

User Manual and
Spare Parts List

**GARUDAN**

GARUDAN GPS-2516 Series



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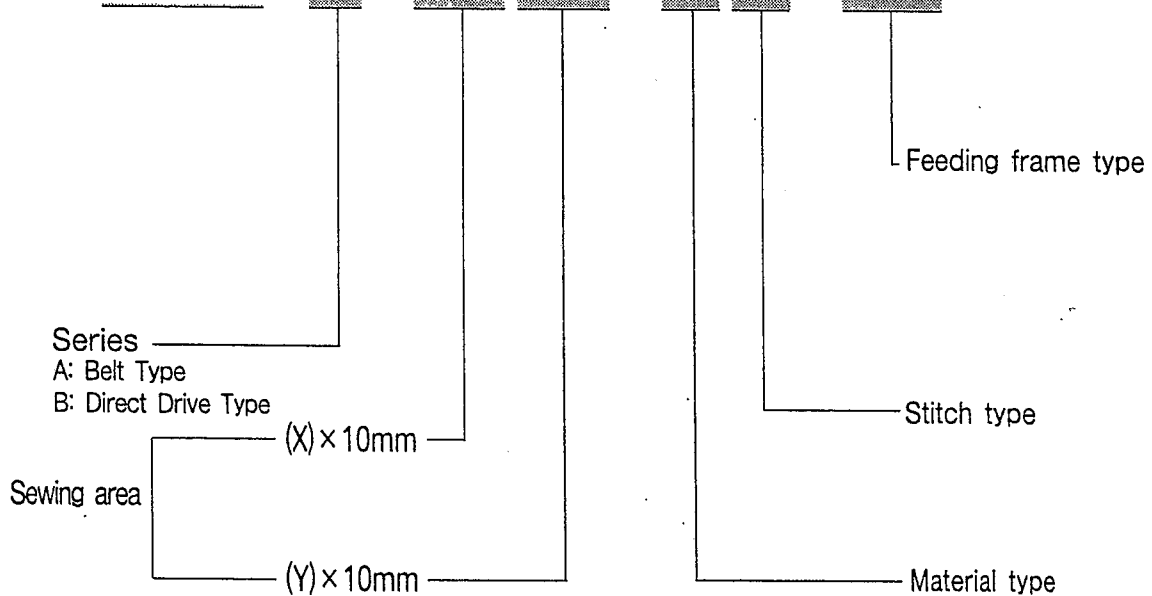
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Organization of the GPS/A-Series model

GPS / **A** - **25** **16** - **H** **S** - **20**



- Material type
 - G: General material
 - H: Heavy material
- Stitch
 - S: Standard stitch
 - P: Perfect stitch
- Feed frame
 - 20: Pneumatic two-step stroke feed plate
 - 22: Pneumatic division-type feed plate

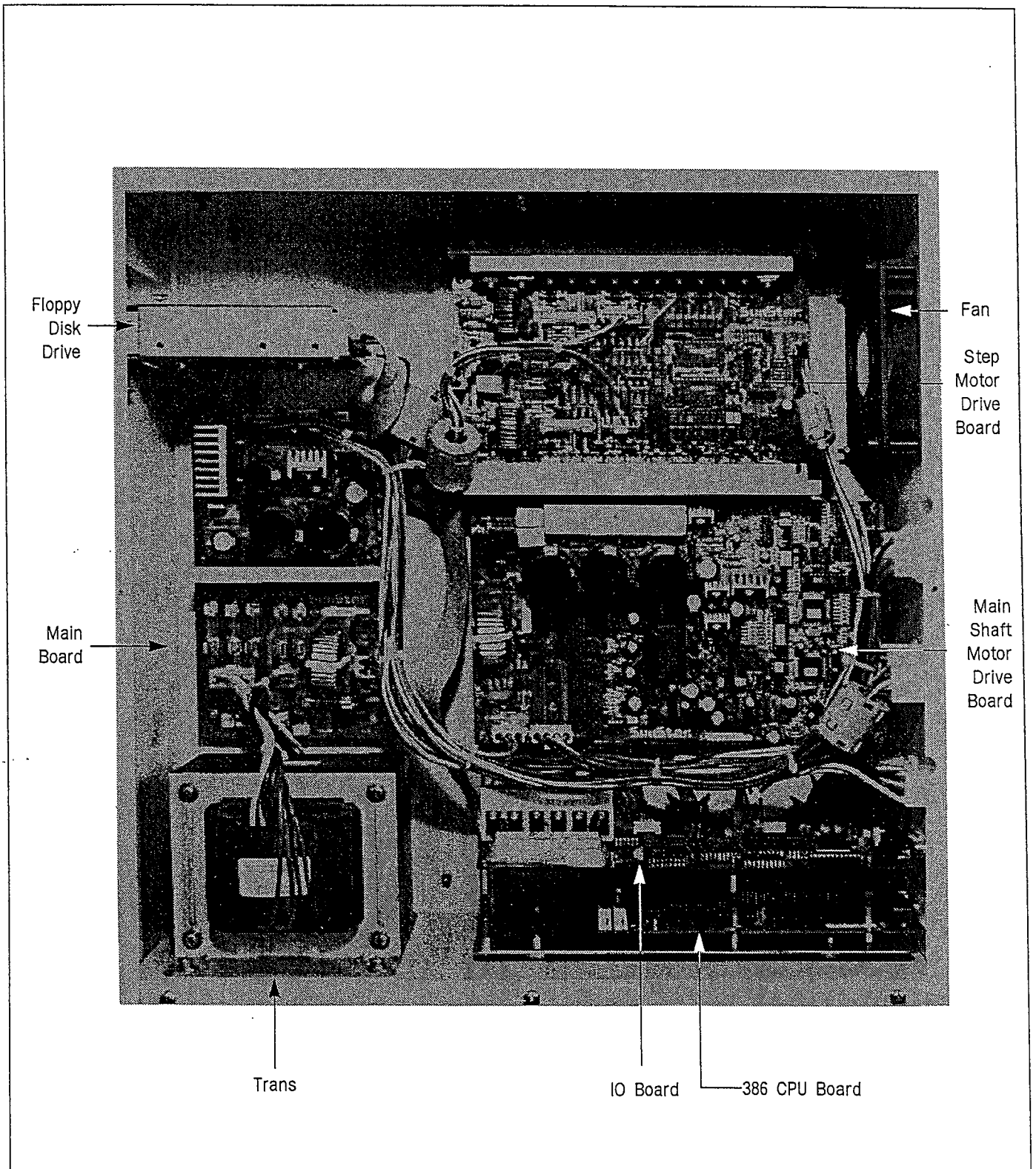
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SPECIFICATION OF MACHINE

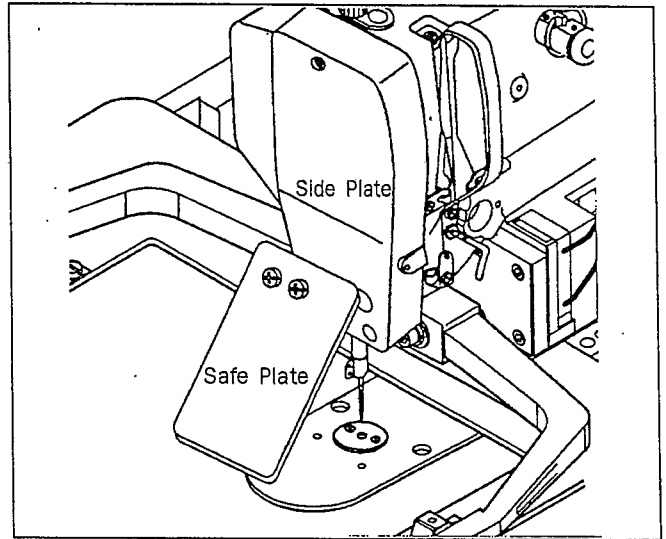
Sewing Range (X, Y)	X, Y, Z : 250mm × 160mm
Sewing Speed	Max 2,000spm (Stitch Width : 3mm or less)
Stitch Width	0.1~12.7mm
Using Needle	DP×17, DP×5
How to drive Feed Plate	Feeding by the Stepping Pulse Motor
Needle Bar Stroke	41.2mm
Using Hook	Semi-rotary Large Hook
Bobbin Case	Bobbin Case for Semi-rotary Large Hook
Bobbin	Bobbin for Large Hook
Presser Foot Stroke	Standard 4mm [0.5~10mm]
Ascending Amount of Presser Foot	Max 20mm
Ascending Amount of Feed Frame	Max 30mm
Thread Trimming	★
Emergency Stop Function	Available during sewing
Pattern Select Function	Pattern No. can be selected up to 1 ~ 999.
Memory	3.5" 2HD (memory backup is possible)
2nd Origin Function	The needle position upon sewing can be randomly set using a jog key.
Maximum Speed Restriction	The speed can be restricted up to 18~2000spm with an external operating switch.
Number of Input Possible Patterns	Saving Pattern : Maximum 691 Pattern / Disk
Safety Device	Emergency Stop Function, Speed Restriction Function
Motor Specification	550W Servo Motor
Power Consumption	600VA
Feed System	Pulse Motor Operation
Using Voltage	Rating ±20%, 50/60Hz
Pneumatic Pressure	5~5.5 kg/cm ² (0.49~0.54Mpa)

2) Inside Structure of Control Box



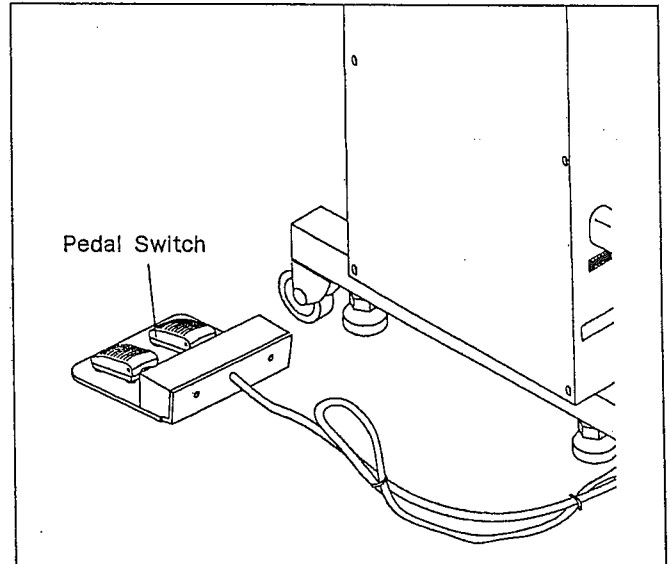
B. Attach the safe plate to the side plate.

- Ⓐ You should attach it for sure to prevent from safe accident.
- Ⓑ Be careful when you start operation. Otherwise, fingers or hand might be hurt at the upper feed plate accidentally.



[Fig. 2]

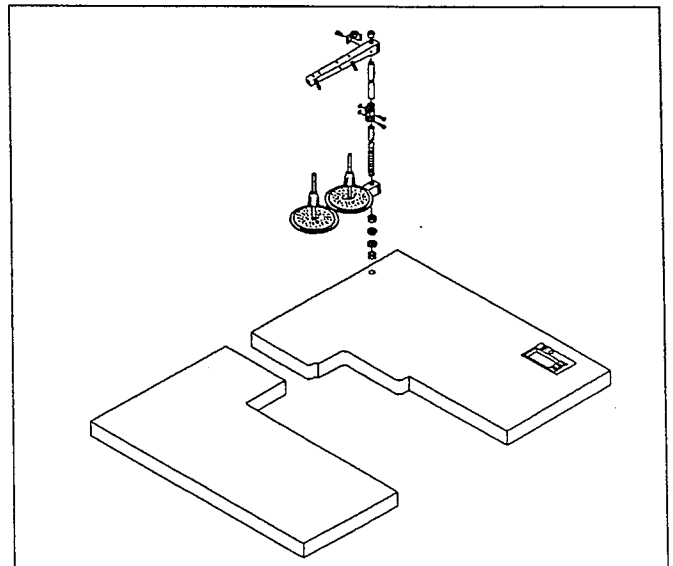
C. Connect a plug of pedal switch with control box.



[Fig. 3]

D. Install a bobbin holder on a table.

[Caution]
You can be hurt by the dropping device during installation so be careful about it.



[Fig. 4]

5

PREPARATION BEFORE USING THE MACHINE

1) Setting the Voltage

- A. If a cover of electronically controlled pattern sewing machine is taken off, inside contents are as same as [Fig. 1].
- B. Confirm the position of change connector of power voltage on power board [Refer Fig. 1] and transformer if they are properly selected for input voltage like Table 1 and 2.

EX) If power voltage is 220 V:

The model of used transformer is "SPS-□□□□-220" and it is normal for the change connector of power voltage to be placed on "JP5".

※ Sticker for transformer model is attached to the top side of transformer.

Input Voltage	Position of change connector of power voltage
95V~105V	JP4
106V~115V	JP3
116V~125V	JP2
200V~230V	JP5
231V~245V	JP4
345V~415V	JP3
416V~480V	JP1

[Table 1. Position of change connector of voltage]

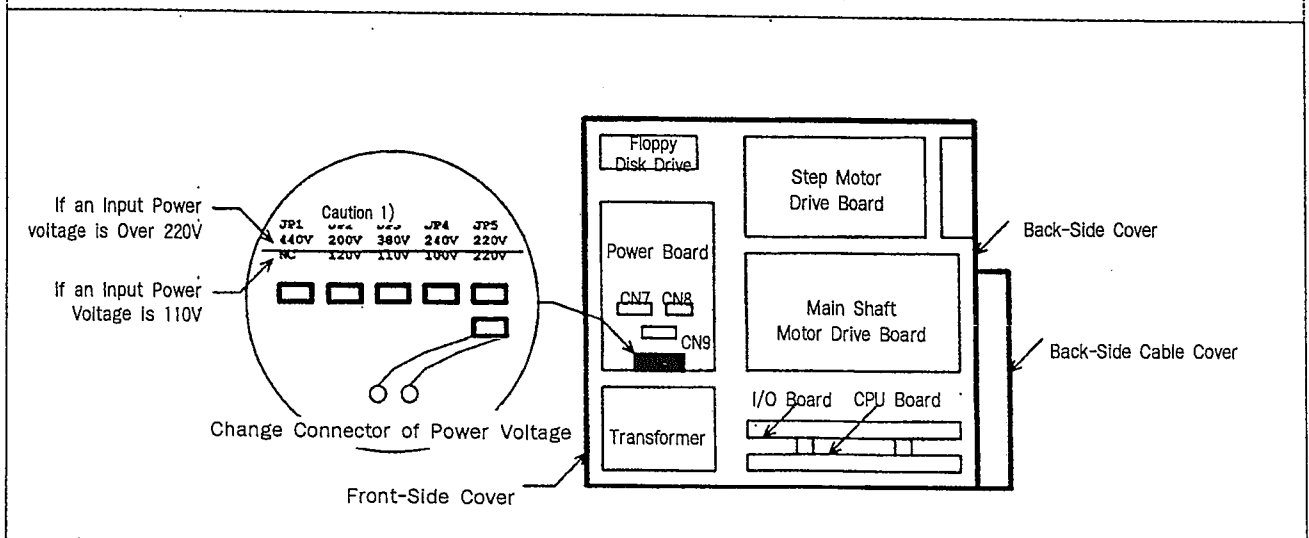
Power Voltage	Model	GPS/A-1306-XX-XX	GPS/A-1811-XX-XX	GPS/A-2516-XX-XX
100V~120V		„GPS-1306-110“	„GPS-1811-110“	„GPS-2516-110“
220V~440V		„GPS-1306-110“	„GPS-1811-110“	„GPS-2516-110“

[Table 2. Model of used transformer according to the input power voltage]

- C. Check if a power switch is for 1 phase and 3 phase.
- D. If the setting of ② and ③ is not proper, damage from breakdown can be occurred. If there is any problem, follow below direction.
 - ① If the position of change connector is wrongly placed :
 - ① Separate the connector linked to transformer from CN7, CN8 and CN9 of power board.
 - ② Insert the power change connector into a proper position on Table 1.
 - ③ Reconnect the connector linked to transformer to CN7, C8 and CN9 of power board.
 - ② If the specification of used transformer is not in a accord with that of power switch, ask to the place where you purchased for troubleshooting.

[Caution]

Before turning on the power switch, air should be filled with.



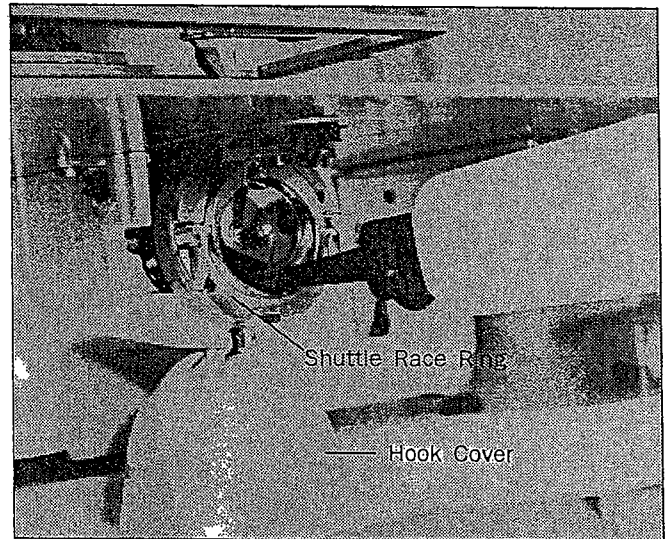
[setting of change connector of power voltage]

[Fig. 7]

D. Open the hook cover and supply oil till the shuttle race ring is surrounded by oil. Put the hook cover back on after finishing.

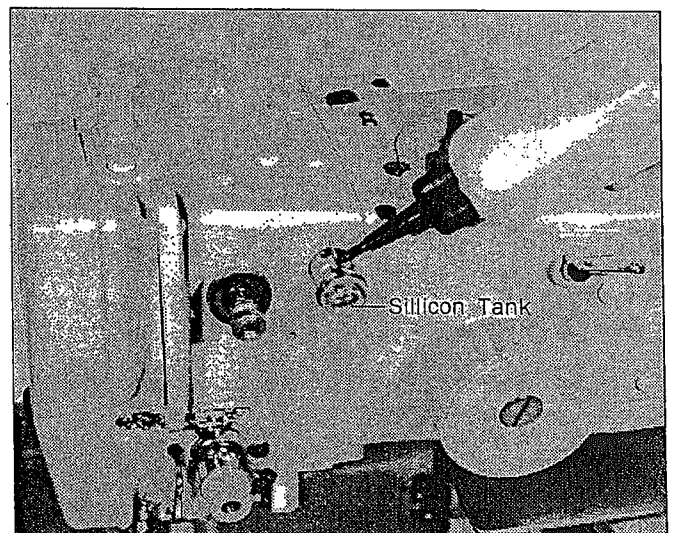
[Caution]

For safety, keep the hook cover covered during operating.



[Fig. 11]

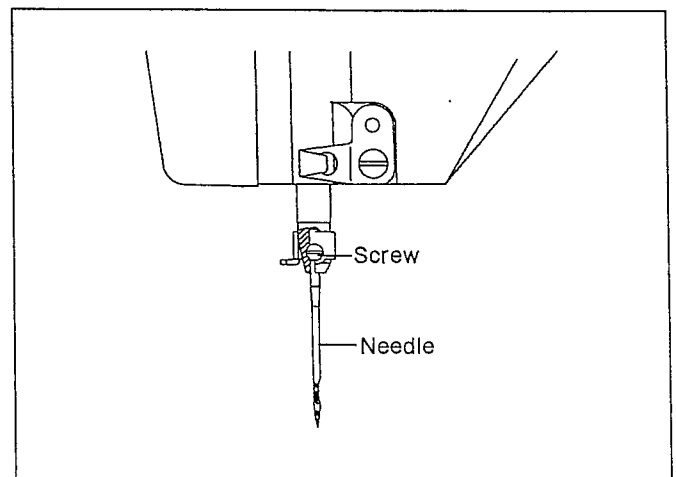
E. Supply silicon oil into the silicon oil tank which is installed on the right side of the arm.



[Fig. 12]

3) How to Install the Needle Bar

Unfasten the needle fixing screw on the needle bar. Then, with the needle groove facing forward, push the needle until the upper end touches the needle hole of the needle bar. Fix the needle in with the needle fixing screw.



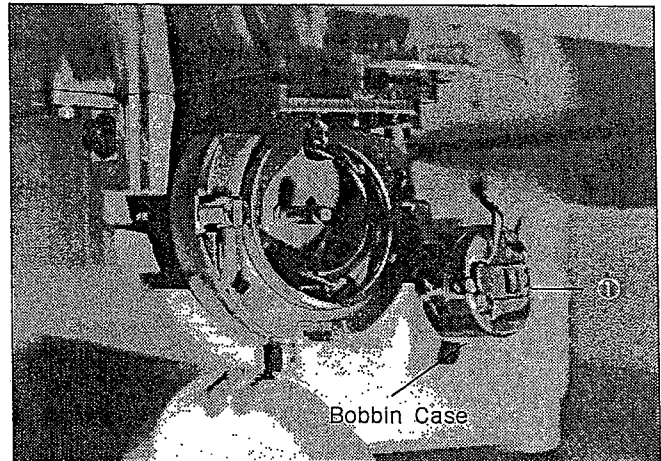
[Fig. 13]

6) How to Take the Bobbin Case On and Off

Hold knob ① of the bobbin case and push into the shuttle until a click sound is heard.

[Caution]

If you start operating the machine when a bobbin case is not perfectly installed, thread can be tangled of the bobbin case would be protruded.

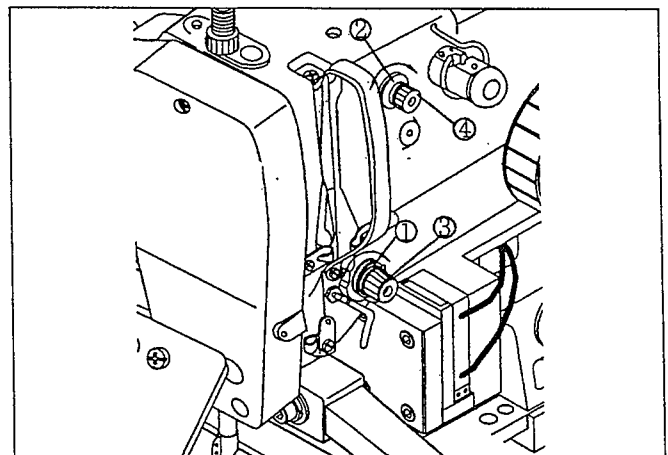


[Fig. 16]

7) How to Adjust the Tension of the Upper Thread and the Lower Thread

A. Adjusting the tension of the upper thread

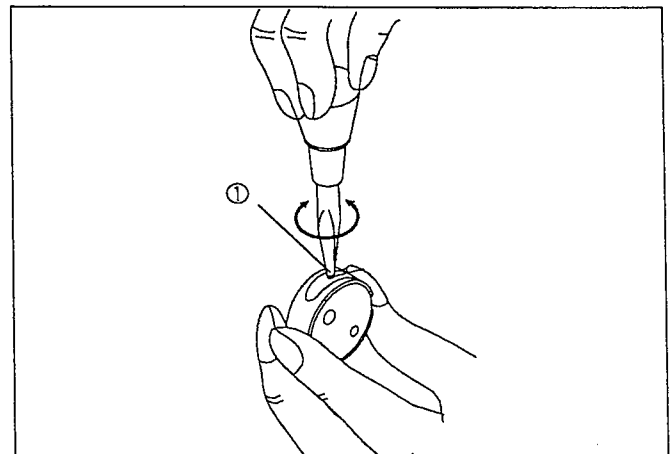
When the tension adjusting nuts ③ and ④, of thread tension adjusting unit ① and sub-tension adjusting unit ②, are turned clockwise the upper thread is tightened. And loosens when turned the other way around.



[Fig. 17]

B. Adjusting the tension of the lower thread

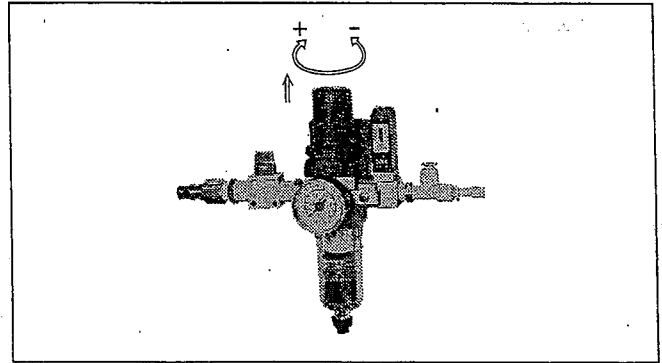
The lower thread becomes tight when tension adjusting screw ① is turned clockwise, as shown in the picture. When the screw is turned the other way the lower thread is loosened.



[Fig. 18]

11) How to Adjust the Air Pressure

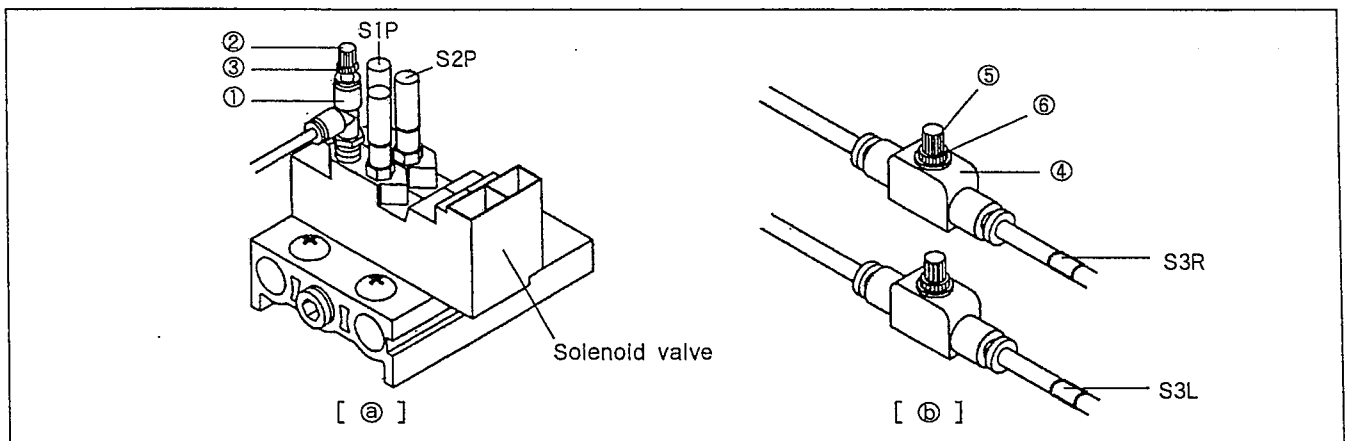
Pull the adjustment handle on the upper part of the filter controller, which is attached to the back of the table, up as shown in the picture. When the handle is turned clockwise the pressure goes up and goes down when the handle is turned in the opposite direction. Adjust to the appropriate pressure (5~5.5Kgf/cm²) indicated in the pressure gauge, then press and fix the adjustment handle into its place.



[Fig. 22]

12) Adjusting the Speed for Ascension and Descent of Upper Feed Plate

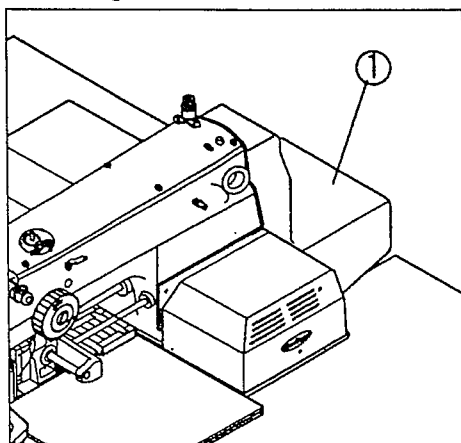
- A. Like the fig. (a), if you turn a handle (2) on reducing valve (1) of solenoid valve attached to the bottom of table clockwise, the ascending speed of upper feed plate and support pressure during ascending will be increased, if you turn it counterclockwise, they are reduced, so that you should adjust it to be proper speed and fix them with fixing nut (3).
- B. Like the fig. (b), if you turn a handle (5) of speed controller (4) clockwise, the descending speed of upper feed plate will be reduced, if you turn it counterclockwise, the descending speed will be increased. After adjusting it to be proper speed, fix it with fixing nut (6).



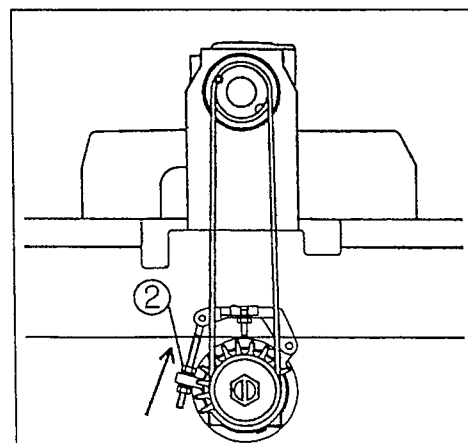
[Fig. 23]

13) How to attach and detach V-Belt

- A. Loosen a fixing screw of Belt Cover (1) to disassemble Belt Cover from the sewing machine.
- B. Loosen a fixing nut (2) of Motor to rise it up to the arrow.
- C. When V-Belt tension gets loosened, remove V-Belt.



[Fig. 24]



[Fig. 25]

6

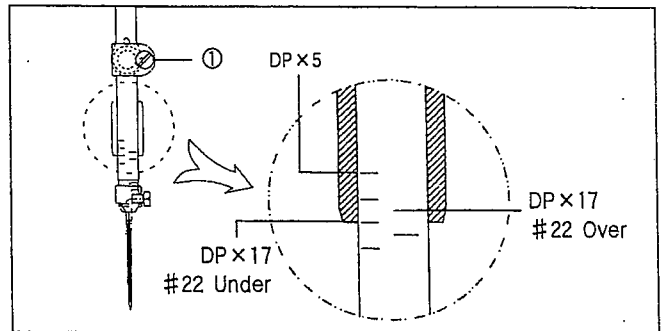
HOW TO REPAIR THE MACHINE

Caution

The machine is set to be the best condition at the factory. Do not make any discrete adjustments on the machine and replace accessories approved by the company only.

1) Adjusting the height of the needle bar

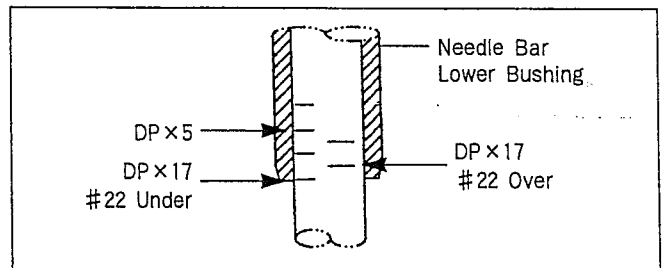
When the needle bar is at its lowest position, unfasten the needle bar holder screw ①. Adjust the desired height by making the specified upper carving line fit in with the needle bar bushing. Then, tighten the needle bar holder screw ① back on firmly.



[Fig. 28]

2) Adjusting the needle and the shuttle

A. Have the lower carving line for the needle that is applied when the needle bar goes up fit in with the lower side of the needle bar bushing as shown in the picture.

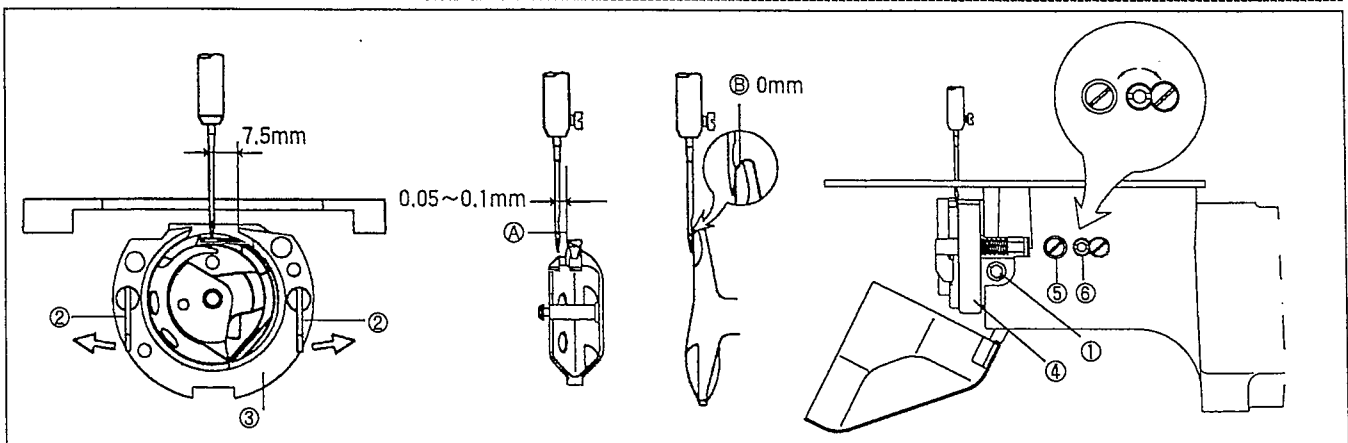


[Fig. 29]

- B. After unfastening the shuttle drive screw ①, open the inner hook pressure bar ② left to right and remove the shuttle lace ring ③ from the (large) shuttle ④.
- C. Make the shuttle hook point ① accord with the center of the needle. And make the needle and the front facet of the shuttle drive ② connect each other to prevent the needle from curving. Then, tighten the drive screw ① firmly.
- D. After unfastening the (large) shuttle screw ⑤, turn the large hook adjustment shaft ⑥ to the left to right and adjust the (large) shuttle ④ so that the needle and the shuttle hook point ① is 0.05~0.1mm apart from each other.
- E. After adjusting the (large) shuttle ④ in place, adjust the rotary direction of the (large) shuttle ④ so the needle and the (large) shuttle ④ is 7.5mm apart from each other. Then, tighten the (large) shuttle screw ①.

[Caution]

For safety, make sure all the screws are tightened firmly after adjusting the (large) shuttle.



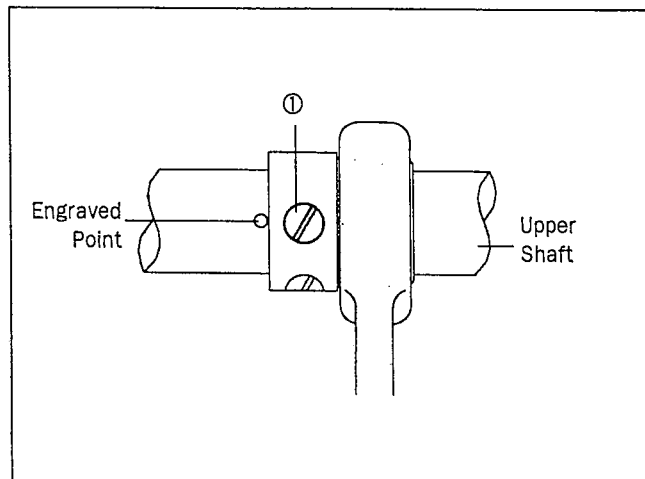
[Fig. 30]

5) Adjusting the Presser Foot Devices

- A. Conform the end of presser foot operating cam to the center of punched mark, and conform the cam's punched line to the punched mark of upper axis, and then tighten Clamp①.

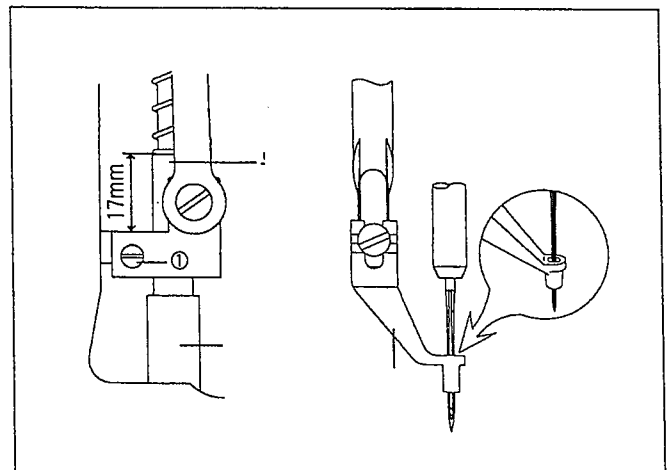
[Cautions]

If the presser foot operating cam is improperly positioned, The up-and-down moving of presser foot is in inconformity, therefore the presser foot may collide with the needle bar.



[Fig. 33]

- B. Project the presser bar about 17mm from the presser bar holder, check if the needle passes through the center of presser foot, then tighten Clamp①.



[Fig. 34]

- C. Loosen Fork Crank Clamp①, and place the single screw② of presser foot link to the right of the adjusting arm.
 D. Conform the fixing single screw③ of presser foot moving link to the end④ of position link stopper.

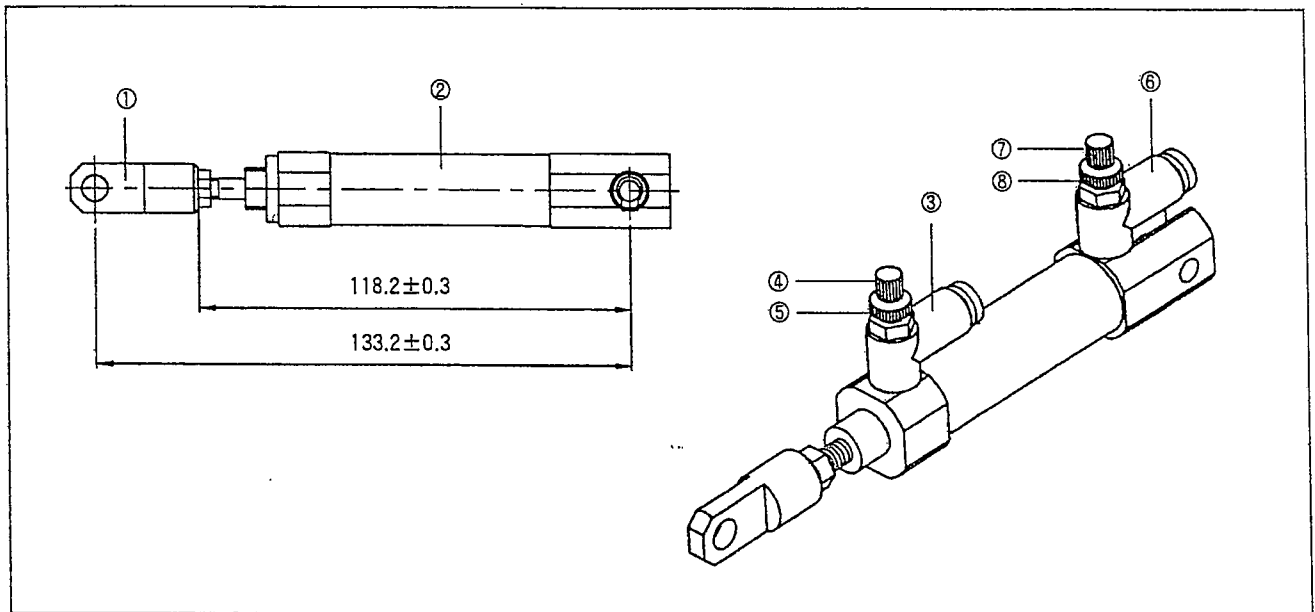
[Cautions]

If the surrounding of the upper spring of shuttle is scratched or the surface is coarse, thread strands may be cut or tangled. Therefore, check the surface status of shuttle upper spring prior to operation.

- E. To set up 9mm of the interval between Presser Bar Holder and Presser Bar Bushing, rise up the presser bar and tighten Fork Crank Clamp①.

6) Adjusting the Presser Foot Lifter Cylinder

- A. The distance between the hole center of cylinder knuckle ① and the hole center of presser foot lifter cylinder ② to be 156.8 ± 0.2 mm to maximum.
- B. If you turn a handle ④ of speed controller ③ on presser foot lifter cylinder ② clockwise, the ascending speed of presser foot will be reduced, if you turn it counterclockwise, they are increased, so that you should adjust it to be proper speed and fix them with fixing nut ⑤.
- C. If you turn a handle ⑦ of speed controller ⑥ on presser foot lifter cylinder ② clockwise, the descending speed of presser foot will be reduced, if you turn it counterclockwise, they become increased, so that you should adjust it to be proper speed and fix them with fixing nut ⑧.



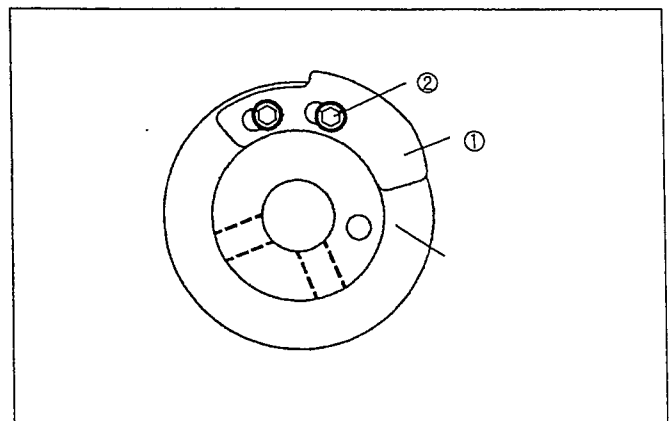
[Fig. 37]

7) Adjusting Accessories for Thread Delay

- A. How to set the thread delay notch
Place the notch so that the right side of the oval share of the thread delay notch ① touches circumference of the notch screw ②, and then fix with a screw.

[Caution]

The remaining amount of thread may not be enough or not be regular and the thread may be unfastened from the needle if the notch is not set in the right position.



[Fig. 38]

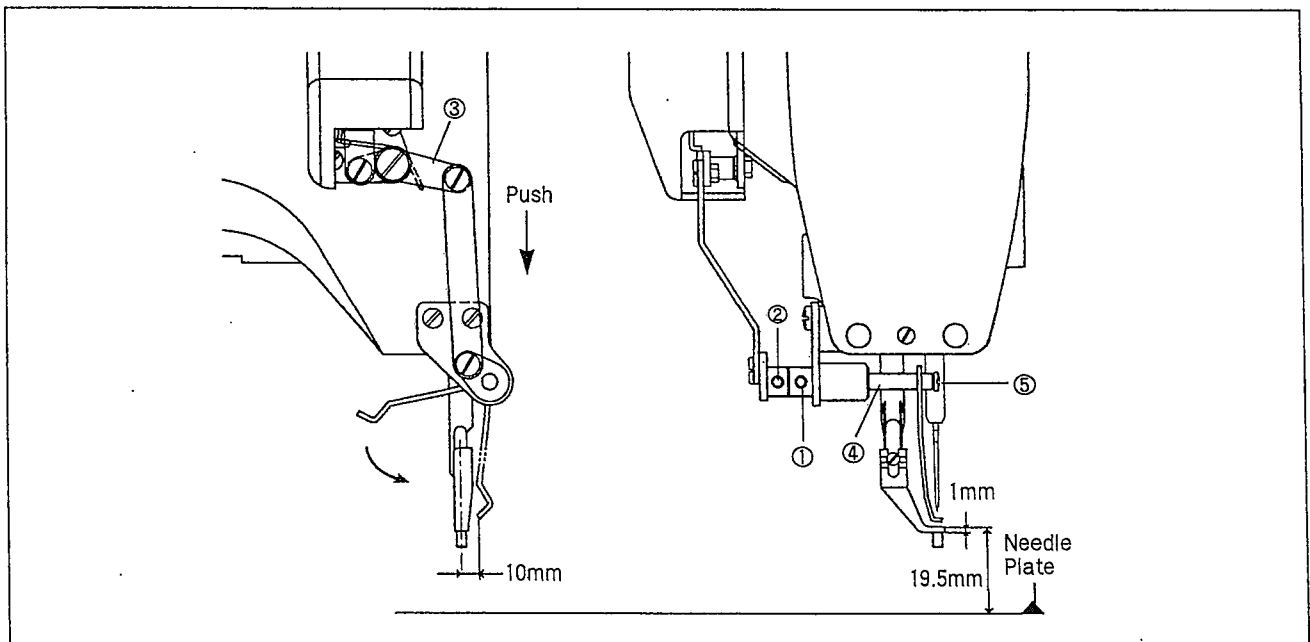
8) Adjusting Accessories for the Wiper

A. Adjusting the wiper position

- a) Unfasten the wiper rotary shaft collar screw ① and the wiper crank screw ② when the needle tip is 19.5mm above the throat plate.
- b) Press the wiper rocking link ③, then adjust the wiper shaft ④ so the wiper and the needle is about 10mm apart from each other.
- c) Tighten the wiper rotary shaft collar screw ① and the wiper crank screw ②.
- d) Unfasten the wiper screw ⑤ and adjust the wiper so that the end of the wiper is about 1mm apart from the needle end. Then, tighten the screw back on firmly.

[Caution]

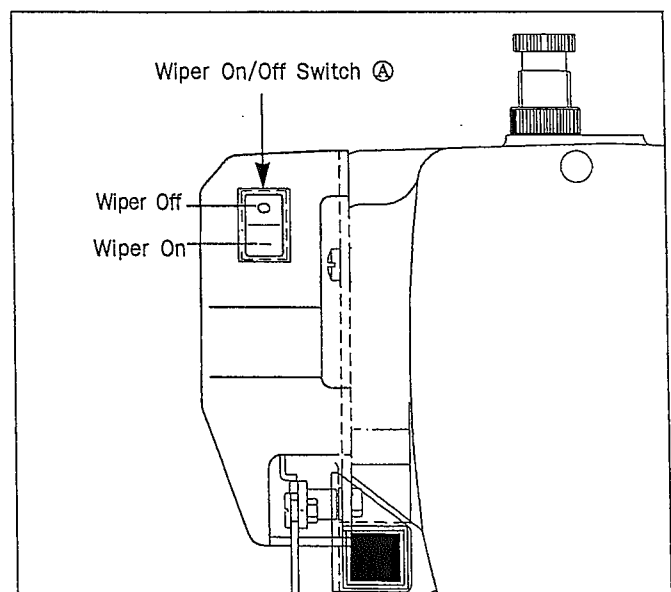
If the wiper is not placed in the right position, the wiper may collide with the presser foot or needle during the operation, and the wiper may not move properly.



[Fig. 41]

B. Wiper operating switch

If you want to use the wiper, press the wiper operating switch ④ —, if you don't, presser the presser the wiper operating switch ④ ○.



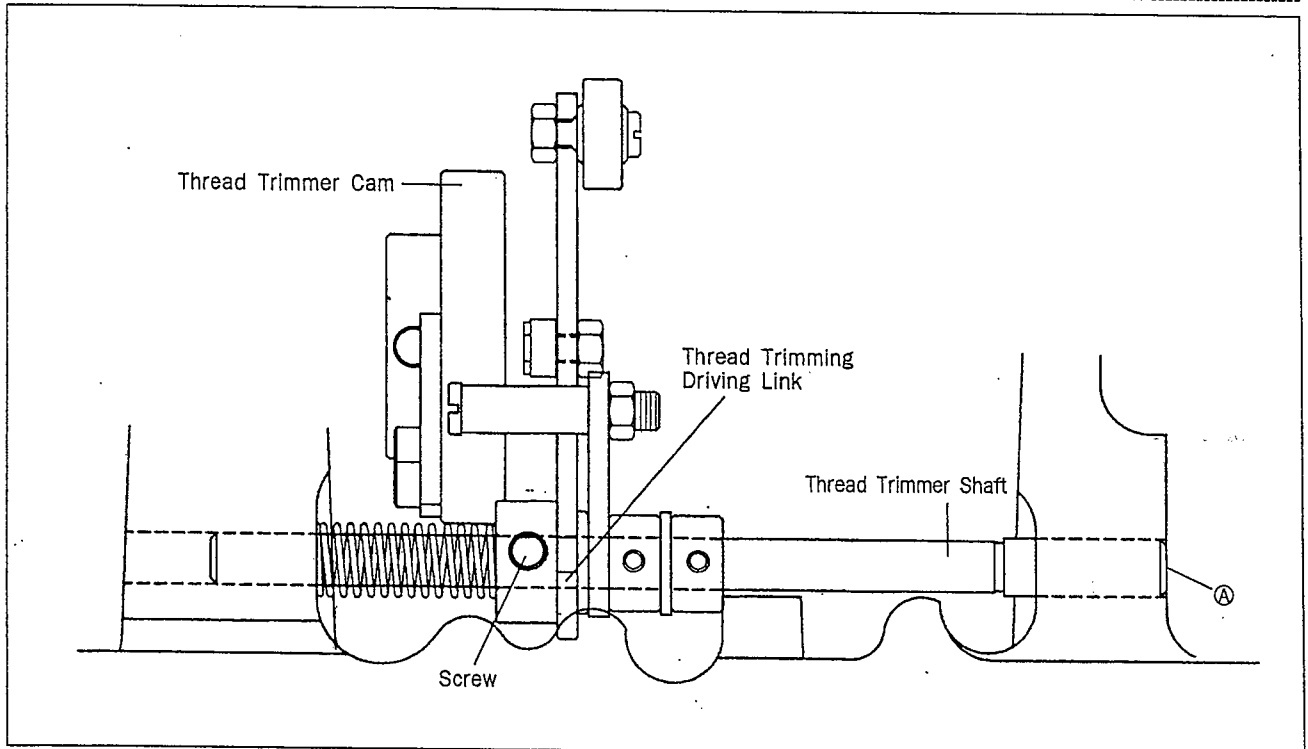
[Fig. 41-1]

C. Setting the trimming shaft in place

- ① Unfasten the trimming drive link screw and the trimming shaft collar screw.
- ② Make the trimming shaft tip accord with part ① of the arm.
- ③ Tighten the screws.

[Caution]

If the position is not adjusted appropriately, trimming may not be operated correctly or the machine may be struck.



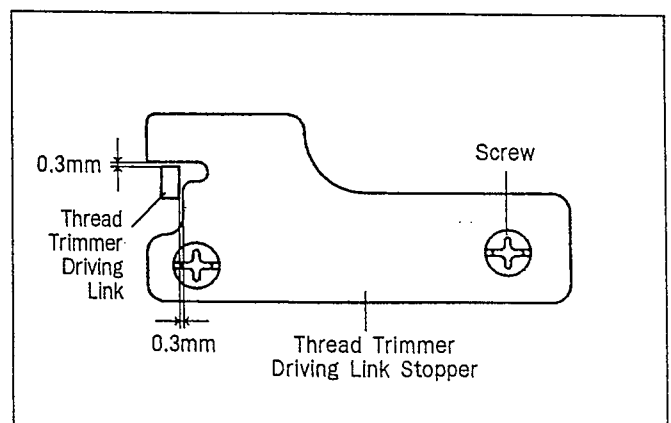
[Fig. 44]

D. Unfasten the link stopper in place

- ① Unfasten the trimming drive link stopper screw while trimming is not operated and have the trimming drive link and the trimming drive link stopper notch 0.3mm apart from each other.
- ② Tighten the screw.

[Caution]

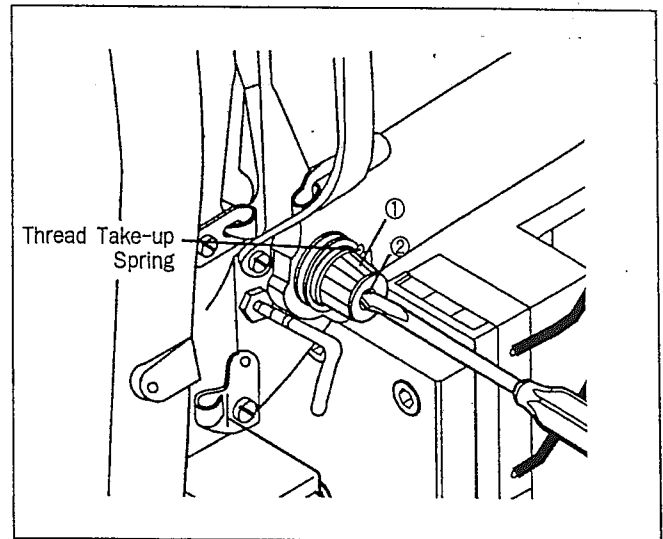
If the link stopper is not set in the right position, trimming may not be operated correctly and the machine may be struck.



[Fig. 45]

10) Adjusting the Main Thread Control Device

- A. When the tension control nut ① of the thread control device is turned clockwise, the upper thread is tightened and becomes loose as the nut is turned counterclockwise. Adjust the tension according to the sewing conditions such as material, thread, number of stitches etc.
- B. To tighten the take-up lever spring, use a driver to turn the groove ② on the edge facet of the thread tension control device shaft clockwise. And to make the spring lax, turn it counterclockwise.



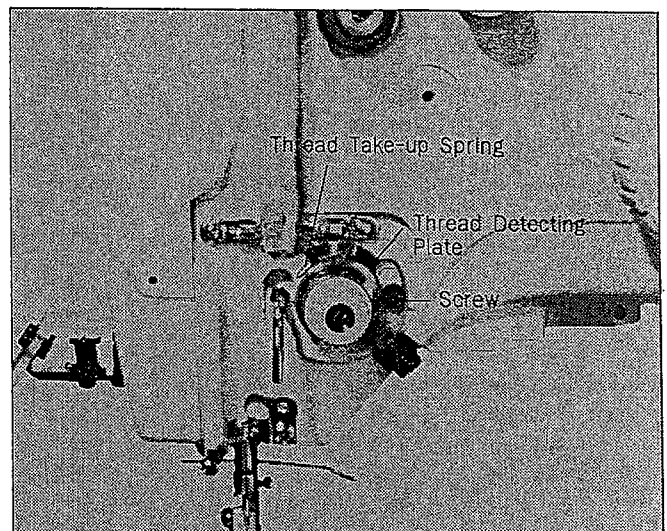
[Fig. 48]

11) Adjusting the Upper Thread Detecting Device

- A. Unfasten the thread detecting plate screw with the thread off the take-up spring and make the take-up lever spring touch the detecting plate. Then, tighten the screw.
- B. Be sure to adjust the detecting plate so the take-up lever spring and the detecting plate will connect with each other even when the take-up lever spring stroke changes.

[Caution]

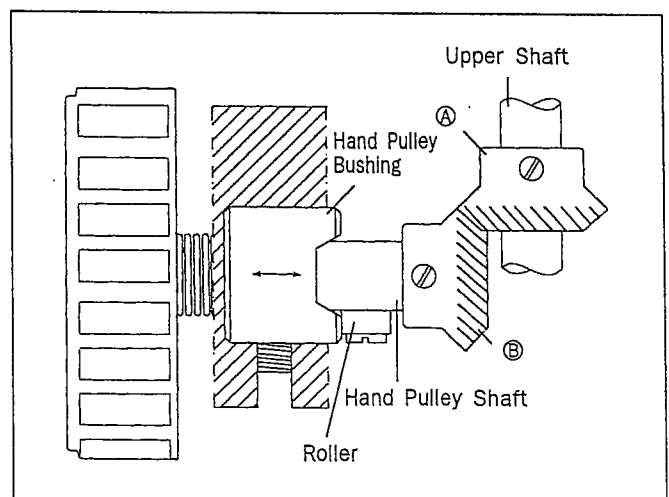
Be careful not to touch with any other metals except take-up lever spring. If it does, detection may be failed.



[Fig. 49]

12) Adjusting the Hand Pulley Device

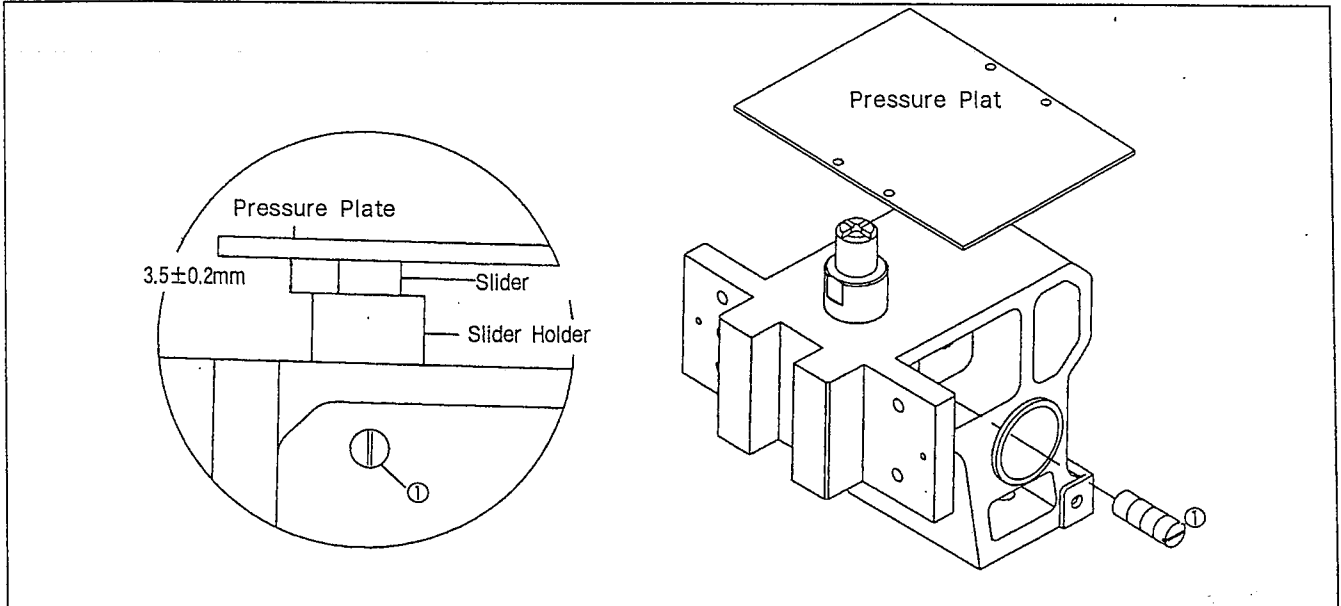
- A. Tighten the screw after putting the hand pulley gear ② and the hand pulley shaft tip in accord.
- B. Adjust the variation of hand pulley gears ① and ② and tighten the screws.
- C. Move the bushing in the direction of the arrow to reduce the backlash between gears ① and ② when the roller is on the end of the pulley bushing.



[Fig. 50]

15) Adjusting the Height of Slider

Loosen the fixing screw ① of slide holder and adjust the gap of slider holder to be $0.3 \pm 0.2\text{mm}$ by turning the slider holder with a spanner.



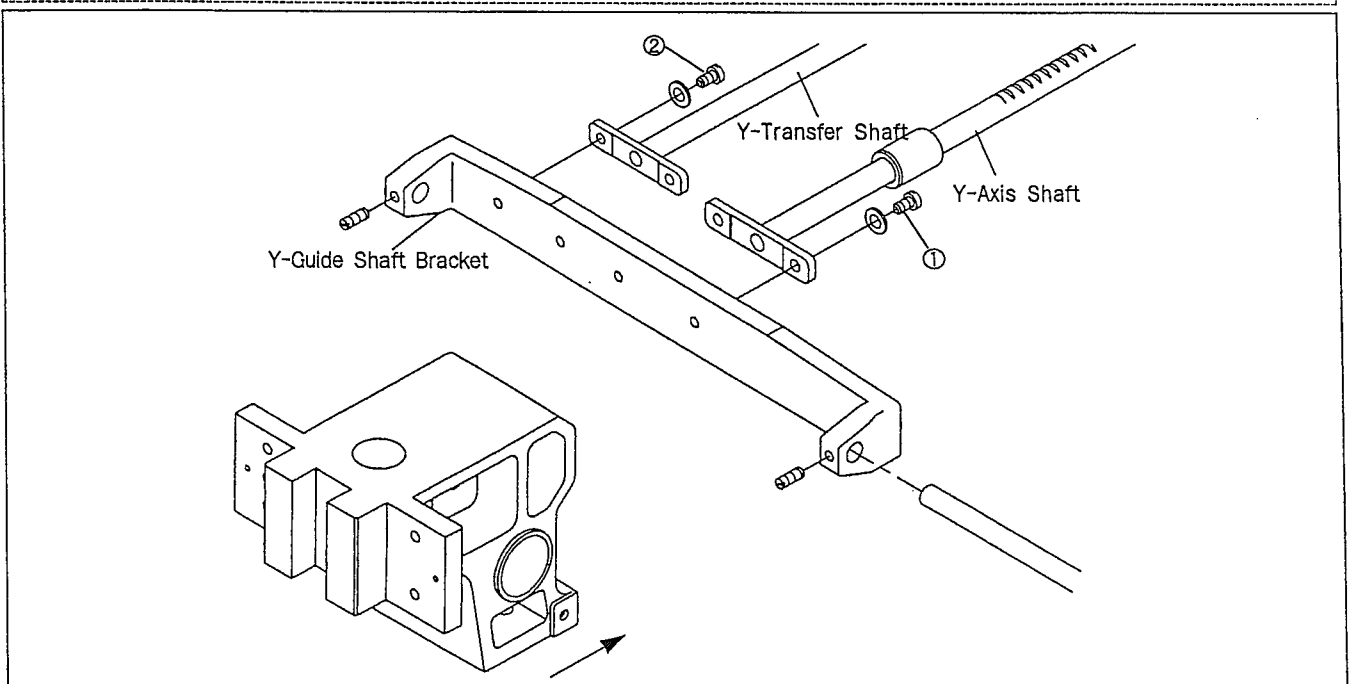
[Fig. 54]

16) Adjusting the X-Guide Bracket

Incline the guide bracket to the direction of “→” to the maximum manually. Loosen the fixing screws for Y-transfer shaft ① and adhere the side of y-transfer shaft and the side of X-guide shaft bracket closely, then fix the Y-transfer shaft ①.

[Caution]

After fixing the Y-transfer shaft screws ①, the X-guide shaft bracket should not move at all by load even though when you move manually the feed bracket to the right and left.

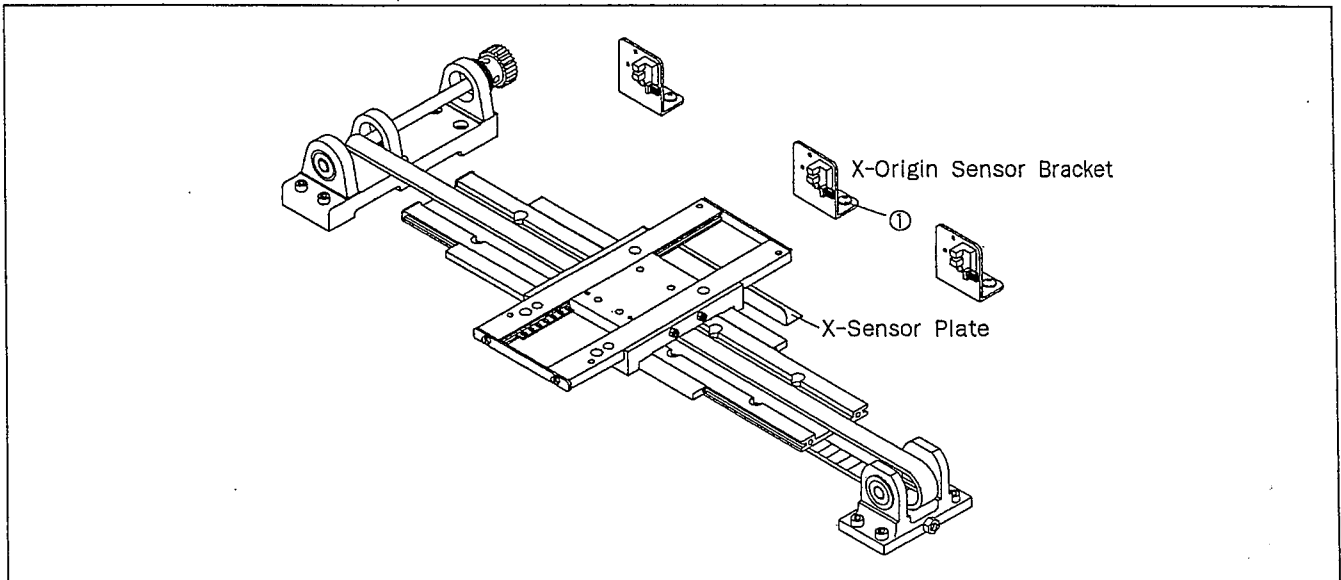


[Fig. 55]

19) Setting the X-Y Origin

A. How to set the X-shaft origin

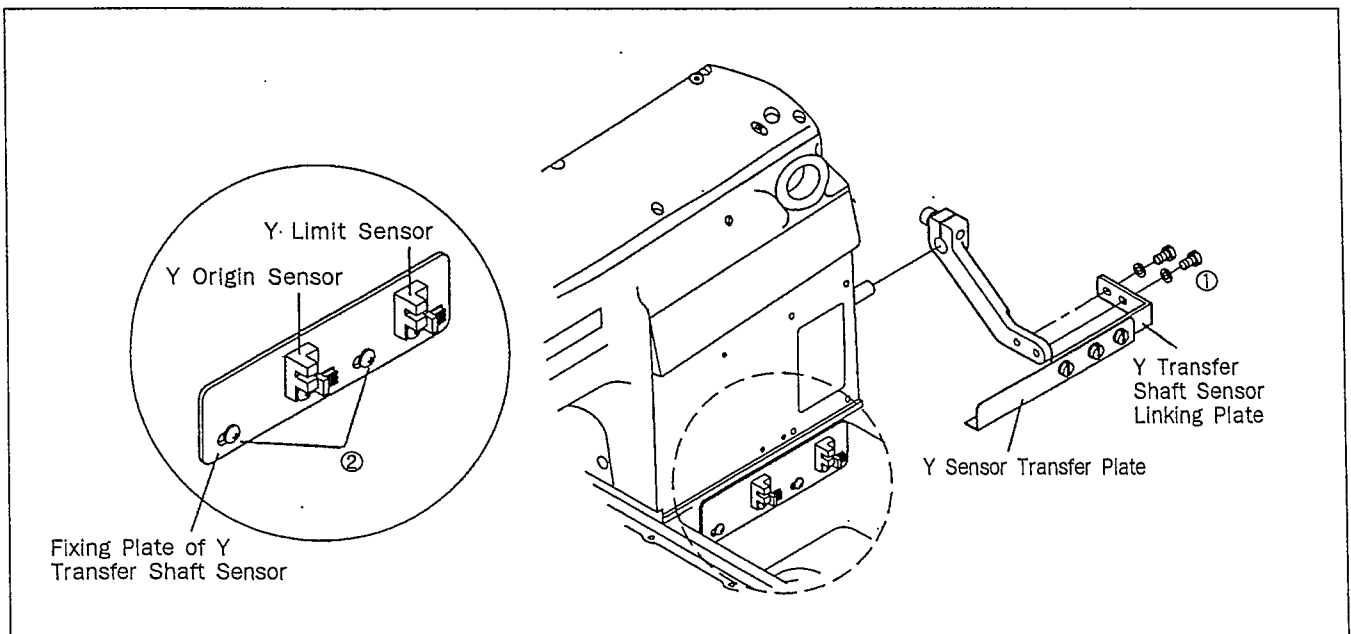
- Ⓐ Separate the under feed plate from X-fixing cover and transfer cover.
- Ⓑ Move the center of upper feed plate to be located the center in the direction of X shaft.
- Ⓒ As seen in the below figure, release the 2 fastening screws ① of X shaft origin sensor bracket and make the X-sensor plate that is adhered to X-Y transfer devices locate the center of



[Fig. 58]

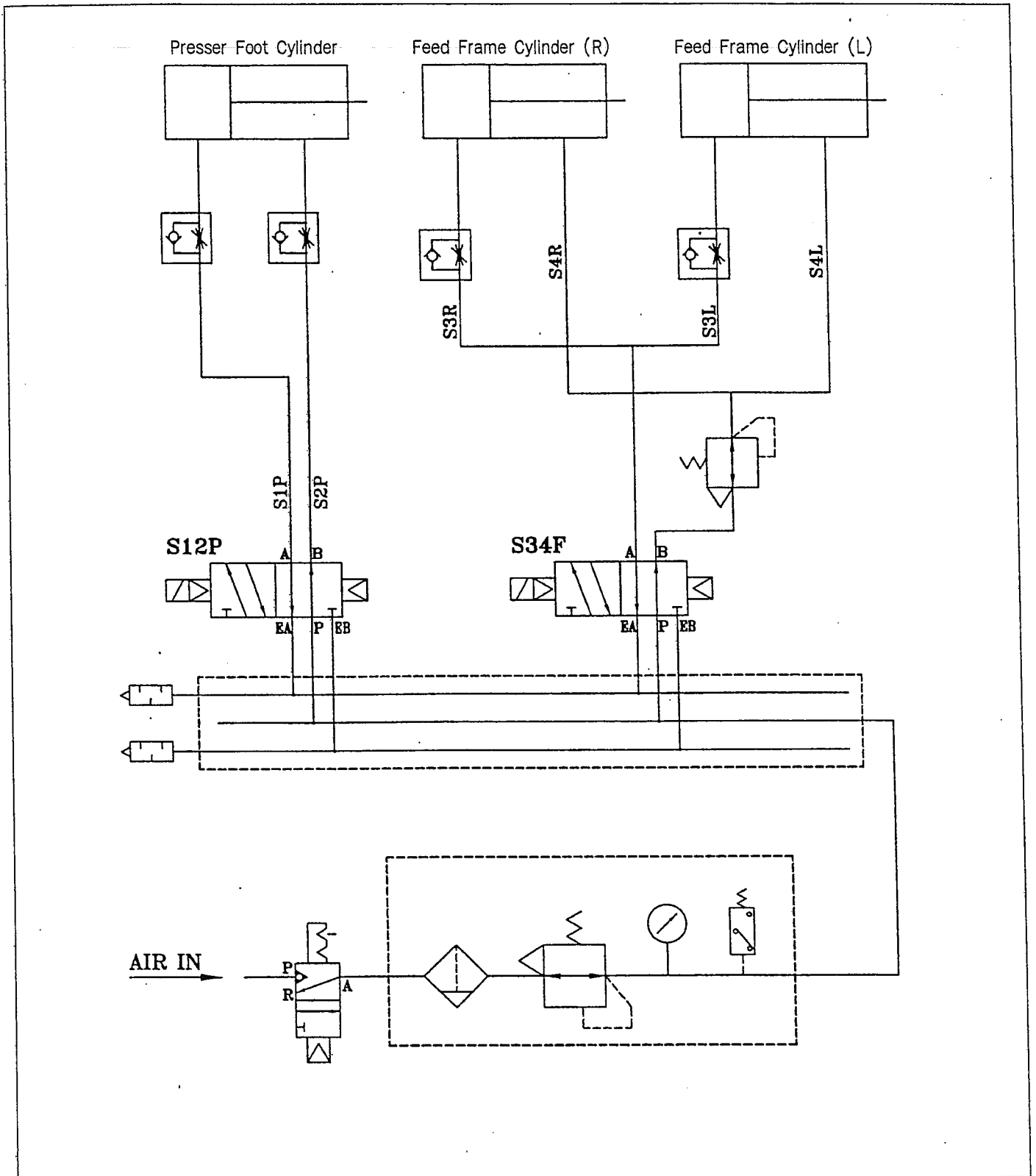
B. How to set the Y-shaft origin

- Ⓐ Separate the set the X-shaft origin.
- Ⓑ Move the center of upper feed plate to be located the center in the direction of X shaft.
- Ⓒ As seen in the below figure, release the 2 fastening screws ① of Y transfer shaft sensor linking plate and confirm if the Y-sensor transfer plate and sensor works independently, then the fixing screws ①.
- Ⓓ Adjust the Y direction origin with the fixing screws ② of Y-transfer shaft sensor fixing plate.



[Fig. 59]

21) GPS/A-2516-HS-20 Air System Circuit Diagram

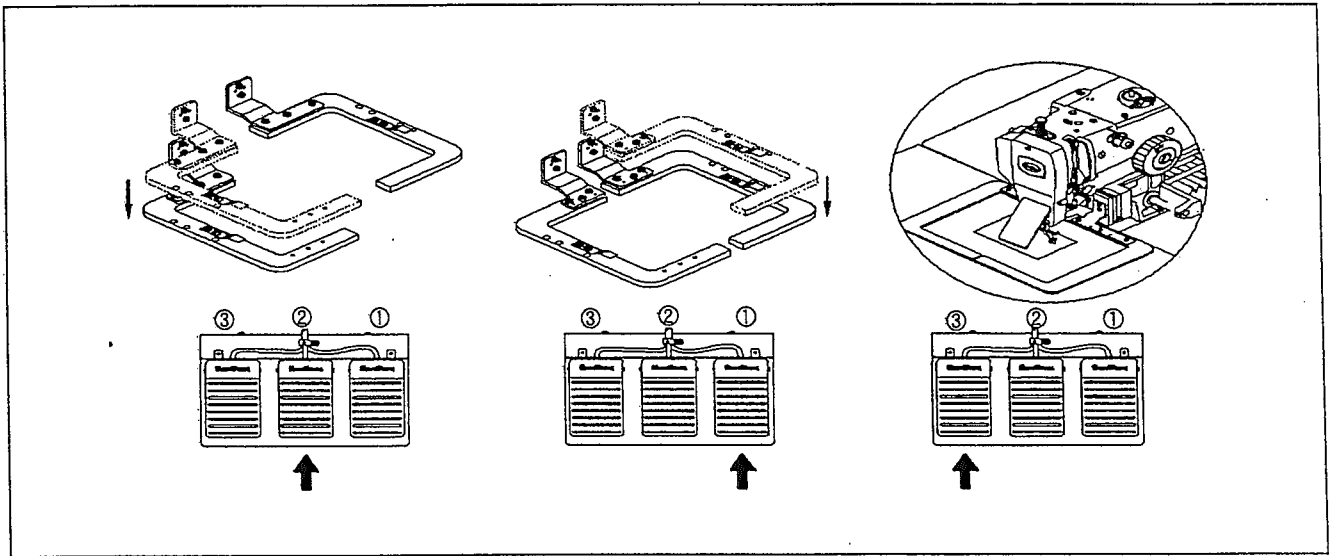


No.	Type of Break-down	Cause	Troubleshooting
6	Ineffective sense of upper thread	Bad connection between take-up lever spring and detecting plate	Clean up the take-up lever spring and detecting plate. Adjust the tension of take-up lever spring and connecting condition of detecting plate
		Bad connection of wire with thread sensor plate	Reconnect the wire with thread sensor plate
7	Poor quality of thread tightening	Weak tension of upper thread	Adjust the tension of upper sensor
		Weak tension of under thread	Adjust the tension of upper sensor
		Improper timing of needle and shuttle	Readjust the timing of needle and shuttle
8	Mistakes of trimming	Slackness of exchange tension between moving mes and fixed mes	Adjust the tension of fixed mes
		Groove abrasion on blade of moving mes and fixed mes	Exchange the moving and fixed mes
		Wrong position of trimming cam	Readjust the position of trimming cam

4) How to use the pedal switch

- A. Check the parameter, related to general sewing(function no.60), is set to "2". If not, please set the parameter to "2".(Refer to 7.29) Change of parameter related to general sewing).
- B. The pedal switch has three padals, the right one ① moves the right upper feed plate, the intermediate one ② moves the left upper feed plate and the left one ③ makes the sewing machine start.
- C. Application (Basic)
- ① If you step on the intermediate pedal ②, the left upper feed plate descends to hold the sewing material.
(When you step on the pedal ② again, the left upper feed plate ascends to the initial position)
 - ② When you step on the right pedal ①, the right upper feed plate descends to hold the sewing material.
(When you step on the pedal ① again, the right upper feed plate ascends to the initial position)
 - ③ When both of the upper feed plates are descended, if you step on the left pedal ③, the machine starts.

※ This model does not have 2-step stroke option.

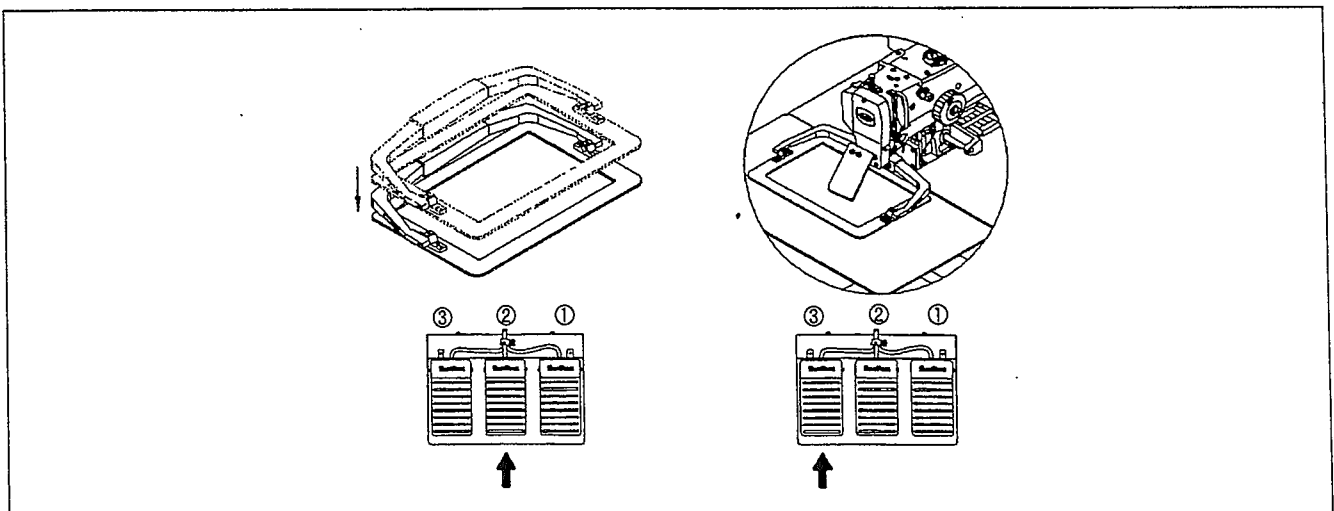


[Fig. 63]

D. In case of using monolithic feed frame.

- ① Set the parameter, related to general sewing(function no. 60), to "0".
- ② If you step on the intermediate pedal ②, the upper feed plate descends to hold the sewing material.
- ③ After the upper feed plate descends, if you step on the left pedal ③, the machine starts sewing.

※ This model does not have 2-step stroke option.



[Fig. 64]

9

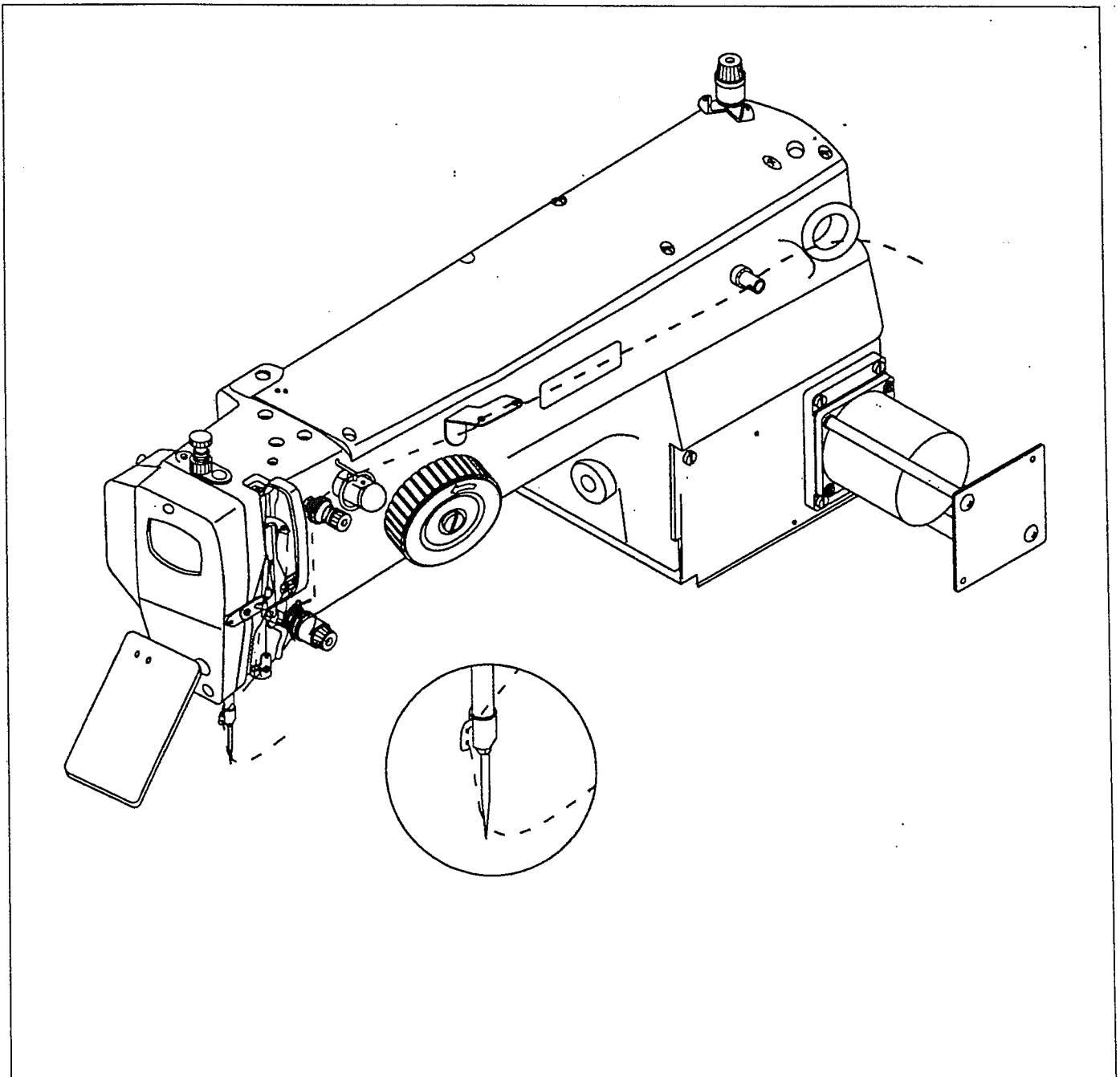
GPS/A-2516-GS-20 (22)

1) Machine specifications

The same as type GPS/A-2516-HS.

2) How to hook the upper thread

After placing the thread take-up at the highest position hook the thread as indicated in the picture below. Hook the thread as shown in picture A for the needle bar thread guide.

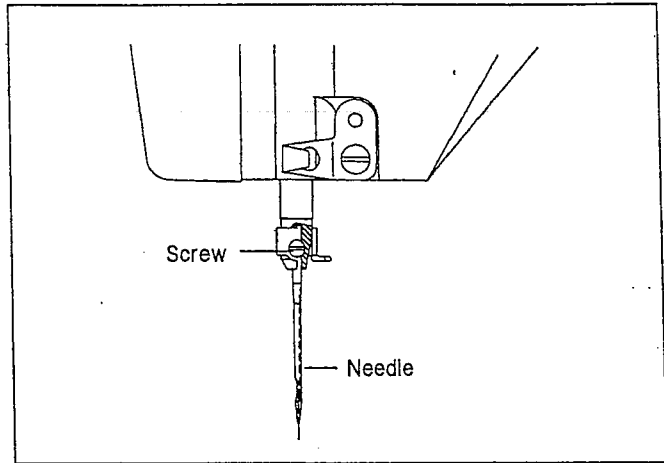


1) How to attach the needle

After unfastening the needle fixing screw on the needle bar, have the long groove of the needle face the back and push the needle till it touches the needle insertion hole and then tighten the needle fixing screw.

[Caution]

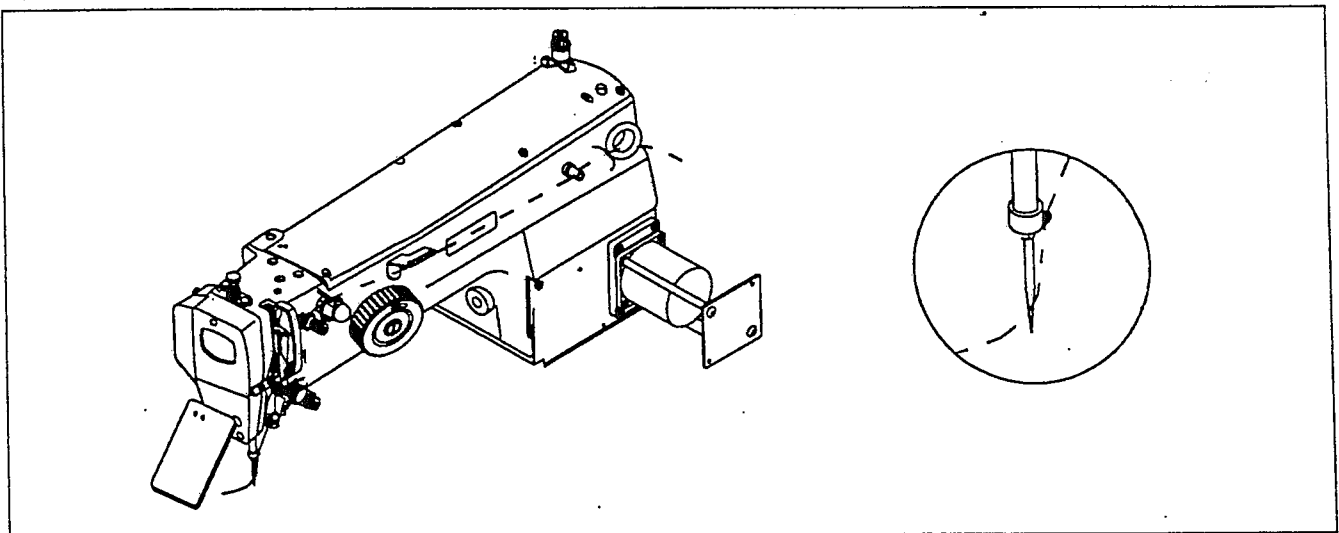
For type GPS/A-1306-HP(GP):10(20, 22) the needle is inserted in the opposite directions of other machine types.



[Fig. 65]

2) How to hook the upper thread

After placing the thread take-up at the highest position, hook the thread as shown in the picture below.



[Fig. 66]

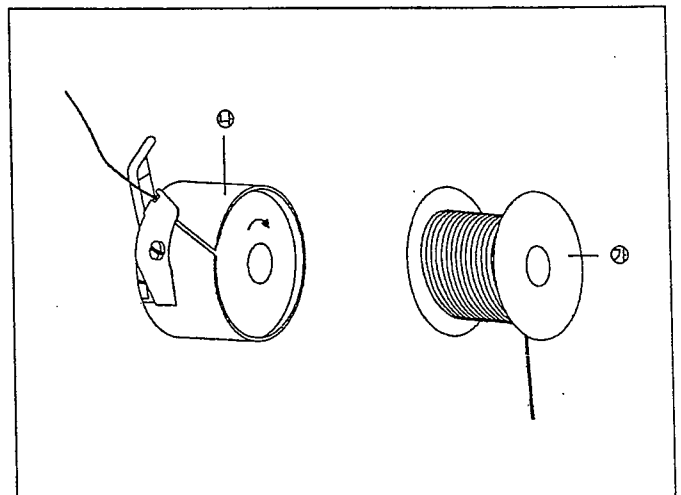
3) How to hook the lower thread

A. Insert bobbin ① into bobbin case ② as shown in the picture.

[Caution]

The bobbin must turn clockwise when seen from the back of the bobbin case.

B. Place the lower thread through the crack in the bobbin case.



[Fig. 67]

Spare Parts List

GARUDAN[®]

GPS-2516 series



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Ref. No.	Parts No.	Note	Name of Parts	품명	Qty	Assembly No.
A-1	01-002A-2516		Arm	아암	1	
A-2	01S006S-306H		Brand Mark(Face Plate)	상표 마크(면판부)	1	
A-3	01S007S-306H		Face Plate	면판	1	
A-4	01S008S-306H		Face Plate Gasket	면판 가스켓	1	
A-5	SC-0543-4525		Screw (11/64" n=40)	고정나사	4	
A-6	01-110R-1230		Rubber Cap for Face Plate	면판 고무마개	2	
A-7	01S011S-306H		Thread Take Up Cover	실채기 커버	1	
A-8	SC-0528-4125		Screw (9/64" n=40)	철나사	1	
A-9	01S013S-306H		Left Cover	좌측 커버	1	
A-10	01S014S-306H		Left Cover Gasket	좌측 커버 가스켓	1	
A-11	01-018W-1600		Washer	와셔		
A-12	01S025S-306H		Thread Guide A	실안내(A)	1(조)	
A-13	SN-0105-4000		Nut (15/64" n=28)	너트	1	
A-14	01S027S-306H		Thread Guide B	실안내(B)	1	
A-15	SC-0202-2118		Screw (15/64" n=28 L=7)	고정나사	1	
A-16	01-026A-3800		Thread Guide L	실안내(좌)	1	
A-17	SC-0120-2118		Screw (9/64" n=40)	고정나사	3	
A-18	01S031S-306H		Thread Guide R	실안내(우)	1	
A-19	01S033S-306H		Arm Thread Guide	암 실안내 결이	1	
A-20	01S034S-306H		Arm Thread Guide Nut	암 실안내 결이 너트	1	
A-21	01-021A-8150		Thread Guide L	실안내(좌)	1	
A-22	01S037S-306H		Silicon Tank Ass'y	실리콘 급유 탱크(조)	1Set	
A-23	01S038S-306H		Silicon Tank	실리콘 탱크	1	
A-24	01S039S-306H		Silicon Oil Window	실리콘 유창	1	
A-25	01S040S-306H		Silicon Felt	실리콘 급유 탱크 펠트	1	
A-26	01S041S-306H		Felt Holder for Silicon Oil Supply	실리콘 급유 탱크 펠트 잡이	1	
A-27	SC-0104-4517		Screw (11/64" n=40)	철나사	1	
A-28	01S043S-306H		Safety Plate Ass'y	안전판(조)	1Set	
A-29	01S044S-306H		Safety Plate	안전판	1	
A-30	01S045S-306H		Safety Bracket	안전판 브라켓	1	
A-31	01S046S-306H		Safety Plate Holder	안전판 홀더	1	
A-32	01S047S-306H		Safety Plate Hinge Screw	안전판 단나사	1	
A-33	SN-0101-4000		Nut (11/64" n=40)	너트	2	
A-34	20S073S-306H		Washer	와셔	1	
A-35	01S050S-306H		Safety Plate Spring	안전판 스프링	1	
A-36	01S051S-306H		Safety Plate Spring Hook	안전판 스프링 결이	1	
A-37	SN-0111-4000		Nut (3/16" n=28)	너트	1	
A-38	SC-0543-4525		Screw (11/64" n=40)	철나사	2	
A-39	40-004W-1600		Washer	와셔	1	
A-40	SC-0543-4525		Screw (11/64" n=40)	철나사	2	
A-41	01S057S-306H		Emergency Switch	비상 스위치	1	
A-42	01S058S-306H		Emergency Switch Bracket	비상 스위치 브라켓	1	
A-43	SC-0175-4522		Screw (11/64" n=40)	철나사	2	
A-44	01S064S-306H		Brand Mark	상표 마크	2	
A-45	01A054S-811H		Top Cover	윗 뚜껑	1	
A-46			Oil Sticker	오일 스티커	2	
A-47	01-110R-1230		Needle Bar Rubber Cap	바늘대 고무마개	1	
A-48	SC-0523-4122		Screw (3/16" n=28)	고정나사	6	
A-49	01-011C-2350		Cable Holder(5N)	케이블 홀더(5N)	5	
A-50	SC-0174-4122		Screw (11/64" n=40)	고정나사	5	
A-51	01-110R-1230		Arm upper Part Rubber Cap	아암 상부 고무마개	1	
A-52	01-144R-1230		Arm Rubber Cap(L)	아암 고무마개(大)	2	
A-53	44-021R-7400		Arm Rubber Cap(M)	아암 고무마개(中)	3	
A-54	01-110R-1230		Arm Rubber Cap(S)	아암 고무마개(小)	1	
A-55	01A068S-811H		Air Hose Gulde Rubber	에어호스 가이드 고무	1	
A-56	01A064S-811H		Model Sticker	모델 스티커	1	
A-57	SC-A174-4122		Earth Screw (11/64" n=40)	어스나사	1	
A-58			Warning Sticker	경고 스티커	1	

Ref. No.	Parts No.	Note	Name of Parts	품명	Q'ty	Assembly No.
D-1	02A001S-811H		Upper Shaft	상축	1	
D-2	02S002S-306H		Link Cam	링크 캠	1	
D-3	16-020W-9570		Link Cam Washer	링크 캠 와셔	1	
D-4	SC-0183-4122		Screw (15/64" n=28)	캡나사	1	
D-5	SC-0535-4325		Screw (9/32" n=28)	캡나사	1	
D-6	SC-0150-4122		Screw (15/64" n=28)	캡나사	1	
D-7	08S001P-306H		Thread Take-Up Lever Ass'y	실채기(조)	1Set	
D-8	08S002S-306H		Thread Take-Up Lever	실채기	1	
D-9	08S004S-306H		Thread Take-Up Lever Crank	실채기 크랭크	1	
D-10	08S012S-306H		Thread Take-Up Crank Shaft	실채기 크랭크 축	1	
D-11	08S005S-306H		Needle Bearing	니이들 베어링	1	
D-12	SC-0114-4515		Screw (15/64" n=28)	고정나사	4	
D-13	08S003S-306H		Needle Bar Crank	바늘대 크랭크	1	
D-14	SC-0110-4115		Screw (15/64" n=28)	고정나사	1	
D-15	08S006S-306H		Needle Bearing	니이들 베어링	1	
D-16	08S007S-306H		Needle Bar Crank Rod	바늘대 크랭크 로드	1	
D-17	08S008S-306H		Screw	캡나사	1	
D-18	08S010S-306H		Needle Bar Holder	바늘대잡이	1	
D-19	08S011S-306H		Screw	캡나사	1	
D-20	04S006S-306H		Needle Bar Guide Blook	바늘대 안내 블록	1	
D-21	04S001S-306H		Needle Bar	바늘대	1	
D-22	04S102S-306H		Needle Bar Bushing(U)	바늘대 상 붓싱	1	
D-23	SC-0104-4517		Screw (11/64" n=40)	고정나사	2	
D-24	04S004S-306H		Needle Bar Bushing(L)	바늘대 하 붓싱	1	
D-25	04S007S-306H	HS	Thread Guide for Needle Bar(H)	바늘대 실안내(후물용)	1	
D-26	04S008S-306G	GS	Thread Guide for Needle Bar(G)	바늘대 실안내(일반용)	1	
D-27	006-00T-0011	HS	Needle (DP×17 #18)	바늘(후물용)	1	
	006-00T-0013	GS	Needle (DP×5 #14)	바늘(일반용)	1	
D-28	02S007S-306H		Upper Shaft Bushing(F)	상축 전 붓싱	1	
D-29	02S009S-306H		Bobbin Winder Driving Wheel	실감기 구동 휠	1	
D-30	10-017S-8577		Screw for D-29	고정나사	2	
D-31	25S001S-306H		Hand Pulley Gear A.	핸드 풀리 기어 A	1	
D-32	SC-A129-4515		Screw (15/64" n=28)	고정나사 (1/4-40)	4	
D-33	02S011S-306H		Upper Shaft Bushing(M)	상축 중 붓싱	1	
D-34	02-021A-1230		Upper Shaft Collar	상축 카라	1	
D-35	SC-A129-4515		Screw (1/4" n=40)	고정나사	2	
D-36	02S015S-306H		Crank Blancer	크랭크 밸런스	1	
D-37	02S016S-306H		Fix Plate for Crank Blancer	크랭크 밸런스 고정판	1	
D-38	SC-0202-2118		Screw (3/16" n=28)	캡나사	2	
D-48	02S018S-306H		Upper Shaft Bushing(R)	상축 후 붓싱	1	
D-49	02S020S-306H		Needle Bearing (KT151917)	나이롱 베어링	1	
D-50	02S022S-306H		Thurst Bearing Washer(AS1730)	트러스트 베어링 와셔	1	
D-51	02S021S-306H		Snap Ring	S-R결용 멈춤링(호징경22)	1	
D-52	02S023S-306H		Retaining Ring	S-R결용 멈춤링(호징경30)	1	
D-53	02S047S-306H		Pulley	풀리	1	
D-54	SC-0150-4122		Screw	캡나사	1	
D-55	SC-0188-4124		Screw	캡나사	2	
D-56	11-0000-PS10		Synchronizer Ass'y	싱크로나이저(조)	1	
D-57	11-024A-2500		Screw for L-44	캡나사	2	
D-58	11-020A-2500		Magnetic Holder	마그네틱 홀더	2	
D-59	11-022W-2500		Washer	와셔	2	
D-60	11-021S-2500		Screw	캡나사	2	

Note: HS→Heavy Material (후물용)
GS→General Material (일반용)

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
E-1	25S004S-306H		Hand Pulley	핸드풀리	1	
E-2	25S012S-306H		Screw	럼나사	1	
E-3	25S011S-306H		Hand Pulley Spring	핸드 풀리 스프링	1	
E-4	25S009S-306H		Hand Pulley Bushing	핸드 풀리 붓싱	1	
E-5	SC-0317-4517		Screw (15/64" n=28)	고정나사	1	
E-6	25S005S-306H		Hand Pulley Shaft	핸드 풀리 축	1	
E-7	25S008S-306H		Spring Pin (∅4, l=10)	스프링 핀	1	
E-8	25S007S-306H		Hand Pulley Roller	핸드 풀리 로울러	1	
E-9	25S006S-306H		Hand Pulley Roller Hinge Screw	핸드 풀리 로울러 단나사	1	
E-10	25S002S-306H		Hand Pulley Gear B	핸드 풀리 기어 B	1	
E-11	41S001S-306H		Bobbin Winder Base Ass'y	실감기 베이스(조)	1Set	
E-12	41S005S-306H		Bobbin Winder Shaft	실감기 구동축	1	
E-13	41S018S-306H		Bobbin Winder Action Body	실감기 작동체	1	
E-14	41S006S-306H		Thread Winder Action Pulley	실감기 작동 풀리	1	
E-15	SC-0104-4517		Screw (11/64" n=40)	고정나사	2	
E-16	41S008S-306H		Thread Winder Action Ring	실감기 작동링	1	
E-17	41S009S-306H		Bobbin Winder Shaft Rubber Ring	실감기 구동축 고무링	1	
E-18	41S024S-306H		Bobbin Stand	보빈 스탠드	1	
E-19	41S022S-306H		Bobbin Stopper	보빈 스토퍼	1	
E-20	41S011S-306H		Bobbin Winder Adjusting Plate	실감기 조정판	1	
E-21	SC-0130-4122		Screw (1/8" n=40)	럼나사	1	
E-22	06011SW-2111		Washer	와셔	1	
E-23	41S010S-306H		Bobbin Winder Lever	실감기 레버	1	
E-24	SC-0105-4517		Screw (M4×P0.7)	고정나사	1	
E-25	03022SC-4517		Bobbin Winder Lever Shaft	실감기 레버축	1	
E-26	04-009C-3710		E-Ring	E 링 (호칭경5)	2	
E-27	40-007W-1600		Washer	와셔	2	
E-28	41S014S-306H		Thread Winder Adjusting Cam	실감기 조절캠	1	
E-29	02004SC-4113		Screw (M4×P0.7)	고정나사	1	
E-30	41S021S-306H		Thread Winder Spring	실감기 인장 스프링	1	
E-31	41S017S-306H		Thread Winder Action Plate	실감기 작동판	1	
E-32	41S023S-306H		Screw	럼나사	3	
E-33	41S025S-306H		Thread Winder Mes	실감기 메스	1	
E-34	SC-0137-4222		Screw (9/64" n=40)	럼나사	2	
E-35	41S027S-306H		Thread Tension controler Ass'y	실감기 실장력 조절 장치(조)	1Set	
E-36	41S034S-306H		Thread Tension Nut	실감기 조절 캡 너트	1	
E-37	40-804W-1230		Thread Tension Spring Stopper	실장력 조절 스프링 스토퍼	1	
E-38	40-333G-123A		Thread Tension Spring	실장력 조절 스프링	1	
E-39	40-024A-1230		Spring Cover	스프링 커버	1	
E-40	40-108A-1306		Thread Tension Disk	실안내 접시	1	
E-41	41S028S-306H		Thread Tension Adjusting Shaft (15/64" n=28)	실장력 조절축	1	
E-42	41S029S-306H		Thread Guid Plate	실안내판	1	
E-43	SN-0121-400		Nut	너트	1	

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
F-1	07A001S-811H		Lower Shaft Ass'y	하축 (조)	1	
F-2	07A002S-811H		Lower Shaft	하축	1	
F-3	07S003S-306H		Lower Shaft Gear	하축기어	1	
F-4	07S004S-306H		Taper Pin	테이퍼 핀	1	
F-5	SC-0512-4515		Screw (11/64" n=40)	고정나사	5	
F-6	07S006S-306H		Lower Shaft Rear Bushing	하축 후 붓싱	1	
F-7	07S007S-306H		Needle Bearing (KT8110)	니들 베어링	4	
F-8	07S008S-306H		Thrust Washer	트리스트 와셔	1	
F-9	10S014S-306H		Lower Shaft Collar	하축 카라	2	
F-10	07S011S-306H		Crank Rod	크랭크 로드	1	
F-11	SC-0179-4125		Screw (11/64" n=40)	캡나사	2	
F-12	07S013S-306H		Crank Rod Hinge Screw	크랭크 로드 단나사	1	
F-13	SN-0116-4000		Nut (1/4" n=40)	너트	1	
F-14	07S015S-306H		Oscillator Shaft	오실레이터 축	1	
F-15	07S017S-306H		Oscillator Shaft Collar(L)	오실레이터 축 카라(좌)	1	
F-16	07S019S-306H		Oscillator Shaft Gear	요동축 기어	1	
F-17	07S020S-306H		Washer	와셔	1	
F-18	43-009C-1600		E-Ring #9	E-링 (호칭경 9)	1	
F-19	SC-0317-4517		Screw (15/64" n=28)	고정나사	1	
F-20	07S022S-306H		Oscillator Shaft Collar(R)	오실레이터 축 카라(우)	1	
F-21	07S027S-306H		Shuttle Race Ring	셔틀 레이스 링	1	
F-22	07S023S-306H		Bobbin Case Ass'y	보빈 케이스(조)	1Set	
F-23	07S024S-306H		Bobbin Case	보빈 케이스	1	
F-24	07S025S-306H		Bobbin Plate Spring	보빈 판 스프링	1	
F-25	07S026S-306H		Bobbin	보빈	1	
F-26	07S028S-306H	HS	Shuttle(H)	셔틀(후물용)	1	
F-27	07S029S-306G	GS	Shuttle(G)	셔틀(일반용)	1	
F-28	07S130S-306H		Shuttle Driver	셔틀드라이브	1	
F-29	07S033S-306H		Screw (M4×P0.7)	캡나사	1	
F-30	07S032S-306H		Shuttle(L)	셔틀(大)	1	
F-31	07A033S-811H		Middle Bushing for Lower Shaft	하축 중붓싱	1	
F-32	07S035S-306H		Shuttle(L) Adjusting Shaft	셔틀(大) 조절축	1	
F-33	07S035S-306H		Shuttle Race Adjusting Shaft	셔틀 레이스 조절축	1	
F-34	SC-0150-4122		Screw (15/64" n=28)	캡나사	2	
F-35	SC-0543-4525		Screw (11/64" n=40)	캡나사	2	
F-36	07S036S-306H		Shuttle Ring	셔틀 외곽 링	1	
F-37	07S038S-306H		Shuttle Bearing Washer	셔틀 베어링 와셔	1	
F-38	07S040S-306G		Shuttle Upper Spring(H)	셔틀 상면 스프링(후물용)	1	
F-39	07S040S-306H		Shuttle Upper Spring(G)	셔틀 상면 스프링(일반용)	1	
F-40	SC-A121-4122		Screw (3/32" n=56)	캡나사	2	
F-41	07S042S-306H		Inner Hook Presser Shaft Ass'y	속가마 누름축(조)	1Set	
F-42	07S044S-306H		Inner Hook Presser Plate	속가마 누름대	1	
F-43	07S043S-306H		Innner Hook Presser Shaft	속가마 누름축	1	
F-44	06-033M-3800		E-Ring	E 링 (호칭경 3)	2	
F-45	07S046S-306H		Inner Hook Spring	속가마 압력 스프링	2	
F-46	07S047S-306H		Hook Cover Ass'y	훅 커버(조)	1Set	
F-47	07S049S-306H		Hook Cover Hinge	훅 커버 힌지	1	
F-48	07S048S-306H		Hook Cover	훅 커버	1	
F-49	07S051S-306H		Hook Cover Plate Spring A	훅 커버 판 스프링 A	1	
F-50	07S052S-306H		Hook Cover Plate Spring B	훅 커버 판 스프링 B	1	
F-51	SC-0543-4525		Screw (11/64" n=40)	캡나사	1	
F-52	07S050S-306H		Spring Pin (φ2×19.8)	스프링 핀	1	

Note: HS→Heavy Material (후물용)
GS→General Material (일반용)

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
G-1	05S034S-306H		Presser Cam	노루발 구동캠	1	
G-2	SC-A129-4515		Screw (1/4" n=40)	캡나사	2	
G-3	05S036S-306H		Presser Cam Connecting Rod	노루발 구동캠 연결로드	1	
G-4	05S037S-306H		Presser Fork Crank	노루발 포크 크랭크	1	
G-5	SC-0183-4122		Screw (15/64" n=28)	캡나사	1	
G-6	05S039S-306H		Presser Cam Connecting Rod Pin	노루발 구동캠 연결로드 핀	1	
G-7	04-009C-3710		E-Ring	E-링 (호칭경 5)	2	
G-8	05S041S-306H		Presser Shaft Bushing A	노루발 구동축 bushes A	1	
G-9	05S042S-306H		Presser Shaft Bushing B	노루발 구동축 bushes B	1	
G-10	05S043S-306H		Presser Shaft	노루발 구동축	1	
G-11	05S044S-306H		Presser Adjusting Arm	노루발 조절 아암	1	
G-12	SC-0317-4517		Screw (15/64" n=28)	캡나사	2	
G-13	05S046S-306H		Presser Adjusting Arm Nut	노루발 조절 아암 너트	1	
G-14	06-034W-7400		Washer	와셔	1	
G-15	05S048S-306H		Presser Adjusting Arm Hinge Screw	노루발 조절 아암 단나사	1	
G-16	05S049S-306H		Presser Link	노루발 링크	2	
G-17	05S050S-306H		Presser Link Hinge Screw	노루발 링크 단나사	3	
G-18	05S051S-306H		Position Link	위치 링크	1	
G-19	05S052S-306H		Position Link Hinge Screw	위치링크 고정 단나사	1	
G-20	05S053S-306H		Presser Driving Link	노루발 운동 링크	1	
G-21	05S054S-306H		Presser Driving Link Hinge Screw	노루발 운동 링크 고정 단나사	1	
G-22	10S014S-306H		Presser Driving Link Collar	노루발 운동 링크 카라	1	
G-23	SC-0512-4515		Screw (11/64" n=40 L=5)	캡나사	4	
G-24	05S057S-306H		Presser Bar Bushing	누름대 bushes	1	
G-25	SC-0104-4517		Screw (11/64" n=40)	캡나사	1	
G-26	SC-0337-4125		Presser Adjusting Screw	압력 조절 나사	1	
G-27	05-002C-2500		Nut for Presser Adjusting Screw	압력 조절 나사 캡 너트	1	
G-28	05S061S-306H		Presser Adjusting Spring	압력 조절 스프링	1	
G-29	05S062S-306H		Presser Adjusting Bar	압력 조절봉	1	
G-30	05-001A-1230		Presser Bar	누름대	1	
G-31	05S063S-306H		Presser Bar Holder	누름대 잠이	1	
G-32	SC-0174-4122		Screw (11/64" n=40 L=11)	캡나사	1	
G-33	05S066S-306H		Presser Foot (Option)	노루발	1	
G-34	05S067S-306H		Finger Guard	핑거가드	1	
G-35	SC-0517-2118		Screw (9/64" n=40 L=9.5)	캡나사	1	
G-36	40-004W-1600		Washer	와셔	2	
G-37	05A037S-811H		Presser Foot Cylinder	노루발 올림 실린더	1	
G-38	05A038S-811H		Hinge Stud for Presser Foot Cylinder	노루발 실린더 힌지 단나사	1	
G-39	05A039S-811H		Hose (ø4)	우레탄 호스 (ø4)	-	
G-40	05A040S-811H		Speed Controller	스피드 컨트롤러	2	
G-41	05A041S-811H		Connecting Link for Presser Foot Cylinder	노루발 올림 실린더 연결 링크	1	
G-42	10S014S-306H		Connecting Link Coller for Presser Foot Cylinder	노루발 올림 실린더 연결 링크 카라	1	
G-43	05A043S-811H		Knuckle of Presser Foot Cylinder	노루발 실린더 너클	1	
G-44	05A044S-811H		Connecting Rod for Presser Foot	노루발 올림 연결 로드	1	
G-45	05A045S-811H		Stud for Presser Link	노루발 링크 단나사	3	
G-46	05A046S-811H		Lift Link of Presser Foot	노루발 올림 링크	1	
G-47	SN-0105-4000		Nut	너트	1	
G-48	06-002W-2350		Washer	와셔	1	
G-49	05A049S-811H		O-Ring	O-링	1	
G-50	05A050S-811H		Stud for Presser Foot Lift Link	노루발 올림 링크 단나사	1	
G-51	05A051S-811H		Presser Bar Lifter Connecting Shaft	노루발 올림 연결축	1	
G-52	SC-0540-4125		Screw (15/64" n=28)	고정나사	1	
G-53	05S075S-306H		Position Link Stopper	위치 링크 스톱퍼	1	
G-54	05S076S-306H		Position Link Stopper Spring	위치 링크 스톱퍼 스프링	1	
G-55	05S077S-306H		Position Link Stopper Bracket	위치 링크 스톱퍼 브라켓	1	
G-56	SC-0500-4125		Screw (15/64" n=28)	캡나사	2	
G-57	05S079S-306H		Position Link Stopper Rubber	위치 링크 스톱퍼 고무	2	
G-58	SN-0116-4000		Nut (11/4" n=40)	너트	1	
G-59	SC-0169-4122		Screw	캡나사	1	

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
H-1	40S001S-306H		Thread Tension Adjusting Ass'y	실장력 조절 장치(조)	1Set	
H-2	40S002S-306H		Thread Tension Adjusting Body	실장력 조절 장치 몸체	1	
H-3	40S003S-306H		Thread Tension Adjusting Shaft	실장력 조절 장치 축	1	
H-4	40-604S-1230		Screw (9/64" n=40)	고정나사	2	
H-5	40S005S-306H	HS	Thread Take-Up Spring(H)	실제기 스프링(후물용)	1	
H-6	40S006S-306G	GS	Thread Take-Up Spring(G)	실제기 스프링(일반용)	1	
H-7	40-204A-1230		Thread Guide Disk	실안내 접시	4	
H-8	40-304A-1230		Presser Plate for 7	실안내 접시 누름판	1	
H-9	40S009S-306H		Spring Cover	스프링 커버	1	
H-10	40S010S-306H	HS	Thread Tension Adjusting Spring(H)	실장력 조절 스프링(후물용)	1	
H-11	40-333G-123A	GS	Thread Tension Adjusting Spring(G)	실장력 조절 스프링(일반용)	1	
H-12	40-804W-1230		Spring Stopper	스프링 스토퍼	2	
H-13	40-204A-2350		Thread Adjusting Nut	실조절 장치 너트	1	
H-14	01S112S-306H		Screw (M6)	렘나사	1	
H-15	40S016S-306H		Second Thread Tension Adjusting Ass'y	보조 실 조절 장치(조)	1Set	
H-16	40S017S-306H		Second Thread Tension Adjusting Shaft	보조 실 조절 장치축	1	
H-17	40S019S-306H		Second Thread Tension Adjusting Spring	보조 실 안내 접시 스프링	1	
H-18	40-704C-1230		Second Thread Adjusting Nut	보조 실조절 장치 너트	1	
H-19	SN-0121-4000		Nut (15/64" n=28)	너트	1	
H-20	40S023S-306H		Thread Release Link	실 늦추기 링크	1	
H-21	40S024S-306H		Thread Release Link Hinge Screw	실 늦추기 링크 단나사	1	
H-22	40A007S-811H		Thread Release Connecting Rod	실 늦추기 연결 로드	1	
H-23	40S026S-306H		Hinge Screw A for 22	실 늦추기 연결 로드 단나사 A	1	
H-24	SN-0115-4000		Nut (3/16" n=28)	너트	1	
H-25	40S028S-306H		Hinge Screw B for 22	실 늦추기 연결 로드 단나사 B	1	
H-26	06-051W-7400		Washer	와셔	1	
H-27	40S030S-306H		Thread Release Stopper	실 늦추기 스토퍼	1	
H-28	SC-0202-2118		Screw (3/16" n=28)	렘나사	2	
H-29	40S032S-306H		Thread Release Adjusting Plate	실 늦추기 조정판	2	
H-30	40S033S-306H		Thread Release Return Spring	실 늦추기 리턴 스프링	1	
H-31	10-019S-7507		Spring Hook Screw	스프링 걸이 나사	1	
H-32	SN-0101-4000		Nut (11/64" n=40)	너트	2	
H-33	SC-0180-4111		Screw (11/64" n=40)	렘나사	1	
H-34	01S110S-306H		Washer	와셔	1	
H-35	40S038S-306H		Thread Release Shaft	실 늦추기 축	1	
H-36	SC-0352-4515		Screw (3/16" n=28)	고정나사	1	
H-37	40S040S-306H		Thread Release Shaft Collar	실 늦추기 축 카라	1	
H-38	16-020W-9570		Washer	와셔	1	
H-39	40S042S-306H		Thread Release Action Bar	실 늦추기 작동봉	1	
H-40	16-015S-3710		Hinge Screw for 39	실 늦추기 작동봉 단나사	1	
H-41	40S044S-306H		Thread Release Action Bar Guide	실 늦추기 작동봉 안내	1	
H-42	SC-0528-4125		Screw (9/64" n=40)	렘나사	2	
H-43	40S014S-306H		Thread Release Pin	실 늦추기 핀	1	
H-44	40S046S-306H		Thread Detecting Plate Guide	실 감지판 안내	1	
H-45	40S049S-306H		Thread Detecting Plate Ring	실 감지판 링	1	
H-46	40S047S-306H		Thread Detecting Plate	실 감지판	1	
H-47	SC-A170-4124		Screw (9/64" n=40)	렘나사	1	

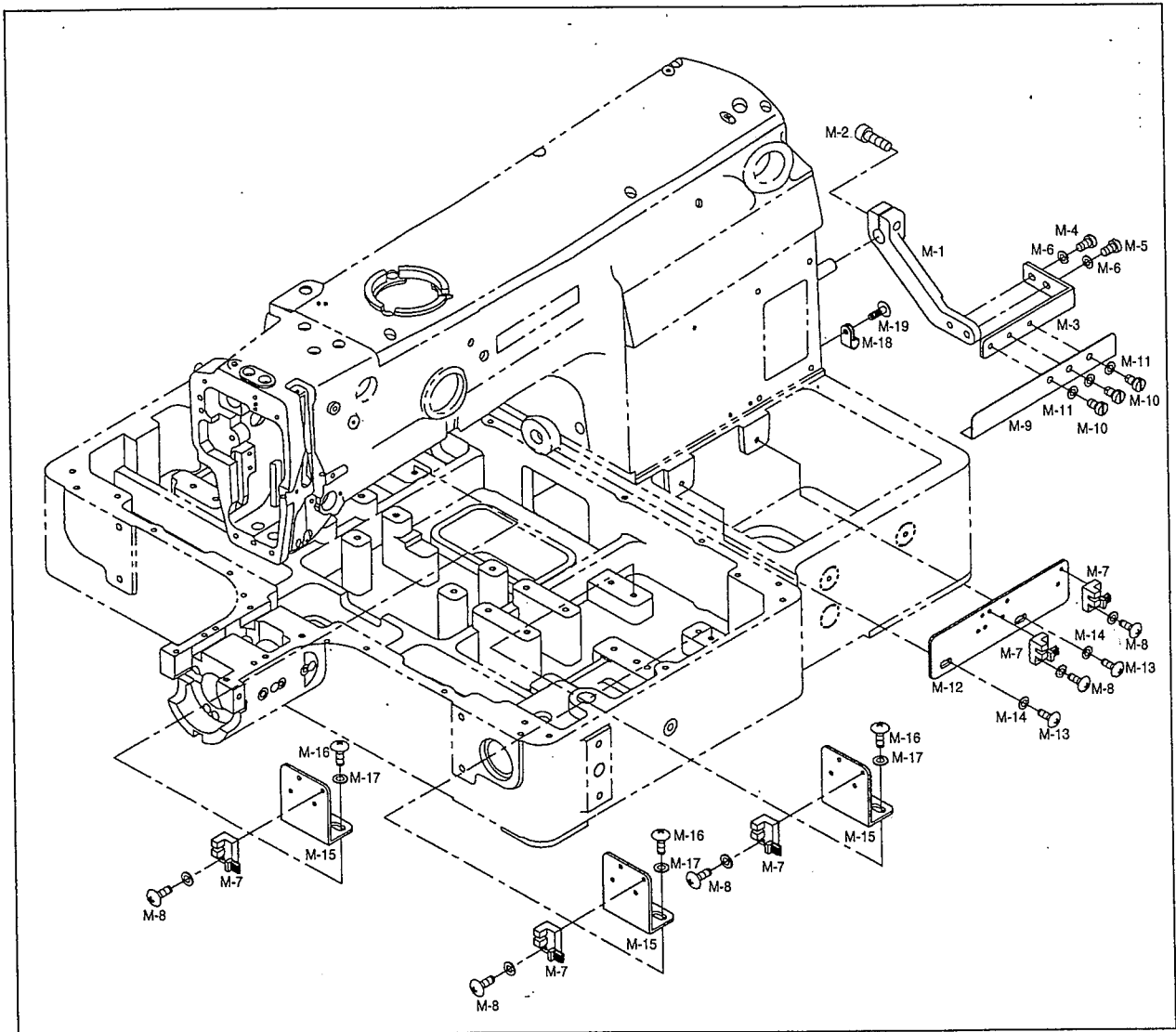
Note: HS→Heavy Material (후물용)
GS→General Material (일반용)

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
I-1	11S001S-306H		Wiper Bracket Ass'y	와이퍼 브라켓(조)	1Set	
I-2	SC-0548-4122		Screw(3/16" n=28)	캡나사	4	
I-3	11S005S-306H		Wiper Rotatlon Shaft	와이퍼 회전축	1	
I-4	04-009C-3710		E-Ring	E-링 (호칭경 5)	1	
I-5	11S007S-306H		Wiper Rotation Shaft Collar	와이퍼 회전축 카라	1	
I-6	03022SC-4517		Screw(M4×P0.7)	고정나사	4	
I-7	11S009S-306H		Wiper	와이퍼	1	
I-8	SC-0120-2118		Screw(9/64" n=40)	캡나사	1	
I-9	11-006A-257A		Wiper Crank Ass'y	와이퍼 크랭크(조)	1Set	
I-10	16-113S-3710		Hinge Screw for 9	와이퍼 크랭크 단나사	3	
I-11	SN-0101-4000		Nut (11/64" n=40)	너트	4	
I-12	11S017S-306H		Wiper Rod	와이퍼 로드	1	
I-13	11-008A-257A		Wiper Rock Link ass'y	와이퍼 요동 링크(조)	1	
I-14	11-009S-257A		Hinge Screw for 13	와이퍼 요동 링크 단나사	1	
I-15	10-020W-2700		Washer	와셔	1	
I-16	11-011G-257A		Wiper Spring	와이퍼 스프링	1	
I-17	11-010A-257A		Wiper Solenoid Connecting Link	와이퍼 솔레노이드 연결 링크	1	
I-18	11-012A-257A		Wiper Base	와이퍼 베이스	1	
I-19	11S025S-306H		Wiper Base Joint	와이퍼 베이스 조인트	1	
I-20	10-020W-2700		Washer	와셔	3	
I-21	SC-0202-2118		Screw(11/64" n=40)	캡나사	1	
I-22	11S307-306H		Wiper Base Collar	와이퍼 베이스 카라	1	
I-23	11S037S-306H		Wiper Cover	와이퍼 커버	1	
I-24	SC-0120-2118		Screw	캡나사	2	
I-25	11S032-306H		Wiper Solenoid Ass'y	와이퍼 솔레노이드(조)	1Set	
I-26	SC-0196-4118		Screw	캡나사	4	
I-27	11S032S-306h		Spring Washer	스프링 나사	4	
I-28	11-017W-2700		Washer	와셔	4	
I-29	SC-0533-4125		Wiper On/Off Switch	와이퍼 작동 스위치	1	
I-30			Wiper On/Off Switch Connector Housing	와이퍼 작동 스위치 연결 콘넥터 하우징	1	
I-31			Wiper On/Off Switch Connector Plug	와이퍼 작동 스위치 연결 콘넥터 플러그	1	

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
J-1	12-0000-PT13		Thread Trimming Sol. Ass'y	사절 솔레노이드(조)	1Set	
J-2	10S002S-306H		Thread Trimming Sol. Bracket	사절 솔레노이드 브라켓	1	
J-3	SC-0202-2118		Screw (3/16" n=28)	캡나사	4	
J-4	SN-0101-2000		Nut (3/16" n=28)	너트	2	
J-5	10S005S-306H		Rotating Link for 1	사절 솔레노이드 회전 링크	1	
J-6	SC-0328-4413		Screw (M4×P0.7)	캡나사	1	
J-7	10S007S-306H		Thread Trimming Driving Link Stopper	사절 구동 링크 스톱퍼	1	
J-8	10S009S-306H		Thread Trimming Cam	사절 캠	1	
J-9	SC-A129-4515		Screw (1/4" n=40)	고정나사	2	
J-10	10S011S-306H		Thread Release Notch	실 늦추기 노치	1	
J-11	02004SC-4113		Screw (M4×P0.7)	캡나사	2	
J-12	10S013S-306H		Thread Trimming Shaft	사절 축	1	
J-13	10S014S-306H		Thread Trimming Shaft Collar	사절 축 카라	2	
J-14	SC-0512-4515		Screw (15/64" n=28)	고정나사	2	
J-15	10S017S-306H		Rubber Washer for 12	사절 축 고무 와셔	1	
J-16	10S018S-306H		Thread Trimming Driving Link Ass'y	사절 구동 링크(조)	1Set	
J-17	SC-0317-4517		Screw (15/64" n=28)	고정나사	1	
J-18	10S022S-306H		Spring for 12	사절 축 스프링	1	
J-19	10S023S-306H		Thread Trimming Cam Roller	사절 캠 로울러	1	
J-20	10S024S-306H		Hinge Screw For 19	사절 캠 로울러 단나사	1	
J-21	SN-0101-4000		Nut (11/64" n=40)	너트	3	
J-22	10S026S-306H		Thread Release Lever	실늦추기 레버	1	
J-23	10S027S-306H		Thread Release Lever Pin	실늦추기 레버 핀	1	
J-24	SN-0105-4000		Nut (15/64" n=40)	너트	1	
J-25	10S029S-306H		Thread Trimming Connecting Rod	사절 연결 로드	1	
J-26	10-220A-8577		Rod End(R)	Rod End "우"	2	
J-27	SN-0115-4000		Nut (M4×P0.8)	너트	2	
J-27-1	SN-0115-2000		Nut(M4×P0.8)	너트(도금)	1	
J-28	10S032S-306H		Hinge Screw for 25	사절 연결 로드 단나사	2	
J-29	10-020W-2700		Washer	와셔	1	
J-30	10S035S-306H		Thread Trimming Connecting Link	사절 연결 링크	1	
J-31	10S036S-306H		Hinge Screw for 30	사절 연결 링크 단나사	1	
J-32	10A037S-811H		Thread Trimming Connecting Bar	사절 연결봉	1	
J-33	10S038S-306H		Hinge Screw for 32	사절 연결봉 단나사	1	
J-34	SN-0115-4000		Nut (3/16" n=28)	너트	1	
J-35	10S062S-306H		Link Stopper Screw	링크 스톱퍼 나사	1	
J-36	10S064S-306H		Thread Stick Return Spring	사절 연결봉 리턴 스프링	1	
J-37	10-019S-7507		Spring Hooker	스프링 걸이	1	
J-38	10A040S-811H		Needle Plate	침판	1	
J-39	SC-A119-4119		Screw (15/64" n=40)	캡나사	4	
J-40	10S042S-306H	HS	Needle Plate Cover(H)	침판 커버(후물용)	1	
J-41	10S043S-306G	GS	Needle Plate Cover(G)	침판 커버(일반용)	1	
J-42	04007SC-A001		Screw (M4×P0.5)	캡나사	2	
J-43	10S145S-306H		Fixed Mes	고정메스	1	
J-44	10S046S-306H		Screw (9/64" n=40)	캡나사	2	
J-45	10S147S-306H		Moving Mes	동메스	1	
J-46	10S048S-306H		Hinge Screw for Moving Mes	동메스 단나사	1	
J-47	10S049S-306H		Washer (t=0.4)	와셔(0.4)		
	10S050S-306H		Washer (t=0.5)	와셔(0.5)		
	10S051S-306H		Washer (t=0.6)	와셔(0.6)		
	10S052S-306H		Washer (t=0.7)	와셔(0.7)		
J-48	10S053S-306H		Moving Mes Link	동메스 링크	1	
J-49	10S054S-306H	HS	Thread Trimming Lever "B" (H)	사절레버 "B"(후물용)	1	
J-50	10S055S-306G	GS	Thread Trimming Lever "B" (G)	사절레버 "B"(일반용)	1	
J-51	10S056S-306H		Thread Trimming Lever Ring	사절레버 링	1	
J-52	10S058S-306H		Thread Trimming Lever "A"	사절레버 "A"	1	
J-53	10S057S-306H		Thread Trimming Lever Shaft	사절레버 축	1	
J-54	10S059S-306H		Thread Trimming Lever Screw	사절레버 고정나사	1	
J-55	SC-0543-4525		Screw (11/64" n=40)	캡나사	1	
J-56	20S075S-306H		Washer	와셔	1	

Note: HS→Heavy Material (후물용)
GS→General Material (일반용)

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
K-1	20-001A-2516		X-Y Ball Guide Ass'y	볼 가이드(조)	1Set	
K-2	20-002A-2516		X-Fixed Race	X-고정레이스	1	
K-3	SC-0548-4122		Screw (3/16" n=28)	캡나사	8	
K-4	20-004A-2516		X-Moving Race	X-이송레이스	2	
K-5	20-005A-2516		X-Retainer	X-리테이너	2	
K-6	20A006S-811H		X-Stopper	X-스토퍼	2	
K-7	20A007S-811H		Screw (11/64" n=40)	캡나사	4	
K-8	20A008S-811H		Ball	볼	100	
K-9	20A009S-811H		X-Tension Adjusting Nut	X-장력 조절 너트	2	
K-10	20A010S-811H		X-Tension Adjusting Bolt	X-장력 조절 볼트	2	
K-11	20A001S-811H		Race Table	레이스 테이블	1	
K-12	20A012S-811H		Screw (11/64" n=40)	캡나사	4	
K-13	20A013S-811H		Y-Tension Adjusting Nut	Y-장력 조절 너트	2	
K-14	20A014S-811H		Y-Tension Adjusting Bolt	Y-장력 조절 볼트	2	
K-15	20A015S-811H		X-Sensor Plate	X-센서판	1	
K-16	02014SC-4113		Screw (M4×0.7)	고정나사	2	
K-17	20-017A-2516		Y-Fixed Race(L)	Y-고정 레이스(좌)	1	
K-18	20-018A-2516		Y-Fixed Race(R)	Y-고정 레이스(우)	1	
K-19	20A019S-811H		Screw	캡나사	4	
K-20	20-020A-2516		Y-Moving Race	Y-이송레이스	1	
K-21	20A021S-811H		Hinge Stud for Y-Moving Race	Y-이송레이스 힌지 스타드	2	
K-22	20A022S-811H		Y-Retainer	Y-리테이너	2	
K-23	20A023S-811H		Y-Stopper	Y-스토퍼	2	
K-24	20A024S-811H		Screw(11/64" n=40)	캡나사	4	
K-25	20A025S-811H		X-Driving Shaft A	X-구동축 (A)	1	
K-26	20-084A-2516		Bracket A for X-Driving Shaft	X-구동축 브라켓 (A)	1	
K-27	SC-0163-4113		Screw (M5×0.8 L=20)	고정나사	6	
K-28	20A028S-811H		Y-Driving Gear	X-종동기어	1	
K-29	SWF(7-9)		Screw	캡나사	2	
K-30	20A030S-811H		Pulley for X-Timing Belt	X-타이밍 벨트 풀리	2	
K-31	SC-0548-4122		Screw (3/16" n=28)	캡나사	4	
K-32	16-020W-9570		Washer	와셔	3	
K-33	20A033S-811H		Bearing (F608Z)	베어링	5	
K-34	20A034S-811H		X-Driving Shaft B	X-구동축 (B)	1	
K-35	20-035A-2516		Bracket B for X-Driving Shaft	X-구동축 브라켓 (B)	1	
K-36	SC-0485-4113		Screw (M5×0.8 L=17)	고정나사	4	
K-37	06-020C-7400		E-Ring	E-링	2	
K-38	20-038S-2516		Timing Belt Tension Adjusting Bolt	타이밍 벨트 장력 조절 볼트	1	
K-39	20-039S-2516		Nut	너트	1	
K-40	20-040W-2516		Washer	와셔	1	
K-41	20A041S-811H		X-Idler Bracket	X-아이들러 브라켓	1	
K-42	SC-0332-4111		Screw (M5×0.8 L=8)	고정나사	1	
K-43	06-002W-2350		Washer	와셔	2	
K-44	20A004S-811H		Bearing (696Z)	베어링 (696Z)	2	
K-45	20A045S-811H		Stud for X-Timing Belt	X-타이밍 벨트 단나사	1	
K-46	20-046A-2516		X-Timing Belt	X-타이밍 벨트	1	
K-47	20A047S-811H		Belt Holding Plate	벨트 잡이 판	1	
K-48	01S104S-306H		Screw (11/64" n=40)	고정나사	2	



Ref. No.	Parts No.	Note	Name of Parts	품명	Q'ty	Assembly No.
M-1	24A001S-811H		Y-Removal Sensor Connecting Crank	Y-이송축 센서 연결 크랭크	1	
M-2	SC-0180-4113		Screw (M6×P1)	탭나사	1	
M-3	24-005A-2516		Sensor Connecting Plate For Y Removal Shaft	Y-이송축 센서 연결판	1	
M-4	SC-0543-4525		Screw (11/64" n=40 L=7.4)	탭나사 A	1	
M-5	SC-0548-4122		Screw (3/16" n=28 L=8)	탭나사 B	1	
M-6	10-020W-2700		Washer	와셔	2	
M-7	02S029S-306H		Sensor	센서	5	
M-8	02S030S-306H		Screw (M3×L10)	탭나사	5	
M-9	24-009A-2516		Y-Sensor Removal Plate	Y-센서 이송판	1	
M-10	SC-0176-4118		Screw 11/64" n=40 L=5)	탭나사	3	
M-11	40-004W-811H		Washer	와셔	3	
M-12	24-012A-2516		Sensor Mounting Plate For Y-Removal Shaft	Y-이송축 센서 고정판	1	
M-13	SC-0525-4122		Screw (11/64" n=40 L=7.5)	탭나사	2	
M-14	40-004W-1600		Washer	와셔	2	
M-15	24A015S-811H		X-Sensor Bracket	X-센서 브라켓	3	
M-16	SC-0525-4122		Screw (11/64" n=40 L=7.5)	탭나사	6	
M-17	40-004W-1600		Washer	와셔	6	
M-18			Cable Holder(6N)	케이블홀더	2	
M-19	SC-0174-4122		Screw	탭나사	2	

Ref. No.	Parts No.	Note	Name of Parts	품명	Q'ty	Assembly No.
N-1	22-001A-2516		Feed Bracket	피이드 브라켓	1	
N-2	SC-0106-4111		Screw (15/64" n=28)	고정나사	2	
N-3	01-020W-2350		Spring Washer	스프링 와셔	2	
N-4	06-002W-2350		Washer	와셔	2	
N-5	22A006S-811H		Slider	슬라이더	1	
N-6	22A007S-811H		Slider Spring	슬라이더 스프링	1	
N-7	22A008S-811H		Slider Bracket	슬라이더 받침	1	
N-8	SC-0104-4517		Screw (11/64" n=40)	고정나사	1	
N-9	22-010A-2516		Air Slide Table(L)	에어 슬라이드 테이블	2	
N-10	22-011S-2516		Screw	고정나사	4	
N-11	22-012S-2516		Spring Washer	스프링와셔	4	
N-12	22-013S-2516		Washer	평와셔	4	
N-13	22-014A-2516		Hose Union	호스 유니온	4	
N-14	22-015A-2516		Upper Feed Plate Bracket Holder	상피이드판 브라켓 홀더	1	
N-15	22-016A-2516		Screw	고정나사	4	
N-16	22S104S-306H		Setting Pin	셋팅핀	2	
N-17	22-018A-2516		Upper Feed Plate Bracket	상피이드판 브라켓	1	
N-18	22-019A-2516		Screw	고정나사	2	
N-19	22-123A-2516		Hinge for Upper Feed Plate	상피이드판 힌지 몸체	2	
N-20	02031SC-4113		Screw	고정나사	4	
N-21	SC-0103-4417		Screw	상피이드판 수평 조정나사	2	
N-22	22-027A-2516		Hinge Shaft for Upper Feed Plate	상피이드판 힌지축	2	
N-23	SC-0105-4517		Screw	고정나사	2	
N-24	22-028R-2516		Stopper Rubber for Upper Feed Plate	상피이드판 스톱퍼 고무	2	
N-25	22-030A-2516		Upper Feed Plate	상피이드판	1	
N-26	22-034A-2516		Lower Feed Plate	하피이드판	1	
N-27	22A043S-811H		Screw	립나사	2	
N-28	22S025A-306H		Washer	와셔	2	
N-29			Air Tube Label(S3L)	에어 튜브 라벨(S3L)	1	
N-30			Air Tube Label(S4L)	에어 튜브 라벨(S4L)	1	
N-31			Air Tube Label(S3R)	에어 튜브 라벨(S3R)	1	
N-32			Air Tube Label(S4R)	에어 튜브 라벨(S4R)	1	
N-33	22-020W-2516		Spring Washer	스프링 와셔	1	
N-34	22-021W-2516		Washer	와셔	1	
N-35	22A046S-811H		Ball Bearing	볼 베어링 (LME 12UU)	2	

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
O-1	44S055S-306H		Oil Tank Ass'y	오일 탱크(조)	1Set	
O-2	44S061S-306H		Oil Tank Rubber Cap	오일 탱크 고무마개	1	
O-3	SC-0202-2118		Screw (3/16" n=28)	캡나사	3	
O-4	10-020W-2700		Washer	와셔	3	
O-5	44S024S-306H		Crank Rod Lubrication Plate	크랭크 로트 급유판	1	
O-6	44S027S-306H		Felt	펠트	1	
O-7	SC-0548-4122		Screw (3/16" n=28)	캡나사	1	
O-8	44-0000-1230		Oil Wick	오일 유심	3	
O-9	44-012C-1230		Oil Hose	오일 호스	3	
O-10	44S032S-306H		Oil Hose Holder(L)	오일 호스 잡이(大)	3	
O-11	SC-0543-4525		Screw (11/64" n=40)	캡나사	6	
O-12	44S005S-306H		Oil Hose Holder(A)	오일 호스 잡이(A)	1	
O-13	44S034S-306H		Blance Lubrication Plate	밸런스 급유판	3	
O-14	44S035S-306H		Blance Lubrication Felt(F)	밸런스 급유판 펠트(전)	1	
O-15	44S037S-306H		Blance Lubrication Felt(M)	밸런스 급유판 펠트(중)	1	
O-16	44S038S-306H		Blance Lubrication Felt(R)	밸런스 급유판 펠트(후)	1	
O-17	SC-0340-4122		Screw (9/64" n=40)	캡나사	3	
O-18	44S010S-306H		Oil Hose Holder(B)	오일 호스잡이(B)	1	
O-19	SN-0115-4000		Nut (3/16" n=28)	너트	1	
O-20	44S013S-306H		Needle Bar Oil Wick Holder	바늘대 급유 유심 잡이	1	
O-21	40-004W-1600		Washer	와셔	1	
O-22	44S029S-306H		Needle Bar Crank Rod Lubrication Plate	바늘대 크랭크 로트 급유판	1	
O-23	44S007S-306H		Oil Return Felt(A)	환류 오일 펠트(A)	1	
O-24	44S031S-306H		Felt	펠트	1	
O-25	44S014S-306H		Needle Bar Oil Wick Holder(S)	바늘대 급유 유심 잡이(小)		
O-26	44S008S-306H		Arm Oil Return Felt	아암부 환류 펠트	1	
O-27	44S002S-306H		Arm Oil Return Felt Oil Hose	아암부 환류 펠트 오일 호스	1	
O-28	44S041S-306H		Oscillator Shaft Gear Lubrication Plate	요동축 기어 급유 판	1	
O-29	44S042S-306H		Oscillator Shaft Gear Lubrication Felt	요동축 기어 급유 펠트	1	
O-30	SC-0543-4325		Screw (11/64" n=40)	캡나사	1	
O-31	44-0000-1230		Shuttle Lubrication Wick	셔플 급유 유심	1	
O-32	44-012C-1230		Shuttle Lubrication Oil Hose	셔플 급유 오일 호스	1	
O-33	44S039S-306H		Bed Oil Return Felt	베드부 환류 펠트	1	
O-34	44S001S-306H		Bed Oil Return Felt Oil Hose	베드부 환류 펠트 오일 호스	1	
O-35	44S044S-306H		Shuttle Lubrication Plate	셔플 급유판	1	
O-36	44S046S-306H		Shuttle Lubrication Felt(L)	셔플 급유 펠트(大)	1	
O-37	06-033M-7400		Shuttle Lubrication Felt(S)	셔플 급유 펠트(小)	2	
O-38	44S052S-306H		Oil Window	유창	1	
O-39	44S053S-306H		Oil Gauge	오일 게이지	1	
O-40	44S054S-306H		Oil Window Rubber Ring	유창 고무링	1	
O-41	44A056S-811H		Bed Wick Holder	베드 유심잡이	1	
O-42	SC-0525-4122		Screw (11/64" n=40)	캡나사	1	
O-43	44-017C-1230			환류파이프잡이	1	

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
P-1	05A039S-811H		Urethane Hose (ø4)	우레탄 호스 (ø4)	-	
P-2	05A052S-811H		Urethane Hose (ø6)	우레탄 호스 (ø6)	-	
P-3	49A003S-811H		Pressure Gauge	압력 게이지	1	
P-4	49A004S-811H		Quick Joint Plug	퀵 조인트 플러그(조)	1Set	
P-5	49A005S-811H		Finger Valve	핑거 밸브	1	
P-6	49A006S-811H		Filter Regulator	필터 레귤레이터	1	
P-7	49A007S-811H		Air Pressure Switch	에어 프레스처 스위치	1	
P-8	49A008S-811H		Screw(M5×P0.8 l=10)	고정나사	2	
P-9	49A009S-811H		Nut(M5×P0.8 H=3.5)	너트	2	
P-10	10-010W-7507		Washer	와셔	2	
P-11	49A011S-811H		Tee	티	1	
P-12	01A143S-811H		Cable Tie	케이블 타이	5	
P-13	49A013S-811H		Plug A	플러그 A	1	
P-14	49A014S-811H		Elbow Union	엘보우 유니온	1	
P-15	49A015S-811H		Hose Nipple	호스 니플	3	
P-16	49A016S-811H		Quick Coupling	퀵 커플링	2	
P-17	49A017S-811H		Solenoid Valve	솔레노이드 밸브	2	
P-18	49-006S-2516		Screw (M3×L30)	고정나사	4	
P-19	49A019S-811H		Manifold Block	메니폴더 블록(SS5Y3-20-02)	1	
P-20	49A020S-811H		Silencer	소음기	2	
P-21	49A021S-811H		Plug B	플러그 B	2	
P-22	49A022S-811H		Air Tube Label	에어 튜브 라벨	2	
P-23	49A023S-811H		Pressure Decreasing Valve	감압밸브	1	
P-24	49A001S-811H		Speed Controller	스피드 컨트롤러	2	



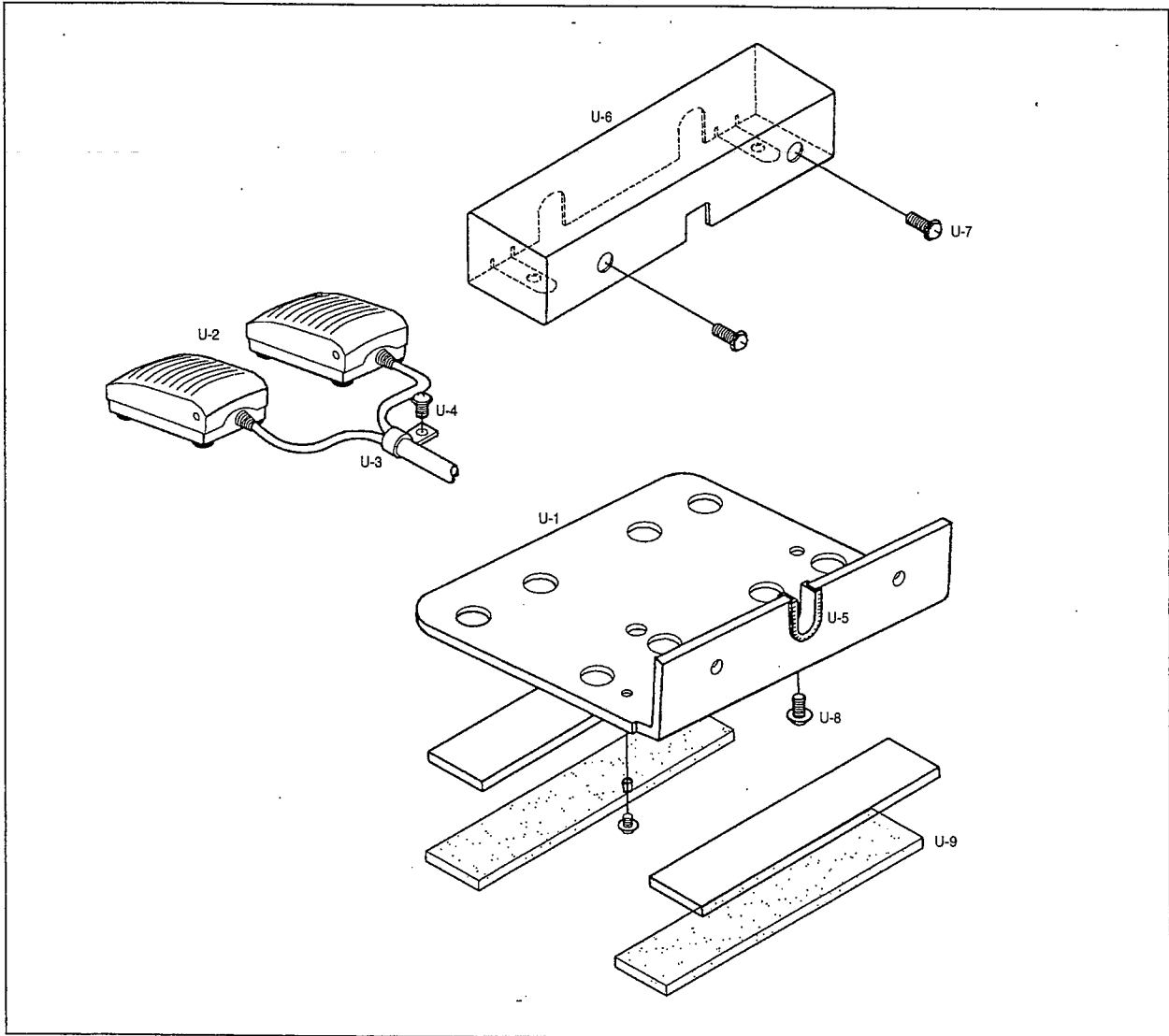
Ref. No.	Parts No.	Note.	Name of Parts	품 명	Q'ty	Assembly No.
Q-1	90-001A-2516		Table(L)	테이블(좌)	1	
Q-2	90-002A-2516		Table(R)	테이블(우)	1	
Q-3	90-003A-2516		Table Stand Ass'y	테이블 다리(조)	1Set	
Q-4	90S007S-306H		Oiler	오일 저장통	1	
Q-5	90-030C-2516		Oil Supporter	바디오일받이	1	
Q-6	18047SC-7113		Screw	고정나사	4	
Q-7	90A008S-811H		Case for Custody	보관대	1	
Q-8	90-009A-2516		Body	바디	1	
Q-9	90-010A-2516		Body Connecting Bolt	바디 연결 볼트	4	
Q-10	90-011A-2516		Washer	바디 연결 볼트 와셔	4	
Q-11	90-012A-2516		Spring Washer	바디 연결 볼트 스프링 와셔	4	
Q-12	90-013A-2516		Nut	바디 연결 너트	4	
Q-13	90-014A-2516		Body Side Cover	바디 측면 커버	2	
Q-14	90-015A-2516		Screw	고정나사	8	
Q-15	16010SC-8330		Table Connecting Screw	테이블 결합 목나사	8	
Q-16			Motor Pulley Cover Ass'y	모터 풀리 커버(조)	1Set	
Q-17	90S013S-306H		Bed Connecting Bolt	베드 결합 볼트	2	
Q-18	90S014S-306H		Washer	베드 결합 와셔	2	
Q-19	90A019S-811H		Gas Spring Ass'y	가스 스프링(조)	1Set	
Q-20	90A020S-811H		Gas Spring	가스 스프링	1	
Q-21	90A021S-811H		Bracket for Gas Spring	가스 스프링 받침	2	
Q-22	90A022S-811H		Upper Shaft for Gas Spring	가스 스프링 축(상)	1	
Q-23	90A023S-811H		Lower Shaft for Gas Spring	가스 스프링 축(하)	1	
Q-24	90A024S-811H		Bracket for Gas Spring Shaft	가스 스프링 축 브라켓	2	
Q-25	SC-0106-4111		Screw (15/64" n=28)	고정나사	4	
Q-26	90A026S-811H		Joint Ring A for Gas Spring	가스 스프링 연결링A	1	
Q-27	90A027S-811H		Joint Ring B for Gas Spring	가스 스프링 연결링B	2	
Q-28	06-003C-7400		E-Ring	E-링	4	
Q-29	SC-0107-2111		Screw (M4×1.0 L=14)	가스 스프링 받침 고정나사	2	
Q-30	SN-0102-2000		Nut (M6×1.0 H=5)	가스 스프링 받침 너트	2	
Q-31	90A032S-811H		Washer	가스 스프링 받침 와셔	2	
Q-32	90A033S-811H		Tapping Screw	탭핑 나사	4	
Q-33	90A034S-811H		Bracket for Frame Support	프레임지지 브라켓	1	
Q-34	90A035S-811H		Stopper for Frame Support Bracket	프레임지지 브라켓 스톱퍼	1	
Q-35	40-004W-1600		Washer	와셔	2	
Q-36	SC-0525-4122		Screw (11/64" n=40)	고정나사	2	
Q-37	90A038S-811H		Gas Spring Fixed Frame	가스 스프링 고정 프레임	1	
Q-38	90A039S-811H		Shaft for Gas Spring Fixed Frame	가스 스프링 고정 프레임 축	1	
Q-39	91-007A-2302		Thread Stand Ass'y	실폐꽃이(조)	1Set	
Q-40	90-025R-2516		Support Rubber for Bed(F)	베드받침고무(전)		
Q-41	90-026R-2516		Support Rubber for Bed(R)	베드받침고무(후)	1	
Q-42	90-027S-2516		Screw	고정나사	1	
Q-43	44-065C-5030		Oiler Holder	바디오일통 홀더	2	
Q-44	02015SC-473		Screw	고정나사	1	
Q-45	44-120C-1230		Hose for Oil Supporter	오일받이 호스	1	
Q-46	44-134C-5700		Nipple for Oil Supporter	바디기름받이 니플	1	
Q-47	45-0024-5030		Control Box Bracket	콘트롤박스 브라켓	1	
Q-48	08091SC-4113		Screw (M6×L20)	고정나사	14	
Q-49	16014SW-4115		Spring Washer	스프링와셔	14	
Q-50	18015SW-3113		Washer	평와셔	14	

Ref. No.	Parts No.	Note	Name of Parts	품명	Q'ty	Assembly No.
R-1	91-002C-1230		Driver(S)	드라이버(小)	1	
R-2	91-003C-1230		Driver(M)	드라이버(中)	1	
R-3	91-003C-1230		Driver(L)	드라이버(大)	1	
R-4	91-002C-3800		Spaner	스패너	1	
R-5	91-011C-1230		Oiler	오일 주유기	1	
R-6	07S026S-306H		Bobbin	보빈	2	
R-7	46S001S-306H		Floppy Disc	플로피 디스켓	1	
R-8	91-001C-2700		L-Shape Wrench	L-렌치(2mm)	1	
	91-004C-2700		L-Shape Wrench	L-렌치(2.5mm)	1	
	91-001C-3800		L-Shape Wrench	L-렌치(4mm)	1	
	91-002C-2700		L-Shape Wrench	L-렌치(5mm)	1	
R-9		Needle (DP×17 #18)	바늘			
R-10		Needle (DP×5 #14)	바늘			
R-11	91-029M-5030		Sponge	스폰지	1	
R-12	12-0146C-SC53		Fuse(1A 30mm)	퓨즈 (1A 30mm)	1	
	12-146C-PT10		Fuse(5A 30mm)	퓨즈 (5A 30mm)	1	
	05-002C-SW65		Fuse(10A 30mm)	퓨즈 (10A 30mm)	1	
	12-046C-SC53		Fuse(15A 30mm)	퓨즈 (15A 30mm)	1	
R-13	01A070S-811H		Handle	손잡이	1	
R-14	91-014C-2516		Plastic Blank	플라스틱 블랭크	1	
R-15	15089SC-8119		Screw (M4×L7)	캡나사	8	
R-16	01-022A-7500		Bracket for Upper Thread Supply	윗실 급유 펠트 잡이 브라켓	1	
R-17	01-024A-7500		Felt Holder for Upper Thread Supply	윗실 급유 펠트 잡이	1	
R-18	44-024M-7500		Felt for Upper Thread Supply	윗실 급유 펠트	1	
R-19	SC-0519-2120		Screw (9/64" n=40)	캡나사	1	
R-20	SC-0536-3125		Screw (3/32" n=56)	캡나사	2	
R-21	91-008C-1230		Bottle of Oil	오일통	1	
R-22	10S045S-306H		Fixed Mes	고정메스	1	
R-23	10S047S-306H		Moving Mes	동메스	1	
R-24	91-015H-2516		Head Cover	미싱커버	1	

Ref. No.	Parts No.	Note	Name of Parts	품 명	Q'ty	Assembly No.
S-1	10-001A-PT01		Control Box	컨트롤 박스	1	
S-2	10-001M-PT01		Bolt Control Box	컨트롤 박스 조임 볼트	6	
S-3	10-003S-SW66		Spring Washer Control Box	컨트롤 박스 조임 스프링 와셔	6	
S-4	10-004S-SW66		Flat Washer Control Box	컨트롤 박스 조임 평 와셔	6	
S-5	10-003S-PT01		Nut Control Box	컨트롤 박스 조임 너트	6	
S-6	10-002A-PT01		Front Cover Control Box	컨트롤 박스 전면 커버	1	
S-7	10-003M-PT01		Screw Control Box	전면 커버 조임 나사	4	
S-8	10-003A-PT01		Cover Control Box	컨트롤 박스 커버	1	
S-9	10-003M-PT01		Screw Cover	컨트롤 박스 커버 조임 나사	8	
S-10	02-006A-SW63		Floppy Disc Dirve	플로피 디스켓 드라이브	1	
S-11	02-010A-PT10		Barcket Floppy Disc Dirve	플로피 디스켓 브라켓	1	
S-12	10-003M-PT01		Screw Floppy Disc Dirve Bracket	플로피 디스켓 드라이브 브라켓 조임 나사	4	
S-13	10-019M-SW66		Screw Ass'y For Folppy Disc Drive (M3×0.5 L=10)	플로피 디스켓 조임 나사(조)	4	
S-14	10-109C-3710		Isolation Bushing	절연 부싱	4	
S-15	10-004M-PT01		Isolation Plate	절연판	2	
S-16	02-0000-PT02		Power P.C.B	파워보드	1	
S-17	07-004S-SM5S		Screw Ass'y For Power P.C.B	파워보드 조임 나사(조)	4	
S-18	09-046W-3701		Spring Washer Power P.C.B(M4)	파워 보드 조임 스프링 와셔	4	
S-19	27-009W-7507		Flat Washer Power P.C.B(M4)	파워 보드 조임 평 와셔	4	
S-20	10-004A-PT01		Transformer	트랜스 포머	1	
S-21	10-073S-3701		Screw Ass'y For Transformer (M5×0.8 L=109	트랜스 포머 조임 나사(조)	4	
S-22	01-0000-PT01		X-Y P.C.B	X, Y 보드	1	
S-23	07-004S-SM5S		Screw Ass'y For X-Y P.C.B	X, Y 보드 조임 나사(조)	4	
S-24	01-112B-PT01		Radiator X-Y P.C.B	X, Y P.C.B 방열판	1	
S-25	07-004S-SM5S		Screw Ass'y For Radiator X-Y	X, Y P.C.B 방열판 조임 나사(조)	4	
S-26	10-117A-PT01		Fan Ass'y	송풍기(조)	1Set	
S-27	10-118B-PT10		Fan Cover	송풍기 커버	1	
S-28	01-002M-AU12		Bolt Fan (M4×0.7 L=35)	송풍기 조임 볼트	4	
S-29	09-041S-3701		Nut Fan(M4)	송풍기 조임 너트	4	
S-30	02-0000-PS00		P.C.B Main Driving	주축 보드	1	
S-31	10-028S-SC53		Screw Ass'y For Main Driving P.C.B (M3×0.5 L=7)	주축 보드 조임 볼트(조)	5	
S-32	10-104A-PT10		Radiator Main	주축 방열판	1	
S-33	07-004S-SM5S		Screw Ass'y For Main Drivng Radiator	주축 방열판 조임 나사(조)	4	
S-34	01-019M-SW67		Stud Main Driving P.C.B (M3 L=15)	주축 보드 스테드	2	
S-35	10-003M-PT10		Screw IPM (M4×0.7 L=20)	IPM 조임 나사(조)	2	
S-36	09-046W-3701		Spring Washer IPM (M4)	IPM 조임 스프링 와셔	2	
S-37	27-009W-7507		Flat Washer IPM (M4)	IPM 조임 평 와셔	2	
S-38	10-003M-PT10		Screw Bridge Diode	브릿지 다이오드 조임 나사(조)	1	
S-39	03-0000-PT03		I/O P.C.B	I/O 보드	1	
S-40	10-028S-SC53		Screw I/O P.C.B	I/O 보드 조임 나사(조)	6	
S-41	10-011M-PT10		Stud "A" I/O P.C.B (M3 L=37)	I/O 보드 스테드 "A"	4	
S-42			Stud I/O P.C.B (M3 L=42)	I/O 보드 스테드 (조)	1Set	
S-43	02-006A-PT10		CPU P.C.B	CPU 보드	1	
S-44	08-002M-SW67		Stud CPU P.C.B (M3 L=10)	CPU 보드 스테드	4	
S-45	10-003B-PT10		Connecting Plate I/O & CPU	I/O, CPU 연결판	1	
S-46	10-003M-PT10		Screw Connecting Plate	I/O, CPU 연결판 조임나사	4	
S-47	10-005M-PT10		Isolation Bushing "A"	절연부싱 "A"	4	
S-48	10-006M-PT10		Isolation Bushing "B"	절연부싱 "B"	4	
S-49	10-006A-PT10		Washer Connecting Plate	I/O, CPU 연결판 조임 와셔	4	
S-50	02-001B-SW67		Cover CPU P.C.B	CPU, P.C.B 커버	1	
S-51	07-004S-SM5S		Screw Ass'y For CPU P.C.B Cover	CPU, P.C.B 커버 조임 나사(조)	2	
S-52	10-008A-PT10		Cover Connectors	컨넥터 커버	1	
S-53	07-004S-SM5S		Screw Ass'y For Connectors Cover	컨넥터 커버 조임 나사(조)	4	
S-54	10-006S-PT10		Sticker Caution	고전압 위험 스티커	1	
S-55	10-007S-PT10		Sticker Replacing Filter	필터 교환 스티커	1	
S-56	10-008S-PT10		Sticker Earth	어스 스티커	1	

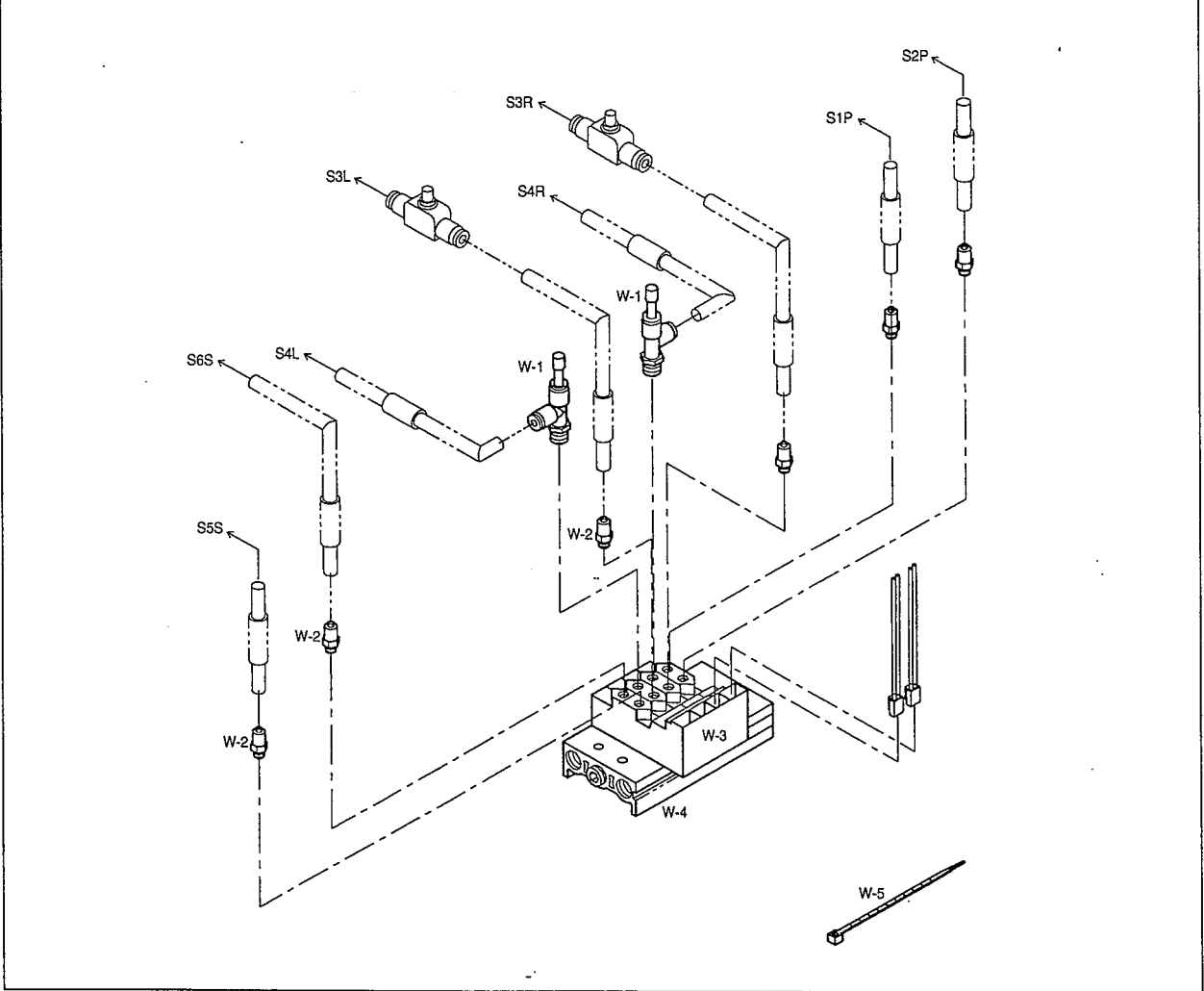


Pedal Mechanism
페달 관계



Ref. No.	Parts No.	Note	Name of Parts	품명	Q'ty	Assembly No.
U-1	11-001A-PT10		Base Foot Switch	입식 페달 베이스	1	
U-2	11-0000-PT10		Foot Switch Ass'y	입식 (조)	1Set	
U-3	08-015C-3701		Clamp Cable	케이블 잠이	2	
U-4	09-031S-3701		Screw Clamping Cable Ass'y (M4×0.7 L=8)	케이블 잠이 조임나사(조)	1	
U-5	11-001S-PT10		Ending Bushing	엔딩 부싱	1	
U-6	11-003A-PT10		Cover Foot Switch	입식 페달 베이스 커버	1	
U-7	07-004S-SM5S		Screw Ass'y For "A" Foot Switch Cover (M4×0.7 L=8)	입식 페달 베이스 커버 조임나사(조) "A"	2	
U-8	10-028S-SC53		Screw Ass'y For "B" Foot Switch Cover (M3×0.5 L=8)	입식 페달 베이스 커버 조임나사(조) "B"	2	
U-9	11-002M-PT10		Sponge	스폰지	2	

2 Pneumatic Mechanism / 공압관계



Ref. No.	Parts No.	Note	Name of Parts	품명	Q'ty	Assembly No.
W-1	49A023S-811H		Pressure Decreasing Valve	감압밸브	1	
W-2	49A015S-811H		Hose Nipple	호스 니플	5	
W-3	49A017S-811H	변경품목	Solenoid Valve	솔레노이드 밸브	3	
W-4	50A048S-81H1		Manifold Block	메니폴드 블록 (SS5Y3-20-03)	1	
W-5	49A012S-811H		Cable Tie	케이블 타이	8	

수정 리스트
 Changed Parts List

No.	Ref. No.	Parts No.	Name of Parts	Contents	Date	Old Parts No.	Remarks
21	V-13	50-016A-2516	Lower Feed Plate	Substitution	02. 2	50-013A-2516	
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