HARVEY®

Operating Instructions

Tilting Arbor Table Saw

Revision A 2019-08-01

Model: C300-30 / C300-50

298003599

Contents

1. Foreword

This manual contains basic information for qualified operators and describes the normal usage of this machine in a typical shop environment.

This machine is equipped with various safety features intended to protect the operator. This manual cannot cover all potential safety aspects and the operator should be familiar with the operation of this type of machine and also read the entire manual before starting.

Any operation and installations errors discovered in this manual will be corrected immediately.

2. Warranty Information

Limited Warranty

Two year.

Proof of Purchase

Please keep your dated proof of purchase for warranty and servicing purposes.

Limited Tool Warranty

We make every effort to ensure that this product meets high quality and durability standards. We warrant that this product is free from manufacturing defects for two-year under the terms of a limited warranty. The two year term begins at the time of the retail purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations or lack of maintenance. We shall in no event, be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products. To take advantage of this limited warranty, contact us at 888-211-0397 or info@harveywoodworking.com. After examination, we will repair or replace the product or any part(s) covered under this warranty due to defective workmanship or material(s) during the warranty period.

⚠WARNING

Notice to California Residents: This product can expose you to wood dust, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

3. Machine Description

3.1 Technical Parameters

Item		C300-30	C300-50
Product dimensions	Net Weight	550lbs (260 Kg)	590lbs (270 Kg)
	Length/width/height	66"×44"×40" 1582x1100x1016 mm	86"×44"×40" 2090x1100x1016 mm
	Foot print(length/width)	20"×20" (500 x 508 mm)	
Electrical	Switch	magnetic with thermal overload protection	
Motor	Type	TEFC capacitor start induction	
	Horsepower/voltage/phase/amps	3HP-230V-1PH,12.8A (2.2kW-230V-1PH,12.8A)	
	Speed/cycle	3450 RPM/60Hz (2850 RPM/50Hz)	
	Power transfer	Triple V-belt Drive	
Blade information	Maximum blade diameter	10" (250 mm)	
	Riving knife/spreader thickness	0.1" (2.5mm)	
	Required blade body thickness	0.071"-0.094" (1.8-2.4mm)	
	Required blade kerf thickness	0.102"-0.126" (2.6-3.2mm)	
	Maximum width of Dado	13/16" (15 mm)	
	Blade tilt	left 0-45°	
	Arbor size	5/8" (30 mm)	
	Arbor speed	4300 RPM	
	Arbor bearings	sealed and permanently lubricated	
Cutting capacities	Maximum depth of cut at 90°	3-1/8" (70 mm)	
	Maximum depth of cut at 45°	2-3/16" (50 mm)	
	Maximum rip to right of Blade-standard	30" (750 mm)	50" (1250 mm)
	Maximum rip to left of blade	12" (305 mm)	
Table information	Floor to table height	34" (860 mm)	
	Main table--length/width/thickness	20"×27"×1-1/2" (512x685x48 mm)	
	Distance front of table to center of blade	17-1/4" (440 mm)	
	Distance front of table to blade of maximum cut	12-1/4" (310 mm)	
Fence information	High fence plate size	3-3/8"x39-3/8" (89x1050 mm)	
	Low fence plate size	17/32"x39-3/8" (15x1050 mm)	
Miter gauge information	Miter gauge slot type	T-slot	
	Miter gauge slot type-- width/height	3/4"×3/8" (19.05 x 9.525 mm)	
Other information	Paint	power coated	
	Dust port size	4" (100 mm)	

3.2 Feature Identification

Refer to ***Fig. 1.***

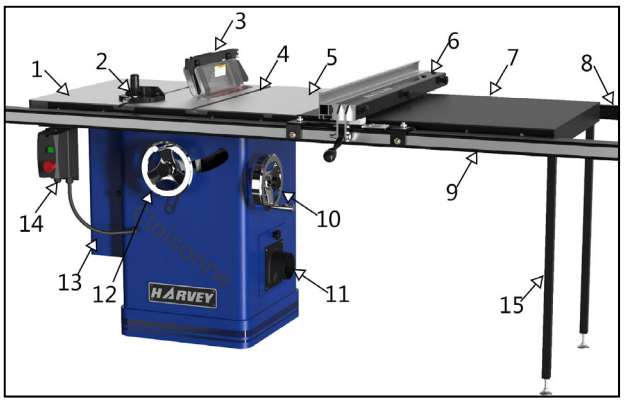

Fig. 1

1	Left Extension Wing
2	Miter Gauge
3	Blade Guard
4	Main Table
5	Right Extension Wing
6	Fence
7	Extension Table
8	Rear Rail
9	Front Rail Tube
10	Blade Tilt Hand wheel
11	Dust Port
12	Blade Height Hand wheel
13	Motor Cover
14	On/Off Switch
15	Support Leg

3.3 Optional Equipment

Sliding table
Model: ST-1400S

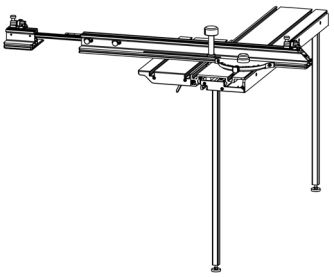

Fig. 1-1

Universal Overhead Guard
Model: S-12S

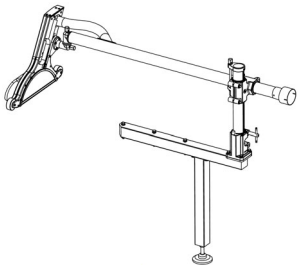

Fig. 1-2

Router Table
Model: RT-100

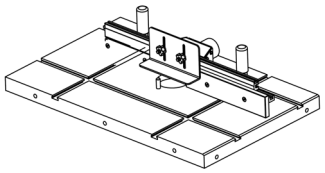

Fig. 1-3

Rear Table
Model: RT-10

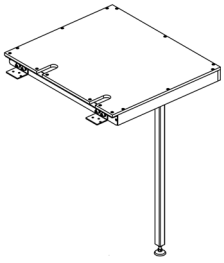

Fig. 1-4

Universal Mobile Base
Model: MB-600

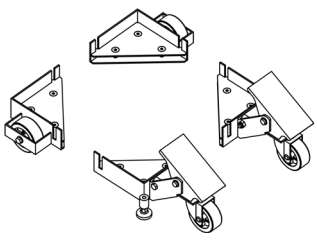

Fig. 1-5

3.4 Intended Use

This table saw and the workpiece guide equipment supplied with it are intended to be used exclusively for the following purposes:

- Laminated and unlaminated board materials (e.g. chipboard, coreboard, MDF board, ...)
- Solid wood
- Gypsum plasterboard, Cardboard, Veneer with a suitable clamping device
- Dimensionally stable plastics (thermoset plastics, thermoplastics). Sawing these materials does not normally involve any risks in respect of dust, chips, and thermal degradation products.

Tools:

- The chosen saw blade must be suitable both for the specific work cycle and for the specific material.
- Only circular blades which are solid chrome vanadium (CV) or tungsten carbide tipped (TCT) and have a diameter of 254 mm, arbor size 15.875 mm, as well as a maximum width of 20mm are allowed for the main saw
- Saw blades and their fixing devices shall conform to EN 847-1:2005.

Site of installation/use:

- The machine is not suitable for use outdoors, or in rooms that are subject to moisture or the risk of explosions.
- The intended use of the machine involves connection to a suitably dimensioned dust extraction system .
- Intended use also involves compliance with our specified operating, maintenance and repair conditions and the safety information contained in the operating instructions.
- The table saw may only be used, set up and maintained by persons who are familiar with the machine and aware of the dangers.
- The pertinent accident prevention regulations as well as any other generally recognized technical safety and industrial health rules must be observed.
- Repair work must be carried out by our own customer service or by an authorized repair center. Only original spare parts are allowed to be used on this machine. We will assume no warranty for any damage that is caused by using non-original spare parts.

⚠WARNING

The machine is prohibited from being used in a potentially explosive atmosphere!

3.5 Electrical Power Requirements

List of the motor usage & pre-wired voltage

Item	Motor	
	3 HP	2.2 kW
Voltage(V)	230 V	230 V
Phase	1 PH	1 PH
Freq.(Hz)	60 Hz	50 Hz
Rated current A	12.8 A	12.8 A
Prewired	230 V/1 PH	230 V/1 PH

The recommended amperage of the power supply line is 20 A.

The steady-state AC power supply is 0.9 -1.1 times of the rated value.

Electrical Protection

The user should provide protection devices against electrical surges like lightening and also short circuit protection at the power supply.

Ingress Protection at the Inlet of Incoming Power Cable

Ensure IP54 protection class for the incoming cable when the finished installation is in place.

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4. Safety Regulations

4.1 General Safety Instructions

1. KNOW YOUR MACHINE.

Read and understand the owners manual and labels affixed to the machine. Learn its application and limitations as well as its specific potential hazards;

2. GROUND THE MACHINE.

In the event of an electrical short, grounding reduces the risk of electrical short;

3. KEEP THE BLADE GUARDS IN PLACE.

Keep in good working order, properly adjusted and aligned;

4. REMOVE THE ADJUSTING TOOLS

Form a habit of checking that the key and adjusting wrenches are removed from the machine before turning it on;

5. KEEP THE WORK AREA CLEAN.

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up;

6. AVOID A DANGEROUS ENVIRONMENT.

Don't use machines in damp or wet locations or expose them to rain. Keep the work area well lit and provide adequate surrounding work space;

7. KEEP CHILDREN AWAY.

All visitors should be kept a safe distance from work area;

8. MAKE WORKSHOP CHILD-PROOF.

With padlocks, master switches or by removing starter keys;

9. USE THE PROPER SPEED.

A machine will do a better and safer job when operated at the proper speed;

10. USE THE RIGHT MACHINE.

Don't force the machine or the attachment to do a job for which it was not designed;

11. WEAR THE PROPER APPAREL.

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows;

12. MAINTAIN PROPER FOOTING.

Keep proper footing and balance at all time. Do not over-reach to perform an operation;

13. MAINTAIN THE MACHINE WITH CARE.

Keep tools sharp and clean for the best and safest performance;

14. DISCONNECT MACHINES.

Before servicing, when changing accessories or attachments;

15. AVOID ACCIDENTAL STARTING.

Make sure the switch is in the "OFF" position before plugging in;

16. USE RECOMMENDED ACCESSORIES.

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards;

17. NEVER STAND ON THE MACHINE.

Serious injury could occur if the machine tips over. Do not store materials such that it is necessary to stand on the machine to reach them;

18. CHECK FOR DAMAGED PARTS.

Before further use of the machine, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced;

19. NEVER LEAVE THE MACHINE RUNNING UNATTENDED.

Turn the power to "off". Do not walk away from the machine until it comes to a complete stop;

20. ADEQUATE LIGHT

Ensure that adequate general or localized lighting is provided in work area;

4.2 Table Saw Safety Instructions

1. ALWAYS USE A GUARD.

Always use a guard、splitter and anti-kickback fingers on all "thru-sawing" operations. Thru-sawing operations are those when the blade cuts completely through the work piece as in ripping or crosscutting;

2. ALWAYS HOLD THE WORK.

Always hold the work firmly against the miter gauge or fence;

3. ALWAYS USE A PUSHSTICK OR PUSH BLOCKS.

Push blocks or push sticks shall be used when cutting small workpieces and in circumstances where it is necessary to push the workpiece against the fence;

4. NEVER PERFORM UNSAFE OPERATIONS.

Never perform any operations "free-hand" which means using your hands to support or guide the work piece. Always use either the fence or the miter gauge to position and guide the work piece;

5. STAND TO THE SIDE WHEN FEEDING MATERIAL.
Never stand or have any part of your body in line with the path of the saw blade;
6. USE CAUTION WHEN REACHING FOR OBJECTS.
Never reach behind or over the cutting tool with either hand for any reason;
7. SAFE CROSSCUTTING OPERATIONS.
Move the rip fence out of the way when crosscutting;
8. ENSURE CORRECT FEEDING OF MATERIAL.
Feed the work into the blade against the direction of rotation;
9. CORRECT USAGE WITH THE FENCE.
Never use the fence as a cut-off gauge when you are cross-cutting;
10. ALWAYS TURN THE POWER TO THE "OFF" POSITION.
When attempting to free a stalled saw blade, always turn the saw to the "off" position;
11. PROVIDE ADEQUATE SUPPORT.
To the rear and sides of the table saw for wide or long work pieces;
12. AVOID KICKBACKS.
Avoid kickbacks (work thrown back towards you) by keeping the blade sharp, by keeping the rip fence parallel to the saw blade, by keeping the splitter and anti-kickback fingers and guard in place and operating, by not releasing work before it is pushed all the way past the saw blade, and by not ripping work that is twisted or warped or does not have a straight edge to guide along the fence;
13. AVOID AWKWARD OPERATIONS.
Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the spinning blade;
14. BLADE REQUIREMENTS.
Only correctly sharpened saw blades manufactured in accordance with the requirements of EN 847-1:2005 shall be used;
15. CORRECT SAW BLADE USAGE.
No saw blade shall be used where the maximum marked speed is lower than the maximum rotational speed of the saw spindle;
16. CHIP AND DUST.
The machine shall be connected to an external chip and dust extraction system;
The dust extraction equipment is to be switched on before commencing machining;
17. CHECK
Periodically check the brake function to make sure the completed stop time of the saw blade is less than 10 seconds.

4.3 Residual Risks

1. Take precautions to reduce the hazard of inhalation of harmful dust (e.g. wearing a dust mask);
2. Wear ear protection to prevent hearing loss;
3. Always wear safety glasses. Also, use a face or dusk mask if the cutting operation is dusty;
4. Protect against the hazard of being cut when handling saw blades in the machine or while performing maintenance on the machine;
5. Do NOT try to remove chips while the saw is running or the saw blade is moving;
6. Do NOT use the machine unless all of the guards and other safety devices necessary for the particular operation are in good working order and in place.

4.4 Safety Equipment

A push block (***Fig. 2***) or A push stick (***Fig. 3***) must be used

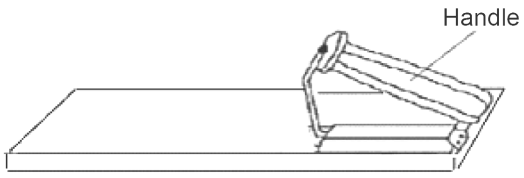


Fig. 2

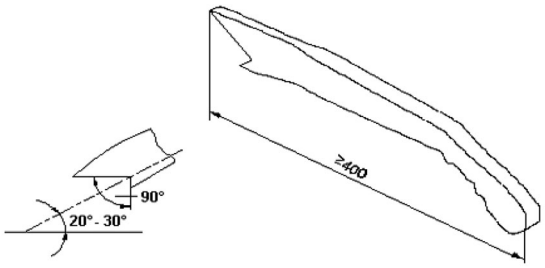


Fig. 3

⚠WARNING

If the workpieces is less then 4-3/4" (120 mm), you must use the push stick to prevent your hands from getting too close to the saw blade.
A Push block must be used to cut narrow workpieces and, when necessary, to push the work piece against the fence. A push block can be easily made by the operator as shown in *Fig. 2*.

5. Installation of the Machine

5.1 Transportation of Machines

5.1.1 Transportation and store

This machine has been well packaged and rust preventive measures have been taken at the factory. Care should still be taken to insure that no damage comes from rough handling while moving. Ambient temperatures of -10 to 130 ℉ (-25 to 55 ℃) can be endured by this machine.

Be careful not to expose this machine to rain or other severe weather.

⚠WARNING

While transporting or handling the machine, be careful and let the activity be done by qualified personnel especially trained for this kind of activity!

While the machine is being loaded or unloaded, make sure all persons are out of the way so that no person is crushed by the machine.

Select the proper transportation device according to the weight of the machine. Make sure the lifting capacity of the transportation device is sufficient for the weight of the machine.

5.1.2 Transportation before unpacking

This machine is packed in a robust cardboard box. ***Fig. 4*** shows the device which can be used to transport the packed crate.

Fig. 4

5.2 Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover that the machine is damaged, please immediately call Customer Service for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

Note: If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes, or in other packing.

5.3 Contents

Main machine box contents:
(Fig. 4-1-----Fig. 4-5)

A. Main table saw unit.....1
B. Motor cover.....1
C. Extension wings.....2
D1. Extension table (width 340mm.....1
(Only for C300-30)
D2. Extension table (width 845 mm).....1
(Only for C300-50)
E. Support legs.....2
F. Saw blade.....1
G. Blade guard assembly.....1
H. Riving knife.....1
I. Handwheel handle.....1
J. Dado table insert.....1
K. Hex wrench set (eight pieces).....1
L. Push stick.....1
M. Wrench open-end 27 mm.....1
N. Wrench open-ends 22/24 mm.....1
O. Miter gauge.....1

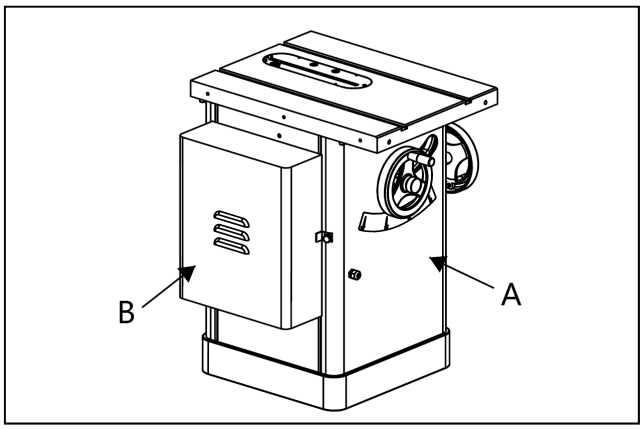


Fig. 4-1

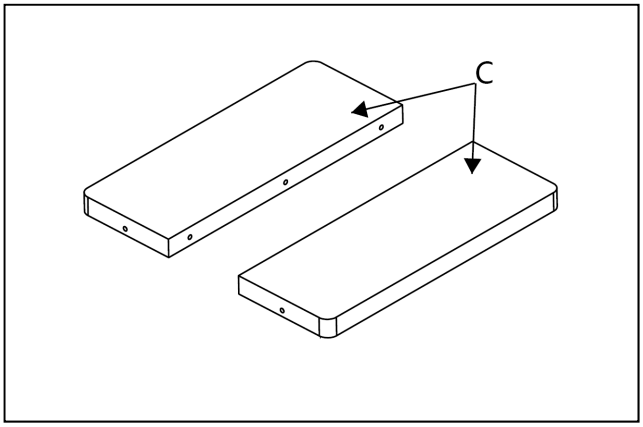


Fig. 4-2

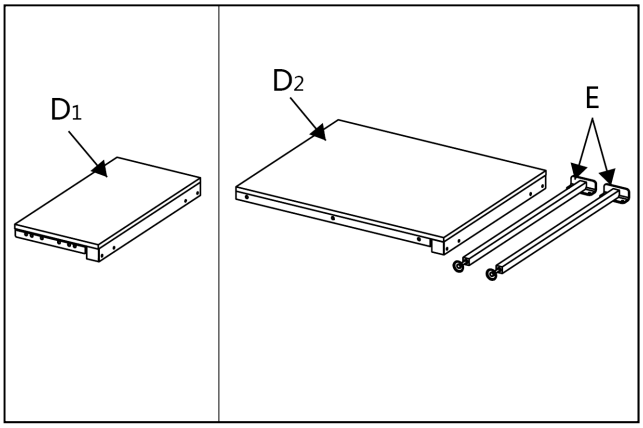


Fig. 4-3

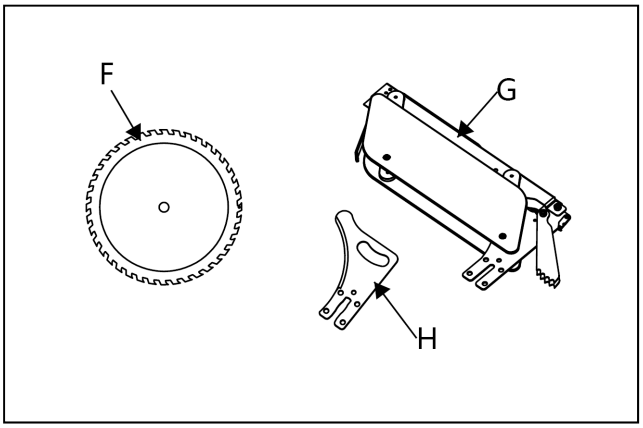


Fig. 4-4

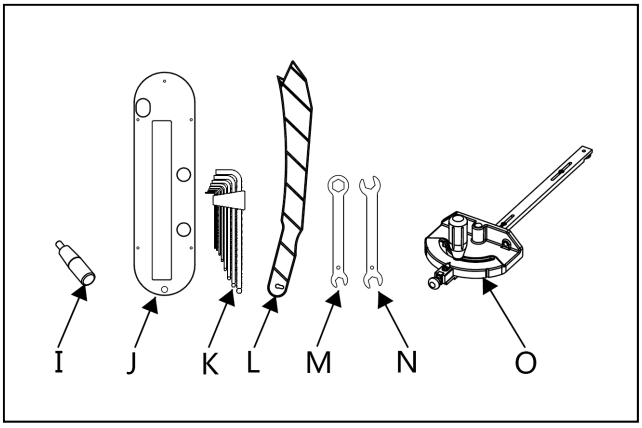


Fig. 4-5

Fence box contents:(Fig. 4-6)

A. Fence body.....1
B. Fence.....1

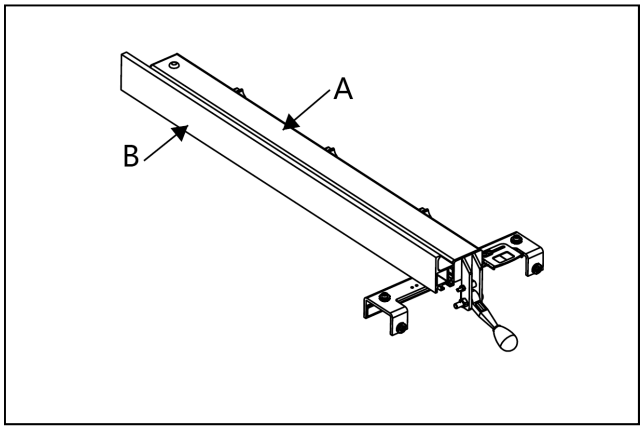


Fig. 4-6

Rail box contents:(Fig. 4-7)

Only for C300-30

A. Rear rail (30”).....1
B. Front rail (30”).....1
C. Front rail rectangular tube (30”).....1
D. Front rail tape scale (30”).....1

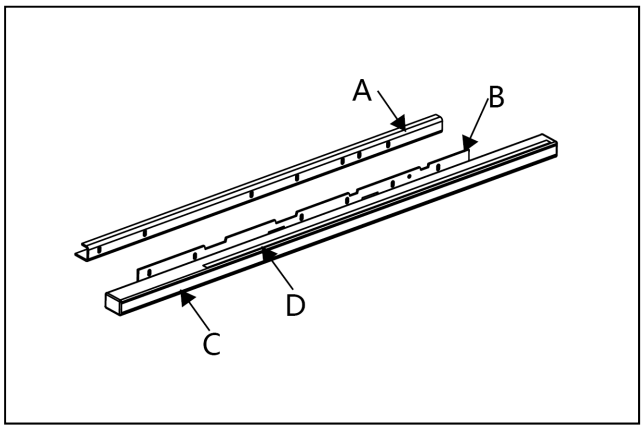


Fig. 4-7

Rail box contents:(Fig. 4-8)

Only for C300-50

A. Rear rail (50”).....1
B. Front rail (50”).....1
C. Front rail rectangular tube (50”).....1
D. Front rail tape scale (50”).....1

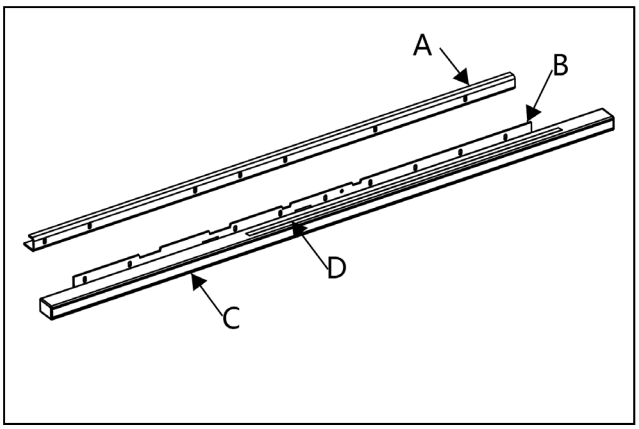


Fig. 4-8

5.4 Safety Measures before Installation

It is important to maintain a free area of 31-1/2” (0.8 m) around the machine, which is required for the working area. If any long material is to be cut, it is necessary to have sufficient room both in front of the machine as well as behind it for material infeed and outfeed.

5.5 Installation

Before beginning assembly, take note of the following precautions and suggestions.
The machine is bolted to the pallet. Before attempting any of the assembly procedures, remove all of the loose parts and hardware from the pallet.
----- **FLOOR:** This tool distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting both the weight of the machine and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate the wobble by using shims.
-----**WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely.
-----**OUTLET PLACEMENT:** Outlets should be located close enough to the machine so that the power cord or extension cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

⚠WARNING

DO NOT assemble the machine until you are certain that the machine is not plugged in and the power switch is in the OFF position.
DO NOT connect the machine to the power source until the machine is completely assembled and you read and understand the entire User Manual.

5.5.1 Remove the accessories

Remove all attachments fixed to the pallet.
Remove all accessories or packages contained in the cabinet.

5.5.2 Motor cover install

Install the motor cover by inserting the door pins into the hinge sockets on the cabinet as shown in ***Fig. 5;***

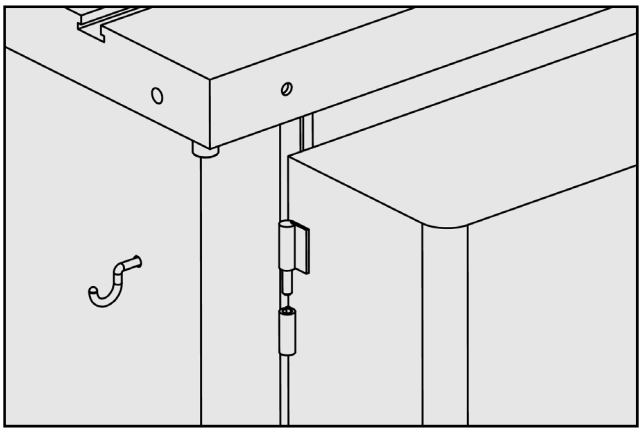


Fig. 5

5.5.3 Hand wheel handle installation

Install the handle into the Blade Tilt hand wheel as shown in Fig***. 6.***

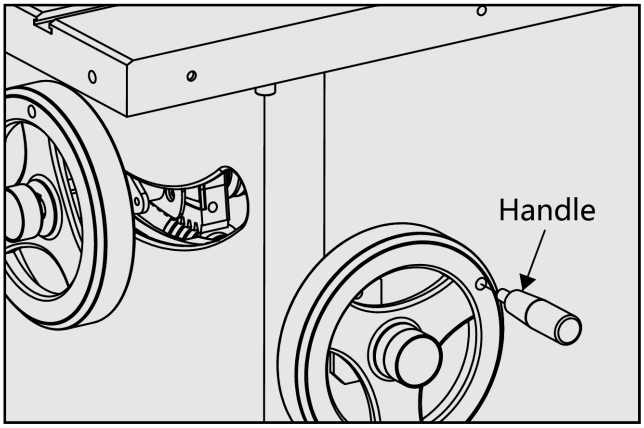


Fig. 6

5.5.4 Extension tables installation

Refer to ***Fig. 7.***

1. Remove the screws from the sides of the main table;
2. Inspect the extension tables and main table mating surfaces for burrs or foreign materials that may inhibit assembly;
3. The mating edges of the tables and the table must be clean, smooth, and flat, use a wire brush or sand paper if necessary to clean up the edges, this step will ensure that the tables mount properly to the main this step will ensure that the tables are mounted properly to the main table;
4. Attach the tables to the main table with the screws removed in step 1;
5. Place the straightedge across the extension tables and main table to make sure that the table surface is flat;

If the outside end of the extension tables tilts down or up, use a strip of masking tape to shim the extension table up or down ;

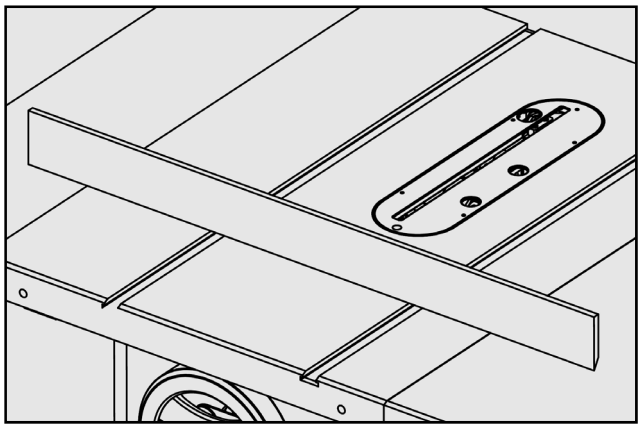


Fig. 7

5.5.5 Install the rail & fence

1. Install the rear rail , front rail, tube, (extension table) as breakdown, Before tightening the fasteners, check to make sure the top edge of the rear rail is flush with the lowest edge of both T-slots，so the miter gauge will slide smoothly when installed later, as shown in Fig***. 8.***

2. Place the fence on the rails on the right hand side of the blade as shown in Fig***. 9.***

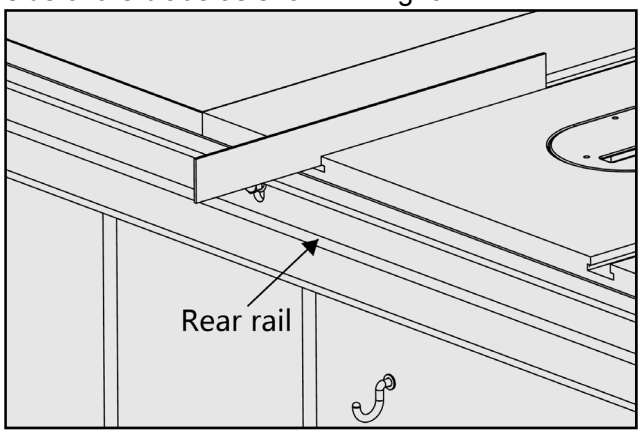


Fig. 8

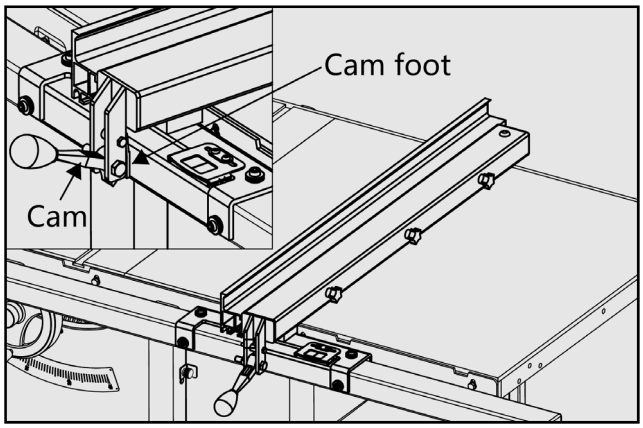


Fig. 9

⚠ NOTICE

Make sure the cam foot contacts the cam on the fence lock handle before you place the fence on the rail, otherwise the fence will not lock into the rail tube, refer to Fig. 9.

3. Checking fence parallelism

Refer to ***Fig. 10***.

----Slide the fence along the rail , if it drags across the table, then adjust the foot at the rear of the fence to raise the fence off of the table just enough, so that the gap between the fence, and the table is even from front to back;

----Slide the fence up, against the right hand edge of the miter slot, and lock it in place, examine how the fence lines up with the miter slot;

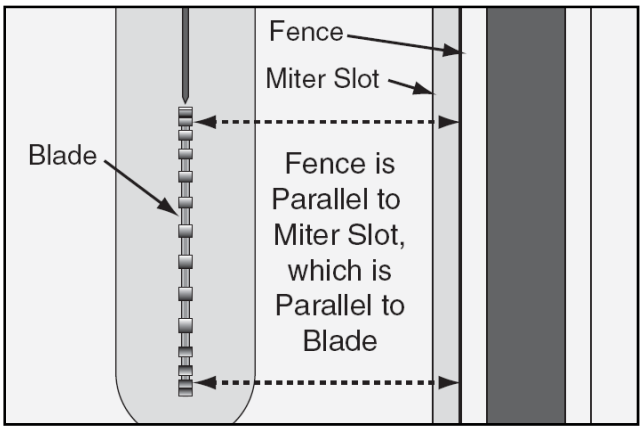


Fig. 10

⚠ NOTICE

It's permissible for the back of the fence to pivot outward not more than 1/64" from being parallel to the blade. This creates a slightly larger opening between the fence and the blade, at the rear of the blade, to reduce the risk of workpiece binding or burning as it is fed through the cut. Many woodworkers intentionally set up their fence in this manner. Keep this in mind before adjusting your fence.

4. Install the fence scale

Refer to ***Fig. 11.***

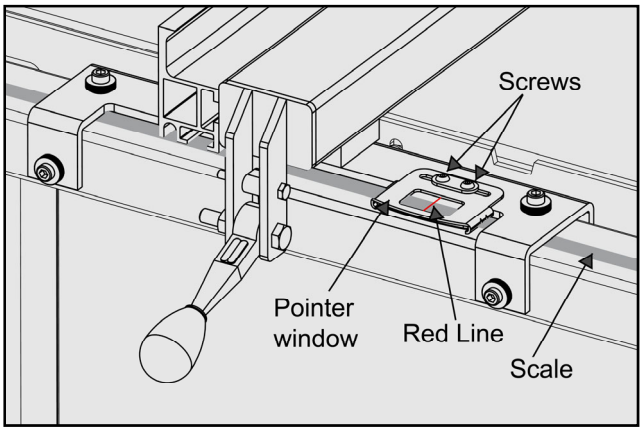


Fig. 11

Slide the fence up against the saw blade, and lock it in place; Place the front rail tape scale on the

fence tube, make sure it is parallel with the tube, and the “0” end is directly under the red line on the pointer window as shown; lightly mark the “0” location on the tube with a pencil, then remove the fence; peel the tape and carefully align the “0” mark on the scale with the pencil mark you made;
If you make a mistake, loosen the screws on the point window, slide the fence against the blade, adjust the pointer window, so the red line on the window is over the “0” mark on the tape, then secure the screws;

5.5.6 Install the switch

Install the magnetic switch onto the bottom left hand side of the front rail using two M6-1x 12 hex bolts, 6mm lock washers, and 6mmflat washers, as shown in ***Fig.12***

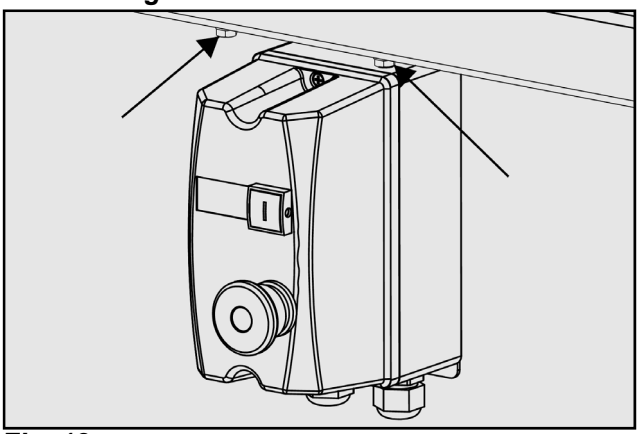


Fig. 12

5.5.7 Install the blade

1. Remove the table insert;
2. Rise the arbor all the way up and set the blade angle at 0º;
3. Remove the arbor nut and arbor flange from the arbor, slide the 10" saw blade (included) onto the arbor, making sure the teeth face the front of the saw, then install the arbor flange and arbor nut onto the blade;
4. Put on a pair of heavy leather gloves and use the included arbor wrenches to tighten the arbor nut (turn clockwise to tighten), refer to ***Fig. 13.***

Fig. 13

5.5.8 Install the blade guard

1. Reinstall the table insert, slide the knurled knob out (refer to ***Fig. 14)*** and rotate it forward so it engages the upper bracket.

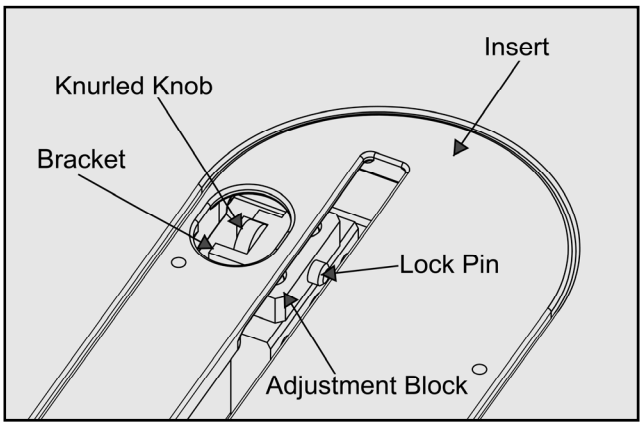


Fig. 14

2. Slide the blade guard spreader all the way down into the block, then rotate the knurled knob so it disengages the bracket and the locking pin engages the hole in the center of the spreader.

3. Give the spreader an upward tug to verify that it is locked in the blade guard when properly installed, refer to ***Fig, 15***

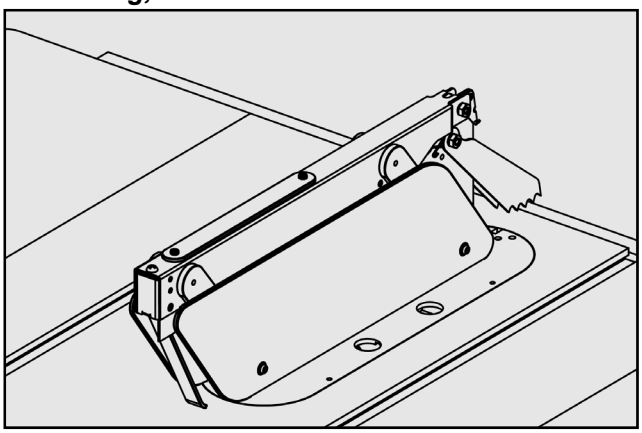


Fig. 15

⚠ WARNING

Check that saw blade clamp system is tight before operating the machine.

4. Place a straightedge against the blade and the spreader. When properly aligned, the spreader/riving knife will be in the "alignment zone," refer to ***Fig. 16***, and will be parallel with the blade. If it is not aligned properly, please adjust according to Section 6.5 “Aligning Blade Guard Splitter or Riving Knife with the Blade”.

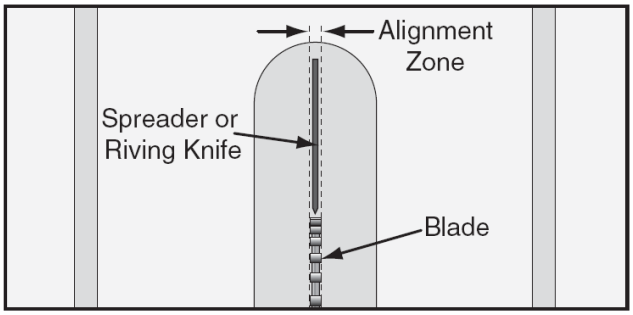


Fig. 16

⚠ NOTICE

After changing a saw blade, always check that the Riving knife or Blade Guard is correctly set!

1. Riving knives shall be manufactured from steel with an ultimate tensile strength of 580 N/mm^2 or of a comparable material, have flat sides (within 0.1 mm per 100 mm) and shall have a thickness less than the width of a cut (kerf) and at least 0.2mm greater than the saw blade plate. As shown in ***Fig. 17.***

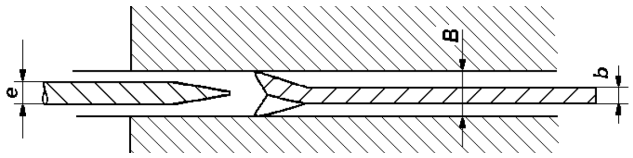


Fig. 17

Key:

e riving knife thickness

b saw blade base

B kerf (width of saw blade cut)

2. The distance of the riving knife from the gear rim must be between 3 mm and 8 mm measured radially through the center of the saw spindle. As shown in ***Fig. 18.***

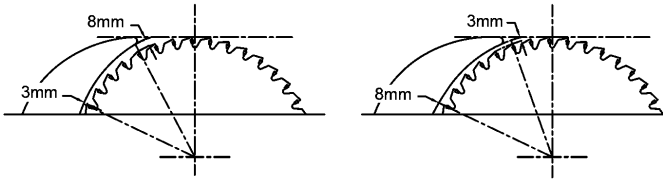


Fig. 18

3. The highest point of the riving knife must be set beneath the topmost teeth.

5.5.9 Extraction system

⚠ NOTICE

A dust collection device should be used by the customer.

The dust extraction equipment is to be switched on before commencing machining;

The outlet diameter of is 100mm. ***Fig.20***

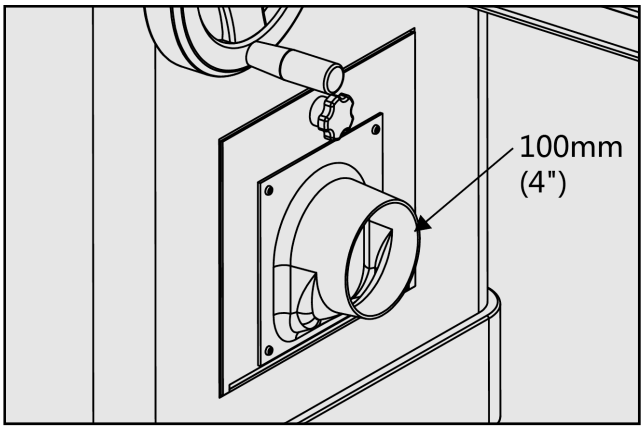


Fig. 19

The air current speed is 3937 FPM (20 m/s) for the vacuum suction dust emission index. When the air current speed of dust collector device (in accordance with EN 12779:2004) is not lower than 3937 FPM (20 m/s), ensure that the machine can be normally exhausted.

1. Required air flow: 470 CFM (800 m³/h).
2. Ensure pressure drop of each dust collector outlet carrying air current speed: 1100Pa
3. Dry chips: 3937 FPM (20 m/s).
4. Wet chips: 5511 FPM (28 m/s). (water content is equal to 18%)

5.5.10 Electrical installation

⚠ WARNING

Wiring should only be done by professional electricians. Always make sure the machine is properly grounded.

All wiring in the cabinet should be protected against direct contact to at least IP2X (IP:Ingress Protection) when finishing the electrical installation.

All exposed conductive parts should be connected to the protective ground circuit.

Close and lock the door of cabinets.

⚠ NOTICE

Enough space should be left around the machine cabinet to allow for easy cleaning and maintenance.

The machine should be installed in a workshop with good illumination and ventilation.

An over-voltage protection device should be provided by end user.

Check that the voltage and frequency required by the machine, which is shown on the machine's name plate, correspond to the electric power supply voltage and frequency.

The circuit breaker shall be installed to supply electric power to this machine, in order to protect people against electrical shock due to incidental contact.

Wiring:

Finish electrical connections according to the electrical drawings.

Wiring should comply with the requirements of Clause 13 (Wring practices) of EN 60204-1:2006.

Checking:

After finishing wiring in place, at minimum, check the following items:

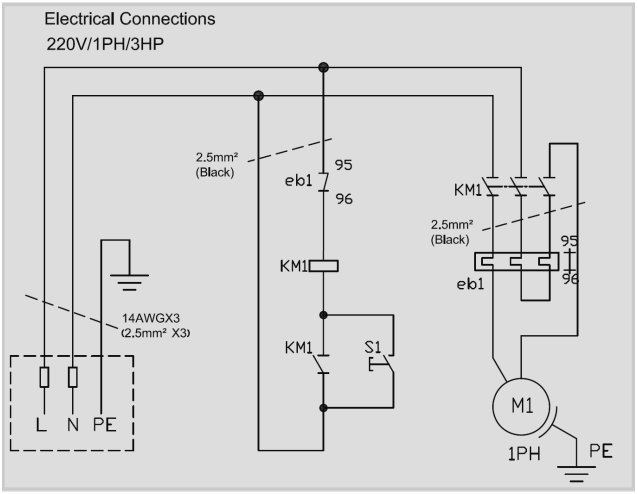
Check the wiring of the machine.

Check the direction of motor and change the wiring if necessary.

Check the components for defects, such as looseness or damage.

Check the function of the safety devices.

ELECTRICAL DIAGRAM



6. Adjustment

⚠ NOTICE

Before operation, the machine should be carefully adjusted for the best performance. Please make adjustment as followings:

6.1 Blade Elevation and Tilting Mechanism

To raise or lower the blade, loosen the lock knob (C) As shown in ***Fig. 20*** and turn the elevation hand wheel (D). When the desired height is obtained, retighten the lock knob. The blade should be raised 1/8" to 1/4" above the top surface of the material being cut with hollow ground blades. The blade should be raised to the maximum to provide chip clearance. To tilt the saw blade, loosen the lock knob (B) and turn the hand wheel (A). When desired angle is obtained, retighten the lock knob. Refer to ***Fig. 20.***

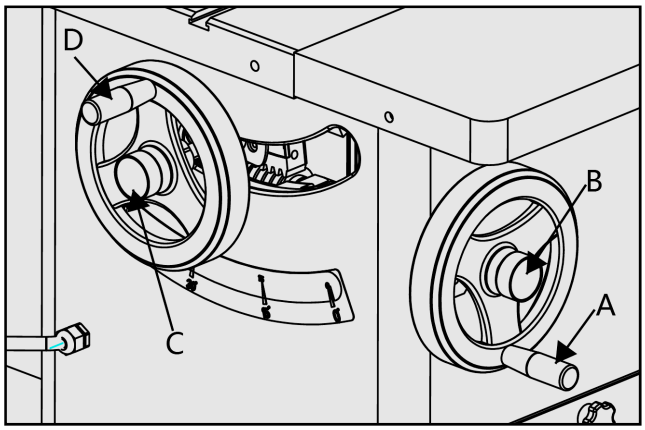


Fig. 20

6.2 Adjusting the Rip Fence

1. The rip fence must be perfectly aligned with the table T-slot. To verify this, align the edge of the rip fence with the table T-slot and lower the locking lever (A) ***Fig. 21*** to lock in into place. Check to see if the edge of the rip fence and the table T-slot are parallel. If they are not parallel, adjust the set screws (H), as shown in ***Fig. 22,*** in or out. Verify the adjustment, repeat if necessary.

2. The lock lever pressure can be adjusted by loosening the front lock nuts (B) as shown in ***Fig. 21*** and adjusting the set screws (C) the same amount, make sure the fence remains parallel with the table T-slot. Retighten the lock nuts.

3. To set the fence perpendicular to the table, place a square on the table and against the side of the fence, loosen the top lock nuts (D) and adjust the setscrews (E) until the fence is perpendicular. Retighten the lock nuts.

4. The pointer window (F) as shown in ***Fig. 21***, can be adjusted if needed by loosening the pan head screws(G), repositioning the window and retightening the pan head screws.

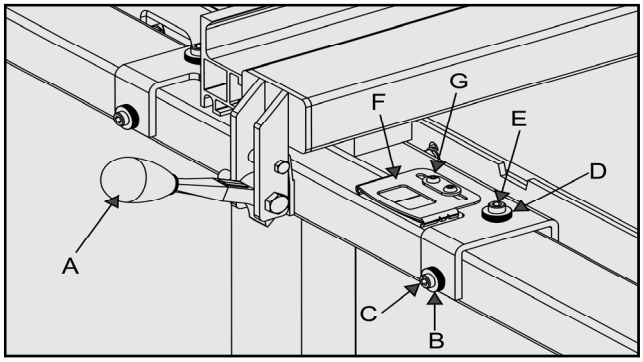


Fig. 21

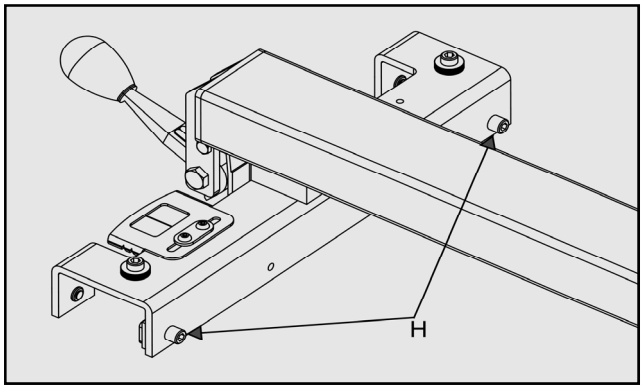


Fig. 22

6.3 Aligning the Table T-slot Parallel with the Blade

1. The table T-slot must be aligned parallel with the blade. Using a combination square measure the distance from the back edge of the blade to the table T-slot. Pivot blade forward 180º and re-measure the distance using the exact same point on the blade. The difference between both measurements must be less than 0.2mm. Refer to ***Fig. 23.***

2. If an adjustment is necessary, loosen the screws identified in ***Fig. 24*** which mount the table to the cabinet. Make the needed adjustment until both measurements are equal or less than 0.2 mm. and retighten the screws.

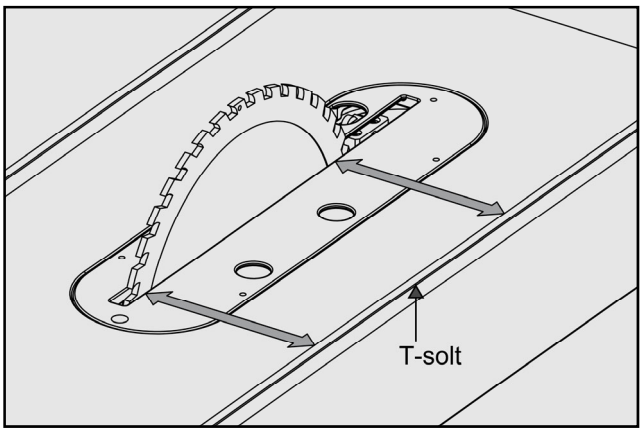


Fig. 23

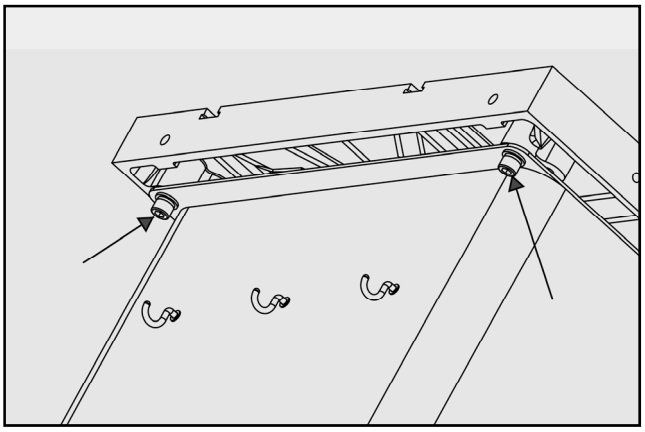


Fig. 24

6.4 Adjusting 45°and 90°Positive Stops

The blade tilting mechanism of your saw is equipped with a positive stop at 45 and 90 degrees. To check and adjust these positive stops, proceed as follows:

1. Raise the saw blade to its maximum height.
2. Set the blade at 90 degrees to the table by turning the blade tilting hand wheel counterclockwise as far as it will go.
3. Place a square on the table and check to see if the blade is at a perfect 90 degree angle to the table.
4. If the blade is not at 90 degrees loosen lock nut (A) As ***Fig.25-1*** and turn stop ring (B) in or out. The stop ring (B) should stop against the front trunnion bracket when the blade is at 90 degrees to the table. Recheck and adjust further if necessary. Retighten lock nut (A).

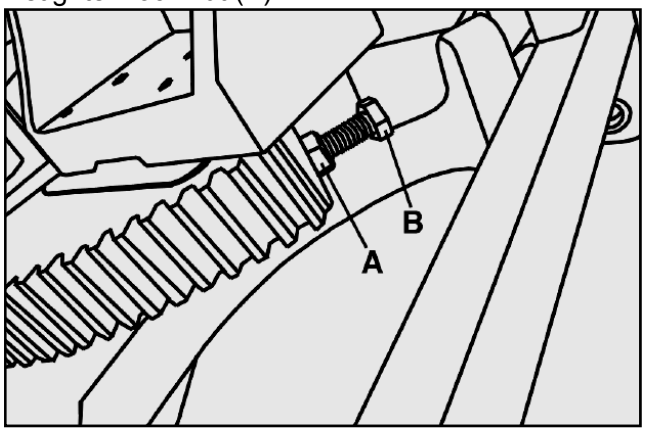


Fig. 25-1

5. If the 45 degree postive stop is not set properly, turn the same hand wheel clockwise as far as it will go and follow the same procedure using lock nut (C) As ***Fig.25-2*** and stop ring (D). The stop bolt (D) should stop against the front trunnion bracket when the blade is at 45 degrees to the table. Recheck and adjust further if necessary. Retighten lock nut (C).

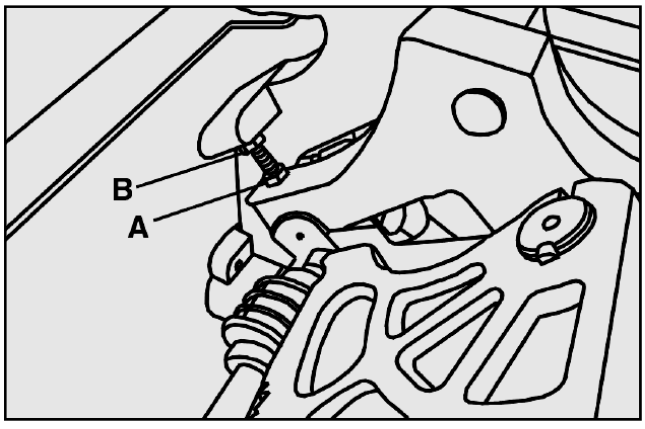


Fig. 25-2

6.5 Aligning Blade Guard Splitter or Riving Knife with Blade

The blade guard splitter and/or riving knife must be aligned with the blade. If not properly aligned, the splitter/riving knife will force the workpiece sideways

during the cut, increasing the risk of kickback. Place a straightedge against the blade and the splitter or riving knife and check for parallelism. If an adjustment is needed, the mounting position can be adjusted into alignment with the blade using the adjustment set screws (A) Refer to ***Fig. 26.***

1. Disconnect the saw from the power source.
2. Remove the table insert.
3. Loosen the upper and lower cap screws (B), then adjust the 4 set screws in or out until the alignment is perfectly parallel.
4. Reinstall the table insert.

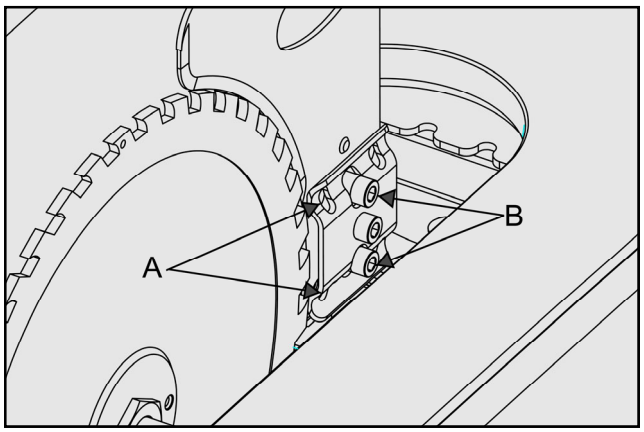


Fig. 26

7. Operations

7.1 Electrical Operation

Refer to ***Fig. 27***

"ON" Button: Starts the motor.

Hole for Safety Lock: When the lock is installed the "ON" button is disabled to prevent accidental start up.

"STOP" Button: Stops machine.

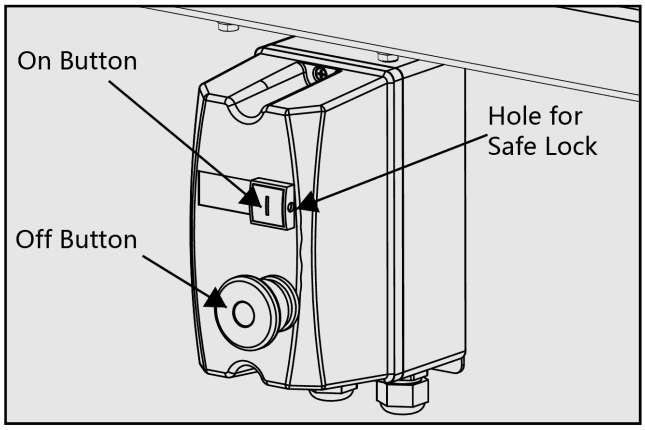


Fig. 27

7.2 Safety Precautions before Operation

The operation of power tools involves a certain amount of hazard for the operator. Before attempting regular work, we recommend you get the feel of the operation using scrap lumber to check the settings. Read the entire instructions before you start to cut the workpiece. Always pay attention to safety precautions to avoid personal injury.

7.3 Operation

Plain sawing includes ripping and crosscutting, plus a few other standard operations of a fundamental nature. The following methods feature safety. As with all power tools there is a certain amount of hazard involved with the operation and use of the tool. Use the tool with caution and follow safety precautions which will considerably lessen the possibility of personal injury. If normal safety precautions are overlooked or completely ignored, personal injury to the operator can occur. It is good practice to make trial cuts using scrap material when setting up your saw.

7.4 Crosscutting

Crosscutting requires the use of the miter gauge to position and guide the work. Place the work against the miter gauge and advance both the miter gauge and work toward the saw blade. The miter gauge may be used in either table slot, however, most operators prefer the left groove for average work. When bevel cutting (blade tilted), use the table groove that does not cause interference of your hand or miter gauge with the saw blade guard.

Start the cut slowly and hold the work firmly against the miter gauge and the table. One of the rules in running a saw is that you never hang onto or touch a free piece of work. Hold the supported piece, not the free piece that is cut off. The feed in crosscutting continues until the work is cut in two, then the miter gauge and work are pulled back to the starting point. Before pulling the work back, it is good practice to give the work a little sideways shift to move the work slightly away from the saw blade.

Never pick up any short length of free work from the table while the saw is running. A smart operator never touches a cut-off piece unless it is at least a foot long. Never use the fence as a cut-off gauge when crosscutting. Never use the miter gauge in combination with the rip fence.

7.5 Ripping

Ripping is the operation of making a lengthwise cut through a board. The rip fence is used to position and guide the work. One edge of the work rides against the rip fence while the flat side of the board rests on the table. Since the work is pushed along the fence, it must have a straight edge and make solid contact with the table. The saw guard must be used. The guard has anti-kickback fingers and a splitter to prevent the saw kerf from closing.

Start the motor and advance the work holding it down and against the fence. Never, stand in the line of the saw cut when ripping. Hold the work with both hands and push it along the fence and into the saw blade. The work can then be fed through the saw blade with one or two hands.

When this is done, the work will either stay on the table, tilt up slightly and be caught by the rear end of the guard or slide off the table to the floor. Alternately, the feed can continue to the end of the table, after which the work is lifted and brought back along the outside edge of the fence. The waste stock remains on the table and is not touched with the hands until the saw is stopped unless it is a large piece allowing safe removal.

8. Maintenance

This table saw requires very little maintenance other than minor lubrication and cleaning. The following sections detail what will need to be done in order to assure continued operation of your saw.

LUBRICATION

The table saw has sealed lubricated bearings in the motor housing and the arbor assembly and will not require any additional lubrication. Use a wire brush to clean off the worm gears and trunnions and apply a white lithium grease to keep them lubricated

CLEANING

Cleaning the model is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it. After cleaning, treat all unpainted cast iron and steel with a non-staining lubricant.

Occasionally it will become necessary to clean the internal parts with more than a vacuum. To do this, remove the table top and clean the internal parts with a resin/pitch dissolver or mineral spirits and a stiff wire brush or steel wool.

Make sure the internal workings are dry before using the saw again, so that wood dust will not accumulate. If any essential lubrication is removed during cleaning, re-lubricate those areas.

CHANGING BELTS

WARNING: MAKE SURE THE POWER CORD IS DISCONNECTED FROM THE POWER SOURCE!

1. Lower the blade completely, then open the motor access cover.
2. Loosen the hex nuts that secure the motor (***Fig.28***) and raise the motor fully to remove tension on the V-belts. Roll the V-belts off of the arbor and motor pulleys.
3. While continuing to raise the motor, install a new matching set of V-belts onto the pulleys, lower the motor to tension the V-belts, then tighten the hex nuts.
4. Close the motor access cover.

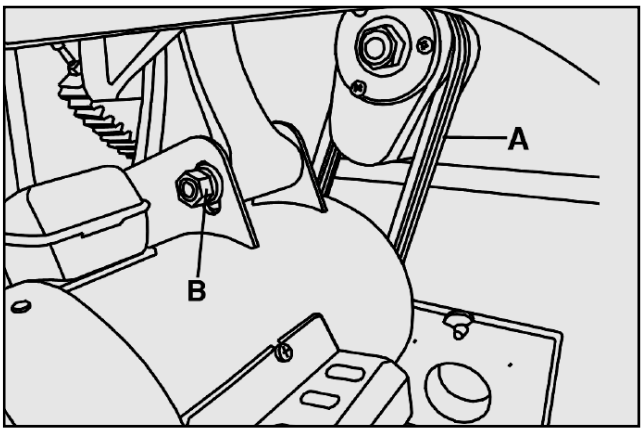


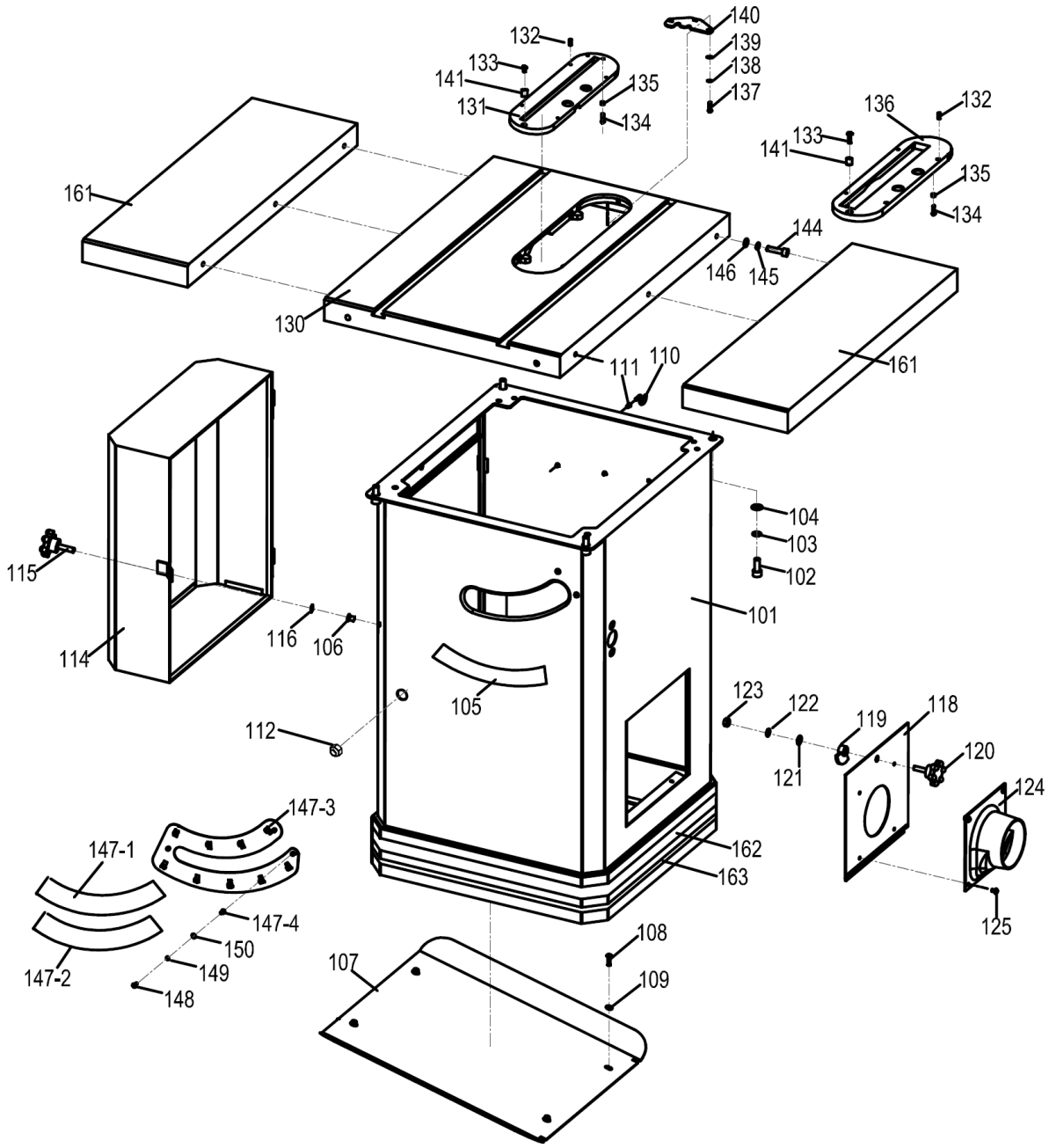
Fig. 28

9. Trouble Shooting

PROBLEM	SOLUTION
SAW WILL NOT START	
1. Saw not plugged in.	1. Plug in saw.
2. Fuse blown or circuit breaker tripped.	2. Replace fuse or reset circuit breaker.
3. Cord damaged.	3. Have cord replaced by a certified electrician.
OVERLOAD KICKS OUT FREQUENTLY	
1. Extension cord too long or gauge size too small.	1. Replace with adequate size cord
2. Feeding stock too fast.	2. Feed stock more slowly.
3. Blade in poor condition (dull, warped, gummed).	3. Clean or replace blade.
4. Blade binding due to misaligned rip fence.	4. Check and adjust the rip fence. Refer to rip fence instructions.
5. Blade binding due to warped wood.	5. Select another piece of wood.
6. Low house current.	6. Contact your electrical company.
DOES NOT MAKE ACCURATE 45 AND 90 RIP CUTS	
1. Positive stop(s) not adjusted properly.	1. Check blade with square and adjust positive stop.
2. Tilt angle pointer not set properly.	2. Check blade with square and adjust pointer to zero.
MATERIAL PINCHES BLADE WHEN RIPPING	
1. Rip fence not aligned with blade.	1. Check and adjust rip fence.
2. Warped wood.	2. Select another piece of wood.
MATERIAL BINDS ON SPLITTER	
1. Splitter not aligned correctly with blade kerf.	1. Check and align splitter with blade kerf.
SAW MAKES UNSATISFACTORY CUTS	
1. Dull blade.	1. Replace blade.
2. Blade mounted backwards.	2.Turn blade around.
3. Gum or pitch on blade.	3. Remove blade and clean with terpentine and steel wool.
4. Incorrect blade for work being done.	4. Change the blade.
5. Gum or pitch on table causing erratic feed.	5. Clean the table with turpentine and steel wool.
BLADE DOES NOT COME UP TO SPEED	
1. Extension cord too light or too long.	1. Replace with adequate size extension cord.
2. Low house current.	2. Contact your electric company.
3. Motor not wired for correct voltage.	3. Refer to motor and /or nameplate.
MACHINE VIBRATES EXCESSIVELY	
1. Table not mounted securely to cabinet stand.	1. Tighten all mounting hardware.
2. Stand is on uneven floor.	2. Reposition on flat level surface.
3. Damaged saw blade.	3. Replace blade.
4. Bad V-belt(s).	4. Replace V-belt(s).
5. V-belts not tensioned properly.	5. Adjust V-belt tension.
6. Bent pulley.	6. Replace pulley.
7. Improper motor mounting.	7. Check and adjust motor mounting.
8. Loose hardware.	8. Tighten all nuts, bolts and set screws.

10. Exploded View and Parts List

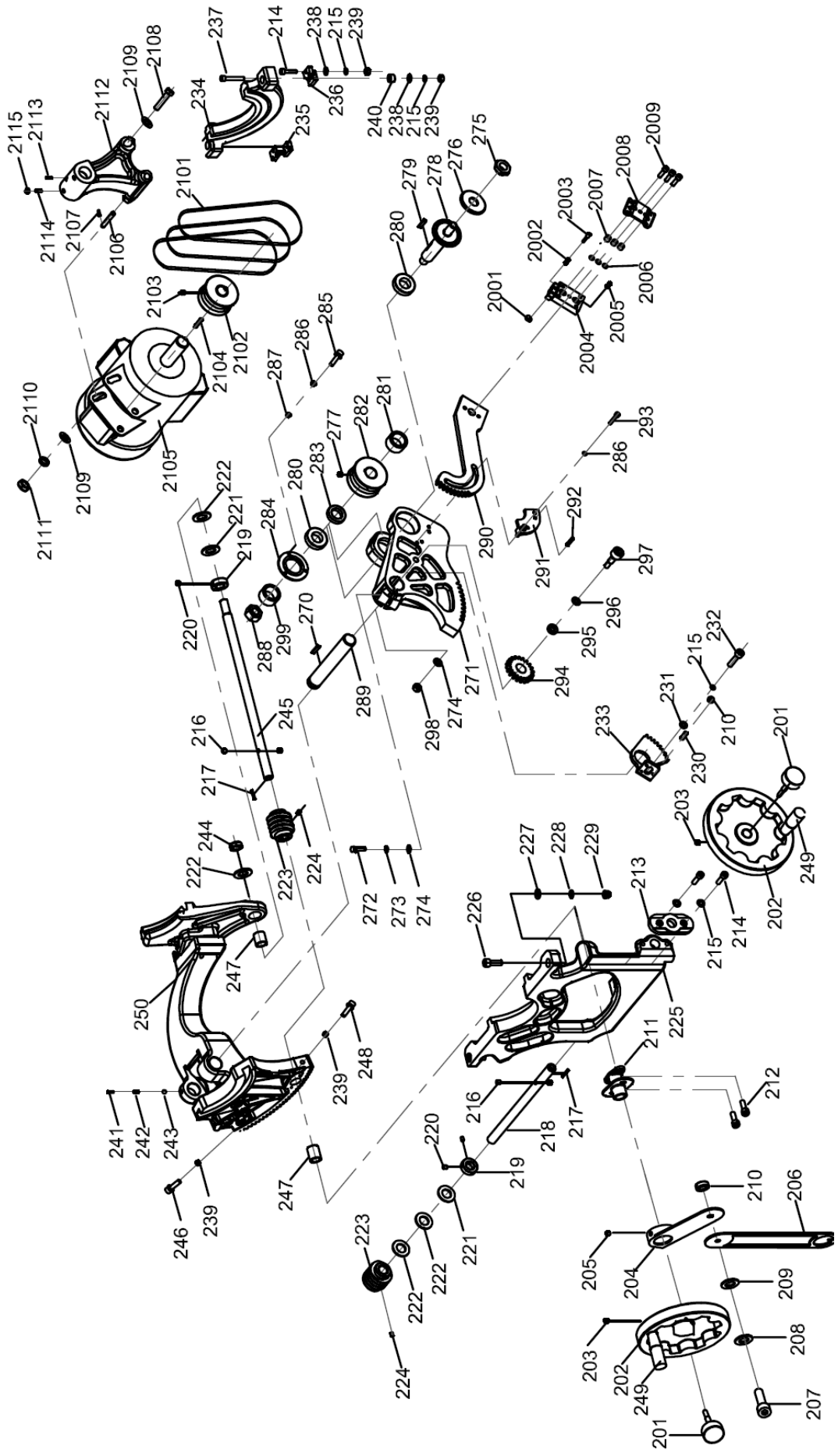
Table Saw Body Exploded View



Body Assembly Parts List

REF#	DESCRIPTION	QTY
101	Cabinet	1
102	Cap screw M10x25	4
103	Lock washer 10	4
104	Flat washer 10	4
105	Scale	1
106	Rivet nut M6x13.5	1
107	Bottom plate	1
108	Cap screw M6x16	4
109	Big flat washer 5	4
110	Hook	3
111	Rivet nut M5x12	3
112	Strain relief	1
113	/	
114	Motor cover	1
115	Knob	1
116	Barrier chip	1
117		
118	Cleanout door	1
119	Door latch	1
120	Knob	1
121	Flat washer 8	1
122	Lock washer 8	1
123	Lock nut 8	1
124	Dust hood	1
125	Pan HD screw M5x8	4
130	Main table	1
131	Table insert	1
132	Set screw M5x12	8
133	Pan HD screw M5*16	2
134	Pan HD screw M5*20	2
135	Lock nut 5	2
136	Dado insert	1
137	Pan HD screw M5*12	3
138	Lock washer 5	3
139	Flat washer 5	3
140	Limit plate	1
141	Set screw	2
142	/	
143	/	
144	Cap screw M8x30	6
145	Lock washer 8	6
146	Flat washer 8	6
146-1	Hairbrush	1
146-2	Hairbrush	1
147-3	Dust cover	1
147-4	Rivet nut M4x10	3
148	Pan HD screw M4x12	3
149	Lock washer 4	3
150	Flat washer 4	3
161	Extension wing	2
162	Tape 35mm	1
163	Tape 15mm	1

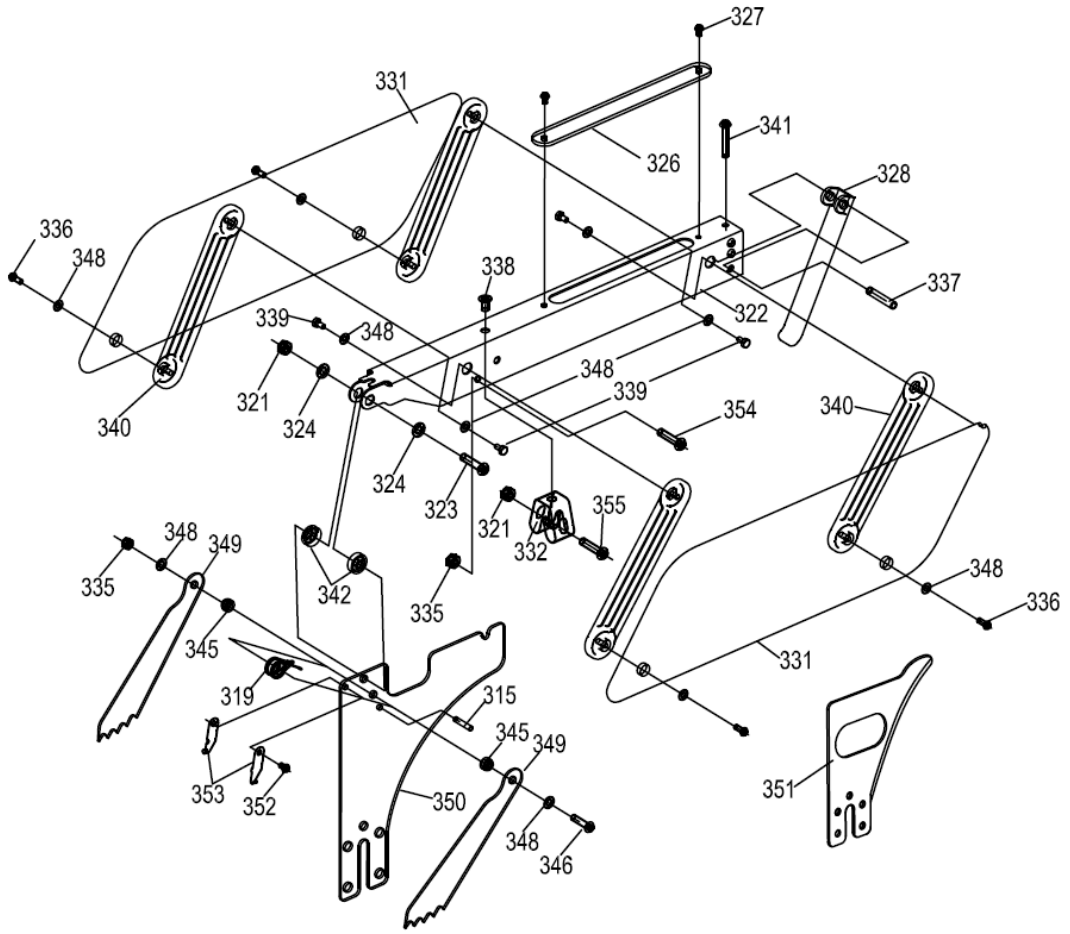
Trunnion Assembly Exploded View



Trunnion Assembly Parts List

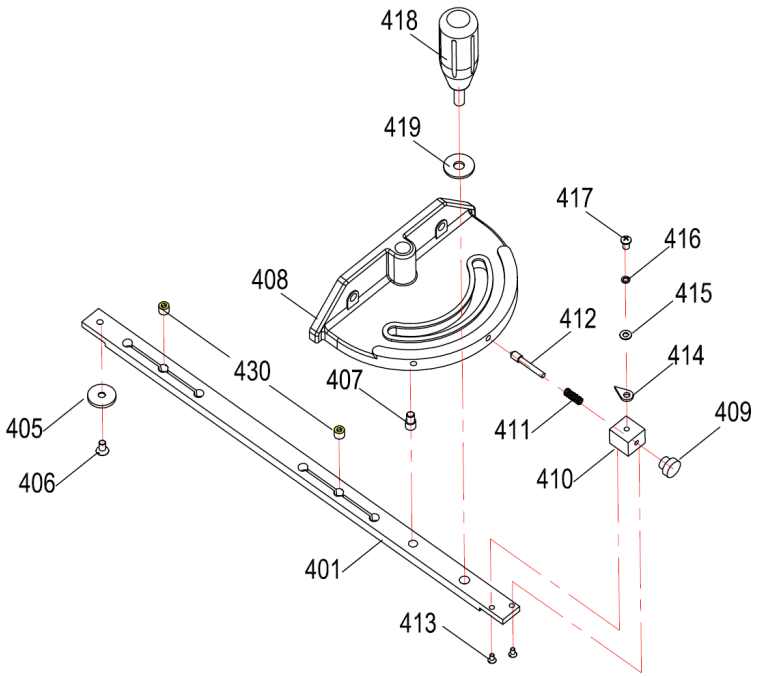
REF#	DESCRIPTION	QTY
201	Lock knob	2
202	Wheel	2
203	Set screw M5x12	2
204	Point 1	1
205	Set screw M5x6	1
206	Point 2	1
207	Pan HD screw M6x12	1
208	Lock washer 6	1
209	Flat washer 6	1
210	Nut 6	4
211	Point bracket	1
212	Pan HD screw M5x25	2
213	Stop plate	1
214	Pan HD screw M8x30	6
215	Lock washer 8	9
216	Lock pin	4
217	Key 5x40	2
218	Worm arbor for angle	1
219	Set collar	2
220	Set screw M6x8	4
221	Wave lock washer	2
222	Copper backing	4
223	Worm	2
224	Set screw M6x12	2
225	Front bracket	1
226	Cap screw M10x30	2
227	Flat washer 10	2
228	Lock washer 10	2
229	Nut 10	2
230	Cap screw M6x25	3
231	Washer	1
232	Cap screw M8x30	1
233	Locating gear	1
234	Front bracket	1
235	Left bracket	1
236	Right bracket	1
237	Square head bolt	2
238	Flat washer 8	6
239	Nut 8	8
240	Adjust screw	2
241	Set screw M8x8	1
242	Spring	1
243	Ball	1
244	Lock nut M18-1.5	1
245	Worm arbor for high	1
246	Hex bolt M8x30	1
247	Bush	2
248	Hex bolt M8x35	1
249	Handle	2
250	Trunnion	1
270	Key 6x45	1
271	Geared bearing	1
272	Hex bolt M10x45	1
273	Lock washer 10	1
274	Flat washer 10	2
275	Arbor nut	1
276	Arbor flange	1
277	Set screw M5x12	2
278	Arbor	1
279	Key 5x30	1
280	Bearing 6005-2RS	2
281	Set collar	1
282	Belt pulley	1
283	Set collar	1
284	Lock ring	1
285	Set screw M5x16	3
286	Lock washer 5	5
287	Flat washer 5	3
288	Lock nut M16-1.5	1
289	Axis of rotation	1
290	Gear	1
291	Operation bar	1
292	Spring pin	2
293	Cap screw M5x25	2
294	Gear	1
295	Sleeve	1
296	Flat washer 10	1
297	Cap screw M10x45	1
298	Lock nut 10	1
299	Lock washer	1
2001	Knob	1
2002	Spring	1
2003	Pin	1
2004	Block	1
2005	Set screw M6x12	4
2006	Lock washer 6	3
2007	Set collar	3
2008	Spring lock plate	1
2009	Pan HD screw M6x30	3
2101	V belt	3
2102	Motor pulley	1
2103	Set screw M5x12	2
2104	Key	1
2105	Motor	1
2106	Pin	1
2107	Cotter pin	1
2108	Hex bolt M12x110	1
2109	Flat washer 12	2
2110	Lock washer 12	1
2111	Nut 12	1
2112	Motor bracket	1
2113	Set screw M8x12	2
2114	Set screw M8x30	1
2115	Nut 8	1

Blade Guard Exploded View



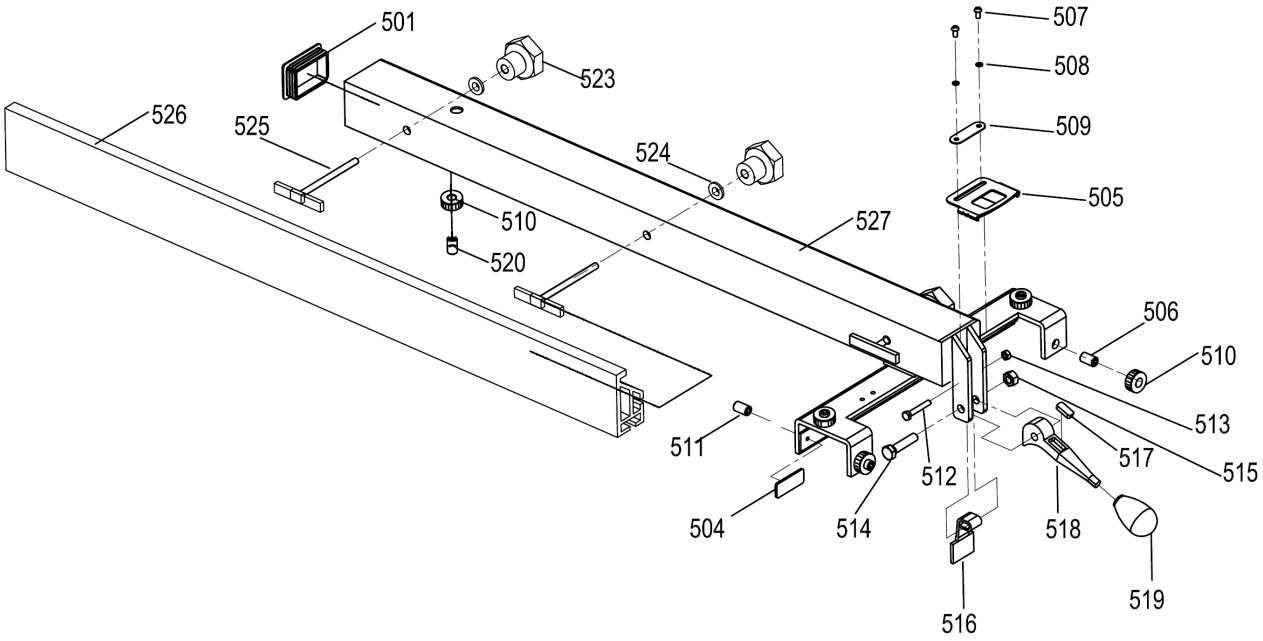
REF#	DESCRIPTION	QTY	REF#	DESCRIPTION	QTY
315	Roll pin 4×18	1	339	Hex bolt M4×8	4
319	Torsion spring	1	340	guard support	4
321	Lock nut M6-1	2	341	Pan HD screw M6×30	1
322	Support arm	1	342	Spacer	2
323	Pan HD screw M6-1×25	1	345	Spacer	2
324	Flat big washer 6mm	2	346	Pan HD screw M5×22	1
326	Top guard	1	348	Flat big washer 5mm	10
327	Pan HD screw M4×6	2	349	Pawl	2
328	Front guard	1	350	Splitter	1
331	Side guard	2	351	Riving knife	1
332	Spring reed	1	352	Rivet M5×8	1
335	Lock nut M5-.8	1	353	Riving knife hook plate	1
336	Pan HD screw m4×10	4	354	Cap screw M5x8	1
337	Roll pin 6×32	2	355	Pan HD screw M6x35	1
338	Rivet M5 x12	1			

Miter Gauge Exploded View



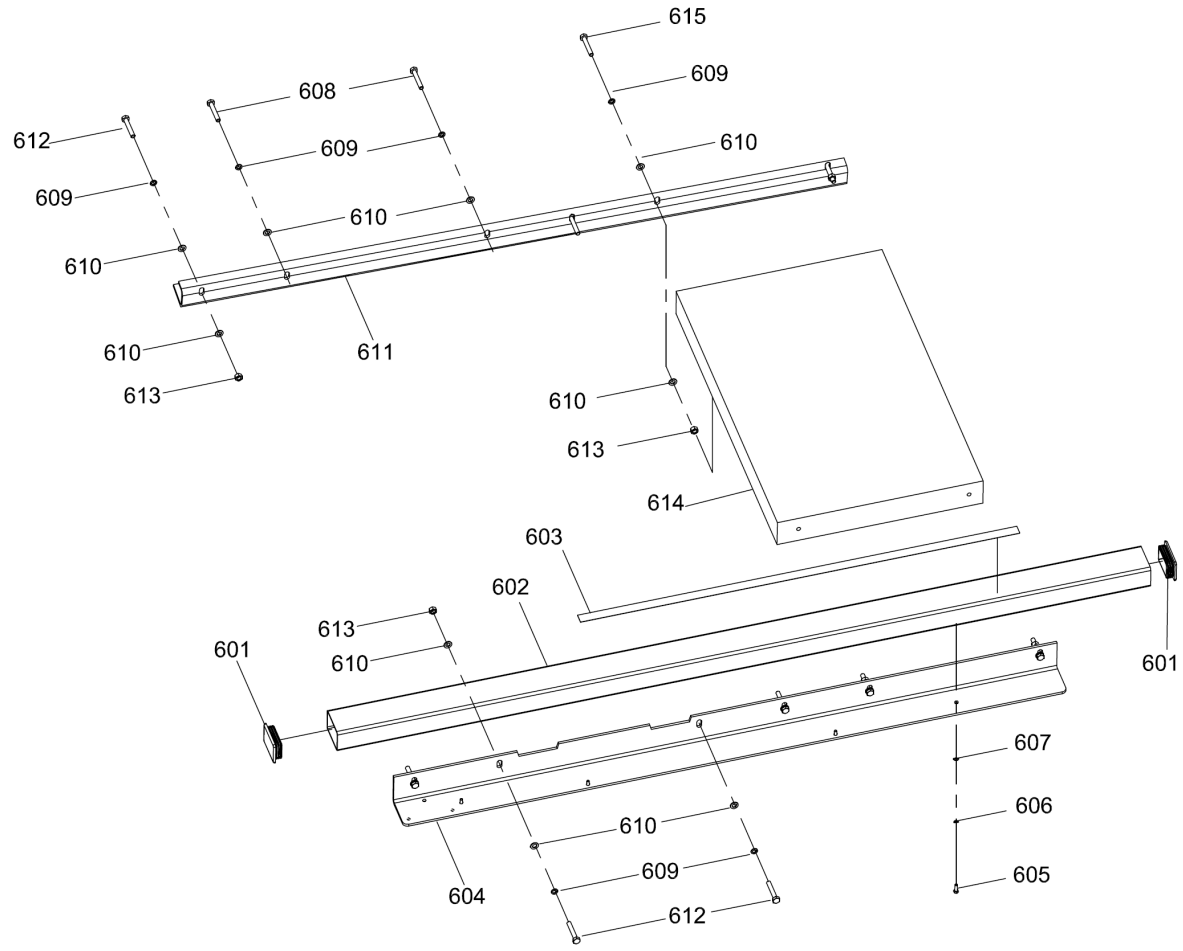
REF#	DESCRIPTION	QTY	REF#	DESCRIPTION	QTY
401	Miter bar	1	413	Button HD screw M4x10	2
405	Miter ring	1	414	Pointer miter gauge	1
406	Flat HD screw M5x8	1	415	Flat washer 4	1
407	Miter body pivot pin	1	416	Lock washer 4	1
408	Miter gauge body	1	417	Pan HD screw M4x6	1
409	Miter stop pin knob	1	418	Miter knob	1
410	Miter stop pin block	1	419	Washer 10	1
411	Compression spring	1	430	Set screw M8x6	2
412	Miter stop pin	1			

Fence Exploded View



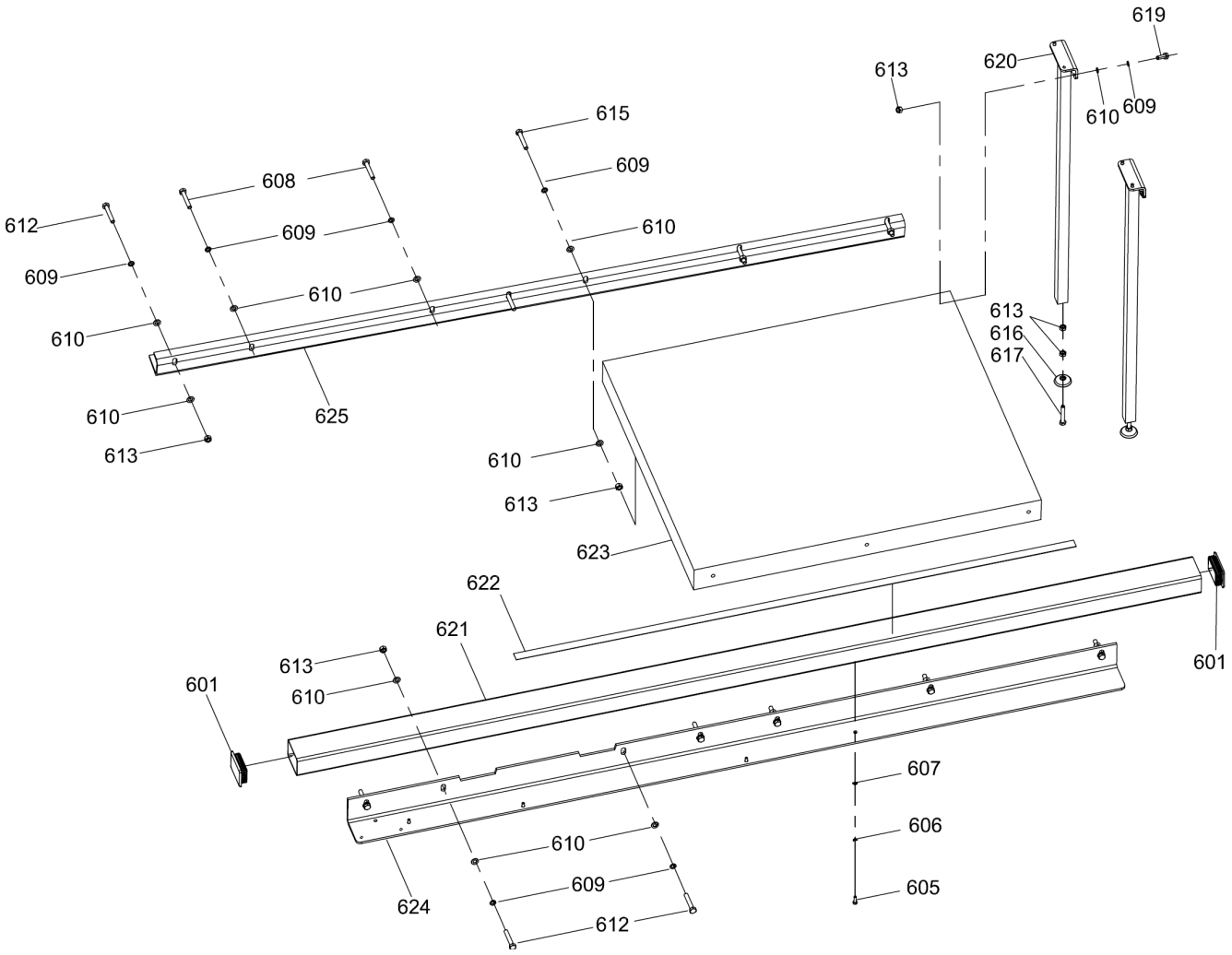
REF#	DESCRIPTION	QTY	REF#	DESCRIPTION	QTY
501	Fence insert	1	515	Lock nut M10	1
502	/		516	Cam foot	1
503	/		517	Magnet	1
504	Glide pad	2	518	Cam	1
505	Fence scale window	1	519	Fence lock knob	1
506	Set screw M12x15	4	520	Set screw M12*30	1
507	Pan HD screw M5x10	2	521	/	
508	Lock washer 5	2	522	/	
509	Indicator	2	523	Knob M6	3
510	Locking nut M12-1.75	1	524	Big washer 6	3
511	Set screw	2	525	T-bolt	3
512	Hex bolt M6x40	1	526	Rip fence	1
513	Lock nut M6	1	527	Fence body	1
514	Hex bolt M10x45	1			

30″ Rail & Extension Table Exploded View



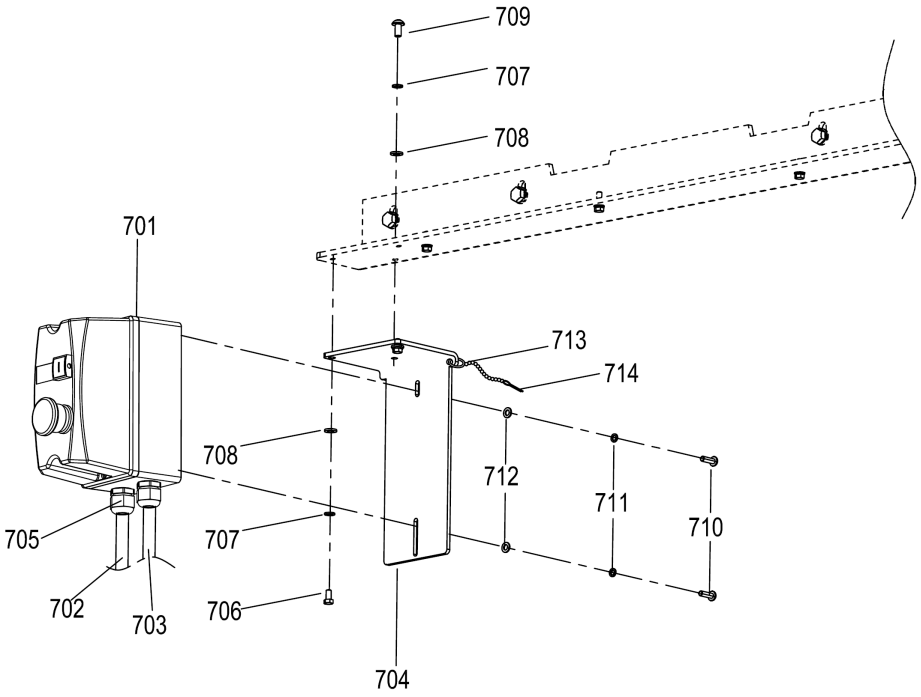
REF#	DESCRIPTION	QTY	REF#	DESCRIPTION	QTY
601	Tube cover	2	609	Lock washer 8	16
602	Guide tube (30")	1	610	Flat washer 8	16
603	Scale (30")	1	611	Rear rail (30")	1
604	Front rail (30")	1	612	Hex bolt M8x40	6
605	Cap screw M6*16	3	613	Nut 8	8
606	Lock washer 6	3	614	Extension table (30")	1
607	Flat washer 6	3	615	Hex bolt M8x30	4
608	Hex bolt 5/16-18x1-1/2	2			

50″ Rail & Extension Table Exploded View



REF#	DESCRIPTION	QTY	REF#	DESCRIPTION	QTY
601	Tube cover	2	616	Foot	2
605	Cap screw M6*16	3	617	Hex bolt M8x60	2
606	Lock washer 6	3	619	Cap screw M8x20	4
607	Flat washer 6	3	620	Support leg	2
608	Hex bolt 5/16-18x1-1/2	2	621	Guide tube (50")	1
609	Lock washer 8	24	622	Scale (50")	1
610	Flat washer 8	28	623	Extension table (50")	1
612	Hex bolt M8x40	6	624	Front rail (50")	1
613	Nut 8	14	625	Rear rail (50")	1
615	Hex bolt M8x30	6			

Switch Breakdown



REF#	DESCRIPTION	QTY	REF#	DESCRIPTION		QTY
701	Switch	1	707	Lock washer 6		3
702	Cable	1	708	Flat washer 6		3
703	Cable	1	709	Pan HD screw	M6x12	1
704	Switch bracket	1	710	Pan HD screw	M5x16	2
705	strain relief	2	711	Lock washer 5		2
706	Hex bolt M6x12	2	712	Flat washer 5		2

Harvey Industries Co., Ltd

68-10 Suyuan Avenue, Jiangning District, Nanjing 211100, China

www.harveymachinery.com

Harvey Industries International Inc.

10830 Ada Ave. Montclair, CA. 91763

TEL: 1-800-253-3332

E-mail: info@harveywoodworking.com