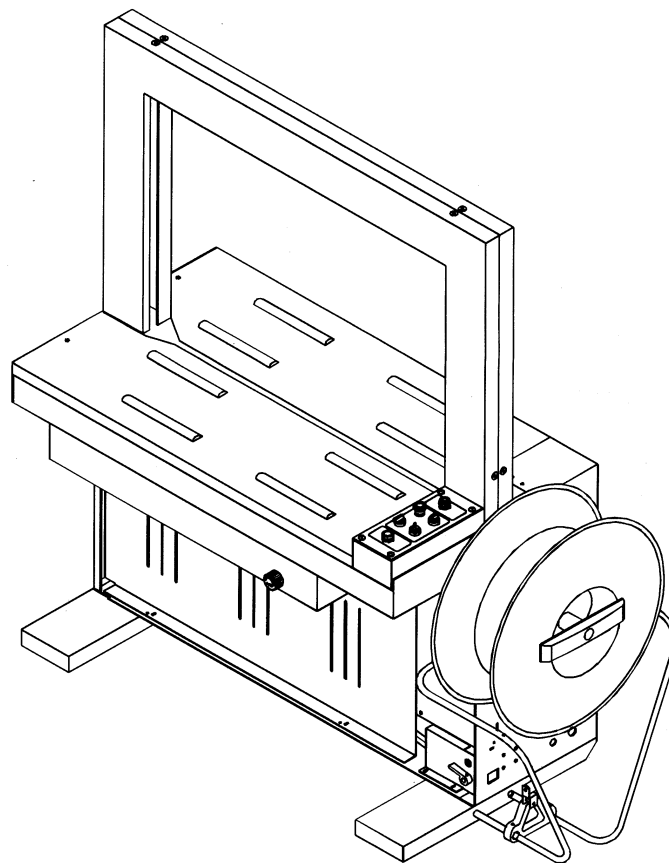


DBA – 200

Instruction manual and part list



Automatic Strapping Machine

Rev. Mar. 2002.

PREFACE

Your patronage in the purchase of our automatic strapping machine is greatly appreciated.

Our automatic strapping machine is reliably and solidly built, extremely simple and easy to operate and to maintain. You can solve even a little minor troubles of the machine by manual without any technical assistance.

You are kindly requested to read this manual thoroughly prior to your use of the machine for far better efficiency in operations.

It is our pleasure to serve you, and we are at your disposal for further service to you, with thanks and best regards,

Yours sincerely,

TABLE OF CONTENTS

PART 1 - for Operator..... 5

1. General instructions.....	6
1-1. Application.....	6
1-2. Installation.....	6
1-3. Transportation and Storage.....	7
2. Specifications.....	8
2-1. Technical data.....	8
2-2. Specifications.....	9
3. Structure and Function.....	10
4. Operating.....	11
4-1. Caution before Operating.....	11
4-2. Operating Order.....	11
4-3. Operating Elements.....	12
4-4. Strap Coil Insertion.....	13
5. Adjustment.....	14
5-1. Strapping Tension.....	14
5-2. Strap Length in Pool Box.....	14
5-3. Feed and Reverse Time.....	15
5-4. Heater Temperature.....	15
5-5. Strap Thickness Clearance.....	16
5-6. Movement of Sealing Head Unit.....	16
6. Troubleshooting.....	18
7. Maintenance.....	22

PART 2 - for Service Man/Qualified Person Only..... 23

1. Schematic Electric Diagram.....	24
2. Generals of Part List.....	31
3. Structure of Units.....	32
4. Part List.....	33
A. Sealing Head Unit.....	33
A-1. Cam Group.....	34
A-1-1. Cam Assembly	
A-2. Slide Table Group.....	38
A-2-1. Strap Guide Arm Assembly	
A-2-2. Strap Guide Spring Assembly	
A-2-3. Short Feed Assembly (Option)	

A-3. Press Group.....	44
A-3-1. RH Block Arm Assembly	
A-3-2. Center Block Arm Assembly	
A-3-3. LH Block Arm As	
A-4. Heater Group.....	49
A-4-1. Heater Set	
A-4-2. Heater Crank set	
A-5. Sealing Head Frame Group.....	52
A-6. Tension Group.....	54
A-6-1. Tension Arm Assembly	
A-6-2. Tension Jaw Set	
A-6-3. Tension Adjuster Cam Assembly	
A-6-4. Tension Adjuster Set	
A-6-5. Tension Adjuster Arm Set	
A-7. Feed Group.....	61
A-7-1. Feed Assembly	
A-7-2. Weight Adjuster Set	
B. Arch Unit.....	67
B-1. Strapway Group.....	68
B-1-1. RH Strapway Assembly	
B-1-2. LH Strapway Assembly	
B-2. Arch Unit.....	72
B-2-1. Arch Assembly	
C. Pool Unit.....	77
C-1. Pool Feed Group.....	78
C-1-1. Pool Feed Assembly	
C-2. Pool Box Group.....	82
D. Reel Unit.....	85
D-1. Reel Group.....	86
D-1-1. Free Angle Bracket Holder Assembly	
D-2. Reel Brake Group.....	88
D-2-1. Brake Belt Assembly	
D-2-2. Free Slide Roller Set	
E. Body Unit.....	93
E-1. Body Group.....	94
E-1-1. Upper Table Front Set	
E-1-2. Upper Table Rear Set	
F. Electric Control Unit.....	99
F-1. Electric Group.....	100
F-1-1. Operation Panel Assembly	
F-2. PCB Control Group.....	105

PART 1

Instructions for Operator

- 1. General Instructions**
- 2. Specifications**
- 3. Structure and Function**
- 4. Operating**
- 5. Adjustment**
- 6. Troubleshooting**
- 7. Maintenance**

1. GENERAL INSTRUCTIONS

1-1. Application

This is used for automatic strapping by polypropylene strap (Coil of machine grade). The size of things to be strapped is limited to the Arch inner size (Standard size : 850mm wide × 600mm high). The things be strapped must not be wet, dusty, powdered or too heavy (max. load 100kgs). Nevertheless, should you need to strap such kinds of things, please contact us.

We recommend the use of straps having following specifications ;

Raw materials	: Polypropylene
Fixed width	: max. +/- 1.0mm
Twist	: max. 60 degree angle per meter
Camber	: max. 50mm per meter
Coil width	: min. 180mm to max. 230mm
Coil core I.D	: min. 200mm to max. 406mm (fixed but adjustable)

When the machine is delivered, parts for a strap width are fixed.

Optional accessories for different strap width are available upon request, but you should contact us when you need to change the width of the strap.

1-2. Installation

The machine must be installed near a power source on a dry, plain and hard floor.

The location should meet the following conditions :

Room temperature	: -20℃ to +50℃
Floor	: max. load 350kgs/square meter
Space	: min. 2m × 1.5m

Check if the machine can be connected to an existing power source.

Its power supply must correspond to the one marked on the side of the machine.

Once the machine has installed, make sure it cannot get out of the place.

1. GENERAL INSTRUCTIONS



- If the machine is not properly installed according to our instructions, serious problems or accidents may be caused.*
- The approved plug must be connected to the end of the power cord, and the receptacle of power source should have protective bonding circuit.*

1-3. Transportation and Storage

If the machine is being transported a long distance or stored for a long time, it must be packaged in a wooden case or hard cardboard box and fixed onto a strong pallet.

Insert a moisture absorbent into the package and spray the inner moving parts of the Machine body with an anti-rust agent.

Do not tip over the machine during transportation or storage.

Do not place anything heavy on top of the wooden case or cardboard box.

After a long transport or a long storage time, we recommend checking all moving parts manually before connecting the machine to the power source in order to avoid overload in electric devices.

Standard accessories come with the machine when shipped out ;

- Tools	1 set
- Arch flap spring	5 pcs
- Tension jaw spring	1 pc
- Tension adjust arm spring	1 pc
- Brake tension arm spring	1 pc
- All other kind of spring (1pc each)	1 set
- Heater plate	1 pc
- Instruction manual and part list	1 copy

2. SPECIFICATIONS

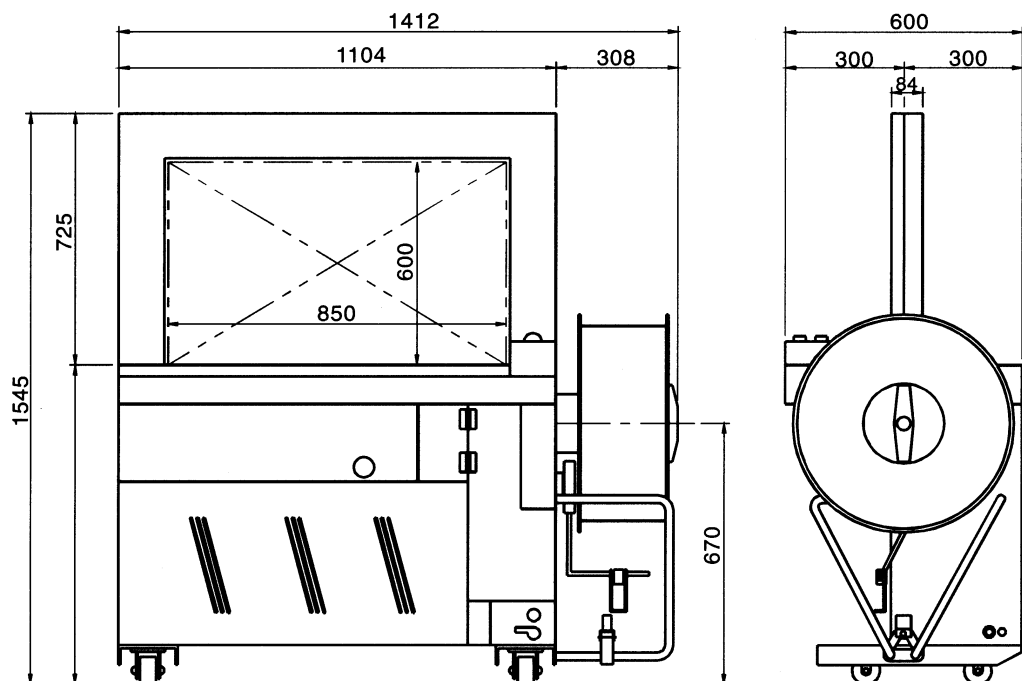
2-1. Technical Data

Approvals ; GS, TUV

Standards or Normative Documents ; *IEC60264-1 : 1991*

prEN415 : 12. 1990

prEN1010 : 02. 1993



2. SPECIFICATIONS

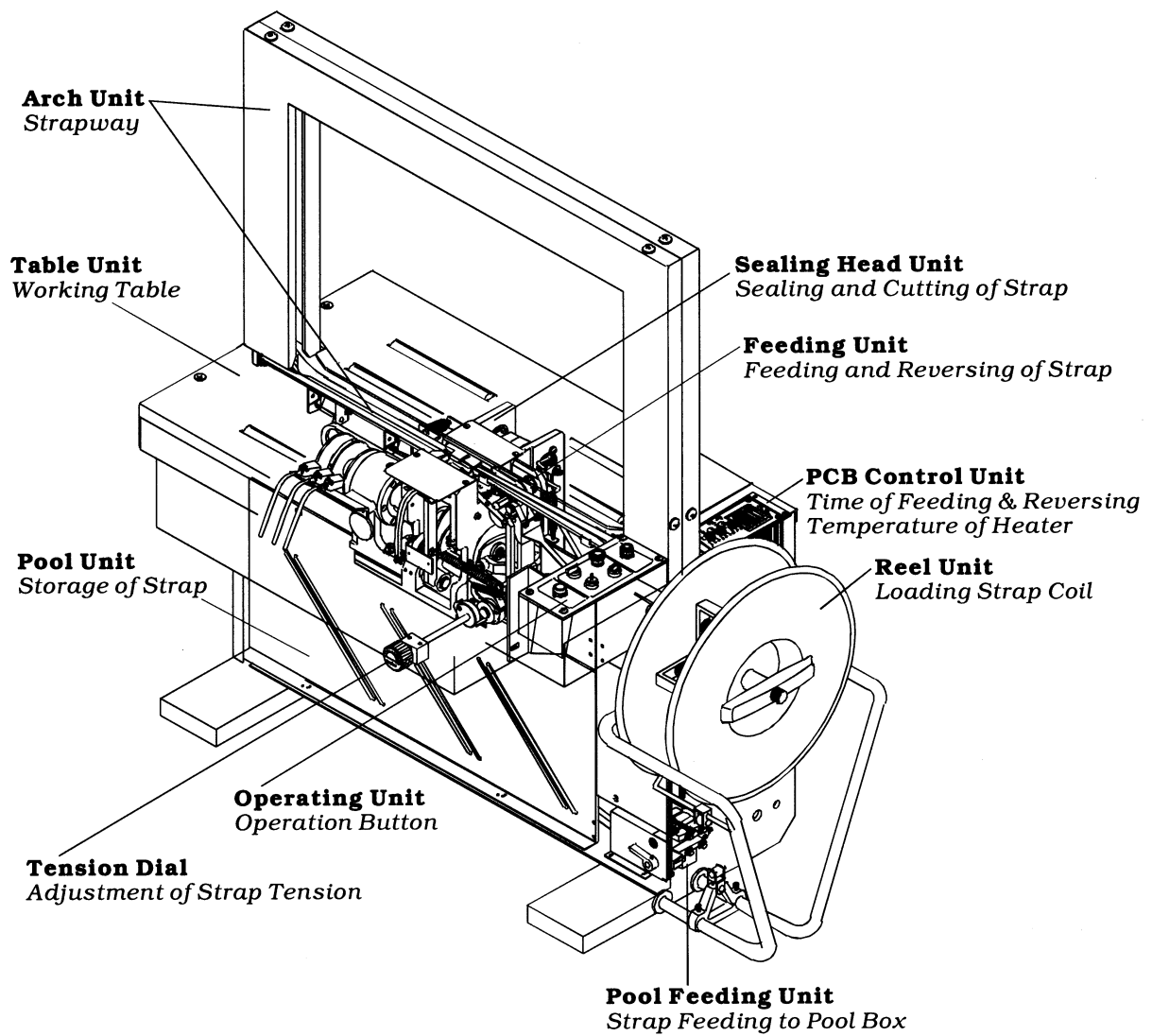
2-2. Specifications*

Dimensions**	: 1412mm W × 600mm L × 1545mm H
Net weight**	: 215kgs
Shipping weight**	: 250kgs
Strap width	: 6, 8, 9, 10, 12, 12.7, 15.5, 18, 19mm
Strap dispenser	: coil core ID. 200, 230, 280, 406mm adjustable coil width 190 - 230mm
Strapping speed**	: 26times/min
Package size	: min. 100mm W × 30mm H. max. as arch inner size
Sealing method	: heat-melt
Strapping tension strength	: min. 5kgs, max. 80kgs
Power consumption	: 3Phase, 200V-240V/380V-480V, 50Hz/60Hz 1Phase, 100V-120V/200V-240V, 50Hz/60Hz
To be specified when order	: Arch size, Strap width, Power supply, Strap core ID
Option	: Short feed sensor, Top table switch, Automatic feeding device

Note : * Subject to change without notice

** Standard arch : 850mm W × 600mm H

3. STRUCTURE & FUNCTION



4. OPERATING

4-1. Caution before Operating



Make sure to connect the power source same as one marked on the side of the machine. Check if the using strap width is met the inner width of the RH Strapway between front and rear tables.



Check if the direction of motor rotation is clockwise. You can see the right direction by the circle arrow marked on the Pool Feed Roller of Pool Feed Unit. If it becomes necessary to change the electric outlet socket or the power cord connector, also check the direction.



When the strap is inserted in Reel Unit, the rotating direction is clockwise as the marked arrow. When the strap is fed into the Pool Feed Shooter and Feed Upper Roller, inside surface of the strap must be downward. The tip of wound strap on the coil is downward, and its nature is used in the design of the machine. Incorrect feeding may cause error.

4-2. Preparation before Operating

1. Connect the power cord to correct power source, and turn on the machine to check the direction of motor rotation.
2. Turn off machine, and load the strap coil on the Reel Unit, checking the direction of the tip of the strap.
3. Feed the strap into the Pool Feed Shooter, making sure the inner surface of the strap is downward, pass through Pool Boxes, and also thread it into Feed Upper Roller through Tension Arm Assy.
4. Turn on machine, then Pool Feed Motor is automatically run and adequate length of straps stored in the Pool Box.
5. Turn the Strap Feed Switch to the left until the strap end reaches the sealing point in the middle of top tables through strapways in the Arch Unit.
6. Put the things to be strapped on the sealing point, and wait for about 30 sec. until the heater warms up to the proper temperature (approx. 200℃)
7. Adjust the Tension Dial for necessary tension force. Normal tension force 4 - 5.
8. Push the Start Button for strapping. Foot Pedal Switch can be also used for operation. When you need to use it, connect it to the receptacle on the side of the machine.

4. OPERATING

4-3. Operating Elements

1. Main Power Switch

OFF - position " O "

Power supply disconnected.

ON - Position " I "

machine is switched on
the heater is being heated up
but not yet completely ready for operation.

2. Power Lamp

It is steadily lighted when the Main Power Switch is on.

3. Reset Button (Option : for Short Feed Sensor)

For the machine equipped with Short Feed Sensor, to reset, push this button, holding the tip of strap, to get rid of strap incompletely fed, in case that strap does not reach to the end.

4. Operating Ready Lamp Button

ON - Push the button, then the lamp is lighted and the machine is ready for operation.

OFF - Machine is not ready, when the front door is opened, or Emergency stop button is pushed.

FLICKER - For the machine equipped with Short Feed Sensor, it flickers in case that strap does not reach to the end. In that case, Start Button does not work.

5. Emergency Stop Button

In case of emergency, Push the button, then the machine stops.

6. Start Button

Push the button for machine operation. (Selector Switch position - Hand).

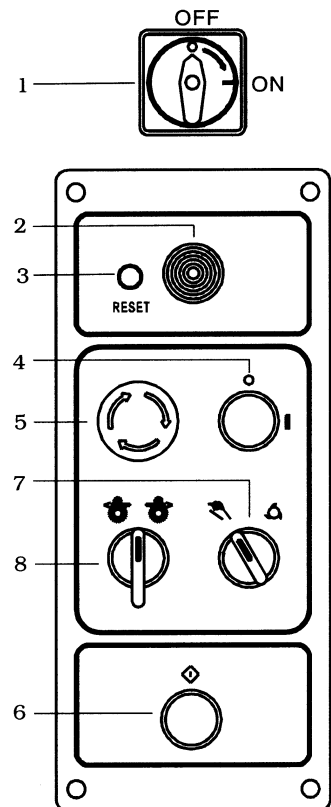
7. Manual/Auto selector Switch (Option : for Ball Switch)

The Selector Switch is for Ball Switch(Option) on the top of the table.

When the Selector switch is placed to the position "AUTO", the machine will automatically strap if the package is placed on the table and passes the Arch, (if the packages placed on same position, the strapping operation will be continued.) When the Selector Switch is placed to the position "HAND", place the package under the Arch and push the Start Button for operation.

8. Strap Feed Switch

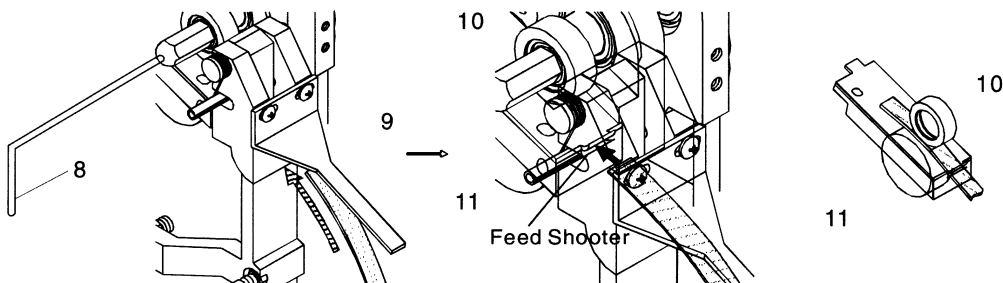
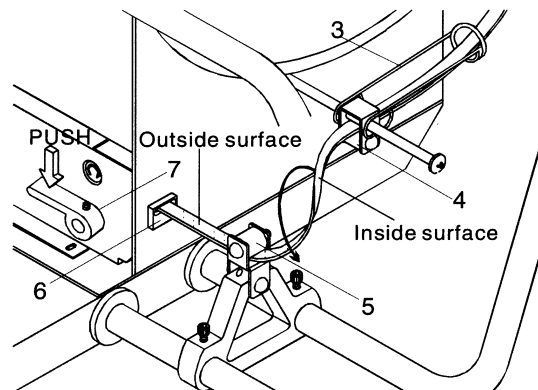
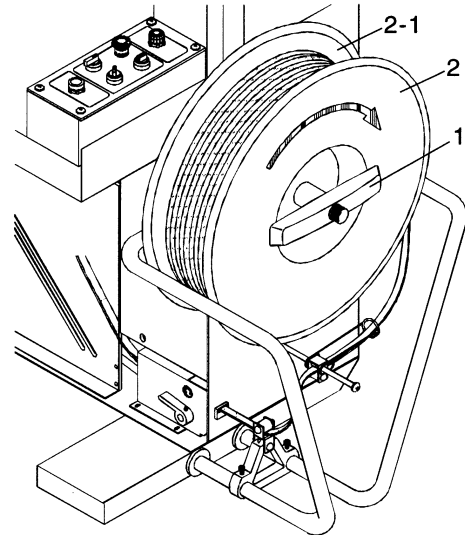
After the strap is fed and the Operating Ready Switch is on, turn the switch counter clockwise to feed strap into the arch unit. When the switch is turned clockwise the strap reverses and returns to Pool Box from the Arch track. Keep turning the switch counter clockwise in the forward direction until the strap reaches the stopper.



4. OPERATING

4 - 4. Strap Coil Insertion

1. Place a strap coil on the reel bracket between reels as the arrow direction as indicated on the Reel In-Circular (2-1). After placing the coil, put the Reel Out Circular (2) on the strap coil and tighten the Reel Nut Handle (1).
2. Thread the tip of the strap into the Strap Guide Rollers (4) after insertion through the Strap Regulator (3). After that, twist the strap so that the inside surface of the strap turns out downward and outside surface touches the roller. pass the strap through the Free Angle Roller (5).
3. push the knob (7) downward and insert the strap into the Pool Feed Shooter (6). Pull out about 1 m of the strap and insert it into the narrow passage between Pool Boxes.
4. Open the door on the Pool Box, and turn the upper roller grip (8) counter-clockwise, While pushing the tip of the strap under the Strap Cover (9). Then the strap will go between the Feed Upper Roller (10) and the Feed Roller (11).

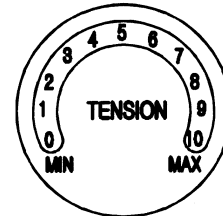


Ensure that the main power switch is turned off during the strap coil insertion. Also make sure that the inside surface of the strap must be downward of the machine when fed into the Pool feed shooter (6).

5. ADJUSTMENT

5-1. Strap Tension

The tension dial is used to adjust the tension strength strapping. The range of strapping tension is 0 to 10, so that an operator can choose the adequate strapping tension for a package. Normally, the dial position 4 or 5 is suitable for strapping of cardboard box.



5-2. Strap Length in Pool Box

Adequate length of the strap must be stored in the pool box for easy and smooth feeding into the strapway units. The machine has been already set for the adequate length (about 1.5 times than total length of strapways and arch). If a different quality or thickness of strap is fed, it should be adjusted.

1. Insufficient length

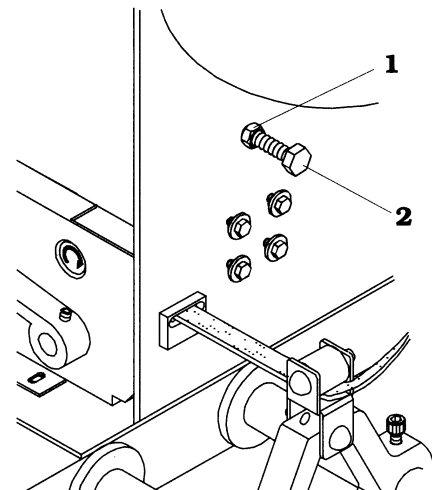
It may cause error in feeding strap.

Loosen the 8mm nut (1) on the stopper plate and pull out the pool adjust pin (2) outward by turning it counterclockwise until the adequate length is stored. After that, fasten the nut (1).

2. Excessive length

It may cause error by entangled or bent strap.

Loosen the nut (1) and turn the pin (2) clockwise.



5. ADJUSTMENT

5-3. Feed and Reverse time

When the strap is fed from the pool box to strapways and arch and reversed from them to the pool box, rotating time of feeding motor (M2) should be adjusted by timers (T1 and T2 on PCB Control box).

5-3-1. Feed Time (T2)

This timer (T2) determines the time necessary for feeding the strap. The timer dial is "0" to "10" (0.0 to 1.0 sec.), and should be adjusted by the arch size. The standard arch (850mm × 600mm) needs for about 0.4 sec., position at "4".

If the time is short, the strap may not reach the stopper at the sealing point, that causes an error.

5-3-2. Reverse Time (T1)

This timer (T1) determines the time necessary for reversing the strap. It should be adjusted depending on difference between sizes of arch and package.

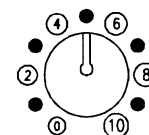
If the time is too short, no proper strapping tension may be occurred. Set the timer gradually higher or lower for properly reversing length of the strap.

5-3-3. Extension Time (Option: for Delay)

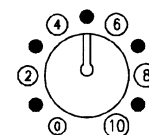
1. This timer is used for adjustment of cooling time (press time) after heat melting both straps.
2. Make the time longer for hard package and high tension.

5-4. Heater Temperature

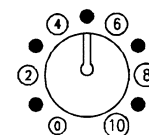
Set the heater set volume at the position of 4 to 5 in normal room temperature. If the heater temperature is too high or low, it causes an error or weak sealing force. Turn the heater set volume gradually higher or lower and select the temperature to get the best sealing force.



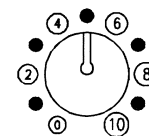
EXT. TIME



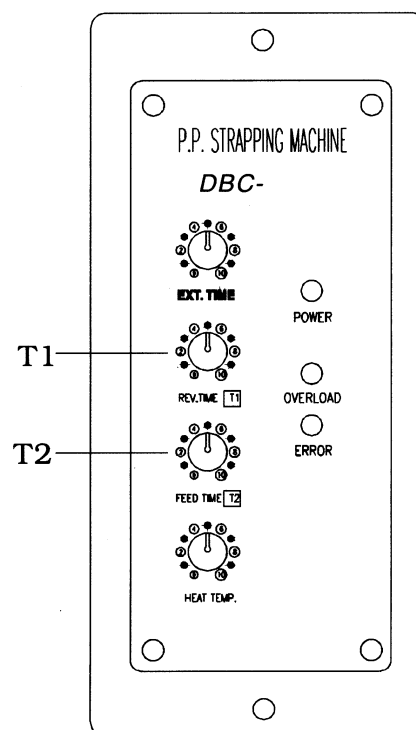
REV. TIME T1



FEED TIME T2



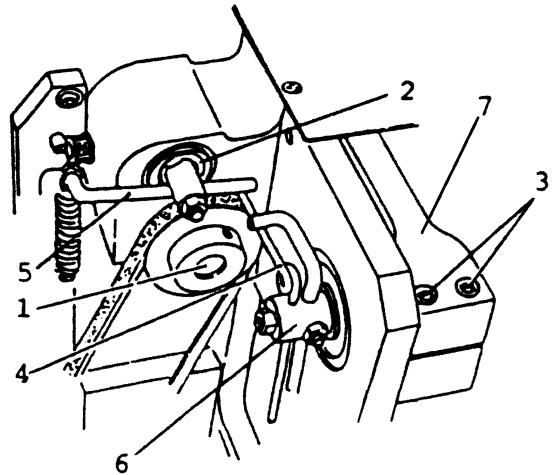
HEAT TEMP.



5. ADJUSTMENT

5-5. Strap Thickness Clearance

When the clearance is not correctly adjusted, feeding and reversing become irregular. This mechanism is very important. If thicker or thinner strap is used, following adjustment is needed.

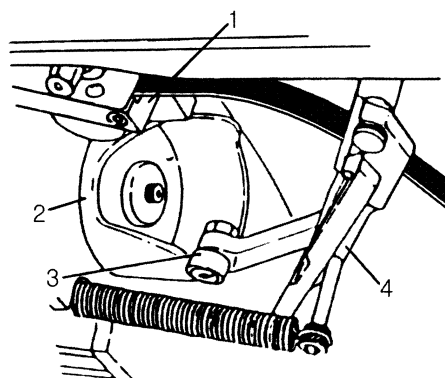
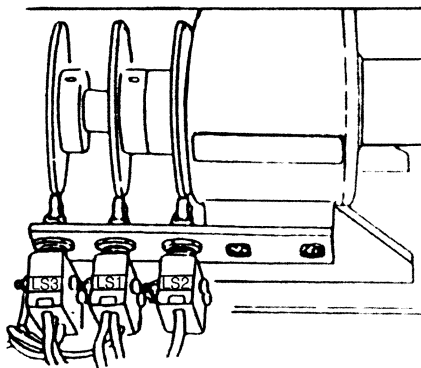


1. Make the sealing head unit returned to its original position by pressing Start Button.
2. Insert the strap between the feed roller (1) and the feed upper roller (2).
3. Loosen two bolts (3) fixing RH Block Arm (7) on Press Arm Shaft (6). Then the press arm shaft (6) moves easily by hand.
4. Make the space between Upper Roller Spring (4) and Weight Adjuster Spring Hook (5) in the way that twofold strap can manage to enter into between them.
The normal clearance is approximately 1 mm.
5. Tighten the bolts (3), taking care of not moving the press arm shaft (6).

5-6. Movement of Sealing Head Unit

The position of each part of sealing head unit is set up by the limit switch contactors on Limit Switch Cams, that make Limit Switches 1, 2 and 3 worked.

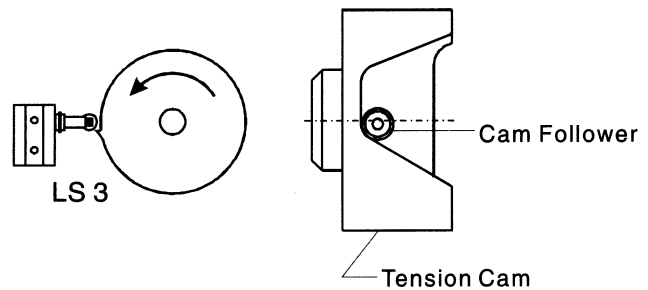
Exactly contacting position is very important since wrong positions cause an error in operating.



1. Feed Shooter
2. Tension Cam
3. Cam Follower
4. Tension Arm

5. ADJUSTMENT

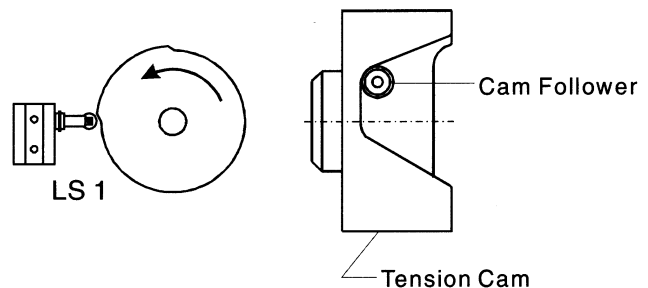
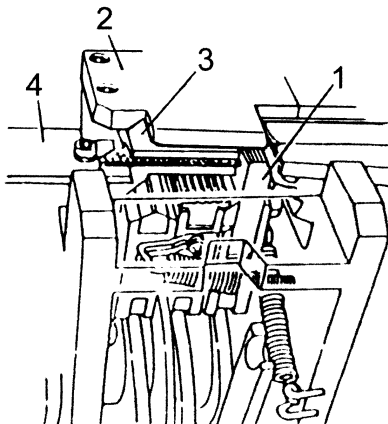
1. Limit Switch 3 (LS3) sets up the original position of Sealing Head Unit just before starting operation, at the same time when a cycle operation is completely finished, and adjusted by the limit switch contactor on Limit Switch Cam 3, that makes all motor stopped.



Limit Switch Contact Position

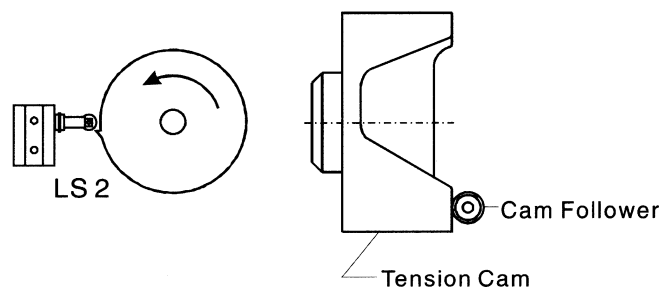
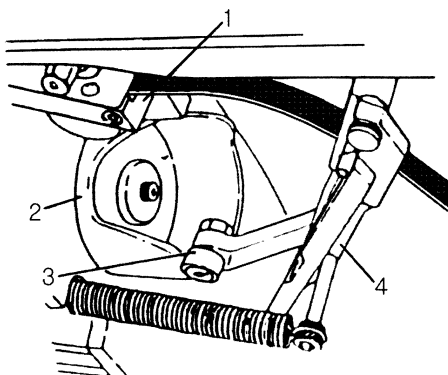
2. Limit Switch 1 (LS1) makes the sealing head unit stopped and the strap reversed while contacted by the limit switch cam 1.

In the sealing head unit, then, the RH press unit (1) goes up to the top and tightly hold the strap by pressing bottom of the slide table (2). The strap guide (3) moves backward and LH strapway flap (4) is completely opened. The correct position is that the cam follower is placed at the position just before it starts rising on the top of the tension cam.



Limit Switch Contact Position

3. Limit Switch 2 (LS2) makes M2 motor worked to feed the strap into strapway units. The cam follower starts to go down on top of the tension cam. If the contactor lately contacts the switch, strap may be jammed between the tension arm (4) and the feed shooter (1), that causes an error.



Limit Switch Contact Position

6. TROUBLESHOOTING

TROUBLE -----	CAUSE -----	REMEDY -----
Machine does not work		
Power lamp is off :	- Loose receptacle, connector or power cord - Fuse is blown or out of place	Check power supply and connecting devices Change fuse or supply it
Power lamp is on :	- Pool motor (M3) worked more than 5 sec. (Pool Box Error Lamp is on.) - Insufficient contact or break-down of Stop Switch - Insufficient contact or break-down of Start Switch - Damaged Belt of motor M1, and/or motor M2, or loosened set screw of its pulley	Turn off the operating ready switch and turn it on again Right connection or change the switch Right connection or change the switch Change the belt or fix the pulley
Machine works		
Strap is not feeding :	- Incorrect insertion of strap coil - Strap is threaded incorrectly - Limit Switch LS2 improperly works (malfunction) - Too short time of T2 timer - Belt of motor M2 or set screw of pulley is loosened	Insert it correctly Thread it correctly Check the position for proper contact Check the timer for proper time Make it tightly
Strap doesn't go to sealing point :	- Improper Brake Belt Assy on Reel Unit - Strap is caught in between strap coil and reel plate	Check it for proper function Remove it and correctly put it inside both Reels

6. TROUBLESHOOTING

TROUBLE -----	CAUSE -----	REMEDY -----
Machine works		
Strap doesn't go to sealing point :	- Cuttings or dusts on the upper roller - Tension Jaw doesn't return to its original position - Strap Guide is not positioned at original position - Weak force of Weight Adjuster Set - Tension Arm doesn't at all make Strap tightened - The tip of strap is split after cut because of Cutter Upper and Cutter Lower - Length of strap in the Pool box is too short	Clean them Check the tension jaw spring for return Make it at original position Make the weight adjuster spring enough strong force Check the tension adjuster set Check the tension adjuster set Adjust the length for about 1.5 times than the arch size
Strap feeding doesn't stop :	- Flaps of strapways or arch do not return completely to its proper position - Too much time of the timer T2	Correct them to be returned properly Proper setting of the timer
Strap is not properly pulled in reverse :	- Improper contact of Limit Switch LS2 - Loosen Belt of motor M2 or set screw of its pulley	Check position for proper contact Make it tightly
Strap is insufficiently pulled back from the arch :	- Short time of the timer T1 - Upper Shaft Spring doesn't touch Spring Hook	Increase the time Adjust it to touch

6. TROUBLESHOOTING

TROUBLE -----	CAUSE -----	REMEDY -----
Machine works		
Strap is pulled out from the Arch:	- More time of the T2 - The spring force of the weight adjuster set is too strong - The arch flaps don't return to original position but opened	- Reduce it properly - Adjust it properly - Adjust the arch spring force or change
Strap runs away at sealing place :	- Strap doesn't reach the stopper of Strap Guide - Cutter Upper is not positioned at the highest position when strap is fed - Heater temperature is too high - Improper tensioning for solid or soft package	- Check the strap guide assy - Check the limit switch cam for correct position - Lower the heater temperature - Adjust the tension dial
Heater temperature doesn't rise :	- Lower position of the heater temperature volume dial - Improper tensioning for solid or soft package	- Higher it for proper temperature - Adjust the tension dial
Heater temperature rise but proper sealing is not done :	- Improper angle of heater plate - Lack of pressure on press Group - Insufficient movement of heater plate	- Correct the angle - Check the group for enough force - Check the heater crank spring force

6. TROUBLESHOOTING

PCB Control Panel

POWER

Lamp is lighted while the main power switch is turned on.

OVERLOAD

1. OVER CURRENT TRIP

Lamp is lighted in case of overload in motor M1, M2, M3, or Heater, since it is due to moment overload caused by high starting torque of motors.

2. MOTOR OVERLOAD

Lamp is lighted when the over current trip continues for about 5 sec continuously. To reset, turn the main power switch off and on after check motors M1, M2 & M3.

ERROR

1. POOL BOX ERROR

Lamp is lighted when the pool feed motor M3 runs more than 7 sec. by contacting the limit switch LS4. That prevents the motor from overload when the motor continuously runs if the pool box is out of strap or the limit switch is out of order. To reset, turn the main power switch off and on after check the limit switch.

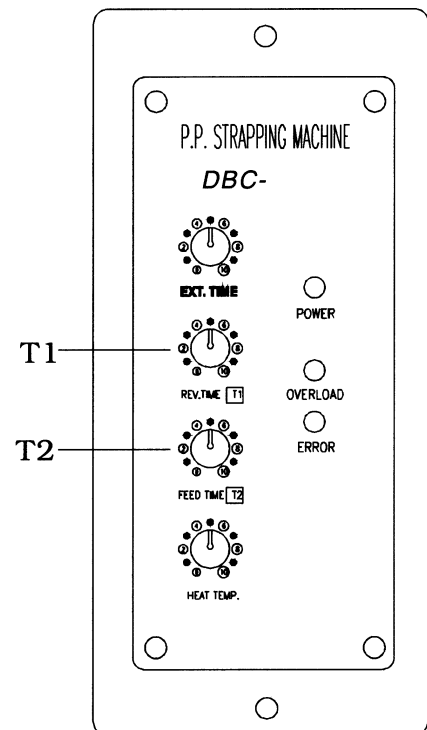
2. CONTROL ERROR

Lamp is lighted when the limit switch LS3 is activated for longer than 5 sec. even if a cycle operation is completed within about 2.4 sec.(standard arch). To reset, turn the main power switch off and on after check the limit switch.

○
POWER

○
OVERLOAD

○
ERROR



7. MAINTENANCE



- Do not forget to turn off the Main Power Switch when it becomes necessary to perform maintenance work and to insert or change the Strap Coil.



- Do not forget to turn off the Main Power Switch if the machine is not in use and/or whenever the operator leaves the machine surrounding.



- Keep away from the heater located under the heater cover and the slide table, when it is interchanged, until it has completely cooled after turn off the main power switch. Its max. temperature approx. 500 °C and normal workable temperature 280~300 °C.

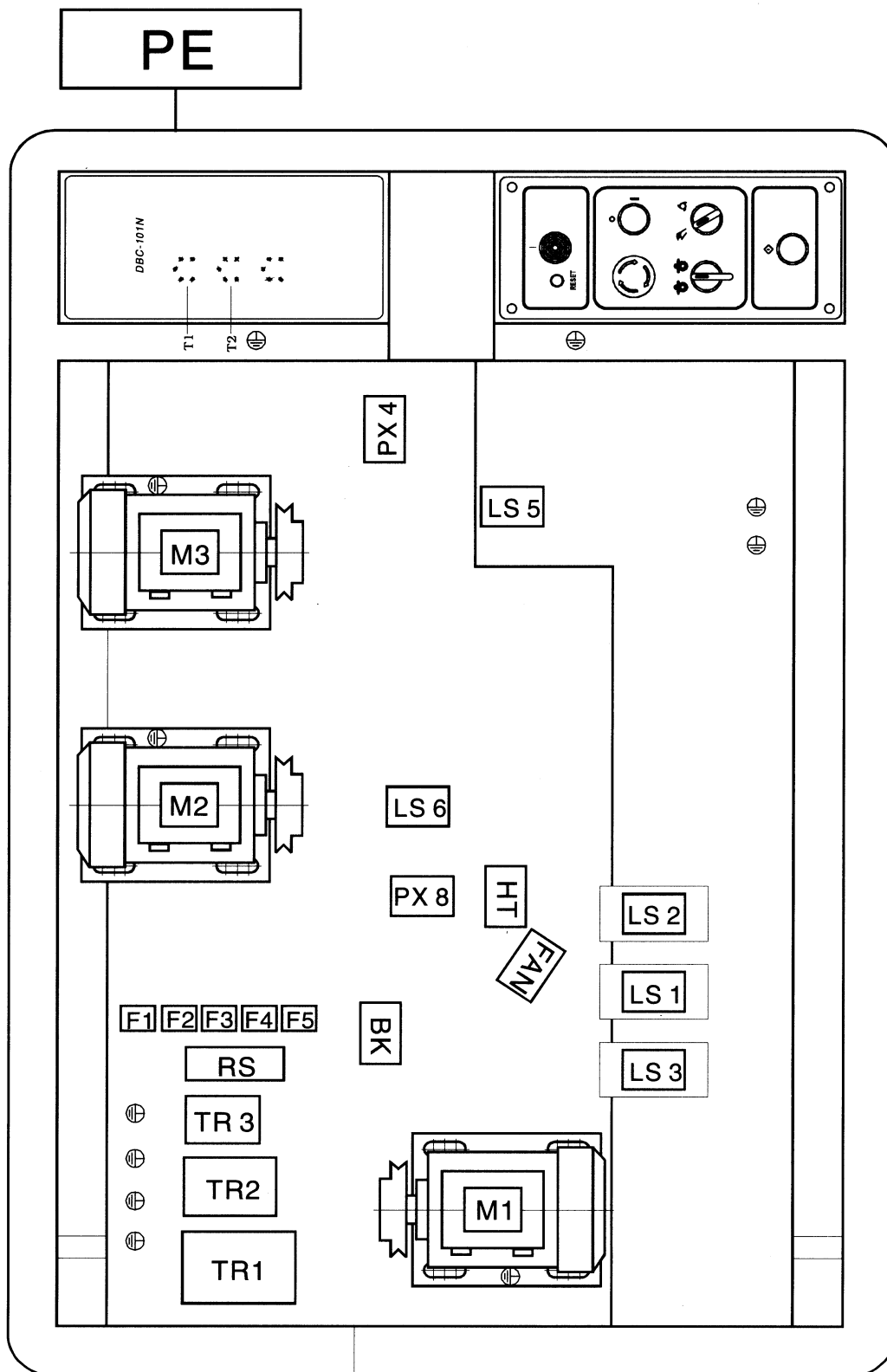
1. If the machine is not in use for a prolonged period of time, pull the strap out of the pool box and wind it back onto the strap coil. This will prevent the strap from becoming bent that may cause an error.
2. If a different strap width is necessary for strapping, use the conversion kit of the strap width, sold as an optional accessory.
3. If it become necessary to change the electrical outlet receptacle or the power cord connector, check direction of motor M3 rotation.
4. Do keep the machine clean at all times. Periodically clean dirt and dusts from the sealing unit and its vicinity as well as the heater plate for long life of the machine.

PART 2

for Service Man/Qualified Person Only

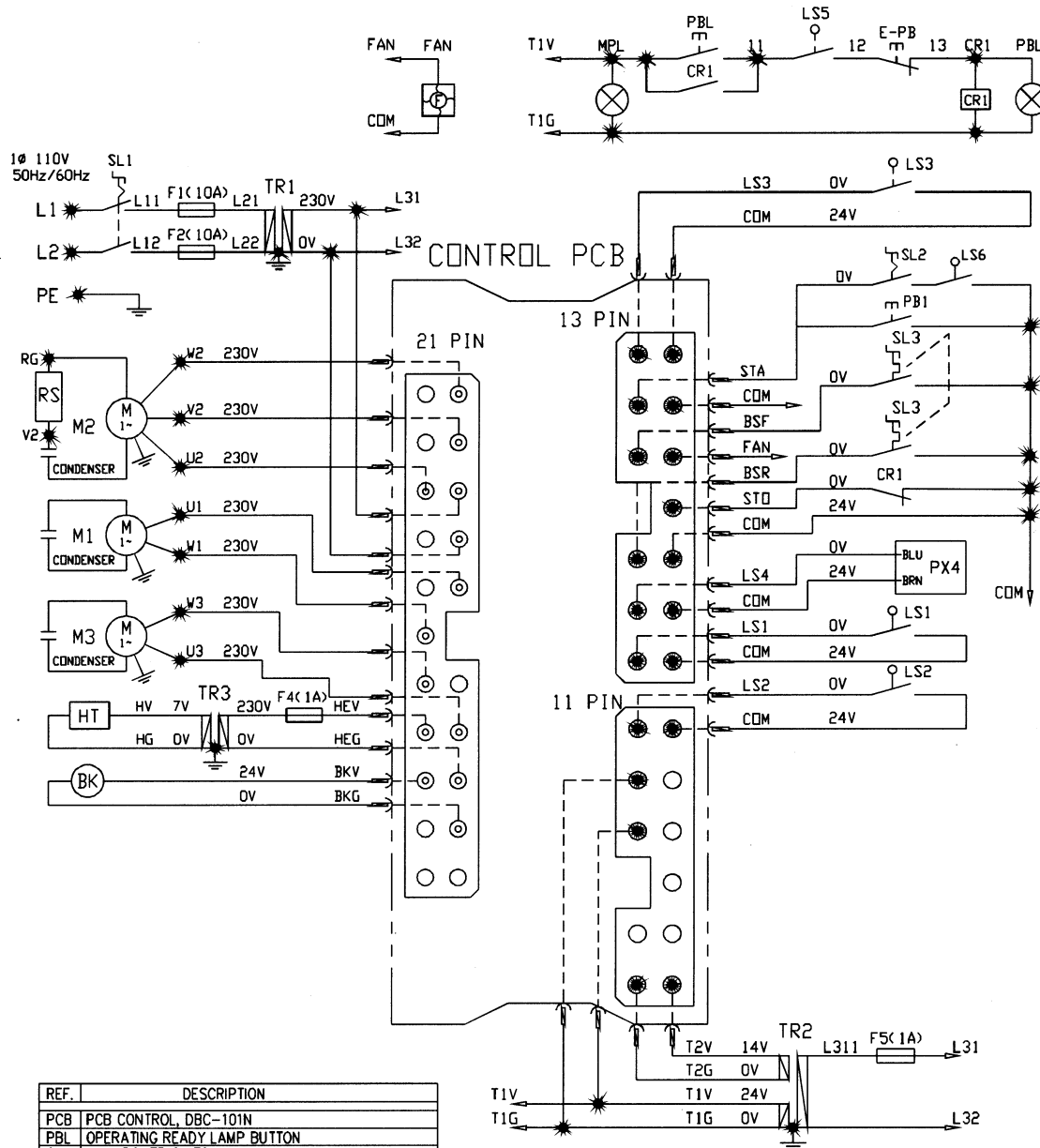
- 1. Schematic Electric Diagram**
- 2. Generals of Part List**
- 3. Structure of Units**
- 4. Part List**

1. SCHEMATIC ELECTRIC DIAGRAM



1. SCHEMATIC ELECTRIC DIAGRAM

■ For 101N & 101ND (1 phase & 1 phase, delay)



REF.	DESCRIPTION
PCB	PCB CONTROL, DBC-101N
PBL	OPERATING READY LAMP BUTTON
SL1	MAIN POWER SWITCH
SL2	MANUAL/AUTO SELECTOR SWITCH(OPTION)
SL3	STRAP FEED SWITCH
E-PB	EMERGENCY STOP BUTTON
LS1	LIMIT SWITCH FOR STRAP REVERSE
LS2	LIMIT SWITCH FOR STRAP FEED
LS3	LIMIT SWITCH FOR 1 CYCLE STOP
PX4	PROXIMITY SENSOR FOR POOL ERROR
LS5	LIMIT SWITCH FOR DOOR
LS6	LIMIT SWITCH FOR BALL SWITCH(OPTION)
M1	SEALING HEAD MOTOR 0.37KW/0.44KW
M2	FEED MOTOR 0.18KW/0.22KW
M3	POOL FEED MOTOR 0.18KW/0.22KW
TR1	MAIN POWER TRANSFORMER 380/400V-230V 1KVA
TR2	PCB CONTROL TRANSFORMER 230V-24V,14V 25VA
TR3	HEATER TRANSFORMER 230V-7V 150VA
HT	HEATER 150W
CR	RELAY DC24V
MPL	POWER LAMP

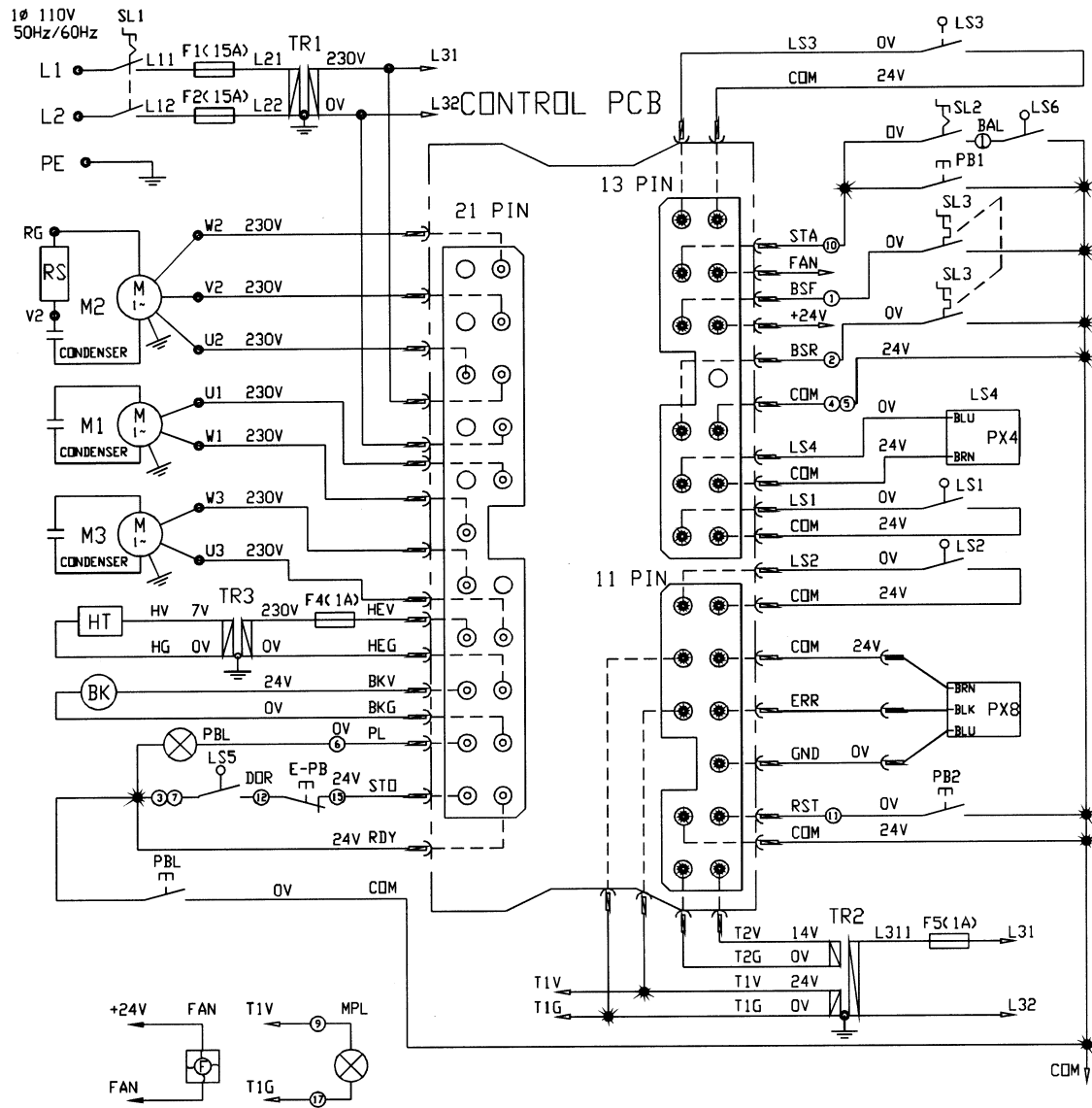
NOTE : IF POWER 230V

1. TR1 IS DELETED & F1,F2 IS 6.3A

RS	RESISTOR 5 Ω 50W
BK	MAGNET BRAKE DC 24V
F1	GLASS TUBE FUSE 10A
F2	GLASS TUBE FUSE 10A
F4	GLASS TUBE FUSE 1A
F5	GLASS TUBE FUSE 1A

1. SCHEMATIC ELECTRIC DIAGRAM

■ For 101S & 101SD (1 phase, short feed & 1 phase, short feed, delay)



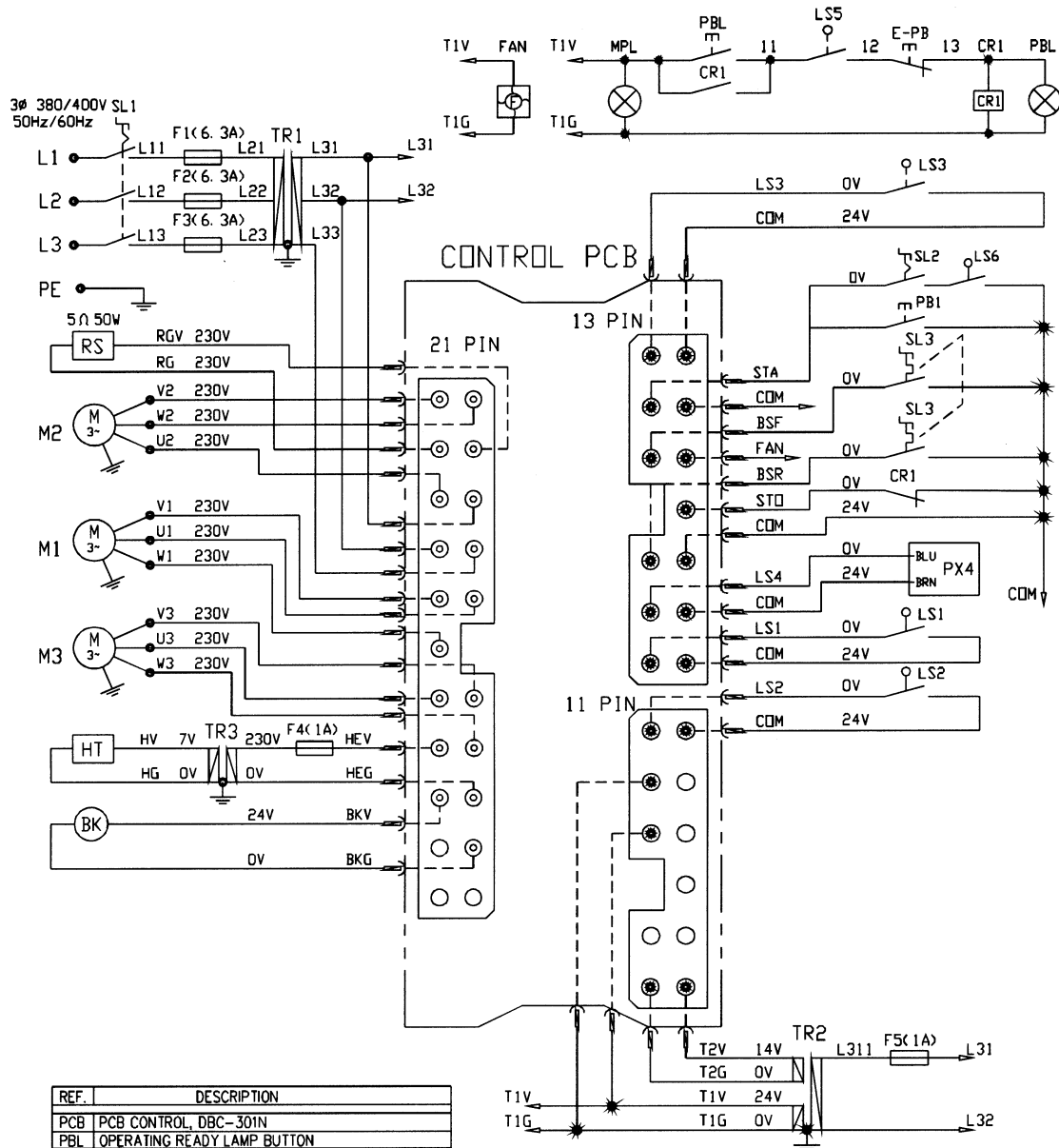
NOTE : IF POWER 230V
1. TR1 IS DELETED
2. F1, F2 ID 6.3A

REF.	DESCRIPTION
PCB	PCB CONTROL, DBC-101S
PBL	OPERATING READY LAMP BUTTON
PB1	START BUTTON
PB2	RESET BUTTON
SL1	MAIN POWER SWITCH
SL2	MANUAL/AUTO SELECTOR SWITCH (OPTION)
SL3	STRAP FEED SWITCH
E-PB	EMERGENCY STOP BUTTON
LS1	LIMIT SWITCH FOR STRAP REVERSE
LS2	LIMIT SWITCH FOR STRAP FEED
LS3	LIMIT SWITCH FOR 1 CYCLE STOP
PX4	PROXIMITY SENSOR FOR POOL ERROR
LS5	LIMIT SWITCH FOR DOOR
LS6	LIMIT SWITCH FOR BALL SWITCH (OPTION)
M1	SEALING HEAD MOTOR 0.37KW/0.44KW
M2	FEED MOTOR 0.18KW/0.21KW
M3	POOL FEED MOTOR 0.18KW/0.21KW
TR1	MAIN POWER TRANSFORMER 110V-230V 1KVA
TR2	PCB CONTROL TRANSFORMER 230V-24V 14V 25VA
TR3	HEATER TRANSFORMER 230V-7V 150VA
HT	HEATER 150W

MPL	POWER LAMP
RS	RESISTOR 5 Ω 50W
BK	MAGNET BRAKE DC 24V
F1	GLASS TUBE FUSE 15A
F2	GLASS TUBE FUSE 15A
F4	GLASS TUBE FUSE 1A
F5	GLASS TUBE FUSE 1A
PX8	PROXIMITY SENSOR FOR FEED ERROR

1. SCHEMATIC ELECTIRC DIAGRAM

■ For 301N & 301ND (3 phase & 3 phase, delay)

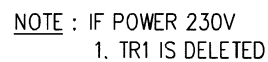


REF.	DESCRIPTION
PCB	PCB CONTROL, DBC-301N
PBL	OPERATING READY LAMP BUTTON
SL1	MAIN POWER SWITCH
SL2	MANUAL/AUTO SELECTOR SWITCH(OPTION)
SL3	STRAP FEED SWITCH
E-PB	EMERGENCY STOP BUTTON
LS1	LIMIT SWITCH FOR STRAP REVERSE
LS2	LIMIT SWITCH FOR STRAP FEED
LS3	LIMIT SWITCH FOR 1 CYCLE STOP
PX4	PROXIMITY SENSOR FOR POOL ERROR
LS5	LIMIT SWITCH FOR DOOR
LS6	LIMIT SWITCH FOR BALL SWITCH(OPTION)
M1	SEALING HEAD MOTOR 0.25KW/0.28KW
M2	FEED MOTOR 0.18KW/0.22KW
M3	POOL FEED MOTOR 0.18KW/0.22KW
TR1	MAIN POWER TRANSFORMER 380/400V-230V 1KVA
TR2	PCB CONTROL TRANSFORMER 230V-24V,14V 25VA
TR3	HEATER TRANSFORMER 230V-7V 150VA
HT	HEATER 150W
CR	RELAY DC24V
MPL	POWER LAMP

NOTE : IF POWER 230V
1. TR1 IS DELETED

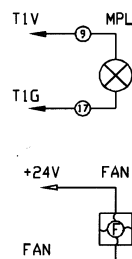
RS	RESISTOR 5 Ω 50W
BK	MAGNET BRAKE DC 24V
F1	GLASS TUBE FUSE 6.3A
F2	GLASS TUBE FUSE 6.3A
F3	GLASS TUBE FUSE 6.3A
F4	GLASS TUBE FUSE 1A
F5	GLASS TUBE FUSE 1A

■ For 301S & 301SD (3 phase, short feed & 3 phase, short feed, delay)



RS	RESISTOR 5 Ω 50W
BK	MAGNET BRAKE DC 24V
F1	GLASS TUBE FUSE 6.3A
F2	GLASS TUBE FUSE 6.3A
F3	GLASS TUBE FUSE 6.3A
F4	GLASS TUBE FUSE 1A
F5	GLASS TUBE FUSE 1A
PX8	PROXIMITY SENSOR FOR FEED ERROR

■ For 6mm 101S & 101SD (1 phase, short feed & 1 phase, short feed, delay)

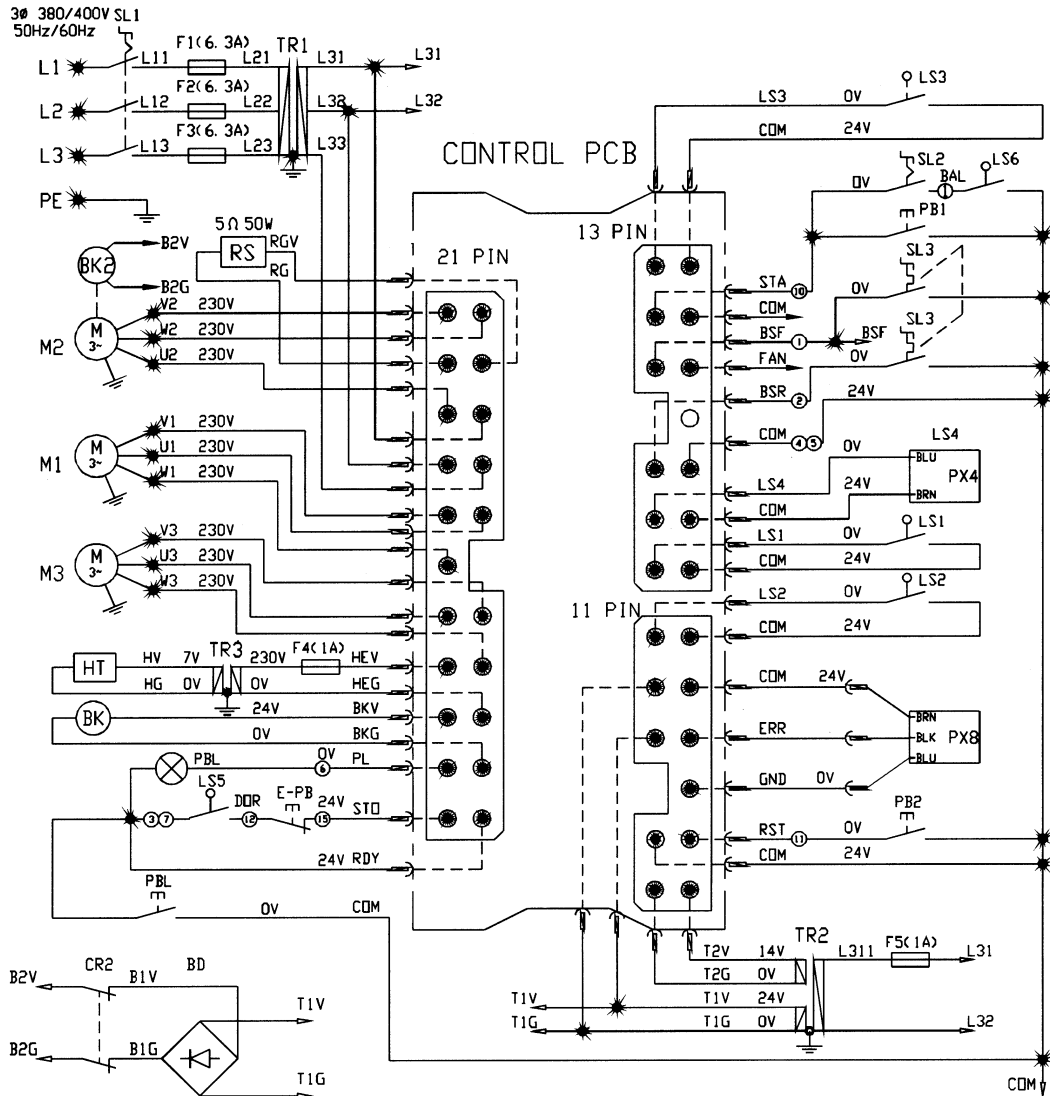


2. F1, F2 ID 6.3A

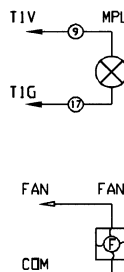
MPL	MAIN POWER LAMP
RS	RESISTOR 5 Ω 50W
BK	MAGNET BRAKE DC 24V
BK2	MAGNET BRAKE AC 220V
F1	GLASS TUBE FUSE 15A
F2	GLASS TUBE FUSE 15A
F4	GLASS TUBE FUSE 1A
F5	GLASS TUBE FUSE 1A
PX8	PROXIMITY SENSOR FOR FEED ERROR
BD	BRIDGE DIODE

1. SCHEMATIC ELECTRIC DIAGRAM

■ For 6mm 301S & 301SD (3 phase, short feed & 3 phase, short feed, delay)



REF.	DESCRIPTION
PCB	CONTROL PCB, DBC-301S
PBL	OPERATING READY LAMP BUTTON
PB1	START BUTTON
PB2	RESET SWITCH
SL1	MAIN POWER SWITCH
SL2	HAND/AUTO SELECTOR SWITCH (OPTION)
SL3	STRAP FEED SWITCH
E-PB	EMERGENCY STOP BUTTON
LS1	LIMIT SWITCH FOR STRAP REVERSE
LS2	LIMIT SWITCH FOR STRAP FEED
LS3	LIMIT SWITCH FOR 1 CYCLE STOP
PX4	PROXIMITY SENSOR FOR POOL ERROR
LS4	LIMIT SWITCH FOR DOOR
LS5	LIMIT SWITCH FOR BALL SWITCH (OPTION)
M1	SEALING HEAD MOTOR 1/2HP
M2	FEED MOTOR 1/4HP
M3	POOL FEED MOTOR 1/4HP
TR1	MAIN POWER TRANSFORMER 380/400V-230V 1KVA
TR2	PCB CONTROL TRANSFORMER 230V-24V, 14V 25VA
TR3	HEATER TRANSFORMER 230V-7V 150VA
HT	HEATER 150W



NOTE : IF POWER 230V
1. TR1 IS DELETED

RS	RESISTOR 5 Ω 50W
BK	MAGNET BRAKE DC 24V
BK2	MAGNET BRAKE AC 220V
F1	GLASS TUBE FUSE 6.3A
F2	GLASS TUBE FUSE 6.3A
F3	GLASS TUBE FUSE 6.3A
F4	GLASS TUBE FUSE 1A
F5	GLASS TUBE FUSE 1A
PX8	PROXIMITY SENSOR FOR FEED ERROR
BD	BRIDGE DIODE

2. GENERALS OF PART LIST

All the structure and parts are shown by own part number and description, and the part number is designated as follows ;

The part number is consisted of 2 kinds of 6 or more digit numbers, **00A-0000-000** and **AA-0000**

1 2 3 - 4 5 6 7 - 8 9 10

1. Model is shown in 1 2 " 2" : DBA-200

2. Alphabet in 3 shows Unit.

"A" : Sealing Head Unit

"B" : Arch Unit

"C" : Pool Unit

"D" : Reel Unit

"E" : Body Unit

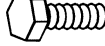
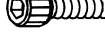
"F" : Electric Unit

"G" to "L" : Classification of Parts purchasable in the market

3. 4 ~ 10 shows different part numbers.

AA-0000

First and second alphabets are abbreviations of followings, third and fourth digit numbers are diameter, and fifth and last ones length.

	"PS" : Pan - head Screw		"SS" : Socket Headless Screw
	"TS" : Truss - head Screw		"HN" : Hexagon Nut
	"FS" : Flat - head Screw		"PW" : Plane Washer
	"HB" : Hexagon Bolt		"SW" : Spring Washer
	"SH" : Socket Head Bolt		"PN" : Pushing Nut

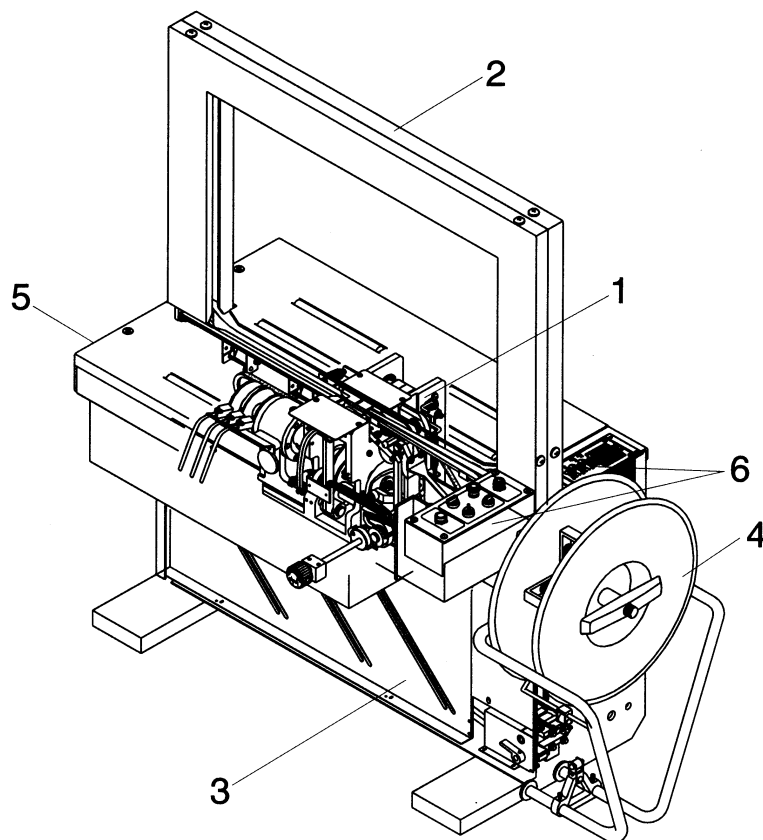
When ordering the items marked *('s), following additional information must be provided.

* : Strap Width

* * : Arch Size

* * * : Power Supply

3. STRUCTURE OF UNITS

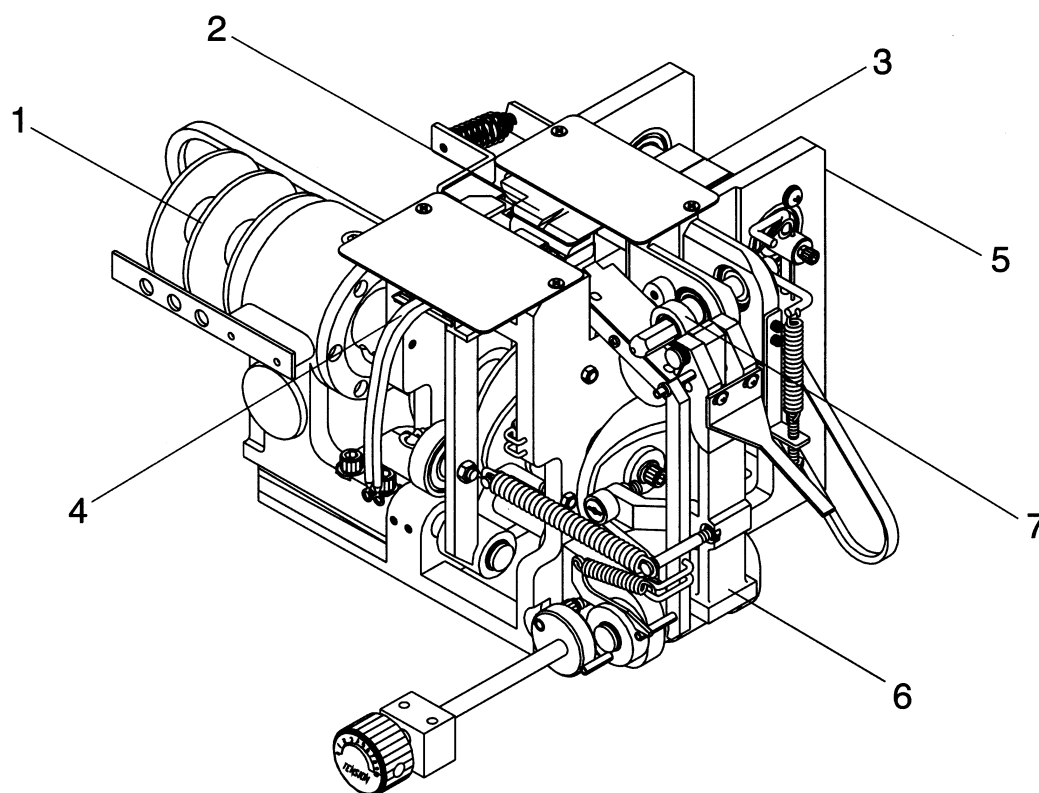


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-0000	Sealing Head Unit *	1	See page 33
2	2B-0000	Arch Unit *, **	1	See page 67
3	2C-0000	Pool Unit *	1	See page 77
4	2D-0000	Reel Unit *	1	See page 85
5	2E-0000	Body Unit **	1	See page 93
6	2F-0000	Electric Control Unit*, ***	1	See page 99

4. PART LIST

Sealing head unit

A. SEALING HEAD UNIT (2A-0000)

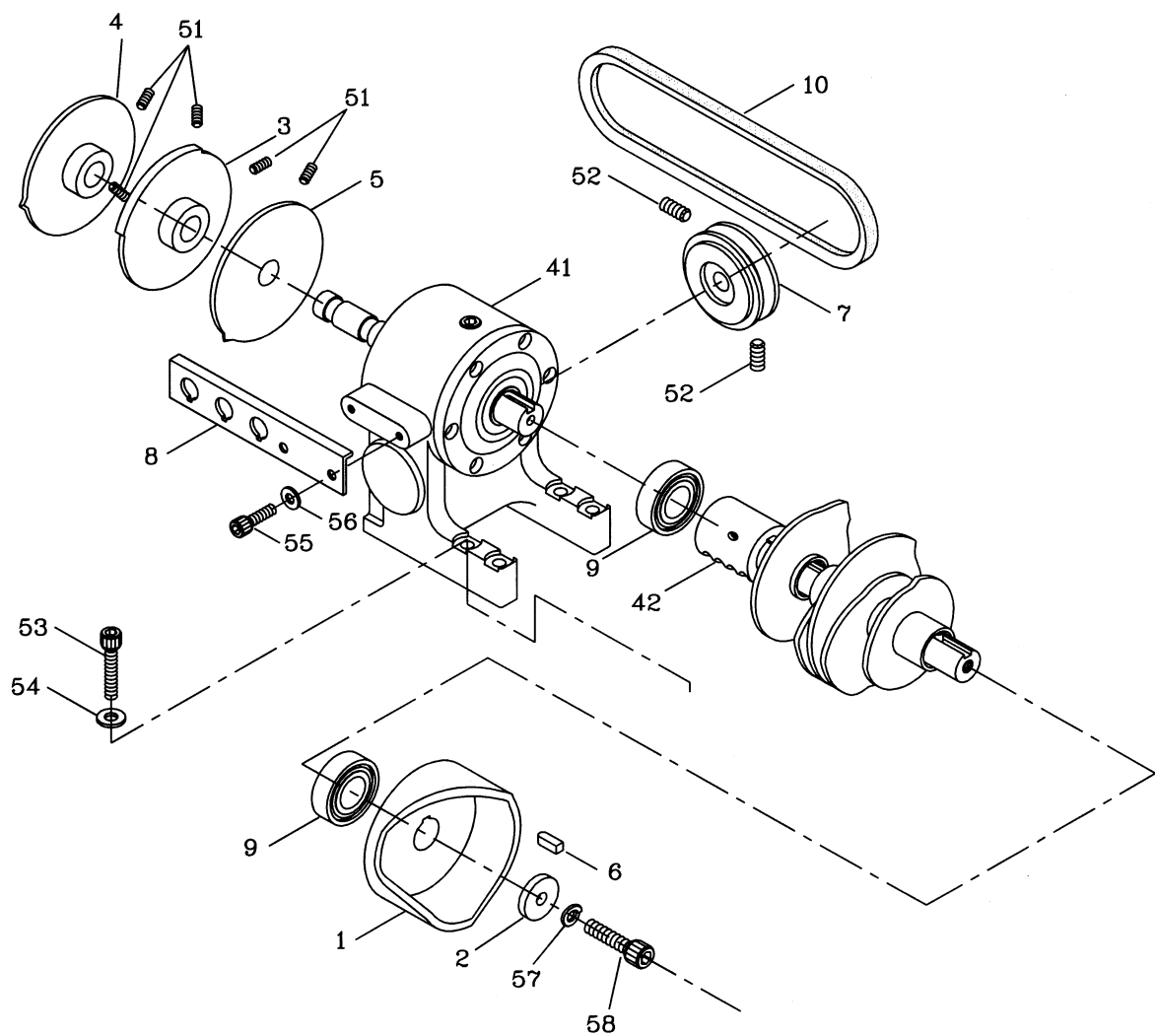


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-1000	Cam Group	1	See page 34
2	2A-2000	Slide Table Group *	1	See page 36
3	2A-3000	Press Group *	1	See page 44
4	2A-4000	Heater Group *	1	See page 49
5	2A-5000	Sealing Head Frame Group *	1	See page 52
6	2A-6000	Tension Group *	1	See page 54
7	2A-7000	Feed Group *	1	See page 61

4. PART LIST

Sealing head unit

A-1. Cam Group (2A-1000)



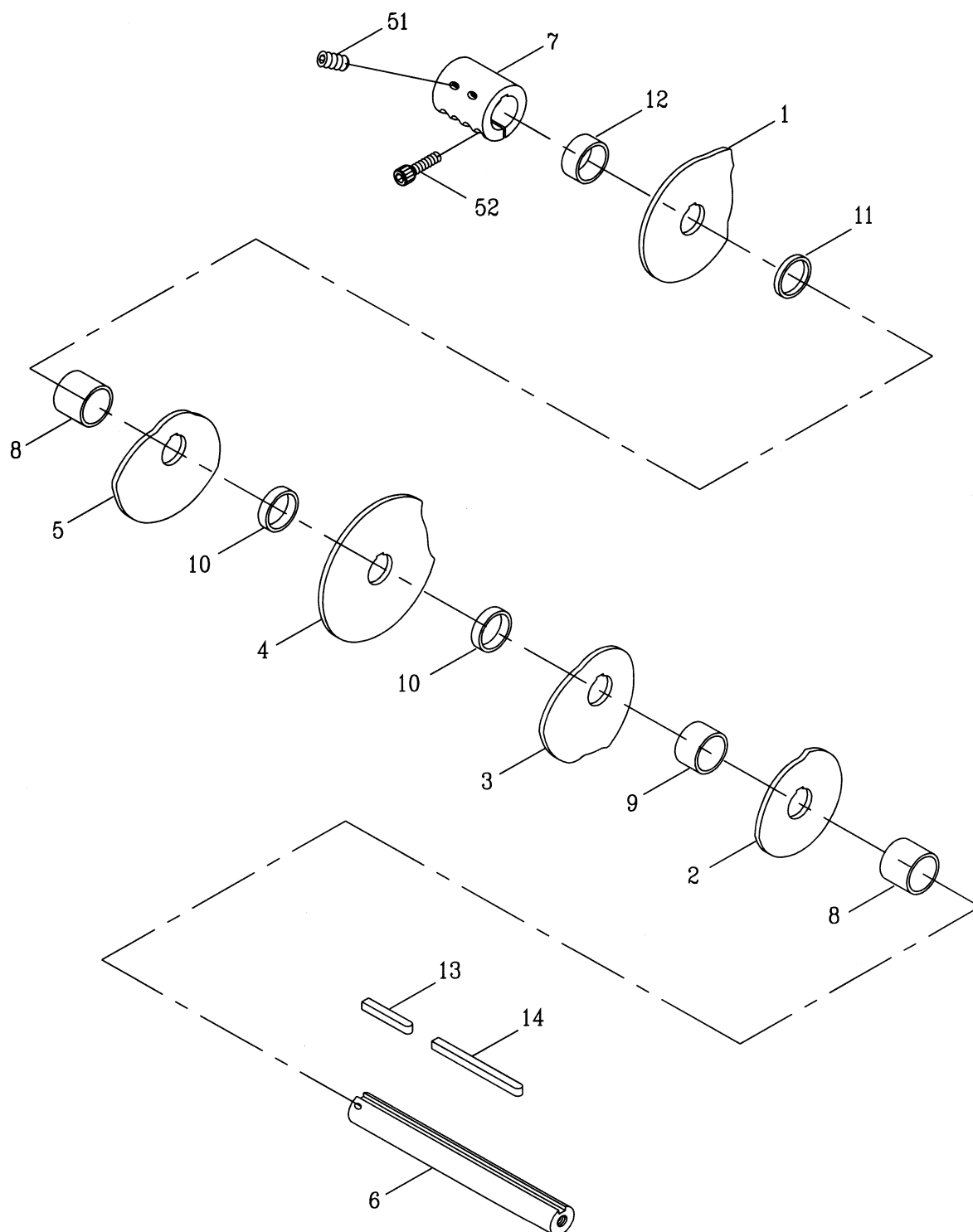
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-1001-N	Tension Cam (Normal)	1	See page 36
	2A-1001-H	Tension Cam (High)	1	
	2A-1001-L	Tension Cam (Low)	1	
2	2A-1002	Cam Shaft End Plate	1	
3	2A-1003	Limit Switch Cam for LS1	1	
4	2A-1004	Limit Switch Cam for LS3	1	
	2A-1004-D	Limit Switch Cam for LS3 (Option: for Delay)	1	
5	2A-1005	Limit Switch Cam for LS2	1	
6	2A-1006	Key, 7 x 7 x 20(Square)	2	
7	2A-1007	Gear Box Pulley	1	
8	2A-1008	Limit Switch Bracket	1	
9	2A-1009	Ball Bearing, 6205ZZ	2	
10	2L-0027	V-Belt, A-27(for 60HZ)	1	
	2L-0028	V-Belt, A-28(for 50HZ)	1	
41	2A-1100	Gear Box	1	
42	2A-1200	Cam Assembly	1	
51	SS-0810	M8 x 10	6	
52	SS-0610	M6 x 10	2	
53	SH-0845	M8 x 45	4	
54	PW-0800	M8	4	
55	SH-0615	M6 x 15	2	
56	PW-0600	M6	2	
57	SW-0800	M8	1	
58	SH-0830	M8 x 30	1	

4. PART LIST

Sealing head unit

A-1-1. Cam Assembly (2A-1100)



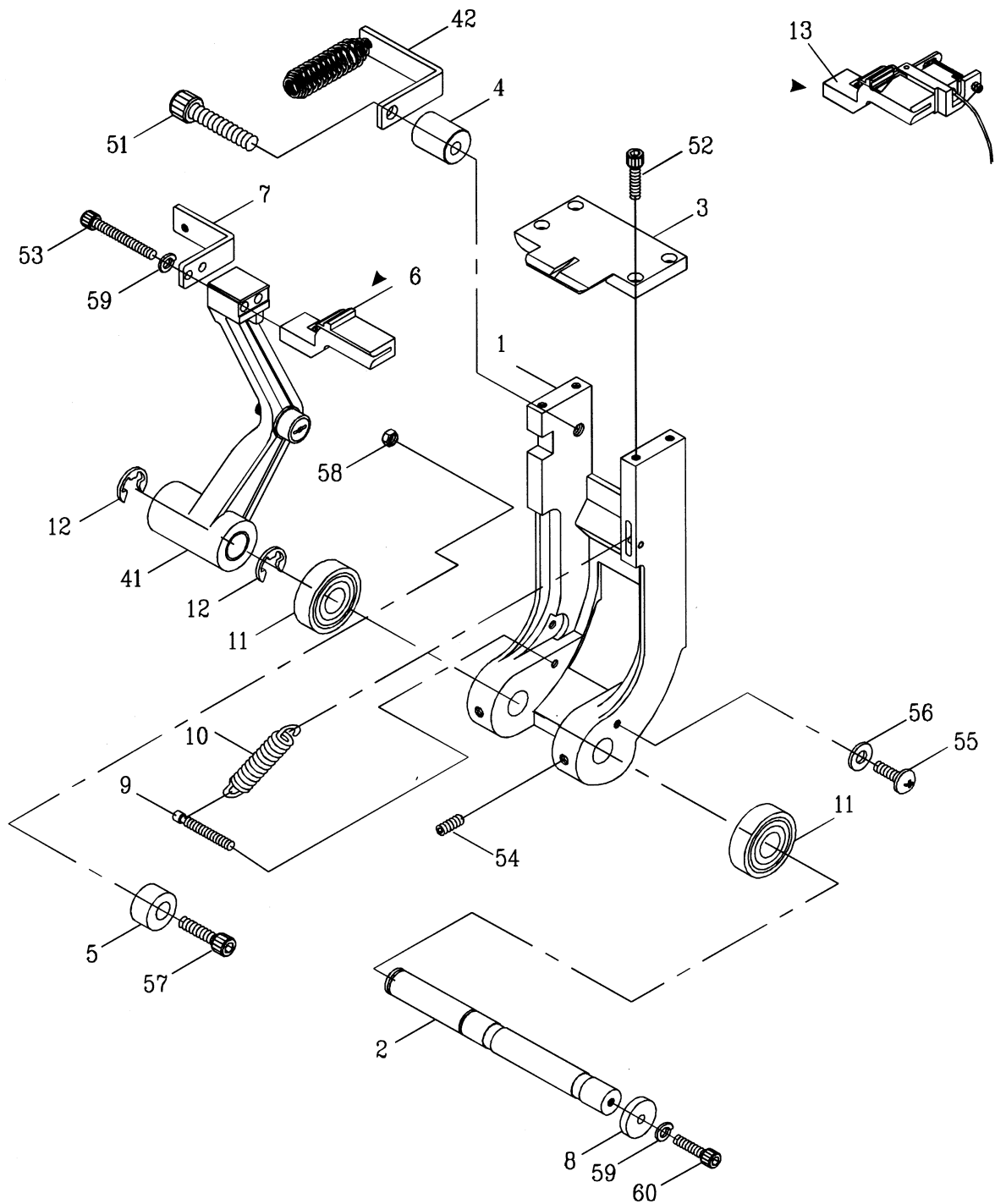
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-1201	Slide Table Cam	1	
2	2A-1202	RH Press Cam	1	
3	2A-1203	Center Press Cam	1	
4	2A-1204	Heater Cam	1	
5	2A-1205	LH Press Cam	1	
6	2A-1206	Cam Shaft	1	
7	2A-1207	Cam Shaft Coupling	1	
8	2A-1208	Collar, 28.8 x 34 x 28	2	
9	2A-1212	Collar, 28.8 x 34 x 21	1	
10	2A-1214	Collar, 28.8 x 34 x 8	2	
11	2A-1213	Collar, 28.8 x 34 x 4.5	1	
12	2A-1209	Collar, 28.8 x 34 x 15	1	
13	2A-1210	Square Key, 7 x 7 x 48	1	
14	2A-1211	Heater & Press Cam Key, 7 x 7 x 109	1	
51	SS-0810	M8 x 10	2	
52	SH-0620	M6 x 20	4	

4. PART LIST

Sealing head unit

A-2. Slide Table Group (2A-2000)



4. PART LIST

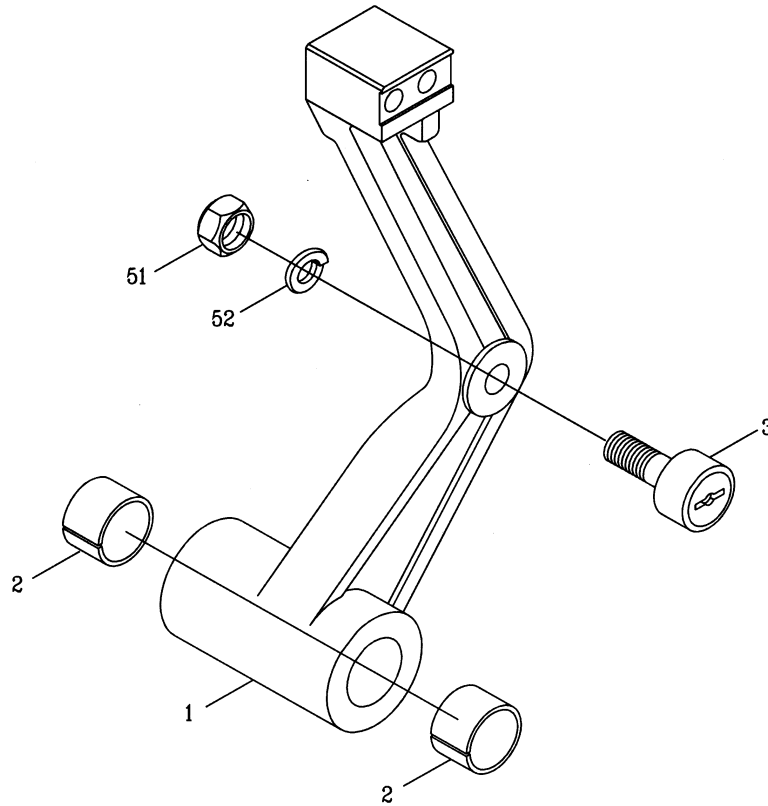
Sealing head unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-2001	Slide Table Frame	1	
2	2A-2002	Slide Table Frame Shaft	1	
3	2A-2003-9	Slide Table* (9mm)	1	
	2A-2003-12	" (12mm)	1	
	2A-2003-15	" (15.5mm)	1	
	2A-2003-19	" (19mm)	1	
	2A-2003-S6	Slide Table for Short Feed* (6mm)	1	
	2A-2003-S9	" " (9mm)	1	
	2A-2003-S12	" " (12mm)	1	
	2A-2003-S15	" " (15.5mm)	1	
	2A-2003-S19	" " (19mm)	1	
4	2A-2004	Slide Table Back Adjuster	1	
5	2A-2005	Slide Table Stopper	1	
6	2A-2006-9	Strap Guide* (9mm)	1	
	2A-2006-12	Strap Guide* (12mm, 15.5mm, 19mm)	1	
			1	
7	2A-2008	Flap Connecting Spring Bracket	1	
8	2A-2009	End Plate	1	
9	2A-2007	Slide Table Spring Hook	1	
10	2A-2010	Slide Table Tension Spring	1	
11	2H-6304	Ball Bearing, 6304ZZ	2	
12	2G-1500	Stop Ring, E-15	2	
13	2A-2300	Short Feed Assembly* (Option or for 6mm)	1	See page 42
41	2A-2100	Strap Guide Arm Assembly	1	See page 40
42	2A-2200	Strap Guide Spring Assembly	1	See page 41
51	SH-1050	M10 x 50	1	
52	SH-0620	M6 x 20(SUS)	4	
53	SH-0650	M6 x 50(SUS)	2	
54	SS-0810	M8 x 10	2	
55	TS-0610	M6 x 10	2	
56	PW-0800	M8	2	
57	SH-0830	M8 x 30	1	
58	HN-0800	M8	1	
59	SW-0600	M6	2	
60	SH-0620	M6 x 20(SUS)	1	

4. PART LIST

Sealing head unit

A-2-1. Strap Guide Arm Assembly (2A-2100)

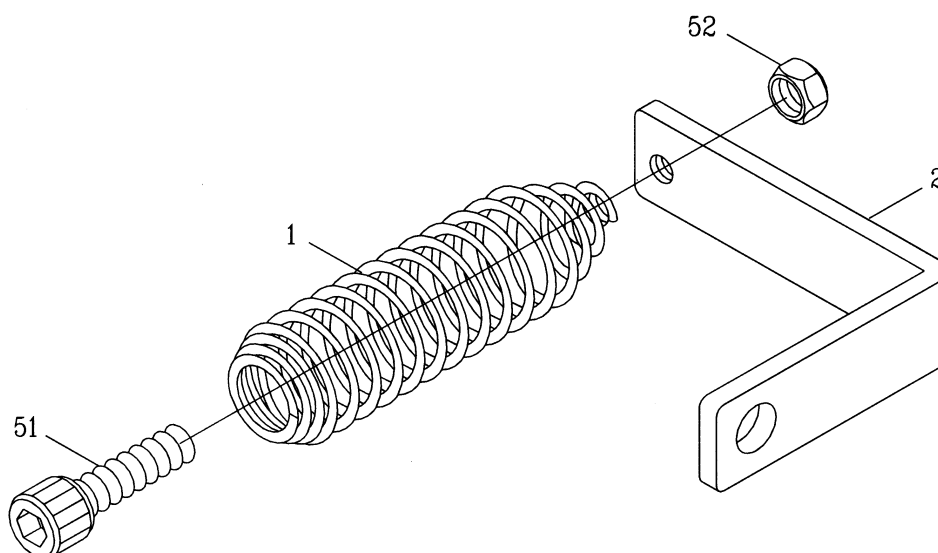


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-2101	Strap Guide Arm	1	
2	2J-2025	Metal Bush, MB2025	2	
3	2H-CF10	Cam Follower, KR22XLL	1	
51	HN-1000	M10	1	
52	SW-1000	M10	1	

4. PART LIST

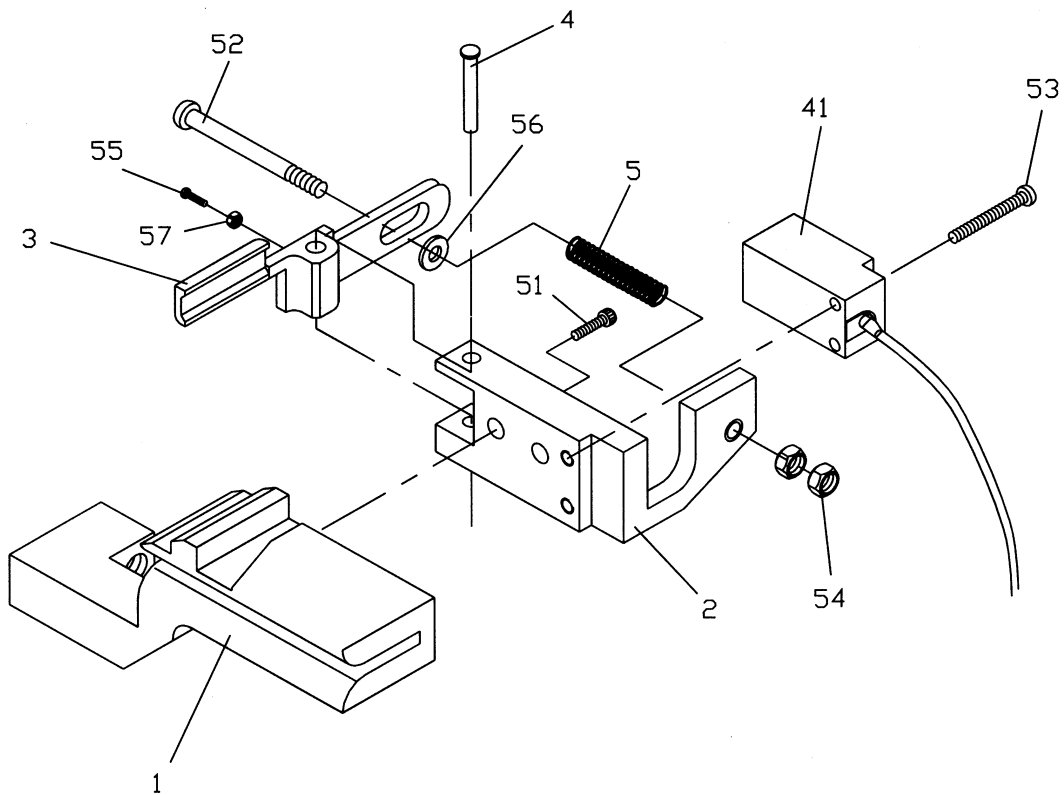
Sealing head unit

A-2-2. Starp Guide Spring Assembly (2A-2200)



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-2201	Strap Guide Spring	1	
2	2A-2202	Strap Guide Spring Bracket	1	
51	SH-0615	M6 x 15(SUS)	1	
52	HN-0600	M6	1	

A-2-3. Short Feed Assembly (Option) (2A-2300)



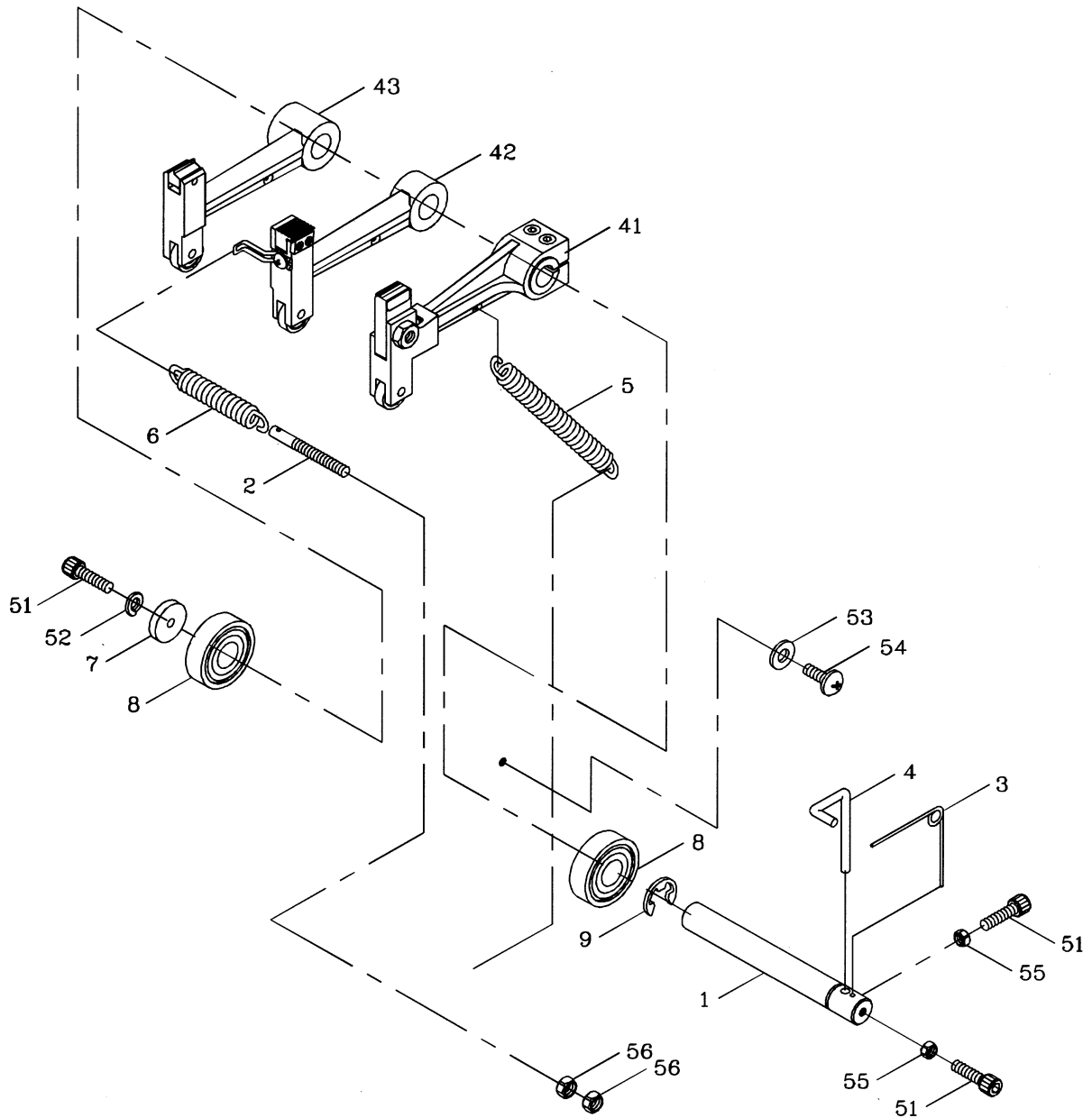
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-2301-S6	Band Guide for Short Feed* (6mm)	1	
	2A-2301-S9	" (9mm)	1	
	2A-2301-S12	" (12, 15.5, 19mm)	1	
2	2F-2302	Proximity switch bracket (for Short Feed)	1	
3	2F-2303	Short feed lever (for Short Feed)	1	
4	2F-2304	Pin (for Short Feed)	1	
5	2F-2305	Spring (for Short Feed)	1	
41	2F-2306	Proximity switch (for Short Feed)	1	
51	SH-0415	M4 x 15	2	
52	PS-0470	M4 x 70	1	
53	PS-0320	M3 x 20	1	
54	HN-0400	M4	2	
55	PS-0310	M3 x 10	1	
56	PW0400	M4	1	
57	HN-0300	M3	1	

4. PART LIST

Sealing head unit

A-3. Press Group (2A-3000)



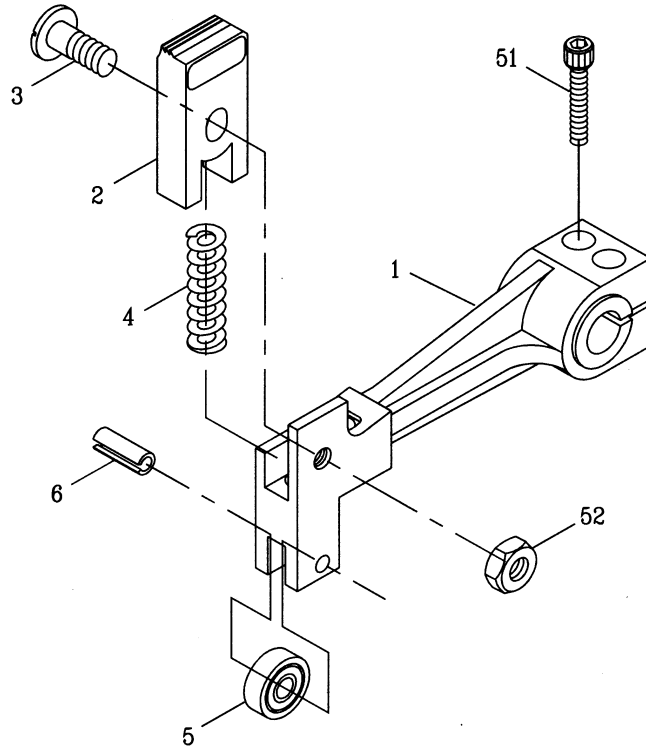
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-3001	Press Arm Shaft	1	
2	2A-3002	Cutter Tension Spring Hook	1	
3	2A-3003	Upper Roller Spring	1	
4	2A-3004	Upper Shaft Spring Adjuster	1	
5	2A-3005	Press Tension Spring	3	
6	2A-3006	Cutter Tension Spring	1	
7	2A-3007	Press Arm End Plate	1	
8	2H-6304	Ball Bearing, 6304ZZ	2	
9	2G-1500	Stop Ring, E-15	1	
41	2A-3100	RH Block Arm Assembly	1	See page 46
42	2A-3200	Center Block Arm Assembly	1	See page 47
43	2A-3300	LH Block Arm Assembly*	1	See page 48
	2A-3300-6	" (for 6mm)	1	
51	SH-0615	M6 x 15(SUS)	3	
52	SW-0600	M6	1	
53	PW-0800	M8	2	
54	TS-0610	M6 x 10	2	
55	HN-0600	M6	2	
56	HN-0800	M8	2	

4. PART LIST

Sealing head unit

A-3-1. RH Block Arm Assembly (2A-3100)

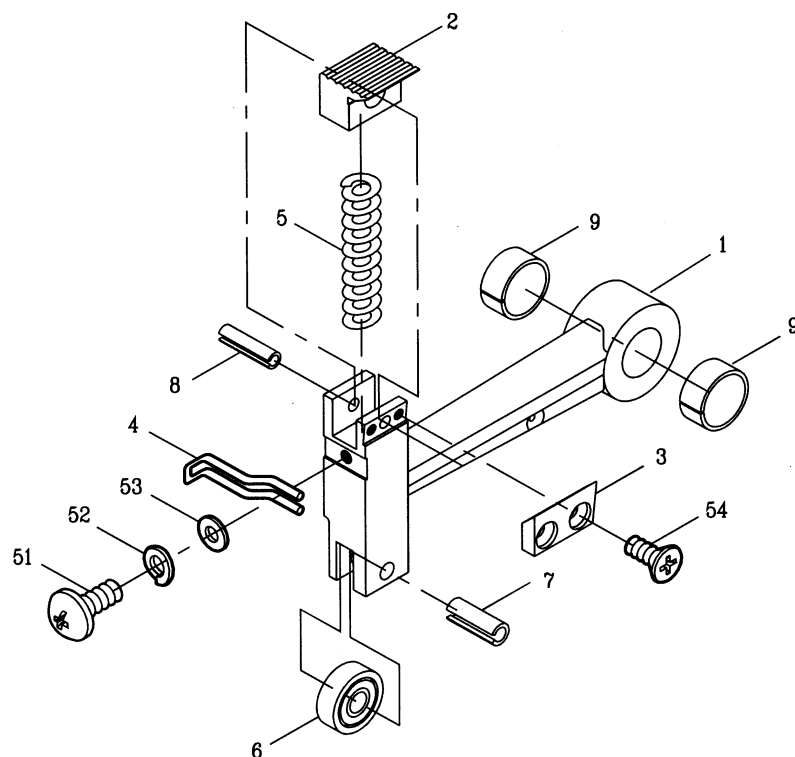


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-3101	RH Block Arm	1	
2	2A-3102	Cutter, Upper	1	
3	2A-3103	Cutter, Upper Pin	1	
4	2A-3104	RH Block Spring	1	
5	2H-0628	Cam Roller(Ball Bearing, 0628ZZ)	1	
6	2K-0824	Spring Pin, ø 8 x 24	1	
51	SH-0835	M8 x 35	2	
52	HN-1000	M10	1	

4. PART LIST

Sealing head unit

A-3-2. Center Block Arm Assembly (2A-3200)

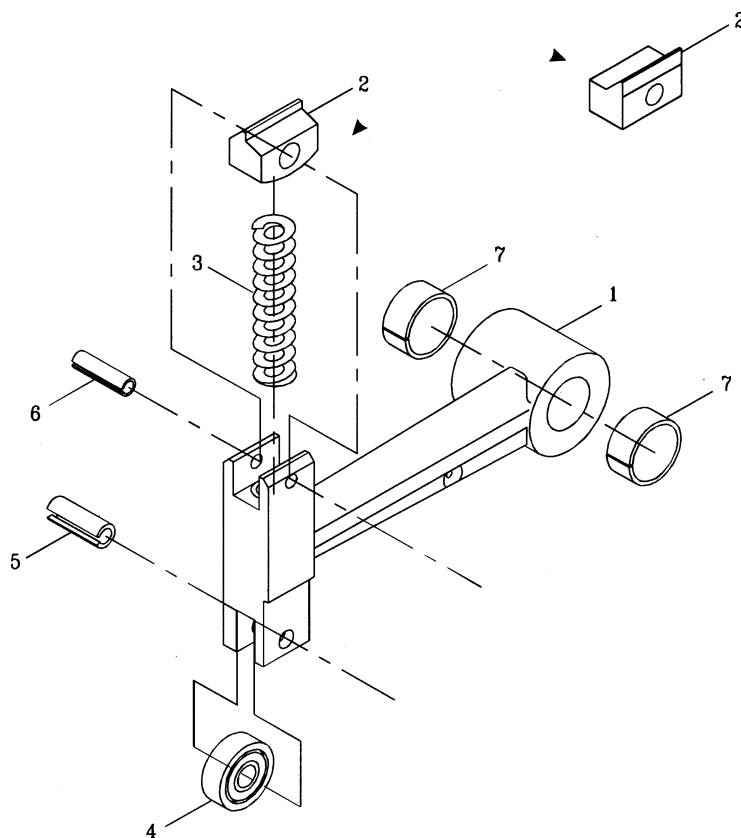


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-3201	Center Block Arm	1	
2	2A-3202	Universal Press	1	
3	2A-3203	Cutter, Lower	1	
4	2A-3204	Cutter Spring Hook	1	
5	2A-3205	LH & Center Block Spring	1	
6	2H-0628	Cam Roller(Ball Bearing, 0628ZZ)	1	
7	2K-0820	Spring Pin, ϕ 8 x 20	1	
8	2K-0622	Spring Pin, ϕ 6 x 22	1	
9	2J-2010	Metal Bush, MB2010	2	
51	PS-0610	M6 x 10	1	
52	SW-0600	M6	1	
53	PW-0600	M6	1	
54	FS-0508	M5 x 8(SUS)	2	

4. PART LIST

Sealing head unit

A-3-3. LH Block Arm Assembly (2A-3300)

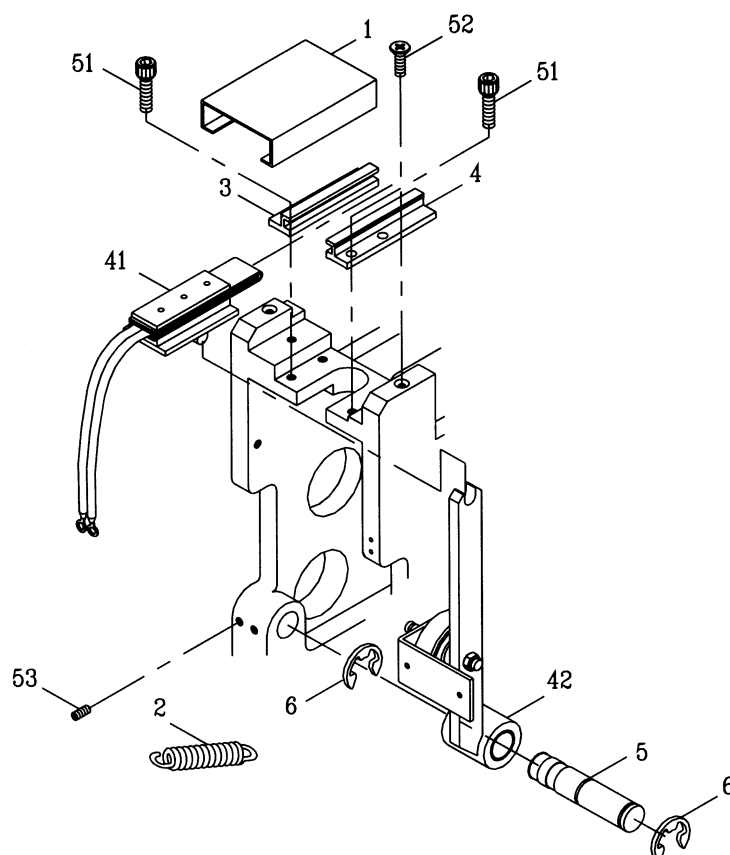


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-3301	LH Block Arm	1	
2	2A-3302	Jaw Left*	1	
	2A-3302-6	" (for 6mm)	1	
3	2A-3303	LH & Center Block Spring	1	
4	2H-0628	Cam Roller(Ball Bearing 628ZZ)	1	
5	2K-0820	Spring Pin, ϕ 8 x 20	1	
6	2K-0624	Spring Pin, ϕ 6 x 24	1	
7	2J-2020	Metal Bush, MB2020	2	

4. PART LIST

Sealing head unit

A-4. Heater Group (2A-4000)

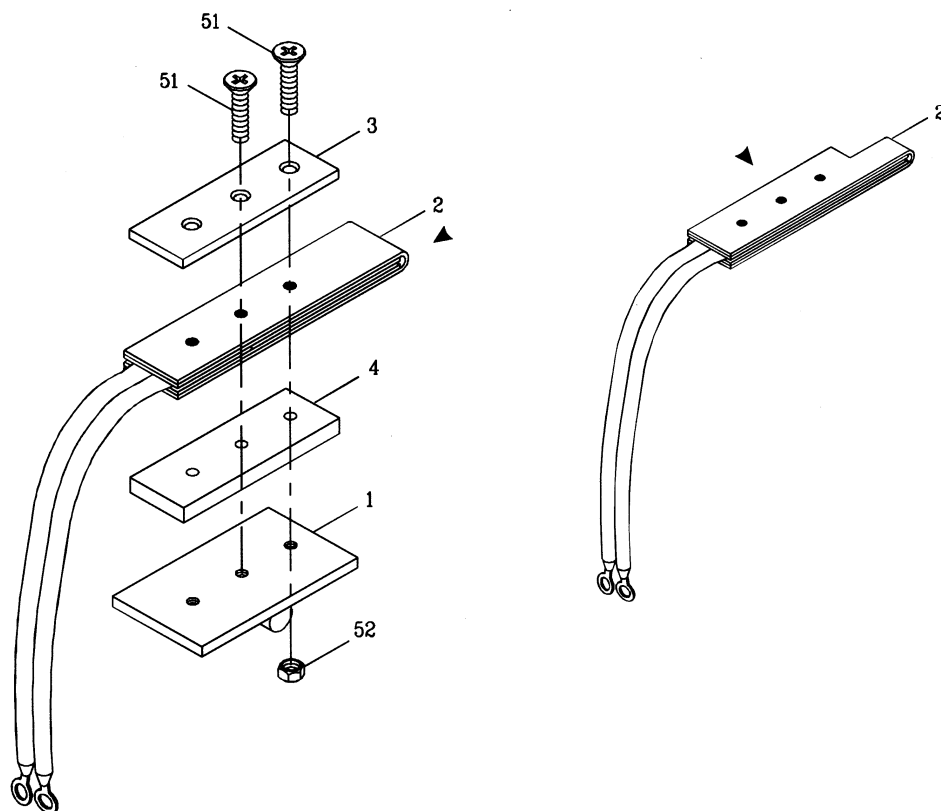


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-4001	Heater Cover	1	
2	2A-4002	Heater Crank Spring	1	
3	2A-4003	Heater Slide Guide(A)	1	
4	2A-4004	Heater Slide Guide(B)	1	
5	2A-4005	Heater Crank Shaft	1	
6	2G-1500	Stop Ring, E-15	2	
41	2A-4100	Heater Set*	1	See page 50
	2A-4200-6	" (for 6mm)	1	
42	2A-4200	Heater Crank Arm Set	1	See page 51
51	SH-0515	M5 x 15	4	
52	FS-0510	M5 x 10	2	
53	SS-0610	M6 x 10	2	

4. PART LIST

Sealing head unit

A-4-1. Heater Set (2A-4100)

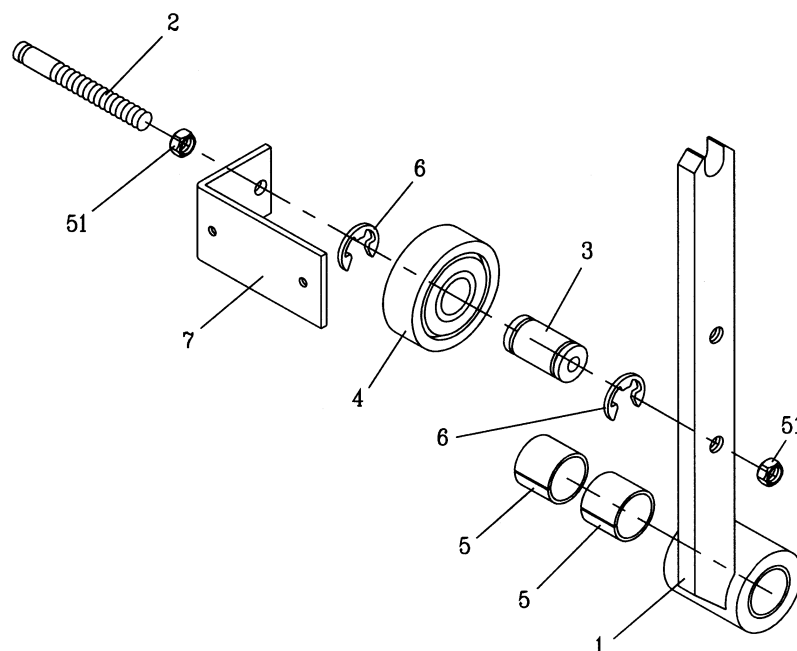


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-4101	Heater Base	1	
2	2A-4102	Heater Plate*	1	
	2A-4102-6	" (for 6mm)	1	
3	2A-4103	Heater Fixing Plate	1	
4	2A-4104	Asbestos	1	
51	FS-0420	M4 x 20(SUS)	3	
52	HN-0400	M4(SUS)	2	

4. PART LIST

Sealing head unit

A-4-2. Heater Crank Arm Set (2A-4200)

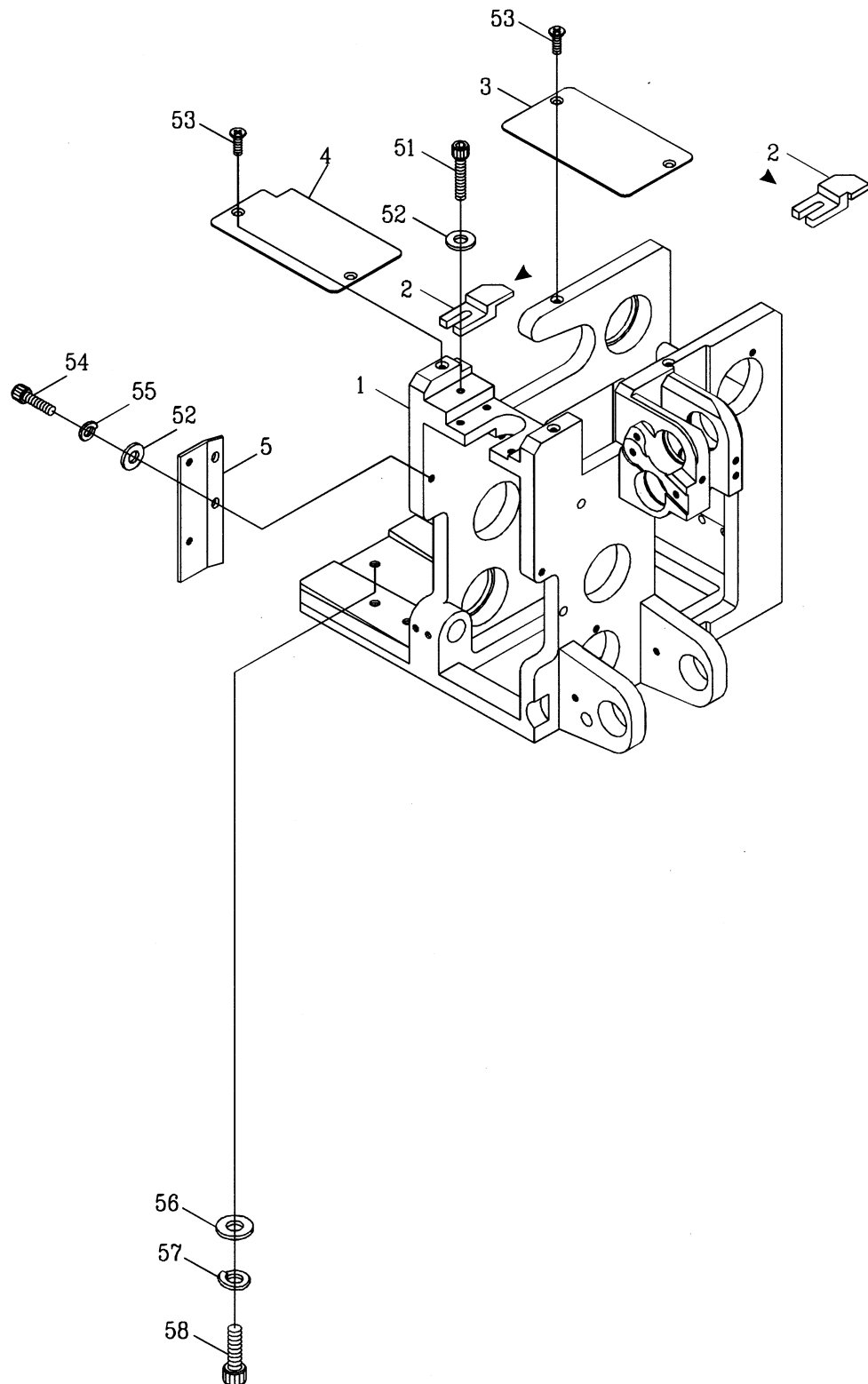


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-4201	Heater Crank Arm	1	
2	2A-4202	Heater Bearing Shaft	1	
3	2A-4203	Heater Crank Collar	1	
4	2H-6304	Ball Bearing, 6304ZZ	1	
5	2J-2020	Metal Bush, MB2020	2	
6	2G-1500	Stop Ring, E-15	2	
7	2A-4205	Heater Terminal Bracket	1	
51	HN-0800	M8	2	

4. PART LIST

Sealing head unit

A-5. Sealing Head Frame Group (2A-5000)



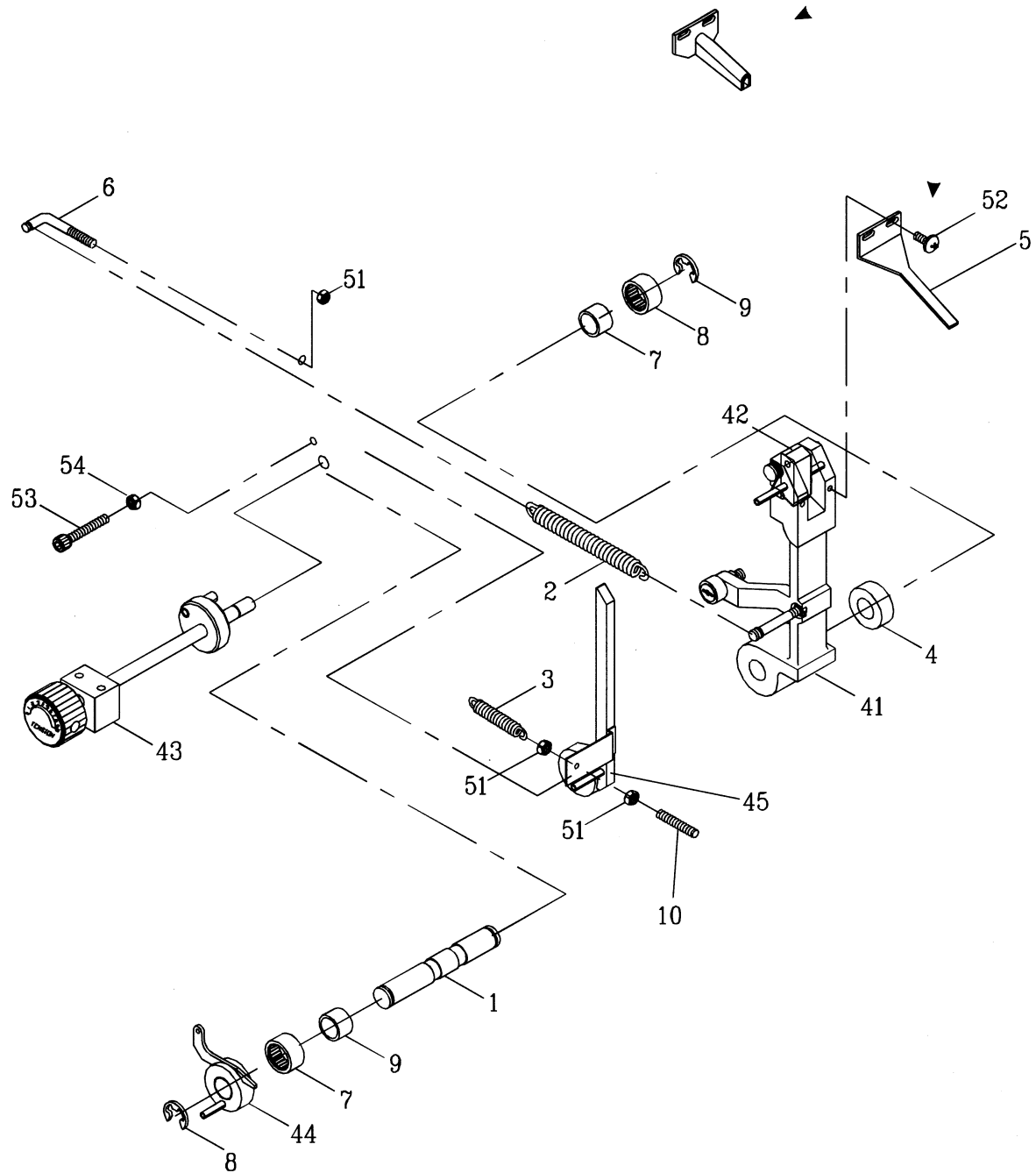
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-5001	Sealing Head Frame	1	
2	2A-5002	Strap Width Block*	1	
	2A-5002-6	" (for 6mm)	1	
3	2A-5003	Slide Table Cover(REAR)	1	
4	2A-5004	Slide Table Cover(FRONT)	1	
5	2A-5005	Smoke Fan Bracket	1	
51	SH-0520	M5 x 20	1	
52	PW-0500	M5	1	
53	FS-0510	M5 x 10(SUS)	4	
54	SH-0615	M6 x 15	2	
55	SW-0600	M6	2	
56	PS-0800	M8	4	
57	SW-0800	M8	4	
58	SH-0820	M8 x 20	4	

4. PART LIST

Sealing head unit

A-6. Tension Group (2A-6000)



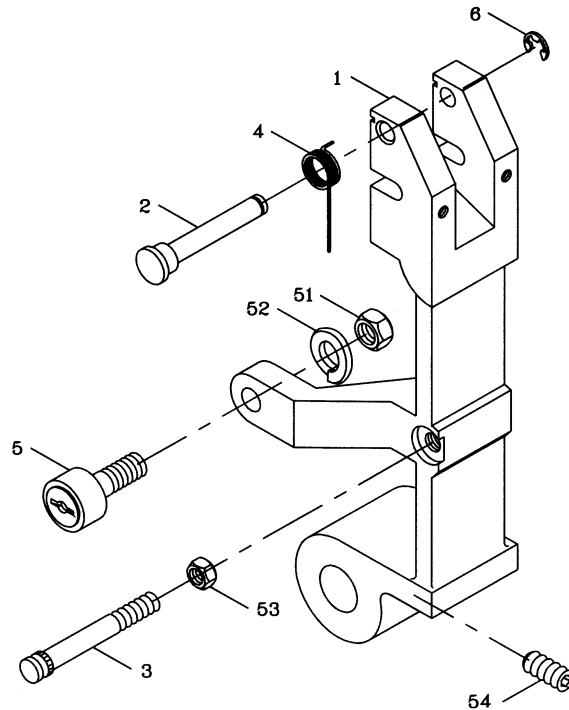
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-6001	Tension Arm Shaft	1	
2	2A-6002	Tension Arm Spring	1	
3	2A-6003	Tension Adjust Arm Spring	1	
4	2A-6004	Tension Arm Spacer	1	
5	2A-6005	Strap Cover*	1	
	2A-6005-6	Tension Arm Shooter* (for 6mm)	1	
6	2A-6006	Tension Arm Spring Hook L-type	1	
7	2H-2516-IR	Needle Bearing Inner (IR 2516)	2	
8	2H-2516-HK	Needle Bearing (HK 2516)	2	
9	2G-1500	Stop Ring, E-15	2	
10	2A-6007	Tension Adjuster Arm Spring Holder	1	
41	2A-6100	Tension Arm Assembly	1	See page 56
42	2A-6200	Tension Jaw Set	1	See page 57
43	2A-6300	Tension Adjust Cam Assembly	1	See page 58
44	2A-6400	Tension Adjuster Set	1	See page 59
45	2A-6500	Tension Adjust Arm Set	1	See page 60
51	HN-0800	M8	3	
52	TS-0510	M5 x 10	2	
53	SH-0620	M6 x 20	1	
54	HN-0600	M6	1	

4. PART LIST

Sealing head unit

A-6-1. Tension Arm Assembly (2A-6100)

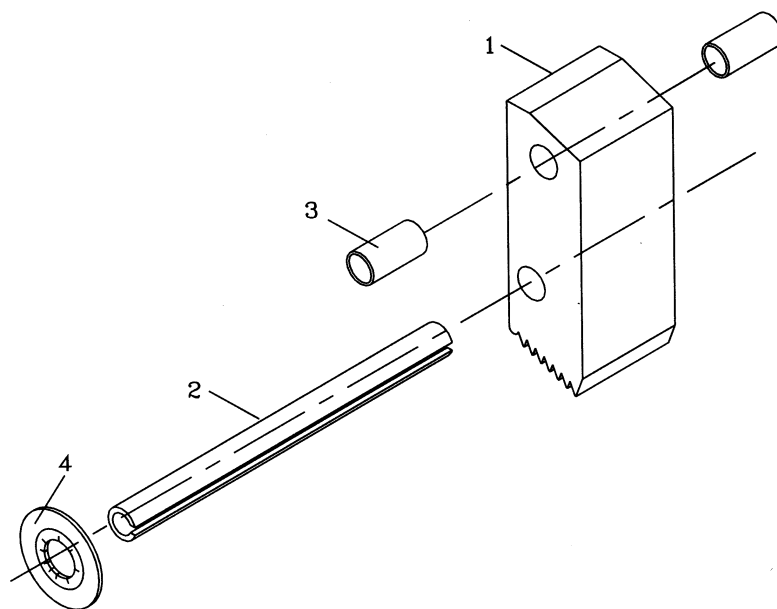


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-6101	Tension Arm	1	
2	2A-6102	Tension Jaw Shaft	1	
3	2A-6103	Tension Arm Spring Hook	1	
4	2A-6104	Tension Jaw Spring	1	
5	2H-CF10	Cam Follower, KR22XLL	1	
6	2G-0600	Stop Ring, E-6	1	
51	HN-1000	M10	1	
52	SW-1000	M10	1	
53	HN-0800	M8	1	
54	SS-0810	M8 x 10	2	

4. PART LIST

Sealing head unit

A-6-2. Tension Jaw Set (2A-6200)

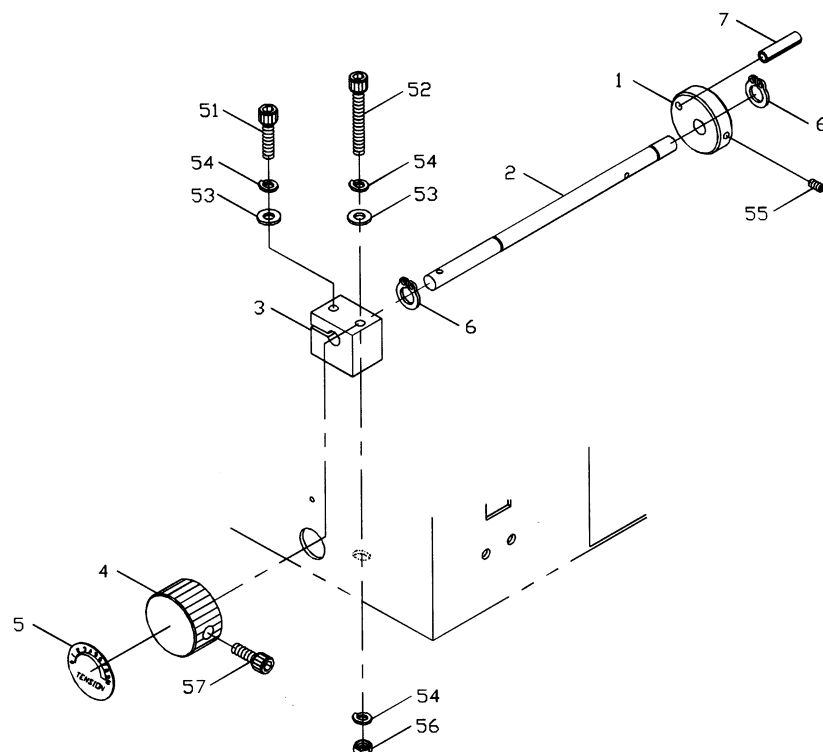


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-6201	Tension Jaw	1	
2	2K-0680	Spring Pin, ϕ 6 x 80	1	
3	2J-0808	Metal Bush, MB0808	2	
4	PN-0600	Pushing Nut, ϕ 6	1	

4. PART LIST

Sealing head unit

A-6-3. Tension Adjust Cam Assembly (2A-6300)

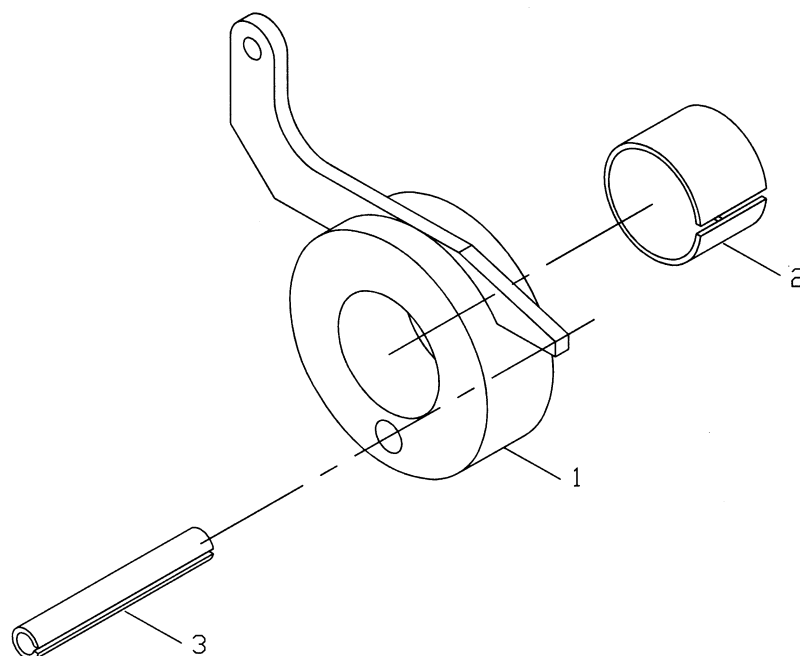


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-6301	Tension Adjust Cam	1	
2	2A-6302	Tension Adjust Cam Shaft	1	
3	2A-6303	Tension Cam Shaft Bearing	1	
4	2A-6304	Tension Adjust Dial	1	
5	2A-6305	Tension Selection Sticker	1	
6	2G-1200-S	Stop Ring, S-12	2	
7	2K-0630	Spring Pin, ø 6 x 30	1	
51	SH-0625	M6 x 25	1	
52	SH-0650	M6 x 50	1	
53	PW-0600	M6	2	
54	SW-0600	M6	3	
55	SS-0610	M6 x 10	1	
56	HN-0600	M6	1	
57	SH-0615	M6 x 15	1	

4. PART LIST

Sealing head unit

A-6-4. Tension Adjuster Set (2A-6400)

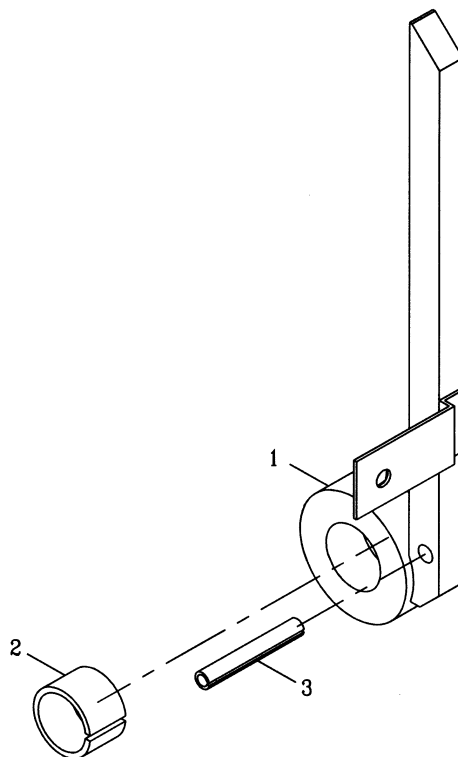


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-6401	Tension Adjuster	1	
2	2J-2015	Metal Bush, MB2015	1	
3	2K-0645	Spring Pin, ø 6 x 45	1	

4. PART LIST

Sealing head unit

A-6-5. Tension Adjust Arm Set (2A-6500)

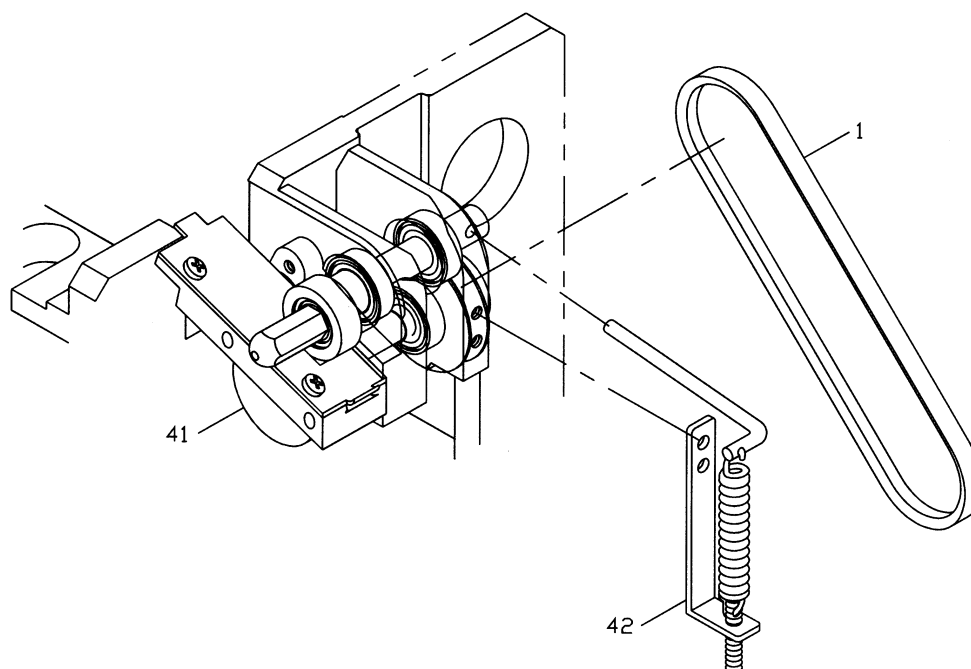


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-6501	Tension Adjust Arm	1	
2	2J-2015	Metal Bush, MB2015	1	
3	2K-0645	Spring Pin, ø 6 x 45	1	

4. PART LIST

Sealing head unit

A-7. Feed Group (2A-7000)

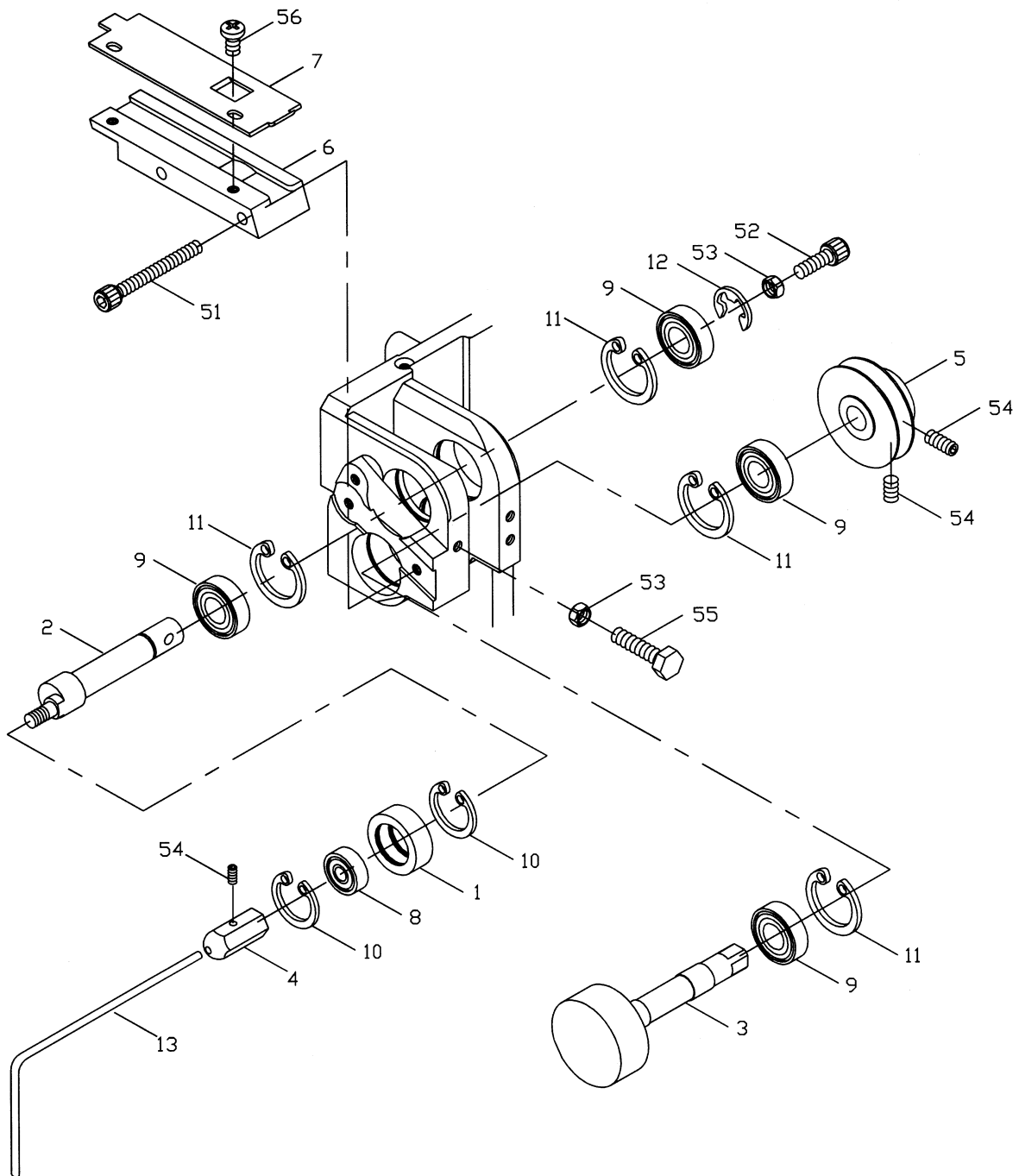


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2L-0023	V-Belt, M-23 (for 60Hz)	1	
	2L-0024	V-Belt, M-24 (for 50Hz)	1	
41	2A-7100	Feed Assembly *	1	See page 62
	2A-7100-6	" (for 6mm)	1	
42	2A-7200	Weight Adjuster Set	1	See page 64

4. PART LIST

Sealing head unit

A-7-1 Feed Assembly (2A-7100)



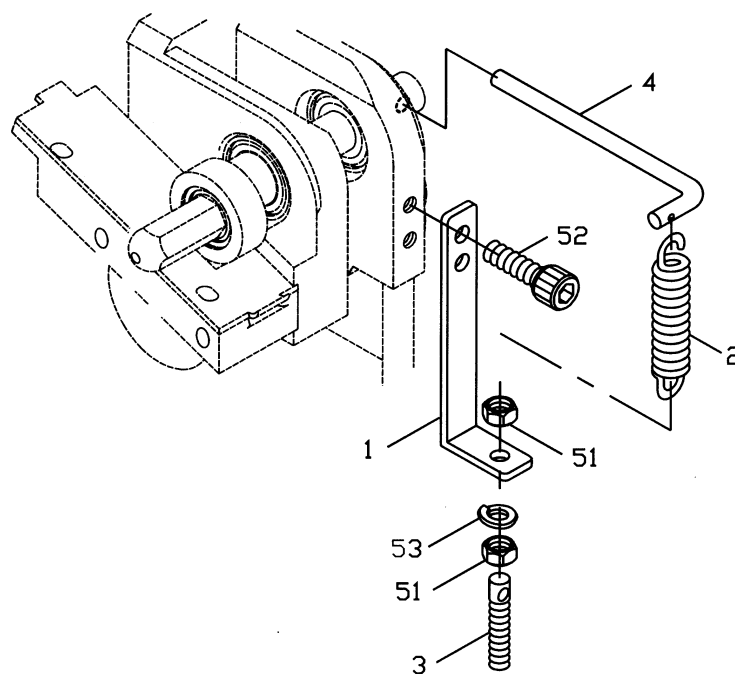
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-7101-6	Feed Upper Roller* (6mm)	1	
	2A-7101-9	" (9mm)	1	
	2A-7101-12	" (12mm)	1	
	2A-7101-15	" (15.5mm)	1	
	2A-7101-19	" (19mm)	1	
2	2A-7102	Feed Upper Roller Shaft	1	
3	2A-7103	Feed Roller	1	
4	2A-7104	Lever Holder	1	
5	2A-7105	Feed Roller Pulley	1	
6	2A-7110-6	Feed Shooter* (6mm)	1	
	2A-7110-9	" (9mm)	1	
	2A-7110-12	" (12mm)	1	
	2A-7110-15	" (15.5mm)	1	
	2A-7110-19	" (19mm)	1	
7	2A-7111-12	Feed Shooter Cover* (6, 9, 12, 15.5mm)	1	
	2A-7111-19	" (19mm)	1	
8	2H-0628	Ball Bearing, 628ZZ	1	
9	2H-6202	Ball Bearing, 6202ZZ	4	
10	2G-2400-H	Stop Ring, H-24	2	
11	2G-3500-H	Stop Ring, H-35	4	
12	2G-1200-E	Stop Ring, E-12	1	
13	2A-7108	Lever Holder Grip	1	
51	SH-0650	M6 x 50	2	
52	SH-0615	M6 x 15	3	
53	HN-0600	M6	2	
54	SS-0610	M6 x 10	3	
55	HN-0620	M6 x 20	1	
56	PS-0610	M6 x 10	2	

4. PART LIST

Sealing head unit

A-7-2. Weight Adjuster Set (2A-7200)



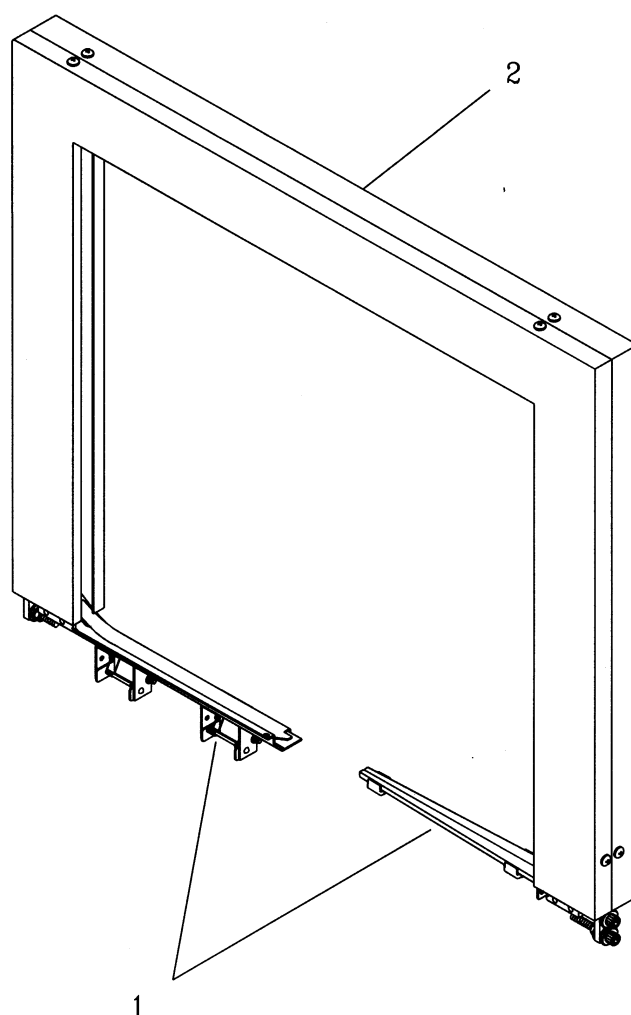
4. PART LIST**Sealing head unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2A-7201	Weight Adjuster Spring Bracket	1	
2	2A-7202	Weight Adjuster Spring	1	
3	2A-7203	Weight Adjuster Spring Holder	1	
4	2A-7204	Weight Adjuster Spring Hook	1	
51	HN-0600	M6	2	
52	SH-0615	M6 x 15	2	
53	SW-0600	M6	1	

4. PART LIST

Arch unit

B. ARCH UNIT (2B-0000)

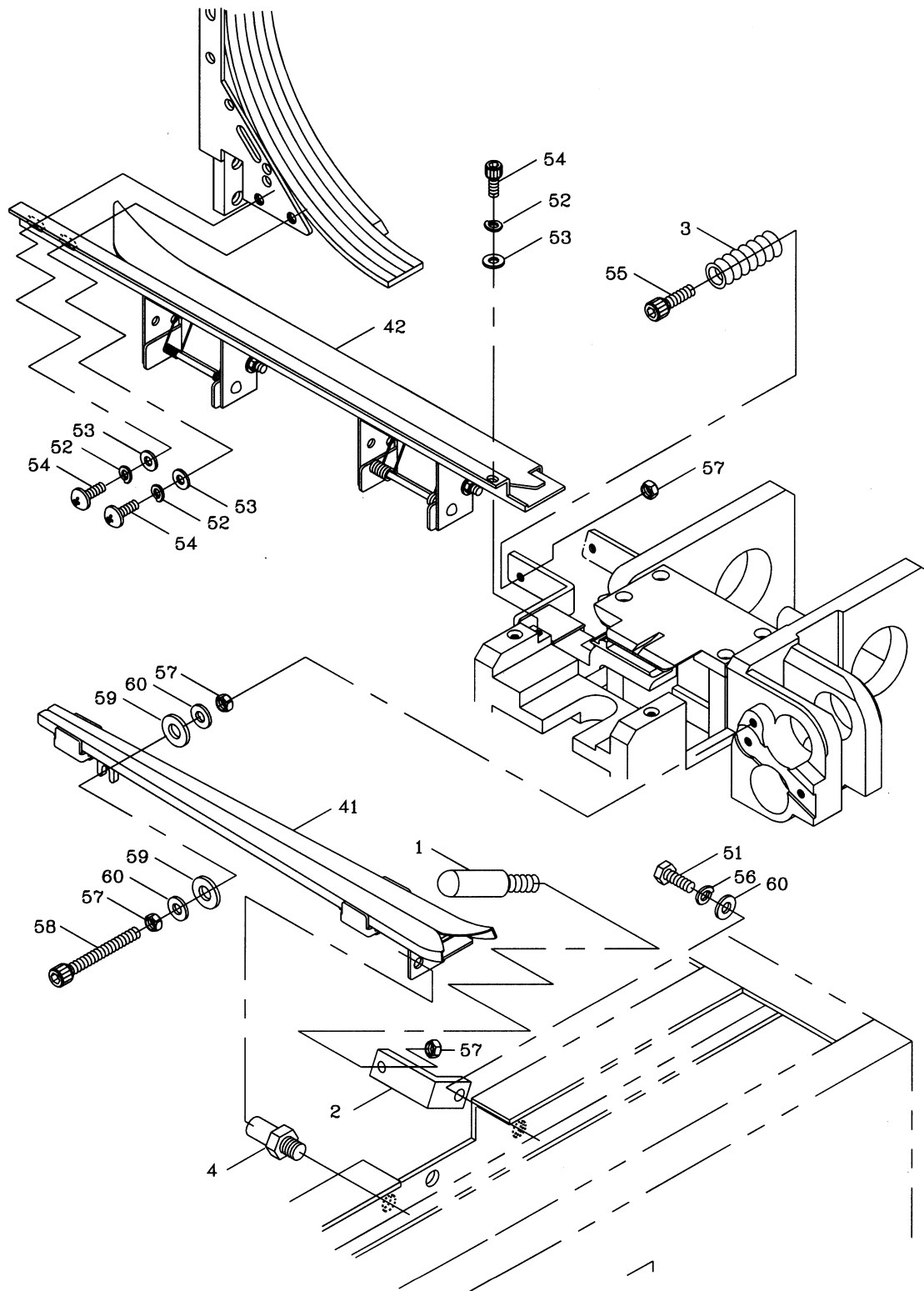


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2B-1000	Strapway Group *, **	1	See page 68
2	2B-2000	Arch Group*, **	1	See page 72

4. PART LIST

Arch unit

B-1. Strapway Group (2B-1000)



4. PART LIST

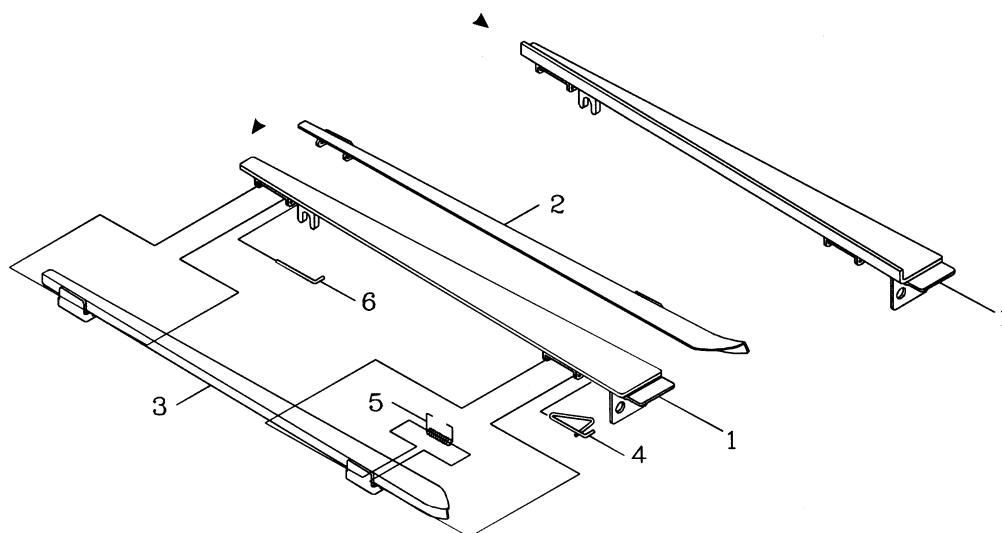
Arch unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2B-1001	Flap Cushion	2	
2	2B-1002	Flap Cushion Bracket	2	
3	2B-1003	LH Strapway Stop Spring	1	
4	2B-1004	RH Strapway Stopper	2	
41	2B-1100-6	RH Strapway Assembly* (6mm)	1	See page 70
	2B-1100-9	" " (9mm)	1	
	2B-1100-12	" " (12mm)	1	
	2B-1100-15	" " (15.5mm)	1	
	2B-1100-19	" " (19mm)	1	
42	2B-1200	LH Strapway Assembly*, ** (Standard Arch=W850)	1	See page 71
	2B-1200-6	" " , (for 6mm)	1	
51	HB-0615	M6 x 15	2	
52	SW-0500	M5	3	
53	PW-0500	M5	3	
54	PS-0510	M5 x 10	3	
55	SH-0615	M6 x 15	1	
56	SW-0600	M6	2	
57	HN-0600	M6	5	
58	SH-0650	M6 x 50	1	
59	PW-0800	M8	2	
60	PW-0600	M6	4	

4. PART LIST

Arch unit

B-1-1. RH Strapway Assembly (2B-1100)

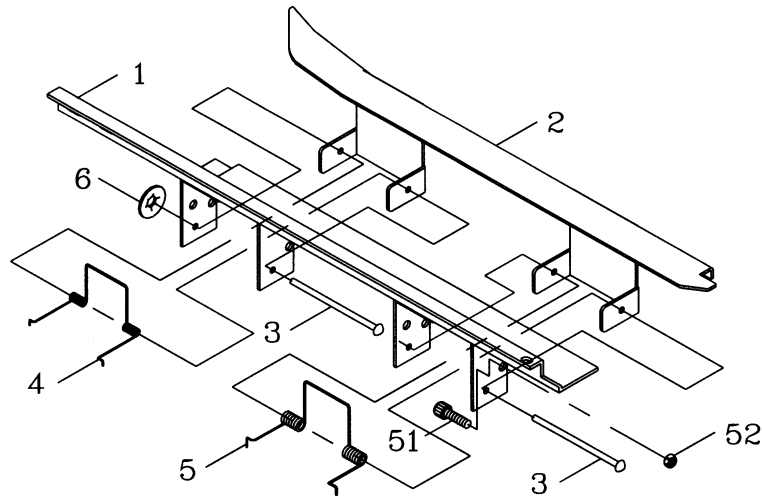


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2B-1101-6	RH Strapway* (6mm)	1	
	2B-1101-9	" (9mm)	1	
	2B-1101-12	" (12mm)	1	
	2B-1101-15	" (15.5mm)	1	
	2B-1101-19	" (19mm)	1	
2	2B-1102-6	RH Strapway Rear Flap* (6mm)	1	
	2B-1102-9	" (9mm)	1	
	2B-1102-12	" (12mm)	1	
	2B-1102-15	" (15.5mm)	1	
	2B-1102-19	" (19mm)	1	
3	2B-1103-9	RH Strapway Front Flap* (9mm)	1	
	2B-1103-12	" (12mm)	1	
	2B-1103-15	" (15.5mm)	1	
	2B-1103-19	" (19mm)	1	
4	2B-1104	RH Strapway Flap Pin(Rear)	2	
5	2B-1105	RH Strapway Flap Spring	2	
6	2B-1106	RH Strapway Flap Pin(Front)	2	

4. PART LIST

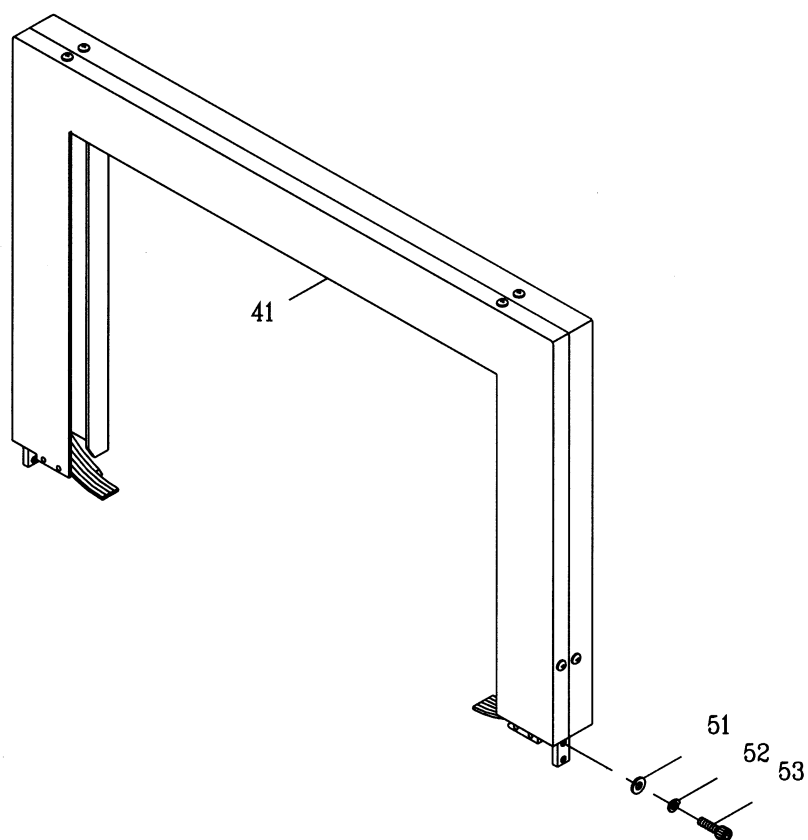
Arch unit

B-1-2. LH Strapway Assembly (2B-1200)



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2B-1201	LH Strapway*, ** (Standard Arch=W850)	1	
	:	:		
	2B-1201-6	" " , (for 6mm)	1	
2	2B-1202	LH Strapway Flap*, ** (Standard Arch=W850)	1	
	:	:		
	2B-1202-6	" " , (for 6mm)	1	
3	2B-1203	LH Strapway Flap Pin	2	
4	2B-1204	LH Strapway Flap Spring(rear)	1	
5	2B-1205	LH Strapway Flap Spring(front)	1	
6	PN-0400	Pushing Nut ø 4	2	
51	SH-0510	M5 x 10	2	
52	HN-0500	M5	2	

B-2. Arch Group (2B-2000)

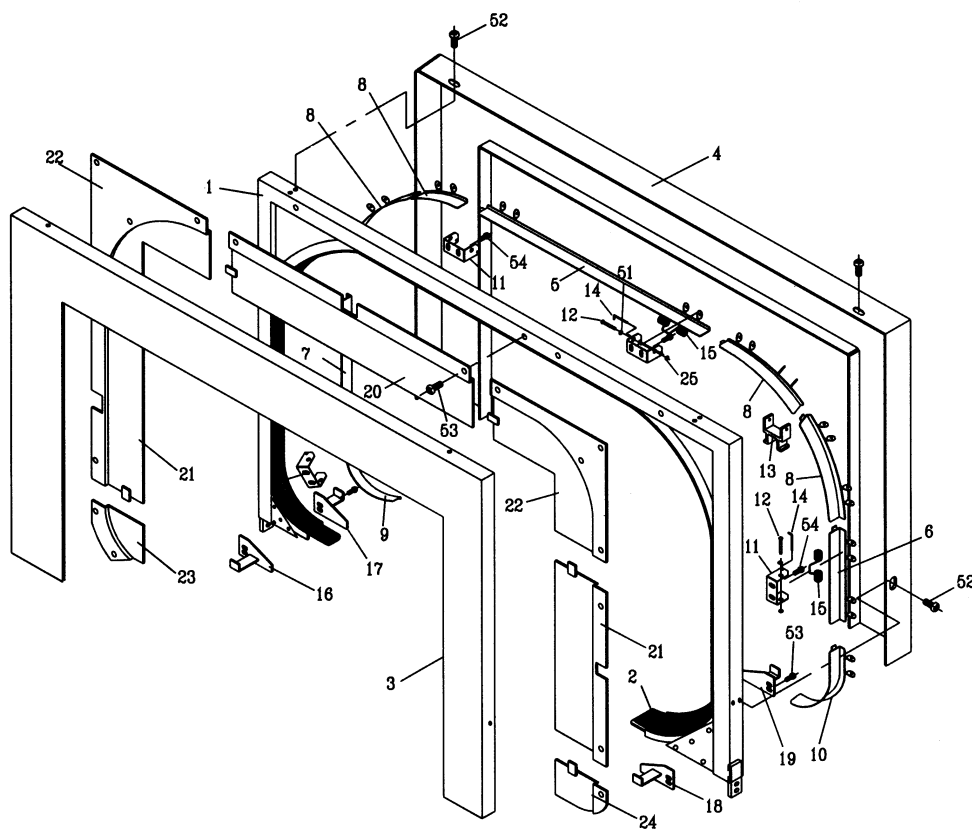


4. PART LIST Arch unit

4. PART LIST Arch unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
41	2B-2100	Arch Assembly*, **	1	See page 74
51	PW-0800	M8	4	
52	SW-0800	M8	4	
53	SH-0820	M8 x 20	4	

B-2-1. Arch Assembly (2B-2100)



4. PART LIST

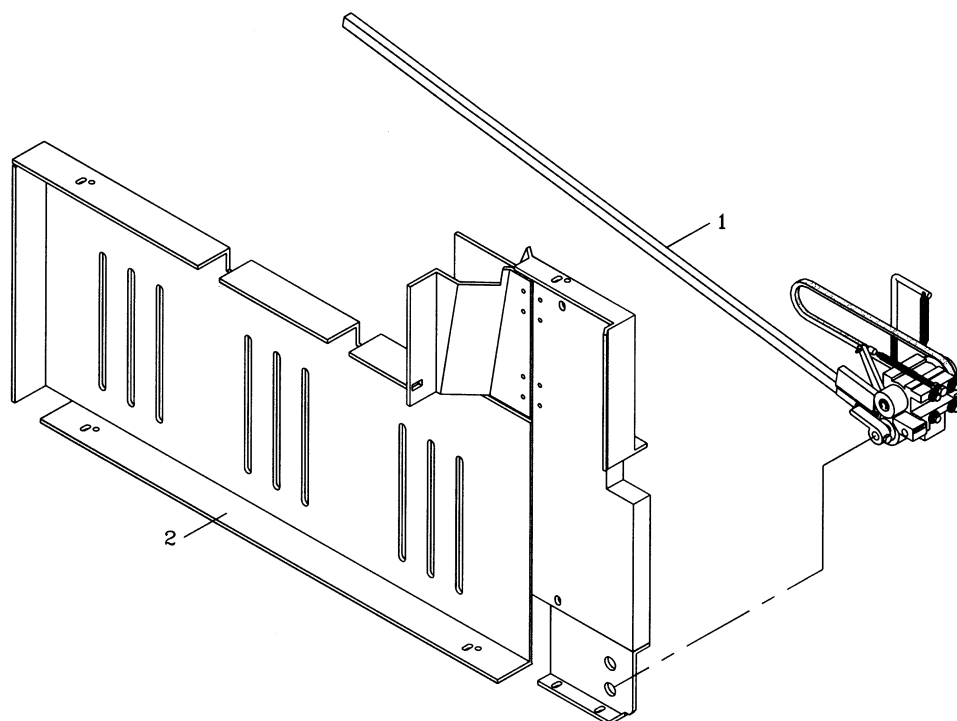
Arch unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2B-2101	Arch Frame** (standard, W850 X H600)	1	
2	2B-2102	Arch Strapway** (standard, W850 X H600)	1	
3	2B-2103	Arch Cover, Front** (standard, W850 X H600)	1	
4	2B-2104	Arch Cover, Rear** (standard, W850 X H600)	1	
5	2B-2105	Upper Flap*, ** (standard, 850W)	1	
	2B-2105-6	" " , (for 6mm)	1	
6	2B-2106	RH Side Flap*, ** (standard, 600H)	1	
	2B-2106-6	" " , (for 6mm)	1	
7	2B-2107	LH Side Flap*, ** (standard, 600H)	1	
	2B-2107-6	" " , (for 6mm)	1	
8	2B-2108	Corner Flap, Upper*	4	
	2B-2108-6	" , (for 6mm)	4	
9	2B-2109	Corner Flap, Lower LH*	1	
	2B-2109-6	" , (for 6mm)	1	
10	2B-2110	Corner Flap, Lower RH*	1	
	2B-2110-6	" , (for 6mm)	1	
11	2B-2111	Flap Hinge Bracket	12	
12	2B-2112	K-Type Flap Hinge Shaft	12	
13	2B-2113	Arch Strapway Bracket	11	
14	2B-2114	Flap Hinge Shaft	12	
15	2B-2115	Arch Frap Spring	12	
16	2B-2116	Corner Guide, LH Front	1	
17	2B-2117	Corner Guide, LH Rear	1	
18	2B-2118	Corner Guide, RH Front	1	
19	2B-2119	Corner Guide, RH Rear	1	
20	2B-2120	Back Guide Plate, Upper** (standard, W850)	1	
21	2B-2121	Back Guide Plate, Side** (standard, H600)	2	
22	2B-2122	Back Guide Plate, Corner Upper	2	
23	2B-2123	Back Guide Plate, LH Lower	1	
24	2B-2124	Back Guide Plate, RH Lower	1	
25	PN-0400	Pushing Nut, ø 4	12	
51	PW-0400	M4	12	
52	TS-0510	M5 x 10	8	
53	TS-0513	M5 x 13(Drill type)	53	
54	TS-0413	M4 x 13(Drill type)	24	

4. PART LIST

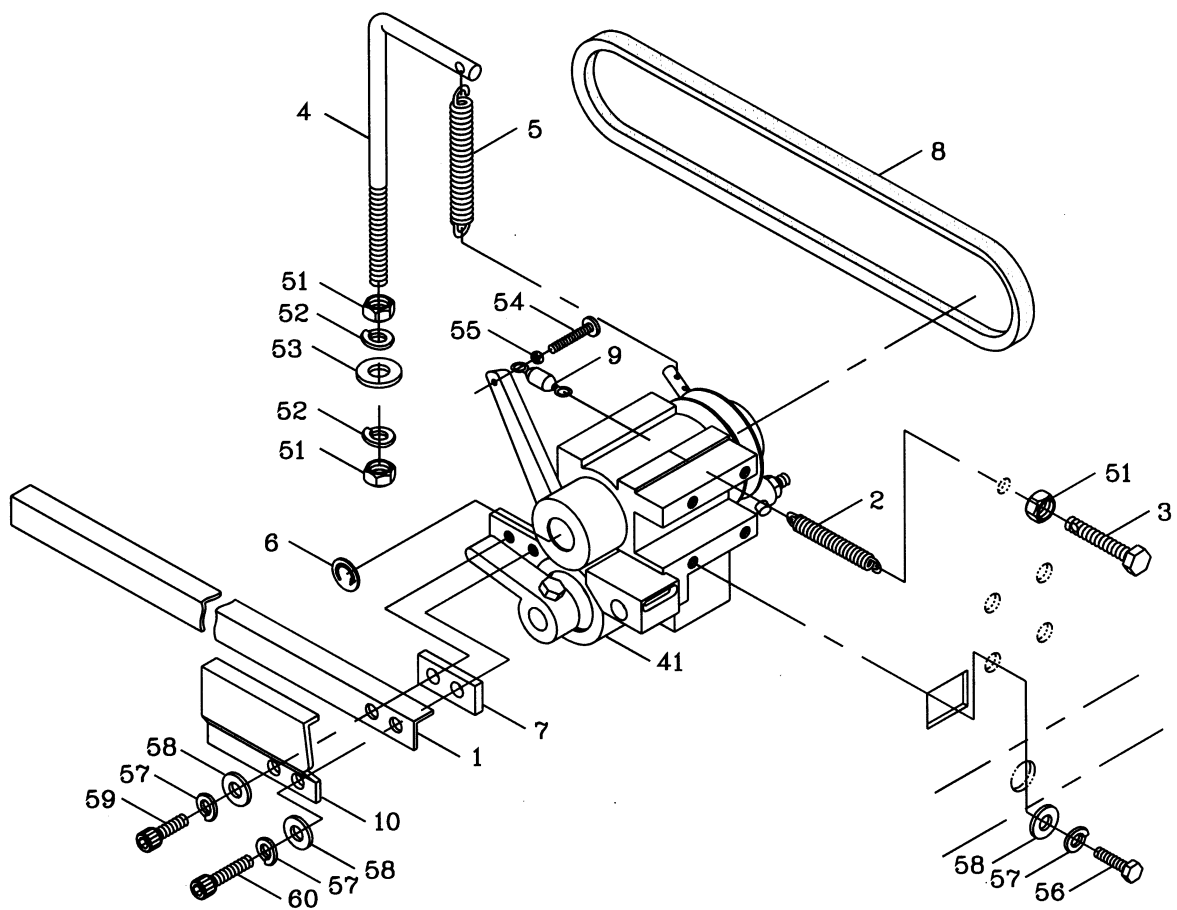
Pool unit

C. POOL UNIT (2C-0000)



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2C-1000	Pool Feed Group*	1	See page 78
2	2C-2000	Pool Box Group*	1	See page 82

C-1. Pool Feed Group (2C-1000)



4. PART LIST

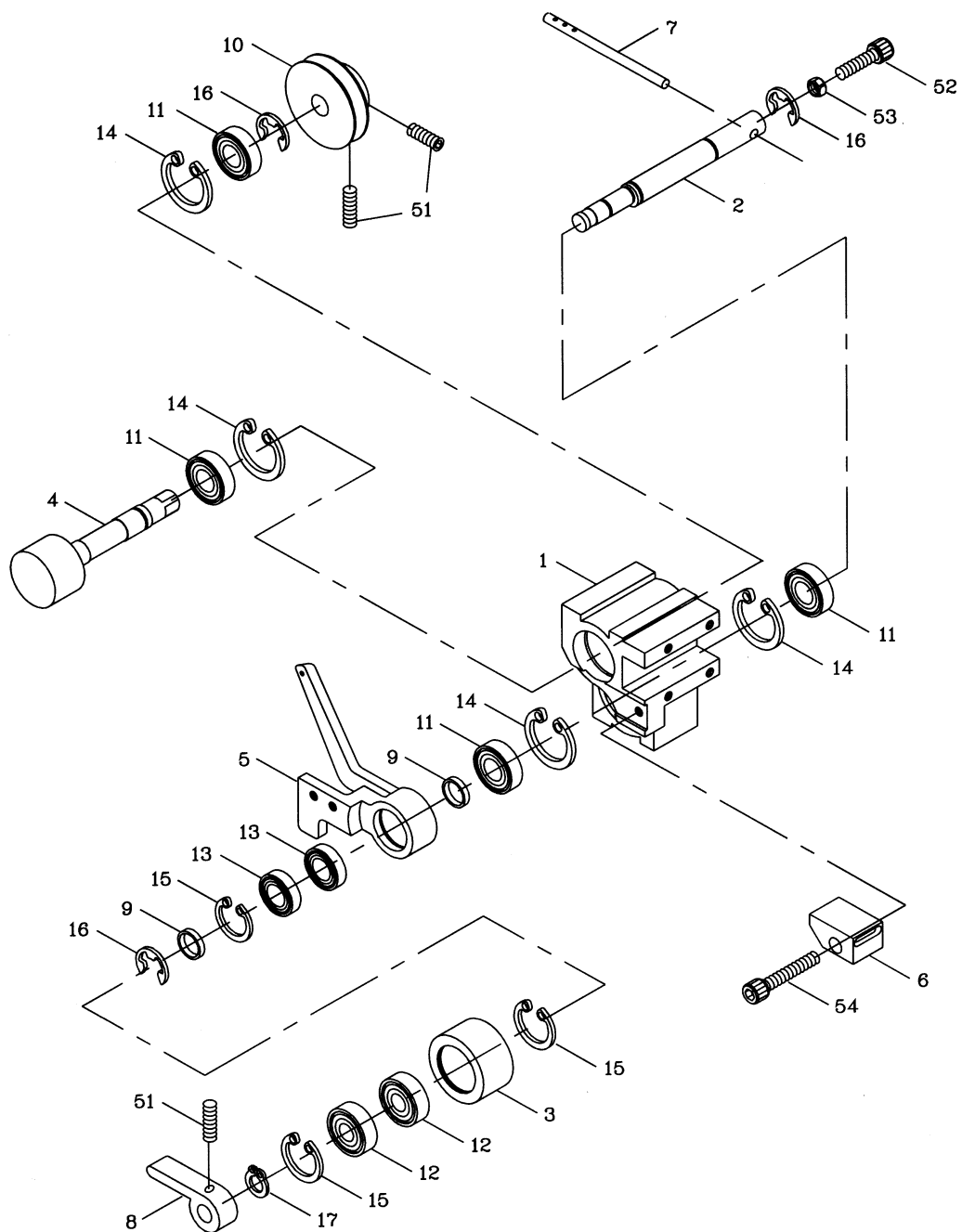
Pool unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2C-1001-6	Balance Bar* (6mm)	1	
	2C-1001-9	" (9mm)	1	
	2C-1001-12	" (12mm)	1	
	2C-1001-15	" (15.5, 19mm)	1	
2	2C-1002	Pool Balance Spring	1	
3	2C-1003	Pool Adjuster Pin	1	
4	2C-1005	Pool Spring Adjuster	1	
5	2C-1006	Pool Tension Spring	1	
6	2C-1007	Direction Sticker	1	
7	2C-1008	Balance Bar Spacer	1	
8	2L-0028	V-Belt, M-28(M3 Motor)	1	
9	2C-1010	Twist Stopper	1	
10	2C-1011-6	Strap Guard* (for 6mm)	1	
	2C-1011-9	" (for 9, 12mm)	1	
	2C-1011-15	" (for 15.5, 19mm)	1	
41	2C-1100	Pool Feed Assembly *	1	See page 80
	2C-1100-6	" , (for 6mm)	1	
51	HN-0800	M8	3	
52	SW-0800	M8	2	
53	PW-0800	M8	1	
54	TS-0410	M4 x 10	1	
55	HN-0400	M4	1	
56	HB-0620	M6 x 20	4	
57	SW-0600	M6	6	
58	PW-0600	M6	6	
59	SH-0615	M6 x 15	1	
60	SH-0620	M6 x 20	1	

4. PART LIST

Pool unit

C-1-1. Pool Feed Assembly (2C-1100)

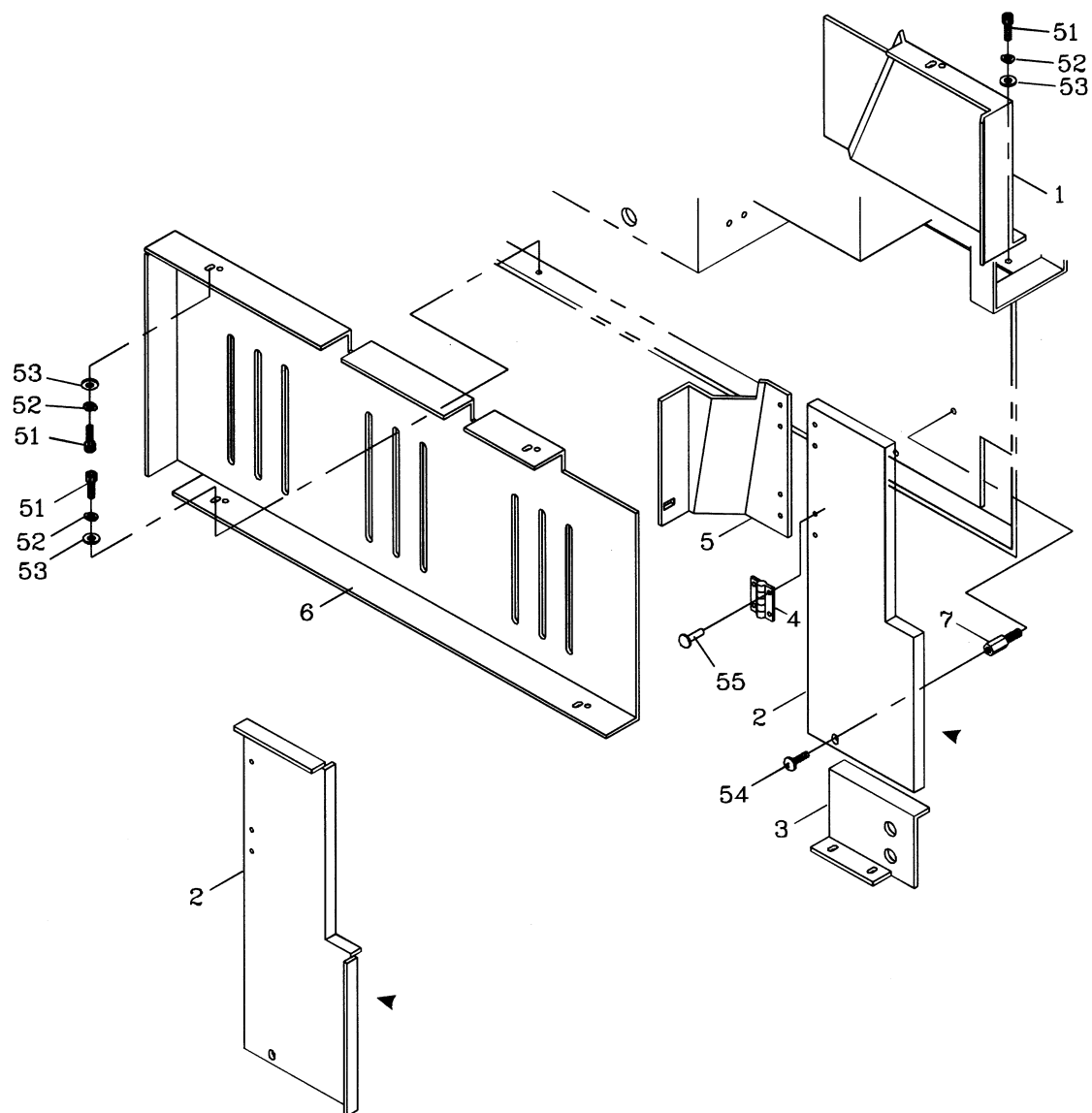


4. PART LIST

Pool unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2C-1101	Pool Bearing Case	1	
2	2C-1102	Pool Lower Shaft	1	
3	2C-1103	Pool Lower Roller	1	
4	2C-1104	Pool Main Roller & Shaft	1	
5	2C-1105	Pool Balance Bar Holder*	1	
	2C-1105-6	" , (for 6mm)	1	
6	2C-1106-6	Pool Feed Shooter* (6mm)	1	
	2C-1106-9	" (9mm)	1	
	2C-1106-12	" (12mm)	1	
	2C-1106-15	" (15.5mm)	1	
	2C-1106-19	" (19mm)	1	
7	2C-1107	Pool Lower Shaft Spring Hook	1	
8	2C-1108	Knob	1	
9	2C-1109	Bearing Collar	2	
10	2C-1110	Pool Feed Roller Pulley	1	
11	2H-6202	Ball Bearing, 6202ZZ	4	
12	2H-6201	Ball Bearing, 6201ZZ	2	
13	2H-6002	Ball Bearing, 6002ZZ	2	
14	2G-3500-H	Stop Ring, H-35	4	
15	2G-3200-H	Stop Ring, H-32	3	
16	2G-1200-E	Stop Ring, E-12	3	
17	2G-0012-S	Stop Ring, S-12	1	
51	SS-6010	M6 x 10	3	
52	SH-6015	M6 x 15	1	
53	HN-0600	M6	1	
54	SH-0630	M6 x 30(M6 x 35)	1	

C-2. Pool Box Group (2C-2000)



4. PART LIST

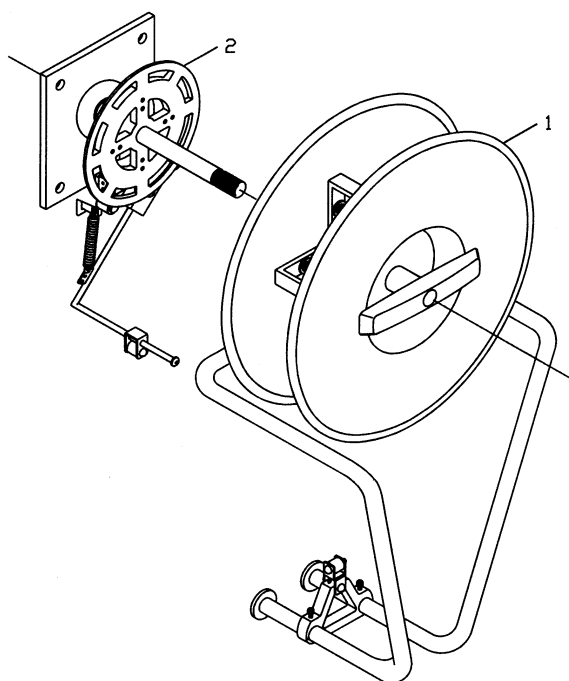
Pool unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2C-2004	Pool Box Rear	1	
2	2C-2001	Pool Box Front, RH Upper* (with Door)	1	
	2C-2001-6	" , (for 6mm)	1	
3	2C-2002	Pool Box Front, RH Lower (Pool Cover)	1	
4	2C-2007	Hinge(1)	2	
5	2C-2006	Pool Box Front, RH Door	1	
6	2C-2003	Pool Box Front, LH*	1	
	2C-2003-6	" , (for 6mm)	1	
7	2C-2005-6	Pool Box Spacer(Pool Box Stopper)* (6mm)	1	
	2C-2005-9	" " (9mm)	1	
	2C-2005-12	" " (12mm)	1	
	2C-2005-15	" " (15.5mm)	1	
	2C-2005-19	" " (19mm)	1	
51	SH-0410	M4 x 10	6	
52	SW-0400	M4	6	
53	PS-0400	M4	6	
54	TS-0510	M5 x 10	3	
55	LB-3208	Rivet ø 3.2	8	

4. PART LIST

Reel unit

D. REEL UNIT (2D-0000)

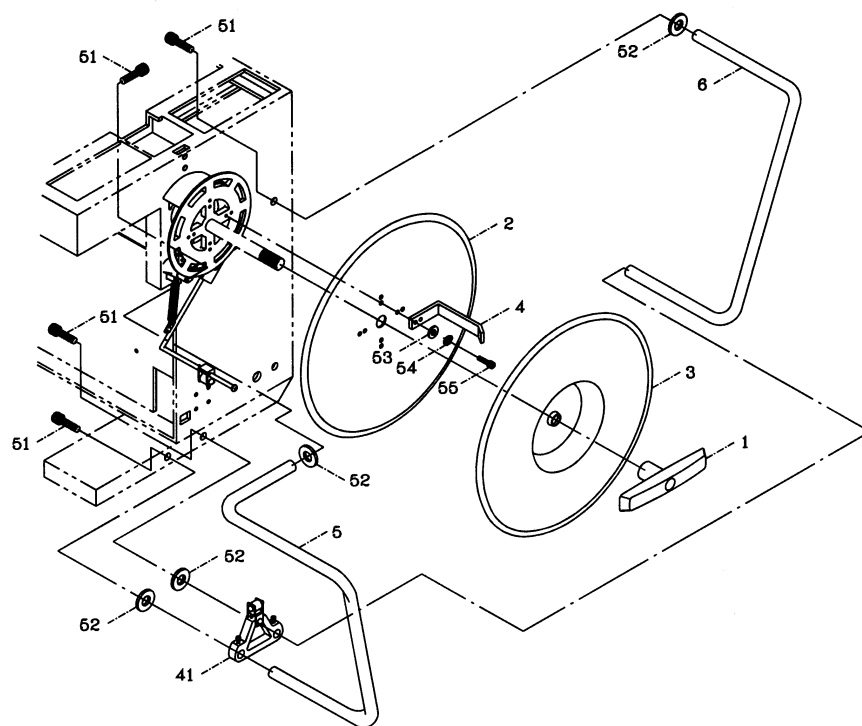


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2D-1000	Reel Group*	1	See page 86
2	2D-2000	Reel Brake Group*	1	See page 88

4. PART LIST

Pool unit

D-1. Reel Group (2D-1000)

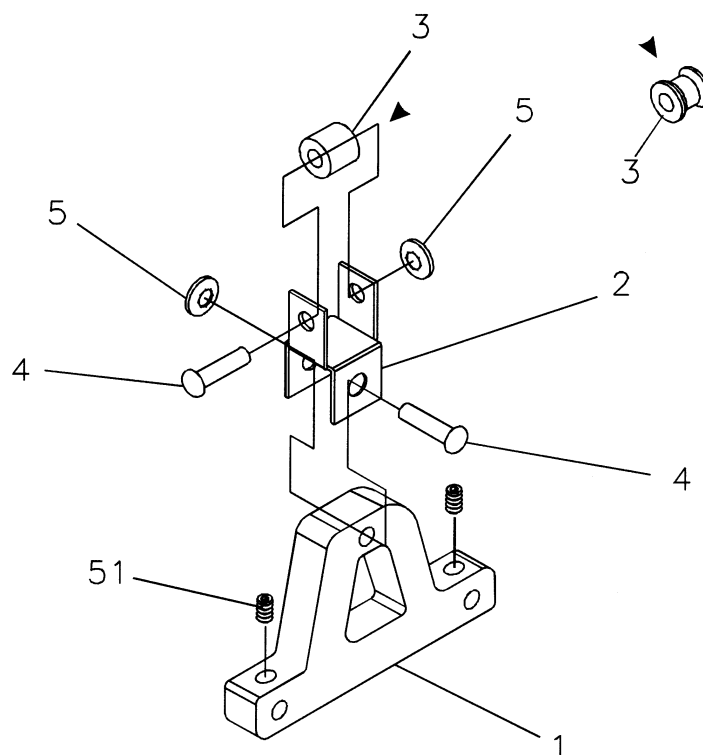


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2D-1001	Reel Nut Handle	1	See page 86
2	2D-1002	Reel In Circular	1	
3	2D-1003	Reel Out Circular	1	
4	2D-1004-200	Reel Bracket (for Coil Core ø 200/230)	4	
	2D-1004-280	Reel Bracket (for Coil Core ø 280)	4	
5	2D-1005	Reel Guard(Front)	1	
6	2D-1006	Reel Guard(Rear)	1	
41	2D-1100	Free Angle Bracket Holder Assembly	1	
51	SH-1420	M14 x 20 (M14 x 25)	4	
52	PW-1400	M14	4	
53	PW-0600	M6	8	
54	SW-0600	M6	8	
55	HB-0615	M6 x 20 (M6 x 15)	8	

4. PART LIST

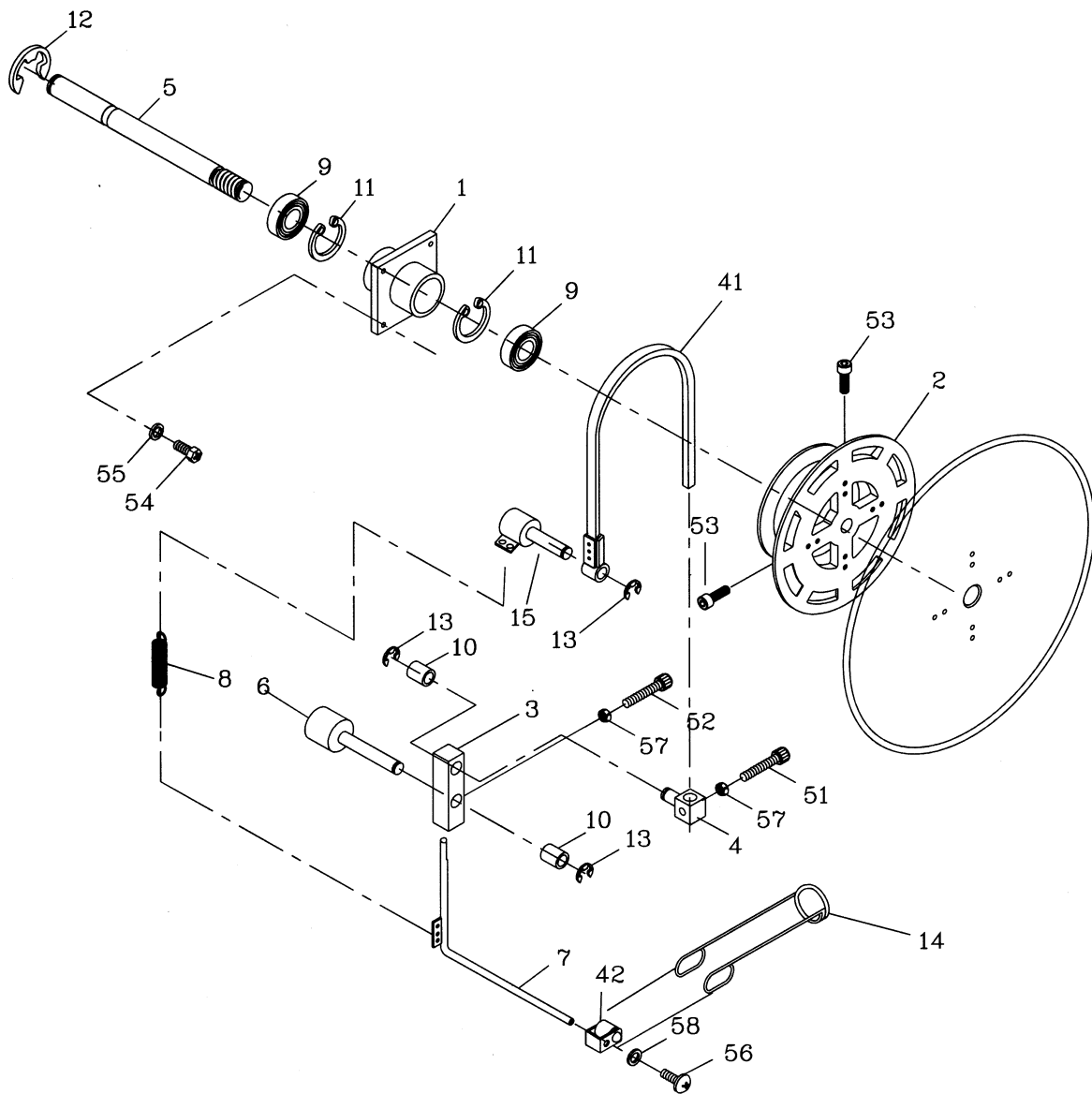
Pool unit

D-1-1. Free Angle Bracket Holder Assembly (2D-1100)



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2D-1101	Free Angle Roller Bracket Holder	1	
2	2D-1102	Free Angle Roller Bracket	1	
3	2D-1103	Strap Guide Roller*	1	
	2D-1103-6	" , (for 6mm)	1	
4	2D-1104	Rivet, ϕ 6 x 30	2	
5	PN-0600	Pushing Nut, ϕ 6	2	
51	SS-0610	M6 x 10	2	

D-2. Reel Brake Group (2D-2000)



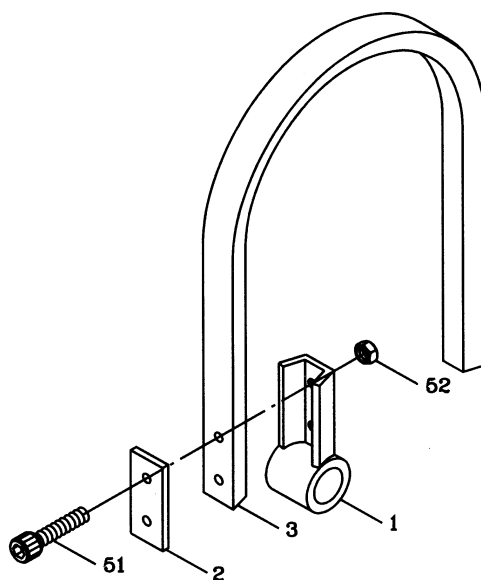
4. PART LIST**Pool unit**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2D-2001	Reel Unit Base	1	
2	2D-2002	Reel Brake Pulley	1	
3	2D-2003	Brake Tension Holder	1	
4	2D-2004	Brake Belt Tightener	1	
5	2D-2005	Reel Shaft	1	
6	2D-2006	Holder Shaft A (for Brake Tension Holder)	1	
7	2D-2007	Reel Brake Arm	1	
8	2D-2008	Brake Tension Arm Spring	1	
9	2H-6205	Ball Bearing, 6205ZZ	2	
10	2J-1525	Metal Bush, MB1525	2	
11	2G-5200	Stop Ring, H-52	2	
12	2G-1900	Stop Ring, E-19	1	
13	2G-1200	Stop Ring, E-12	3	
14	2D-2009	Strap Regulator	1	
15	2D-2010	Holder Shaft B (for Brake Belt Holder)	1	
41	2D-2100	Brake Belt Assembly	1	See page 90
42	2D-2200	Free Slide Roller Set	1	See page 91
51	SH-0625	M6 x 25	1	
52	SH-0620	M6 x 20	2	
53	SH-0820	M8 x 20	2	
54	HB-0615	M6 x 15	8	
55	SW-0600	M6	8	
56	TS-0510	M5 x 10	1	
57	HN-0600	M6	3	
58	PW-0600	M6	9	

4. PART LIST

Pool unit

D-2-1. Brake Belt Assembly (2D-2100)

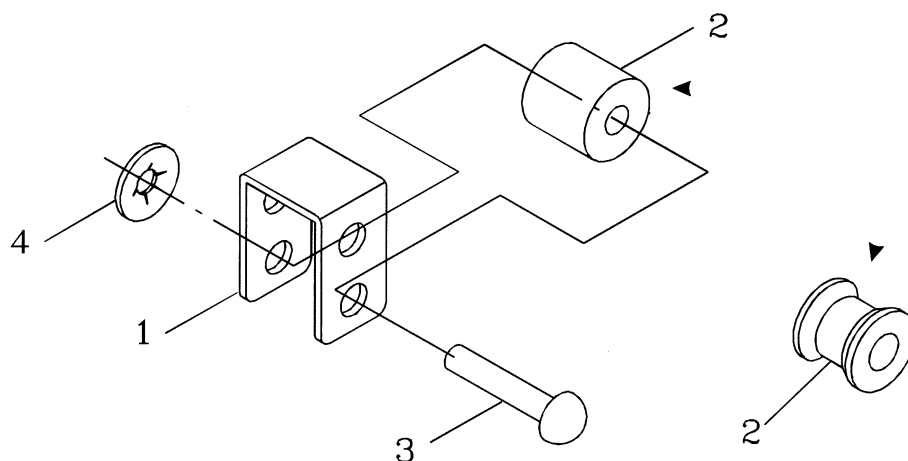


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2D-2101	Brake Belt Holder	1	
2	2D-2102	Belt Holder Plate	1	
3	2D-2103	Brake V-Belt	1	
51	SH-0520	M5 x 20	2	
52	HN-0500	M5	2	

4. PART LIST

Pool unit

D-2-2. Free Slide Roller Set (2D-2200)

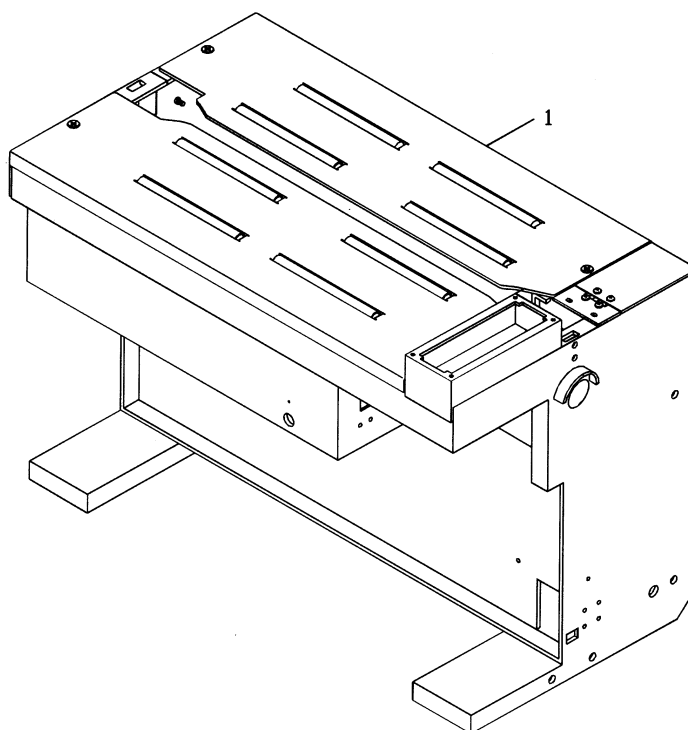


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2D-2201	Free Slide Roller Bracket	1	
2	2D-2202	Strap Guide Roller*	1	
	2D-2202-6	" , (for 6mm)	1	
3	2D-2203	Rivet, $\phi 6 \times 30$	1	
4	PN-0600	Pushing Nut, $\phi 6$	1	

4. PART LIST

Body unit

E. BODY UNIT (2E-0000)

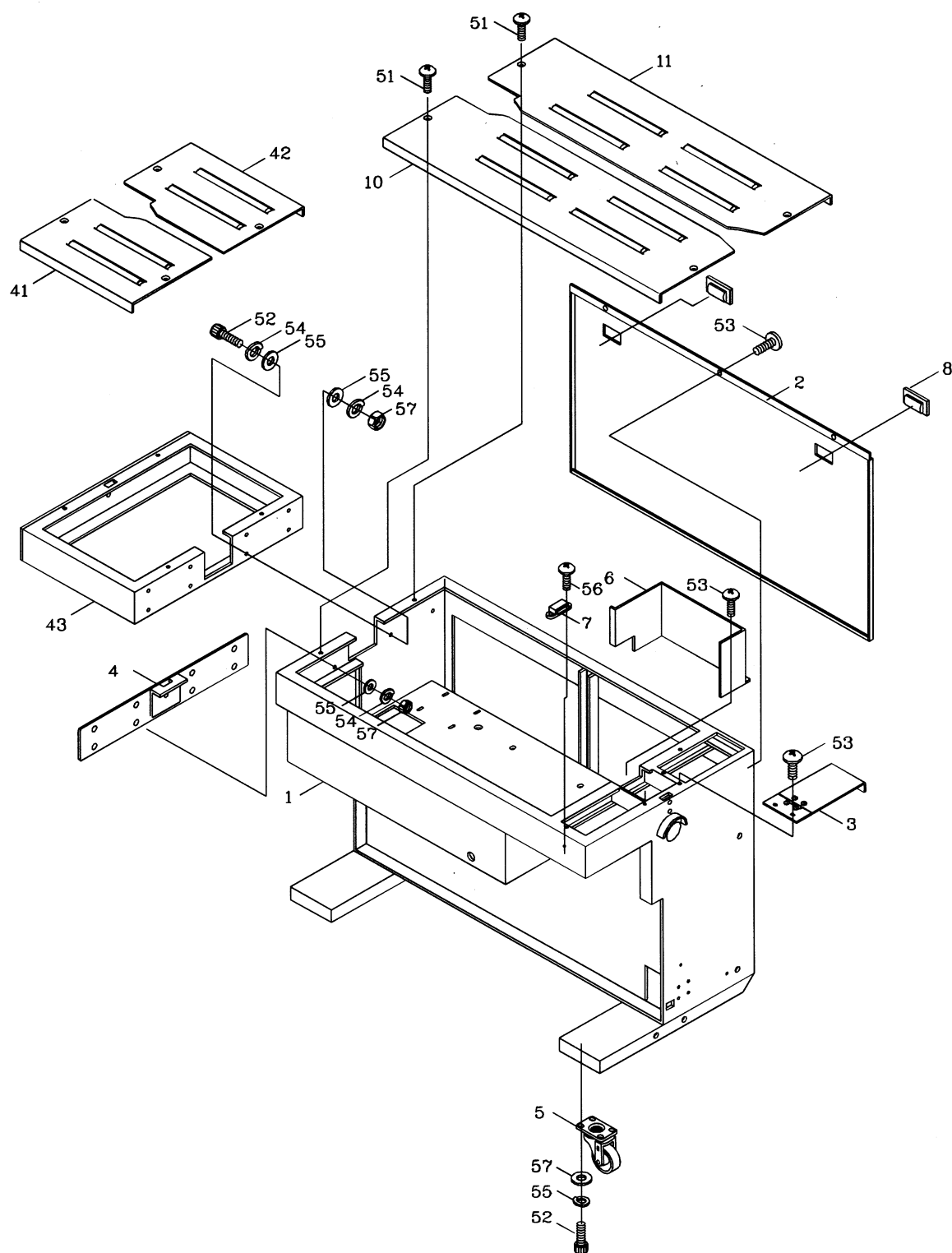


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2E-1000	Body Group**	1	See page 94

4. PART LIST Body unit

4. PART LIST Body unit

E-1. Body Group (2E-1000)



4. PART LIST

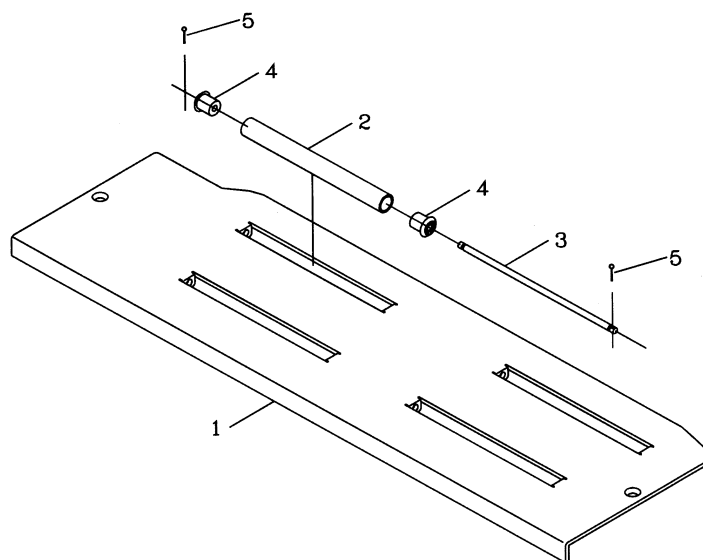
Body unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2E-1001	Body Frame	1	
2	2E-1002	Rear Panel	1	
3	2E-1003	Rear Operation Cover	1	
4	2E-1004	Side Apron**	1	
5	2E-1005	Caster	4	
6	2E-1006	PCB Control Cover	1	
7	2E-1007	Magnet(1)	1	
8	2E-1008	Edge Guard	2	
10	2E-1100	Upper Table, Front Set** (Standard Arch = W850)	1	See page 96
	:	:		
11	2E-1200	Upper Table, Rear Set** (Standard Arch = W850)	1	See page 97
	:	:		
41	2E-1300	Upper Table, Front Extension Set**	1	
	:	:		
42	2E-1400	Upper Table, Rear Extension Set**	1	
	:	:		
43	2E-1011	Extension Frame**	1	
	:	:		
51	TS-0610	M6 x 10(SUS)	4	
52	HB-0615	M6 x 15	24	
53	TS-0510	M5 x 10	8	
54	SW-0600	M6	32	
55	PW-0615	M6	32	
56	TS-0410	M4 x 10	2	
57	HN-0600	M6	8	

4. PART LIST

Body unit

E-1-1. Upper Table, Front Set (2E-1100)

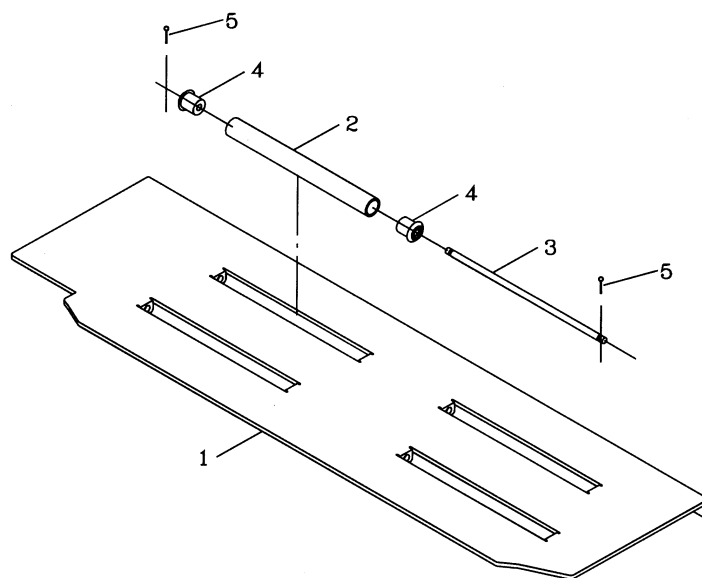


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2E-1101	Upper Table, Front **	1	
	:	:		
2	2E-1102	Table Roller	4	
3	2E-1103	Table Roller Shaft	4	
4	2E-1105	Plastic Bushing	8	
5	2E-1104	Pin	8	

4. PART LIST

Body unit

E-1-2. Upper Table, Rear Set (2E-1200)

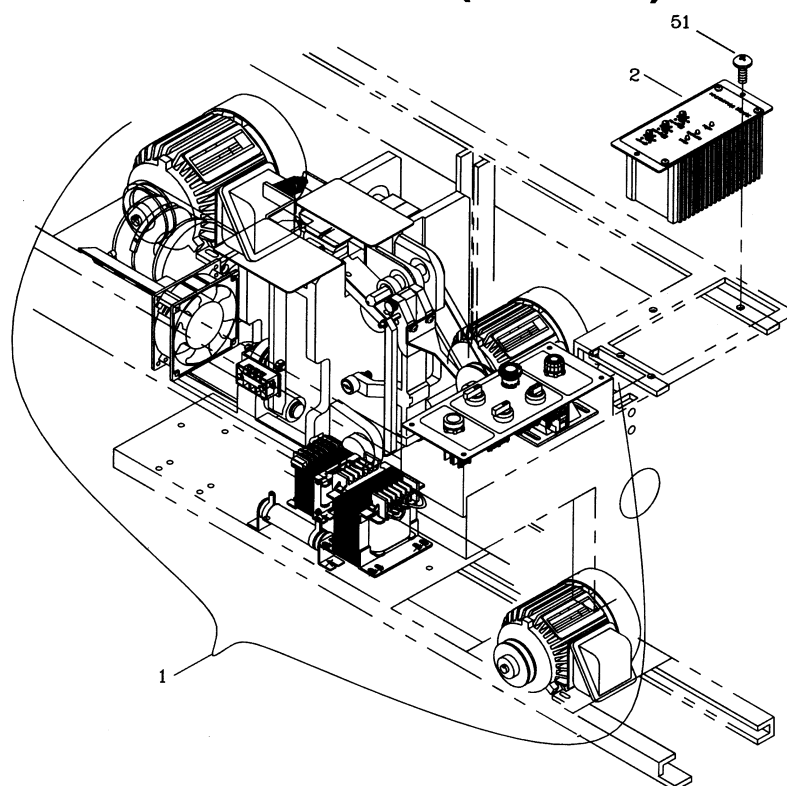


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2E-1201	Upper Table, Rear **	1	
	:	:		
2	2E-1202	Table Roller	4	
3	2E-1203	Table Roller Shaft	4	
4	2E-1105	Plastic Bushing	8	
5	2E-1204	Pin	8	

4. PART LIST

Electric control unit

F. ELECTRIC CONTROL UNIT (2F-0000)

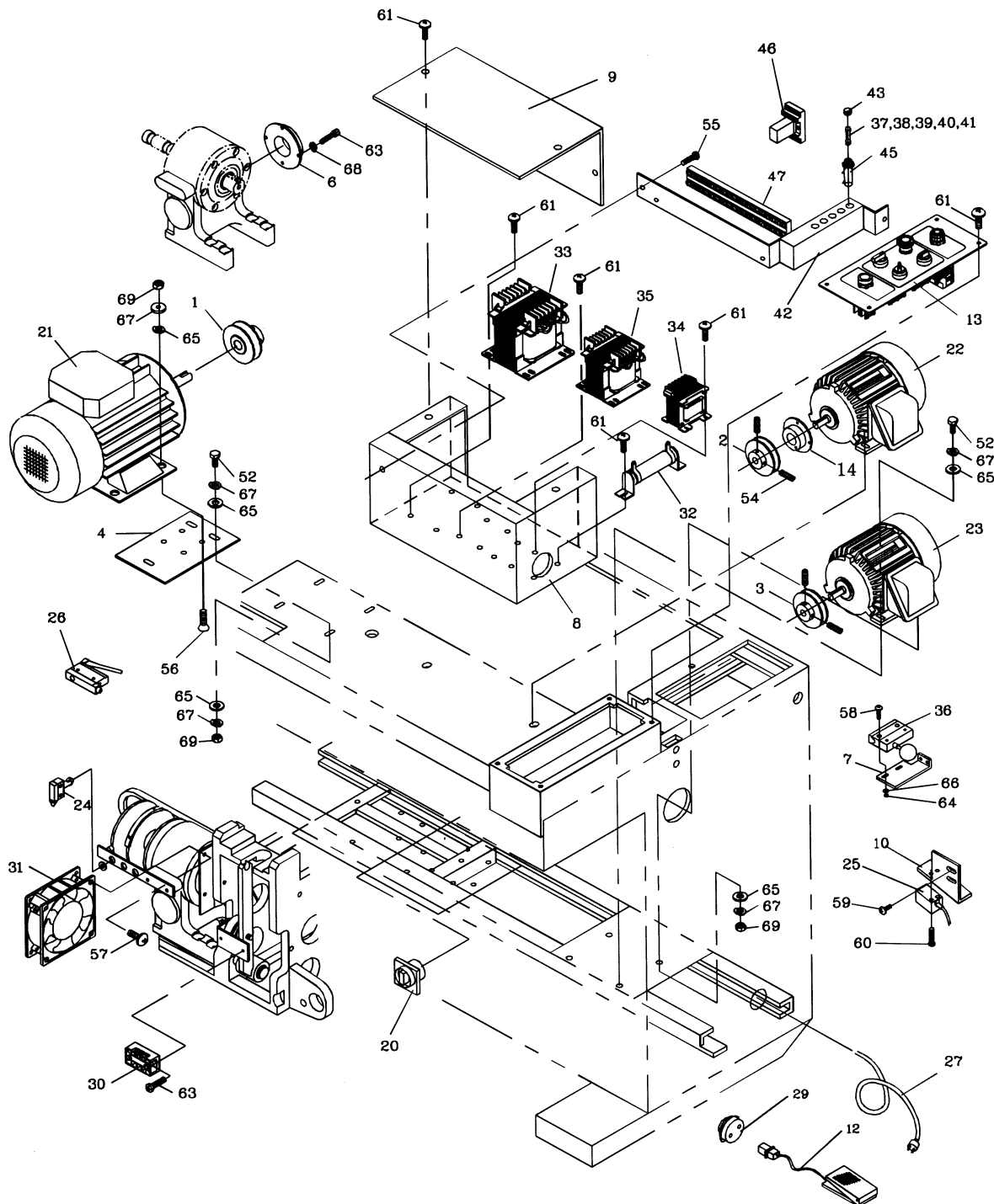


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2F-1000	Electric Group*, ***	1	See page 100
2	2F-2000-3	PCB Control Group ***	1	See page 105
		-301N (3phase)		
	2F-2000-3D	PCB Control Group	1	
		-301ND (3phase, Delay)		
	2F-2000-3S	PCB Control Group	1	
		-301S (3phase, Short Feed)		
	2F-2000-3SD	PCB Control Group	1	
		-301SD (3phase, Short Feed, Delay)		
	2F-2000-1	PCB Control Group	1	
		-101N (1phase)		
	2F-2000-1D	PCB Control Group	1	
		-101ND (1phase Delay)		
	2F-2000-1S	PCB Control Group	1	
		-101S (1phase, Short Feed)		
	2F-2000-1SD	PCB Control Group	1	
		-101SD (1phase, Short Feed, Delay)		
51	TS-0510	TMS, M5 x 10	2	

4. PART LIST

Electric control unit

F-1 Electric Group (2F-1000)



4. PART LIST

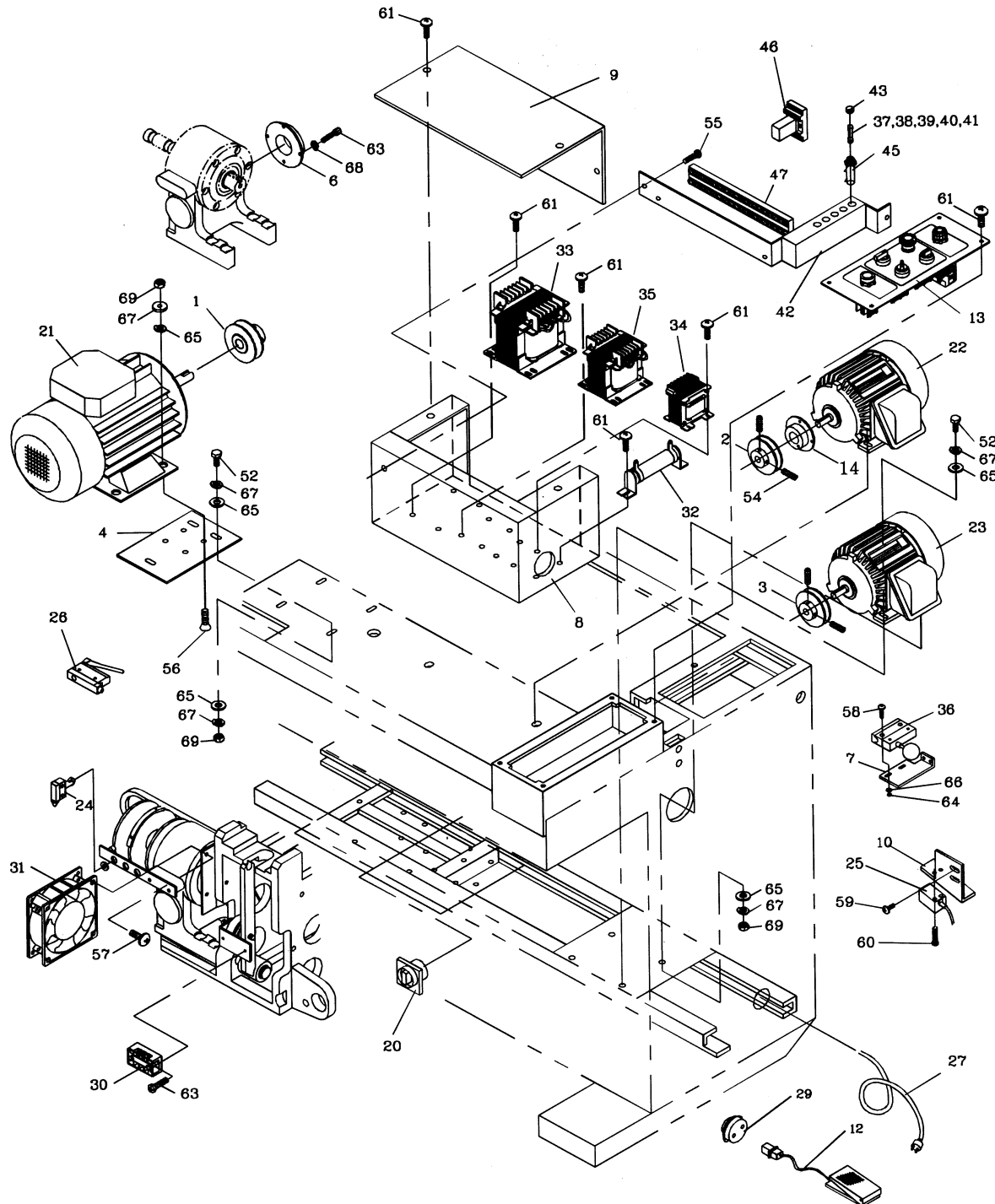
Electric control unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2F-1001	Sealing Head Motor Pulley (for 50Hz)	1	See page 104
		Sealing Head Motor Pulley (for 60Hz)	1	
2	2F-1002	Feed Motor Pulley (for 50Hz)	1	
		Feed Motor Pulley (for 60Hz)	1	
3	2F-1003	Pool Feed Motor Pulley	1	
4	2F-1004	Motor Fixing Plate	1	
6	2F-1006	Magnetic Brake (for Gear Box)	1	
7	2F-1007	Limit Switch Fixing Bracket for LS6	1	
8	2F-1008	Transformer Box Lower	1	
9	2F-1009	Transformer Box Cover	1	
10	2F-1010	Proximity Switch Fixing Bracket(PX4)	1	
12	2F-1012	Foot Pedal Switch	1	
13	2F-1100	Operation Panel Assembly	1	
14	2F-1014	Magnetic Brake* (for 6mm)	1	
20	2F-1020	Main Power Switch	1	
21	2F-1021-36	Sealing Head Motor M1(1/2HP, 3Ø, 60HZ)	1	
	2F-1021-35	Sealing Head Motor M1(1/2HP, 3Ø, 50HZ)	1	
	2F-1021-16	Sealing Head Motor M1(1/2HP, 1Ø, 60HZ)	1	
	2F-1021-15	Sealing Head Motor M1(1/2HP, 1Ø, 50HZ)	1	
22	2F-1022-36	Feed Motor M2(1/4HP, 3Ø, 60HZ)	1	
	2F-1022-35	Feed Motor M2(1/4HP, 3Ø, 50HZ)	1	
	2F-1022-16	Feed Motor M2(1/4HP, 1Ø, 60HZ)	1	
	2F-1022-15	Feed Motor M2(1/4HP, 1Ø, 50HZ)	1	
23	2F-1023-36	Pool Feed Motor M3(1/4HP, 3Ø, 60HZ)	1	
	2F-1023-35	Pool Feed Motor M3(1/4HP, 3Ø, 50HZ)	1	
	2F-1023-16	Pool Feed Motor M3(1/4HP, 1Ø, 60HZ)	1	
	2F-1023-15	Pool Feed Motor M3(1/4HP, 1Ø, 50HZ)	1	
24	2F-1024	Limit Switch(LS1, LS2 & LS3)	3	
25	2F-1025	Proximity Switch(PX4)	1	
26	2F-1026	Limit Switch LS5 for Door	1	
27	2F-1027	Power Cord	1	
29	2F-1029	Foot Pedal Switch Receptacle	1	
30	2F-1030	Heater Terminal	1	
31	2F-1031	Smoke Fan(DC24V)	1	
32	2F-1032	Resistor	1	
33	2F-1033	Transformer(for Main Power 1.5KVA)	1	
34	2F-1034	Transformer(for P.C.B 50VA)	1	
35	2F-1035	Transformer(for Heater 150VA)	1	
36	2F-1036	Limit Switch LS6 for Ball Switch(Option)	1	

4. PART LIST

Electric control unit

F-1 Electric Group (2F-1000)



4. PART LIST

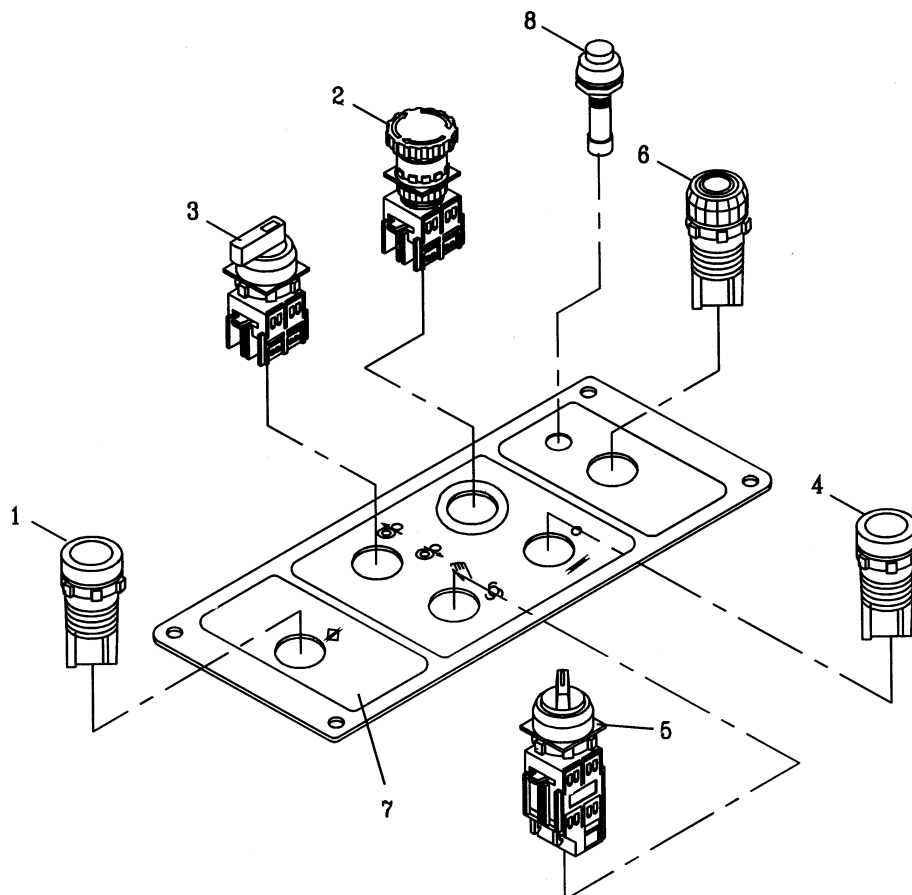
Electric control unit

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
37	2F-1037-15	Ceramic Tube Fuse F1***-15A, (1Ø,110V~120V)	1	
	2F-1037-10	" -10A, (1Ø,200V~240V)	1	
	2F-1037-63	" -6.3A, (3Ø,200V~480V)	1	
38	2F-1038-15	Ceramic Tube Fuse F2***-15A, (1Ø,110V~120V)	1	
	2F-1038-10	" -10A, (1Ø,200V~240V)	1	
	2F-1038-63	" -6.3A, (3Ø,200V~480V)	1	
39	2F-1039	Ceramic Tube Fuse F3-6.3A,(3Ø,200V~480V)	1	
40	2F-1040	Glass Tube Fuse F4 - 1A	1	
41	2F-1041	Glass Tube Fuse F5 - 1A	1	
42	2F-1042	Fuse Fixing Bracket	1	
43	2F-1043	Fuse Cover	5	
45	2F-1045	Fuse Holder	5	
46	2F-1046	Relay : AC 24V (with relay socket)	1	
47	2F-1047	Wiring Terminal Brock	1	
52	HB-0625	M6 x 25	12	
54	SS-0610	M6 x 10	6	
56	FS-0625	M6 x 25	4	
57	PS-0510	M5 x 10	2	
58	PS-0425	M4 x 25	6	
59	TS-0510	M5 x 10	6	
60	PS-0315	M3 x 15	2	
61	TS-0410	M4 x 10	24	
63	PS-0410	M4 x 10	6	
64	HN-0400	M4	6	
65	PW-0600	M6	28	
66	PW-0400	M4	6	
67	SW-0600	M6	28	
69	HN-0600	M6	16	

4. PART LIST

Electric control unit

F-1-1. Operation Panel Assembly (2F-1100)

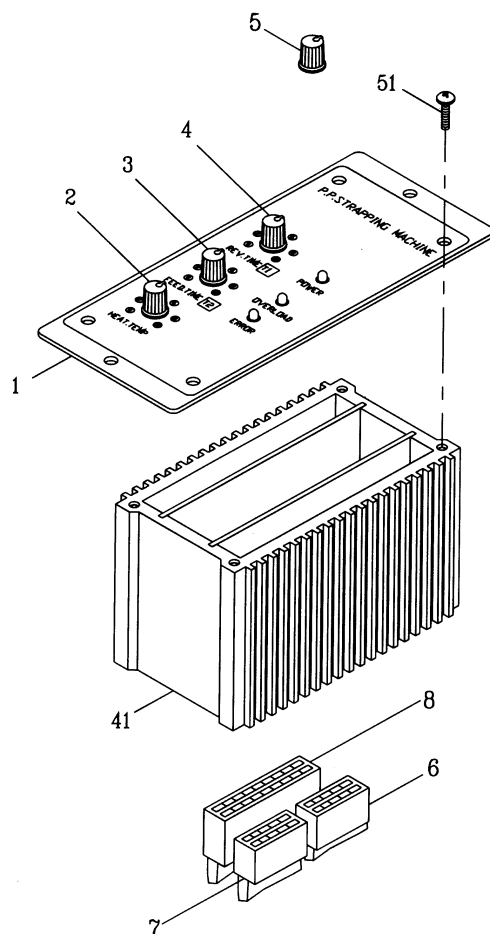


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2F-1101	Start Button	1	
2	2F-1102	Emergency Stop Button	1	
3	2F-1103	Strap Feed Switch	1	
4	2F-1104	Operating Ready Lamp Button	1	
5	2F-1105	Manual/Auto Selector Switch (Option :for Ball Switch)	1	
6	2F-1106	Power Lamp	1	
7	2F-1107	Front Operation Panel	1	
8	2F-1108	Reset Button (Option : for Short Feed)	1	

4. PART LIST

Electric control unit

F-2. PCB Control Group (2F-2000)



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	2F-2001	Rear Operation Panel	1	
2	2F-2002	Heater Set Volume	1	
3	2F-2003	Feed Timer Volume(T2)	1	
4	2F-2004	Reverse Timer Volume(T1)	1	
5	2F-2005	Extension Timer Volume(Option: for Delay)	1	
6	2F-2006	Connector 1(11pins)	1	
7	2F-2007	Connector 2(13pins)	1	
8	2F-2008	Connector 3(21pins)	1	
41	2F-2009	PCB Control Box	1	
51	TS-0410	M4 x 10	4	