

GOLDEN WHEEL

No. 000002

CS-8370	1-NEEDLE, UNISONFEED, HIGHT POST BET, LOCK -STITCH MACHINE FOR MEDIUM-WEIGHT MATER -IALS WITH LARGE-CAPACITY HOOK.
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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 1000 s.p.m. or less.

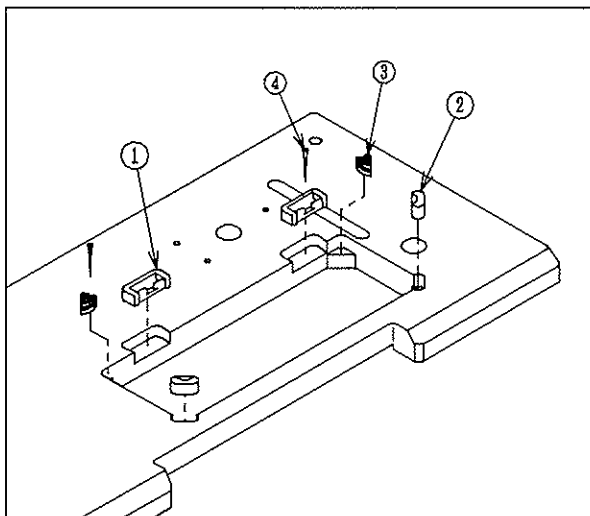
CAUTIONS IN OPERATION

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

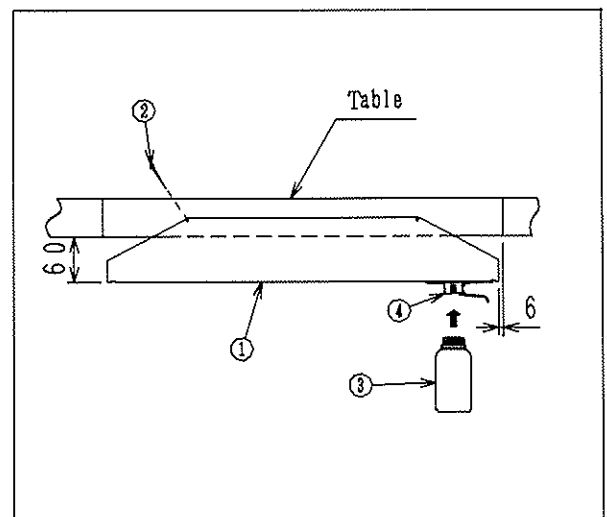
Usage	Bags, Shoes, Medium-weight materials.
Sewing speed	Max. 1600 s.p.m
Stitch length	Forward stitch: 6mm, Reverse stitch: 6mm
Needle	DPX17#16~#23 (normal: #22)
Lift of presser foot	Hand lifter: 8 mm, Knee lifter: 14 mm
Lubricating oil	Machine oil (white spindle oil)

1. SETTING UP THE SEWING MACHINE



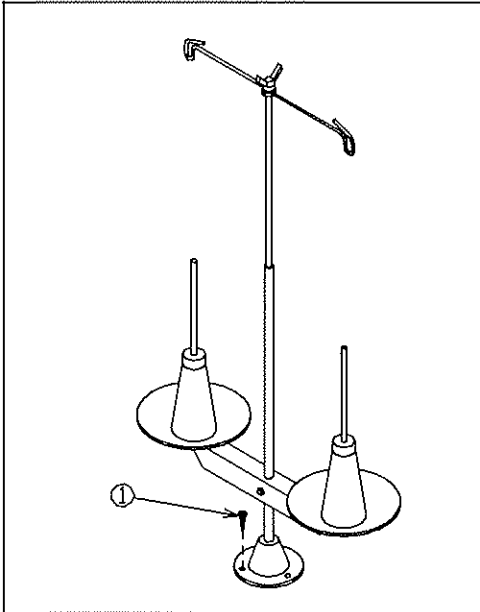
(1) Installing the cushion

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



(2) Installing oil pan

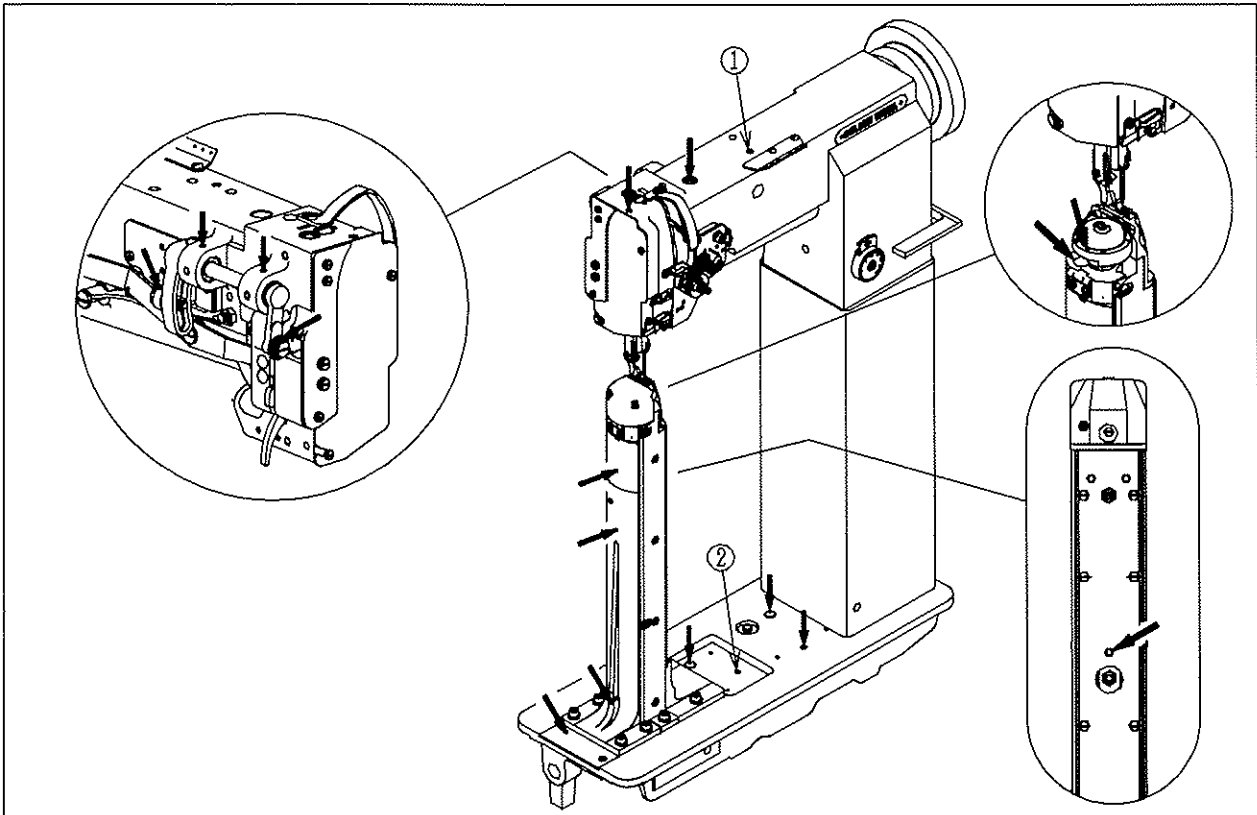
- 1) Fasten the oil pan ① on the table using nails ② (at 4 places).
- 2) Install the oiler ③ to the oiler supporter ④.



2. INSTALLING THE THREAD STAND

Assemble the thread stand, and install it to the right-hand side of the far side of the table with screws ① (at 3 places).

3. LUBRICATION



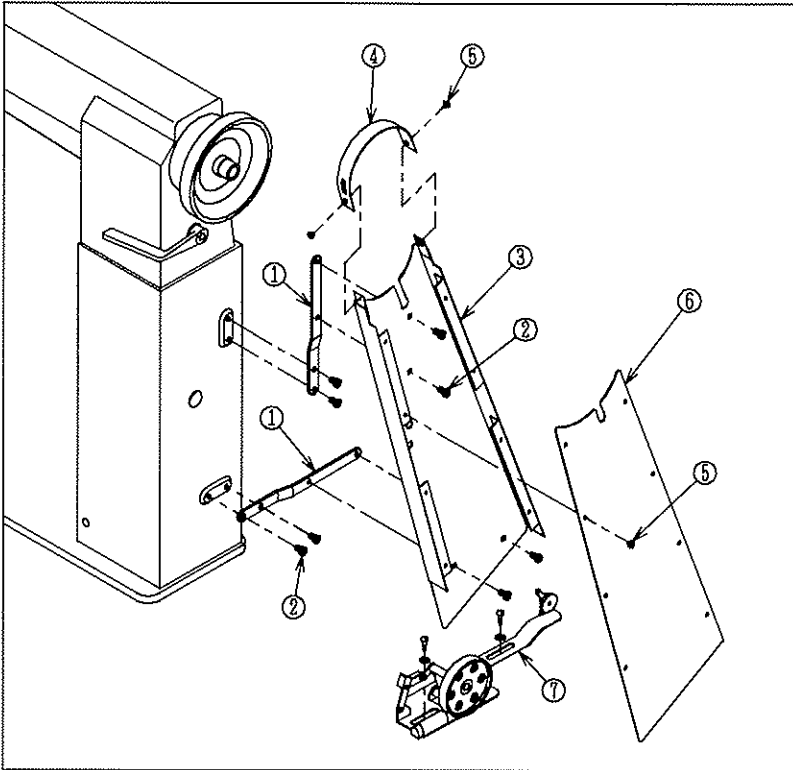
Before starting the machine.

- 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.

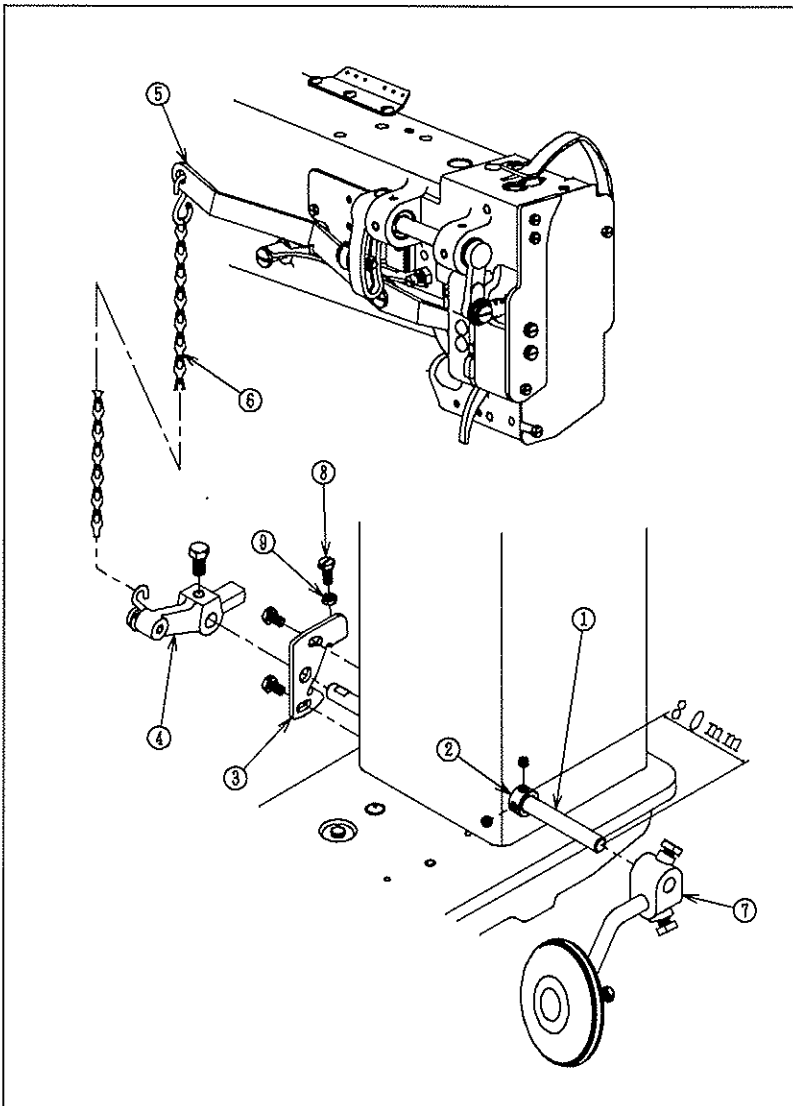
When starting the machine initially and after kept away for a long time without using at all, apply two or three drops of oil each section noted with an arrow mark, and to operate the machine continuously, apply two or three drops of oil each section whenever starting operation in the morning and in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

4. INSTALLING THE BELT COVER



- 1) Install two belt cover support -s ① to the machine using screws ②.
- 2) Install the belt cover (A) ③ to the belt cover supports using screws ②.
- 3) Install the belt cover (B) ④ to the belt cover (A) ③ using screws ⑤.
- 4) Install the belt cover (C) ⑥ to the belt cover (A) ③ using screws ⑤.
- 5) Place bobbin winder ⑦ in the belt cover, and position it so that it does not contact the machine or the belt cover before fixing it with the wooden screws.

5. INSTALLING THE KNEE LIFTER



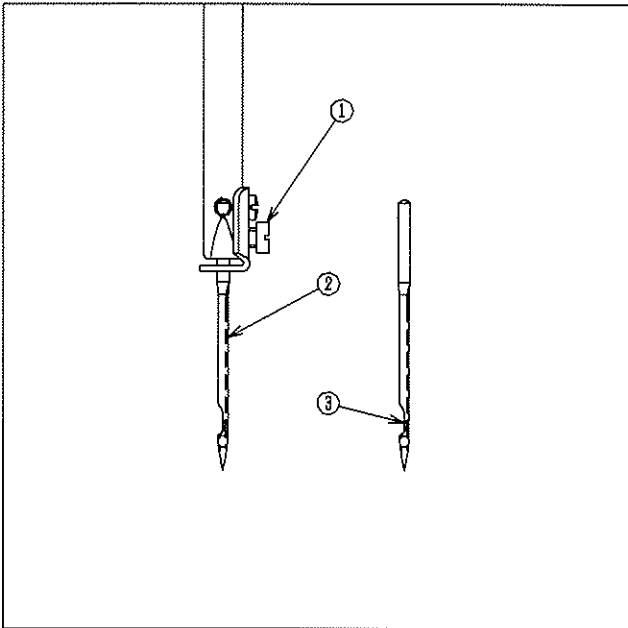
- 1) Install the shaft ① into the hole of the side wall of the machine and set the collar ② to the shaft ① with two screws after setting the shaft ① 80 mm from the side wall.
- 2) Install the connecting lever ④ to the shaft ①, and secure the screw of the connecting lever ④, making sure there is no axial play of the shaft ①.
- 3) Attach the lever ④ to lever ⑤ with the chain ⑥.
- 4) Install the knee press plate Ams. ⑦ to the shaft ①.
- 5) Adjust the presser foot stroke 14 to 15 mm by moving the screw ⑧ which is the plate ③ up and down. After adjustment has been completed, tighten Nut ⑨ firmly.

6. 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 "DPX17".

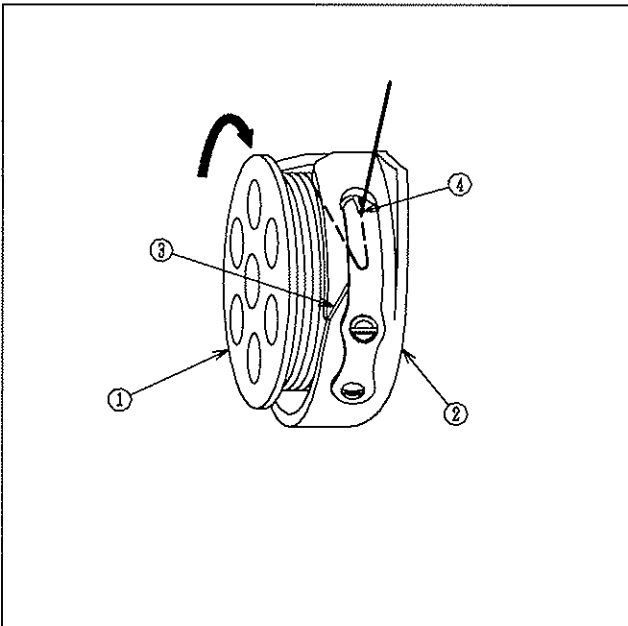
- 1) Turn the handwheel by hand and raise the needle bar to its top position.
- 2) Loosen screw①and insert the needle②into the hole until it will go no further.
◇Insert the needle with its recess③facing directly to the left-hand side.
- 3) Securely tighten the screw in the needle.

7. HOW TO INSTALL THE BOBBIN



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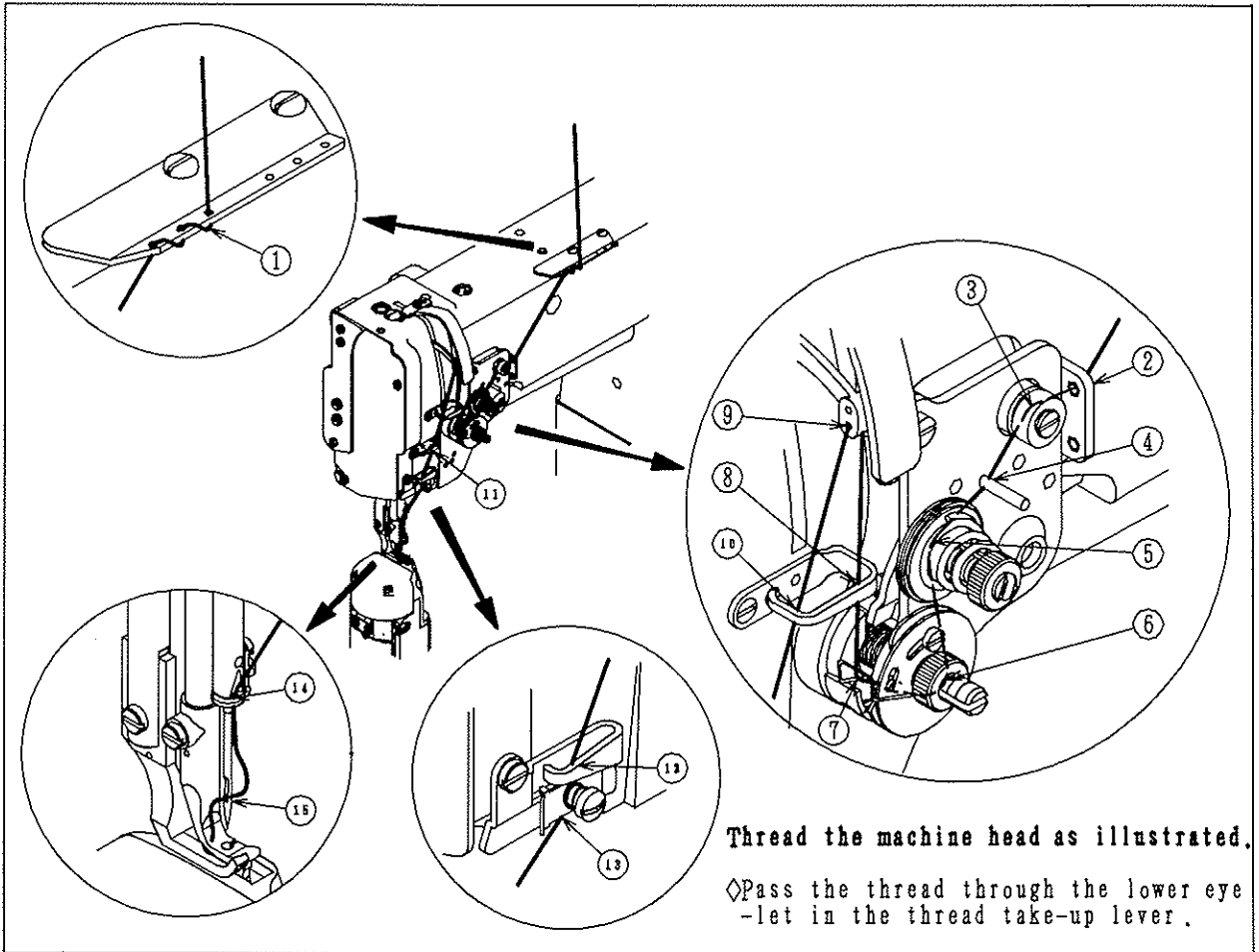
- 1) Put the bobbin①into the bobbin case②.
- 2) Pass the thread through the threading groove③and the notch④of tension spring in the bobbin case.

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.

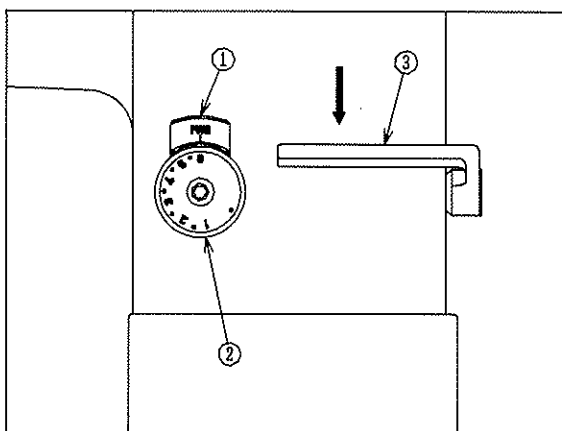
8. HOW TO THREAD THE MACHINE HEAD

⚠ CAUTION

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9. ADJUSTING THE STITCH LENGTH



To adjusting the stitch length, push the lock plate ①. Align the stitch length dial ② indicator to the line of the lock plate turning stitch length dial counterclockwise or clockwise.

★ Reverse stitching

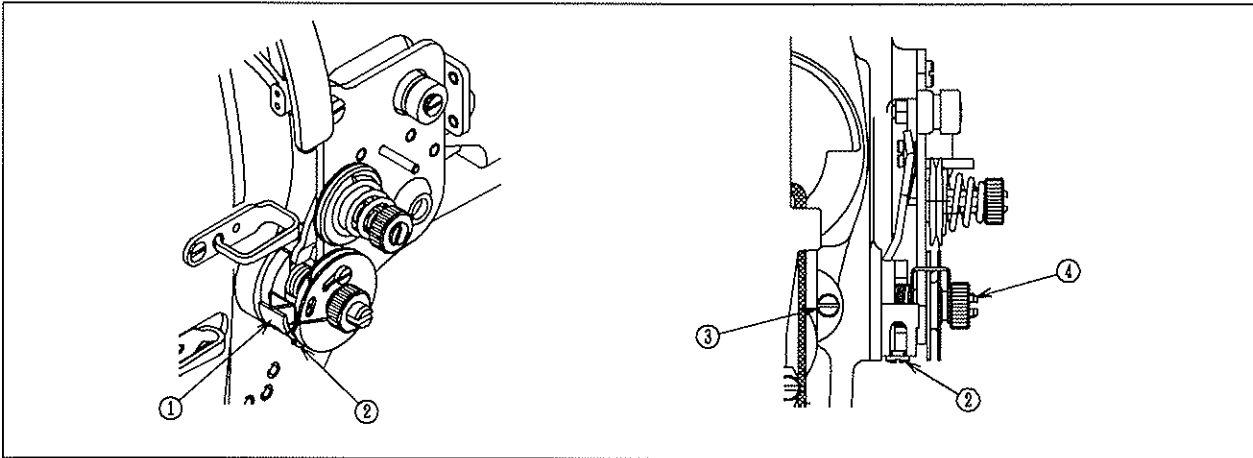
- 1) Push the feed lever ③ down.
- 2) The machine performs reverse feed stitching as long as the lever is held depressed.
- 3) The moment you release the lever, the machine resumes the normal stitching mode.

10. THREAD TAKE-UP SPRING



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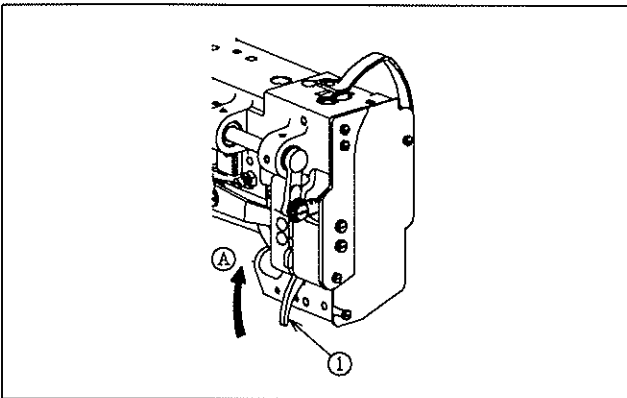
◇ Adjusting the thread take-up spring stroke

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

◇ Adjusting the thread take-up spring tension

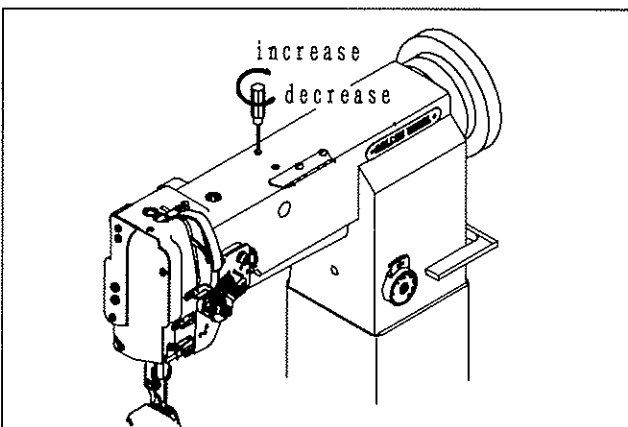
1. Loosen setscrew ③, and turn the tension stud ④ over toward left to increase tension.
2. Turn it to the right, decrease tension.
3. After adjustment, securely tighten the setscrew.

11. LIFTING THE PRESSER FOOT



- 1) Turn the hand lifter ① toward ①A, presser foot lifts 8mm.
- 2) Using the knee lever, presser foot lifts 14~15mm.

12. ADJUSTING THE PRESSER FOOT PRESSURE

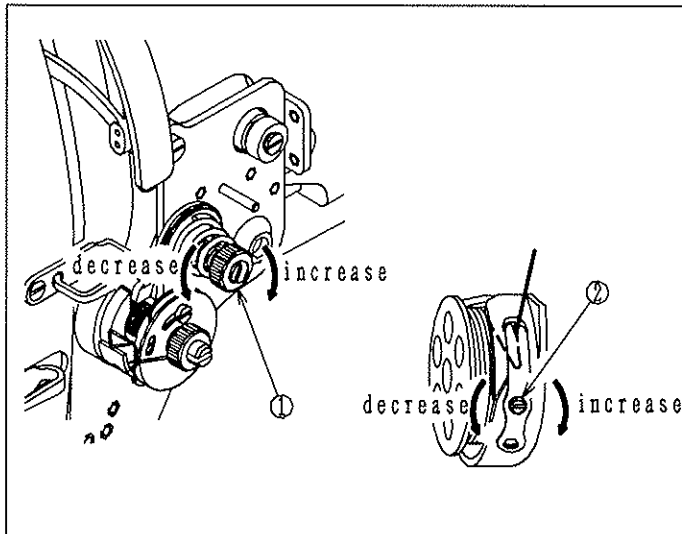


- 1) Turn the presser spring regulator to the right to increase and to the left to decrease pressure.

13. THREAD TENSION

⚠ CAUTION

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(1) Adjusting the needle thread tension

Turn the thread tension nut ① clockwise to increase or counterclockwise to decrease the needle thread tension.

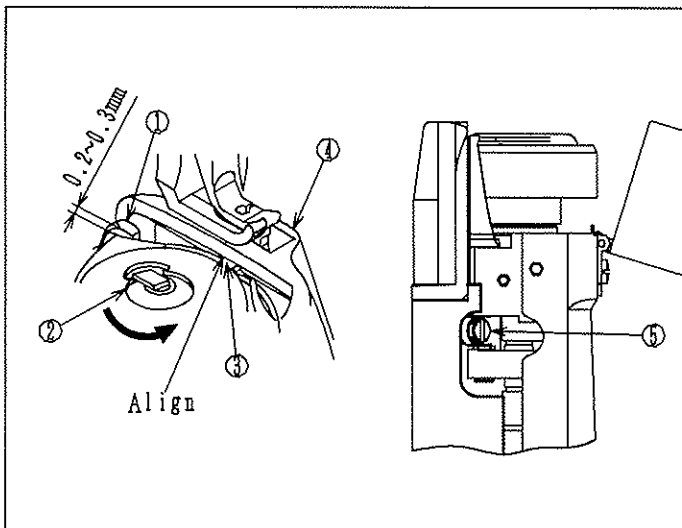
(2) Adjusting the bobbin thread tension

Turn the tension screw ② clockwise to increase or counterclockwise to decrease the bobbin thread tension.

14. HOW TO ADJUST THE BOBBIN CASE OPENING LEVER

⚠ CAUTION

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1) Turn the handwheel by hand, and bring the bobbin case opening lever ① until it will go no further.

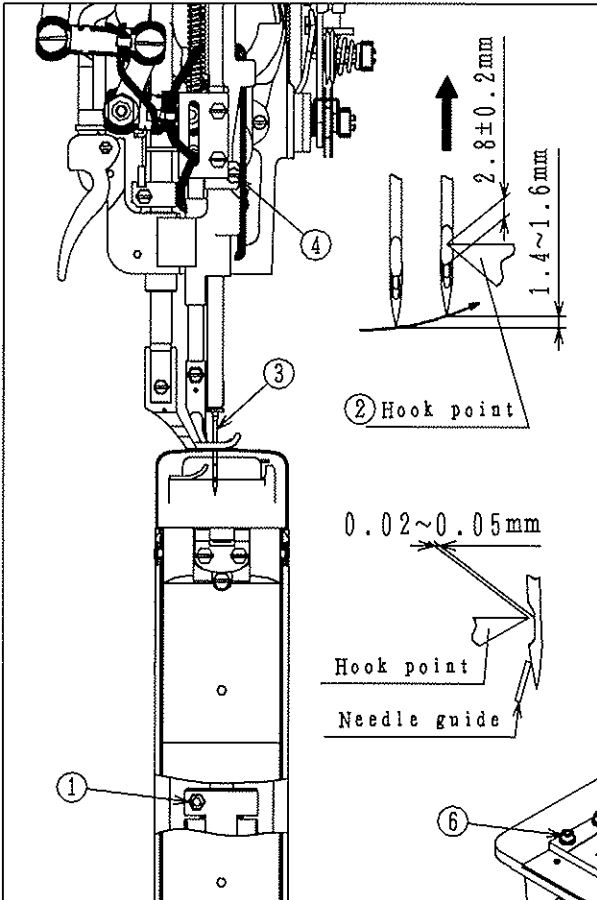
2) Align the inner hook ③ to the throat plate ④, and then turning bobbin case ② counterclockwise by hand.

3) Loosen the screw ⑤, adjust the clearance between bobbin case opening lever and projection of the bobbin case to 0.2 to 0.3mm, then securely tighten screw ⑤.

15. NEEDLE-TO-HOOK RELATIONSHIP

⚠ CAUTION

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- 1) Bring the needle bar down to its lowest point.
- 2) Loosen the coupling setscrew ①.
- 3) Bring the needle bar up to 1.4~1.6mm from its lowest point turning the handwheel.
- 4) Adjust the distance between the top edge of needle eyelet and hook point ② to 2.8mm when hook point nearly meet the center of needle, then tighten the needle bar clamp set-screw ④.

◇The needle-to-hook clearance

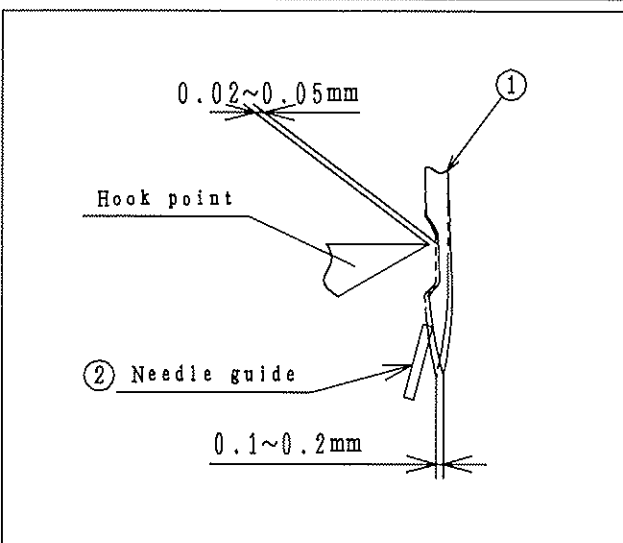
- 5) Loosen the coupling setscrew ①. Bring the needle bar up to 1.4~1.6mm from its lowest point turning handwheel.
- 6) Adjust the clearance between needle ③ and hook point ② to 0.02 to 0.05mm. To adjust the hook saddle, loosen setscrew ⑤ (4 places), and loosen hook saddle setscrew ⑥ (4 places), and then tighten screws.

7) Confirm that hook point meet the center of needle, then tighten the coupling setscrew ①.

16. ADJUSTING THE NEEDLE GUIDE

⚠ CAUTION

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★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.

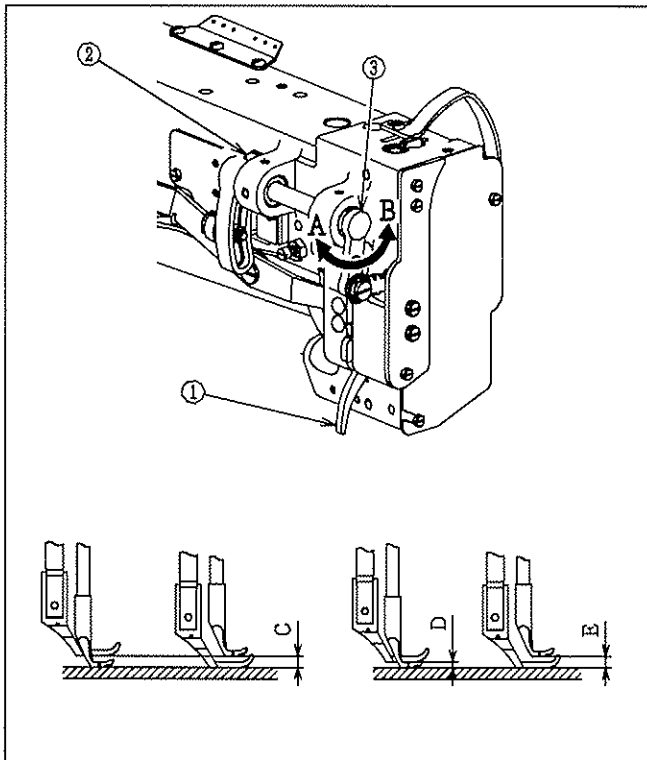
Adjust the needle guide position to inside or outside direction using screwdriver.

17. ADJUSTING THE WALKING FOOT



CAUTION

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◇ 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.

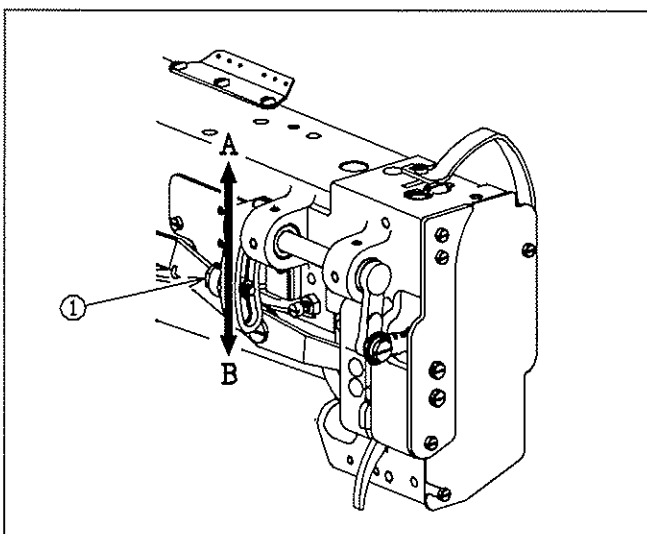
2 Lower hand lifter ① .

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.

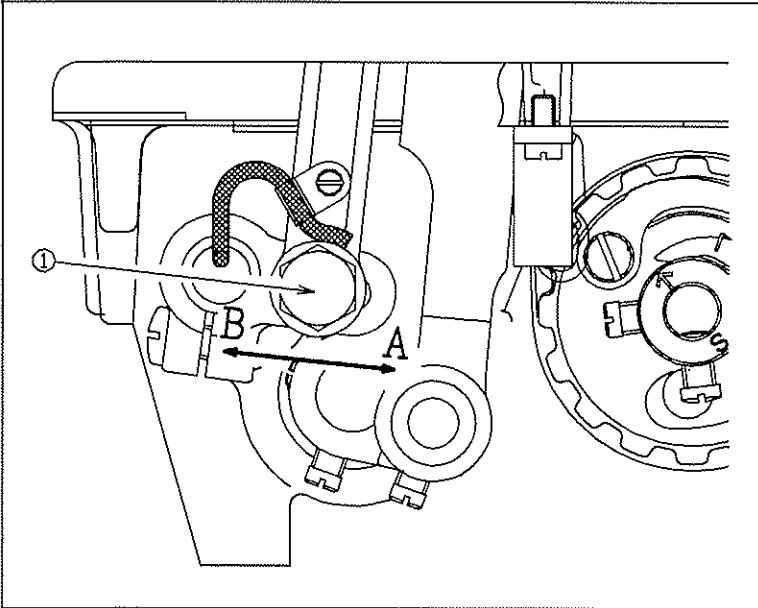
3 When you move it toward "B", the height is decreased.

4 After adjustment, securely tighten hinge screw ① .

18. DIFFERENTIAL FEED MOTION OF THE NEEDLE BAR FRAME

⚠ CAUTION

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- 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.

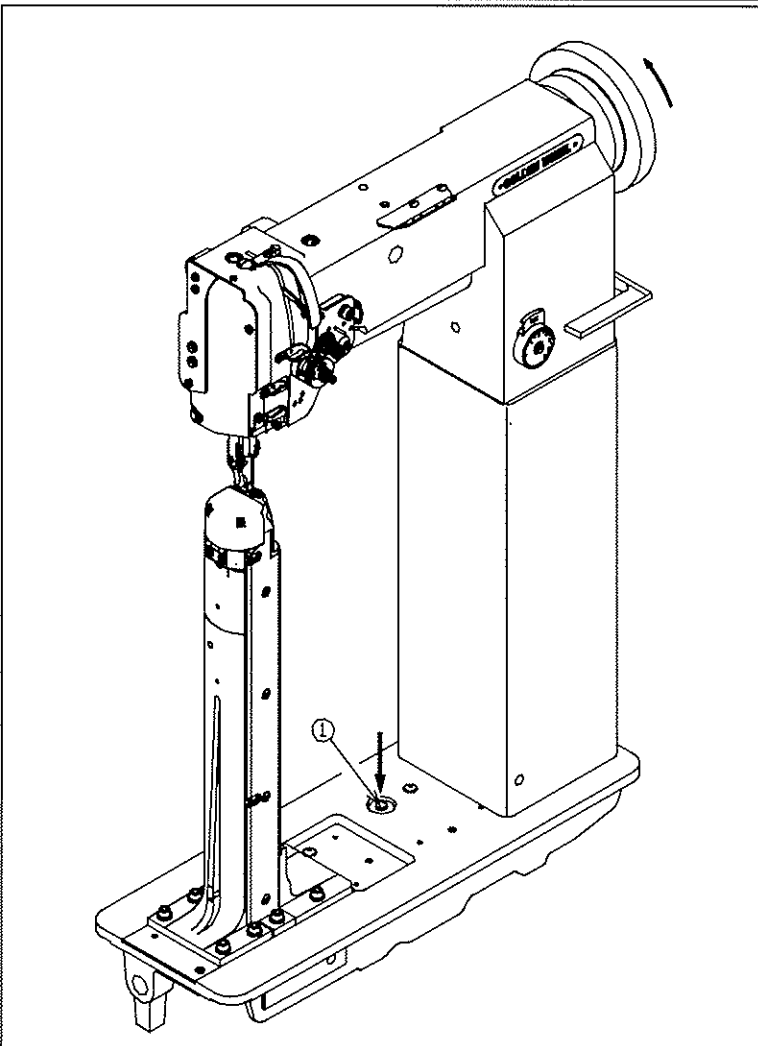
Precaution

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

19. RE-ENGAGE SAFETY CLUTCH MECHANISM

⚠ CAUTION

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- 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.

20. TROUBLE AND CORRECTIVE MEASUR

Trouble	Causes	Corrective measures
<p>1. Thread breakage (Thread frays or wears out.)</p> <p>(Needle thread remains 2 to 3 cm on the wrong side of the cloth.)</p>	<p>① The thread path, needle point, hook point or bobbin case positioning finger has scratches.</p> <p>② The needle thread tension is too high.</p> <p>③ The bobbin case opening lever clearance is too large.</p> <p>④ The needle hits the hook point.</p> <p>⑤ The needle thread tension is too low.</p> <p>⑥ The thread take-up spring has an excessively high tension while it has an excessively small stroke.</p> <p>⑦ The timing between the needle and hook is too early or late.</p>	<p>○ Remove the scratches on the hook point using a fine sand paper. Buff the bobbin case positioning finger.</p> <p>○ Properly adjust the needle thread tension.</p> <p>○ See "14. HOW TO ADJUSTING THE BOBBIN CASE OPENING LEVER".</p> <p>○ See "15. NEEDLE-TO-HOOK RELATIONSHIP".</p> <p>○ Properly adjust the needle thread tension.</p> <p>○ Decrease the tension, and increase the stroke.</p> <p>○ See "15. NEEDLE-TO-HOOK RELATIONSHIP".</p>
2. Stitch skipping	<p>① The clearance between the needle and the hook point is too large.</p> <p>② The timing between the needle and hook is too early or late.</p> <p>③ The presser foot pressure is too low.</p> <p>④ The clearance between the top edge of the needle eyelet and the hook point is not correct.</p> <p>⑤ The bobbin case opening lever clearance is too large.</p> <p>⑥ The size of the needle is wrong.</p>	<p>○ See "15. NEEDLE-TO-HOOK RELATIONSHIP".</p> <p>○ See "15. NEEDLE-TO-HOOK RELATIONSHIP".</p> <p>○ Increase the presser foot pressure.</p> <p>○ See "15. NEEDLE-TO-HOOK RELATIONSHIP".</p> <p>○ See "14. HOW TO ADJUSTING THE BOBBIN CASE OPENING LEVER".</p> <p>○ Replace the needle by one which one grade thicker.</p>
3. Loose stitches	<p>① The thread has not been the passed the through notch of the bobbin case tension spring.</p> <p>② The thread path is poorly finished.</p> <p>③ The bobbin does not rotate smoothly.</p> <p>④ The bobbin case opening lever clearance is too large.</p> <p>⑤ The bobbin thread tension is too low.</p> <p>⑥ The bobbin thread has been wound too tight.</p>	<p>○ Properly thread the bobbin case.</p> <p>○ Grind it using a fine sand paper of a buff.</p> <p>○ Replace the bobbin or hook.</p> <p>○ See "14. HOW TO ADJUSTING THE BOBBIN CASE OPENING LEVER".</p> <p>○ Properly adjust the tension.</p> <p>○ Decrease the bobbin thread winding tension.</p>

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