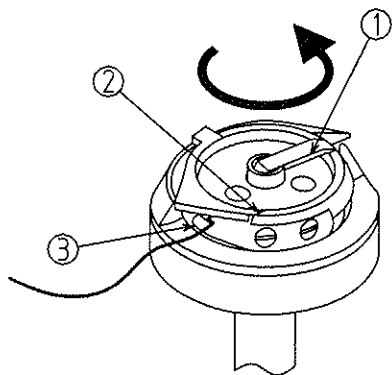


CAUTION

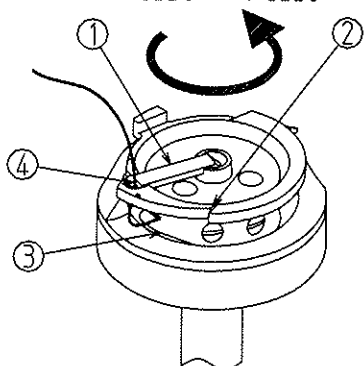
TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-
XPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION
OF THE MOTOR BEFORE OPERATIONS.



CS-8330, 8350



CS-8330-BT, 8350-BT



○ Removing the bobbin

Open the bobbin case latch ① and pick up bobbin.

○ Setting bobbin

- 1) Pull out 5cm thread tail from the bobbin.
- 2) Hold the bobbin so that the bobbin thread is wound in right direction and put it into the hook and close the bobbin case latch ①.

○ Threading of bobbin threads

(For CS-8330, 8350)

Pull the draw out thread into the slot ②, and draw out the thread under the spring ③.

(For CS-8330-BT, 8350-BT)

Pull the draw out thread into the slot ② to the thread under the spring ③, and draw out the notch ④ of bobbin case latch ①.

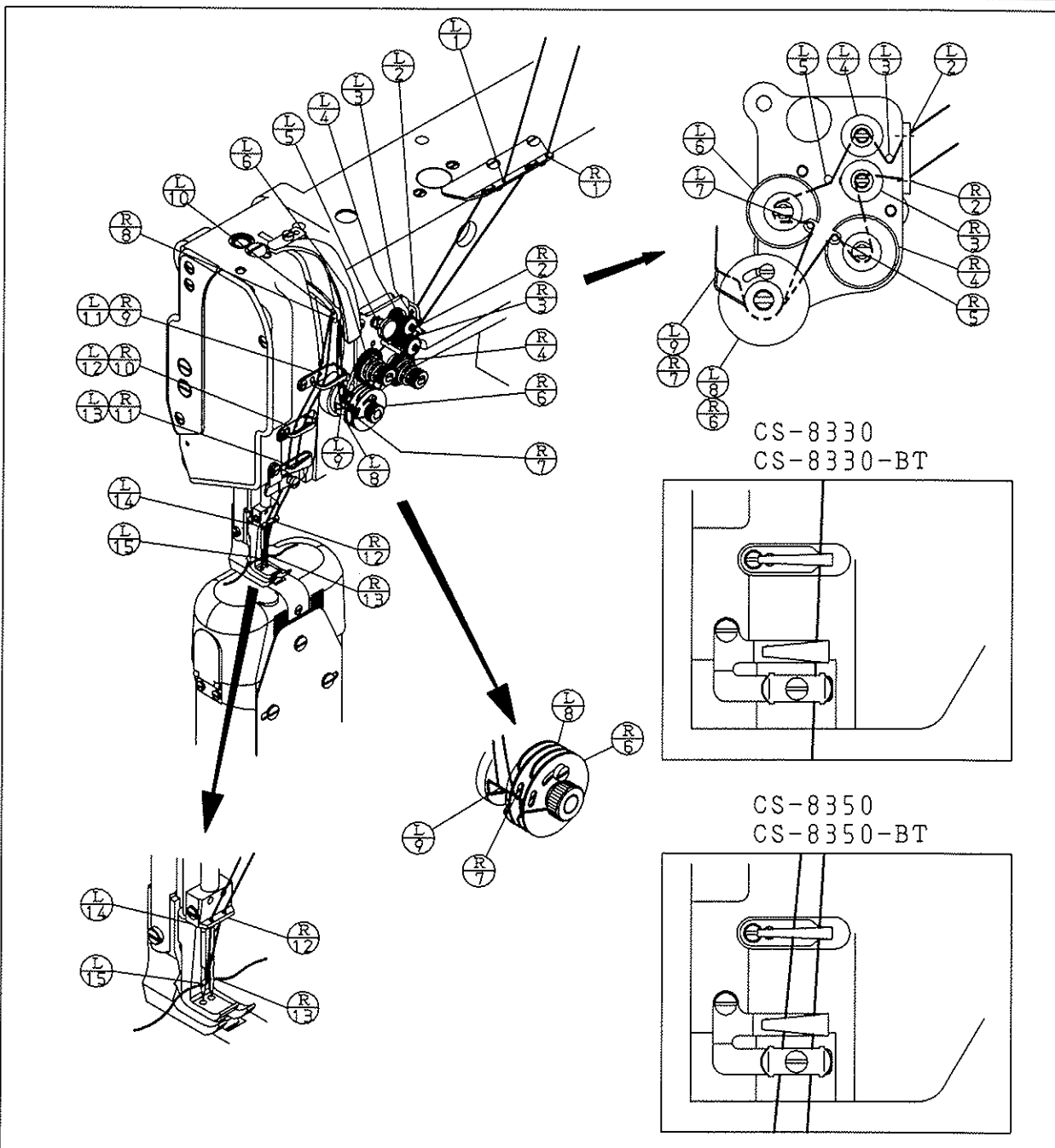
NOTE: Fit the bobbin in the bobbin case so that the bobbin turns in the direction of the arrow when the bobbin thread is pulled.

7. THREADING THE MACHINE HEAD

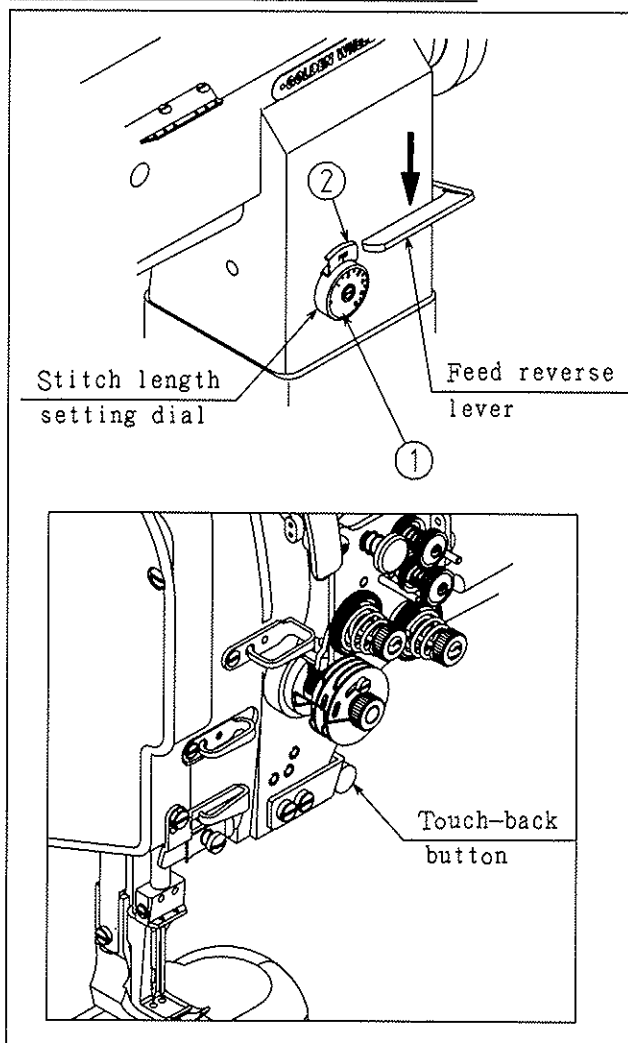


CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-
-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION
OF THE MOTOR BEFORE OPERATIONS.



8. ADJUSTMENT OF STITCH LENGTH AND STITCH REVERSING (TOUCH-BACK)



○ Stitch length setting dial

Turn the dial ①, pushing the plate ②.

○ Feed reverse lever

How to operate

- 1) Push feed reverse lever down.
- 2) The machine performs reverse feed stitching as long as the lever is held depressed.
- 3) The moment you release the lever, the machine resumes the normal stitching mode.

○ Touch-back button

How to operate

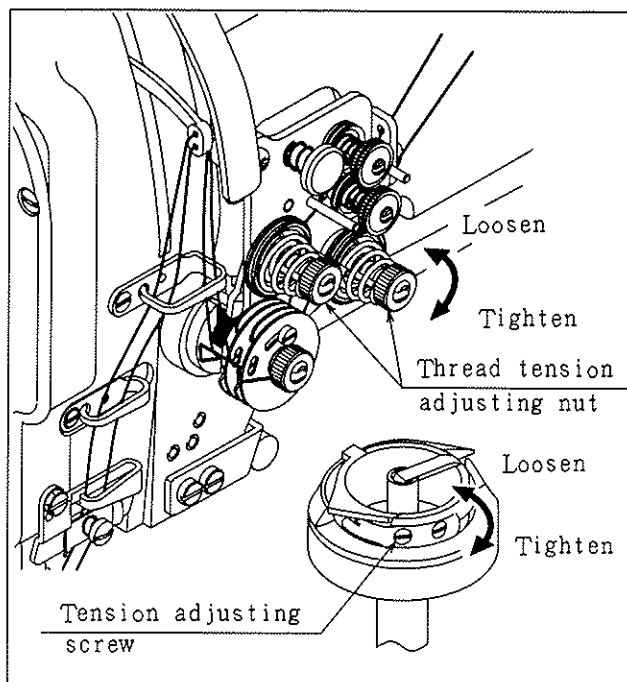
- 1) The moment you press touch-back button, the sewing machine performs reverse feed stitching.
- 2) The machine continues reverse feed stitching as long as the touch-back button is held pressed.
- 3) When you release the switch, the machine resumes normal stitching.

9. THREAD TENSION



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



1) Adjusting the needle thread tension

Turn the thread tension adjusting nut clockwise to increase or counterclockwise to decrease the needle thread tension.

2) Adjusting the bobbin thread tension

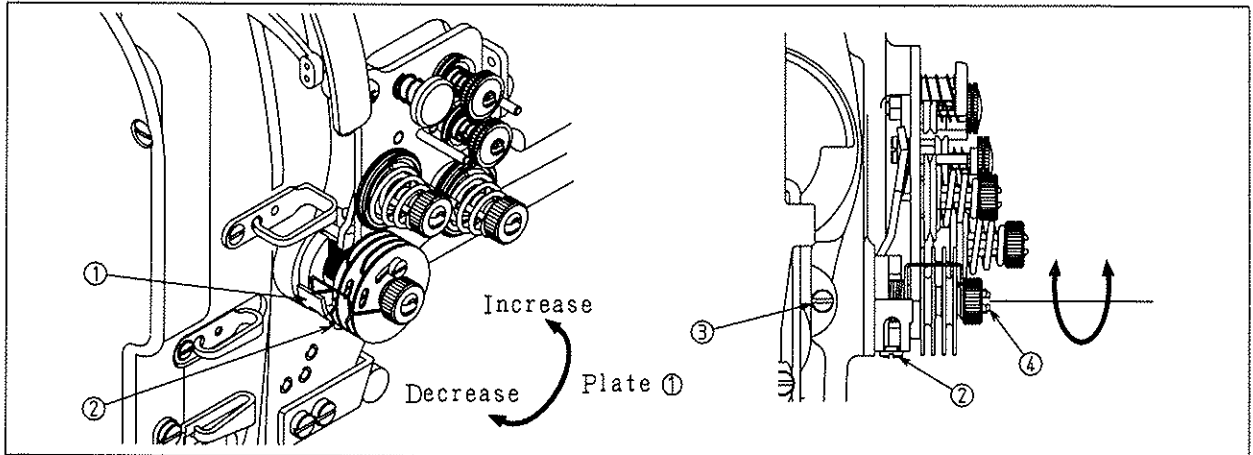
Turn the tension adjusting screw clockwise to increase or counterclockwise to decrease the bobbin thread tension.

10. THREAD TAKE-UP SPRING



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



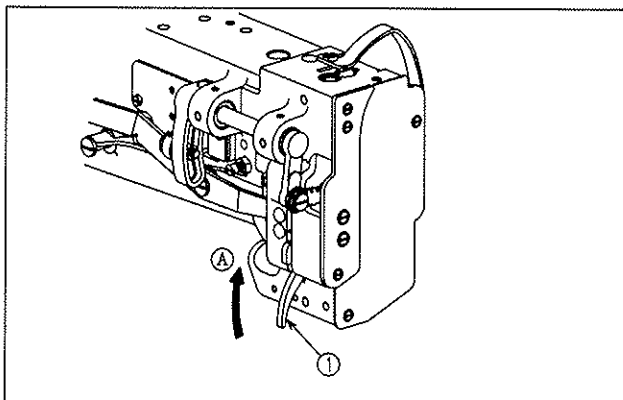
◇ Adjusting the thread take-up spring stroke

1. Loosen setscrew ②, and turn the adjusting plate ①.
2. Turn the adjusting plate ① to the right, increase its moving range.
3. Turn the adjusting plate ① to the left, decrease its moving range.

◇ Adjusting the thread take-up spring tension

1. Loosen setscrew ③, and turn the tension stud ④ over toward left to increase tension.
2. Turn it to the right, decrease tension.
3. After adjustment, securely tighten the setscrew.

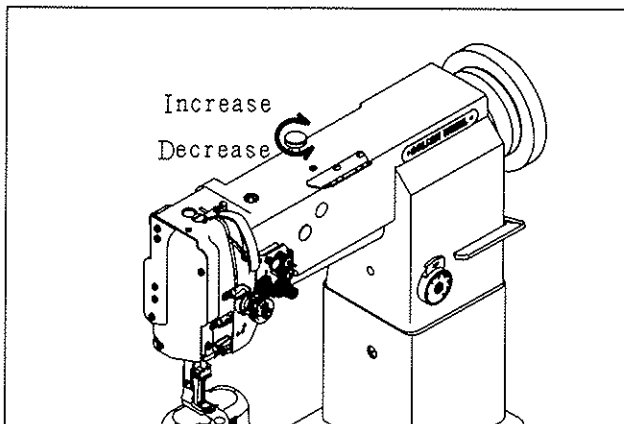
11. LIFTING THE PRESSER FOOT



1) Turn the hand lifter ① toward A, presser foot lifts 8 mm.

2) Using the knee lever, presser foot lifts 16 mm.

12. ADJUSTING THE PRESSER FOOT PRESSURE



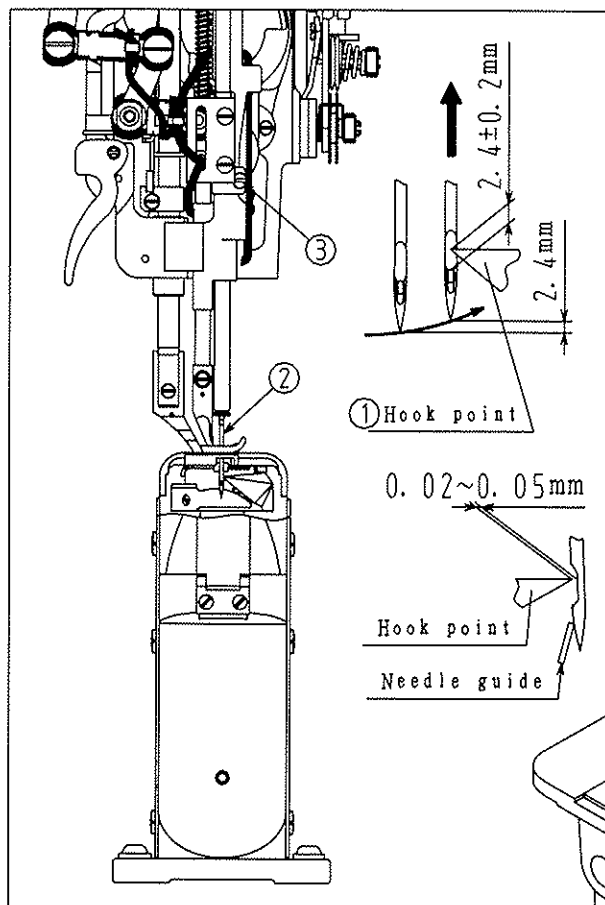
1) Turn the presser spring regulator to the right to increase and to the left to decrease pressure.

13. NEEDLE-TO-HOOK RELATIONSHIP



CAUTION

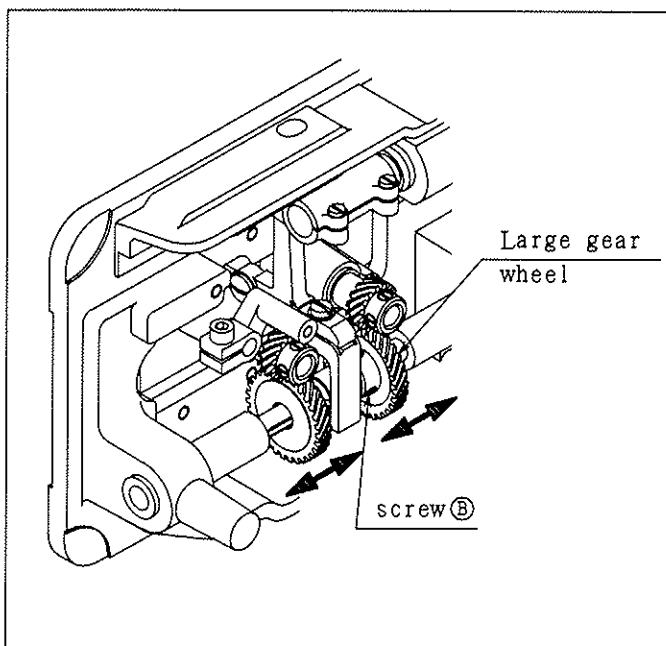
TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



- 1) Set stitch length to "6" on the stitch length dial.
- 2) Bring the needle bar down to its lowest point.
- 3) Bring the needle bar up to 2.4mm from its lowest point turning the handwheel.
- 4) Adjust the distance between the top edge of needle eyelet and hook point ① to 2.4mm when hook point nearly meet the center of needle, then tighten the needle bar clamp set-screw ③.

◇The needle-to-hook clearance

- 5) Bring the needle bar up to 2.4mm from its lowest point turning handwheel.
- 6) Adjust the clearance between needle ② and hook point ① to 0.02 to 0.05mm. To adjust the hook saddle, loosen setscrew ④ (8 places), and loosen hook saddle setscrew ⑤ (4 places), and then tighten screws.



○ Position adjustment of hook point

To finely adjust timing between the needle motion and hook motion, loosen the set screw of large gear wheel and move the gear wheel in its axial direction within a range from 1 mm to 2 mm.

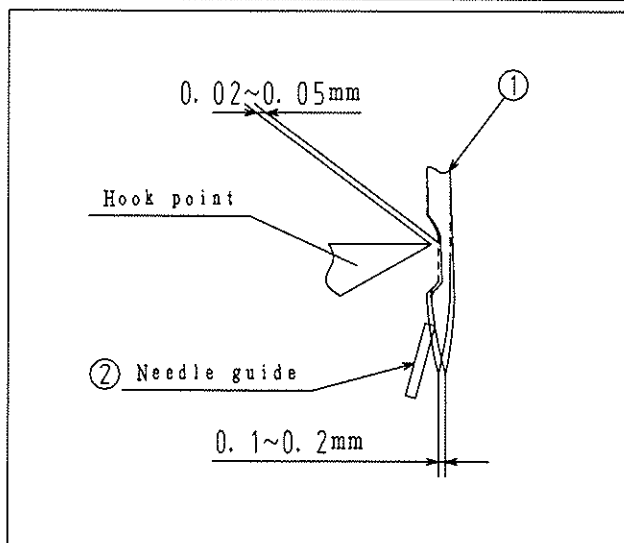
Note: In the adjustment, do not excessively loosen set screws ⑥ and always maintain meshing of hook shaft gear and lower shaft gear.

14. ADJUSTING THE NEEDLE GUIDE



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



★Confirm the position of the needle guide in the hook when you changed the hook.

The needle ① is a slight bend to 0.1 to 0.2 mm by needle guide ②

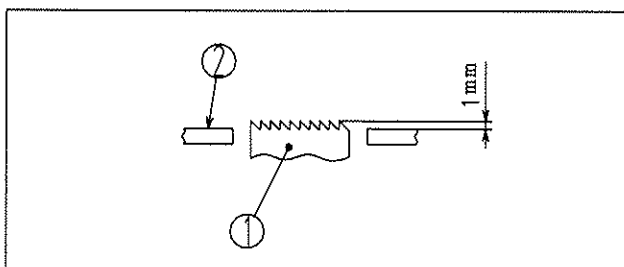
Adjust the needle guide position to inside or outside direction using screwdriver.

15. HEIGHT OF THE FEED DOG



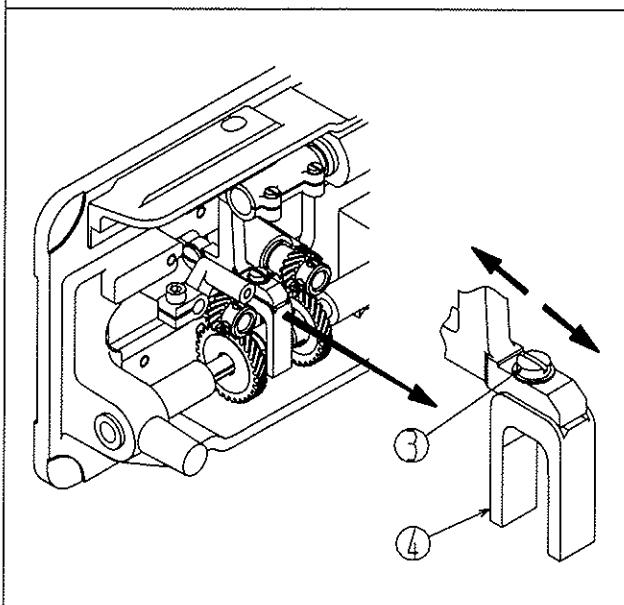
CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



Feed dog ① is factory-adjusted to jut out 1.0mm from the surface of throat plate ②. When the feed dog height needs to be adjusted according to the sewing specifications or after the feed dog is replaced, do as follows:

- 1) Loosen the screw ③.
- 2) Move the feed bar ④ up or down to perform adjustment, then securely tighten the screw

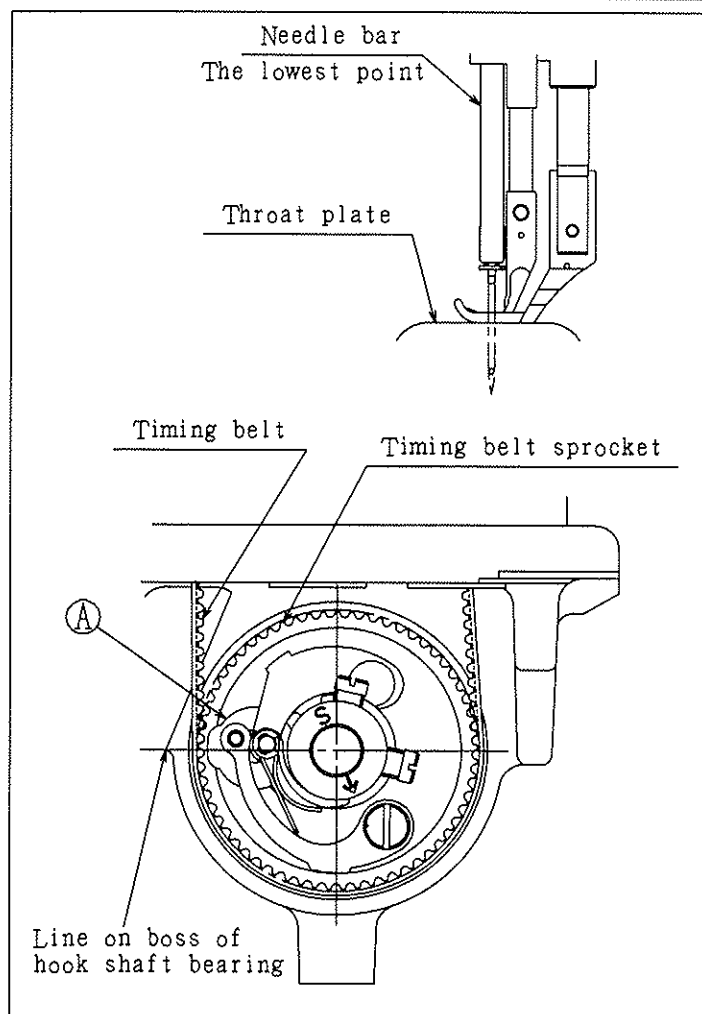


16. RELATIONSHIP BETWEEN ROTATING HOOK MOTION AND NEEDLE MOTION



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



When the timing belt was removed for its replacement, for example, the relationship between rotating hook motion and needle bar motion should be adjusted as follows:

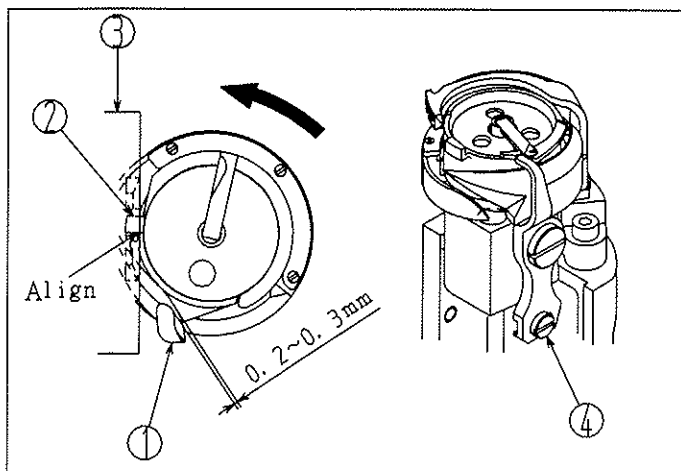
- (1) Set stitch length to "6" on the stitch length dial.
- (2) Bring the needle bar down until its lowest point.
- (3) Lean the machine head backward and make sure (A) (the counterbore hole center on the sprocket) is in line with the line on the boss of hook shaft bearing.
- (4) If (A) is not at right position, remove the timing belt and install it again to adjust.

17. HOW TO ADJUST THE BOBBIN CASE OPENING LEVER



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



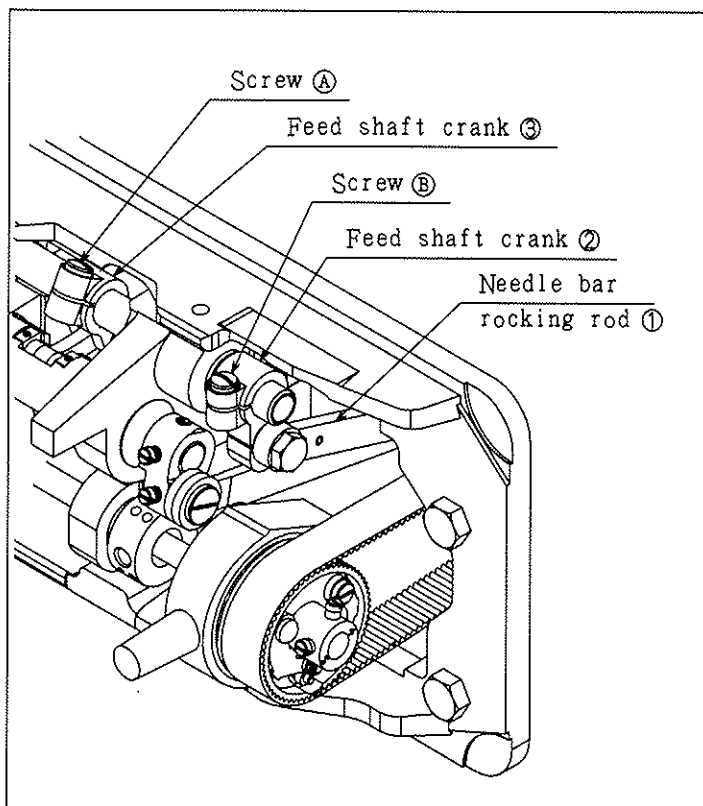
- 1) Turn the handwheel by hand, and bring the bobbin case opening lever (1) until it will go no further.
- 2) Align the inner hook (2) to the throat plate (3), and then turning inner hook (2) counterclockwise by hand.
- 3) Loosen the screw (4), adjust the clearance between bobbin case opening lever and projection of the bobbin case to 0.2 to 0.3 mm, then securely tighten the screw (4).

18. RELATIONSHIP BETWEEN NEEDLE MOTION AND FEED DOG MOTION



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-
XPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION
OF THE MOTOR BEFORE OPERATIONS.



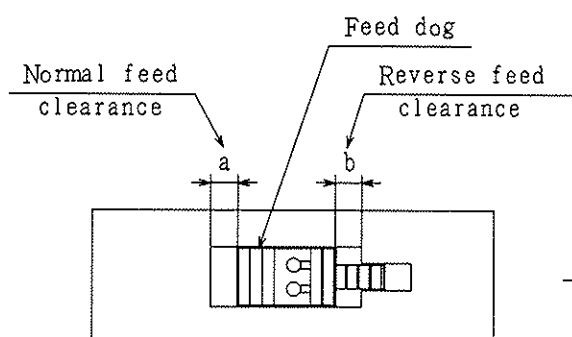
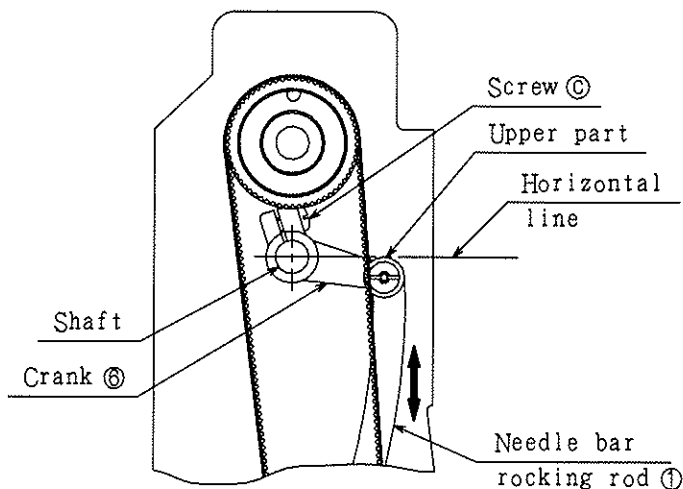
The feed dog should be adjusted so that the needle can plunge into the feed dog needle hole at the center of the hole.

- (1) Set stitch length to "0" on the stitch length setting dial.
- (2) Lean the machine head backward.
- (3) Loosen the feed shaft crank set screw (A) and (B).
- (4) Set the needle at the lowest position.
- (5) Adjust the distance between the pressure bar (4) and the Vibrating presser bar (5) to be 8 mm and tentatively tighten the screw (A) and (B) of the feed shaft crank.
- (6) Set stitch length to "0". Turn the handwheel toward a revolution. Confirm the upper part of the crank (6) align with horizontal line of shaft when the needle bar is its lowest position.

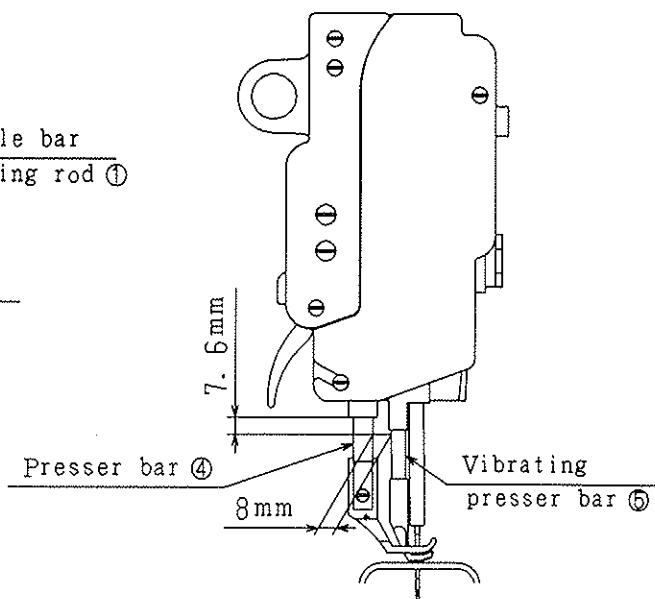
● Confirm normal feed clearance equal reverse feed clearance at stitch length 6 mm.

● If the connection is not at right position, remove the back cover, loosen the screw (C) and move the needle bar rocking rod (1) in the arrow direction, and adjust.

- (7) After the completion of adjustment, fully tighten the screws (A), (B) and (C).



$$a \div b$$

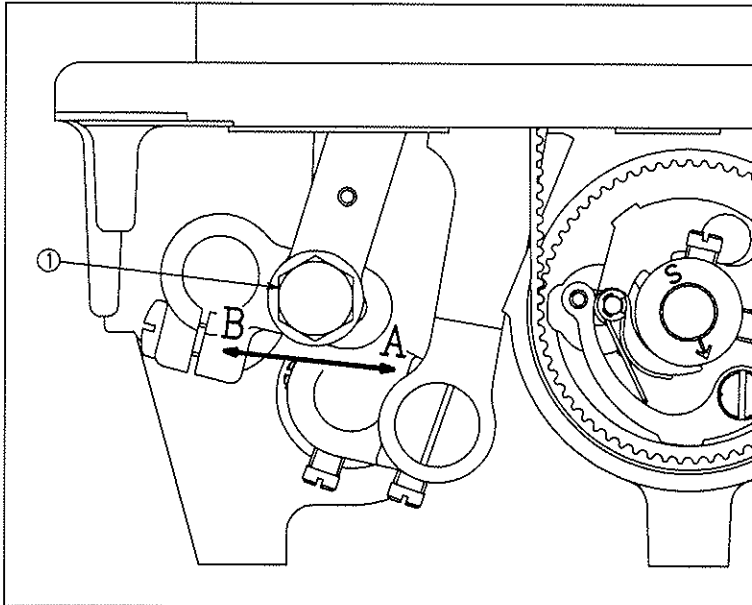


19. DIFFERENTIAL FEED MOTION OF THE NEEDLE BAR FRAME



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



- 1) Loosen hinge screw ①. As you move it in direction "A", the stroke of the needle bar frame is increased, and differential feed with respect to the feed dog is provided. As you move it in direction "B", the stroke is decreased.

Precaution

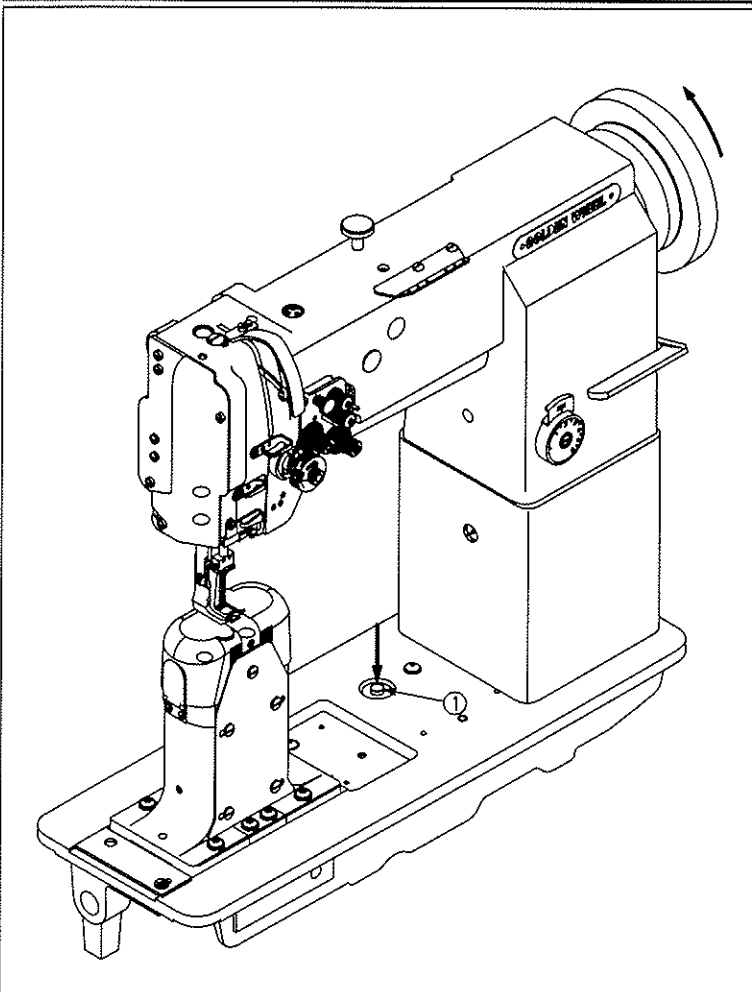
Be sure to make this adjustment within the needle hole in the feed dog.)

20. RE-ENGAGE SAFETY CLUTCH MECHANISM



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



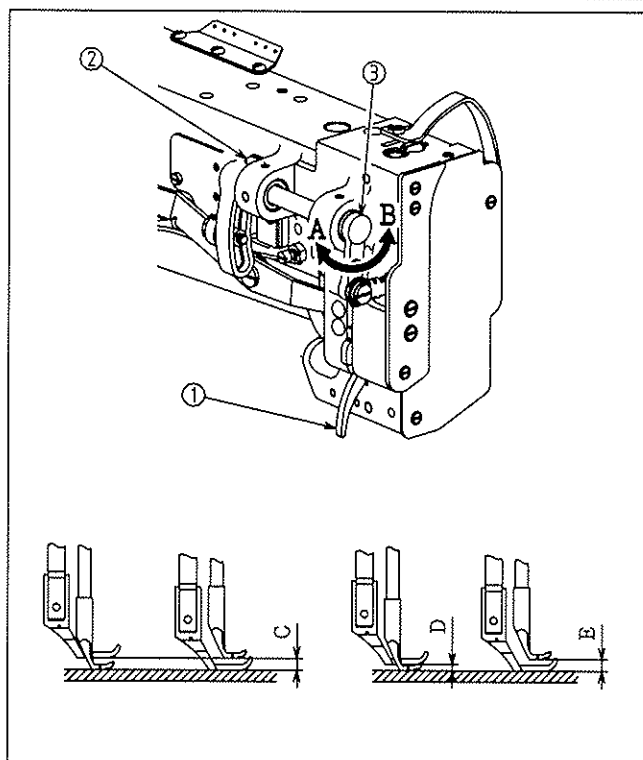
- 1) Remove any foreign matter which may have lodged in hook. Do not use any sharp-edged tools.
- 2) Pressing button ① and turn hand wheel rearward slowly to re-engage safety clutch.

21. ADJUSTING THE WALKING FOOT



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



◇ Alternate vertical motions of the walking foot and the presser foot

- 1) The alternate vertical stroke of the walking foot and the presser foot are normally equal.
- 2) Depending on the type of material however, the vertical stroke of the presser foot and walking foot should be changed.
- 3) For instance, when sewing slippery material or sewing many overlapping sections, a better result may be obtained by adjusting the vertical stroke of the walking foot larger than that of the presser foot.

1 Turn the handwheel by hand until the thread take-up reaches its lowest point.

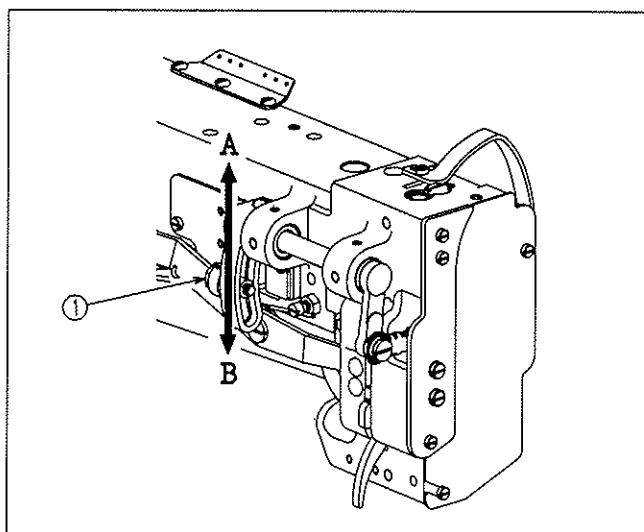
2 Lower hand lifter ①.

3 Loosen screw ②.

4 As you move top feed crank ③ to the left (in direction A), the vertical stroke of the presser foot decreases "D", whereas the vertical stroke of the walking foot increases "E".

5 On the contrary, as you move the top feed crank to the right (in direction B), the vertical stroke of the walking foot becomes closer "C" to that of the presser foot when the walking foot sole in contact with the throat plate surface.

6 After adjustment, securely tighten screw ②.



◇ Height of the walking foot and the presser foot

- 1) When sewing elastic material or overlapping sections, a better result may be obtained by changing the height of the presser foot and walking foot.

1 Loosen hinge screw ①.

2 When you move the cam rot boss toward "A" within the slot, the height is increased.

3 When you move it toward "B", the height is decreased.

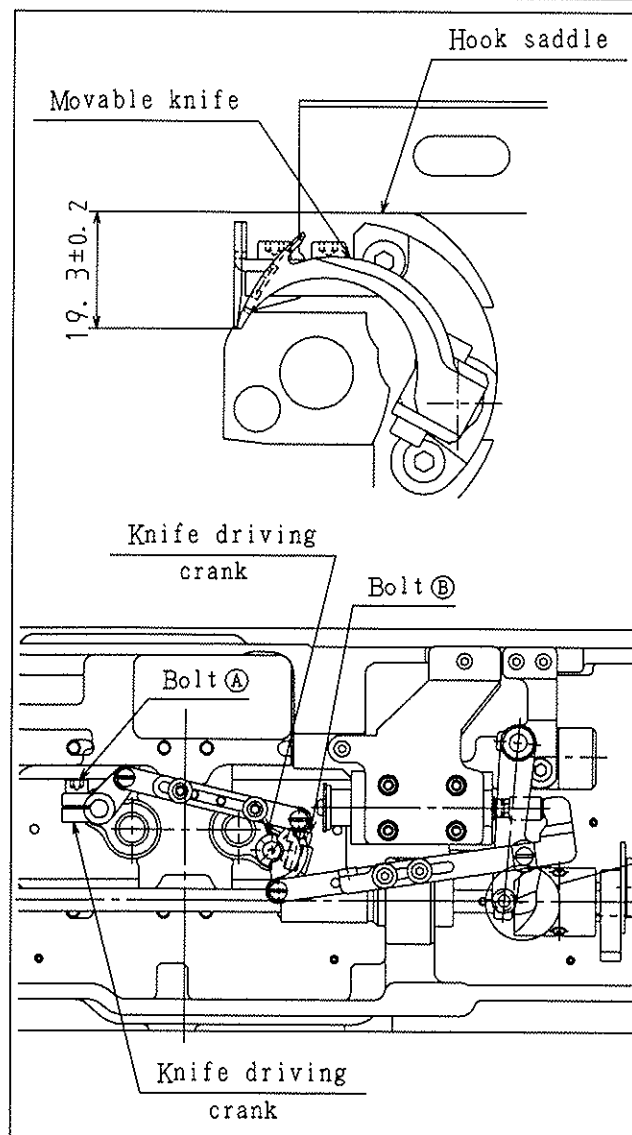
4 After adjustment, securely tighten hinge screw ①.

22. INSTALLATION OF MOVABLE KNIFE AND THE FIXED KNIFE



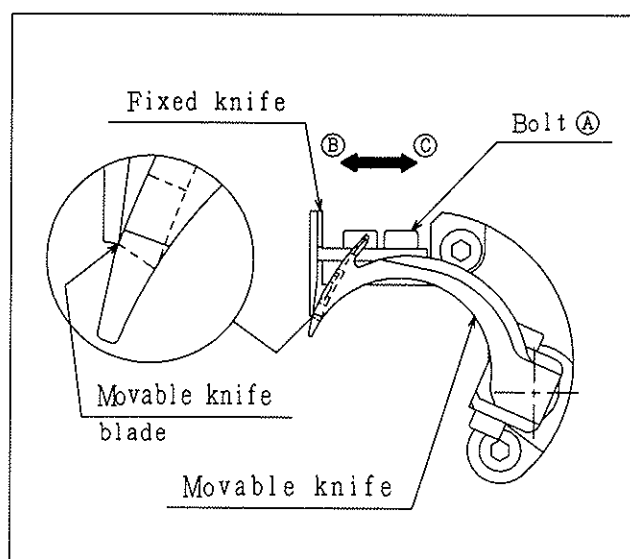
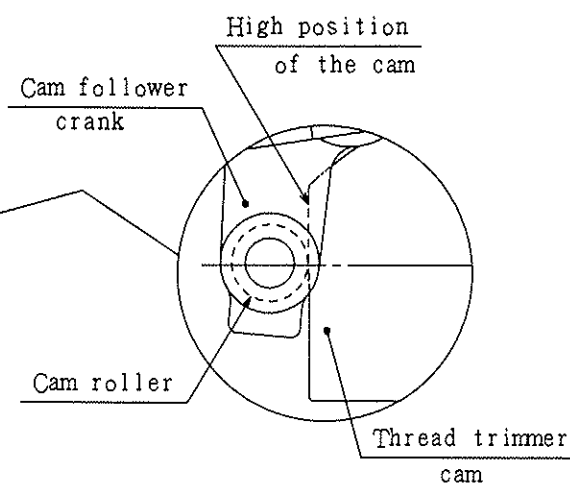
CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



1 Initial position of movable knife


- (1) Turn the handwheel and lower the needle bar to the lowest position.
- (2) Push the cam follower crank so that the cam roller contact high position of the cam.
- (3) Loosen the knife driving crank clamp bolts (A) and (B).
- (4) Adjust the distance between the top edge of movable knife and hook saddle to 19.3 mm, then tighten the bolts (A) and (B).

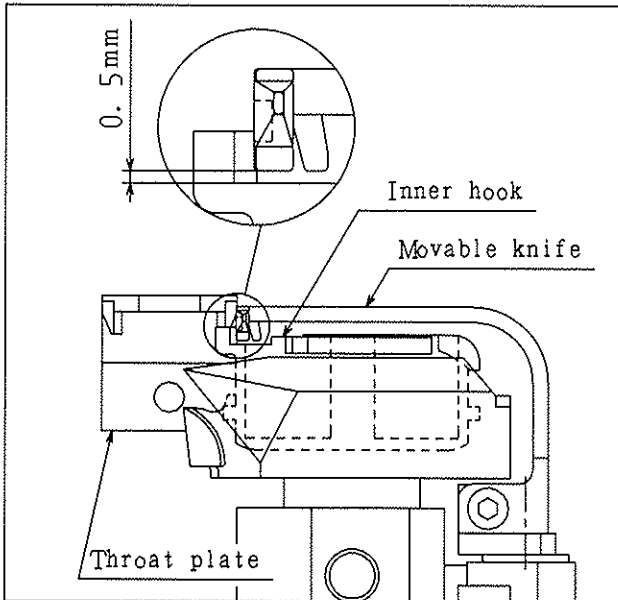


2 Adjusting position of fixed knife

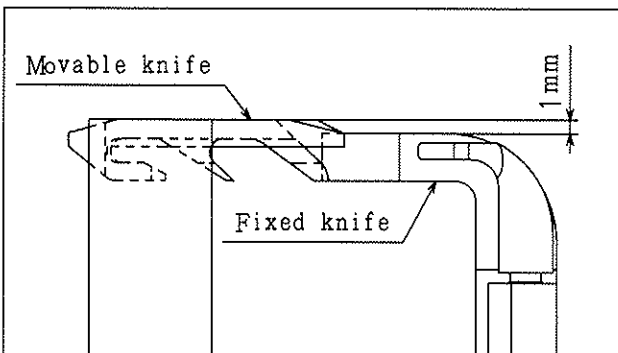
- (1) Loosen the fixed knife clamp bolts (A).
- (2) Adjust the fixed knife to move in direction (B) or (C) as illustrated, then tighten the bolts (A).

23. HEIGHT OF THE MOVABLE KNIFE AND FIXED KNIFE

 CAUTION	TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.
--	--




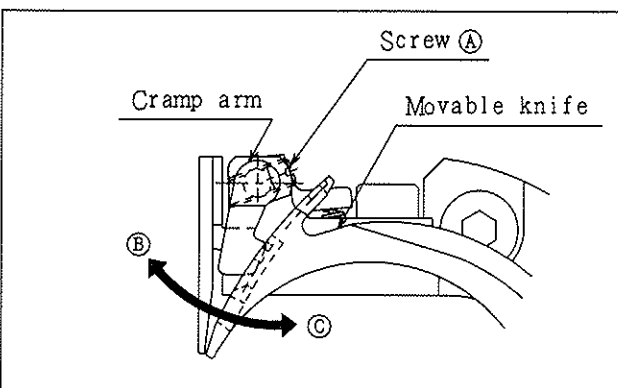
Height of the movable knife is between the movable knife and inner hook to 0.5 mm.



Height of the fixed knife is between the fixed knife and movable knife to 1 mm.

24. ADJUSTMENT OF CRAMP ARM

 CAUTION	TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.
--	--



(1) Loosen the screw (A).

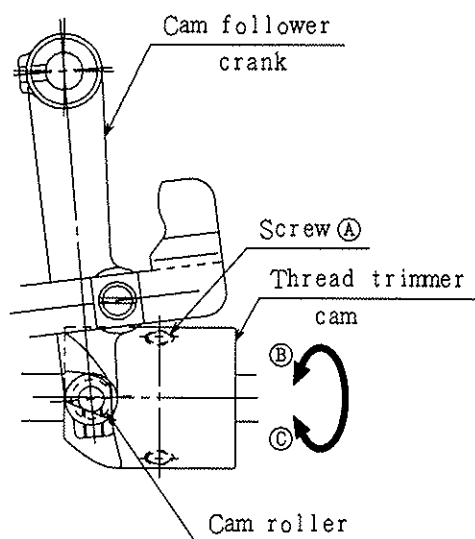
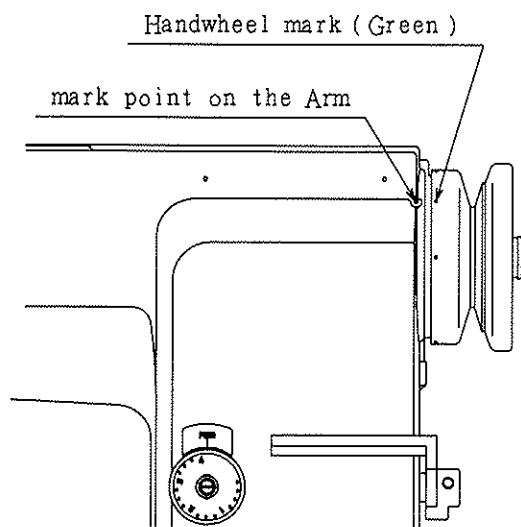
(2) Adjust the cramp arm to move in direction (B) or (C), then tighten the screw (A).

25. ADJUSTMENT OF THREAD TRIMMER CAM



CAUTION

TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



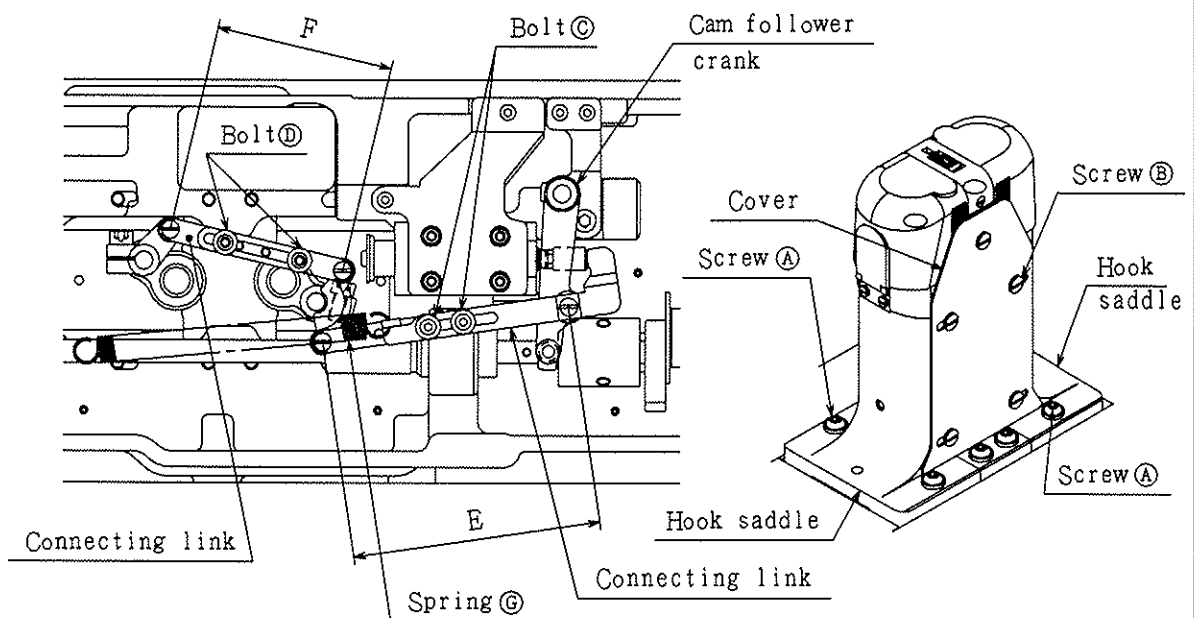
- (1) Turn the handwheel by hand until the needles reach the lowest position.
- (2) Maintaining the needle position, depress the cam follower crank and put the cam roller contact the thread trimmer cam.
- (3) Turning the handwheel by hand, adjust the thread trimmer cam to move in direction B or C so that the thread trimming when the green mark point on the handwheel comes in line with the mark point on the arm.
To adjust, loosen two thread trimmer cam clamp screws A (2 places).

26. ADJUSTMENT FOR CHANGE OF NEEDLE GAUGE (FOR CS-8350/-BT)



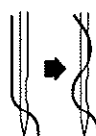
CAUTION TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNE-EXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.

- (1) Replace the throat plate, feed dog and needle clamp.
(Since the throat plate and feed dog are special parts designed for thread trimming machine, be sure to use those specified by us.)
- (2) Lean the machine head backward.
- (3) Loosen four connecting link clamp bolts (C) and (D).
- (4) Remove the spring (G).
- (5) Loosen the hook saddle clamp screws (A) and cover clamp screws (B) and adjust gap between each needle and hook. Then tighten the screw (A) and (B).
- (6) When the needles and hooks have been adjusted, install the spring (G).
- (7) Adjusting the connecting link "D"mm and "E"mm as shown below.
- (8) tighten the connecting link clamp bolts (C) and (D).



Gauge Size	E (mm)	F (mm)
1/8 (3.2mm)	108.6 \pm 0.2	79.4 \pm 0.2
5/32 (4.0mm)	108.2 \pm 0.2	80.1 \pm 0.2
3/16 (4.8mm)	107.8 \pm 0.2	80.9 \pm 0.2
1/4 (6.4mm)	107 \pm 0.2	82.4 \pm 0.2
5/16 (8.0mm)	106.2 \pm 0.2	84 \pm 0.2
3/8 (9.5mm)	105.4 \pm 0.2	85.5 \pm 0.2
1/2 (12.7mm)	103.9 \pm 0.2	88.63 \pm 0.2

27. TROUBLE AND CORRECTIVE MEASURES

Trouble	Causes	Corrective measures
1. Thread breakage (Thread frays or wears out.) Needle thread remains 2 to 3 cm on the wrong side of the cloth.)	<ul style="list-style-type: none"> ① The thread path, needle point, hook point or bobbin case positioning finger has scratches. ② The needle thread tension is too high. ③ The bobbin case opening lever clearance is too large. ④ The needle hits the hook point. ⑤ The needle thread tension is too low. ⑥ The thread take-up spring has an excessively high tension while it has an excessively small stroke. ⑦ The timing between the needle and hook is too early or late. 	<ul style="list-style-type: none"> ○ Remove the scratches on the hook point using a fine sand paper. Buff the bobbin case positioning finger. ○ Properly adjust the needle thread tension. ○ See '18 HOW TO ADJUST THE BOBBIN CASE OPENING LEVER'. ○ See '14 NEEDLE-TO-HOOK RELATIONSHIP'. ○ Properly adjust the needle thread tension. ○ Decrease the tension, and increase the stroke. ○ See '14 NEEDLE-TO-HOOK RELATIONSHIP'.
2. Stitch skipping	<ul style="list-style-type: none"> ① The clearance between the needle and the hook point is too large. ② The timing between the needle and hook is too early or late. ③ The presser foot pressure is too low. ④ The clearance between the top edge of the needle eyelet and the hook point is not correct. ⑤ The bobbin case opening lever clearance is too large. ⑥ The size of the needle is wrong. ⑦ A synthetic fiber thread or thin thread is used. 	<ul style="list-style-type: none"> ○ See '14 NEEDLE-TO-HOOK RELATIONSHIP'. ○ See '14 NEEDLE-TO-HOOK RELATIONSHIP'. ○ Increase the presser foot pressure. ○ See '14 NEEDLE-TO-HOOK RELATIONSHIP'. ○ See '18 HOW TO ADJUST THE BOBBIN CASE OPENING LEVER'. ○ Replace the needle by one which one grade thicker. ○ Wind the thread round the needle as illustrated. 
3. Loose stitches	<ul style="list-style-type: none"> ① The thread has not been passed through the notch of the bobbin case tension spring. ② The thread path is poorly finished. ③ The bobbin does not rotate smoothly. ④ The bobbin case opening lever clearance is too large. ⑤ The bobbin thread tension is too low. ⑥ The bobbin thread has been wound too tight. 	<ul style="list-style-type: none"> ○ Properly thread the bobbin case. ○ Grind it using a fine sand paper or a buff. ○ Replace the bobbin or hook. ○ See '18 HOW TO ADJUST THE BOBBIN CASE OPENING LEVER'. ○ Properly adjust the tension. ○ Decrease the bobbin thread winding tension.
4. The thread slips off the needle when being trimmed	<ul style="list-style-type: none"> ① The tension of the auxiliary thread tension controller is too high. ② The thread trimming timing is too early. ③ The returning force of the thread take-up spring is too high. 	<ul style="list-style-type: none"> ○ Decrease the tension. ○ See '24 ADJUSTMENT OF THREAD TRIMMER CAM'. ○ Adjust the high of the thread take-up spring.
5. The needle thread cannot be trimmed, while the bobbin thread can be trimmed	<ul style="list-style-type: none"> ① The last stitch has been skipped. (The clearance between the needle and the hook is too large.) 	<ul style="list-style-type: none"> ○ See '14 NEEDLE-TO-HOOK RELATIONSHIP'.
6. Both needle and bobbin threads cannot be trimmed	<ul style="list-style-type: none"> ① The thread trimming timing is wrong. ② The knife has been damaged. ③ The knife pressure is inadequate. ④ The home position of the movable knife is inaccurate. ⑤ The movable knife fails to work. ⑥ The thread trimming solenoid fails to work. 	<ul style="list-style-type: none"> ○ See '24 ADJUSTMENT OF THREAD TRIMMER CAM'. ○ Replace the knife. ○ Increase the knife pressure. ○ See '24 ADJUSTMENT OF THREAD TRIMMER CAM'. ○ Check it by actuating it by hand. ○ Check the motor solenoid for proper operation.
7. Thread cannot be trimmed sharply	<ul style="list-style-type: none"> ① The thread trimming timing is wrong. ② The knife pressure is inadequate. ③ The knife blade is blunt. 	<ul style="list-style-type: none"> ○ See '24 ADJUSTMENT OF THREAD TRIMMER CAM'. ○ Increase the knife pressure. ○ Replace the knife.

GOLDEN WHEEL **CHEE SIANG INDUSTRIAL CO., LTD**
啓翔股份有限公司 No. 32, Wu Chuan 7th Road, Wu Ku Industrial Area,
Wu Ku Hsiang 24248, Taipei Hsien, Taiwan
Tel:886-2-22999518 Fax:886-2-22999519

※ Appear and specification listed in this instruction manual are subjected to change without notice.

04 . 03 printed in Taiwan