



CONSOLIDATED SEWING MACHINE CORP.

— INDUSTRIAL SEWING & CUTTING EQUIPMENT

INSTRUCTION MANUAL

2040

2050

2050	1-NEEDLE, UNISON-FEED, CYLINDER BED, LOCK STITCH MACHINE WITH SEMI-ROTARY LARGE CAPACITY SHUTTLE FOR EXTRA HEAVY-WEIGHT MATERIALS.
INSTRUCTION MANUAL	

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.

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 500 s.p.m. or less.

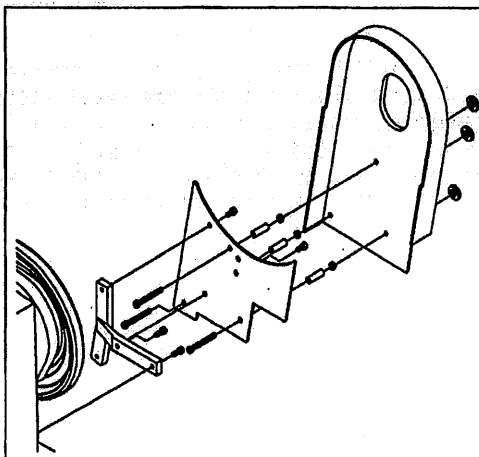
CAUTIONS IN OPERATION

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 fingers 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, belt cover 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

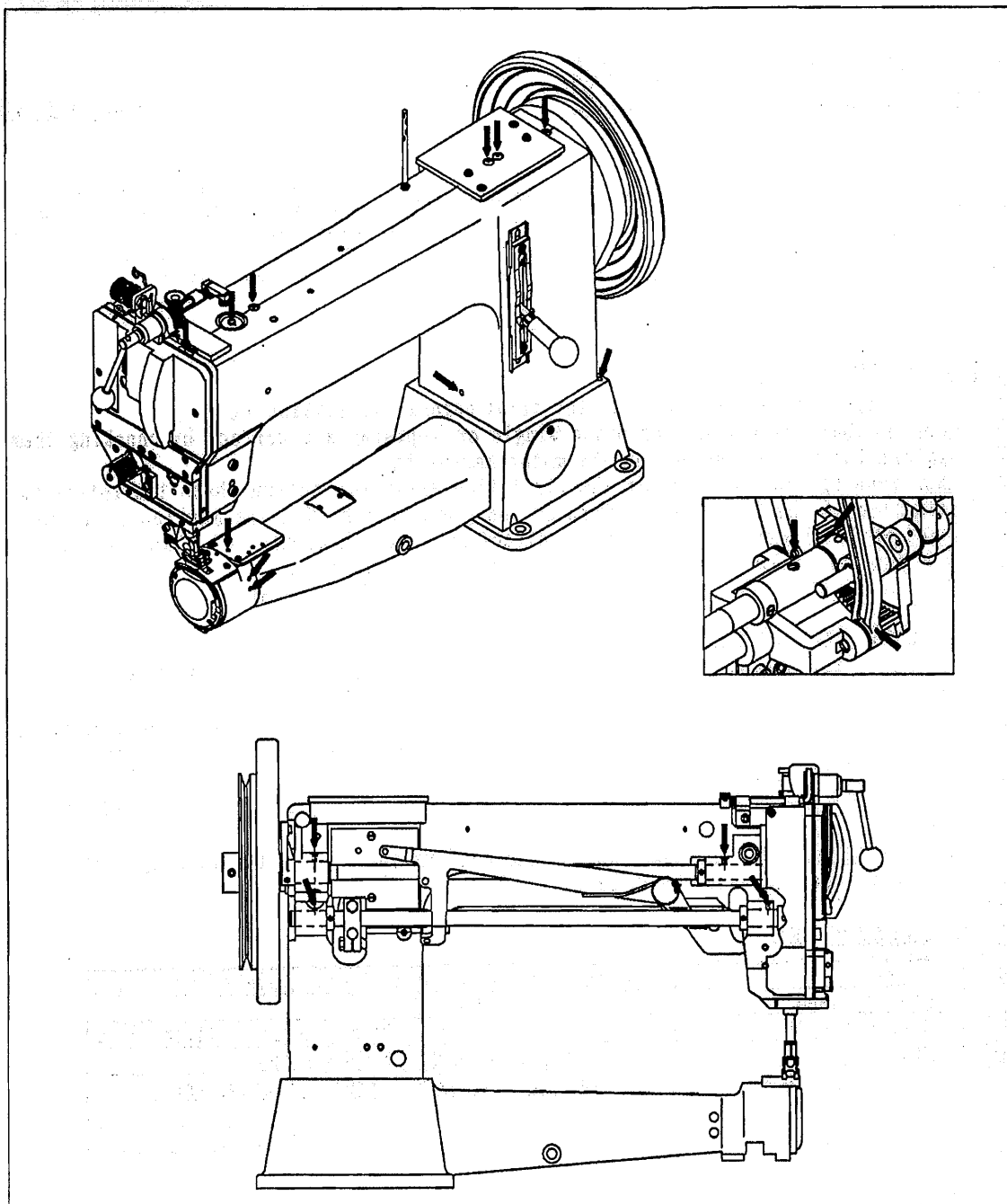
Usage	Bags, Pouches, Bag handles, Shoes, Safety belts, etc.
Sewing speed	Max. 800 s.p.m.
Stitch length	Forward stitch: 10 mm, Reverse stitch: 10 mm
Needle	Schmetz 794 Nm200 (Nm130~Nm280)
Lift of presser foot	Hand lifter: 12 mm, Knee lifter: 20 mm
Upper feed stroke max.	10 mm
Lubricating oil	Machine oil (white spindle oil)

1. INSTALLING THE BELT COVER



Attach the belt cover with screws as shown in the figure.

2. LUBRICATION



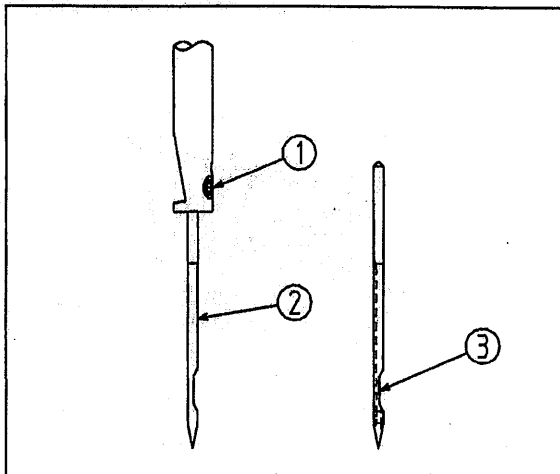
- 1) After uncrating, supply oil to the machine after cleaning it thoroughly.
- 2) When oiling all the sections requiring lubrication, after installation of the machine has been completed, wait for a while (approximately 10 minutes) so that oil can penetrate each section sufficiently before starting continuous operation.
- 3) To operating the machine continuously, apply two to three drops of oil to each section noted with an arrow mark in the following figure whenever starting operation in the morning and in the afternoon.

3. HOW TO INSTALL THE NEEDLE



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.



◆BE SURE TO POWER-OFF THE MOTOR

The normal needle system is a Schmetz 794, however an Organ DYX3 can be used

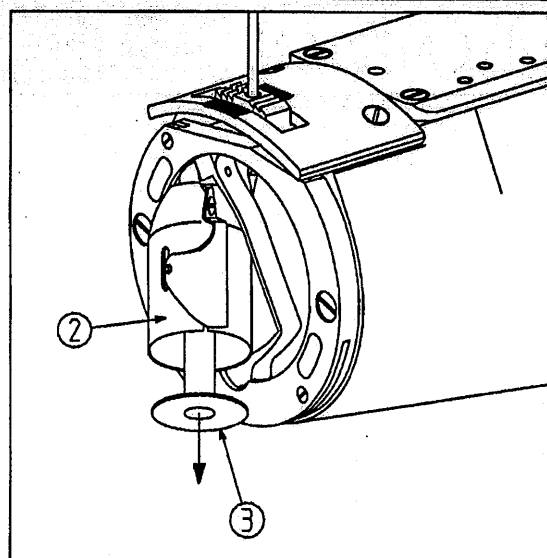
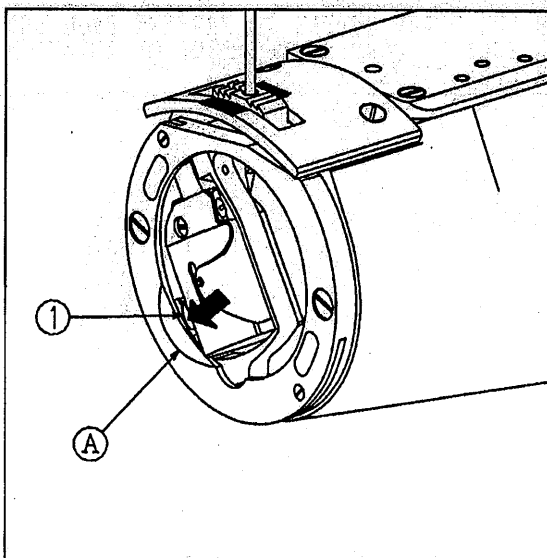
- 1) Turn the handwheel by hand and raise the needle bar to its top position
- 2) Loosen screw ① and insert the needle ② into the hole until it will go no further.
◆Insert the needle with its recess ③ facing directly to the right-hand side
- 3) Securely tighten the screw in the needle.

4. HOW TO TAKE OUT THE BOBBIN



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.



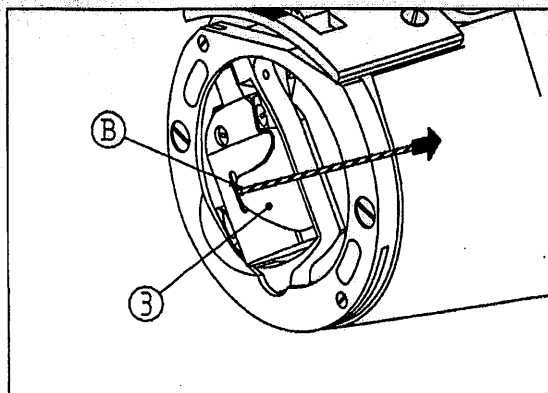
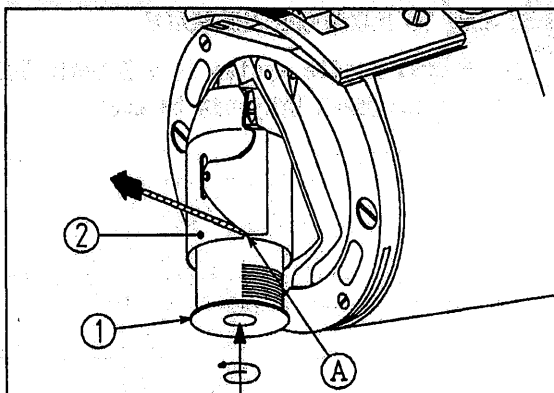
- 1) Turn the handwheel by hand (until the needle bar comes down to the lowest point of its stroke) so that case retaining spring ① in the shuttle body come to recess A in the cover of the shuttle race body.
- 2) When the case retaining spring is pressed, the bobbin case ② will be opened and the bobbin ③ will pop out of the case.

5. HOW TO INSTALL THE BOBBIN



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.



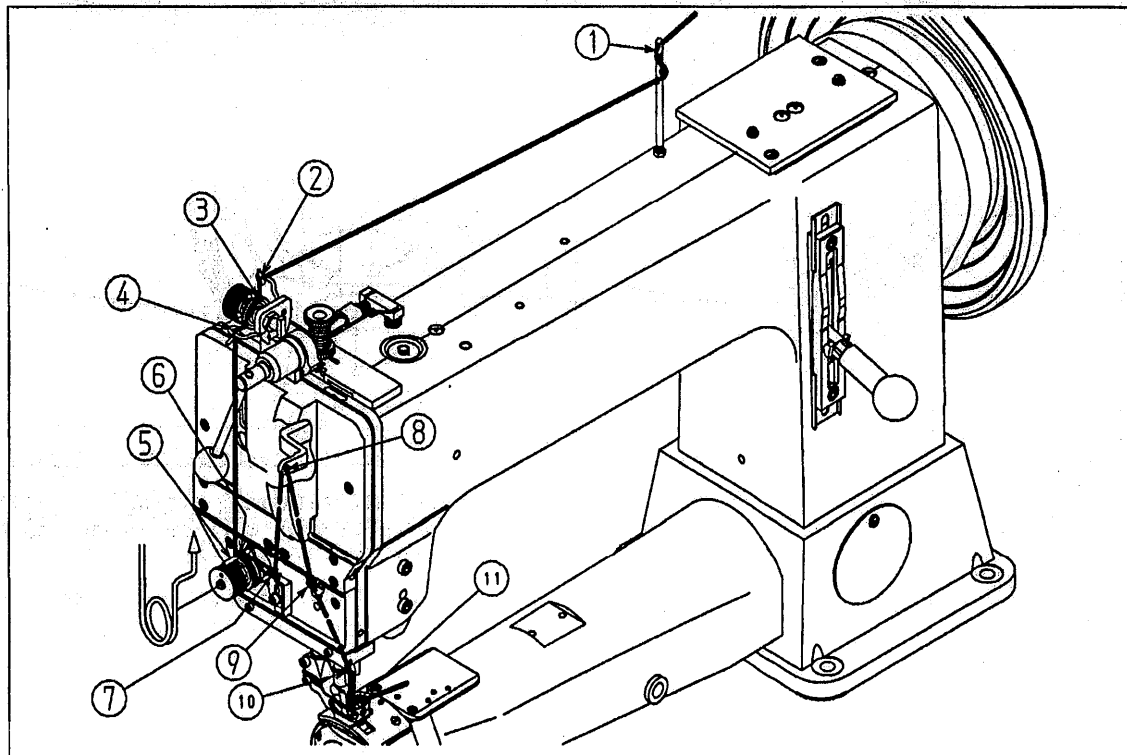
- 1) After pulling out thread approximately 10 cm from bobbin ①, put the bobbin into bobbin case ②.
- 2) Pass the thread through the threading groove ④ in the bobbin case.
Caution Fit the bobbin in the bobbin case so that the bobbin turns in the direction of the arrow when the bobbin thread is pulled.
- 3) Pass the thread through thread slit ⑤ and pull it up. Then the thread can be passed under the thread tension spring ③ and pulled out.
- 4) Push the bobbin case into the original position of holding the bobbin.

6. HOW TO THREAD THE MACHINE HEAD



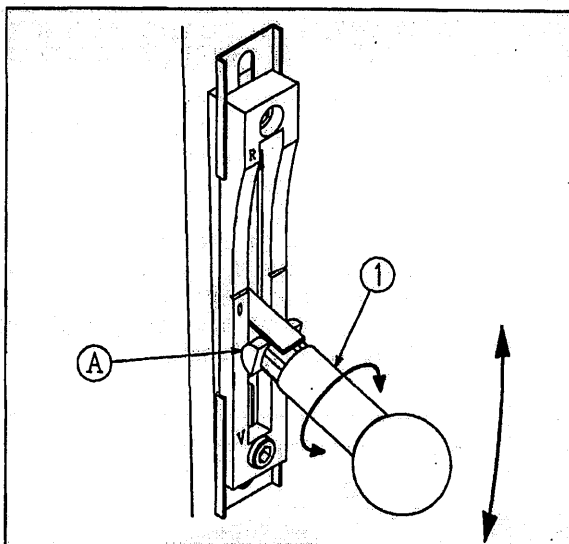
CAUTION

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.



- 1) Turn the handwheel by hand to move the thread take-up lever to its top position.
- 2) Thread in the order illustrated and thread the needle from the left to the right.
- 3) Pull out the thread, which has been threaded in the needle, approximately 10 cm.

7. ADJUSTING THE STITCH LENGTH AND REVERSE STITCHING



◆Adjusting the stitch length

To adjusting the stitch length, use the feed-regulator grip ①.

Align the upper end (A) of the feed lever to the scale indicating the desired amount.

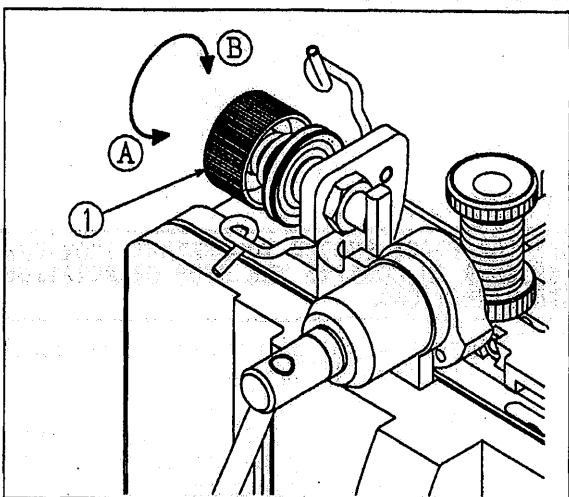
To increase the pitch, turn the grip counterclockwise.

To decrease the pitch, turn the grip clockwise. (To decrease the stitch length, turn the grip while slightly pushing the feed lever up.)

8. 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.

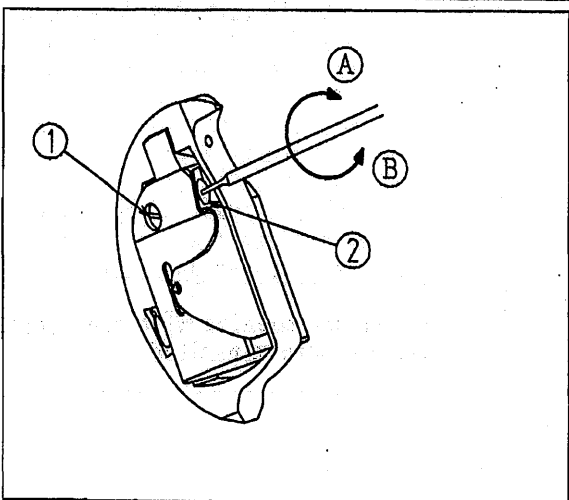


◆Adjusting the needle thread tension

Adjust the needle thread tension by thread tension nut ①.

To increase the needle thread tension, turn the nut to the clockwise (A).

To decrease the needle thread tension, turn the nut to the counterclockwise (B).



◆Adjusting the bobbin thread tension

To adjusting the bobbin thread tension.

1) Loosen screw ①.

2) Adjust the bobbin thread tension by turning screw ②.

To increase the bobbin thread tension, turn the screw to the clockwise (A).

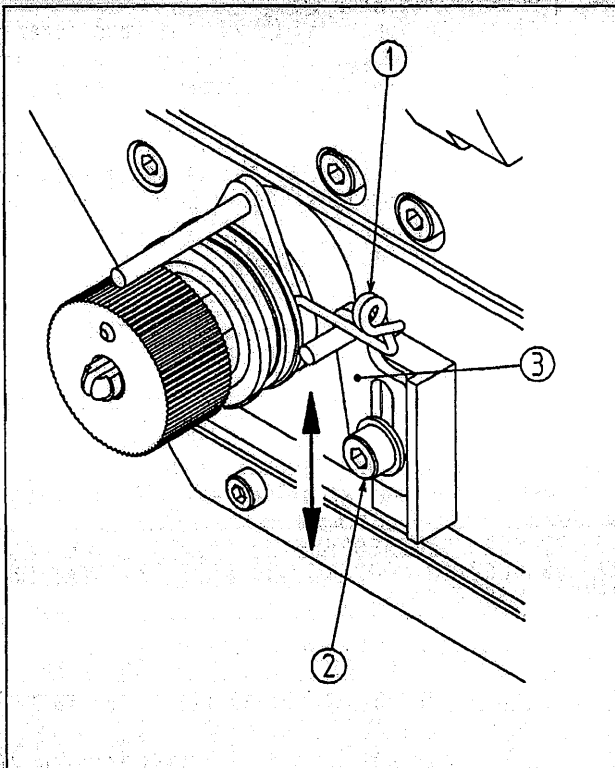
To decrease the bobbin thread tension, turn the screw to the counterclockwise (B).

3) After the bobbin thread tension has been adjusted, tighten screw ① firmly.

9. THE THREAD TAKE-UP SPRING



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.



The normal stroke of thread take-up spring ① is 10 to 14 mm

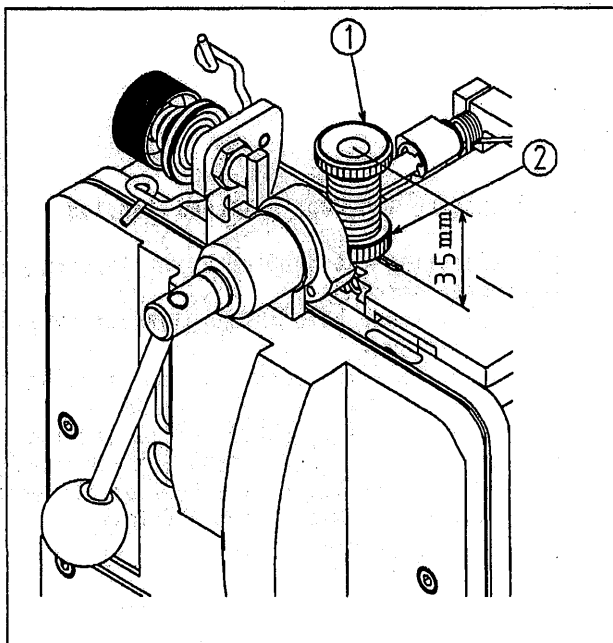
To adjust the operating range:

- 1) Loosen screw ②.
- 2) Adjust the operating range by moving thread the take-up spring adjusting plate ③ up and down
- 3) After adjustment has been completed, tighten screw ② firmly.

10. ADJUSTING THE PRESSER FOOT PRESSURE



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.



Normal height of presser spring regulator ① is 35 mm.

The intermediate presser foot pressure can be adjusted according to the type of material to be used

To adjust the presser foot pressure, follow the procedure stated below

- 1) Loosen the nut of presser spring regulator ②.
- 2) Turn the regulator ① clockwise to increase the pressure, or counterclockwise to decrease it.
- 3) After the adjustment, tighten the nut ② so that regulator is securely fixed at the proper position

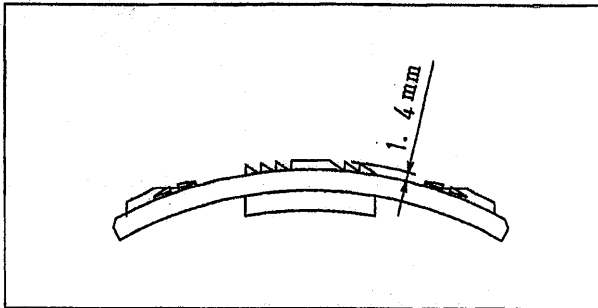
◆ Operate the machine with the presser foot pressure minimized

11. ADJUSTING THE HEIGHT OF THE FEED DOG

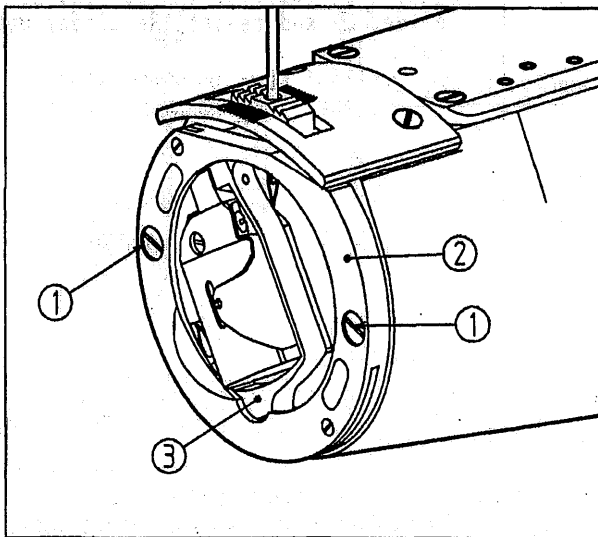


CAUTION

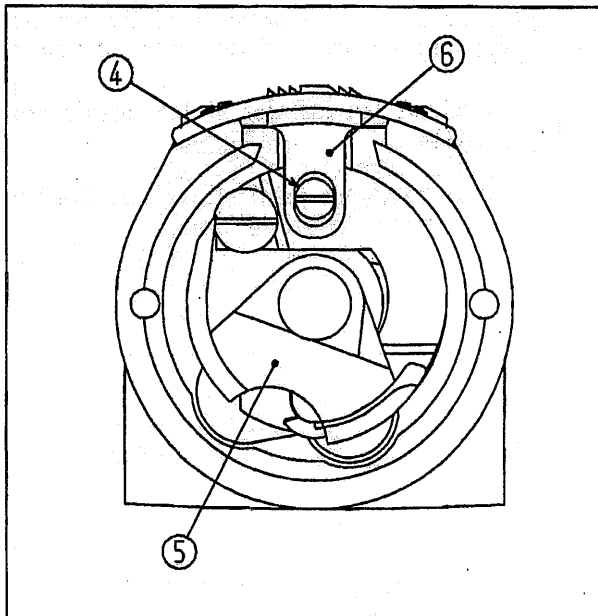
TURN THE SWITCH OFF THE POWER SUPPLY TO PREVENT FROM UNEXPECTED INJURY. BE SURE TO CONFIRM THE STOP OF ROTATION OF THE MOTOR BEFORE OPERATIONS.



The advance amount of the feed dog from throat plate has already been adjusted to 1.4 mm.



To adjust the height of the feed dog according to the sewing condition given,
1) Remove two screws ① in the shuttle race, and remove shuttle race ②. Then remove shuttle ③.



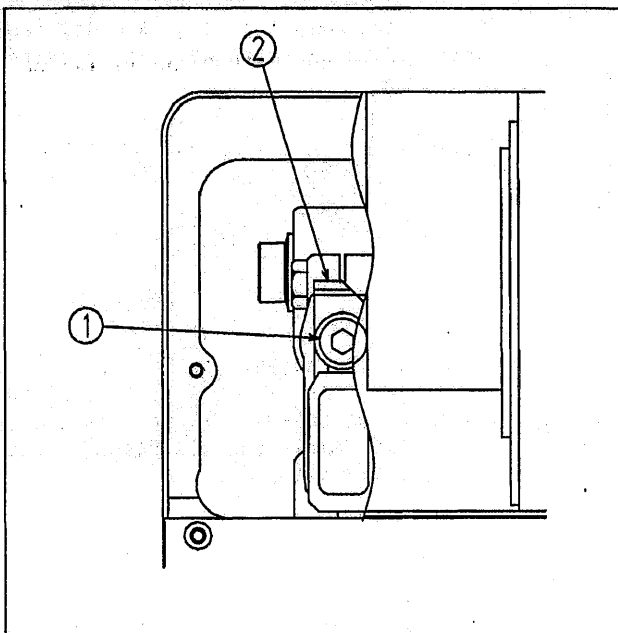
- 2) Turn the handwheel to move shuttle driver ⑥ until screw ④ in the feed dog appears.
- 3) Loosen screw ④ in the feed dog and adjust the height of the feed dog by moving feed dog ⑥ up or down.
- 4) After the adjustment, firmly tighten screw ④ in the feed dog.

12. STROKE HIGHT OF 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.



The walking foot and presser foot have a maximum stroke of 10 mm. The maximum hight has been set in the factory.

By varying thickness of material (cross-seams) during a sewing run, the presser foot stroke should be adjusted to the thickest material.

To adjust:

- 1) Loosen screw ①.
- 2) Insert screwdriver in the slot of the slider ② and re-set the slider upwar-

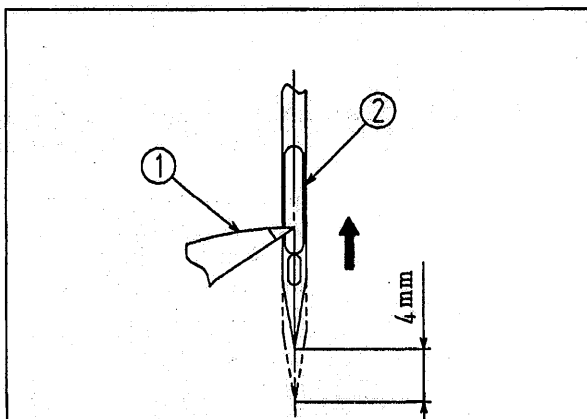
ds.
 slider up :minmm stroke
 slider down :maximum stroke

13. ADJUSTING THE NEEDLE-TO-SHUTTLE RELATION



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.



◆ Positioning the needle and shuttle

Turn the handwheel to make the needle bar asc-

end 4 mm from its lowest position. At this time, blade point ① of the shuttle should be aligned with the center of needle ②.

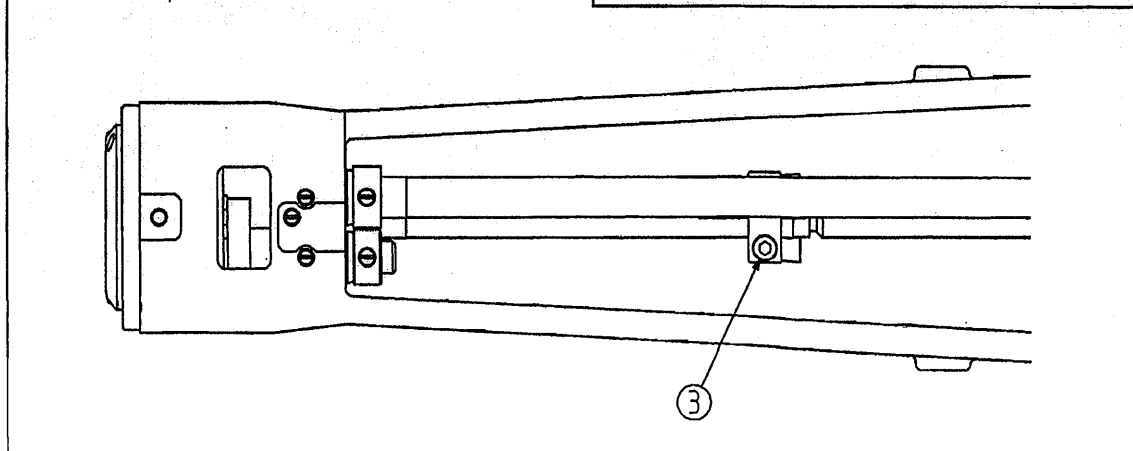
To adjust the position of the needle and shuttle

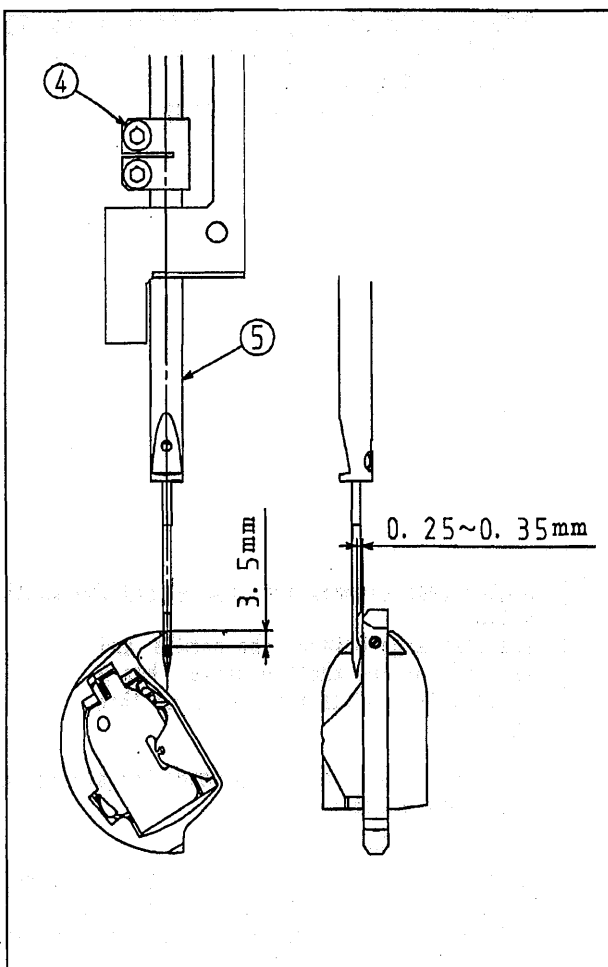
- 1) Loosen screw ③.
- 2) Align the blade point of the shuttle by tu-

-rning the shuttle by hand

- 3) After adjustment has been completed, tight-

-en screw ③ firmly.





◆ The height of the needle bar

The correct height is that the distance from the blade point of the shuttle to the upper end of the needle eyelet is 3.5 mm when the blade point of the shuttle is aligned with the center of the needle.

To adjust the height of the needle bar

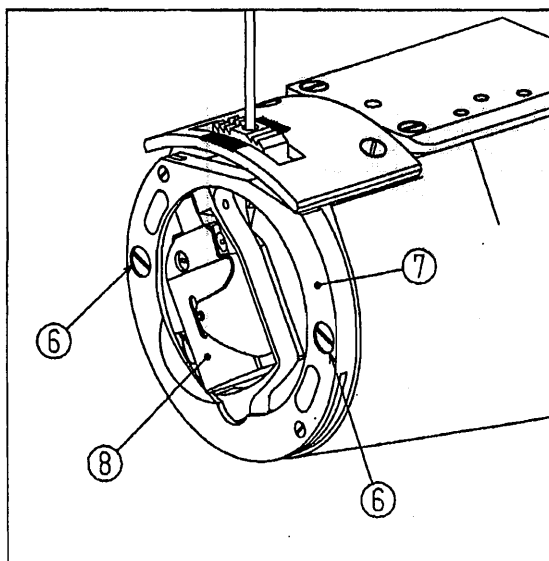
- 1) Turn the handwheel and stop turning it when the blade point of the shuttle is aligned with the center of needle.
- 2) Loosen screws ④.
- 3) Adjust the height by moving needle bar ⑤ up and down.
- 4) After adjustment has been completed, firmly tighten screws ④.

◆ The needle-to-shuttle clearance

The clearance between the recess in the needle and the blade point of the shuttle has already been adjusted to 0.25 ~ 0.35 mm.

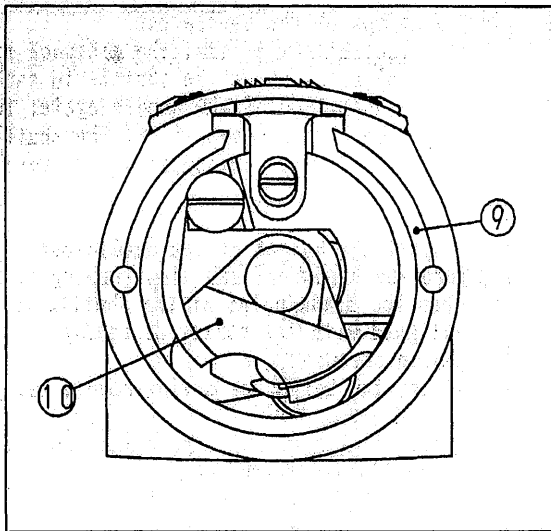
Adjust the clearance between the needle and the shuttle by replacing the shuttle race back.

(The shuttle race back comes in six different thickness in addition to the standard thickness.)

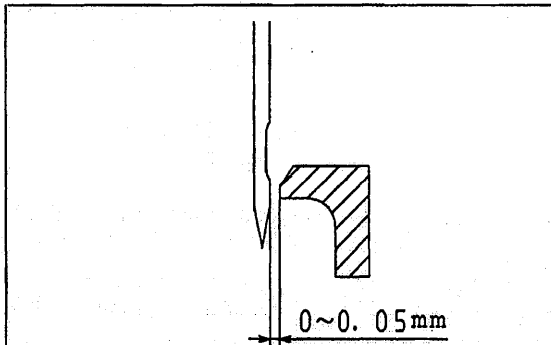


To replace the shuttle race back

- 1) Remove two screws ⑥ in the shuttle race, remove shuttle race ⑦, and remove shuttle ⑧.



- 2 Turn the handwheel until shuttle driver ⑩ is brought to the position where shuttle race back ⑨ comes off. Then replace the shuttle race back



◆ Clearance between the needle and the shuttle driver

The clearance between the needle and the needle guide of the shuttle driver has already been adjusted to the range of 0 mm through 0.05 mm.

To adjust the clearance between the needle and the shuttle driver

- 1 Loosen screws ③, ⑪.
- 2 Adjust the clearance by moving shuttle driving shaft ⑫ to the left and right.
- 3 After adjustment has been completed, tighten screws ③, ⑪ firmly.

