

OPERATION



PART I

CONTENTS

1. Safety Instruction	1
2. Construction and Units	3
3. General Safety Remarks	4
4. Machine Information	7
5. Operating the Machine	14
6. Adjustment	15
7. Maintenance	17
8. Troubleshooting	19
9. Wiring Diagram	20

1. Safety Instructions

THIS MANUAL GIVES YOU INFORMATION ON SAFETY INSTRUCTIONS, SPECIFICATIONS, OPERATION AND MAINTENANCE OF STRAPPING MACHINES.

BEFORE OPERATING OR SERVICING THE MACHINE, PLEASE REVIEW THE ENTIRE MANUAL AND FOLLOW THE SAFETY INSTRUCTIONS CAREFULLY.

(1) Before Operating

- a. Verify that the power line voltage is correct.
- b. The machine must be properly grounded to avoid a shock hazard. All wiring must be in accordance with local wiring standards.
- c. The strapping machine can only be operated with polypropylene (P.P.) strapping; do not use polyester (PET) strapping or polyethylene (PE) cord strap.

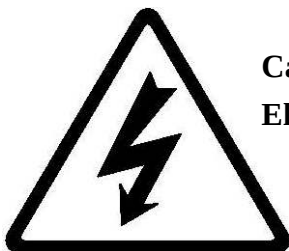
(2) During Operation

- a. The weight of the package cannot exceed 80 kg (176 lbs).
- b. The size of the package should not be less than 80mm (width) × 20mm (high) (3.16" × 0.79").
- c. Check if the machine emits any smokes or unusual sound when it is running.

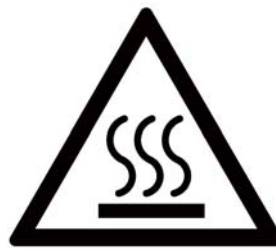
(3) After operating

- a. Remove dust and dirt from the unit; pay particular attention to the interior of the arch.
- b. Turn off the power when the machine is not in use.

(4) Signs



Caution!
Electric Shock Hazard



Caution!
Hot!
Do not touch!

(5) Maintenance

- a. Turn off the power before removing either of the top covers.
- b. Use the correct tools and parts to repair the machine.
- c. The heater tongue is very hot; do not touch it.

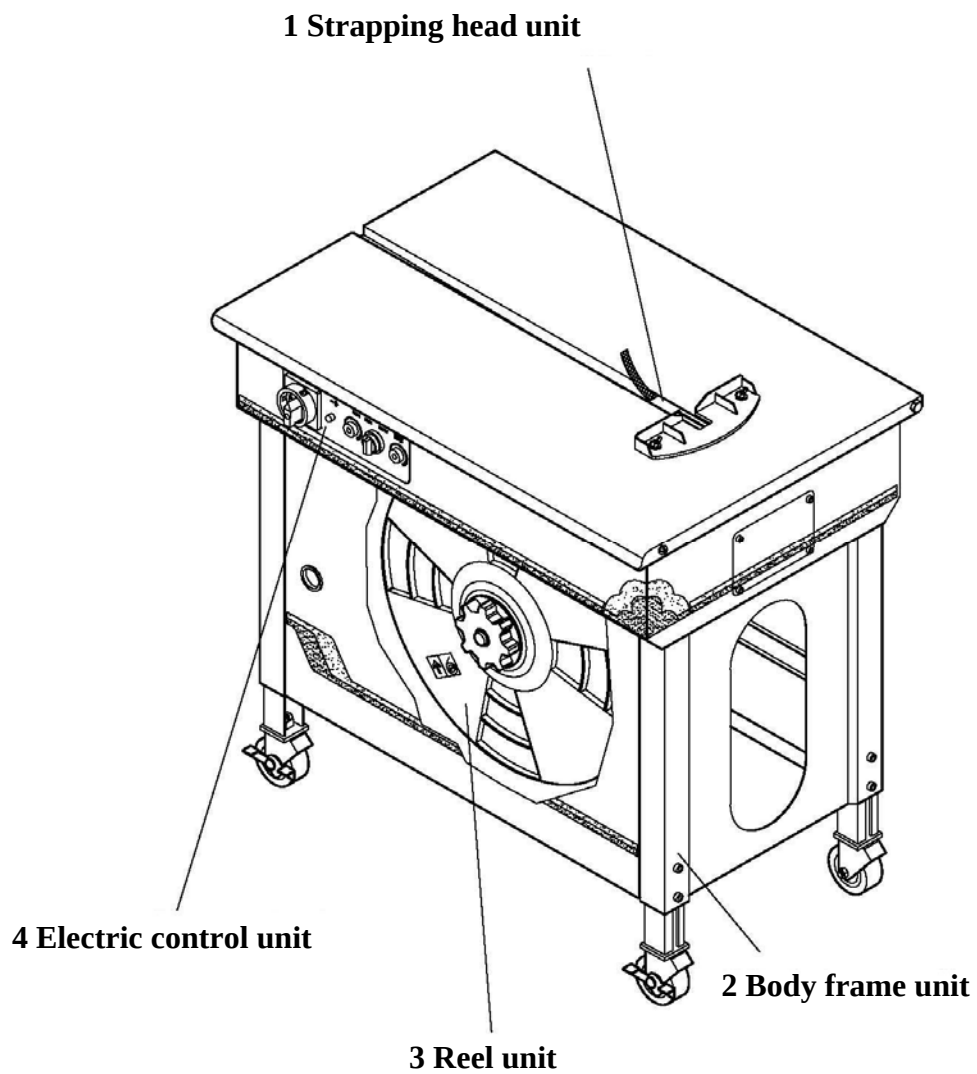
(6) Storage

- a. The store room must be dry.
- b. Do not expose the machine to extreme cold or heat environment.
- c. Place the machine on an even floor in order to avoid any distortion.

(7) Other Reminders

- a. Do not alter or bypass protective interlocks.
- b. An operation manual must remain attached to the machine at all times.
- c. Do not alter the equipment or circuitry unless authorized to do so by the manufacturer.

2. Construction and Units



3. General Safety Remarks

(1) Basic Operation

The manual and the safety remarks are to be read before use. The operator manual should be kept with the machine at all times. Intervals for maintenance and inspections are to be adhered to.

This machine was built with state of the art technology and rigid adherence to safety standards.

Unless used properly, it can cause injury to operators or persons in close proximity to the machine. In addition, improper use can cause damage to the machine or property around the machine.

(2) Basic Safety Precautions

The user is to be instructed in all other generally applicable legal and other mandatory regulations relevant to accident prevention and environmental protection in addition to the operating instructions.

For safety reasons, long hair must be tied back or otherwise secured, garments must be close fitting and no jewelry may be worn.

Use protective equipment whenever required by circumstances or by law.

Carefully observe all safety instructions and warnings attached to the machine and make sure that they are always complete and perfectly legible.

Always make certain that persons being trained and instructed in working on or with the machine are permanently supervised by an experienced person.

Work on the electrical system and equipment of the machine is only to be carried out by a skilled electrician or by persons under the supervision and guidance of a skilled electrician and in accordance with the rules and regulations of electrical engineering.

(3) Safety Instructions Governing Specific Operational Phases

Avoid any operation mode that might be unsafe.

All necessary precautions to ensure that the machine is only used being in a safe and reliable state are to be taken. The machine is only to be operated if all protective and safety devices, including removable safety devices, emergency shut-off equipment, noise-protection elements and exhaust systems are in right place and fully functional.

The machine is to be checked for damage and defects at least once per work shift. Any changes including the working behavior of the machine are to be reported to competent persons immediately. If necessary, the machine is to be stopped and locked immediately.

In case of any malfunction the machine must be stopped and locked until the defect has been eliminated.

Generally make sure that nobody is at risk before starting up the machine. All personnel that will be operating this machine should be thoroughly trained in all phases of operation and safety.

Always tighten unscrewed connections after maintenance and repair.

After completing maintenance and repair all safety devices removed for setting up or repairing the machine must be reinstalled and checked for functionality prior to putting the machine back into service.

To minimize the environmental impact all consumables and replaced parts must be disposed of safely.

Before starting the machine check that the accessories have been stowed away safely.

Do not attempt any operation that may be a risk to the stability of the machine.

(4) Warning of Electrical Dangers

Immediately remove power to the machine in case of trouble in the electrical system. Replace a fuse with one with the same style and ratings; pay particular attention to matching the specified current.

Any electrical work performed on the equipment must be conducted by a skilled electrician or under the supervision of a skilled electrician. All work must be observed good electrical engineering practice and follow safety rules and local wiring standards.

Inspect the electrical equipment of the machine at regular intervals. Tighten any loose connections. Check wiring for scorch marks; replace scorched wiring and determine and correct the reason for the overheating.

When working on live equipment, ensure that a second person is available to cut power in case of an emergency. When appropriate, secure the working area with safety tape and a warning sign. Use insulated tools for electrical work.

Before working on high-voltage assemblies, turn off the power supply. Carefully discharge the supply cable and short-circuit any energy-storage components such as capacitors.

If the equipment was moved, carefully refit and refasten all parts removed for transport before reapplying power.

Before moving the machine, remember to disconnect the power cable.

(5) Grounding Instructions Shall Include the Following:

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock. This product is equipped with a cord that has a grounding wire and an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

If repair or replacement of the cord or plug is necessary, connect the ground wire to the ground terminal of the plug. The wire with green insulation (with or without yellow stripes) is the grounding wire.

Check with a qualified electrician or service person if the grounding instructions are not clear or if in doubt about the proper grounding of the machine. Do not modify the plug provided; if it will not fit the power outlet, have the proper outlet installed by a qualified electrician.

This product is designed for use on a nominal 120 (230) volt AC circuit and has a grounding plug.

DANGER!

Improper installation of the grounding can result in electrocution.

(6) Extension Cords:

Use only a three-wire extension cord that has a grounded, three-pronged plug. Use a power receptacle suitable for the plug on the product. Make sure the extension cord is in good mechanical condition. When using an extension cord, be sure to use the right cable size to carry the current of the product. A cord of insufficient capacity will cause a drop in line voltage resulting in loss of power and overheating. Refer to the following table:

Length (feet)	25	50	100	150	200	250	300	400	500
Gauge	16	14	10	8	8	6	6	4	4
mm ²	1.25	2	5.5	8	8	14	14	22	22

4. Machine Information

(1) Areas of Application and Machine Description

This plastic strapping machine can be used for a wide range of applications where the minimum package width is at least 80mm, and the minimum height is 20mm. This machine is particularly suitable for heavy packaged goods as well as printed products, boxes, etc.

Machine Description

Semi-automatic plastic strapping machine for use with polypropylene strapping.

Heavy duty construction.

Simple, safe and user-friendly operation.

Moveable, with large table area high capacity strap reel and stainless steel table.

Two locking castors, to ensure safe operation.

Extremely low-noise strapping head.

Strap tension adjustable from low to extremely high.

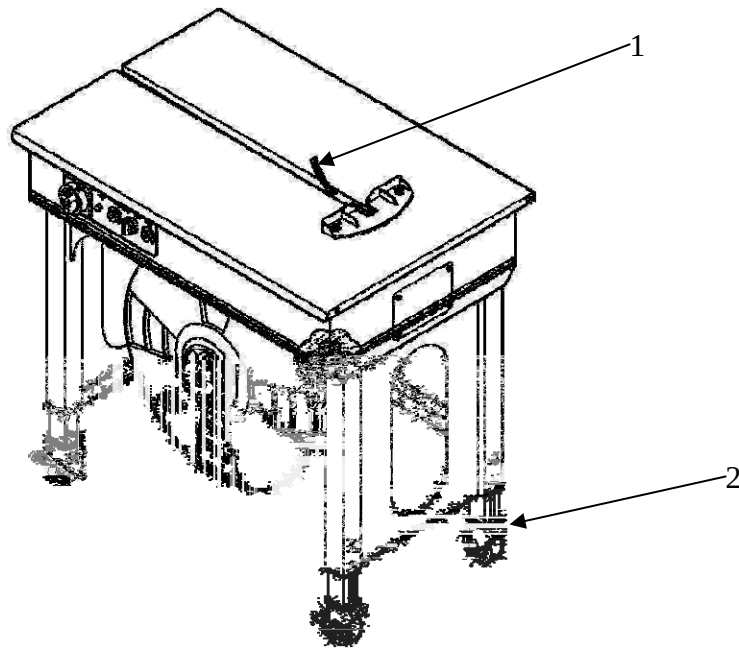
Environment Information

The strapping machine shall be installed in the following conditions:

- Supply voltage: 0.9 - 1.1 nominal supply voltage.
- Source frequency: 0.99 - 1.01 nominal frequency.
- Ambient temperature: 5°C - 40°C (41°F-104°F).
- Relative humidity: not exceed 50% at 40°C.
- Please provide a suitable illumination around the machine for safety operation.

(2) the Safety Devices

Only Polypropylene strapping can be used in this machine. The use of other synthetic straps can produce substances hazardous to health.



Caution!

The heating unit operates at a very high temperature in order to melt the P.P. strapping. To prevent burns, avoid contact with this area. (1)

To move the machine, the two lockable casters (2) must be unlocked. Relock the two casters when the machine is in its new position.

Description of the Safety Devices

The machine is turned on when it is connected to AC power and the main power switch (QS1), located on the front operating panel, is placed in the ON position. After approximately 3 minutes, the heating element will reach its operating temperature and the machine will be ready for use.

If it is necessary to make adjustments inside the machine during operation, after a strap jam for example, the table top can be unscrewed. Observe caution as the machine is still fully functional with the covers removed. If machine with safety switch, when table top is opened, safety switch is activated. This will remove power but heating element is keeping heating.

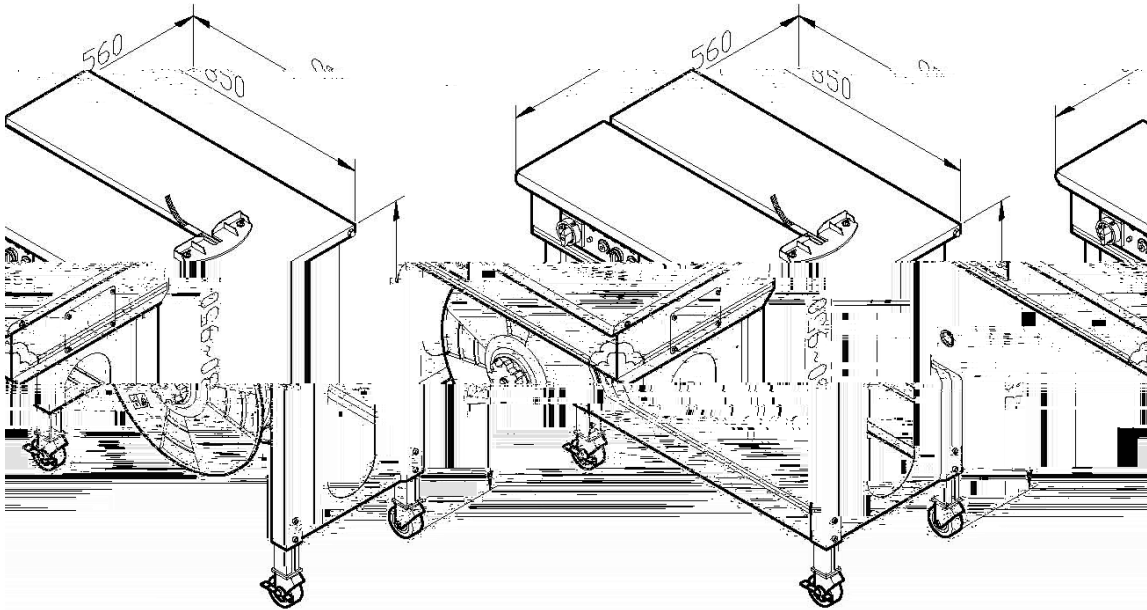
(3) Electrical Specifications

System configuration :	1L+N+PE (Ground)	1L+N+PE (Ground)
Nominal power :	0.3 KW	0.3 KW
Rated current :	2A	3A
Rated voltage :	220V/230V/240V	110V
Rated frequency :	50Hz	60Hz
Type of current :	AC - single phase	AC - single phase

Minimum Requirements

The electrical supply line for the machine must have a minimum cross-section of at least $3C \times 1.0\text{mm}^2$.

(4) Technical Data



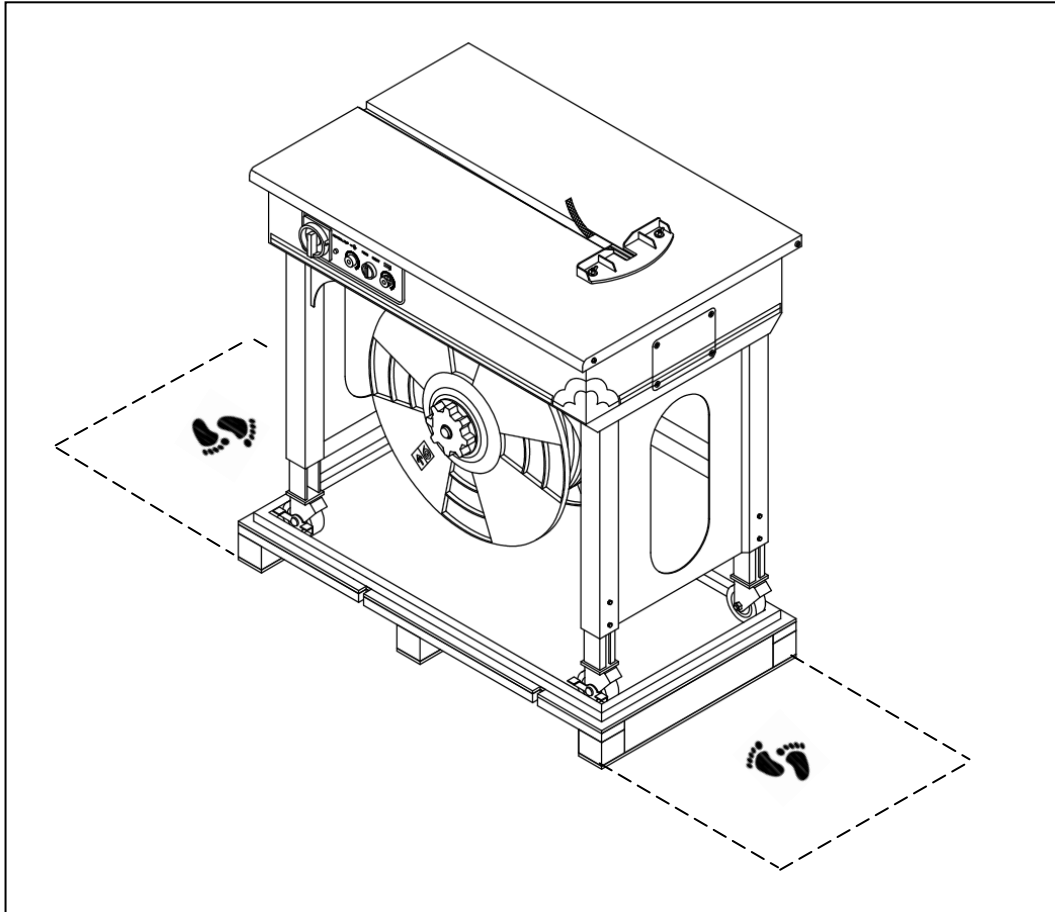
TP-501/TP-501-15(Enclosed Frame)

TP-502/TP-502-15(Open Frame)

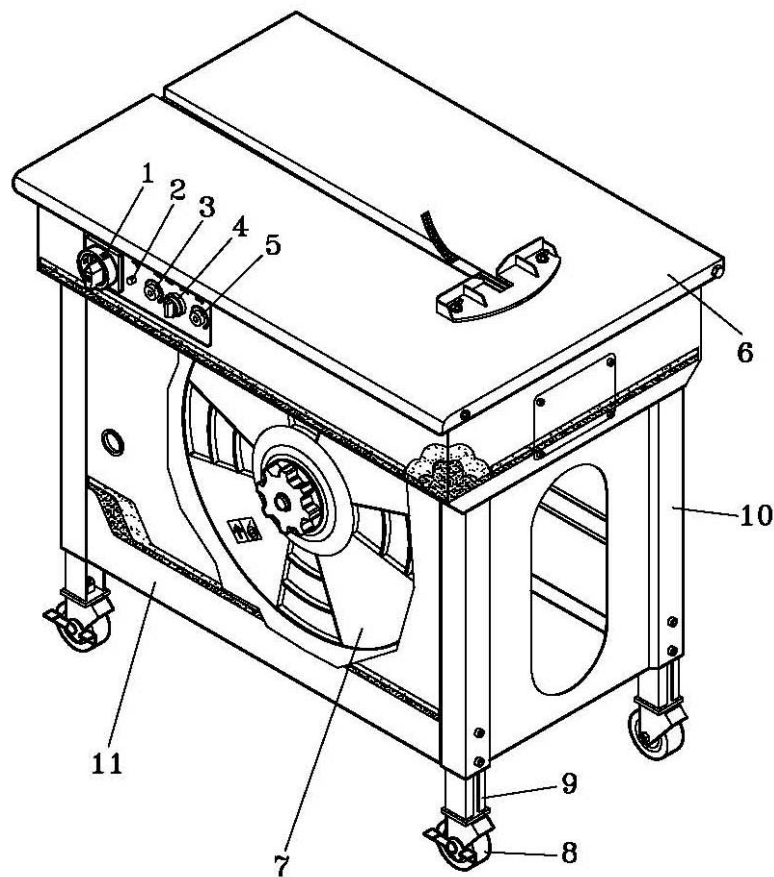
Sealing method:	Heat
Strap width:	5 mm up to 12 mm (For TP-501/TP-502) 12 mm up to 15.5 mm (For TP-501-15/TP-502-15)
Strap reel diameter:	200 mm / 280mm (If strap core is 280mm, you can take off the center drum to have core size 200mm.)
Width :	850 mm
Depth:	560 mm
Height:	minimum 780 mm minimum 950 mm
Weight:	70kg (154 lbs)(TP-502), 76kg (167 lbs)(TP-501)
Noise emission:	65dB (A)

(5) How to Remove/Handle the Machine from the Pallet

Two people stand on each side of the machine and remove the machine from the pallet to the floor.

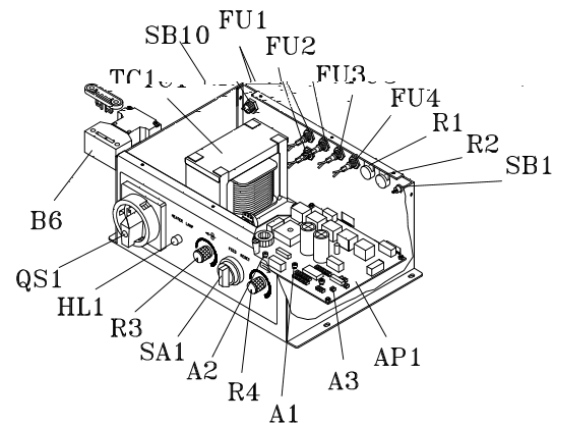
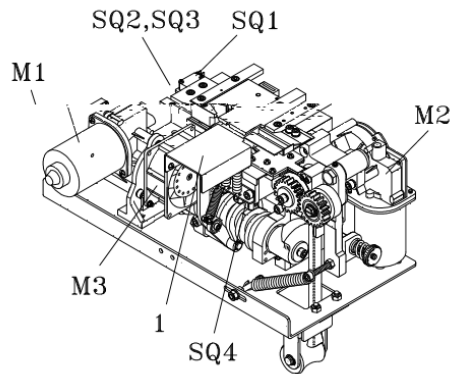


(6) Machine and Operating Elements



1. Main power switch
2. Ready lamp, lamp will light up after turn on the Main power switch, and flash when machine error
3. Feed length knob, strap feed length
4. Selector switch, strap feed and reset
5. Tension adjustment knob, strap tension adjustment
6. Table top
7. Strap reel
8. Castor, two lockable 、 two free
9. Adjustable legs
10. Frame
11. Door (For TP-501)

(7) Installation Diagram



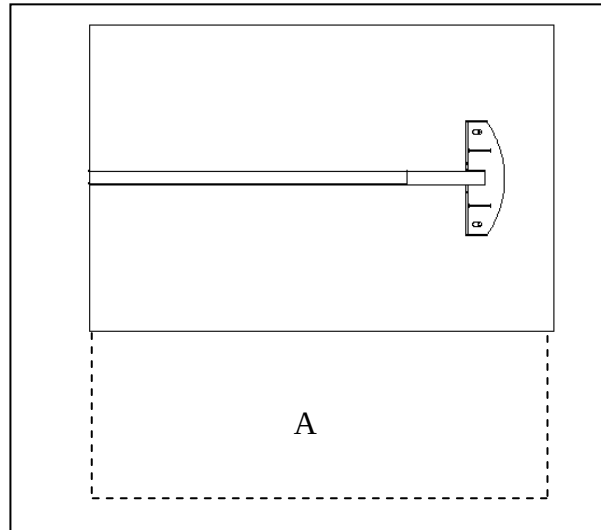
M1	Motor 1, unit drive	B6	Interlock safety switch (Option)
M3	Fan	QS1	Main power switch
SQ2	Switch, home position	HL1	Ready lamp
SQ3	Switch, sealing position	TC1	Transformer
1	Heater ass'y	R3	Feed length knob
SQ1	Switch, start	FU1	Fuse 110V/3A, 220V/230V/240V/2A (For power)
SQ4	Switch, low tension	SA1	Selector switch, strap feed and reset
M2	Motor 2, strap feed and reverse	A2	Feed length knob
		R4	Tension adjustment knob
		FU2	Fuse 1A (For P.C.B.)
		FU3	Fuse 10A (For Motor)
		A1	High tension knob
		FU4	Fuse 1A (For Heater)
		R1	Weld cooling timer
		AP1	P.C.B.
		SB1	Jog switch

5. Operating the Machine

(1) Operation Space

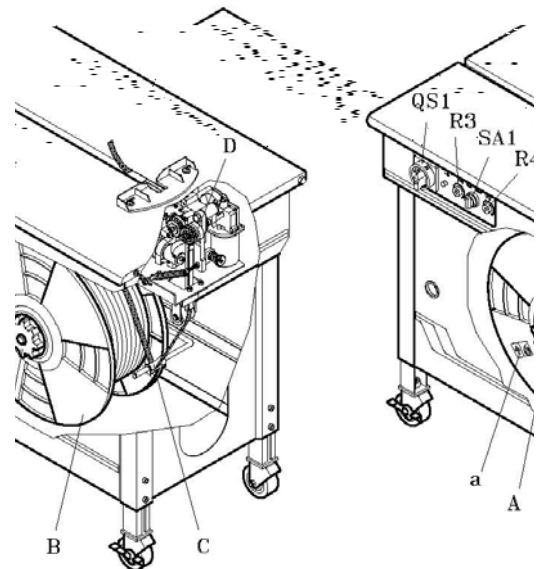
Keep the area (A) free for the operator.

The area (A) is necessary for operation strapping machine or changing the strap coil.



(2) How to Load and Thread P.P. Strap

1. Turn reel nut handle (A) left and remove it.
2. Remove the outer flange (B) and install the strap reel.
3. Make sure that the sense of rotation is counterclockwise (a) when unrolling.
4. Put the outer flange back on and tighten reel nut handle (A) to the right.
5. Remove all adhesive strips or other adhesive material.
6. Unroll about 1.5 m of strap and make sure that it is not twisted.
7. Thread the strap over (C) to roller (D) in direction of the arrow.
8. Turn left button SA1 (strap feed) to the left until obtaining the length you need.



(3) How to Operate

1. Turn main switch QS1 to ON. The heating element reaches the working temperature at approximately 3 minutes.
2. Place a package on the table top (The package must cover the Slide Table).
3. Properly adjust the strap tension potentiometer R4 according to various package.
4. Place the strap around the package to be strapped and insert the strap into the strapping head until it stops.
5. The strapping and welding sequence should complete.
6. At end of strapping sequence the strap end is fed automatically, and potentiometer R3 is to adjust the strap length

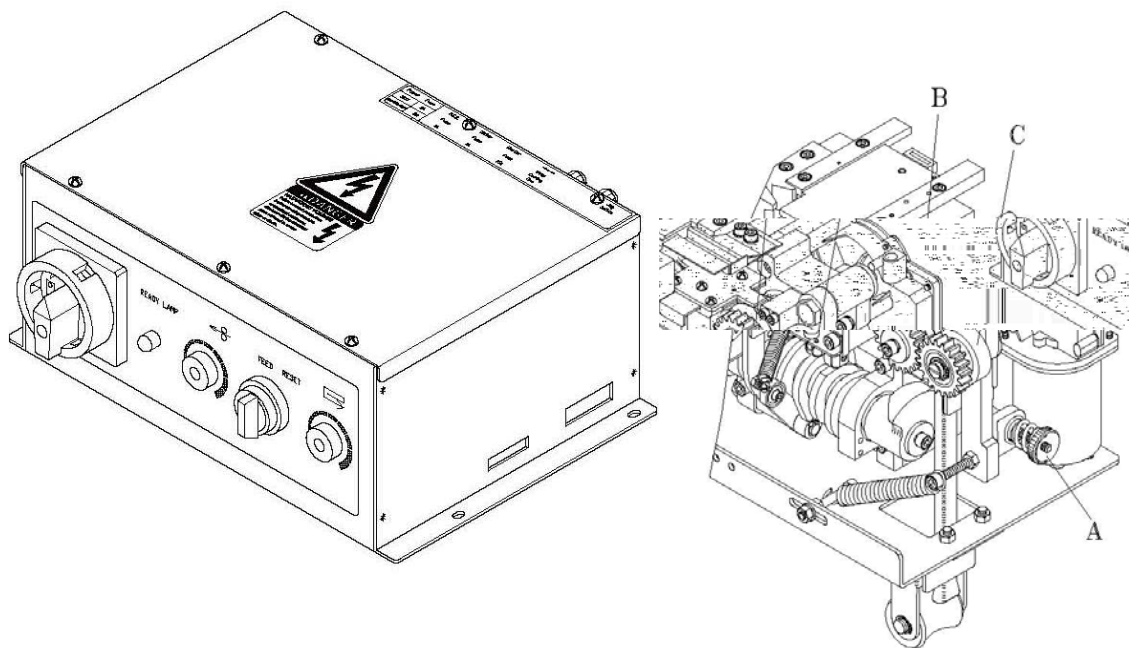
6. Adjustment

(1) Adjustment on Tensioning Rollers

The machine is already well set for enough high tension. However, according to different strap characteristics (such as smoother surface or different thickness), some adjustments for higher tension might be necessary.

When insufficient strapping tension occurs while R4 (tension adjustment knob) is on MAX position, please turn Nut A clockwise.

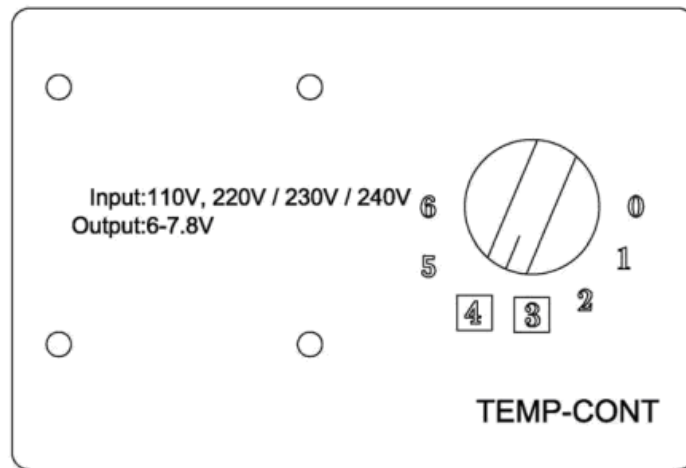
This can solve the problem of insufficient strapping tension at high tension and strap slipping between B & C due to this.



(2) Heater temperature

Set the knob to position 3 or 4. Adjust the heater temperature by selecting a position between 1 and 6. Choose the suitable temperature, bearing in mind the environmental conditions of the machine. If the heater temperature is too high or too low, a proper seal will not be obtained.

Gradually increase or reduce the position until obtaining an optimum seal.



(3) Strap Width

1. Adjust Guide Front (TB-197) for inserting strap. The inlet for strap should be 0.5 mm – 1.0 mm wider than strap in use.
2. Adjust the position of Strap Guide B (T5-1-10150 / T5-1-10152) according to the strap width. (refer to fig. 5)
3. Loosen the 5 screws outside the Strap Guide B (T5-1-24131 / T5-1-24132) and adjust its position according to the scale indicated. (refer to fig. 6)

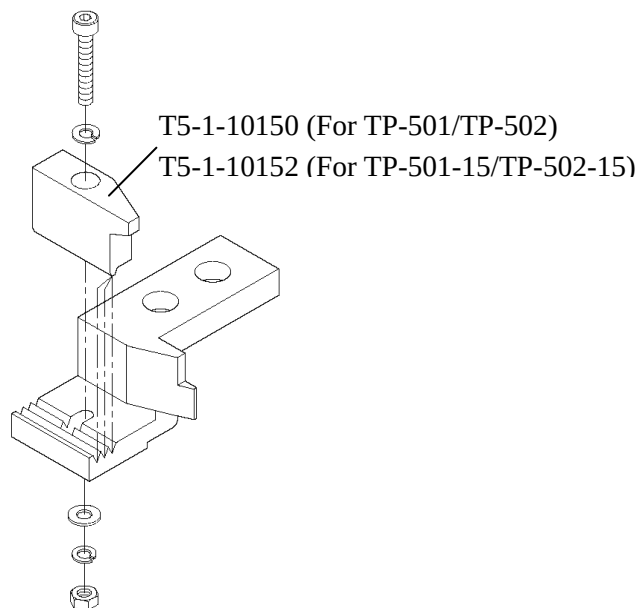


Fig.5.

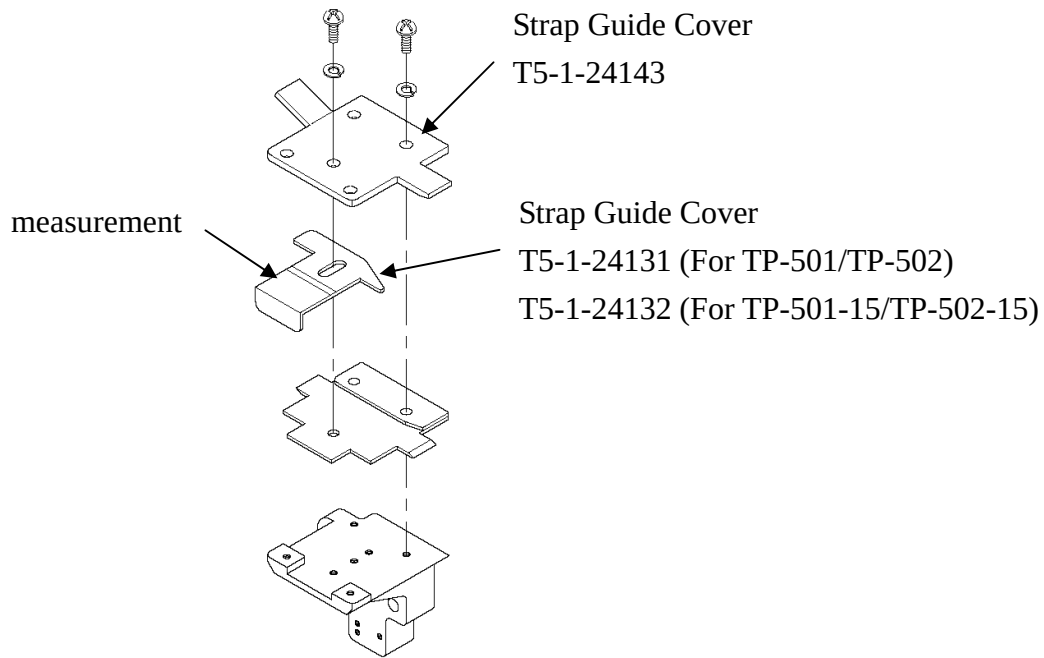


Fig.6.

7. Maintenance

Warning:

Before any maintenance or repairs on the machine, set the Main Power Switch to "O" (OFF). Wait about 5 minutes for cooling down the heater to avoid burns with this area.

1.Cleaning and Lubrication

The high reliability and long service life of the strapping machine will depend on regular cleaning and maintenance.

ATTENTION!

All the important strap transport components, such as the tension rollers and the strap guides, must be kept free from oil and grease. (lubricant)

The lubricant has to be non-resinous.

The lubricant is SAE 30

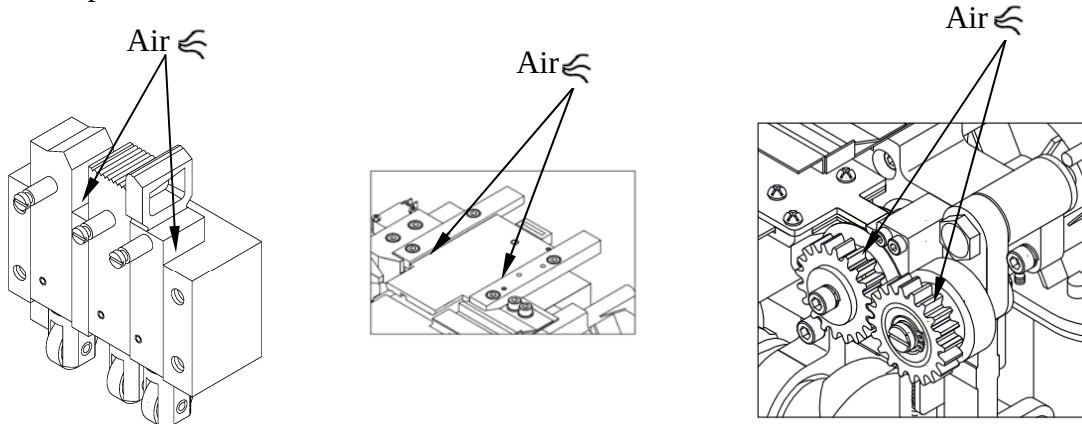
2.Maintenance

Only use original spare parts supplied by manufacturer.



Daily:

Use air gun to clean the circled positions (nearby the cutters, strap guide daily)
 Remove plastic residue in the machine.



Weekly:

Lubricate front bar, press bar and rear bar weekly.
 Please refer to the following mesh areas for instruction.

Before lubricating, be sure to clean the parts first to avoid mixing oil and debris which might have a bad effect on machine's function.

Monthly :(or 3,000 strapping cycles)

Clean both sides of heater plate and polish with fine sandpaper if necessary.

ATTENTION: Make sure the welding plate is cool first!!

Check cam rollers of seal head for easy movement. slide table back to home position automatically by the spring tension.

Be sure to clean any debris in the tension roller.

6 Months: (or 18,000 strapping cycles)

Check heater plate, replace and readjust it if necessary.

Check strap cutter in seal head, replace it if necessary.

Check that connector at wiring loom to printed circuit board is firmly fixed.

Make machine ready for operation. Strap one bundle manually several times, paying attention to mal-functions, repeat procedure.

1 year :(or 36,000 strapping)

Replace deflection roller if it shows visible changes.

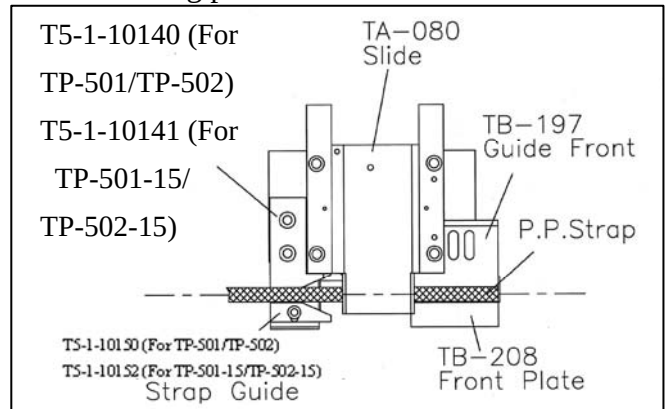
In case of loud noise at bearings: locate them, replace the bearings.

Get machine ready for operation again, strap one bundle manually several times, paying attention to malfunctions.

8. Troubleshooting

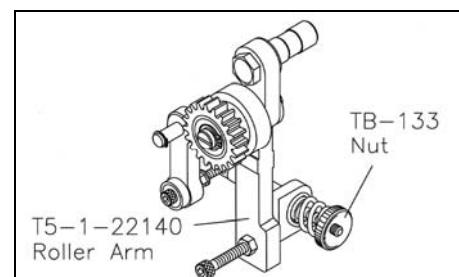
(1) Strap doesn't joint after sealing

- Check if Heater TB-113 has too much carbonized debris resided on both sides. Too much debris will cause Heater incapable of melting straps. Clean the surfaces of Heater from carbonized debris.
- The temperature of Heater is whether too high or too low. When the temperature is too high, there might be not enough cooling time for cooling down. When the temperature is too low, Heater will be unable to melt the straps.
- Increase welding cooling time (T5-4-10231) behind the control box so to produce longer cooling time.
- Return Spring (TB-114) for Heater Arm (TB-102) is either broken, coming off or worn which makes Heater unable to enter the correct melting position.
- If you find the jointed surface is smaller than the standard size, check if the position of the Strap Guide (B) (T5-1-10150 / T5-1-10152) is according to your requested strapping width. Or you can adjust Guide Front (TB-197) and Front Plate (TB-208) as illustrated in the following drawing for positioning PP straps equal to each other.



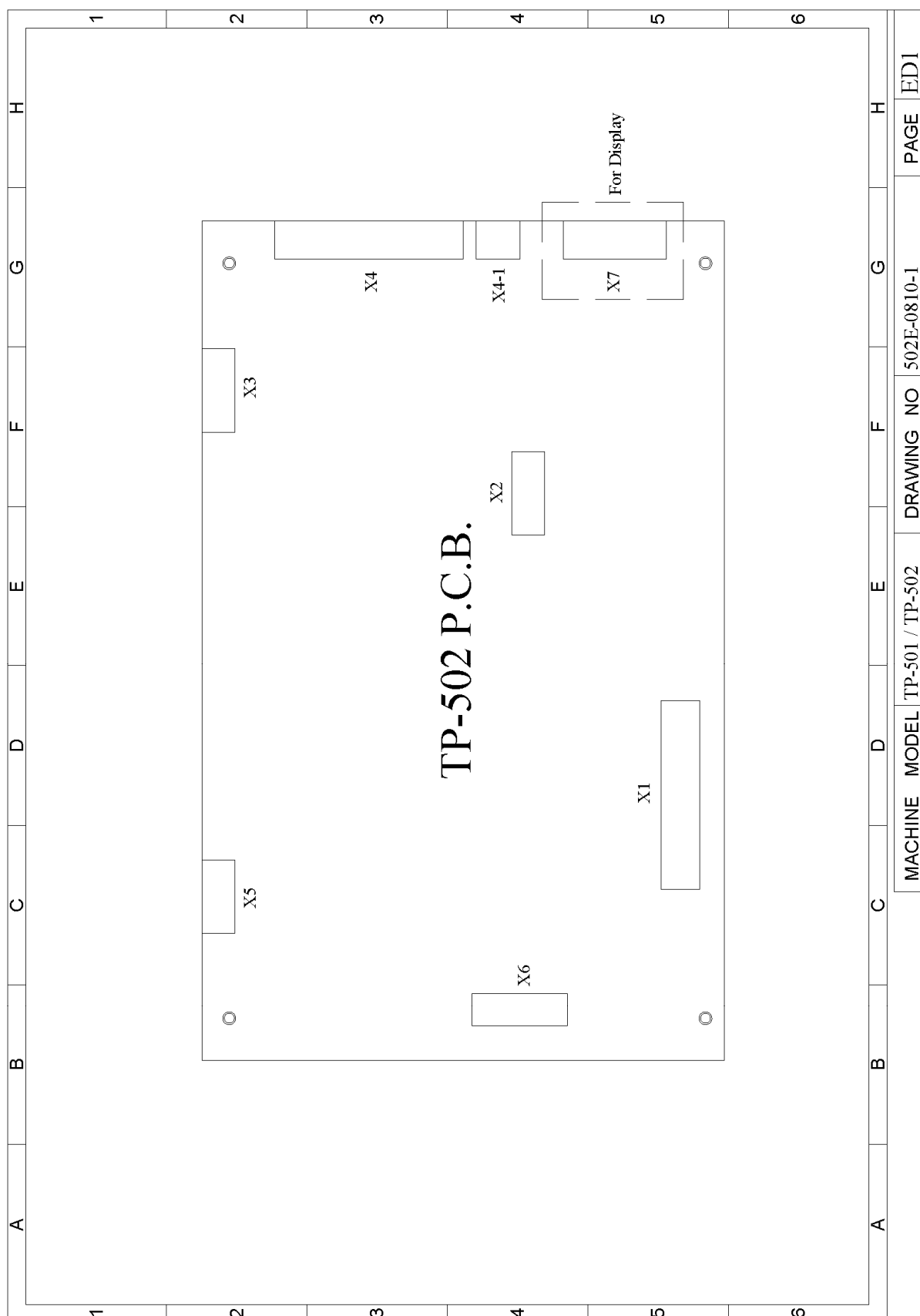
(2) Insufficient strapping tension`

- Turn VR T5-4-10231 clockwise to increase the tension.
- The package is too small (smaller than 80mm).
- The Bearing (BR635ZZ) for Rear Bar (TA-074) is broken or the tip of Rear Bar (TA-074) is worn which makes Rear Bar unable to hold the straps after tensioning. This produces bad quality tension.
- Replace PC Board.
- Turn Tension Adjustment Nut (TB-133) clockwise for an increase in the tension pressure as illustrated in the following drawing.

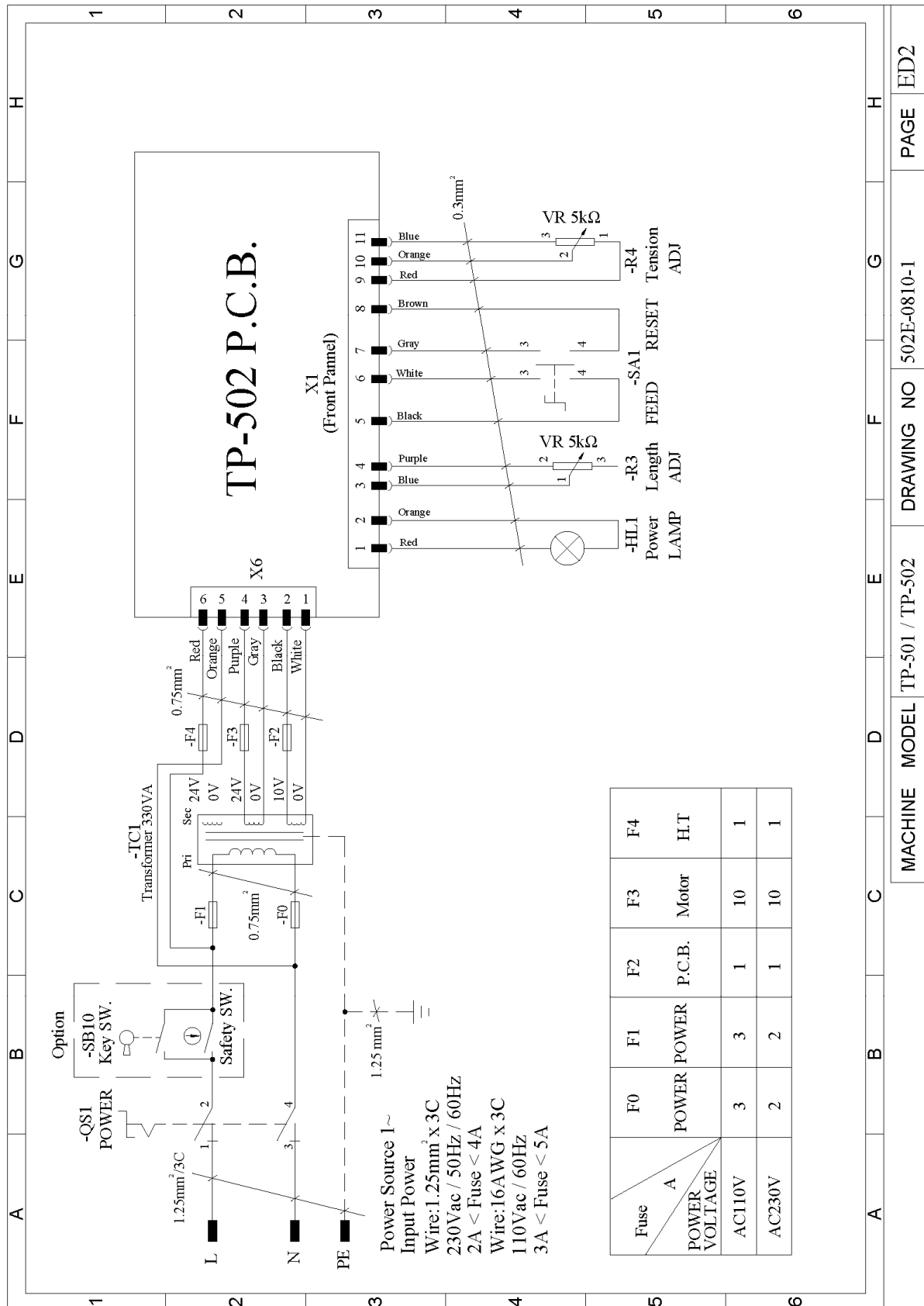


9. Wiring Diagram

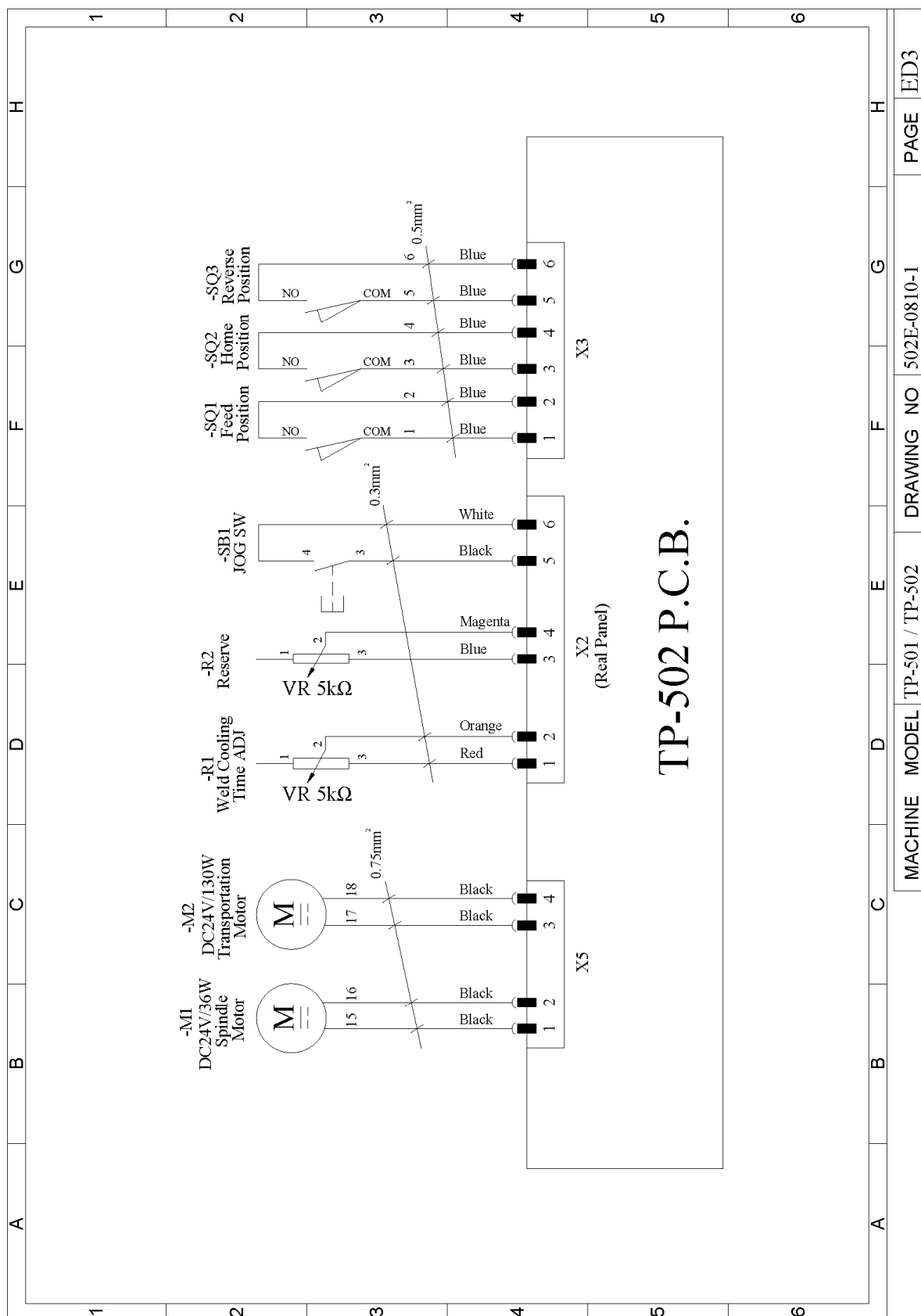
a. TP-501/TP-502



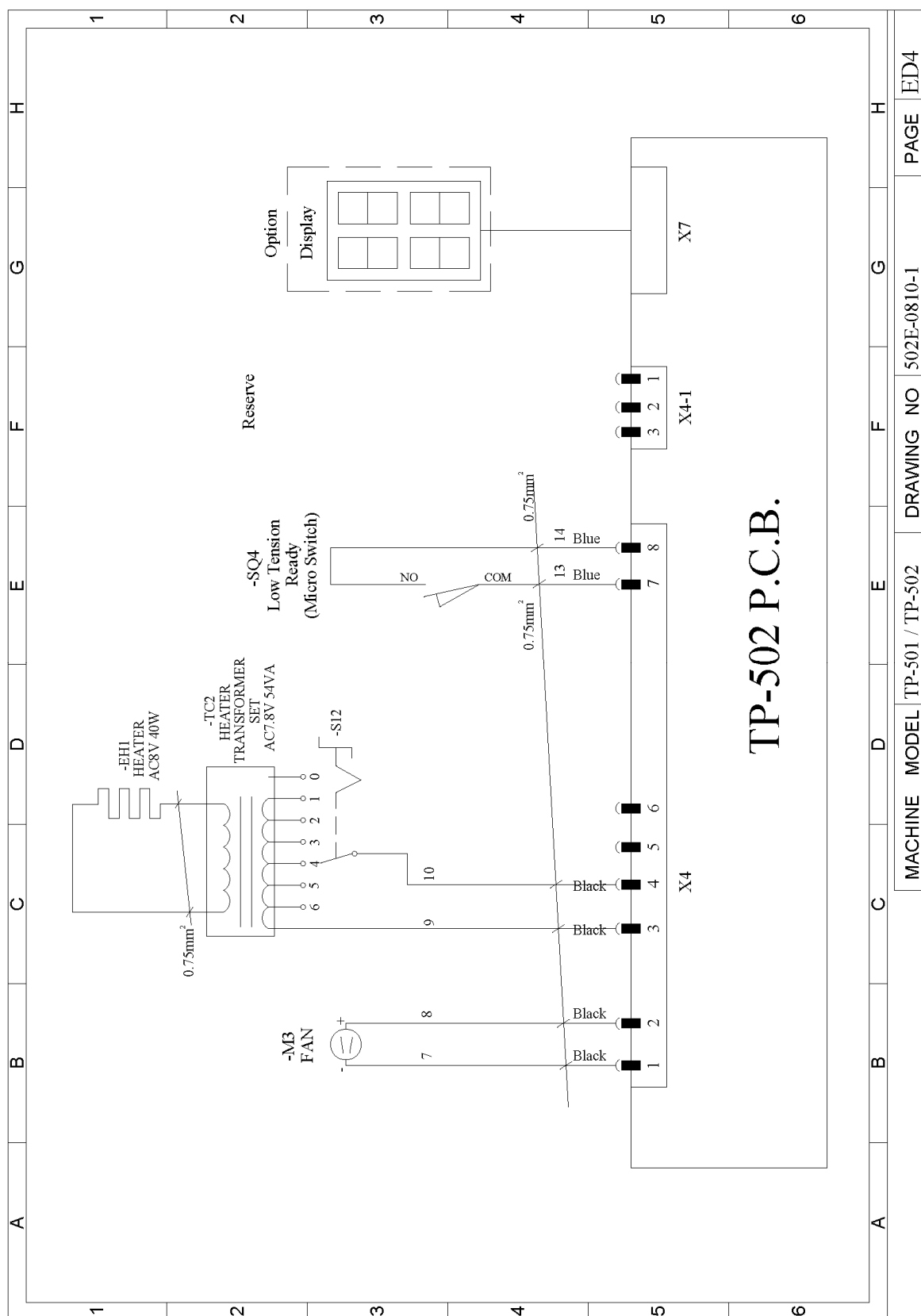
a. TP-501/TP-502



a. TP-501/TP-502



a. TP-501/TP-502



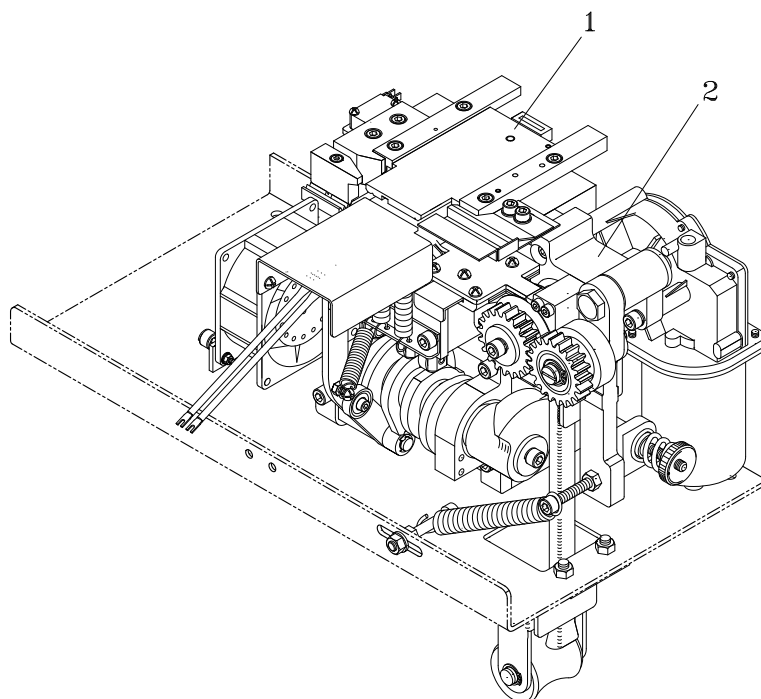
shape	classification	shape	classification
	HBS		ER
	TMS		RR
	PMS		SR
	FMS		SP
	HB		BR
	THS		MB
	HSS		KYA
	CAP		KYB
	HN		KYC
	WN		HBW
	FLG		PWA \$ 8x \$ 12~ \$ 16x0.8~1.2t \$ 6x \$ 13~ \$ 14x0.8~1.2t
	NTE		PWB \$ 8x \$ 14~ \$ 16x1.2~1.5t \$ 6x \$ 15~ \$ 16x1.2~1.5t
	PN		PWC \$ 8x \$ 20~ \$ 23x2.0t \$ 6x \$ 16~ \$ 19x2.0t
	PW		PW/D
	DS		SW
	TTP		TW
	FTP		BWW

PART II

CONTENTS

1. Strapping Head Unit	1
2. Body Frame Unit	20
☐ Reel Unit	2 ☐
☐ Electric Control Unit	2 ☐

1

STRAPPING HEAD UNIT**T5-1-90002****T5-1-90004**

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T□1-10001	Strapping Head Group (For □~12mm)	1	SEE PAGE 2
2	T□1-20002	Feed Group (For □~12mm)	1	SEE PAGE 11



1-1

STRAPPING HEAD GROUP

T5-1-10001

T5-1-10003

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T□-1-10001	Strapping Head Group (For □~12mm)	1	
	T□-1-1000□	Strapping Head Group (For 12~1□□mm)	1	
1	T□-1-10110	Main Body Bloc□	1	
2	T□-1-10120	Switch Lever	1	
□	T□-1-101□0	Switch Pin	1	
□	T□-1-101□0	Strap Guide (A)(For □~12mm)	1	
	T□-1-101□1	Strap Guide (A)(For 12~1□□mm)	1	
□	T□-1-101□0	Strap Guide (B)(For □~12mm)	1	
	T□-1-101□2	Strap Guide (B)(For 12~1□□mm)	1	
6	T□-1-10160	Switch Brac□et	1	
7	TA-2□□	Cutter Holder	1	
□	TA-067	Bar Guide Lid	1	
□	TA-072	Spring Hoo□	1	
10	TA-0□□	Shaft	1	
11	TA-0□0	Arm	1	
12	TB-11□	Return Spring	1	
1□	TA-22□	Collar	2	
1□	TA-0□0A	Slide Ass'y	1	
1□	T□-1-102□0A	Separator Ass'y	1	
16	TA-0□□	Guide (L)	1	
17	TA-226	Guide (R)	1	
1□	TA-2□6	Rubber Buffer	1	
1□	TB-20□	Front Plate	1	
20	TB-1□7	Guide Front	1	
21	HBS0616	HBS, M6×16	□	
22	HBS0□12	HBS, M□×12	6	
2□	HBS0□2□	HBS, M□×2□	1	
2□	BR6□□ZZ	Bearing, 6□□ZZ	1	
2□	PW0□	PW, M□	2	
26	SW0□	SW, M□	□	
27	HN0□	HN, M□	2	
2□	PMS0□20	PMS, M□×20	1	
2□	HN0□	HN, M□	2	
□0	SP0620	Spring Pin, 6×20	1	

1-1

STRAPPING HEAD GROUP

T5-1-10001

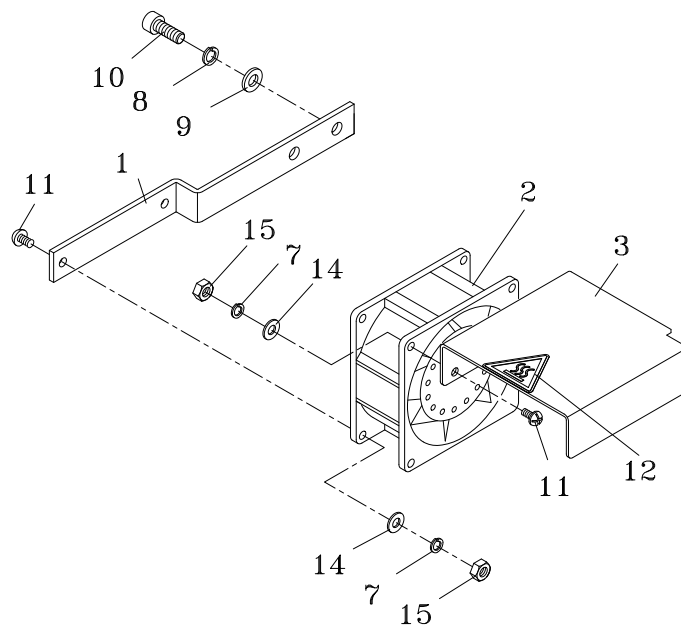
T5-1-10003

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	HSS0606G	HSS, M6×6 (G)	2	
2	HN0	HN, M	2	
	SW0	SW, M	1	
	SW06	SW, M6		
	SP01	Spring Pin, ×1	1	
6	HBS002	HBS, M×2	1	
7	HBS02	HBS, M×2	1	
	HBS016	HBS, M×16	1	
	HBS010	HBS, M×10	2	
1	T1-11000	Cam Group	1	SEE PAGE 1
2	T1-12001	Fan Ass'y	1	SEE PAGE 6
	T1-1000	Rear Bar Ass'y	1	SEE PAGE 1
	T1-1000	Press Bar Ass'y	1	SEE PAGE 1
	T1-1000	Front Bar Ass'y	1	SEE PAGE 10
6	T1-0000	Transmission Group	1	SEE PAGE 1
7	T1-1200	Heater Ass'y	1	SEE PAGE 7
1	HBS02H	HBS, M×2(H)	1	
2	PMS020	PMS, M×20	2	
	TF-006	Micro Switch		
	PW0	PW, M	2	
	SW0	SW, M	6	
6	HN0	HN, M	2	
7	PW0	PW, M		
	SW0	SW, M		
	PMS012	PMS, M×12	2	
60	ER0	Snap Ring, E-	1	
6	TF-00	Switch Trigger	2	
66	PMS0	PMS, M×	2	
67	T1-10770	Plate	1	
6	SP012	Spring Pin, ×12	2	
6	TA-0	Spring Hook	1	

1-1-2

FAN ASS'Y

T5-1-12001

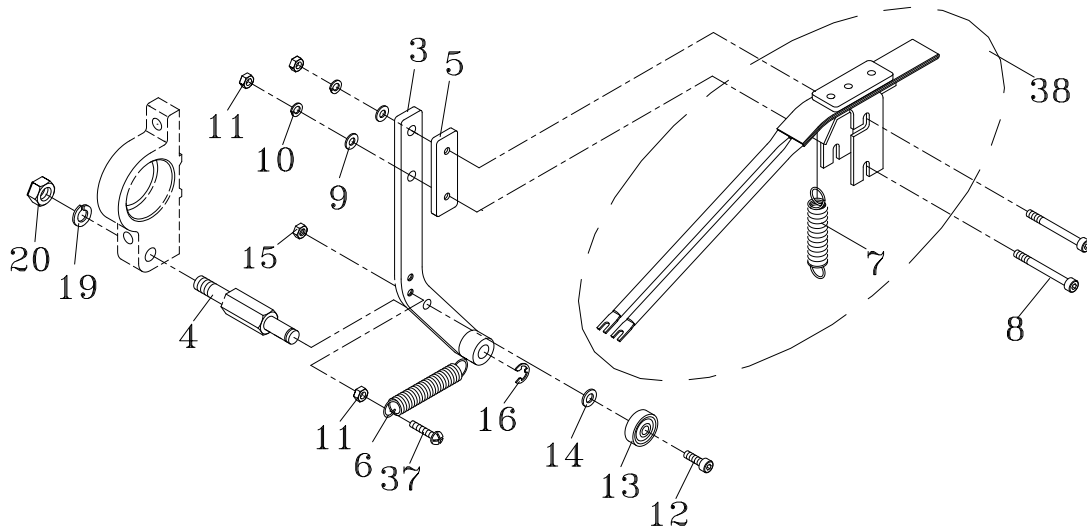


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T□1-12□60	Fan Support	1	
2	T□1-12□70	Fan	1	
□	T□1-12□□0	Fan Cover	1	
7	SW0□	SW, M□	□	
□	SW06	SW, M6	2	
□	PW06A	PW, M6 (A)	2	
10	HBS0616	HBS, M6×16	2	
11	TMS0□12	TMS, M□×12	□	
12	LA-□0002	Label	1	
1□	PW0□	PW, M□	□	
1□	HN0□	HN, M□	□	

1-1-3

HEATER ASS'Y

T5-1-12004

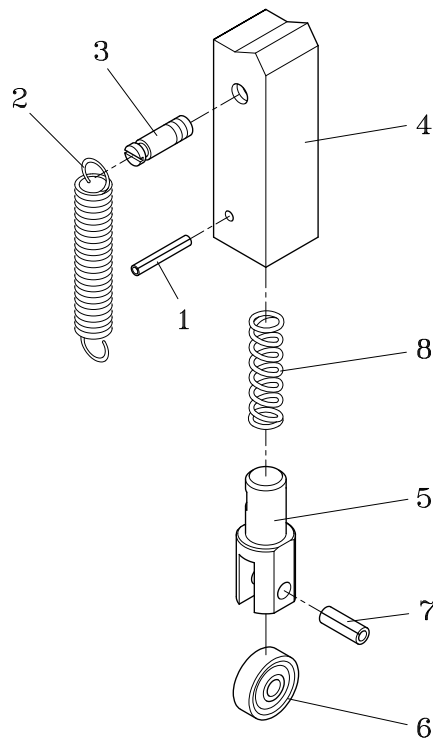


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
3	TB-102	Heater Arm	1	
4	TB-103	Pin	1	
5	TB-107	Side Plate	1	
6	TB-114	Return Spring	1	
7	TB-115	Spring	1	
8	HBS0440H	HBS, M4×40 (H)	2	
9	PW04	PW, M4	2	
10	SW04	SW, M4	2	
11	HN04	HN, M4	3	
12	HBS0516	HBS, M5×16	1	
13	BR635ZZ	Bearing, 635ZZ	1	
14	PW05	PW, M5	1	
15	HN05	HN, M5	1	
16	ER06	Snap Ring, E-6	1	
19	SW08	SW, M8	1	
20	HN08	HN, M8	1	
37	PMS0412	PMS, M4×12	1	
38	TB-113	Heater Ass'y	1	

1-1-4

REAR BAR ASS'Y

T5-1-13000

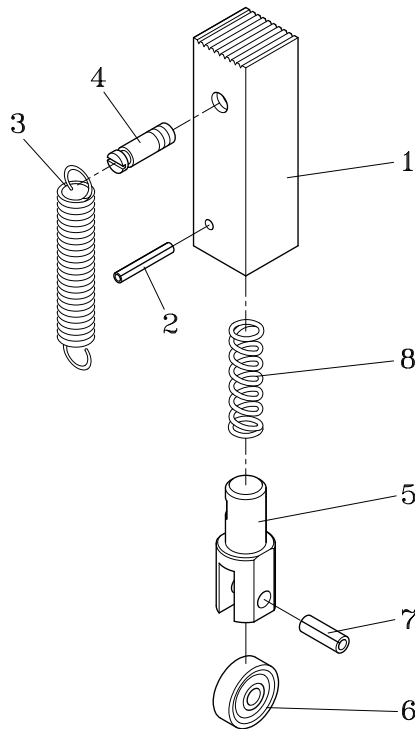


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	SP0□□	Spring Pin, □×1□	1	
2	TA-071	Return Spring	1	
□	TA-07□	Spring Hoo□	1	
□	TA-07□	Rear Bar	1	
□	TA-07□	Plunger	1	
6	BR6□ZZ	Bearing, 6□ZZ	1	
7	SP0□□	Spring pin, □×1□	1	
□	TA-07□	Spring	1	

1-1-5

PRESS BAR ASS'Y

T5-1-14000

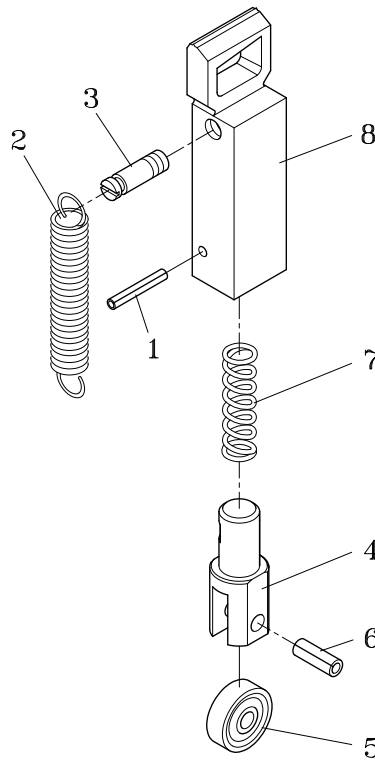


REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TA-06□	Press Bar	1	
2	SP0□□	Spring Pin, □×1□	1	
□	TA-071	Return Spring	1	
□	TA-07□	Spring Hoo□	1	
□	TA-07□	Plunger	1	
6	BR6□ZZ	Bearing, 6□ZZ	1	
7	SP0□□	Spring Pin, □×1□	1	
□	TA-07□	Spring	1	

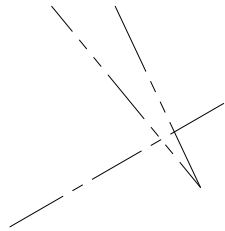
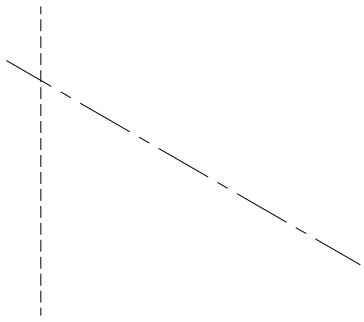
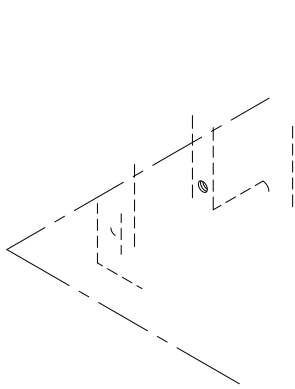
1-1-6

FRONT BAR ASS'Y

T5-1-15000



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	SP0□□	Spring Pin, □×1□	1	
2	TA-071	Return Spring	1	
□	TA-07□	Spring Hoo□	1	
□	TA-07□	Plunger	1	
□	BR6□ZZ	Bearing, 6□ZZ	1	
6	SP0□□	Spring Pin, □×1□	1	
7	TA-07□	Spring	1	
□	TA-07□	Front Bar	1	



//

1
2
3



)

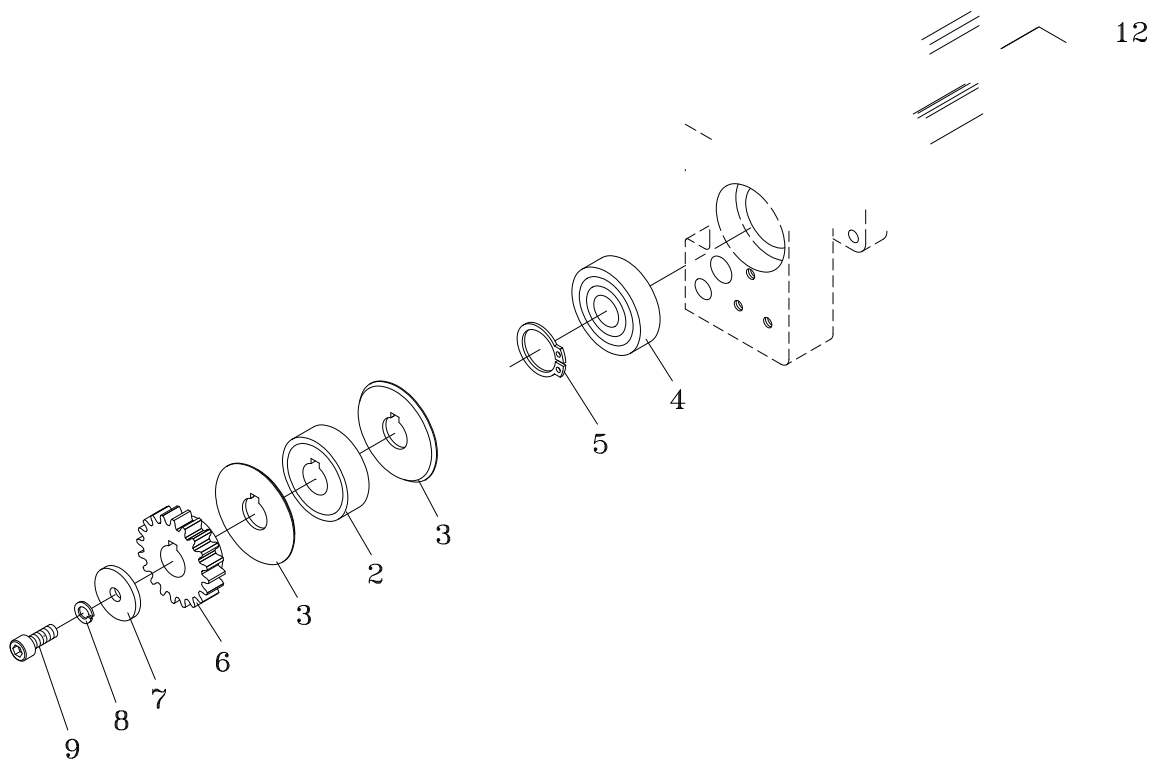
1-2

FEED GROUP

T5-1-20002

T5-1-20004

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T□1-20002	Feed Group (For □~12mm)	1	
	T□1-2000□	Feed Group (For 12~1□□mm)	1	
1	T□1-20110	Bracket	1	
2	T□1-20120	Motor (M2)	1	
□	KYC0□10	Key, □×10	1	
□	HBS0620	HBS, M6×20	□	
□	HBS06□0H	HBS, M6×□0 (H)	2	
6	HBS06□0H	HBS, M6×□0 (H)	1	
7	SW06	SW, M6	6	
□	TMS0□0□	TMS, M□×□	2	
□	HBS0□2□H	HBS, M□×2□(H)	2	
10	SW0□	SW, M□	2	
11	T□1-20210	Guide	1	
1□	SW0□	SW, M□	2	
1□	HBS0□□0H	HBS, M□×□0 (H)	2	
1□	T□1-202□0	Worm Gear For M2 Motor	1	
□1	T□1-21000	Main Roller Ass'y (For □~12mm)	1	SEE PAGE 1□
	T□1-21002	Main Roller Ass'y (For 12~1□□mm)	1	
□2	T□1-2200□	Roller Arm Ass'y (For □~12mm)	1	SEE PAGE 1□
	T□1-2200□	Roller Arm Ass'y (For 12~1□□mm)	1	
□□	T□1-2□000	Feed Shooter Ass'y (For □~12mm)	1	SEE PAGE 16
	T□1-2□00□	Feed Shooter Ass'y (For 12~1□□mm)	1	
□□	T□1-2□00□	Strap Guide Ass'y (For □~12mm)	1	SEE PAGE 17
	T□1-2□010	Strap Guide Ass'y (For 12~1□□mm)	1	

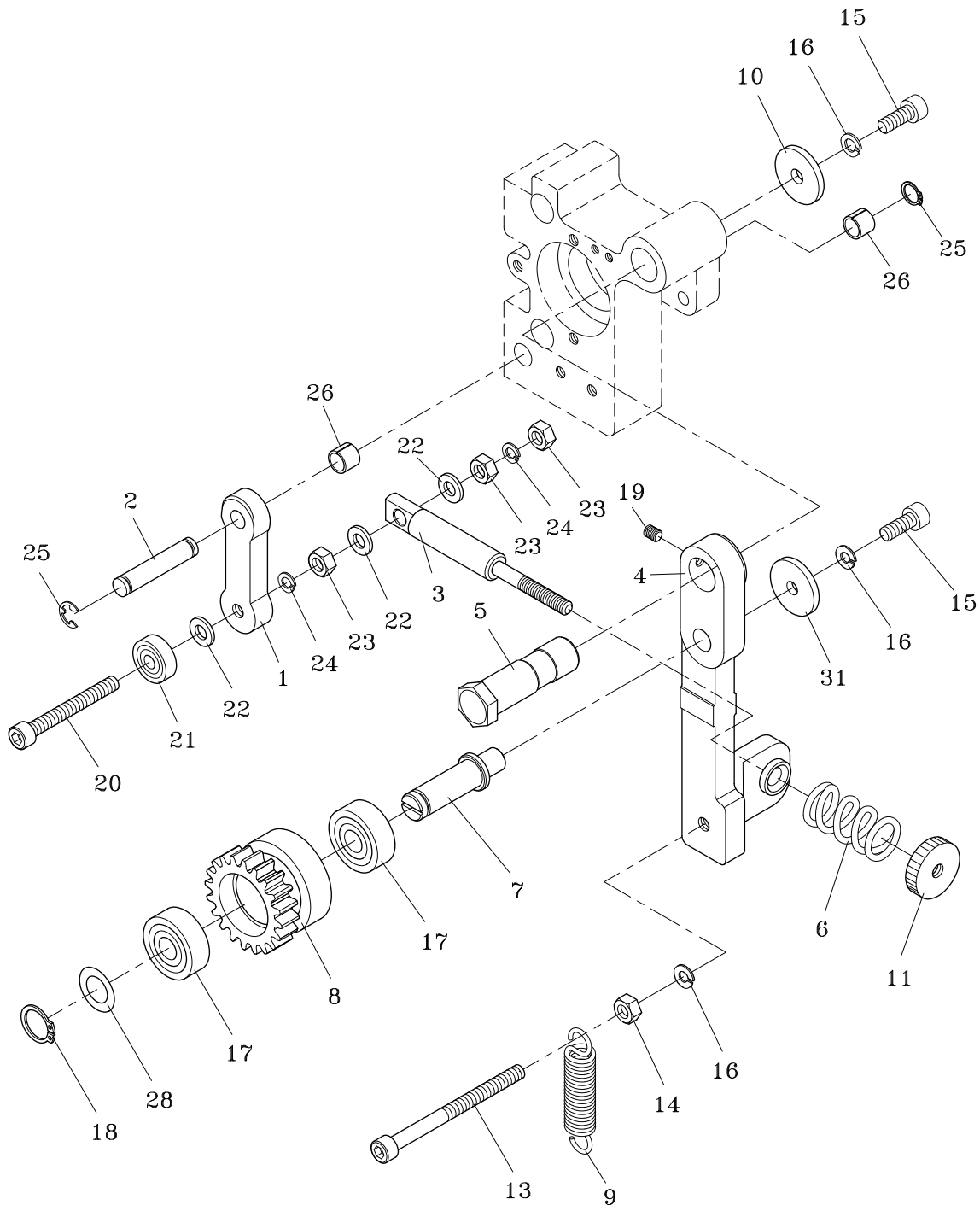


1-2-2

ROLLER ARM ASS'Y

T5-1-22003

T5-1-22005



1-2-2

ROLLER ARM ASS'Y

T5-1-22003

T5-1-22005

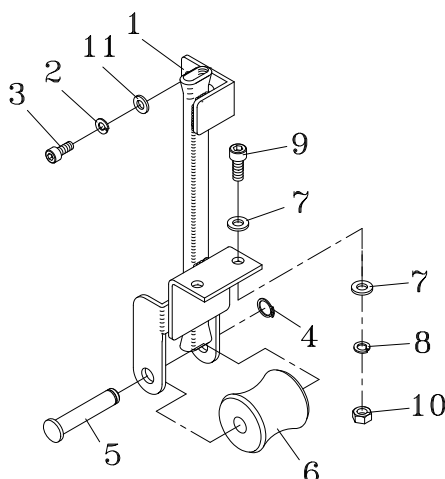
REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T□1-2200□	Roller Arm Ass'y (For □~12mm)	1	
	T□1-2200□	Roller Arm Ass'y (For 12~1□□mm)	1	
1	T□1-22110	Tension Arm	1	
2	T□1-22120	Shaft	1	
□	T□1-221□0	Connecting Rod	1	
□	T□1-221□0	Roller Arm	1	
□	T□1-221□0	Shaft	1	
6	T□1-22160	Spring	1	
7	T□1-22170	Roller Shaft (For □~12mm)	1	
	T□1-22171	Roller Shaft (For 12~1□□mm)	1	
□	T□1-221□0	Roller (For □~12mm)	1	
	T□1-221□2	Roller (For 12~1□□mm)	1	
□	T6-□10120	Accumulator Balance Spring	1	
10	TB-22□	Washer	1	
11	TB-1□□	Nut	1	
1□	HBS067□H	HBS, M6×7□(H)	1	
1□	HN06	HN, M6	1	
1□	HBS0616	HBS, M6×16	2	
16	SW06	SW, M6	□	
17	BR6001ZZ	Bearing, 6001ZZ	2	
1□	SR12	Snap Ring, S-12	1	
1□	HSS0□0□G	HSS, M□×□(G)	1	
20	HBS0□□0	HBS, M□×□0	1	
21	BR6□□ZZ	Bearing, 6□□ZZ	1	
22	PW0□	PW, M□	□	
2□	HN0□	HN, M□	□	
2□	SW0□	SW, M□	2	
2□	ER06	Snap Ring, E-6	2	
26	MB0□0□	Metal Bushing, 0□0□	2	
2□	T□1-22□□0	Spacer	1	
□1	PW06C	PW, M6 (C)	1	

1-2-3

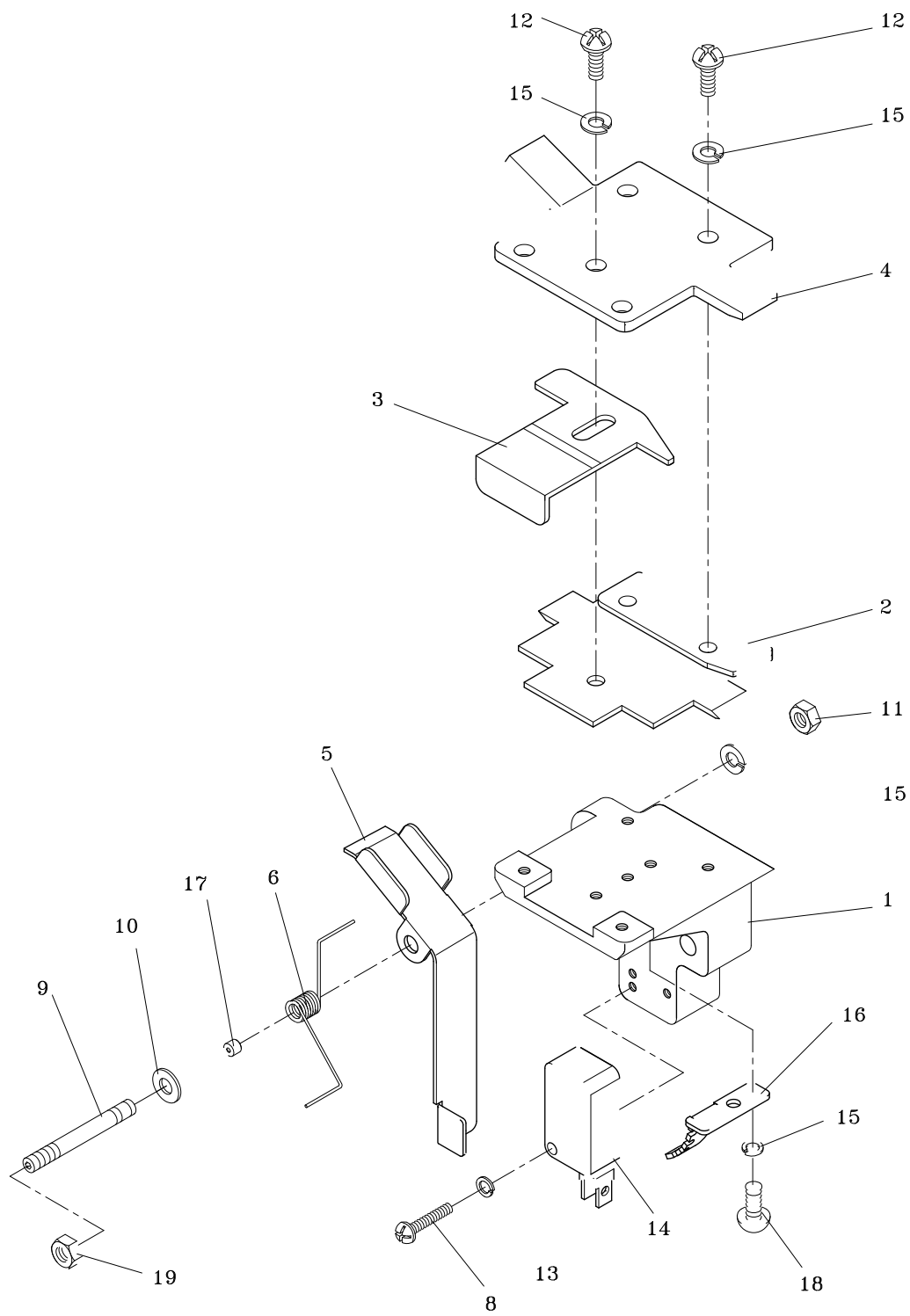
FEED SHOOTER ASS'Y

T5-1-23000

T5-1-23003



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T□-1-2□000	Feed Shooter Ass'y (For □~12mm)	1	
	T□-1-2□00□	Feed Shooter Ass'y (For 12~1□□mm)	1	
	T□-1-2□110	Feed Shooter (For □~12mm)	1	
	T□-1-2□11□	Feed Shooter (For 12~1□□mm)	1	
2	SW0□	SW, M□	2	
□	HBS0□12	HBS, M□×12	2	
□	SR10	Snap Ring, S-10	1	
□	TC-0□□	Shaft	1	
6	TC-0□□	Roller	1	
7	PW06A	PW, M6 (A)	□	
□	SW06	SW, M6	2	
□	HBS0616	HBS, M6×16	2	
10	HN06	HN, M6	2	
11	PW0□	PW, M□	2	



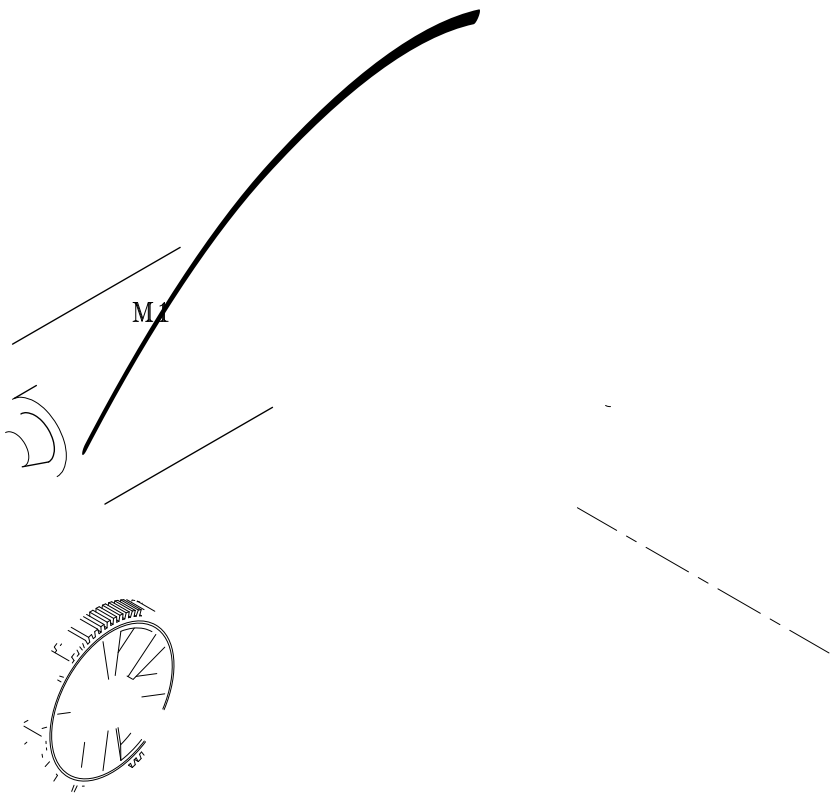
1-2-4

ROLLER ARM ASS'Y

T5-1-24009

T5-1-24010

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T□-1-2□00□	Strap Guide Ass'y (For □~12mm)	1	
	T□-1-2□010	Strap Guide Ass'y (For 12~1□□mm)	1	
1	T□-1-2□110	Strap Guide Support	1	
2	T□-1-2□120	Strap Guide (A)(For □~12mm)	1	
	T□-1-2□122	Strap Guide (A)(For 12~1□□mm)	1	
□	T□-1-2□1□1	Strap Guide (B)(For □~12mm)	1	
	T□-1-2□1□2	Strap Guide (B)(For 12~1□□mm)	1	
□	T□-1-2□1□□	Strap Guide Cover	1	
□	T□-1-2□1□1	Strap Guide (C)(For □~12mm)	1	
	T□-1-2□1□2	Strap Guide (C)(For 12~1□□mm)	1	
6	T□-1-2□1□2	Spring	1	
□	PMS0□1□	PMS, M□×1□	2	
□	T□-1-2□1□1	Spring Shaft	1	
10	PW0□	PW, M□	1	
11	HN0□	HN, M□	1	
12	PMS0□12	PMS, M□×12	□	
1□	SW0□	SW, M□	2	
1□	TF-006	Micro Switch	1	
1□	SW0□	SW, M□	□	
16	T□-1-2□260	Tension Socket	1	
17	T□-1-2□270	Spring Bushing	1	
1□	PMS0□06	PMS, M□×6	2	
1□	NTE0□	NTE, M□	1	



12

11

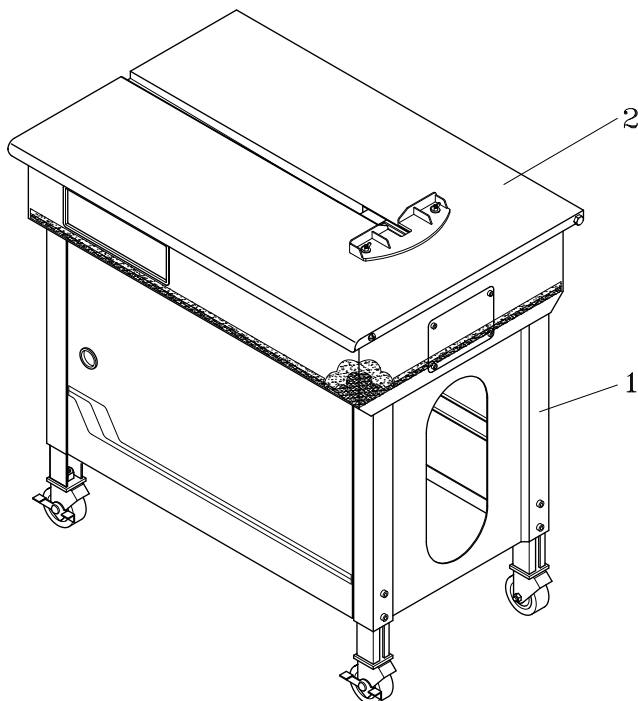


2

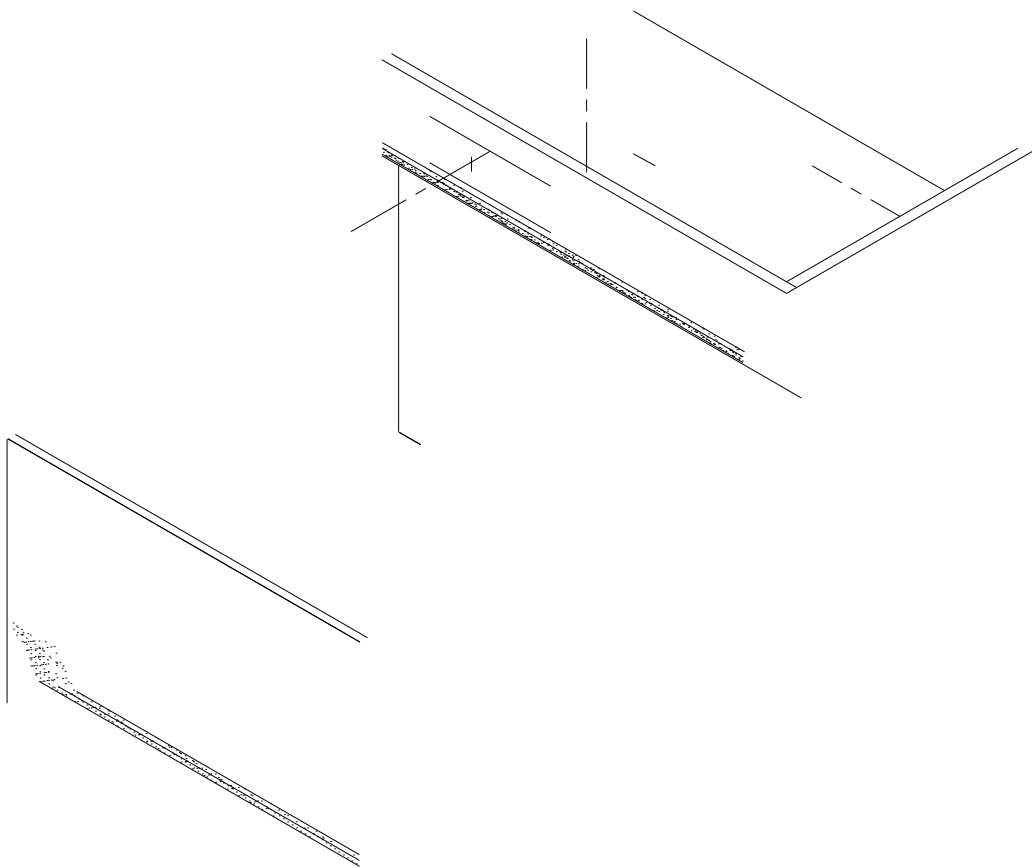
BODY FRAME UNIT

T5-2-90004

T5-2-90005



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T□-2-□000□	Body Frame Unit (For TP-□01/ TP-□01-1□, 110V)	1	
	T□-2-□000□	Body Frame Unit (For TP-□01/ TP-□01-1□, 220V/2□0V/2□0V)	1	
	T□-2-□0006	Body Frame Unit (For TP-□02/ TP-□02-1□, 110V)	1	
	T□-2-□0007	Body Frame Unit (For TP-□02/ TP-□02-1□, 220V/2□0V/2□0V)	1	
	T□-2-1000□	Body Frame Group (For TP-□01/□01-1□, 110V)	1	SEE PAGE 21
	T□-2-10006	Body Frame Group (For TP-□01/□01-1□, 220V/2□0V/2□0V)	1	SEE PAGE 21
	T□-2-10007	Body Frame Group (For TP-□02/□02-1□, 110V)	1	SEE PAGE 21
	T□-2-1000□	Body Frame Group (For TP-□02/□02-1□, 220V/2□0V/2□0V)	1	SEE PAGE 21
			1	
2	T□-2-20000	Table Top Group	1	SEE PAGE 2□



2-1

BODY FRAME GROUP

T5-2-10005

T5-2-10006

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T□-2-1000□	Body Frame Group (For TP-□01/TP-□01-1□, 110V)	1	
	T□-2-10006	Body Frame Group (For TP-□01/TP-□01-1□, 220V/2□0V/2□0V)	1	
	T□-2-10007	Body Frame Group (For TP-□02/TP-□02-1□, 110V)	1	
	T□-2-1000□	Body Frame Group (For TP-□02/TP-□02-1□, 220V/2□0V/2□0V)	1	
1	T□-2-10110	Body Frame (For TP-□01/TP-□01-1□)	1	
	T□-2-10210	Body Frame (For TP-□02/TP-□02-1□)	1	
□	T□-2-101□0	Support	1	
□	T□-2-101□0	Side Cover	1	
7	T□-2-10170	Hinge	1	
□	T□-2-101□0	Grommet	1	
□	T□-2-101□0	Front Door (For TP-□01/TP-□01-1□)	1	
11	TE-010	Grommet (For TP-□01/TP-□01-1□)	1	
12	TC-0□1	Fixing Plate	□	
1□	T7-□10160	Adjustable Leg	□	
1□	TC-006	Caster (Free)	2	
1□	TC-007	Caster (Brake)	2	
16	T6-□10160	Magnet Catch (For TP-□01/TP-□01-1□)	2	
20	SW06	SW, M6	10	
21	TMS0□06	TMS, M□×6	□	
2□	HN06	HN, M6	1	
2□	HBS0□12	HBS, M□×12	□	
26	HN0□	HN, M□	6	
2□	TC-06□	Collar	1	
2□	FMS0612	FMS, M6×12	1	
□0	FMS0□0□	FMS, M□×□	2	
□1	SW16	SW, M16	□	
□□	TMS0□0□	TMS, M□×□	7	
□□	TMS0□0□	TMS, M□×□(For TP-□01/TP-□01-1□)	□	
□□	HBS06□□	HBS, M6×□□	1	
□7	T□-2-10□71	Collar	2	
□□	SW0□	SW, M□	□	

2-1

BODY FRAME GROUP

T5-2-10005

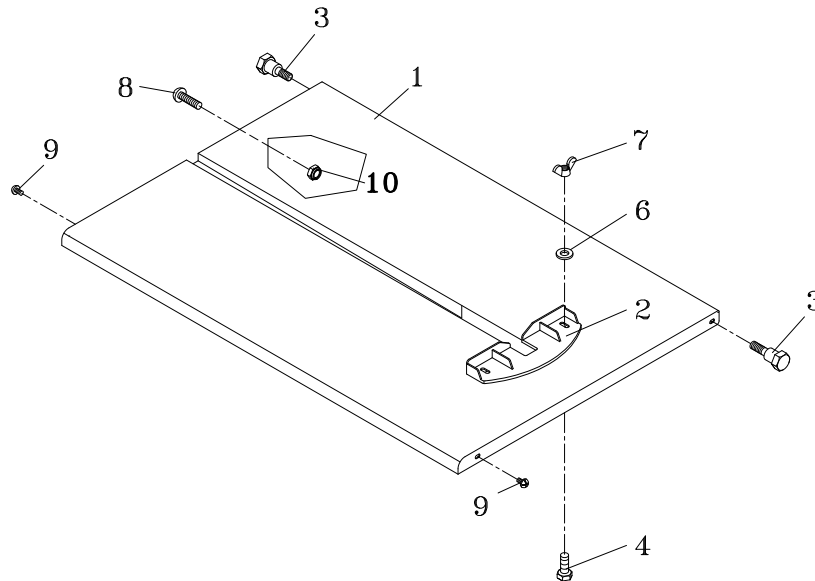
T5-2-10006

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
0	T-2-1000	Cable Gland (PG)	1	
		Cable Gland (PG)(Option)	2	
1	HB0616	HB, M6×16		
2	LA-10220	Colored Adhesive Tape (A)	1	
	LA-10072	Colored Adhesive Tape (B)	1	
	LA-1007	Colored Adhesive Tape (C)	1	
	LA-1007	Colored Adhesive Tape (D)	1	
6	LA-1007	Colored Adhesive Tape (E)(For TP-01/TP-01-1)	1	
	PMS00	PMS, M×	2	
	FMS00	FMS, M×(Option)	2	
1	PW0	PW, M		
2	PMS020	PMS, M×20		
	TK-0	Interloc Safety Switch (Option)	1	
	T-2-106	Safety Switch Plate (Option)	1	
6	T-2-10660	Table Top Holder	2	
7	HBS0612	HBS, M6×12		
	TF-01	Safety Limit Switch (For CSA/UL) (Option)	1	
	TF-01	Switch Cover (For CSA/UL)(Option)	1	
60	PMS000	PMS, M×0 (For CSA/UL)(Option)	2	
61	T-2-10710	Cushion	2	
6	HN0	HN, M(Option)	2	
6	NTE06	NTE, M6	1	
6	PW06A	PW, M6 (A)	10	
66	T7-20210	Rubber Plug (For TP-02/TP-02-1)	1	
67	T7-10210	Switch Actuator (Option)	1	
6	TF-01	Terminal Bracket	1	
71	PW0	PW, M		
72	HN0	HN, M	2	
7	TF-02A	Heater Transformer Ass'y (For 110V)	1	
	TF-02A-1	Heater Transformer Ass'y (For 220V/200V/200V)	1	

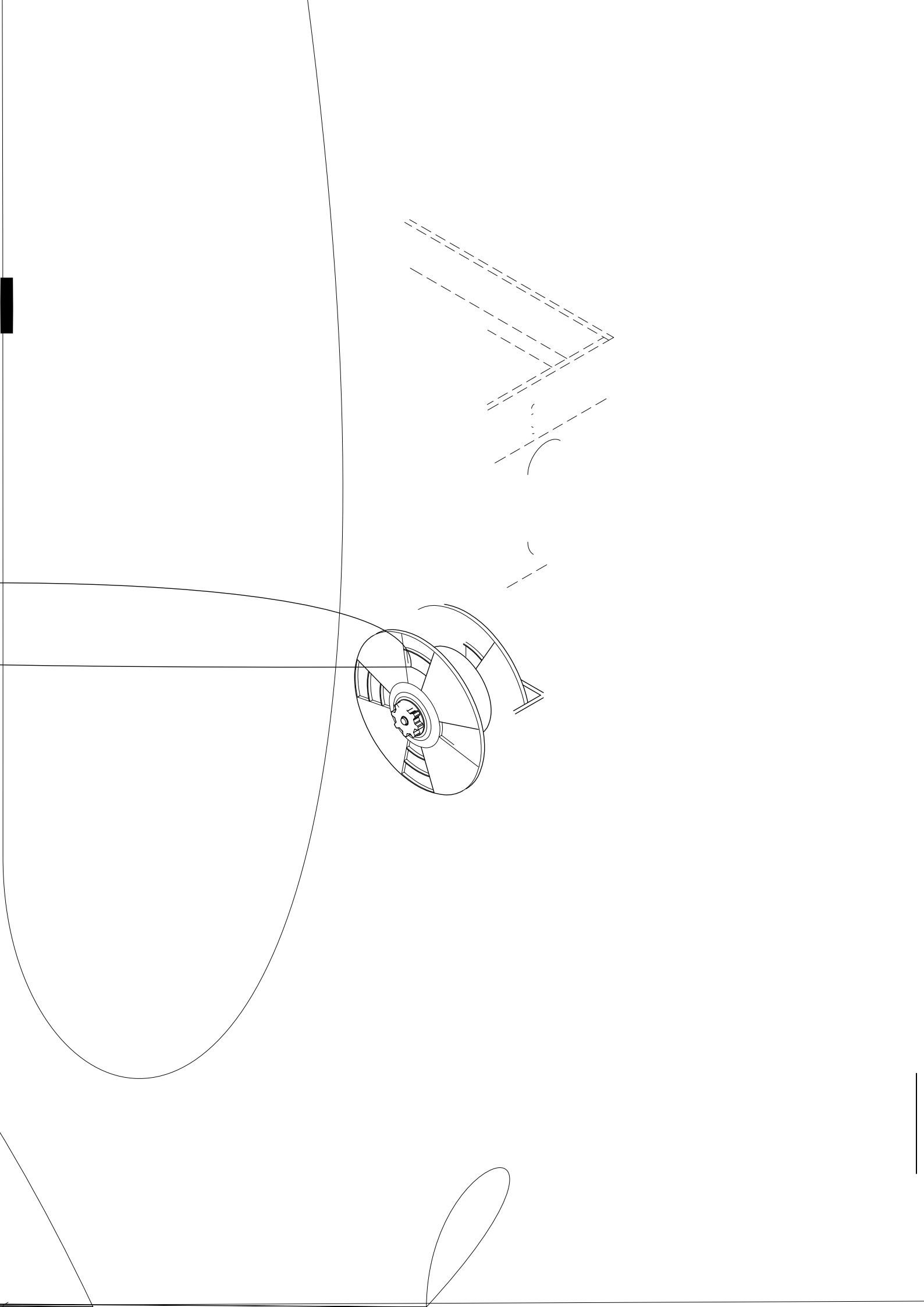
2-2

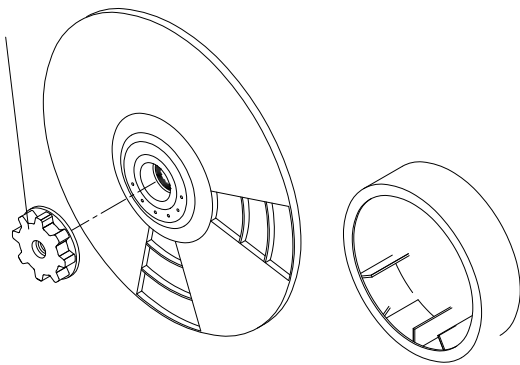
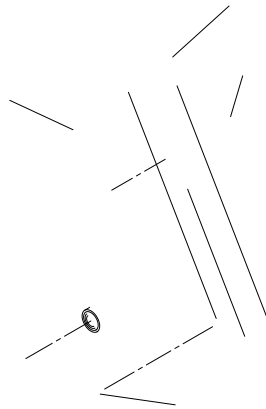
TABLE TOP GROUP

T5-2-20000



REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	T□2-20110	Table Top	1	
2	TC-00□	Pac□age Guide	1	
□	TC-070	Shaft	2	
□	HB0612	HB, M6×12	2	
6	PW06B	PW, M6 (B)	2	
7	WN06	WN, M6	2	
□	TMS0612	TMS, M6×12	1	
□	TMS0□0□	TMS, M□×□	2	
10	NTE06	NTE, M6	1	



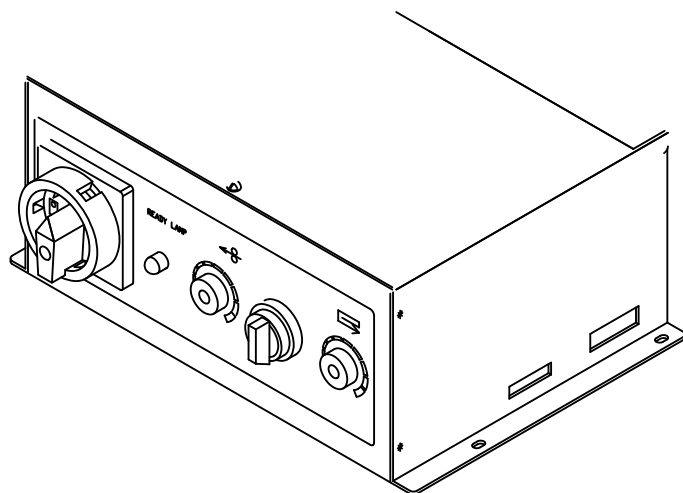


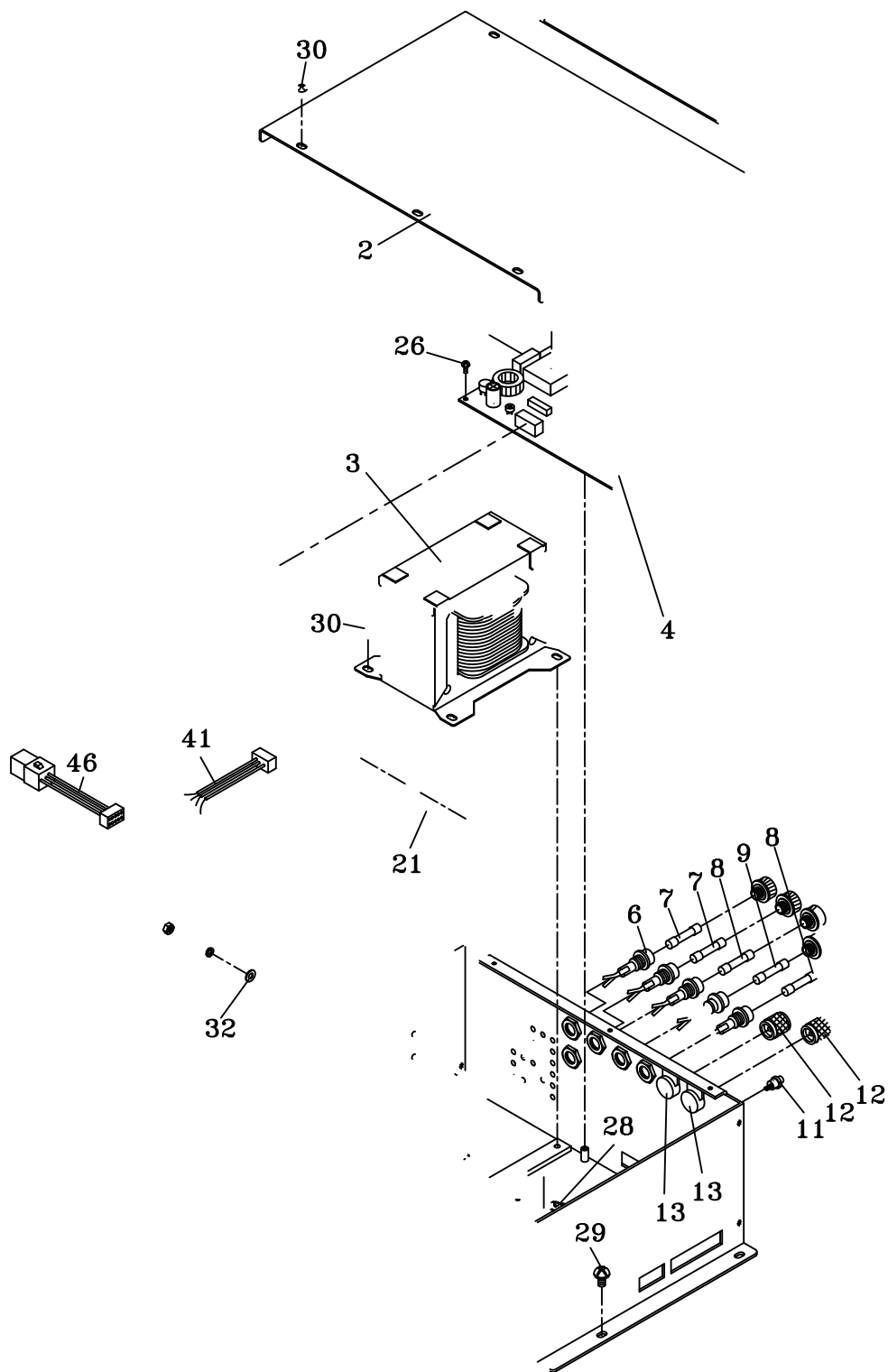
3-1

REEL CONTROL GROUP

T5-3-11000

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
1	TC-00□	Reel Shaft	1	
2	TC-00□	Lid	1	
□	TC-00□	Bra□e Shaft	1	
□	BR600□ZZ	Bearing, 600□ZZ	2	
□	TC-011	Washer	1	
6	T6-□10□70	Inner Flange	1	
7	TC-01□	Outer Flange	1	
□	TC-01□	Protector	1	
□	TC-016	Reel Nut Handle	1	
10	TC-026	Bra□e Belt	1	
11	TC-01□	Roller	1	
12	TC-020	Pin	1	
1□	TC-021	Split Pin	1	
1□	TC-022	Roller Holder	1	
1□	TC-02□	Bra□e Adjuster	1	
16	TC-02□	Spring	1	
17	TC-0□□	Reel Support	1	
1□	TC-0□□-1	Fixing Bra□e Lining Brac□et	1	
1□	TC-0□6-1	Arm	1	
20	TC-0□0	Lining Holder	1	
21	HN06	HN, M6	□	
22	HBS0616	HBS, M6×16	2	
2□	HB0□16	HB, M□×16	1	
2□	SR20	Snap Ring, S-20	2	
2□	SR10	Snap Ring, S-10	1	
27	TC-07□	Center Drum, 2□0mm	1	
2□	TC-076	Washer	1	
2□	ER1□	Snap Ring, E-1□	1	
□0	HBS0□2□	HBS, M□×2□	1	
□1	HN0□	HN, M□	2	
□2	PMS0□16	PMS, M□×16	□	
□□	PW0□	PW, M□	□	
□□	SW06	SW, M6	1	
□□	SR1□	Snap Ring, S-1□	1	
□6	TC-0□2	Holder	1	
□7	TC-0□□	Spacer	1	
□□	LA-□1010	Label	1	





4-1

ELECTRIC CONTROL GROUP

T5-4-10024

T5-4-10025

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
	T5-4-10024	Electric Control Group (For 110V)	1	
	T5-4-10025	Electric Control Group (For CSA-UL Version, 110V)		
	T5-4-10026	Electric Control Group (For 220V/230V/240V)	1	
	T5-4-10027	Electric Control Group (For CSA-UL Version, 220V/230V/240V)	1	
1	T5-4-10111	Box	1	
2	T5-4-10120	Cover	1	
3	T5-4-10132	Transformer (For 220V/230V/240V)	1	
	T5-4-10133	Transformer (For 110V)	1	
4	T5-4-10143	P.C.Board	1	
5	LA-10240	Label	1	
6	T5-4-10160	Fuse Holder	5	
7	T6-6-30032	Fuse (3A) 30L (For 110V)	2	
	T6-6-30031	Fuse (2A) 30L (For 220V/230V/240V)	2	
8	T6-6-30036	Fuse (1A) 30L	2	
9	T6-6-30133	Fuse (10A) 30L	1	
11	T5-4-10210	Jog Switch	1	
12	T5-4-10221	Knob (Hole ϕ 3.2)	2	
13	T5-4-10231	Variable Resistor (5K)(ϕ 3.2)	2	
14	T5-4-10580	Grommet	2	
15	TK-001	Main Power Switch	1	
16	T5-4-10260	Ready Lamp	1	
17	T5-4-10090	Electric Control Group (For 110V)	1	
	T5-4-10091	Electric Control Group (For 220V/230V/240V)	1	
18	TG-036	Selector Switch (Feed/Reset)	1	
20	LA-10015	Label	1	
21	T5-4-10310	Earth Plate (5P)	1	
22	TG-019	Power Cord	1	
	T5-4-10323	Power Cord (For CSA/UL)	1	
24	SW04	SW, M4	1	
25	HN04	HN, M4	1	

4-1

ELECTRIC CONTROL GROUP

T5-4-10024

T5-4-10025

REF. NO.	PART NO.	DESCRIPTION	Q'TY	REMARKS
27	T5-4-10222	Knob (Hole ϕ 6.0)	2	
28	T5-4-10232	Variable Resistor (5K)(ϕ 6.0)	2	
29	PMS0610	PMS, M6×10	4	
30	TMS0408	TMS, M4×8	10	
32	PW04	PW, M4	3	
33	TMS0412	TMS, M4×12	1	
41	T5-4-10510	Wire Ass'y X1 (Electric Group)	1	
42	T5-4-10520	Wire Ass'y X2 (Jog Switch/Weld Cooling Timer/Heater Temperature Adjustment)	1	
43	T5-4-10530	Wire Ass'y X3 (Micro Switch, SQ1/SQ2/SQ3)	1	
44	T5-4-10543	Wire Ass'y X4 (Heater/Fan)	1	
45	T5-4-10550	Wire Ass'y X5 (Motor M1/M2)	1	
46	T5-4-10561	Wire Ass'y X6 (Power)	1	
50	LA-40001	Label	1	
51	LA-40003	Label	1	