

GOLDEN WHEEL

No. 008022

CS-8113

1-NEEDLE, UNISON-FEED LOCKSTITCH MACHINE
WITH LARGE CAPACITY HOOK.

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 1800 s.p.m. or less.

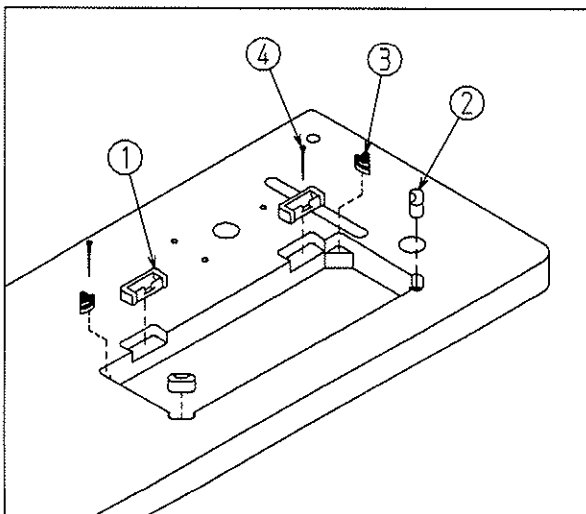
CAUTIONS IN OPERATION

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 to 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

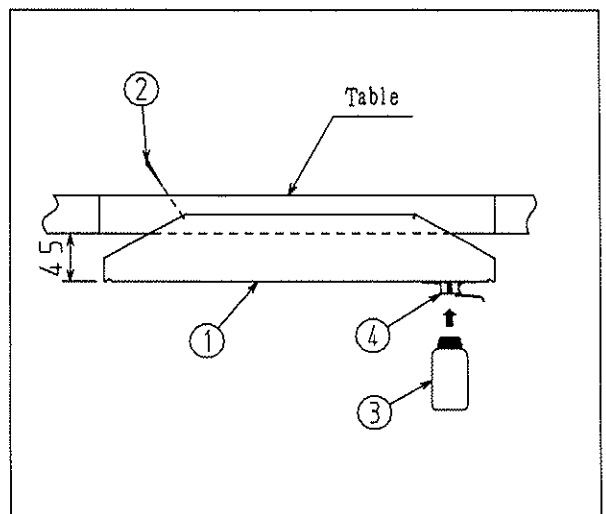
Usage	Medium- to Heavy-weight materials.
Sewing speed	Max 2,000 s.p.m.
Stitch length	Max 8 mm
Needle	#16 through #23 (standard: #21)
Thread	#30 through #8
Lift of presser foot	Hand lifter: 9.5mm, Knee lifter: 13mm
Stitch adjust	By dial
Lubricating oil	Machine oil (white spindle oil)

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 nails ④.



② Installing oil pan

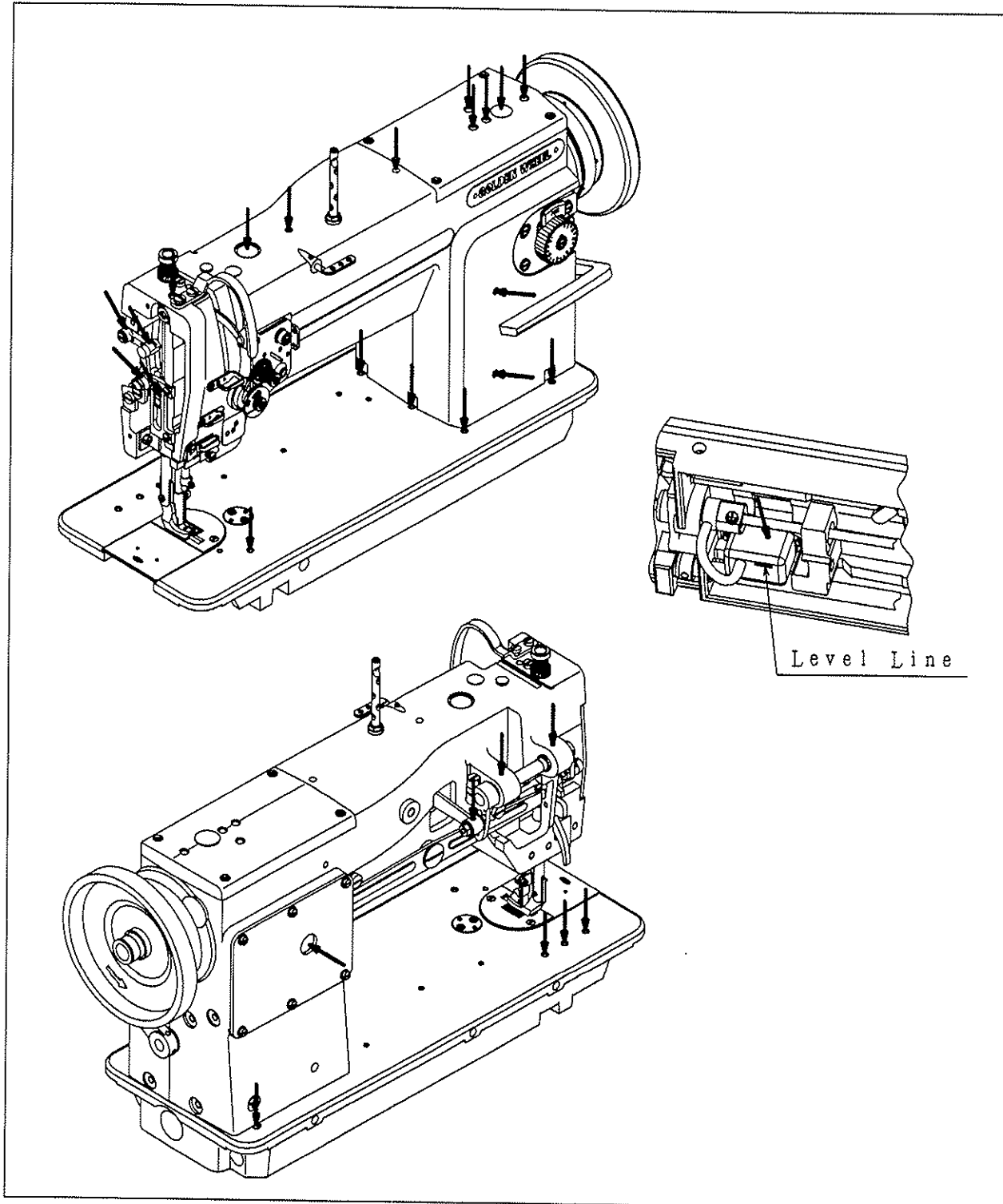
- 1) Fasten the oil pan ① on the table using nails ② (at 4 places).
- 2) Install the oiler ③ to the oiler supporter ④.

2. LUBRICATION



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.



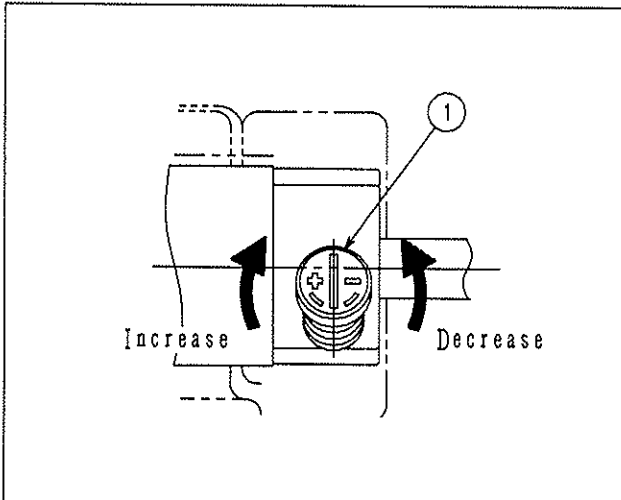
Before starting the machine.

1) Prior to operation, be sure to properly lubricate the points marked with the arrows.

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.

3. REFUELING ADJUSTMENT OF THE HOOK

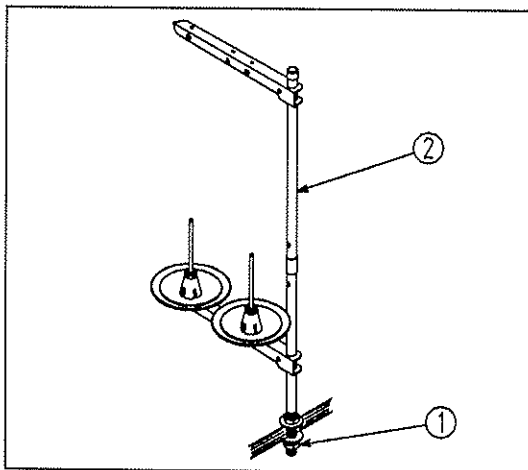


If it is necessary to change the amount of oil supplied to the hook, adjust it using knob ①.

- 1) Turn the knob clockwise (in direction '+') to increase the oil supplied, or turn it counter-clockwise (in direction '-') to decrease it.

Attention : After adjusting the knob and no-load running more than 30 seconds, confirm oil which scatters from the hook.

4. INSTALLING THE THREAD STAND



Assemble the Thread stand, and insert it in the hole in the machine table, and fix in by tightening nut ①.

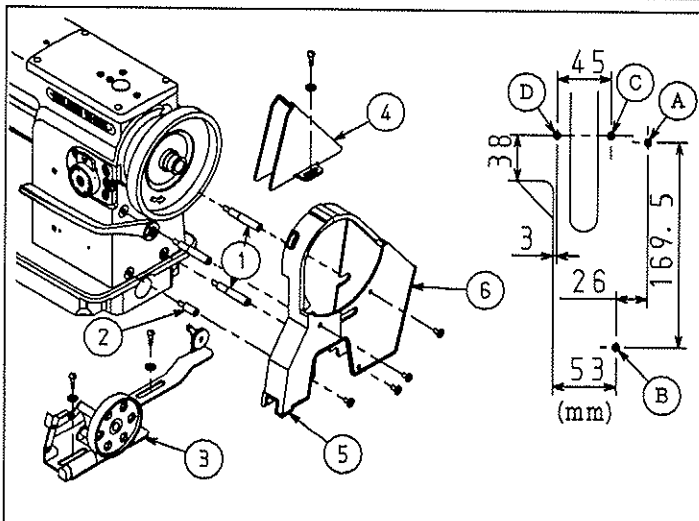
For ceiling wiring, pass the power cord through spool rest rod ②.

5. INSTALLING THE BELT COVER



CAUTION

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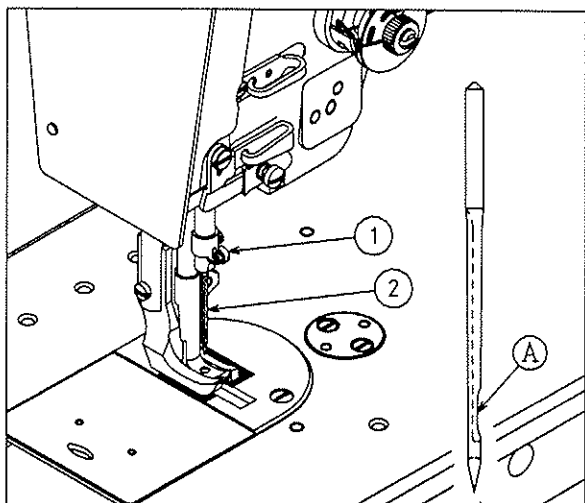
(Installing procedure)

- 1) Perforate the woodscrew's guide hole (A, B, C, D) on the table.
- 2) Insert belt cover support ①, ② in the tapped hole in the machine arm.
- 3) Adjust position of the bobbin winder ③ and fix it to guide hole (A, B) with woodscrews.
- 4) Temporarily tight belt cover ④ in the guide hole (C, D).
- 5) Fit belt cover ⑤ and belt cover ⑥ on to the support ①, ②.
- 6) Adjust position of the belt cover ④, fixing it with woodscrews.

6. HOW TO INSTALL THE NEEDLE



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

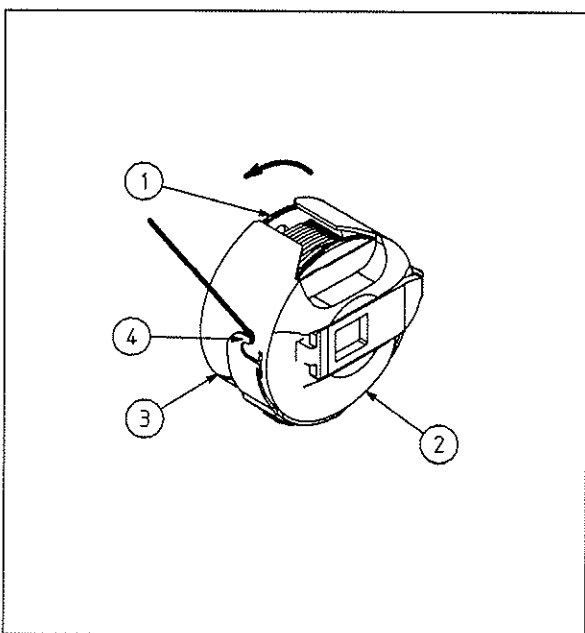
The normal needle system is 'DPx17'.

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

7. HOW TO INSTALL THE BOBBIN



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) Put the bobbin ① into the bobbin case ②
- 2) Pass the thread through the threading groove ③ and the notch ④ of tension spring in the bobbin case

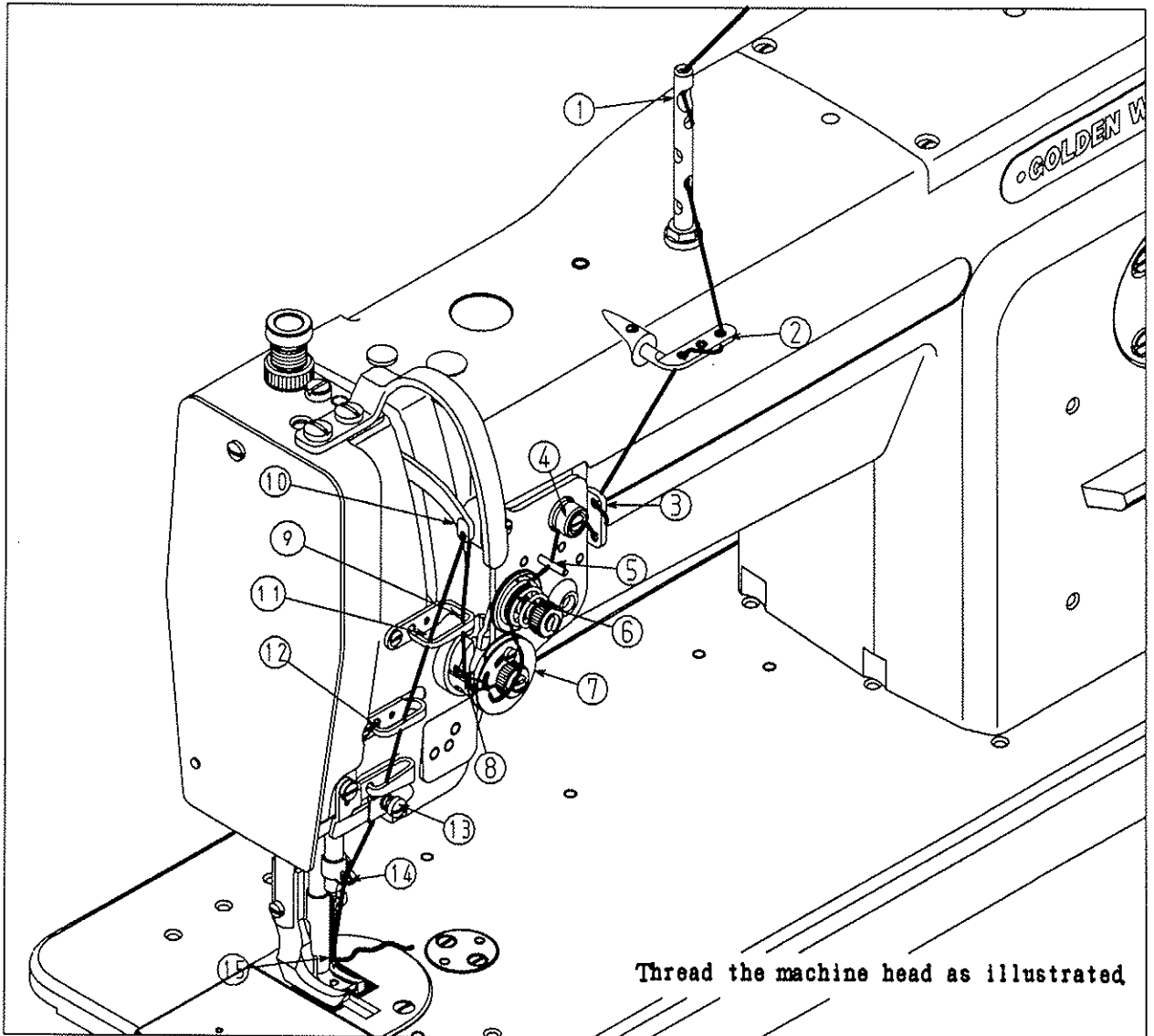
CAUTION: Fit the bobbin in the bobbin case so that the bobbin turns in the direction of the arrow when the bobbin thread is pulled

8. HOW TO THREAD THE MACHINE HEAD

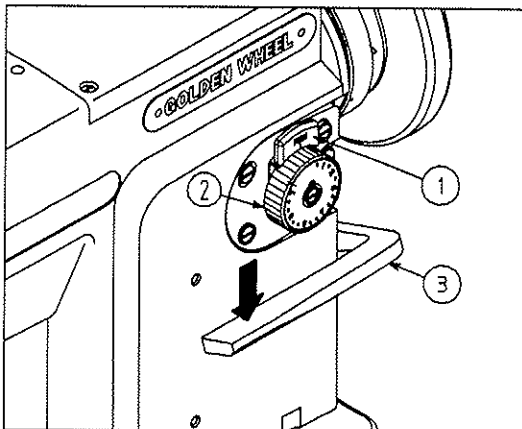


CAUTION

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9. ADJUSTING THE STICHTH 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

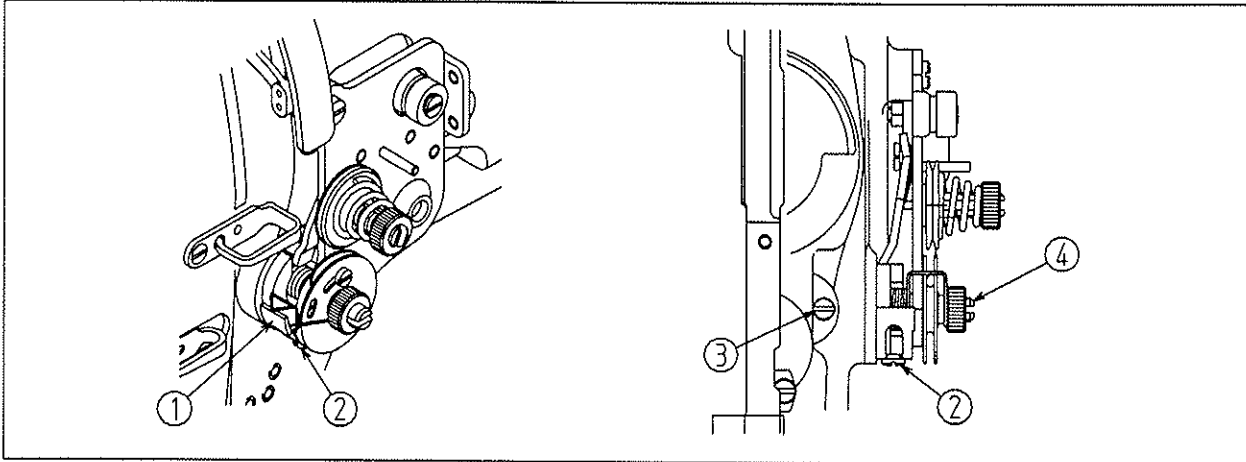
- 1) Push the feed lever ③ down
- 2) The machine performs reverse feed stitching as long as the lever is held depressed
- 3) The moment you release the lever, the machine resumes the normal stitching mode

10. THREAD TAKE-UP SPRING



CAUTION

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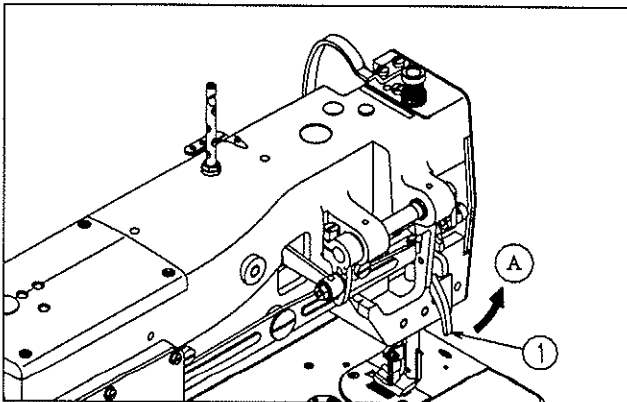
◇ Adjusting the thread take-up spring stroke

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

◇ Adjusting the thread take-up spring tension

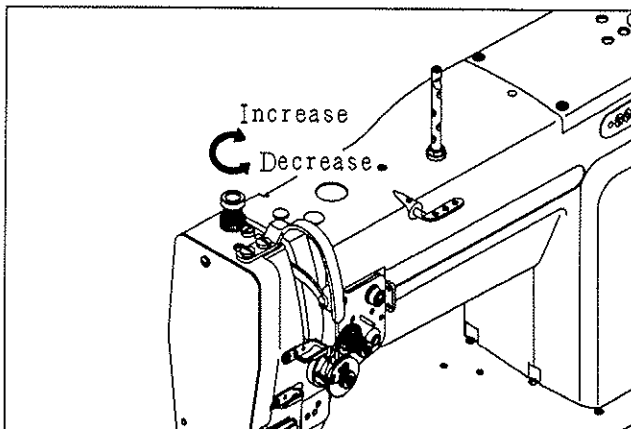
- 1) Loosen setscrew ③, and turn the tension stud ④ over toward left to increase tension
- 2) Turn it to the right, decrease tension
- 3) After adjustment, securely tighten the setscrew

11. LIFTING THE PRESSER FOOT



- 1) Turn the hand lifter ① toward ①, presser foot up

12. ADJUSTING THE PRESSER FOOT PRESSURE



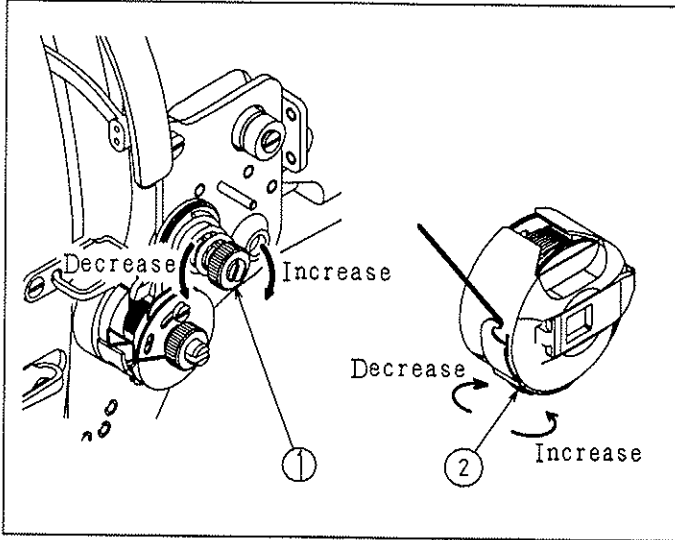
- 1) Turn the presser spring regulator to the right to increase and to the left to decrease pressure

13. THREAD TENSION



CAUTION

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◇ Adjusting the needle thread tension

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

◇ Adjusting the bobbin thread tension

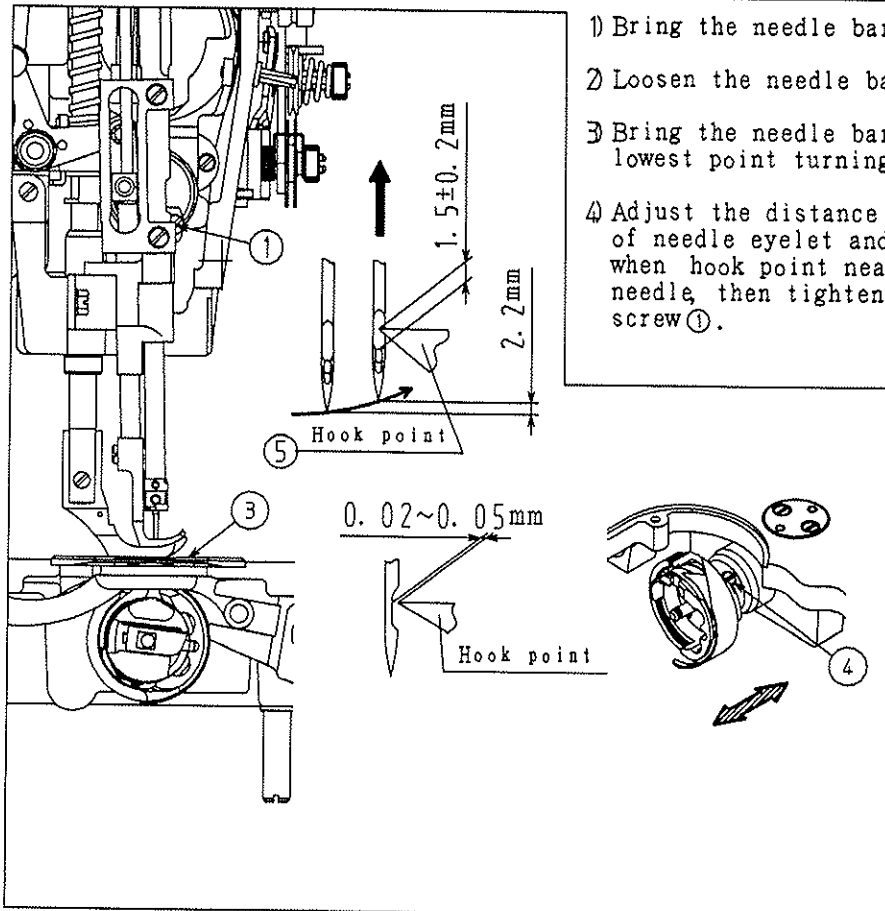
Turn the tension screw ② clockwise to increase or counterclockwise to decrease the bobbin thread tension.

14. NEEDLE-TO-HOOK RELATIONSHIP



CAUTION

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1) Bring the needle bar down to its lowest point.

2) Loosen the needle bar clamp screw ①.

3) Bring the needle bar up to 2.2mm from its lowest point turning the handwheel.

4) Adjust the distance between the top edge of needle eyelet and hook point ⑤ to 1.5mm when hook point nearly meet the center of needle, then tighten the needle bar clamp screw ①.

◇ The needle-to-hook clearance

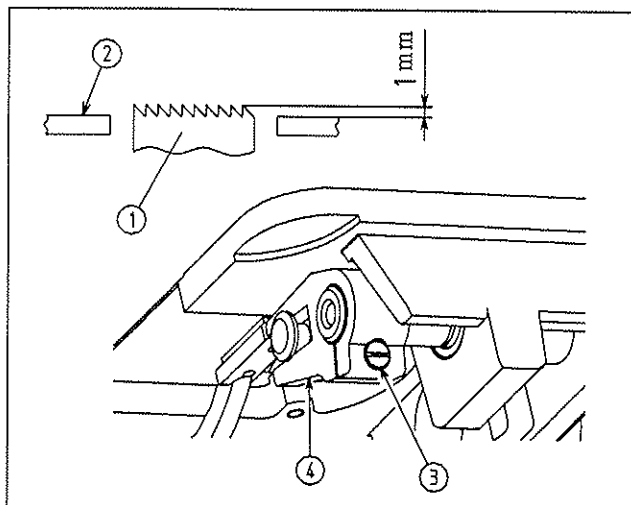
5) Remove throat plate ③ and hook cover ②.

6) Loosen screws ④ in the hook, and move the hook to the right or left until a clearance of 0.02 to 0.05mm is provided between the blade point of the hook and needle. After the adjustment, securely tighten the screws.

15. HEIGHT OF THE FEED DOG



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.



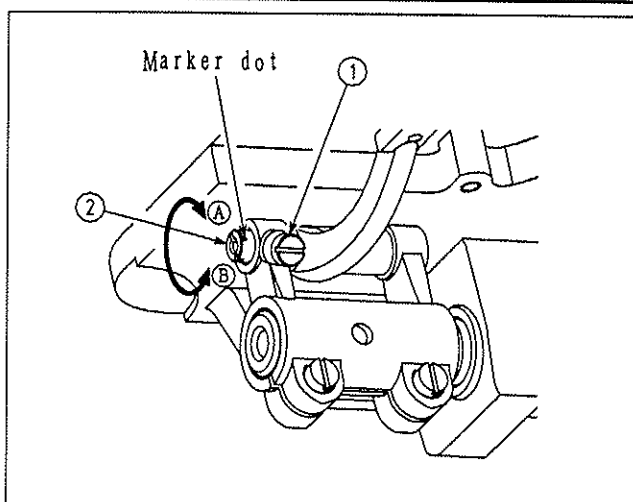
Feed dog ① is factory-adjusted to jut out 1.0mm from the surface of throat plate ②. When the feed dog height needs to be adjusted according to the sewing specifications or after the feed dog is replaced, do as follows:

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

16. SLOPE ADJUSTMENT OF THE FEED DOG



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.



When the feed dog slope needs to be adjusted according to the sewing specifications do as follows:

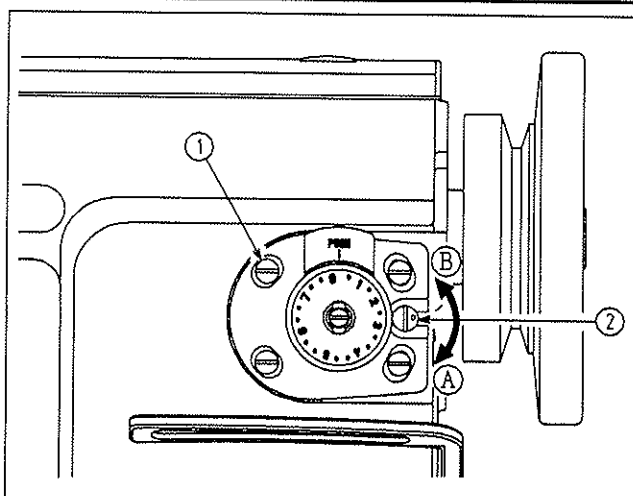
- 1) Loosen screw ①.
- 2) Turn the feed bar shaft ② clockwise (toward A) or counterclockwise (toward B).
- 3) Then securely tighten the screw.

marker dot position of feed bar shaft	feed dog
standard	standard
upside	
underside	

17. FORWARD/REVERSE SEAM RATIO



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.



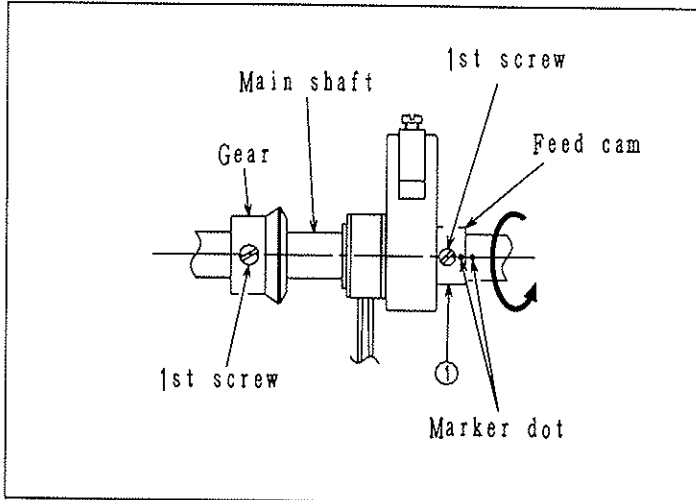
- 1) Loosen four screws ①.
- 2) When increasing the forward stitch length, turn the eccentric pin ② clockwise (toward A) using a screwdriver.
- 3) When decreasing the forward stitch length, turn the eccentric pin ② counterclockwise (toward B) using a screwdriver.
- 4) Then securely tighten the screws ①.

18. FEED TIMING



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It is the standard position of feed cam as illustrated.

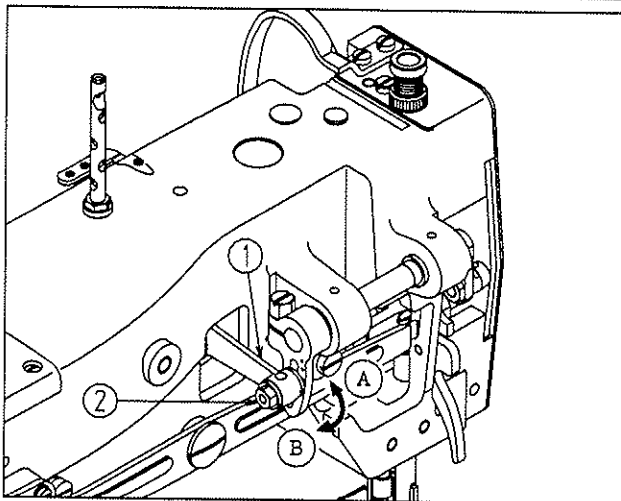
1) Remove a top cover, and change the position of feed cam ①.

19. ADJUSTING THE WALKING FOOT AND THE PRESSER FOOT



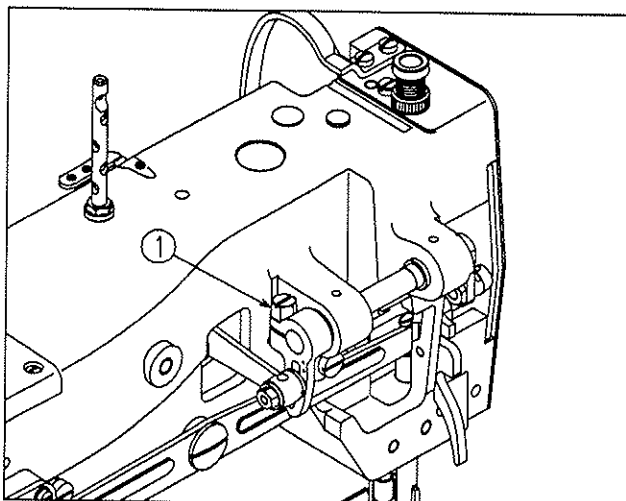
CAUTION

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◇ Height of the walking foot and the presser foot

- 1) Loosen nut ②.
- 2) Turn the rod ① toward ①, walking foot and presser foot up.
Toward ②, walking foot and presser foot down.
- 3) After adjustment, securely tighten nut ②.



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

The alternate vertical strokes of walking foot and presser foot are normally equal. Depending on the type of materials, however the vertical stroke of the presser foot may be set smaller than of walking foot. Do as follows:

- 1) Turn the handwheel, raise the presser foot from throat plate a little.
- 2) Loosen screw ①.
- 3) The presser foot falls to the throat plate by power of the spring. Then tighten screw ② in its position.

20. TROUBLE AND CORRECTIVE MEASURES

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 needle hits the hook point.</p> <p>④ The needle thread tension is too low.</p> <p>⑤ The thread take-up spring has an excessively high tension while it has an excessively small stroke.</p> <p>⑥ 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 '13 NEEDLE-TO-HOOK RELATIONSHIP'.</p> <p>○ Properly adjust the needle thread tension.</p> <p>○ Decrease the tension and increase the stroke.</p> <p>○ See '13 NEEDLE-TO-HOOK RELATIONSHIP'.</p>
<p>2. Stitch skipping</p>	<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 size of the needle is wrong.</p>	<p>○ See '13 NEEDLE-TO-HOOK RELATIONSHIP'.</p> <p>○ See '13 NEEDLE-TO-HOOK RELATIONSHIP'.</p> <p>○ Increase the presser foot pressure.</p> <p>○ See '13 NEEDLE-TO-HOOK RELATIONSHIP'.</p> <p>○ Replace the needle by one which one grade thicker.</p>
<p>3. Loose stitches</p>	<p>① The thread has not been passed through the 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 thread tension is too low.</p> <p>⑤ The bobbin thread has been wound too tight.</p>	<p>○ Properly thread the bobbin case.</p> <p>○ Grind it using a fine sand paper or a buff.</p> <p>○ Replace the bobbin or hook.</p> <p>○ Properly adjust the tension.</p> <p>○ Decrease the bobbin thread winding tension.</p>

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

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