

Yamato[®]

Instruction Manual

PNEUMATIC UNDER THREAD TRIMMING DEVICE
controlled by compact motor

UT-A/Y

UT-A34, UT-A34/ST2-A

VT2500 class

Thank you for having purchased UT-A/Y.

Before using your UT-A/Y, 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.

CONTENTS

1. Name of each part	1
2. Installation	2
2.1 Table cutting diagram	2
2.2 Installing solenoid valve and presser foot lifter cylinder	3
2.3 Installing thread tension	4
2.4 Air piping diagram	5
2.4.1 UT-A34	5
2.4.2 UT-A34/ST2-A	6
2.5 Wiring motor	7
2.5.1 Wiring motor	7
2.5.2 Connecting detector switch	8
2.5.3 Connecting intermediate cable	8
2.5.4 Solenoid valve number and intermediate cable part number	8
2.6 Setting motor	9
2.6.1 Simple setting	9
2.6.2 Setting sewing speed	10
2.6.3 Release of thread cutting	11
2.7 Adjusting rotation detector	11
3. Proper operation	12
3.1 Treading	12
3.2 Stitch length adjustment	13

CONTENTS

3.3	Operating procedure	14
3.3.1	Operating procedure for UT-A34 device	14
3.3.2	Operating procedure for UT-A34/ST2-A device	15
3.4	Removing and resetting stitch plate	16
3.5	Regular maintenance	17
4.	Adjustment	18
4.1	Trimming knife mechanism	18
4.1.1	Position of movable trimming knife	18
4.1.2	Adjusting detector switch	20
4.1.3	Movable trimming knife presser	21
4.1.4	Thread clamp	21
4.1.5	Relation between movable trimming knife, needle thread, and looper thread	22
4.2	Tension release mechanism	23
4.2.1	Tension release of needle thread	23
4.2.2	Tension release of looper thread	24
4.3	Adjusting air wiper	25
4.4	Presser foot lifter mechanism	26
4.5	ST2-A device	27
4.5.1	Position of movable trimming knife	27
4.5.2	Engagement between movable and fixed trimming knives	28
4.5.3	Pressure of thread clamp spring	29
4.5.4	Adjusting thread pull-off hook unit	29
4.6	Changing timing belt	30

Attention

The description in this instruction manual is subject to change for improvements of the commodity without notice.

1. Name of each part

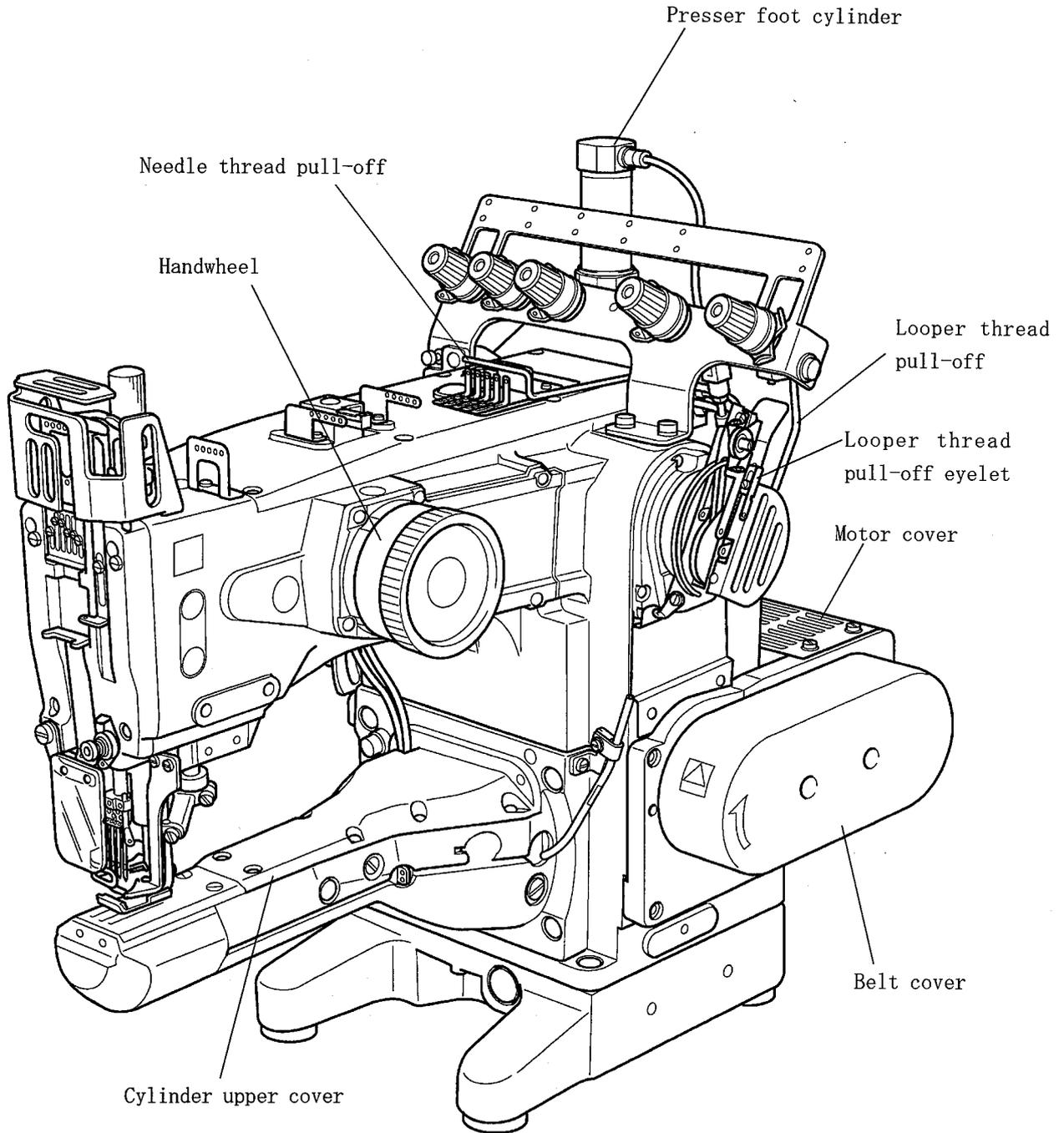


Fig. 1

2.2 Installing solenoid valve and presser foot lifter cylinder

Install solenoid valve and presser foot lifter cylinder, C set ① with the screw ② and the washer ③ behind the sewing machine.

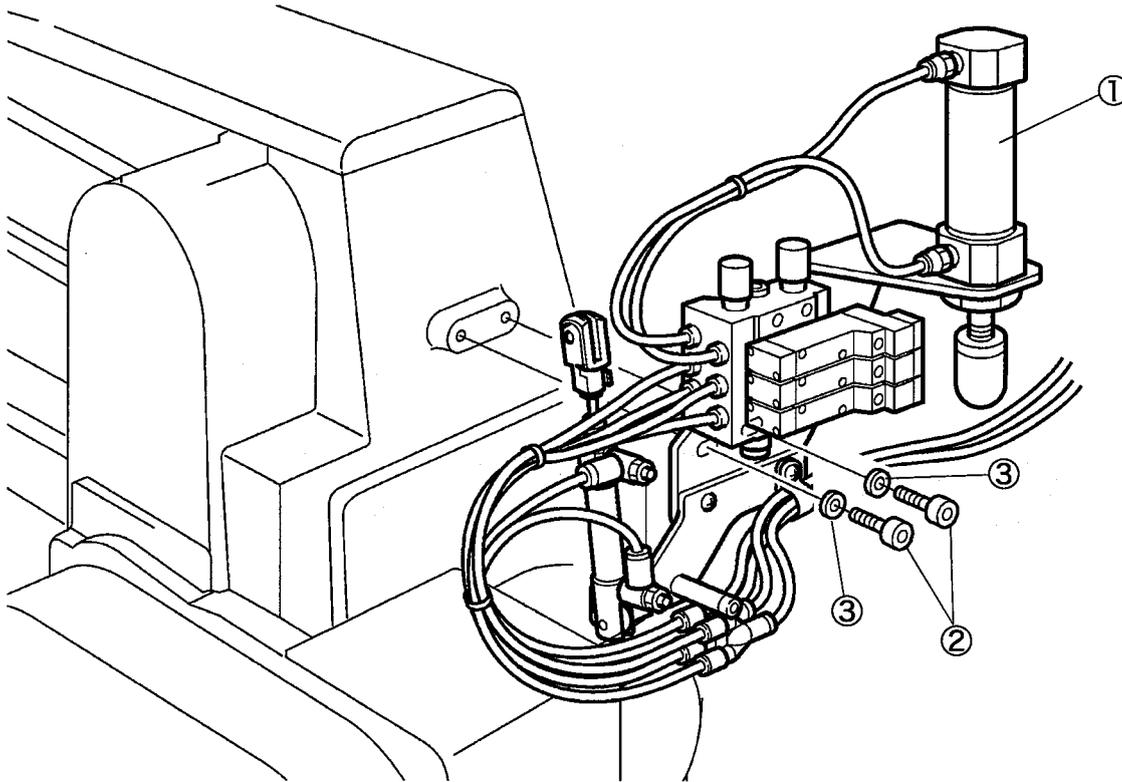


Fig. 3

2. Installation

2.3 Installing thread tension

(1) Install thread tension ① on the upper part of the sewing machine with screws ② (Each of two right and left) and washers ③ (Each of two right and left).

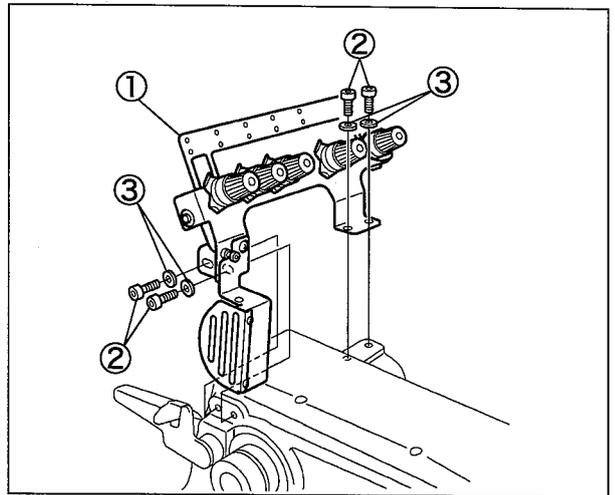


Fig. 4

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

(3) Install needle thread pull-off (rear) ⑦ on thread pull-off holder ⑧.

(Refer to "4.2.1 Tension release of needle thread")

(4) Install looper thread pull-off ⑨ on thread pull-off holder ⑧.

(Refer to "4.2.2 Tension release of looper thread")

(5) Check the clearance between rotation detector unit ⑩ and magnet holder ⑪ is 0.5 - 1.0 mm.

(Refer to "2.7 Adjusting rotation detector unit")

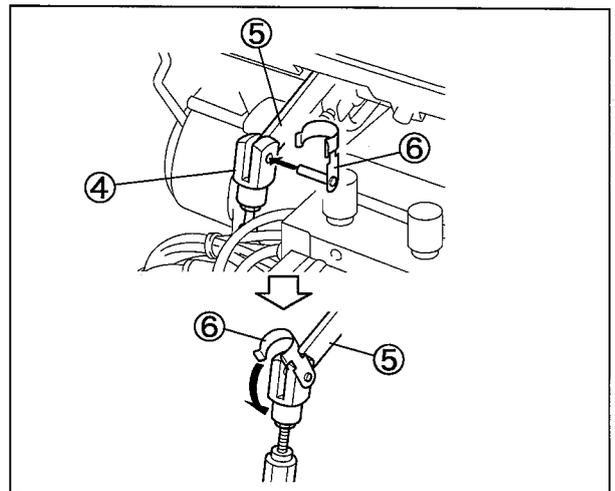


Fig. 5

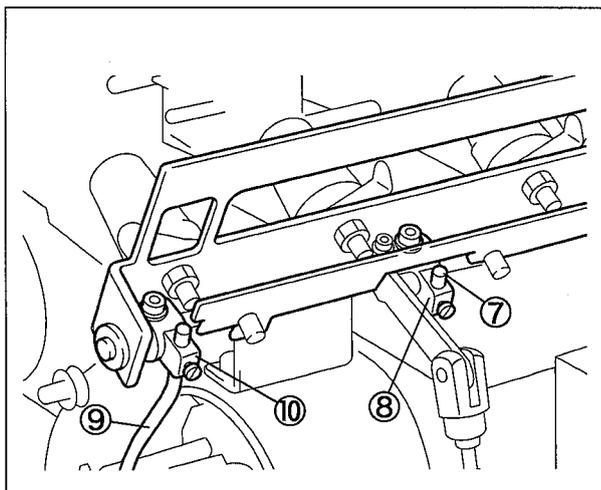


Fig. 6

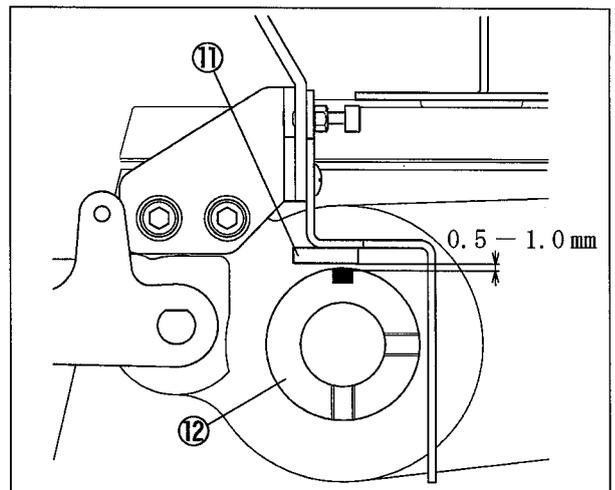


Fig. 7

2.4 Air piping diagram

Connect the pipe of the same number with the connector.
Fix the air pipe referring to Fig. 8.

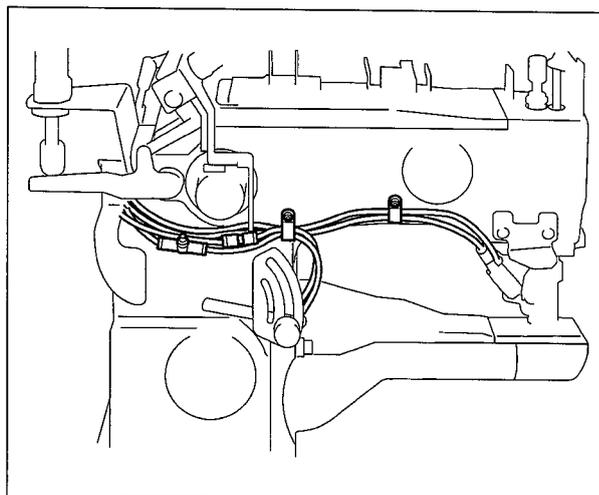


Fig. 8

2.4.1 UT-A34

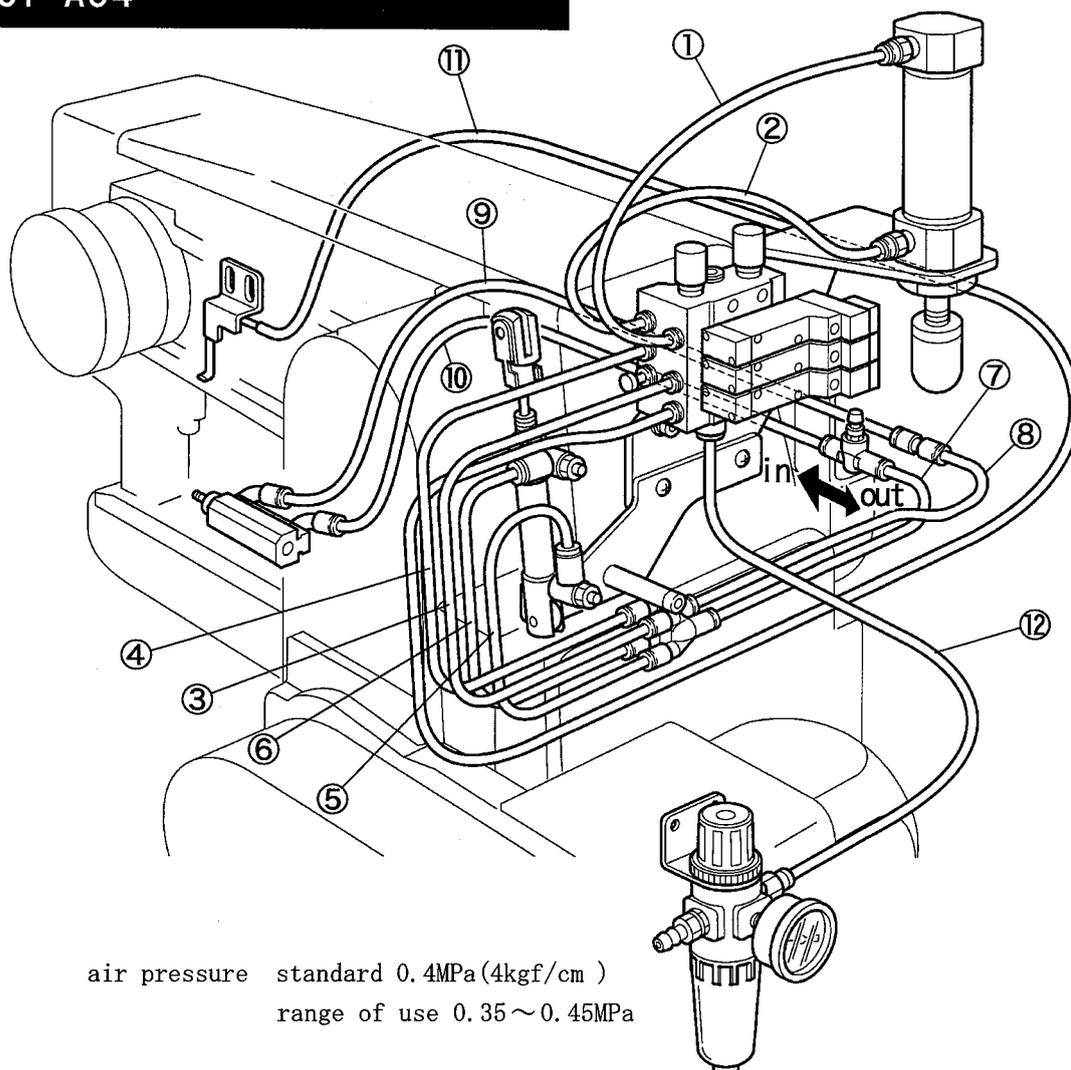
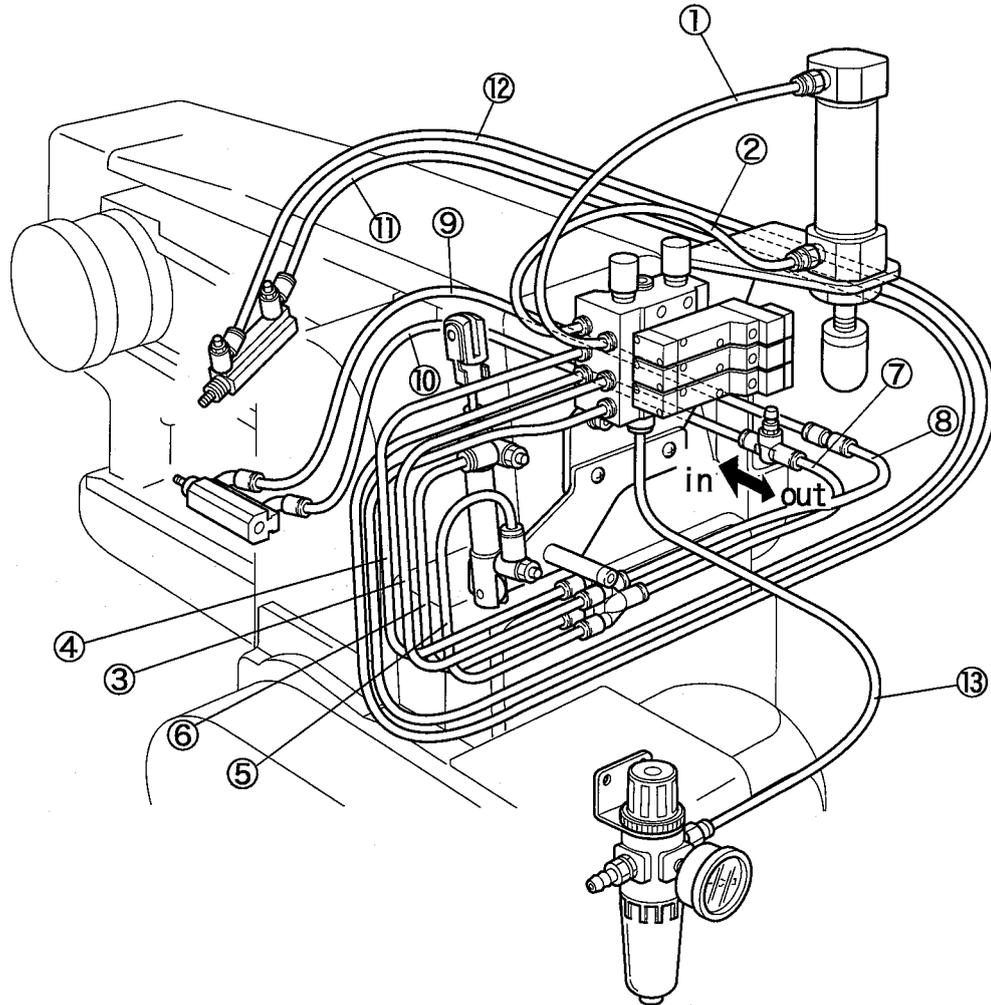


Fig. 9

- | | |
|--------------------|--------------------|
| ① 2.5 × 4 × 225 mm | ⑧ 2.5 × 4 × 205 mm |
| ② 2.5 × 4 × 225 mm | ⑨ 2.5 × 4 × 245 mm |
| ③ 2.5 × 4 × 225 mm | ⑩ 2.5 × 4 × 185 mm |
| ④ 2.5 × 4 × 225 mm | ⑪ 2.5 × 4 × 720 mm |
| ⑤ 2.5 × 4 × 225 mm | ⑫ 4 × 6 × 1500 mm |
| ⑥ 2.5 × 4 × 190 mm | |
| ⑦ 2.5 × 4 × 205 mm | |

2. Installation

2.4.2 UT-A34/ST2-A



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

Fig. 10

- | | |
|--------------------|--------------------|
| ① 2.5 × 4 × 225 mm | ⑧ 2.5 × 4 × 205 mm |
| ② 2.5 × 4 × 225 mm | ⑨ 2.5 × 4 × 245 mm |
| ③ 2.5 × 4 × 225 mm | ⑩ 2.5 × 4 × 185 mm |
| ④ 2.5 × 4 × 225 mm | ⑪ 2.5 × 4 × 720 mm |
| ⑤ 2.5 × 4 × 225 mm | ⑫ 2.5 × 4 × 720 mm |
| ⑥ 2.5 × 4 × 190 mm | ⑬ 4 × 6 × 1500 mm |
| ⑦ 2.5 × 4 × 205 mm | |

2.5 Wiring

2.5.1 Wiring 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

If sourcing the power for lamp from the motor, never use the lamp other than the exclusive lamp. If used other lamps, it can cause the damage to the control box.

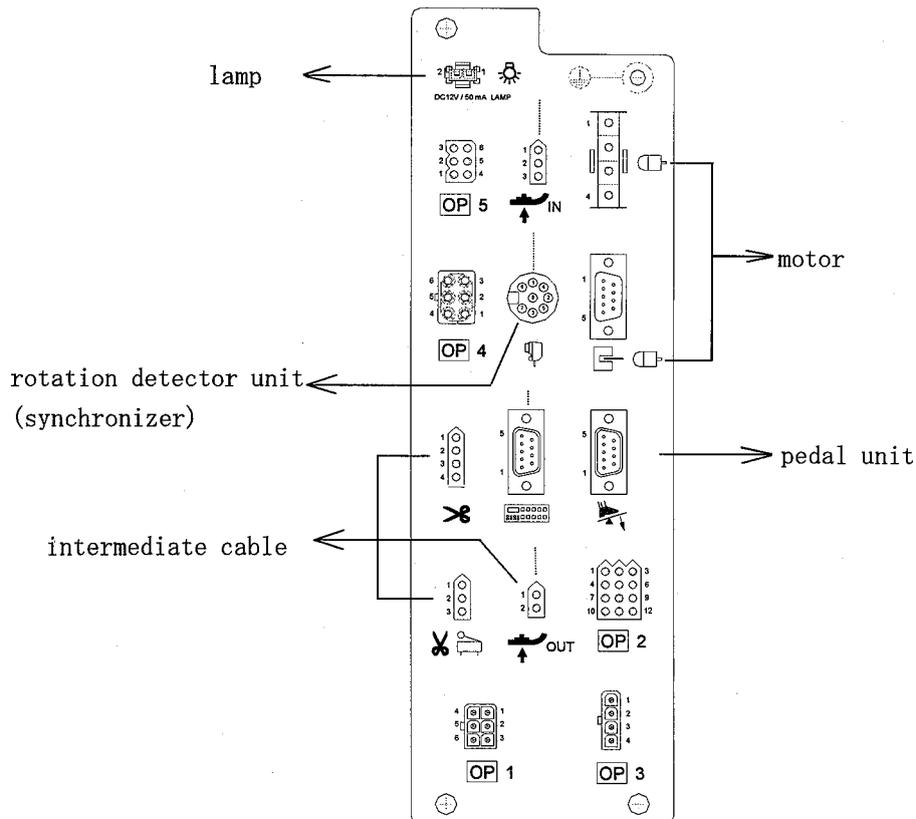


Fig. 11

2.Installation

2.5.2 Connecting detector switch

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

Insert R connector properly depending on 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.

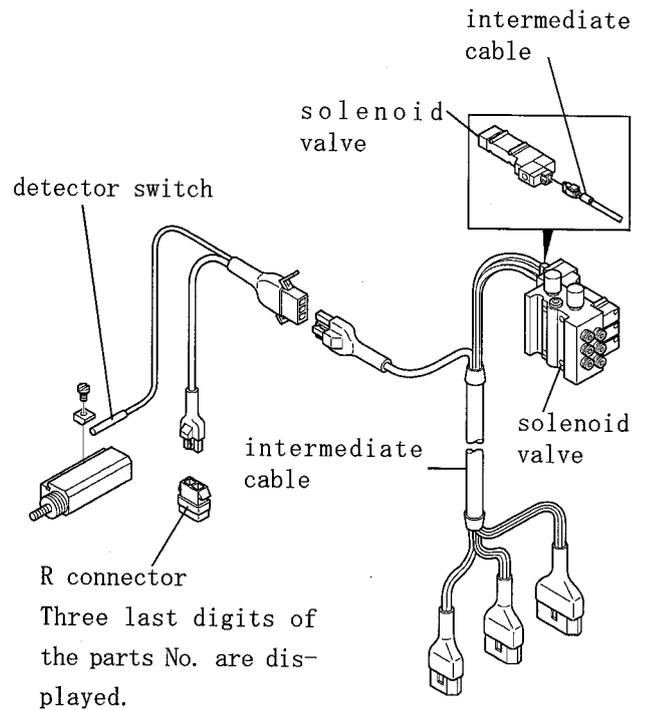


Fig. 12

2.5.3 Connecting intermediate cable

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

2.5.4 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	②		①	③	×	1200452
UT-A34/ST2-A	②		①	×	③	1200452

Table 1

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

2.6 Setting motor

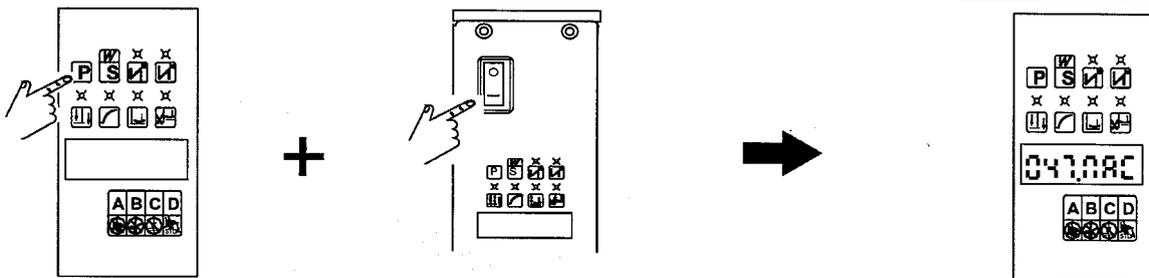
⚠ CAUTION

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

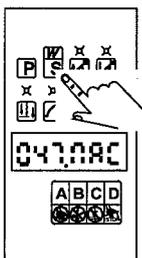
2.6.1 Simple setting

As for the main model, the setting of the motor can be changed in the following method. (Refer to table 1)

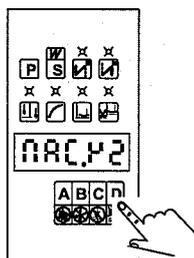
1. Press **P** key, LED displays "047.MAC".



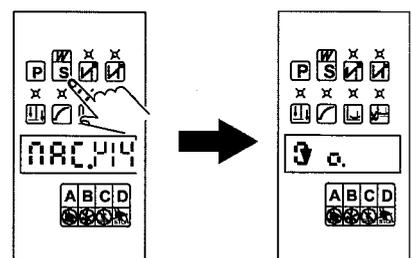
2. Press **S** key to display which is the current simple setting.



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.



Note : Normal mode is the mode possible to operate normally

Code	Display	Application model
Y14	Y14	With UT-A34 device of VT series
Y15	Y15	With UT-A34/ST2-A device of VT series

Table 2

A simple setting sets the sewing speed to 4000rpm. Set the sewing speed according to the sewing machine. (Refer to "2.6.2 Setting sewing speed")

⚠ CAUTION

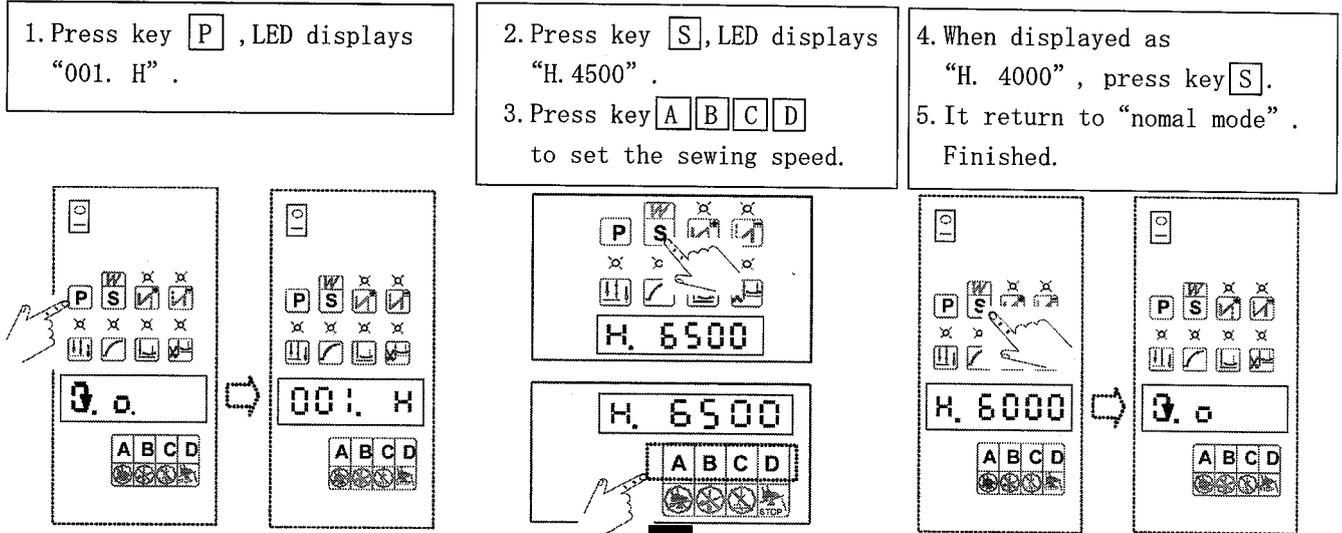
Do not set the codes other than Table 2. It causes the breakdown and damage.

2. Installation

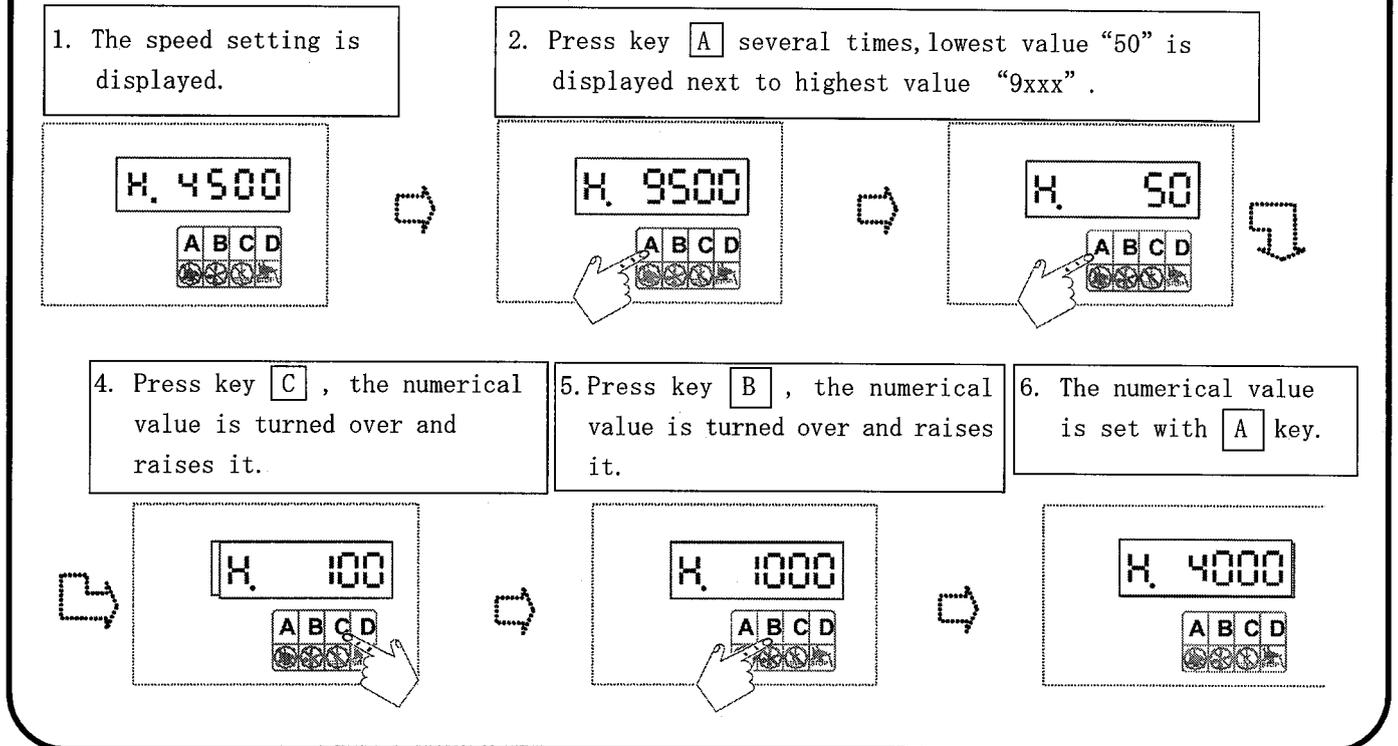
2.6.2 Setting sewing speed

Set the appropriate sewing speed for each machine.

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



The numerical value cannot be decreased, when changing a speed setting.
Do the setting change as follows.



⚠ CAUTION

Do not set the speed over the maximum rotation of the machine. It causes the breakdown and damage.

2.6.3 Release of thread cutting

Release or use of thread cutting operation can be set by **B** key.

While display 「□」 is above the **B** key lights, thread cutting operation is released.

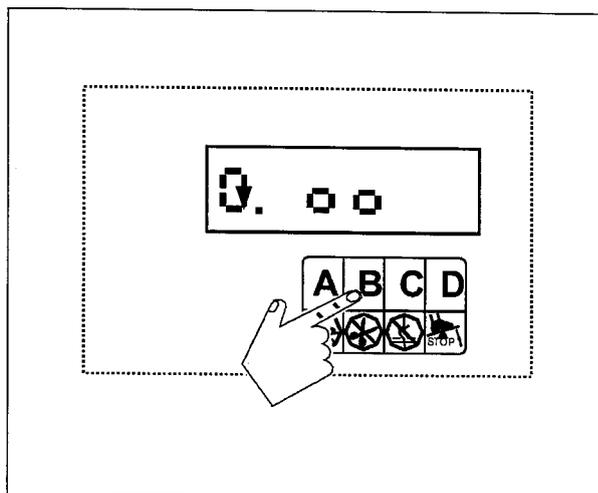


Fig. 13

2.7 Adjusting rotation detector unit

Check the needle stop position is in low 0.5 mm range from the highest point and the highest point.

At this time, align graduations P of the hand wheel ① with the mark ② of the machine arm.

Loosen the screw ④ (2 Pcs.), the magnet holder ③ turn right and left, and adjust it when shifting.

Run the sewing machine again and confirm the needle stop position.

The clearance between magnet holder ③ and rotation detector unit ⑤ is 0.5 – 1.0 mm.

Loosen the screws ⑥, and then adjust rotation detector plate ⑦ to move up and down.

WARNING

Never touch the pedal when adjusting the magnet holder.

Turn off the power supply of the motor, after adjusting.

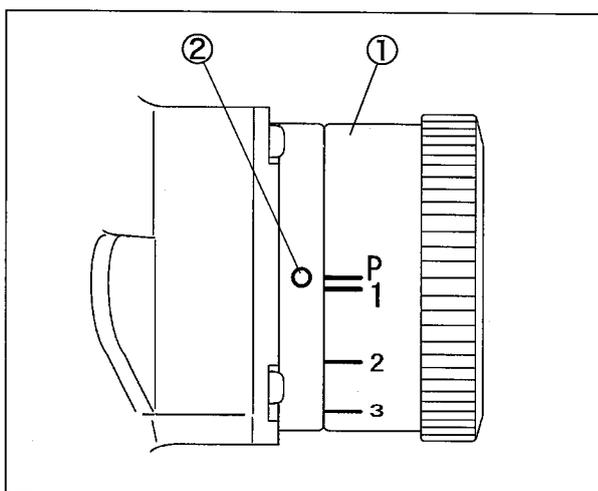


Fig. 14

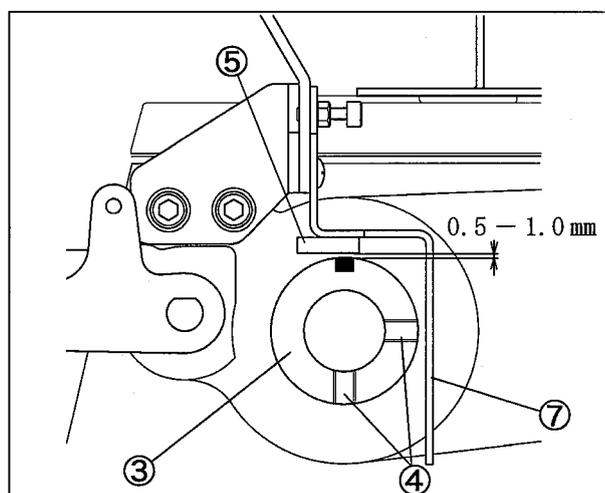


Fig. 15

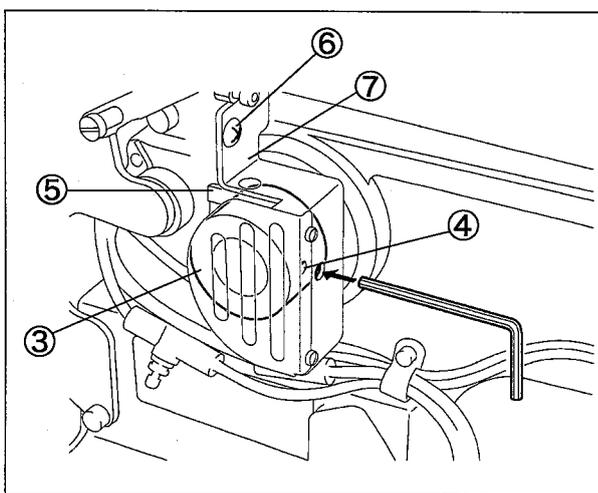


Fig. 16

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.

Thread it according to Fig. 17.

ⓘ Supplement

The tension release making it easier to pull out the thread when presser foot is raised.

If it has already threaded, tie with sewing thread.

<A Needle thread>

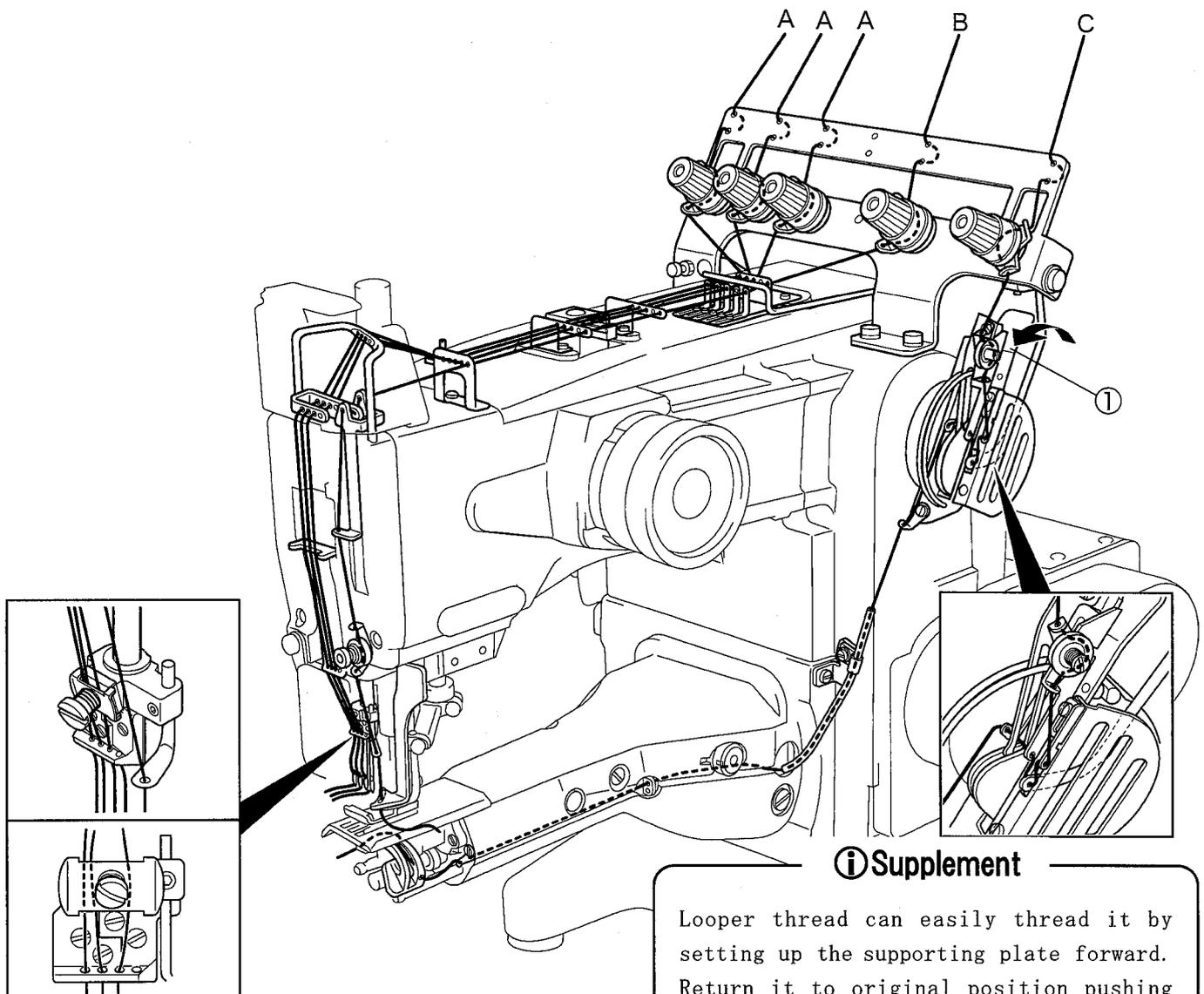
Pull out the thread until it is in front of the needle. Then, cut off the knot before needle eye to rethread.

<B Top cover thread>

Pull the thread until the knot is out.

<C Looper thread>

Pull the thread until the knot is out. The tip is cut with scissors.



ⓘ Supplement

Looper thread can easily thread it by setting up the supporting plate forward. Return it to original position pushing until click, after threading.

Fig. 17

3.2 Stitch length adjustment



⚠ WARNING

Turn off power to the motor and check motor rotation has stopped before adjusting stitch length. Working with the power on can result in injury.

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

Each graduation on the hand wheel ③ indicates a stitch length in mm.

* The actual length of the stitch will vary depending on the type and thickness of fabric, and differential ratio.

Changing stitch length

- (1) Press the pushbutton ① with your left hand until feeling the button tip contact the internal part.
- (2) With the pushbutton ① still depressed, turn the hand wheel ③ to the front with your right hand. The pushbutton ① draws inward, therefore press the pushbutton ① forcefully.
 - To make the stitch length larger, turn the pulley clockwise.
 - To make the stitch length smaller, turn the pulley counterclockwise.
- (3) With the pushbutton ① still depressed, align the scale marking of the hand wheel ③ with the mark ② on the hole of the belt cover.
- (4) Once the markings have been aligned, release the pushbutton ①.

⚠ CAUTION

Check the pushbutton ① returns completely to the released position and that the hand wheel ③ rotates 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 converted stitch length.

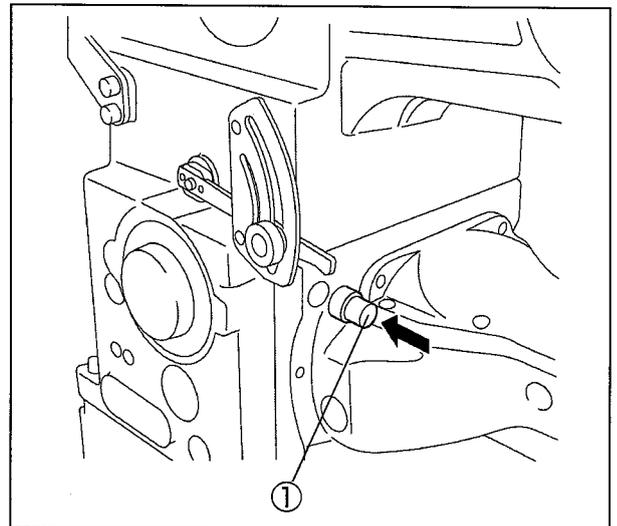


Fig. 18

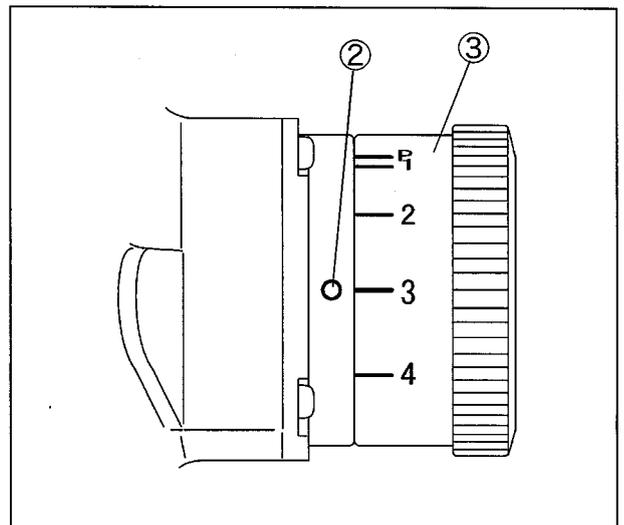


Fig. 19

3. Proper operation

⚠ CAUTION

Be sure to place the fabric under the presser foot when operating.

3.3 Operating procedure

3.3.1 Operating procedure for UT-A34 device

The motor can be selected 1 position or 2 position. The operating procedure for 1 position and 2 position is mentioned below.

- (1) Heel back the pedal to raise the presser foot.
(Fig. 20 ③)
- (2) Place the 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 lowest point.
(Skip this procedure when 1 position is selected.)
- (4) Heel back the pedal. (Fig. 20 ③)
The needle rises and stops at the highest point.
The trimming knife mechanism operates to cut the needle and the looper threads under the stitch plate.
The looper thread is held with the clamp spring.
And then, the presser foot is raised and the air wiper blows the air.
The air wiper stops blowing after two seconds.
- (5) Release the pedal. (Fig. 20 ②)
The presser foot is lowered.

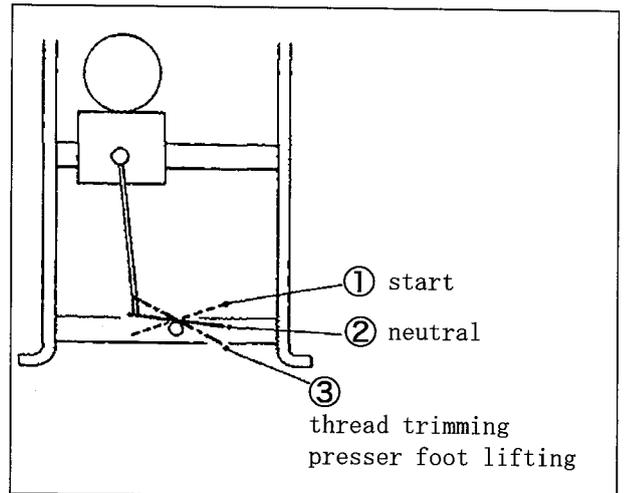


Fig. 20

① Supplement

The presser foot can be moved up and down by heeling back the pedal to the positions ② and ③ until the pedal is toed down to the position ①.

⚠ CAUTION

Be sure to place the fabric under the presser foot when operating.

3.3.2 Operating procedure for UT-A34/ST2-A device

The motor can be selected 1 position or 2 position.
The operating procedure for 1 position and 2 position is mentioned below.

- (1) Heel back the pedal to raise the presser foot.
(Fig. 21 ③)
- (2) Place the fabric under the presser foot and toe down the pedal. (Fig. 21 ①)
The machine starts sewing.
- (3) Release the pedal. (Fig. 21 ②)
The needle stops at the lowest point.
(Skip this procedure when 1 position is selected.)
- (4) Heel back the pedal. (Fig. 21 ③)
The needle rises and stops at the highest point.
The trimming knife mechanism operates to cut the needle and the looper threads under the stitch plate.
The looper thread is held with the thread clamp spring.
The ST2-A device cuts and holds the top cover thread.
And then, the presser foot is raised.
- (5) Release the pedal. (Fig. 21 ②)
The presser foot is lowered.

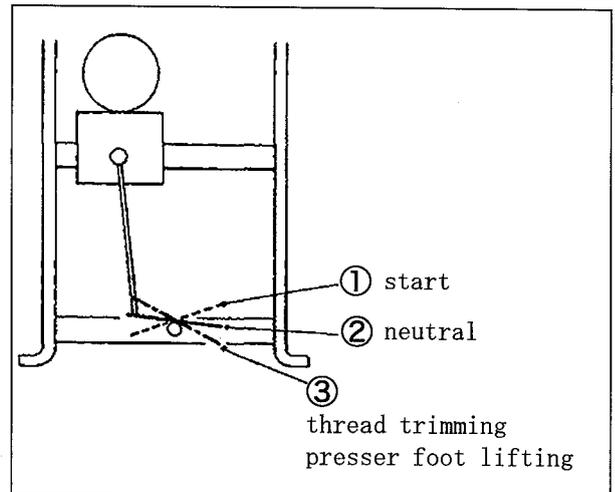


Fig. 21

ⓘ Supplement

The presser foot can be moved up and down by heeling back the pedal to the positions ② and ③ until the pedal is toed down to the position ①.

⚠ CAUTION

Set the fabric, and use height from stitch plate to bottom of presser foot by 5 mm or less when the presser foot is lowered.

Knife of ST2-A device might hit the presser foot, and Knife be damaged.

3. Proper operation

3.4 Removing and resetting stitch plate

Removing

1. Rotate 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.

Resetting

1. Check that the needle is in 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 pin ⑤ of the movable trimming knife is set in the hole ⑥ in the driving rod tip, and set the stitch plate ②.
5. Tighten the screw ① lightly.

WARNING

Check the pin ⑤ of the movable trimming knife is in the hole ⑥.
It causes the injury and damage.

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. Set the presser foot.

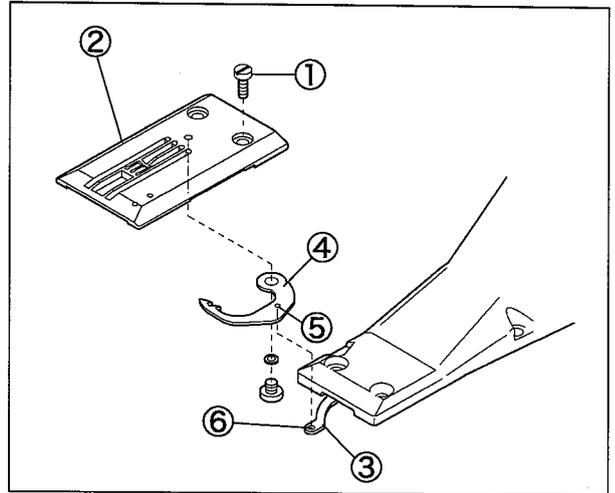


Fig. 22

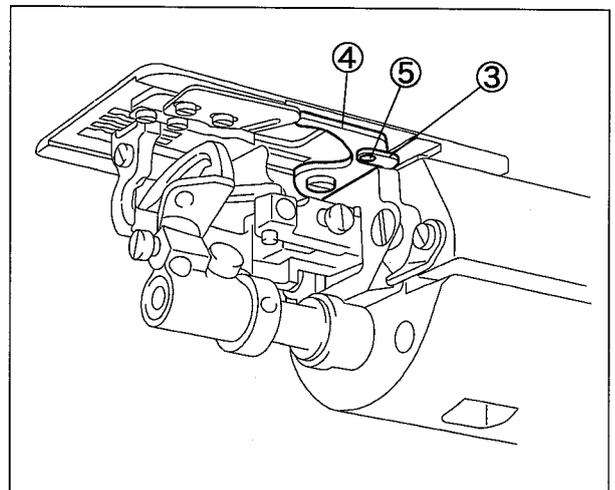


Fig. 23

3.5 Regular maintenance



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

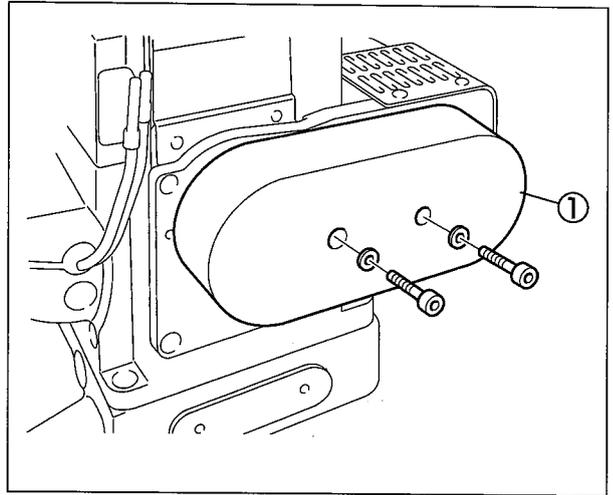


Fig. 24

CAUTION

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

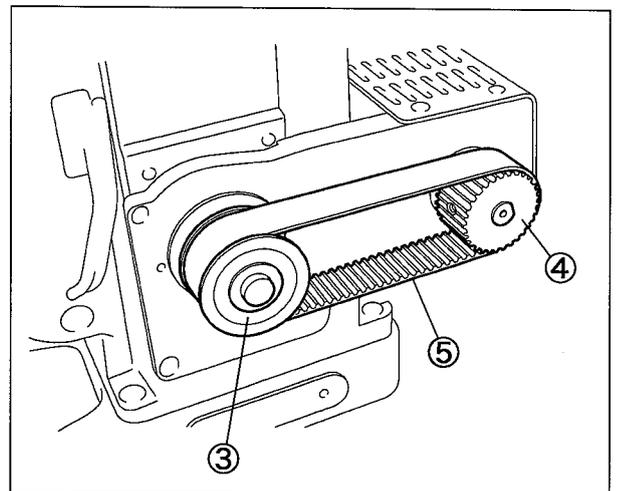


Fig. 25

4. Adjustment

WARNING

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

4.1 Trimming knife mechanism

4.1.1 Position of movable trimming knife

Coming out position of movable trimming knife

Adjust the stop position of movable trimming knife ① when the air cylinder came out most, align movable trimming knife ① tip with the mark of the back of the stitch plate ②.

- (1) Rotate the hand pulley, and it make the needle the highest point.
- (2) Remove the cylinder top cover.
- (3) Stop the air.
- (4) Pull out the air cylinder's rod ⑥ fully.
- (5) Loosen the screw ④ of the air cylinder collar ③.
- (6) Loosen the nut ⑤, and rotate the rod ⑥ to adjust.
- (7) Tighten the nut ⑤ and the screw ④ of the collar.

CAUTION

Readjust the thread trimming mechanism after changing the stroke of the air cylinder when adjusting the position of the movable trimming knife.
And check the detection switch.

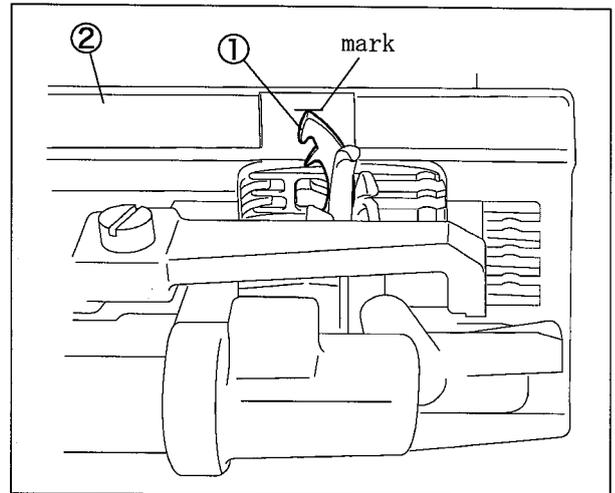


Fig. 26

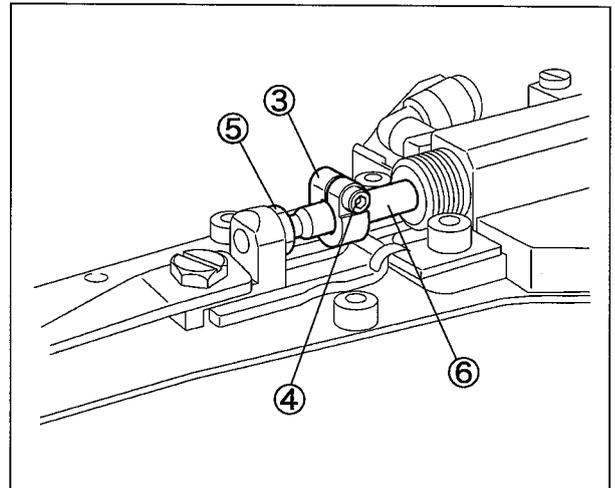


Fig. 27

Returning position of movable trimming knife

Adjust the stop position of movable trimming knife ① when the air cylinder return, align the hook ⑦ of movable trimming knife ① with the edge ⑨ of lower knife ⑧.

- (1) Remove the cylinder top cover.
- (2) Loosen the screw ④ of the air cylinder collar ③.
- (3) Align the hook ⑦ of movable trimming knife ① with the edge ⑨ of lower knife ⑧ when movable trimming knife ① returns.
- (4) Touch the collar ③ at the air cylinder ⑩, and tighten the screw ④.
- (5) Set the cylinder top cover.

⚠ CAUTION

Check the detection switch works.

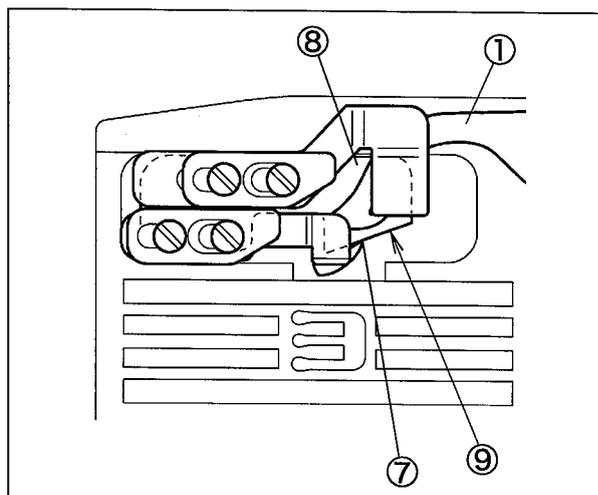


Fig. 28

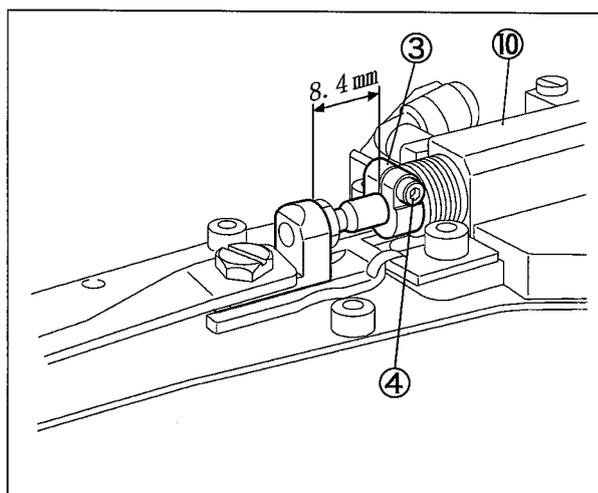


Fig. 29

4.Adjustment

4.1.2 Adjusting detector switch

The detector switch works so that the machine does not run until the trimming knife returns to its original position.

- (1) Remove the top cover.
- (2) Rotate the hand pulley, and it make the needle the highest point.
- (3) Stop the air.
- (4) Check the air cylinder's rod ① is returned.
- (5) Turn the motor switch on.
- (6) Check movement like the turn of the Icon which is leftmost of the display ② on the control board.
- (7) Check the display stops when the rod is pull out by 1-2 mm.
- (8) Loosen the screw ④ to adjust the detector switch ③ while moving it back and forth.

WARNING

Never touch the moter pedal.
Turn the motor switch OFF after adjusting or checking.

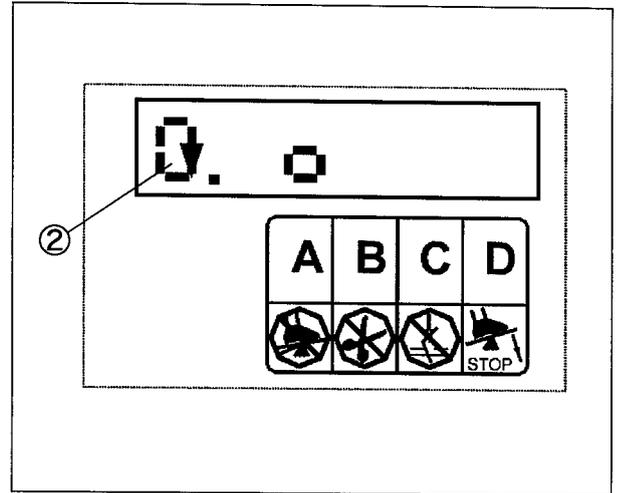


Fig. 30

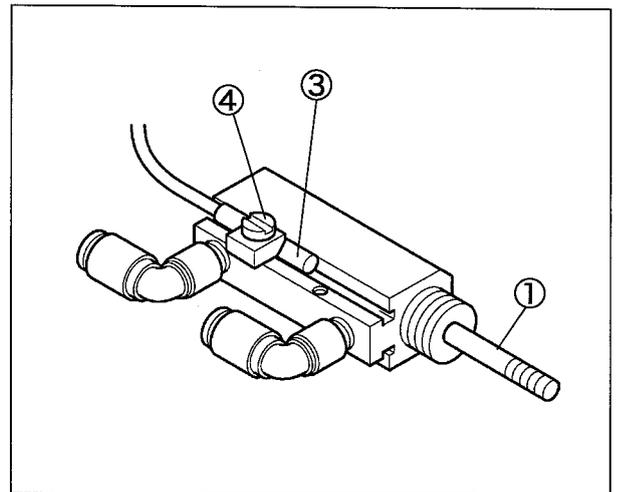


Fig. 31

4.1.3 Movable trimming knife presser

As standard, set the position of movable trimmin knife pressure ① with the screws ②③ to the center of the slots.

Adjust the engagement pressure of knives with adjusting plate ④.

As standard, set the adjusting plate ④ with the screw ③ at the extreme right of the slot.

- To increases the pressure, move it ④ in the direction "X" .
- To decreases the pressure, move it ④ in the direction "Y" .

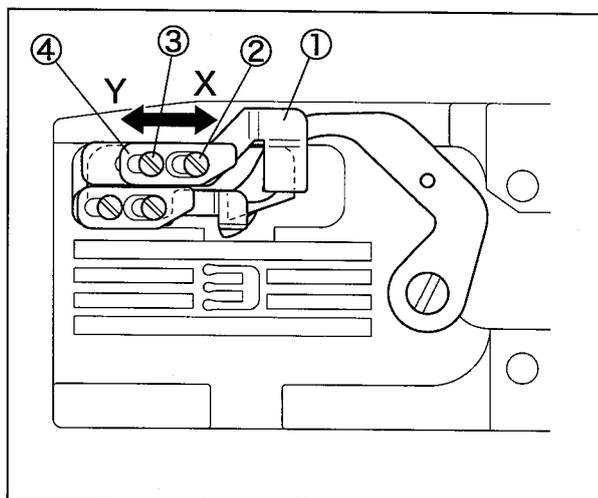


Fig. 32

4.1.4 Thread clamp

As standard, set the position of thread clamp ⑤ with the screws ⑥⑦ to the center of the slots.

Adjust the pressure with adjusting plate ⑧.

As standard, set the adjusting plate ⑧ with the screw ⑦ at the extreme right of the slot.

- To increases the pressure, move it ⑧ in the direction "L" .
- To decreases the pressure, move it ⑧ in the direction "S" .

Keep the pressure to a minimum for holding the looper thread.

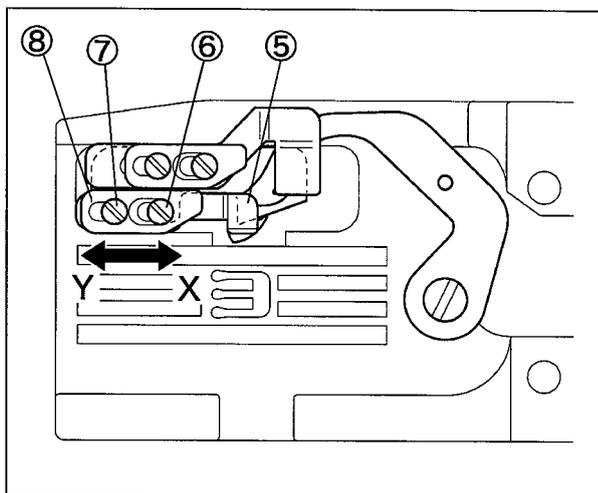


Fig. 33

4.Adjustment

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

After adjusting the all, thread correctly and check the following points before sewing.

- The movable trimming knife① should pass in the loops③ and ④ and the edge② for the looper should pass in front of the looper thread.
- When returning the movable trimming knife①, the needle and the looper threads are hooked by the edges ② and ⑤ respectively, and then they are cut by the upper knife.
- When not correctly operating as described in the above-mentioned, check and adjust the followings.

- (1)The needle and needle fall of the stitch plate are in proper position, the slot of stitch plate parallel with the feed dog.
- (2)The needle is stopping at the highest point.
- (3)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)Returning position of the movable trimming knife.
(Refer to“4.1.1 Position of movable trimming knife”)

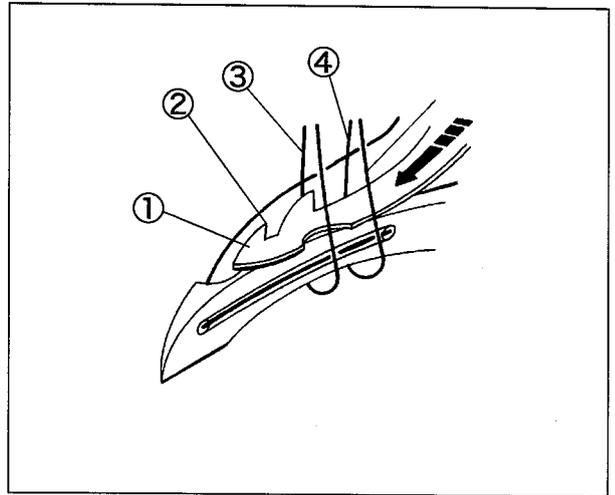


Fig. 34

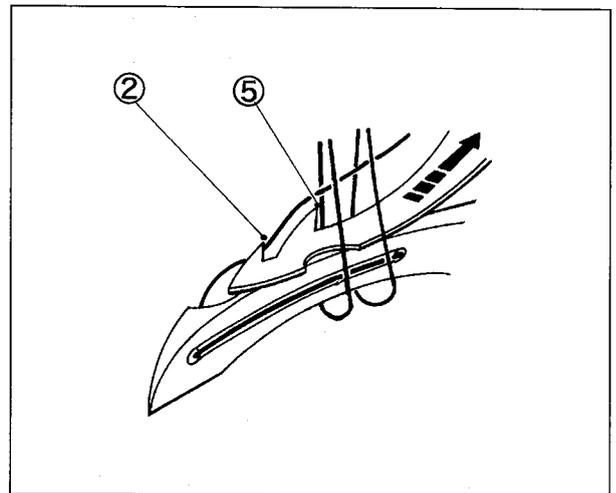


Fig. 35

4.2 Tension release mechanism

4.2.1 Tension release of needle thread

Needle thread pull-off (rear)

The distance between lower side of point of needle thread pull-off(rear)① and upper surface of thread pull-off eyelet bracket② is 35 mm.

Loosen screw③④ to adjust the distance of them is 4 mm when the needle thread is loosen.

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".

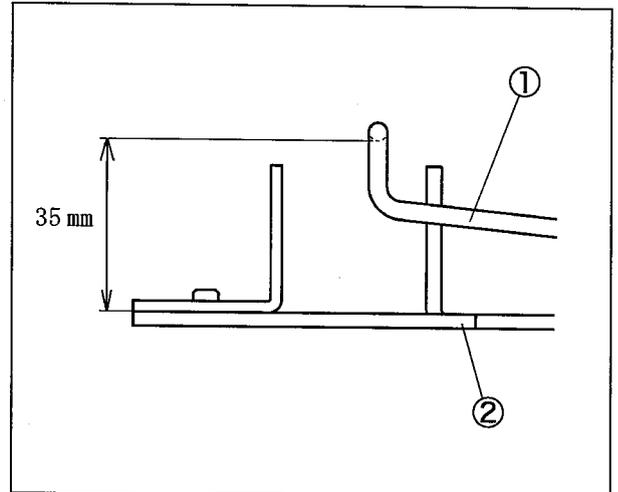


Fig. 36

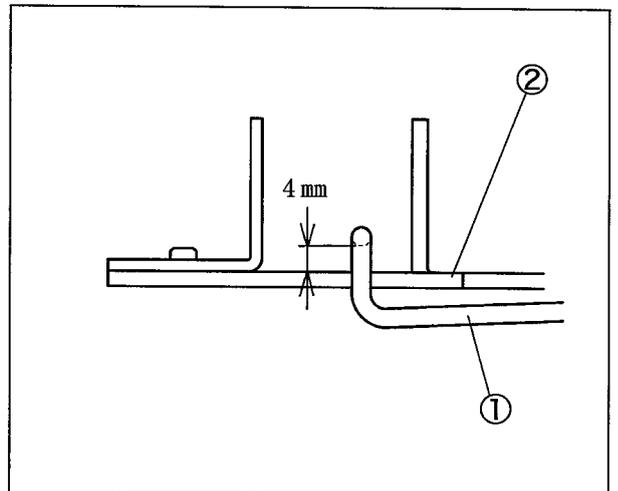


Fig. 37

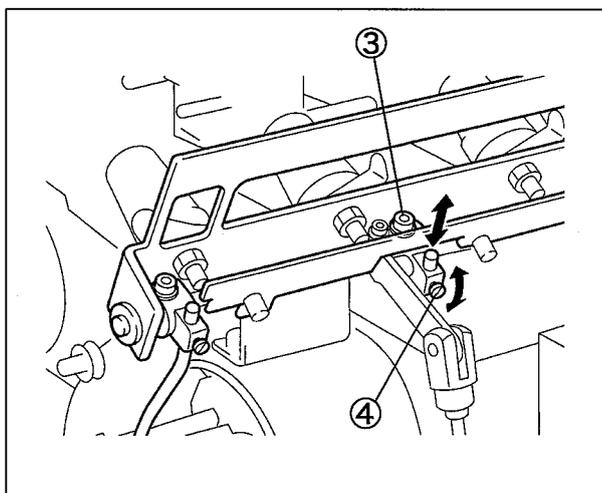


Fig. 38

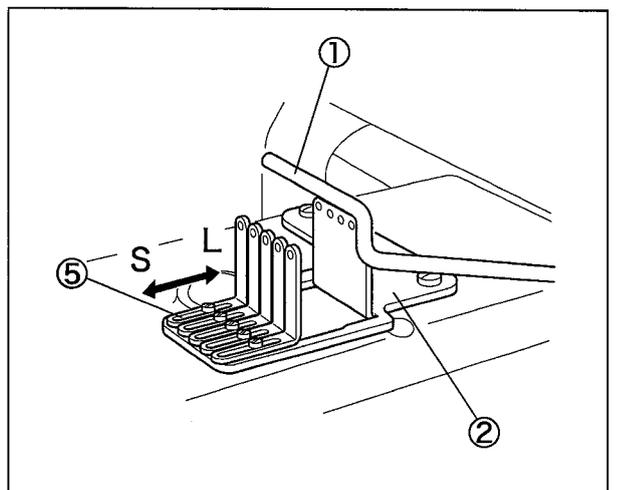


Fig. 39

4.Adjustment

4.2.2 Tension release of looper thread

Align the hole of looper thread pull-off eyelet① with the hole of thread take-up eyelet②.

Align the looper thread pull-off③ with the center of cam④ 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-off③ is 2.5 mm from supporting plate to the center of it's eye. Loosen the screw⑤⑥ to adjust it.

NOTE

1. Adjust the looper thread pull-off eyelet certainly, when thread take-up eyelet② is adjusted.
2. Adjust the direction "Y" after adjusting the direction "X".

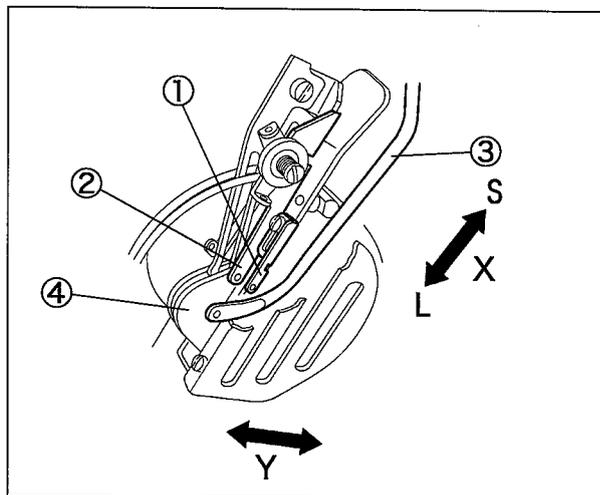


Fig. 40

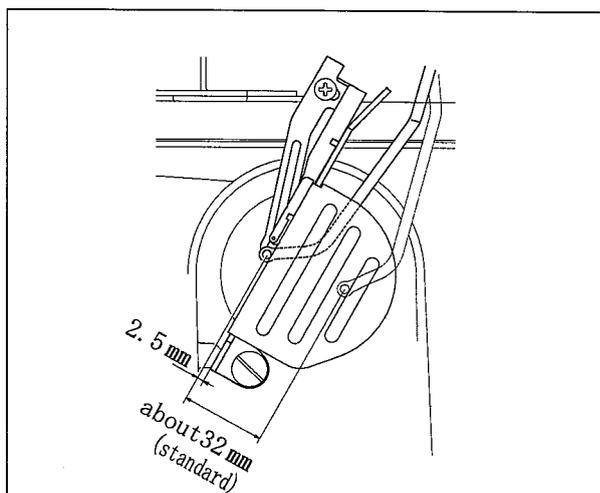


Fig. 41

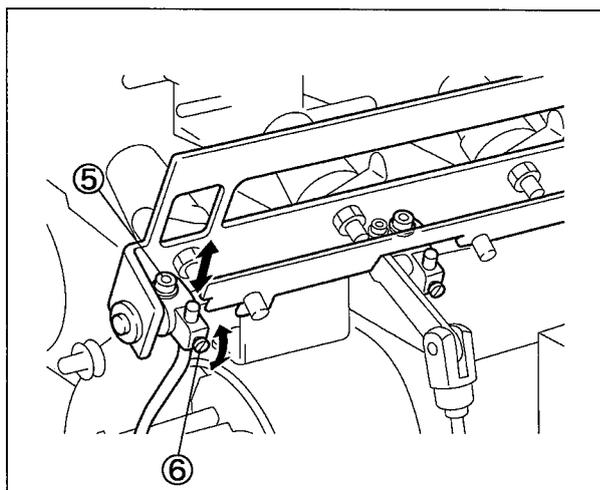


Fig. 42

4.3 Adjusting air wiper

- (1) Loosen the screws③.
- (2) Slide the air wiper① back or forth to blow the air behind the needles.
- (3) Tighten the screws③ securely.
- (4) Loosen the screws④.
- (5) Raise the needle at the highest point, and set the center of the air blowing hole② of the air wiper 1 - 2 mm below the left needle eye.
- (6) Tighten the screws④ securely.
- (7) Adjust the air flow with adjusting screw of the speed controller⑤.

- To decrease the air flow, turn it clockwise.
- To increase the air flow, turn it counterclockwise.

⚠ CAUTION

1. Keep the air flow to a minimum.
2. If the air blows in front of the needles, the needle thread may be slipped away from the needle eye. Make sure that the air blows behind the needles.

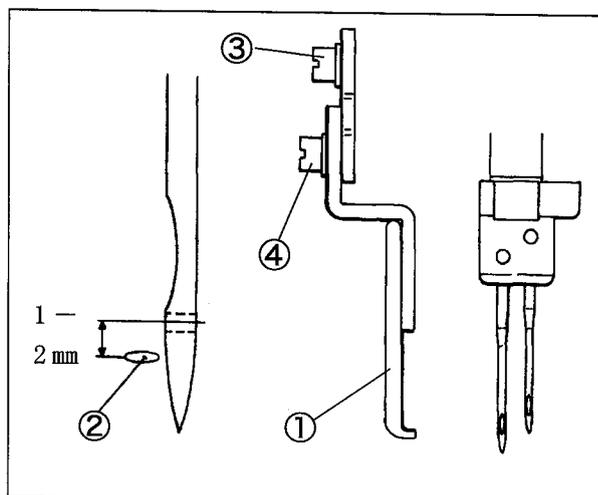


Fig. 43

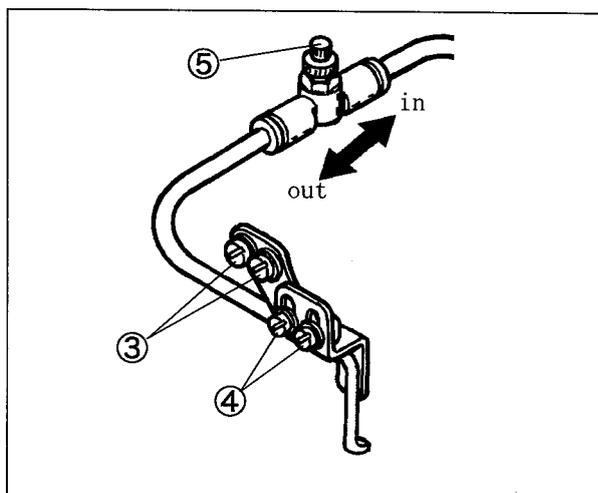


Fig. 44

4.Adjustment

WARNING

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

4.4 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.

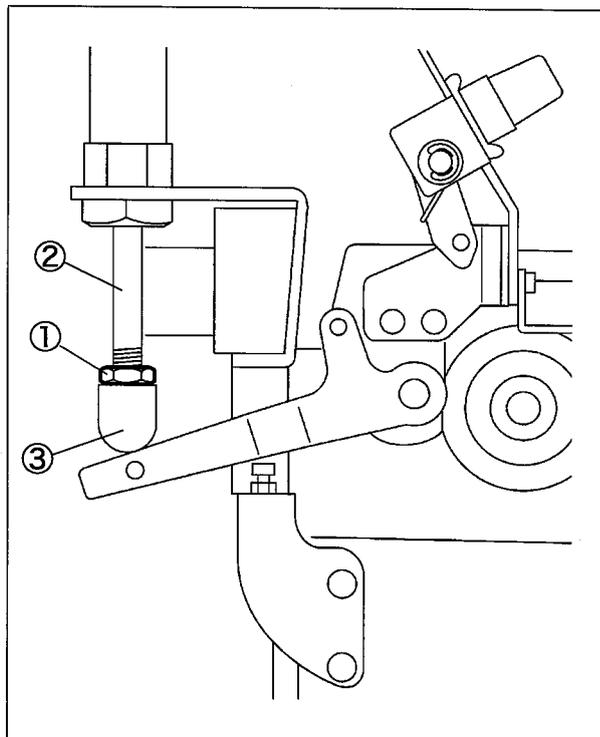


Fig. 45

⚠ WARNING

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

4.5 ST2-A device

4.5.1 Position of movable trimming knife

- (1) Align the line of the handwheel ① with the mark ② of the machine arm (the needle is at the highest point).
- (2) Set the movable trimming knife ③ at the lowest point with inserting a pair of tweezers through the hole ④.

⚠ CAUTION

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

If touched them, loosen the screws ⑦ and ⑧ to adjust it.

- (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.

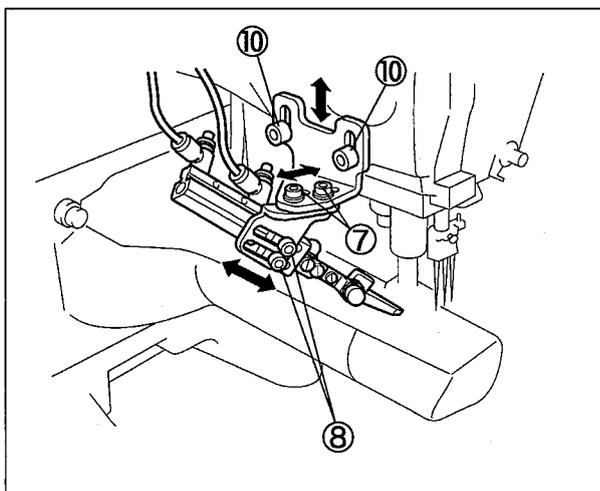


Fig. 48

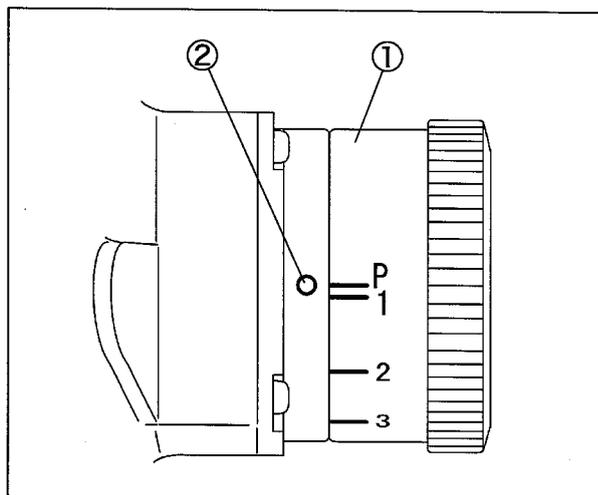


Fig. 46

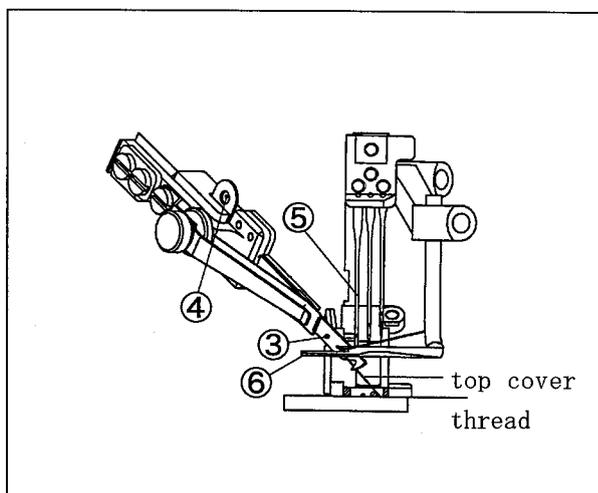


Fig. 47

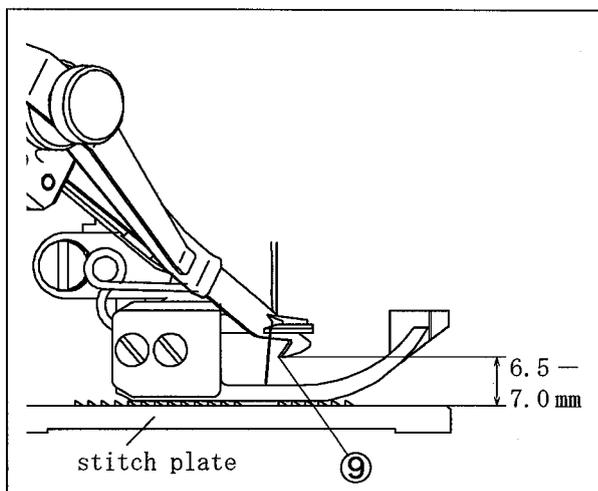


Fig. 49

4.Adjustment

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.

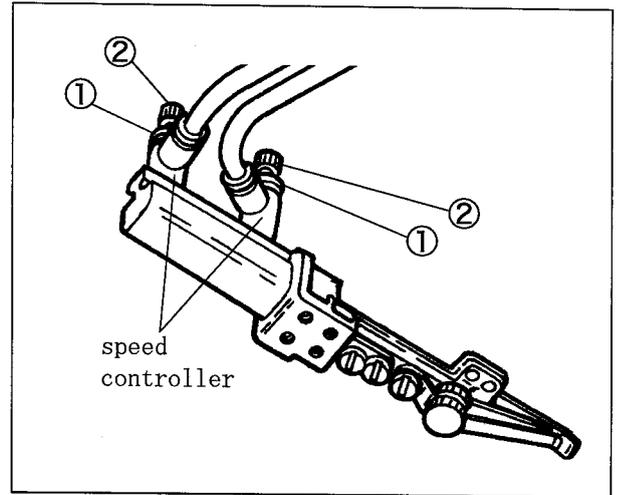


Fig. 50

4.5.2 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. 51.

Normally adjustment above is unnecessary.

Supplement

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

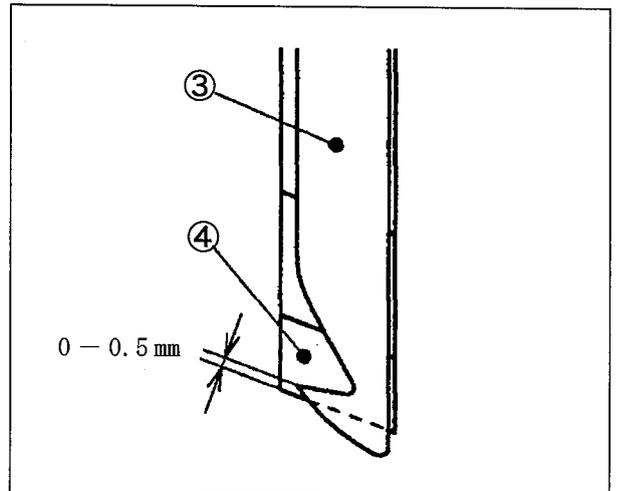


Fig. 51

⚠ WARNING

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

4.5.3 Pressure of thread clamp spring

Keep the pressure to a minimum for holding 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 hold the threads cut with the knives.
- To increase the pressure, turn the adjusting screw ④ clockwise.

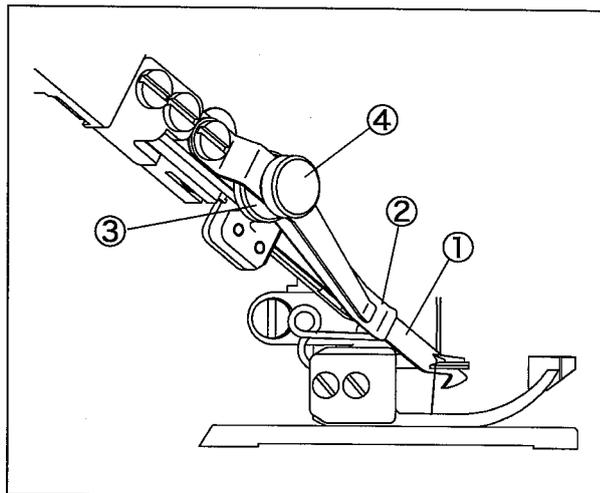


Fig. 52

4.5.4 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 as much as possible. If not enough, the top cover thread cannot be held after cutting.

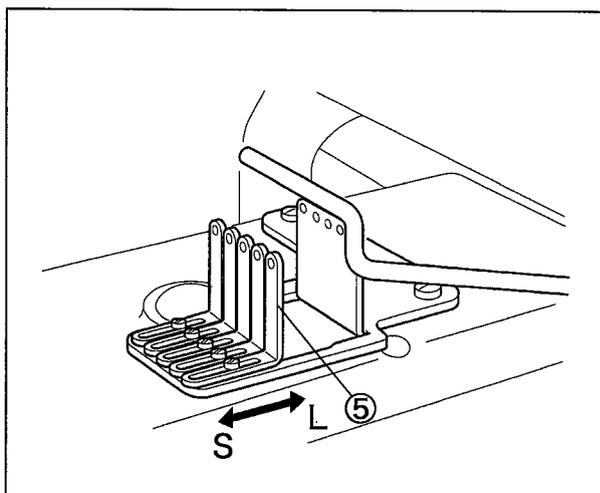


Fig. 53

4.Adjustment

WARNING

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

4.6 Changing timing belt

Removing

1. Loosen the screws ① to remove the belt cover ②. (Fig. 54)
2. Loosen the screws ④ of pulley(front) ③. (Fig. 55)
3. Pull out the pulley(front) with the timing belt ⑤ while rotating the pulley(front). (Fig. 56)

Resetting

1. Push into the pulley(front) ③ about 1/3 to motor adapter ⑥. (Fig. 57)
2. It put the timing belt ⑤ on pulley(front) and then it hang to pulley(large) ⑧. (Fig. 56)
3. Push into the pulley(front) ③ about 2/3 while rotating the hand wheel. (timing belt ⑤ must be parallel.)
4. Aline the flat spot ⑦ (2 places) of the motor adapter ⑥ with screw ④. (Fig. 57)
5. Push it until apply pulley(front) ③ to the collar of pulley(large) ⑥, keep to parallel with pulley(front) ③ and timing belt ⑤. (Fig. 56, 57)
6. Tighten the screws ④ (2 pcs.) of the pulley(front) ③. (Fig. 55)
7. Reset the belt cover ②. (Fig. 54)

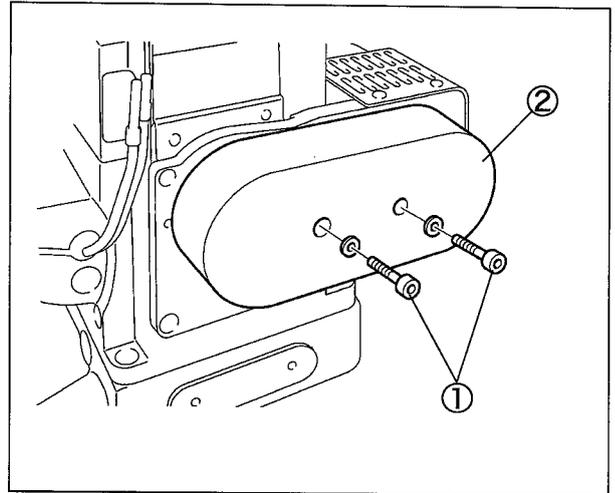


Fig. 54

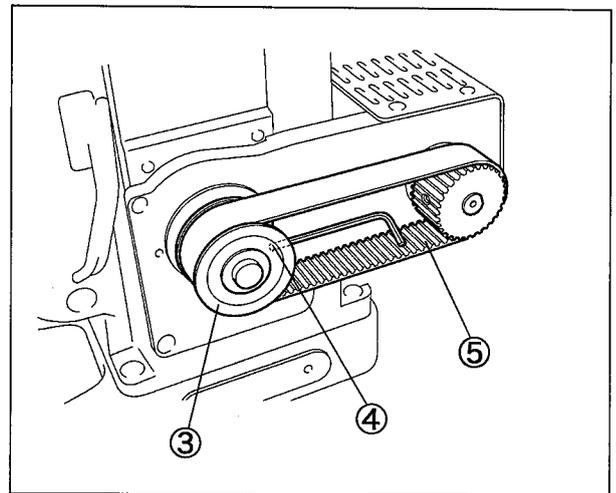


Fig. 55

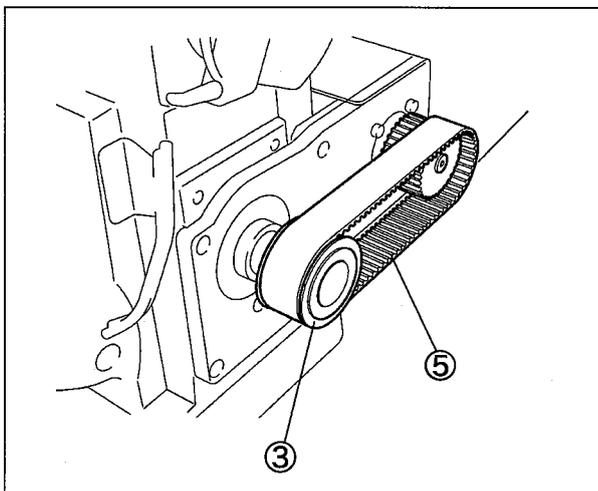


Fig. 56

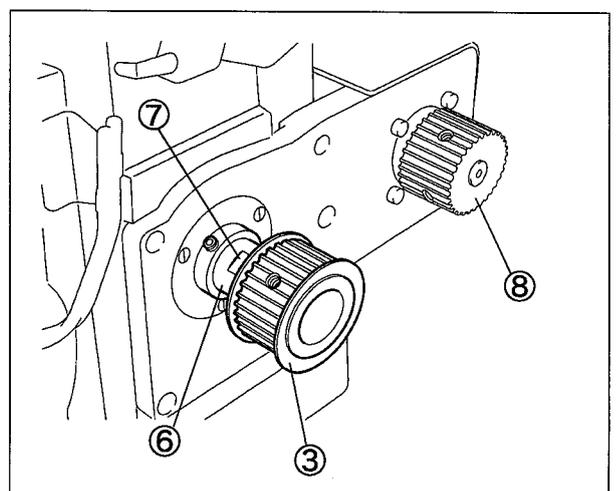


Fig. 57

Yamato

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