

Yamato[®]

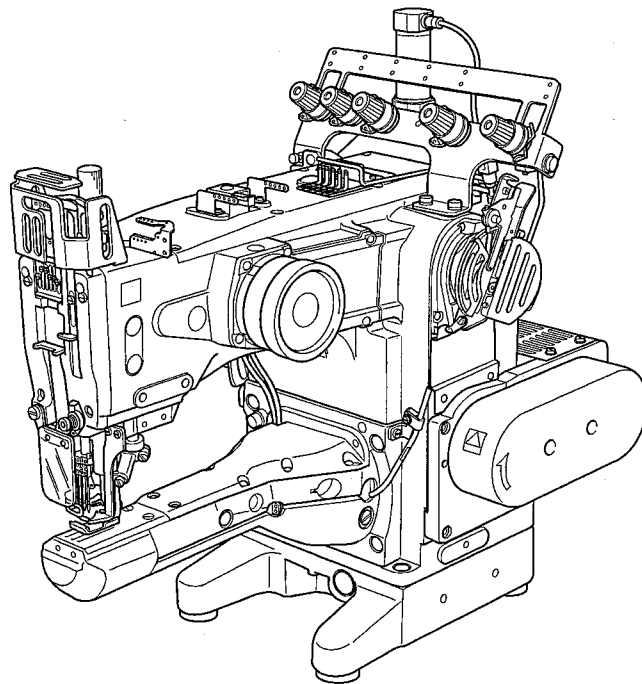
Instruction Manual

PNEUMATIC UNDER THREAD TRIMMING DEVICE
controlled by compact motor

UT-A/Y, UT-A

UT-A34/ST-2A/Y, UT-A34/ST2-A

VT2500 class



Thank you for purchasing UT-A/Y, UT-A.

Before using your UT-A/Y, UT-A, please read the instruction manual and understand the contents well.

After reading the instruction manual, please keep it in a location where it is easily accessible to the operator.







YAMATO SEWING MACHINE MFG. CO., LTD.


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Attention

◇ This instruction manual is designed mainly for technicians, but it is advisable that also operators read the instructions with  mark to use the machine properly.

◇ The numbers in lower left corners of figures are figure numbers. We use them in texts as needed for your reference.

Attention

The parts used for this product are subject to change without notice. If such a change is made, any part of the contents and illustrations of this instruction manual may not conform to this product. In preparing the instruction manual, we have made our best efforts for making it free of any error or omission. If any error or omission should yet be found, it might not be rectified immediately.

1. Introduction

1.1 Outlines

UT-A34

Pneumatic under thread trimmer

ST2-A

Air operated top cover thread trimmer

Y

A compact servomotor

A built-in (sewing machine) compact servomotor

Notice

In this instruction manual, the description about installation, operation and adjustment may differ according to the type of motor.

○ In case of 「/Y」 which with compact motor model, it will be indicated as 「UT-A34/Y with Y motor」.

○ In case of Mitsubishi GY-100 motor, it will be indicated as 「UT-A34 without Y motor」.

1.2 Name of each part

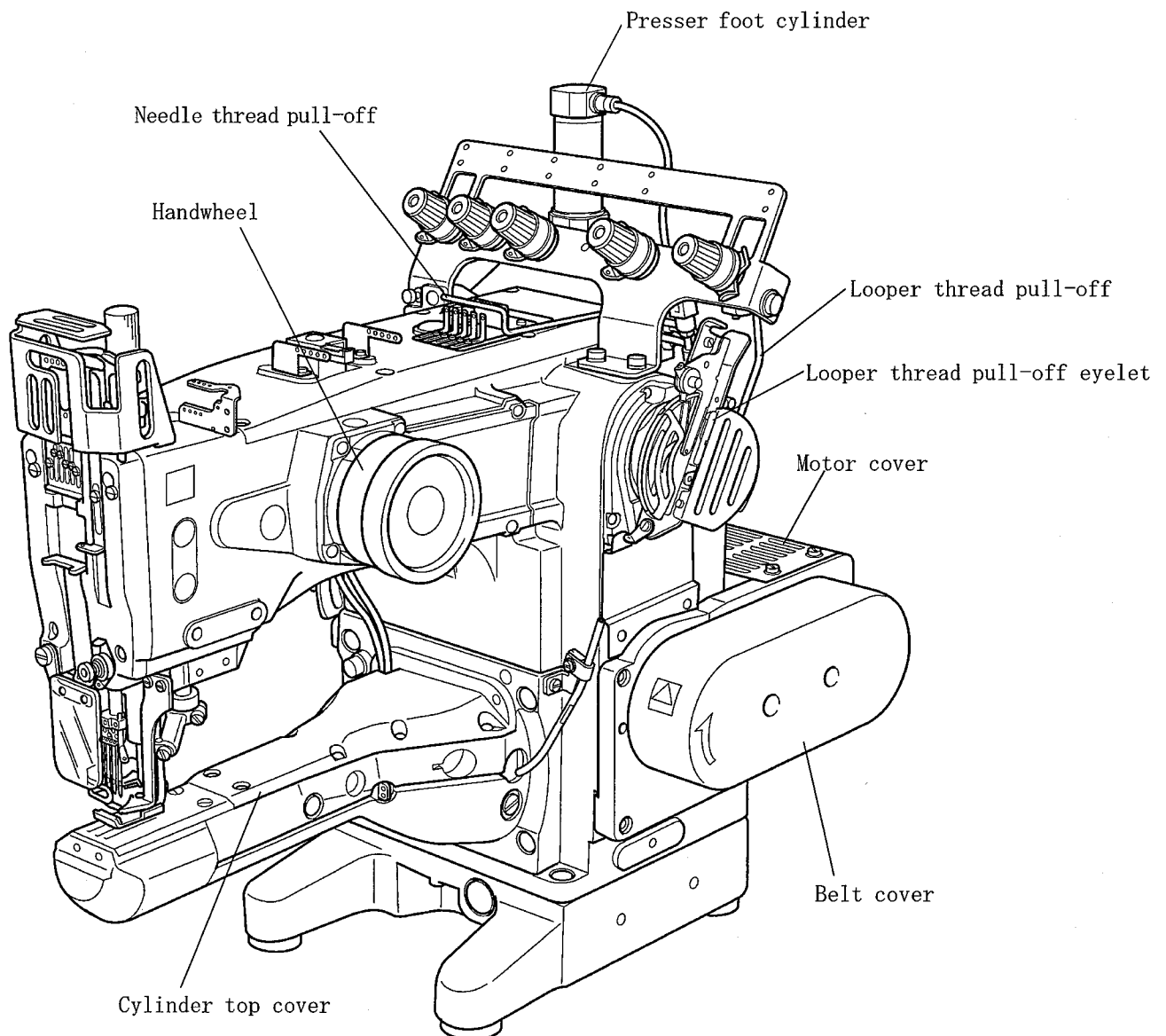


Fig. 1

2. Installation

2.1 Table cutting diagram (UT-A34/Y with Y motor)

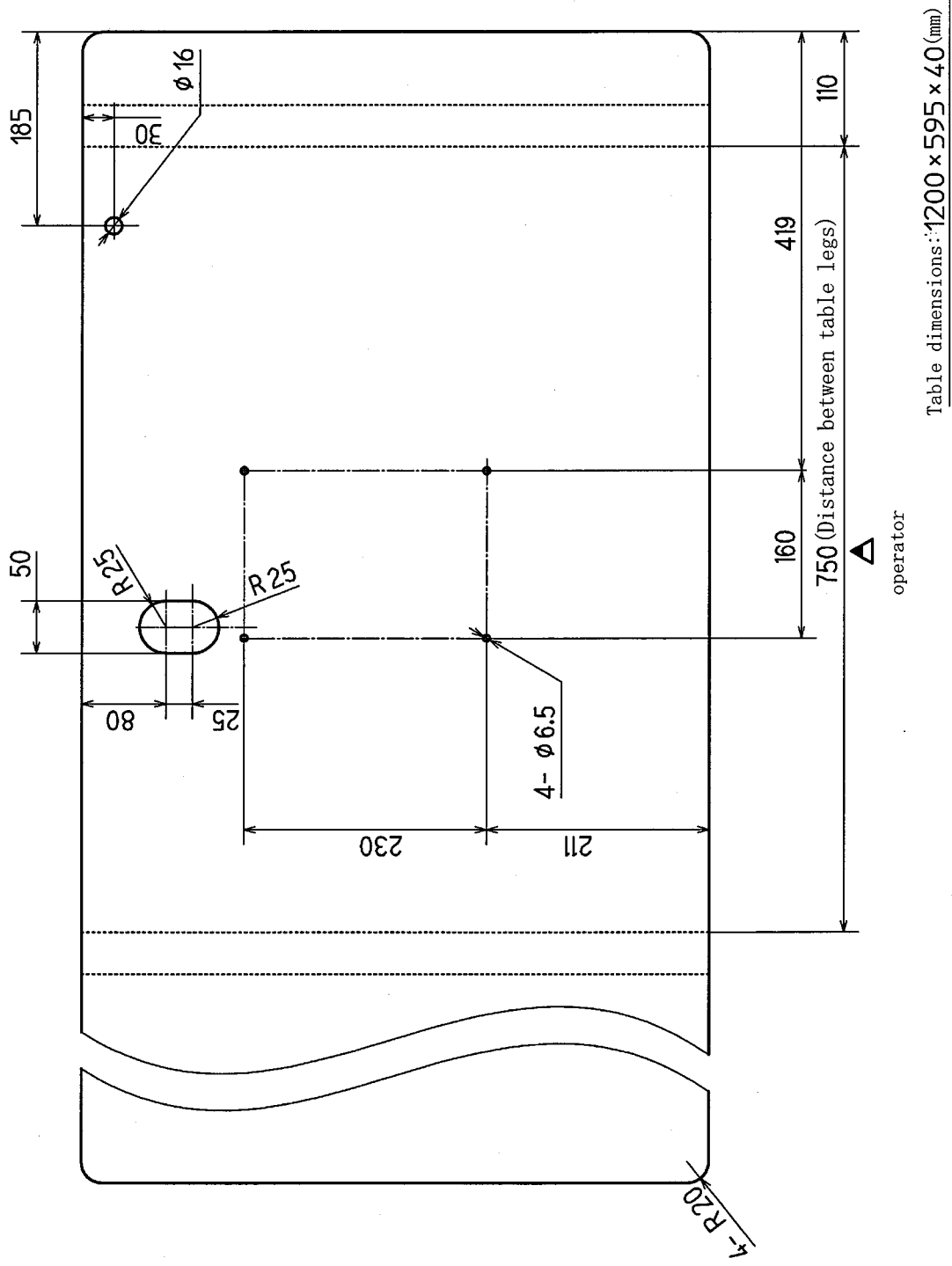


Fig. 2

2.2 Installing compact servomotor

1. Install the set of motor and motor bracket ① with the screw ②③.
2. Tighten the first screw ⑦ of motor adapter ⑥ on the rotation direction onto the flat part ⑤ on main shaft ④. Then, tighten the other screw ⑧.
3. Install the vertical belt cover (middle) ⑨.
4. Install the belt cover ⑩.

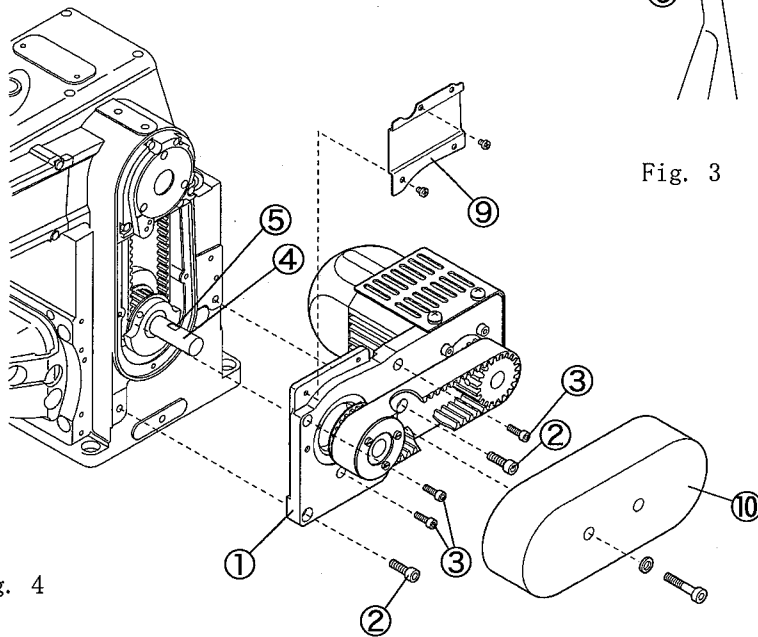


Fig. 4

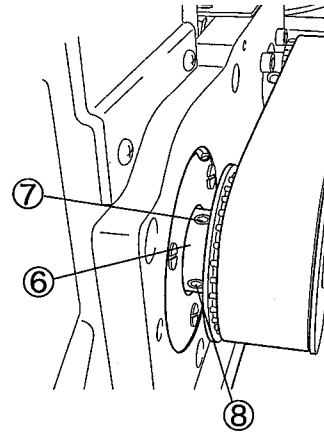


Fig. 3

2.3 Installing solenoid valve and presser foot lifter cylinder

Install solenoid valve and presser foot lifter cylinder, c. set ⑪ with the screw ⑫ and the washer ⑬ behind the sewing machine.

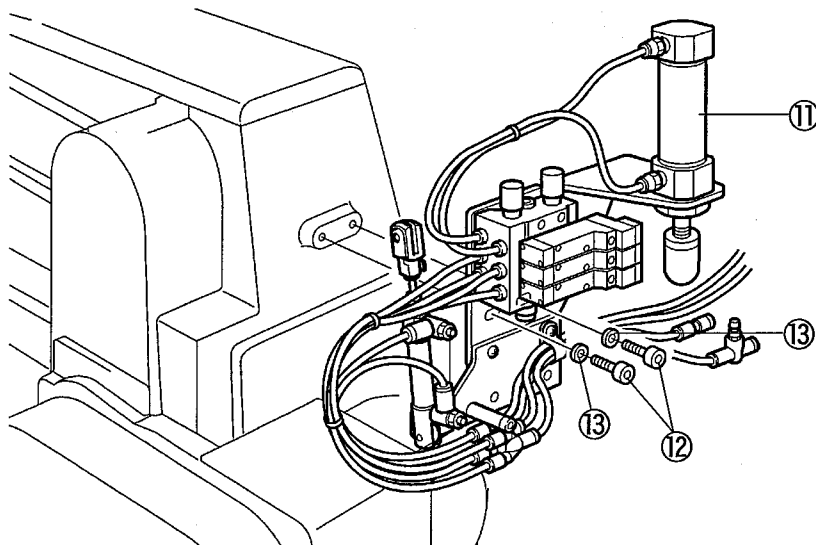


Fig. 5

2. Installation

2.4 Installing thread tension

- (1) Install needle thread pull-off(rear) ⑦ on thread pull-off holder ⑧.
- (2) Install looper thread pull-off ⑨ on thread pull-off holder ⑧.
- (3) Install thread tension ① on the upper part of the sewing machine with screws ② (two screws each, right and left) and washers ③ (two screws each, right and left).

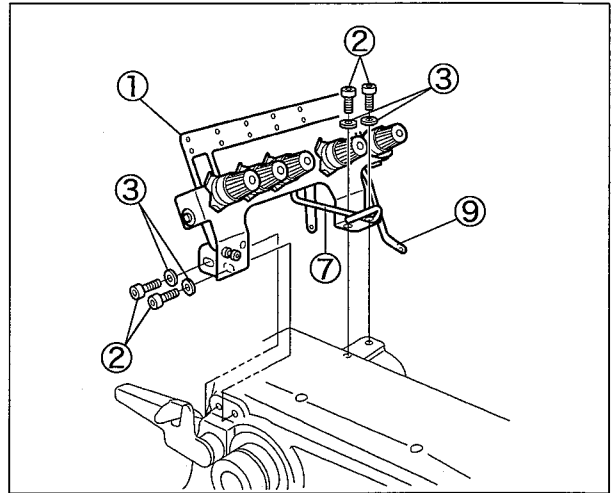


Fig. 6

- (4) Connect tension release cylinder ④ and tension release lever ⑤ by connecting pin ⑥.

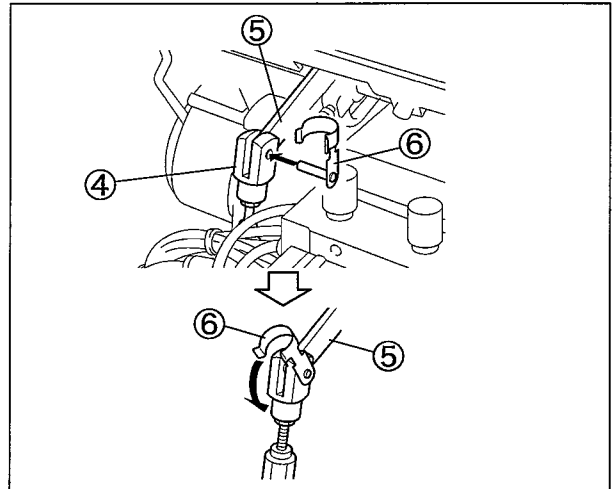


Fig. 7

- (5) Make adjustment of the needle thread pull-off (rear) ⑦.
(Refer to "4.2.1 Tension release of needle thread")
- (6) Make adjustment of the looper thread pull-off ⑨.
(Refer to "4.2.2 Tension release of looper thread")

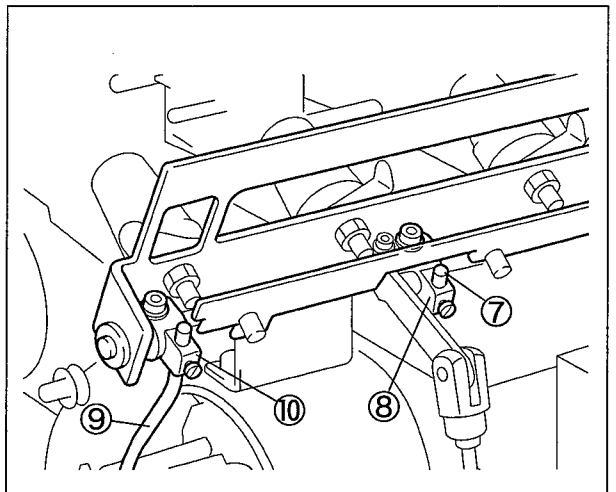


Fig. 8

2.5 Air piping diagram

Connect the pipe of the same number with the connector.
Fix the air pipe referring to Fig. 9.

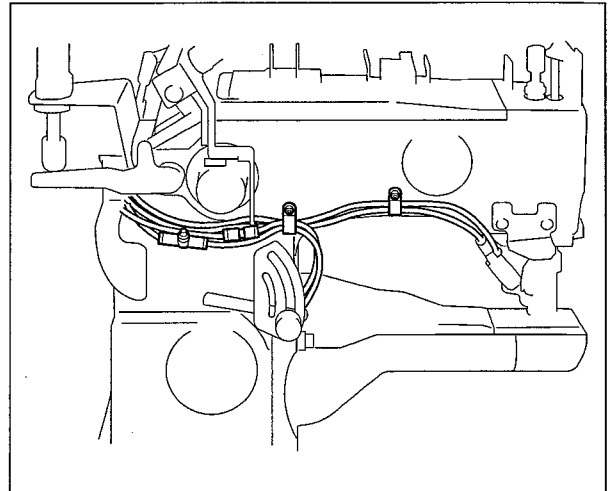
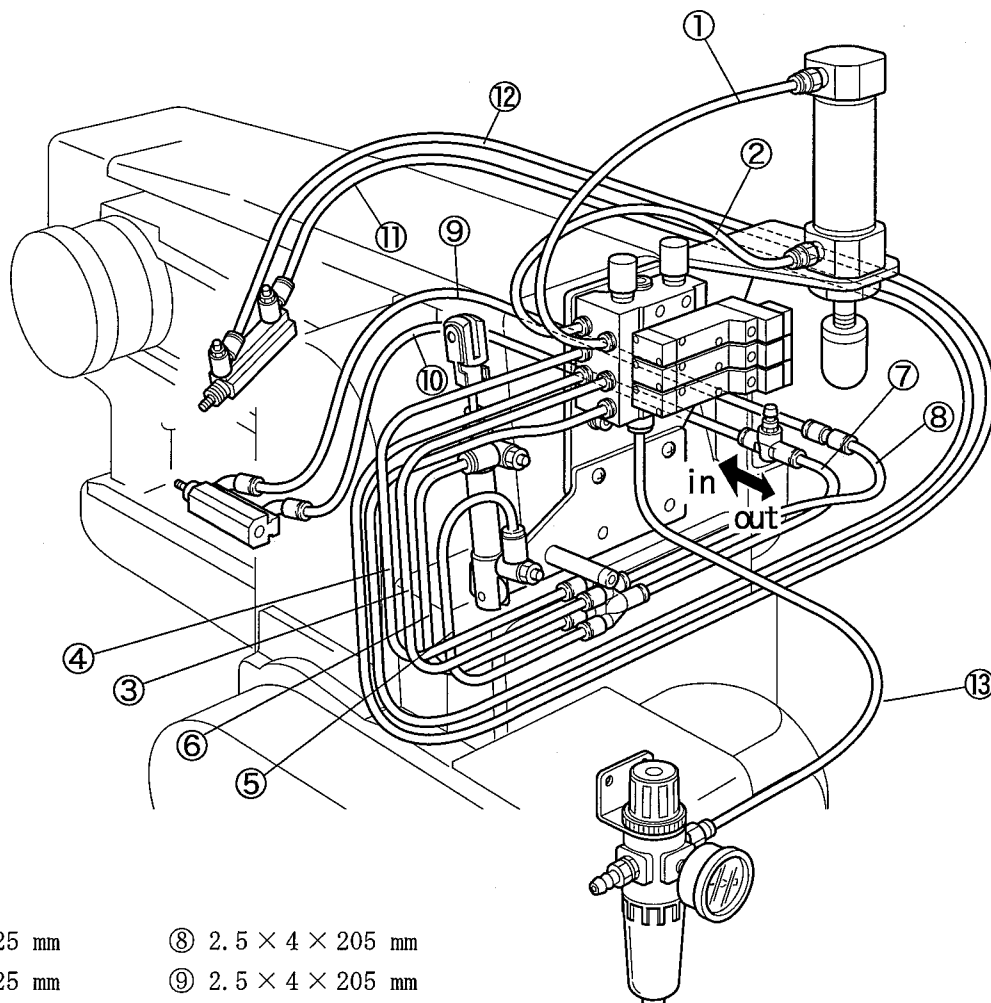


Fig. 9

UT-A34/ST2-A



- | | |
|--------------------|--------------------|
| ① 2.5 × 4 × 225 mm | ⑧ 2.5 × 4 × 205 mm |
| ② 2.5 × 4 × 225 mm | ⑨ 2.5 × 4 × 205 mm |
| ③ 2.5 × 4 × 225 mm | ⑩ 2.5 × 4 × 205 mm |
| ④ 2.5 × 4 × 225 mm | ⑪ 2.5 × 4 × 750 mm |
| ⑤ 2.5 × 4 × 225 mm | ⑫ 2.5 × 4 × 720 mm |
| ⑥ 2.5 × 4 × 225 mm | ⑬ 4 × 6 × 1500 mm |
| ⑦ 2.5 × 4 × 205 mm | |

air pressure standard 0.4MPa(4kgf/cm)
range of use 0.35~0.45MPa

Fig. 10

2. Installation

2.6 Wiring

2.6.1 Wiring motor

2.6.1.1 UT-A34/Y (with Y motor)

⚠ WARNING

To avoid electrical hazard, keep the power cable for the control box unplugged during wiring.

- Install the control box and the pedal unit on the back surface of the machine table referring to the instruction manual for the motor.
- Connect the control box, the pedal unit, the motor, and the rotation detector unit (synchronizer) referring to the instruction manual for the motor.

Connecting lamp

⚠ CAUTION

Never use the lamp other than the LED lamp (DC12V, 50mA). If used, it can cause the damage to the control box.

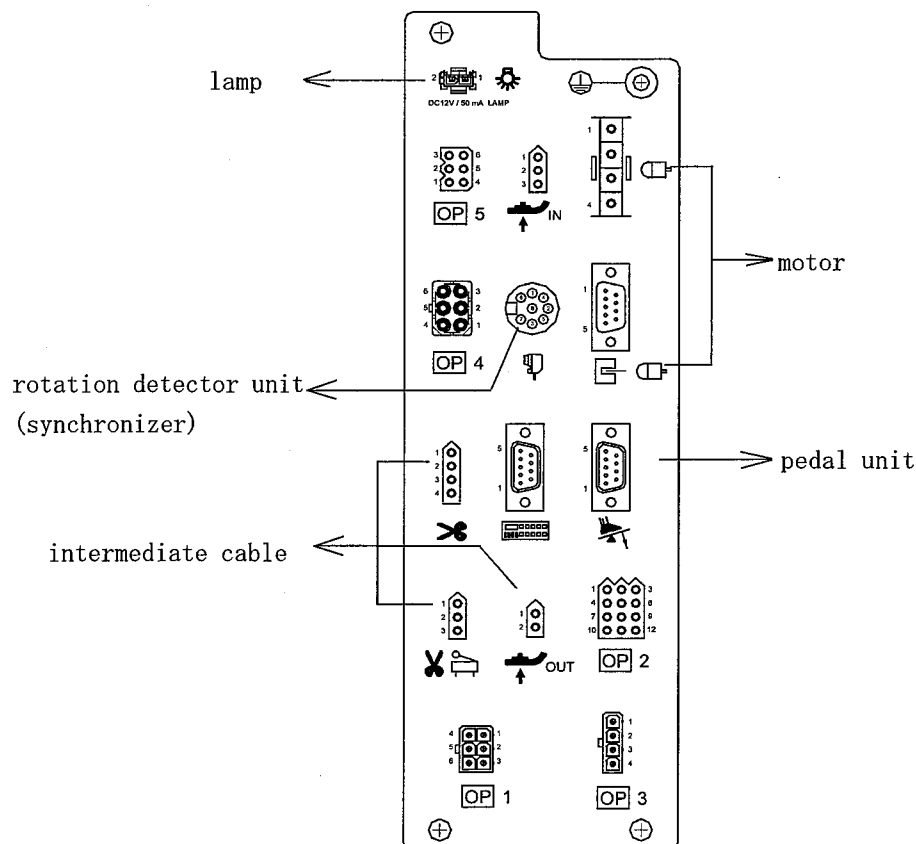


Fig. 11

2.6.1.2 UT-A34 (without Y motor)

WARNING

To avoid electrical hazard, do not connect the power cord to service outlet during wiring.

- Install the control box and the motor onto the machine table by referring to the instruction manual for the motor.
- For the connection of the control box, the motor, and the position detector (synchronizer), refer to the instruction manual for the motor.
- Connect each connector on control box with the one which is the same in color and shape from intermediate cable. Miss-connecting may cause damage to the sewing machine.

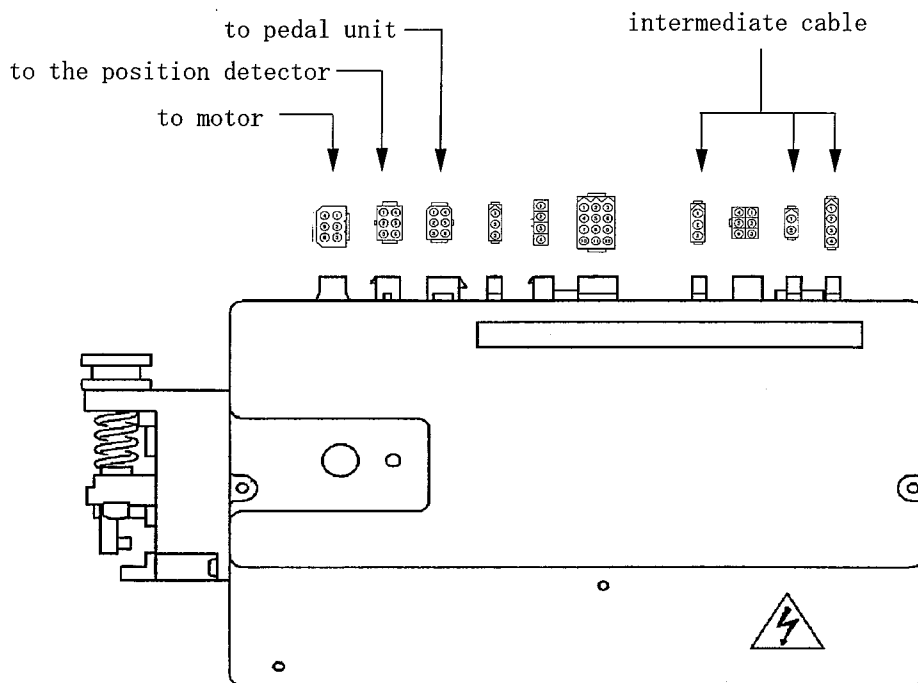


Fig. 12

2. Installation

2.6.2 Connecting detector switch

Connect the 3P-connector of the detector switch to that of the intermediate cable.

Refer to the figure to insert the R connector (1070199) properly according to the machine model or device in the position of figure.

CAUTION

1. Set the appropriate R connector to the machine model. R connector is limited by the safety, when improper R connector is connected, damage to the machine might be caused.
2. Without R connector, maximum sewing speed is set for 2000rpm. And the function is limited by the consideration in safety.

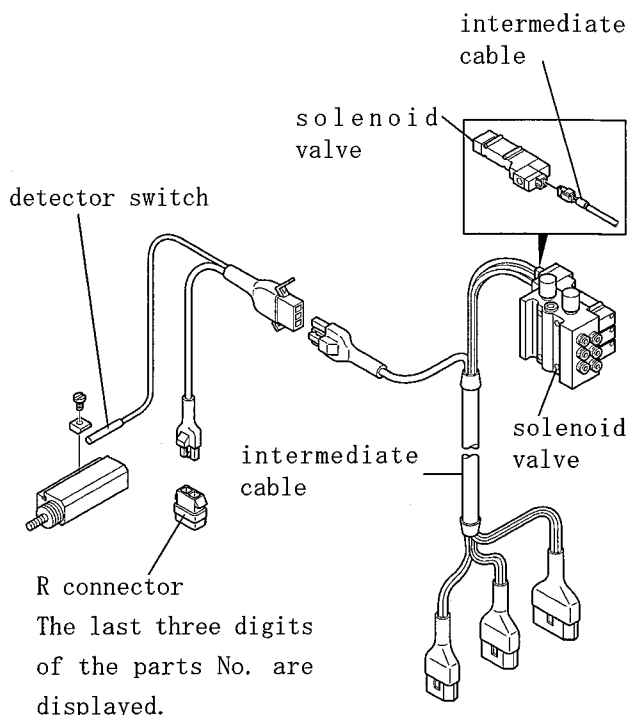


Fig. 13

2.6.3 Connecting intermediate cable

Insert the connectors of the intermediate cable to the solenoid valves until you hear them click.

2.6.4 Solenoid valve number and intermediate cable part number

device	looper thread cutter	tension releaser	presser foot lifter	air wiper	top cover thread cutter	intermediate cable part number
UT-A34/ST2-A		②	①	×	③	1200452

Table 1

Note 1 : The circled number shows the solenoid valve number.

2.7 Setting motor

⚠ CAUTION

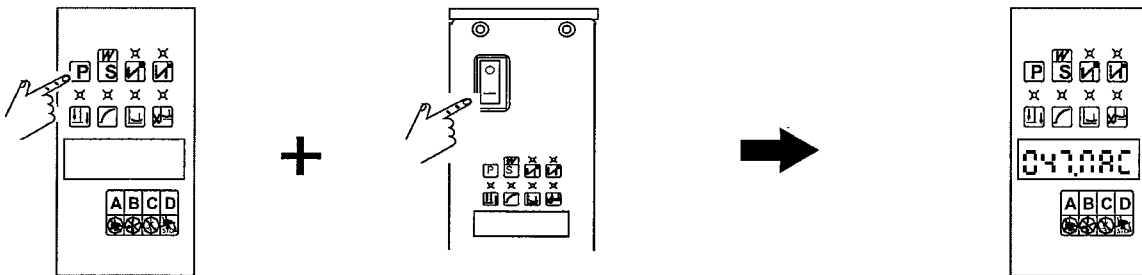
Set the motor correctly according to the model and the device of the sewing machine. Improper setting can cause breakdown and damage.

2.7.1 UT-A34/Y (with Y motor)

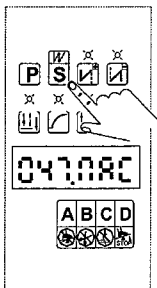
2.7.1.1 Simple setting

For main models, the setting for the motor can be changed in the following method. (Refer to table 2)

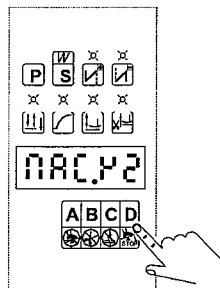
1. Turn on the power switch while holding down **P** key. LED displays "047.08C".



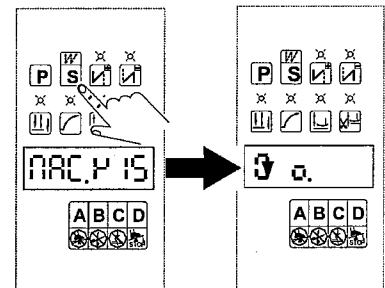
2. Press **S** key to display which is the current simple setting.



3. Press **C** or **D** key to change to new setting.



4. Press **S** key to change to new setting. And then, it return to "normal mode" automatically.



Code	Display	Applicable models
Y15	Y15	VT machines with UT-A34/ST2-A device

Table 2

Note : Normal mode is the mode in which the machine can be operated normally.

⚠ CAUTION

Do not set the codes other than Table 2. It can cause the breakdown and damage.

In case of simple setting, the sewing speed will be set to 4000rpm. Please change the sewing speed according to the machine model.

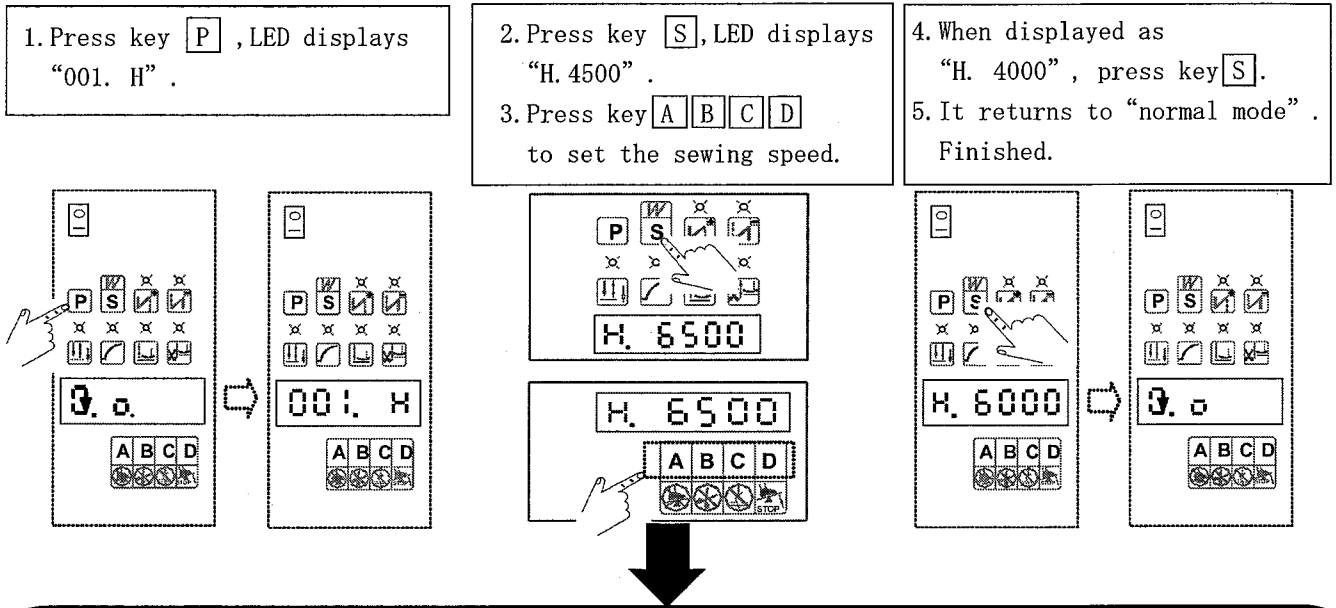
(Refer to "2.7.1.2 Setting sewing speed")

2. Installation

2.7.1.2 Setting sewing speed

Set an appropriate sewing speed according to the machine model.

(Example) Changing the speed from 4500rpm to 4000rpm.



Perform the following steps in case the sewing speed can not be changed to the desired value.

1. Display the current speed.

H. 4500



2. Press key **[A]** several times, lowest value "50" is displayed next to highest value "9xxx".

H. 9500



H. 50



4. Press key **[C]**, the numerical value is turned over and be raised.

H. 100



5. Press key **[B]**, the numerical value is turned over and be raised.

H. 1000



6. Set the numerical value with **[A]** key.

H. 4000



⚠ CAUTION

Do not input any sewing speed exceeding the speed limit. It can cause breakdown and damage to machine.

2.7.1.3 Disabling thread cutting function

Disabling or activating the thread cutting function can be set by **B** key.

If the mark 「□」 lights above the **B** key, it means that the thread cutting function has been disabled.

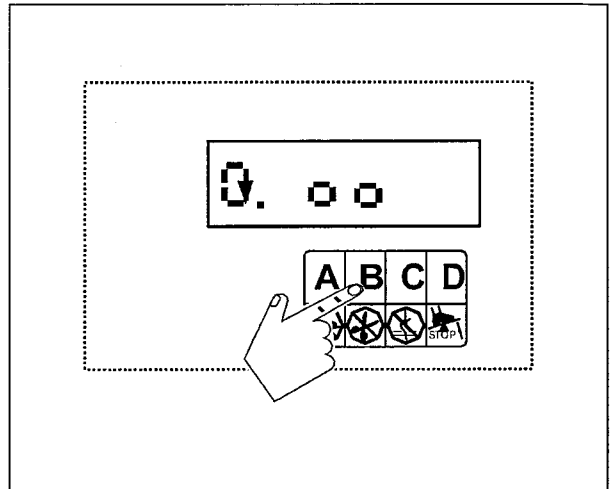


Fig. 14

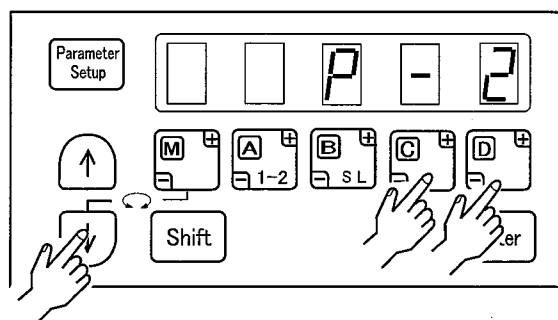
2. Installation

2.7.2 UT-A34 (without Y motor)

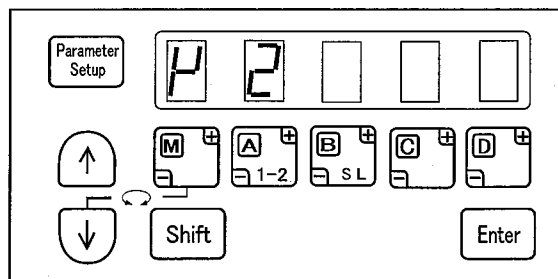
2.7.2.1 Simple setting

For main models, the setting for the motor can be changed in the following method.

- Shift it to program mode [2].
(Press [\downarrow] + [C] + [D] keys at the same time.)

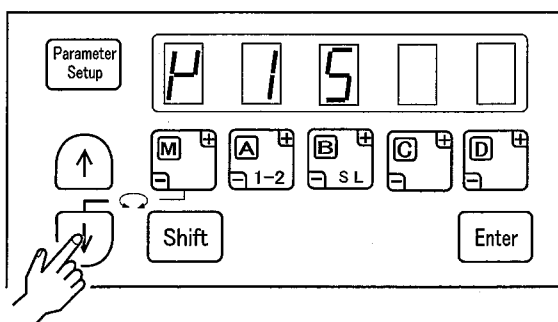


- Shift to the program mode.

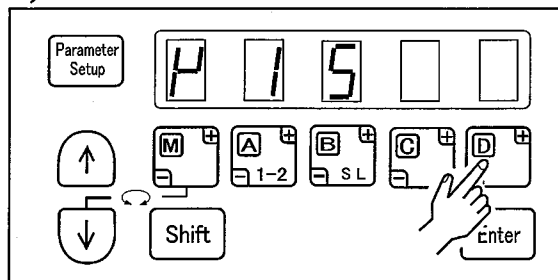


- Press the [\downarrow] key, functions will be shown as the following.

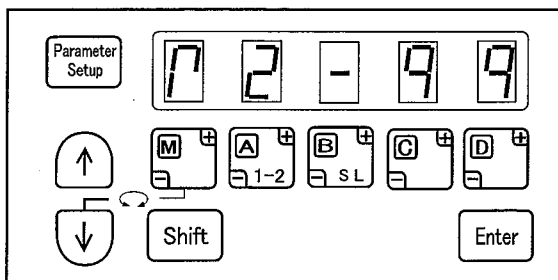
	Function	LED
UT-A34/ST2-A	Y15	P15



- Keep pressing [D] key until the machine goes back to the normal mode.
([Y15] will be blinking during setting. It means that the setting is changing.)



- The normal mode will be displayed.
(Setting finished)



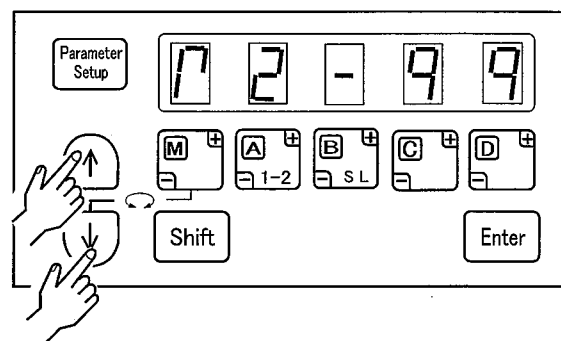
2.7.2.2 Setting sewing speed

Change the sewing speed according to the machine type.

(Example) Change the sewing speed from 4500 rpm to 4000 rpm.

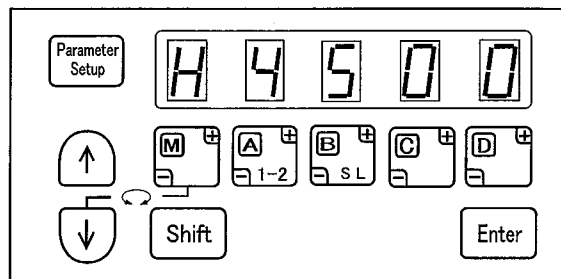
1. Shift it to program mode [P].

(Press [↓] + [↑] keys at the same time)



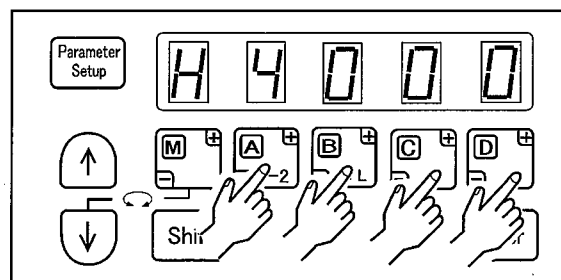
2. The program shifts to mode [P].

(The value has been shown is the setting value.)

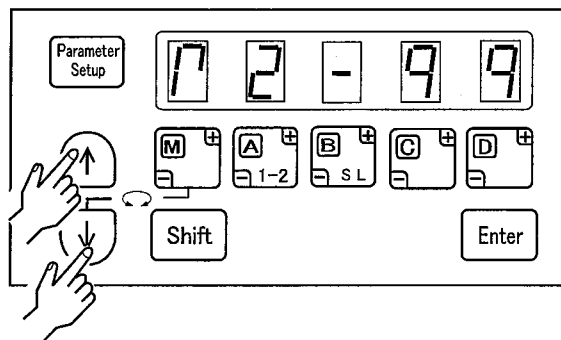


3. Press [A], [B], [C] and [D] keys to display [4000].

The number value on each figure will be increased by pressing each key. "0" will be displayed after "9".



4. Press [↓] + [↑] keys at the same time, shift the machine to normal mode.



⚠ CAUTION

Do not input any sewing speed exceeding the speed limit. It can cause breakdown and damage to machine.

2. Installation

2.8 Adjusting rotation detector unit

2.8.1 UT-A34/Y (with Y motor)

Check the needle stops between the highest point and 0.5 mm lower than the highest point.

2.8.2 UT-A34 (without Y motor)

⚠ CAUTION

Unplug all the intermediate cables which are connected to the solenoid valves. If not, they may be scratched by moving parts and be damaged.

- (1) Install the rotation detector ① onto the synchronizer adapter ④ and tighten the screws ② slightly.
- (2) Set the synchronizer positioning pin ③ into the groove of the synchronizer ①.
- (3) Turn on the motor switch.
- (4) Toe down the pedal to sew two or three stitches.
- (5) Heel back the pedal. Then the needle stops at a certain position.
- (6) Loosen the screws ②, and turn the handwheel ⑤ clockwise. Set the mark ⑥ on the machine arm at "P" on the handwheel ⑤. At the same time, make sure the screws ② on the rotation direction have not slipped out of the positions.

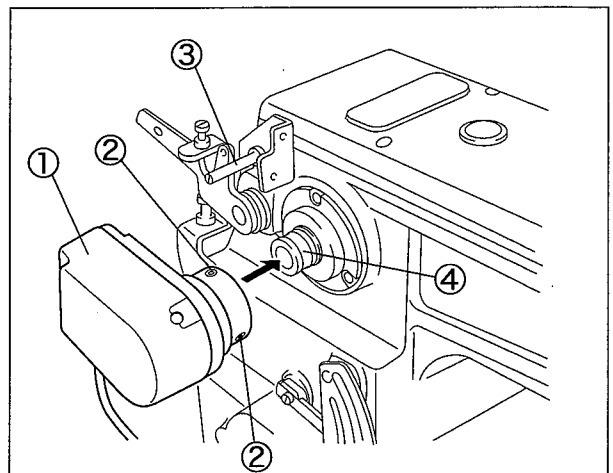


Fig. 15

NOTES

1. At this moment, the needle bar is at the highest point.
2. Turn the pulley clockwise. The using range of this device is between where the needle bar is at the highest point to the position that 0.5 mm below its highest point.

- (7) Toe down the pedal to sew several stitches. Make sure that the needle bar stops at the position between the highest point and 0.5 mm below it.

After installing the synchronizer, refer to 「2.6.4 Solenoid valve number and intermediate cable part number」 and connect the intermediate cable to solenoid valves until they click.

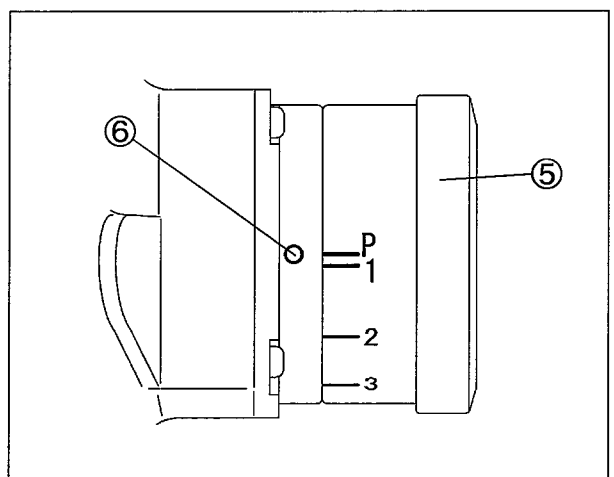


Fig. 16

3. Proper operation

3.1 Threading



⚠ CAUTION

Before threading, ALWAYS turn the motor switch OFF and check that the motor has already stopped. Improper threading can cause thread breakage, skip stitch, and uneven stitch.

Refer to Fig. 17 for threading.

ⓘ Supplement

The tension release starts to work, and the thread can be pulled out easily, when the presser foot is raised up.

If it has already threaded, tie with new threads.

⟨A Needle thread⟩

Pull out the thread until it comes to the front of the needle. Then, cut off the knot before passing it through the needle eye.

⟨B Top cover thread⟩

Pull the thread until the knot comes out.

⟨C Looper thread⟩

Pull the thread until the knot comes out. Cut the tip with a pair of scissors.

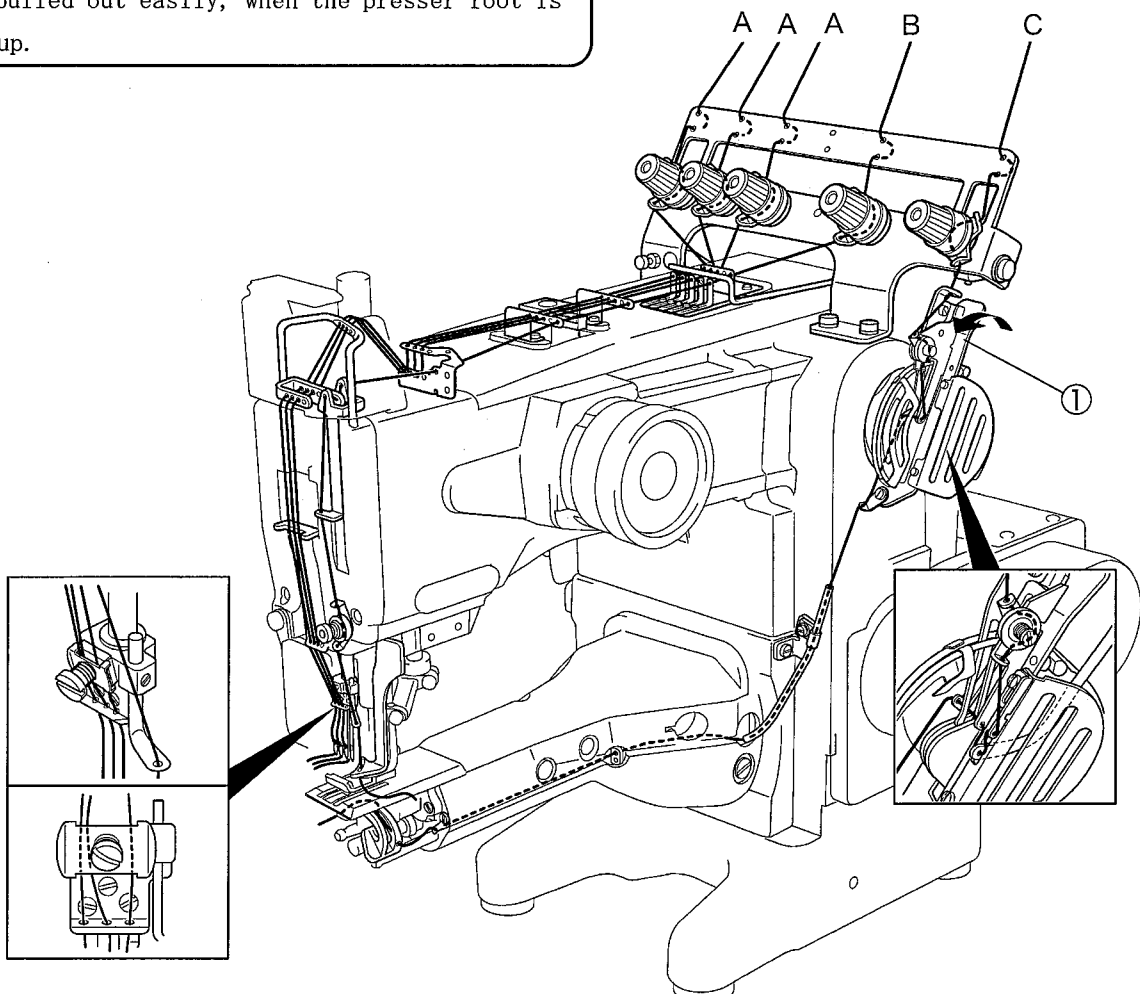


Fig. 17

ⓘ Supplement

Looper thread can be threaded easily, if the supporting plate ① is raised up. After threading, return it to its original position until you hear it clicks.

3. Proper operation

3.2 Stitch length adjustment



⚠ WARNING

Turn off the power switch of the motor and check motor rotation has stopped before adjusting stitch length. Otherwise, you will be injured.

Stitch length can be adjusted infinitely from 1.2mm to 4.0mm.

Each graduation on the handwheel③ indicates the length (mm) of one stitch.

* Actual stitch length may vary depending on the type and thickness of fabric, and the differential ratio.

Changing stitch length

- (1) Press the pushbutton① with your left hand until you feel the end of button contacts internal parts.
- (2) Turn the handwheel③ clockwise with your right hand, while holding down the pushbutton①. At the point that the pushbutton① goes in, press it① again strongly.
 - To make the stitch length larger, turn the pulley clockwise.
 - To make the stitch length smaller, turn the pulley counterclockwise.
- (3) With holding down the pushbutton ①, set the mark ② on the arm at a scale on the hand wheel③.
- (4) Once the marks have been aligned, release the pushbutton ①.

⚠ CAUTION

Check the pushbutton ① has returned to its original position completely, and the handwheel ③ turns smoothly.

Stitch length (mm)	Number of stitches per inch	Number of stitches per 30 mm
4.0	6	7.5
2.5	10	12
2.0	12.7	15
1.2	21	25

Table 3

◇ Table 3 shows the number of stitches per inch and 30 mm.

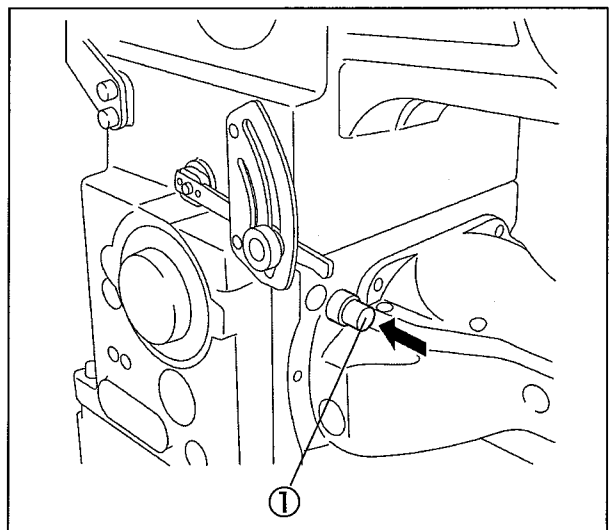


Fig. 18

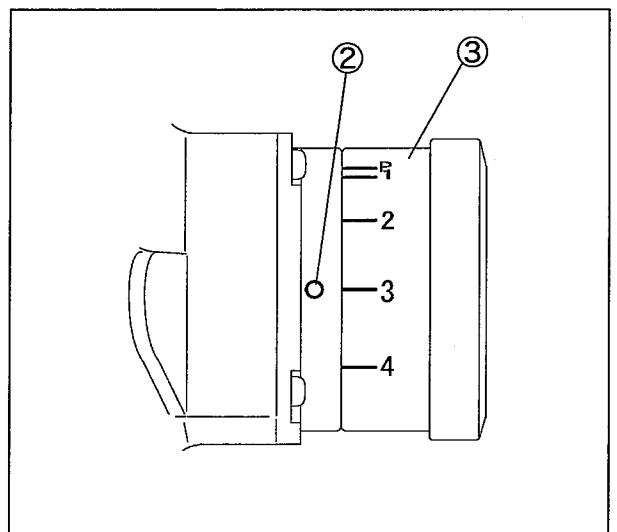


Fig. 19

3.3 Operating procedure



UT-A34/ST2-A/Y

The setting for motor can be selected from 1 position or 2 position. The following is the procedure under 1 position and 2 position.

- (1) Heel back the pedal to raise the presser foot.
(Fig. 20 ③)
- (2) Place a fabric under the presser foot and toe down the pedal. (Fig. 20 ①)
The machine starts sewing.
- (3) Release the pedal. (Fig. 20 ②)
The needle stops at the highest point. (In case of 1 position.)
The needle stops at the lowest point. (In case of 2 position.)
- (4) Heel back the pedal. (Fig. 20 ③)
 - The needle rises and stops at the highest point. (Only in case of 2 position.)
 - The trimming knife mechanism operates to cut the needle and the looper threads under the stitch plate. The looper thread is held by the thread clamp.
 - The ST2-A device cuts and holds the top cover thread. The presser foot rises.
- (5) Release the pedal. (Fig. 20 ②)
The presser foot is lowered.

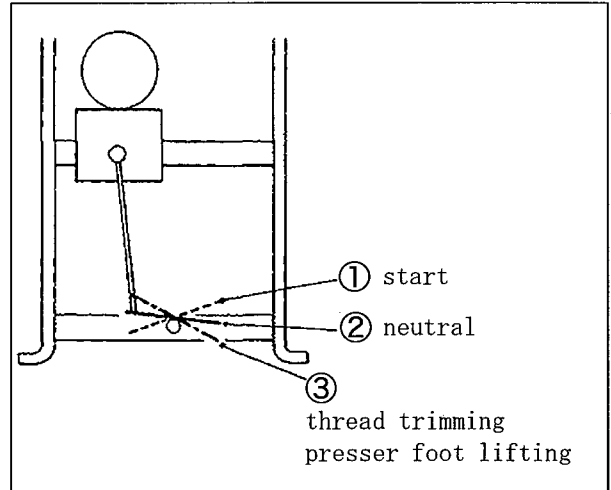


Fig. 20

Supplement

The presser foot can be raised and lowered by heeling back the pedal to the positions ② and ③, except for the pedal is toed down to the position ①.

CAUTION

Be sure to keep the height from the stitch plate to the bottom of presser foot under 5 mm, when the fabric is placed and the presser foot is lowered. If the knife of ST2-A touches the presser foot, the knife can be damaged.

3. Proper operation

3.4 Removing and reinstalling stitch plate

Removing

1. Turn the hand pulley, and it make the needle the highest point.
2. Remove the presser foot.
3. Loosen the screw ①, and remove the stitch plate ②.

Reinstalling

1. Raise the needle to the highest point.
2. Check that driving rod ③ is returned.
3. Check that movable trimming knife ④ on the back of stitch plate is returned.
4. The hole ⑤ of the movable trimming knife is set in the pin ⑥ in the driving rod tip, and set the stitch plate ②.
5. Tighten the screw ① lightly.



WARNING

Check the pin ⑥ is in the hole ⑤ of the movable trimming knife. If not, it may cause damage to machine and injury to person.

6. Check the needle and needle fall of the stitch plate, parallel the slot of stitch plate with the feed dog. Tighten the screw ① securely.
7. Install the presser foot.

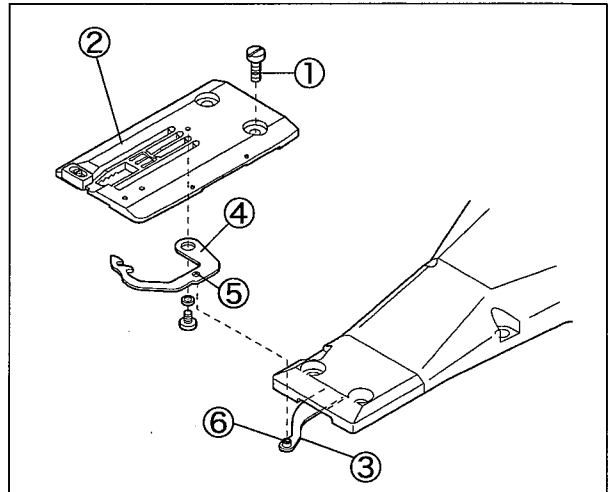


Fig. 21

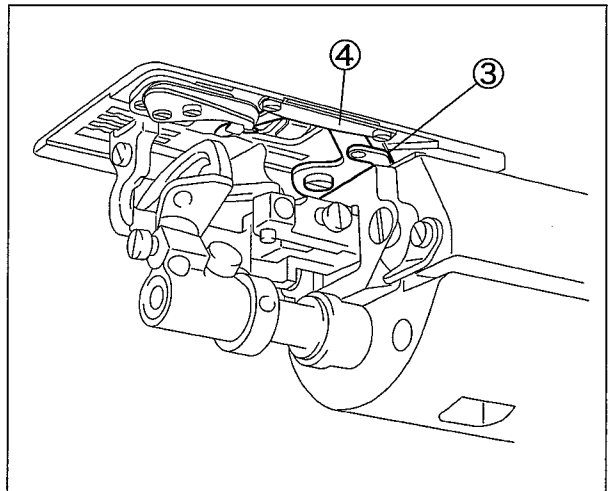


Fig. 22

3.5 Regular maintenance (only for UT-A34/Y with Y motor)

Remove the belt cover ① to clean around it once a month.

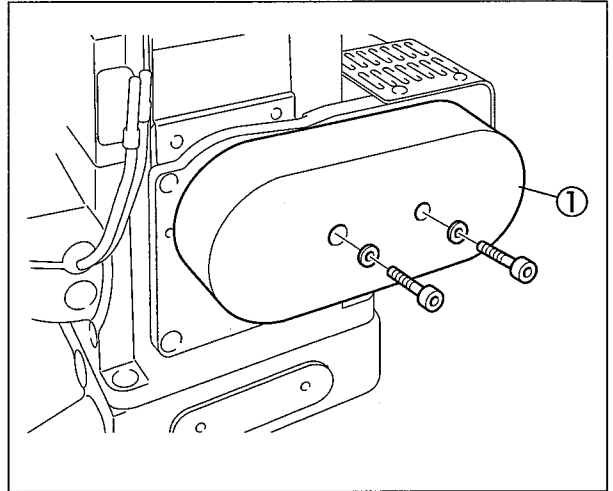


Fig. 23

⚠ CAUTION

Clogged dust between the timing pulleys ③④ and the timing belt ⑤ can cause the belt breakage.

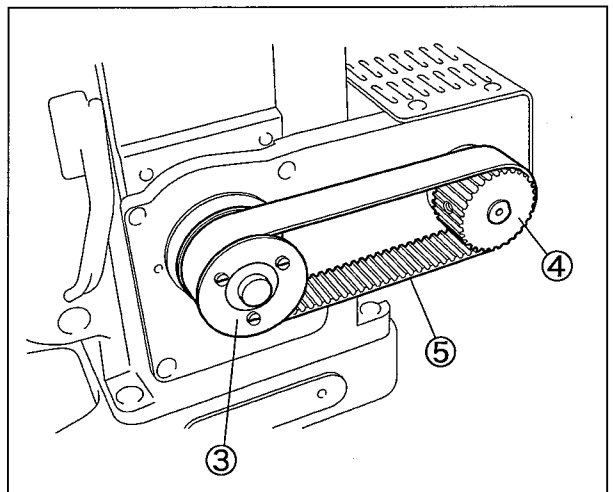


Fig. 24

4. Adjustment



WARNING

ALWAYS turn the motor switch OFF and check that the motor has already stopped.

4.1 Trimming knife mechanism

4.1.1 Position of movable trimming knife

Coming out position of movable trimming knife

For the standard position of movable trimming knife①, align movable trimming knife① tip with the mark on the back of the stitch plate② when the air cylinder comes extreme out.

- (1) Turn the hand pulley, raise the needle to the highest point.
- (2) Remove the cylinder top cover.
- (3) Stop the air.
- (4) Pull out the air cylinder's rod⑥ fully.
- (5) Loosen the screw④ of the air cylinder collar③.
- (6) Make adjustment by loosening the nut⑤ and rotating the rod⑥.
- (7) Tighten the nut⑤.
- (8) Tighten the screw④ slightly, adjust the return position of the movable trimming knife.

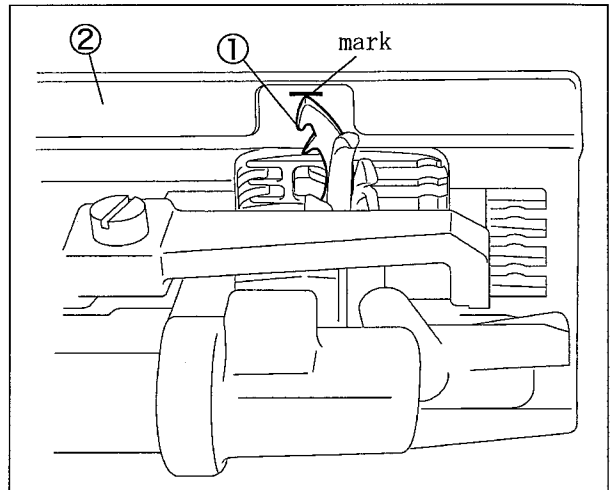


Fig. 25

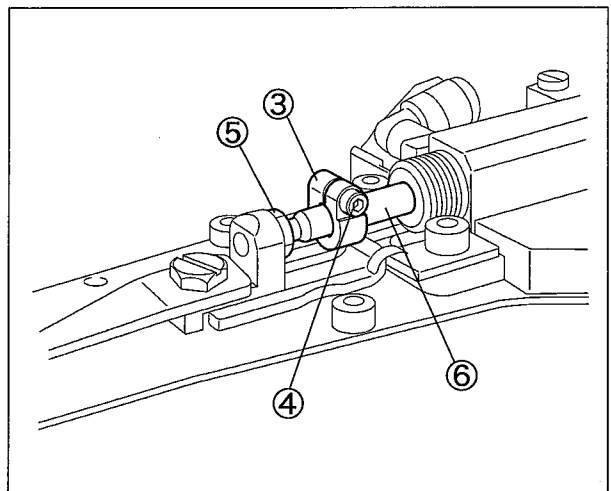


Fig. 26



CAUTION

Readjust both coming out position and return position after adjusting the position of the movable trimming knife.

Also, be sure to check the detection switch.

Return position of movable trimming knife

When the movable trimming knife ① returns, make the edge A of the stitch plate overlap with the trimming knife ①. Make sure that the engagement between the trimming knife ① and tip ⑦ of the hook is 0.3-0.5mm.

- (1) Remove the cylinder top cover.
- (2) Loosen the screw ④ of the air cylinder collar ③.
- (3) Make the edge A of the stitch plate overlap with the trimming knife ①, when movable trimming knife ① returns.
- (4) Attach the collar ③ onto the air cylinder ⑨, and tighten the screw ④.
- (5) Install the cylinder top cover.

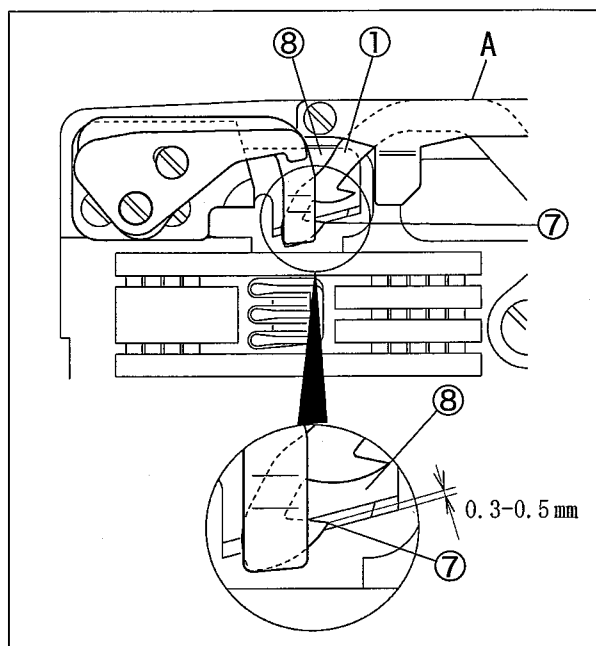


Fig. 27

⚠ CAUTION

Check the detection switch works good.

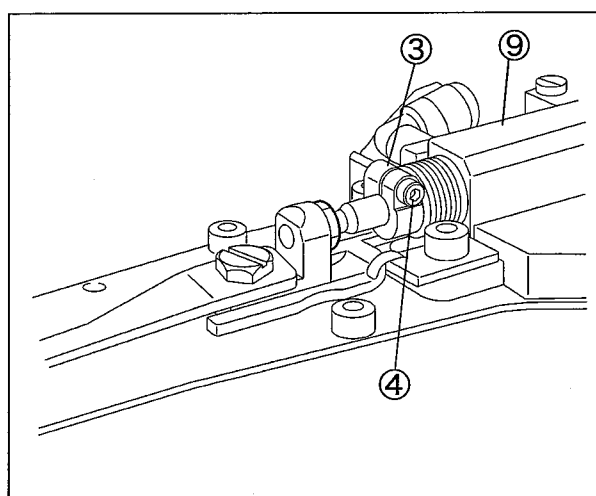


Fig. 28

4.Adjustment

4.1.2 Adjusting detector switch

The detector switch is equipped so that the machine does not work until the trimming knife returns to its original position.

- (1) Remove the top cover.
- (1) Turn the hand pulley to raise the needle to the highest point.
- (3) Check the air cylinder's rod ① is returned.
- (4) Turn on the motor switch.
- (5) Check the icon ② on the leftmost of the display ② rotates.
- (6) Check the icon ② rotates when the rod ① is pull out for 0.5 mm, and it stops when the rod ① is pull out for 1 mm.
- (7) To adjust the position of detector switch ③, loosen the screw ④ and move it back and forth.
- (8) Reinstall the cylinder top cover.



WARNING

Never touch the motor pedal.
Be sure to turn off the motor switch after adjustment or check.

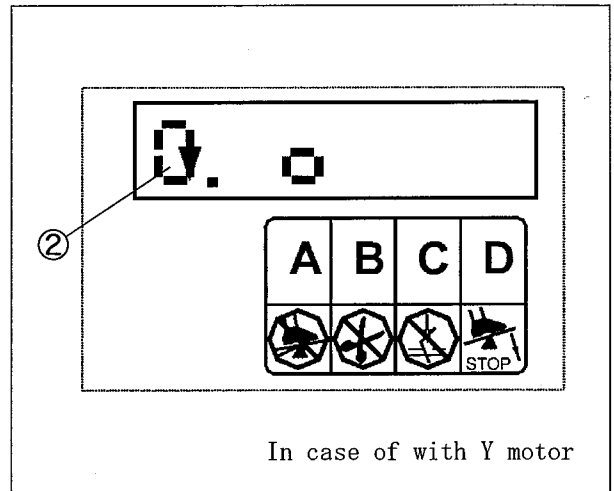


Fig. 29

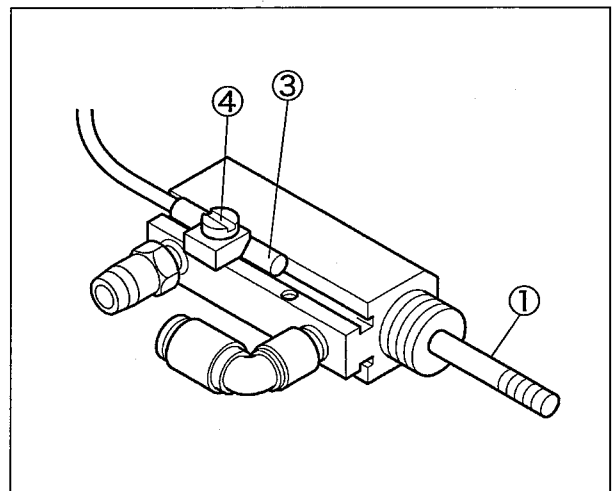


Fig. 30

4.1.3 Thread clamp

For the standard position of the thread clamp ①, make adjustment on the direction "X" to align the thread clamp ① with the end of hook ③ on movable trimming knife ②, when the end of the hook ③ on movable trimming ② knife is engaged with the fixed trimming knife ④. (Fig. 31)

Make adjustment on the direction "Y" to match the tip of the movable trimming knife ② with the tip of the thread clamp ① and tighten the screw ⑤, after the movable knife returned. (Fig. 32)

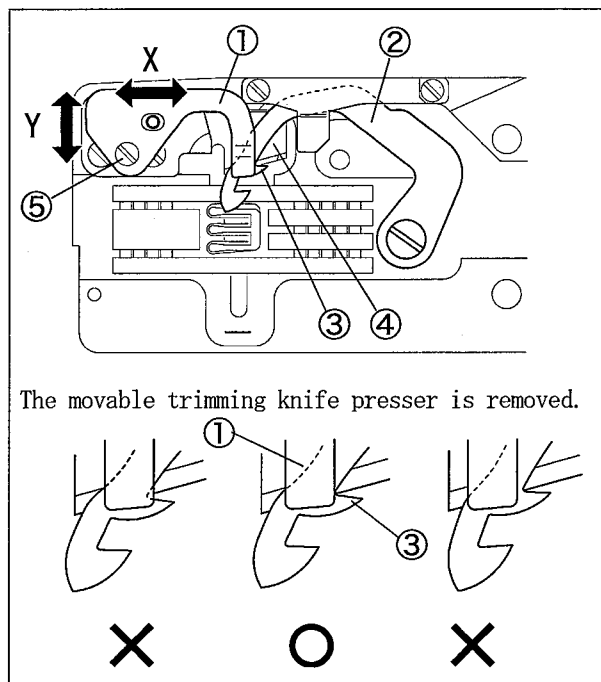


Fig. 31

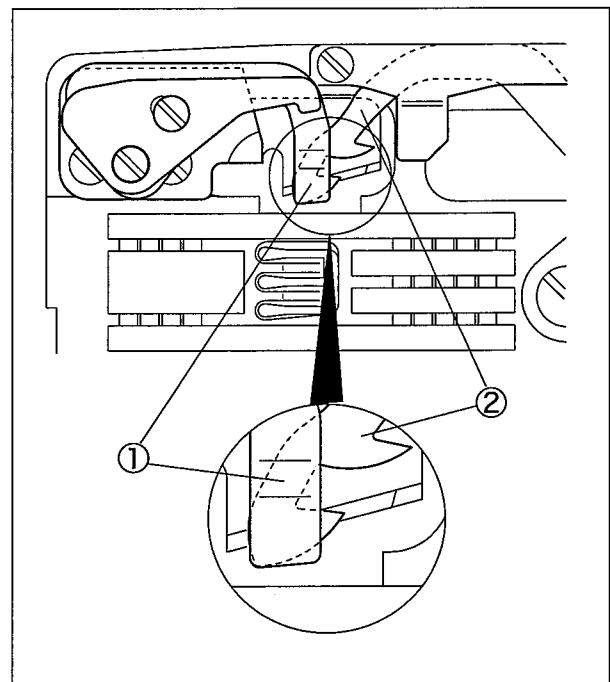


Fig. 32

4.1.4 Movable trimming knife presser

Move the movable trimming knife presser ① in the direction of "Y", and tighten the screw ③ at the end of the slot.

Tighten the screw ② securely after adjustment.

- To increase the pressure, move it ④ in the direction of "X".
- To decrease the pressure, move it ④ in the direction of "Y".

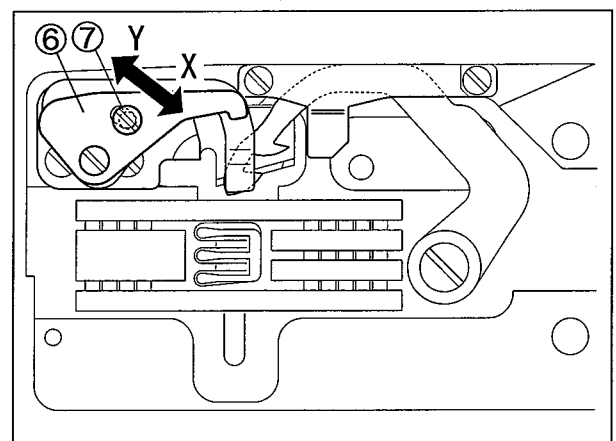


Fig. 33

4.1.5 Relation between movable trimming knife, needle thread, and looper thread

After all of the adjustment, thread correctly and check the following items before sewing.

- The movable trimming knife① should pass in the loops③ and ④ and the hook② should pass the front of the looper thread.
- When the movable trimming knife① returns, the needle and the looper threads are hooked by the hooks ② and ⑤ respectively, and then they will be cut by the upper knife.
- If the device does not work good, even though the above-mentioned adjustment has been performed, check the following items and make adjustment.
 - (1)If the needle and needle fall of the stitch plate are in proper positions, and if the slot of stitch plate is parallel with the feed dog.
 - (2)If the needle stops at the highest point.
 - (3)If the timing and the amount of the tension releaser is appropriate.
(Refer to “4.2 Tension releaser mechanism”)
 - (4)Coming out position of the movable trimming knife .
(Refer to“ 4.1.1 Position of movable trimming knife”)
 - (5)Return position of the movable trimming knife.
(Refer to“4.1.1 Position of movable trimming knife”)

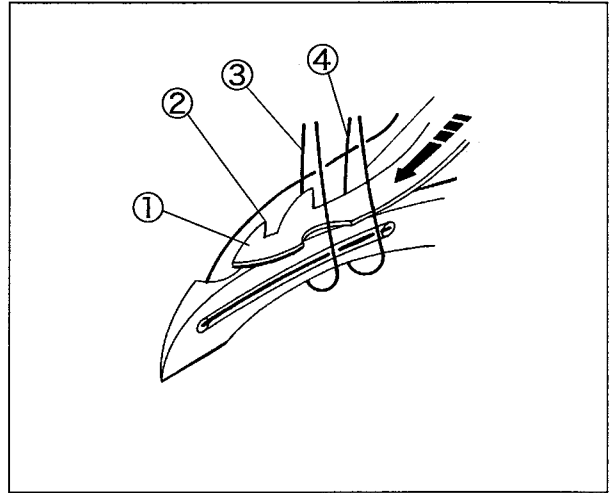


Fig. 34

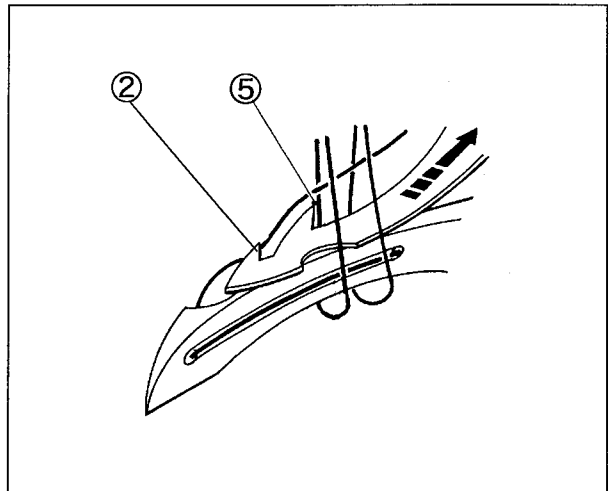


Fig. 35

4.2 Tension release mechanism

4.2.1 Tension release of needle thread

Needle thread pull-off (rear)

Loosen the screw ③④ to adjust the distance between needle thread pull-off (rear) ① and upper surface of thread pull-off eyelet bracket ② to 5 mm when the needle thread is loosened.

Amount of needle thread remainder

Align the front end of thread pull-off eyelet ⑤ with the tip of thread pull-off eyelet bracket ② as standard.

- To decrease the needle thread remainder length, move it ⑤ in the direction "S".
- To increase the needle thread remainder length, move it ⑤ in the direction "L".

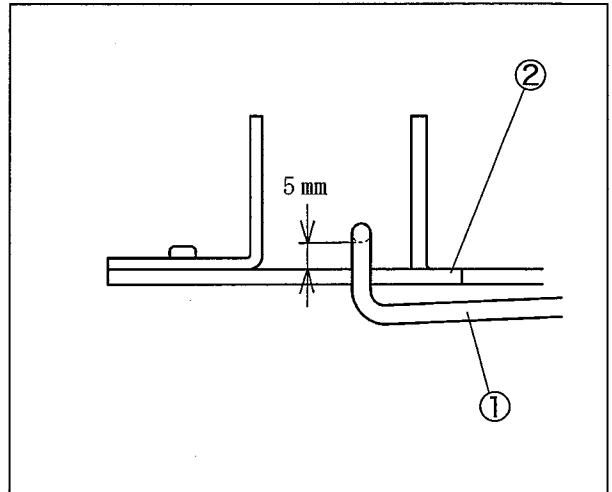


Fig. 36

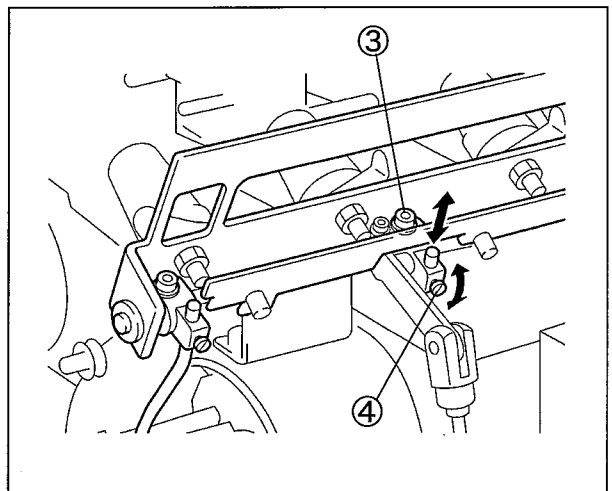


Fig. 37

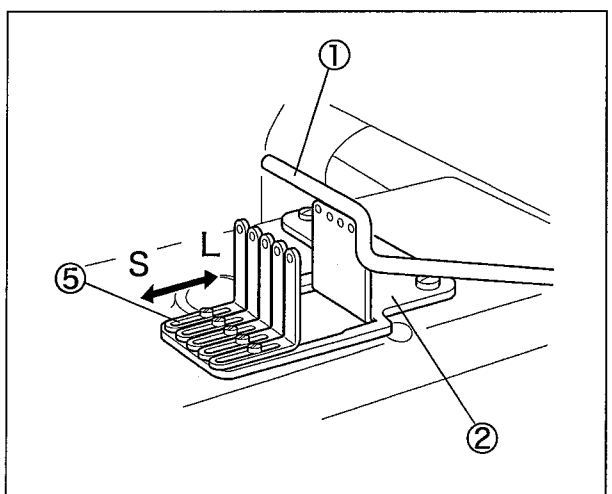


Fig. 38

4.2.2 Tension release of looper thread

Align the hole of looper thread pull-off eyelet ① with the hole of thread take-up eyelet ②.

Align the looper thread pull-off ③ with the center of cam ④ in the direction "X".

- To increase the thread remainder length, move it ③ in the direction "L".
- To decrease the thread remainder length, move it ③ in the direction "S".

In the direction "Y", the looper thread pull-off ③ is 2.5 mm from supporting plate to the center of it's eye. Loosen the screw ⑤⑥ to adjust it.

NOTE

1. Be sure to adjust the looper thread pull-off eyelet ①, after making adjustment of thread take-up eyelet ②.
2. Be sure to make adjustment on the direction "Y", after making adjustment on the direction "X".

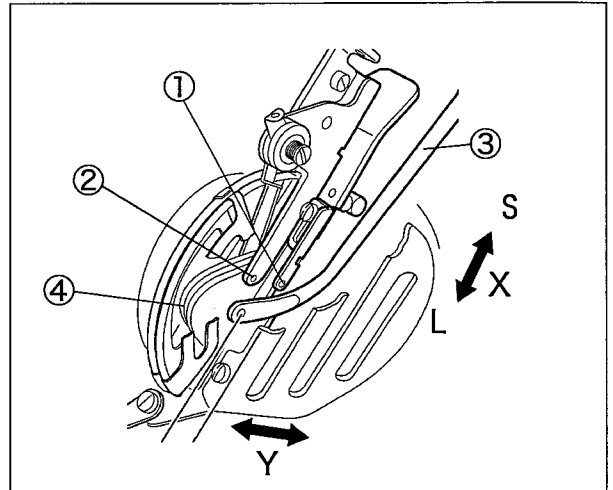


Fig. 39

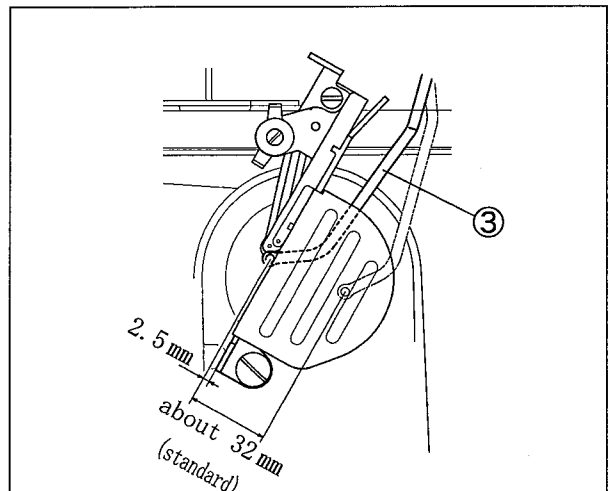


Fig. 40

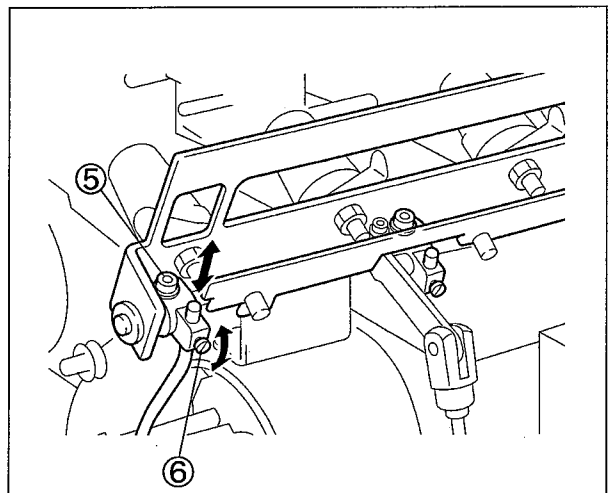


Fig. 41

WARNING

ALWAYS turn the motor switch OFF and check that the motor has been already stopped.

4.3 Presser foot lifter mechanism

- (1) Loosen the lock nut ①.
- (2) Turn the cylinder rod chip ③ to raise the presser foot by 8 mm when the cylinder rod ② is lower (when the cylinder operates).
- (3) Tighten the lock nut ① securely.

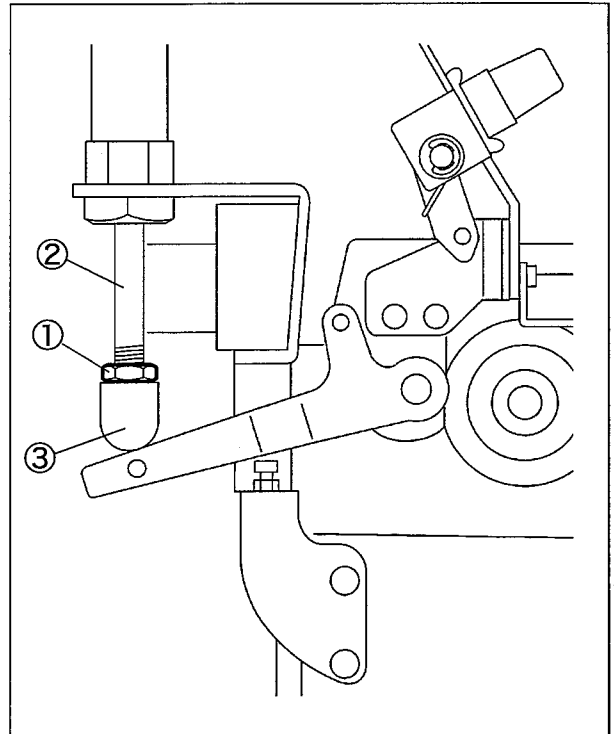


Fig. 42

4. Adjustment

WARNING

ALWAYS turn the motor switch OFF and check that the motor has been already stopped.

4.4 ST2-A device

4.4.1 Position of movable trimming knife

- (1) Set the mark ② on the machine arm at the scale P on the handwheel ① (the needle is at the highest point).
- (2) Set the movable trimming knife ③ to the lowest point by inserting a pair of tweezers into the hole ④.

CAUTION

Never let the movable trimming knife ③ touch the presser foot, the left needle ⑤, and the spreader ⑥.

If touches, loosen the screws ⑦ and ⑧ to make adjustment.

- (3) Loosen the screw ⑩. Make the clearance between the top of the stitch plate and the movable trimming knife tip ⑨ to 6.5 - 7.0 mm when the movable trimming knife ③ is at the lowest point.

NOTE

After adjusting above, the movable trimming knife ③ should be crossed over the top cover thread.

- (4) After that, tighten the screws ⑦, ⑧, and ⑩ securely.
- (5) Check the position of the movable trimming knife with moving it up or down.

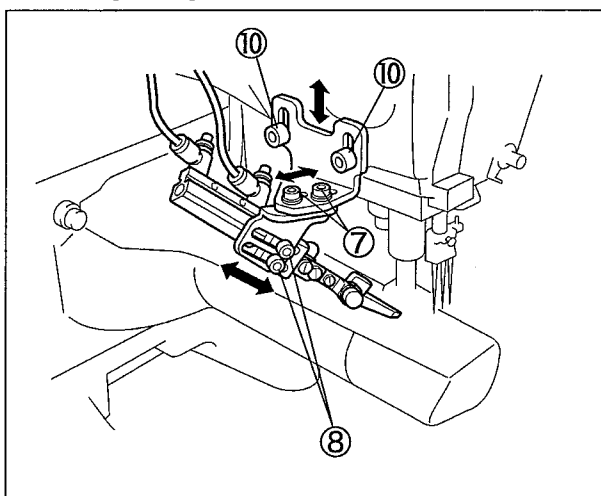


Fig. 45

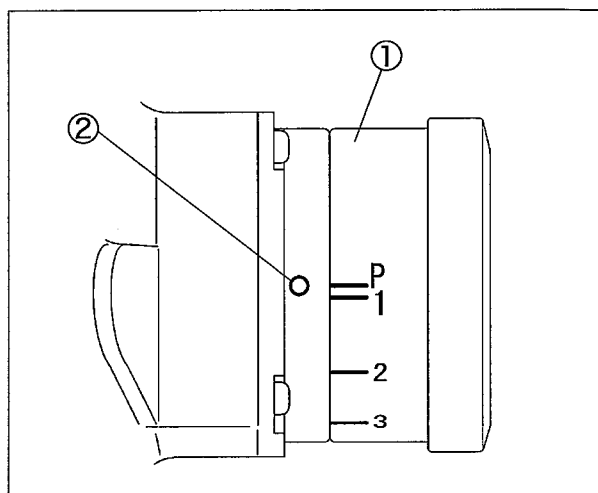


Fig. 43

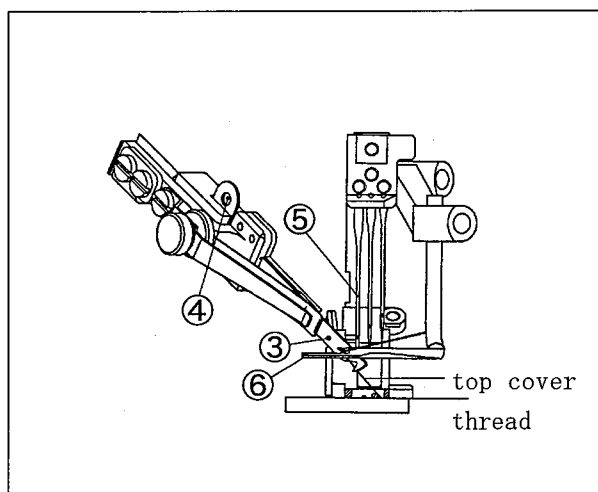


Fig. 44

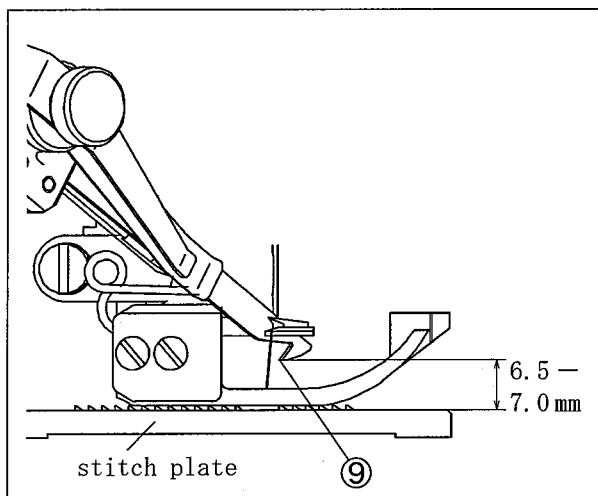


Fig. 46

NOTE

To adjust the speed of the movable trimming knife, loosen the nuts ① and turn the adjusting screws ② on the speed controllers of the air cylinder.

●To speed down, turn them clockwise.

●To speed up, turn them counterclockwise.

The presser foot starts rising immediately after cutting the top cover thread with the movable trimming knife. Adjust the speed so that the movable trimming knife does not touch the presser foot.

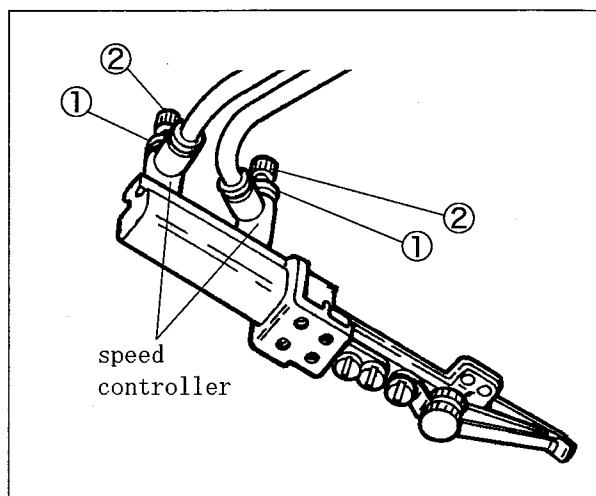


Fig. 47

4.4.2 Engagement between movable and fixed trimming knives**⚠ WARNING**

ALWAYS turn the motor switch OFF and check that the motor has been already stopped.

The engagement between the movable trimming knife ③ and the fixed trimming knife ④ has been adjusted as shown in Fig. 48.

Normally adjustment above is unnecessary.

ⓘ Supplement

The stroke of the movable trimming knife is the same as that of the air cylinder.

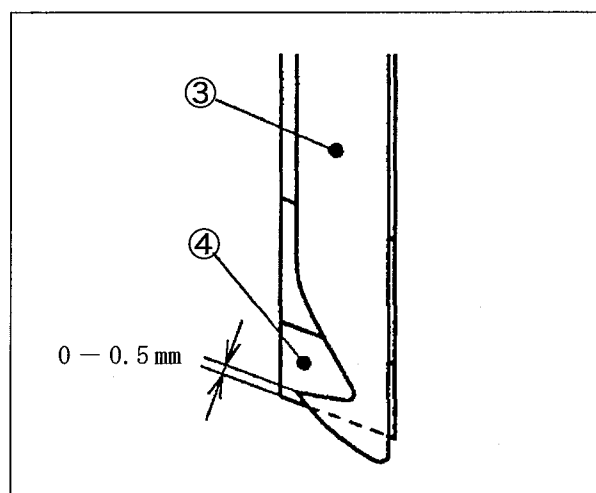


Fig. 48

4.Adjustment

WARNING

ALWAYS turn the motor switch OFF and check that the motor has been already stopped.

4.4.3 Pressure of thread clamp spring

Keep the pressure as low as possible to hold the threads.

- (1) Loosen the nut ③.
- (2) Adjust the pressure with the adjusting screw ④ so that the thread clamp spring ② and the movable trimming knife ① can hold the threads after they are cut by the knife.

To increase the pressure, turn the adjusting screw ④ clockwise.

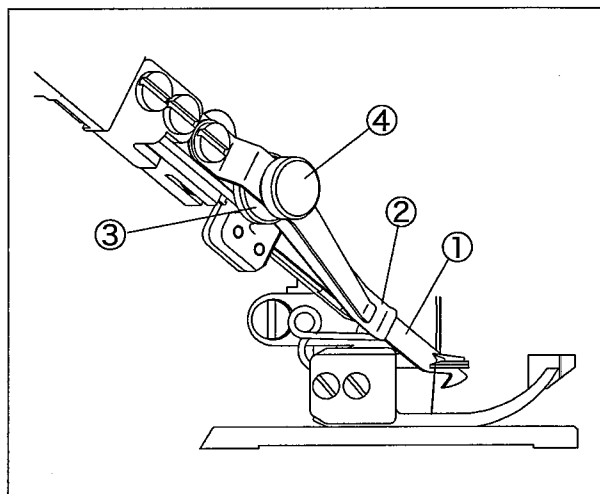


Fig. 49

4.4.4 Adjusting thread pull-off hook unit

- To increase the thread remainder length, move the thread take-up ③ in the direction "L".
- To decrease the thread remainder length, move the thread take-up ③ in the direction "S".

NOTE

The thread remainder length should be kept as much as possible. If not, the top cover thread cannot be held after cutting.

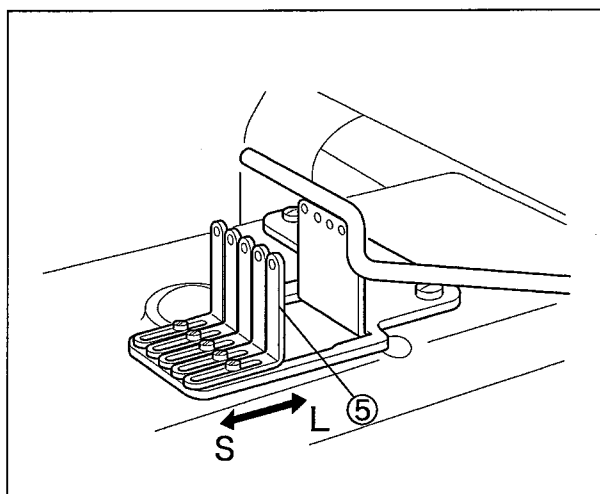


Fig. 50

WARNING

ALWAYS turn the motor switch OFF and check that the

4.5 Changing timing belt (UT-A34/Y with Y motor)**Removing**

1. Loosen the screws ① to remove the belt cover ②. (Fig. 51)
2. Loosen the screws ④ of pulley(front) ⑦ to remove the flange ③. (Fig. 52)
3. Remove the timing belt ⑤ while turning the pulley ⑦ (Fig. 53)

Reinstalling

1. Hang the timing belt ⑤ on the pulley(rear) ⑥, then the other end on the pulley(front) ⑦.
2. Turn the handwheel and press the timing belt ⑤ until the timing belt ⑤ comes to the center of machine pulley(front) ⑦. Make sure that the timing belt ⑤ is parallel with the motor bracket ⑧.
3. Install the flange ③ onto the machine pulley(front) ⑦. (Fig. 52)
4. Reinstall the belt cover ①. (Fig. 51)

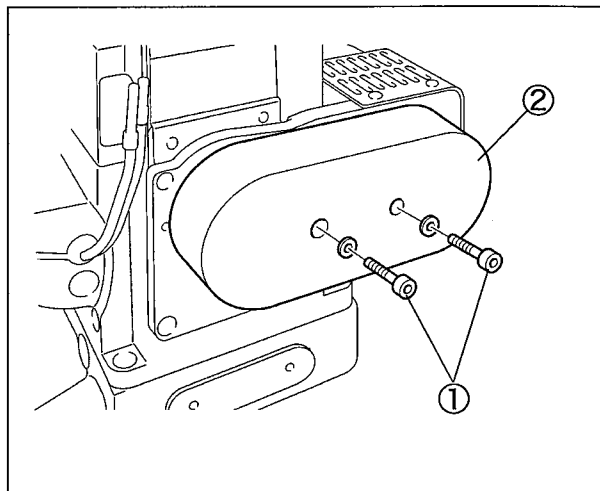


Fig. 51

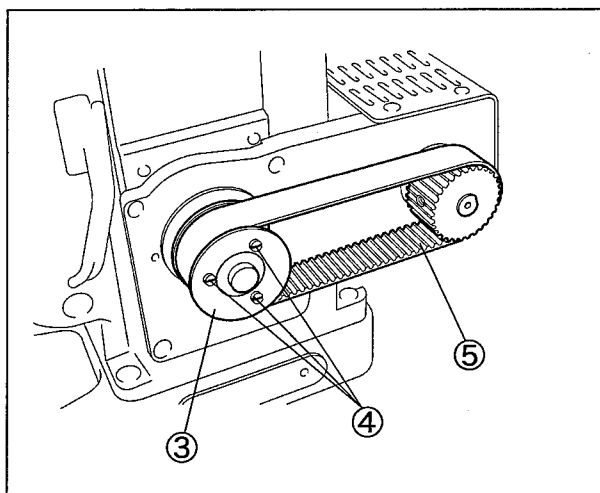


Fig. 52

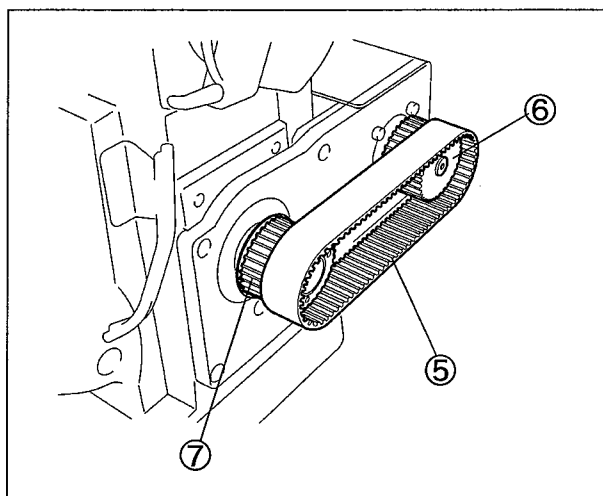


Fig. 53

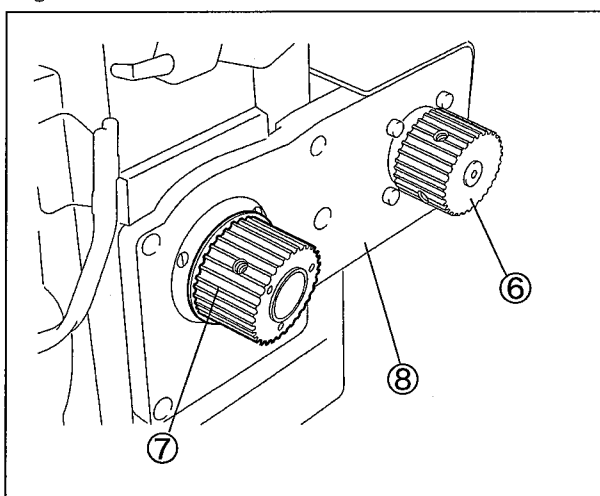


Fig. 54



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