

ENGLISH

**MF-7900D-H24
INSTRUCTION MANUAL**

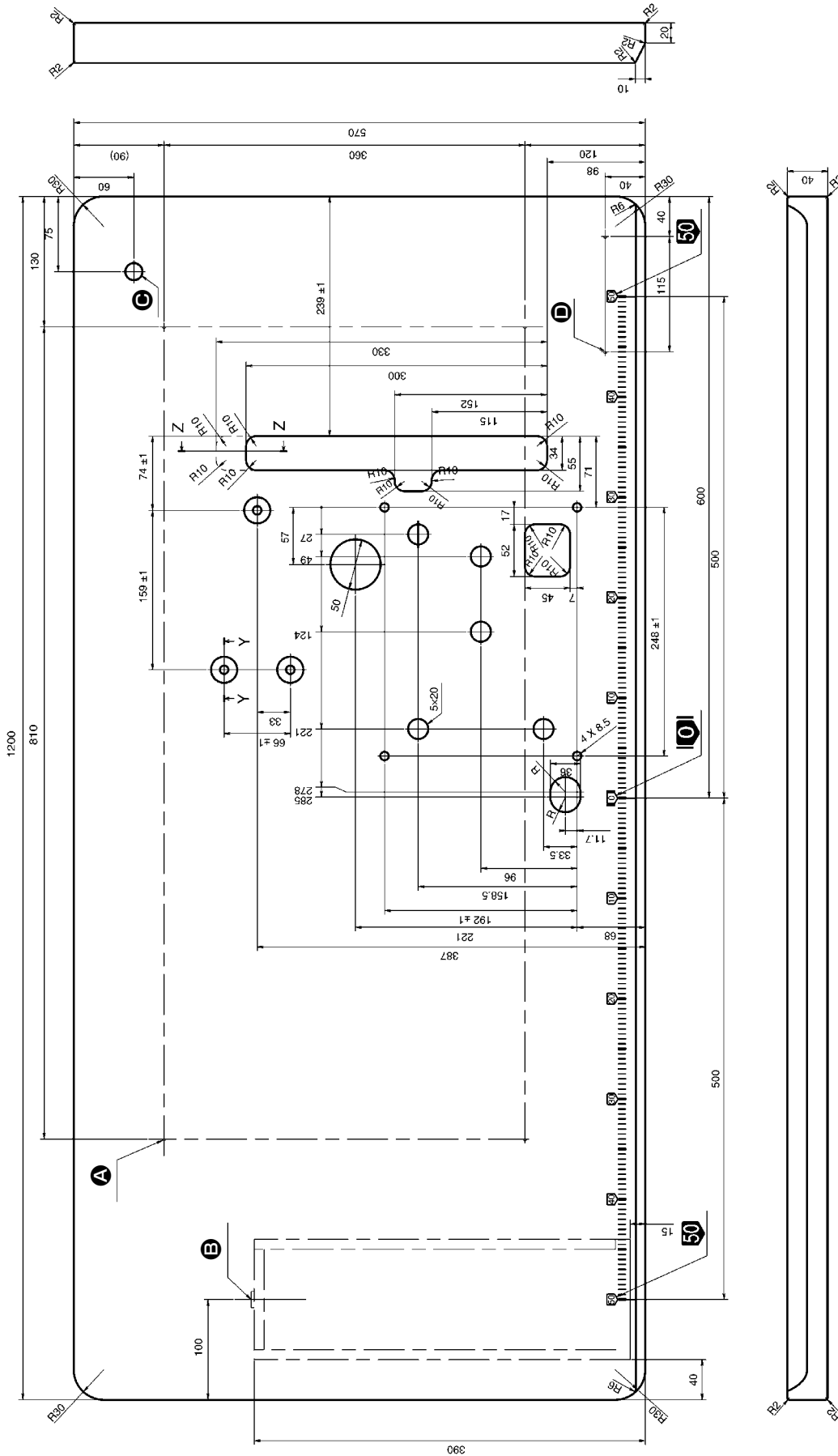
CONTENTS

1. SPECIFICATIONS	1
2. DRAWING OF TABLE (TABLE-FIXED TYPE / V-BELT TYPE).....	2
3. DRAWING OF TABLE (TABLE-FIXED TYPE / DIRECT-DRIVE TYPE).....	3
4. DRAWING OF TABLE (SEMI-SUBMERGED TYPE / V-BELT TYPE).....	4
5. DRAWING OF TABLE (SEMI-SUBMERGED TYPE / DIRECT-DRIVE TYPE).....	5
6. THREADING THE MACHINE HEAD.....	6
7. ADJUSTING THE SILICON CONTAINER THREAD GUIDE	7
8. ADJUSTING THE ROCKING THREAD TAKE-UP.....	7
9. ADJUSTING THE ROCKING THREAD TAKE-UP HOLDER	8
10. INSTALLING THE WASTE CLOTH PIPE	8
11. ADJUSTING THE UPPER KNIFE PRESSURE	9
12. ADJUSTING THE LATERAL POSITION OF THE LOWER KNIFE	9
13. ADJUSTMENT PROCEDURE OF ENGAGEMENT AMOUNT OF KNIVES.....	10
14. REPLACEMENT PROCEDURE OF UPPER KNIFE AND LOWER KNIFE.....	10
15. ADJUSTING THE UPPER KNIFE STROKE	11

1. SPECIFICATIONS

Model		MF-7900D-H24
Class name		Covering stitch machine with left hand fabric undertrimmer (for extra light-weight materials)
Application		Hemming of knit and jersey products
Sewing speed		Max. 5,000 sti/min (at the time of intermittent operation) Speed of stitch at the delivery. 4,500 sti/min (at the time of intermittent operation)
Needle gauge	3-needle	5.6 mm, 6.4 mm
	2-needle	3.2 mm, 4.0 mm
Differential feed ratio		1 : 0.9 to 1 : 1.6 (stitch length : less than 2.5 mm) (1 : 0.6 to 1 : 0.9, when the differential link hinge screw is changed) Micro-differential feed adjustment mechanism is provided. (Micro-adjustment)
Stitch length		0.9 to 3.6 mm
Noise		- Equivalent continuous emission sound pressure level (L_{pA}) at the workstation : A-weighted value of 79.5 dB; (Includes $K_{pA} = 2.5$ dB); according to ISO 10821- C.6.2 -ISO 11204 GR2 at 4,000 sti/min.

2. DRAWING OF TABLE (TABLE-FIXED TYPE / V-BELT TYPE)

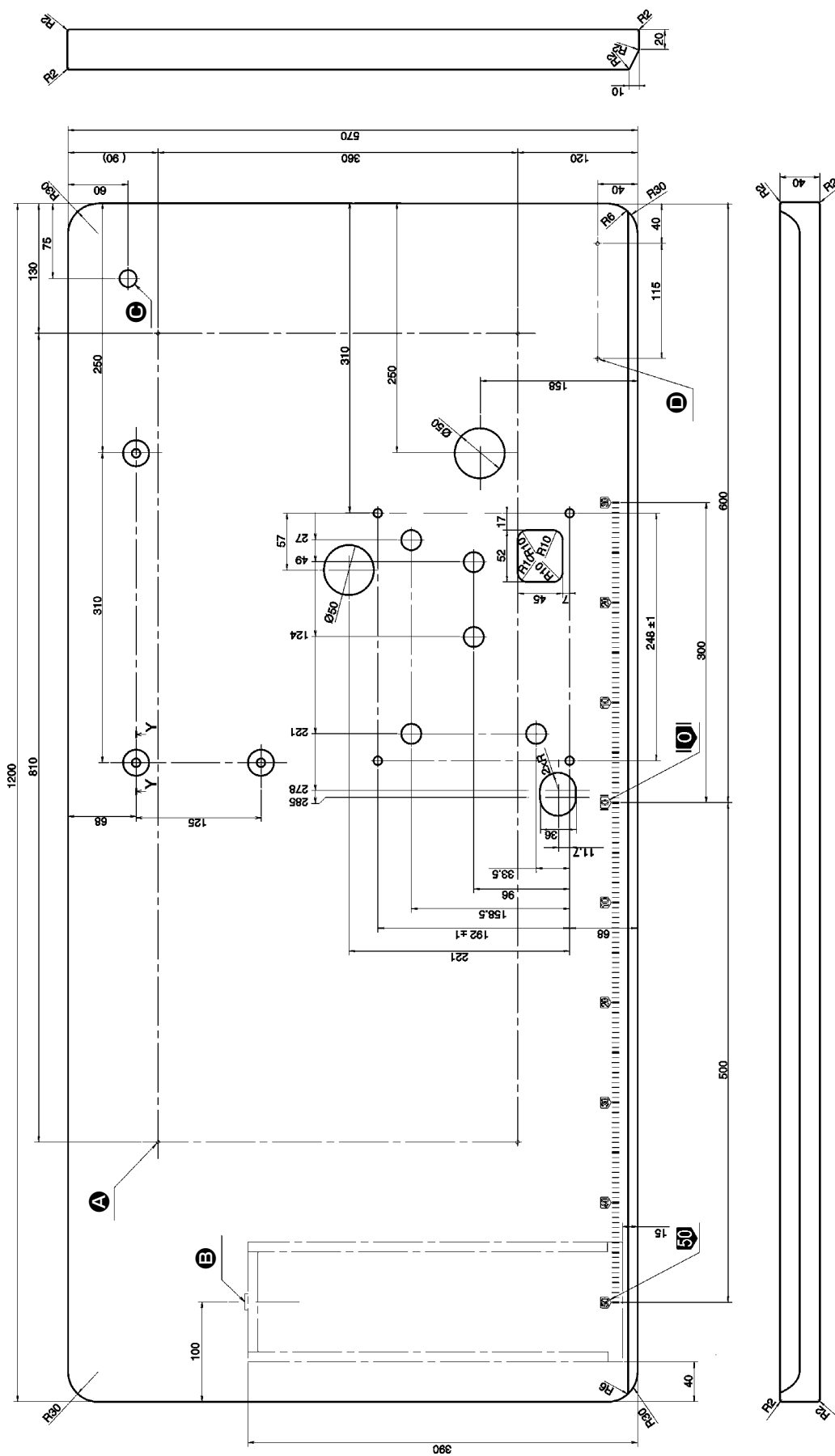


Ⓓ 2 - \varnothing 3.4 on the bottom surface, depth 10
(Drill a hole at the time of set-up.)

Ⓐ 4 - \varnothing 3.4 on the bottom surface, depth 20
(Drill a hole at the time of set-up.)
Ⓔ Installing position of drawer stopper
(on the reverse side)

Ⓒ Drilled hole 17

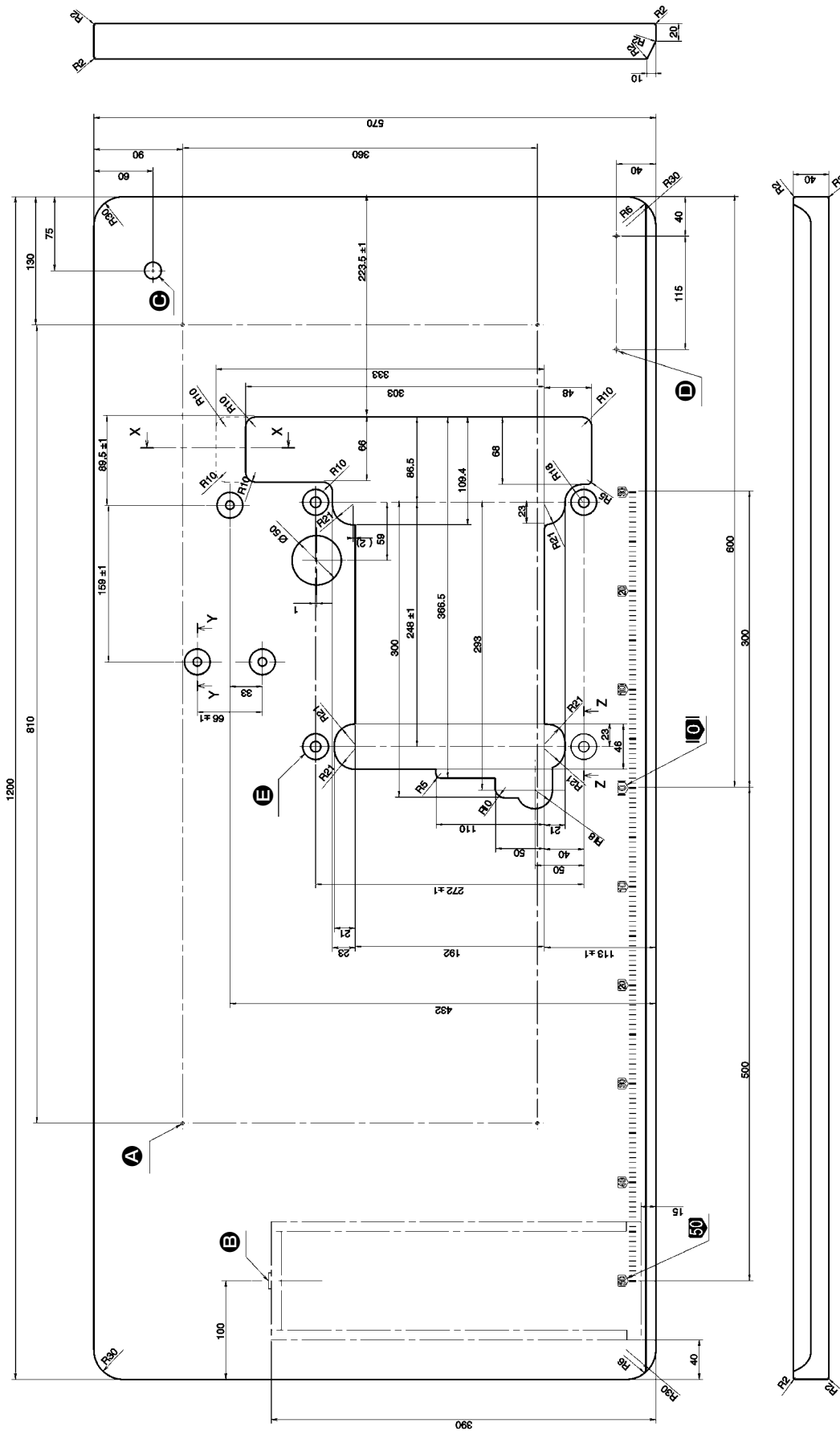
3. DRAWING OF TABLE (TABLE-FIXED TYPE / DIRECT-DRIVE TYPE)



D 2 - \varnothing 3.4 on the bottom surface, depth 10
(Drill a hole at the time of set-up.)

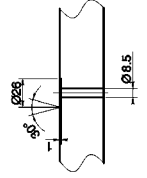
- A** 4 - \varnothing 3.4 on the bottom surface, depth 20
(Drill a hole at the time of set-up.)
- B** Installing position of drawer stopper
(on the reverse side)
- C** Drilled hole 17

4. DRAWING OF TABLE (SEMI-SUBMERGED TYPE / V-BELT TYPE)

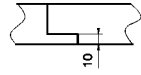


- A** 4 - ϕ 3.4 on the bottom surface, depth 20
(Drill a hole at the time of set-up.)
- B** Installing position of drawer stopper
(on the reverse side)
- C** Drilled hole 17
- D** 2 - ϕ 3.4 on the bottom surface, depth 10
(Drill a hole at the time of set-up.)
- E** 4 - 10.5 hole, 26 hole facing depth 3.5

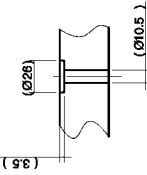
Y-Y (3 locations)



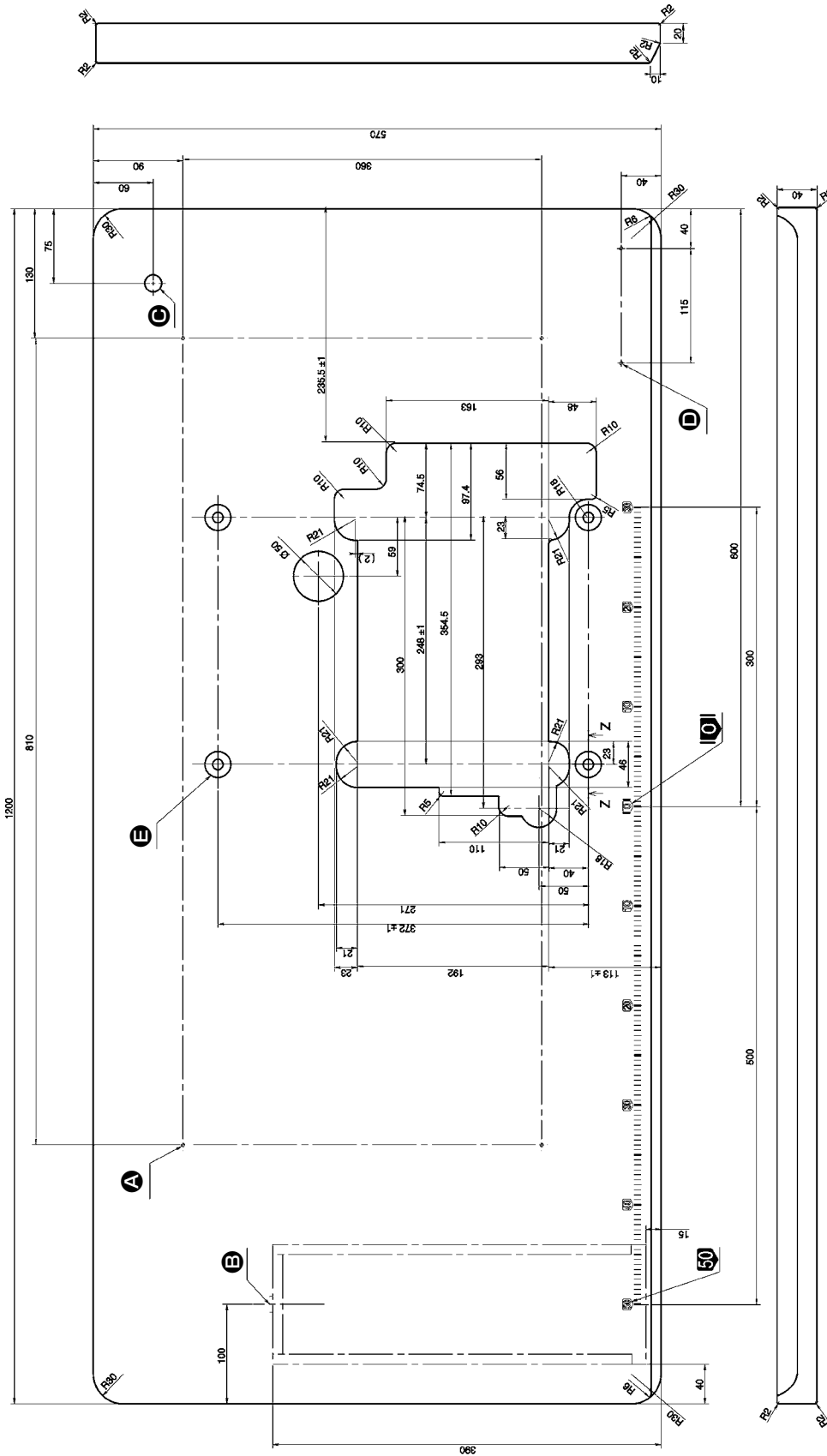
X-X



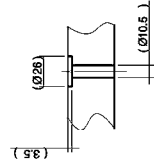
Z-Z (4 locations)



5. DRAWING OF TABLE (SEMI-SUBMERGED TYPE / DIRECT-DRIVE TYPE)



Z-Z (4 locations)



- A** 4 - \varnothing 3.4 on the bottom surface, depth 20
(Drill a hole at the time of set-up.)
- B** Installing position of drawer stopper
(on the reverse side)
- C** Drilled hole 17
- D** 2 - \varnothing 3.4 on the bottom surface, depth 10
(Drill a hole at the time of set-up.)
- E** 4 - 10.5 hole, 26 hole facing depth 3.5

6. THREADING THE MACHINE HEAD

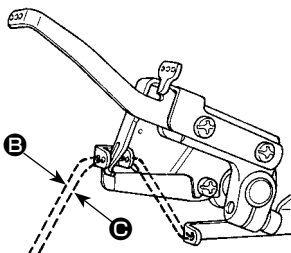
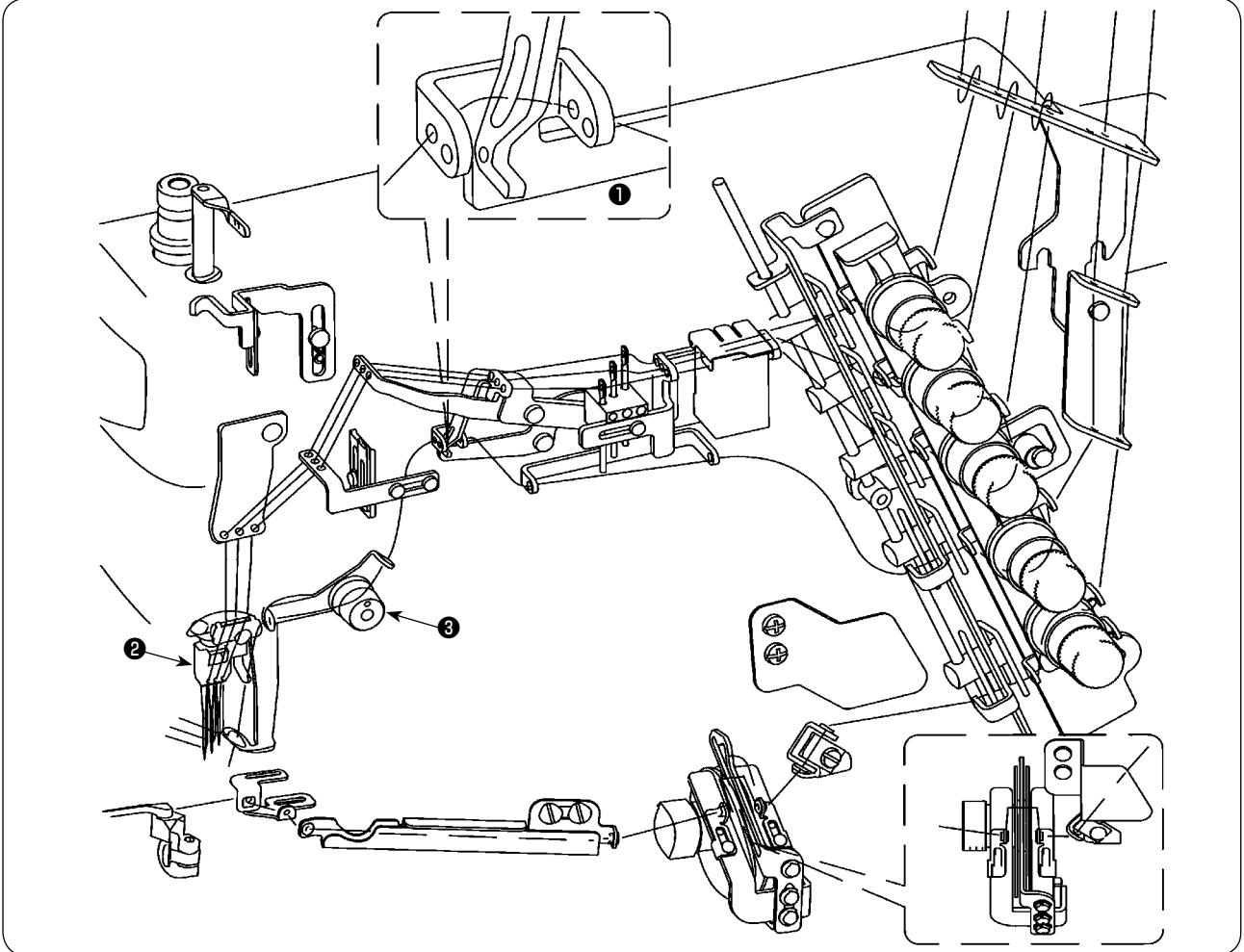
WARNING :



To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest. If threading is wrong, stitch skipping, thread breakage, needle breakage or irregular stitches will be caused. So, be careful.

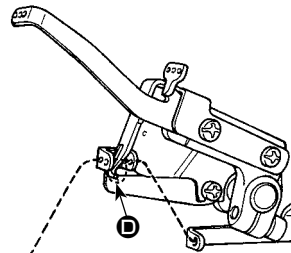
[Standard threading]

Thread the machine head according to the following threading illustrations.



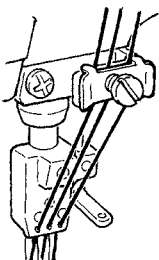
1

When covering thread is excessively loosened = B
When covering thread is excessively loosened even after passing B = C



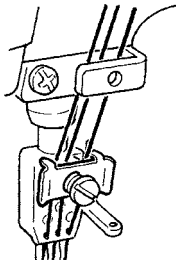
When covering thread is excessively tense = D

When using more stretchable thread



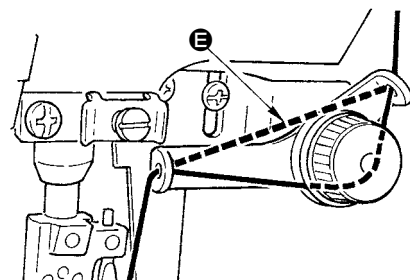
2

When using less stretchable thread



3

Broken line B when using more stretchable thread

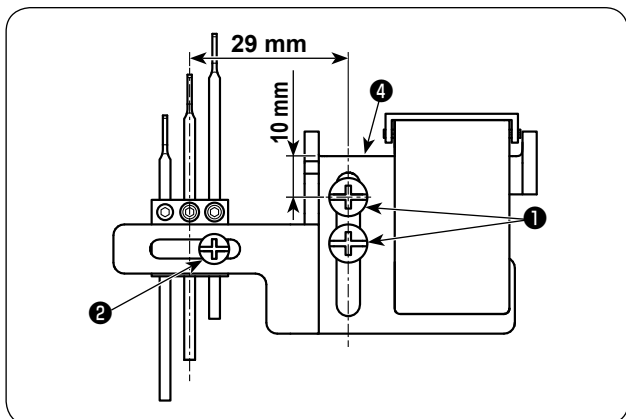


7. ADJUSTING THE SILICON CONTAINER THREAD GUIDE

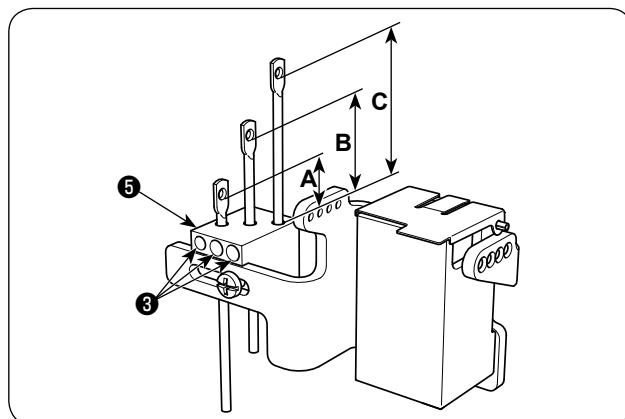


WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) Loosen setscrews ①. Adjust so that a distance of 10 mm is provided between the center of the upper setscrew and top end ④ of the base. Then, tighten setscrews ①.
- 2) Loosen setscrew ②. Adjust so that a distance of 29 mm is provided between the center of setscrews ① and the center of medium needle thread guide bar. After the adjustment, fix the needle guide bars with setscrew ②.



A	B	C
9 mm	15 mm	21 mm

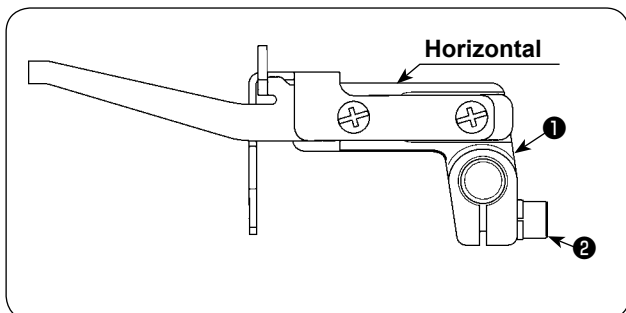
- 3) Loosen setscrews ③. Adjust the height of the bottom end of hole in the respective needle thread guide bars from the top end of base ⑤ to the distances as shown in the table above. After the adjustment, fix the needle thread guide bars with setscrews ③.

8. ADJUSTING THE ROCKING THREAD TAKE-UP



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



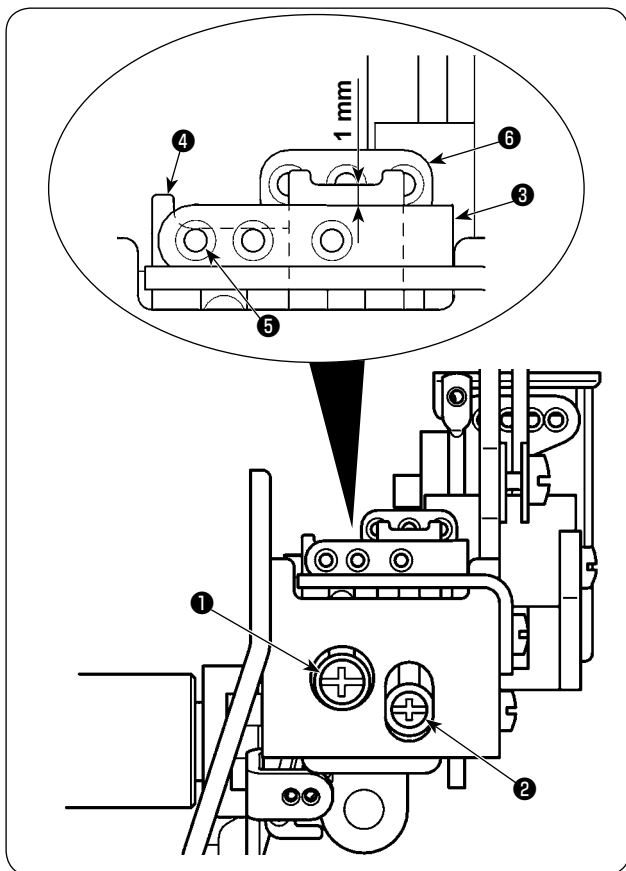
Adjust so that rocking thread take-up base ① is level when the rocking thread take-up is in its lowest position. Retighten screw ② to fix the rocking thread take-up base.

9. ADJUSTING THE ROCKING THREAD TAKE-UP HOLDER



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



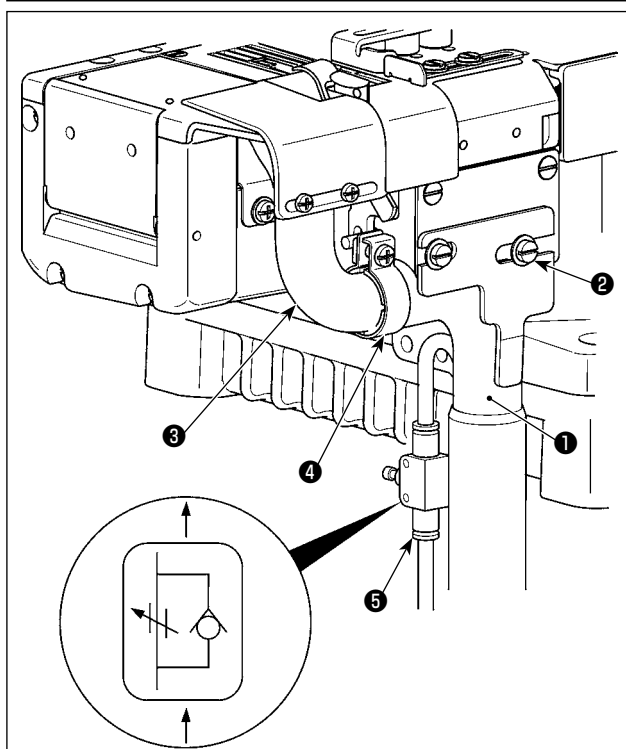
- 1) Loosen setscrew **1**. Adjust so that the top end of thread-hole **5** in the rocking thread take-up is aligned with the top end of rocking thread take-up holder **4** when rocking thread take-up **3** is brought to its lower end. After the adjustment, fix the rocking thread take-up holder with setscrew **1**.
- 2) Loosen setscrew **2**. Adjust so that a distance of 1 mm is provided between the top end of rocking thread take-up **3** and the top end of right needle guard **6** when rocking thread take-up **3** is brought to its lower end. After the adjustment, fix the rocking thread take-up holder with setscrew **2**.

10. INSTALLING THE WASTE CLOTH PIPE



WARNING :

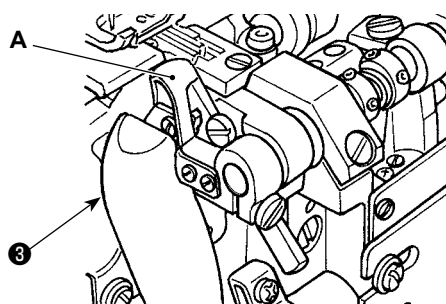
To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) Fix waste cloth pipe asm. **1** with waste cloth pipe setscrews **2**.
- 2) Insert waste cloth pipe **3** into waste cloth pipe asm. **1**, and fix it with joint asm. **4**.
- 3) Connect the dust collection hose from the dust collection device to dust collection pipe asm. **1**. When connecting it, use speed controller (accessories) **5**.



When installing waste cloth pipe **3**, install it so as not to interfere with section A of the upper knife holder.

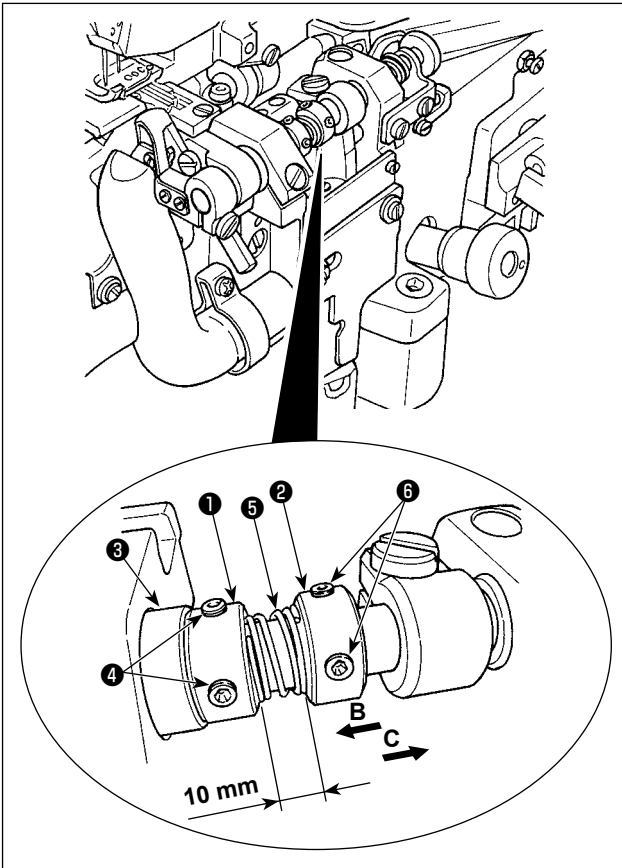


11. ADJUSTING THE UPPER KNIFE PRESSURE



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



Standard adjustment position of thrust collars ① and ② is such that a clearance of 10 mm is provided between them.

Place thrust collar ① between spring ⑤ and lower knife holder ③. Press thrust collar ① against the end face of lower knife holder ③ and fix thrust collar ①, using set-screw ④, with pressed against the end face of bushing ③.

- 1) To increase the knife pressure
Move thrust collar ② to the left (in direction B).
Then, tighten setscrew ⑥. Loosen setscrew ④ of thrust collar ① once. Tighten setscrew ④ to fix thrust collar ① with pressed against the end face of bushing ③ by the spring pressure.
- 2) To decrease the knife pressure
Move thrust collar ② to the right (in direction C).
Then, tighten setscrew ⑥. Loosen setscrew ④ of thrust collar ① once. Tighten setscrew ④ to fix thrust collar ① with pressed against the end face of bushing ③ by the spring pressure.

* Standard assembly procedure of the thrust collar for the MF-7900D-H24 :
Assemble the thrust collar, spring and thrust collar in the written order.



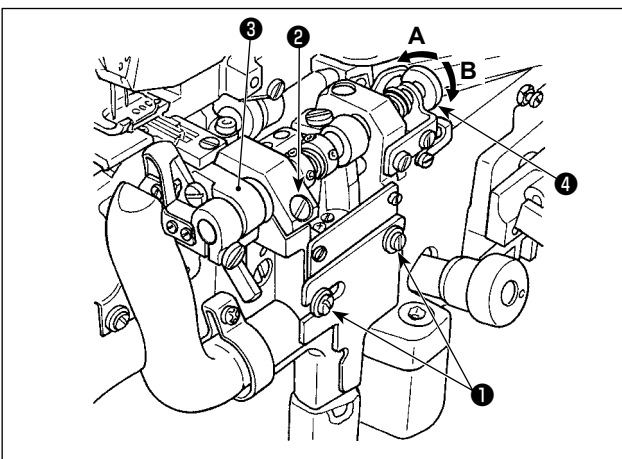
Set the knife pressure as low as possible within the range where cloth is smoothly cut for use.

12. ADJUSTING THE LATERAL POSITION OF THE LOWER KNIFE



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



- 1) Loosen waste cloth pipe setscrews ①.
- 2) Loosen lower knife holder setscrew ②. Adjust the lateral position of the lower knife by turning adjustment screw ④ to move lower knife holder ③ to the right or left.

The lower knife moves to the left by turning the adjustment screw in direction A.

The lower knife moves to the right by turning the adjustment screw in direction B.

After the adjustment, tighten lower knife holder setscrew ②.

The tightening torque is 1.5 to 2 N · m (15 to 20 kgf · cm).

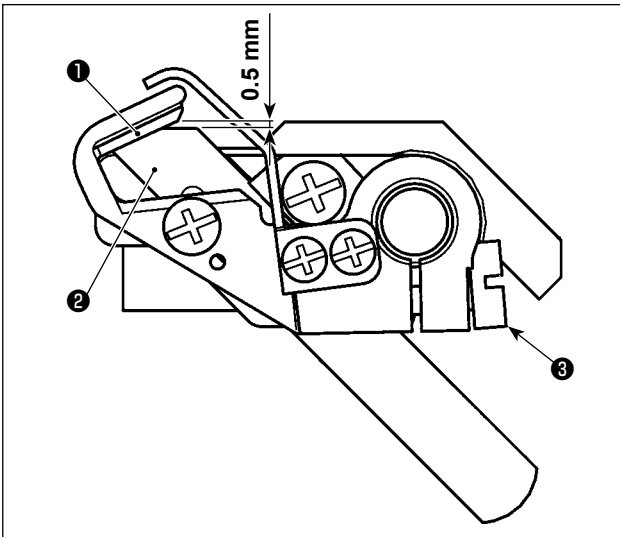
- 3) After the adjustment, fix the lower knife holder with the lower knife holder setscrew ②.
- 4) Perform the adjustment of the position of waste cloth pipe with waste cloth pipe setscrews ①.

13. ADJUSTMENT PROCEDURE OF ENGAGEMENT AMOUNT OF KNIVES



WARNING :

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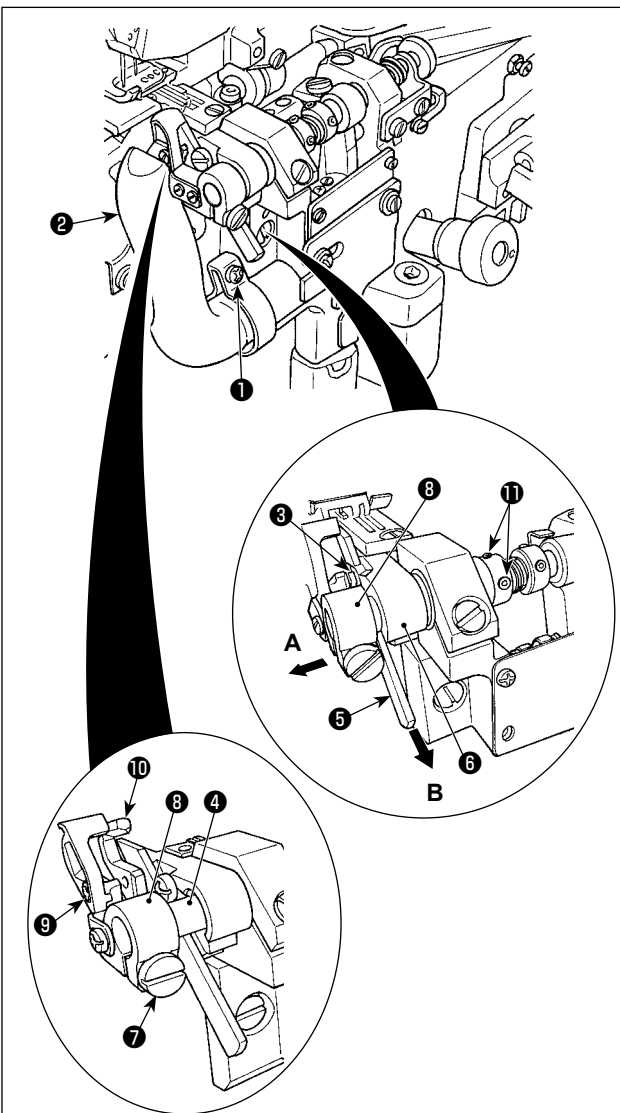
- 1) Loosen upper knife holder setscrew ③. Adjust so that the top end of upper knife is located 0.5 mm above lower knife ② when upper knife ① is brought to its lower end.
- 2) After the adjustment, perform "[11. ADJUSTING THE UPPER KNIFE PRESSURE](#)" p.9.

14. REPLACEMENT PROCEDURE OF UPPER KNIFE AND LOWER KNIFE



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



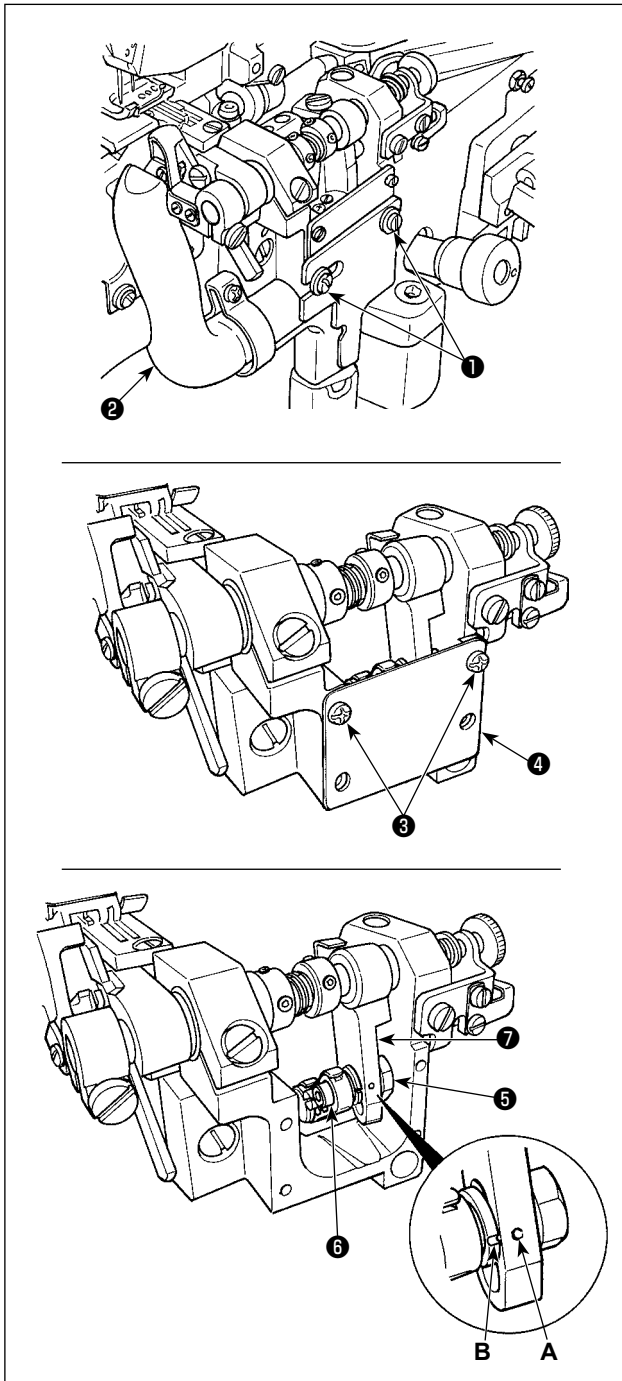
- 1) Loosen setscrew ① in the joint asm., and remove waste cloth pipe ②.
- 2) Loosen setscrews ①. In this state, loosen lower knife retaining plate setscrew ③. Pull out lower knife ⑤ in direction B while pulling upper knife holder ⑧ in direction A .
- 3) Insert a new lower knife in the groove of lower knife holder ⑥, and tighten setscrew ③ in the lower knife presser plate in the state that the blade point is aligned with the top surface of the throat plate.
- 4) When replacing the upper knife, loosen setscrew ⑦ in the upper knife holder, remove upper knife holder ⑧, loosen setscrew ⑨ in the upper knife, and remove upper knife ⑩.
- 5) Fix new upper knife with setscrew ⑨ in the upper knife.
- 6) After replacing the upper knife, align the left end face of upper knife holder ⑧ and the left end face of knife shaft ④, and tighten setscrew ⑦ in the upper knife holder.
- 7) After replacing the upper knife, perform "[11. ADJUSTING THE UPPER KNIFE PRESSURE](#)" p.9 and "[13. ADJUSTMENT PROCEDURE OF ENGAGEMENT AMOUNT OF KNIVES](#)" p.10.

15. ADJUSTING THE UPPER KNIFE STROKE



WARNING :

To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.



1) Loosen setscrews **1** in the waste cloth pipe and remove waste cloth pipe **2**.

2) Remove setscrews **3** in the installing base cover, and remove installing base cover **4**.

3) Loosen lock nut **5** of the adjustment pin and move adjustment pin **6** up or down to adjust the stroke of the upper knife.

4) The standard adjustment position is the position where the engraved marker dot **A** of adjustment lever **7** aligns with the engraved marker line **B** of adjustment pin **6**. Loosen nut **5** and raise adjustment pin **6** to increase the stroke of the upper knife, and lower it to decrease the stroke. After the adjustment, perform **"13. ADJUSTMENT PROCEDURE OF ENGAGEMENT AMOUNT OF KNIVES"** p.10.