



Instruction Manual

Parts List

ELECTRIC UNDER THREAD TRIMMING DEVICE  
ELECTRIC TOP COVER THREAD TRIMMING DEVICE

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**UT**

UT-2, UT-4/ST2

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VES2700-8 class

VES3700-8 class

Thank you for having purchased UT device.

Before using your UT device, 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

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

# 1. Proper operation

## ⚠ CAUTION

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

## 1.1 Operating procedure for UT-2 device

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

- (1) Place a fabric under the presser foot and toe down the pedal. (Fig. 1 ①)

The machine starts sewing.

- (2) Release the pedal. (Fig. 1 ②)

The needle stops at the lowest point.

(Skip this procedure when 1 position is selected.)

- (3) Heel back the pedal. (Fig. 1 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.

The wiper operates to hold the needle thread with the clamp spring.

And then, the presser foot is raised.

- (4) Release the pedal. (Fig. 1 ②)

The presser foot is lowered.

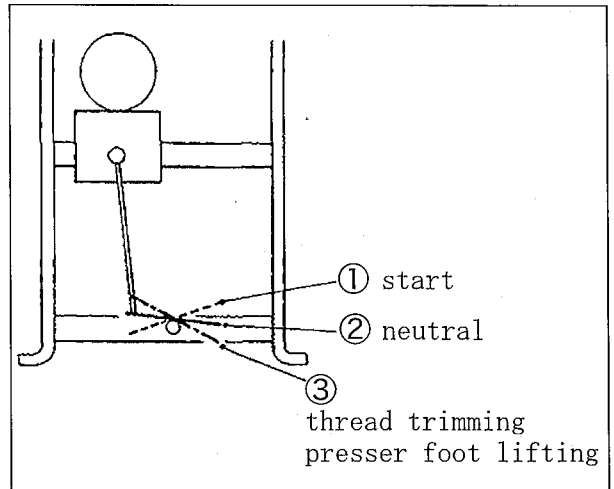


Fig. 1

## NOTE

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.

### 1.2 Operating procedure for UT-4/ST device

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

- (1) Place a fabric under the presser foot and toe down the pedal. (Fig. 2 ①)

The machine starts sewing.

- (2) Release the pedal. (Fig. 2 ②)

The needle stops at the lowest point.

(Skip this procedure when 1 position is selected.)

- (3) Heel back the pedal. (Fig. 2 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.

ST2 device operates to cut and hold the top cover thread.

And then, the presser foot is raised.

- (4) Release the pedal. (Fig. 2 ②)

The presser foot is lowered.

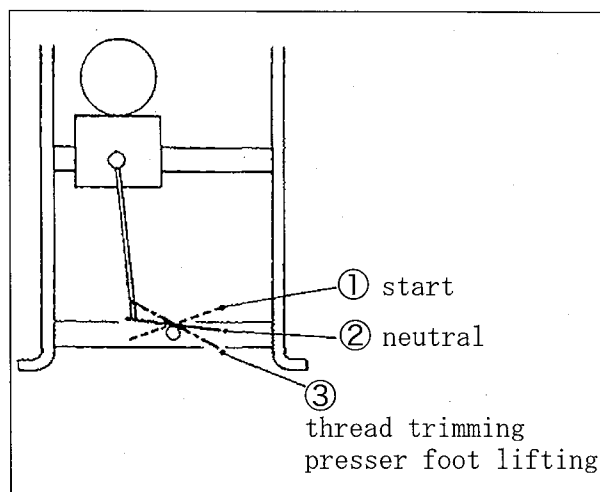


Fig. 2

#### NOTE

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.

# 2.Wiring

## 2.1 Detector switch

### 2.1.1 Adjusting detector switch

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

- (1) Loosen the screws ① and ②.
- (2) Adjust the positions of the detector switch ③ and the switch guide ④ as below.
  - Make the switch turn ON when the trimming knife returns to its original position.
  - Make the switch turn OFF when the front of the upper knife touches the looper with moving the air cylinder by hand.
- (3) Tighten the screws ① and ② securely.

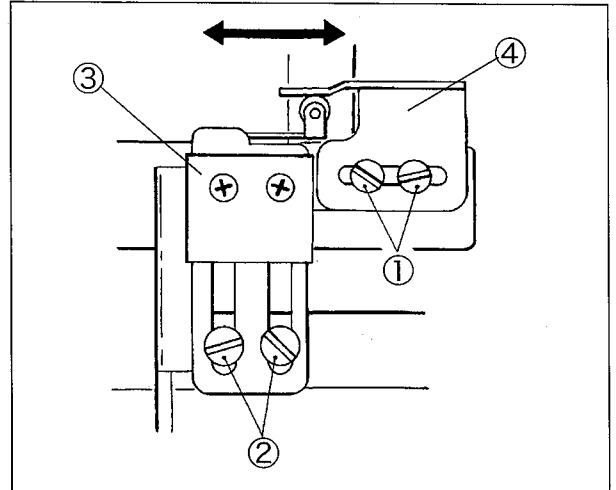


Fig. 3

### 2.1.2 Connecting detector switch

- (1) Connect the cords of the detector switch to the 3P-connector with the numbers as below.

black cord : ①  
white cord : ③  
red cord : ②

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

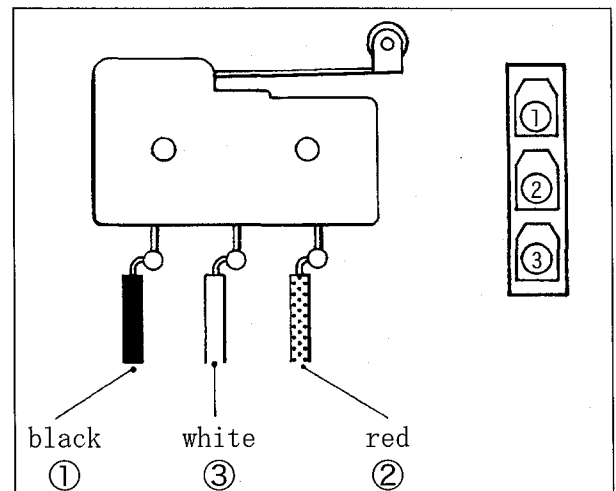


Fig. 4

## 2.2 Connecting solenoid

### NOTE

Never short out black and red, or black and green.  
If shorted, it can cause the damage to the internal circuit.

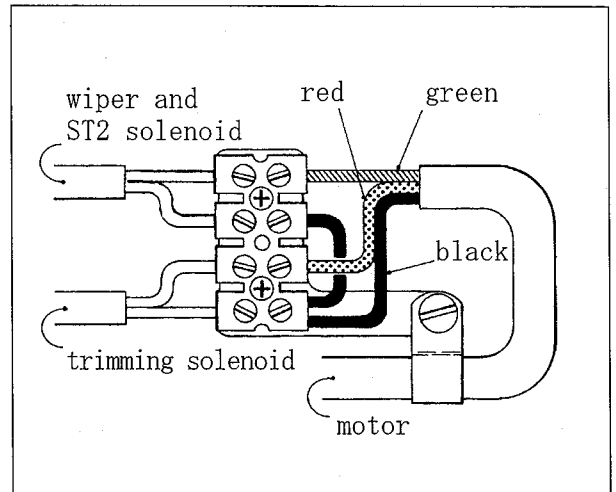


Fig. 5

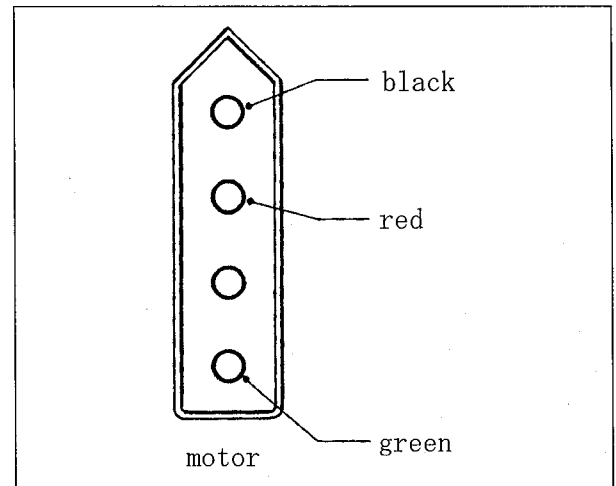


Fig. 6



# 3. Installing synchronizer

## ⚠ CAUTION

Unplug the solenoids for trimming and ST2 device from the control box for the motor.

If not, the parts may be touched and broken.

- (1) Install the synchronizer① on the machine pulley and tighten the screws② slightly.
- (2) Set the synchronizer positioning pin③ into the groove of the synchronizer① and tighten the screw④ securely.
- (3) Turn the motor switch "ON".
- (4) Toe down the pedal to sew two or three stitches.
- (5) Heel back the pedal. Then the needle stops a certain position.
- (6) Loosen the screws②. Rotate the pulley clockwise to align the line of the handwheel⑤ with the hole⑥ of the machine arm while keeping the positions of the screws② (be sure not to rotate the shaft of the synchronizer).

## NOTES

1. The needle bar is at the highest point at (6).
2. Use this device when the needle bar is at the position 0.5 mm below its highest point by further rotating the pulley.

- (7) Toe down the pedal to sew a few stitches. Check that the needle bar stops at the position 0.5 mm below its highest point.

After installing the synchronizer, plug the solenoids for trimming and ST2 device in the prescribed positions.

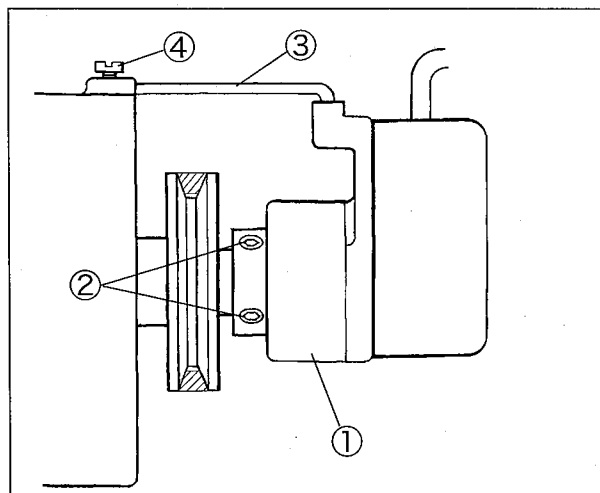


Fig. 7

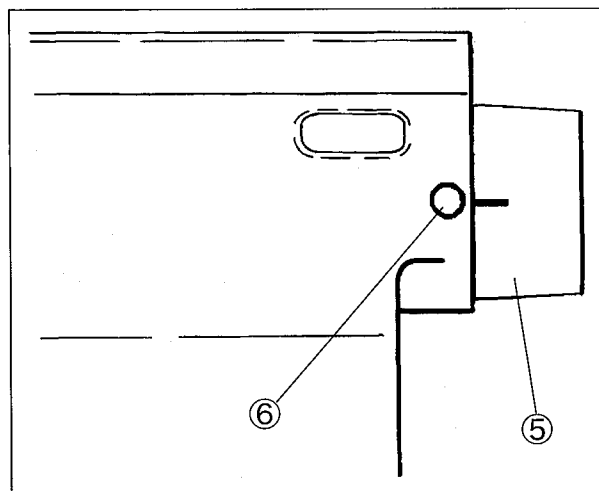


Fig. 8

# 4. Adjusting thread trimming mechanism



## WARNING

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

### 4.1 Installing plunger rod

Set the plunger connecting rod ① and the plunger ② to the solenoid return shaft and the trimming solenoid shaft with the nuts ③ and ④ so that the solenoids shift smoothly right and left.

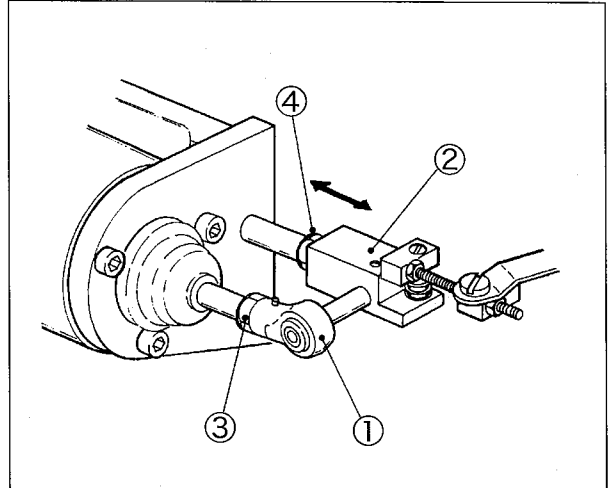


Fig. 9

### 4.2 Stroke of solenoid

The stroke of the solenoid is 15 mm.  
Remove the solenoid dust-proof cover ⑤ and loosen the nuts ⑥ to adjust it.

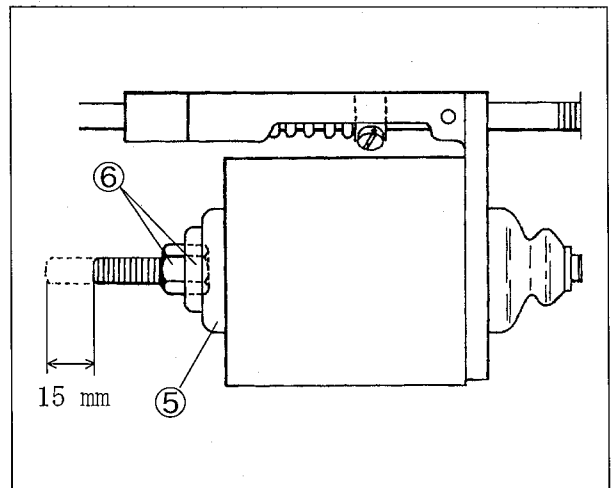


Fig. 10



## CAUTION

Readjust the thread trimming mechanism after changing the stroke of the solenoid.

### 4.3 Solenoid return spring

The standard position of the collar ⑦ is 25 mm apart from the end of trimming solenoid support ⑧ when the plunger of the solenoid is at the left (the solenoid dose not operate).



## CAUTION

Supply oil in the oiling hole (red) of the trimming solenoid support ⑧ once a week.

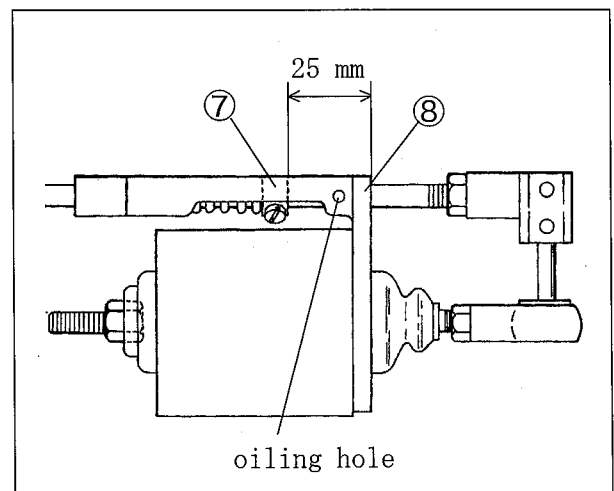


Fig. 11

## 4.4 Position of lower knife

### ⚠ CAUTION

Operate the trimming knife mechanism manually only when the needle is at the highest point. If not, the parts may be touched and broken.

- (1) Set the part ② on the lower knife ① parallel to the part ④ on the lower knife carrier ③.
- (2) Tighten the screws ⑤ securely.

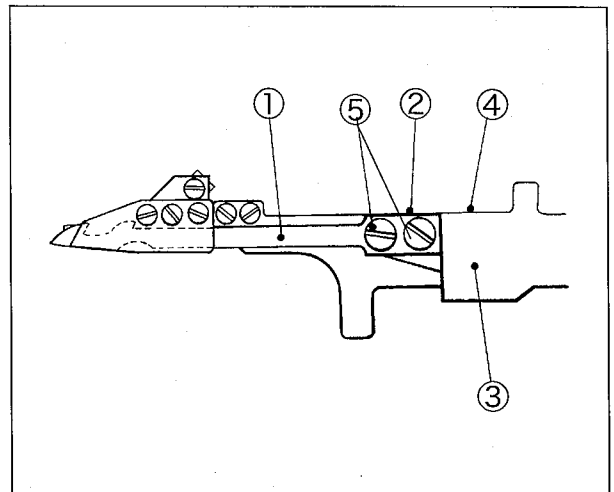


Fig. 12

## 4.5 Relation between upper and lower knives

- (1) Loosen the screws ⑩.
- (2) Adjust the needle thread hook ⑥ of the lower knife to pass at the corner ⑧ of the upper knife ⑦.
- (3) Move the upper knife ⑦ right or left to make the engagement between the looper thread hook ⑨ and the upper knife ⑦ to 0.5 mm when the lower knife is at the extreme right.
- (4) Tighten the screws ⑩ securely.

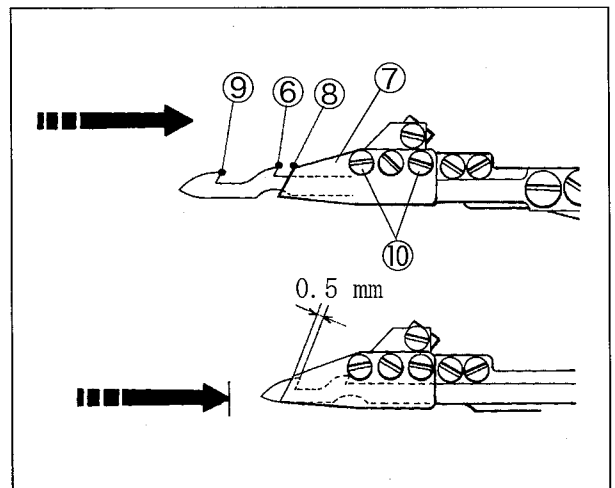


Fig. 13

### 4.6 Positions of clamp spring and clamp spring presser

- (1) Loosen the screws ②.
- (2) Set the part ④ of the lower knife ① even with the back of the clamp spring ③ when the lower knife moves to the right.
- (3) Tighten the screws ② securely.
- (4) Loosen the screws ⑥.
- (5) Set the back of the clamp spring pressure ⑤ even with the backs of the lower knife ① and the clamp spring ③.
- (6) Make the distance between the left tip of the clamp spring pressure ⑤ and the upper knife tip to 1 mm.
- (7) Tighten the screws ⑥ securely.

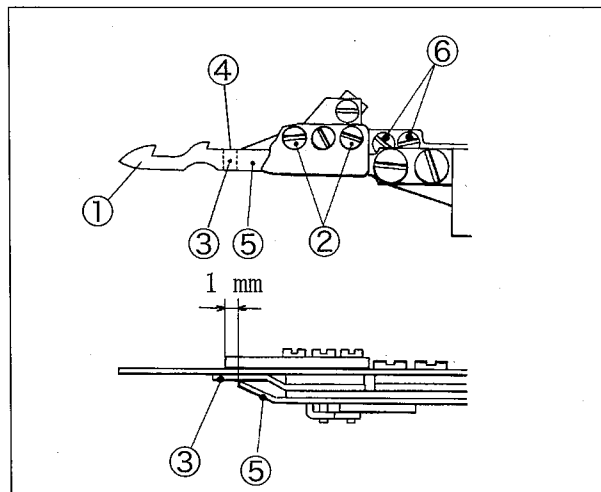


Fig. 14

### 4.7 Pressure of clamp spring

The looper thread is caught and held with the clamp spring ③ after cutting it.

Turn the adjusting screw ⑦ to adjust the pressure.

- To increase the pressure, turn it clockwise.
- To decrease the pressure, turn it counter-clockwise.

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

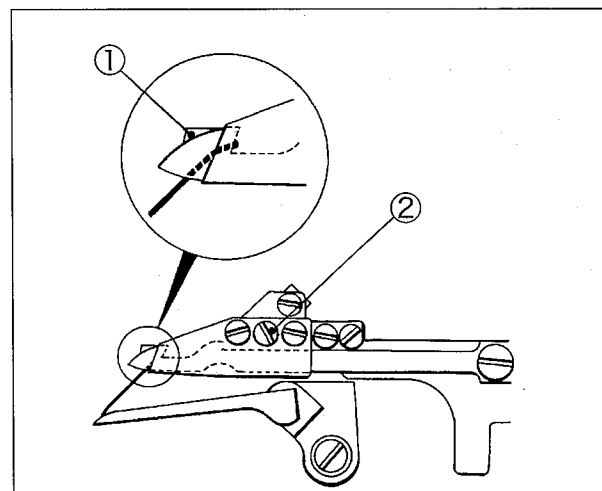


Fig. 15

### 4.8 Position of upper knife carrier

The upper knife carrier ⑨ slides to the left simultaneously with the lower knife carrier ⑧.

And it stops by touching the upper knife carrier stop ⑩.

The upper knife slides under the stitch plate.

The upper knife carrier stop positions with the screws ⑪ automatically.

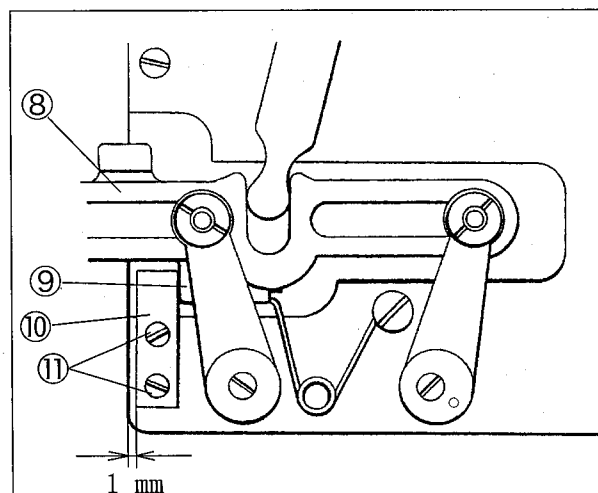


Fig. 16

### 4.9 Relation between lower knife and needle

- (1) Loosen the nuts ②.
- (2) Move the lower knife ① at the extreme left.
- (3) Move the connecting block ③ right or left to make the distance between the needle thread hook ④ and the left needle to 3.5 - 4.5 mm.
- (4) Tighten the nuts ② securely.

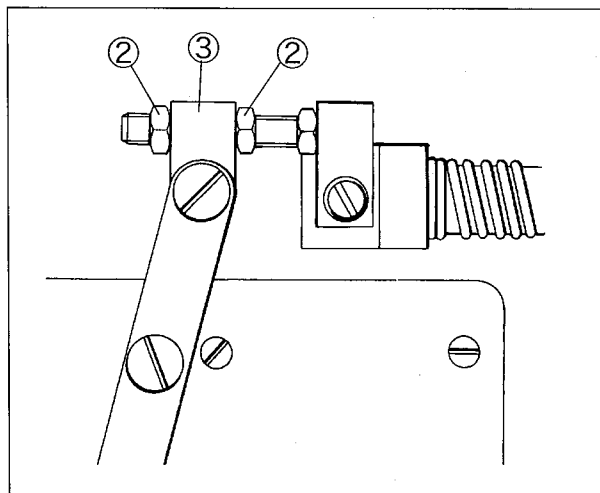


Fig. 17

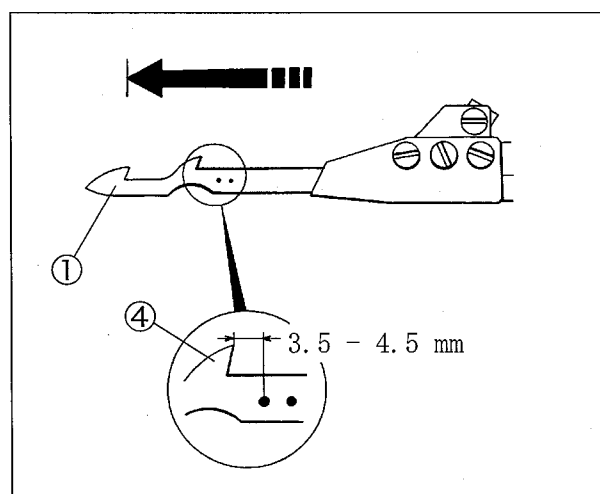


Fig. 18

### 4.10 Position of lower knife tip

- (1) Move the lower knife① to the left.
- (2) When the distance between the tip② of the lower knife① and the right end of the looper is 12 mm, center the tip② with the flat part of the looper.
- (3) Loosen the screw③ and turn the knife guide lever ring(right)④ to adjust the tip②.
  - To move the tip backward, turn the ring④ clockwise.
  - To move the tip forward, turn the ring④ counterclockwise.
- (4) Tighten the screw③ securely.

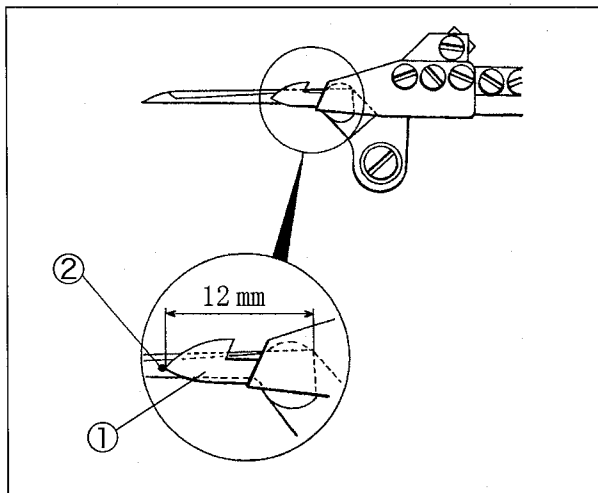


Fig. 19

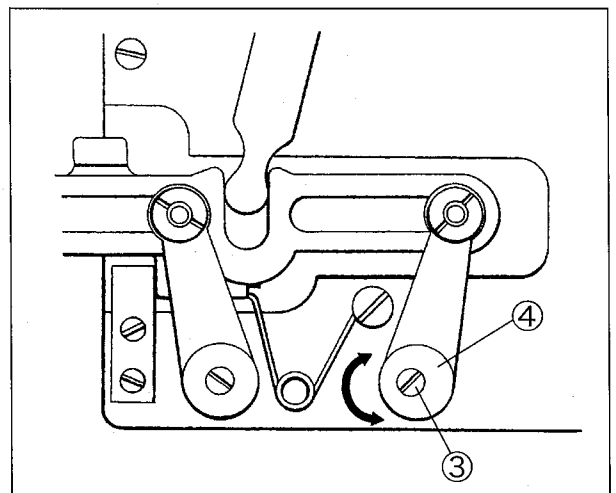


Fig. 20

### 4.11 Lower knife carrier guide (upper)

The upper knife carrier slides to the left simultaneously with the lower knife carrier. And it stops by touching the upper knife carrier stop.

- (1) Loosen the screws⑤.
- (2) Make the clearance between the lower knife carrier⑥ and the lower knife carrier guide (upper)⑦ to 0.05 - 0.1 mm when the upper knife carrier stops.
- (3) Tighten the screws⑤ securely.

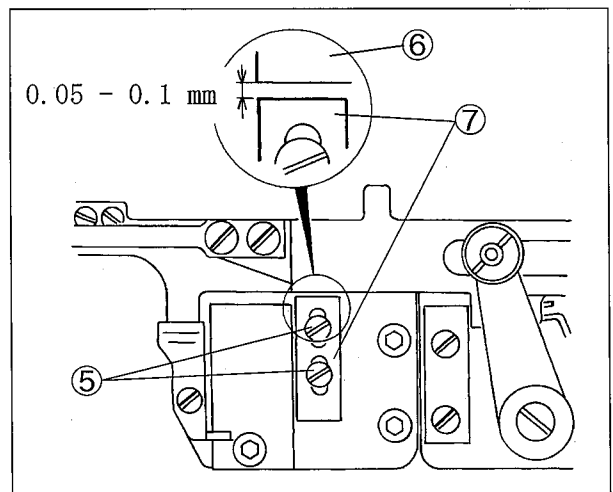


Fig. 21

### 4.12 Relation between lower knife and needle thread or looper thread

After all adjustings, recheck following points before sewing.

- ★ The lower knife① should pass through the needle thread loops② and ③, and the hook④ should pass in front of the looper thread.

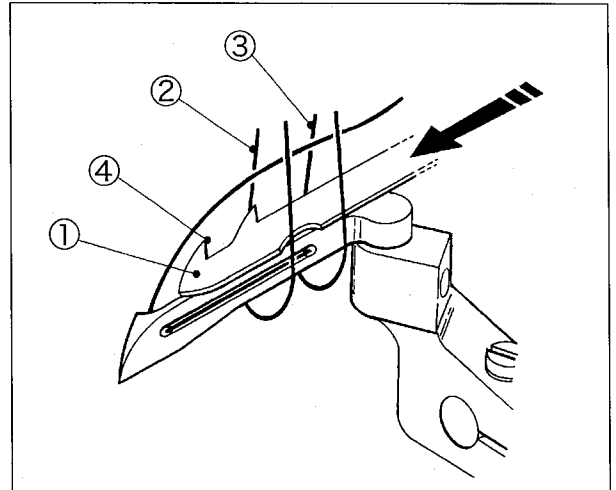


Fig. 22

- ★ The needle and the looper threads are pulled with the hooks④ and ⑤ to the right when the lower knife① returns. Then the upper knife cuts the threads.

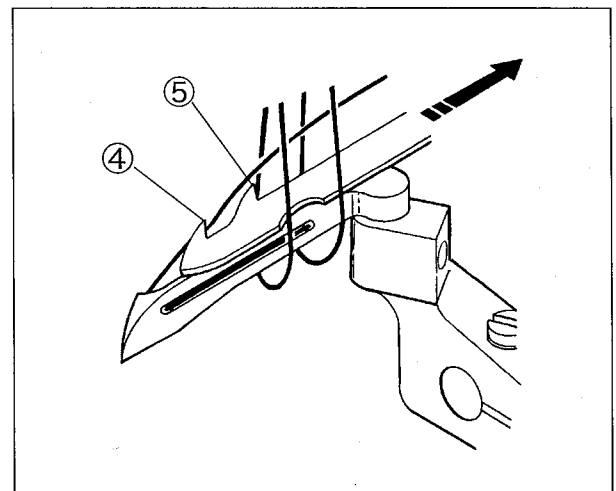


Fig. 23

# 5. Adjusting tension release mechanism

## WARNING

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

### 5.1 Tension release block

- (1) Loosen the screw ③.
- (2) Make the clearance between the trimming solenoid support ① and the tension release block ② to 1 mm when the rod of the trimming solenoid is at the left (the trimming mechanism does not operate).
- (3) Tighten the screw ③ securely.

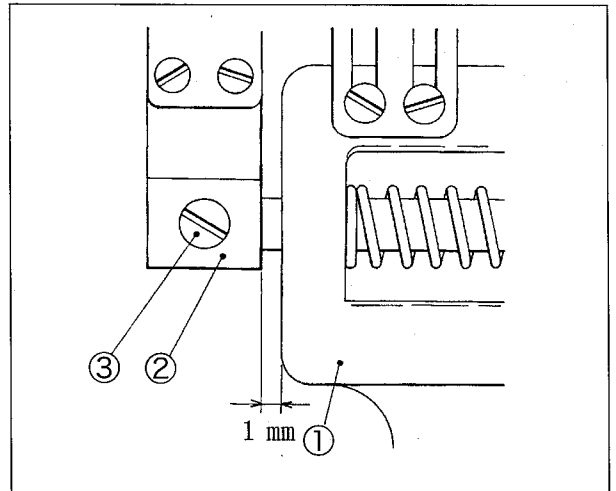


Fig. 24

### 5.2 Tension release connecting plate

Adjust it referring to Figs. 24 and 25.

- (1) Loosen the screw ③.
- (2) Adjust the position of the tension release block ② so that the tension release connecting plate ④ is in the center between the screw head ⑤ and the tension release lever ⑥.
- (3) Tighten the screw ③ securely.

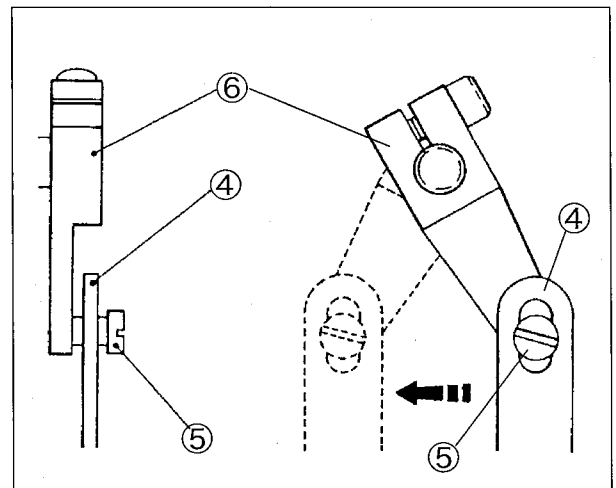


Fig. 25

### 5.3 Thread pull-off lever

- (1) Loosen the screw ⑧ of the tension release lever on the rear of the machine frame.
- (2) Raise the thread pull-off lever ⑦ at the highest point.
- (3) Tighten the screw ⑧ securely.

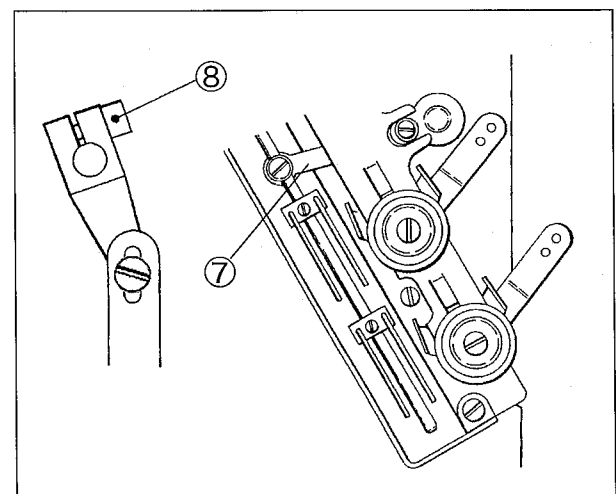


Fig. 26



### 5.4 Looper thread pull-off

When using stretchable thread like woolly for the looper, use the looper thread pull-off ① and the looper thread pull-off eylet ② if required.

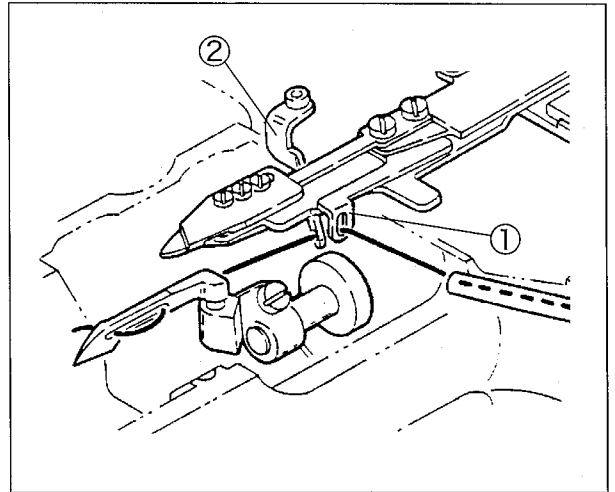
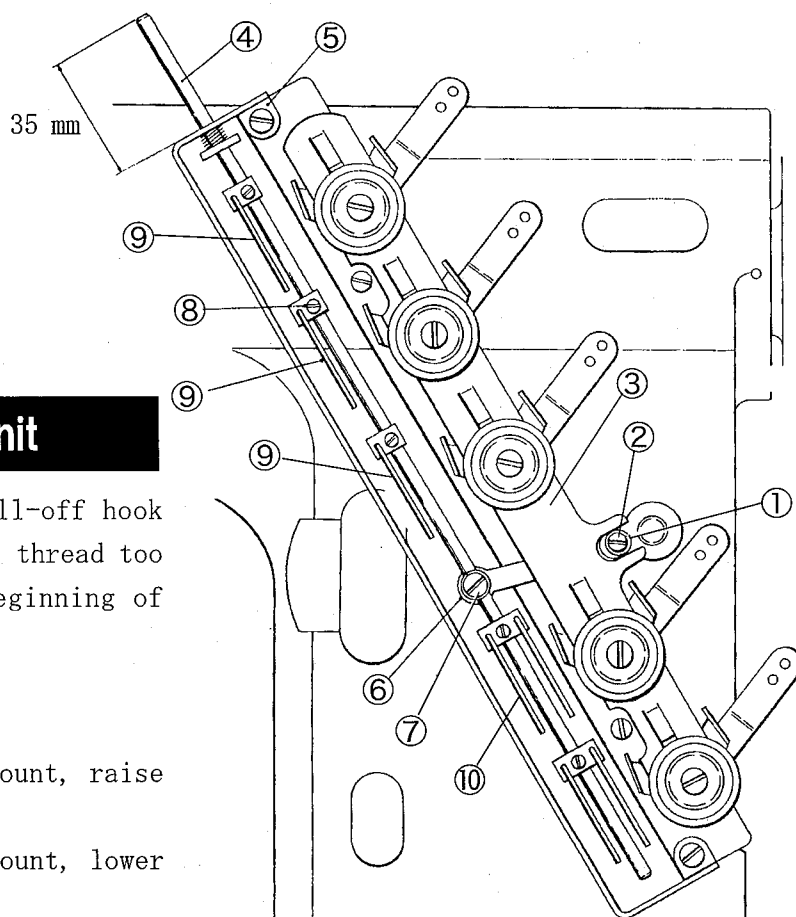


Fig. 27

### 5.5 Tension disc separator

- (1) Loosen the screw ② of the tension release adjusting eccentric ①.
- (2) Position the tension disc separator ③ by turning the tension release adjusting eccentric ① so that the thread tension discs can open as fast as possible.  
To open it fast, lower the tension disc separator ③.
- (3) Loosen the screw ⑦ to set the top of the tension pull-off bar ④ 35 mm extruded from that of the thread pull-off eyelet ⑤.
- (4) Fix the tension pull-off bar ④ to the thread pull-off bar holder ⑥ with the screw ⑦.



### 5.6 Thread pull-off hook unit

Adjust the position of the thread pull-off hook unit ⑨ without remaining of the needle thread too much on the fabric surface at the beginning of sewing.

Loosen the screws ⑧ to adjust them.

- To decrease the thread pull-off amount, raise the thread pull-off hook unit ⑨.
- To increase the thread pull-off amount, lower the unit ⑨.

#### **⚠ CAUTION**

1. If the thread pull-off amount of the hook unit ⑨ is too little, the stitch cannot be formed at the beginning of sewing.
2. Use the thread pull-off hook unit ⑩ only when using woolly thread for the looper. When not using, raise it at the position the thread does not pull-off.

Fig. 28

# 6. Adjusting wiper



## WARNING

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

### 6.1 Wiper and needles

The shaft of the solenoid is out 0.9 mm forward while turning when the solenoid operates.

Turn the solenoid lever⑨ downward while pulling toward the operator to adjust it.

- (1) Raise the needles at the heighest points.
- (2) Loosen the screw③ so that the hook② of the wiper① passes 2.5 - 3.0 mm from front of the center of the needle. (Figs. 29 and 30)
- (3) Loosen the screw④ to pass the wiper① 1.0 mm below the left needle. (Figs. 29 and 30)

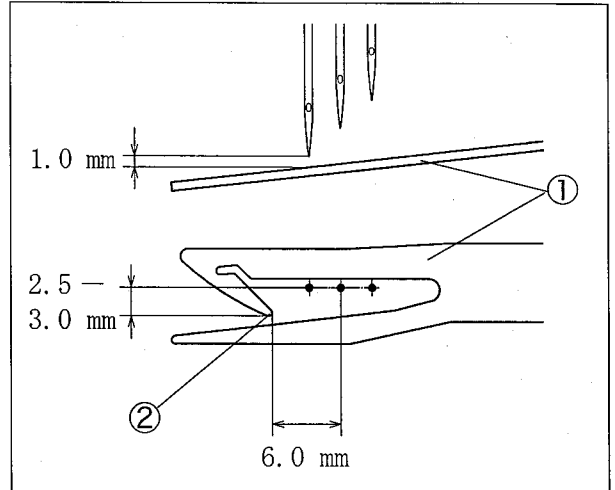


Fig. 29

### 6.2 Distance of wiper

Adjust the distance from the center of the needle bar to the hook② to 6.0 mm when the wiper① is at the extreme left.

Loosen the screw⑤ of the wiper holder to adjust it. (Figs. 29 and 30)

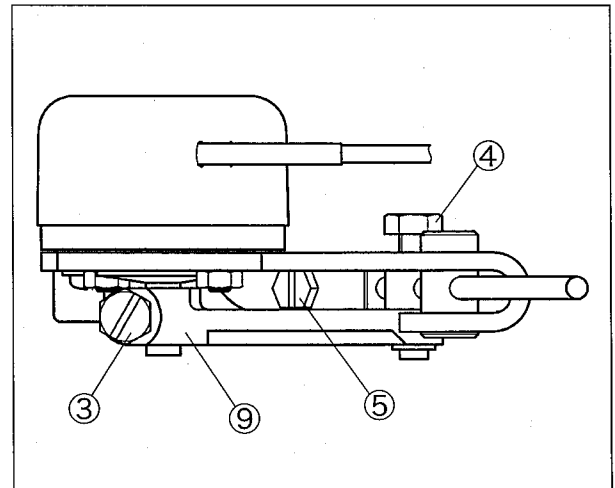


Fig. 30

### 6.3 Wiper and thread clamp rubber

Loosen the screw⑦ to hold the needle thread slightly with the thread clamp rubber⑥ and the wiper① when the wiper① returns. (Fig. 31)

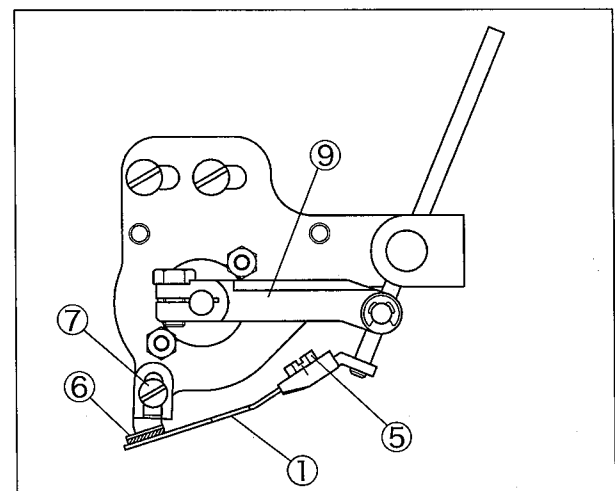


Fig. 31

### 6.4 Standard position of solenoid support

Make the clearance between the machine arm and the solenoid support① to 3 mm.

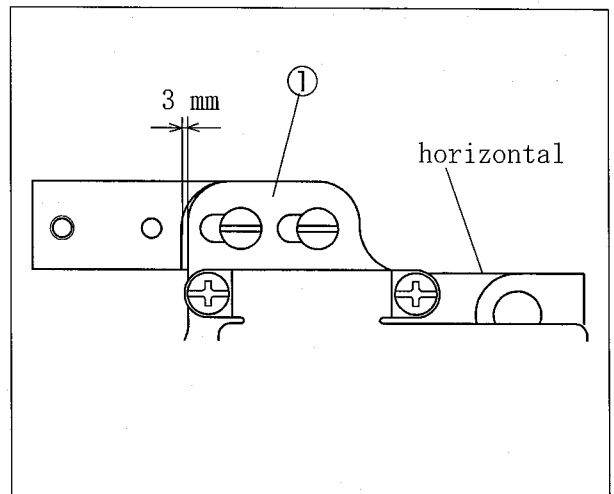


Fig. 32

### 6.5 Standard position of solenoid lever

Make the clearance between the solenoid support① and the solenoid lever② to 2.5 mm. Also set the solenoid lever② horizontally when it returns.

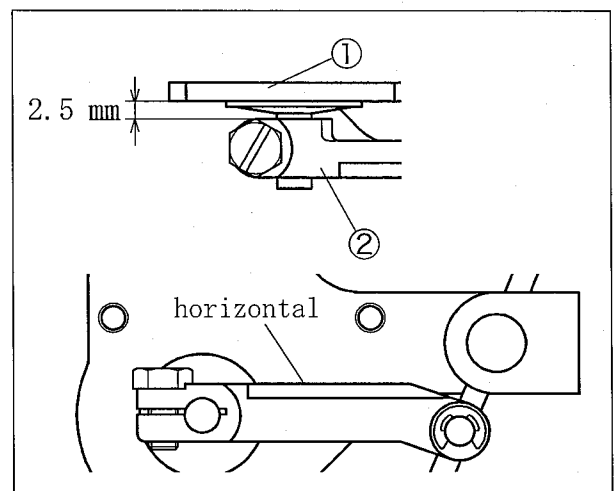


Fig. 33

### 6.6 Standard position of wiper

Make the distance between the wiper holder③ and the end of the wiper④.

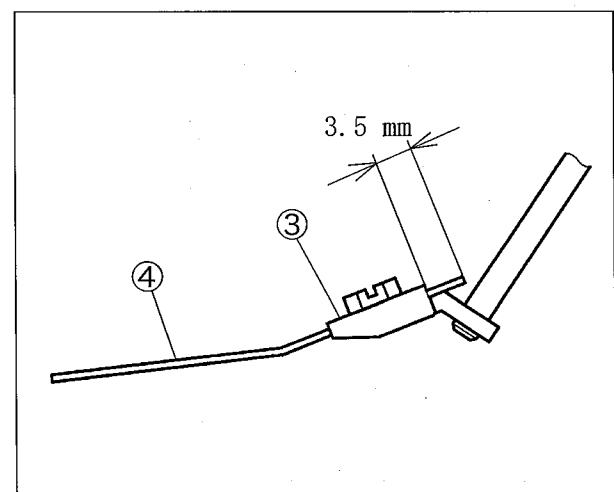


Fig. 34

# 7. Presser foot lifter mechanism



## WARNING

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

- (1) Fix the plunger ② with the nut ①.
- (2) Adjust the presser foot to raise by 7 mm with the chain ③ when the plunger ② moves in the direction X (the solenoid operates).
- (3) Adjust the chain with slack slightly when the plunger ② moves in the direction Y.

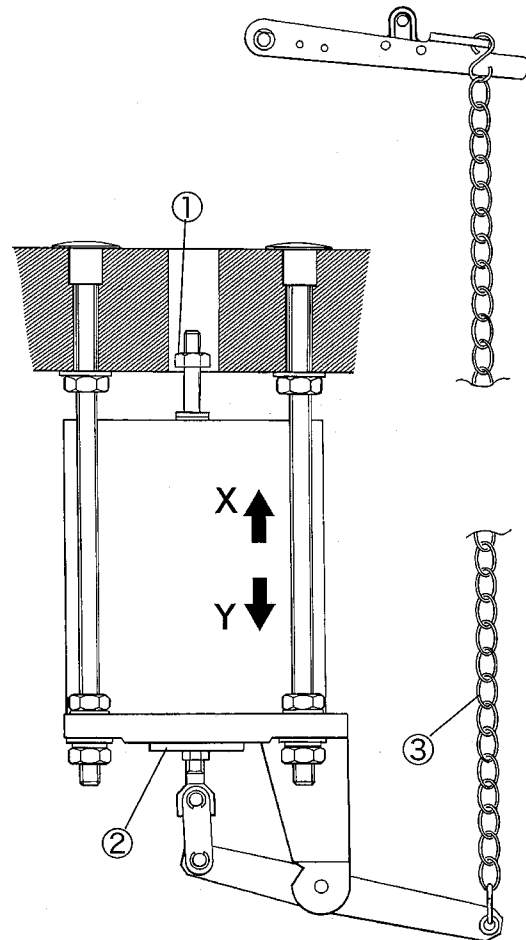


Fig. 35

# 8.ST2 device



## WARNING

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

### 8.1 Position of movable trimming knife

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

## 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 screws ⑧ to cross the movable trimming knife ③ tip over the top cover thread when the movable trimming knife ③ is at the lowest point.

## NOTE

Adjust the tip ⑨ of the movable trimming knife ③ 5.5 - 6.0 mm above the top of the stitch plate as standard.

- (4) After that, tighten the screws ⑦, ⑧, and ⑩ securely.
- (5) Check the position of the movable trimming knife ③ while moving it up and down.

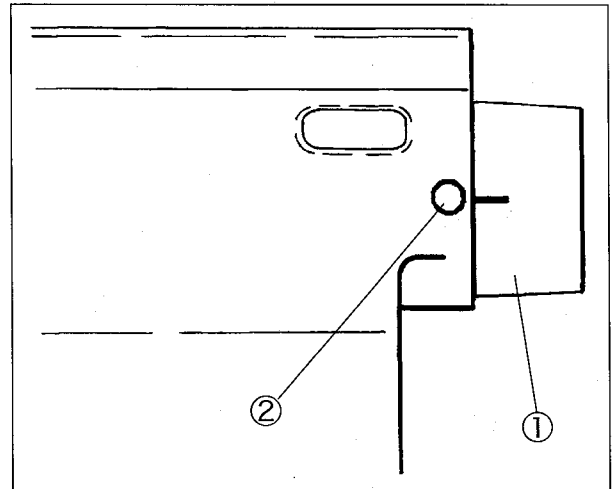


Fig. 36

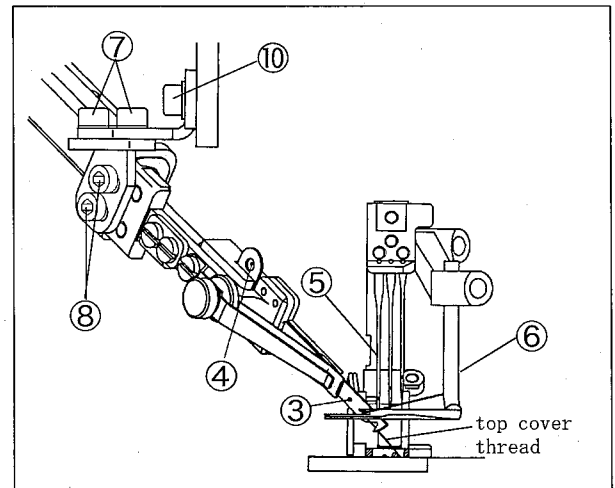


Fig. 37

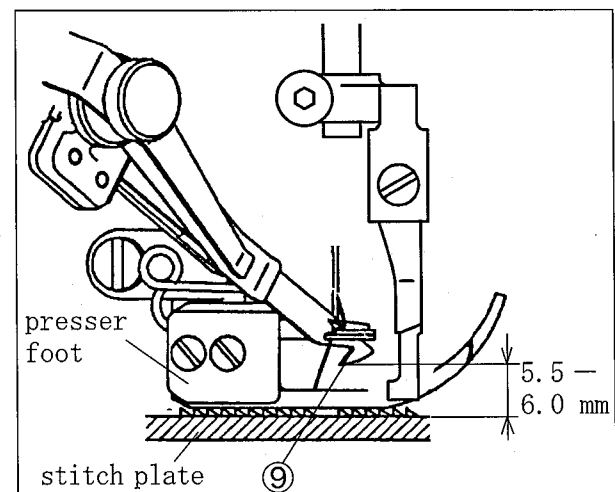


Fig. 38

## 8.2 Engagement between movable and fixed trimming knives

The engagement between the movable trimming knife ① and the fixed trimming knife ② is set to 0 - 0.5 mm in Fig. 96 at shipment.

- (1) Loosen the screw ③ of the solenoid lever ④.
- (2) Engage the fixed trimming knife ② with the movable trimming knife ① to 0 - 0.5 mm when the knife ① is inmost.
- (3) Tighten the screw ③ securely.

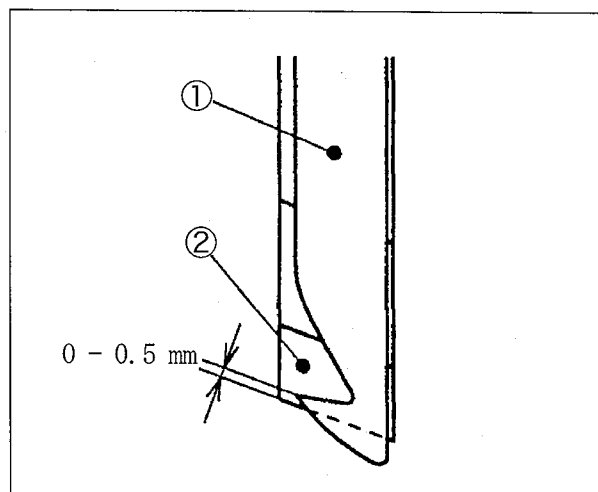


Fig. 39

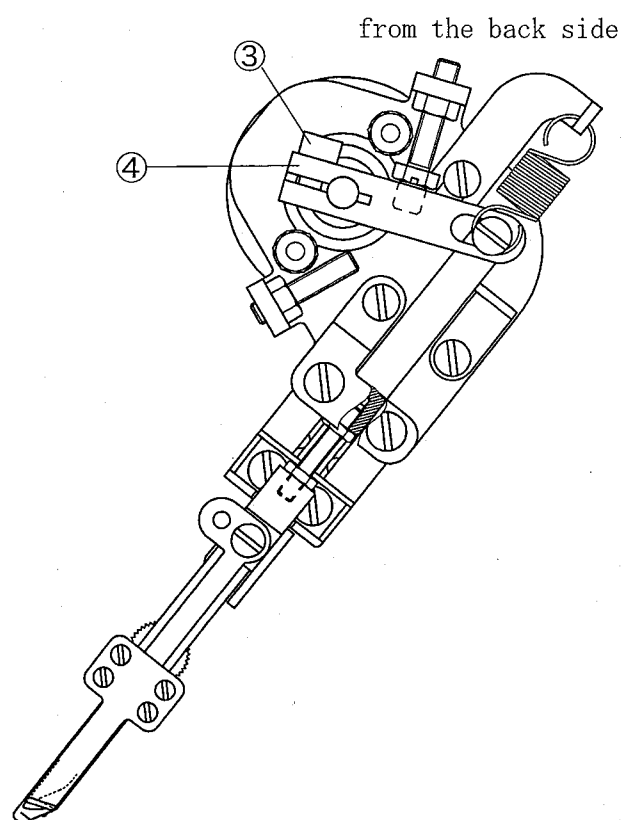


Fig. 40

### 8.3 Adjusting stroke of movable trimming knife

The stroke from the tip② of the movable trimming knife① to the fixed trimming knife③ is set to 19.5 mm at shipment.

- (1) Loosen the nut④.
- (2) Apply the adjusting screw⑥ tip to the solenoid lever⑤ when the stroke is 19.5 mm and the movable trimming knife① is out fully.
- (3) Tighten the nut④ securely.

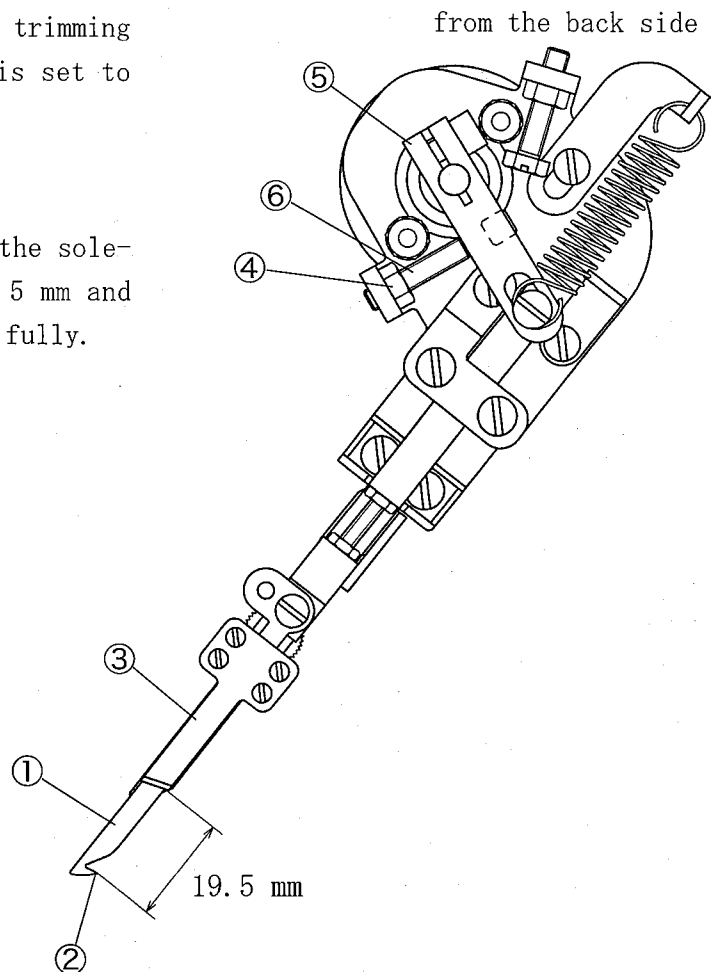


Fig. 41

### 8.4 Pressure of thread clamp spring

Keep the pressure to a minimum for holding the threads.

- (1) Loosen the nut⑦.
- (2) Adjust the pressure with the adjusting screw⑨ so that the thread clamp spring⑧ and the movable trimming knife① hold the threads cut with the knives.  
To increase the pressure, tighten the adjusting screw⑨.
- (3) Tighten the nut⑦ securely.

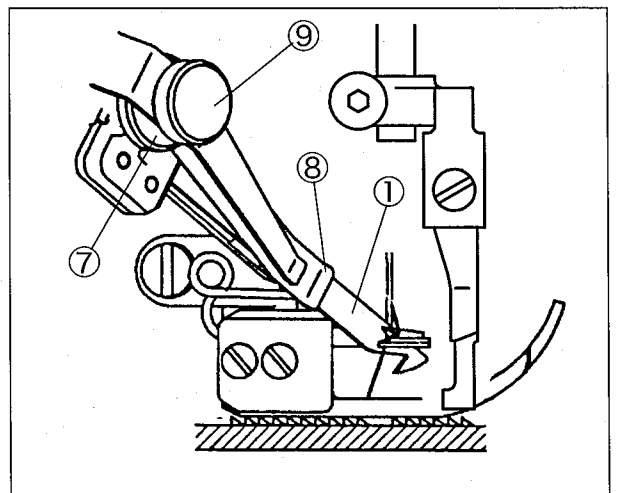


Fig. 42



## 8.5 Adjusting spring

Loosen the screw① and move the spring hanger② to adjust it.

- To increase the spring pressure, move it upward.
- To decrease the spring pressure, move it downward.

Keep the pressure to a minimum within the range that the movable trimming knife can return.

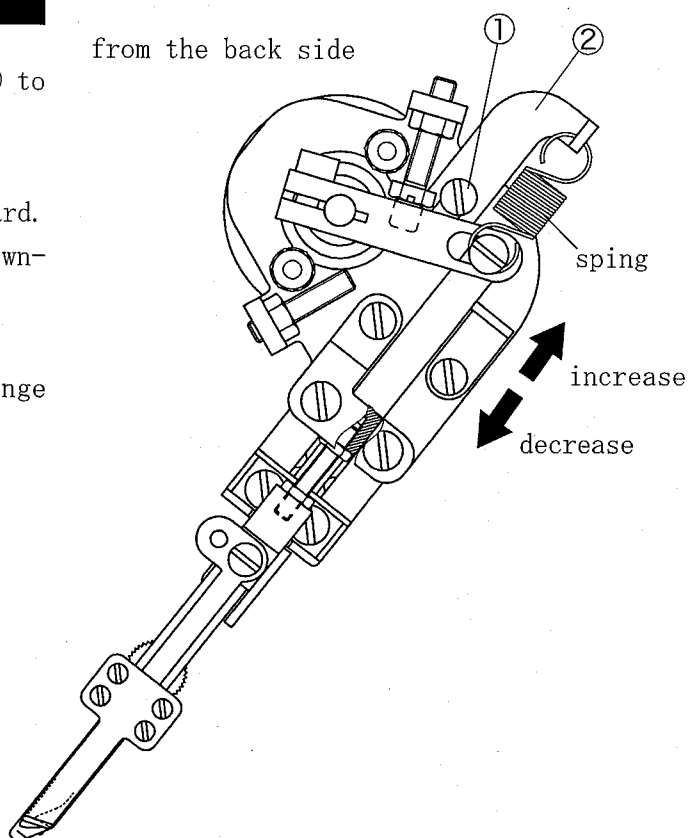


Fig. 43

## 8.6 Adjusting thread pull-off hook unit

- To decrease the thread pull-off amount, raise the thread pull-off hook unit③.
- To increase the thread pull-off amount, lower it ③.

### NOTES

1. The feed of the thread should be as much as possible. If not enough, the top cover thread cannot be held after cutting.
2. When using stretchable thread like woolly, thread through the top cover thread eyelet④.

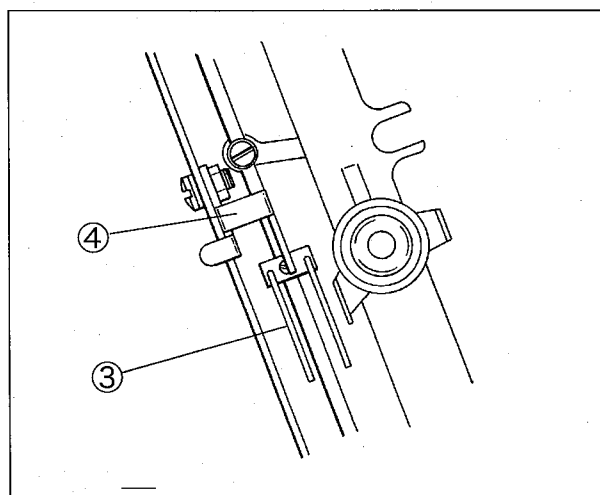


Fig. 44



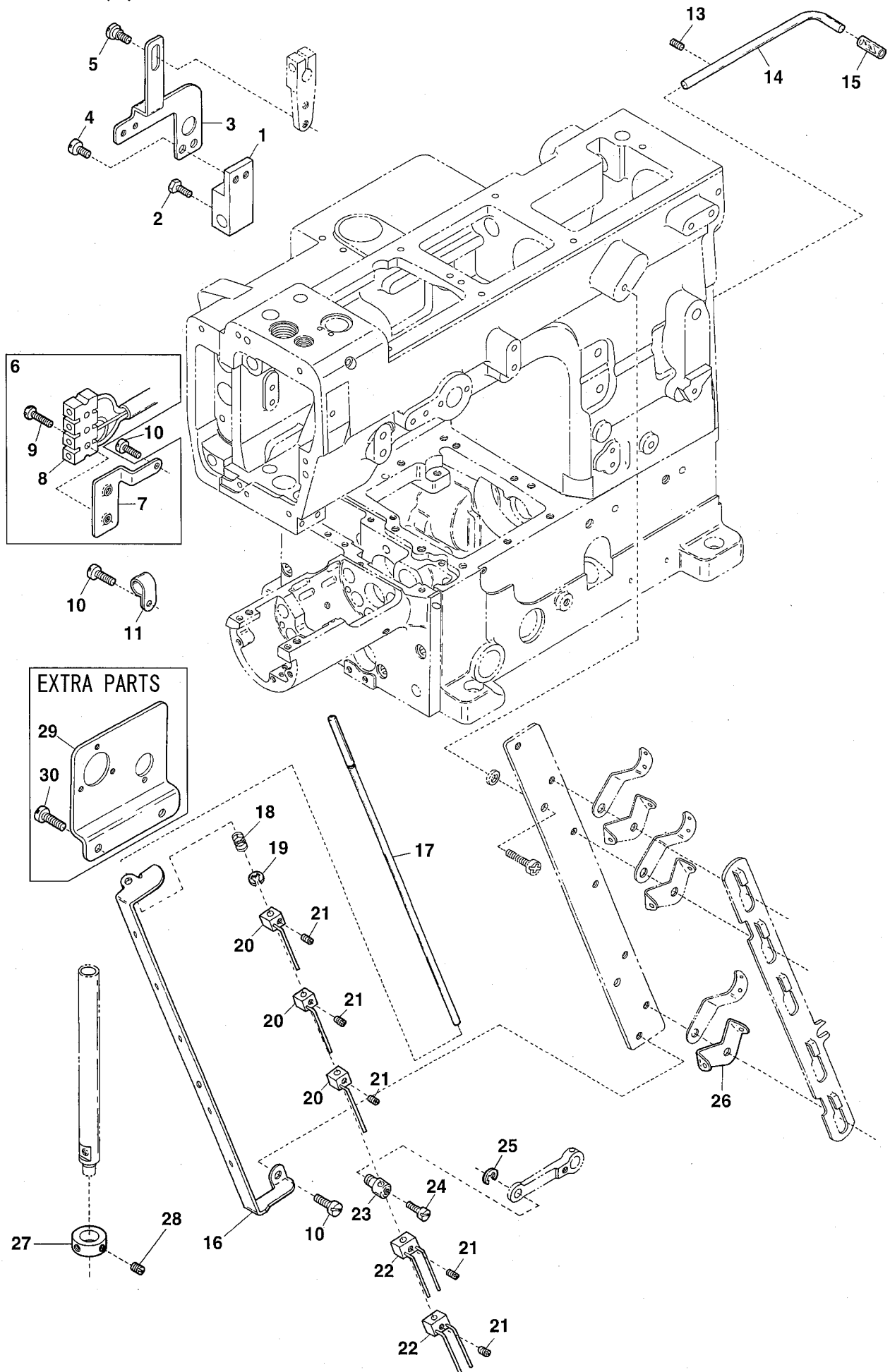
# **ILLUSTRATED SPARE PARTS LIST**

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VES/UT

# 1

## UT DEVICE(1)



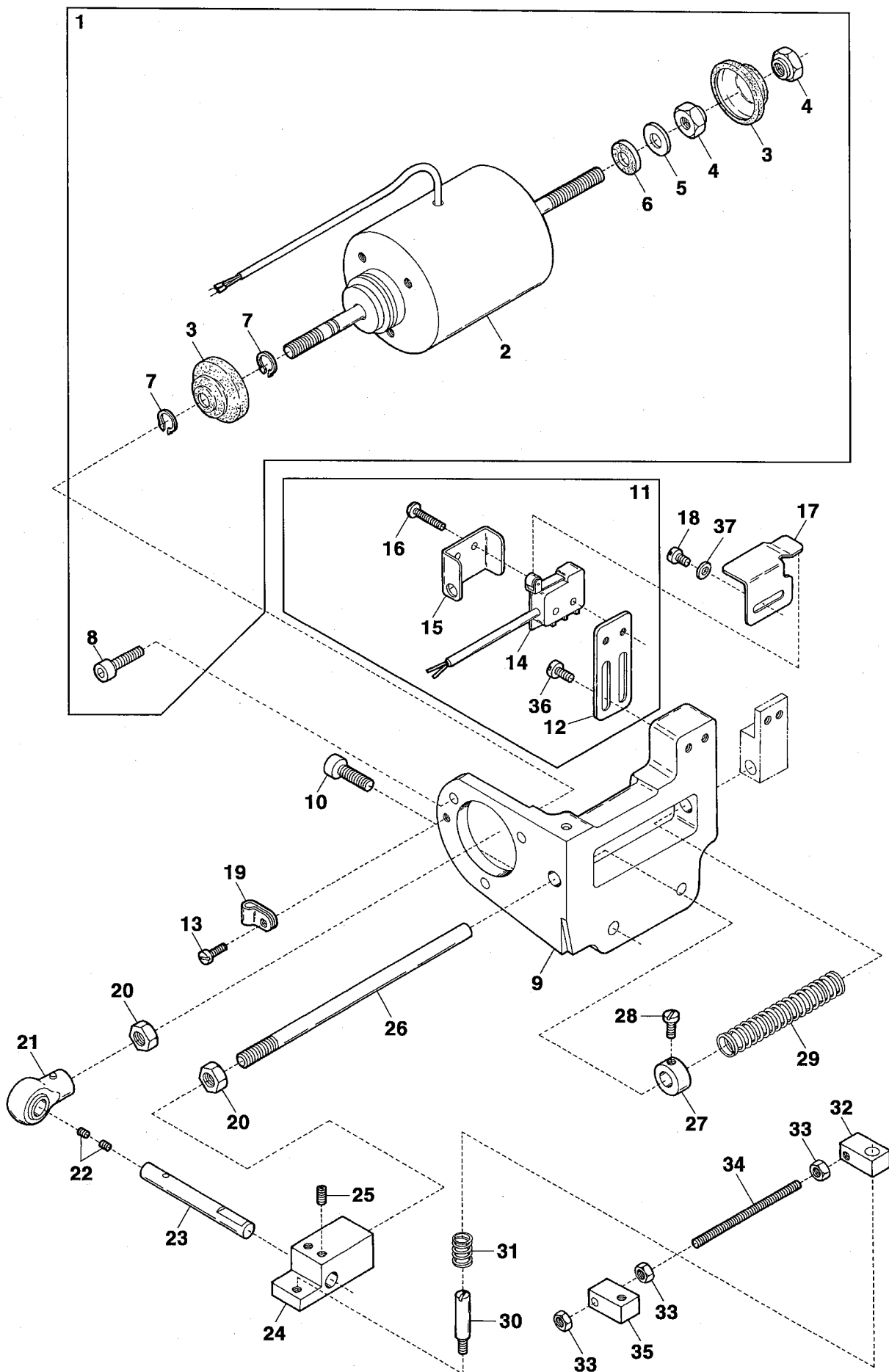
Ref.No	Parts No.	Description	品 名	Amt. Req
1	3100526	Tension Release Block	糸緩メブロック	1
2	007610	Screw(M4-0.7 × 10)	止ネジ	1
3	3100525	Tension Release Connecting Plate	糸緩メ連結板	1
4	110009	Screw(M4-0.7 × 8)	止ネジ	2
5	170009	Screw(M4-0.7 × 4)	止ネジ	1
6	3100536	Terminal Holder, Complete Set	端子台(組)	1
7	3100535	Terminal Holder Support	端子台取付板	1
8	0063586	Terminal Holder	端子台	1
9	009985	Screw(M2.5-0.45 × 10)	止ネジ	2
10	110012	Screw(M4-0.7 × 5)	止ネジ	4
11	0063612	Cord Clamp(4N- φ 6.8)	コードクランプ	1
12				
13	009736	Screw(M4-0.7 × 6)	止ネジ	1
14	0022836	Synchronizer Positioning Pin	ポジショナピン	1
15	0022837	Synchronizer Cushion	ポジショナピンクッション	1
16	3100529	Thread Pull-off Eyelet	糸緩メ糸道	1
17	3500530	Thread Pull-off Bar	糸緩メ棒	1
18	0063076	Swing-proof Spring	糸緩メ棒防振バネ	1
19	0077179	Retaining Ring	ストップリング	1
20	3500514	Thread Pull-off Hook Unit	糸緩メフック(組)	3
21	003657	Screw(M4-0.7 × 3)	止ネジ	5
22	3500516	Thread Pull-off Hook Unit	糸緩メフック(組)	2
23	0094396	Thread Pull-off Bar Holder	糸緩メ棒連結片	1
24	007006	Screw(9/64-40 × 7)	止ネジ	1
25	0033024	Retaining Ring	ストップリング	1
26	0090856	Tension Disc Eyelet	糸調子皿糸道	1
27	3500360	Collar(9 × 15 × 7.5mm)	カラー	1
28	160001	Screw(M4-0.7 × 4)	止ネジ	2
29	3101202	Connector Supporting Plate	取付板	1
30	110013	Screw(M4-0.7 × 8)	止ネジ	2

## Device classification 装置の種類

Mark	Trimming Solenoid 糸切りソレノイド	Wiper Solenoid ワイパソレノイド	Foot Lifter Solenoid 押エ揚げソレノイド
記号	0011802	3169920	3100571
UT-2	○	○	○
UT-4	○	×	○

○ . . . Assembled----- 有り  
 × . . . Non-assembled--- 無し

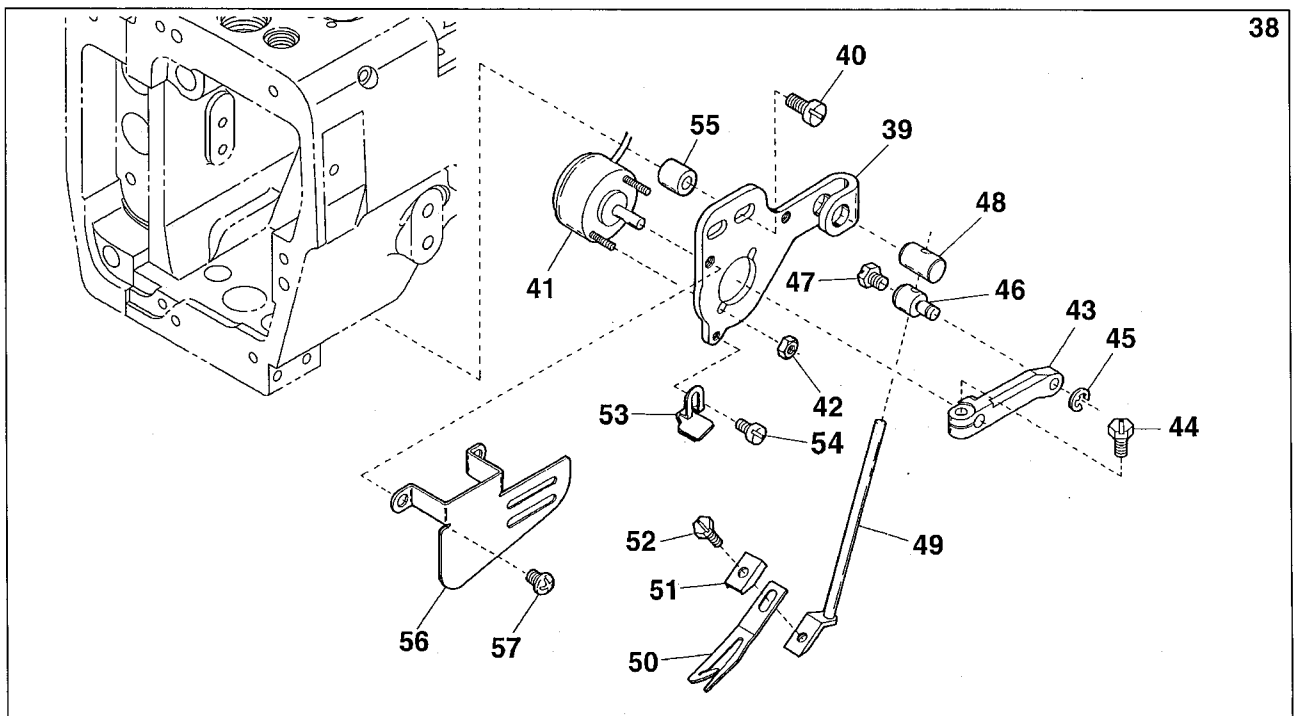
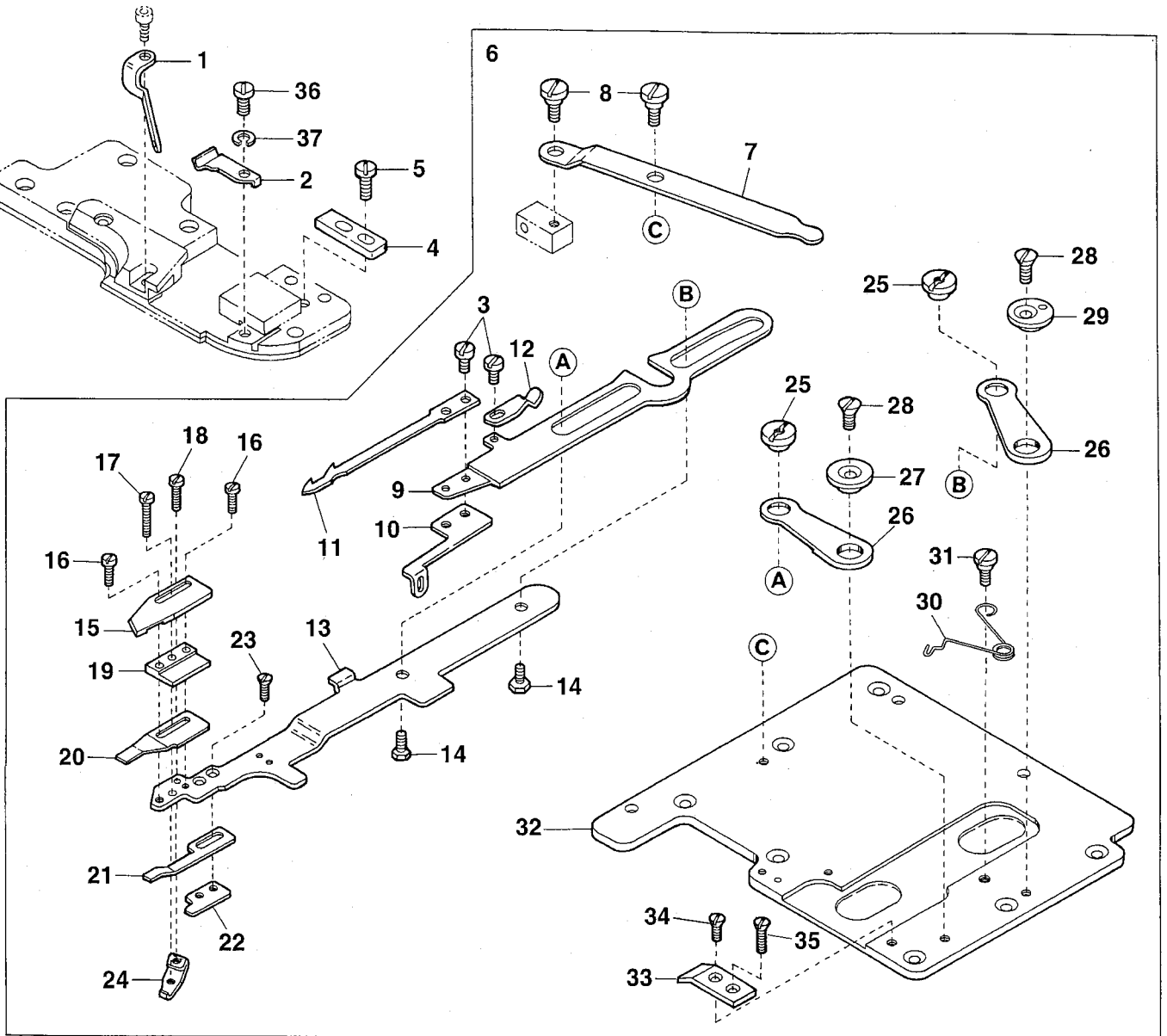
## 2 UT DEVICE(2)



Ref.No	Parts No.	Description	品 名	Amt. Req
1	0011802	Trimming Solenoid, Complete Set	糸切りソレノイド(組)	1
2	0011801	Trimming Solenoid	糸切りソレノイド	1
3	0063579	Solenoid Dust-proof Cover	ソレノイド防塵カバー	2
4	000140	Nut	ナット	2
5	000598	Washer	ワッシャ	1
6	000597	Anti-shock Rubber	緩衝ゴム	1
7	0077410	Retaining Ring	ストップリング	2
8	005650	Screw(M5-0.8 × 14)	止ネジ	3
9	3100524	Trimming Solenoid Support	ソレノイド取付台	1
10	120013	Screw(M6-1 × 15)	止ネジ	2
11	0063610	Switch, Complete Set	スイッチ(組)	1
12	0063607	Switch Support	スイッチ取付板	1
13	110004	Screw(M3.5-0.6 × 8)	止ネジ	1
14	0063606	Switch	スイッチ	1
15	0063609	Switch Cover	スイッチカバー	1
16	009984	Screw(M2.3-0.4 × 10)	止ネジ	2
17	0063608	Switch Guide	スイッチガイド	1
18	110002	Screw(M3-0.5 × 5)	止ネジ	2
19	0036133	Cord Clamp(5N- φ 8.4)	コードクランプ	1
20	000145	Nut	ナット	2
21	0095388	Plunger Connecting Rod	プランジャロッド	1
22	001457	Packing Screw(11/64-40 × 3.3)	詰ネジ	2
23	0095389	Plunger Connecting Rod Pin	プランジャロッドピン	1
24	3100520	Plunger	プランジャ	1
25	160003	Screw(M5-0.8 × 5)	止ネジ	2
26	3100532	Solenoid Return Shaft	ソレノイド戻シシャフト	1
27	0093491	Collar(8 × 16 × 8mm)	カラー	1
28	009508	Screw(11/64-40 × 7.5)	止ネジ	1
29	0095336	Solenoid Return Spring	ソレノイド戻シバネ	1
30	180006	Screwed Pin(M5-0.8 × 6)	ピンネジ	1
31	3100523	ConnectingBlock(Right)SupportSpring	連結ブロック支エバネ	1
32	3120157	Connecting Block(Right)	連結ブロック(右)	1
33	100002	Nut	ナット	3
34	190029	Connecting Rod(M5-0.8 × 40)	連結棒	1
35	3100538	Connecting Block(Left)	連結ブロック(左)	1
36	110062	Screw(M3.5-0.6 × 8)	止ネジ	2
37	000014	Washer	ワッシャ	2

3

UT DEVICE(3)



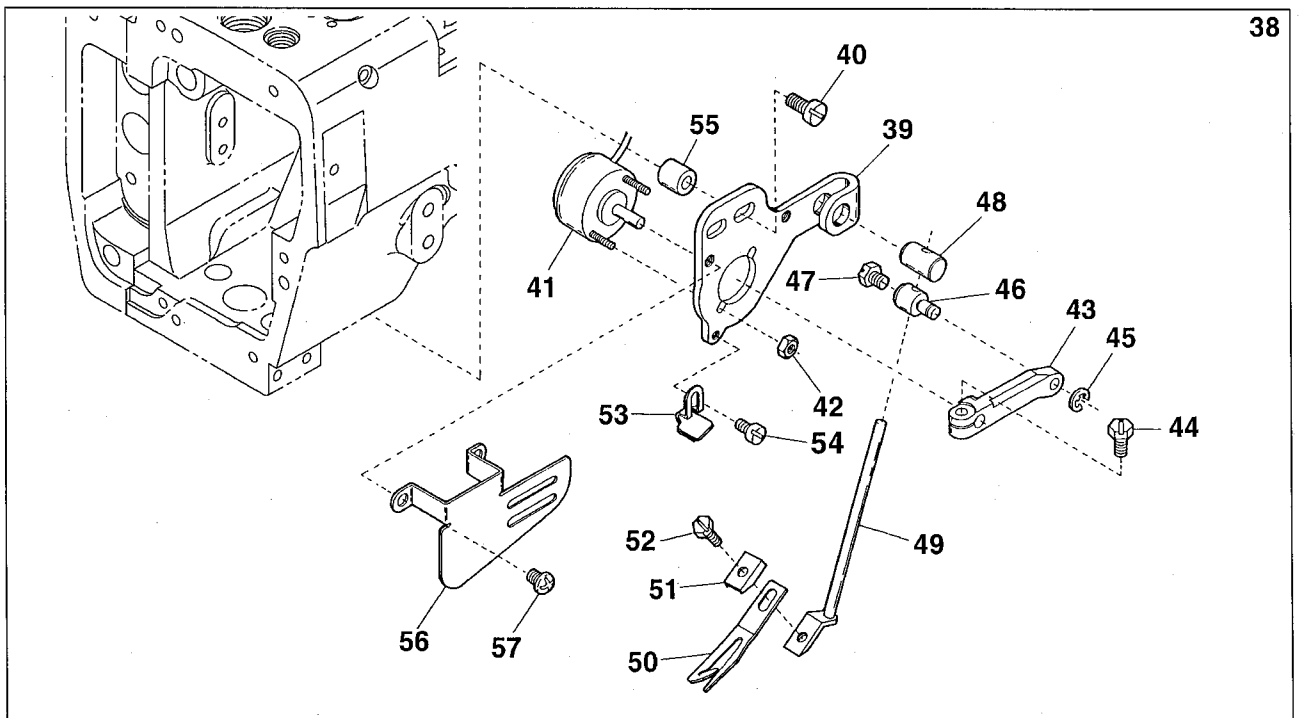
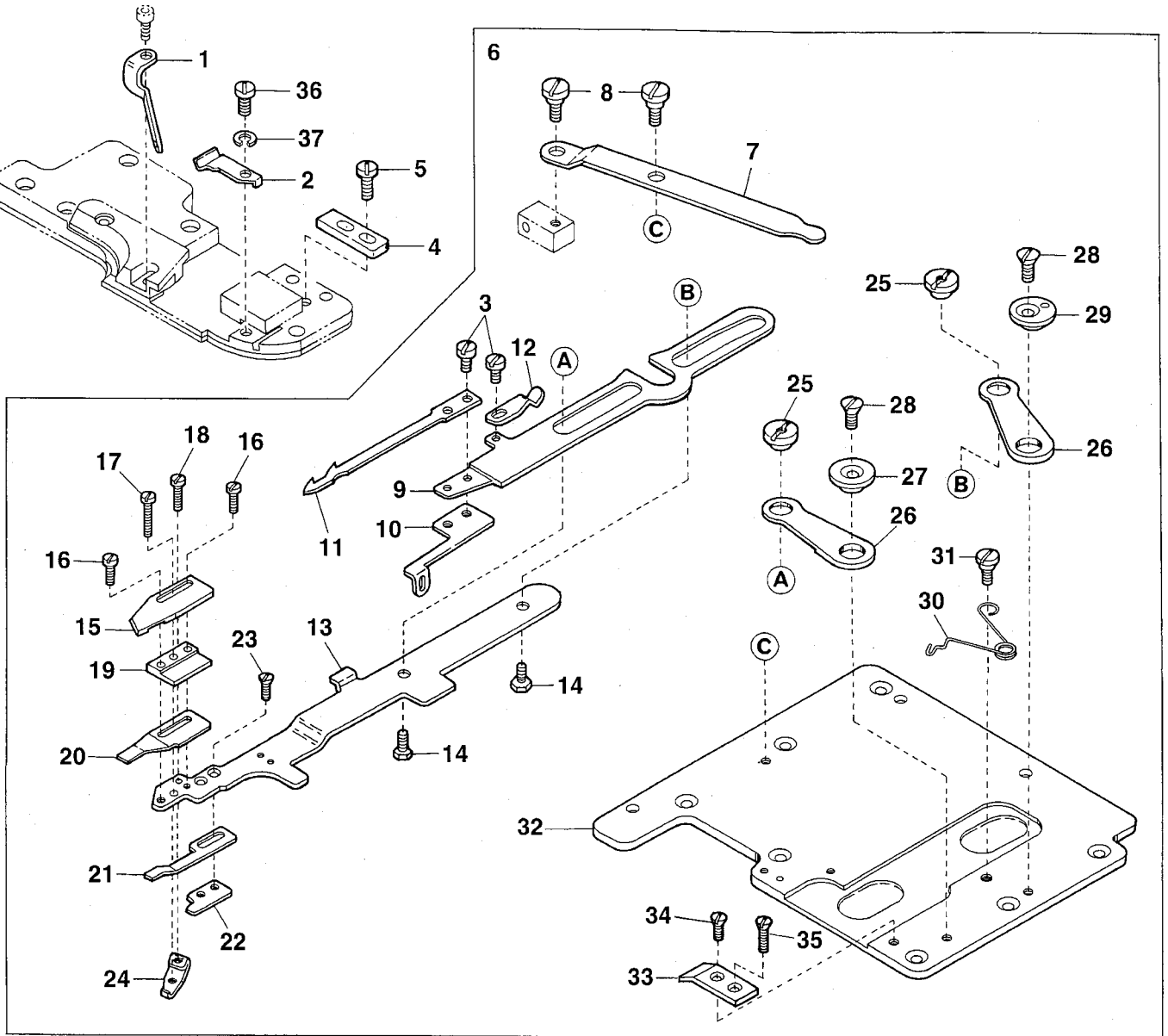


Ref.No	Parts No.	Description	品 名	Amt. Req
1	3151006	Looper Thread Pull-off Eyelet	ルーバ糸緩メ糸道	1
2	3151001	Upper Knife Carrier Support Spring	上メス台支エバネ	1
3	110030	Screw(M3-0.5 × 2.6)	止ネジ	3
4	3151000	Lower Knife Carrier Guide	下メス台ガイド	1
5	110026	Screw(M3-0.6 × 6)	止ネジ	2
6	3151015	Trimming Mechanism, C. Set	UT機構(組)	1
7	3100506	Lower Knife Driving Lever	下メス駆動レバー	1
8	170005	Screw(M4-0.7 × 6)	止ネジ	2
9	3151004	Lower Knife Carrier	下メス台	1
10	3151020	Looper Thread Pull-off	ルーバ糸緩メ片	1
11	3100513	Lower Knife	下メス	1
12	3100560	Supplementary Spring	上メス台補助バネ	1
13	3500503	Upper Knife Carrier	上メス台	1
14	190006	Screw(M4-0.7 × 4)	止ネジ	2
15	3100512	Upper Knife	上メス	1
16	110024	Screw(M2-0.4 × 6)	止ネジ	2
17	110025	Screw(M2-0.4 × 10)	止ネジ	1
18	110023	Screw(M2-0.4 × 3.5)	止ネジ	1
19	3100507	Upper Knife Guide	上メスガイド	1
20	3100508	Thread Clamp Spring	糸挟ミバネ	1
21	3100509	Clamp Spring Pressure	糸挟ミバネ押し	1
22	3100510	Clamp Spring Pressure Holder	糸挟ミバネ押し取付板	1
23	130005	Screw(M2-0.4 × 4)	止ネジ	2
24	3100511	Clamp Spring Pressure Adjusting Piece	糸挟ミバネ押し調節片	1
25	100006	Nut	ナット	2
26	3100503	Knife Guide Lever	メスガイドレバー	2
27	3100504	Knife Guide Lever Right(Left)	メスガイドレバーリング(左)	1
28	130003	Screw(M4-0.7 × 7.3)	止ネジ	2
29	3100505	Knife Guide Lever Ring(Right)	メスガイドレバーリング(右)	1
30	3100515	Upper Knife Carrier Spring	上メス台バネ	1
31	170006	Screw(M4-0.7 × 2.5)	止ネジ	1
32	3100579	Crank Chamber Cover	ナカカバー	1
33	3500510	Upper Knife Carrier Stop	上メス台ストッパ	1
34	130021	Screw(M4-0.7 × 5)	止ネジ	1
35	130004	Screw(M4-0.7 × 12)	止ネジ	1
36	110091	Screw(M3-0.5 × 3)	止ネジ	1
37	000002	Spring Washer	スプリングワッシャー	1

Ref. No. 38 to 57 See the following page.

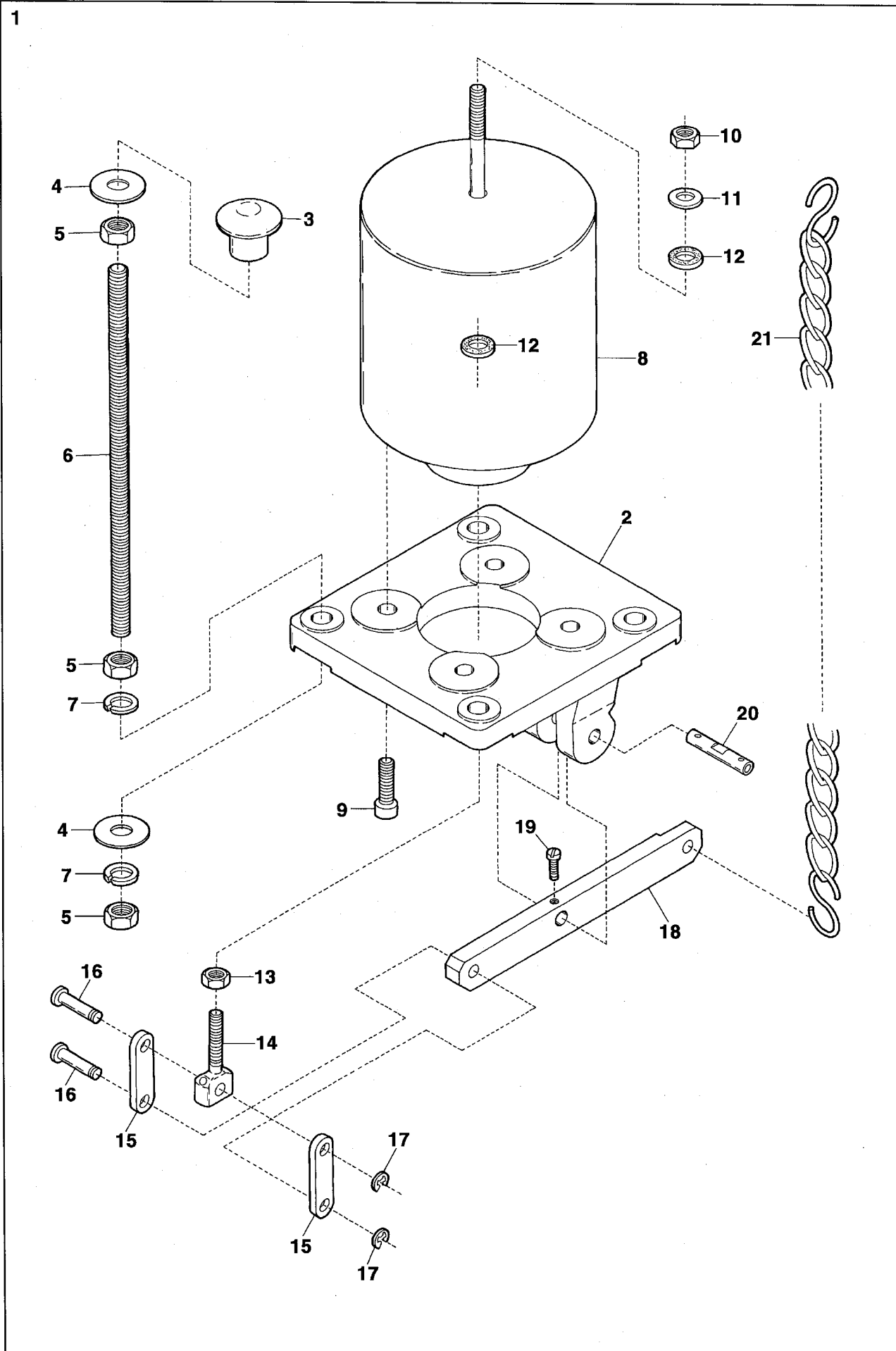
3

UT DEVICE(3)



Ref.No	Parts No.	Description	品 名	Amt. Req
38	3169924	Wiper Mechanism, C. Set	ワイパ装置(組)	1
39	3161015	Solenoid Bracket	ソレノイド台	1
40	110016	Screw(M4-0.7 × 15)	止ネジ	2
41	1062035	Wiper Solenoid	ワイパソレノイド	1
42	000012	Nut	ナット	2
43	3161025	Solenoid Lever	ソレノイドレバー	1
44	140014	Screw(M4-0.7 × 8)	止ネジ	1
45	0077179	Retaining Ring	ストップリング	1
46	3161020	Solenoid Lever Pin	ソレノイドレバーピン	1
47	140010	Screw(M4-0.7 × 6)	止ネジ	1
48	3161019	Wiper Bar Guide	ワイパ棒ガイド	1
49	3161022	Wiper Bar	ワイパ棒	1
50	3161028	Wiper	ワイパ	1
51	3161027	Wiper Holder	ワイパホルダ	1
52	240009	Screw(1/8-44 × 4.8)	止ネジ	1
53	3161029	Thread Clamp Rubber	糸挟ミゴム	1
54	110002	Screw(M3-0.5 × 5)	止ネジ	1
55	2100265	Spacer	スペーサ	1
56	3161026	Solenoid Cover	ソレノイドカバー	1
57	110012	Screw(M4-0.7 × 5)	止ネジ	2

# 4 UT DEVICE(4)



Ref.No	Parts No.	Description	品 名	Amt. Req
1	3100571	Presser Foot Lifter Solenoid, C. Set	押エ揚げソレノイド(組)	1
2	3100570	Solenoid Support	ソレノイド台	1
3	000070	Hanging Nut	吊リナット	4
4	000162	Washer	ワッシャ	8
5	000016	Nut	ナット	12
6	009865	Hanging Bolt(M8-1.25 × 220)	吊リボルト	4
7	000676	Spring Washer	スプリングワッシャ	8
8	0011733	Presser Foot Lifter Solenoid	押エ揚げソレノイド	1
9	009970	Screw(M6-1 × 20)	止ネジ	4
10	000011	Nut	ナット	1
11	000528	Washer	ワッシャ	1
12	000588	Anti-shock Rubber	緩衝ゴム	2
13	000306	Nut	ナット	1
14	0064045	Lifter Connecting Rod	押エ揚げ連結桿	1
15	0064046	Lifter Connecting Link	押エ揚げリンク	2
16	0035301	Connecting Link Pin	押エ揚げリンクピン	2
17	0033024	Retaining Ring	ストップリング	2
18	0064047	Presser Foot Lifter Solenoid Lever	押エ揚げソレノイドレバー	1
19	009853	Screw(11/64-40 × 6.5)	止ネジ	1
20	0032786	Solenoid Lever Pin	ソレノイドレバーピン	1
21	0037912	Chain	鎖	1

