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WARNING LABEL LOCATIONS



KEEP HANDS CLEAR

SAFETY INSTRUCTIONS

1. Read and understand the Operation Manual and all safety labels before operating this machine.
2. Only a trained person is to be permitted to operate this machine. Training should include instruction in operation under normal conditions and emergency situations.
3. This machine is to be serviced only by trained and authorized personnel. Follow lockout procedures before servicing.
4. Never reach into the machine for any reason unless the machine is at a COMPLETE STOP.
5. Never leave the machine stopped in such a manner that another worker can start the machine while you are working on or within the machine.
6. Never change or defeat the function of electrical interlock or other machine "shutdown" switches.
7. Before starting this machine, check that:
 - All persons are clear of the machine.
 - No maintenance work is being performed on the machine.
 - All guards are in place.
 - All parent rolls are well chucked in the unwind stands.
 - The machine is free of paper scraps, wraps and jams.
8. There is a potential hazard of entanglement in this machine caused by items such as long hair, loose clothing and jewelry. Make sure your clothing and hair fit closely to your body and that all jewelry, rings and watches are removed.



WARNING

Rotating blade hazard.
Do NOT operate with guard removed.
Lockout / tagout before servicing.



WARNING LABEL (1)



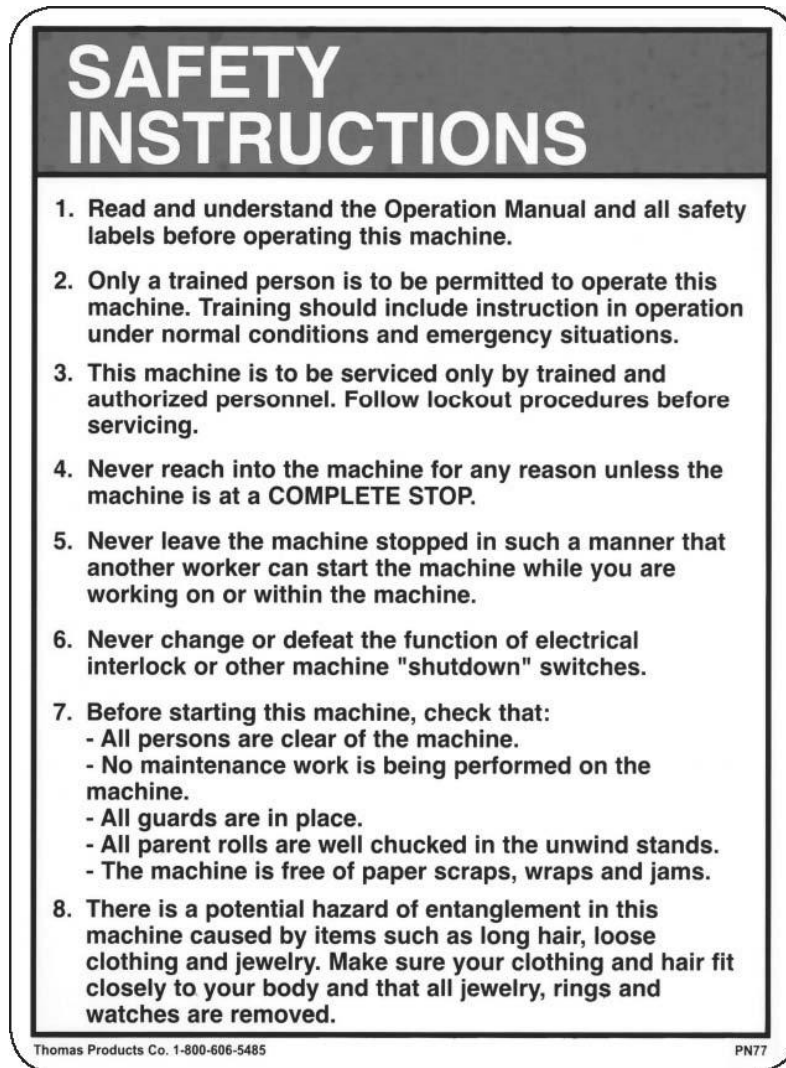
The warning label "KEEP HANDS CLEAR", shown as above, is attached to the sawblade front guard. It warns the operator to keep hands out of this area.

WARNING LABEL (2)



The warning label "Rotating blade hazard". Do not operate with guard removed. Lockout/tagout before servicing", shown as above, is attached to side guard. It warns the operator do not operate the machine when the sawblade guard is opened.

SAFETY INSTRUCTIONS LABEL (3)



The label "SAFETY INSTRUCTIONS", shown as above, is attached to the front of cabinet. It gives safety instructions for operating the cut off saw.

CAUTIONS BEFORE OPERATING

1. This machine is designed for woodworking purpose (e.g. wood, polywood, composite wood, etc.).

It is prohibited to process any other materials of workpiece. (E.g. metal material, rubber / plastic material, alloy, etc.)

2. After the machine is transported to the installed site which must be cared to take off the exporting case and the install site must be flatten and rugged. If there are not flatten which can be inserted the shim at the bottom of the machine, so that there are not swung.

3. After the installed process is completed and then, which can be connected the power wire. Meanwhile, to inspect the rotating direction of circular saw is same as indicated or not. Check if there are not which must exchange the connecting terminal.

4. Before operating, firstly inspecting safety appurtenance, guard of saw blade- - - etc. and other safety device locked tightly or not.

5. In operating, operator shall stand away from the saw blade the tangent direction with rotate round; for fear that dust might get into eyes. And do not let hand nearness to the saw blade.

6. When workpiece jammed during operation, or necessarily to adjusting machine, please immediately stop the power.

7. To check the transmission “V” belt and the saw blade, when the phenomenon of the insufficient power occurred.

OPERATION PROCEDURES

1. Properly adjust the hold-down clamp according to the workpiece thickness.
2. To adjust hold-down clamp position, place a workpiece to be cut under the hold-down clamp, and adjust the hold-down clamp position by turning the adjustment knob. Normally the hold-down clamp position is adjusted to 1/4"~3/8" above the workpiece.
3. When the hold-down clamp is adjusted, remove the workpiece.
4. Start the sawblade running by pressing the blade start switch provided on the control panel.
5. Turn the AIR POWER SWITCH to on position.

GENERAL SAFETY RULES FOR WOODWORKING MACHINERY WARNING



WARNING

Do not attempt to operate until you have read thoroughly and understood completely all instructions, rules etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious personal injury. Keep this operation manual and review frequently for continuous safe operations.

1. Know your machine. For your own safety, read the operation manual carefully. Learn its applications and limitations, as well as specific potential hazards pertinent to this machine.
2. Don't remove the warning signs, markings, nameplates fixed on the machine.
3. Make sure the machine is properly grounded.

GENERAL SAFETY RULES FOR WOODWORKING MACHINERY WARNING

- 4.** Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, make sure it is properly reattached before using the machine again.
- 5.** Do not use in dangerous environments. Do not use machine in damp or wet locations, or expose them to rain. The work environment must be used adequate lighting. (Over 500 lux)
- 6.** Keep children away. All visitors should be kept at a safe distance from work area.
- 7.** Make workshop childproof with padlocks, master switches, or by removing starter keys.
- 8.** Do not force the machine. Do not exceed the maximum width and thickness of the workpiece. It will do the job better and be safer at the rate for which it was designed.
- 9.** Use the right tools. Do not force the machine or attachments to do a job for which they were not designed. Contact the manufacturer or distributor if there is any question about the machine's suitability for a particular job.
- 10.** Maintain machine in top conditions. Keep machine clean for best and safest performance. Follow instructions or lubricating and changing accessories.
- 11.** Use recommended accessories. Consult the operation manual for recommended accessories.

GENERAL SAFETY RULES FOR WOODWORKING MACHINERY WARNING

12. Do not use machine while under the effects of drags, alcohol, or any medication.
13. Keep proper footing and balance at all times.
14. Disconnect machine from power source, before maintaining and when changing accessories, or when mounting and remounting motor.
15. Avoid accidental starting. Make sure switch is in the "off" position before plugging in power cord.
16. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to make sure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. Guards or other parts that are damaged should be properly repaired or replaced.
17. During indoor use the machine shall be connected to an external chip and dust extraction system. Make sure the dust extraction equipment is to be switched on before commencing machining. Always wear a face or dust masks if operates a lot of saw dust and or wood chips. Always operate the machine in a well ventilated area and provide for proper dust removal.
18. Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.

ADDITIONAL SAFETY RULES FOR CUT-OFF SAW

1. All operators should read carefully and make sure they understand the details before starting operation and/or maintenance. For safety reasons un-trained operators are not allowed to operate the machine. Only operators adequately trained in the use, adjustment, and operation of the machine can handle the cut off saw.
2. Keep hands away the cutting area.
3. Always disconnect the power source before making any adjustments.
4. Do not operate the machine in case air pressure does not reach the normal working pressure. Normal working pressure for this cut off saw is 5kg/cm².
5. Make sure the height of the hold-down clamp is properly adjusted.
6. Make sure the saw blade running direction is correct.
7. Do not cut warped wood. The work piece must be sit flat on the table without rocking.

ADDITIONAL SAFETY RULES FOR CUT-OFF SAW

8. Never try to remove the cut-off piece until the power is off and saw blade has stopped.
9. Always use fence to position and guide workpiece. Do not use hands to support the work.
10. Do not exceed the maximum width and thickness of the workpiece for which the machine is designed.
 - * The maximum cutting capacity (thickness x width) for 24" cut off saw is 2" x 21", 4" x 19", 6" x 15", 8" x 8".

UNPACKING AND CHECKING CONTENTS

The Cut-Off Saw and outfeed conveyor table are separately packed in two wooden crates. In some cases, the infeed and outfeed conveyor table can be dismantled from the cut-off saw and packed together for saving shipping freight.

Carefully unpack the machine and ensure that all parts are present and free of damage. If any parts are missing or damaged, contact your local dealer immediately.

Do not attempt to assemble or operate the machine without all components present and in working order.

CLEANING THE MACHINE

After the machine is unpacked, remove the rust preventative oil that coats the machine with a cloth soaked in kerosene. Do not use gasoline or lacquer thinner, as this can damage the painted parts of the machine.

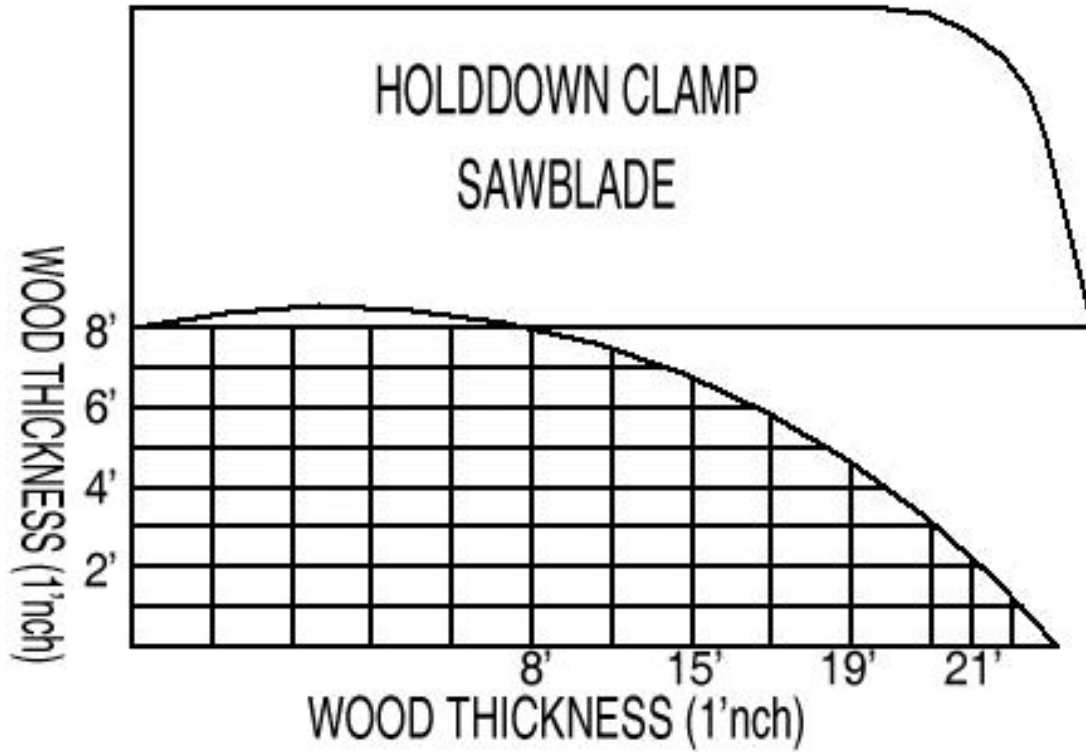
MACHINE SPECIFICATIONS

■ SPECIFICATIONS

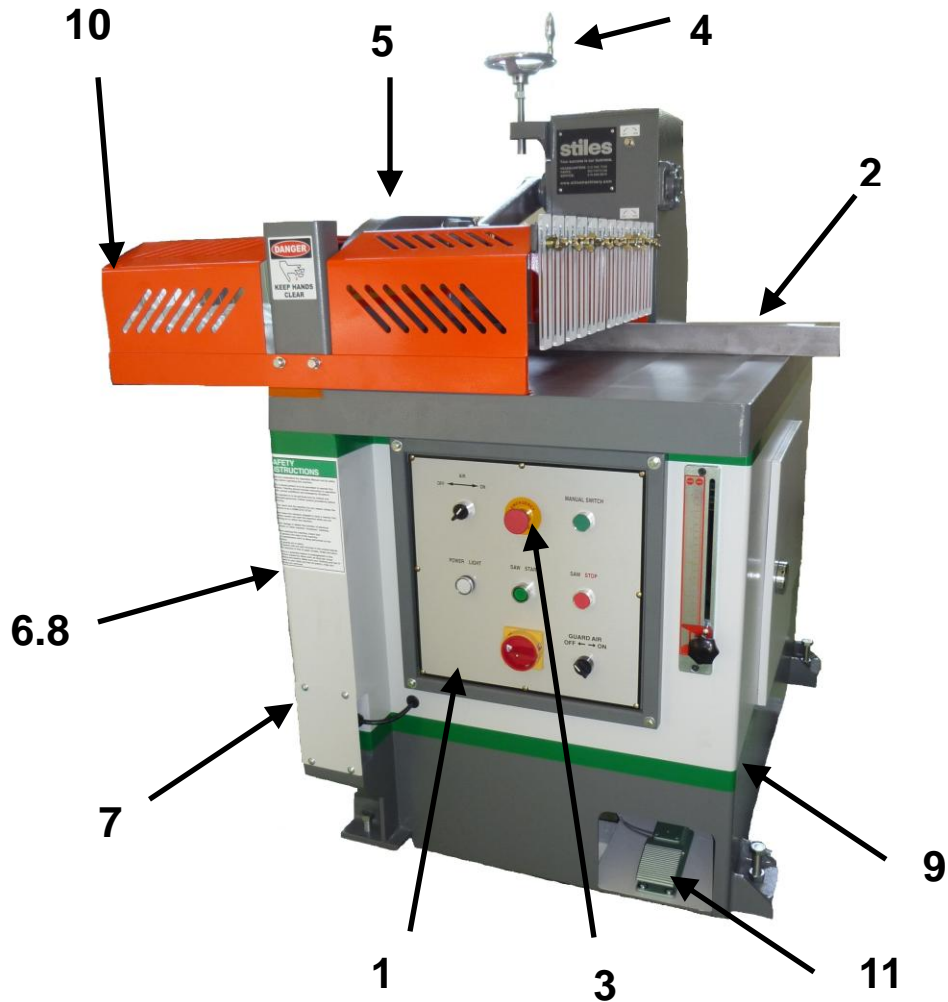
24" CUT-OFF SAW	
Cutting capacity (thickness x width)	50 x 530, 100 x 480, 150 x 380, 200 x 200 mm
Cycle speed	40 strokes/ min
Cycle operation	Air
Saw blade size (optional)	20" / 22" / 24"
Saw arbor diameter	1"
Saw blade speed	2100 RPM
Dust exhaust diameter	φ 4"
Motor	15HP
Table size	1150 x 660 mm
Net weight	480 kgs
Gross weight	560 kgs
Packing dimensions (L x W x H)	1360 x 900 x 1450 mm
Noise level	83 dB

CUTTING CAPACITY DIAGRAM

24" CUT-OFF SAW:



LEGEND OF 24" CUT-OFF SAW



- | | |
|----------------------------|-----------------------------|
| 1. Control panel | 6. Sawblade (optional) |
| 2. Fence | 7. Dust hood outlet |
| 3. Emergency stop switch | 8. Saw blade door |
| 4. T clamp adjustment knob | 9. Cabinet |
| 5. T clamp plate | 10. Safety protection cover |
| | 11. Pedal switch |

ELECTRIC CONTROL SWITCHES

1. POWER SWITCH:

Turn to ON position and then the power is on.
Turn to OFF position and then the power is off .

2. GUARD AIR SWITCH (T-CLAMP DOWN-UP SWITCH):

Turn this switch to OFF position for shutting off air pressure.
Turn this switch to ON position, air enters into the air circuit, and then the guard (T-clamp) quickly goes up. The cut-off saw keeps its original position.
Turn this switch to OFF position for exhausting air pressure. There's no air inside the air circuit, so the guard (T-clamp) quickly goes down.

3. AIR SWITCH:

Turn this switch to ON position, and then air enters into the air circuit.

4. SAWBLADE STOP BUTTON:

Press this button for stopping the sawblade, and if you want to recover, please turn it clockwise .

5. SAWBLADE START BUTTON:

Press this button for starting the sawblade running.

6. POWER LIGHT:

Turn the power switch to ON position , and then the power light will be bright.

7. MANUAL SWITCH:

Its function is similar to the pedal switch.
Instead of the function of the pedal switch , you can press it by hand to control the sawblade rising up .




EMERGENCY STOP SWITCHES

This is an emergency stop switch for control system. When this switch is pressed, the machine stops immediately.

**EMERGENCY
STOP SWITCH**



	CAUTION
This emergency stop switch only shut off air and power.	

INSTALLING MACHINE

The cut-off saw does not need to be bolted into the concrete floor, however a solid and plan enough concrete floor is requested. Leave proper space around the machine for conveniently handling the material to be cut.



CONNECT POWER WIRES

This machine has been factory wired according to the required voltage before shipment. When connecting this machine to your factory power source, be sure your power supply is the same voltage, hertz and phase as the machine pre-wired.

Connect the power wires to "R, S, T" contacts in the junction box, located at back side of the machine cabinet. After the power wires are connected, try to start the saw blade running by pressing the saw blade start switch, and then press the saw blade stop switch for immediately stopping the sawblade. At this time check to see if the sawblade runs to the correct direction as arrow sign indicated.

CONNECT POWER WIRES

If the saw blade runs to the direction as arrow sign instructed, then the power wires are correctly connected, otherwise you should change any two of the three power wires to obtain a correct running direction of the sawblade.

The machine should be properly grounded to avoid electric shock.



WARNING! Disconnect the machine from the power source before changing wires connection.



**SAWBLADE RUNNING
DIRECTION ARROW SIGN**

CONNECTING DUST COLLECTION SYSTEM

The cut off saw is equipped with a dust exhaust outlet, located at the left side of the machine. The dust exhaust outlet diameter is $\varphi 4''$. Use a proper diameter of flexible hose to connect the exhaust outlet to a dust collector.



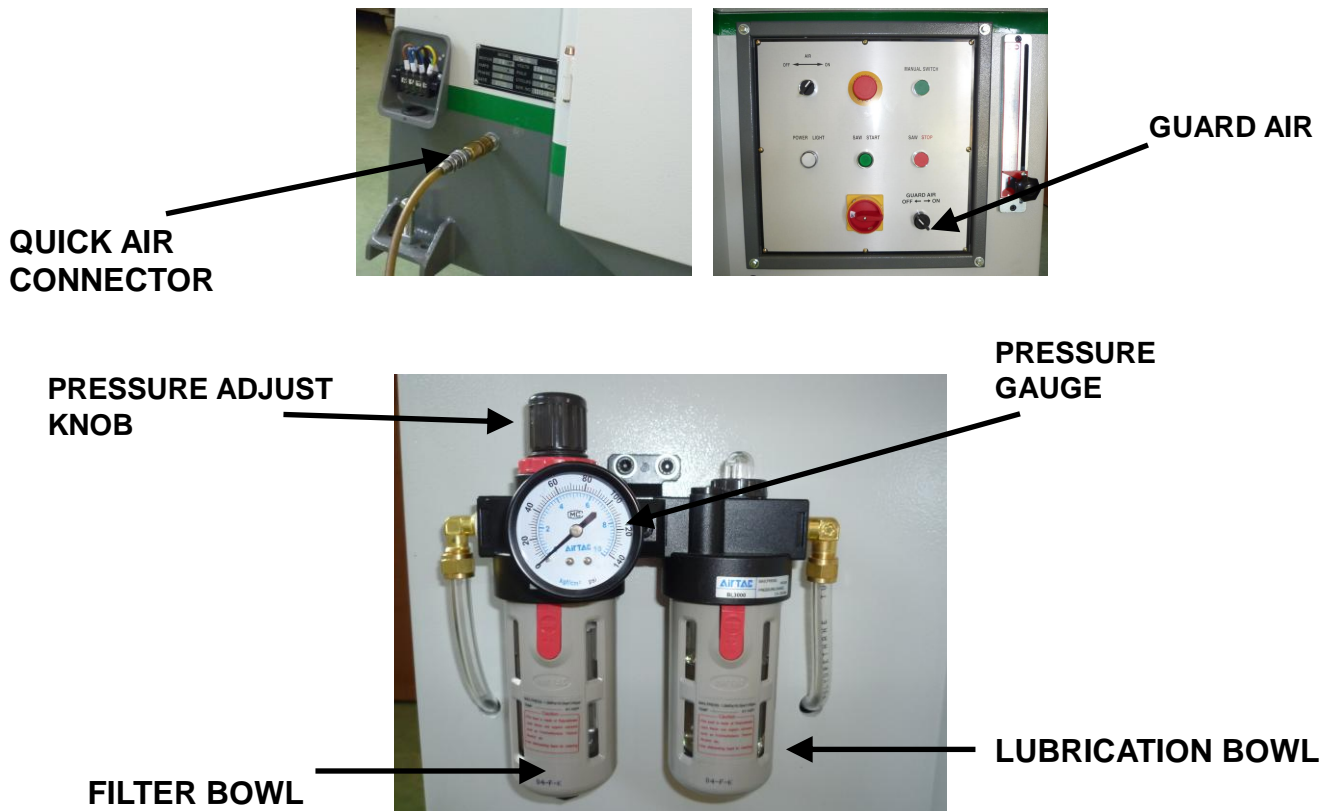
**24" DUST EXHAUST
OUTLET ($\varphi 4''$)**

AIR CIRCUIT CONNECTION

The quick air connector is provided on the cabinet. simply connect the air source to the air connector.

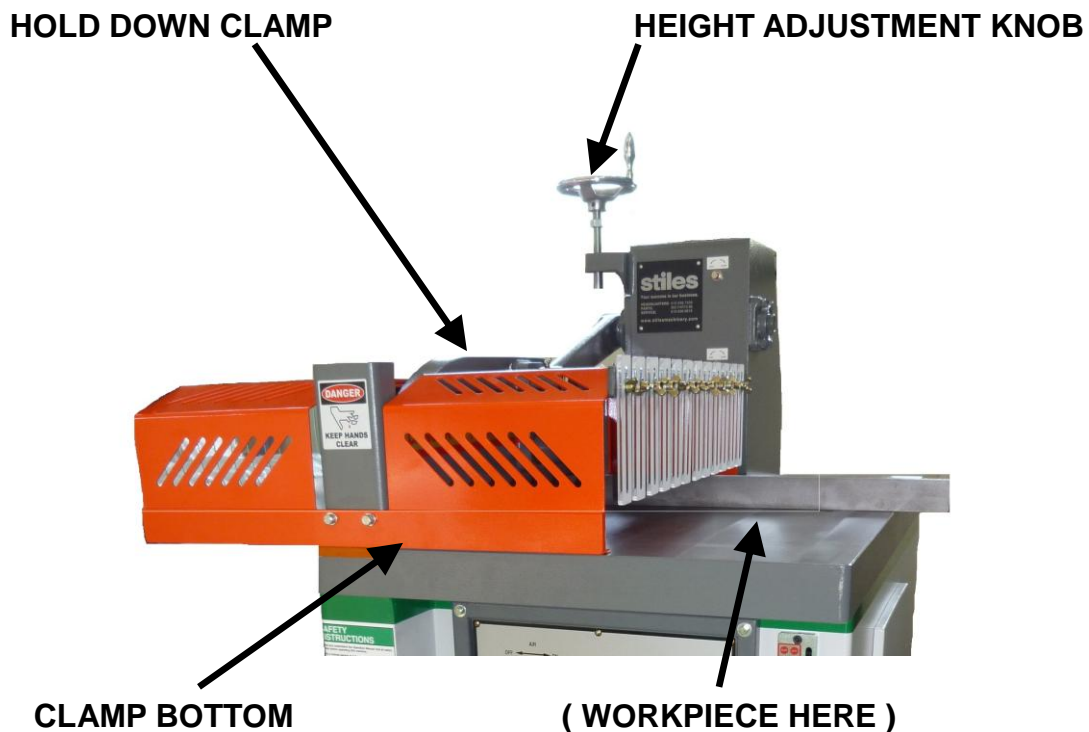
The Guard Air is mounted on the control panel,controlling air on and off.

The Filter/Regulator/Lubricator unit (F.R.L. UNIT) is mounted at the cabinet. The working pressure is indicated on pressure gauge of F.R. L unit. The correct working pressure should be adjusted to 5-6 kg/cm² range. To adjust working pressure simply turn pressure adjust knob. Turn the knob clockwise for increasing pressure, turn knob counter-clockwise for reducing pressure.



ADJUSTING WORKING HEIGHT

1. Raise the hold-down clamp by turning the GUARD AIR to the right position on the control panel.
2. Place a workpiece to be cut under the hold down clamp.
3. Turn the height adjustment knob to raise or lower the hold down clamp.
If you feel heavy to turn this knob, turn the GUARD AIR to left position for effortless turning of the knob.
4. Normally the hold-down clamp is adjusted so that its bottom is about above the workpiece.
5. After the hold down clamp is adjusted, tighten the lock nut.



SAW BLADE (OPTIONAL)

NOTE: The cut-off saw accommodates 24" diameter sawblade.

1. Only correctly sharpened saw blades manufactured according to EN 847-1:1997 are used.
2. The suitable sawblade is a 24" diameter carbide tipped blade.
24" sawblade: Teeth number is 80.
Blade bore size is 1" diameter.
3. The sawblade should cycle under the maximum safe operating speeds.
For 24" sawblade, the cycle speed should not exceed the maximum safe operating speed of 2400 RPM or greater.
4. Always keep the sawblade sharp for normal cutting quality. Sharpen the sawblade immediately in case it is worn out.

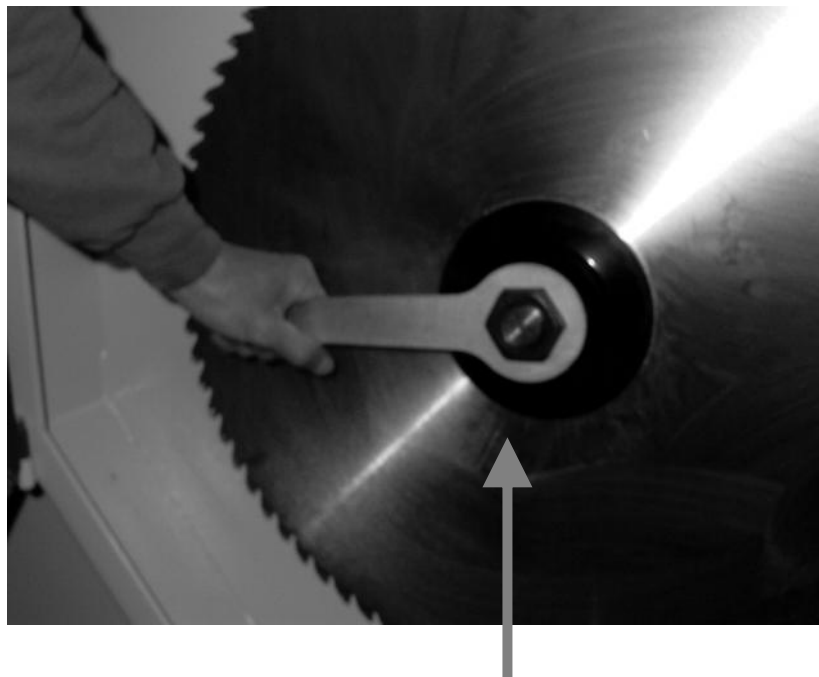
REPLACING THE SAWBLADE



WARNING

Disconnect the machine from power source before replacing the saw blade.

1. Disconnect the machine from the power source.
2. Open the left side door. Use the supplied door handle to turn the door latch for opening the door.
3. Loosen the sawblade lock screw by using the supplied **hex wrench**.



HEX WRENCH

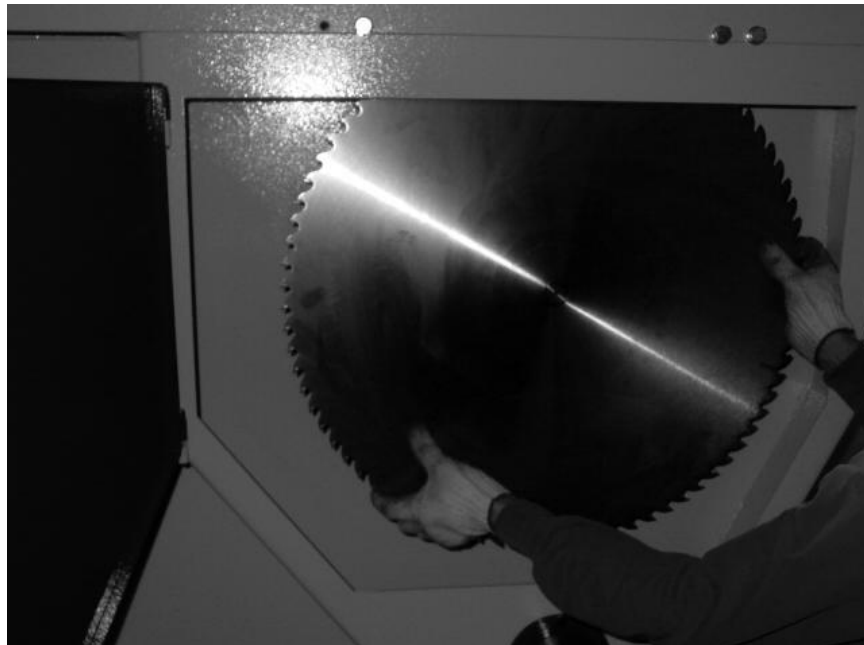
REPLACING THE SAWBLADE

4. Remove sawblade lock screw and flange. Take out the old sawblade.



FLANGE

SAWBLADE



REPLACING THE SAWBLADE

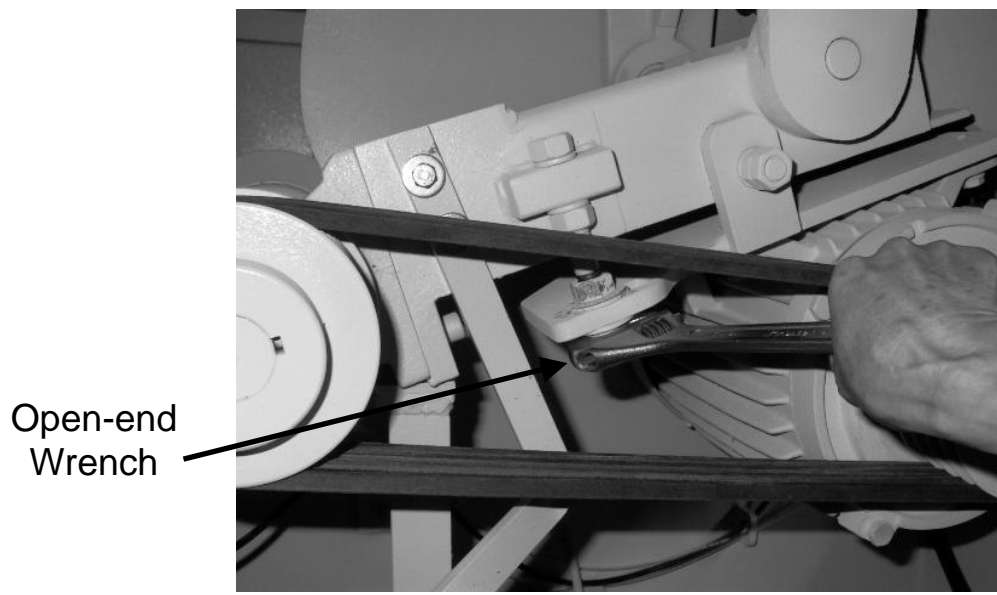
5. Fit a sawblade onto the arbor. Ensure that the arbor and flange are clean of dust and debris before fitting the saw blade.
6. Be sure the saw blade teeth point toward its running direction.
7. Tighten the sawblade securely by using the supplied hex wrench and open-end wrench.
8. Reverse above procedures to return the machine to its original condition.

ADJUSTING V-BELT TENSION

After the machine has been operated for a long period, the V-belt tension may loosen gradually. At this time you need to adjust the V-belt tension.

Inadequate tension in the V-belt will cause the belt to slip from the pulley. To adjust V-belt tension:

1. Disconnect the machine from the power source.
2. Open the front door by using the supplied door handle.
3. Slightly loosen and tighten the screw by open-end wrench to increase the belt tension.



REPLACING V-BELT

If the saw arbor speed decreases or an abnormal sound when starting the sawblade, then it is suggested to replace the V-belt.

When replacing the V-belt, replace the complete three belts to ensure a consistent tension on each belt.

Refer to “ADJUSTING V-BELT TENSION” for V-belt replacement procedures. The V-belt specification of 24” CUT-OFF SAW is MF-6500.

LUBRICATION

Periodically check the oil amount in lubricator bowl on some parts of cut-off saw which need lubrication:

Parts	Oil Type	Lubricating Interval
Main spindle	Grease	130~150 hours
Rocker lift transmission hand	Grease	30~50 hours
F.R.L. Combination unit.	R32 Cycle Oil	80~150 hours
Sawhead bracket pivot	Grease	Periodically

※ The saw arbor bearings are sealed and need no lubrication.

MAINTENANCE

1. Buildup of saw dust and other debris can cause the machine to cut inaccurately. Periodic cleaning is not only recommended, but mandatory for accurate-cutting.
2. Periodically check the oil in the lubrication cup of the Filter/regulator/lubricator combination unit.
3. Periodically check the water accumulated in the filter cup of the filter/regulator/lubricator combination unit.
4. Clean the saw dust existed on the machine.
5. Periodically to clean scrap of remains on the table, and keep saw blade in sharp condition at all time.

FUNCTIONAL TEST

Those safety devices will be tested functionally.

i) Emergency stop(s) –

Test to be taken at 2~3 week intervals.

ii) Interlocked guards –

Test to be taken at 2~3 week intervals by opening each guard in turn to stop the machine and by proving an inability to start the machine with each guard in the open position.

iii) Guard locking –

Test to be taken at 2~3 week intervals by proving an inability to open the guard as long the saw blade is rotating.

iv) Any light barriers –

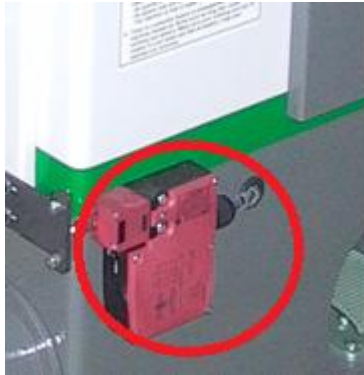
Test to be taken at 2~3 week intervals.

v) The brake –

Test to be taken at 2~3 week intervals to check that the machine is braked within the specified time.

CE SAFETY SWITCH FUNCTION

Press the saw blade off switch .After 60 seconds, the saw blade will stop working .Then after 10 seconds; you can open the saw blade door.

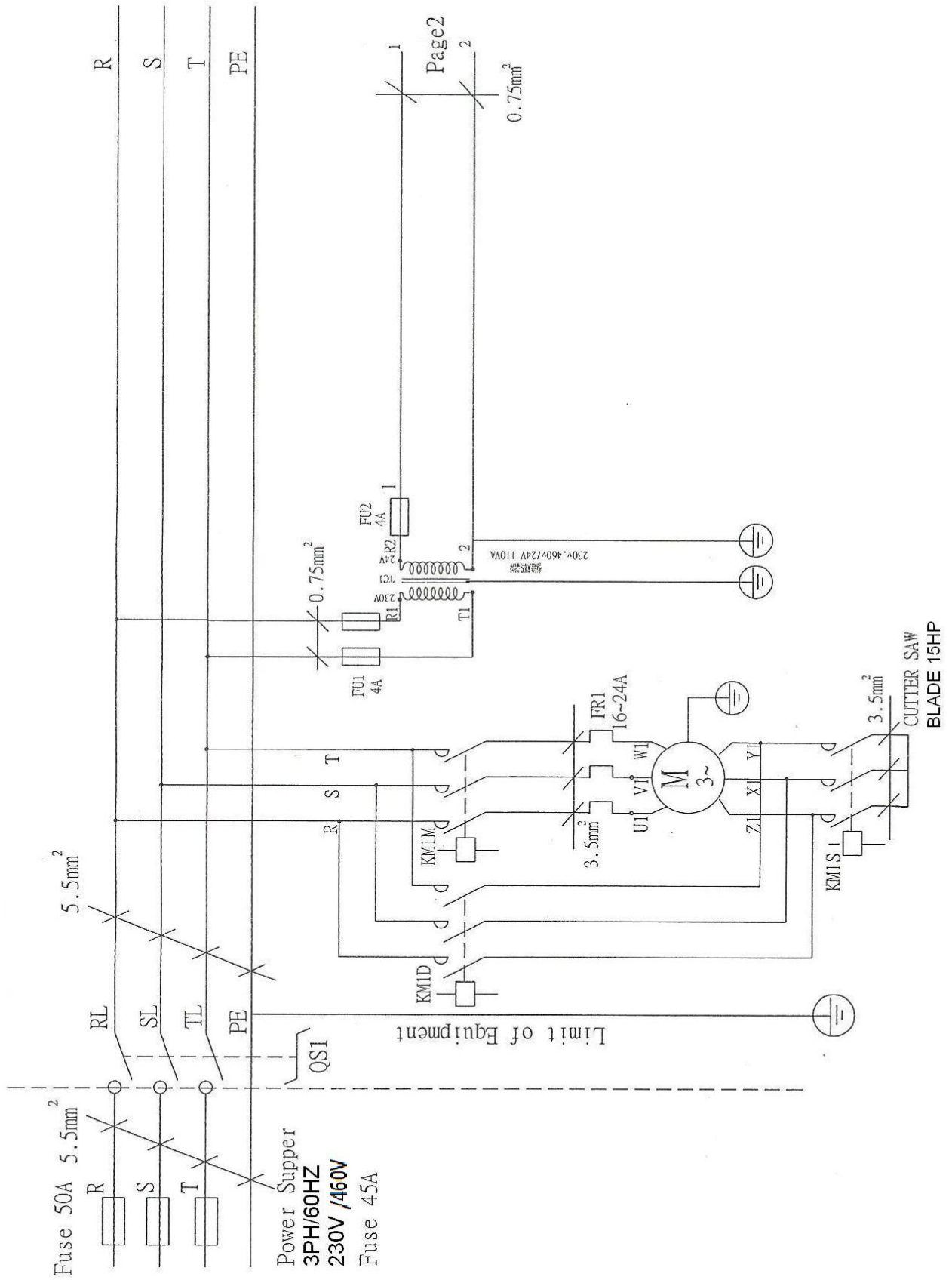


TROUBLE SHOOTING

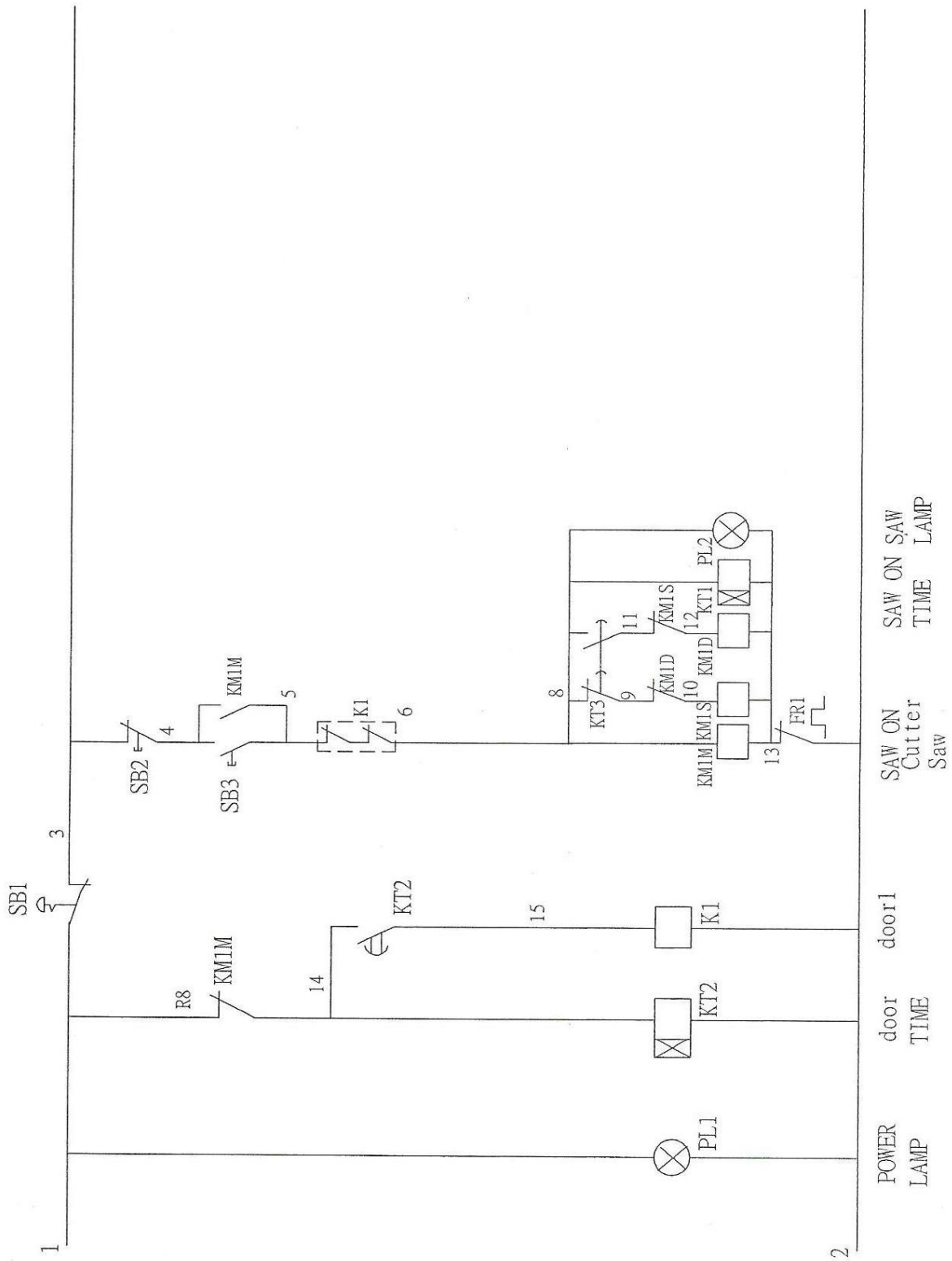
TROUBLE SHOOTING

TROUBLE	PROBABLE CAUSES	CORRECTION
SAWBLADE STARTING FAILED	<ol style="list-style-type: none"> 1. Factory power abnormal 2. Power wire damaged 3. Overload thermal pin kick out 	<ol style="list-style-type: none"> 1. Check 2. Replace 3. Press it down
POOR CUTTING QUALITY	<ol style="list-style-type: none"> 1. Sawblade dulled 2. Inaccurate fence alignment 	<ol style="list-style-type: none"> 1. Sharpen sawblade 2. Adjust fence squareness
WORKPIECE BURNT	<ol style="list-style-type: none"> 1. Sawblade dulled 2. Blade teeth worn out or broken 	<ol style="list-style-type: none"> 1. Sharpen sawblade 2. Replace sawblade
SAWBLADE SLOWS DOWN DURING CUTTING	<ol style="list-style-type: none"> 1. Sawblade dulled 2. V-belt tension too loose 3. Blade teeth worn out or broken 	<ol style="list-style-type: none"> 1. Sharpen sawblade 2. Adjust v-belt tension 3. Replace sawblade
MOTOR DOES NOT RUN AT FULL SPEED	<ol style="list-style-type: none"> 1. Power voltage too low 2. Overloaded 	<ol style="list-style-type: none"> 1. Test voltage 2. Reduce load
MOTOR OVERHEATING	<ol style="list-style-type: none"> 1. Motor is dirty 2. Motor is damaged 	<ol style="list-style-type: none"> 1. Clean motor 2. Check and repair motor

ELECTRIC WIRING DIAGRAM (1)

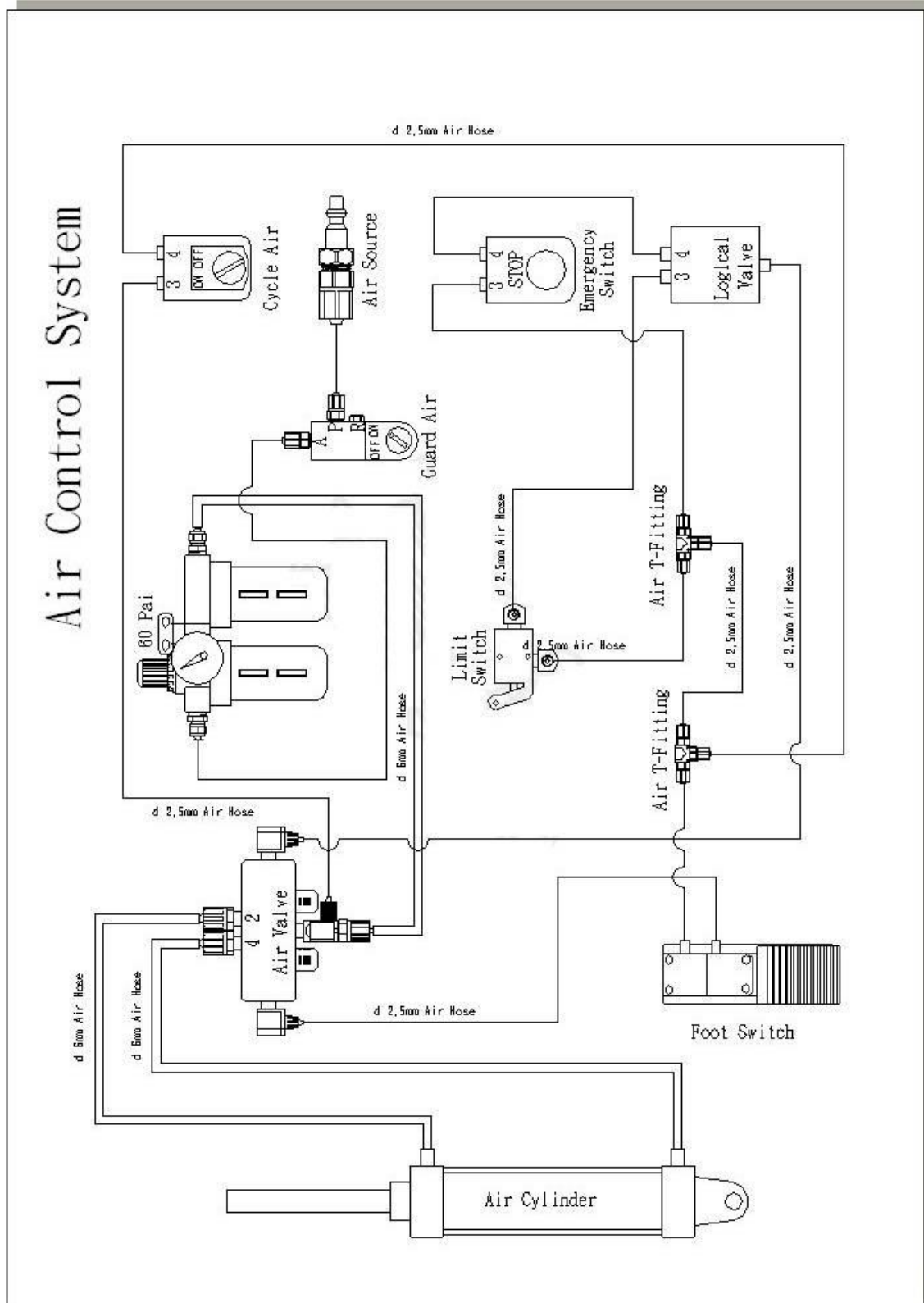


ELECTRIC WIRING DIAGRAM (2)

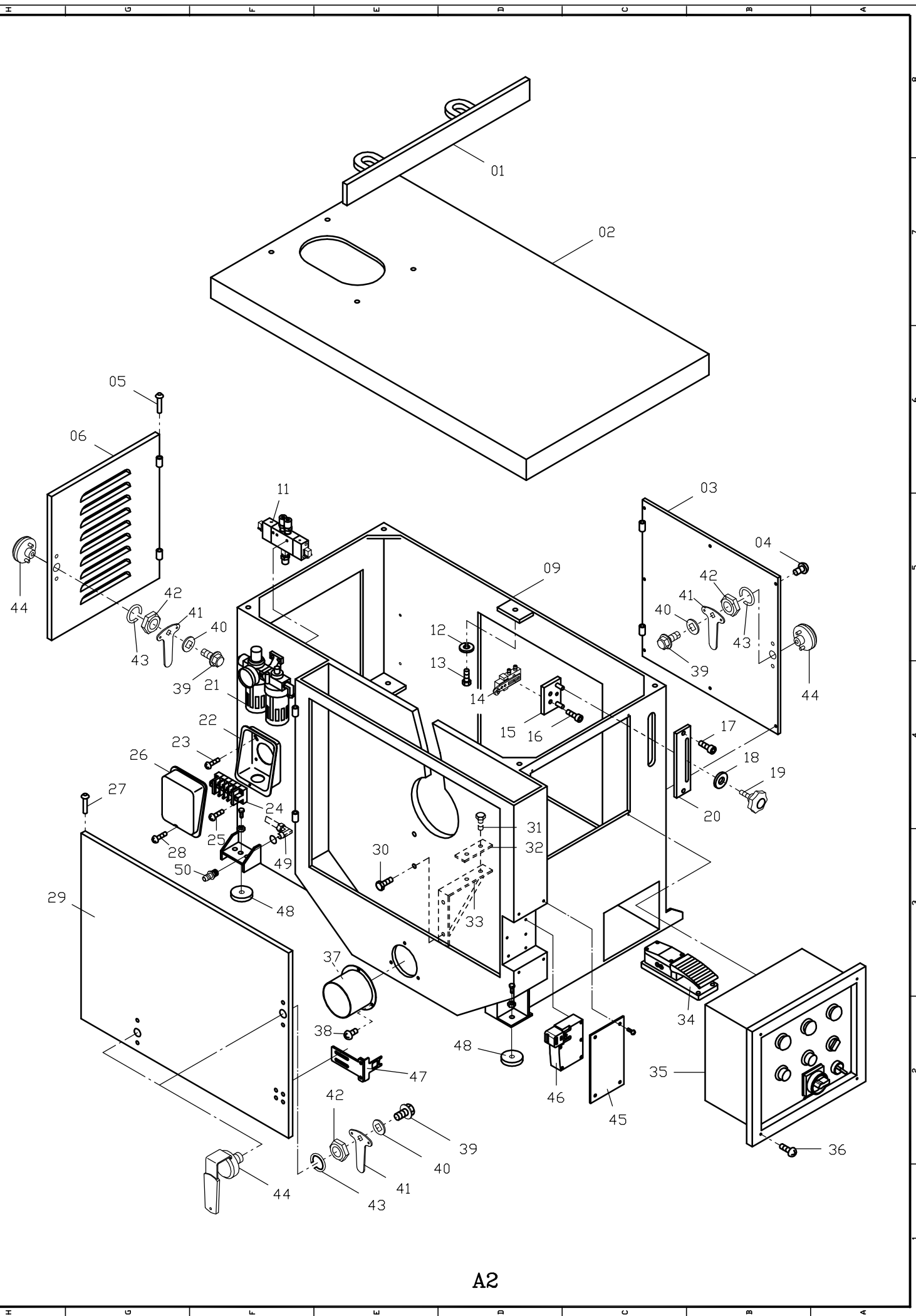


Page1

AIR CIRCUIT DIAGRAM

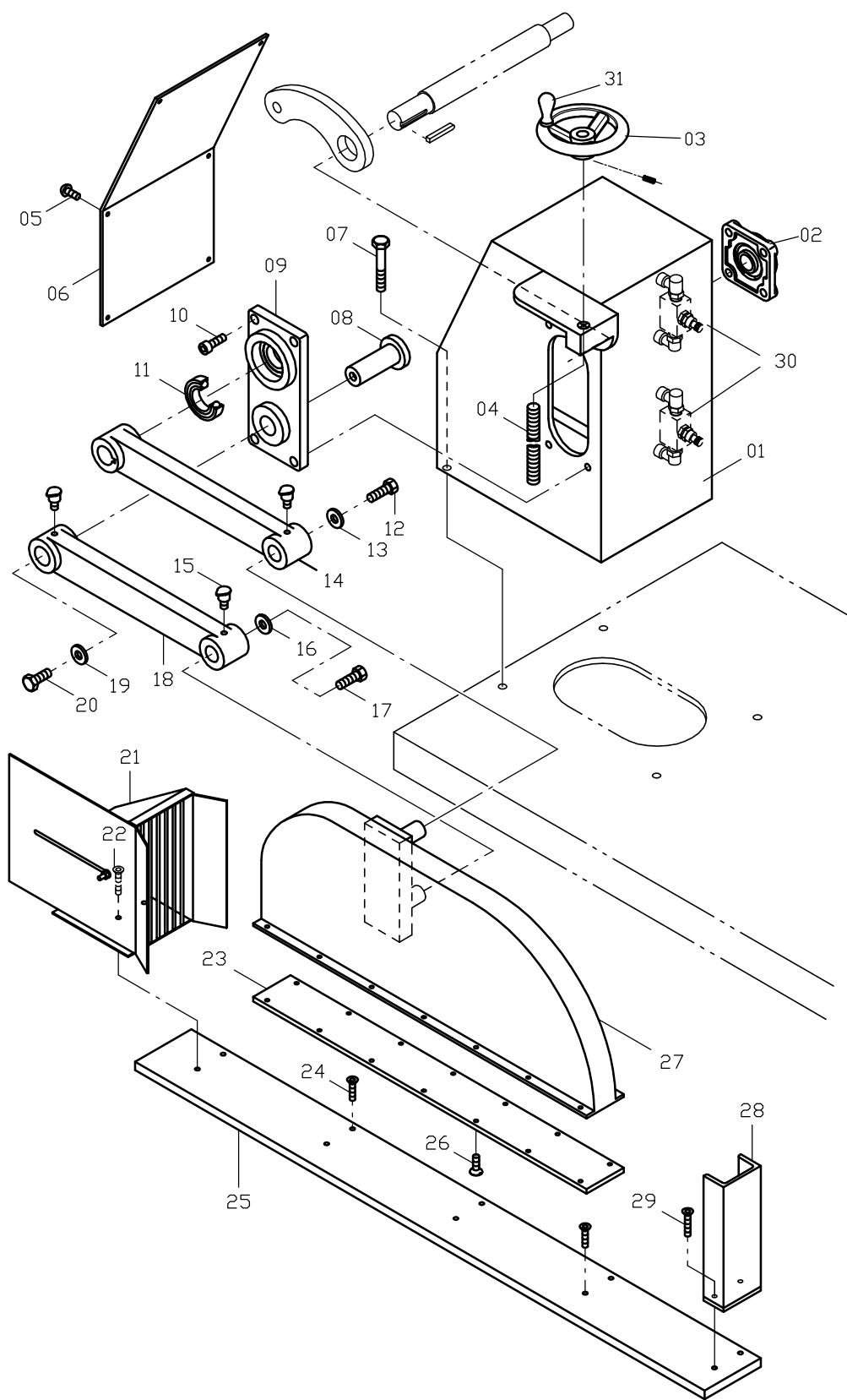


PART LIST

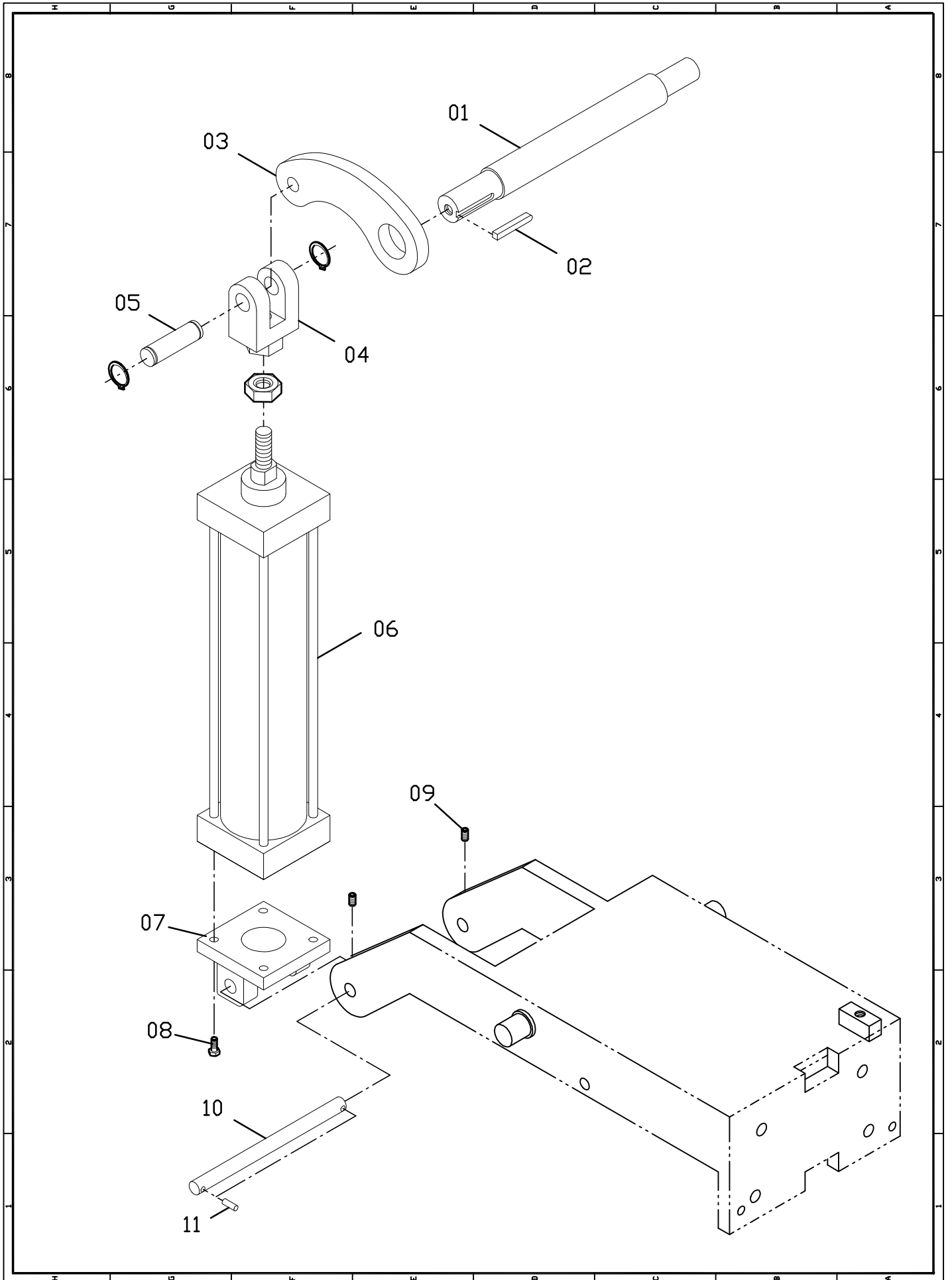


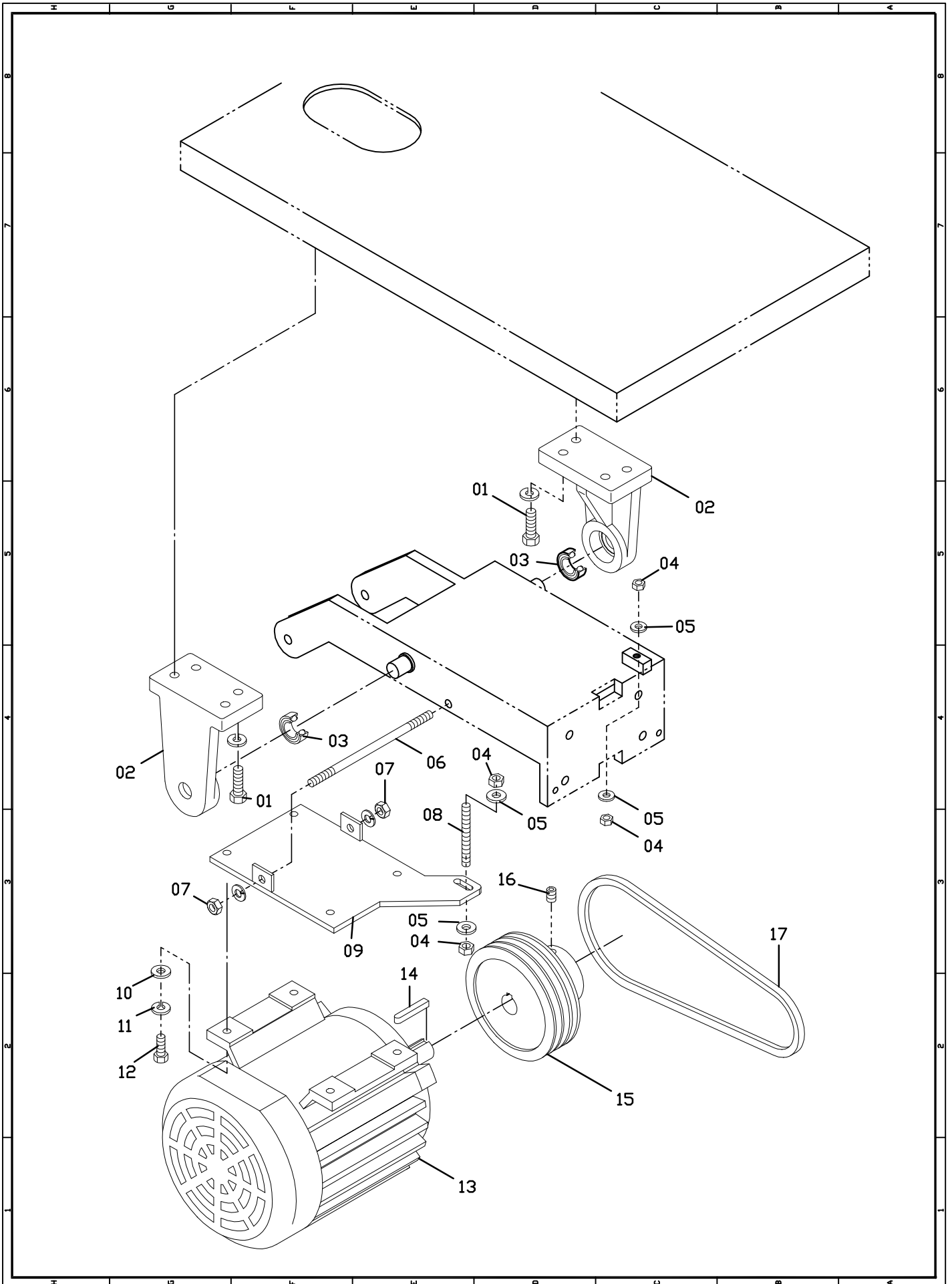
PART LIST(A1)

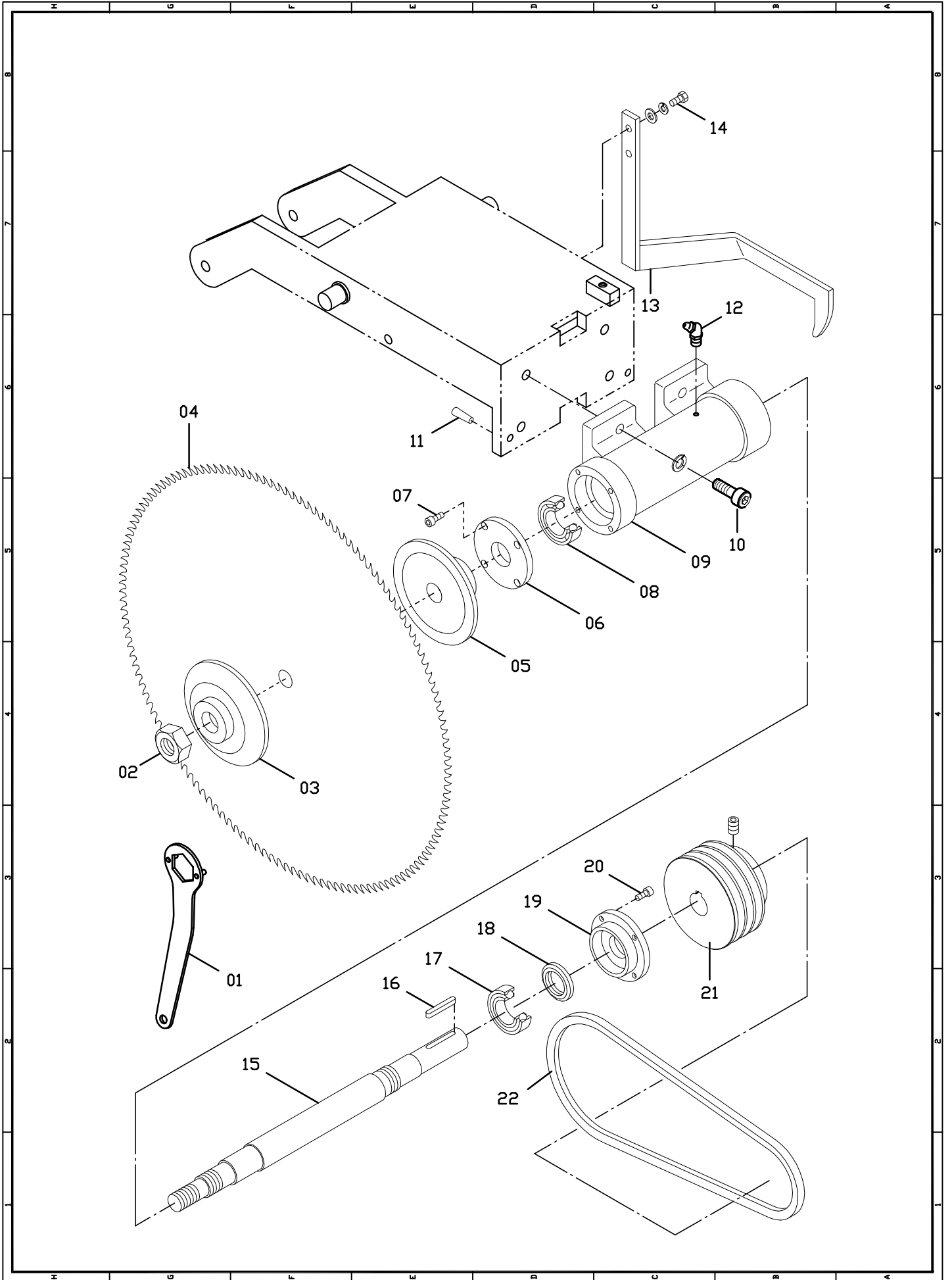
REF	DESCRIPTION	Q'TY
24L-A1-01	Guide Plate	1
24L-A1-02	Cabinet Plate	1
24L-A1-03	Side Door	1
24L-A1-05	Door Pin	1
24L-A1-06	Rear Door	1
24L-A1-09	Column	1
24L-A1-10	Magnetic Switch	1
24L-A1-11	Air Valve	1
24L-A1-14	Micro Switch	1
24L-A1-15	Micro Switch Seat	1
24L-A1-19	Lift Fixing Lobe Knob	1
24L-A1-20	Lift Fixing Length Plate	1
24L-A1-21	Air Filter-Pressure Regulator-Oil	1
24L-A1-22	Power Outlet Cover	1
24L-A1-24	Power Connection Board	1
24L-A1-26	Power Outlet Cover	1
24L-A1-27	Sawblade Door Pin	1
24L-A1-29	Sawblade Door Cover	1
24L-A1-32	Spindle Fixing Seat Gasket	1
24L-A1-33	Spindle Seat	1
24L-A1-34	Foot Switch	1
24L-A1-35	Control Panel	1
24L-A1-37	Dust Pipe	1
24L-A1-44	Sawblade Door Handle	3
24L-A1-45	Plate	1
24L-A1-46	CE Safety Switch	1
24L-A1-47	Fixed Plate	1
24L-A1-48	Circular Plate	4
24L-A1-49	Air Copper Fitting	1
24L-A1-50	Quick Air Connector	1

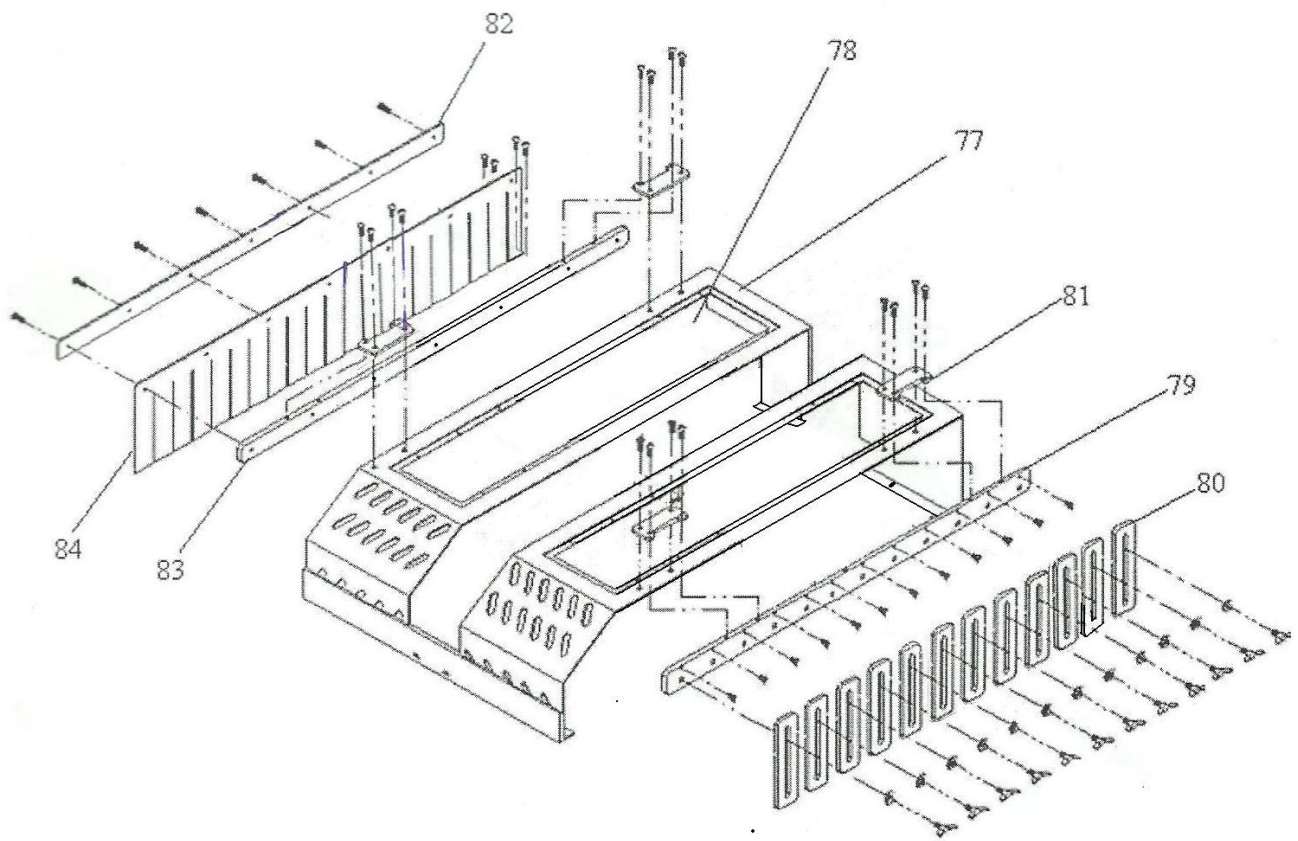


A2









SAFETY GUARD		
REF	DESCRIPTION	Q'TY
24L-77	GUARD	1
24L-78	ACRYLIC PLATE	2
24L-79	FIXING PALLET (INFEED)	1
24L-80	SAFETY PLATE	12
24L-81	BRACKET	4
24L-82	FIXING PALLET (OUTSIDE)	1
24L-83	FIXING PALLET (INSIDE)	1
24L-84	TRANS PALLET	1