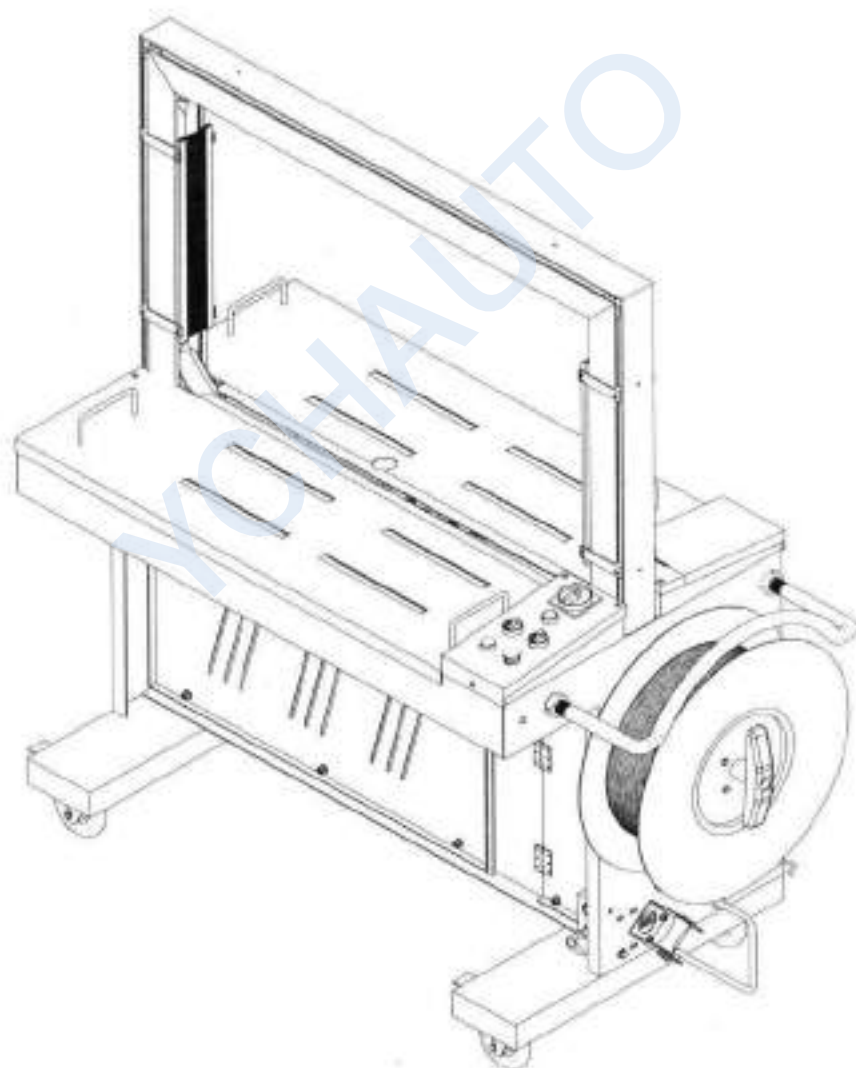




YQ201 Automatic Strapping Machine Use, Maintenance and Spare Parts Handbook



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PART I

1 General Safety Instructions

1.1 Basic Operation

- Read the manual before using the strapping machine.
- The machine can only be operated by relevant personnel.
- The manual should be attached to the machine at all times.
- The strapping machine was manufactured in accordance with advanced standards and recognized safety rules. However, improper use can still lead to injury to personnel or damage to the machine and other property.
- The machine may only be operated in accordance with its designed use.
- Carry out inspections and maintenance at regular intervals. Refer to the Maintenance section of the manual.
- The machine may not be put into use before the respective devices are checked.
- Safety devices must not be eliminated or bridged by any means.
- Circuits and the machine must not be altered unless authorized to do so by the manufacturer.
- Transport the equipment by only using lifting devices and loading devices with sufficient capacity.
- Always disconnect the machine from external power supply while moving the machine, even if the location should only be changed slightly. Connect power supply properly before putting it into service.
- Do not alter or bypass protective interlocks.

1.2 Basic Safety Precautions

- The user shall be instructed in all generally applicable legal or mandatory regulations regarding to safety or the environment, besides the instructions for operation.
- Wearing loose-fitting clothes, long hair, watches, or finger rings and other jewelry may be a safety hazard. Secure these items before operating the equipment.
- Carefully observe all safety instructions and warnings attached to the machine. And keep safety labels clean and legible.
- Use protective equipment whenever appropriate or when required by law.
- People that are being trained to operate or service the equipment must be supervised by experienced personnel.
- Any electrical work carried out on the machine must be performed by a skilled electrician or under the supervision of a skilled one. Good electrician

engineering practice and local wiring standards and safety rules must be observed for all work.

1.3 Safety Instructions Regarding Specific Operational Phases

- Unsafe operation of the machine shall be avoided.
- Only operate the machine when it is in good running order and in a safe manner. All protective and safety devices must be in place and fully functional, including removable safety devices, emergency shut-off equipment, etc.
- Make sure that the area is clear and safe before starting the machine.
- The machine must be stopped immediately and locked out in case of a malfunction until the fault has been eliminated.
- The machine is to be checked for damage and defects at least once each work shift. Any changes, including the working behavior of the machine, are to be reported immediately. The machine is to be stopped and locked-out immediately if necessary.
- Do not place any tools or parts on the machine.
- Operating personnel shall be well trained prior to executing special operations and maintenance, which need to be done with proper supervision.
- Always check and fasten connections, and check the functionality of all safety devices after maintenance or repair before equipment operation.
- Operating the machine in a manner that may affect its stability must be avoided.
- All consumables and replaced parts must be disposed of in a safe manner to minimize the environmental impacts.
- Check that the accessories have been stowed in a safe manner before starting the machine.

1.4 Warning of Electrical Dangers

- Disconnect the power supply before moving the machine.
- Inspect the electrical equipment of the machine at regular intervals. Tighten any loose connections. Replace scorched wiring after checking wiring for scorch signs, and identify and remedy the cause for the overheating.
- Use insulated tools for electric work. When working on live equipment, make sure that a second person is available to cut power in case of an emergency. Secure the working area with safety tape and a warning sign when appropriate.
- Immediately remove the power supply in case of fault in the electrical system. Particular attention shall be paid to matching the specified voltage and current. In case of fuse failure, replace it with one with the same style

and ratings.

- Any electrical work carried out on the machine must be performed by a skilled electrician or under the supervision of a skilled one. Good electrician engineering practice and local wiring standards and safety rules must be observed for all work.
- Carefully refit and retighten all parts removed for transportation before connecting it to power supply.

1.5 Grounding Instructions

- The machine shall be grounded. Grounding reduces the risk of electric shock in case of an electrical short circuit. 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.
- During repair or replacement of the cord or plug, the ground wire shall be connected to the ground terminal of the plug. The wire with green insulation (with or without yellow strips) is the grounding wire.
- Consult 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.

WARNING!

Improper installation of the grounding can result in electrocution.

1.6 Before Operation

- Read the manual and get prepared before operating the machine for your safety.
- Check all the parts of the machine. If any broken, replace it with a new one (an original part is recommended).
- Make sure that no tools or other items are on the machine and keep it clean.
- Read operation and maintenance instructions carefully.
- Read explanatory phases and important identification about machine application carefully.
- Verify that the power voltage is correct.
- The machine must be properly grounded to avoid electric shock hazard. All wiring must meet local wiring standards.
- The strapping machine can only be operated with polypropylene (PP) strapping; do not use polyester (PET) or polyethylene (PE) cord strap.

1.7 During Operation

- Do not wear loose-fitting clothes in case that they are entangled into the machine.
- Do not carry out maintenance operation barefoot.
- Do not put hands or other objects inside the working area.
- Do not strap products that are beyond its strapping scope, as it can only strap those within its applicable scope.
- Check the machine for any unusual sounds or smoke emissions while operation.
- Keep away from the inside of the arch while the machine is operating; do not put your hands or body into the arch when the machine is running.

1.8 After Operation

- Remove dust and dirt from the machine; pay particular attention to the interior of the arch.
- Please make sure that all switches are turned OFF.

1.9 Service and Safety Regulations

- Please keep the service contents.
- Do not conduct settings or adding lubricant while the machine is in operation.
- Please cut off the power supply before opening the cover board.
- Do not install any additional parts unauthorized by our company.
- Please use original spare parts.
- Please use a power supply system meeting the requirements of the machine.
- Do not tear off or cover the type specifications or safety warning labels on the machine.
- Please use the manual for operation if necessary.

ATTENTION!

For the proper operation of the machine, please keep the machine and its parts clean, and regularly lubricate the parts needing lubrication and maintain and repair the electrical equipment.

The machine can only be operated by relevant technical staff.

1.10 Warning Signs and Symbols

The following signs cannot be removed or replaced at will, which are used in the position where danger can be easily caused to human body. Cut

off the power supply before maintaining the machine.

- ① The signs as shown in Figure 1-1 cannot be removed or replaced at will, which are used in the heating position of the machine. Do not touch the parts with the signs in case of scalding.



Figure 1-1

- ② The signs as shown in Figure 1-2 indicate there is the danger of electric shock after the door is removed. They cannot be changed or removed at will. Often they are used on the electrical parts.



Figure 1-2

- ③ The signs as shown in Figure 1-3 indicate moving parts or cutting devices may easily catch and hurt hands, causing severe injuries, so do not maintain the machine when it is working, and do not reach your hands to the position with the warning signs shown, keeping away from the parts.



Figure 1-3

- ④ The sign as shown in Figure 1-4 indicates maintaining moving parts or charged equipment may cause severe injuries, so do not maintain the

machine when it is working, and before maintenance, the power supply must be locked.



Figure 1-4

- ⑤ The sign as shown in Figure 1-5 indicates unauthorized personnel are prohibited to operate the machine.



Figure 1-5

- ⑥ The sign as shown in Figure 1-6 indicates it is prohibited to stretch your body or hands into the arch.

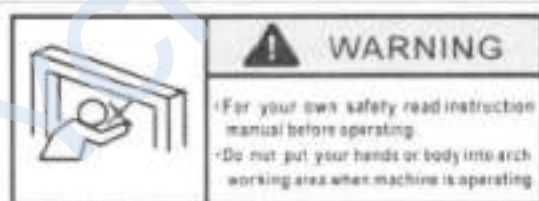


Figure 1-6

- ⑦ The sign as shown in Figure 1-7 indicates the power supply must be cut off before opening the door of the electrical cabinet.



Figure 1-7

- ⑧ The sign as shown in Figure 1-8 indicates the machine must be reliably

grounded when it is in use.

Make sure machine is in
good grounding situation!

Figure 1-8

- ⑨ The sign as shown in Figure 1-9 indicates before using the equipment, you must read and understand the operation manual and all other safety instructions.



Figure 1-9

- ⑩ The sign as shown in Figure 1-10 indicates safety warnings for operating the machine.



Figure 1-10

※ **ATTENTION!**

Read other signs clearly when working to make sure of operating the machine safely and correctly to avoid dangers!

2 Machine Information

2.1 Areas of Application

The strapping machine is to be used for strapping products using a polypropylene (PP) strapping. The products to be strapped are limited within the arch, whose inner specifications can be customized according to customer requirements (standard specifications: W800mm × H600mm). Be careful for rigidity of working materials, and don't try to strap wet, ashy, powder or too-heavy (usually max. load 80kg) packages. This machine was designed for strapping only. We strongly recommend that this machine not be modified and/or used for any application other than for which it was designed. Pay attention to the load-bearing capacity described in the manual. Do not use the machine until you have known all items.

This equipment is not suitable for explosive environments. If used in explosive atmospheres, the machine shall be specially customized.

If it is used for the strapping of food or medicine products, it is recommended to use a specially customized stainless steel machine, which should be also cleaned and disinfected with disinfectants in accordance with industry regulations.

If it is used for the strapping of corrosive goods (such as seafood, etc.), pay attention to rust protection, and do not let a corrosive liquid enter the strapping head. In case that it goes into the strapping head, it should be dried immediately to prevent the strapping head from rusting, which will result in motor overload.

In case of object or liquid spills, scattering on the ground around the machine, immediately remove these spills to avoid the risk of personnel slipping.

2.2 Nameplate

Please provide the serial number and model of the machine if you need to contact the manufacturer for any questions or suggestions. Please refer to the nameplate of the machine for specific details. (Figure 2-1)

AUTOMATIC STRAPPING MACHINE			
Model	YQ201	PP band width	12mm
Voltage		PP band core diameter	200mm
Power	500W	Machine NO.	
Max. packing article	800*500mm	Dimension	1400x30x1450mm
Min. packing article	150x60 mm	Gross weight	170kg
MADE IN CHINA			CE

Figure 2-1

2.3 Environment Information

The strapping machine shall be installed in a site meeting the following conditions:

- Ambient temperature: -20℃ - 40℃
- Humidity: ≤98%
- Base: Max. loading capacity 350kg/m²
- Space: Min. 2,000mm×1,500mm
- Atmosphere: Far away from smoke, excessive dust, acid fume, fire and corrosive substances and salt, and dry and well-ventilated.
- Avoid exposing to abnormal vibration
- Don't use the machine in dangerous environment.
- Don't use the machine in damp or wet locations, or expose it to rain.
- Provide suitable illumination around the machine for safety operation.
- Workplace of users should have a fire extinguisher or other devices that meet their local safety regulations, and always be careful.
- Internal parts requiring frequent inspection and adjustment, and maintenance areas must be provided with suitable illumination around the machine.

If there may be harmful gases, fumes or dust generated during heating, the user or system integrator must install an exhaust system for the extraction of harmful substances.

The exhaust system shall be positioned according to the vent location.

The user should refer to a professional expert or relevant authority to prevent the dangerous substance/gas emitted by suitable means according to local/national environmental/health codes/regulations.

2.4 Machine Description

- Automatic strapping machine for polypropylene (PP) strapping
- Strap width from 9mm to 15mm
- Electronic heater temperature control
- Tough construction, simple, safe and user-friendly operation, and easy maintenance and adjustment
- Mobile, with large table area and high-capacity strap coil
- Strap tension electronically adjustable from soft to high

2.5 Safety Devices

**DANGER!**

Operate the machine only when all safety devices are at their places and are functioning correctly!

The machine has been constructed in accordance with the applicable legal regulations.

The machine is reliable in operation. However, if it is operated improperly, it may lead to dangers.

Danger points that cannot be avoided due to equipment design are equipped with safety devices. These points are marked on the machine with warning signs and in the manual under safety instructions if necessary.

The machine is equipped with the following safety devices:	
1.	Warning signs at the danger points of the machine
2.	Live parts are secured by cover.

CAUTION!

The heating unit operates at a very high temperature in order to melt the PP strapping. To prevent burns, avoid contacting with this area.

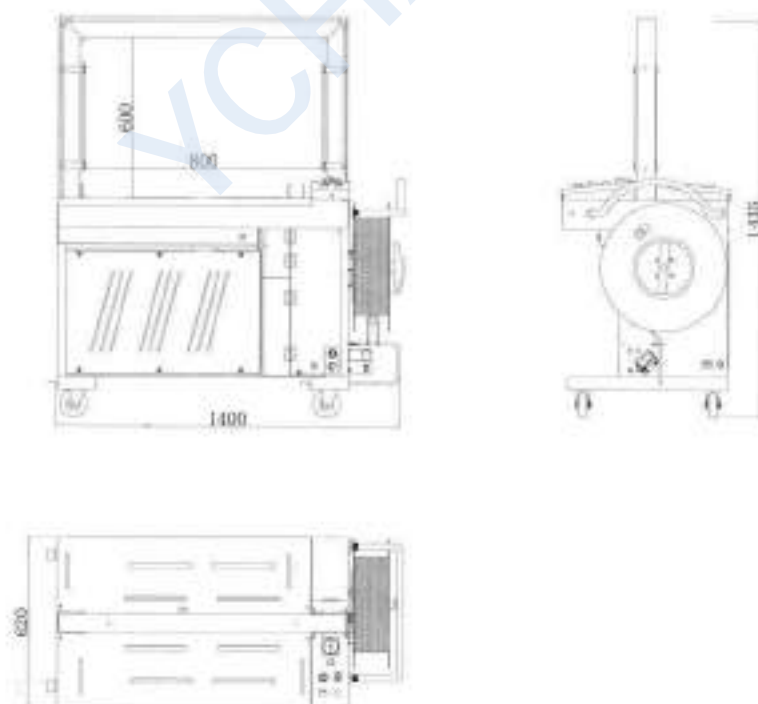
2.6 Specifications

Figure 2-2

Table 1 Performance Parameters

Size **:	L1400mm × W620mm × H1435mm
Package size **:	L1500mm × W700mm × H1600mm
Worktable height:	750mm
Load-bearing capacity:	80kg
Net weight **:	150kg
Strap width:	9mm-15mm
Strap coil	Coil inner diameter 200mm - 210mm Outside diameter 400mm - 450mm Width (face) 170mm - 190mm
Strapping speed **:	≤ 2.0s/beat
Strapping specifications:	Min. package size: W150mm × H60mm Max. package size: Inner size of the arch
Adhesion technique:	Hot melting
Adhesion type:	Bottom adhesion, adhesion surface ≥ 90%, adhesion positional deviation ≤ 2 mm
Tension strength:	0-70kg
Power:	500W, 3A
Power supply:	1P, 220V, 50-60Hz (Refer to the nameplate)
Noise emission:	≤75dB(A)
Adjustable items:	Arch size, strap width
Notes: ** Standard arch size: W800mm × H 600mm * Subject to change without further notice	

3 Preparation Before Operating the Machine

3.1 Transportation and Storage

For long-distance transportation or long-term storage of the machine, the machine must be packaged in a wooden or hard cardboard box, and fixed onto a strong pallet. Moisture absorbent shall be placed in the packaging box, and anti-rusting agent shall be sprayed inside the machine.

Do not place anything heavy on top of the wooden case or cardboard box. And the machine cannot be inverted during transportation and storage.

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

After long-distance transportation or long-term storage of the machine, it is recommended that check all the moving parts manually before the machine is connected to the power supply, so as to avoid the overloading in electrical equipment.

3.2 Handling

A forklift is used to move the machine, as shown in Figure 3-1, during which pay attention to the center of gravity, and be careful to avoid violent collisions to avoid any damage to the machine or loosening the parts resulting in failure in work.

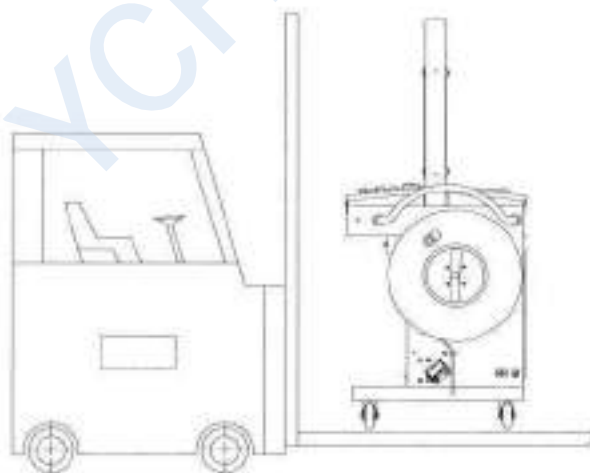


Figure 3-1

CAUTION!

Do not carry the machine by having the forklift's fork under the arch, but only under the machine frame.

3.3 Construction Layout

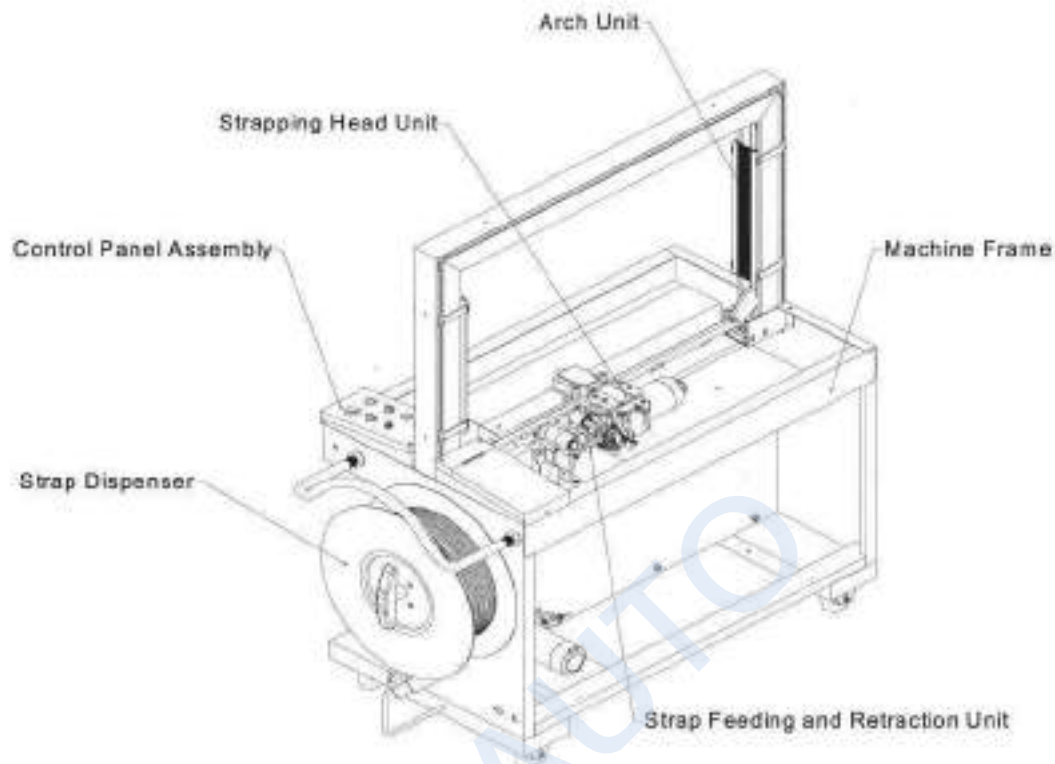


Figure 3-2

3.4 Installation and Fixing

1. Remove the packing material and check whether the machine is complete and without any shipping damage.
2. The machine must be firmly installed on a flat, dry and hard floor, with a power supply available nearby. The power supply must comply with what described on the nameplate at the side of the machine.
3. Adjust the worktable height by repositioning the screws underneath the machine frame. Be sure to tighten all the fixing screws after the adjustments.
4. Do not move the machine unless it is necessary. Before movement, be sure to turn off the power, unplug it, and put the power cord on the machine.

3.5 Working position illustration

When working, the operator shall stand in front of the machine, about 100mm away from it (at a distance where he is able to operate it freely), see Figure 3-3.

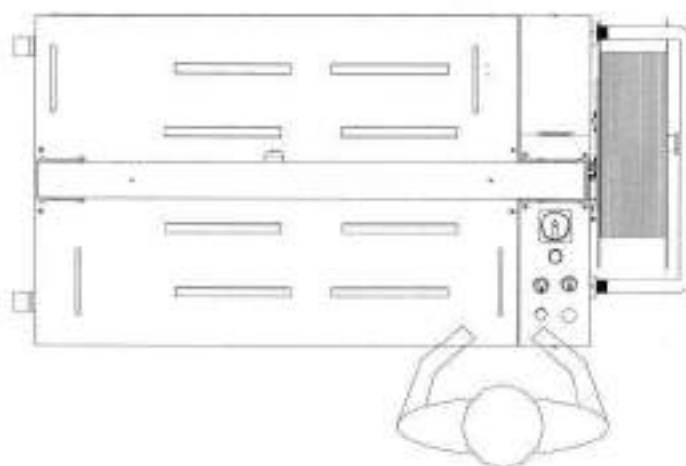


Figure 3-3

3.6 Standard Accessories Supplied with the Machine

REF. NO.	DESCRIPTION	PART NO.	QTY
1	Bar Inner Spring	A1010	1
2	Strap Feeding Spring	A1095	1
3	Strap Retraction Spring	A1096	1
4	Middle Bar Reset Tension Spring	A1088	1
5	Long Tension Spring	HL101122	1
6	Slide Table Arm Spring	A1093	1
7	Crank Tension Spring	A0132	2
8	Allen Wrench		1 set
9	Cross Screwdriver		1
10	Open-End Wrench	8-10	2
11	Instruction Manual		1
12	Certificate Of Conformity		1

4 Operating the Machine

4.1 Cautions Before Operation



Check if the power supply is in line with the one stated on the nameplate on the side of the machine. Check if the width of the PP strap used fits the inner width of strapway between the tables.



While installing the PP strap coil onto the strap dispenser unit, you must install it following the direction indicated by the arrow marked on the outer flange. Incorrect strap installation will result in machine operation failure.

- 1) It is not allowed to use the machine in the following circumstances such as:
 - ① When the cover board is not in its place;
 - ② When the machine is not stable.
- 2) It is not allowed to use the machine within the explosion scope of hazardous substances.
- 3) **ATTENTION!**
Do not wear bracelets, watches, finger rings, chain bracelets, neckties or laces while working, and workers shall be restricted from free movement to avoid injuries caused to themselves. The clothes of operators must comply with safety regulations when they are maintaining and operating the machine.
- 4) **Pretreatment**
After the machine is taken out from its package, please check:
 - ① Whether there are missing and damaged parts of the machine;
 - ② Remove strapping materials in the packaging box;
 - ③ Check the model;
 - ④ Check the accessories and the manual we provide with the machine; and
 - ⑤ Report any damages caused during transportation.

5) Safety Considerations on Machine Operation

- ① Please check the power supply, and do not insert a wrong power supply. The machine adopts the single-phase three-wire system, and the double-colored cord is the grounding wire for the leakage protection.
- ② Do not reach your head or hands to the track of strap when operating.
- ③ Do not touch the heater plate with hands directly.
- ④ Do not use water to wash the machine. If the workplace is wet, operating personnel should not work barefoot.
- ⑤ Do not change the parts at will.
- ⑥ When the machine is not in use, roll up the strap in the accumulator box back to the strap coil, in case that it will be out of shape when it is used next time.
- ⑦ Make sure there is no oil on the strap conveying roller.
- ⑧ Unplug the power plug when the machine is not in use.
- ⑨ Lubricate its main parts regularly.

4.2 Checking Before Operation

- 1) Check there are no loosened fasteners.
- 2) Check the motors and electrical equipment are dry and with good insulation.
- 3) Check the external power supply accords with the power supply requirements of the machine.
- 4) Check there are no other objects on the worktable.
- 5) The machine cannot be connected to a power supply to start up until the end of all the checks.
- 6) Check the machine runs properly 2-5 minutes after connecting to the power supply.

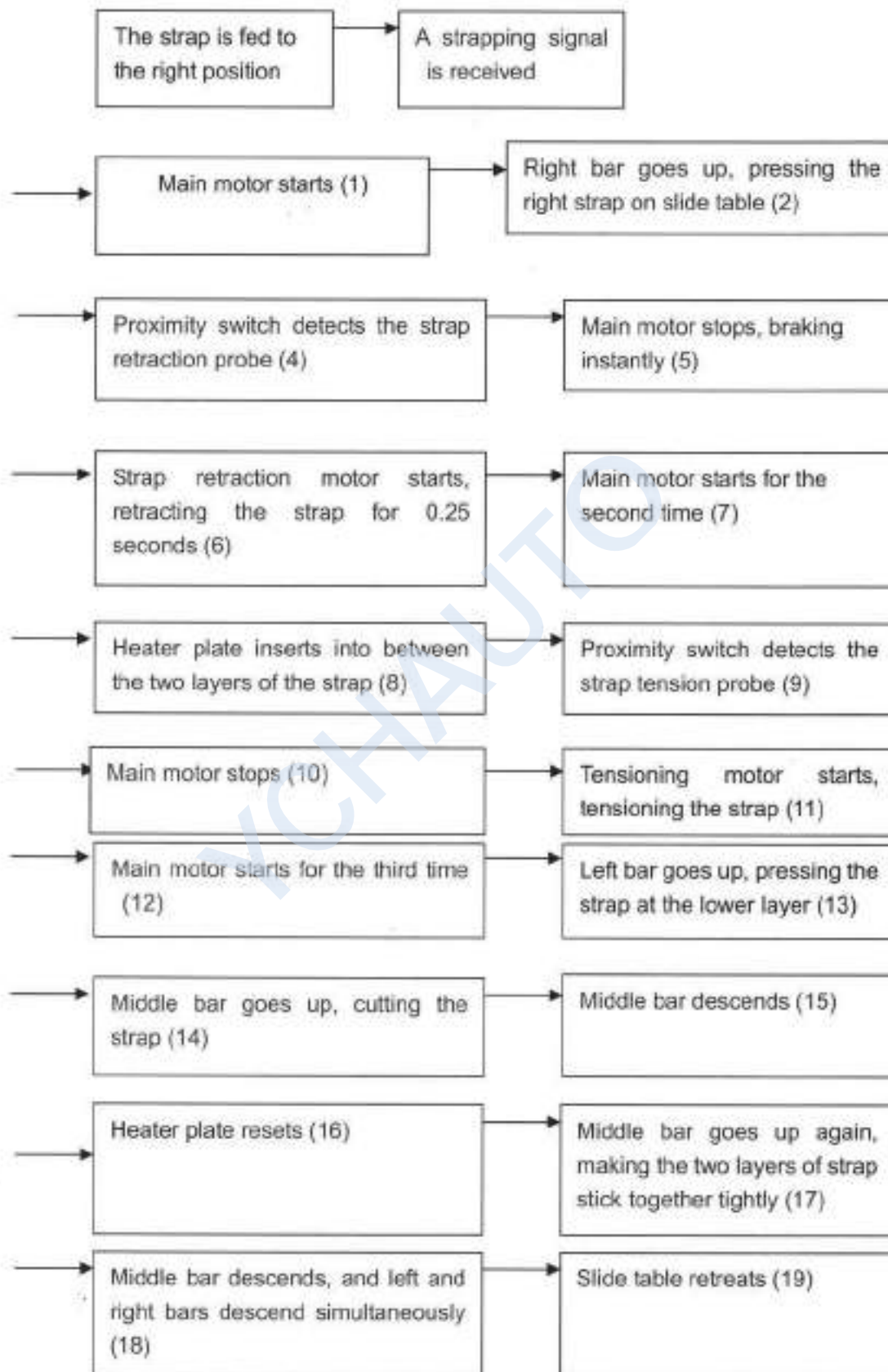
CAUTION!

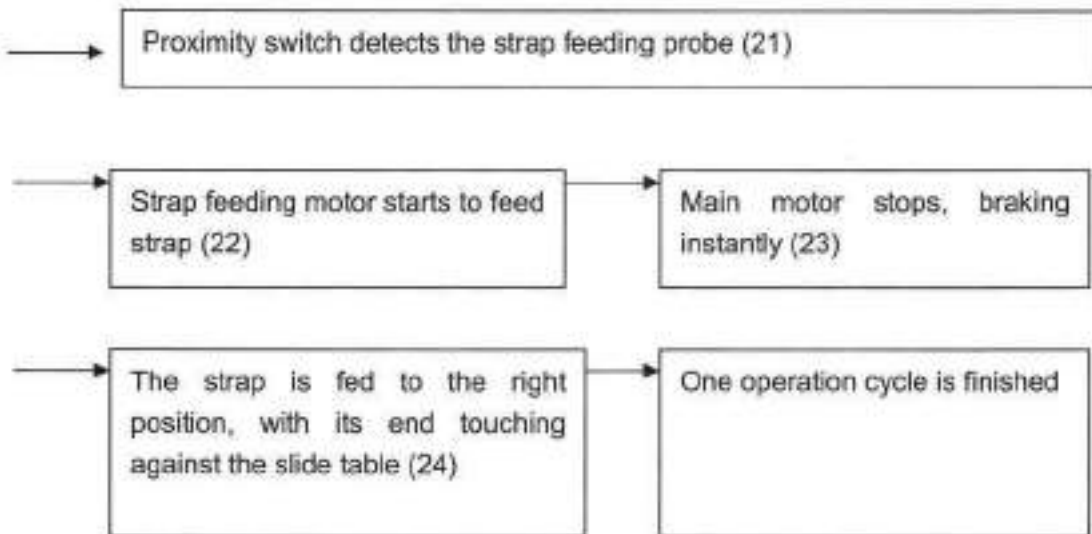
The machine can only use the plug supplied with it, so do not remove the plug on the cord

4.3 Machine Working Principle

The object to be strapped is basically in the middle of the machine. First the right bar goes up, presses the front end of the strap tightly and tensions the strap around the object, strapping it. Then the left bar goes up, presses at the proper position of the strap at lower layer tightly, and at this time, the heater plate inserts between two layers of the strap. Then the middle bar goes up, cutting off the strap. And at last, the strap for the next strapping is fed to the right position, thus a working cycle is completed.

4.4 Working Process





4.5 Operating Control Units

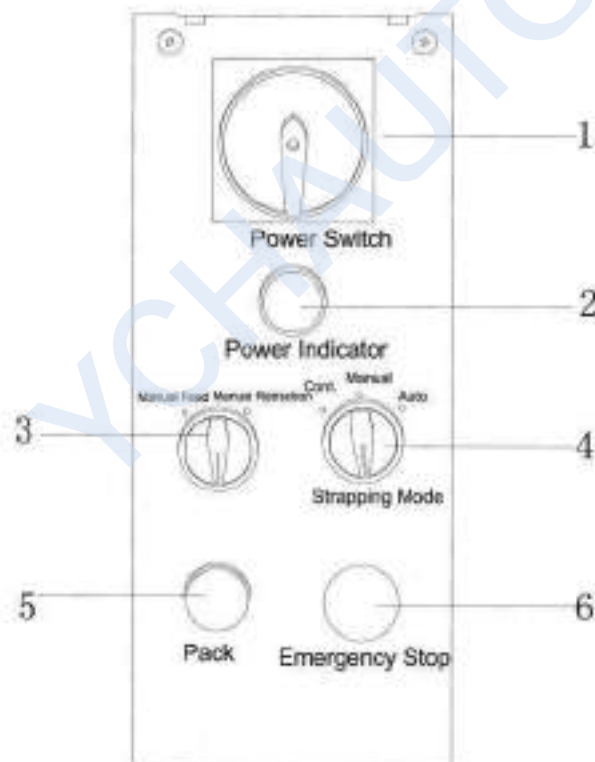


Figure 4-1

- 1) **Power switch**
Turn to ON, the machine on, and to OFF, the machine off.
- 2) **Power indicator**
Turn on the power switch, the power indicator is on, and you can operate

the machine; turn off the power switch, the power indicator is off, and the machine stops running.

3) Manual feed/retraction

Turn the switch to select manual feed or retraction of a strap.

4) Strapping mode

Select different strapping modes according to product needs.

5) Pack button

You can achieve manual strapping with the machine with this button.

6) Emergency stop button

In case of emergency, press this button, and the machine stops immediately, no matter what state the machine is in.

4.6 PP Strap Coil Installation and Threading



During PP strap coil installation, the main power switch must be turned off. When the PP strap goes through the strap guide roller in the accumulator box, it must be threaded according to the direction indicated by the arrow marked on the outer flange.

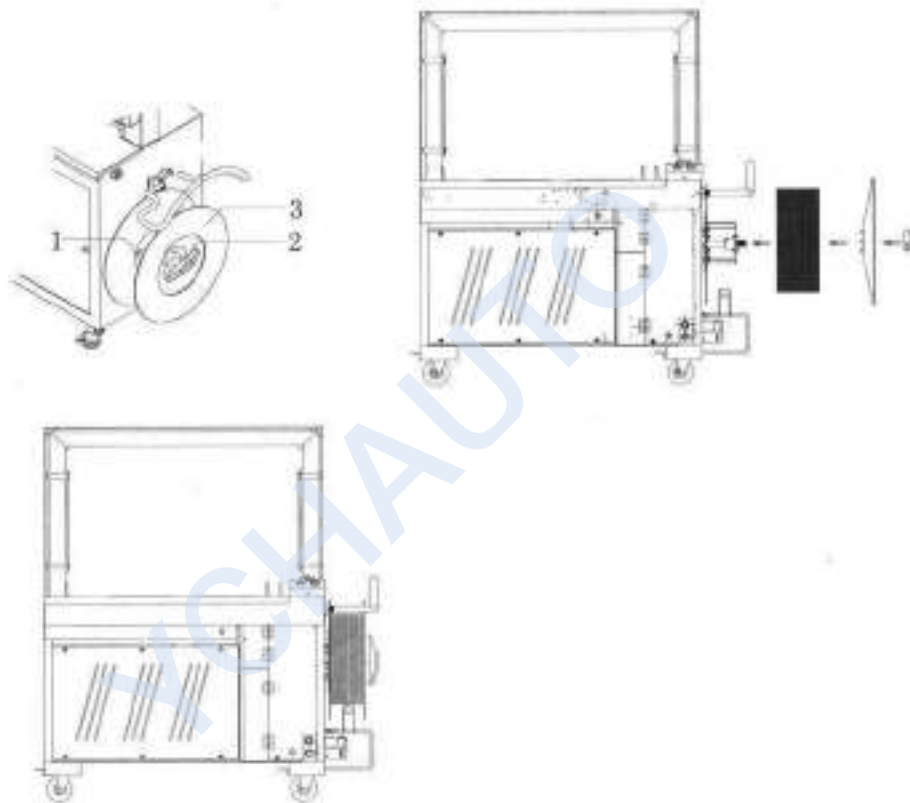
4.6.1 PP Strap Specifications

We recommend the following PP straps.

Raw material:	PP
Specifications:	Width: 9mm-15mm Thickness: 0.55 mm -1.0mm
Strap coil width:	170mm-190mm
Strap coil core inner diameter:	200mm-210mm
Strap coil core outer diameter	400mm-450mm
Maximum tension	70kg

4.6.2 PP Strap Coil Installation

- 1) Screw the hand wheel out, and remove the outer flange.
- 2) And then install a PP strap coil following the rotating direction marked on the outer flange, and the strap coil shall be supported by the supporting claw.
- 3) Install the outer flange, and note that the slot on the outer flange should be aligned with the pin.
- 4) Then tighten the hand wheel.



1- Supporting Claw 2- Hand Wheel 3- Outer Flange

Figure 4-2

4.6.3 PP Strap Threading (Auto PP Strap Feeding)

Strap threading process:

As shown in Figure 4-3, insert the PP strap into the steel ring 1 following the arrow direction shown on the outer flange, and then pass it through the strap guide roller 2 to the pre-feeding roller, then press down the handle 3, pass the strap through the pre-feeding roller and tension roller 4 to the pre-feeding roller 5, and push inward the screw rod 6. After the strap passes through the strap feeding roller, turn the manual strap feed button, feeding the strap to the right position.

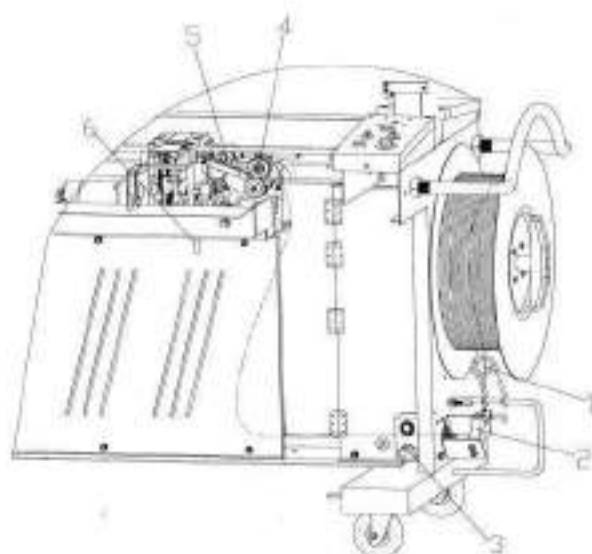


Figure 4-2

CAUTION!

The cut edge of the strap must be free from burrs to avoid failure in the auto strap feeding.

4.7 Operating Steps

- 1) The operation control panel is shown in Figure 4-1, and at this time the power indicator light is on.
- 2) Thread a PP strap according to the strap threading way as described in 4.6.3, and then press the inching button Pack.
- 3) You can carry out strapping operation after the heater plate reaches the required temperature for strapping.
- 4) Choosing a strapping mode:
 - ①. Manual:
An object is strapped for once if you press the inching button Pack, suitable for low production rate or scattered strapping.
 - ②. Automatic:
Sensor switch is underneath or on the left and right sides of the setting panel. The machine will carry out strapping once when an object is detected by the sensor switch, and will continuously strap the object at preset time intervals, suitable for streamline operation in a large production volume.
- 5) Objects should be basically in the middle of the machine when strapping.

ATTENTION!

Keep hands away from the strapping area.

If hands are caught by PP strap accidentally, be sure to press the emergency stop button or turn off the main power switch first and then cut the strap.

5 Adjustments

5.1 PP Strap Tension Adjustment

The button for tension adjustment is as shown in Figure 5-1. Generally it is set at 4 when the machine is delivered. You just need to turn the potentiometer to adjust the tension force. The greater the number is, the larger the tension force will be, but you can't adjust too much one time.

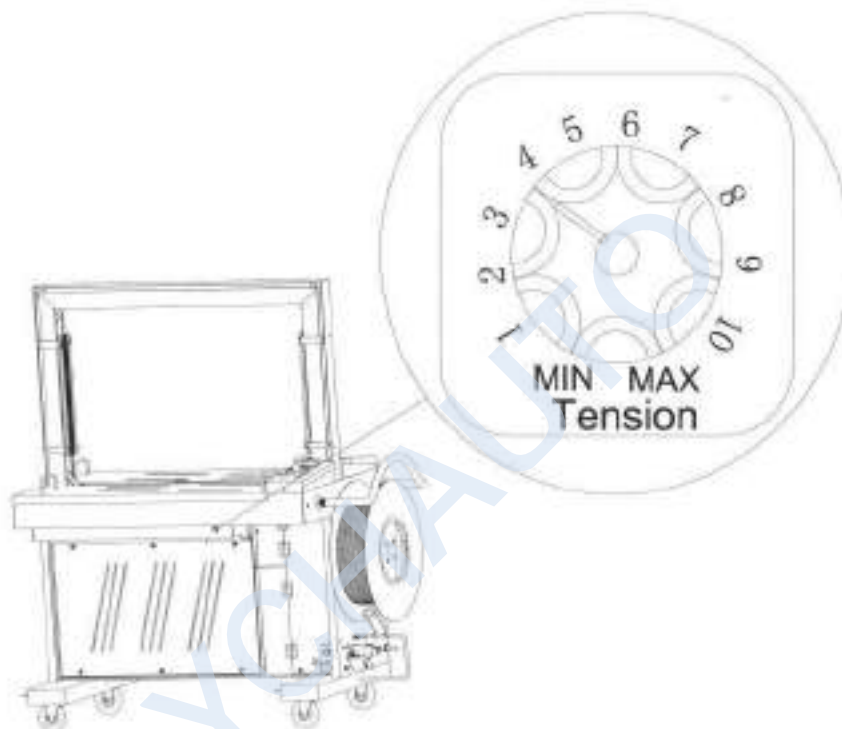


Figure 5-1

5.2 PP Strap Length Adjustment in the Accumulator Box

The length of PP strap in the accumulator box is determined by the strapping girth of the object to be strapped. When the object girth is longer, the PP strap in the accumulator box shall be longer. When the object girth is shorter, the PP strap in the accumulator box shall be shorter. PP strap length in the accumulator box shall be 1.5 times the total length of the arch and the strapway.

Adjustment of the length of strap supplied: When the PP strap in the accumulator box is not long enough, adjust the screw rod leftward. When the strap in the accumulator box is too long, adjust the screw rod rightward.

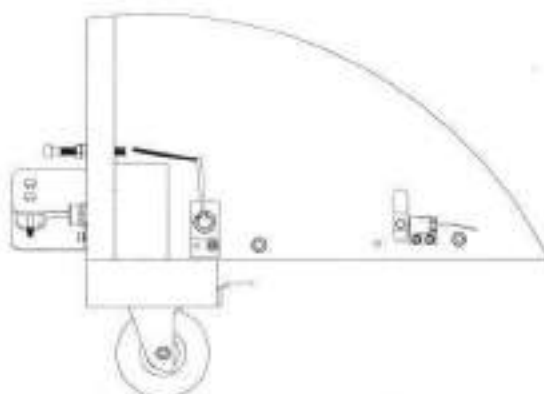


Figure 5-2

CAUTION!

Excessive amount of PP strap in the accumulator box can lead to strap jam (too curved) and cause feeding problem.

Insufficient amount of strap in the accumulator box can lead to short feed problem or decrease strapping speed.

5.3 Cooling Time Adjustment (Cool Timer)

Adjust cooling time according to different straps and different tension for better adhesion effects.

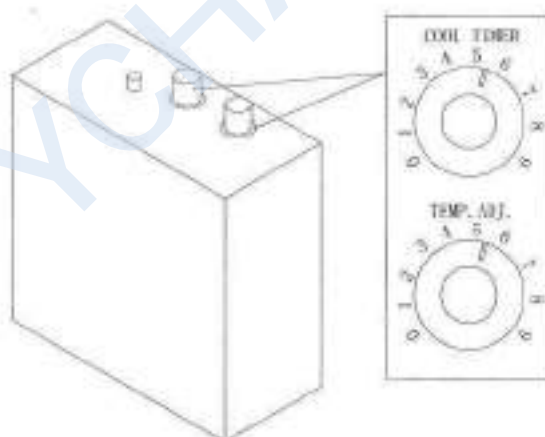


Figure 5-3

5.4 Heater Plate Temperature Adjustment (TEMP. ADJ)

If the temperature in the working site varies greatly, the temperature of the heater plate shall be adjusted with the temperature controller; Grade 0 is the minimum, Grade 9 is the maximum (see Figure 5-3). Generally, it is set between Grades 4-6 when the machine is delivered.

5.5 Spring Adjustment

Figure 5-4: Strap retraction force adjustment. Lower the spring tension plate, and the strap retraction force becomes greater.

Figure 5-5: Strap feed force adjustment. Lower the spring tension plate, and the strap feed force becomes greater.

Figure 5-6: Adjust the gap for straps of different thickness. No adjustment is required for straps with a standard strap thickness 0.55mm-0.9mm when delivered and you need adjust the screw rod for straps thicker than 0.9mm. Rotate the screw rod clockwise, the gap between the two rollers becomes larger; and counterclockwise, smaller. When the adjustment is made, the range should not be too large, subject to smooth strap feeding and good strapping effects.

Spring for strap retraction



Figure 5-4

Spring for strap feeding

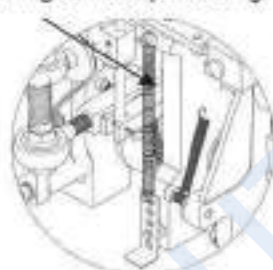


Figure 5-5



Figure 5-6

6 Maintenance

WARNING

Set the main power switch to OFF before any maintenance or repairs on the machine. Wait about 5 minutes for cooling down the heater to avoid burns by this area.

6.1 Daily Cleaning

Regular and correct maintenance and care to the strapping machine can not only extend its service life but also reduce breakdown of the machine, thus enhancing productivity.

6.2 Cleaning

- 1) The slide table must cooperate precisely with the left and right guide rails, and the slide table must be able to move forward and backward smoothly. The slide table and the grooves of the left and right guide rails shall be cleaned with a towel.
- 2) The left, middle and right bars must move up and down freely in their cavity, otherwise the machine will fail to carry out strapping properly. The three bars and the inside of the cavity holder shall be cleaned with a towel.

6.3 Lubrication

As strapping machines work very fast, and when there is a large amount of work, each machine has to work for 16 hours every day, thus their parts should often be in a good lubrication state. The following parts need to be lubricated once every week, with the oil grade N68. Those parts not listed in this manual also need to be lubricated at irregular intervals.

★ Parts needing lubrication:

- 1) The running surface of cams and their rollers.
- 2) Apply a little lighter lubricating oil in the gap between the slide table and the left and right guide rails, as shown in Figure 6-1.
- 3) The rubbing surface between cranks.

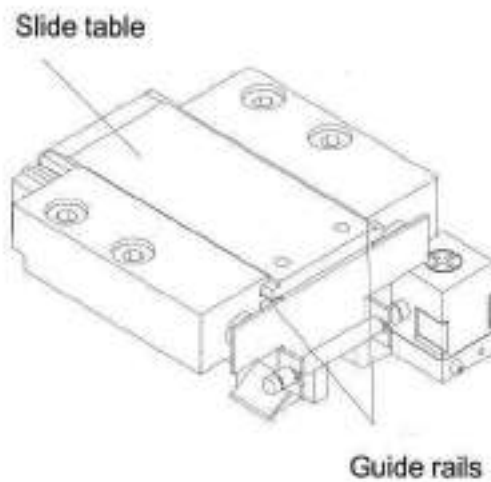


Figure 6-1

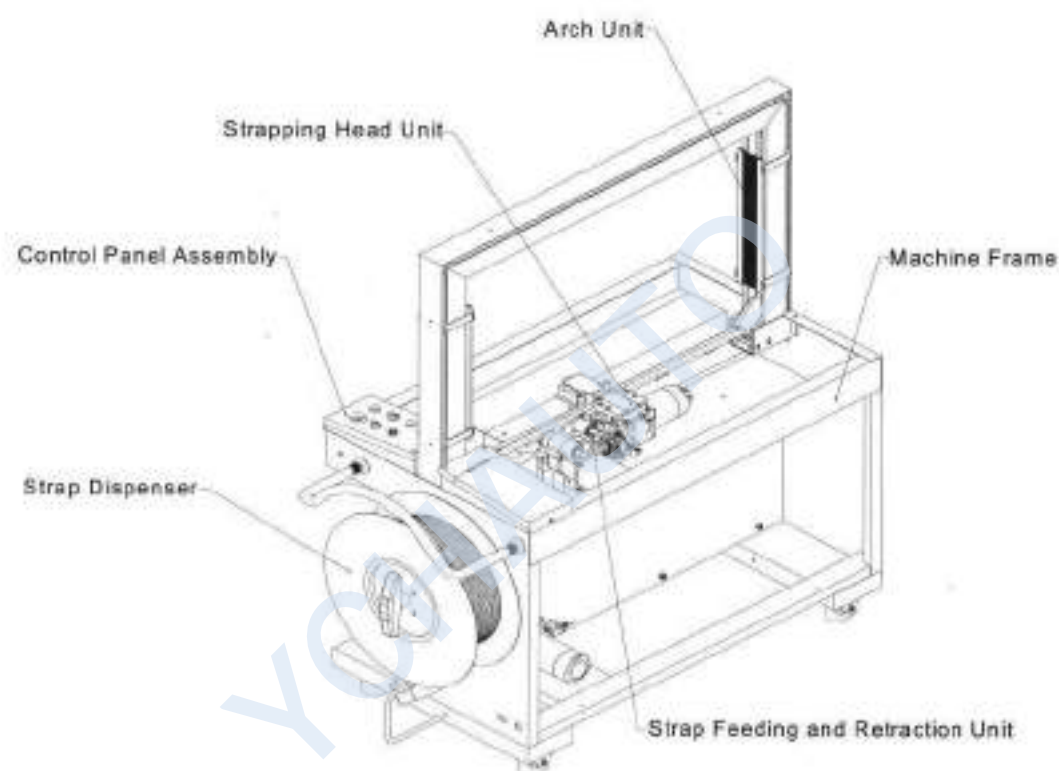
6.4 Regular Inspection

Regularly check the soundness of proximity switches and their probes.

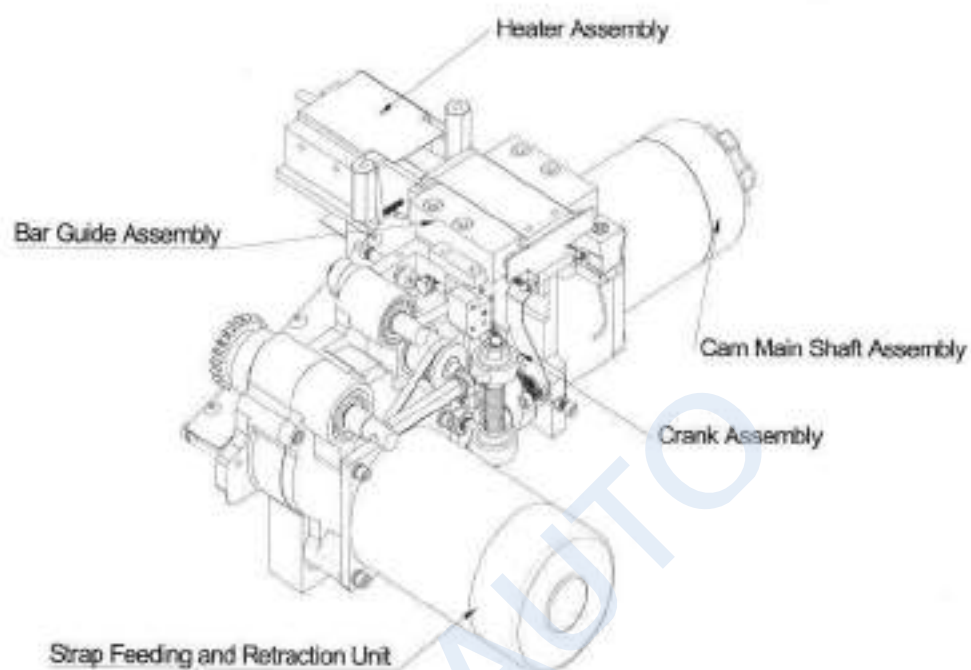
The changes in the relative position of proximity switches and their probes as a result of the loosening of the proximity switches and their probes will lead to changes in the machine stop position and in the strap feeding and retraction time, and the machine will fail to work properly because of the inharmony, which affects strapping quality.

PART II

1 Main Parts and Detailed Parts Lists



1.1 Strapping Head and Strap Feeding and Retraction Unit

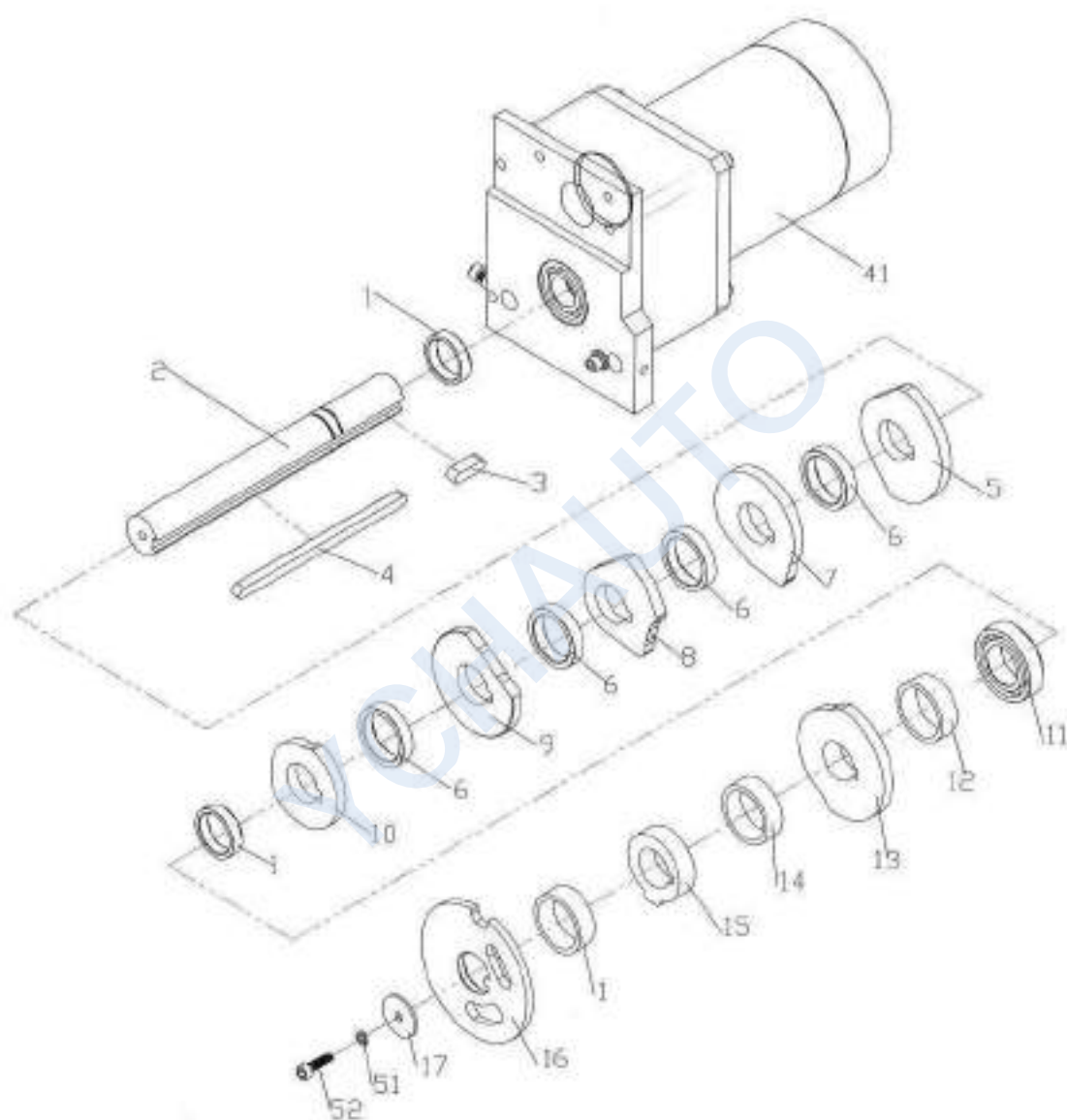




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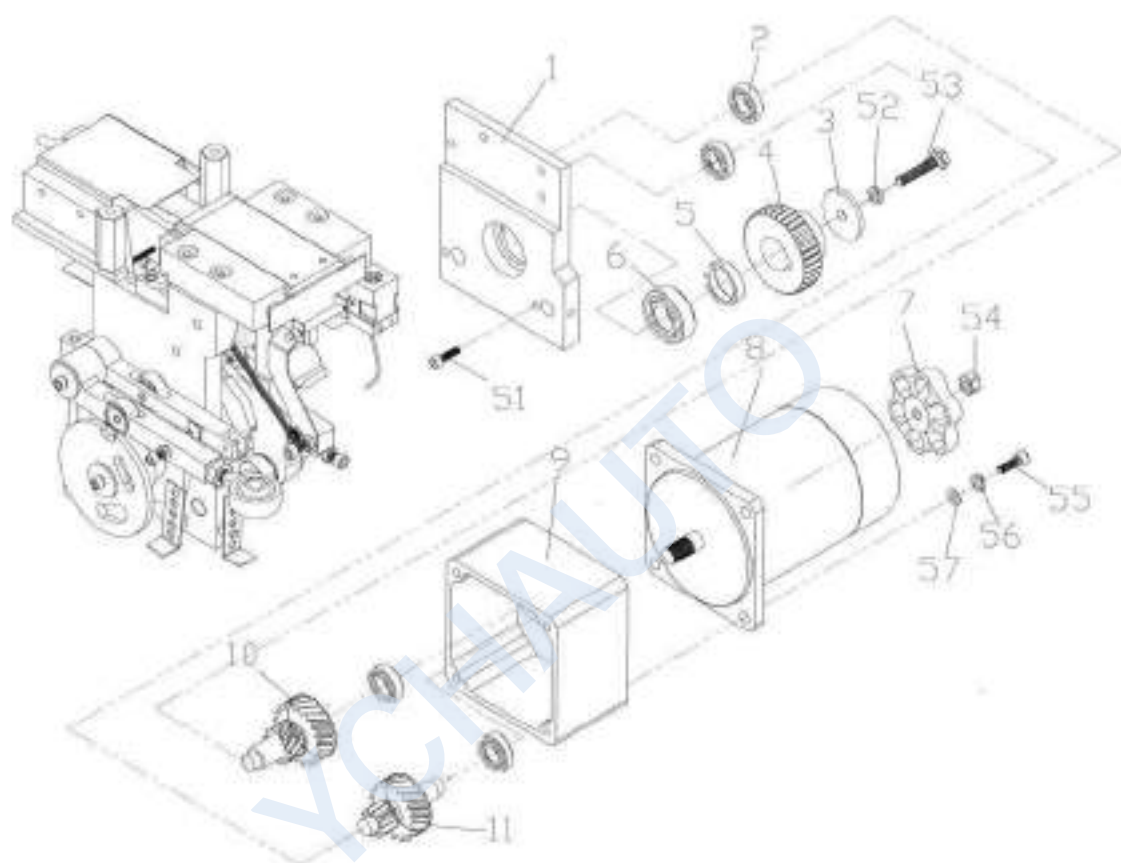
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1.1.1 Cam Main Shaft Assembly



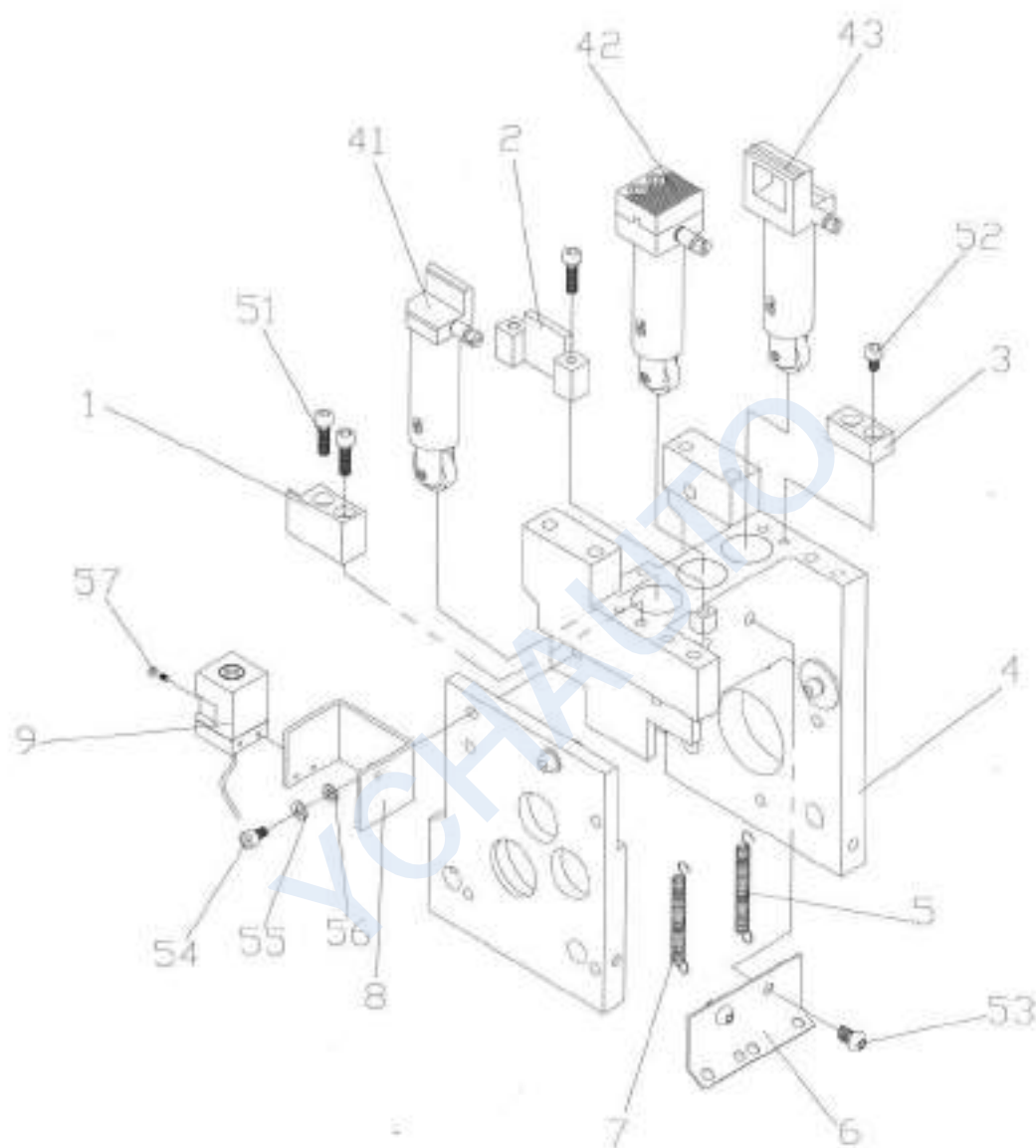
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1033	Spacer Bush 6.0mm	3	
2	A1044	Cam Shaft	1	
3	6×6×28	Flat Key	1	
4	6×6×56	Flat Key	1	
5	A0503A	Cam of Left Bar	1	
6	A1063	Spacer Bush 6.5mm	4	
7	A1073A	Cam of Slide Table	1	
8	A0504 A	Cam of Middle Bar	1	
9	A1072 A	Cam of Heater	1	
10	A1069 A	Cam of Right Bar	1	
11	6004	Bearing	1	
12	A1045	Spacer Bush 3.5mm	1	
13	A0507	Feed and Retraction Cam	1	
14	A1032	Spacer Bush 12mm	1	
15	A1074 A	Tension Cam	1	
16	A1605 A	Detection Cam	1	
17	YS-2A-65	Gasket	1	
41	See the diagram.	Gear Motor Assembly	1	
51	Φ6	Spring Washer	1	
52	M6×20	Inner Hexagon Screw	1	

1.1.1.1 Gear Motor Assembly



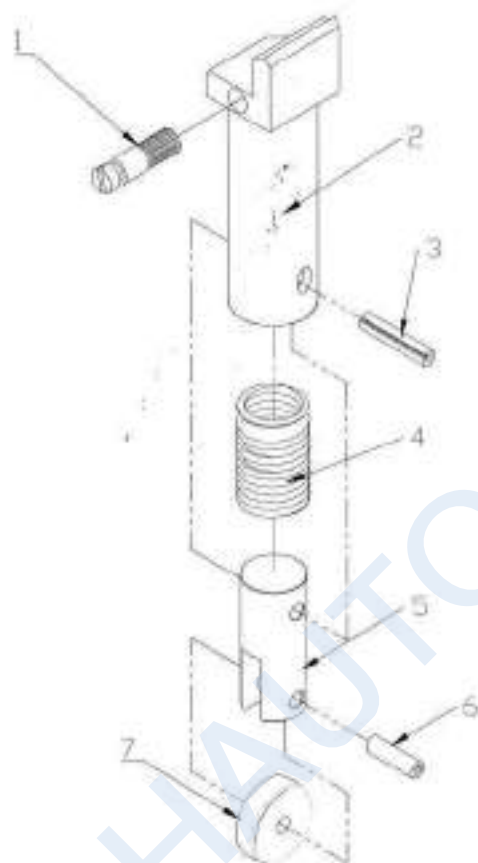
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1603	Strapping Head Side Plate	1	
2	6900	Bearing	4	
3	YS-2A-65	Gasket	1	
4	YS-04-136	Big Gear	1	
5	A1045	Spacer Bush 3.5mm	1	
6	6004	Bearing	1	
7	YS-4A-180	Hand Wheel	1	
8	Z5D120-24GN-20S	M1 Motor	1	
9	YS-04-103	Gear Box	1	
10	YS-04-134	Gear Shaft	1	
11	YS-04-135	Gear Shaft	1	
51	M6×20	Inner Hexagon Screw	4	
52	Φ6	Spring Washer	1	
53	M6×20	Outer Hexagon Screw	1	
54	M6 (left-hand thread)	Hexagon Nut	1	
55	M6×20	Inner Hexagon Screw	4	
56	Φ6	Spring Washer	4	
57	Φ6	Flat Washer	4	

1.1.2 Bar Guide Assembly and Left and Right Wallboards



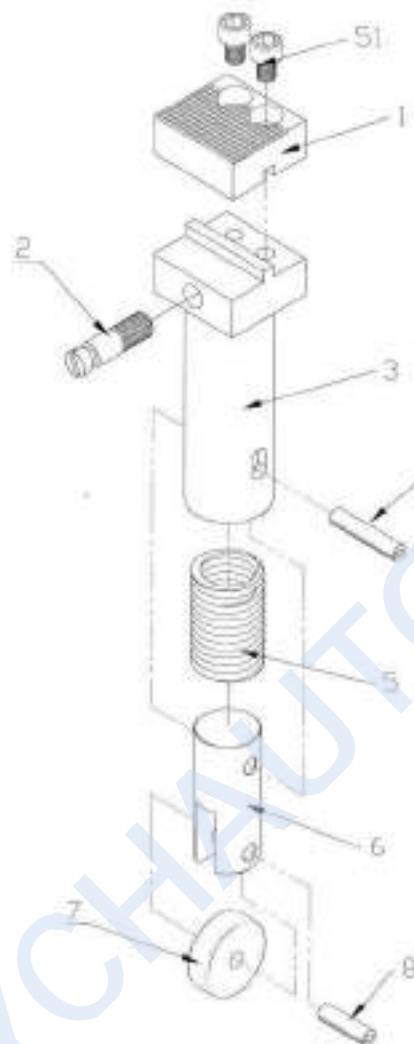
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1057	Left Bar Stopper	1	
2	A1061A	Middle Bar Stopper	1	
3	A1060	Right Bar Stopper	1	
4	A1601	Strapping Head Base	1	
5	A1088	Return Spring of Middle Bar	1	
6	A1086	Spring Hook Plate	1	
7	A1087	Return Spring of Bar	2	
8	YS-201A-05	Left Strapway Support	1	
9	SS17-05DNA	Proximity Switch	1	
41	See the diagram.	Left Bar Assembly	1	
42	See the diagram.	Middle Bar Assembly	1	
43	See the diagram.	Right Bar Assembly	1	
51	M4×25	Inner Hexagon Screw	4	
52	M4×12	Inner Hexagon Screw	2	
53	M5×10	Cup Head Inner Hexagon Screw	2	
54	M5×20	Inner Hexagon Screw	2	
55	Φ5	Spring Washer	2	
56	Φ5	Flat Washer	2	
57	M3×25	Cross Pan Head Screw	2	

1.1.2.1 Left Bar Assembly



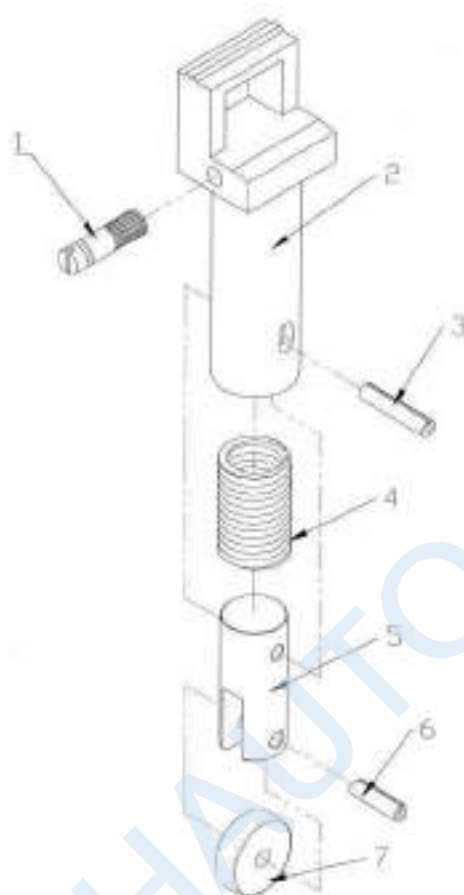
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1008	Bar Screw	1	
2	A1006	Bar No. 3	1	
3	A1510	Bar Neck Pin	1	
4	A1010	Bar Inner Spring	1	
5	A1007	Bar Neck	1	
6	Φ5×14	Spring Pin	1	
7	635 (thickened)	Bearing	1	

1.1.2.2 Middle Bar Assembly



REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1004B	Cutter	1	
2	A1008	Bar Screw	1	
3	A1003 A	Middle Bar Rod	1	
4	A1510	Bar Neck Pin	1	
5	A1010	Bar Inner Spring	1	
6	A1007	Bar Neck	1	
7	635 (thickened)	Bearing	1	
8	Φ5×14	Spring Pin	1	
51	M4×10	Inner Hexagon Screw	2	

1.1.2.3 Right Bar Assembly

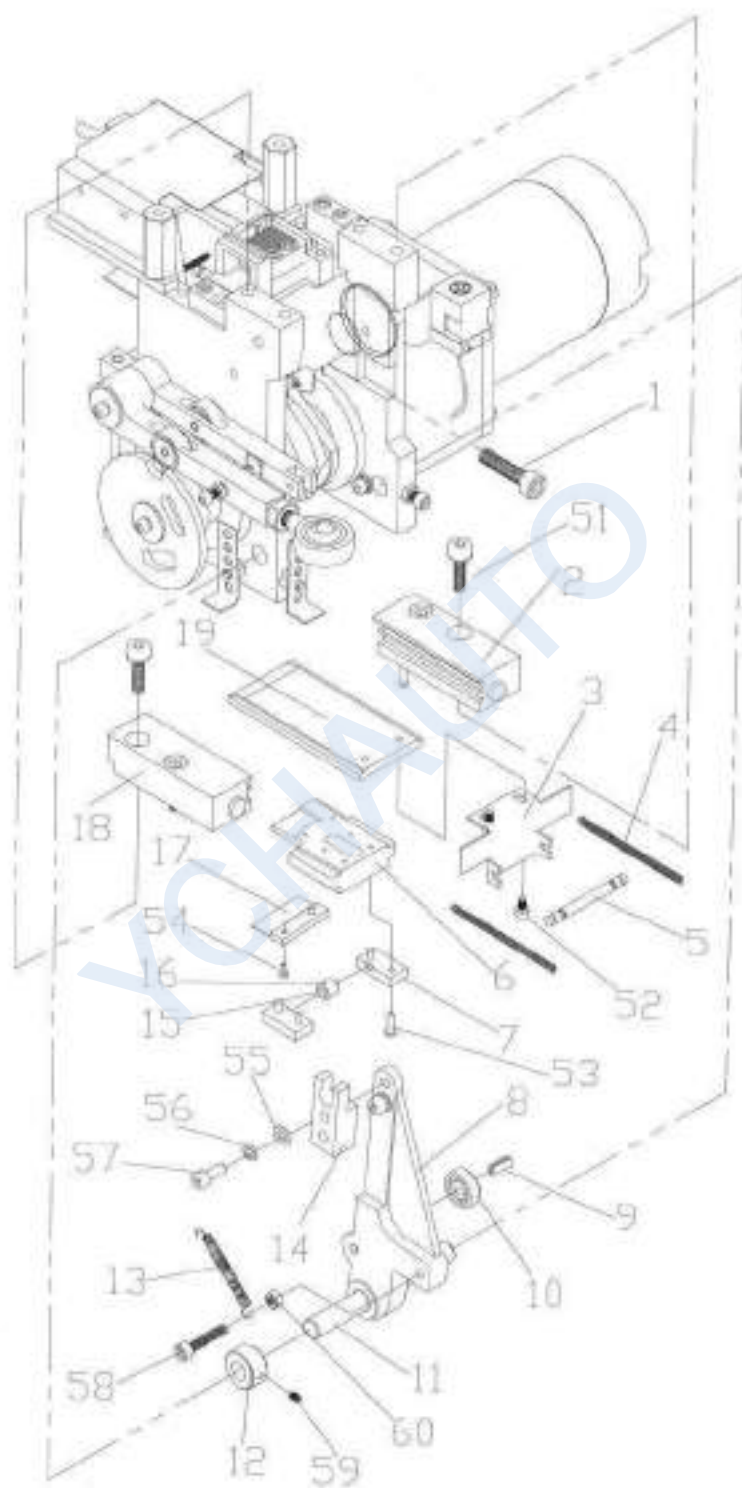


REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1008	Bar Screw	1	
2	A1005 A	Bar No. 1	1	
3	A1510	Bar Neck Pin	1	
4	A1010	Bar Inner Spring	1	
5	A1007	Bar Neck	1	
6	φ5×14	Spring Pin	1	
7	635 (thickened)	Bearing	1	



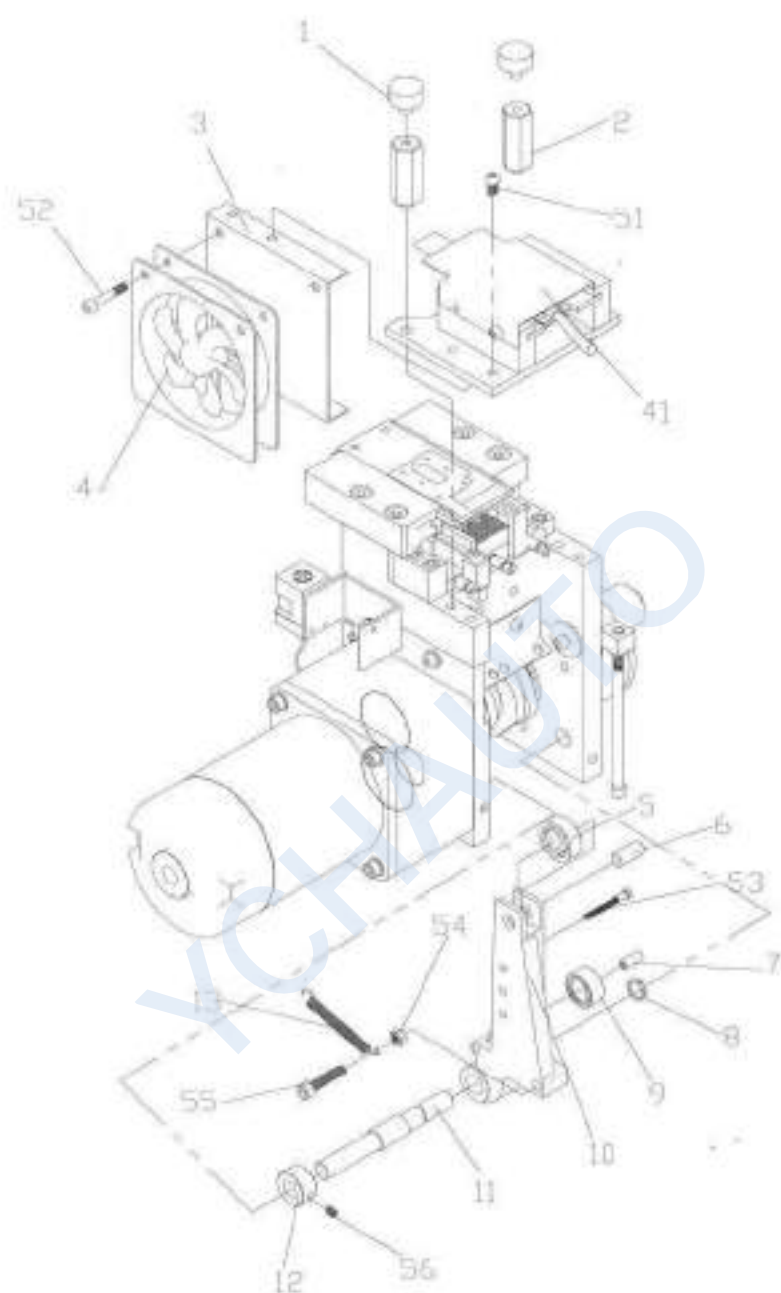
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1.1.3 Crank Assembly



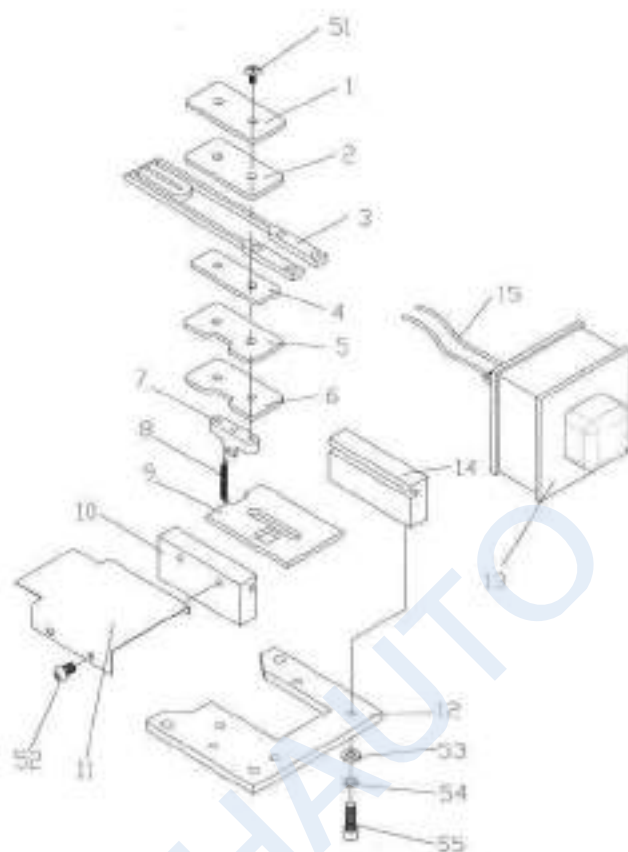
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	AS1-108	Pored Screw	1	
2	A0509	Left Support Block	1	
3	A1534	Upper Slide Table Stopper Plate	1	
4	A0132	Tension Spring	2	
5	A0192	Slide Table Pull Rod	1	
6	A0501A	Lower Slide Table	1	
7	A1541	Pressing Plate	2	
8	A1030	Slide Table Crank	1	
9	Φ5×14	Spring Pin	1	
10	635 (thickened)	Bearing	1	
11	A1084	Crank Shaft	1	
12	A1085	Crank Shaft Sleeve	2	
13	A1093A	Slide Table Crank Spring	1	
14	A1540	Connecting Plate	1	
15	01-227	Shaft	1	
16	01-228	Shaft Sleeve	1	
17	A0502	Lower Slide Table Stopper Plate	1	
18	A0508	Right Support Block	1	
19	A1028A	Upper Slide Table	1	
51	M6×25	Inner Hexagon Screw	4	
52	M5×10	Cup Head Inner Hexagon Screw	2	
53	M4×12	Cup Head Inner Hexagon Screw	4	
54	M3×6	Inner Hexagon Screw	4	
55	Φ5	Flat Washer	2	
56	Φ5	Spring Washer	2	
57	M5×25	Inner Hexagon Screw	2	
58	M5×30	Inner Hexagon Screw	1	
59	M5×6	Set Screw	2	
60	M5	Hexagon Nut	1	

1.1.4 Heater Crank Assembly



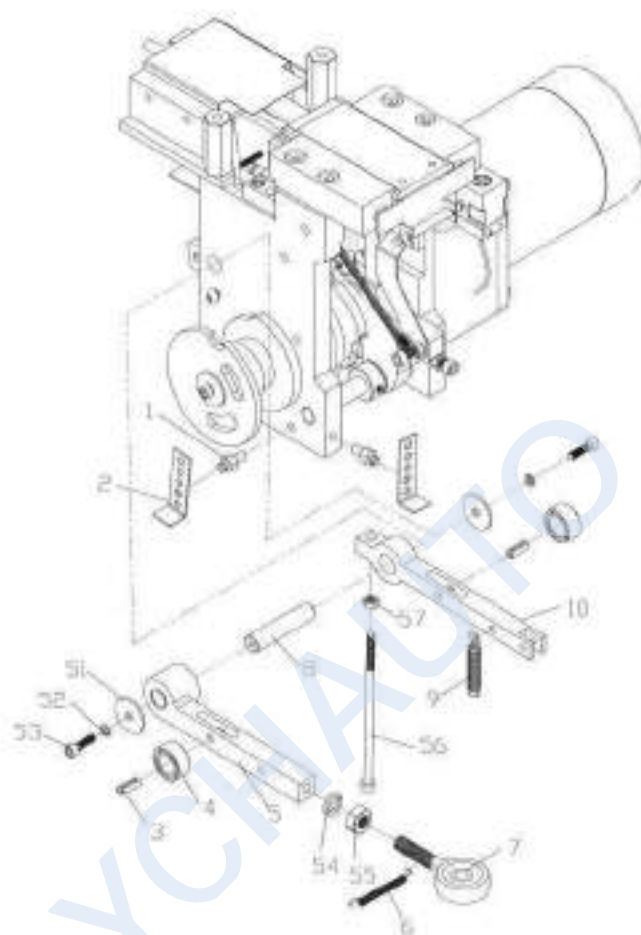
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1611	PU Pad	2	
2	A1098	Middle Support Shaft	2	
3	A1606	Fan Holder	1	
4	8025 DC24V	Fan	1	
5	606	Bearing	1	
6	Φ6	Spring Pin	1	
7	Φ5×14	Spring Pin	1	
8	S-10	Snap Ring	1	
9	635 (thickened)	Bearing	1	
10	A1031A	Heater Crank	1	
11	A1084	Crank Shaft	1	
12	A1085	Crank Shaft Sleeve	1	
13	A1090	Heater Crank Spring	1	
41	See the diagram.	Heater Assembly	1	
51	M4×10	Cross Big Flat Head Screw	2	
52	M4×30	Inner Hexagon Screw	2	
53	M4×30	Inner Hexagon Screw	1	
54	M5	Hexagon Nut	1	
55	M5×30	Inner Hexagon Screw	1	
56	M5×6	Set Screw	1	

1.1.4.1 Heater Assembly



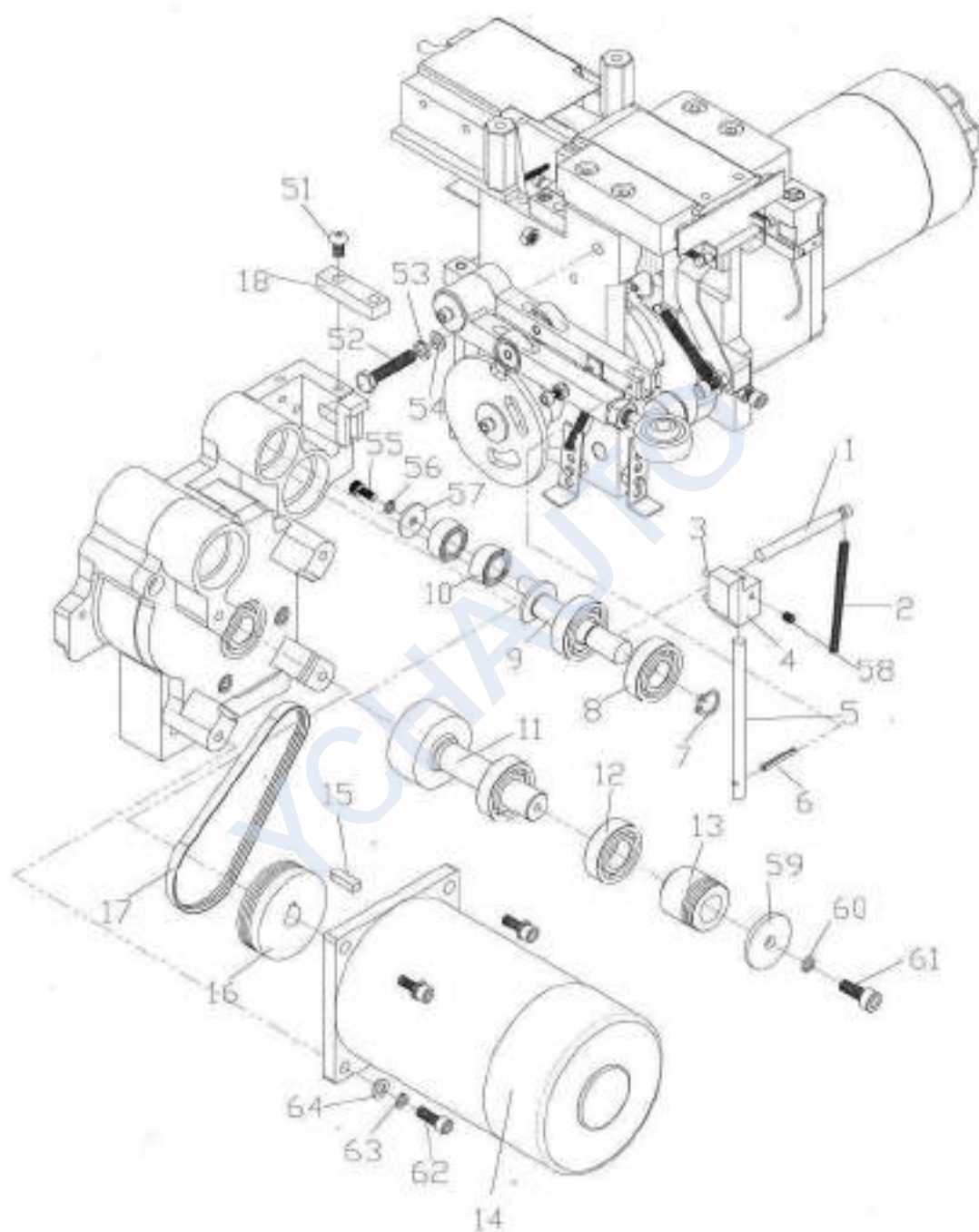
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1552	Heater Plate Pressing Plate	1	
2	A1555	Insulating Plate	1	
3	A1550	Heater Plate	1	
4	A1554	Insulating Plate	1	
5	A1553	Insulating Plate	1	
6	A1551	Heater Plate Baseplate	1	
7	A1530	Heater Fixing Block	1	
8	YS-2A-71	Tension Spring	1	
9	A1529A	Slide Table	1	
10	A1535A	Left Pressing Bar of Heater	1	
11	A1533	Heater Cover	1	
12	A1527A	Heater Base	1	
13	BK100 (input 1.5V)	Heating Transformer	1	
14	A1536A	Right Pressing Bar of Heater	1	
15	300mm long	Copper Conductor	1	
51	M4×16	Cross Big Flat Head Screw	2	
52	M4×10	Cross Big Flat Head Screw	2	
53	Φ6	Flat Washer	4	
54	Φ6	Spring Washer	4	
55	M5×20	Inner Hexagon Screw	4	

1.1.5 Crank



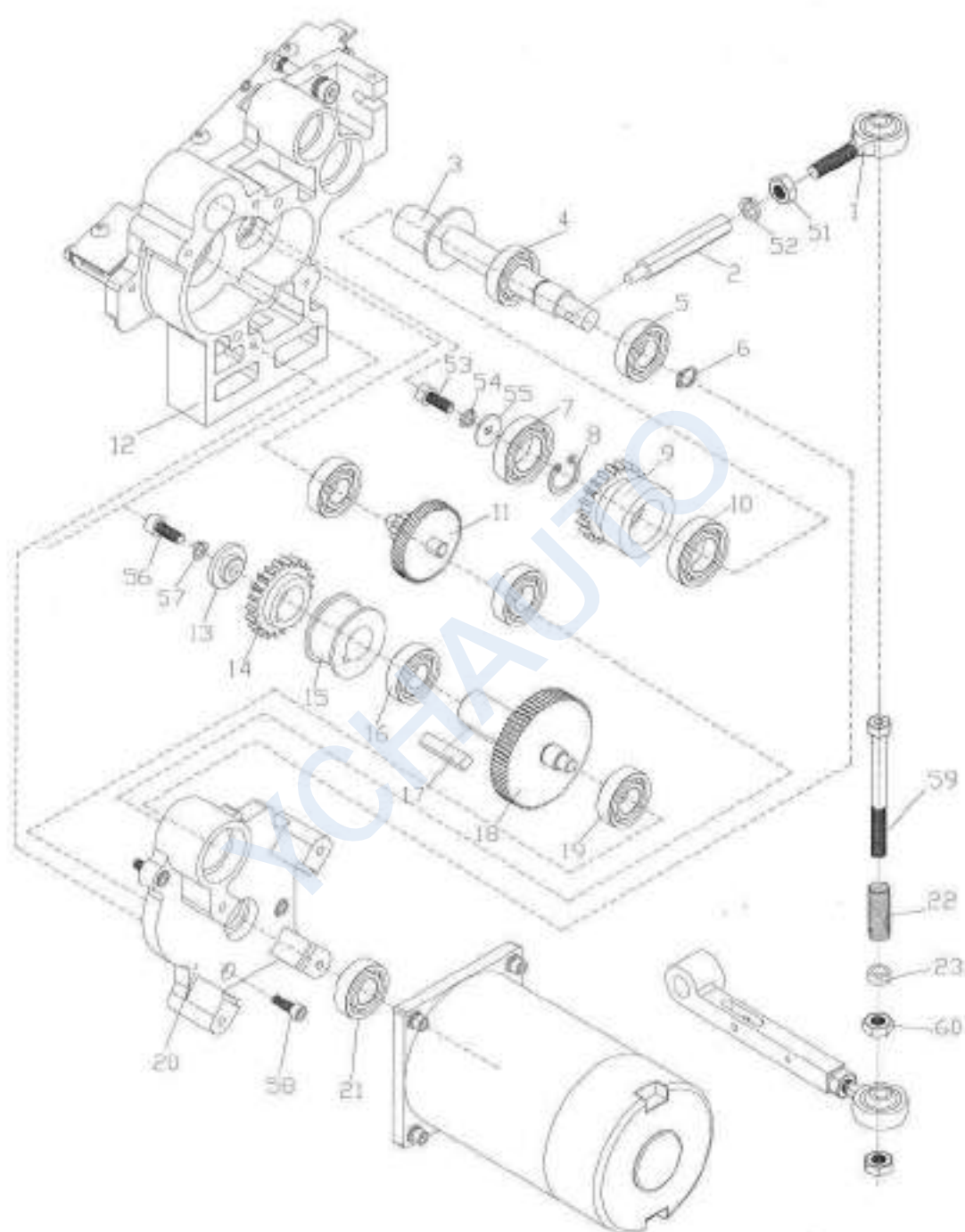
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1218	Hook Plate Nut	2	
2	A1217	Spring Hook Plate	2	
3	Φ5×14	Spring Pin	2	
4	635 (thickened)	Bearing	2	
5	A1039	Tension Crank	1	
6	A0211A	Tension Crank Spring	1	
7	Φ8	Joint Bearing	1	
8	A1041	Tension Crank Shaft	1	
9	A1096	Spring for Strap Retraction	1	
10	A1110	Strap Feeding and Retraction Crank	1	
51	Φ4×16	Flat Washer	2	
52	Φ4	Spring Washer	2	
53	M4×12	Inner Hexagon Screw	2	
54	Φ8	Spring Washer	1	
55	M8	Hexagon Nut	1	
56	M6×115	Inner Hexagon Screw	1	
57	M6	Hexagon Nut	1	

1.1.6 Strap Feeding Motor Assembly



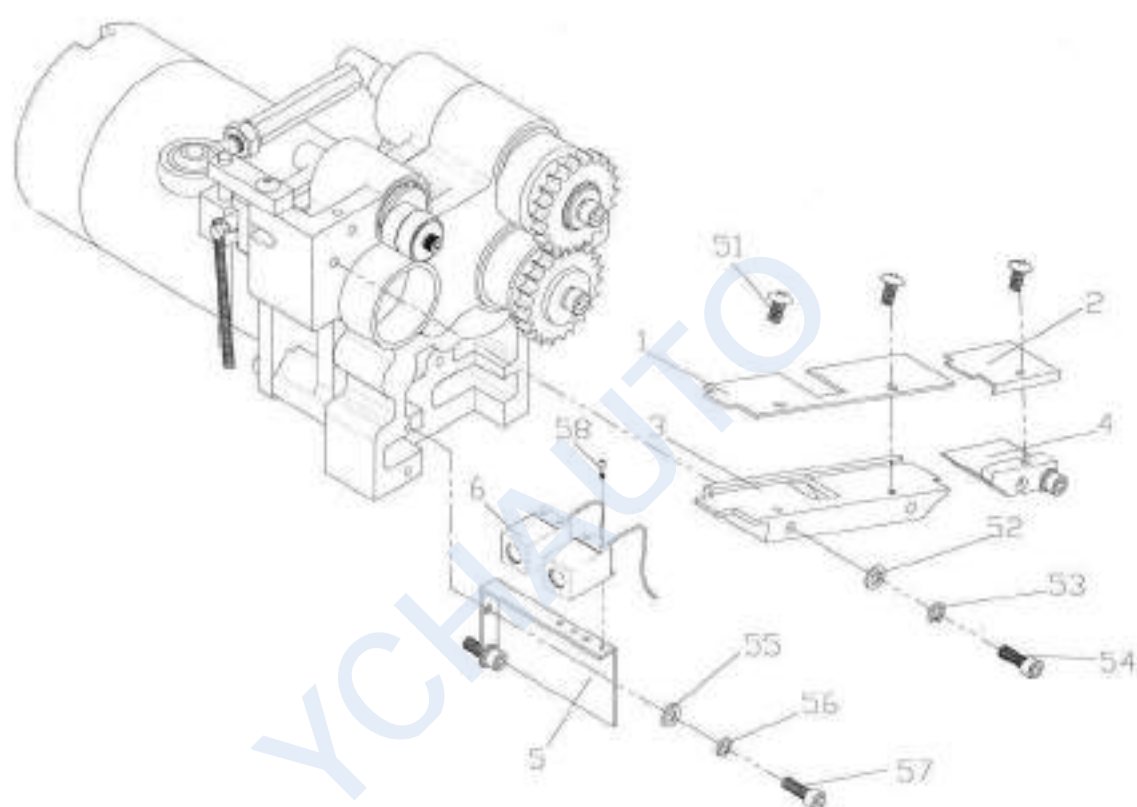
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1525	Strap Feeding and Retraction Rod	1	
2	A1095	Strap Feeding Spring	1	
3	Φ5×25	Spring Pin	2	
4	A1108	Limit Stop Block	1	
5	A1109	Sliding Rod	1	
6	Φ3×14	Spring Pin	1	
7	S-12	Snap Ring	1	
8	6001	Bearing	2	
9	A1507	Eccentric Shaft	1	
10	628	Bearing	2	
11	A1036	Strap Feeding and Retraction Roller	1	
12	6002	Bearing	2	
13	A0506	Belt Pulley	1	
14	Z5D120-24GN-30S	M2 Motor	1	
15	4×4×16	Flat Key	1	
16	A0505	Motor Belt Pulley	1	
17	116J 3PU	Grooved Belt	1	
18	A1526	Sliding Rod Stopper	1	
51	M5×12	Cup Head Inner Hexagon Screw	2	
52	M6×25	Outer Hexagon Screw	1	
53	Φ6	Spring Washer	1	
54	Φ6	Flat Washer	1	
55	M4×12	Inner Hexagon Screw	1	
56	Φ4	Spring Washer	1	
57	Φ4×16	Flat Washer	1	
58	M5×6	Set Screw	5	
59	Φ6×18	Flat Washer	1	
60	Φ6	Spring Washer	1	
61	M6×12	Inner Hexagon Screw	1	
62	M6×20	Inner Hexagon Screw	4	
63	Φ6	Spring Washer	4	
64	Φ6	Flat Washer	4	

1.1.7 Tension Motor Assembly



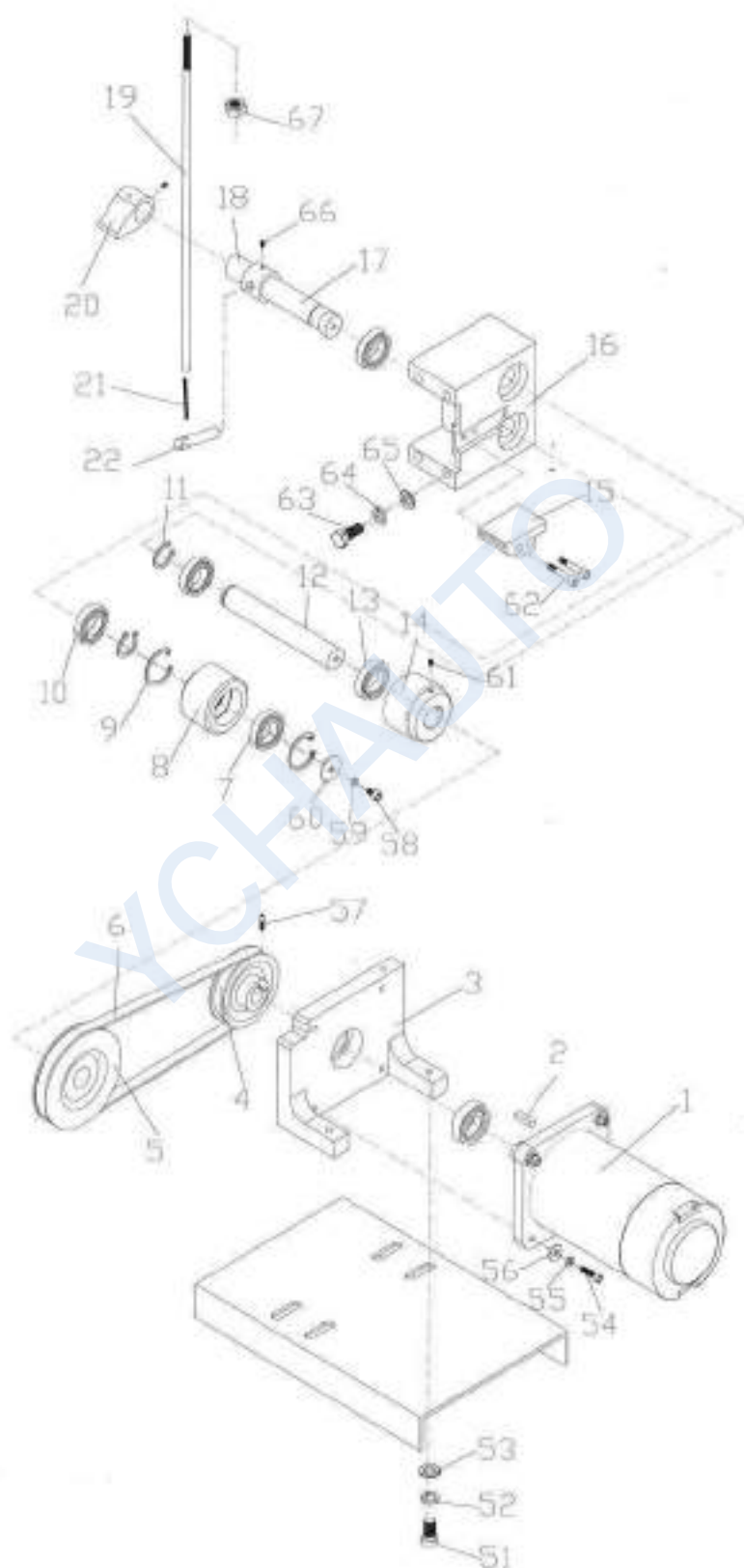
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	φ8	Joint Bearing	1	
2	A1509	Tension Rod	1	
3	A1508	Tension Eccentric Shaft	1	
4	6002	Bearing	1	
5	6902	Bearing	1	
6	S-15	Snap Ring	1	
7	6900	Bearing	1	
8	R-22	Snap Ring	1	
9	A0221	Driven Wheel	1	
10	6000	Bearing	1	
11	A1013	Transition Gear	1	
12	A1500	Strap Feeder Base	1	
13	YS-2A-65	Gasket	1	
14	J50-47	Gear	1	
15	A0183	Strap Feeding Roller	1	
16	6904	Bearing	1	
17	5×5×32	Flat Key	1	
18	A1014	Output Gear	1	
19	608	Bearing	3	
20	A1501	Reduction Gearbox Cover	1	
21	6901	Bearing	1	
22	A1100	Tension Compression Spring	1	
23	A1537	Tension Sleeve	1	
51	M8	Hexagon Nut	2	
52	φ8	Spring Washer	1	
53	M4×12	Inner Hexagon Screw	1	
54	φ4	Spring Washer	1	
55	φ4×16	Flat Washer	1	
56	M6×16	Inner Hexagon Screw	1	
57	φ6	Spring Washer	1	
58	M6×20	Inner Hexagon Screw	4	
59	M8×100	Inner Hexagon Screw	1	
60	M8	Retaining Nut	1	

1.1.8 Strap Guide Rail Assembly



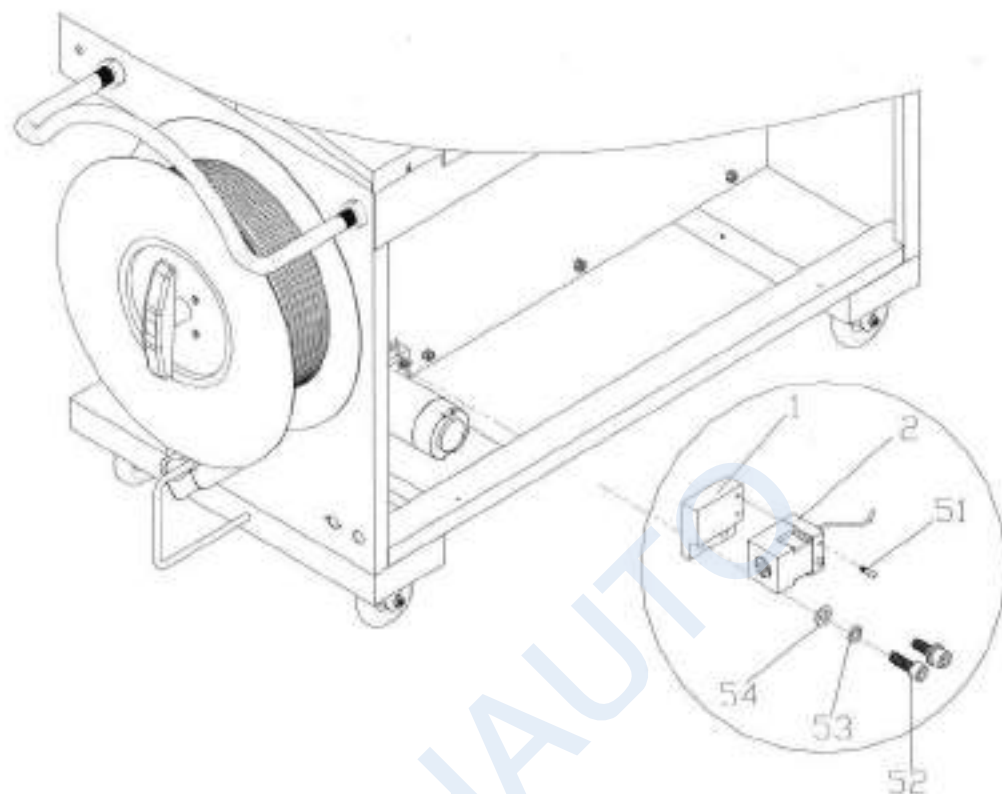
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1505	Strapway Cover Plate	1	
2	A1506	Lower Strapway Cover Plate	1	
3	A1503a	Strapway	1	
4	A1504	Lower Strapway	1	
5	A1604	Proximity Switch Base	1	
6	SS17-05DNA	Proximity Switch	2	
51	M4×8	Inner Hexagon Screw	4	
52	Φ5	Flat Washer	4	
53	Φ5	Spring Washer	4	
54	M5×40	Inner Hexagon Screw	4	
55	Φ5	Flat Washer	2	
56	Φ5	Spring Washer	2	
57	M5×16	Inner Hexagon Screw	2	
58	M3×25	Cross Pan Head Screw	4	

1.1.9 Strap Pre-feeding Motor Assembly



REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	Z5D90-24A2-12S	M3 Motor	1	
2	5×5×20	Flat Key	1	
3	A0513	Aluminum Base	1	
4	01-25B	Motor Belt Pulley	1	
5	00-92	Belt Pulley	1	
6	M-23	Belt	1	
7	6001	Bearing	1	
8	00-98	Lower Feeding Roller	1	
9	R-28	Snap Ring	2	
10	00-84	Spacer Bush	2	
11	S-15	Snap Ring	2	
12	00-93	Upper Shaft	1	
13	6002	Bearing	4	
14	00-95	Upper Feeding Roller	1	
15	00-108	Strap Inlet	1	
16	00-83	Base	1	
17	YQ201-30	Eccentric Shaft	1	
18	YQ201-36	Pre-feeding Unit Small Shaft	1	
19	00-34	Pull Rod	1	
20	00-27	Handle	1	
21	00-26-1	Tension Spring	1	
22	00-97	Rocker Arm	1	
51	M6×16	Inner Hexagon Screw	4	
52	Φ6	Spring Washer	4	
53	Φ6	Flat Washer	4	
54	M6×20	Inner Hexagon Screw	4	
55	Φ6	Spring Washer	4	
56	Φ6	Flat Washer	4	
57	M5×20	Inner Hexagon Screw	2	
58	M5×12	Inner Hexagon Screw	1	
59	Φ5	Spring Washer	1	
60	Φ5×18	Flat Washer	1	
61	M6×10	Set Screw	2	
62	M5×35	Inner Hexagon Screw	2	
63	M8×20	Outer Hexagon Screw	4	
64	Φ8	Spring Washer	4	
65	Φ8	Flat Washer	4	
66	M5×6	Set Screw	3	
67	M6	Hexagon Nut	2	

1.1.9.1 Strap Pre-feeding Proximity Switch



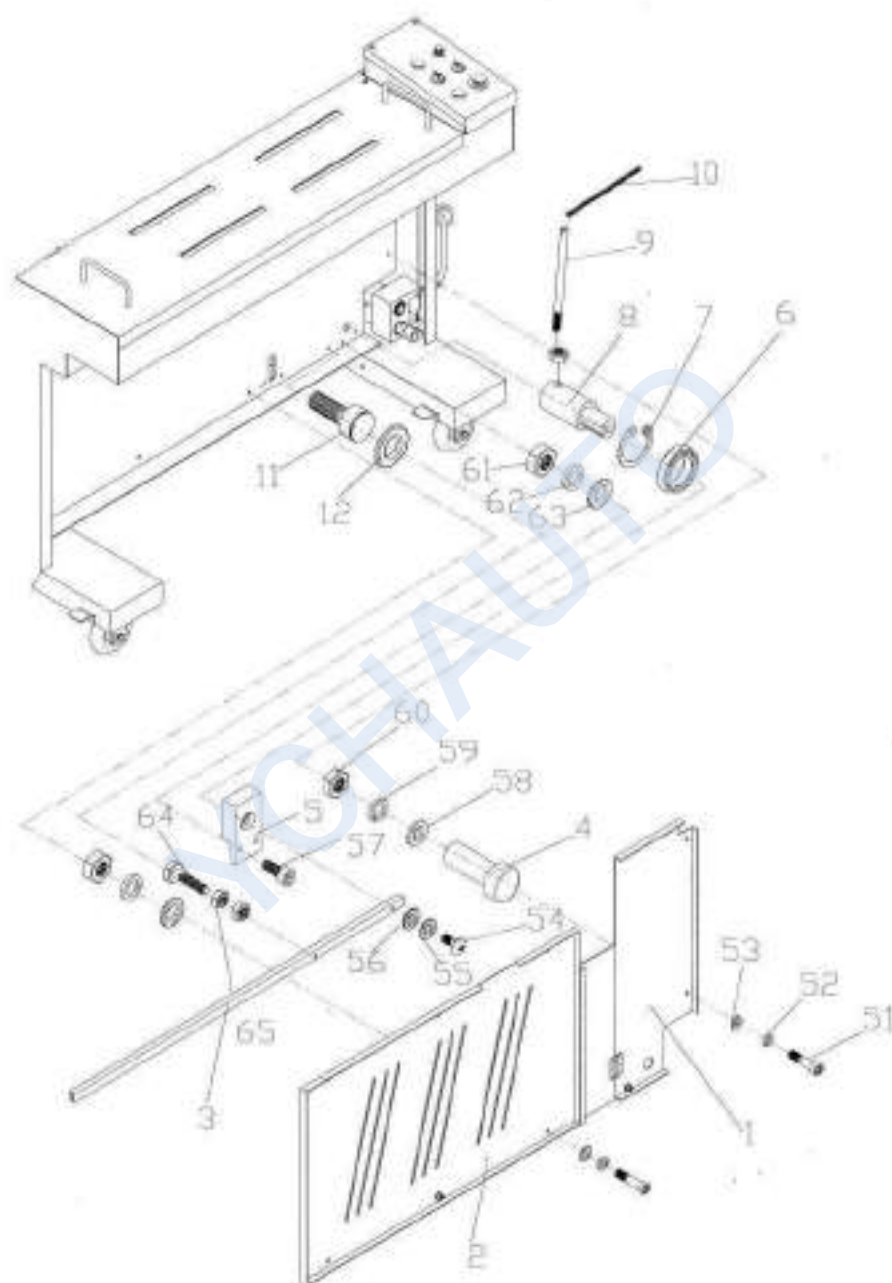
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	YS-201A-08	Switch Plate	1	
2	SS17-05DNA	Proximity Switch	1	
51	M3×25	Cross Pan Head Screw	2	
52	M5×10	Inner Hexagon Screw	2	
53	Φ5	Spring Washer	2	
54	Φ5	Flat Washer	2	



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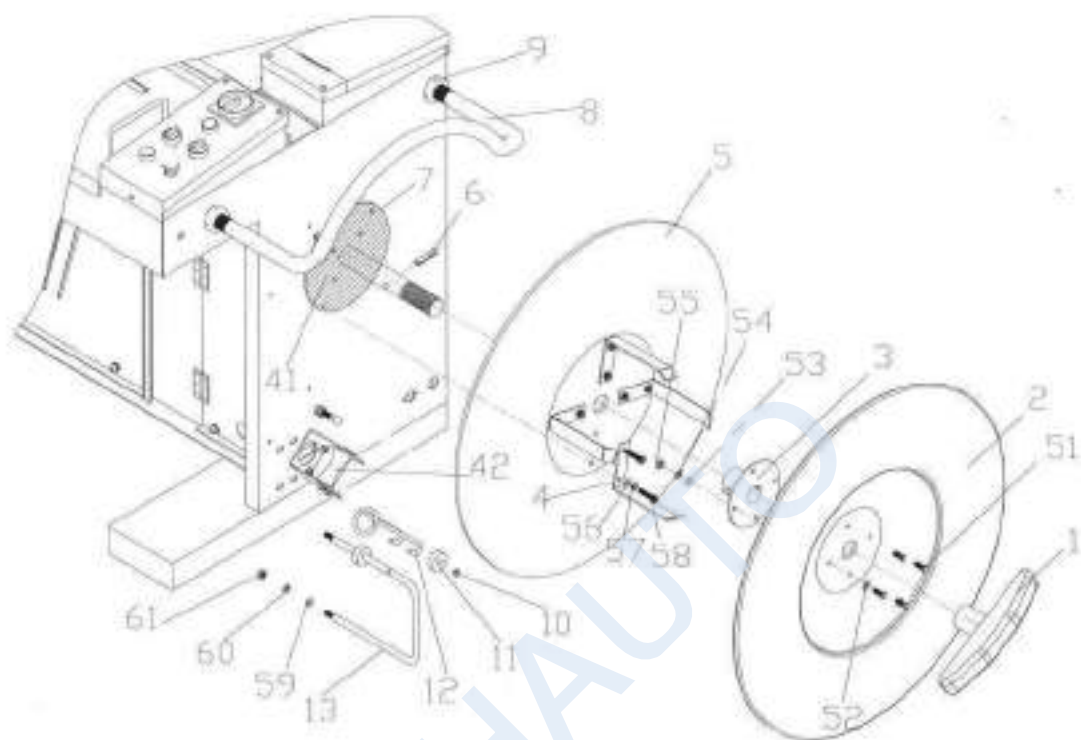
1.2 Strap Accumulator Unit

1.2.1 Strap Accumulator



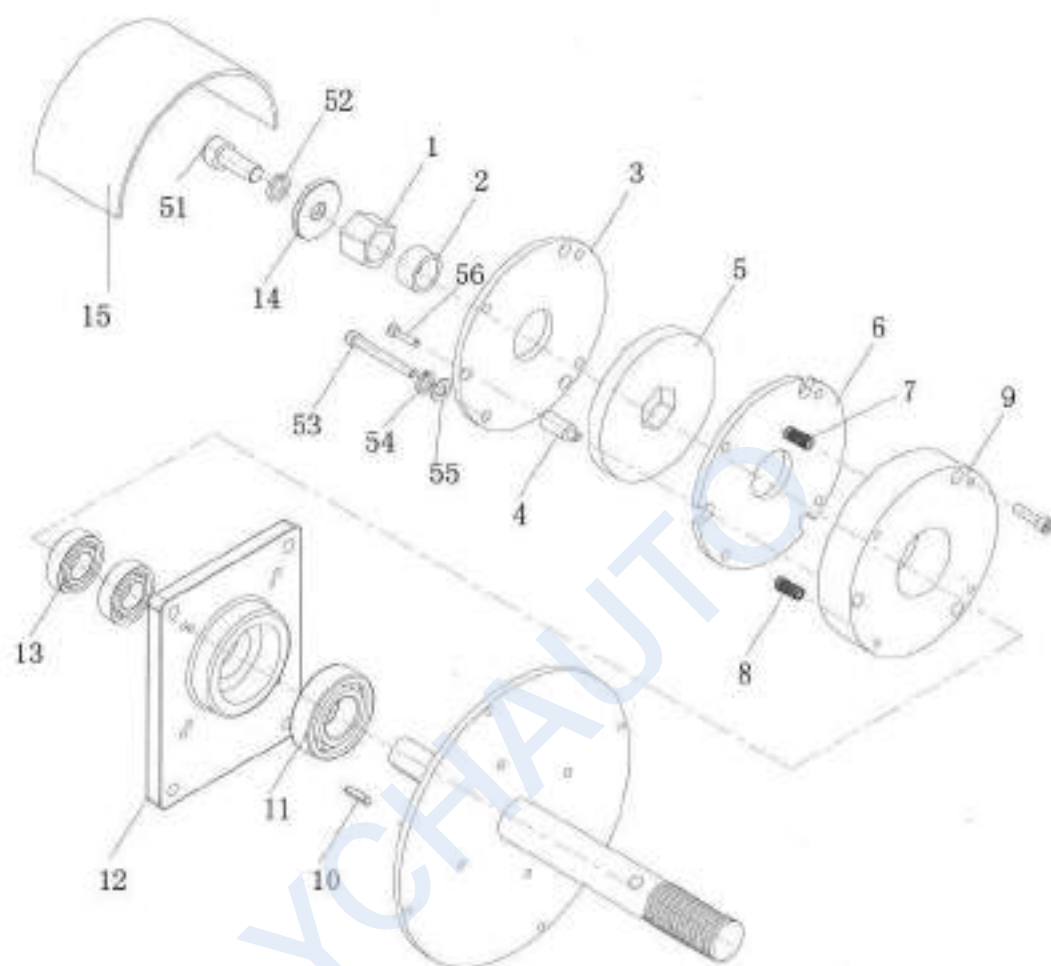
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	YS-201-03	Accumulator's Right Plate	1	
2	YS-201-02	Accumulator Plate	1	
3	201A-29	Strap Support Bar	1	
4	00-19	Strut	10	
5	YQ201-37	Bearing Seat	1	
6	6900	Bearing	2	
7	S-22	Snap Ring	1	
8	YQ201-26A	Strap Support Bar Shaft	1	
9	YQ201-28	Pre-feeding Tension Spring Shaft	1	
10	00-26(2)	Tension Spring	1	
11	YS-201A-10	Lock Screw	2	
12	Φ12×5×3.5	Magnetic Steel	2	
51	M6×12	Inner Hexagon Screw	10	
52	Φ6	Spring Washer	10	
53	Φ6	Flat Washer	10	
54	M5×12	Inner Hexagon Screw	1	
55	Φ5	Spring Washer	1	
56	Φ5	Flat Washer	1	
57	M5×20	Inner Hexagon Screw	2	
58	Φ6	Flat Washer	10	
59	Φ6	Spring Washer	10	
60	M6	Hexagon Nut	10	
61	M5	Hexagon Nut	3	
62	Φ5	Spring Washer	2	
63	Φ5	Flat Washer	2	
64	M6×30	Outer Hexagon Screw	1	
65	M6	Hexagon Nut	2	

1.2.2 Strap Dispenser Assembly



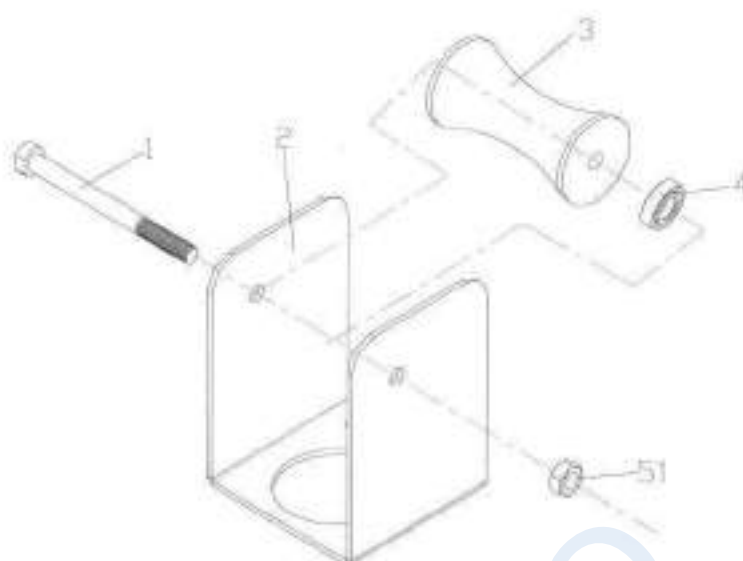
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	00-192	Hand Wheel	1	
2	00-189	Outer Flange	1	
3	YS-2A-87	Shaft Sleeve Flange	1	
4	00-143	Supporting Claw	4	
5	00-142	Inner Flange	1	
6	Φ8×40	Spring Pin	1	
7	YS-04-405	Fixing Shaft Disk	1	
8	00-29	Guard	1	
9	00-30	Round Nut	4	
10	S-10	Snap Ring	2	
11	YQ201-52	Shake-proof Washer	2	
12	2D-2009	Strap Guide Regulator	1	
13	YS-201A-09	Brake Rod	1	
41	YS-04-41	Strap Reel Brake Assembly	1	
42	YS-04-42	Guide Roller Assembly	1	
51	M6×12	Inner Hexagon Screw	4	
52	Φ6	Flat Washer	4	
53	Φ6	Flat Washer	4	
54	Φ6	Spring Washer	4	
55	M6	Retaining Nut	4	
56	Φ6	Flat Washer	8	
57	Φ6	Spring Washer	8	
58	M6×12	Inner Hexagon Screw	8	
59	Φ6	Flat Washer	2	
60	Φ6	Spring Washer	2	
61	M6	Hexagon Nut	2	

1.2.2.1 Strap Dispenser Brake Assembly



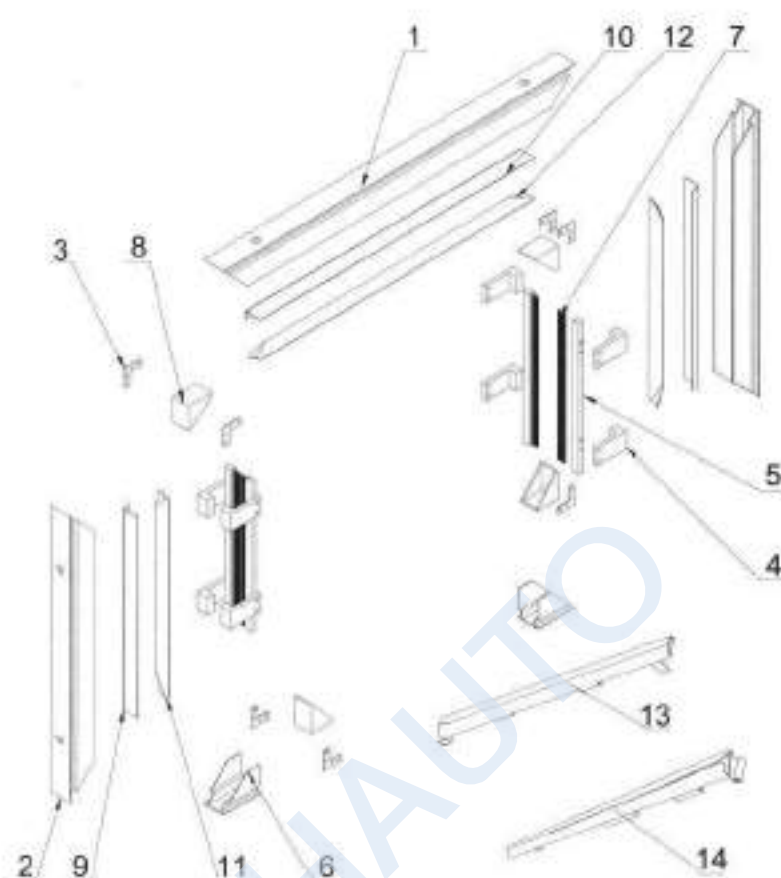
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	YS-04-407A	Stop Collar	1	
2	YS-04-408	Spacer Bush	1	
3	YS-04-402	Fixing Plate	1	
4	YS-04-406	Post	3	
5	YS-04-404A	Friction Plate	1	
6	YS-04-401	Brake Pad	1	
7	YS-04-410A	Compression Spring	3	
8	YS-04-410	Compression Spring	3	
9	YS-04-400	Brake Coil	1	
10	5×5×20	Flat Key	1	
11	6303	Bearing	1	
12	YS-04-403	Brake Fixing Plate	1	
13	6003	Bearing	2	
14	YS-04-409	Gasket	1	
15	YS-04-411	Stopper	1	
51	M8×20	Cup Head Inner Hexagon	1	
52	Φ8	Screw	1	
53	M6×65	Spring Washer	4	
54	Φ6	Inner Hexagon Screw	4	
55	Φ6	Spring Washer	4	
56	M5×45	Flat Washer	3	
		Inner Hexagon Screw		

1.2.2.2 Strap Guide Roller Assembly



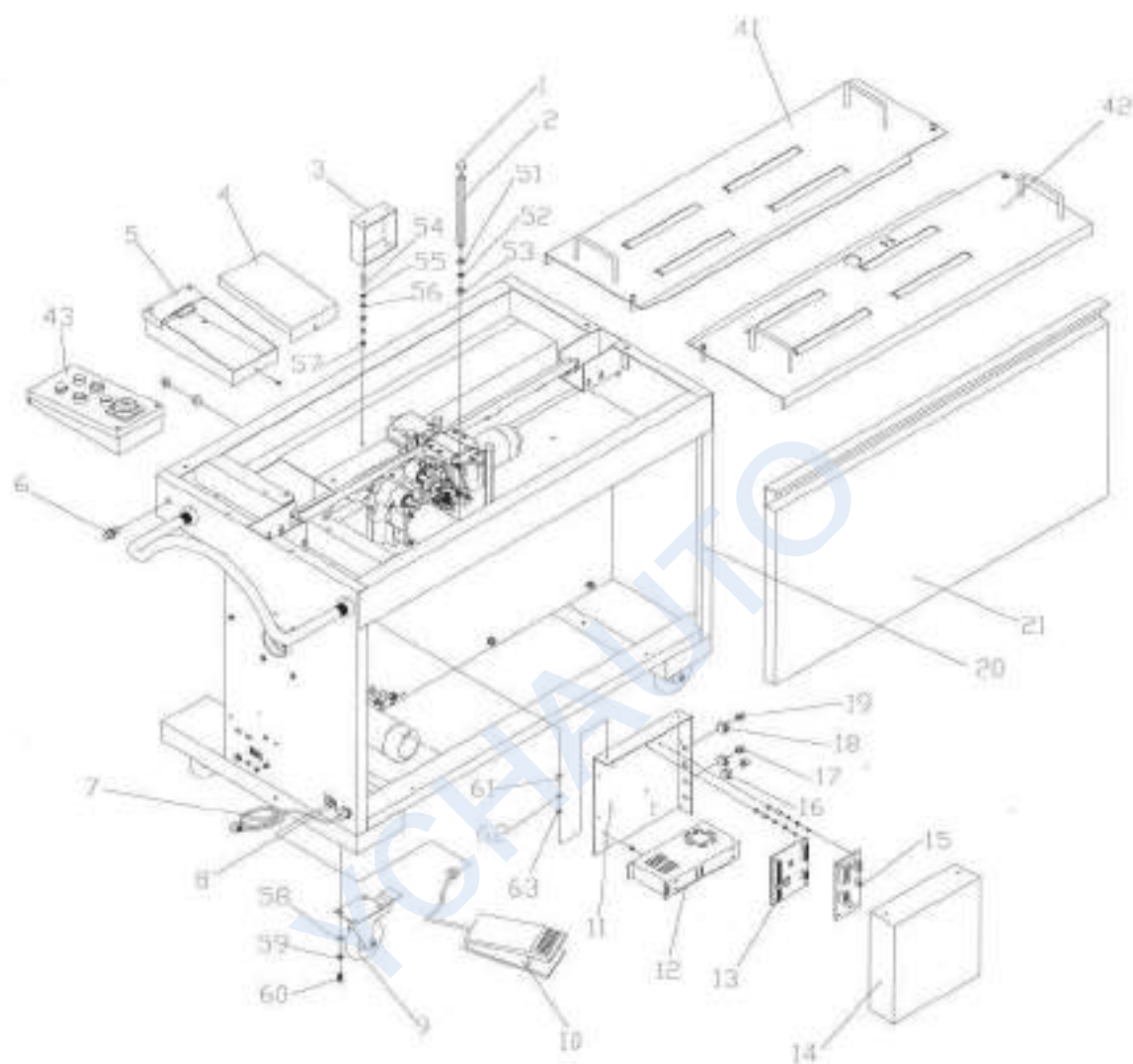
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	YS-04-433	Strap Guide Roller Shaft	2	
2	YS-201A-07	Roller Holder	1	
3	YS-04-431	Strap Guide Roller	1	
4	608	Bearing	2	
51	M6	Retaining Nut	2	

1.3 Arch Unit



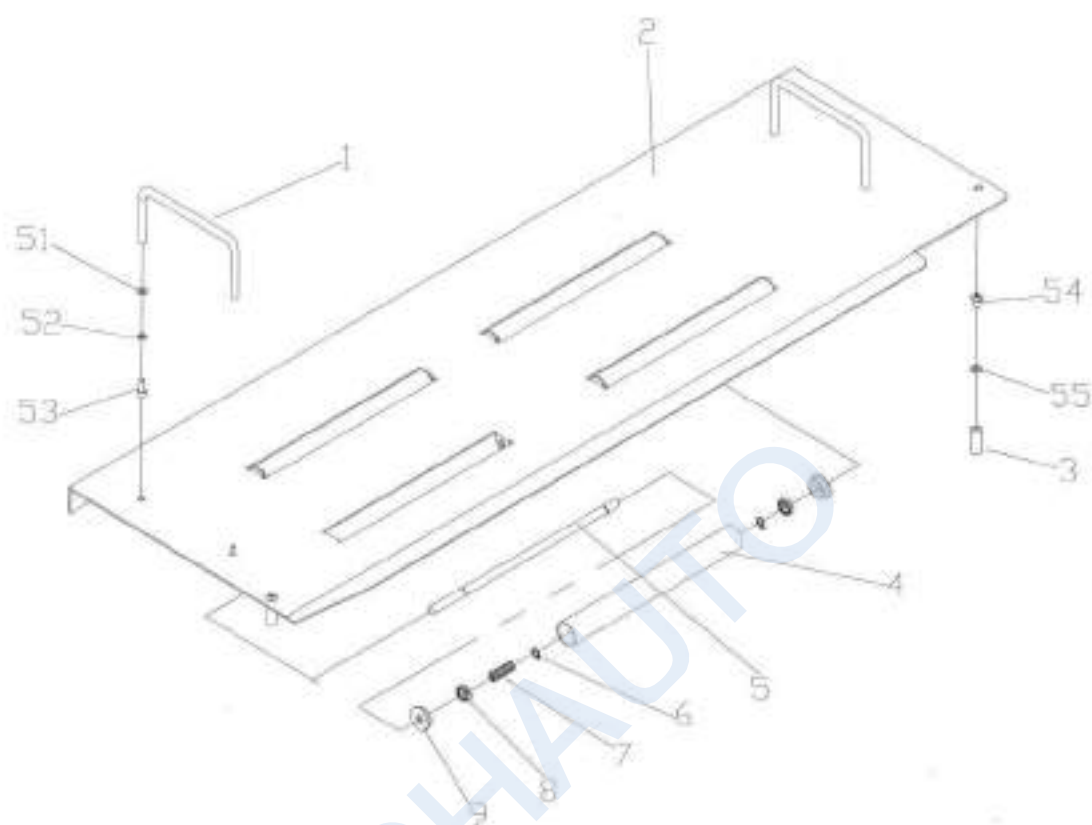
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	MH-A-1	Arch Beam	1	
2	MH-A-2	Column	2	
3	KG-02	Connecting Block	8	
4		Plastic Brush Holder	8	
5	MH-D-1	Brush Holder	4	
6	MH-A-3	Leg Block	2	
7	MH-D-2	Brush	4	
8		Plastic Corner	4	
9	MH-B-1	Vertical Base Plate	2	
10	MH-B-2	Horizontal Base Plate	1	
11	KF-00	Turning Plate	2	
12	KF-00	Turning Plate	3	
13	YS-201A-12	Left Strapway	1	
14	YS-201A-13	Right Strapway	1	

1.4 Machine Frame Assembly



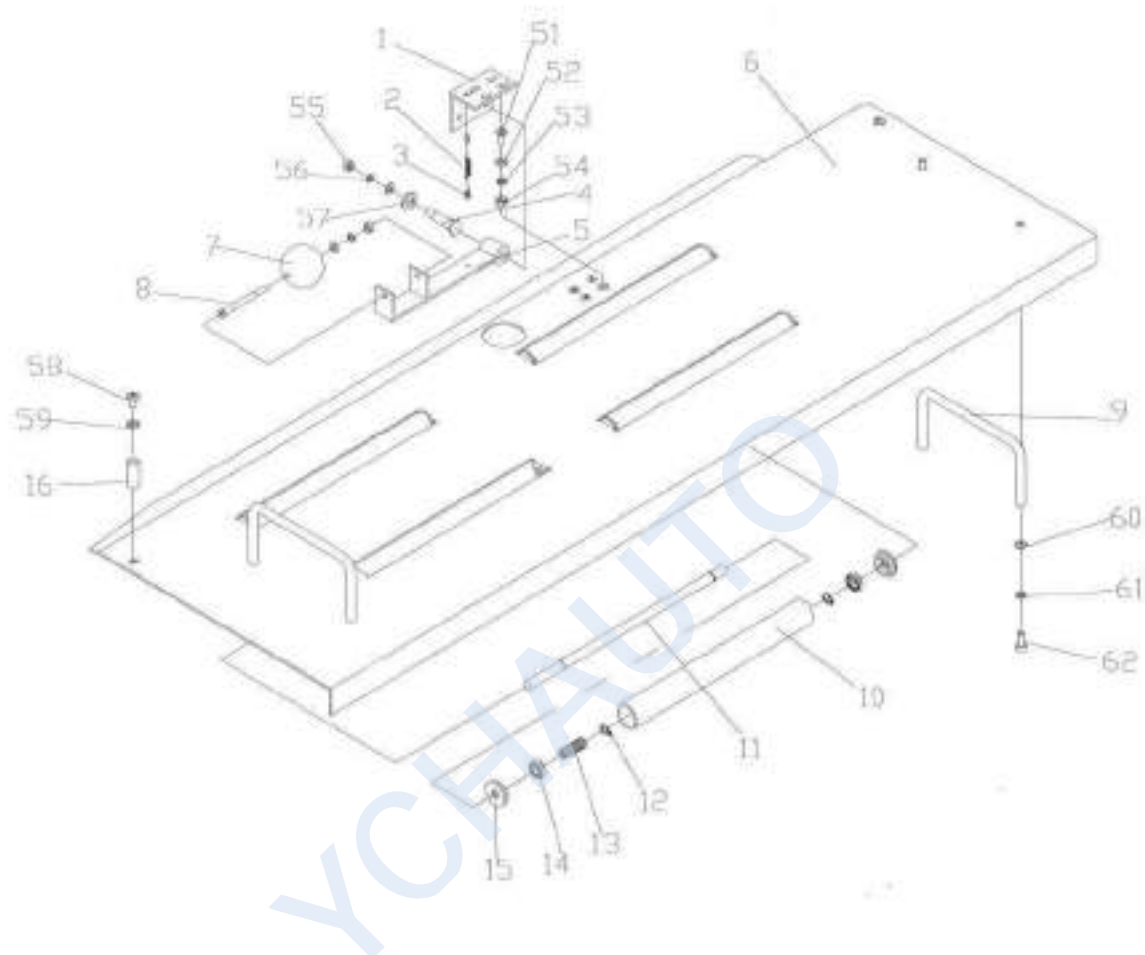
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	A1611	PU Pad	2	
2	A1612	Support Shaft	2	
3	A1610	Support Plate	1	
4	101A-15	Tool Box Cover	1	
5	101A-14	Tool Box	1	
6	PBS-11B	Button	1	
7	RVV2-3P	Power Line 3×1.0-5m	1	
8	H3CT	CANNON Connector	1	
9	3寸	Flattop Iron Castor	4	
10	TFS-201	Foot Switch	1	
11	YS-201A-06	Electrical Cabinet Cover	1	
12	S-350-24V	Switching Power Supply	1	
13	APC-20D	PC Board	1	
14	YS-201A-11	Electrical Cover Plate	1	
15	WK100	Temperature Controller Panel	1	
16	BK250	Potentiometer	3	
17	Black 17×13	Potentiometer Knob	3	
18	Φ5×20	Round Fuse Holder	1	
19	Φ5×20 3A	Round Fuse	1	
20	YS-201A-00	Machine Frame	1	
21	YS-201A-04	Rear Closure Plate	1	
41	See the diagram.	Front Cover Plate Assembly	1	
42	See the diagram.	Rear Cover Plate Assembly	1	
43	See the diagram.	Switch Box Assembly	1	
51	Φ8	Flat Washer	2	
52	Φ8	Spring Washer	2	
53	M8	Hexagon Nut	2	
54	M5×12	Inner Hexagon Screw	2	
55	Φ5	Spring Washer	4	
56	Φ5	Flat Washer	4	
57	M5	Hexagon Nut	2	
58	Φ8	Flat Washer	16	
59	Φ8	Spring Washer	16	
60	M8	Outer Hexagon Screw	16	
61	M5×12	Inner Hexagon Screw	4	
62	Φ5	Spring Washer	4	
63	Φ5	Flat Washer	4	

1.4.1 Front Cover Plate Assembly



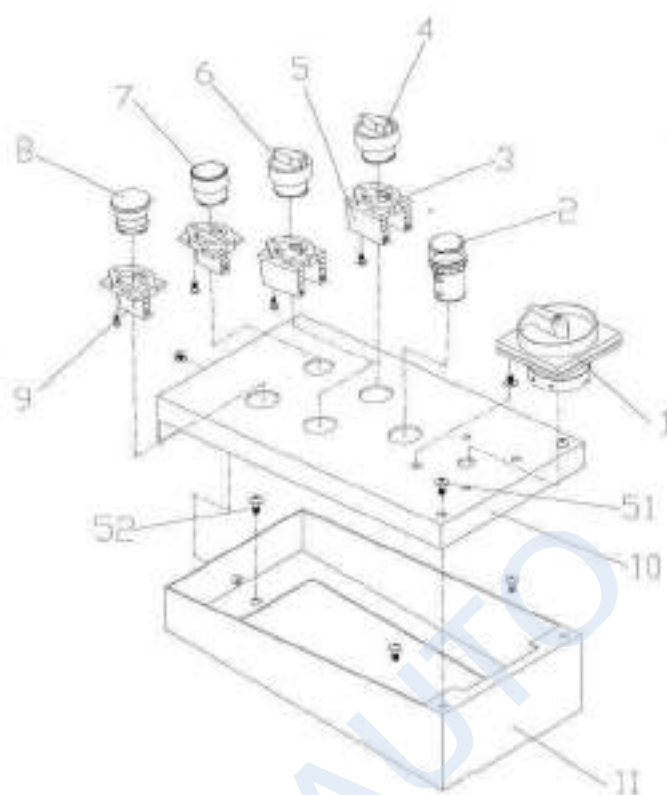
REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	00-210	Handle	2	
2	G101A-001A	Front Cover Plate	1	
3	00-212	Fixing Pin	1	
4	00-207 (2)	Roller L=217	4	
5	00-208 (2)	Roller Shaft L=240	4	
6	S-8	Snap Ring	8	
7	00-G-1	Compression Spring	4	
8	208088	Bearing	8	
9	00-208	End Cover	8	
51	Φ6	Flat Washer	4	
52	Φ6	Spring Washer	4	
53	M6×12	Inner Hexagon Screw	4	
54	M6×10	Cross Big Flat Head Screw	2	
55	Φ6	Spring Washer	2	

1.4.2 Rear Cover Plate Assembly



REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	00-217	Angle Iron	1	
2	00-215	Spring	1	
3	00-216	Spring Hook Pillar	2	
4	00-218	Shaft	1	
5	00-050	Ball Switch Base	1	
6	G101A-002A	Rear Cover Plate	1	
7	Φ40 ball	Ball Switch	1	
8	00-214	Ball Shaft	1	
9	00-210	Handle	2	
10	00-207 (2)	Roller L=217	4	
11	00-206 (2)	Roller Shaft L=240	4	
12	S-8	Snap Ring	8	
13	00-G-1	Compression Spring	4	
14	208088	Bearing	8	
15	00-208	End Cover	8	
16	00-212	Fixing Pin	1	
51	M5×16	Cross Countersunk Head Screw	4	
52	Φ5	Spring Washer	5	
53	Φ5	Flat Washer	5	
54	M5	Hexagon Nut	5	
55	M8	Hexagon Nut	2	
56	Φ8	Spring Washer	2	
57	Φ8	Flat Washer	2	
58	M6×10	Cross Big Flat Head Screw	2	
59	Φ6	Spring Washer	2	
60	Φ6	Flat Washer	4	
61	Φ6	Spring Washer	4	
62	M6×12	Inner Hexagon Screw	4	

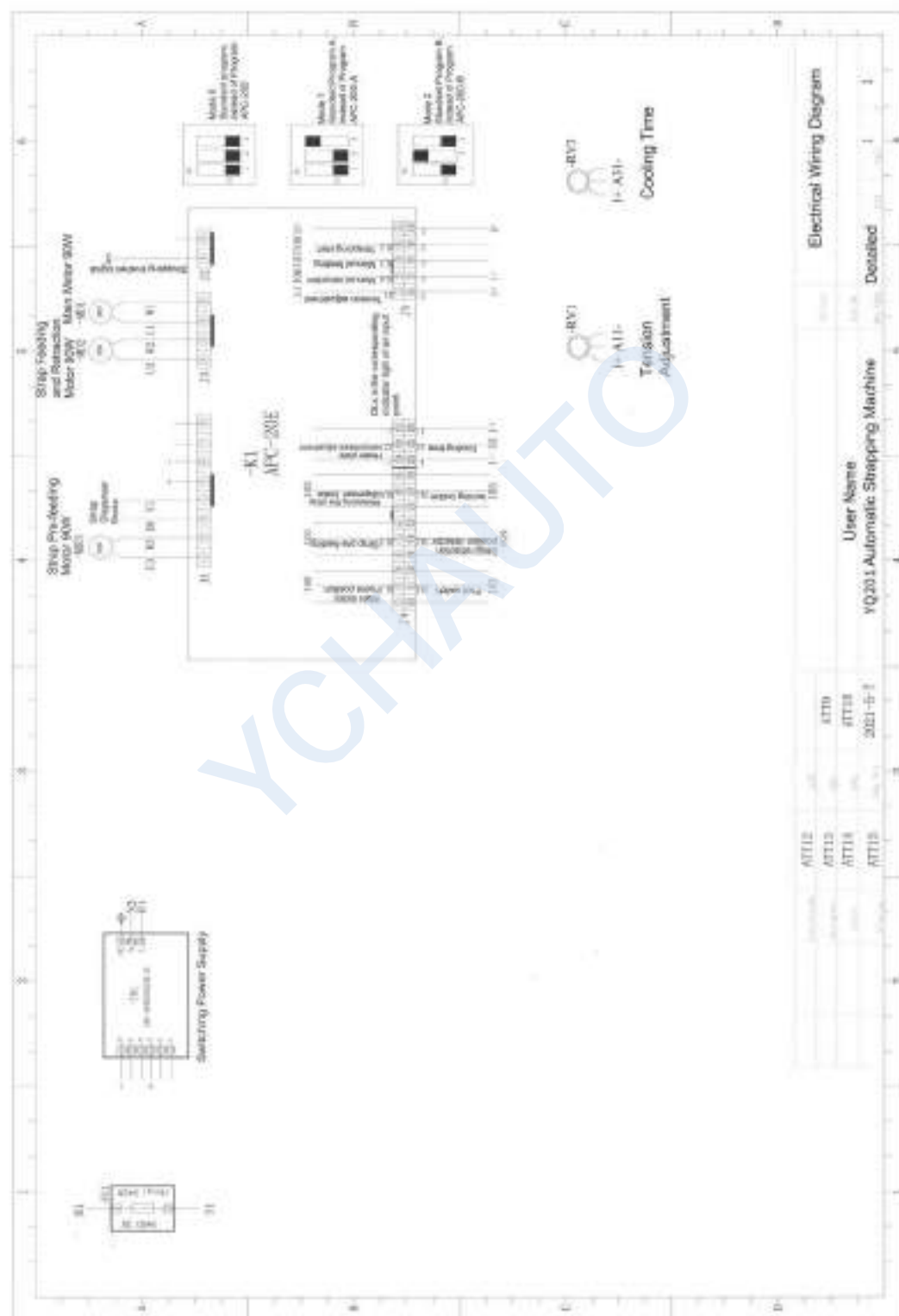
1.4.3 Switch Box Assembly

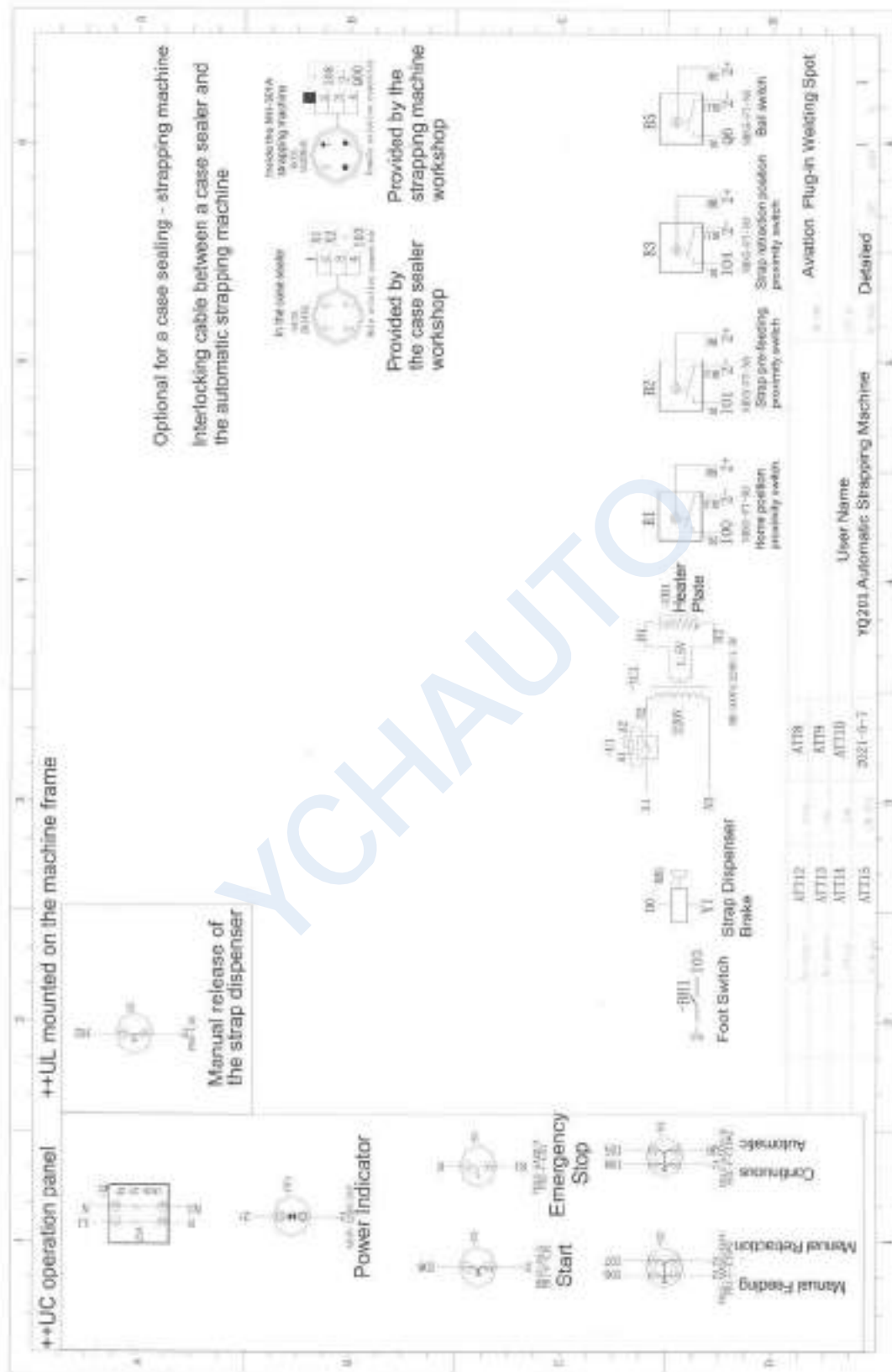


REF. NO.	PART NO.	DESCRIPTION	QTY	REMARKS
1	LW26-20 2P	2-pole Disconnect	1	
2	AD16-22DS/24V	Indicator Light	1	
3	PB1-F-ZS	Middle Base	4	
4	PB1S-AAXS6/KFFU	Self-reset Button	1	
5	PB1-F-C10	Normally Open Contact	5	
6	PB1S-AAXS6/K	Short-handle 3-position Knob	1	
7	PB1S-AA/G	Inching Button	1	
8	PB1S-AAZR/R	Emergency Stop Button	1	
9	PB1-F-C01	Normally Closed Contact	1	
10	101A-13A	Switch Panel	1	
11	101A-12	Switch Box	1	
51	M5×10	Cross Big Flat Head Screw	3	
52	M5×8	Cross Pan Head Screw	3	

PART III

1 Electrical Wiring and Schematic Diagrams





Structure identifier overview

234 002 Y6

Structural code	Expression level	Structure description	Structural code	Expression level	Structure description
4EAA	Document type	Electrical cover page	4EEP	Document type	Size Chart
4EEC	Document type	Technical specifications	4EPA	Document type	Process data sheet
4EAB	Document type	Table of contents	4ETL	Document type	General layout
4EEB	Document type	List of structure identifiers	4CA1	Higher-lever function	
4EEC	Document type	Project list	4VMD	Higher-lever function	Strapping machine
4EEB	Document type	Device identification description	4WPF	Higher-lever function	Case sealer
4ETB	Document type	Installation board layout diagram	4WB1	Higher-lever function	Shrink wrapper
4EPP	Document type	Signal table (I/O table)	4ZB1	Higher-lever function	Wraparound Case Packing Machine
4EPD	Document type	Device tag list	4GB1	Higher-lever function	Wraparound case packing machine
4EFS1	Document type	Electrical drawing	4GZ1	Higher-lever function	Filling machine
4EFS10	Document type	Schematic single-line	4DB1	Higher-lever function	Strapping machine
4ETA	Document type	Planning diagram	4XD1	Higher-lever function	Depalletizer
4EHH	Document type	Change table	4WD1	Higher-lever function	Palletizer
4EPT	Document type	Program code list design description	++HH1	Mounting site	Main cabinet1
4EPA	Document type	Cable connecting diagram	++HH2	Mounting site	Main cabinet2
4EDA	Document type	Terminal diagram	++HH11	Mounting site	Slave cabinet A
4EWA	Document type	Cable connecting diagram	++HH12	Mounting site	slave station B
4EWB	Document type	Cable diagram	++HH13	Mounting site	slave station C
4EMC	Document type	Cable overview	++HH14	Mounting site	Slave cabinet D

Item number :

Machine Type:
VQ201 Strapping machine

Structure identifier overview

4EAB
List of structure identifiers

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Device tag list

Device tag	Placement	Function text	Supplier	Part number
-B1	8-CAL+0B1+0F/2.1:0	Line position detection proximity	PT	P-F, 9805-F7-30
-B2	8-CAL+0B1+0F/2.1:0	Strip pre-feeding proximity switch	PT	P-F, 9805-F7-30
-B3	8-CAL+0B1+0F/2.1:0	Strip retraction proximity switch	PT	P-F, 9805-F7-30
-B4	8-CAL+0B1+0F/2.1:0	Ball switch proximity	PT	P-F, 9805-F7-30
-B5	8-CAL+0B1+0F/2.1:0	Panel switch detection	VS	VS, 201
-B6	8-CAL+0B1+0F/2.1:0	Panel	VS	VS, 201
-B7	8-CAL+0B1+0F/2.1:0	PC controller	VS	VS, 201
-B8	8-CAL+0B1+0F/2.1:0	Main motor	VS	VS, 201
-B9	8-CAL+0B1+0F/2.1:0	Strip feed-back motor	VS	VS, 201
-B10	8-CAL+0B1+0F/2.1:0	Pre-feeding motor	VS	VS, 201
-B11	8-CAL+0B1+0F/2.1:0	Grounding	VS	VS, 201
-B12	8-CAL+0B1+0F/2.1:0	Disconnect switch	VS	VS, 201
-B13	8-CAL+0B1+0F/2.1:0	Cut-off regulator	VS	VS, 201
-B14	8-CAL+0B1+0F/2.1:0	Cooling time regulator	VS	VS, 201
-B15	8-CAL+0B1+0F/2.1:0	Switching power supply	VS	VS, 201
-B16	8-CAL+0B1+0F/2.1:0	Brake of reel	VS	VS, 201
-B17	8-CAL+0B1+0F/2.1:0	Power indicator	VS	VS, 201
-B18	8-CAL+0B1+0F/2.1:0	Emergency stop	VS	VS, 201

201.04.05.001

-B2	8-CAL+0B1+0F/2.1:0	Self-protection selector	VS	VS, 201
-B3	8-CAL+0B1+0F/2.1:0	Start	VS	VS, 201
-B4	8-CAL+0B1+0F/2.1:0	Thick door switch	VS	VS, 201
-B5	8-CAL+0B1+0F/2.1:0	Master hand	VS	VS, 201
-B6	8-CAL+0B1+0F/2.1:0	Manual release of the strip dispenser	VS	VS, 201
-B7	8-CAL+0B1+0F/2.1:0	Feeding transformer	VS	VS, 201
-B8	8-CAL+0B1+0F/2.1:0	Temperature control board	VS	VS, 201

Device tag	Machine Type	Machine number	Machine name	Machine model	Machine serial	Machine date	Machine user
-B1	VQ201Scraping machine	201.04.05.001	201.04.05.001	201.04.05.001	201.04.05.001	201.04.05.001	201.04.05.001

