



SH-700DM

Semi-Automatic Swivel Head Double Mitering Horizontal Bandsaw

Instruction Manual

The Pinnacle of Cutting Performance
Cosen Mechatronics Co., Ltd.

FROM THE MANUFACTURER

Thank you for your purchase of COSEN's bandsaw machine and your trust in the COSEN brand.

We are excited to have you as our valued customer and look forward as much as you do to the accelerated productivity, long-lasting endurance and superb cost-effectiveness this machine is about to bring to you.

To ensure you are fully utilizing our machine and being advantaged in every possible way, please do take your time and read through this instruction manual.

Any comment or suggestion in making our service better, please do not hesitate to let us know. Thank you again!

NOTE:

- Read this instruction manual carefully to familiarize yourself with the installation, operation and maintenance of your COSEN bandsaw machine.
- Operate the machine following the procedures described in the manual to prevent personal injuries or machine damage.
- Keep this manual handy and refer to it whenever you are uncertain of how to perform any of the procedures.
- For technical support or parts purchase, please contact your nearest COSEN representative or our service center:

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Instruction Manual:

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Semi-Automatic Swivel Head Double Mitring Horizontal Bandsaw
Ver.4 2017/1/9

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Safety rules

- Make sure your work area is cleared of uninvited people and obstacles every time before you start operating the machine.
- Never wear gloves or loose clothing when operating the machine. It may lead to serious injury if they are caught in the running machine. Wrap or cover long hair.
- Use a water-soluble cutting fluid on this machine. Oil-based cutting fluids may emit smoke or catch fire, depending on how they are used.
- Never cut carbon or any other material that may produce and disperse explosive dust. It is possible that sparks from motors and other machine parts will ignite and explode the air-borne dust.
- Make sure any use of fire is prohibited in the shop and install a fire extinguisher or other fire control device near the machine when cutting titanium, magnesium, or any other material that produces flammable chips. Never leave the machine unattended when cutting flammable materials.
- Never adjust the wire brush or remove chips while the saw blade is still running. It is extremely dangerous if hands or clothing are caught by the running blade.
- Never touch the running saw blade with gloves or not. It is dangerous if your hands, clothing or gloves are caught by the running blade.
- Stop the saw blade before you clean the machine. It is dangerous if hands or clothing are caught by the running blade.
- Never start the saw blade unless the workpiece has been clamped firmly. If the workpiece is not securely clamped, it will be forced out of the vise during cutting.
- Take preventive measures when cutting thin or short pieces from the work to keep them from falling. It is dangerous if the cut pieces fall.
- Use roller tables at the front and rear sides of the machine when cutting long work. It is dangerous if the work piece falls off the machine.
- Never step or stand on the roller table. Your foot may slip or trip on the rollers and you will fall.
- Turn off the shop circuit breaker switch before performing maintenance on the machine. Post a sign indicating the machine is under maintenance.

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SAFETY

INFORMATION

SAFETY INSTRUCTIONS

SAFEGUARD DEVICES

EMERGENCY STOP

SAFETY LABELS

HEARING PROTECTION

CE COMPLIANCE

RISK ASSESSMENT

Safety is a combination of a well-designed machine, operator's knowledge about the machine and alertness at all times. COSEN's band machine has incorporated many safety measures during the design process and used protective devices to prevent personal injuries and potential risks. Warning labels also serve as a reminder to the operator.

Throughout this manual, you will also see various safety-related symbols indicating important information that you should take note of prior to use of the machine or part of its functions. These important safety instructions do not cover all possible situations that might occur. It is your responsibility to take caution and follow procedures stated in this manual when installing, maintaining and operating your machine. Cosen will not be liable for damages resulting from improper use.

SAFETY INSTRUCTIONS

What the icons and signs in this user manual mean:



This icon marks **DANGER**; hazards or unsafe practices that may result in **severe personal injury or death**.



This icon marks **WARNING**; hazards or unsafe practices that may result in **personal injury or damage to the machine**.



This icon marks **CAUTION**; information that should be read before use to prevent **damage to the machine**.



Supplementary information to the procedures described in this manual.



Call your local agent or our service center for help.



This manual has important safety information. Read through it carefully before operating this machine to prevent personal injury or machine damage. Learn the operation, limitation and the specific potential hazards peculiar to this band saw.



Do not operate this machine unless it is completely assembled.



Make sure the power switch is off before plugging in power cord.



Disconnect the power cord before making adjustment, maintenance or blade changes.



Keep all guards and shields in place before installing or starting up the machine.



Wear proper apparel during operation and when servicing the machine.



Keep unauthorized personnel away.



Do not reach over or stand on any part of the machine.



Never hold the material by hand for cutting. Always use the vise and make sure the material is clamped securely before cutting.



It is dangerous to operate the machine when the floor is slippery. Keep the floor clean and dry. Check for ice, moisture, or grease before entering.



Do not use the machine to cut explosive material or high pressure vessels as it will generate great amount of heat during the sawing process and may ignite an explosion.



Keep the work environment safe. Do not use band saw in a damp or wet location.



Never operate while under the influence of drugs, alcohol or medication.



All users must read it before performing any activity on the machine, such as replacing the saw band or doing regular maintenance.



Some personal protective equipment is required for the safe use of the machine, e.g. protection goggles.



Keep blade protection cover and wheel covers in place and in working order.



Use recommended accessories. Improper accessories may be hazardous.



Keep your work area well illuminated at minimum 500 lumen.



Keep your work area clean. Cluttered and slippery floors invite accidents.



Remove adjusting keys, wrenches or any loose parts or items from the machine before turning on power.



Check for damaged parts. Before continuing using the machine, the damaged part should be checked and replaced.



Moving parts should be kept in proper alignment and connection with the machine. Check for breakage, mounting and any other conditions that may affect its operation. Any damaged part or guard should be properly repaired or replaced.



When a workpiece is too long or heavy, make sure it is supported with a roller table (recommended).



Always remember to switch off the machine when the work is completed.



Use a sharp saw blade and keep the machine in its best and safest performance by following a periodical maintenance schedule.



Do not force the band saw beyond its intended use. It is safer to operate with the cutting rate for which it was designed.

SAFEGUARD DEVICES

The safeguard devices incorporated in this machine include the following two main parts:

1. Protection covers & guards
2. Safety-related switches

Protection Covers & Guards

1. Idle wheel housing cover
2. Drive wheel housing cover
3. Gear reducer cover
4. Wire brush belt cover
5. Blade guard cover (left & right)



The protection devices should always be mounted on the machine whenever the machine is running.



Do not remove any of these safeguard devices under any circumstances except when servicing the machine. Even skilled service technicians should still take cautions when performing repairs or service on the machine with any of these protectors removed. It is the responsibility of the user to make sure all these elements are not lost and damaged.



Take note of the following main moving parts on the machine prior to and during machine operation:

- Saw bow assembly
- Drive and idle wheels
- Blade guide arm
- Saw blade guide rollers
- Quick approach device
- Wire brush
- Chip conveyor (optional)
- Workpiece clamping vises
- Shuttle vises and workbed rollers
- Top clamps (optional)
- Gear reducer

Safety Related Switches

To protect the operator, the following safety related switches on the machine are actuated when the machine is in operation.

Wheel motion detector	This is a proximity sensor used to detect the motion of the drive wheel. Once the saw blade is broken or as soon as it starts slipping, the sensor will detect and stop the drive wheel and the machine.
Power switch	Located on the cover of electrical cabinet, the power switch controls the main power of the machine. Up to your company's internal rules, this power switch can be locked with a padlock or a luggage lock to protect the operator and the machine.
Emergency stop button	Located on the control panel, the button when pressed will stop the machine completely.
Vise clamp switch	This switch assures firm clamping of the workpiece. If the workpiece is not clamped properly, the saw blade is not allowed to run.
Wheel cover interlock switches (CE model only)	Located on the two wheel housings, these switches are used to assure that the machine will stop whenever the wheel covers are open. This device is to protect users from being cut by the running saw blades.

Among all these safety switches, some of them are used to protect the users and some of them are used to prevent damage to saw blades, the workpiece and the machine itself, etc. We have taken every precaution to prevent injury or damage and to provide safe and economical operation of the machine.

EMERGENCY STOP

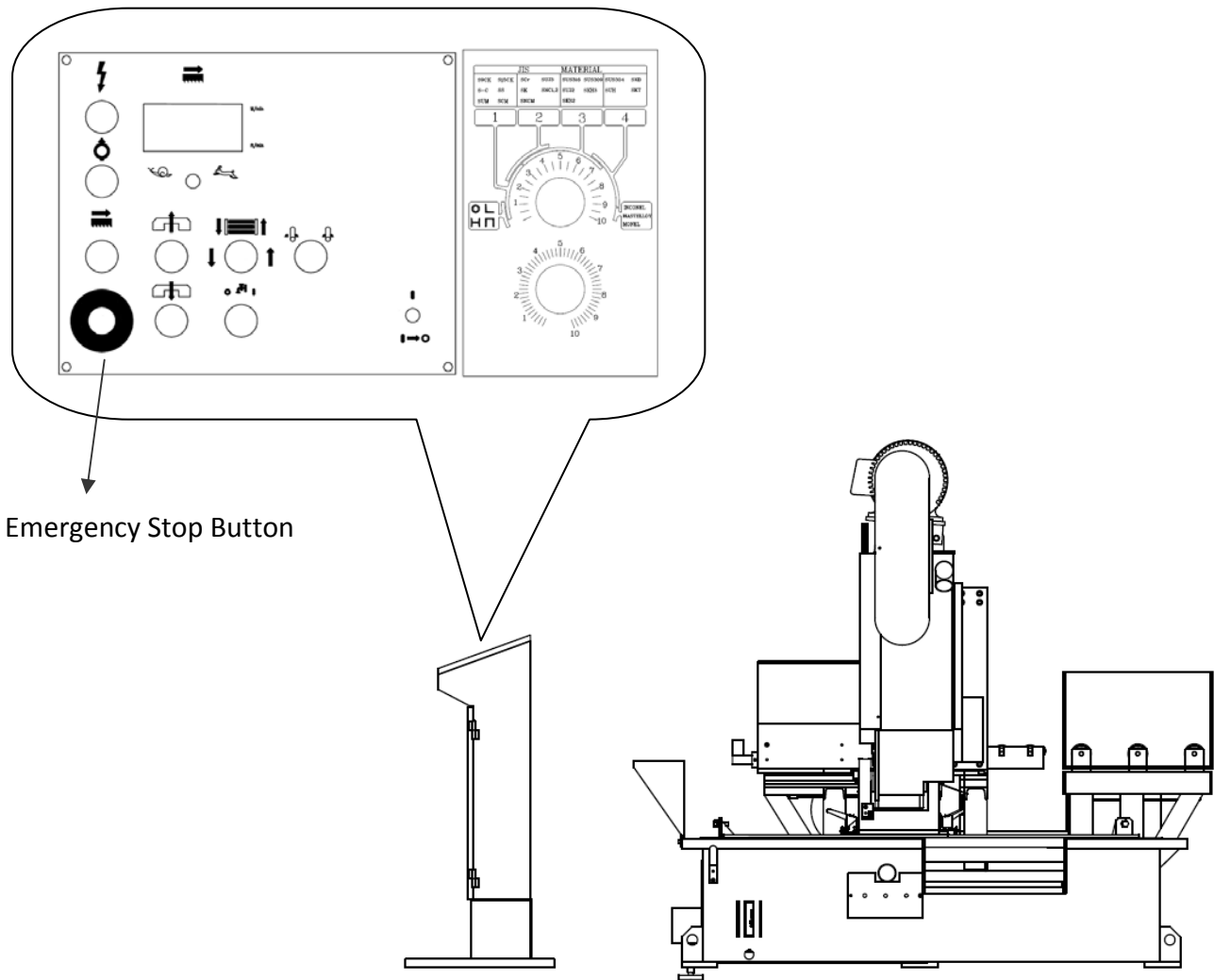
Designed to be easily accessible, the emergency stop button is located on the left bottom corner on the control panel and is made in red color and rubber material. For CE models, supplementary emergency stop button may be available at other area(s) of the machine depending on machine type. Please refer to *Illustration: Emergency Stop*.

When you press the button, the machine will immediately come to a full stop to avoid injury or damage when an accident occurs. The button will be locked when you press it. To unlock it, pull it upward.

You should press it immediately without any hesitation when observing:

- An emergency situation that would cause any injury or damage
- An abnormal situation or problem such as fire, smoke, abnormal noise and etc.

Illustration: Emergency Stop



SAFETY LABELS

Please read through and understand these safety labels before operating the machine. Refer to *Illustration: Safety Labels*.


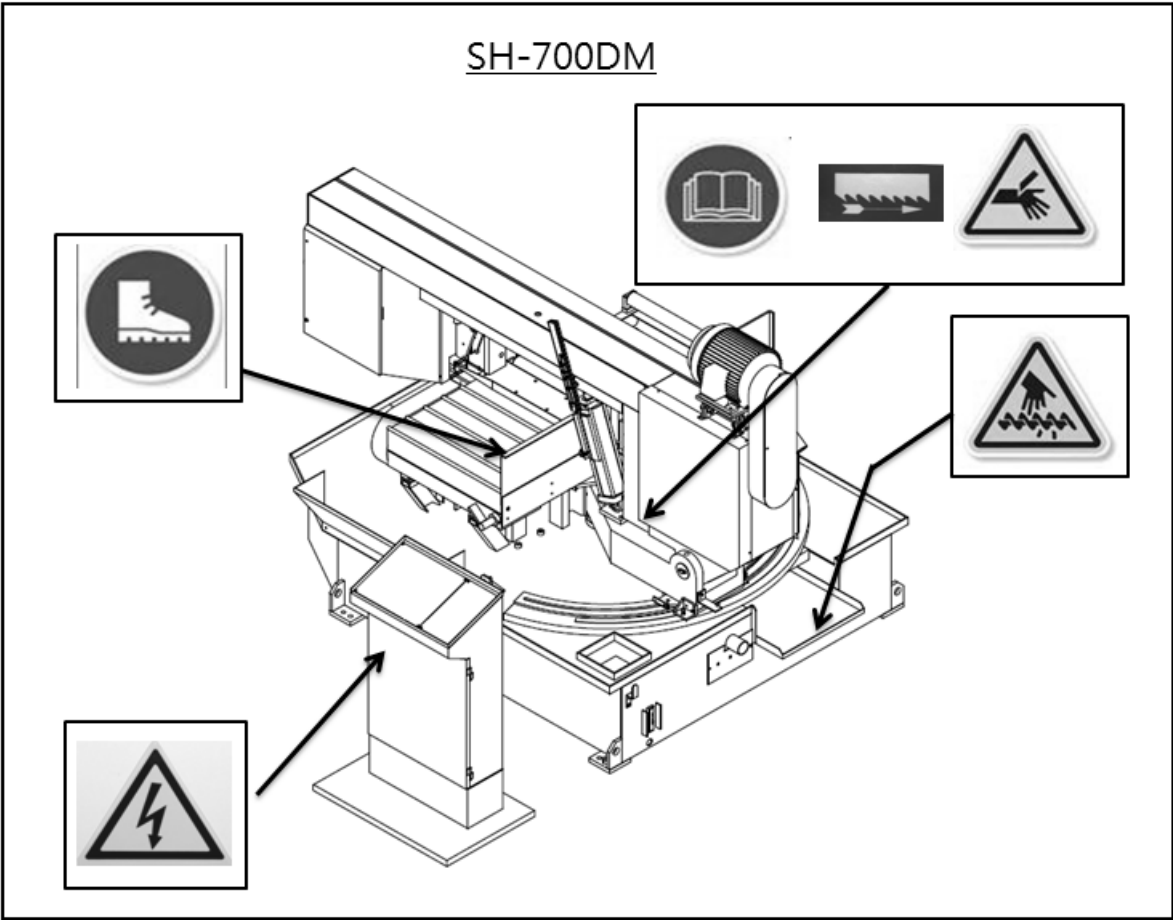
Label	Meaning	Label	Meaning
	Impact Hazard WEAR SAFETY SHOES. Do not approach dropping area during operation.		Read Operator's Manual This manual has important safety information. Read through it carefully before operating this machine to prevent personal injury or machine damage.
	Keep Unauthorized Personnel Away		Do not step. Do not stand on the machine or on the accessories!
	DANGER: Running Blade Blade runs through this area. Keep your hands away from a running blade to avoid severe injury. The arrow indicates direction of the blade.		Cutting Hazard KEEP COVER CLOSED / KEEP HAND OFF while the blade is running. Turn power off before opening cover. Failure to follow the warning can result in severe injury.
	Hazardous Voltage TURN POWER OFF before servicing. Failure to following the warning can result in severe injury.		Burn Hazard/Hot Surface
	Hand Crush/Force from Above		Crush hazard by vise
	Loose Hand Hazard KEEP HAND OFF. Do not touch chip conveyor. Failure to follow the warning can result in severe injury.		Pinch Point/Hand Entanglement

Illustration: Safety Labels



HEARING PROTECTION



Always use ear protection!

When your machine is running, noise generated by the machine may come from the following:

- Saw blade during cutting or material feed mechanism
- Wire brush unit
- Chip conveyor unit
- Speed reducer
- Hydraulic motor/pump
- Belt transmissions variable speed motors
- Blade motor
- Coolant pump
- Drive wheel
- Parts not assembled tightly causing mechanical vibration

Our products pass noise testing less than 78 dBA. Noise level vary according to working conditions and we recommend ear plugs or other hearing protection at all time. If your machine produces an undesirable noise while it is running, you should:

1. Make sure all maintenance tasks have been performed following the prescribed maintenance schedule (Refer to Section 8).
2. If maintenance does not seem to solve the problem, follow the troubleshooting procedures under Section 9.

CE COMPLIANCE

Cosen's CE model is designed to satisfy regulations of the Council Directive on the approximation of the laws of the Member States relating to machinery (2006/42/EC) - Annex I Essential health and safety requirements relating to the design and construction of machinery.

RISK ASSESSMENT

Risk assessment generally takes account of intended use and foreseeable misuse, including process control and maintenance requirements. We made every effort to avoid any personal injury or equipment damage during the machine design stage. However, the operator (or other people) still needs to take precautions when handling any part of the machine that is unfamiliar and anywhere on the machine that has potential hazards (e.g. the electrical control box).

GENERAL INFORMATION

SPECIFICATION

MACHINE PARTS IDENTIFICATION

FLOOR PLAN

This band saw machine is designed by Cosen's R&D engineers to provide you the following features and advantages:

Safety

- This machine is designed to fully protect the operator from its moving parts during cutting operation.
- The machine and each component has passed strict testing (Council Directive on the approximation of the laws of the Member States relating to Machinery).
- The machine will shut off automatically when the saw blade is broken, protecting both the operator and the machine.

Convenience & High-Performance

- The machine is designed in the way that the operation and adjustment can be easily performed.
- The machine will stop automatically when out of stock.
- Dual valve system is designed to achieve optimal cutting performance with the simple setting of feed rate and perspective cutting pressure for different material.

Durability

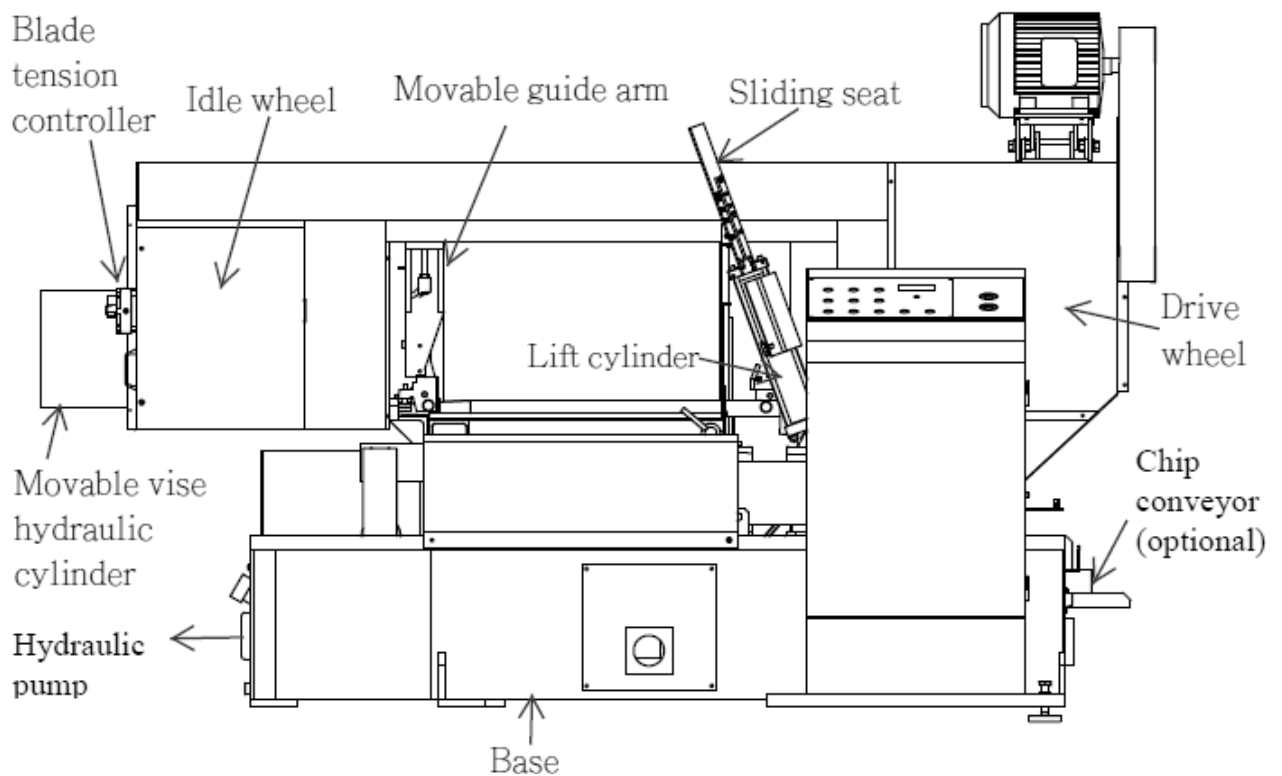
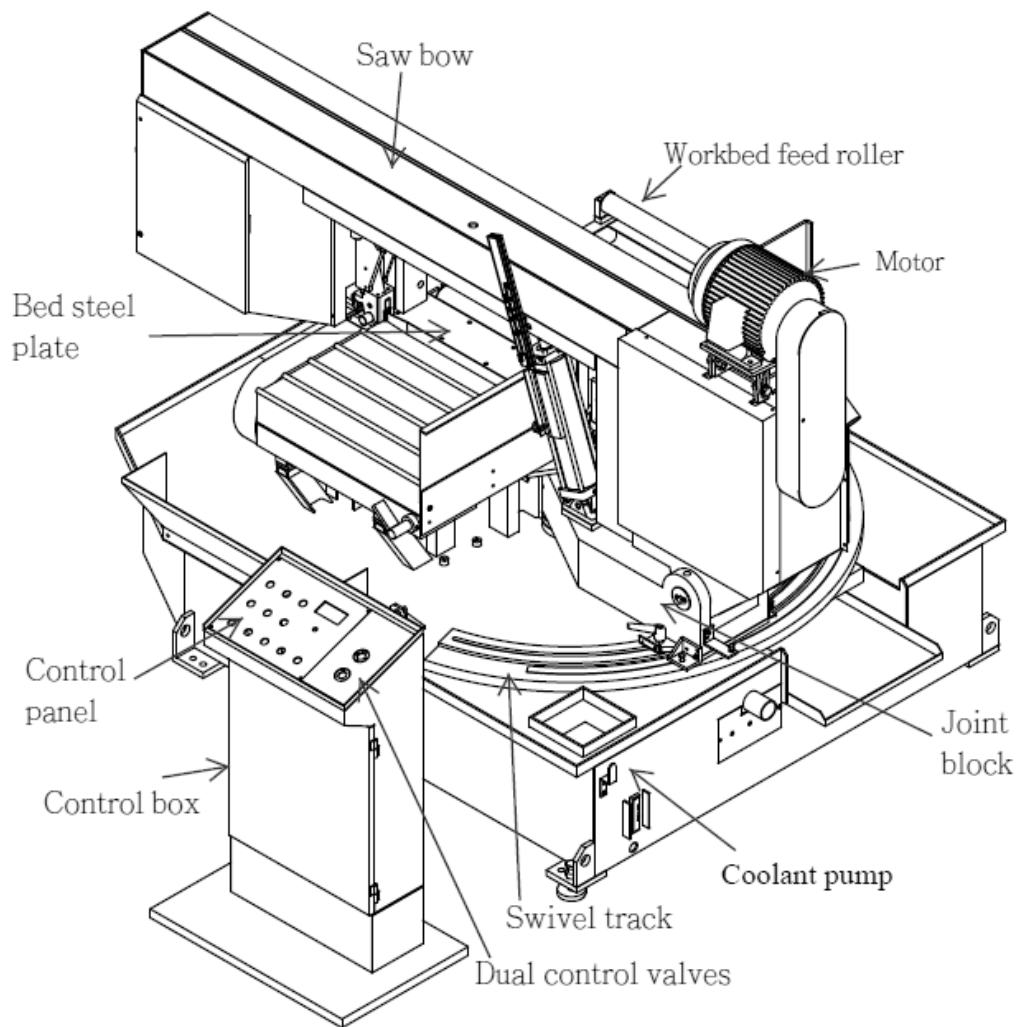
- The intended life-span of the machine is counted based on regular daily operation. It is calculated with the life expectancy of 10 years under normal operating condition and exact attention to the maintenance schedule.

8 hours × 5 days × 52 weeks × 10 years = 20,800 hours

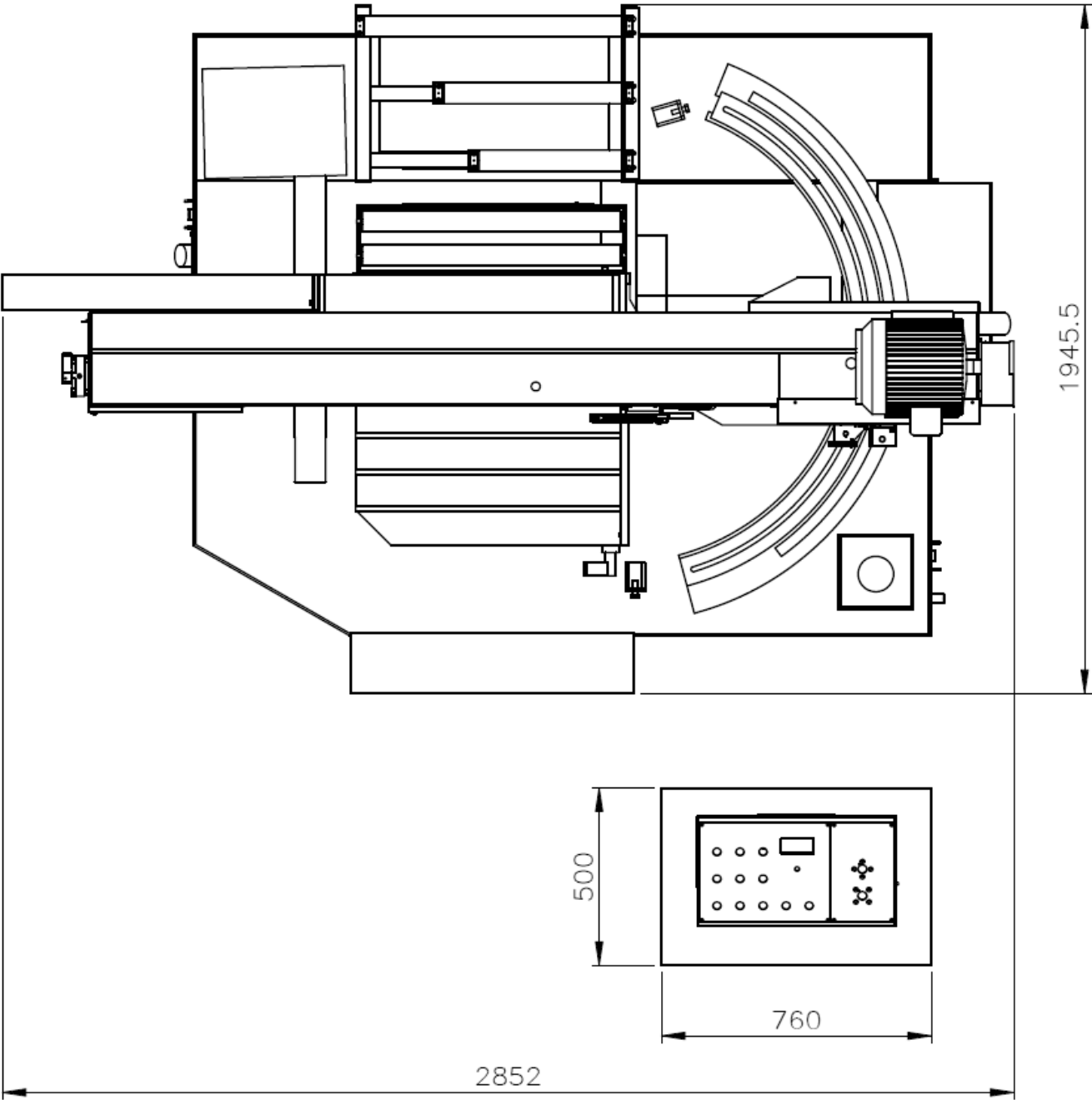
SPECIFICATION

Model		SH-700DM Semi-Automatic Swivel Head Double Mitering Horizontal Bandsaw		
Capacity	Angle	0°	± 45°	+60°
	Round	450 mm (17.7")	450 mm (17.7")	300 mm (11.8")
	Rectangular (H x W)	450 x 700 mm (17.7" x 27.5")	450 x 450 mm (17.7" x 17.7")	300 x 450 mm (11.8" x 17.7")
	Bundle Cutting	W: 710 mm (28") H: 455 mm (17.9")		
Saw Blade	Speed	20 ~ 100 m/min (66~328 fpm)		
	Size	5,800 x 41 x 1.3 mm (228" x 1.6" x 0.05")		
	Tension	Hydraulic with automatic blade breakage detection		
	Guide	Interchangeable tungsten carbide		
	Cleaning	Steel wire brush with flexible drive shaft driven by main motor		
Motor Output	Saw Blade	7.5 HP (5.6 kW)		
	Hydraulic	1 HP (0.75 kW)		
	Coolant Pump	1/8 HP (0.1 kW)		
Tank Capacity	Hydraulic	45 L (11.7 gal)		
	Coolant	120 L (31.2 gal)		
Workbed Height		750 mm (29.5")		
Weight	Net	2,100 kg (4,620 lb)		
	Gross	2,400 kg (5,280 lb)		
Floor Space (L x W x H)		2,852 x 1,945.5 x 1,740 mm (112.3" x 76.6" x 68.5")		

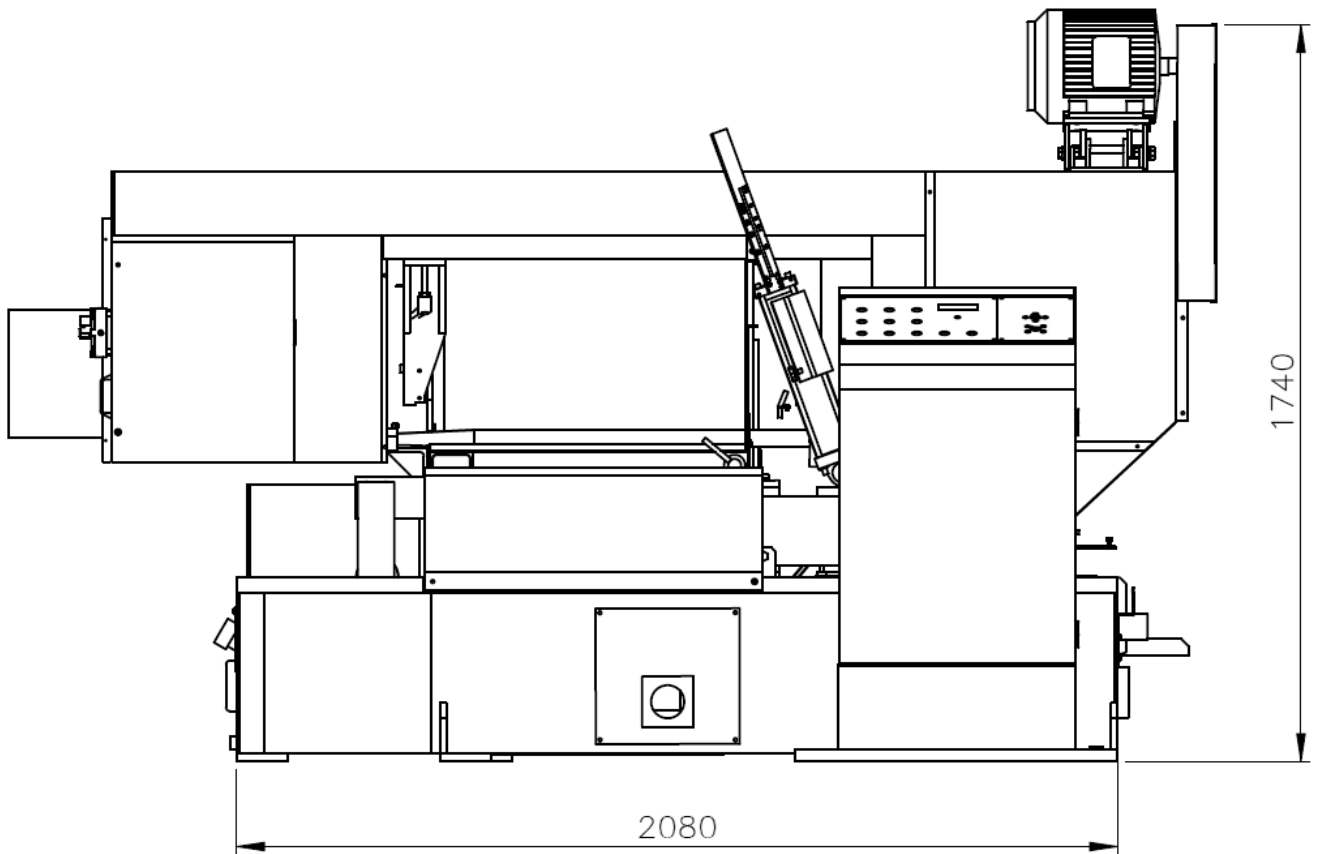
MACHINE PARTS IDENTIFICATION



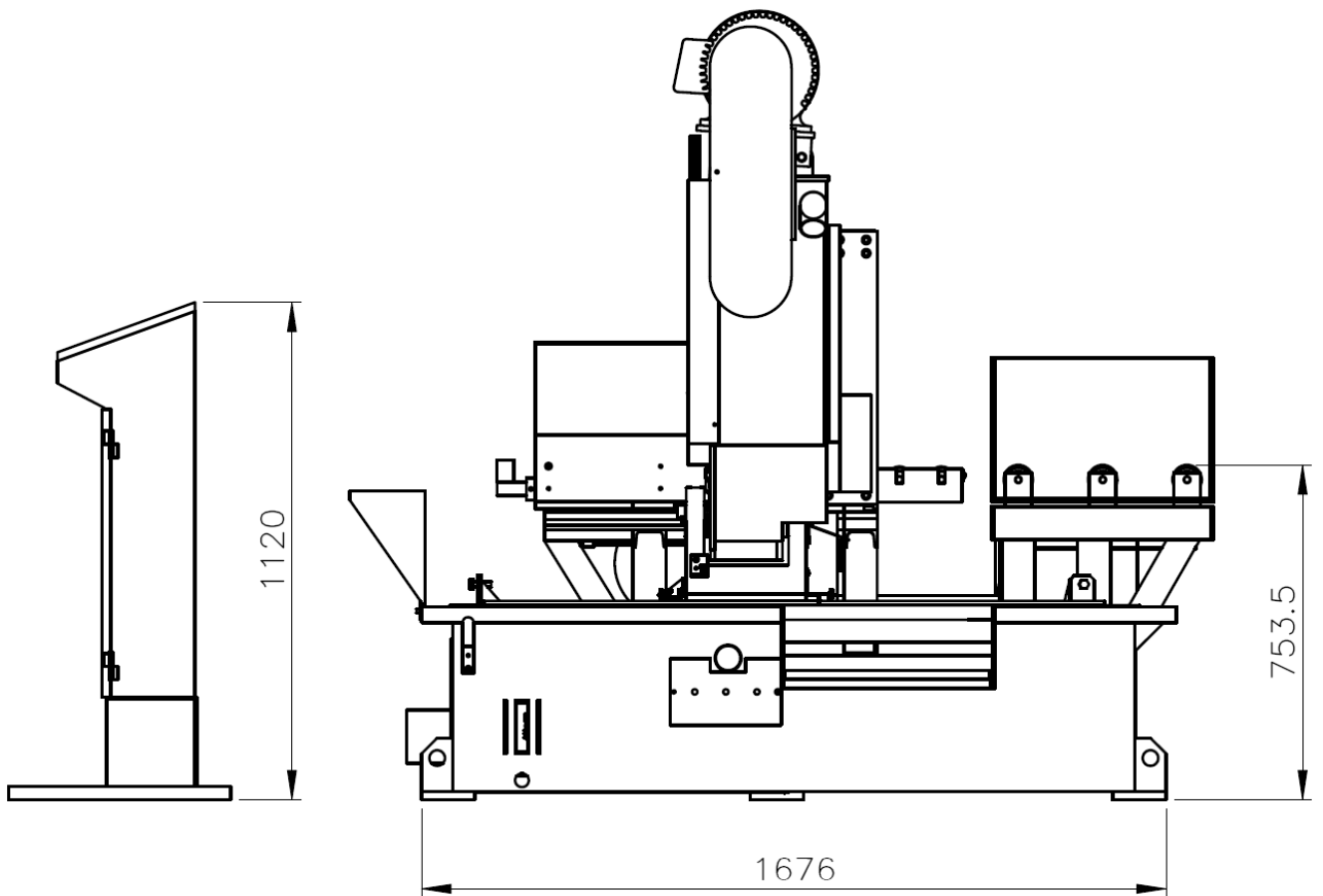
FLOOR PLAN



Machine top view



Machine front view



Machine side view

MOVING & INSTALLATION

LOCATION & ENVIRONMENT

UNPACKING & INSPECTING

LIFTING

REMOVING SHIPPING BRACKET

CLEANING

INSTALLING

RELOCATING

LOCATION & ENVIRONMENT

For your safety, please read all information regarding installation before proceeding. Install your machine in a place satisfying all of the following conditions:

Space:

- Leave enough free space around the machine for loading work and unloading cut-off pieces as well as for maintenance and inspection. Refer to *Section 2 General Information* for machine dimensions and floor space.

Environment:

- Well lighted (500 lumen at minimum).
- Floor kept dry at all times in order to prevent operators from slipping.
- Away from direct exposure to the sunlight
- Room temperature between 5°C to 40°C.
- Humidity level kept at 30%~95%“(without condensation) to avoid dew on electric installation and machine.
- Away from vibration of other machines
- Away from powders or dusts emitted from other machines
- Avoid uneven ground. Choose a solid level concrete floor which can sustain weight of both machine and material.
- Limit the operation area of the machine to staff only.

UNPACKING & INSPECTING

- Unpack your machine carefully to avoid damage to machine parts or surfaces.
- Upon arrival of your new band saw, please confirm that your machine is the correct model and it comes in the same specification you ordered by checking the model plate on the machine base.
- It is also imperative that a thorough inspection be undertaken to check for any damage that could have occurred during shipping. Pay special attention to machine surface, equipments furnished and the electrical and hydraulic systems for damaged cords, hoses and fluid leaks.
- In the event of damage caused during shipping, please contact your dealer and consult about filing a damage claim with the carrier.
- Your machine comes in with a set of tools for you to maintain the machine. The accessories furnished are as follows:

1.	Tool box	1 pc
2.	Grease gun	1 pc
3.	Screwdriver (+, -)	2 pcs
4.	Open-ended spanner	3 pcs
5.	Hexagon wrench	1 set
6.	Chip spade (only for manual models)	1 pc
7.	Operation manual	1 pc



Should you find any missing accessories, please contact your local agent immediately.

LIFTING

When moving the machine, we strongly suggest you choose any one of the methods described below to move your machine.

1. Use a crane

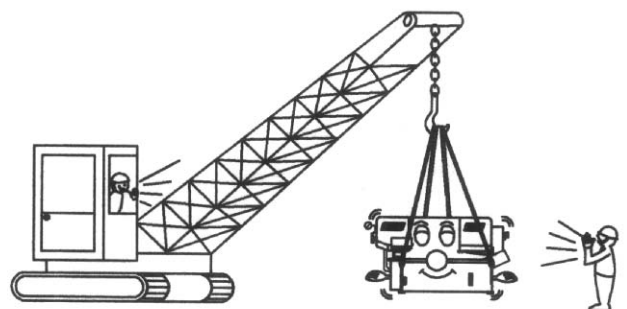
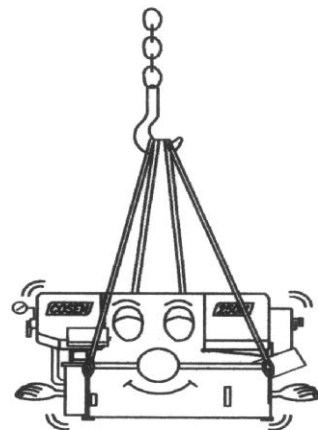
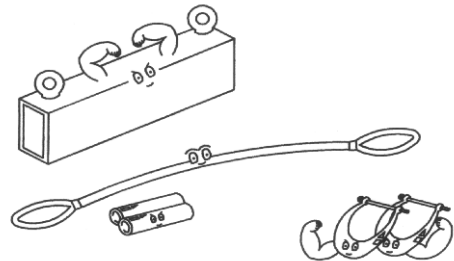
Move the machine to its location by using a crane and a wire rope sling that can fully withstand the weight of the machine (refer to machine specification under Section 2 *General Information*).

- Machine lifting is likely to damage the machine if not performed properly.



You must have a qualified crane operator to perform the job.

- You must use tools and equipment with the proper tensile strength and use proper method when moving your machine.
- Apply the wire rope sling to the lifting hooks on the four ends of the machine. Refer to *Illustration: Lifting Points* for exact locations.
- Slowly lift the machine. Be sure to protect the machine from impact or shock during this procedure. Also watch out your own fingers and feet to avoid injuries.
- Keep the machine well balanced during lifting process and make sure the wire rope does not interfere with the saw frame.
- When you work together with more than two people, it is best to keep constant verbal communication with each other.



2. Use a forklift

Most users choose this method to move their machine because it is easy to set up. Make sure that the lifting rod can fully withstand the weight of the machine. (Refer to *Section 2 – General Information for Specifications*)

- Machine lifting is likely to damage the machine if not performed properly.



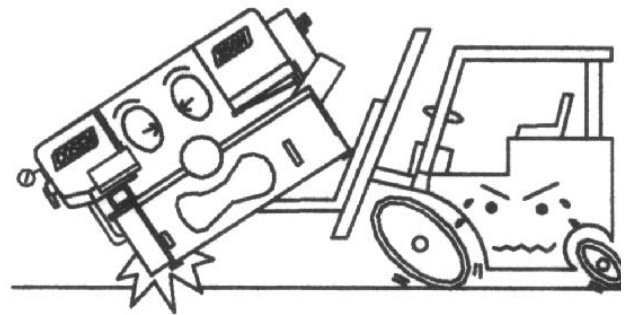
You must have a qualified forklift operator to perform the job.



- You must apply proper forklift technique to avoid damage to the machine.



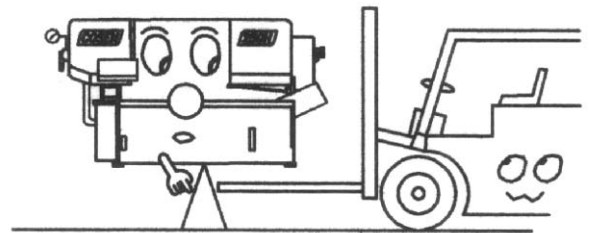
Make sure the forks are able to reach in at least 2/3 of the machine depth.



- You must keep the machine balanced at all times.



Make sure the forks are centered before use.



(Illustration only.)

3. Use rolling cylinders

You can use rolling cylinders to move your machine in a small machine shop environment.

- You must use rolling cylinders made in material of proper compressive strength.

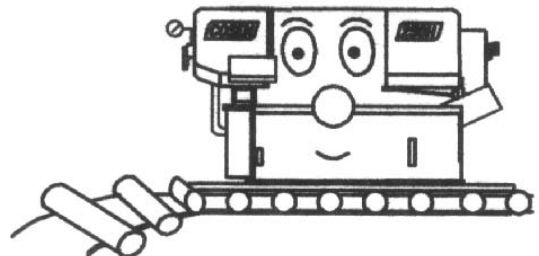
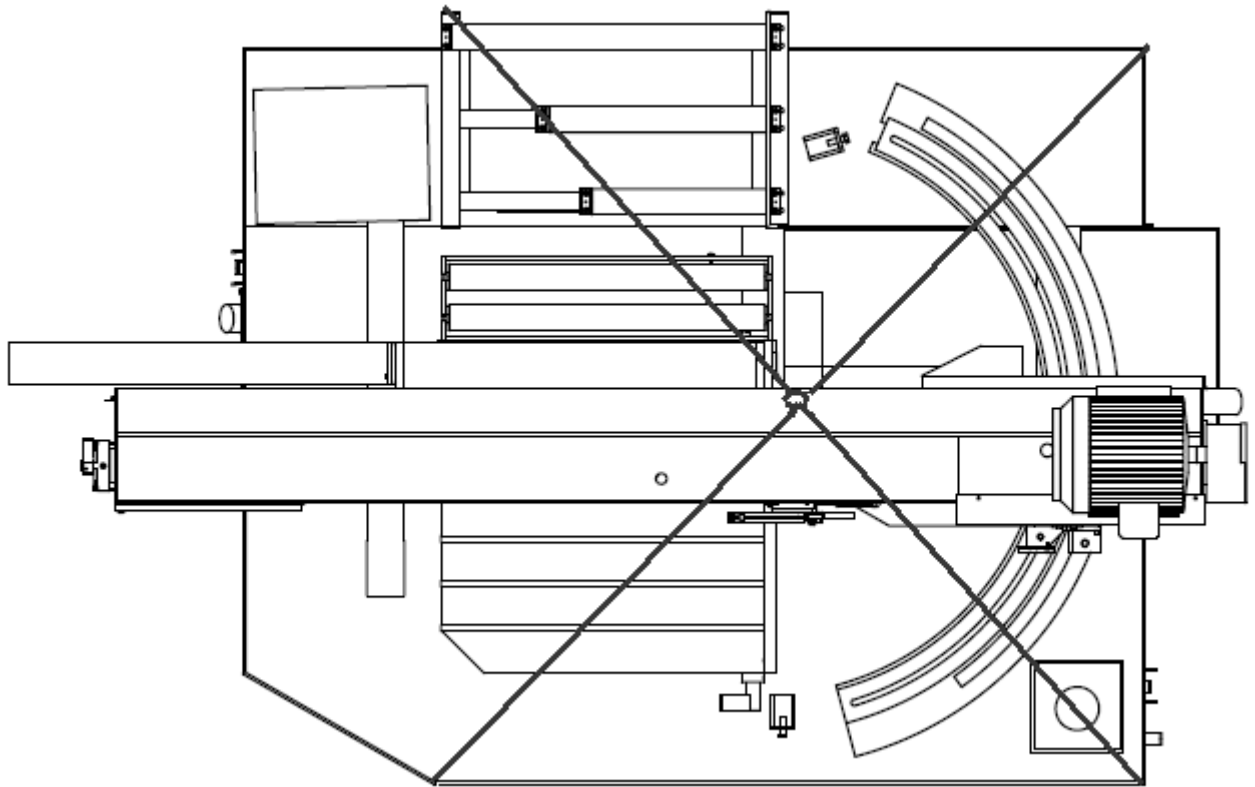


Illustration: Lifting Points



Minimum weight capacity for each wire rope: 2.5 ton

Total number of wire ropes required: 4

REMOVING SHIPPING BRACKET

- After the machine has been properly positioned, remove the shipping bracket that is used to lock the saw frame and the saw bed.
- Retain this bracket so that it can be used again in the event that your machine must be relocated.



CLEANING

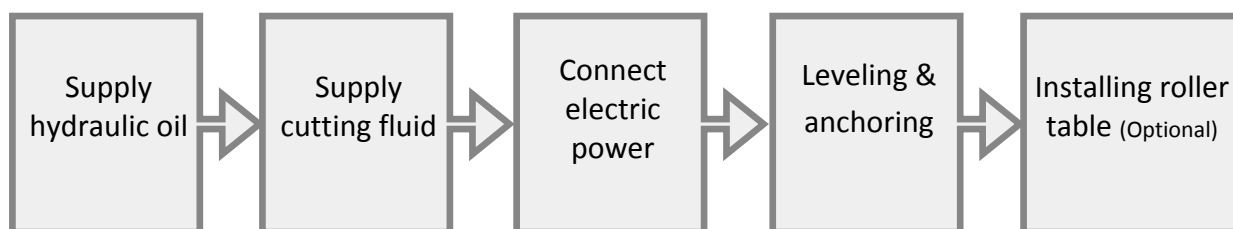
After the machine has been placed at the designated position, remove the rust-preventive grease with wiping cloth dampened with cleaning oil or kerosene. Apply machine oil to machine surfaces that are prone to rust.



Do not remove the rust-preventive grease with a metal scraper and do not wipe the painted surfaces with solvent as doing so would damage surface paint.

INSTALLING

Cosen's bandsaw machine is relatively easy to install. Follow these six easy steps to install your machine.



Supplying hydraulic oil

Open the filler cap and fill the hydraulic oil tank to above 2/3 or full level.

Check the sight gauge to make sure the oil level in the tank.



Refer to specification chart under Section 2 for tank capacity.



Supplying coolant

Fill the coolant tank to the middle level of the sight gauge by pouring the coolant from above the chip conveyor.

Use the sight gauge to check the coolant level remaining in the tank.



Always check the coolant supply before starting the machine. If the coolant pump is started without enough coolant supply in the tank, the pump and its drive motor may be damaged.



Refer to specification chart under Section 2 *General Information* for tank capacity.



Consult your coolant supplier for bandsaw use regarding coolant type and mix ratio.

Connecting electric power



Have a qualified electrician make the electrical connections.



If the power supply voltage is different from the transformer and motor connection voltage shown on the label attached to the electrical compartment of the machine, contact COSEN or your agent immediately.



Connect to power supply independently and directly. Avoid using the same power supply with electric spark machines such as electric welder. Unstable electric tension may affect your machine's electric installation from working properly.



Ground the machine with an independent grounding conductor.



Supply voltage: 90% - 110 % of nominal supply voltage.



Source frequency: 99% - 101 % of nominal frequency.



Refer to the specification chart under Section 2 for total electric power consumption of the motors and make sure your shop circuit breaker is capable of this consumption amount. Also use a power supply cable of proper size to suit the power supply voltage.

1. Turn off the shop circuit breaker.
2. Make sure the machine circuit breaker switch on the electrical compartment door is turned to OFF.
3. Remove the screw securing the electrical compartment and then open the door.
4. Pull the power supply cable and grounding conductor through the power supply inlet into the electrical compartment. (Shown right)
5. Connect the power supply cable to the circuit breaker (N.F.B.) to the R, S and T terminals, and connect the ground cable to the E terminal.
6. Close the compartment door and fasten the screw back.
7. Turn on the shop circuit breaker and then turn the machine circuit breaker switch to ON. The *Power Indicator* on the control panel will come on.
8. Pull to unlock the *Emergency Stop* button and press the *hydraulic ON* button to start the hydraulic motor.
9. Make sure the sawing area is clear of any objects. Start the blade and check the blade rotation. If the electrical connections are made correctly, the blade should run in a counterclockwise direction. If not, shut the hydraulics off, turn off the machine as well as the shop circuit breaker. Then swap the power the power cable conductors connected to R and T terminals.
10. Repeat step 6 to 9 to ensure the electrical connections are in the right order.



Leveling

Place spirit level on the vise slide plates and the work feed table.

Level the machine in both directions i.e. along and across the machine. Adjust the level of the machine by turning the leveling bolts.



Make sure all leveling bolts evenly support the machine weight.

Anchoring the machine

Normally there is no need to anchor the machine. If the machine is likely to vibrate, fix the machine to the floor with anchor bolts.

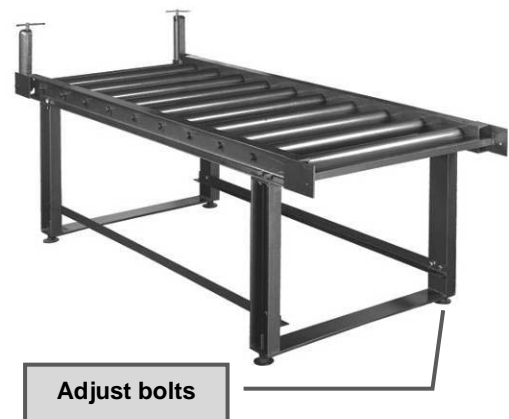
Shock absorption steel plates are provided and can be placed under each leveling bolt to prevent their sinking into the concrete floor.

Installing roller table (optional)

The roller table is used to support long material at the rear and/or the front of the machine.

If you have ordered the optional roller table for cutting long material, position it before or behind the machine.

Level the roller table and the stand with the machine by adjusting the leveling bolts.



Installing fire control device

Install a fire extinguisher or any other fire control device in the shop in case a fire breaks out.

RELOCATING

We recommend you follow these procedures when relocating or shipping your machine to other place:

1. Descend the saw frame to its lowest position then turn off the power.
2. Fix the saw frame using the shipping bracket that originally came with the machine.
3. If you are shipping the machine, pack the machine carefully with industrial plastic wraps to protect it from dust.
4. Use a crane or forklift to raise it. If a crane is used to lift the machine, ensure that the lifting cable is properly attached to the machine.
5. Do not forget to include the equipments originally furnished including the shock absorption steel plates and the instruction manual.

OPERATING INSTRUCTION

SAFETY PRECAUTIONS

BEFORE OPERATING

CONTROL PANEL

STANDARD ACCESSORIES

OPTIONAL ACCESSORIES

UNROLLING & INSTALLING THE BLADE

ADJUSTING WIRE BRUSH

ADJUSTING MATERIAL DEPTH BAR

ADJUSTING SAW ARM

ADJUSTING COOLANT FLOW

ADJUSTING BLADE SPEED

BREAKING-IN THE BLADE

TEST-RUNNING THE MACHINE

CUTTING OPERATION

USING TOP CLAMP FOR BUNDLE CUTTING

TERMINATING A CUTTING OPERATION

SAFETY PRECAUTIONS

For your safety, please read and understand the instruction manual before you operate the machine.

The operator should always follow these safety guidelines:

- The machine should only be used for its designated purpose.
- Do not wear gloves, neckties, jewelry or loose clothing/hair while operating the machine.
- For eye protection, always wear protective safety glasses.
- Check the blade tension and adjust blade guides before starting the machine.
- Use auxiliary clamping or supporting devices to fix material in place before cutting long workpieces. Always make sure the material is clamped firmly in place before starting to cut.
- Do not remove jammed or cut-off pieces until the blade has come to a full stop.
- Keep fingers away from the path of the blade.
- Protection devices should be in place at all times. For your own safety, never remove these devices.
- Disconnect machine from the power source before making repairs or adjustments.
- Wear protection gloves only when changing the blade.
- Do not operate the machine while under the influence of drugs, alcohol or medication.
- Do not take your eyes off the machine while in operation.
- Do place warning signs to mark out machine work zone and restrict entry to be staff-only.

BEFORE OPERATING

Choosing an appropriate saw blade and using the right cutting method is essential to your cutting efficiency and safety. Select a suitable saw blade and cutting method based on your work material and job requirements e.g. cutting accuracy, cutting speed, economic concern, and safety control.

Wet cutting

If you choose dry cutting or low-speed cutting, the chips may accumulate in machine parts and may cause operation failure or insulation malfunction. We suggest you choose wet cutting to avoid machine damage.

Cutting unknown materials

Before cutting an unknown material, consult the material supplier, burn a small amount of chips from the material in a safe place, or follow any other procedure to check if the material is flammable.



Never take your eyes off the machine while in operation.

Cutting fluid

For cooling and lubrication purpose, we recommend you use water-soluble cutting fluids. The following table lists out its pros and cons for your reference.

Pro	Con
<ul style="list-style-type: none">• Have a high cooling effect• Not flammable• Economical• Does not require cleaning of the cut products	<ul style="list-style-type: none">• Remove machine paint• Lose its rust protection effect if deteriorated• Tend to create foam• Subject to decay• Decline in performance, depending on the quality of the water used for dilution



Never use water as your coolant.



Always add coolant into water for better mix result.



Consult your coolant supplier for bandsaw use regarding coolant type and mix ratio.

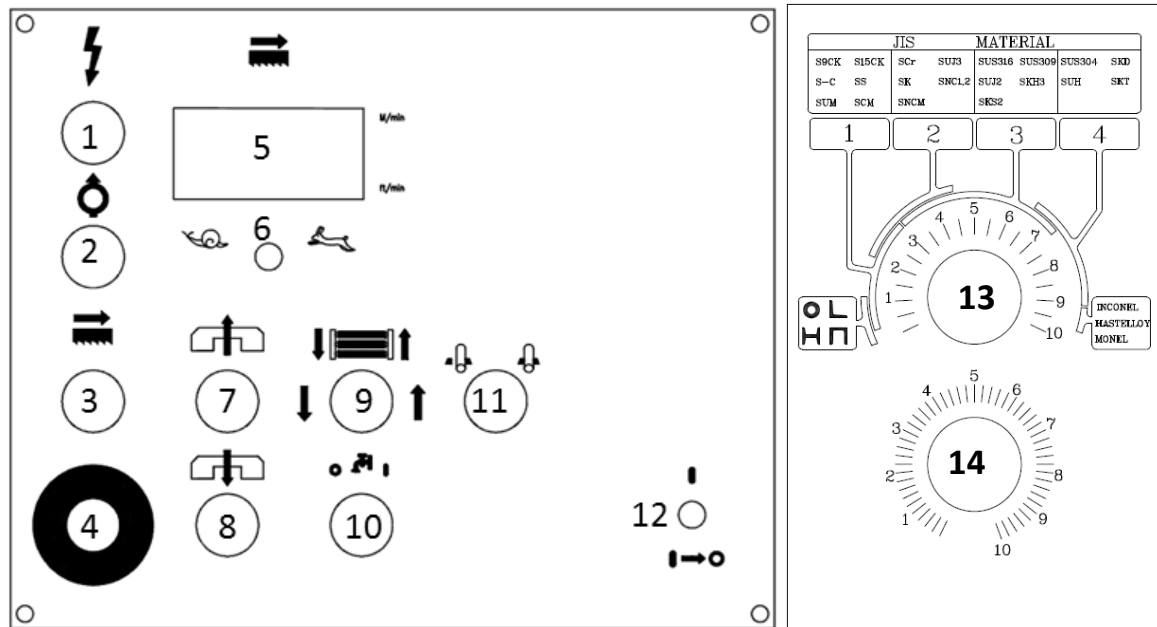


Before starting a cutting job, make sure there is sufficient amount of coolant in the tank.

Check the fluid level through the sight gauge. Please refer to machine specifications in this manual (Section 2) for tank capacity.

CONTROL PANEL

The control panel is located on the top of the electrical box. It includes the following function: power system, hydraulic system, and cooling system. The operator must fully understand the function of each switch and button before operating the machine.



No.	Name	No.	Name
1	Power indicator lamp	8	Saw bow down button
2	Hydraulic on button	9	Feed forward/backward selector
3	Saw blade start button	10	Coolant on/off switch
4	Emergency stop button	11	Vise clamp/open selector
5	Blade speed indicator	12	Last cut selector
6	Blade speed control knob	13	Cutting pressure control knob
7	Saw bow up button	14	Blade descend speed control knob

Control Buttons

1. Power indicator lamp

When the lamp is on, it indicates the power to the machine is turned on.

2. Hydraulic on button

When this button is pressed, the built-in-light comes on and the hydraulic pump motor starts to operate.



Press *emergency stop button* to stop the hydraulic system.

3. Saw blade start button

When this button is pressed, the built-in-light comes on and the blade motor starts to operate.



Only if the workbed is at the front end or rear end of the stroke (front limit switch or rear limit switch is actuated), the saw blade start button is available.



Make sure the workbed will not be damaged during cutting.



Vise has to clamp tightly or the blade motor will not work.



Press *saw bow up button* to stop the blade motor.

4. Emergency stop button

Press this button to stop the machine in an emergency. When the button is pressed, it brings the machine to a full stop. The button locks when pressed. In order to unlock it, please turn the button clockwise.

5. Blade speed indicator

The blade speed is shown here and the blade speed can be adjusted by *blade speed control knob*.

6. Blade speed control knob

This knob connects with the inverter and the inverter is used to control the rotation speed of the blade motor. The *blade speed indicator* will show the speed variation while turning this knob. Turn the knob clockwise to increase speed; turn counterclockwise to decrease.

7. Saw bow up button

When this button is pressed for less than 2 seconds, the saw bow rises until the operator lets go of the button. When this button is pressed for more than 2 seconds, the saw bow will automatically rise to the upper limit position.



While pressing the *saw bow up button* can stop the running blade, please still make use of the *emergency stop button* in an emergency.

8. Saw bow down button

When this button is pressed, the saw bow descends until the operator lets go of the button.



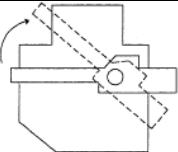

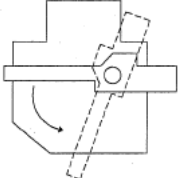

Before lowering the saw bow, the guide arm must be positioned outside the vise in order to avoid hitting the vise and causing damages.

9. Feed forward/backward selector

- This selector is used to control the motion of the workbed.
- Turn and hold this selector to the left to move the workbed forward. As soon as the selector is released, the feeding workbed will stop moving forward.
- Turn and hold this selector to the right to move the workbed backward. As soon as the selector is released, the feeding workbed will stop moving backward.



The workbed is able to move only if the saw bow is at the upper limit position.

Miter cut direction	Selector at	Description
		If the operator wants to miter cut backward, move the workbed forward to avoid from cutting into the workbed.
		If the operator wants to miter cut forward, move the workbed backward to avoid from cutting into the workbed.

10. Coolant on/off switch

Turn this selector to the right to “1” position, the coolant pump will start. Turn this selector to the left to “0” position, the coolant pump will stop.




When the saw blade starts running, the coolant pump automatically operates.

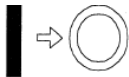
11. Vise clamp/open selector

Turn this selector to the left, the vise will open. Turn this selector to the right, the vise will clamp.

12. Last cut selector

- When the selector is turned to this mode , the saw blade is supposed to cut the material and stop after the lower limit switch is triggered. The saw bow will stay at the lower limit position

and the hydraulic power remains "ON."

- When the selector is turned to this mode , the saw blade is supposed to cut the material and stop after the lower limit switch is triggered. The saw bow will stay at the lower limit position and the hydraulic power will be "OFF."



The position where the machine stops at after cutting completes can be re-programmed. When the machine power is on and the hydraulic power is off, simultaneously press the *saw bow up button* and clamp the vise for 2~3 seconds, the machine will stop at the position where the quick approach sensor is in contact with the quick approach bar. To switch back to stop at the lower limit position, simultaneously press the *saw bow down button* and clamp the vise for 2~3 seconds when the machine power is on and the hydraulic power is off.

13. Cutting pressure control knob

- This pressure control knob is used to adjust the cutting pressure of the blade.
- Turning the knob clockwise increases the cutting pressure.
- To obtain a good cutting result, choose the right cutting pressure by turning the knob until it points to your material on the color chart.




14. Blade descend speed control knob

- This knob is used to adjust the descend speed of the saw blade.
- Turning the knob clockwise increases the blade descend speed.
- Blade descend speed is a determining factor to a good cutting time and quality cutoff surface.
- Set the blade descend speed in accordance with the *cutting pressure control* knob.
- Also commonly known as the flow control valve.

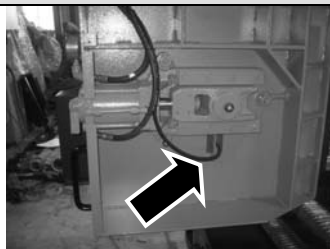
STANDARD ACCESSORIES

Blade tension device



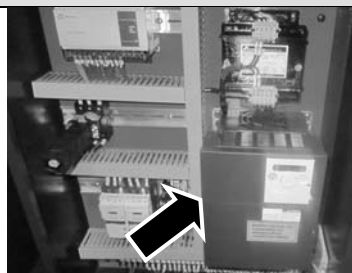
- This blade tension device equipped with hydraulic cylinder provides appropriate tension to the saw blade.
- To tighten the saw blade, turn the selector to .
- Upon saw blade breakage, the safety device will activate and automatically stop all machine operation.
- The limit switch of the safety device can be reset by turning the blade tension selector to .
- To change the blade, turn the handle to  to release saw blade tension.

Blade speed/motion detector



- Besides detecting the blade speed, the speed/motion detector also functions as a safety device.
- The speed/motion detector protects operators and the machine by preventing blade overloads and consequent damages if a saw blade breaks or skids.
- Once blade breakage or slippage is detected, the drive wheel will stop in 10 seconds.

Inverter



This inverter is installed inside the machine base. It is used to control and stabilize the saw blade speed during cutting.

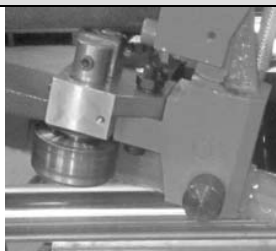
To adjust blade speed, use the speed control turn-knob on the control panel.



Note:

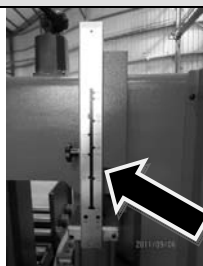
1. Make sure the terminal points are connected.
2. Make sure the ambient temperature is within acceptable range and keep the surroundings well ventilated.
3. Keep the inverter away from dust.
4. For repair or maintenance, please contact your local agent.

Vibration damper



The vibration damper can be assembled to the left saw arm. This accessory is extremely useful in reducing the high-frequency noise produced when cutting large-sized material.

Quick approach device



This device allows the blade to quickly descend to just right above the material to save you operation time.

Gear reducer

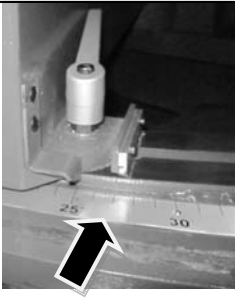


The specially designed gear reducer can work toward your preset blade speed and torque.



Please refer to section 8 for information on maintenance.

Miter angle scale



This band saw machine can miter cut at any degree between 0° to 60°. Miter angles have been preset at the factory. All you need is to swivel the saw bow so the pointer (red arrow) points at the desired angle and lock the handle before cutting.

Coolant pump



When the hydraulic motor is on, the coolant pump can be individually operated via the control panel. The coolant pump supplies coolant to cool off cutting temperatures during cutting. Also, it can be used to wash off chips.

Powered wire brush



The wire brush removes the metal chips on the saw blade teeth so that blade life can be extended.



Keep hands away from the transmission shaft and the brush while the wire brush is running.



Turn off the hydraulic motor or the main power switch before performing maintenance or cleaning on the wire brush drive system..

OPTIONAL ACCESSORIES

Vise pressure regulator



- This adjustment valve is used to control vise pressure.
- Adjust vise pressure based on the material of your workpiece.
- When cutting pipes or soft materials, reduce vise pressure to prevent exerted pressure from damaging the workpiece shape or exterior.



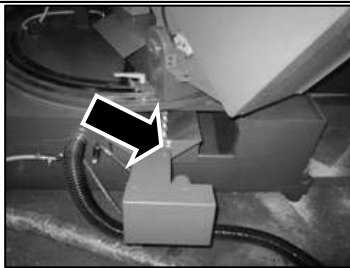
Vise pressure should never be lower than 8 kg/cm².

Top clamp



- This device is single-point top clamp used for cutting bundles.
- Open the adjustment valve to adjust the top clamp speed during clamping/unclamping.

Chip conveyor



Chip conveyor is a spiral device to bring chips out during cutting.



As a regular maintenance, remove the chip conveyor and clean all chip deposits inside.

Projection light



Activate the switch to project a beam of light on the work piece. The operator can use the light as reference to adjust the cutting dimension of the work piece. The light will shut off automatically within 3 minutes.

2M roller table



- The optional 2M roller table supports the work material and ensures the material be fed in smoothly.
- Refer to section 9 for further information on adjusting the roller table.

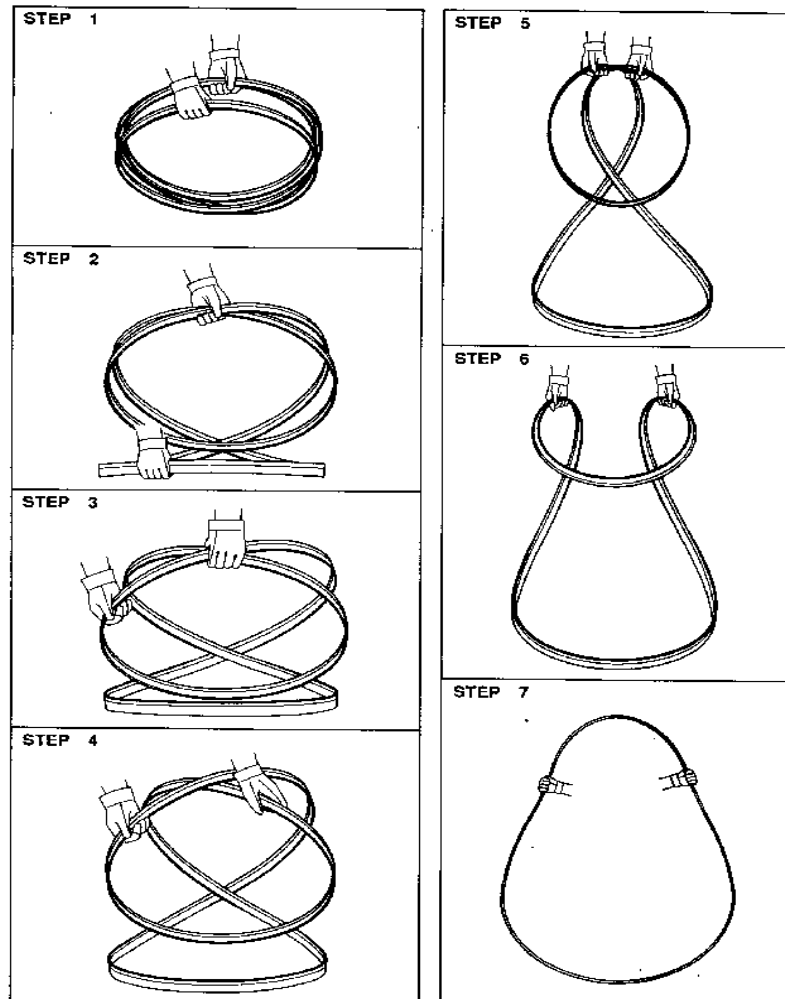
UNROLLING & INSTALLING THE BLADE



Always wear leather gloves and protection glasses when handling a blade.

Unrolling the blade

Please follow the procedures illustrated below.





Unroll and roll the blade

Installing a new blade

Step 1 - Select the most suitable saw blade for your workpiece considering the size, shape and material.

Step 2 - Turn on the machine power by switching to *ON* and turn on the hydraulic power.

Step 3 - Press the *saw bow up* button and elevate the saw bow until the right insert holder is clear of the front fixed vise.

Step 4 - Turn the tension controller handle from “” to “” position to release tension. The idle wheel will then move slightly toward the direction of the drive wheel.

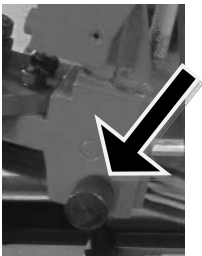


Step 5 - Open the idle and drive wheel cover.

Step 6 - Loosen the wire brush assembly fixed nuts and pull the wire brush away from the blade.



Step 7 - Loosen the left and right carbide inserts by loosening the “lock nut” shown below. Detach the old blade from below the left and right guide seat and then pull the entire blade out.



Step 8 - If necessary, clean the carbide inserts before installing a new saw blade.

Step 9 - Place the new blade around the idle wheel and the drive wheel

Step 10 - Insert the blade into the left and right tungsten carbide inserts. The back and the sides of the blade need to be touching the inserts as well as the adjacent rollers.

Step 11 - Place the blade to the drive wheel and press the back of the blade against the flange of the drive wheel.

Step 12 - Make sure the back of the blade is also pressed against the flange of the idle wheel.

Step 13 - Turn the tension controller handle to [○—○] position to obtain blade tension.

Step 14 - Make sure the sides of the blade are in close contact with the carbide inserts and then tighten the left and right carbide inserts by locking the “lock nut.”

Step 15 - Gently close the idle and drive wheel covers.

Step 16 - Press the *saw blade start* button to start the blade. Allow the blade to run for a few rotations then press the *saw bow up* button to elevate the saw bow. Open the wheel covers and make sure the blade has not fallen off the drive and idle wheels. If the blade has shifted, follow the same procedure to reinstall the blade again.

Step 17 - Adjust wire brush to a proper position. Refer to *Adjusting wire brush* in this section.

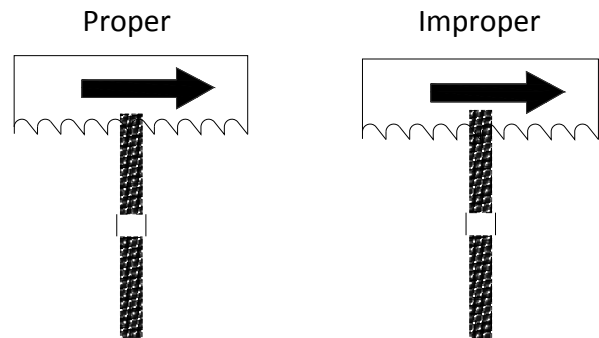
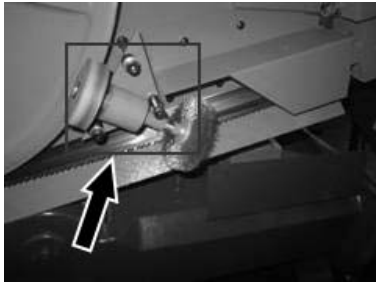
ADJUSTING WIRE BRUSH

Follow these steps to adjust wire brush to appropriate position:

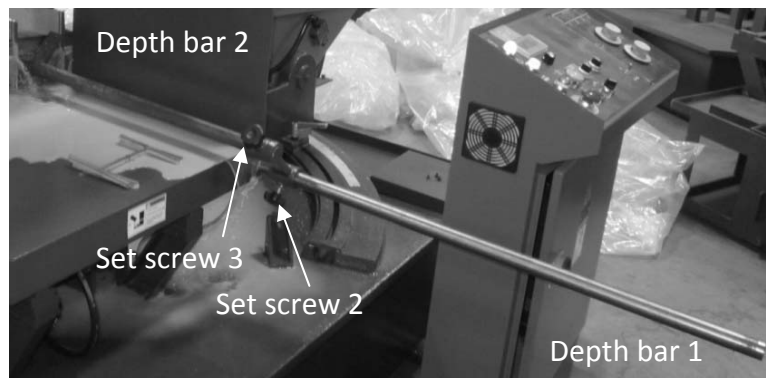
Step 1 - Open the drive wheel cover.

Step 2 - Adjust the fixed nuts to make brush move up / down until it makes proper contact with the saw blade (see below illustration).

Step 3 – Close the drive wheel cover.



ADJUSTING MATERIAL DEPTH BAR



Step 1 – Lift the saw bow.

Step 2 – Position the material according to your desired cutoff length.

Step 3 – Clamp the material securely with vise.

Step 4 – Lower the saw bow to allow about 10mm clearance between saw blade teeth edge and the top of the material.

Step 5 - Install the depth bar 1 and tighten the set screw 1.

Step 6 - Loosen the set screws 2 and 3.

Step 7 - Slide and position the depth bar 2 so that the end of depth bar 2 just touches the front of the material.

Step 8 - Tighten the set screws 2 and 3.

ADJUSTING SAW ARM

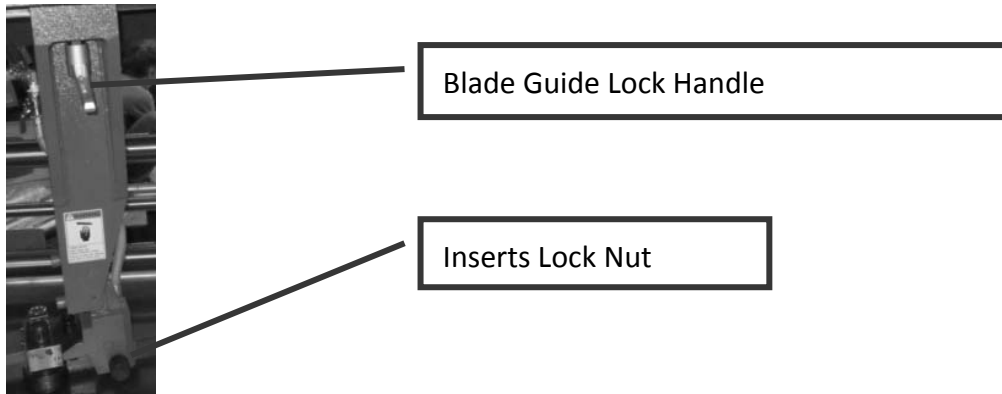
Adjust the blade guide (guide arm) position based on the size of your workpiece:

Step 1 – Loosen the inserts by unlocking the lock nut.

Step 2 – Loosen the blade guide locking handle. Then adjust the guide arm to a position suitable for your workpiece size.

Step 3 – After adjustment is made, tighten the blade guide lock handle.

Step 4 – Clamp the inserts back by locking the lock nut.



ADJUSTING COOLANT FLOW

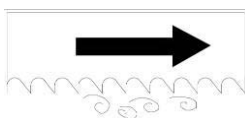
Step 1 – Press the *saw blade start* button to start the saw blade drive motor.

Step 2 – Press the *saw bow down* button to lower the saw bow.

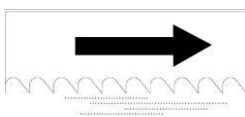
Step 3 – Use the flow control valve (shown below) to adjust the amount of fluid flowing to the cutting area.



Adjust the flow amount if you observe the following changes to the chips generated from cutting.



If the chips are sharp and curved, increase the coolant flow amount.



If the chips are granulated, decrease the coolant flow amount.

ADJUSTING BLADE SPEED

Step 1 – Set the flow control to “0” position.

Step 2 – Press the *saw blade start* button to start the blade..

Step 3 – Turn the *blade speed control knob* to adjust the blade speed. The blade speed should be adjusted based on the size and the material of the workpiece.

BREAKING-IN THE BLADE

When a new saw blade is used, be sure to first break in the blade before using it for actual, extended operation. Failure to break in the blade will result in less than optimum efficiency. To perform this break-in operation, the following instructions should be followed:

Step 1 - Reduce the blade speed to one-half of its normal setting.

Step 2 - Lengthen the cutting time to 2-3 times of what is normally required.

Step 3 - Start break-in operation.

Step 4 - After the break-in operation is completed, set all parameters back to normal settings.

TEST-RUNNING THE MACHINE

Test-running this machine can ensure good machine performance in the future. We suggest you run the following tests on the machine before first use:

Testing machine performance:

Turn on the power and run a basic performance test after you finish installing the machine. Follow these steps to test machine performance:

Step 1 – Disassemble shipping brackets and bolts.

Step 2 – Install roller table (optional).

Step 3 – Turn on the relay switch in the control box.

Step 4 – Elevate the saw bow. (If your coolant pump is in reverse and the machine cannot run, please change the electrical phase.)

Step 5 – After the saw bow ascends, extend the quick approach device.

Step 6 – Remove the rust-prevention grease with cleaning oil or kerosene.

Step 7 – Start the coolant pump.

Step 8 – Test these functions under manual mode:

- vise clamping/unclamping
- saw bow ascending/descending
- feeding forward and backward.

CUTTING OPERATION

Step 1 – Check before you cut

- **Power:** Check the voltage and frequency of your power source.
- **Coolant:** Check if you have sufficient coolant in the tank.
- **Hydraulic:** Check if you have sufficient (at least two-thirds or higher) hydraulic oil.
- **Workbed:** Check if there is any object on the feeding bed that may cause interference.
- **Blade:** Check the blade teeth and make sure there is no worn out teeth along the blade.
- **Light:** Check the work lamp or laser light (optional) and make sure there is sufficient lighting.
- **Roller:** Check all the rollers on the front and rear workbed can roll smoothly.
- **Saw bow:** Check the saw bow to see if it can be elevated and lowered smoothly.

Step 2 – Place your workpiece onto the workbed manually or by using a lifting tool e.g. a crane.



Before loading, make sure the vises are opened to at least wider than the width of the workpiece.

Step 3 – Position your workpiece.

Step 4 – Clamp the workpiece.

Step 5 – Turn the *cutting pressure control* knob to adjust blade cutting pressure according to the material.

Step 6 – Adjust *blade descend speed control* knob to obtain a suitable blade descend speed for your material.

Step 7 – Start running the blade.



Before you start cutting, check again that there is no other object in the cutting area.

Step 8 – While the blade descends, adjust the blade speed if necessary. You can do so by turning the *blade speed control* knob, clockwise to speed up and counterclockwise to slow down. The blade speed is displayed in the HMI touch screen.

Step 9 – Select the proper cutting condition according to different material.

Step 10 – After the entire cutting job is completed, elevate the saw bow to the top and open the vises to remove the workpiece.

Step 11 – Clean the workbed by removing chips and cutting fluids.

Step 12 – Lower the saw bow to a proper position then turn off the power.

USING TOP CLAMP FOR BUNDLE CUTTING

Step 1 – Connect the top clamp hoses to the pressure joints on the vise hydraulic cylinders.



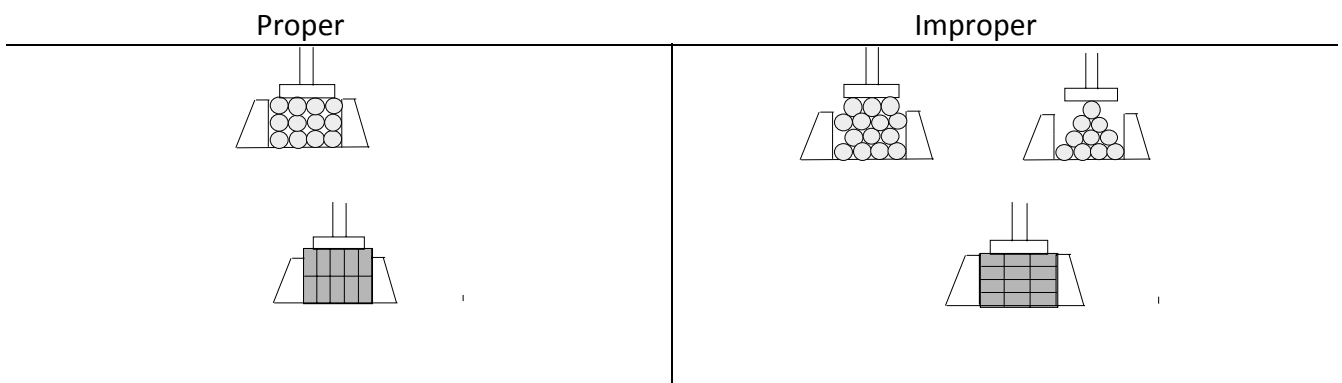
Adjustment
valve

Step 2 – Position the workpiece for bundle cutting.



Note the allowable clamping width and height. (Refer to *Section 2 – General Information, Specifications*)

Proper and improper stacking of workpieces



Step 3 – Open the adjustment valve to adjust the top clamp speed during clamping/unclamping.

Step 4 – For subsequent cutting procedures, refer to the instructions under manual operation and automatic operation.



TERMINATING A CUTTING OPERATION

- To terminate a cutting operation, press either the *saw bow up* button or the *emergency stop* button.
- The saw blade will stop running when the *saw bow up* button is pressed.
- Both the saw blade and hydraulic pump motors will stop running when the *emergency stop* button is pressed.
- The machine will stop automatically when an error occurs.

ELECTRICAL SYSTEM

ELECTRICAL CIRCUIT DIAGRAMS

The following are electrical circuit diagrams of the system without power roller tables:

5-2 Control panel layout

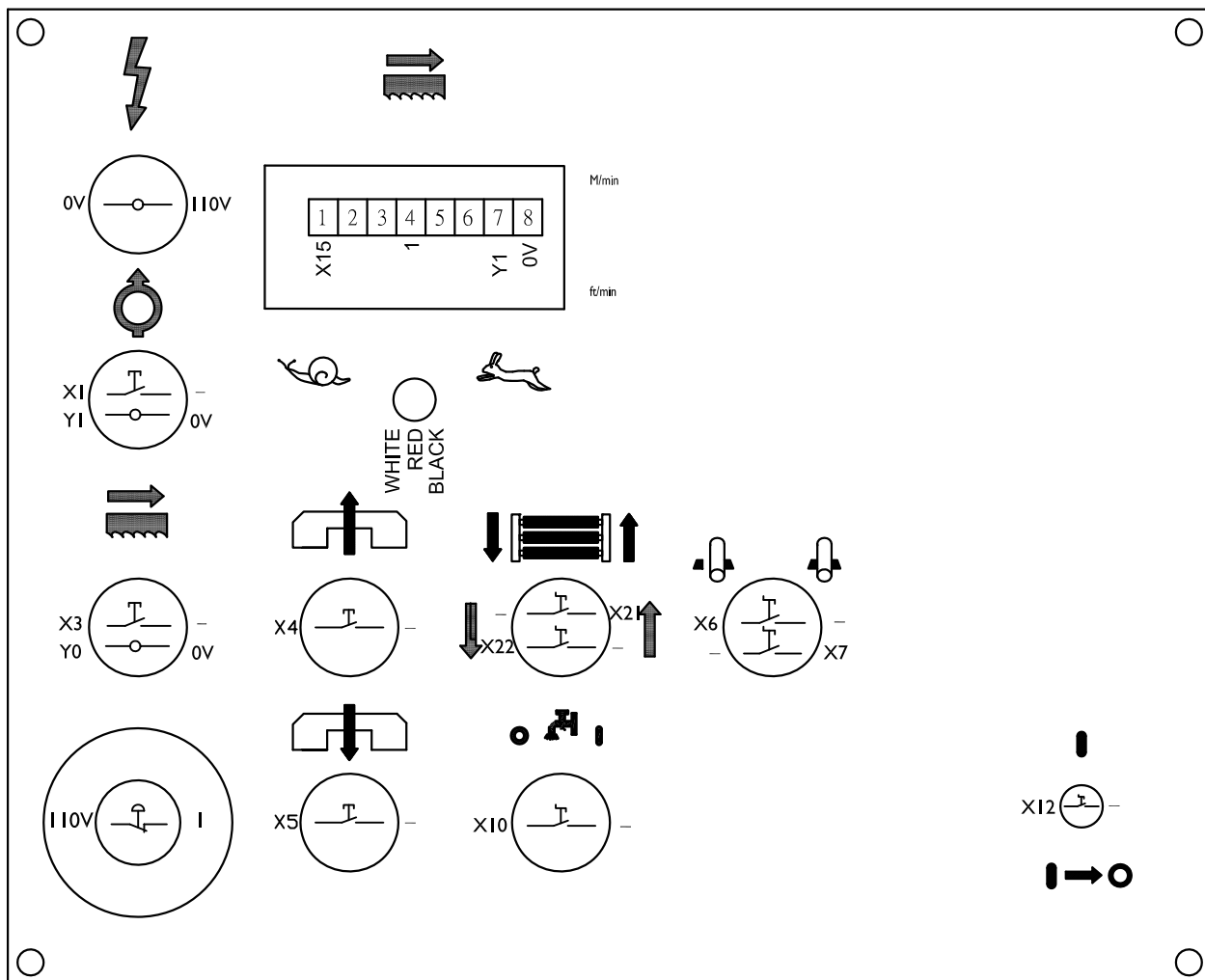
5-3 Circuit board layout

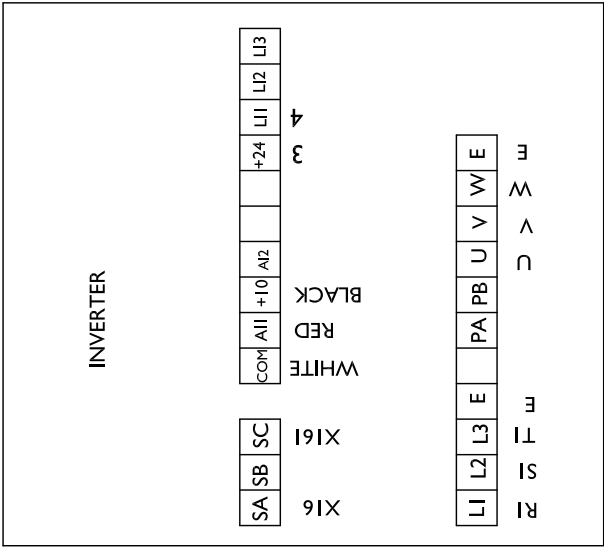
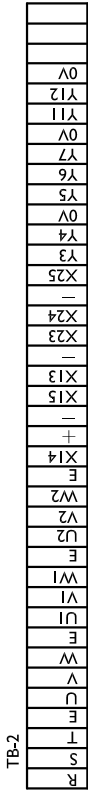
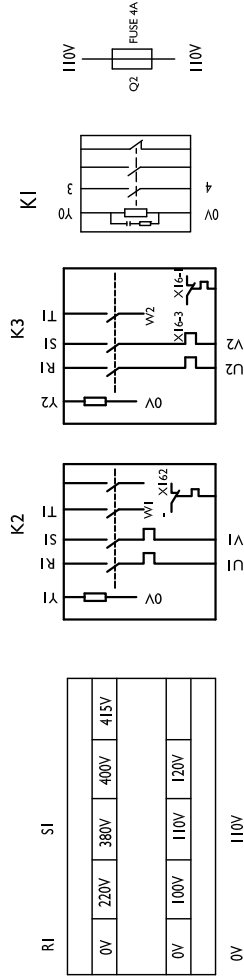
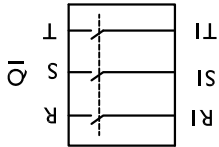
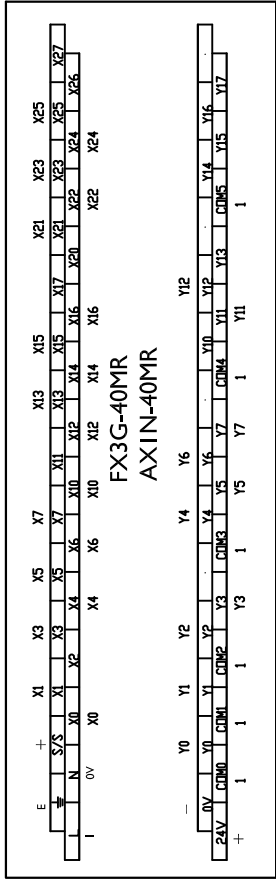
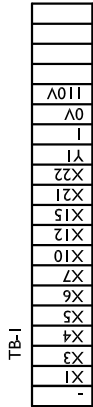
5-4 Power supply layout

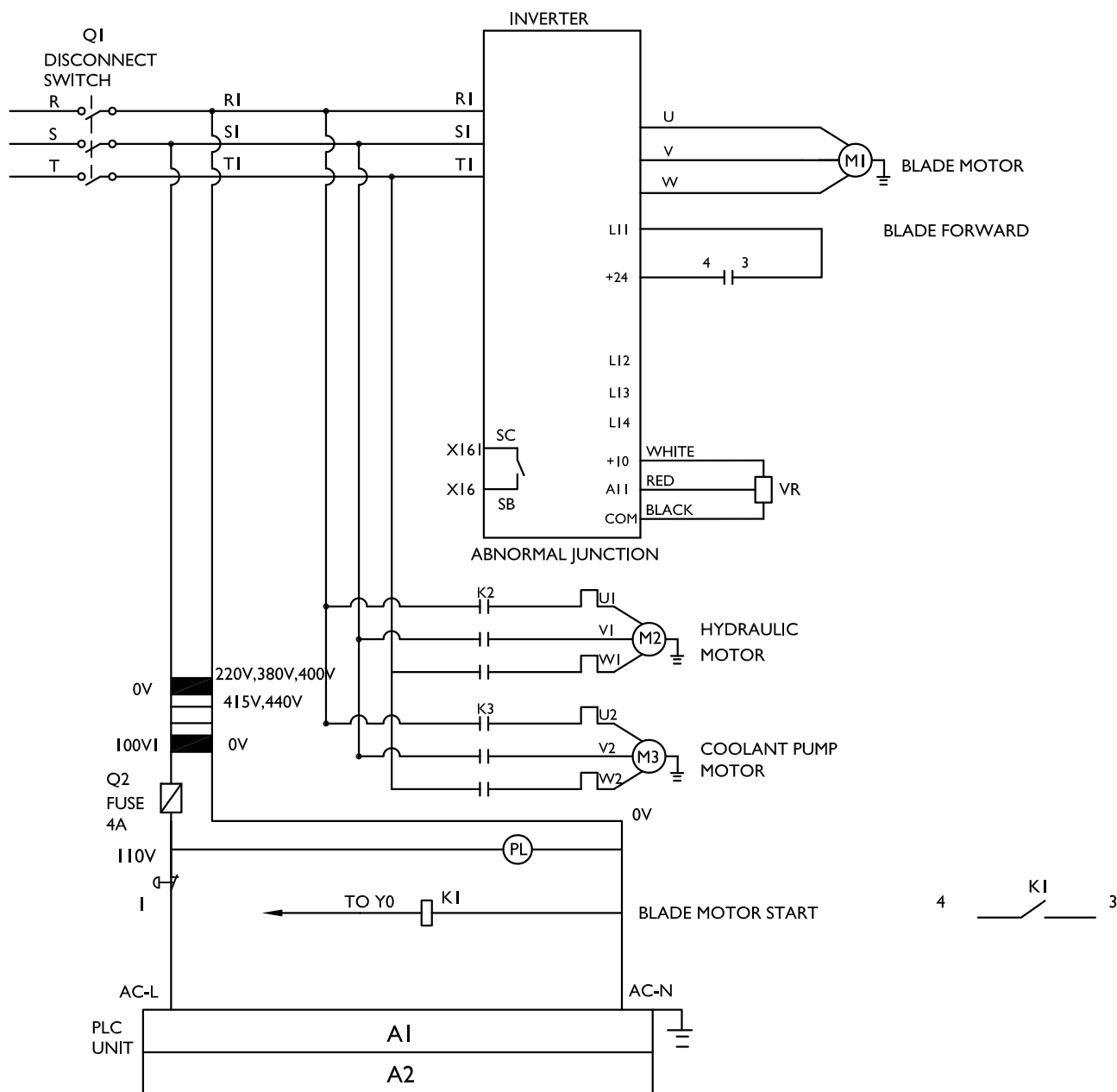
5-5 PLC I/O layout

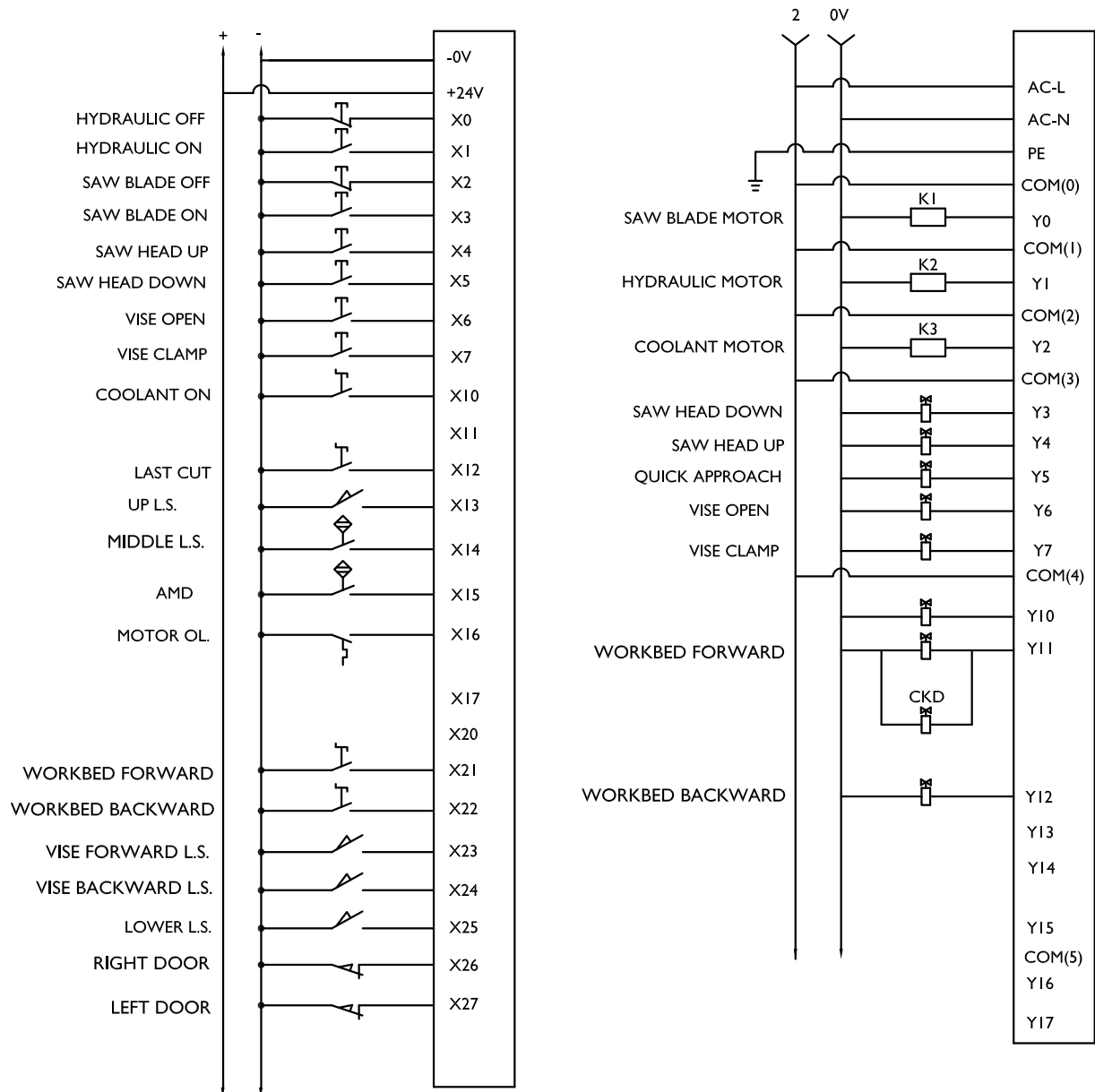
The following are electrical circuit diagrams of the system with 2 power roller tables:

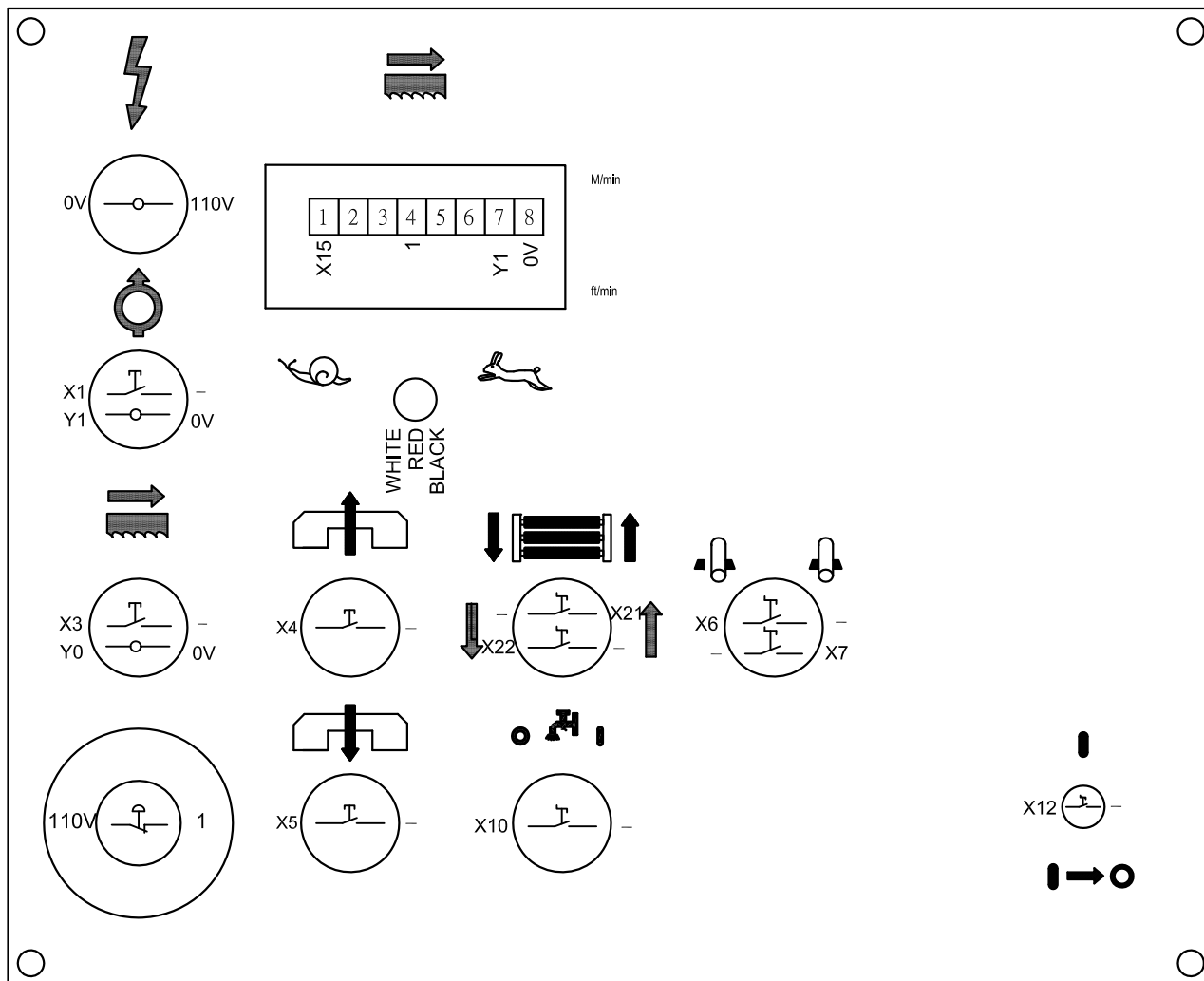
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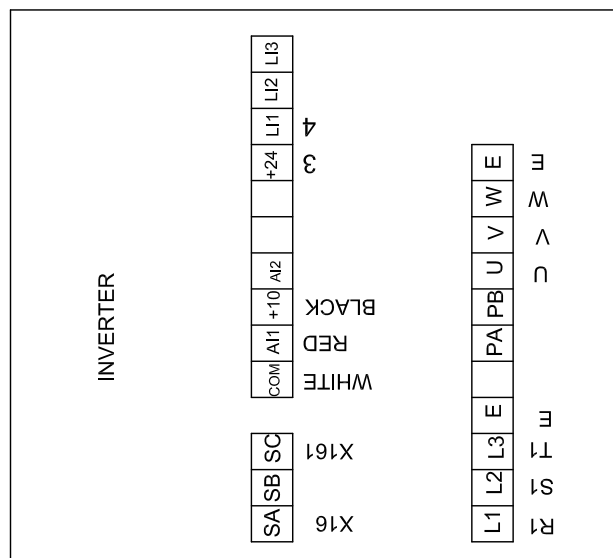
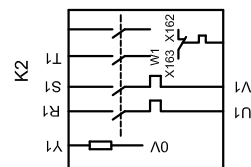
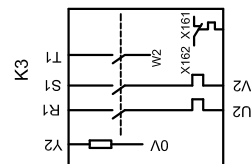
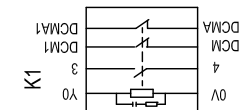
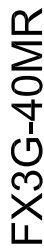


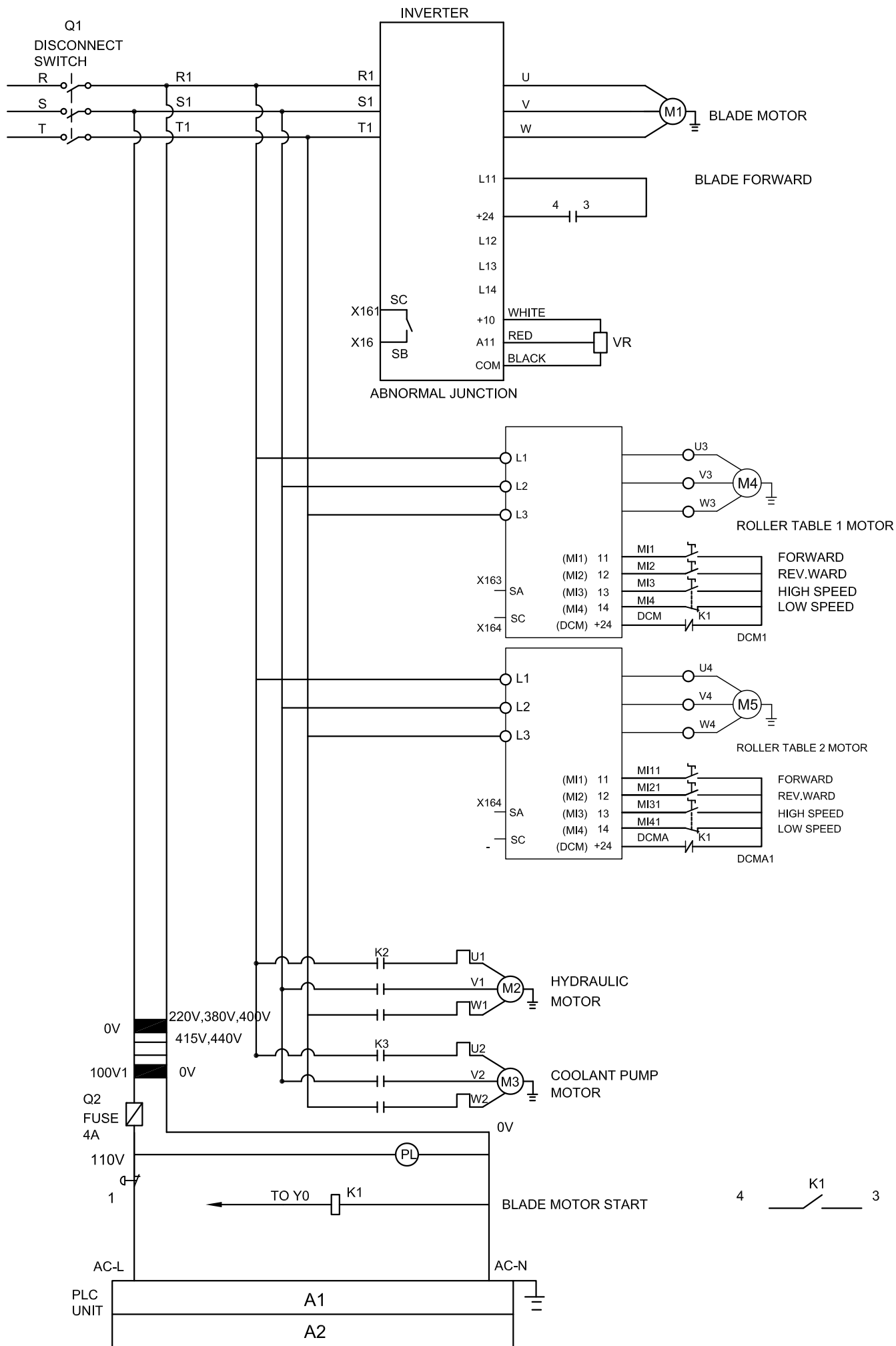


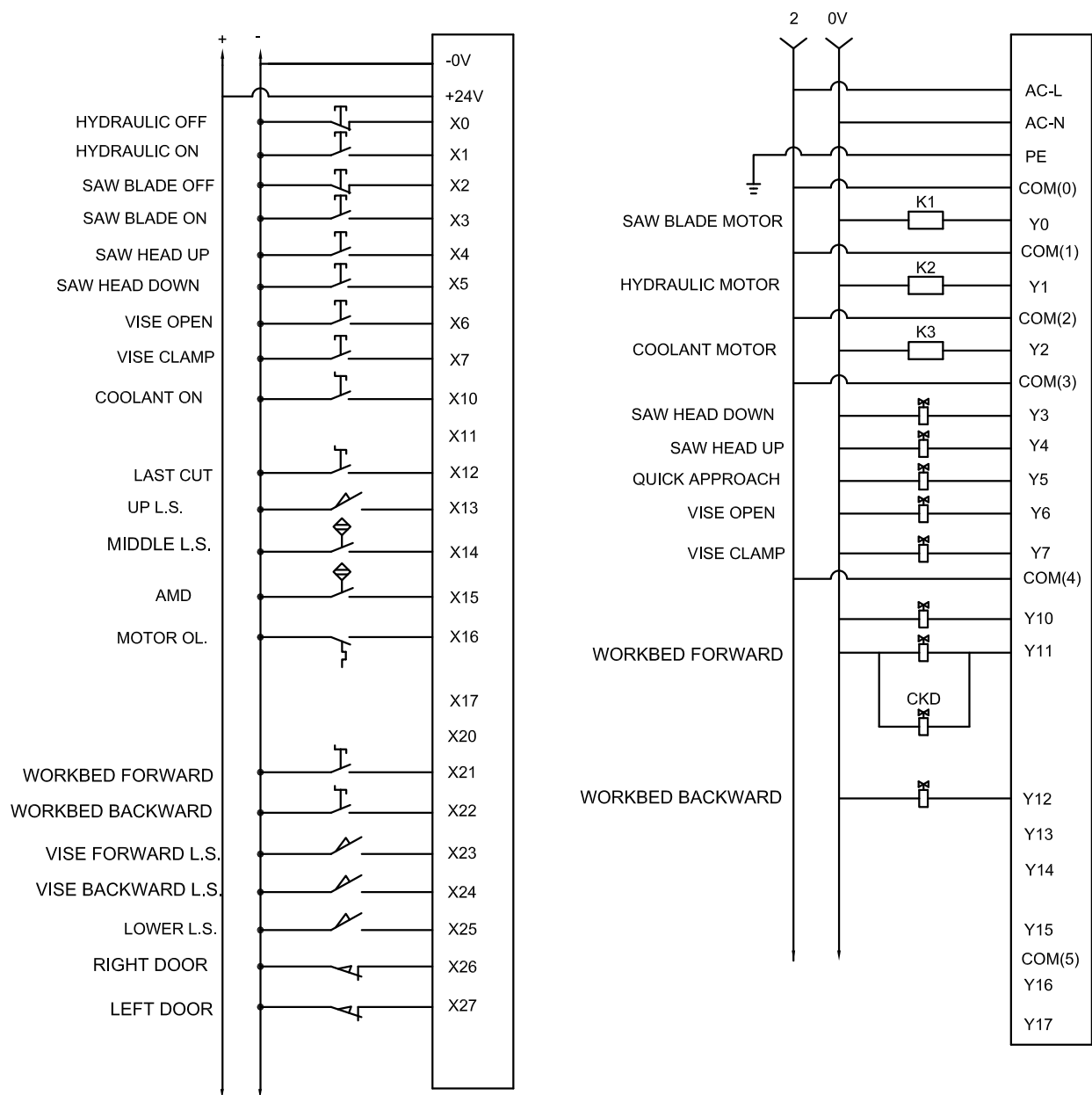




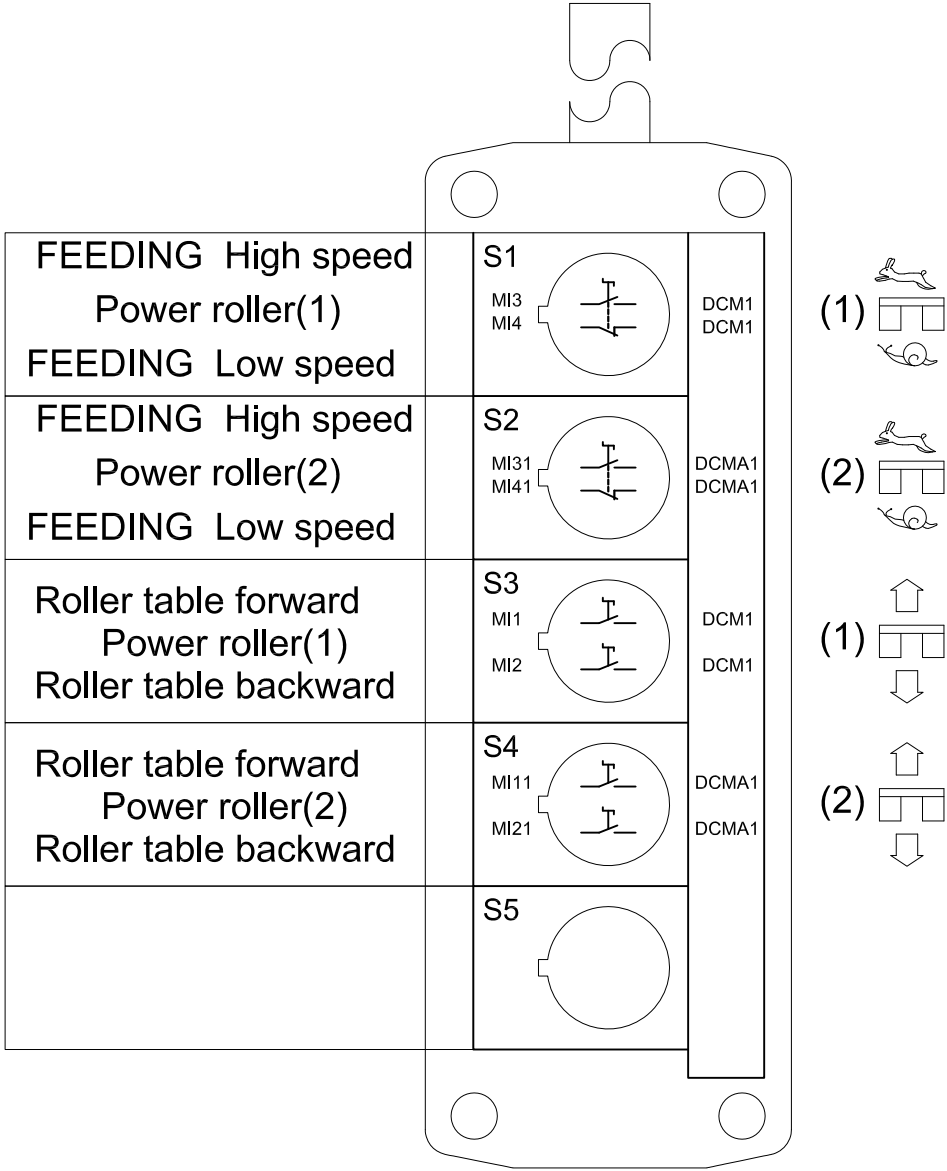








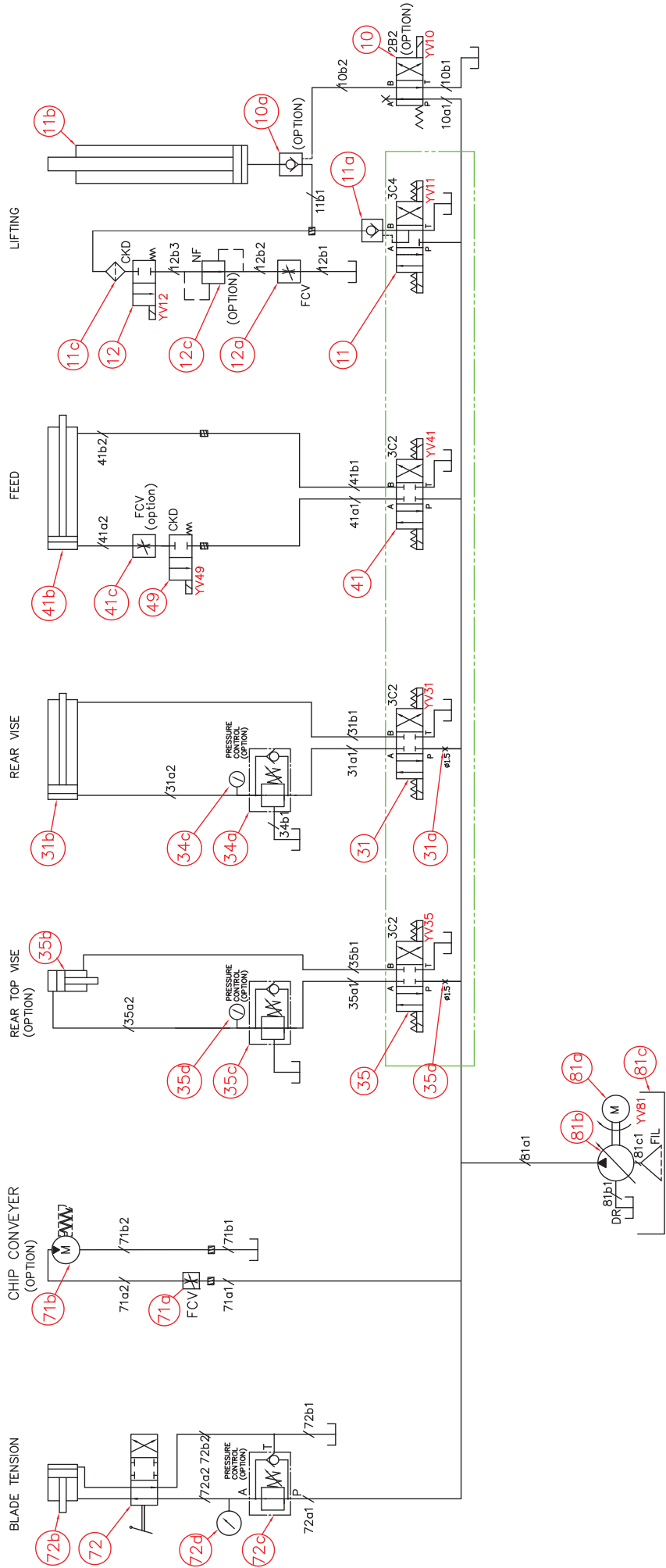
EP-90684B 按鈕操作盒 TE XAL-D5224(5孔)



HYDRAULIC SYSTEM

HYDRAULIC CIRCUIT DIAGRAM

SH-700DM HYDRAULIC CIRCUIT



BANDSAW CUTTING: A PRACTICAL GUIDE

INTRODUCTION

SAW BLADE SELECTION

SOME SAWING PRACTICES

CUTTING CONDITIONS SETTING

INTRODUCTION

Our bandsaw machines are designed to be installed with high quality using high speed saw blades for maximizing productivity. To be able to use this kind of high performance bandsaw blade, the machine has to be of rugged design, has high quality saw blade guides, has sufficient motor horse power for high saw band speeds, and has to be able to apply necessary tension to the saw bands. Your machine has all these features to provide a better service for you.

The saw blade is guided through the cutting area by roller guides to keep it straight as it comes off the driving wheels. The precision carbide inserted guides then hold the blade securely and accurately throughout the sawing process. The tension of the saw blade is adjusted through the tensioning device on the strong saw bow. The cutting feed and down feed pressure of the blade is regulated automatically by hydraulic regulation.

SAW BLADE SELECTION

The factors affecting cutting performance are:

- Type of material
- Material size and shape
- Guide spacing
- Blade selection
- Blade speed and feed
- Tooth form and spacing
- Blade tension
- Blade vibration
- Coolant



Fig. 7.1 Description of Band

- Depending on the hardness of the material the cutting rate will increase or decrease. For example, it takes more time to cut stainless steel than to cut cast iron.
- The surface conditions will also affect the cutting rate. If there are places on the surface on the material which are hard, a slower blade speed will be required or blade damage may result.
- It will be slower to cut tubing than to cut solids, because the blade must enter the material twice, and because coolant will not follow the blade as well.
- Tough or abrasive materials are much harder to cut than their machinability rating would indicate.
- Tooth spacing is determined by the hardness of the material and its thickness in cross section.
- Tooth set prevents the blade from binding in the cut. It may be either a "regular set" (also called a "raker set") or a "wavy set".
- The regular or raker set is most common and consists of a pattern of one tooth to the left, one tooth to the right, and one which is straight, or unset. This type of set is generally used where the material to be cut is uniform in size and for contour cutting.
- Wavy set has groups of teeth set alternately to right and left, forming a wave-like pattern. This reduces the stress on each individual tooth, making it suitable for cutting thin material or a variety of materials where blade changing is impractical. Wavy set is often used where tooth breakage is a problem. This is shown in Fig. 7.2 as follows:

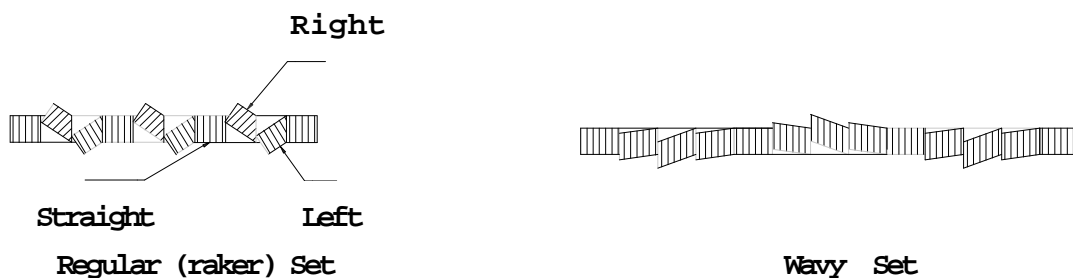


Fig. 7.2 The Saw Set

Material size and shape

The optimum material width for a band saw blade is 1 inch wide by 0.35 inch thick and is about 5 inches long. Below this width tooth loading may become excessive and the cutting rate must be reduced. Above this width blade control begins to be lost, as discussed below. Since the blade "sees" only that material it is cutting, the shape of the stock being cut will also affect cutting speeds, particularly if the piece is excessively wide or if it varies in the dimensions being cut.

Guide spacing

The rigidity of the blade is a function of guide spacing, with rigidity being reduced to the third power as the distance between the guides increases. For example, with guides spaced 2 inches apart, blade deflection might be approximately 0.2. Under the same conditions, but with the guides spaced at 4 inches apart, blade deflection would be approximately 0.8.

This is a much simplified version of the formula, because it does not consider band tension or guide design. It is important to recognize, for example that rollers are considered as a pivotal contact. Whereas carbide faces could be considered as anchored supports. A more complete deviation, including band tension and guide design, is included in Roark's handbook, "Formula for stress and strain".

Blade selection

There are different types of blades available. Please contact a bandsaw blade manufacturer for advice.

Blade speed and feed

Blade speed is generally limited by vibration and the ability to keep the blade sufficiently cool to avoid dulling the teeth. A blade which is running fast and taking a very light cut will dull quickly because the tips of the teeth will overheat from the rubbing action. If, however, we force the blade teeth deeper into the material, the blade will be less sensitive to heat, because the teeth are cutting more and rubbing less.

Tooth form and spacing

The selection of a tooth form generally is determined by the material to be cut. There are three general factors to consider: tooth form, style or shape of the teeth; tooth spacing, the number of teeth to the inch; and tooth set, which provides clearance for the body of the blade. Three styles of tooth are shown in Fig. 7.3 below:

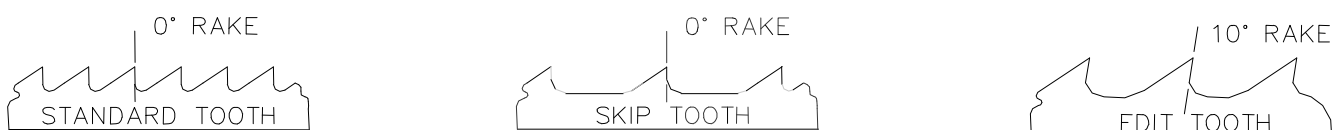


Fig. 7.3 Three Styles of Tooth

SOME SAWING PRACTICES

Saw Pitch Selection

Sawing “Rules of Thumb”:

1. The thinner the stock, the finer the saw pitch.
2. The thicker the stock, the coarser the saw pitch.
3. The more difficult the stock, the finer the saw pitch.
4. The softer the material , the coarser the saw pitch.

Always have at least three teeth in contact with the material being cut.

Material Size and Saw Pitch

Anytime during the cutting operation, at least three teeth must be in contact with the material being cut. Figure 7.4 shows some sawing practices:

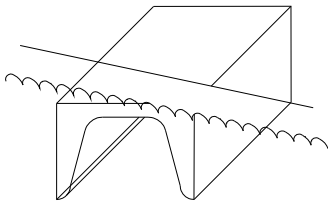
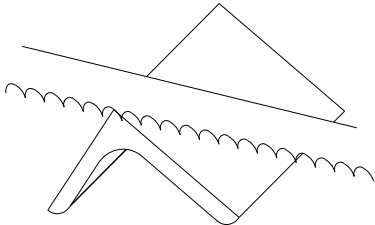
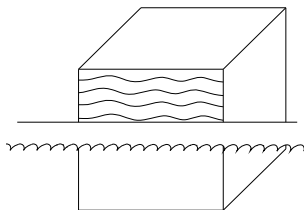
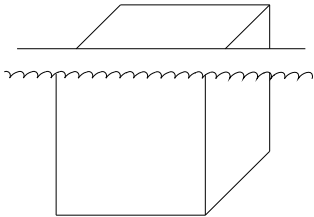
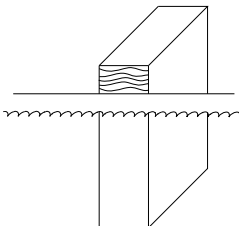
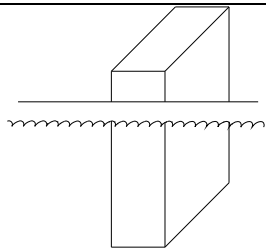

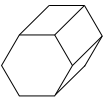


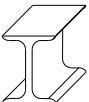
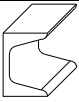
SAWING PRACTICES	
CORRECT	INCORRECT
	
several teeth contact work	teeth strike sharp edge
	
Coarse teeth clear chips freely	Teeth too fine for large solids
	
Three or more teeth on cutting wall	Coarse teeth rip on thin wall

Fig. 7.4 Some sawing practices

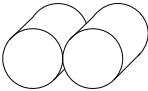
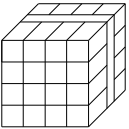
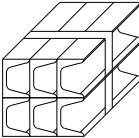
Solid Stock:

STYLE	up to 25 mm (1")	25-100mm (1-4")	100-250mm (4-10")
	8-10 TPI (Teeth per inch)	6-8 TPI	3-4 TPI
			
			

Structurals:

STYLE	up to 10 mm (3/8")	10-20mm (3/8-3/4")	above 20mm (3/4")
	10-8 TPI	8-10 TPI	6-8 TPI
			
			

Solid Bundle:

STYLE	up to 20 mm (3/4")	20-80mm (3/4-3 1/4")	above 80mm (3 1/4")
	8 - 10 TPI	2 - 8 TPI	4 - 6 TPI
			
			

MAINTENANCE & SERVICE

INTRODUCTION

BASIC MAINTENANCE

MAINTENANCE SCHEDULE

BEFORE BEGINNING A DAY'S WORK

AFTER ENDING A DAY'S WORK

EVERY MONTH

EVERY THREE MONTHS

EVERY SIX MONTHS

STORAGE CONDITIONS

TERMINATING THE USE OF MACHINE

OIL RECOMMENDATION FOR MAINTENANCE

INTRODUCTION

For the best performance and longer life of the band saw machine, a maintenance schedule is necessary. Some of the daily maintenance usually takes just a little time but will give remarkable results for the efficient and proper operation of cutting.

BASIC MAINTENANCE

It is always easy and takes just a little effort to do the basic maintenance. But it always turns out to be a very essential process to assure the long life and efficient operation of the machine. Most of the basic maintenance requires the operator to perform it regularly.

MAINTENANCE SCHEDULE

We suggest you do the maintenance on schedule. The recommended schedule includes three periods,

1. Daily maintenance. 2. Monthly maintenance. 3. Six months maintenance.

Before beginning a day's work

1. Please check the hydraulic oil level. If oil level volume is below 1/2, please add oil as necessary. (Filling up to 2/3 level is better for system operation.)
2. Please check the cutting fluid level, adding fluid as necessary. If the fluid appears contaminated or deteriorated, drain and replace it.
3. Please check the saw blade to ensure that it is properly positioned on both the drive and idle wheels.
4. Please make sure that the saw blade is properly clamped by the left and right inserts.
5. Please check the wire brush for proper contact with the saw blade. Replace the wire brush if it is worn out.

After ending a day's work

Please remove saw chips and clean the machine with discharging the cutting fluid when work has been completed.



Do not discharge cutting fluid while the saw blade is operating because it will cause severe injury on operator's hand.



Be sure the saw blade is fully stop, it will be performed after working inspection.

Every month

Please apply grease to the following points:

1. Idle wheel
2. Drive wheel
3. Blade tension device

Recommended Grease:

- Shell Alvania EP Grease 2
- Mobil Mobilplex 48

Every three months

Replace the transmission oil after operating for three months (or 600 hours).

Recommended Grease:

- Shell Alvania EP Grease 2
- Mobil Mobilplex 48 (600W Cylinder oil)

Every six months

1. Clean the filter of the cutting fluid.
2. Replace the transmission oil for every half of a year (or 1200 hours).
Check the sight gauge to ascertain the transmission level.

Recommended TRANSMISSION OIL

- Omala oil HD220
- Mobil comp 632 600W Cylinder oil

3. Replace the hydraulic oil.

Recommended HYDRAULIC OIL

- Shell Tellus 27
- Mobil DTE OIL light Hydraulic 28

STORAGE CONDITIONS

Generally, this machine will be stored on the following conditions in future:

- (1) Turn off the power.
- (2) Ambient temperature: 5°C ~ 40°C
- (3) Relative humidity: 30%~95% (without condensation)
- (4) Atmosphere: use a plastic canvas to cover machine to avoid excessive dust, acid fume, corrosive gases and salt.
- (5) Avoid exposing to direct sunlight or heat rays which can change the environmental temperature.
- (6) Avoid exposing to abnormal vibration.
- (7) Must be connected to earth.

TERMINATING THE USE OF THE MACHINE

Waste disposal:

When your machine can not work anymore, you should leak out the oil from machine body. Please storage the oil in safe place with bottom. Ask a environment specialist to handle the oil. It can avoid soil pollution. The oil list in machine:

- Hydraulic oil
- Cutting fluid
- Drive wheel gear oil

OIL RECOMMENDATION FOR MAINTENANCE

Item		Method	Revolution	Suggest oil
Dovetail guide		Keep grease covered. Antirust.	Daily	Shell R2
Roller bearing		Sweep clean and oil with lubricant.	Daily	SEA #10
Bed roller / surface		Sweep clean and oil with lubricant.	Daily	SEA #10
Nipples of bearing		Use grease gun, but not excess.	Monthly	Shell R2
Blade tension device		Use grease gun, but not excess.	Monthly	Shell R2
Reducer		Inspect once a week. Change oil of 600 hours of using. Change it every year.	Regularly	Omala oil HD220 Mobil Gear 630
Hydraulic system		Inspect half a year. Change oil every year.	Regularly	Shell Tellus 32 Mobil DTE oil Light Hydraulic 24
Bearing	Inserts	Oil with lubricant, but not excess.	Daily	Shell R2
	Band wheel	Oil with lubricant, but not excess.	Weekly	
	Cylinder	Oil with lubricant, but not excess.	6 Monthly	
	Wire brush	Oil with lubricant, but not excess.	6 Monthly	



1. Turn off the stop circuit breaker switch before servicing the machine.
2. Then post a sign to inform people that the machine is under maintenance.
3. Drain all of the cutting fluid and oil off and carefully treat them to avoid pollution.

TROUBLESHOOTING

INTRODUCTION

PRECAUTIONS

GENERAL TROUBLES & SOLUTIONS

MINOR TROUBLES & SOLUTIONS

MOTOR TROUBLES & SOLUTIONS

BLADE TROUBLES & SOLUTIONS

SAWING PROBLEMS & SOLUTIONS

RE-ADJUSTING THE ROLLER TABLE

INTRODUCTION

All the machines manufactured by COSEN pass a 72 hours continuously running test before shipping out and COSEN is responsible for the after sales service problems during the warranty period if the machines are used normally. However, there still exist the some unpredictable problems which may disable the machine from operating.

Generally speaking, the system troubles in this machine model can be classified into three types, namely GENERAL TROUBLES, MOTOR TROUBLES and BLADE TROUBLES. Although you may have other troubles which can not be recognized in advance, such as malfunctions due to the limited life-span of mechanical, electric or hydraulic parts of the machine.

COSEN has accumulated enough experiences and technical data to handle all of the regular system troubles. Meanwhile, the engineering department of COSEN had been continuously improving the machines to prevent all possible troubles.

It is hoped that you will give COSEN your maintenance experience and ideas so that both sides can achieve the best performance.

PRECAUTIONS

When an abnormality occurs in the machine during operation, you can do it yourself safely. If you have to stop machine motion immediately for parts exchanging, you should do so according to the following procedures:

- Press HYDRAULIC MOTOR OFF button or EMERGENCY STOP button.
- Open the electrical enclosure door.
- Turn off breaker.



BEFORE ANY ADJUSTMENT OR MAINTENANCE OF THE MACHINE, PLEASE MAKE SURE TO TURN OFF THE MACHINE AND DISCONNECT THE POWER SUPPLY.

GENERAL TROUBLES AND SOLUTIONS



DISCONNECT POWER CORD TO MOTOR BEFORE ATTEMPTING ANY REPAIR OR INSPECTION.

TROUBLE	PROBABLE CAUSE	SUGGESTED REMEDY
Motor stalls	Excessive belt tension	Adjust belt tension so that belt does not slip on drive pulley while cutting (1/2" Min. deflection of belt under moderate pressure.)
	Excessive head pressure	Reduce head pressure. Refer to Operating Instructions "Adjusting Feed".
	Excessive blade speed	Refer to Operating Instructions "Speed Selection".
	Improper blade selection	Refer to Operating Instructions "Blade Selection".
Cannot make square cut	Dull blade	Replace blade.
	Guide rollers not adjusted properly	Refer to Adjustments.
	Rear vise jaw not adjusted properly	Set fixed vise jaw 90° to blade.
	Excessive head pressure	Reduce head pressure. Refer to operating instructions "Adjusting Feed."
Increased cutting time	Dull blade	Replace blade
	Insufficient head pressure	Increase head pressure. Refer to Operating Instructions "Adjusting Feed."
	Reduce blade speed	Refer to Operating Instructions "Speed Selection."
Will not cut	Motor running in wrong direction	Reverse rotation of motor. (Motor rotation C.C.W. pulley end.)
	Blade teeth pointing in wrong direction	Remove blade, turn blade inside out. Re-install blade. (Teeth must point in direction of travel.)
	Hardened material	Use special alloy blades. (Consult your industrial distributor for recommendation on type of blade required.)

MINOR TROUBLES & SOLUTIONS

TROUBLE	PROBABLE CAUSE	SUGGESTED REMEDY
Saw blade motor does not run even though blade drive button is pressed.	Overload relay activated	Reset
	Saw blade is not at forward limit position.	Press SAW FRAME FORWARD button

MOTOR TROUBLES & SOLUTIONS

TROUBLE	PROBABLE CAUSE	SUGGESTED REMEDY
Motor will not start	Magnetic switch open, or protector open.	Reset protector by pushing red button (inside electric box.)
	Low voltage	Check power line for proper voltage.
	Open circuit in motor or loose connections.	Inspect all lead terminations on motor for loose or open connections.
Motor will not start, fuse or circuit breakers "blow".	Short circuit in line, cord or plug.	Inspect line, cord and plug for damaged insulation and shorted wire.
	Short circuit in motor or loose connections	Inspect all lead terminations on motor for loose or shorted terminals or worn insulation on wires.
	Incorrect fuses or circuit breakers in power line.	Install correct fuses or circuit breakers.
Motor fail to develop full power. (Power output of motor decreases rapidly with decrease in voltage at motor terminals.)	Power line overloaded with lights, appliances and other motors.	Reduce the load on the power line.
	Undersize wires or circuit too long.	Increase wire sizes, or reduce length of wiring
	General overloading of power company's facilities.	Request a voltage check from the power company
Motor overheat	Motor overloaded.	Reduce load on motor
	Air circulation through the motor restricted.	Clean out motor to provide normal air circulation through motor.
Motor stalls (Resulting in blown fuses or tripped circuit breakers)	Short circuit in motor or loose connections.	Inspect terminals in motor for loose or shorted terminals or worn insulation on lead wires.
	Low voltage	Correct the low line voltage conditions.
	Incorrect fuses or circuit breakers in power line.	Install correct fuses circuit breakers.
	Motor overloaded	Reduce motor load.
Frequent opening of fuses or circuit breakers.	Motor overloaded	Reduce motor load
	Incorrect fuses or circuit breakers.	Install correct fuses or circuit breakers.

BLADE TROUBLES AND SOLUTIONS



DISCONNECT POWER CORD TO MOTOR BEFORE ATTEMPTING ANY REPAIR OR INSPECTION.

TROUBLE	PROBABLE CAUSE	SUGGESTED REMEDY
Teeth stripping	Too few teeth per inch	Use finer tooth blade
	Loading of gullets	Use coarse tooth blade or cutting lubricant.
	Excessive feed	Decrease feed
	Work not secured in vise	Clamp material securely
Blade breakage	Teeth too coarse	Use a finer tooth blade
	Misalignment of guides	Adjust saw guides
	Dry cutting	Use cutting lubricant
	Excessive speed	Lower speed. See Operating Instructions "Speed selection."
	Excessive speed	Reduce feed pressure. Refer to Operating Instructions "Adjusting Feed."
	Excessive tension	Tension blade to prevent slippage on drive wheel while cutting.
Blade line Run-out or Run-in	Wheels out of line	Adjust wheels
	Guides out of line	For a straight and true cut, realign guides, check bearings for wear.
	Excessive pressure	Conservative pressure assures long blade life and clean straight cuts.
	Support of blade insufficient	Move saw guides as close to work as possible.
	Material not properly secured in vise	Clamp material in vise, level and securely.
Blade twisting	Blade tension improper	Loosen or tighten tension on blade.
	Blade not in line with guide bearings	Check bearings for wear and alignment.
	Excessive blade pressure	Decrease pressure and blade tension
Premature tooth wear	Blade binding in cut	Decrease feed pressure
	Dry cutting	Use lubricant on all materials, except cast iron
	Blade too coarse	Use finer tooth blade
	Not enough feed	Increase feed so that blade does not ride in cut
	Excessive speed	Decrease speed

SAWING PROBLEMS AND SOLUTIONS

Other than this manual, the manufacturer also provides some related technical documents listed as follows:

Sawing Problems and Solutions

<div> <div>Vibration during cutting</div> <div>Failure to cut</div> <div>Short life of saw blade</div> <div>Curved cutting</div> <div>Broken blade</div> </div>						
✓	✓	✓	✓	✓	Use of blade with incorrect pitch	Use blade with correct pitch suited to workpiece width
✓	✓	✓	✓	✓	Failure to break-in saw blade	Perform break-in operation
✓	✓	✓			Excessive saw blade speed	Reduce speed
			✓	✓	Insufficient saw blade speed	Increase speed
✓		✓	✓	✓	Excessive saw head descending speed	Reduce speed
✓		✓	✓		Insufficient saw head descending speed	Increase speed
		✓	✓		Insufficient saw blade tension	Increase tension
✓		✓	✓	✓	Wire brush improperly positioned	Relocate
✓		✓	✓		Blade improperly clamped by insert	Check and correct
✓	✓	✓	✓	✓	Improperly clamped workpiece	Check and correct
	✓	✓	✓		Excessively hard material surface	Soften material surface
		✓	✓	✓	Excessive cutting rate	Reduce cutting rate
	✓	✓			Non-annealed workpiece	Replace with suitable workpiece
✓		✓	✓	✓	Insufficient or lean cutting fluid	Add fluid or replace
✓		✓	✓	✓	Vibration near machine	Relocate machine
		✓	✓		Non-water soluble cutting fluid used	Replace
✓		✓	✓		Air in cylinder	Bleed air
✓		✓		✓	Broken back-up roller	Replace
✓	✓	✓	✓	✓	Use of non-specified saw blade	Replace
✓	✓	✓	✓	✓	Fluctuation of line voltage	Stabilize
✓		✓	✓		Adjustable blade guide too far from workpiece	Bring blade guide close to workpiece
✓		✓	✓	✓	Loose blade guide	Tighten
		✓		✓	Blue or purple saw chips	Reduce cutting rate
✓		✓		✓	Accumulation of chips at inserts	Clean
	✓				Reverse positioning of blade on machine	Reinstall
✓		✓	✓		Workpieces are not bundled properly	Re-bundle
✓		✓		✓	Back edge of blade touching wheel flange	Adjust wheel to obtain clearance
✓	✓	✓			Workpiece of insufficient diameter	Use other machine, suited for diameter of workpiece
	✓	✓	✓		Saw blade teeth worn	Replace

RE-ADJUSTING THE ROLLER TABLE

If the feeding table suffers the huge stroke and the alignment is effected, follow the below procedure to adjust.

TOOL, measuring

Measurement, Horizontal balance

Procedure

1. Screw or loosen the adjusting bolt to attain the horizontal balance (leveling) between the roller table and the machine frame.
2. Ensure that the machine frame is not struck by the loaded material on the feeding table.
3. Check the leveling by the measuring tool.
4. After finished the adjusting, fix the roller table.



If the feeding table and the machine frame are not positioned under the horizontal balance, the loaded material may be going up gradually and affect the cutting effect.

PARTS

SPARE PARTS RECOMMENDATIONS

PART LIST

SPARE PARTS RECOMMENDATIONS

The following table lists the common spare parts we suggest you purchase in advance:

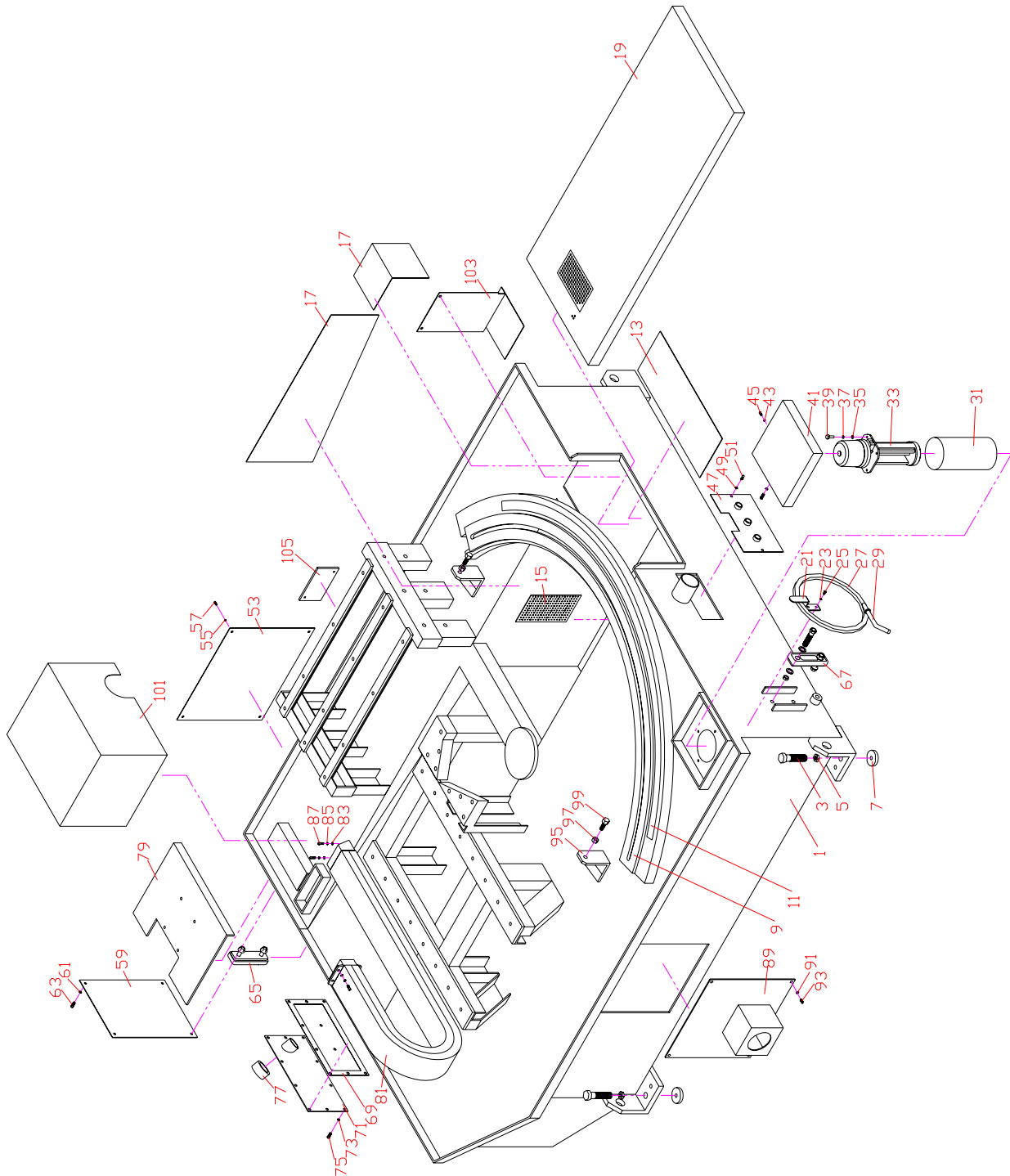
Part Name	Part Name
Saw blade	Coolant tank filter
Wire brush	Steel plates
Carbide inserts	Rollers
Bearings	Belt
Hydraulic tank leak-proof asbestos	Duster seal
Rubber washer	Oil seal
O-ring	Snap ring
Drive wheel	Idle wheel

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PART A MACHINE FOUNDATION ASSEMBLY



PART A

MACHINE FOUNDATION ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-1001DM	Base seat	底座		1	PCS
3	AHC-0153	adjusting bolt	底座調整螺桿	M20xP2.5x80L	5	PCS
5	POA-20-25	nut	螺母	M20xP2.5	5	PCS
7	AHR-1055	base support	底座墊塊	Ø80xD15	5	PCS
9	SEE-1016DM	rotate the track	旋轉軌道		1	PCS
11	SEE-1037DM	plate	角度銘牌		1	PCS
13	C650D-1041	cover	水槽集屑板		1	PCS
15	AHA-0139	filter	水箱通管濾網(小)		1	PCS
17	AEE-1009	cover	除屑機集水板		1	PCS
19	SEE-1049DM	cover	底座屑槽		1	PCS
21	AHA-1309	bracket	軟管架		1	PCS
23	PPA-6	washer	平面華司	§ 6	2	PCS
25	PDA-6-10	screw	丸頭內六角螺絲(公)	M6xP1.0xL10	2	PCS
27	PP-57079	water pipe	出水管	SP103 3/8"x24"	1	PCS
29	PP-58003	nozzle	水槍	N965	1	PCS
31	AHA-0131	filter	浸水泵浦濾網		1	PCS
33	PP-32081A	pump	浸水幫浦	1/8HP 3φ 230/460V 210L	1	PCS
35	PPA-6	washer	平面華司	§ 6	4	PCS
37	PQA-6	spring washer	彈簧華司	§ 6	4	PCS
39	PBA-6-15	bolt	有頭內六角螺絲(公)	M6XP1.0x15L	4	PCS
41	SEE-1018A	cover	水幫護蓋		1	PCS
43	PPA-6	washer	平面華司	§ 6	2	PCS
45	PDA-6-10	screw	丸頭內六角螺絲(公)	M6xP1.0xL10	2	PCS
47	AEE-1022	cover	底座右蓋		1	PCS
49	PPA-6	washer	平面華司	§ 6	2	PCS
51	PDA-6-10	screw	丸頭內六角螺絲(公)	M6xP1.0xL10	2	PCS
53	SEE-1009	cover	底座後蓋		1	PCS
55	PPA-6	washer	平面華司	§ 6	4	PCS
57	PDA-6-10	screw	丸頭內六角螺絲(公)	M6xP1.0xL10	4	PCS
59	SEE-1009	cover	底座後蓋		1	PCS
61	PPA-6	washer	平面華司	§ 6	4	PCS
63	PDA-6-10	screw	丸頭內六角螺絲(公)	M6xP1.0xL10	4	PCS

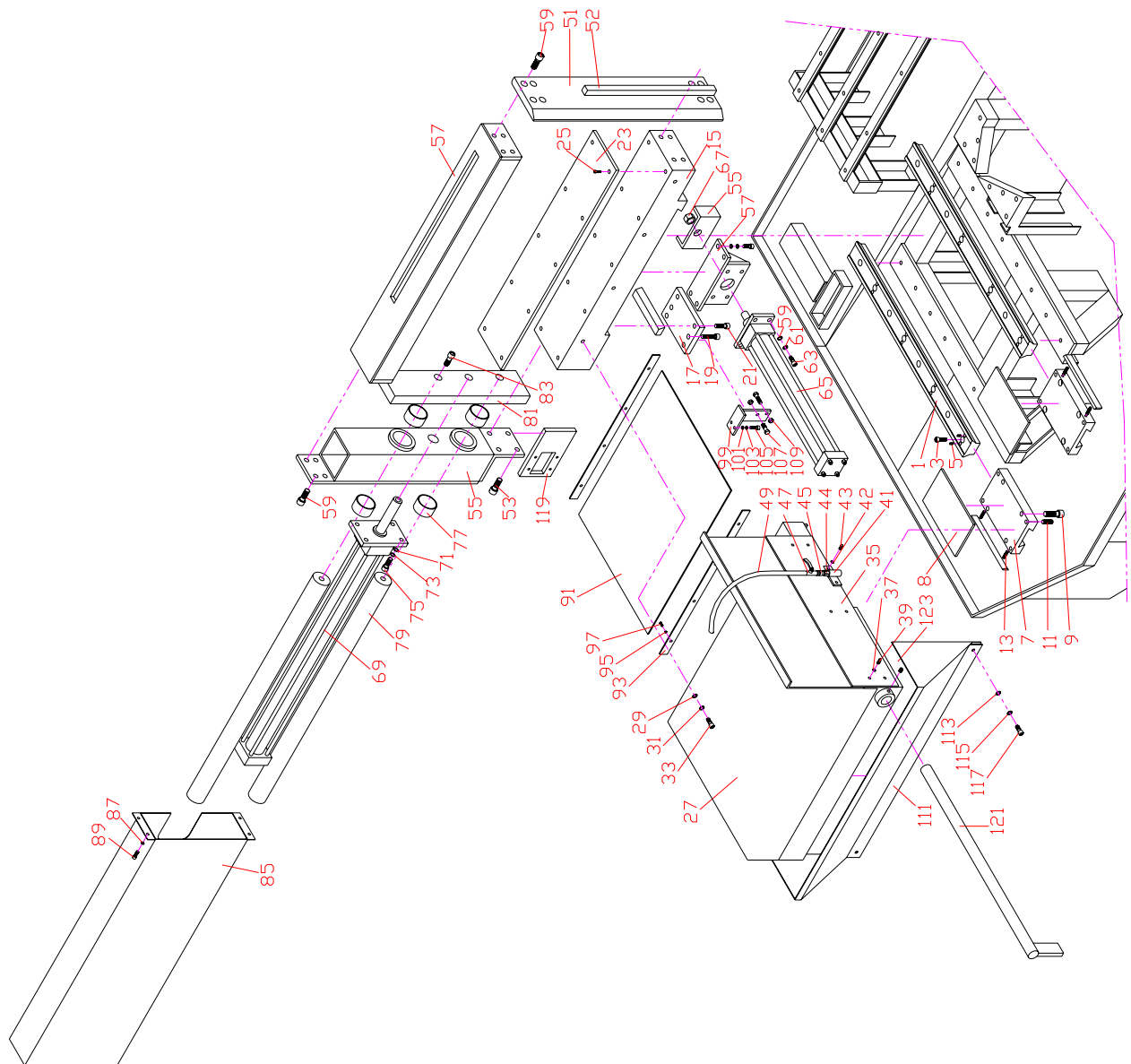
PART A

MACHINE FOUNDATION ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
65	PP-21030	fluid level	油面計(含固定螺絲螺帽)	LS-3"	1	PCS
67	PP-21030A	fluid level	水面計(含固定螺絲螺帽)	LS-3"	1	PCS
69	AHA-0108	oil tank washer	油箱蓋防漏石綿		1	PCS
71	AHA-0102	oil tank cover	油箱蓋		1	PCS
73	PPA-6	washer	平面華司	§ 6	10	PCS
75	PFA-6-10	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x10L	10	PCS
77	PP-90857	cap	油箱蓋螺帽		1	PCS
79	SEE-1036	cover	油幫底板		1	PCS
81	PP-57085B	metal protect tube	金屬護管	II *KR100 1400L*NO.5	1	PCS
83	PPA-6	washer	平面華司	§ 6	6	PCS
85	PQA-6	spring washer	彈簧華司	§ 6	6	PCS
87	PBA-6-15	bolt	有頭內六角螺絲(公)	M6XP1.0x15L	6	PCS
89	C600D-1039A	cover	線路接管座		1	PCS
91	PPA-6	washer	平面華司	§ 6	4	PCS
93	PFA-6-10	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x10L	4	PCS
95	AEE-1054	bracket	角度定位板		2	PCS
97	POA-12-175	nut	螺母	M12XP1.75	2	PCS
99	PLA-12-40	bolt	外六角頭螺絲	M14 XP2.0x40L	2	PCS
101	SEE-1006	cover	電磁閥護蓋		1	PCS
103	SEE-1060	cover	除屑機集水板(二)		1	PCS
105	SEE-1081	bracket	減壓閥固定板		1	PCS

PART B

BED ASSEMBLY



PART B

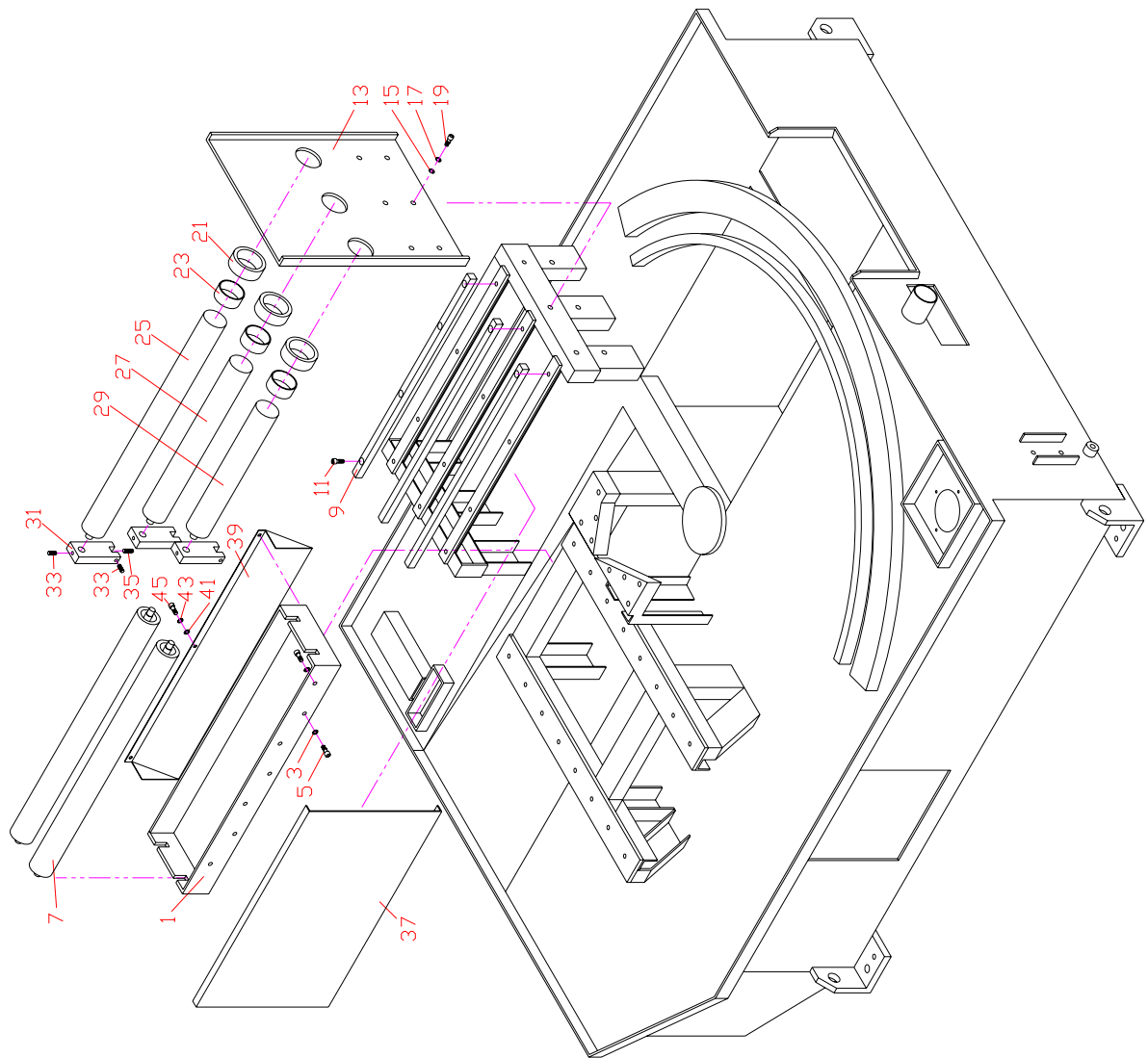
BED ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-2002DM	slide the bed	床面滑板		2	PCS
3	PBA-10-35	bolt	有頭內六角螺絲	M10x35L	16	PCS
5	PAA-8-18	set screw	止付螺絲(公)	M6xP1.0x18	16	PCS
7	SEE-1069DM	bracket	托架滑塊		2	PCS
8	SEE-1078DM	slippery bracket	托架調整板		2	PCS
9	PBA-10-35	bolt	有頭內六角螺絲	M8x35L	8	PCS
11	PAA-10-30	set screw	止付螺絲(公)	M10xP1.5x30	8	PCS
13	PAA-6-25	set screw	止付螺絲(公)	M6xP1.0x25	4	PCS
15	SEE-2001DM	bed	床面		1	PCS
17	SEE-2008DM	Regular	床面固定塊		1	PCS
19	PBA-12-40	bolt	有頭內六角螺絲	M12x40L	4	PCS
21	PBA-12-20	bolt	有頭內六角螺絲	M12x20L	2	PCS
23	SEE-2003DM	slide plate	床面鋼板		1	PCS
25	PBA-6-25	bolt	有頭內六角螺絲	M6x25L	10	PCS
27	SEE-1002DM	stock receiving tray	托架		1	PCS
29	PPA-10	washer	平面華司(公)	M10	4	PCS
31	PQA-10	spring washer	彈簧華司(公)	M10	4	PCS
33	PBA-10-20	bolt	有頭內六角螺絲	M10x20L	4	PCS
35	SEE-1209DM	right fence	托架固定板		1	PCS
37	PPA-6	washer	平面華司(公)	M6	6	PCS
39	PFA-6-12	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x12L	6	PCS
41	AGB-70220	plate	冷卻水管固定板		1	PCS
42	PPA-6	washer	平面華司(公)	M6	2	PCS
43	PFA-6-16	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x16L	2	PCS
44	PP-21099	connect	快速接頭	1/4"	1	PCS
45	AHA-1932	dust seal	防塵套(母)		1	PCS
47	PP-43136	valve	開關閥	A103 PT3/8	1	PCS
49	PP-57081	pipe connect	噴油管	3/8*30	1	PCS
51	SEE-2007DM	fixed vise jaw	固定虎鉗		1	PCS
52	SEE-1072	mend the strong board	固定虎鉗補強板		1	PCS
53	PBA-12-30	bolt	有頭內六角螺絲	M12x30L	8	PCS
55	SEE-2005DM	movable vise jaw	活動虎鉗座		1	PCS
57	SEE-2004DM	Press seats	下壓座		1	PCS
53	PBA-12-35	bolt	有頭內六角螺絲	M12x35L	8	PCS
55	SEE-2012DM	connect seats	床面油缸接頭座		1	PCS
57	SEE-2011DM	regular seat	床面油缸固定座		1	PCS
59	PPA-10	washer	平面華司(公)	M10	8	PCS
61	PQA-10	spring washer	彈簧華司(公)	M10	8	PCS
63	PBA-10-25	bolt	有頭內六角螺絲	M10x25L	8	PCS
65	PP-43464A	oil pressure jar	油壓缸	FA Ø40X400L	1	PCS
67	POA-18-15	nut	螺母	M12XP1.5	1	PCS
69	PP-43463D	oil pressure jar	油壓缸	FA φ 50*710L	1	PCS

PART B
BED ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
71	PPA-10	washer	平面華司(公)	M10	4	PCS
73	PQA-10	spring washer	彈簧華司(公)	M10	4	PCS
75	PBA-10-40	bolt	有頭內六角螺絲	M10x40L	4	PCS
77	PP-13242	bearing	乾式軸承	5030	6	PCS
79	SEE-1024	slippery axle of the vice	虎鉗滑軸		2	PCS
81	SEE-1023B	activity vice	活動虎鉗		1	PCS
83	PBA-14-40	bolt	有頭內六角螺絲	M14x40L	3	PCS
85	SEE-1047	vice cylinder protecting cover	虎鉗油缸護蓋		1	PCS
87	PPA-6	washer	平面華司(公)	M6	4	PCS
89	PBA-6-15	bolt	有頭內六角螺絲	M6x15L	4	PCS
91	PP-57001A	rubber plate	耐油橡皮	540*650*3T	1	PCS
93	S700D-2081	plate	耐油橡皮固定板		2	PCS
95	PPA-6	washer	平面華司(公)	M6	8	PCS
97	PFA-6-15	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x15L	8	PCS
99	SEE-2015DM	reaction board	床面感應板		1	PCS
101	PPA-6	washer	平面華司(公)	M6	2	PCS
103	PQA-6	spring washer	彈簧華司(公)	M6	2	PCS
105	PBA-6-20	bolt	有頭內六角螺絲	M6x20L	2	PCS
107	PLA-8-40	bolt	外六角頭螺絲	M8 XP1.25x40L	1	PCS
109	POA-8-125	nut	螺母	M8XP1.25	1	PCS
111	C650D-1027A	bracket	托架集水板		1	PCS
113	PPA-6	washer	平面華司(公)	M6	2	PCS
115	PQA-6	spring washer	彈簧華司(公)	M6	2	PCS
117	PBA-6-10	bolt	有頭內六角螺絲	M6x10L	2	PCS
119	SEE-1079DM	retainer plate	鋁帶固定板		1	PCS
121	SEE-1034	book one inch of poles	定寸桿		1	PCS
123	PAA-8-10	set screw	止付螺絲(公)	M8xP1.25x10	1	PCS

PART C
WORK FEED ASSEMBLY
 PART NO : S700D-12500



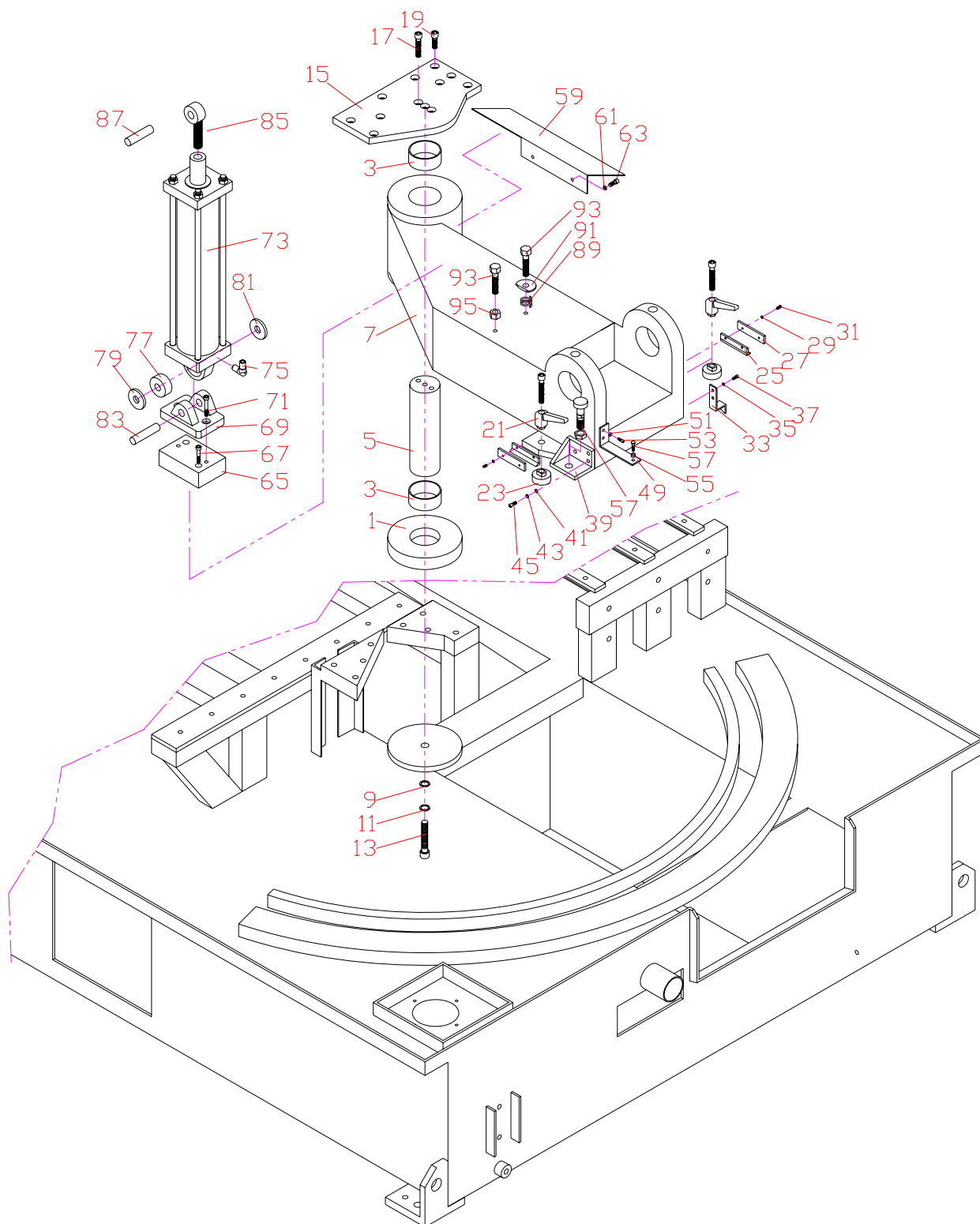
PART C

WORK FEED ASSEMBLY

PART NO : S700D-12500

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-2013DM	roller bracket	床面滾輪座		1	PCS
3	PPA-10	washer	平面華司(公)	M10	7	PCS
5	PBA-10-15	bolt	有頭內六角螺絲	M10x15L	7	PCS
7	AEE-1004	roller	料架滾輪		2	PCS
9	NDE-2011	gyro wheel slide the bed	床面滾輪滑板		3	PCS
11	PBA-10-25	bolt	有頭內六角螺絲	M10x25L	12	PCS
13	S700D-1265	give the material side guard	送料側擋板		1	PCS
15	PPA-10	washer	平面華司(公)	M10	6	PCS
17	PQA-10	spring washer	彈簧華司(公)	M10	6	PCS
19	PBA-10-15	bolt	有頭內六角螺絲	M10x15L	6	PCS
21	PP-13225	bearing	乾式軸承	LFB6030	3	PCS
23	SEE-1266DM	axle sleeve	側擋板軸套		3	PCS
25	NDD-2009	gyro wheel the bed	床面滾輪		1	PCS
27	S700D-1231	give the material gyro wheel(一)	送料滾輪(一)		1	PCS
29	S800D-1235	give the material gyro wheel(三)	送料滾輪(三)		1	PCS
31	SDE-2010	Gyro wheel seat the bed	床面滾輪座		3	PCS
33	PAA-8-20	set screw	止付螺絲(公)	M8xP1.25x20	6	PCS
35	PAA-8-25	set screw	止付螺絲(公)	M8xP1.25x25	3	PCS
37	SEE-1245DM	hide the board	後托架遮板		1	PCS
39	SEE-1267DM	collect water board	送料座集水板		1	PCS
41	PPA-6	washer	平面華司(公)	M6	3	PCS
43	PQA-6	spring washer	彈簧華司(公)	M6	3	PCS
45	PBA-6-10	bolt	有頭內六角螺絲	M6x10L	3	PCS

PART D
ROTATE THE JOINT ASSEMBLY



PART D

ROTATE THE JOINT ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-2010DM	regular seat of pivot	轉軸固定座		1	PCS
3	PP-13259	bearing	乾式軸承	MB6530	2	PCS
5	SEE-1010DM	pivot	轉軸		1	PCS
7	SEE-1020A	joint seat	關節座		1	PCS
9	PPA-16	washer	平面華司(公)	M16	1	PCS
11	PQA-16	spring washer	彈簧華司(公)	M16	1	PCS
13	PBA-16-75	bolt	有頭內六角螺絲	M16x75L	1	PCS
15	SEE-2009DM	pivot retainer plate	轉軸固定板		1	PCS
17	PBA-10-40	bolt	有頭內六角螺絲	M10x40L	3	PCS
19	PBA-10-20	bolt	有頭內六角螺絲	M10x20L	8	PCS
21	PP-52111F	saw the arm handle	鋸臂把手	M12 x45L	2	PCS
23	SEE-1053	regular one of track	軌道固定塊		2	PCS
25	SGB-71144	shave and brush slice	刮刷片		2	PCS
27	SGB-71145	slice	刮刷片固定塊		2	PCS
29	PPA-4	washer	平面華司(公)	M4	4	PCS
31	PFA-4-20	Cross pan head screw	丸頭螺絲(十字)	M4 XP0.7x20L	4	PCS
33	SEE-1046A	rotate the indicator	旋轉指針		1	PCS
35	PPA-5	washer	平面華司(公)	M5	2	PCS
37	PFA-5-12	Cross pan head screw	丸頭螺絲(十字)	M5 XP0.8x12L	2	PCS
39	SEE-1076DM-A	positioning base	定位座		1	PCS
41	PPA-6	washer	平面華司(公)	M6	3	PCS
43	PQA-6	spring washer	彈簧華司(公)	M6	3	PCS
45	PBA-6-20	bolt	有頭內六角螺絲	M6x30L	3	PCS
47	PP-14940	cut apart the localization post	分割定位柱		1	SET
49	SEE-3057DM	sense drafting board	鋸弓上限感測板		1	PCS
51	PPA-6	washer	平面華司(公)	M6	2	PCS
53	PBA-6-20	bolt	有頭內六角螺絲	M6x30L	2	PCS
55	POA-8-125	nut	螺母	M8XP1.25	1	PCS
57	PLA-8-20	bolt	外六角頭螺絲	M8 XP1.0x20L	1	PCS
59	SEE-1045	block the bits board	關節座擋屑		1	PCS
61	PPA-6	washer	平面華司(公)	M6	2	PCS
63	PLA-6-20	bolt	外六角頭螺絲	M6 XP1.0x20L	2	PCS
65	SEE-3041DM-A	saw and bend the cylinder retainer plate	鋸弓油缸固定板		1	PCS
67	PBA-8-40	bolt	有頭內六角螺絲	M8x40L	2	PCS
69	AGB-70735	regular seat of oil pressure jar	油壓缸固定座		1	PCS
71	PBA-8-50	bolt	有頭內六角螺絲	M8x50L	2	PCS
73	SEE-100500A	Housing yoke cylinder	鋸弓油壓缸組		1	PCS
75	AHC-0618C	needle hole valve of tension	張力針孔閥		1	PCS
77	PP-14510	bearing	軸承	2303	1	PCS
79	AHA-1105A	washer	活動軸墊圈		1	PCS

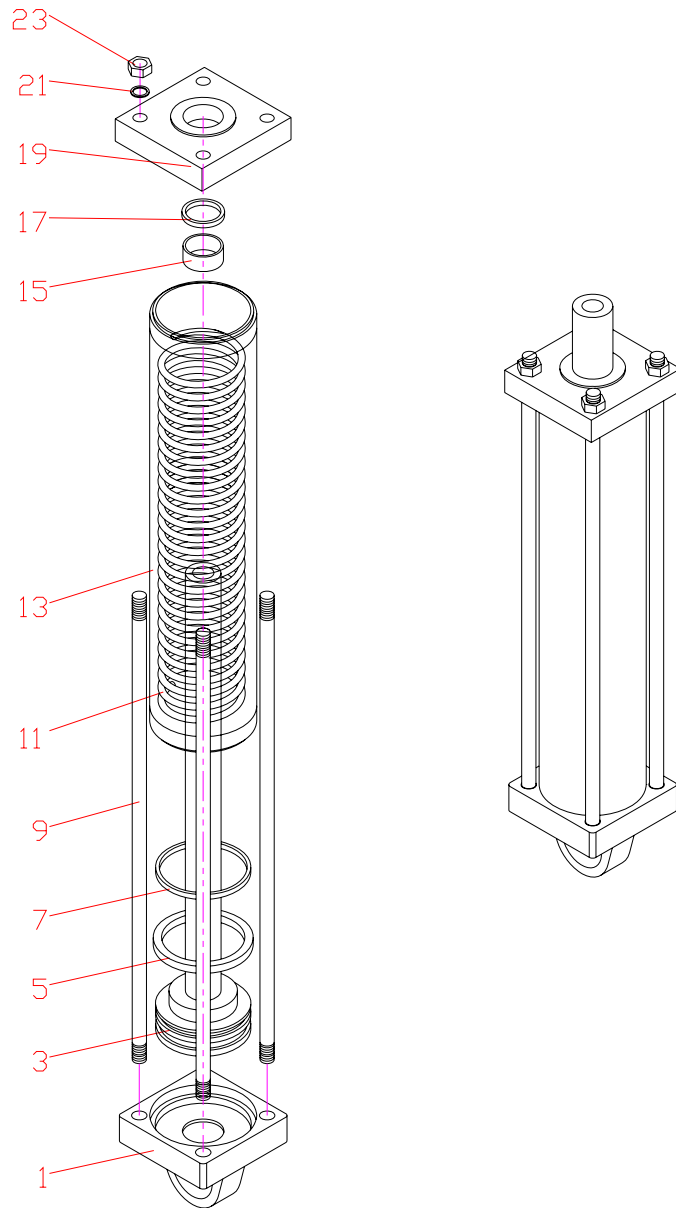
PART D

ROTATE THE JOINT ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
81	AHA-1105	washer	橡膠墊圈		1	PCS
83	AGB-70304B	pin	下插銷		1	PCS
85	PP-14480	link bearing	連桿軸承	POS 18 (M18xP1.5)	1	PCS
87	AGB-70304A	pin	上鋸弓油缸插銷		1	PCS
89	AHA-0629	buffer the spring	緩衝彈簧		1	PCS
91	SEE-3040	buffer the spring spacer	緩衝彈簧墊片		1	PCS
93	PLA-12-40	bolt	外六角頭螺絲	M12 XP1.75x40L	2	PCS
95	POA-12-175	nut	螺母	M12	1	PCS

PART D1
HOUSING YOKE CYLINDER ASSEMBLY

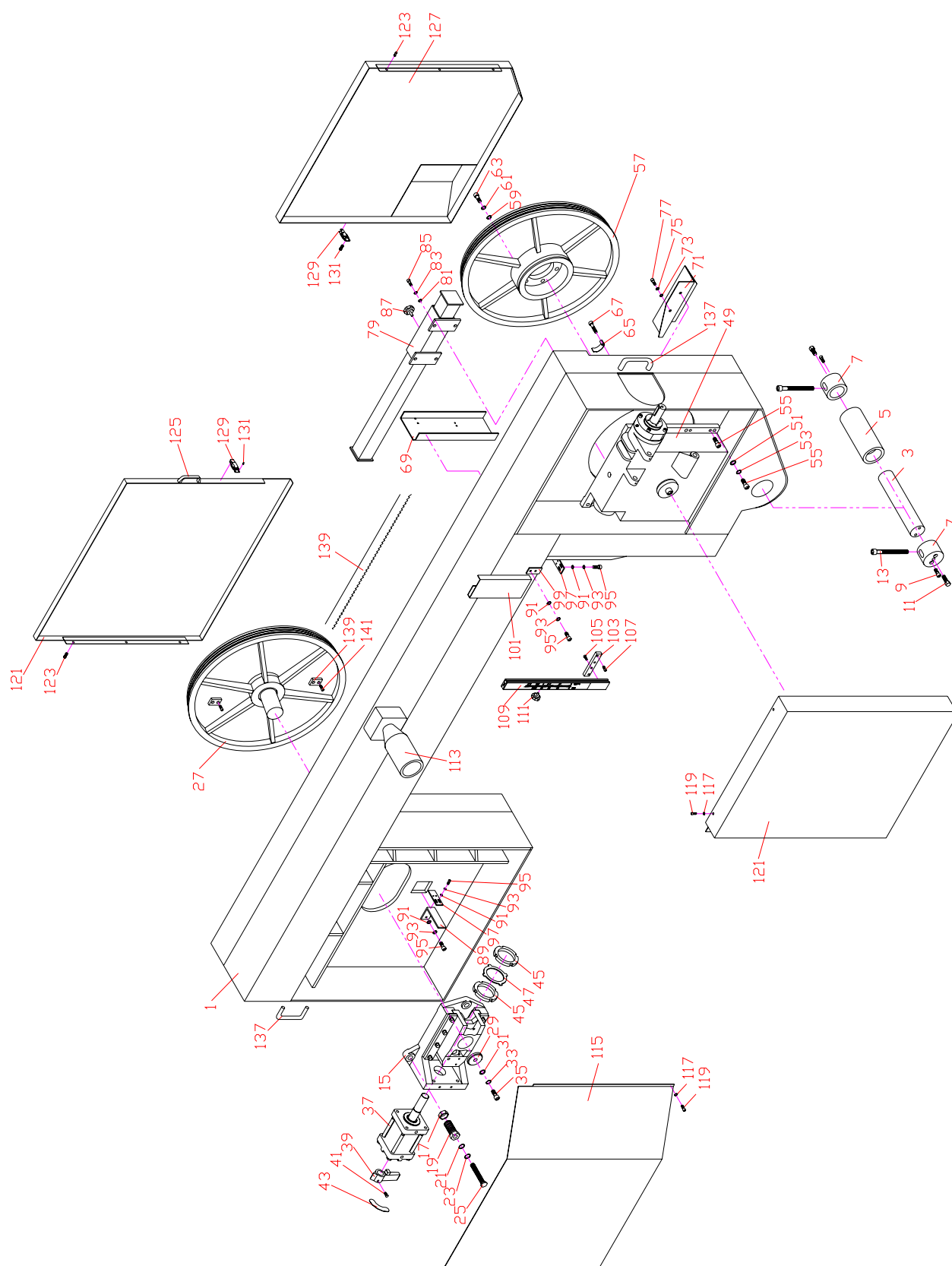
PART NO : SEE-100500A



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AGC-1024	rear cap	鋸弓油缸後蓋		1	PCS
3	SEE-1005	piston	鋸弓油缸活塞		1	PCS
5	PP-59170	o-ring	O 型環	P-70	1	PCS
7	AHA-1117	washer	鐵弗龍墊圈		1	PCS
9	AGC-1027A	tie rod	鋸弓油缸連桿		4	PCS
11	SEE-1019A	spring	鋸弓油壓缸彈簧		1	PCS
13	AGC-1020A	cylinder	鋸弓油缸管		1	PCS
15	PP-13190	du bushing	乾式軸承	MB3015	1	PCS
17	PP-59110	o-ring	O 型環	P-30	1	PCS
19	AGC-1021	front cap	鋸弓油缸前蓋		1	PCS
21	PQA-12	spring washer	彈簧華司	M12	4	PCS
23	POA-12-175	nut	螺帽	M12	4	PCS

PART E

IDEL WHEEL MOTOR ASSEMBLY



PART E

IDEL WHEEL MOTOR ASSEMBLY

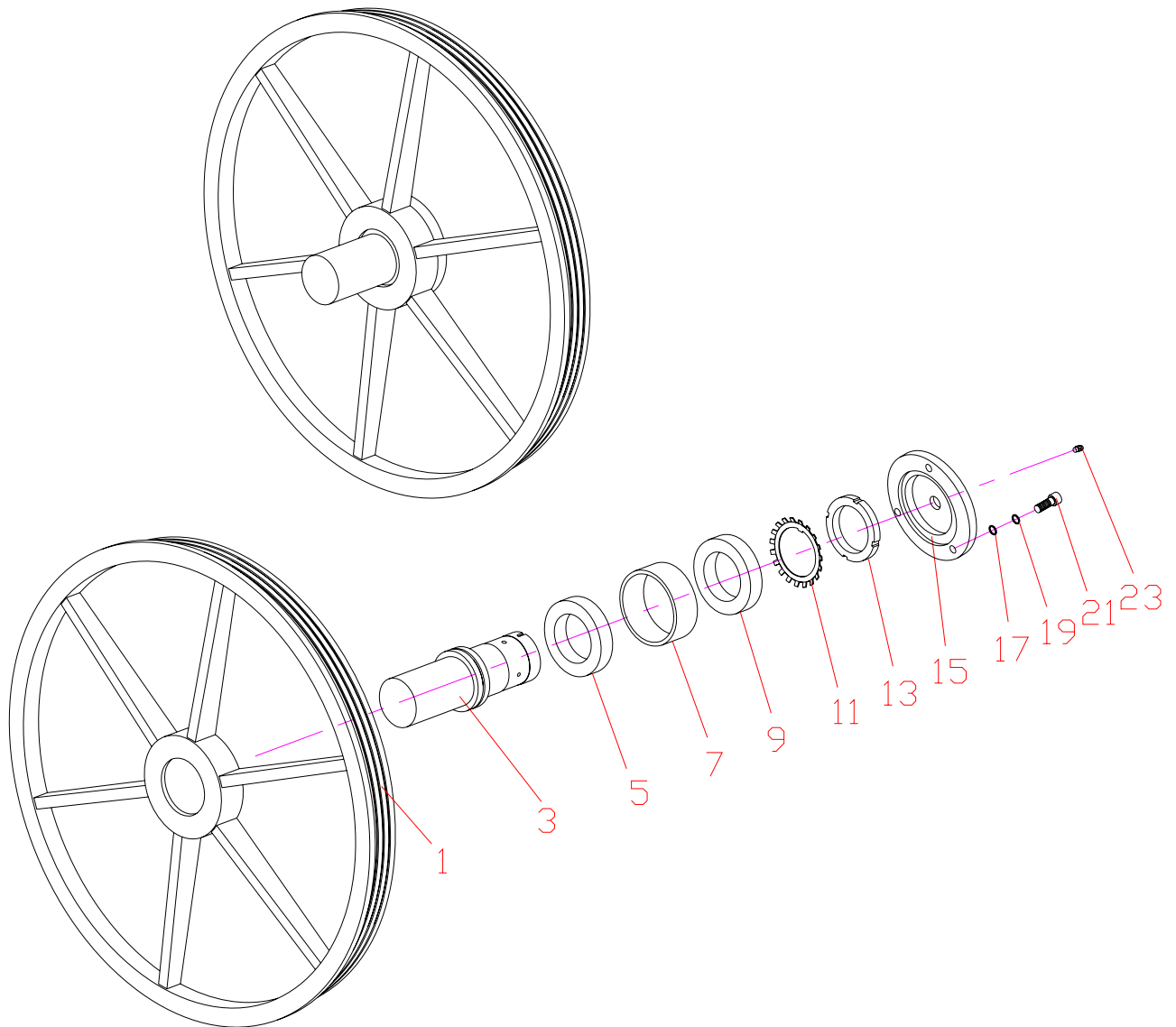
ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-3001DM	housing yoke	鋸弓		1	PCS
3	SEE-1028	joint axle	關節軸		1	PCS
5	SEE-3015	saw and bend the axle sleeve	鋸弓軸套		1	PCS
7	SEE-1030	joint axle sleeve	關節軸套		2	PCS
9	PBA-8-25	bolt	有頭內六角螺絲	M8x25L	4	PCS
11	PLA-10-15	bolt	外六角頭螺絲	M10 XP1.5x15L	2	PCS
13	PBA-12-120	bolt	有頭內六角螺絲	M12x120L	2	PCS
15	AGB-703500	tension cylinder assembly	張力滑座滑板組		1	SET
17	AHA-0611	adjusting nut	調整螺母		3	PCS
19	AHA-0610	adjusting bolt	調整螺絲		3	PCS
21	PPA-12	washer	平面華司	M12	3	PCS
23	PQA-12	spring washer	彈簧華司	M12	3	PCS
25	PBA-12-80	bolt	有頭內六角螺絲	M12 x 80L	3	PCS
27	S700D-30300	idle wheel assembly	上輪組		1	PCS
29	AHA-0403	lock washer	鎖緊墊圈		1	PCS
31	PPA-16	washer	平面華司	M16	1	PCS
33	PQA-16	spring washer	彈簧華司(公)	M16	1	PCS
35	PBA-16-45	bolt	有頭內六角螺絲	M16 x 45L	1	PCS
37	AGB-707209-1	tension cylinder	張力油壓缸組	(市購件)	1	SET
39	AHB-0653	valve lever	切換把手		1	PCS
41	PAA-6-10	set screw	止付螺絲	M6x10L	1	PCS
43	SEE-3039	legend plate	鋸片鬆緊銘牌		1	PCS
45	PP-14906	toothed nut	固定螺母	AN06	2	PCS
47	PP-14956	toothed washer	止動環	AW06	1	PCS
49	AGB-703109B	gear box	減速機組(半組立)		1	SET
51	PPA-12	washer	平面華司(公)	M12	5	PCS
53	PQA-12	spring washer	彈簧華司(公)	M12	5	PCS
55	PBA-12-35	bolt	有頭內六角螺絲	M12 XP1.75x35L	10	PCS
57	SEE-3003DM	drive wheel	下輪(41W)		1	PCS
59	PPA-12	washer	平面華司(公)	M12	6	PCS
61	PQA-12	spring washer	彈簧華司(公)	M12	6	PCS
63	PBA-12-45	bolt	有頭內六角螺絲	M12 XP1.75x45L	6	PCS
65	AHA-0414	cover	鋸片安裝板		1	PCS
67	PBA-8-25	bolt	有頭內六角螺絲	M8 xP1.25x25L	1	PCS
69	SEE-3005-1	next enclosure of case lid	下輪箱蓋附件		1	PCS
71	SEE-3031	protecting cover of left saw	左鋸片護蓋		1	PCS
73	PPA-6	washer	平面華司(公)	M6	2	PCS
75	PQA-6	spring washer	彈簧華司(公)	M6	2	PCS
77	PBA-6-15	bolt	有頭內六角螺絲	M6 XP1.0x15L	2	PCS
79	SEE-3093DM	the saw rotates the handle	鋸片旋轉把手		1	PCS
81	PPA-8	washer	平面華司(公)	M8	4	PCS
83	PQA-8	spring washer	彈簧華司(公)	M8	4	PCS
85	PBA-8-20	bolt	有頭內六角螺絲	M8 XP1.25x20L	4	PCS
87	PP-53010	screw	梅花螺絲	M8 x 20L	1	PCS
89	AHA-0670A	baseplate seat	感應器底板座		1	PCS

PART E

IDEL WHEEL MOTOR ASSEMBLY

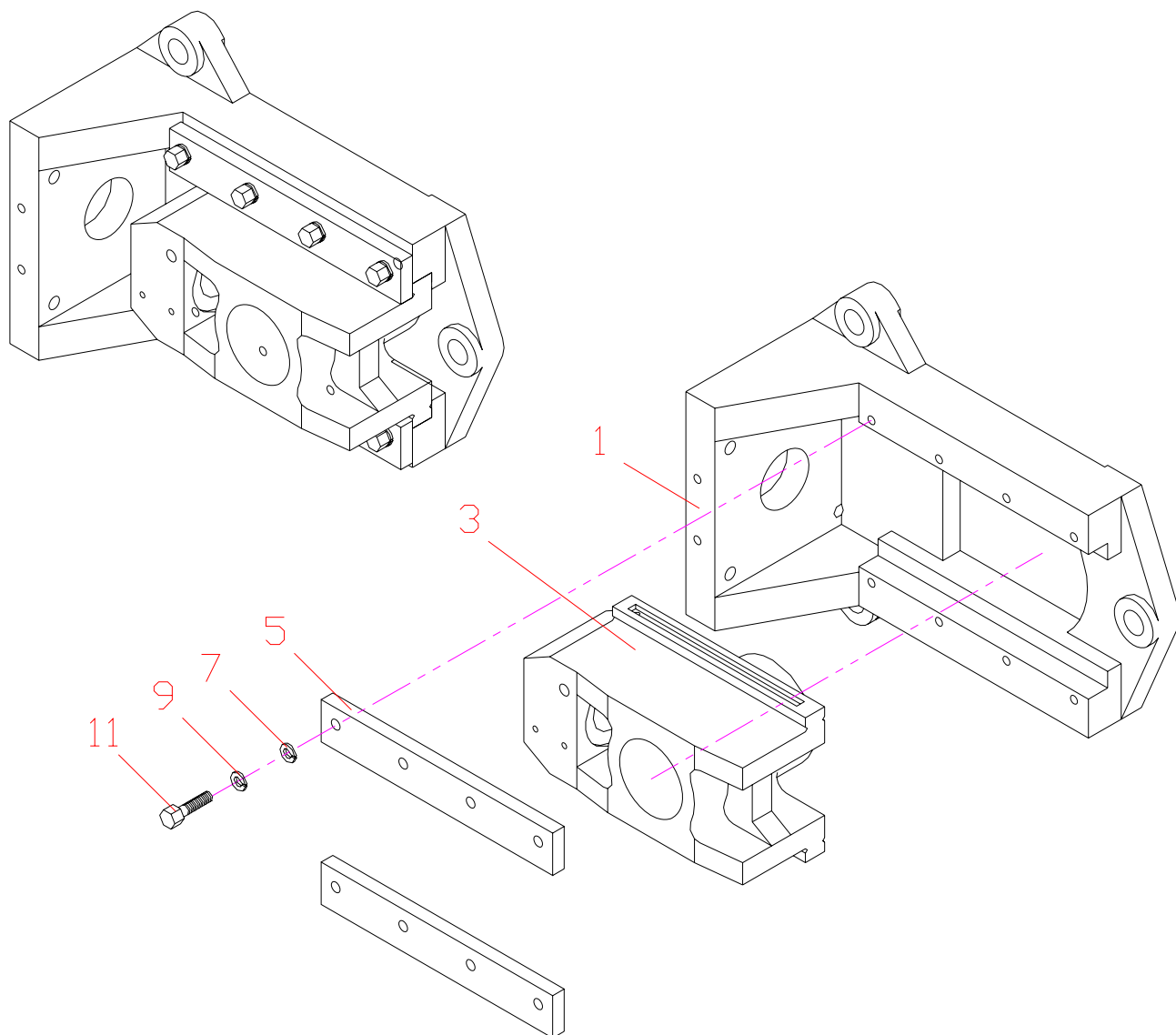
ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
91	PPA-5	washer	平面華司(公)	M5	8	PCS
93	PQA-5	spring washer	彈簧華司(公)	M5	8	PCS
95	PBA-5-18	bolt	有頭內六角螺絲	M5 XP0.8x18L	8	PCS
97	AHA-0672	baseplate	感應器底板		2	PCS
99	AGB-70334A	baseplate seat	感應器底板座		1	PCS
101	AEE-1043	upper limit slide	上限滑板		1	PCS
103	SEE-1035	upper limit slide	上限滑座		1	PCS
105	PBA-6-8	bolt	有頭內六角螺絲	M6 XP1.0x8L	2	PCS
107	PBA-6-20	bolt	有頭內六角螺絲	M6 XP1.0x20L	2	PCS
109	SEE-3095DM	high data plate	高度銘牌		1	PCS
111	PP-53021	screw	梅花螺絲	M6 x 12L	1	PCS
113	PP-91804D	work light	工作燈	GT-M65A-1/110V/12V/20W10 度	1	PCS
115	SEE-3008DM	cover	張力護蓋		1	PCS
117	PPA-6	washer	平面華司(公)	M6	16	PCS
119	PFA-6-10	cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x10L	16	PCS
121	SEE-3004DM	cover	上輪箱蓋		1	PCS
123	PDA-6-10	screw	丸頭內六角螺絲(公)	M6xP1.0xL10	6	PCS
125	PP-52081A	model U handle	U 型把手	MN-243/200	1	PCS
127	SEE-3025DM	cover	減速機護蓋		1	PCS
129	PP-52090	button	蓋扣(小)二合一	彈簧雙扣 42# 4m/m 孔位	2	PCS
131	PDA-4-8	screw	丸頭內六角螺絲(公)	M4xP1.0xI8	8	PCS
135	PP-52080	handle	輪箱把手	A303	2	PCS
137	PP-18309	saw blade	鋸帶	HS5800*41*1.3*3/4T	1	PCS
139	AHA-0633-CE	plate	上輪感應塊		2	PCS
141	PBA-5-10	bolt	有頭內六角螺絲	M5 XP0.8x10L	4	PCS

PART E1
IDLE WHEEL ASSEMBLY
PART NO : S700D-30300



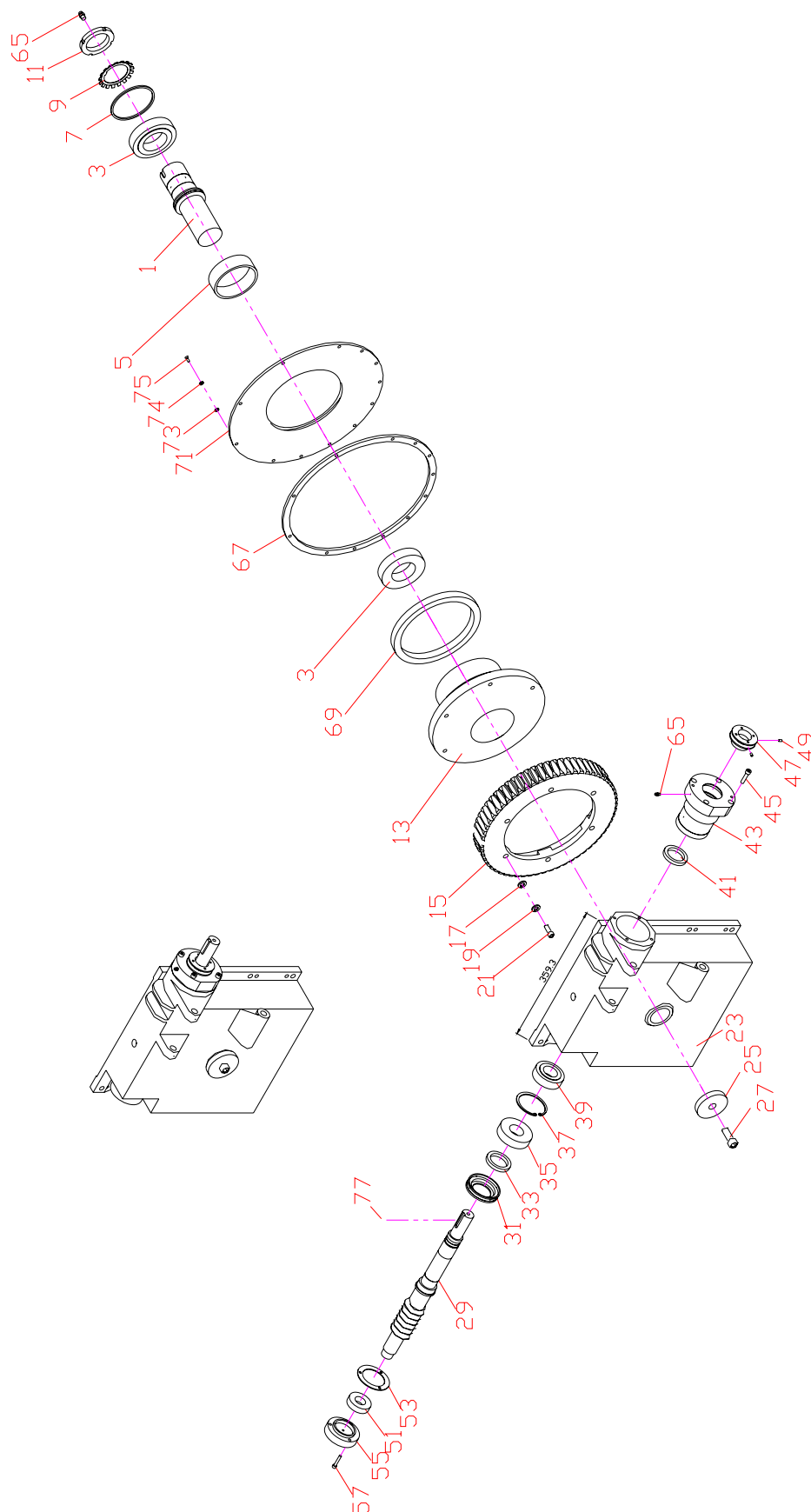
ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-3002DM	idle wheel	上輪		1	PCS
3	SEE-3037	wheel shaft	上輪軸		1	PCS
5	PP-14615	taper roller bearing	滾錐軸承	30209	1	PCS
7	SEE-3038	bearing collar	上輪軸承墊圈		1	PCS
9	PP-14694	taper roller bearing	軸承	32209V	1	PCS
11	PP-14959	toothed washer	止動環	AW09	1	PCS
13	PP-14909	toothed nut	固定螺母	AN09	1	PCS
15	AGB-70331	bearing cap	上輪軸蓋		1	PCS
17	PPA-8	washer	平面華司	M8	3	PCS
19	PQA-8	spring washer	彈簧華司	M8	3	PCS
21	PBA-8-30	bolt	有頭內六角螺絲	M8x30L	3	PCS
23	PUC-020	grease nipple	油嘴	1/4"-28UNF	1	PCS

PART E2
TENSION ASSEMBLY
PART NO : AGB-703500



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AGB-70358	tension body	張力滑座		1	PCS
3	AGB-70359	slide piece	張力滑板		1	PCS
5	AGB-70360	guide plate	壓板		2	PCS
7	PPA-8	washer	平面華司	M8	8	PCS
9	PQA-8	spring washer	彈簧華司	M8	8	PCS
11	PLA-8-25	hexagon head bolt	外六角螺絲	M8x25L	8	PCS

PART E3
GEAR BOX ASSEMBLY
PART NO : AGB-703109B



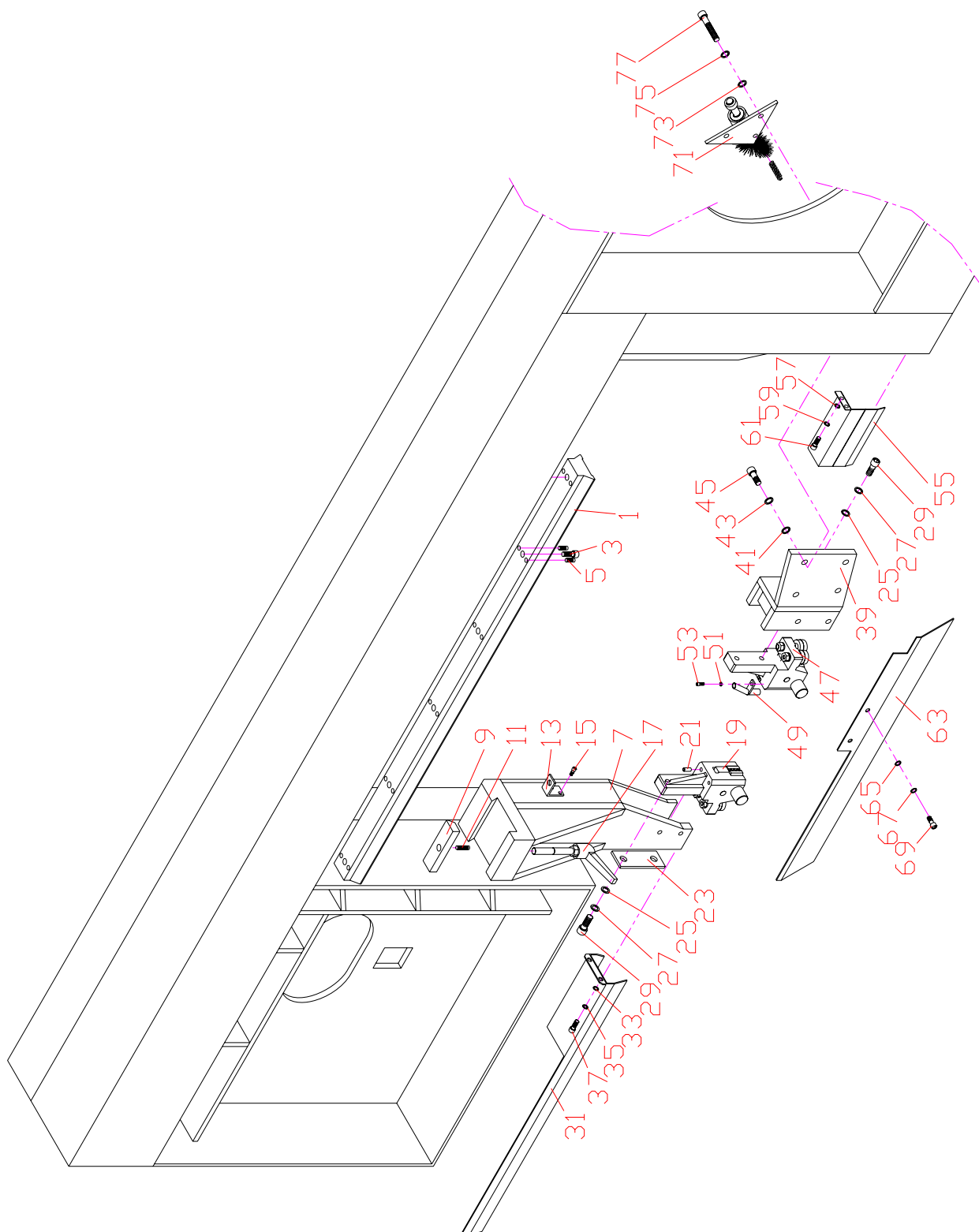
PART E3

GEAR BOX ASSEMBLY

PART NO : AGB-703109B

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AGB-70309	wheel shaft	下輪軸		1	PCS
3	PP-14619	taper roller bearing	軸承	30211 NSK	2	PCS
5	AGB-70313	distance collar	下輪軸承墊圈(一)		1	PCS
7	AGB-70314	distance collar	下輪軸承墊圈(二)		1	PCS
9	PP-14961	toothed washer	止動環	AW11	1	PCS
11	PP-14911	toothed nut	固定螺母	AN11	1	PCS
13	AGB-70312	housing	蝸輪固定座		1	PCS
15	AGB-70310	worm gear	蝸輪		1	PCS
17	PPA-10	washer	平面華司	M10	8	PCS
19	PQA-10	spring washer	彈簧華司	M10	6	PCS
21	PBA-10-40	bolt	有頭內六角螺絲	M10x40L	6	PCS
23	SGA-2054B	reducer frame	減速機本體		1	PCS
25	AHB-0613	washer	上輪鎖緊墊圈		1	PCS
27	PBA-16-45	bolt	有頭內六角螺絲	M16x45L	1	PCS
29	AGB-70311	worm	蝸桿		1	PCS
31	SGA-2060	bearing support	油封座		1	PCS
33	PP-51105	oil seal	油封	50.67.9	1	PCS
35	PP-14654	taper roller bearing	軸承	30308 SKF	1	PCS
37	PP-58116	snap ring	扣環	R80	1	PCS
39	PP-14693	taper roller bearing	滾錐軸承	32208 NSK	1	PCS
41	PP-51101	oil seal	油封	48.65.9	1	PCS
43	AGB-70338	bearing case	軸承座		1	PCS
45	PBA-8-35	bolt	有頭內六角螺絲	M8x35L	4	PCS
47	SGA-2061	wire brush pulley	鋼刷普利		1	PCS
49	PAA-5-8	set screw	止付螺絲	M5x8L	2	PCS
51	PP-14612	bearing	軸承	30206	1	PCS
53	SGA-2059	packing	蝸桿蓋迫緊石棉		1	PCS
55	SGA-2058A	worm cap	蝸桿蓋(厚)		1	PCS
57	PBA-6-35	bolt	有頭內六角螺絲	M6x35L	3	PCS
59	PED-025	soc. hexagon plug	外六角塞頭(英)	PT 1/2"	1	PCS
61	AHA-0307	plug	透氣塞頭		1	PCS
63	PAA-8-25	set screw	止付螺絲	M8x25L	1	PCS
65	PUC-020	grease nipple	油嘴	1/4"-28UNF	1	PCS
67	SGA-2069	packing	迫緊石棉		1	PCS
69	PP-51125A	oil seal	油封	ø170x ø200x16T(NOK)	1	PCS
71	SGA-2067	fixed ring	油封固定盤		1	PCS
73	PPA-8	washer	平面華司	M8	8	PCS
74	PQA-5	spring washer	彈簧華司	M5	12	PCS
75	PBA-5-20	bolt	有頭內六角螺絲	M5x20L	12	PCS
77	PS-10-8-45	key	方鍵	10x8x45L	1	PCS

PART F
BLADE GUIDE ASSEMBLY



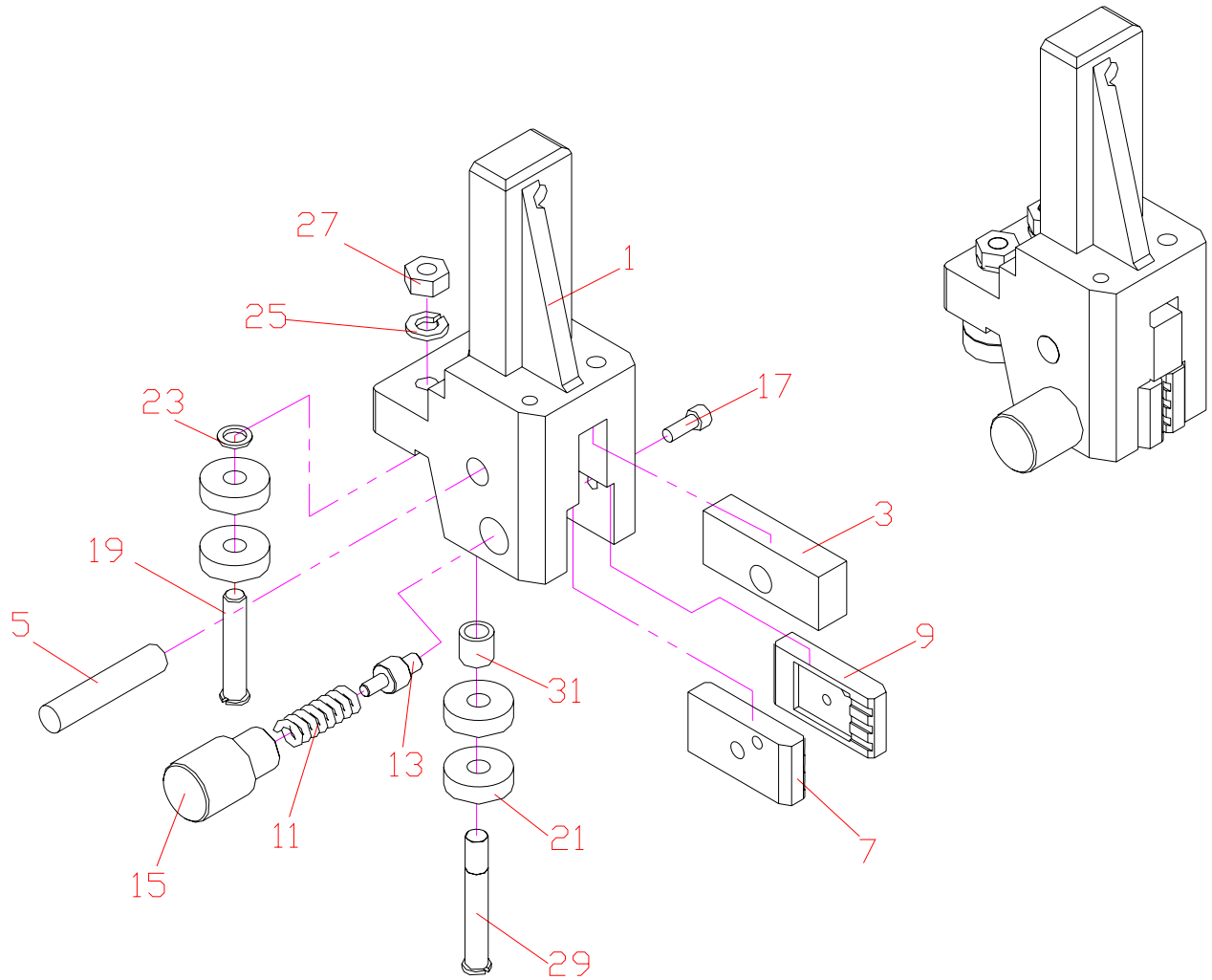
PART F

BLADE GUIDE ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-3013	guide slide	鋸臂滑板		1	PCS
3	PBA-10-25	bolt	有頭內六角螺絲	M10x25L	6	PCS
5	PAA-8-20	set screw	止付螺絲	M8x20L	12	PCS
7	C650D-3103	activity guide	活動鋸臂		1	PCS
9	SEE-3014	slide tip	鋸臂固定塊		1	PCS
11	PAA-12-30	set screw	止付螺絲	M12x30L	1	PCS
13	MJA-2041	seat board of the faucet	水龍頭座板		1	PCS
15	PBA-5-20	bolt	有頭內六角螺絲	M5x20L	2	PCS
17	PP-52111A	guide handle	鋸臂把手	M12*40L	1	PCS
19	SGB-710800	left insert holder set	左導輪座組		1	SET
21	AGB-70415	conduit	烏鋼片冷卻導管		1	PCS
23	AGB-70407	plain washer	導輪座鎖緊墊板		1	PCS
25	PPA-12	washer	平面華司	M12	4	PCS
27	PQA-12	spring washer	彈簧華司	M12	4	PCS
29	PBA-12-45	bolt	有頭內六角螺絲	M12x45L	4	PCS
31	SEE-3024A	cover	後鋸片護蓋		1	PCS
33	PPA-6	washer	平面華司	M6	2	PCS
35	PQA-6	spring washer	彈簧華司	M6	2	PCS
37	PBA-6-10	bolt	有頭內六角螺絲	M6x10L	2	PCS
39	SEE-3010B	right guide	右鋸臂		1	PCS
41	PPA-10	washer	平面華司	M12	4	PCS
43	PQA-10	spring washer	彈簧華司	M12	4	PCS
45	PBA-10-25	bolt	有頭內六角螺絲	M12x25L	4	PCS
47	SGB-710801	right insert holder set	右導輪座組		1	SET
49	AHA-0745	coolant nozzle	冷卻水噴嘴		1	PCS
51	PPA-5	washer	平面華司	M5	1	PCS
53	PBA-5-10	bolt	有頭內六角螺絲	M5x10L	1	PCS
55	SEE-3027DM	cover	右鋸片護蓋		1	PCS
57	PPA-6	washer	平面華司	M6	2	PCS
59	PQA-6	spring washer	彈簧華司	M6	2	PCS
61	PBA-6-10	bolt	有頭內六角螺絲	M6x10L	2	PCS
63	SEE-3022	cover	下輪屑擋		1	PCS
65	PPA-6	washer	平面華司	M6	2	PCS
67	PQA-6	spring washer	彈簧華司	M6	2	PCS
69	PBA-6-15	bolt	有頭內六角螺絲	M6x15L	2	PCS
71	S650M-32200	wire brush assembly	鋼刷組		1	SET
73	PPA-8	washer	平面華司	M8	2	PCS
75	PQA-8	spring washer	彈簧華司	M8	2	PCS
77	PBA-8-60	bolt	有頭內六角螺絲	M8x60L	3	PCS

PART F1
LEFT INSERT HOLDER ASSEMBLY

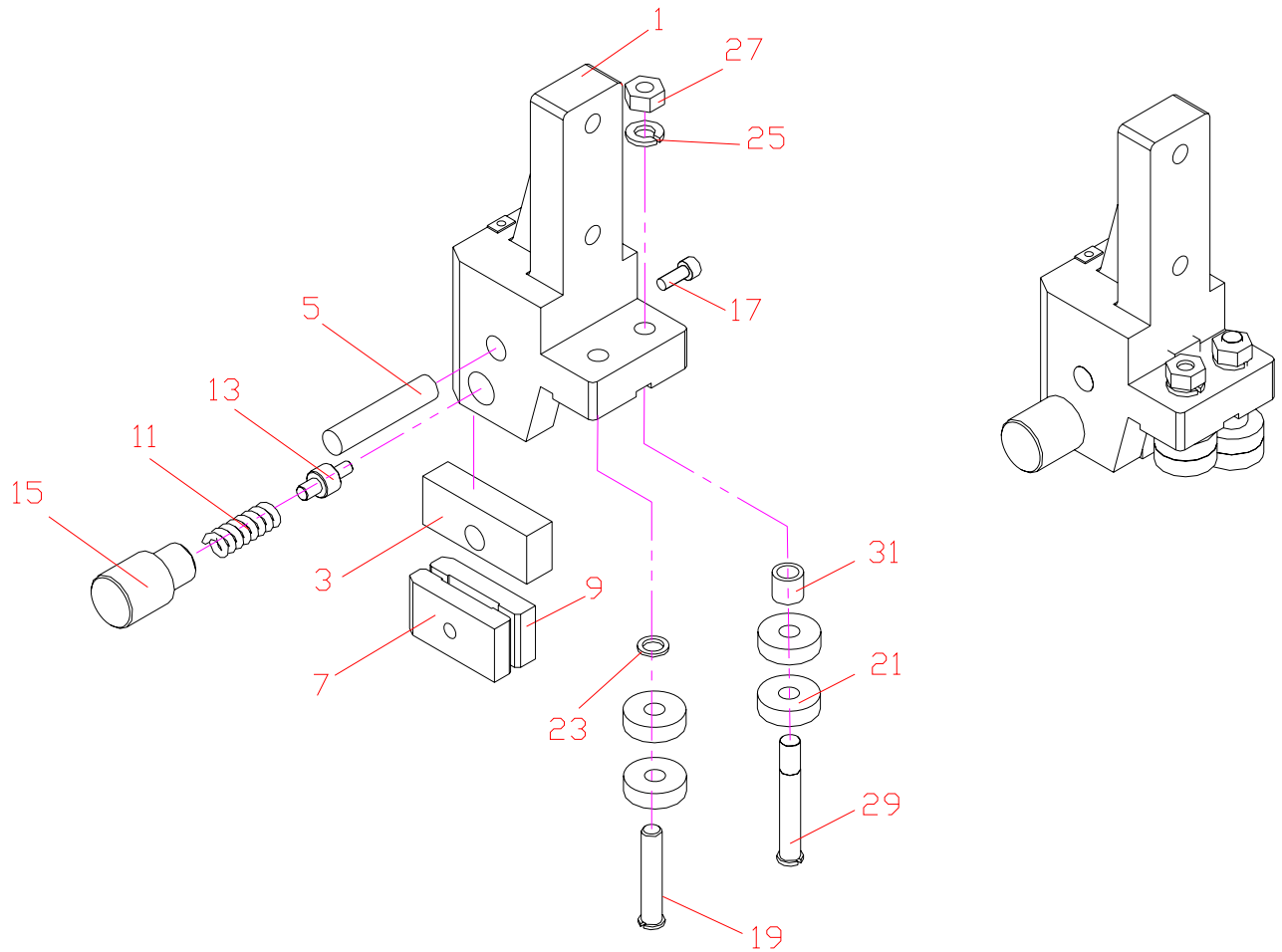
PART NO : SGB-710800



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SGB-71085	left insert holder	左導輪座		1	PCS
3	AHA-0704A	Pressure block	下壓座	EU79 用	1	PCS
5	AGB-70410A	Shaft	軸承座固定軸		1	PCS
7	SGB-71089	left fixed insert	左活動鎢鋼片		1	PCS
9	SGB-71088	left movable insert	左固定鎢鋼片		1	PCS
11	SGB-71090	spring	鎢鋼片彈簧		1	PCS
13	SGB-71091	left fitting	簧塞		1	PCS
15	SGB-71092	left insert knob	鎢鋼片鎖緊螺絲		1	PCS
17	PBA-6-16	bolt	有頭內六角螺絲	M6 x 16L	1	PCS
19	AHA-0707C	roller pin	導輪軸(三)	54L	1	PCS
21	PP-14270B	bearing	軸承	6200DDU	4	PCS
23	AGB-70412	washer	下壓軸承墊圈		1	PCS
25	PQA-10	spring washer	彈簧華司	M10	2	PCS
27	POA-10-15	nut	螺帽	M10	2	PCS
29	AGB-70417	roller pin	導輪軸	69L	1	PCS
31	AGB-70418	washer	導輪墊圈		1	PCS

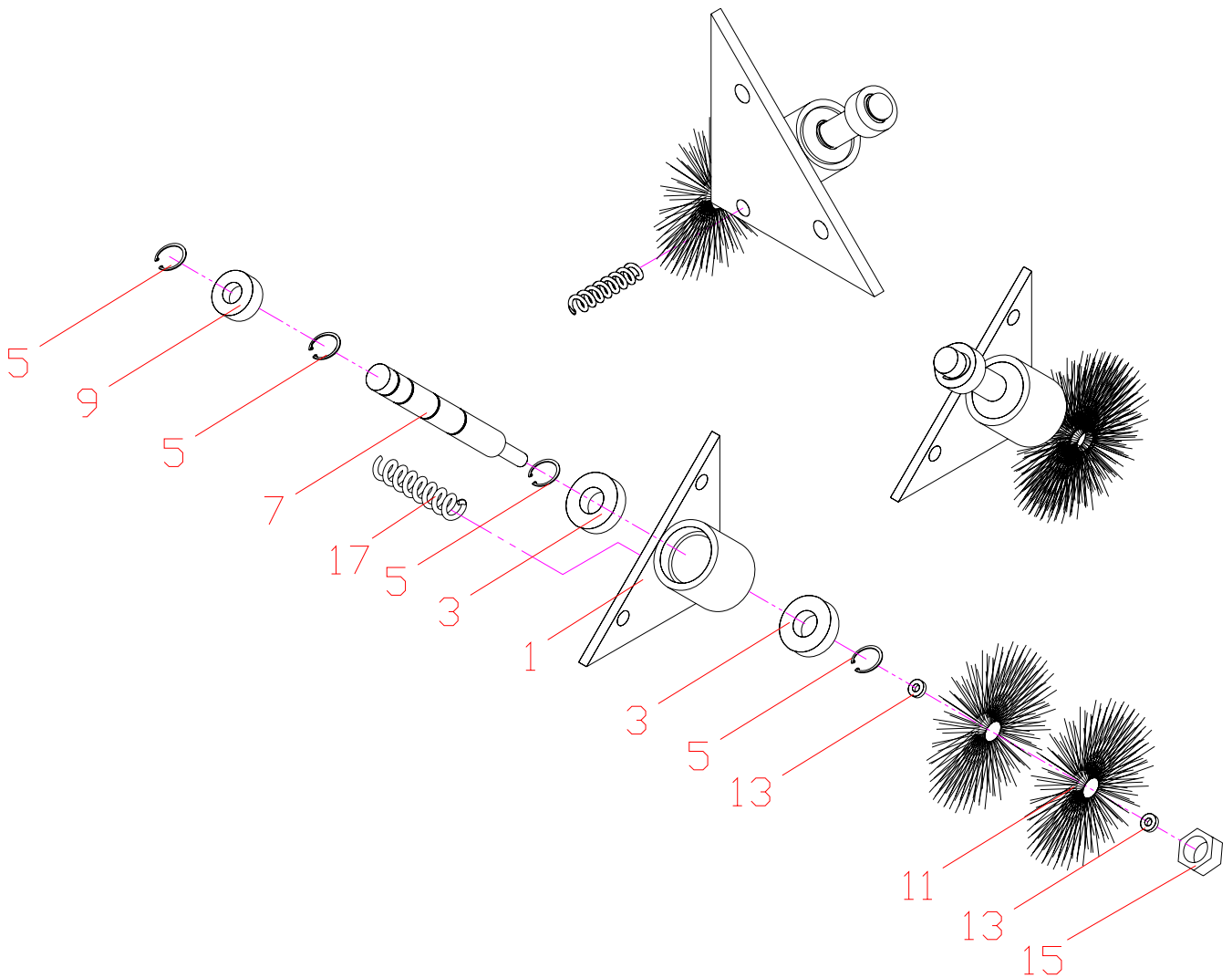
PART F2
RIGHT INSERT HOLDER ASSEMBLY

PART NO : SGB-710801



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SGB-71084	right insert holder	右導輪座		1	PCS
3	AHA-0704A	Pressure block	下壓座	EU79 用	1	PCS
5	AGB-70410A	Shaft	軸承座固定軸		1	PCS
7	SGB-71087	right movable insert	右活動錫鋼片		1	PCS
9	SGB-71086	right fixed insert	右固定錫鋼片		1	PCS
11	SGB-71090	spring	錫鋼片彈簧		1	PCS
13	SGB-71091	right fitting	右簧塞		1	PCS
15	SGB-71092	right insert knob	右調整螺絲		1	PCS
17	PBA-6-16	bolt	有頭內六角螺絲	M6 x 16L	2	PCS
19	AHA-0707C	roller pin	導輪軸(三)	54L	1	PCS
21	PP-14270B	bearing	軸承	6200DDU	4	PCS
23	AGB-70412	washer	下壓軸承墊圈		1	PCS
25	PQA-10	spring washer	彈簧華司	M10	2	PCS
27	POA-10-15	nut	螺帽	M10	2	PCS
29	AGB-70417	roller pin	導輪軸	69L	1	PCS
31	AGB-70418	washer	導輪墊圈		1	PCS

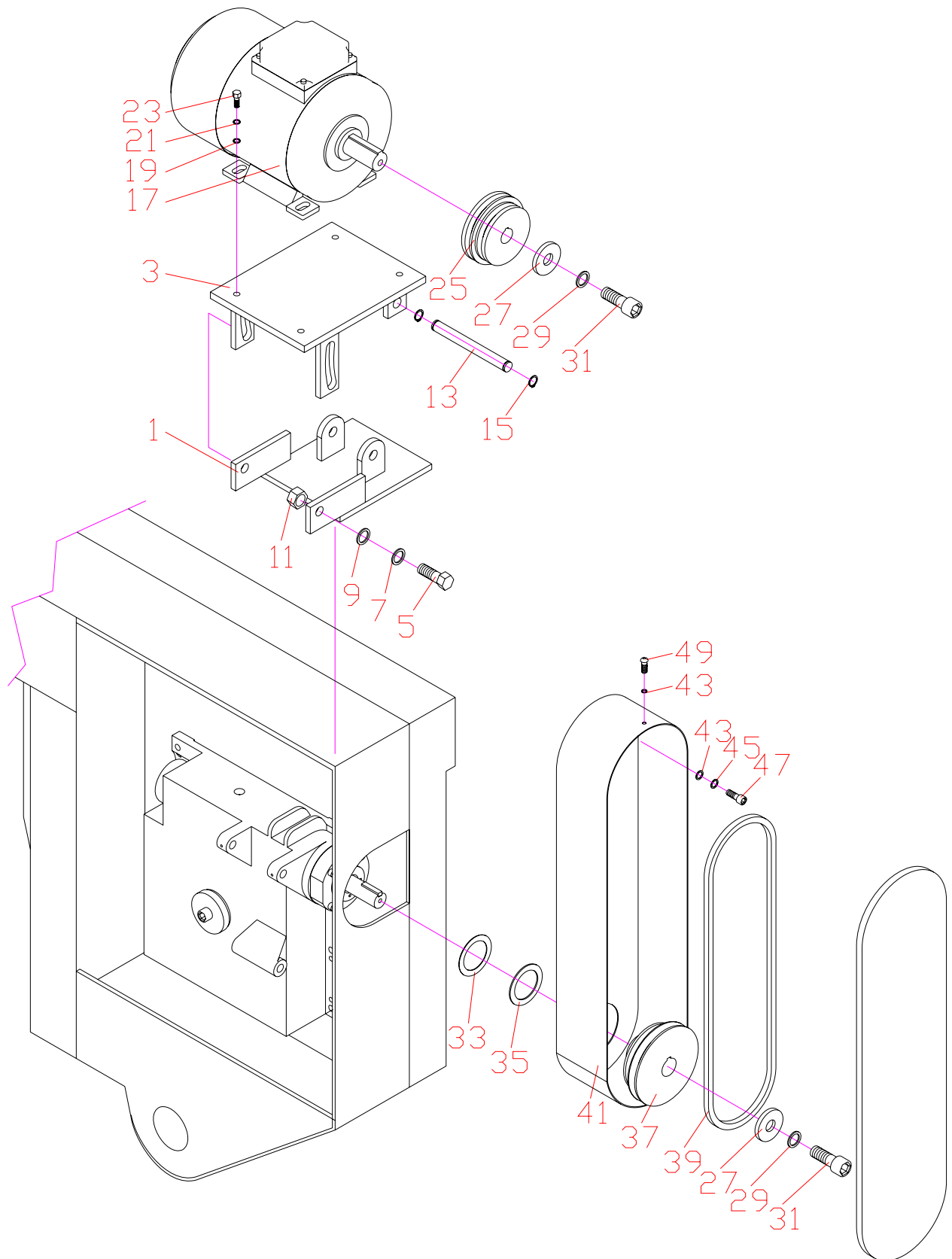
PART F3
WIRE BRUSH ASSEMBLY
PART NO : S650M-32200



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	MBR-9132-B	bearing bracket set	鋼刷軸承座		1	PCS
3	PP-14250	bushing	軸承	6002ZZ	2	PCS
5	PP-52097	buckle	扣環	S15	4	PCS
7	MBR-9129	brush shaft	鋼刷軸		1	PCS
9	SEE-3029	shaft	鋼刷傳動輪		1	PCS
11	PP-58002	wire brush	鋼刷	90m/m*8m/m#0.3	2	PCS
13	PPA-8	washer	平面華司	M8	2	PCS
15	POA-8-125	nut	螺母	M8XP1.25	1	PCS
17	MER-3109	brush spring	鋼刷壓縮彈簧		1	PCS

PART G

DRIVE WHEEL MOTOR ASSEMBLY



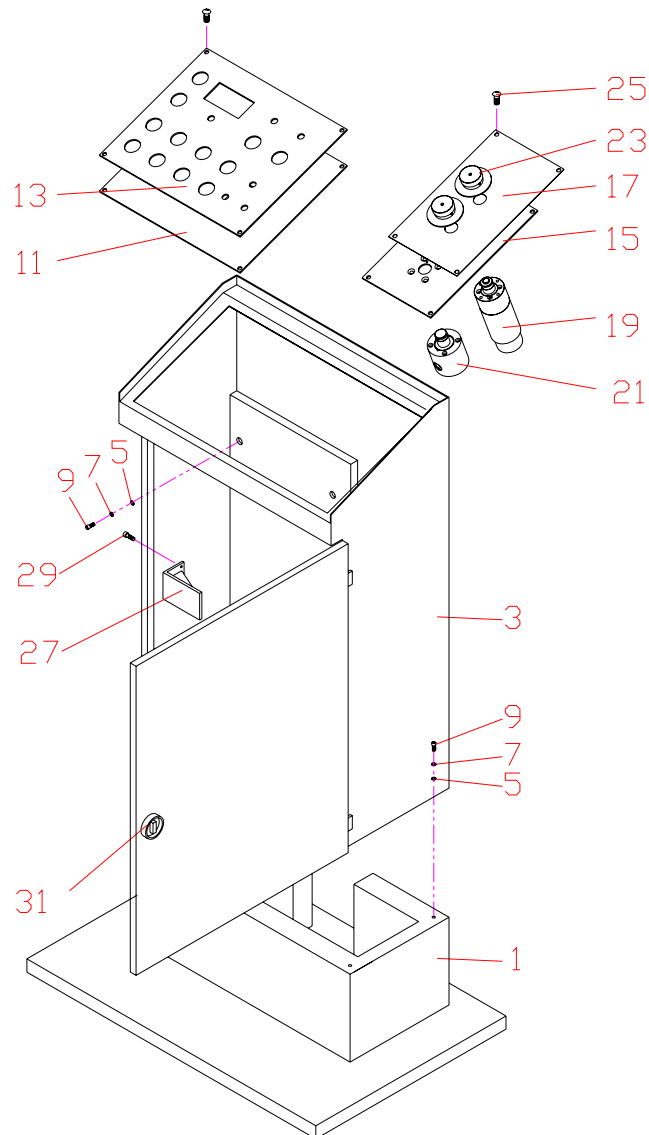
PART G

DRIVE WHEEL MOTOR ASSEMBLY

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AGB-70340B	motor base plate(二)	鋸弓馬達板(二)		1	PCS
3	AGB-70339B	motor base plate(一)	鋸弓馬達底板(一)		1	PCS
3	PPA-16	washer	平面華司	M16	2	PCS
5	PQA-16	spring washer	彈簧華司	M16	2	PCS
9	PLA-16-40	hexagon head bolt	外六角螺絲	M16x40L	2	PCS
11	POA-16	nut	螺帽	M16	2	PCS
13	AGB-70340	movable bar	馬達底板動軸		1	PCS
15	PP-52097A	buckle	扣環	S16	2	PCS
17	PP-31153	motor	馬達	7.5HP 4P 60HZ 220/380V	1	PCS
19	PPA-10	washer	平面華司	M10	4	PCS
21	PQA-10	spring washer	彈簧華司	M10	4	PCS
23	PLA-10-25	hexagon head bolt	外六角螺絲	M10 x 25L	4	PCS
25	SEE-3007DM	motor pulley	馬達普利	7.5HP	1	PCS
27	AHA-0525	washer	墊圈	(減速機,馬達,普利)	2	PCS
29	PQA-10	spring washer	彈簧華司	M10	2	PCS
31	PBA-10-50	bolt	有頭內六角螺絲	M10 x 50L	2	PCS
33	AHA-0324	washer	鐵弗龍墊圈		1	PCS
35	AHA-0325	bearing washer	軸承墊圈		1	PCS
37	SEE-3006A	reducer pulley	減速機普利	7.5HP	1	PCS
39	PP-56305	belt	三五皮帶	B54	1	PCS
41	SEE-3035DM	cover	普利護蓋(渦輪)		1	PCS
43	PPA-6	washer	平面華司	M6	8	PCS
45	PQA-6	spring washer	彈簧華司	M6	6	PCS
47	PBA-6-15	bolt	有頭內六角螺絲	M6 x 15L	6	PCS
49	PFA-6-10	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x10L	2	PCS

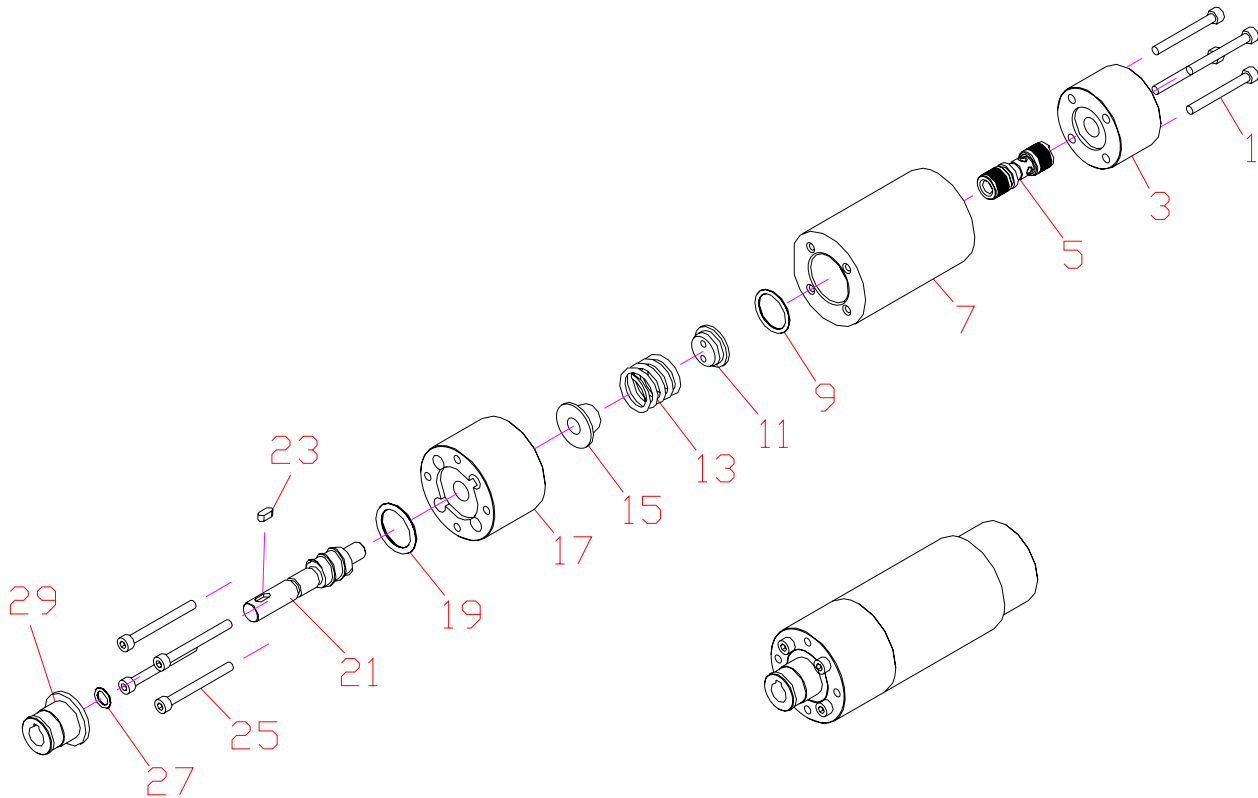
PART H

ELECTRIC BOX ASSEMBLY



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	SEE-1303DM	electric case base	電氣箱底座		1	PCS
3	AGB-70801	electric control box	控制箱		1	PCS
5	PPA-6	washer	平面華司	M6	8	PCS
7	PQA-6	spring washer	彈簧華司	M6	8	PCS
9	PBA-6-10	bolt	有頭內六角螺絲	M6xP1.0x10L	8	PCS
11	SGI-1149	control plate	控制底板		1	PCS
13	SGI-1150B	electric data plate	控制面板		1	PCS
15	AGB-70803B	control plate	流量閥底板		1	PCS
17	AGB-70802B	electric data plate	流量閥面板	CS-79	1	PCS
19	AHA-10289	regulator set	調壓閥整組		1	SET
21	AHA-6100	flow control valve	流量控制閥		1	SET
23	AHA-1806	vernier dial	流量閥旋鈕		2	PCS
25	PFA-6-8	screw	丸頭螺絲(十字)	M6x8L	8	PCS
27	SGJ-1015	bracket	門式開關座		1	PCS
29	PBA-6-10	bolt	有頭內六角螺絲	M6xP1.0x10L	3	PCS
31	PP-90282	interlock switch	門式開關	P1-32/V/SVB	1	PCS

PART H1
REGULATOR SET ASSEMBLY
PART NO : AHA-10289

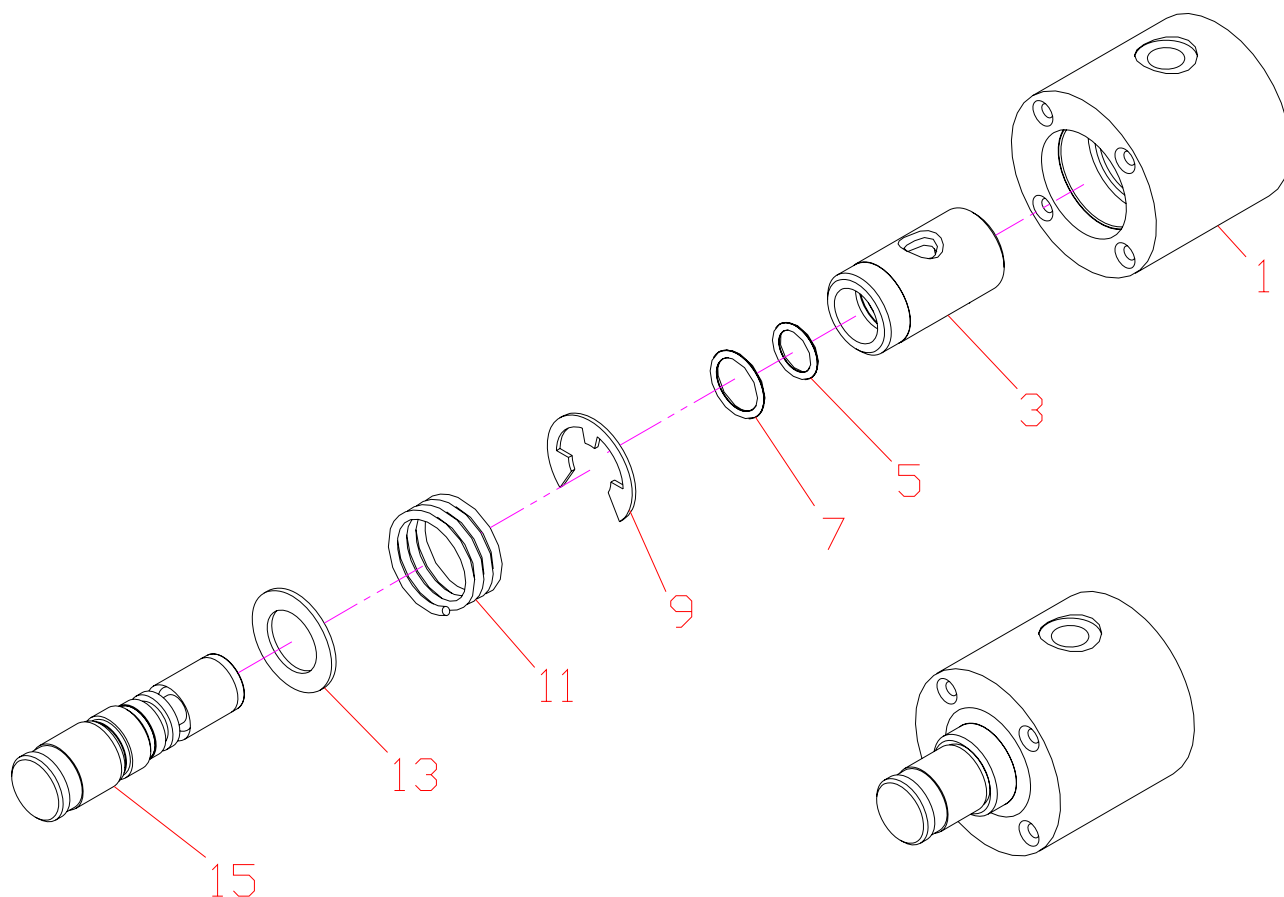


ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	PBA-5-45	bolt	有頭內六角螺絲	M5x45L	4	PCS
3	AHA-1036	rear cap	後蓋		1	PCS
5	AHA-1030	valve	針閥		1	PCS
7	AHA-1029	valve seat	閥座		1	PCS
9	PP-59082	o-ring	O 形環	P-22	1	PCS
11	AHA-1031	spring seat	彈簧定位套(一)		1	PCS
13	AHA-1032	spring	彈簧		1	PCS
15	AHA-1033	spring seat	彈簧定位套(二)		1	PCS
17	AHA-1035	front cap	前蓋		1	PCS
19	PP-59090	o-ring	O 形環	P-24	1	PCS
21	AHA-1034	adjusting bolt	調整螺栓		1	PCS
23	PS-4-4-10	key	方鍵	4x4x10L	1	PCS
25	PBA-5-50	bolt	有頭內六角螺絲	M5x50L	4	PCS
27	PP-59030	o-ring	O 形環	P-9	1	PCS
29	AHA-1037	dial seat	旋鈕座		1	PCS

PART H2

FLOW CONTROL VALVE ASSEMBLY

PART NO : AHA-6100

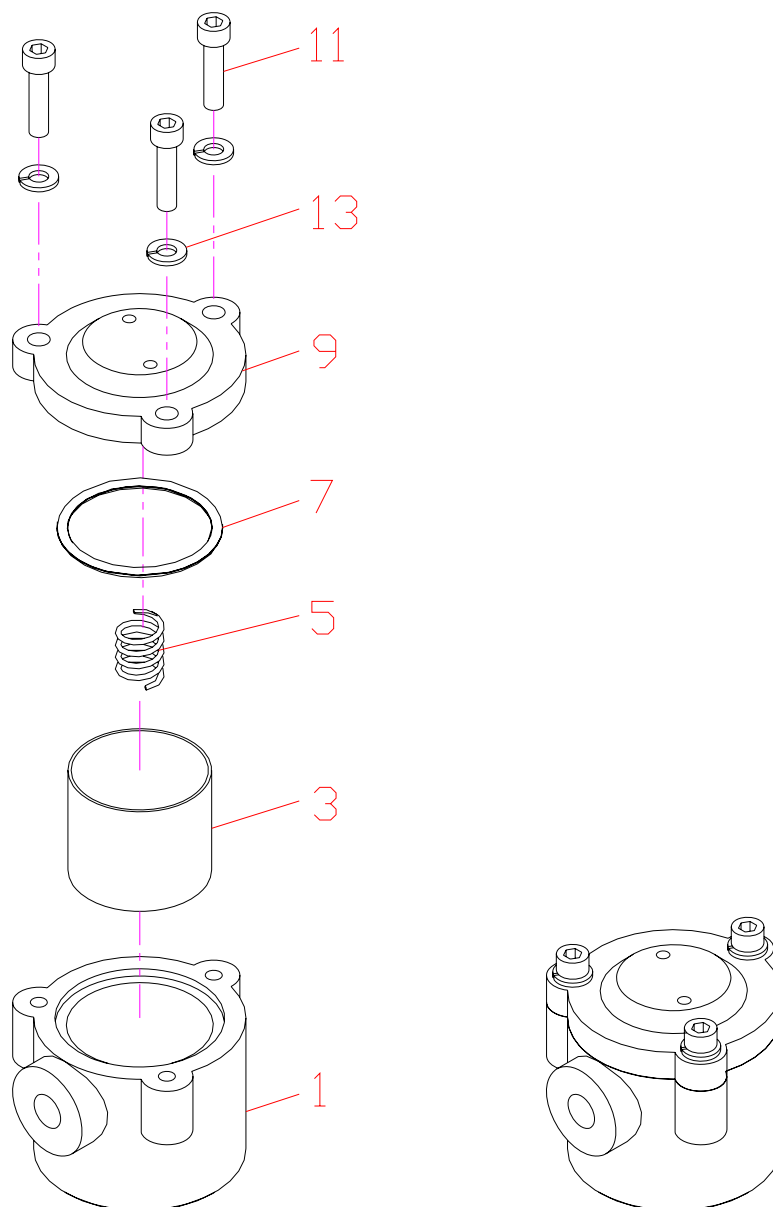


ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AHA-1039	valve seat	閥座		1	PCS
3	AHA-1043	valve sleeve	針閥套筒		1	PCS
5	PP-59071	o-ring	O 形環	P-15	1	PCS
7	PP-59075	o-ring	O 形環	P-19	1	PCS
9	PP-58152	snap ring	E 扣環	E-19	1	PCS
11	AHA-1042	spring	彈簧		1	PCS
13	AHA-1041	washer	彈簧墊圈		1	PCS
15	AHA-1040	valve	針閥		1	PCS

PART I

OIL FILTER ASSEMBLY

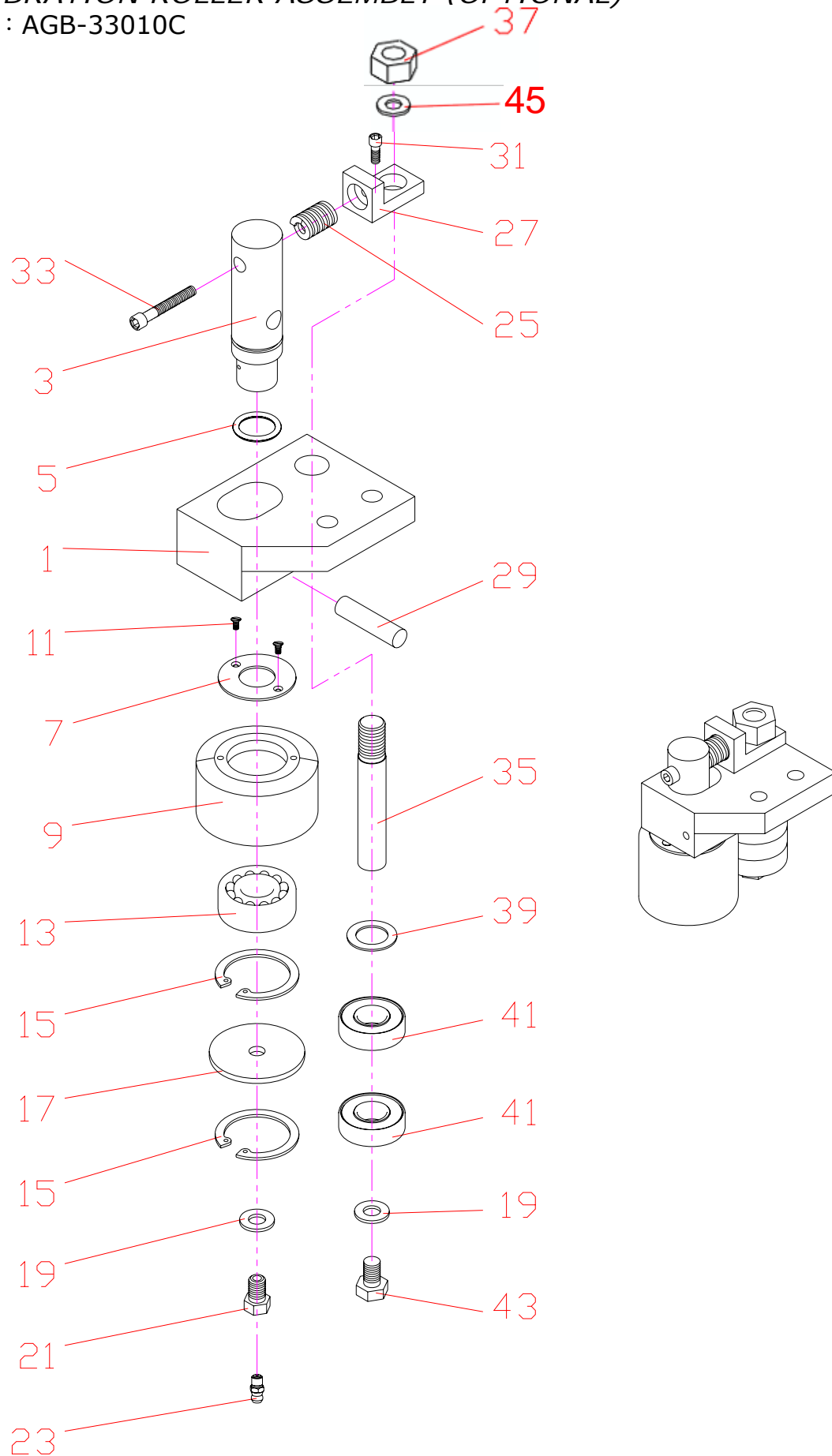
PART NO : AGB-707270



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AGB-70727	filter frame	濾油器本體		1	PCS
3	AGB-70730	filter	濾油器芯		1	PCS
5	AGB-70729	spring	濾油器彈簧		1	PCS
7	PP-59531	o-ring	O形環	G-45	1	PCS
9	AGB-70728	cap	濾油器蓋		1	PCS
11	PBA-6-25	bolt	有頭內六角螺絲	M6x25L	3	PCS
13	PQA-6	spring washer	彈簧華司	M6	3	PCS

PART J
ANTI-VIBRATION ROLLER ASSEMBLY (OPTIONAL)

PART NO : AGB-33010C



PART J

ANTI-VIBRATION ROLLER ASSEMBLY (OPTIONAL)

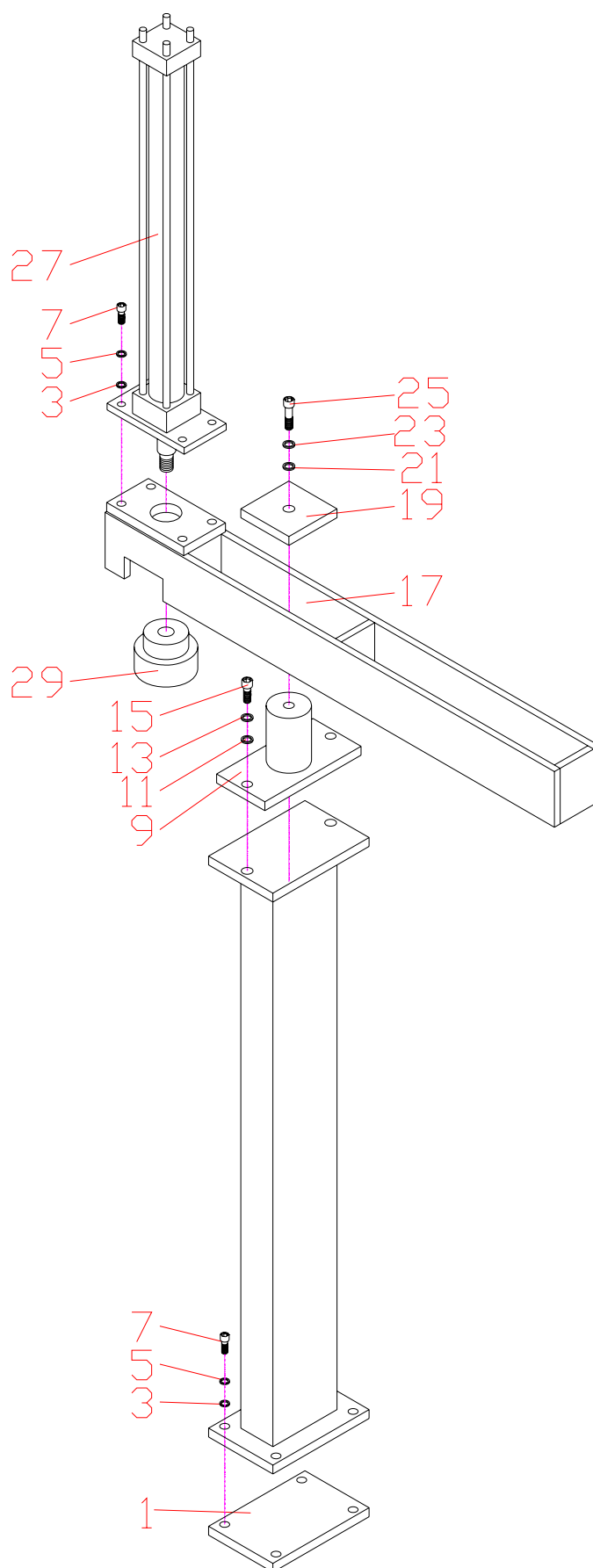
PART NO : AGB-33010C

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AGB-3303R	roller housing	防震座		1	PCS
3	AGB-3302A	anti-vibration roller shaft	防震導輪軸		1	PCS
5	PP-59085	o-ring	O 型環		1	PCS
7	AGB-3308	rubber plate	遮水橡皮		1	PCS
9	AHA-3301	anti-vibration roller	防震導輪		1	PCS
11	CANCELLED					
13	PP-14507	Bearing	調心軸承	2204	1	PCS
15	PP-58111	Snap ring	扣環	R47	2	PCS
17	AGB-3307	grease seal plate	牛油擋		1	PCS
19	PPA-10	flat washer	平面華司(公)	M10	2	PCS
21	AGB-3309	nipple bolt	油咀螺絲		1	PCS
23	PUC-020	nipple	油嘴	1/4-28UNF	1	PCS
25	PP-57403	spring	彈簧	TH-1625	1	PCS
27	AGB-3306N	spring adapter	防震彈簧座		1	PCS
29	PP-91366	Pin	直銷	Φ10 x 40 mmL	1	PCS
31	PBA-5-16	bolt	有頭內六角螺絲	M5 x 16L	1	PCS
33	PBA-6-45	bolt	有頭內六角螺絲	M6 x 45L	1	PCS
35	AGB-3305	anti-vibration roller shaft	固定導輪軸		1	PCS
37	POA-16-20	nut	螺母	M16	1	PCS
39	PPA-16	flat washer	平面華司(公)	M16	1	PCS
41	PP-14267	bearing	軸承	62032R	3	PCS
43	PLA-10-15	bolt	外六角螺絲	M10 x 15L	1	PCS
45	PQA-16A	spring washer	彈簧華司	16MM	1	PCS

PART K

PRESS ASSEMBLY (OPTIONAL)

PART NO : S700D-24000



PART K

PRESS ASSEMBLY (OPTIONAL)

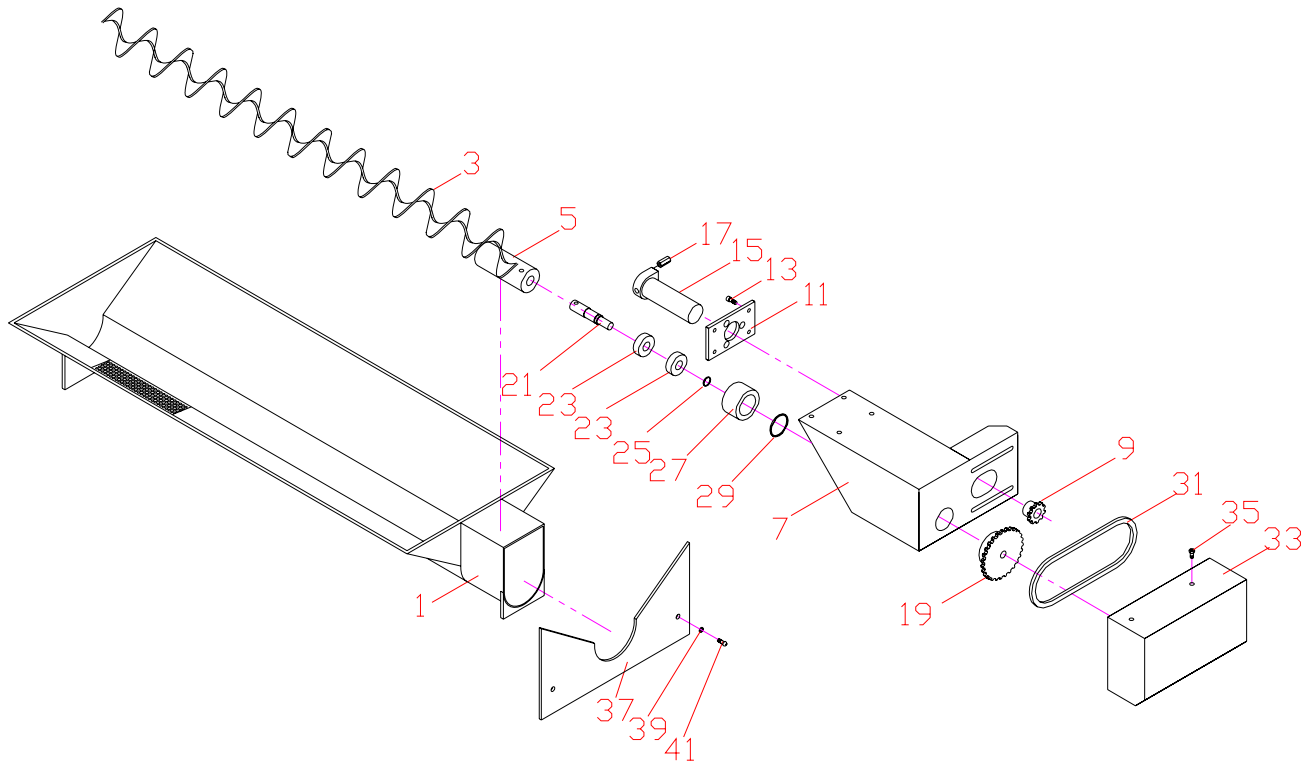
PART NO : S700D-24000

ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	S700D-2405	press the base	下壓底座		1	PCS
3	PPA-10	washer	平面華司	M10	8	PCS
5	PQA-10	spring washer	彈簧華司	M10	8	PCS
7	PBA-10-25	bolt	有頭內六角螺絲	M10xP1.5 x25L	8	PCS
9	S700D-2403	seats	下壓支撐座		1	PCS
11	PPA-12	washer	平面華司	M12	2	PCS
13	PQA-12	spring washer	彈簧華司	M12	2	PCS
15	PBA-12-25	bolt	有頭內六角螺絲	M12xP1.75 x25L	2	PCS
17	S700D-2401	press the seats	下壓座		1	PCS
19	S700D-2413	brake stiffly	下壓制動板		1	PCS
21	PPA-12	washer	平面華司	M12	1	PCS
23	PQA-12	spring washer	彈簧華司	M12	1	PCS
25	PBA-12-35	bolt	有頭內六角螺絲	M12xP1.75 x35L	1	PCS
27	PP-43438	oil pressure jar	油壓缸	PP-43438	1	PCS
29	S700D-2409	press plate	下壓塊		1	PCS

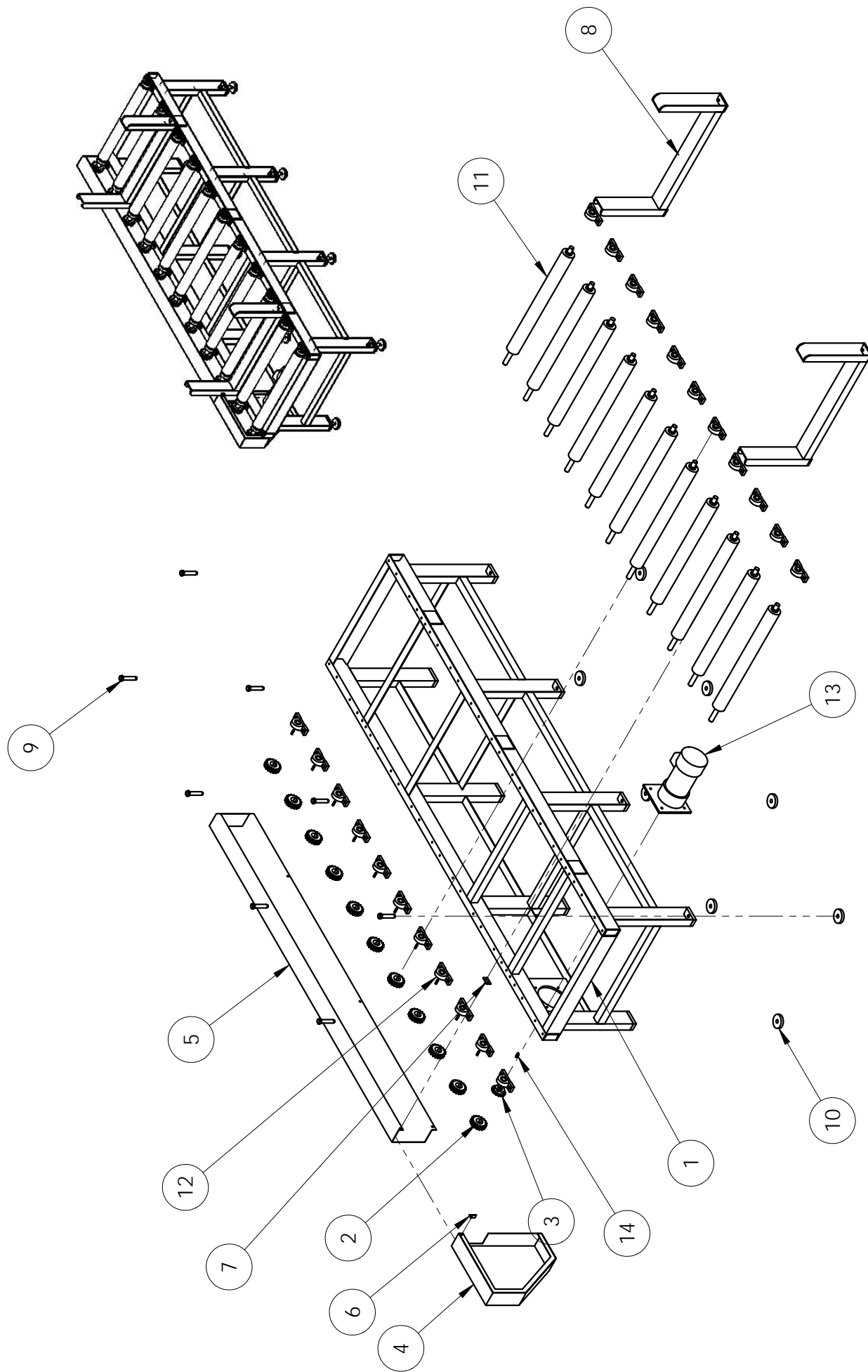
PART L

CHIP CONVEYOR ASSEMBLY (OPTIONAL)

PART NO : AEE-C001



ITEM	PART NO.	PART NAME	PART NAME (CH)	PART SPEC.	COUNT	UNIT
1	AEE-1008	basket	除屑機本體		1	PCS
3	AHA-2014C	rod	除屑螺旋		1	PCS
5	AHA-2022B	shaft	除屑螺旋軸		1	PCS
7	AGC-1060	motor bracket	除屑馬達座		1	PCS
9	AHB-2019B	wheel	傳動鍊輪(小)		1	PCS
11	AHB-2026	plate	泵浦連接板		1	PCS
13	PBA-6-20	hexagon socket head bolt	內六角螺絲	M6 x 20L	4	PCS
15	PP-31640-1	motor	油壓馬達	OMM-20-128-0020	1	PCS
17	PP-43117	flow control valve	流量閥		1	PCS
19	AHB-2019A	wheel	傳動鍊輪(大)		1	PCS
21	AHB-2023A	wheel shaft	鏈輪軸		1	PCS
23	PP-14003	bearing	軸承	6202 VV	2	PCS
25	PP-52097	snap ring	扣環	S15	1	PCS
27	AHB-2020B	bearing holder	軸承座		1	PCS
29	PP-58106	snap ring	扣環	R35	1	PCS
31	PP-19061	chain	鏈條	RS35	1	PCS
33	AGC-1061	motor cover	除屑馬達蓋		1	PCS
35	PLA-6-12	hexagon head bolt	外六角螺絲	M6 x 12L	2	PCS
37	SEE-1058	fixed plate	除屑機架		1	PCS
39	PPA-6	washer	平面華司	φ 6	2	PCS
41	PFA-6-15	Cross pan head screw	丸頭螺絲(十字)	M6 XP1.0x15L	2	PCS





SH-700DM

SERIES PART LIST

05OPR-700DM-3M-P

三米動力料架

3M POWER ROLLER TABLE

ITEM	PART NO.	PART NAME	PART NAME IN CHINESE	QTY
1	S700D-5051	Power roller table	電動料架	1
2	SGC-71308	Chain wheel	鏈輪	11
3	SGC-75004A	Motor chain wheel	馬達鏈輪	1
4	SGL-5104A	Chain wheel cover	主鏈輪護蓋	1
5	SGL-5105G	Chain wheel cover	鏈輪護蓋	1
6	SGL-5106	Chain wheel supporter	鏈輪蓋支撐板	1
7	SGL-5110	Chain wheel cover fixed	鏈輪蓋固定耳	1
8	AGB-5303	Side shield	側護座	2
9	AHC-0152	Table stand adjustment rod	調整螺桿	8
10	AHR-1055	Table stand pad	底座墊塊	8
11	OPR-7201FA	Roller	電動滾輪	11
12	PP-12020	Bearing	連座軸承	22
13	PP-31648	Motor gear reducer	馬達減速機	1
14	PP-91707	Parallel key	平行鍵	12

Warranty

Warranty

New machines are warranted to be free from defects in workmanship and material for a period of one (1) year from the date of shipment by Seller. The warranty period is based on normal usage of two thousand eighty hours (2080) per year and is reduced proportionately for any excess usage. Products, which under normal operating conditions in Buyer's plant are defective in workmanship or material, will be repaired or replaced at the option of Seller.

This warranty does not cover shipping freight charges for either the return of the defective part or for the shipping of the replacement or repaired part.

Seller will have no obligation to repair or replace perishable parts, or materials or parts damaged by misuse, negligence or failure of Buyer to provide appropriate maintenance and service as stated in the operator's manual or industry standard and normally acceptable practices.

This warranty does not apply if the machine has been altered or modified without our prior written consent.

In the case of components or units purchased by Seller including work holding devices, tool holders, motors and controls, the warranty shall not exceed that received by Seller from the supplier of such components or units.

Seller will not assume responsibility for products or components returned to Seller without prior consent or for unauthorized repairs to its products, even though defective.

Electrical Equipment: The warranty available for all electrical components to the Buyer will be voided if the voltage supplied to the machine is found to be outside the stated voltage of the machine by +/- 10% and/or grounded at machine.

Accessories Supplied with Manufacturer's Equipment: The warranties available to the Buyer are those extended by the accessory manufacturer, if any, to the extent they are in force and effect. The ACCESSORY MANUFACTURER'S WARRANTY, if any, is exclusive and is in lieu of all other warranties whether written, oral or implied.



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