

Instruction Manual

Table Saw
TS250RS

(W688)



IMPORTANT

For your safety read instructions carefully before assembling or using this product.
Save this manual for future reference.

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1. GENERAL INFORMATION

1.1 FOREWORD

Some information and illustrations in this manual may differ from the machine in your possession, since all the configurations inherent in the machine complete with all the optionals are described and illustrated. Therefore, refer only to that information strictly connected with the machine configuration you have purchased.

With this manual we would like to provide the necessary information for maintenance and proper use of the machine. The distribution network is at your service for any technical problem, spare parts or any new requirement you may have for the development of your activity.

This manual must be read and understood before operating the machine. This will provide a better working knowledge of the machine, for increased safety and to obtain the best results.

To facilitate its reading, the manual has been divided into sections pointing out the most important operations. For a quick research of the topics, it is recommended to consult the index. To better stress the importance of some basic passages, they have been marked by some preceding symbols:



WARNING Indicates imminent risks which may cause serious injury to the operator or other persons. Be careful and scrupulously follow the instructions.



CAUTION A statement advising of the need to take care lest serious consequences result in harm to material items such as the asset or the product.

1.2 MACHINE IDENTIFICATION

There is a identification plate fixed to the machine, containing the manufacturer's data, year of construction, serial number and technical specifications.

1.3 CUSTOMER SERVICE RECOMMENDATIONS

Apply the machine to skilled and authorized technical staff to carry out any operation dealing with parts disassembly. Keep to the instructions contained in this manual for the correct use of the machine.



CAUTION Only skilled and authorized staff shall use and service the machine after reading this manual. Respect the accident prevention regulations and the general safety and industrial medicine rules.

2. SAFETY PRECAUTIONS

2.1 SAFETY REGULATIONS



WARNING

Read carefully the operation and maintenance manual before starting, using, servicing and carrying out any other operation on the machine.

The manufacturer disclaims all responsibilities for damages to persons or things, which might be caused by any failure to comply with the safety regulations.

- The machine operator shall have all necessary prerequisites in order to operate a complex machinery.
- It is prohibited to use the machine when under the influence of alcohol, drugs or medication.
- All the operators must be suitably trained for use, adjustment and operation of the machine.
- The operators must carefully read the manual paying particular attention to the warning and safety notes. Furthermore, they must be informed on the dangers associated with use of the machine and the precautions to be taken, and must be instructed to periodically inspect the guards and safety devices.
- Before carrying out adjustment, repair or cleaning work, disconnect the machine from the electric power by setting the main switch to stop.
- After an initial bedding-in period or many hours of operation, the driving belts may slacken; this causes an increase in the tool stopping time (the stopping time must be less than 10 seconds). Immediately tighten them.
- The working area around the machine must be kept always clean and clear, in order to have an immediate and easy access to the switchboard.
- Never insert materials which are different from those which are prescribed for the machine utilization. The material to be machined must not contain any metal parts.
- Never machine pieces which may be too small or too wide with respect to the machine capacity.
- Do not work wood which has evident defects (cracks, knots, metal parts, etc.)
- Never place hands among the moving parts and/or materials.
- Keep hands clear from the tool; feed the piece with the aid of a pusher.
- Keep the tools tidy and far away from those not authorized persons.
- Never employ cracked nor dulled, neither not correctly reground tools.
- Never use the tools beyond the speed limit recommended by the producers.
- Carefully clean the rest surfaces of tools and make sure that they find perfectly horizontally positioned, and with no dents at all.
- Always wear gauntlets when handling the tools.
- Mount the tools in the right machining direction.
- Never start the machine before having correctly installed all the protections.
- Connect the dust suction hoods to an adequate suction system; suction must always be activated when the machine is switched on.
- Never open doors or protections when the machine or the system is operating.
- Many unpleasant experiences have shown that anybody may wear objects which could cause serious accidents. Therefore, before starting working, take any bracelet, watch or ring off.
- Button the working garment sleeve well around the wrists.
- Take any garment off which, by hanging out, may get tangled in the MOVING UNITS.
- Always wear strong working footwear, as prescribed by the accident-prevention regulations of all countries.
- Use protection glasses. Use appropriate hearing protection systems (headsets, earplugs, etc.) and dust protection masks.
- Never let unauthorized people repair, service or operate the machine.
- The manufacturer is not responsible for any damage deriving from arbitrary modifications made to the machine.
- Any transport, assembly and dismantling is to be made only by trained staff, who shall have specific skill for the specified operation.
- The operator must never leave the machine unattended during operation.
- During any working cycle break, switch the machine off.
- In case of long working cycle breaks, disconnect the general power supply.

2.2 RESIDUAL RISKS

Despite observance of all the safety regulations, and use according to the rules described in this manual, residual risks may still be present, among which the most recurring are:

- contact with tool
- contact with moving parts (belts, pulleys, etc..)
- recoil of the piece or part of it
- accidents due to wood splinters or fragments
- tool insert ejection
- electrocution from contact with live parts
- danger due to incorrect tool installation
- inverse tool rotation due to incorrect electrical connection
- danger due to dust inhalation in case of working without vacuum cleaner.

Bear in mind that the use of any machine tool carries risks.

Use the appropriate care and concentration for any type of machining (also the most simple).

The highest safety is in your hands.

2.3 SAFETY AND INFORMATION SIGNALS

This signals may be applied on the machine; in some cases they indicate possible danger conditions, in others they serve as indication.

Always take the utmost care.

SAFETY SIGNALS:



Risk of eye injury. Wear eye protection.



Wear hearing protection systems.



Danger of electric shock. Do not access the area when the machine is powered.



Carefully read and understand the manual before using the machine.

INFORMATION SIGNALS:

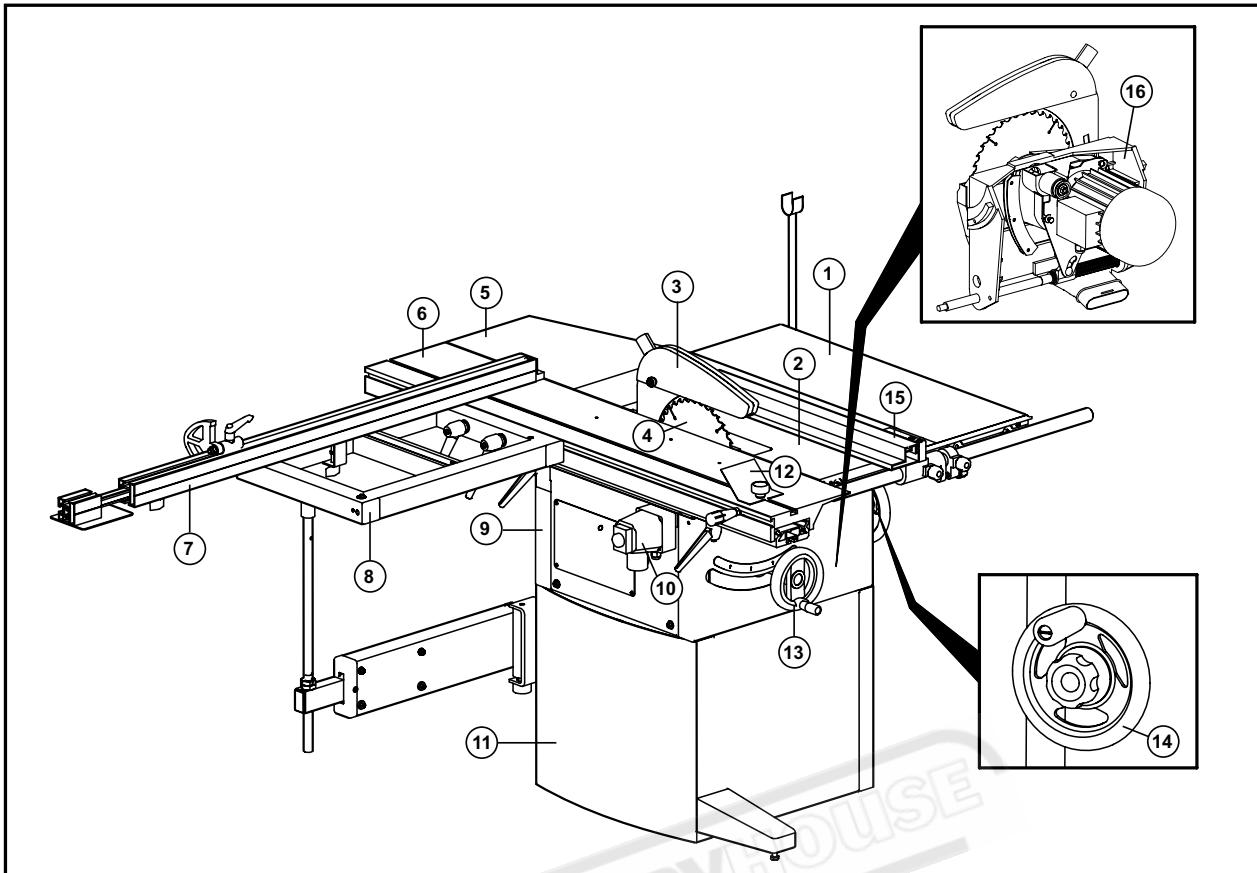
Indicate the technical characteristics, direction of rotation and inclination, block and release, etc.

Carefully following the directions to simply the use and adjustment of the machine.

The signals are graphically described and do not require further explanation.

3. SPECIFICATIONS

3.1 MAIN COMPONENTS



- | | |
|---------------------------|-----------------------------|
| 1 - Right extension table | 9 - Upper cabinet assembly |
| 2 - Main table | 10 - Switch |
| 3 - Blade guard assembly | 11 - Lower cabinet assembly |
| 4 - Blade | 12 - Plate pusher |
| 5 - Rear extension table | 13 - Lifting handwheel |
| 6 - Sliding table | 14 - Tilting handwheel |
| 7 - Telescopic fence | 15 - Rip fence assembly |
| 8 - Square sliding table | 16 - Core unit |

3.2 TECHNICAL SPECIFICATION

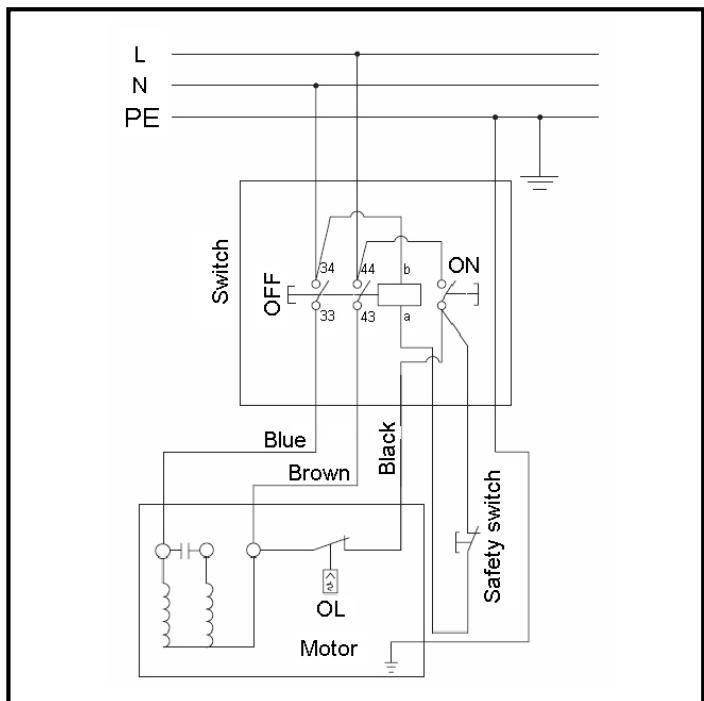
SPECIFICATION	TS250RS			
Motor Voltage	230V/50HZ		380V/50HZ	
Motor power	2HP, S6 40%		2.5HP, S6 40%	
Blade diameter	254mm		254mm	
Blade tilt	0~45°		0~45°	
Main table size	800x350mm		800x350mm	
Right extension table size	800x270mm	800x600mm	800x270mm	800x600mm
Max. rip capacity	610mm	930mm	610mm	930mm
Max. depth of cut	80mm@90°, 54mm@45°		80mm@90°, 54mm@45°	

3.3 ELECTRICAL CONNECTION

- Electrical installation should be carried out by competent, qualified personnel.
- The mains connection should be made using the terminal box.
- Replacement of the power supply cable should only be done by a qualified electrician.



To avoid electrocution or fire, any maintenance or repair to electrical system should be done only by qualified electricians using genuine replacement parts.



3.4 NOISE LEVEL

	No load	Load
Sound Pressure Level	< 80dB(A)	< 90dB(A)
Sound Power Level	< 90dB(A)	< 100dB(A)

The noise levels measured are emission levels and not necessarily the safe working level. Although there is a correlation between the emission levels and the exposure levels, this cannot be used reliably to determine whether or not further precautions are required. The factors which affect the actual level of operator exposure include the duration of exposure, the ambient characteristics and other sources of emission, for example, the number of machines and other adjacent machining. The permitted exposure values may also vary from country to country. Nevertheless, this information allows the user of the machine to better evaluate the dangers and risks.

Other factors which reduce exposure to noise are:

- correct tool choice
- tool and machine maintenance
- use of hearing protection systems (e.g. headsets, earplugs,...)



WARNING Please use the hearing protection systems if the above mentioned noise levels exceed 95dB(A).

3.5 DUST EXTRACTION

Proper suction eliminates the risks of dust inhalation and aids better functioning of the machine. The tables list the minimum air flow and speed values referenced to each single suction operation.

Saw	
Upper hood	Lower hood
Air flow 140 cu.m/h	690 cu.m/h
Minimum air speed 20 m/s	

Ensure that the suction system guarantees these values at the hood-houth connection point. (Fig.3.5)

Suction mouth diameter:

A - Blade guard Ø30 mm

B - Body dust suction Ø100 mm

Connect the mouths to the suction system with flexible tubes of adequate diameter. Tighten with clamps. The tube must be positioned in such a way so as not to obstruct the operator during machining.



WARNING

Always work with the suction system on. Always start the suction system and the machine at the same time.

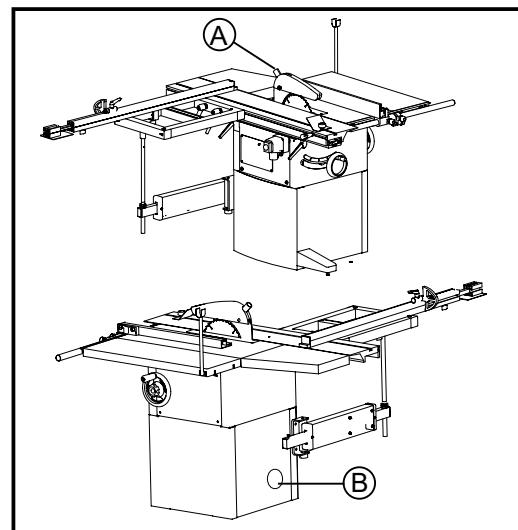


Fig.3.5

3.6 SAFETY DEVICES

The machine is equipped with the following safety devices: (Fig.3.6)

A - Stop button.

When the button is pressed, the power is immediately cut.

B - Saw guard

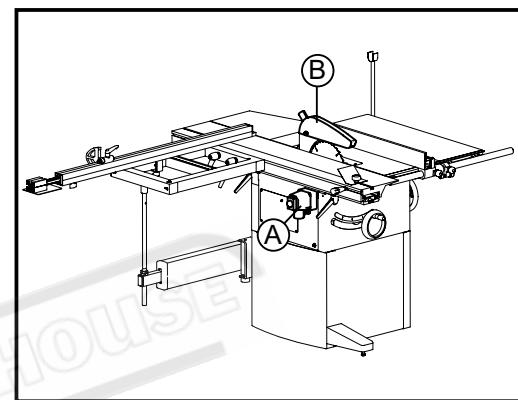


Fig.3.6

4. INSTALLATION



CAUTION

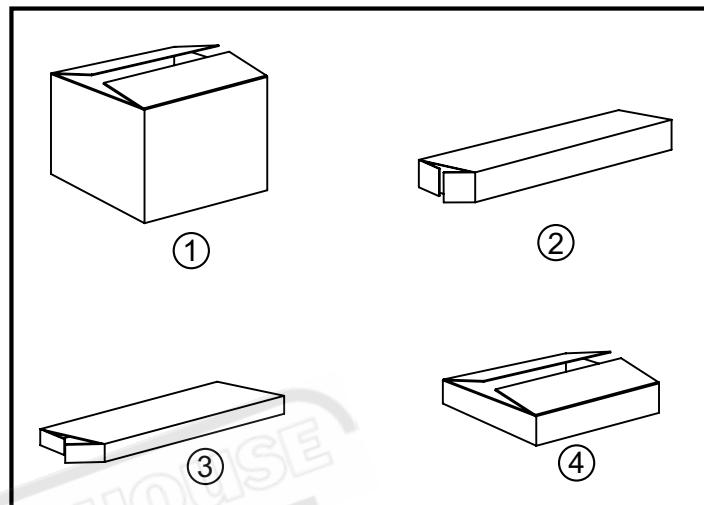
Assembly need to be done by an experienced and trained person.

4.1 CONTENTS OF PACKAGE

- The machine is supplied partly assembled. Prior to use, further assembly is required.
- When unpacking the machine the following components are included for the initial assembly.
- If any parts are missing, do not attempt to assemble the machine; plug in the power cord, or turn the switch on until the missing parts are obtained and properly installed.

Carton No.1:

- 4 - Stand rear panel
- 5 - Stand arc panel
- 6 - Stand front panel
- 7 - Stand right panel
- 10 - Rip fence mounted bracket
- 11 - Rip fence
- 13 - Hose support rod
- 14 - Upper cabinet assembly
- 15 - Blade guard assembly



Carton No.2:

- 1 - Telescopic fence assembly
- 3 - Sliding table

Carton No.3:

- 8 - Scale bracket
- 9 - Guide rail
- 12 - Right extension table
- 16 - Rear extension table

Carton No.4:

- 2 - Square sliding table

Fig.4.1.1

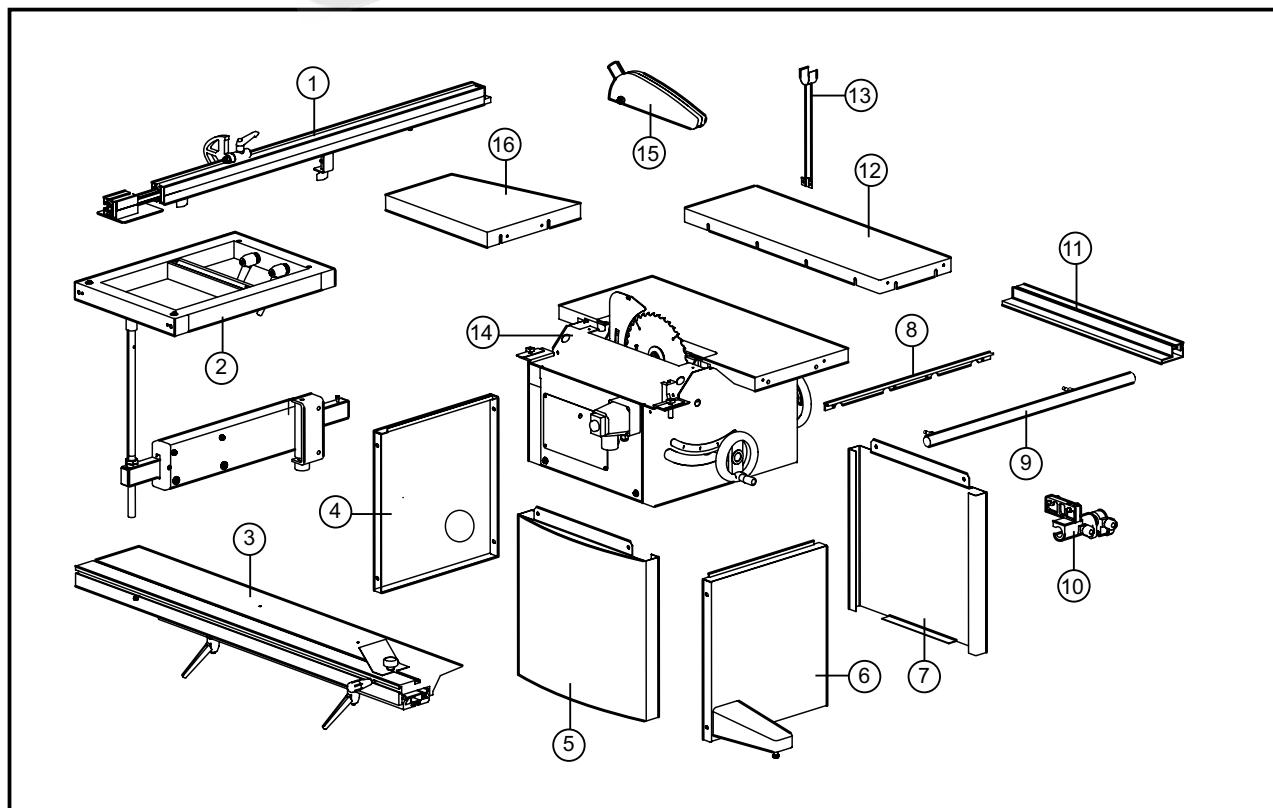


Fig.4.1.2

4.2 INSTALLATION ZONE CHARACTERISTICS



WARNING

It is prohibited to install the machine in explosive environments.

The installation zone must be selected evaluating the work space required depending on the dimension of the pieces to be machined, and taking into account that a free space of at least 800 mm must be left around the machine. It is also necessary to check the floor capacity and its surface, so that the machine base is evenly resting on its four supports. A power outlet and a chip-suction system connection shall be close to the selected machine setting and it must be conveniently lighted (luminous intensity: 500 LUX).

4.3 INSTALL OF LOOSE PARTS - INTRODUCTION

A few elements will be disassembled from the machine main structure due to packaging and shipping requirements. These loose parts should be installed as follows.

4.3.1 INSTALL CABINET STAND

Tools Required for Assembly:

- Wrench 10mm
- Wrench 13mm



WARNING

Please tighten all bolts and nuts absolutely. Otherwise, may cause machine wobble or serious injury to the operator or other persons.

- Install A, B, C, D with bolts, washers and nuts (1, 2, 3).
- Install 4, 5 to the stand support leg E, then install E to D with 6 and 7.
- Insert the rubber feet to the bottom of panels.
- Fix G to the cabinet stand with 8.

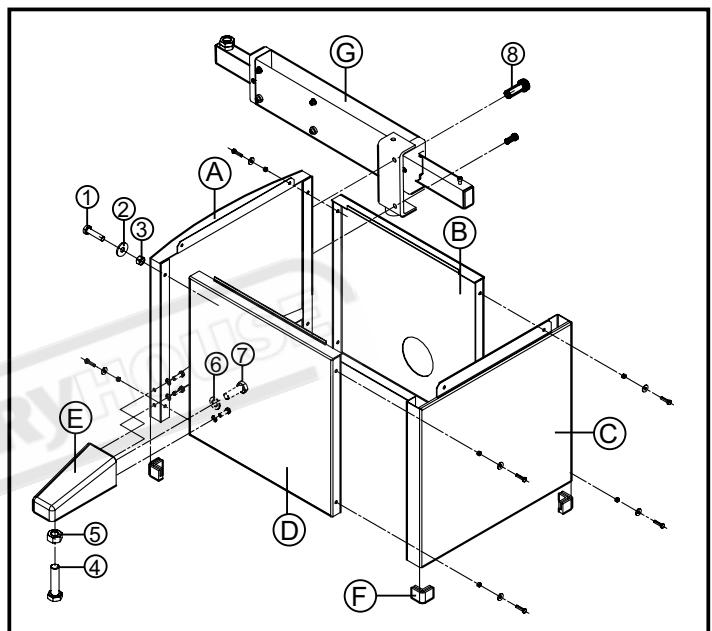


Fig.4.3.1

4.3.2 INSTALL UPPER CABINET ASSEMBLY

Tools Required for Assembly:

- L wrench 5mm
- Phillips Screwdriver



WARNING

Please tighten all bolts and nuts absolutely. Otherwise, may cause machine wobble or serious injury to the operator or other persons.

- Install upper cabinet assembly A to cabinet stand D with 4sets of bolts and washer 2, 3.
- Fix the handwheel E with screw 4.
- Fix the handwheel F with screw 5.
- Disassemble the switch plate B, take out the switch C, fix the switch to upper cabinet assembly A with 4pcs screw 1. Reassemble the switch plate on position.

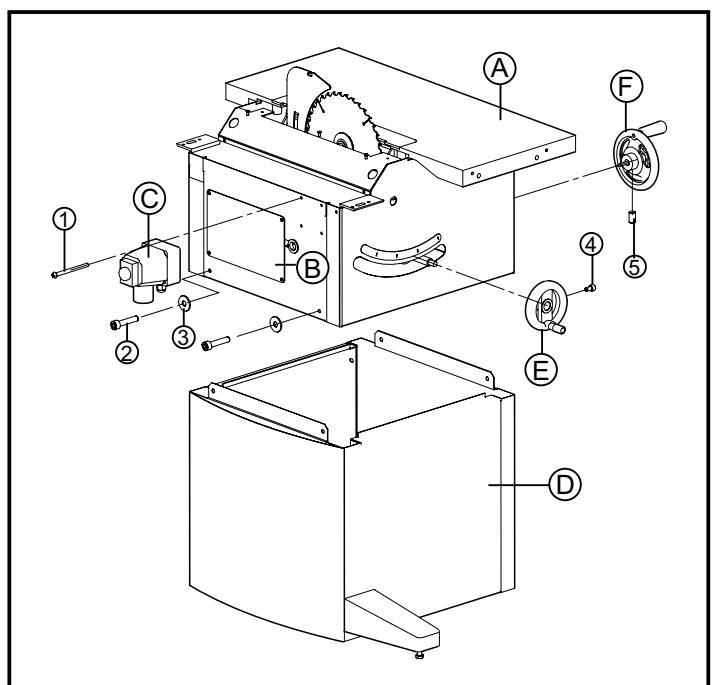


Fig.4.3.2

4.3.3 INSTALL BLADE GUARD AND HOSE

Tools Required for Assembly:

- Phillips Screwdriver



WARNING

Please tighten the hose clamps absolutely. Otherwise, may cause machine to wobble and cause serious injury to the operator or other persons.

- Put the blade guard into the slot on riving knife B, and lock it.
- Connect C and E with the clamps D.

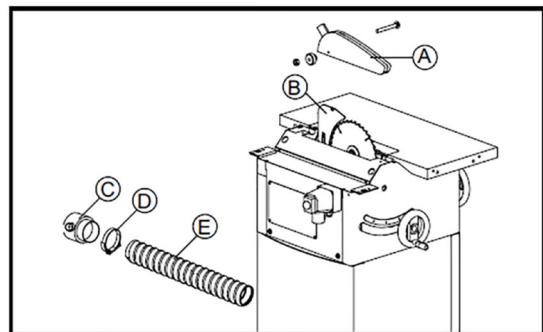


Fig.4.3.3

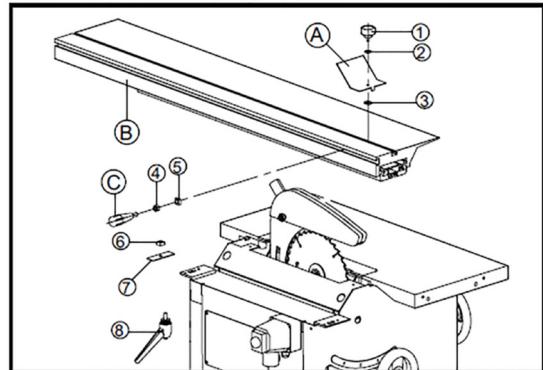


Fig.4.3.4

4.3.4 INSTALL SLIDING TABLE

Tools Required for Assembly:

- Wrench 16mm

- Put the sliding table to the frame top, and use 6, 7, 8 to lock the sliding table.
- Install the handle C to sliding table with 4, 5.
- Install Plate pusher A to sliding table with 1, 2, 3.

With the help of another person, Remove sliding table assembly from its Carton and carefully sit it on its side as shown. (Fig. 4.3.4A) Holding onto it so it doesn't fall over (This allows you to align locating pins and ensure the 2 x tee nuts are were they can be reached to locate after)

Carefully sit the table over onto "No 7" plates, ensuring Locating pins are between the top angle plates of the base as shown

- # Using an extra M8 x 35 socket head cap screw provided, use this to locate and line up the hole in the machine, "No7" plate and then the threaded tee nut in the base of the table that can be pushed in over bolt.
- # Then remove the Socket head Cap screw and refit the ratchet handle into the hole.

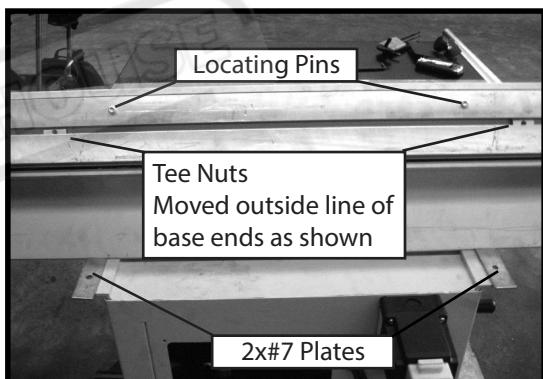


Fig.4.3.4A

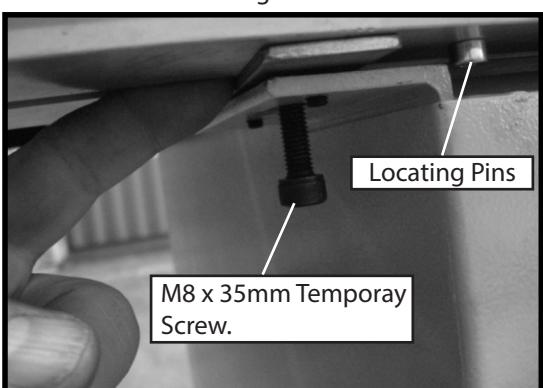


Fig.4.3.4B

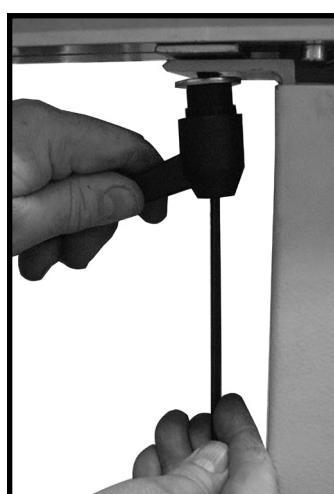


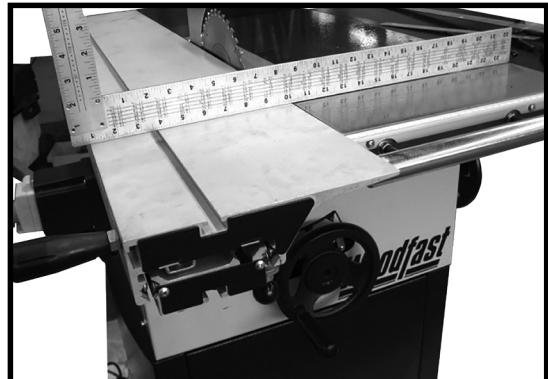
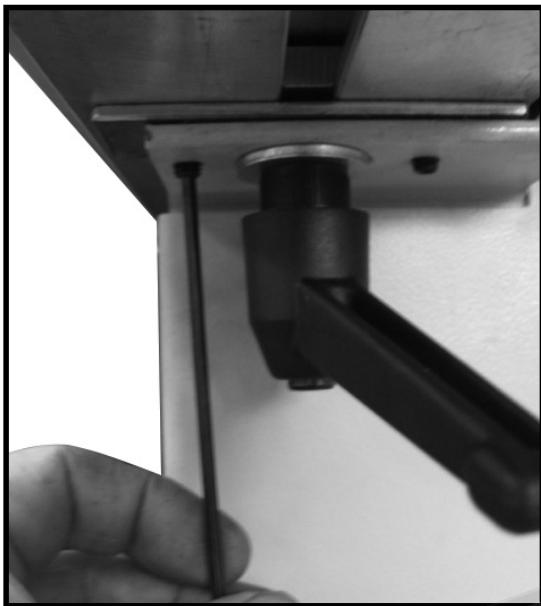
Fig.4.3.4C

NB: To assist in screwing the ratchet handle bolt home. Use a 4mm allen key as shown and pull down on ratchet handle and screw in bolt as needed. (Fig.4.3.4C)
Tighten both ratchet handles and adjust table/sliding table gap to be 2 to 3mm

ALIGN TABLE

Using a straight edge sitting on the sliding table and across the main table the level/parallelism and height and tilt of the sliding table can be adjusted as needed on both ends.

Sliding table should be set just higher than main table and both table surfaces parallel to each other



By loosening the Ratchet handle. Screwing the 2 x Grub screws in or out as needed. The table can be levelled and lifted or dropped as needed.

Tighten Ratchet handle and recheck

Readjust as needed both ends of the table.

4.3.5 INSTALL SQUARE SLIDING TABLE

Tools Required for Assembly:

- L wrench 6mm
- Put the square sliding table into the sliding table A, and then insert C into B and E.
- Lock square sliding table to A with 1, 2.

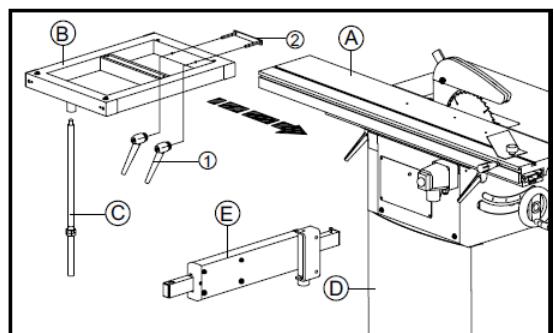


Fig.4.3.5

4.3.6 INSTALL TELESCOPIC FENCE

- Put the pin C of telescopic fence A into the hole which is on the square sliding table.
- Micro-adjust he position pin D to get accurate 90degree positon for quick stop limit.
- When angle adjustment finish, tighten the lock clamp E.

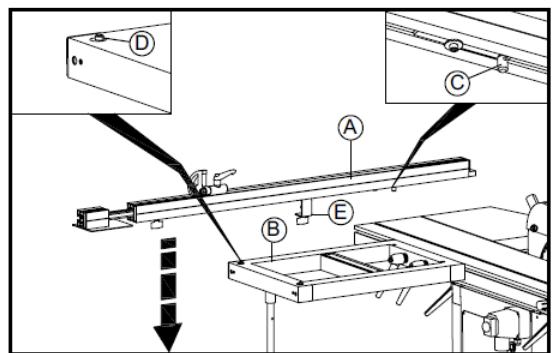


Fig.4.3.6

4.3.7 INSTALL EXTENSION TABLES

Tools Required for Assembly:

- Wrench 13mm

- Install right extension table and rear extension table with bolt and washer 1, 2, as the picture shown

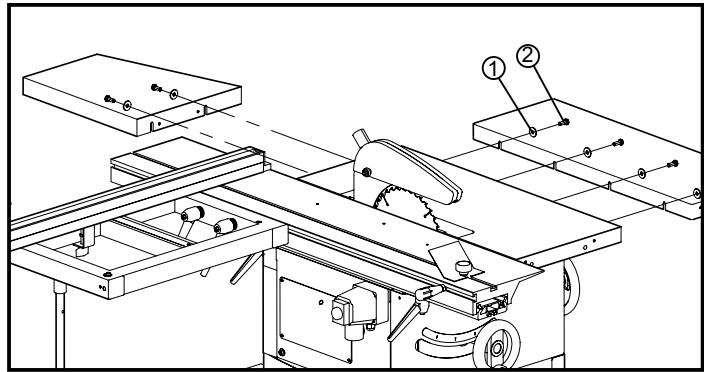


Fig.4.3.7

4.3.8 INSTALL HOSE SUPPORT ROD AND SCALE BASE

Tools Required for Assembly:

- L wrench 5mm
- Phillips Screwdriver

- Install the hose support rod A to right extension table B with 1, 2.
- Install the scale base C to the table with 4pcs bolt 3.

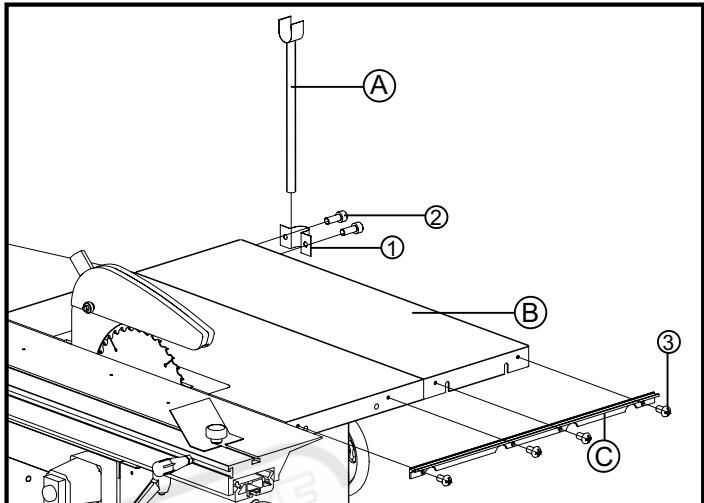


Fig.4.3.8

4.3.9 INSTALL GUIDE RAIL

Tools Required for Assembly:

- Wrench 13mm

- Install the guide rail A to tables with part 1, 2, 3, as the picture shown.

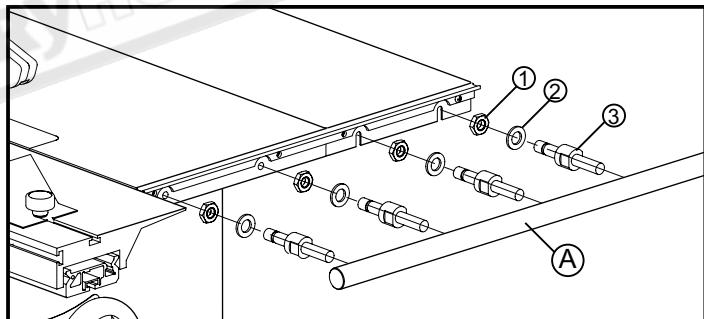


Fig.4.3.9

4.3.10 INSTALL RIP FENCE

- Install the fence bracket A along the guide rail B.
- Install the rip fence C to the fence bracket A along its slot.

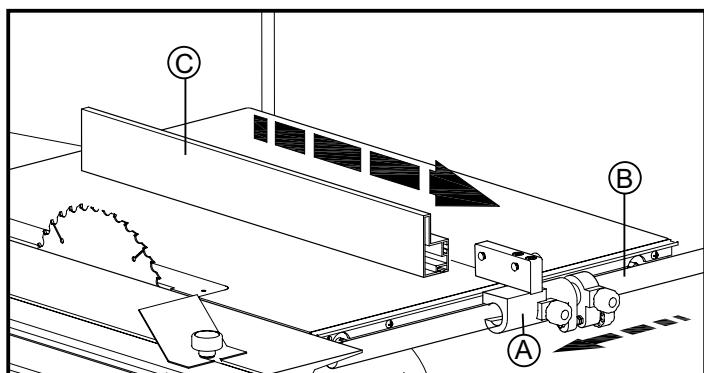


Fig.4.3.10

5. ADJUSTMENT



WARNING

Handle the tools with protective gloves.

5.1 SLIDING TABLE FLATNESS ADJUSTMENT

Tools Required for Assembly:

- Straight edge
- Feeler gauge
- L wrench 3mm

- Put the Straight edge A on the cast iron table B and sliding table C, use feeler gauge to check the flatness.
- Rotate the handle D to micro-adjust the flatness.

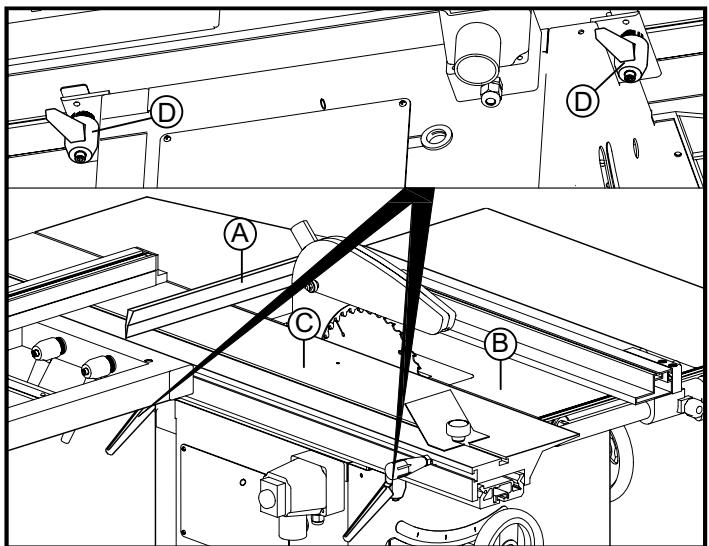


Fig.5.1

5.2 EXTENSION TABLE FLATNESS ADJUSTMENT

Tools Required for Assembly:

- Straight edge
- Feeler gauge
- L wrench 3mm
- Wrench 13mm

- Put the Straight edge A on the cast iron table B and extension tables C, use feeler gauge to check the flatness.
- Re-tighten the bolts D to micro-adjust the flatness.

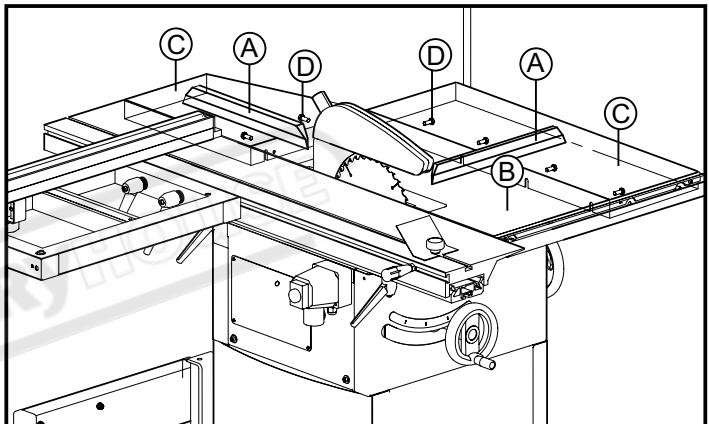


Fig.5.2

5.3 RIP FENCE PRECISION ADJUSTMENT

Tools Required for Assembly:

- Straight edge, Angle gauge, Depth Gauge
- Feeler gauge
- Wrench 13mm

- Use Angle Gauge A and Feeler Gauge to check the verticality between table and rip fence. Loose 4pcs shaft B, and micro-adjust its position up and down to get better verticality.
- Use Straight Edge and Depth Gauge to check the parallel between blade and rip fence. Loose 4pcs shaft B, and micro-adjust its position forward and backward to get better parallel.

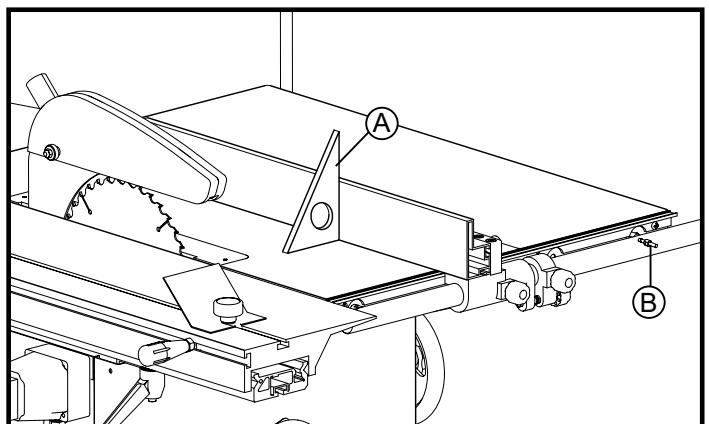


Fig.5.3

6. OPERATING PROCEDURES

6.1 MACHINE START AND STOP

The switch's position of the machine is as the picture shown. Push green button to start; push red button to stop.

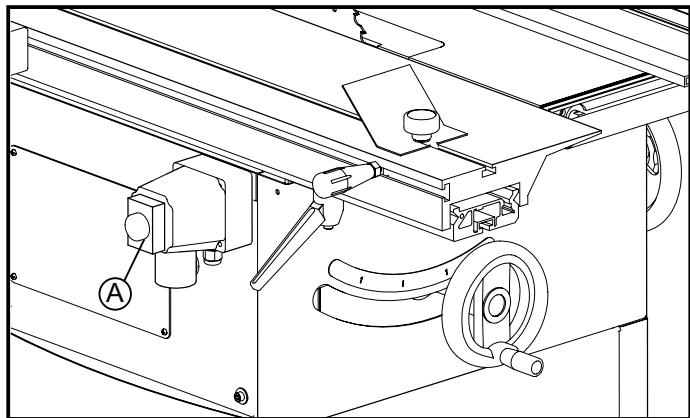


Fig.6.1

6.2 WORKING STATION



WARNING

The machine has been designed to be used by one operator only.

A - Working with the sliding table (squaring)

B - Parallel cut side

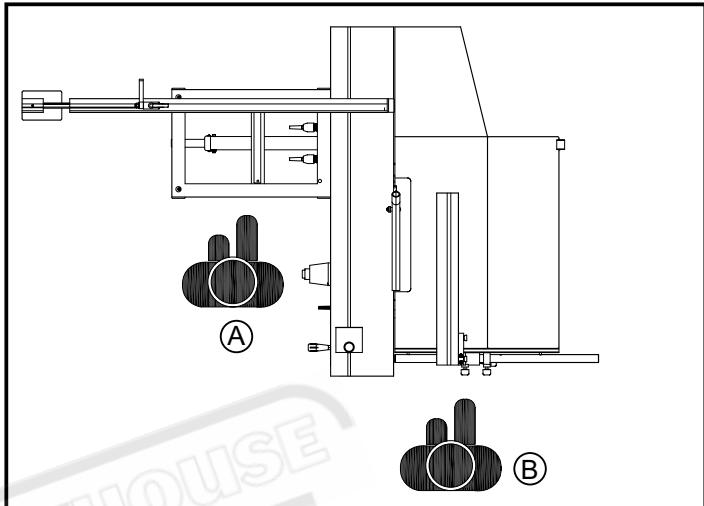


Fig.6.2

6.3 WORKING WITH THE MACHINE

The choice of the method to use to make a cut with the circular saw depends on the dimensions of the wood to be machined and the type of machining to be carried out. For cutting ennobled wood, use of the engraver is indispensable to prevent chipping. When the engraver is not needed, lower it completely underneath the table.

6.3.1 WORKING WITH THE SLIDING TABLE

- Put workpiece on the sliding table. Fix it with the aluminium stoper B and plate pusher C.
- Stand on position A, push the sliding table forward to across blade.

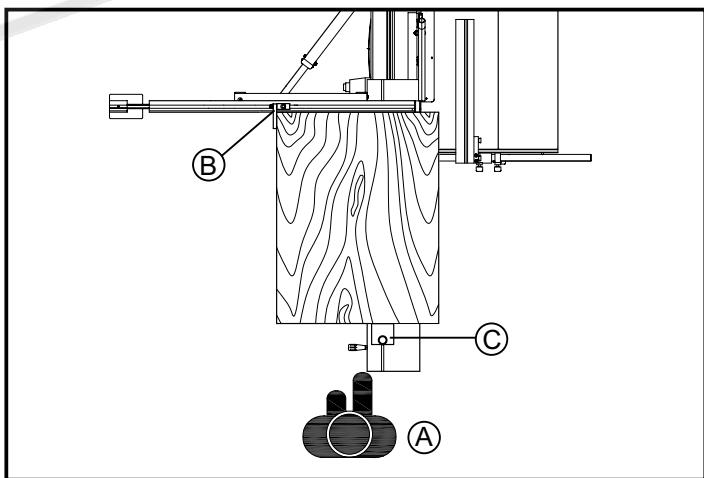


Fig.6.3.1

6.3.2 WORKING WITH RIP FENCE

- Lock the sliding table. Put the workpiece against the side surface of rip fence. Push the workpiece forward across blade.
- For your safety, please use the plastic pusher priority.

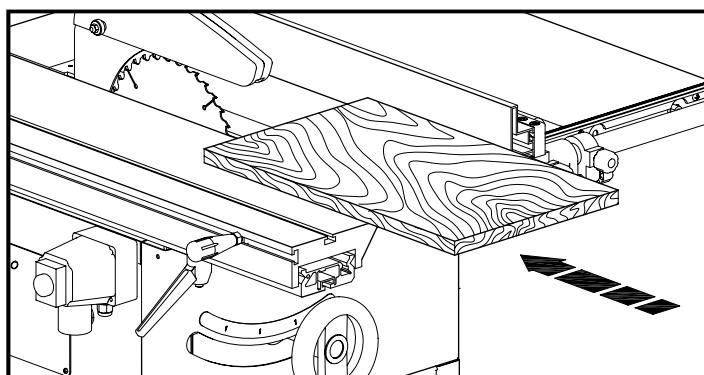


Fig.6.3.2

6.4 CORRECT USE FOR THIS MACHINE

- First make sure that the machine does not vibrate. Do not try to take off the material when the cut has already started; proceed with a continuous and uniform speed. workpiece feeding towards the blade (especially where there are knots) should not be too fast (feeding speed should be in accordance with workpiece thickness). Do not let workpieces stop between the saw fence and the blade.

- Avoid contact of the tips against metallic objects. When necessary sharpen the saw blade. Often clean the steel body and the tips with proper liquid products. Let the saw blade in the bath, then clean it with brush: don't use metallic brushes. As regards the toothing at least 2-3 teeth shall cut at the same time A. If only one tooth cuts B, you don't get a good cutting. Whenever this is possible, it is also critical to lift the blade until the whole tooth cutting part protrudes from the wood thickness.



WARNING

Before touching the machine parts, ensure to turn OFF the main switch and lock it by means of a padlock.

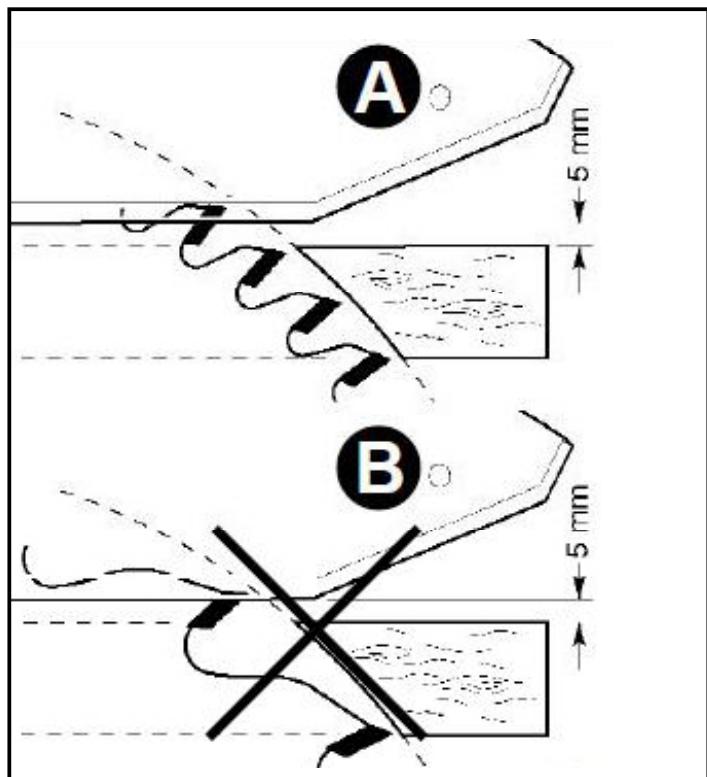


Fig.6.4

FITTING BLADE

Ensure machine is not connected to power. Unplug machine!

Slide sliding table all the way Fwd Remove screw (Fig. 6.4A)



Fig. 6.4B

Slide table all the way back Remove Screw and lift off yellow guard (Fig.6.4B)

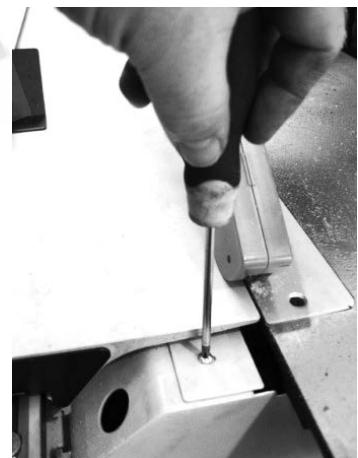


Fig. 6.4A

Fit pin in spindle
Remove nut, washer and flange.
(NB: the spindle nut is a Left Hand thread!)
Pull back plastic guard slightly and carefully fit
blade (Fig.6.4C)



Fig. 6.4C

Refit flange, washer and nut.

Tighten blade and refit yellow guard.

Ensure Riving knife has blade guard fitted!

By loosening the Ratchet handle. Screwing the 2 x Grub screws in or out as needed. The table can be levelled and lifted or dropped as needed.

Tighten Ratchet handle and recheck

Readjust as needed both ends of table

7. MAINTENANCE



WARNING

Disconnect the general power supply before doing any maintenance.

7.1 REPACE SAW BLADE

- Rotate the blade lifting handwheel to move the blade to toppest position.
- Take out the blade guard A.
- Remove the table insert C.
- Push the sliding table B to backmost position.
- Unscrew the nut D to take out the blade for replacement.

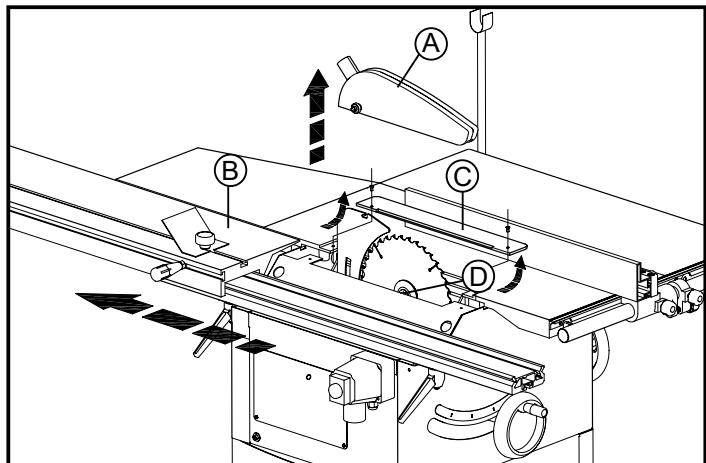


Fig.7.1

7.2 OVERALL CLEANING

After each working cycle, thoroughly clean the machine and all of its parts, vacuum the shavings and dust and remove any resin residues.

Use compressed air only when strictly necessary, using protective glasses and a mask.

In particular, clean the following parts:

- the sliding table rail A;
- the sliding support extension B;

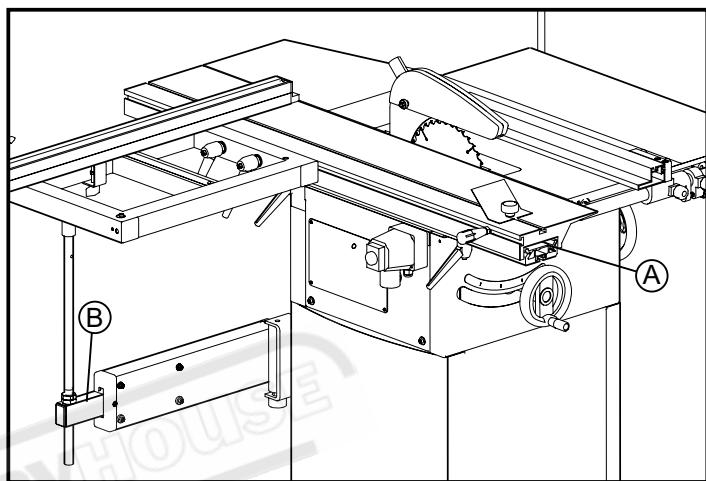


Fig.7.2

7.3 GENERAL LUBRICATION

- Weekly clean and lubricate all the mobile couplings of the machine A & B with a thin film of oil and grease.
- Protect all belts and pulleys to avoid contamination with oil.

7.4 REPLACEMENT AND DISPOSAL

Should replacement become necessary, the machine parts must be replaced with original components in order to guarantee their efficiency.

The replaced parts must be disposed of in compliance with the laws in force in the country of use.

Component replacement requires specific training and technical skills; for this reason, the above interventions must be carried out by qualified personnel to prevent damage to the machine and risks to the safety of persons.

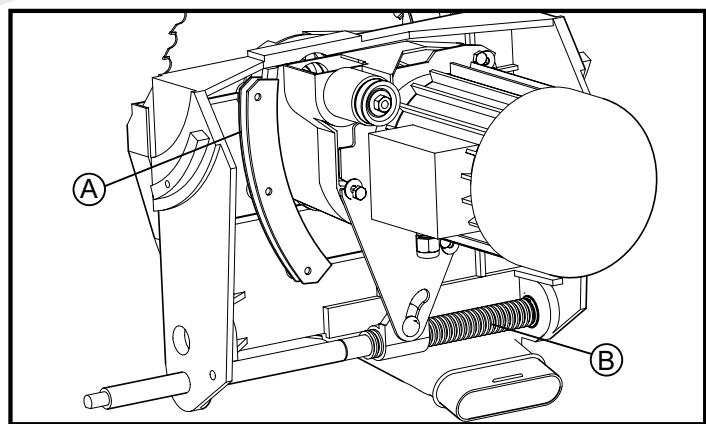


Fig.7.3

8. TROUBLE SHOOTING

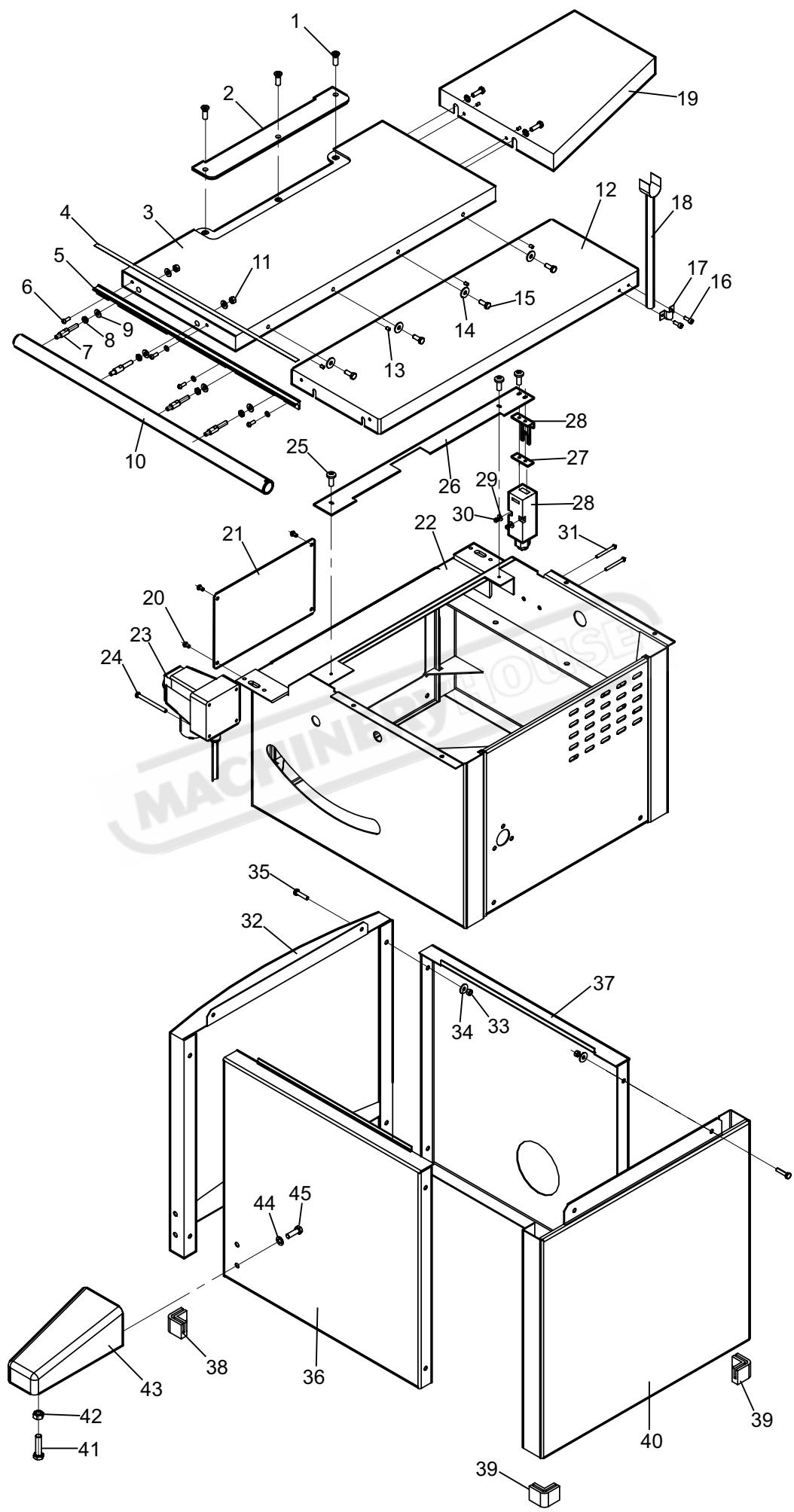


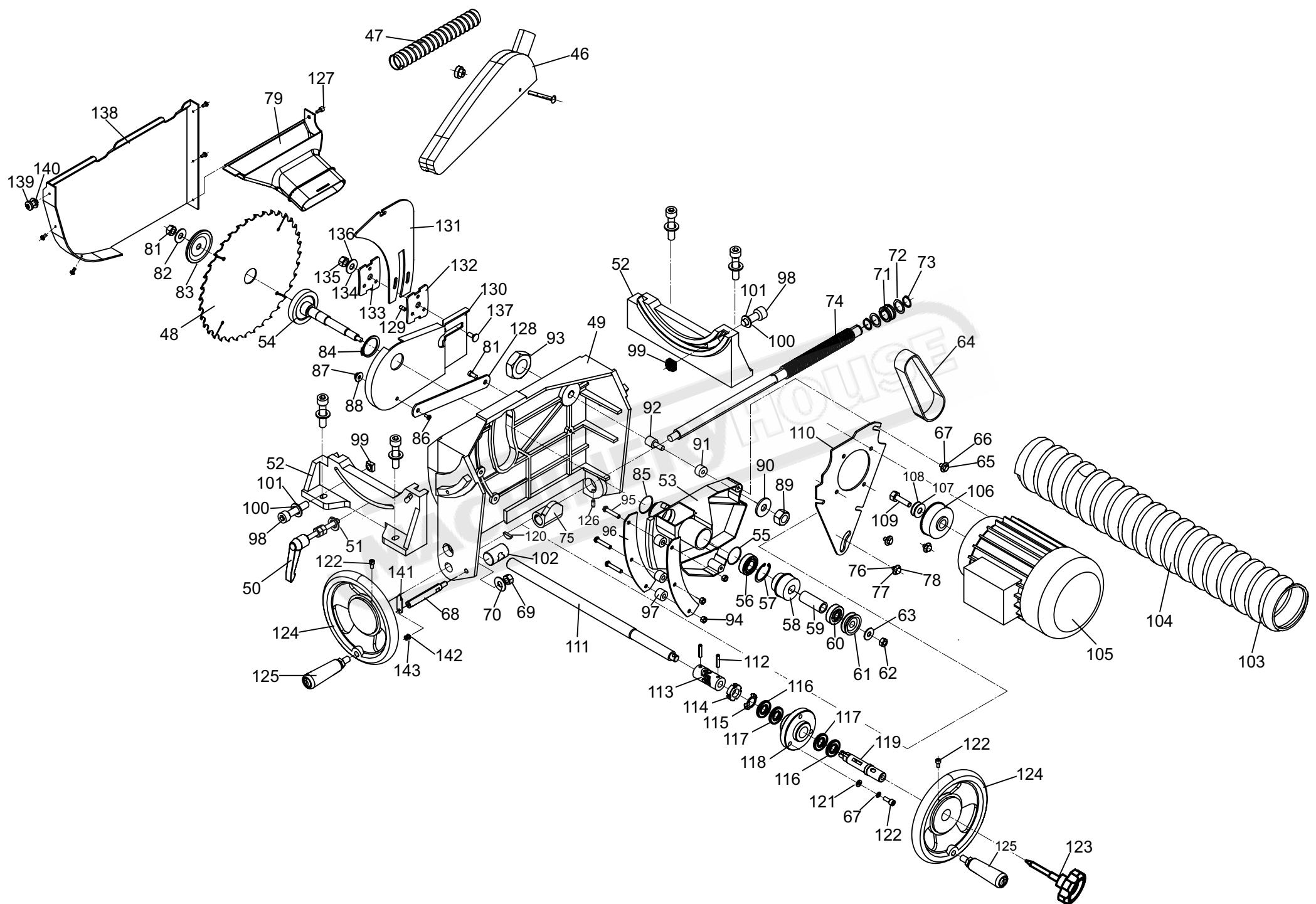
WARNING

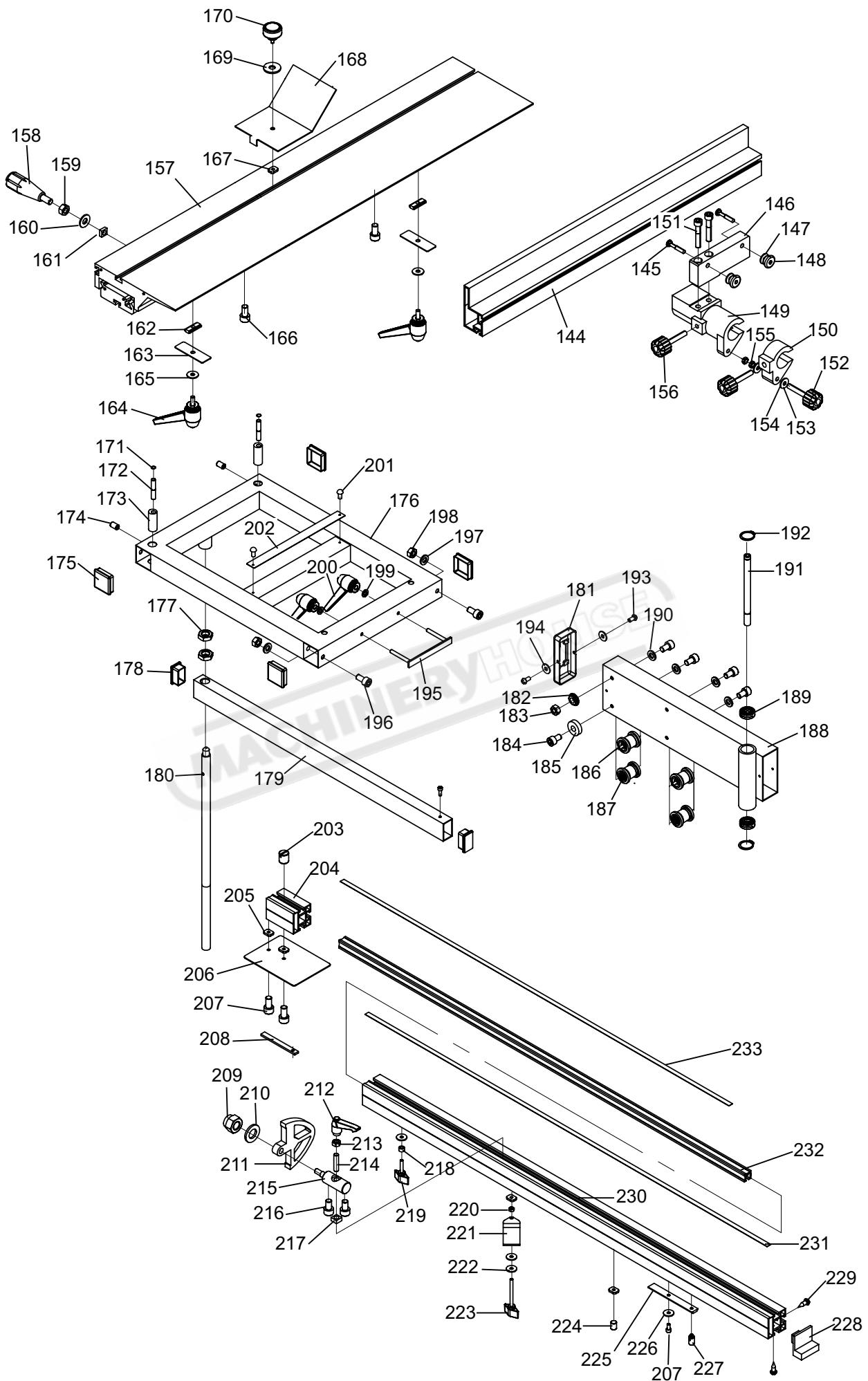
- For any information or problem contact your area dealer or our technical service center. The necessary interventions must be carried out by specialised technical personnel.
- Before carrying out any fault service or maintenance work, please always TURN OFF THE SWITCH, UNPLUG POWER CABLE, WAIT FOR SAW BLADE TO COME TO STANDSTILL.

Trouble	Possible Cause	Solution
Saw stops or will not start	1. Overload tripped on motor 2. Saw unplugged from wall or motor 3. Fuse blown or circuit breaker tripped 4. Cord damaged	1. Allow motor to cool and reset overload switch on motor 2. Check all plug connections 3. Replace fuse or reset circuit breaker 4. Replace cord
Does not make accurate 45° or 90° cuts	1. Stops not adjusted correctly 2. Angle pointer not set accurately	1. Check blade with square and adjust stops 2. Check blade with square and adjust pointer
Material binds blade when ripping	1. Fence not aligned with blade 2. Warped wood 3. Excessive feed rate 4. Splitter not aligned with blade	1. Check and adjust fence 2. Select another piece of wood 3. Reduce feed rate 4. Align splitter with blade
Saw makes unsatisfactory cuts	1. Dull blade 2. Blade mounted backwards 3. Gum or pitch on blade 4. Incorrect blade for cut 5. Gum or pitch on table	1. Sharpen or replace blade 2. Turn blade around 3. Remove blade and clean 4. Change blade to correct type 5. Clean table
Blade does not come up to speed	1. Extension cord too light or to long 2. Low shop voltage 3. Motor not wired for correct voltage	1. Replace with adequate size cord 2. Contact your local electrical company 3. Refer to motor junction box
Saw vibrates excessively	1. Stand on uneven floor 2. Damaged saw blade 3. Bad V-belts 4. Bent pulley 5. Improper motor mounting 6. Excessive play in raising mechanism 7. Loose hardware	1. Reposition on flat, level surface 2. Replace saw blade 3. Replace V-belts 4. Replace pulley 5. Check and adjust motor 6. Adjust worm and arbor bracket 7. Tighten hardware
Rip fence binds on guide rails	1. Guide rails or extension wing not installed correctly 2. Guide of rip fence not adjusted properly	1. Reassemble guide rails, refer to fence manual 2. Adjust guides, refer to fence manual
Material kicked back from blade	1. Rip fence out of alignment 2. Splitter not aligned with blade 3. Feeding stock without rip fence 4. Splitter not in place 5. Dull blade 6. Letting go of material before it is past blade 7. Anti-kick back plates dull	1. Align rip fence with miter slot 2. Align splitter with blade 3. Install and use rip fence 4. Install and use splitter (with guard) 5. Replace blade 6. Push material all the way past blade before releasing work 7. Replace or sharpen anti-kick back plates
Blade does not raise or tilt freely	1. Too much tension in raising mechanism 2. Sawdust and debris in raising and tilting mechanisms	1. Adjust raising worm and arbor bracket 2. Clean and re grease

9. DIAGRAMS & COMPONENTS







10. PART LIST

No.	Description	Part No.	No.	Description	Part No.
1	Screw	M5X8GB819B	61	Adjusting wheel	1-JL82041006
2	Table insert	JL82410003A	62	Nut	1-M8GB6182Z
3	Main table	JMTS1004030001-001G	63	Washer	1-WSH8GB97D1Z
4	Scale	JL82450008B	64	Belt	1-JL82041008
5	Scale base	JL82450009A	65	Bolt	1-M6X30GB5781Z
6	Pan head screw	M6X16GB823Z	66	Washer	1-WSH6GB96Z
7	Support shaft	JL82450010	67	Washer	1-WSH6GB93Z
8	Nut	M8GB6172Z	68	Angle indicator	1-JL82440004
9	Washer	WSH8GB97D1Z	69	Nut	1-M8GB6170Z
10	Front guide rail	JL82450005A	70	Washer	1-WSH8GB95Z
11	Nut	M8GB6170Z	71	Tube	1-JL82441002
12	Extension table	JMTS1004030002-001U	72	Washer	1-JL50000005
13	Screw	M6X10GB77B	73	Retaining ring	1-SLP18GB894B
14	Bolt	M8X20GB5783Z	74	Threaded shaft	1-JL82441001
15	Washer	WSH8GB96Z	75	Threaded tube	1-JL82043002
16	Set screw	M6X16GB70Z	76	Tube	1-JL82043003
17	Clamp	JL82120001A	77	Position screw	1-JL82043004
18	Bracket	JL82121000-001Y	78	Washer	1-WSH8GB5287Z
19	Rear extension table	JMTS1004030003-0001U	79	Dust port	1-JL82040004-001S
20	Screw	M4X8GB818Z	80	Carriage bolt	1-JL82060007
21	Protection plate	JL82020005-105U	81	Nut	1-JL82040015
22	Upper cabinet asm	JMTS1004010000-105U	82	Washer	1-WSH10GB97Z
23	Switch	KOA2MN-10ZFD	83	Plate	1-JL82040007
24	Screw	M4X60GB818Z	84	Retaining ring	1-ST32GB894D1B
25	Screw	M4X10GB818Z	85	Washer	1-JL82040008
26	Protection plate	JL82460007-105U	86	Screw	1-M6X20GBGB819D1Z
27	Screw	M4X10GB818Z	87	Nut	1-M6GB889Z
28	Safety switch	QKS8	88	Washer	1-WSH6GB96Z
29	Nut	M4GB6170Z	89	Nut	1-M8GB889D1Z
30	Washer	WSH4GB97D1Z	90	Washer	1-WSH8GB96B
31	Pan head screw	M4X30GB818Z	91	Tube	1-JL82040012
32	Arc panel	JMTS1004070001-001U	92	Position screw	1-JL82040013
33	Nut	M6GB6170Z	93	Nut	1-M6GB6173Z
34	Washer	WSH6GB96Z	94	Nut	1-M6GB889D1Z
35	Bolt	M6X15GB5781Z	95	Screw	1-M6X35GB819Z
36	Front panel	JMTS1004070003-001U	96	Plate	1-JL82040009
37	Side panel	JMTS1004070002-001U	97	Tube	1-JL82040010
38	Bracket	JL82070005	98	Screw	1-M8X20GB70Z
39	Bracket	JL82070004	99	Square head nut	1-JL82440005
40	Bottom panel	JL82430001-001U	100	Washer	1-WSH8GB95B
41	Bolt	M10X40GB5783Z	101	Teeth washer	1-WSH8GB861B
42	Nut	M10GB6170Z	102	Shaft	1-JL82440005
43	Foot bracket	JMTS1004070004-001U	103	Clamp	1-JL82040018
44	Bolt	M8X16GB70Z	104	Dust hose	1-JL82040019
45	Washer	WSH8GB97D1Z	105	Motor	1-KH8242582-01
46	Blade guard	1-JL82045000	106	Motor pulley	1-JL82080002
47	Dust hose	1-JL81100001	107	Washer	1-JL82080004
48	Blade	1-JL82040001	108	Washer	1-M8GB96Z
49	Bracket	1-JL82440001	109	Bolt	1-JL82080003
50	Lock handle	1-JL82443000	110	Motor plate	1-JL82080001
51	Big washer	1-WSH8GB5287Z	111	Threaded shaft	1-JMTS1002026005
52	Support bracket	1-JL82440002	112	Roll pin	1-PIN5X24GB879D1B
53	Shaft bracket	1-JL82041001	113	Gimbal	1-JMTS1001023100
54	Spindle	1-JL82444001	114	Nut	1-M16GB812Z
55	Adjusting plate	1-JL82041003	115	Washer	1-WSH16GB858Z
56	Bearing	1-BRG80103CGB278	116	Washer	1-JXPS1201026002
57	Retaining ring	1-SLP35GB893D1Z	117	Retaining bracket	1-BRG1730AXKASGB4605
58	Pulley	1-JL82041004	118	Position flange	1-JMTS1002026003
59	Tube	1-JL82041005	119	Tilt handwheel shaft	1-JMTS1002026002
60	Bearing	1-BRG80301CGB278	120	Key	1-PLN5X19GB1099

No.	Description	Part No.	No.	Description	Part No.
121	Washer	1-WSH6GB97D1Z	181	End cap	1-JL82236002
122	Screw	1-M6X16GB70Z	182	Plate	1-JL82236012
123	Locking handle	1-JMTS1002026001	183	Nut	1-M6GB6170Z
124	Handwheel	1-JMTS1002023101	184	Screw	1-M6X10GB70Z
125	Handle	1-JL84032000(2)	185	Bracket	1-JL82463005
126	Screw	1-M6X10GB77B	186	Upper wheel asm.	1-JL82053000
127	Screw	1-JL82040016	187	Lower wheel asm.	1-JL82052000
128	Bracket	1-JL82040017	188	Support bracket	1-JL822360003A-001U
129	Set screw	1-M6X10GB77Z	189	Bearing	1-BRG6202-2ZV2GB276
130	Split bracket	1-JL82445100	190	Washer	1-WSH6GBGB95Z
131	Spliter	1-JL82445001	191	Shaft	1-JMTS1001052002
132	Guide washer	1-JL82445002	192	Retaining ring	1-CLP15GB894D1B
133	Plate	1-JL82445003	193	Screw	1-M4X8GB818Z
134	Washer	1-WSH10GBGB97D1Z	194	Washer	1-WSH4GB96Z
135	Nut	1-M10GB6170Z	195	Lock plate	1-JMTS1001051002
136	Spring washer	1-WSH10GB93Z	196	Screw	1-M6X12GB70Z
137	Bolt	1-M10X25GB794Z	197	Washer	1-WSH6GB95Z
138	Blade guard	1-JL82040003	198	Nut	1-M6GB6170Z
139	Screw	1-M4X10GB818Z	199	Lock handle	1-JL50041000-001S
140	Washer	1-WSH5GB5287Z	200	Washer	1-WSH8GB5287Z
141	Indicator	1-JL82440006	201	Angle scale	1-JL82214004
142	Washer	1-WSH4GB95Z	202	Rivet	1-RVT3X7GB12618A
143	Screw	1-M4X8GB818Z	203	Screw	1-M5X6GB73B
144	Rip fence	1-JL82450004	204	Bracket	1-JL82213001
145	Carriage bolt	1-M6X35GB12Z	205	Nut	1-JL82030006A
146	Support bracket	1-JL82450003	206	Position plate	1-JL82213013
147	Washer	1-WSH6GB96Z	207	Screw	1-M6X12GB70Z
148	Nut	1-JL20061003-001S	208	Key	1-JL82213019
149	Fence bracket	1-JL82450001-001G	209	Lock nut	1-M10GB889Z
150	Bracket	1-JL82450002-001G	210	Washer	1-WSH10GB97D1Z
151	Set screw	1-M8X45GB70D1Z	211	Bracket	JXSM0401061003
152	Micro-adjust knob	1-JL82450007	212	Lock handle	1-JL50041000-001S
153	Washer	1-WSH6GB95Z	213	Nut	1-M8GB6170Z
154	Wave washer	1-WSH6GB955B	214	Set screw	1-M8X50GB77B
155	Nut	1-M6GB6172Z	215	Shaft	JXSM0401061004
156	Lock handle	1-JL82450006-001S	216	Set screw	1-M6X10GB70Z
157	Sliding table	1-JMTS1004041000	217	Nut	JL82240007
158	Lock handle	1-JL26060012-001S	218	Tube	1-JL82213017
159	Nut	1-M10GB6170Z	219	Knob	1-JL82213018-001S
160	Washer	1-WSH10GB97D1Z	220	Nut	1-M6GB6170Z
161	Square head nut	1-M10GB39B	221	Plate	1-JL82213004
162	Sliding bracket	1-JXPS1201053005	222	Big washer	1-WSH6GB5287Z
163	Plate	1-JL82240010	223	Knob	1-JL82213016-001S
164	Lock handle	1-JXCM2501012100-001S	224	Set screw	1-M6X10GB77B
165	Washer	1-WSH8GB96Z	225	Key	1-JL82213015
166	Set screw	1-M6X10GB70Z	226	Big washer	1-WSH6GB96Z
167	Square head nut	1-JL82030006	227	Shaft	1-JL82464003
168	Plate	1-JL84060003-001Y	228	End cap	1-JL82213007-001S
169	Washer	1-WSH6GB97D1Z	229	Tapping screw	1-ST3D5X13GB845Z
170	Fence knob	1-JL20061100-001S	230	Fence	1-JL82213003
171	Retaining ring	1-CLP10GB895D2B	231	Scale	1-JMTS1001053001
172	Roll pin	JMTS1001051004	232	Bracket	1-JL82213002
173	Position tube	JMTS1001051003	233	Scale	1-JL82464001
174	Set screw	1-M6X10GB80B			
175	End cap	1-JL82233004-001S			
176	Square sliding table	1-JMTS1001051001-001U			
177	Nut	1-M20GB6173			
178	End cap	1-JL82212006-001S			
179	Extension bracket	1-JL84070002			
180	Support bracket	1-JL82463004			



General Machinery Safety Instructions

Machinery House

requires you to read this entire Manual before using this machine.

- 1. Read the entire Manual before starting machinery.** Machinery may cause serious injury if not correctly used.
- 2. Always use correct hearing protection when operating machinery.** Machinery noise may cause permanent hearing damage.
- 3. Machinery must never be used when tired, or under the influence of drugs or alcohol.** When running machinery you must be alert at all times.
- 4. Wear correct Clothing.** At all times remove all loose clothing, necklaces, rings, jewelry, etc. Long hair must be contained in a hair net. Non-slip protective footwear must be worn.
- 5. Always wear correct respirators around fumes or dust when operating machinery.** Machinery fumes & dust can cause serious respiratory illness. Dust extractors must be used where applicable.
- 6. Always wear correct safety glasses.** When machining you must use the correct eye protection to prevent injuring your eyes.
- 7. Keep work clean and make sure you have good lighting.** Cluttered and dark shadows may cause accidents.
- 8. Personnel must be properly trained or well supervised when operating machinery.** Make sure you have clear and safe understanding of the machine you are operating.
- 9. Keep children and visitors away.** Make sure children and visitors are at a safe distance for you work area.
- 10. Keep your workshop childproof.** Use padlocks, Turn off master power switches and remove start switch keys.
- 11. Never leave machine unattended.** Turn power off and wait till machine has come to a complete stop before leaving the machine unattended.
- 12. Make a safe working environment.** Do not use machine in a damp, wet area, or where flammable or noxious fumes may exist.
- 13. Disconnect main power before service machine.** Make sure power switch is in the off position before re-connecting.

- 14. Use correct amperage extension cords.** Undersized extension cords overheat and lose power. Replace extension cords if they become damaged.
- 15. Keep machine well maintained.** Keep blades sharp and clean for best and safest performance. Follow instructions when lubricating and changing accessories.
- 16. Keep machine well guarded.** Make sure guards on machine are in place and are all working correctly.
- 17. Do not overreach.** Keep proper footing and balance at all times.
- 18. Secure workpiece.** Use clamps or a vice to hold the workpiece where practical. Keeping the workpiece secure will free up your hand to operate the machine and will protect hand from injury.
- 19. Check machine over before operating.** Check machine for damaged parts, loose bolts, Keys and wrenches left on machine and any other conditions that may effect the machines operation. Repair and replace damaged parts.
- 20. Use recommended accessories.** Refer to instruction manual or ask correct service officer when using accessories. The use of improper accessories may cause the risk of injury.
- 21. Do not force machinery.** Work at the speed and capacity at which the machine or accessory was designed.
- 22. Use correct lifting practice.** Always use the correct lifting methods when using machinery. Incorrect lifting methods can cause serious injury.
- 23. Lock mobile bases.** Make sure any mobile bases are locked before using machine.
- 24. Allergic reactions.** Certain metal shavings and cutting fluids may cause an allergic reaction in people and animals, especially when cutting as the fumes can be inhaled. Make sure you know what type of metal and cutting fluid you will be exposed to and how to avoid contamination.
- 25. Call for help.** If at any time you experience difficulties, stop the machine and call your nearest branch service department for help.



Sawbench/Panel Saw Safety Instructions

Machinery House

requires you to read this entire Manual before using this machine.

- 1. Maintenance.** Make sure the saw is turned off and disconnect from the main power supply and make sure all moving parts have come to a complete stop before any inspection, adjustment or maintenance is carried out.
- 2. Saw Condition.** Saw must be maintained for a proper working condition. Never operate a saw that has damaged or worn parts. Scheduled routine maintenance should be performed on a scheduled basis.
- 3. Blade Condition.** Never operate a saw with a dropped, cracked or badly worn blade. Before using a saw inspect blades for missing teeth and cracks. A damaged blade can cause serious injury.
- 4. Replacing Blade.** Make sure teeth are face forward to the workpiece. Wear gloves to protect hands.
- 5. Hand Hazard.** Keep hands and fingers clear from the line of cut of the blade. Serious injury can occur.
- 6. Leaving a saw Unattended.** Always turn the saw off and make sure all moving parts have come to a complete stop before leaving the saw. Do not leave saw running unattended for any reason.
- 7. Avoiding Entanglement.** Blade guard must be used at all times. Remove loose clothing, belts, or jewelry items. Never wear gloves while machine is in operation. Tie up long hair and use the correct hair nets to avoid any entanglement with the saw moving parts.
- 8. Understand the machines controls.** Make sure you understand the use and operation of all controls.
- 9. Power outage.** In the event of a power failure during use of the saw, turn off all switches to avoid possible sudden start up once power is restored.
- 10. Work area hazards.** Keep the area around the saw clean from oil, tools, chips. Pay attention to other persons in the area and know what is going on around the area to ensure unintended accidents.

- 11. Workpiece Handling.** Workpiece should be stable on the table and support either by the rip fence or crosscut table during cutting. Hold downs, push sticks and featherboards and other safety devices can be used to make cutting operations safe.
- 12. Hearing protection and hazards.** Always wear hearing protection as noise generated from saw blade and workpiece vibration can cause permanent hearing loss over time.
- 13. Saw Blade Hazards.** Never reach behind or over a blade with your hands while saw is operating. If you lose your balance or kick back occurs you could be pulled into the spinning saw blade.
- 14. Operator position.** Never stand or have any part of your body in line with cutting path of the saw blade.
- 15. Use a Push Stick.** Always use a push stick when ripping narrow material.
- 16. Blade guards & blade splitter.** Always use blade guards and blade splitter when cutting completely through the workpiece.
- 17. Crosscutting operation.** While using a mitre guide to crosscut a workpiece, remove the rip fence.
- 18. Stalled blade.** In the case that the blade stalls while in operation, turn the saw off before freeing the stalled saw blade.
- 19. Blade height.** Always adjust blade to the correct height above the workpiece.
- 20. Kickback.** Kickback is defined as high speed expulsion of workpiece from the table saw towards the operator.
- 21. Call for help.** If at any time you experience difficulties, stop the machine and call your nearest branch service department for help.

PLANT SAFETY PROGRAM

NEW MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL

Sawbench - Panel Saw

Developed in Co-operation Between A.W.I.S.A and Australia Chamber of Manufactures
This program is based upon the Safe Work Australia, Code of Practice - Managing Risks of Plant in the Workplace (WHSA 2011 No10)

Item No.	Hazard Identification	Hazard Assessment	Risk Control Strategies (Recommended for Purchase / Buyer / User)
A	ENTANGLEMENT	HIGH	Eliminate, avoid loose clothing / Long hair etc.
B	CRUSHING	LOW	Ensure machine is bolted down to prevent it falling.
C	CUTTING, STABBING, PUNCTURING	MEDIUM	Isolate main power switch before changing blade, cleaning or adjusting. Check blade is tight and in good condition before starting. Make sure blade guard is down and adjusted when changing thickness. Ensure blade is at the correct height when cutting. Hands must always be kept well away from blade at all times. Use a push stick where required.
D	SHEARING	MEDIUM	Make sure all guards are secured shut when machine is on.
F	STRIKING	LOW	Support long heavy workpieces and stand clear of offcuts falling. Remove all loose objects around moving parts. Wear safety glasses.
H	ELECTRICAL	MEDIUM	All electrical enclosures should only be opened with a tool that is not to be kept with the machine. Machine should be installed & checked by a Licensed Electrician.
K	ERGONOMIC	MEDIUM	Heavier pieces must be carried by more than one person, or use supports.
O	OTHER HAZARDS, NOISE, DUST.	LOW	Wear hearing protection as required. Must be connected to dust extraction.
Plant Safety Program to be read in conjunction with manufacturers instructions			

HARE & ORBES
MACHINERYHOUSE

Authorised and signed by:
Safety officer:
Manager:

www.machineryhouse.com.au

www.machineryhouse.co.nz

Revised Date: 12th March 2012