Clarke®

WOODWORKER


CE



# 10" TABLE SAW
# Model CTS10D

## Operating & Maintenance Instructions

PRODUCT SERIAL/BATCH NO.....

Clarke®
INTERNATIONAL

**THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED**

# DECLARATION OF CONFORMITY

We declare that this product complies to the following standards/directives:

- **98/37/EC**
- **73/23/EEC**
- **89/336/EEC**
- **EN 61029-1:2000**
- **EN 61029-2-1:2002**

**EC TYPE APPROVAL. NR. BM600013515 0001**

**SHANGHAI TUV TESTING OFFICE**
**30th Floor, Tower 1, 218 Tian Mu Rd. West, Shanghai, China**

Sound Power Level: **112.3 dBL*WA***
(Under Load)

Product Description: **10" TABLE SAW**
Model Number: **CTS10D**
Serial/Batch No: **See Front Cover**

Signed _____

Clarke® INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG

DOC No. H075/19 Clarke International is a trading style of Clarke International Limited

Thank you for purchasing your new CLARKE 10" TABLE SAW, which is designed for DIY, and hobby use ONLY.

Before attempting to operate this machine, please read this instruction manual thoroughly and follow all directions carefully. In doing so you will ensure the safety of both yourself and others around you, and, at the same time, you should look forward to it providing long and trouble free service.

## GUARANTEE

This product is guaranteed against faults in manufacture for 12 months from purchase date. Keep your receipt as proof of purchase. This guarantee is invalid if the product has been found to have been abused in any way, or not used for the purpose for which it was intended, or to have been tampered with in any way. The reason for return must be clearly stated. This guarantee does not affect your statutory rights.

## CONTENTS

## SPECIFICATIONS

| | |
|---|---|
| Model No | CTS10D |
| Part No. | 6500751 |
| Motor | 230V~ 50Hz 1ph |
| Power rating | 1.5Kw |
| Speed | 4500 rpm |
| Fuse rating | 13Amps |
| Saw Blade | 10" dia. - 5/8" bore (254x16mm) TCT |
| Maximum depth of cut at 90° | 78mm |
| Maximum depth of cut at 45° | 55mm |
| Net Weight | 28KG |
| Noise level at operating position | 112.3dB LWA (under load) |
| Overall dimensions (LxWxH) | 958x765x441mm |

### Use of machine

This machine is designed to rip and cross cut wood exclusively, up to a maximum thickness of 78mm.

For correct operation it must be fixed and operated as laid down in this manual.

This saw is intended for DIY, and hobby use ONLY.

### Restrictions of use

This saw is NOT suitable for cutting:

- Timber greater than 78mm in thickness.
- Metal, Stone, Rubber, Plastic, Bones, Etc.
- Logs or round timber.

DO NOT use to rebate, tenon, mould or groove.

DO NOT fit any other tool or combination of blades.

DO NOT use as a free standing machine or as a hand held machine.

DO NOT modify the machine or its guards/controls in any way.

DO NOT use with any covers/guards removed.

## GENERAL

***WARNING!***

***As with all machinery, there are certain hazards involved with their operation and use. Exercising respect and caution will considerably lessen the risk of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator or damage to property may result.***

1. **READ and BECOME FAMILIAR** with the entire operating manual. Learn the machine's applications and limitations as well as the specific potential hazards peculiar to it.
2. **CHECK DAMAGED PARTS.** Before using the machine, check to ensure that a guard or other damaged part, will operate properly and perform its intended function. Check for alignment of moving parts, breakage of parts, mountings, or any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
3. **REMOVE TOOLS BEFORE SERVICING** and when changing accessories such as blades, fences etc.
4. **ALWAYS KEEP GUARDS** in place and in working order.
5. **ALWAYS USE SAFETY GOGGLES**. Also use face or dust mask if cutting operation is dusty. REMEMBER, everyday eyeglasses do not have impact resistant lenses, they are NOT safety glasses.
6. **KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.
7. **WEAR EAR PROTECTORS/DEFENDERS.**
8. **DO NOT FORCE THE MACHINE**. It will do a better and safer job at the rate for which it was designed.
9. **REMOVE ALL TOOLS**. Form the habit of checking to see that keys and adjusting spanners etc., are removed from machine before turning it on.
10. **ALWAYS** feed the work into the blade against direction of rotation only.
11. **DRUGS, ALCOHOL, MEDICATION.** Do not operate machine whilst under the influence of drugs, alcohol or any medication.
12. **USE RECOMMENDED ACCESSORIES**. The use of improper accessories could be hazardous.
13. **NEVER STAND ON THE MACHINE**. Injury could occur from a fall.
14. **NEVER LEAVE MACHINE RUNNING UNATTENDED**. Turn power OFF. Don't leave machine until it comes to a complete stop.
15. **ALWAYS DISCONNECT THE PLUG** from electrical outlet when adjusting, changing parts or working on the machine.
16. **AVOID DANGEROUS ENVIRONMENT**. Don't use power tools in damp or wet locations or expose them to rain. Keep your work area well illuminated. DO NOT USE in explosive atmosphere (around paint, flammable liquids etc.).
17. **KEEP CHILDREN AWAY.** All visitors should be kept a safe distance from work area, especially whilst operating the machine.
18. **MAINTAIN BLADE and ACCESSORIES IN TOP CONDITION**. Keep blade sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

19. **DON'T OVERREACH.** Keep your proper footing and balance at all times. For best footing wear rubber soled shoes or boots. Keep the floor clear of oil, scrap wood, etc.
20. **WEAR PROPER APPAREL**. Loose clothing or jewellery may get caught in moving parts. Wear protective hair covering to contain long hair.
21. **MAKE WORKSHOP CHILDPROOF**. Lock the saw away, or cover securely when not in use.

## ADDITIONAL SAFETY RULES FOR TABLE SAWS

- ✔ **ALWAYS** use saw Blade Guard and Riving Knife for every operation.
- ✔ **ALWAYS** hold the work firmly against the mitre gauge or fence.
- ✔ **ALWAYS** use a push-stick when required. Always use a push-stick for ripping narrow stock. Refer to ripping applications in instruction manual where push-stick is covered in detail.
- ✔ **ALWAYS** use in a well ventilated area. Remove sawdust frequently. Clean out sawdust from the interior of the saw to prevent a potential fire hazard.
- ✔ **ALWAYS** move the rip fence out of the way when crosscutting.
- ✔ **ALWAYS** switch off and disconnect from supply before removing off cuts of wood from the machine
- ✔ **ALWAYS** provide adequate support to the rear and sides of the saw table for wide or long workpieces.
- ✔ **ALWAYS** keep the blade sharp, the Rip Fence parallel to the saw blade, and the Riving Knife and Blade Guard in place. Do not release work before it is pushed all the way past the saw blade.
- ✔ **ALWAYS** avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the blade.
- ✔ **PERMANENTLY** mount your table saw before performing any cutting operations. Refer to 'Mounting the Saw' on page 15.
- ✘ **NEVER** stand or have any part of your body in line with the path of the saw blade. Keep your hands out of the line of the saw blade.
- ✘ **NEVER** reach behind or over the blade for any reason.
- ✘ **NEVER** use the fence as a cutoff gauge when crosscutting.
- ✘ **NEVER** attempt to free a stalled saw blade without first turning the saw OFF. Turn off power switch immediately to prevent motor damage.
- ✘ **NEVER** use solvents to clean plastic parts. Solvents could possibly dissolve or otherwise damage the material. Only a soft damp cloth should be used to clean plastic parts.
- ✘ **NEVER** force feed the work into the blade. A light pressure ONLY is required
- ✘ **NEVER** cut metals or materials which may make hazardous dust.
- ✘ **NEVER** perform any operation 'freehand' which means using your hands to support or guide the work piece. Always use either the fence or the mitre gauge to position and guide the work.

# ELECTRICAL CONNECTIONS

***WARNING! THIS APPLIANCE MUST BE EARTHED.***

Connect the mains lead to a 230 volt (50Hz) domestic electrical supply via a standard 13 amp BS 1363 plug fitted with a 13 amp fuse, or a suitably fused isolator switch.

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:

| | | |
|---|---|---|
| ***Green & Yellow*** | **-** | ***Earth*** |
| ***Blue*** | **-** | ***Neutral*** |
| ***Brown*** | **-** | ***Live*** |

As the colours of the flexible cord of this appliance may not correspond with the coloured markings identifying terminals in your plug, proceed as follows:

Connect GREEN & YELLOW coloured cord to plug terminal marked with a letter "E" or Earth symbol "⏚", or coloured GREEN or GREEN & YELLOW.

Connect BROWN coloured cord to plug terminal marked letter "L" or coloured RED.

Connect BLUE coloured cord to plug terminal marked letter "N" or coloured BLACK.

**We strongly recommend that this unit is connected to the mains supply via a Residual Current Device (RCD).**

***IMPORTANT!***

**If this appliance is fitted with a plug which is moulded onto the electric cable (i.e. non- re-wireable) please note:**

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local dealer or most electrical stockists.

## Fuse Rating

The fuse in the plug must be replaced with one of the same rating (**13 amps**) and this replacement must be ASTA approved to BS1362.

## Extension Cable

If an extension cable is fitted, ensure the minimum cross section of the conductor is 1 .5mm$^2$ for up to 15 metres in length, and 2.5mm$^2$ for up to 25 metres.

***WARNING:***

***If the power cable is worn or cut, or damaged in any way, have it replaced immediately to avoid shock or fire hazard.***

## FEATURES

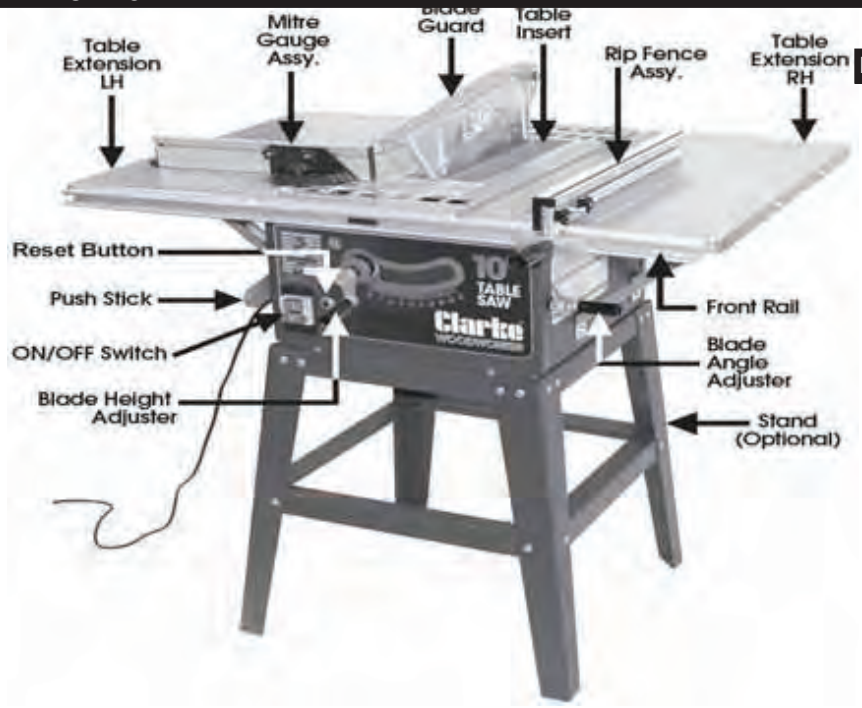


Fig.1

1. The switch panel incorporates the ON and OFF switches.

   Your saw also features an Overload Protection device, so that if the motor is overloaded (due to feed pressure being too great, dull blade or low voltage), the Overload Relay will intervene, and the motor will automatically cut out. A reset button is provided at the front of the machine...wait at least 5 minutes before pressing and trying to restart.

2. A Dust Extraction Outlet is provided at the rear of the machine. A vacuum extractor with a suitable flexible hose (30mm dia.), may be connected and used either permanently or intermittently as required.

3. The Table is provided with two slots, one each side of the saw blade, running front to back. These slots are for use with the Mitre Gauge when cross cutting either square or mitres and is explained under 'Operation'. A scale on the Mitre Gauge indicates the angle at which the workpiece is being mitred.

4. Four holes are provided in the base so that the saw may be bolted to a workbench or stand. Please note that the machine MUST be firmly secured to either a workbench or a support to ensure its complete stability. This is explained in detail under 'Mounting the Saw on page 15.

   ***NOTE: The stand illustrated is designed specifically for the CTS10D and is available from your Clarke dealer.***

5. The Blade Height Adjuster Wheel raises or lowers the blade and may be locked in position by tightening the large ring nut on the adjuster shaft.

6. The Blade Angle Adjuster, when turned, allows the saw blade to be tilted to any desired angle from 0º to 45º , as shown on the Blade Tilt Scale on the front panel.

7. The Rip Fence is for use when rip cutting timber. It locates on the front rail and can be easily moved or locked in place by screwing IN the locking handle. Take care NOT to overtighten.

8. A Mitre Gauge may be used either side of the saw blade, in the groove provided. A Mitre Gauge fence allows workpieces to be held securely at any angle for accurate cross cutting.

9. The Blade Guard protects the operator and must **ALWAYS** be in place and working properly.

**WARNING: This machine IS NOT designed for 'non-through cutting' operations**

10. The Table Insert is removable to facilitate the installation or removal of the saw blade, and must ALWAYS be in place.

## GLOSSARY OF TERMS

| | |
|---|---|
| **Arbor** | The shaft on which a cutting tool is mounted. |
| **Crosscut** | A cutting or shaping operation made across the width of the workpiece - across the grain. |
| **Featherboard** | A device which can help guide workpieces during rip type operation. |
| **Heel** | Misalignment of the blade. |
| **Kerf** | The amount of material removed by the blade in a through cut. |
| **Kickback** | An uncontrolled grabbing, and throwing of the workpiece back toward the front of the saw during a rip type operation. |
| **Leading End** | The end of the workpiece which, during a rip type operation, is pushed into the cutting tool first. |
| **Push Stick** | A device used to feed the workpiece through the saw during narrow ripping type operation and which helps keep the operator's hands well away from the blade. |
| **Push Block** | A device used for ripping type operations too narrow to allow use of a push stick. |
| **Rabbet** | A notch in the edge of a workpiece. |
| **Resin** | A sticky, sap base substance that has hardened. |
| **Ripping** | A cutting operation along the length of the workpiece - in the direction of the grain. |
| **Riving Knife** | Positioned behind the saw blade to prevent wood closing and jamming after being cut. |

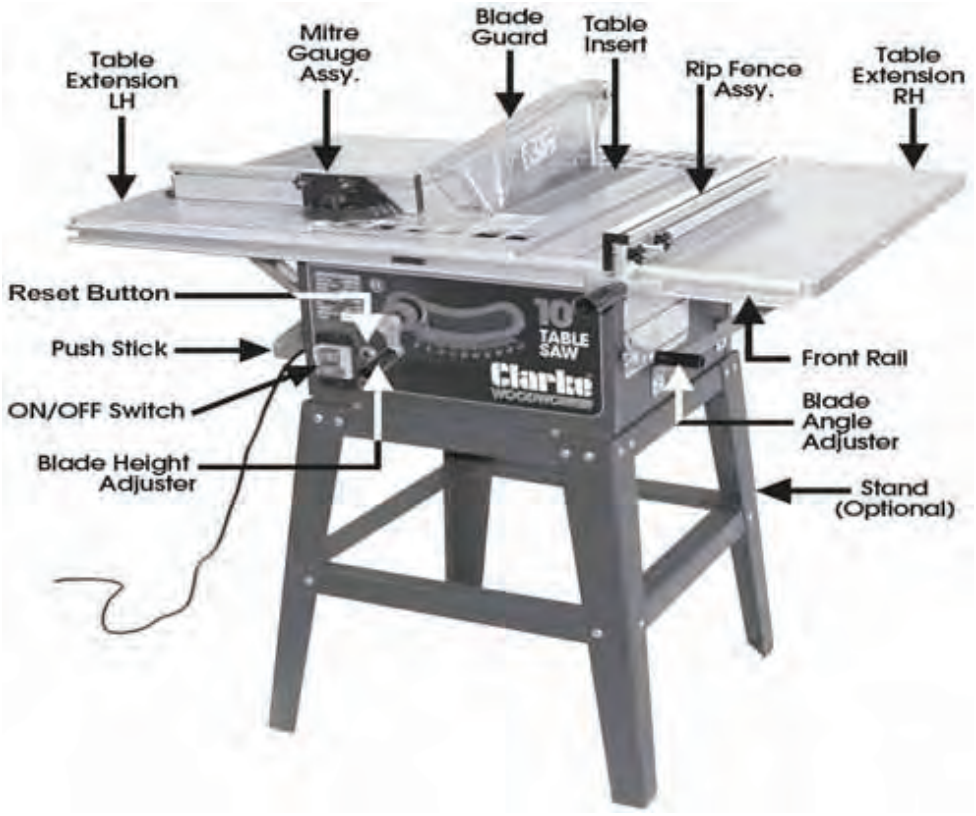
## UNPACKING AND CHECKING CONTENTS

The Table Saw is shipped complete in one carton.

Separate all parts from the packing materials and check to ensure that all components are accounted for, according to the following list, before discarding any packing material.

Should any component be missing or damaged in transit, please contact your CLARKE dealer immediately, or CLARKE Customer Service Department on **020 8558 7400**

Fig.1




***Note: The Saw is shown, mounted on the optional Stand, available from your Clarke dealer. We strongly recommend the stand be used for stability and to increase the level of safety.***

**WARNING!**

**DO NOT plug the machine into the mains until the saw is fully assembled and checks made according to these instructions.**

## ASSEMBLY

**IMPORTANT:**

**Please read the following instructions carefully before attempting to assemble the saw.**

1. Carefully remove the components from the packaging and lay them out, checking them off against the following list:

Fig.2


Table of main components. Package also includes nuts, bolts and washers, referred to within the assembly instructions.

| | |
|---|---|
| 1 | Table Extension x 2 |
| 2 | Table Extension Supports x 4 |
| 3 | Front Rail (2 piece) |
| 4 | Blade Guard |
| 5 | Blade Gd Bolt, Plastic Washer & Locknut |
| 6 | Mitre Gauge Securing Knob* |
| 7 | Mitre Gauge Assy and Sliding Bar* |
| 8 | Mitre Gauge Fence* |
| 9 | Rip Fence Handle |
| 10 | Rip Fence |
| 11 | Push Stick and 2 spring clips |
| 12 | Handle assemblies x 2 |
| 13 | Rip/Mitre Fence Securing Knobs x4** |
| 14 | Riving Knife |
| 15 | Riving Knife clamping plate*** |
| 16 | Blade Spanners |
| 17 | Hex. Wrenches x 2 |

*** These items may be pre-assembled**

**** These may be attached to the respective fences**

***** This item may be assembled to machine**

Should any component be deficient, or damaged, please contact you Clarke dealer immediately

## A. Table Extension

1. Carefully invert the saw assembly so that it rests on its table on a firm, level surface and remove the bottom grille - 4 securing screws.
2. Remove the polystyrene motor support (used for transit purposes).
3. Attach 4 Table Extension Support struts, each with a single M6x15 bolt (A), with flat washer on the inside, and flat and spring washer on the outside against the strut. DO NOT tighten at this stage.
4. Attach each Table Extension, noting that they are 'handed' i.e. left hand and right hand, due to the positioning of the support strut securing holes.

   Secure each extension to the aluminium table with 3 x M6 x 15 bolts with washers (B), **taking great care NOT to cross thread the bolts**. DO NOT Tighten at this stage.

   Attach the support struts to each extension (C). Tighten the nuts whilst pushing down on the extension, to ensure it lies flat and level with the table

Fig.3


5. Replace the bottom grille and, with assistance, turn the saw on to its base.

***NOTE: If the optional Stand is to be used, the saw should be bolted to it at this stage.***

## B. Handles

Attach the handles to the Blade Raising/Lowering mechanism, and the Blade Angle adjuster, ensuring the grub screws are secured against the flats on the respective shafts.

## C. Front Rail

Attach the Front Rail (2 parts) to the front edge of the table, using the M5 x 12 Hex. socket head screws and flat washers provided. Nuts, flat and spring washers are also used at the Table Extensions. Ensure the top edge of the Rail is level with the table surface.

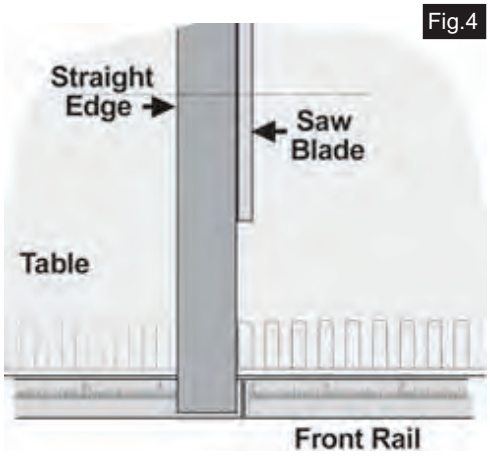
To ensure the Rip Fence may be positioned with a degree of accuracy with respect to its distance from the saw blade, align the Front Rail as follows:

Do not tighten the securing bolts when fitting.

Raise the saw blade by turning the handle on the front of the machine.

Place a straight edge across the blade so that it extends as far as the front rail, as shown in Fig. 4. Move the rail so that the straight edge lines up with the zero mark on the rail (see Fig.4), then tighten the rail securing bolts. Repeat this for the other half of the rail.

Fig.4

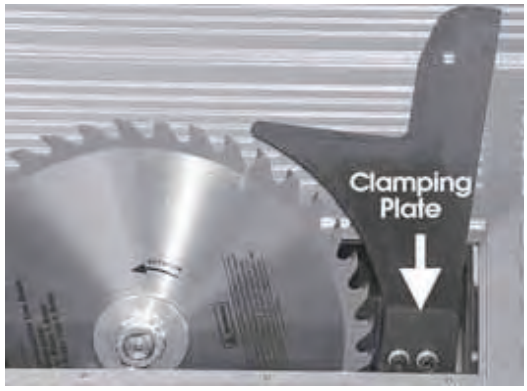


## D. Riving Knife

1. Remove the Table Insert (8 countersunk head screws).
2. Raise the blade to its fullest extent....it is helpful also, to turn the angle adjuster so as to lay the blade on its side to some degree

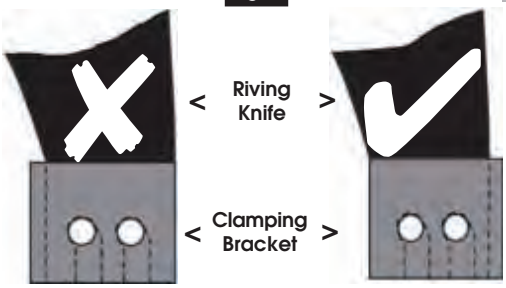
**IMPORTANT:**
**Take great care to avoid contact with the saw teeth which are extremely sharp when performing the following operations.**

Fig.5



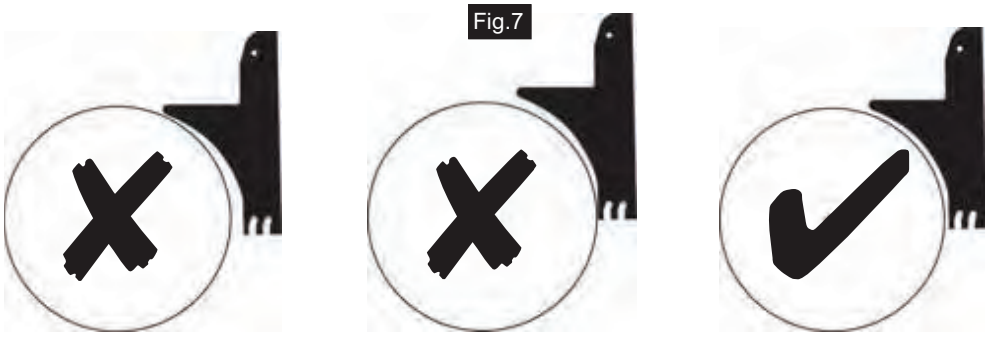

3. Attach the Riving Knife to the bracket as shown in Fig. 5, using the two hex. socket head screws with spring and flat washers provided.

Fig.6




Ensure the Clamping Bracket is correctly oriented, as illustrated in Fig.6, and the Riving knife is adjusted so that a clearance of no more than 5mm exists between blade and knife, and along the full length of the riving knife, as illustrated in Fig. 7

Fig.7



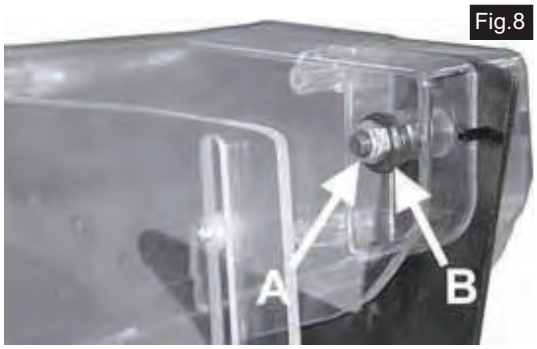
***Note:***
***It is most important that the Riving Knife is directly in line with the blade at all times. If at any time it becomes misaligned, it must be straightened before the saw is put into use.***

4. When satisfied, ensure all securing screws are tight before replacing the Table Insert.

## E. Blade Guard

Attach the Blade Guard to the Riving Knife, as shown in Fig. 8, ensuring the large plastic washer (B) is used. Tighten the self locking nut (A) sufficiently for the Guard to be secure, but capable of dropping fully under its own weight.

Fig.8




## F. Rip Fence

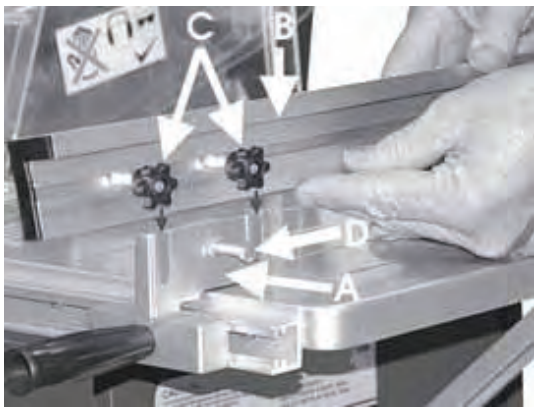
The Rip Fence comprises:

A. The handle assembly 'A'
B. The Fence 'B'
C. Two fixings, each comprising a coach bolt and knob 'C'.

1. Slide the Handle Assy. into the slot in the Front Rail, and tighten the handle at any convenient position on the Rail.
2. Slide the coach bolts into the slot in the Fence.
3. Arrange the coach bolts with knobs screwed on a few turns, as shown in Fig. 9 and engage in the slots in the handle assembly, as indicated.
4. Tighten the securing knobs to lock the fence to the handle.

To ensure the fence is exactly 90° Use the jacking screw 'D'. Screw in a liitle way so that it makes contact with the rip fence and lock in place, then tighten the knobs 'A' using the jacking screw as a pivot to achieve the desired result. Check using a large square.

Fig.9





**Note: The rip Fence has two slots, allowing the fence to be attached in the 'high' or 'low' position**

## G. Mitre Gauge

The Mitre Gauge comprises:

a. The Quadrant with fixing knob
b. Slide Bar
c. The Fence
d. Two fixings each comprising a coach bolt and knob.

Fig.10


Fig.11

1. Attach the Quadrant to the Slide Bar ensuring the peg on the underside of the Quadrant sits in the hole in the bar. Tighten the fixing knob
2. Slide the coach bolts into the slot in the Fence.
3. Allow the coach bolts to enter the holes in the Quadrant and screw on the fixing knobs.

### H. Push Stick Brackets

Screw on the Push Stick Spring Clips to the left side of the main casing, using the four screws, and washers provided.

## MOUNTING THE SAW

***IMPORTANT***

***If the saw is to be a permanent fixture, ensure it is sited in an area with adequate illumination and power supply.***

***DO NOT place it where you will be working in your own shadow, or where extension cables are required - these are hazardous in a workshop environment.***

If the table saw is to be used in a permanent location, it should be fastened securely to a firm supporting surface such as a stand or workbench, using the four mounting holes in the base.

**A Floor Stand, specially designed for your CTS10D Table Saw is available from your CLARKE dealer .**

Holes should be drilled through the supporting surface of the workbench, using the machine as a template to mark out the holes.

If a VACUUM DUST EXTRACTION device is NOT to be used, an opening MUST also be made in the workbench, the same size as the opening in the bottom of the saw. (which houses the Bottom Grille). This is in order to allow the saw dust to drop through.

***IMPORTANT***

***Ensure the Bottom Grille is in place when bolting the machine to the workbench.***

1. Each of the four mounting holes should be bolted securely using 8mm bolts (not included) which should be 12mm longer than the thickness of the bench top.
2. Locate and mark where the saw is to be mounted.
3. Drill four (4) 10mm diameter holes through workbench.
4. Place table saw on the workbench aligning the holes in the base with the holes drilled in the workbench.
5. Bolt down ensuring flat and spring washers are used at the bolt head and with the nut.

### Mounting to Plywood

An alternative method of securing your table saw is to fasten the saw base to a mounting board, 600x600mm minimum size, to prevent the saw from tipping whilst in use. A good grade of plywood with a minimum thickness of 19mm is recommended.

Follow the instructions for mounting to a workbench, substituting a plywood board with a minimum size of 600x600mm.

The opening in the board should be the same as the bottom grille.

To secure the table saw to the plywood board use 8mm countersunk screws with lockwashers and hex nuts (not included). Screw length must be at least 12mm more than the thickness of the mounting board.

***NOTE: For proper stability, holes must be counter sunk on the underside of the plywood so that screw heads are flush with the bottom surface of the mounting board.***

***IMPORTANT***

***Ensure the Bottom Grille is in place when bolting the machine to the workbench.***

# IMPORTANT CHECKS - BEFORE STARTING

***IMPORTANT:***

***Before attempting to use the machine, it is necessary to ensure the various components are correctly adjusted, and checked for security.***

ALWAYS raise the blade and check for security.

Ensure the Blade Guard is fitted and is secure, capable of dropping under its own weight.

Remove all tools or pieces of wood from the table.

Ensure the Rip Fence is secure.

Ensure the saw Blade is at the desired height and locked in place.

# OPERATION

## 1. Starting and Stopping the Machine

The ON and OFF switches are located on the front left of the machine.

The upper, GREEN switch is the 'ON' switch and is marked with an 'I' symbol.

The lower, RED switch is the 'OFF' switch. It is raised and marked with the symbol 'O'.

For additional safety, the ON switch is a 'NO VOLT RELEASE' type. This means that if the power is interrupted for whatever reason whilst the machine is switched ON, the no volt release will automatically trip, setting the machine to the OFF position, thereby preventing it from starting again when the power is restored. The machine may then be restarted by pressing the ON switch.

### OVERLOAD CUT-OUT

Your machine also features an OVERLOAD CUTOUT device, so that if the machine is overloaded (due to feed pressure being too great, a dull blade or low voltage etc.), the overload relay will intervene and the motor will automatically cut out. In this event:

a. Press the OFF button and disconnect from the mains supply.
b. Allow the motor to cool for three to five minutes.
b. Push the reset button, adjacent to the ON/OFF switches, which resets the overload device.
c. Plug the machine back into the mains supply, and switch the saw back on.

***WARNING!***

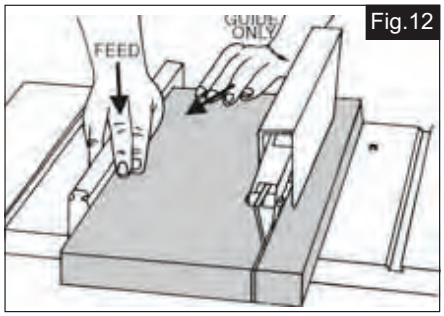
***THE MACHINE MUST BE IN THE OFF POSITION, AND THE PLUG REMOVED FROM THE POWER SOURCE WHILST COOLING DOWN TAKES PLACE. THIS PREVENTS ACCIDENTAL STARTING WHEN THE RESET BUTTON IS PUSHED, AS THE NO VOLT RELEASE WILL NOT HAVE TRIPPED .***

## 2. Ripping or Rip Cutting

This is the term used for cutting timber in the same direction as the grain, i.e usually lengthwise.

To assist in producing a straight, true cut, a RIP FENCE is used. This may be positioned to the right or left of the saw blade, and may be adjusted to suit the width of cut required, and firmly secured in place, ensuring it is parallel to the blade, by screwing in the rip fence handle.

Fig.12




When the width of rip is 150mm (6") and wider use your RIGHT HAND to FEED the workpiece, use LEFT HAND only to GUIDE the workpiece, do not feed the workpiece with the left hand. (Fig.12).

***NOTE: With the Rip Fence mounted on the left of the blade, the reverse is true.***

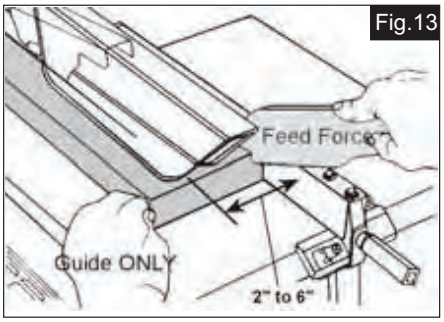
When width of rip is 50 - 150mm (2"- 6") wide use a push stick to feed the work. (Fig.13).

When width of rip is narrower than 50mm (2"), the push stick cannot be used because the guard will interfere. It is therefore necessary to use an auxiliary fence, and push block together as shown in fig. 15.
**(SEE PAGE 18 FOR RIP FENCE & AUX. FENCE)**

Attach auxiliary fence to rip fence with two 'G' clamps as shown in fig 14.

Feed the workpiece by hand until the end is approximately 1" from the front edge of the table. Continue to feed using the push block on top of auxiliary fence until the cut is complete.

Fig.13




## 3. Rip Cutting a Bevel.

By tilting the saw blade (by up to 45º), it is possible to rip cut a bevel in your work. To do this, set the blade angle by slackening off the Blade Tilt Lock knob, and position the blade using the angle gauge and pointer mounted on the front of the machine. (If absolute accuracy is required, check the blade angle with a protractor).

When bevel ripping material 150mm (6") or narrower, use the fence on the RIGHT SIDE of the blade ONLY. This will provide more space between the fence and the saw blade for the use of a push stick. If the fence is mounted to the left, the saw blade guard may interfere with proper use of a push stick.

***NOTE: Your saw is equipped with positive stops for fast and accurate positioning of the saw blade at 90 and 45 degrees to the table. Should these stops become out of alignment, they may be readjusted according to the instructions given under 'Maintenance'***

Fig.14

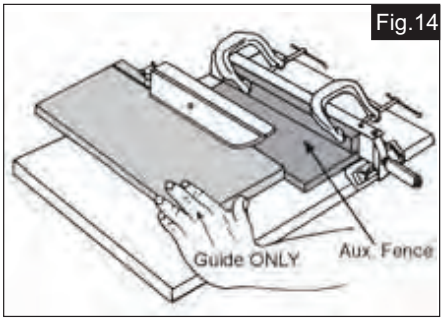
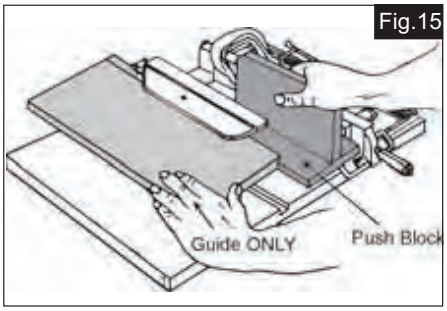



Fig.15



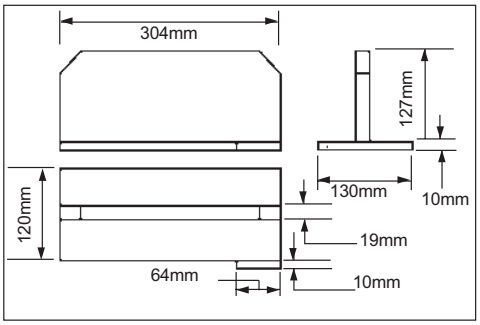

**WARNING! TO PREVENT PERSONAL INJURY, ALWAYS DISCONNECT PLUG FROM POWER SOURCE WHEN MAKING ADJUSTMENTS.**

## PUSH STICK AND PUSH BLOCK

Make the Push Block using pieces of 10mm plywood and 19mm hardwood as shown in Fig.10.

The small piece of wood 10x10x64mm should be GLUED to the plywood. DO NOT USE NAILS or SCREWS. This is to prevent damaging the saw blade in the event you mistakenly cut into the push block.

Position the handle in the centre of the plywood and fasten together with glue and wood screws screwed in from below. (Ensure the screw holes are countersunk. The screw heads must not be proud).

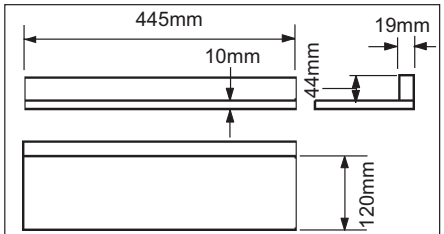



Replacement Push Sticks can be made using a suitable piece of timber as shown.

## AUXILIARY FENCE

Make one using pieces of 10mm plywood and 19mm hardwood. Fasten together with glue and wood screws. Dimensions are shown in Fig. 12.

***NOTE:***
***Since the Push Block is used with the Auxiliary Fence, the 120mm dimensions must be held identical on both the pieces.***



**Auxiliary Fence**

## 4. Crosscutting.

Crosscutting is the term used to describe cuts made in timber across the grain. This type of cut requires the use of the MITRE GAUGE. This includes bevel cutting, mitre cutting and compound mitre cutting (described later in this paragraph).

To perform a cross cutting operation, the work is firmly held against the mitre gauge fence as shown in Fig.16, with the mitre gauge bar located in either the left or right hand groove in the table.

With the timber carefully lined up with the saw blade, the mitre gauge is gently moved along the groove, past the saw blade, producing the desired cut. Long workpieces should be supported. A simple arrangement is to clamp a piece of plywood to a sawhorse as shown in Fig. 16

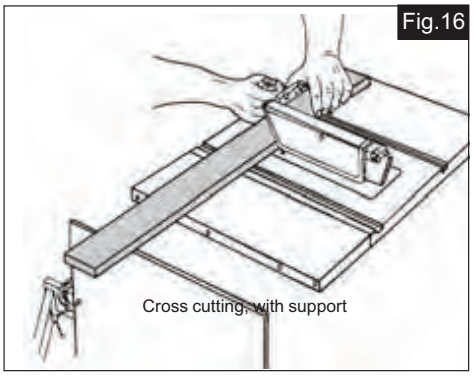


Fig.16
Cross cutting, with support

## MITRE GAUGE ADJUSTMENT

To produce an accurate cut at 90° you should check the gauge as follows:

1. Loosen the lock knob and set mitre gauge body so the pointer is at the 0° mark, then tighten the lock knob.
2. Make a cut on a piece of scrap wood. Check it with a square to see if the piece of wood was cut at 90°.

   If the piece of wood was not cut 90°, adjust the mitre gauge body, tighten lock knob and make additional cuts until you are certain you have made a 90° cut.
3. Finally, slacken off the pointer securing screw and zero the pointer.

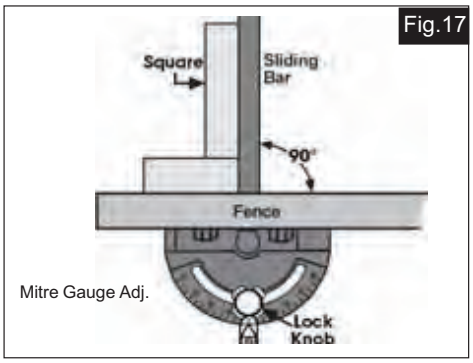


Fig.17
Mitre Gauge Adj.

The graduations on the mitre gauge provide accuracy for average woodworking. In some cases where extreme accuracy is required, when making angle cuts for example, make a trial cut and then recheck it with an accurate square or protractor.

For maximum accuracy when using the mitre gauge, always favour one side of the groove in the table. In other words, don't move the mitre gauge from side to side while cutting but keep one side of the bar riding against one side of the groove.

When using the left hand groove, hold the workpiece firmly against the mitre gauge head with your left hand, and grip the lock knob and push with your right hand. When using the right hand groove, hold the work piece with the right hand and grip the lock knob with the left.

## When crosscutting, you should ALWAYS abide by the following rules:

1. Never make these cuts freehand (without using the mitre gauge or other auxiliary device) because the blade could bind in the cut and cause a kickback or cause your fingers or hand to slip into the blade.
2. Always lock the mitre gauge securely when in use.
3. Remove rip fence from table during any operations which utilise the mitre gauge.
4. Make sure blade guard is installed (for all sawing operations).
5. Set the saw blade height to the thickness of the wood plus 2-3mm. Additional blade exposure would increase the hazard potential.
6. Do not stand directly in front of the blade in case of a throwback (small cutoff piece caught by the back of the blade and thrown toward the operator). Always stand to one side of the blade.
7. Keep your hands clear, and out of the path of, the blade.
8. If blade stalls or stops while cutting, switch the machine OFF and disconnect from the mains supply, before attempting to free the blade.
9. Do not reach over or behind the blade to pull the workpiece through the cut, to support long or heavy workpieces, to remove cutoff pieces of material, or for any other reason.
10. Do not pick up small pieces of cutoff material from the table. Remove them by pushing them off the table with a long stick. Otherwise they could be thrown back at you by the rear of the blade.
11. Do not remove small pieces of cutoff material that may become trapped inside the blade guard while the saw is running. This could endanger your hands or cause a kickback. Turn the saw off. After the blade has stopped turning, lift the guard and remove the trapped piece.
12. If workpiece is warped, place the concave side down. This will prevent it from rocking while it is being cut.

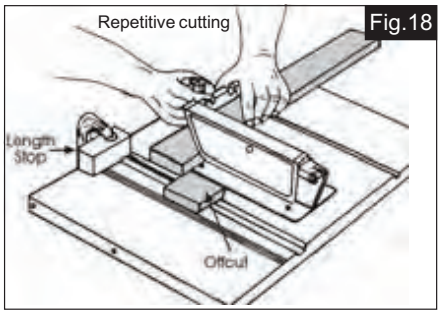
## 5. Repetitive Cutting

Repetitive cutting is the term used when cutting a quantity of pieces of the same length without having to mark each piece.

When making repetitive cuts from a long workpiece, **make sure it is supported**.

1. When making repetitive cuts, clamp a block of wood 75mm (3") long to the table at the desired length to act as a length stop.

***NOTE: When clamping the block, make sure that the end of the block is well in front of the saw blade. Be sure it is clamped securely.***



2. Slide the workpiece along the mitre gauge until it touches the block, hold it securely. When cutting long workpieces, make sure the end is supported - from the floor.
3. Make the cut, pull the workpiece back and push the cut-off piece off the table with a long push stick, **DO NOT ATTEMPT TO PICK IT UP AS THIS COULD ENDANGER YOUR HANDS**

**WARNING!**
**NEVER USE THE RIP FENCE AS A LENGTH STOP BECAUSE THE CUT-OFF PIECE COULD BIND BETWEEN THE FENCE AND THE BLADE CAUSING A KICKBACK.**

## 6. Mitre Cutting

Mitre cutting is the term used for cutting at an angle other than 90º to the edge of the wood. Follow the same procedure as you would for crosscutting.
Adjust the mitre gauge to the desired angle, and lock it.

The mitre gauge may be used in either of the grooves in the table.

When using the mitre gauge in the LEFT hand groove, hold the workpiece firmly against the mitre gauge head with your LEFT HAND, and grip the lock knob with your right.

When using the RIGHT hand groove, hold the workpiece with your RIGHT HAND and the lock knob with your left hand.

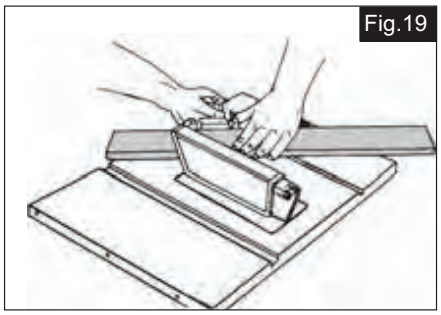


Fig.19

## 7. Bevel Crosscutting

Bevel crosscutting is the same as crosscutting except that the wood is also cut at an angle, other than 90 degrees with the flat side of the wood.

Adjust the blade to the desired height and angle.

Use the Mitre Gauge in the groove to the RIGHT of the blade. It cannot be used in the groove to the LEFT because the blade guard will interfere. Hold the workpiece with your right hand and the lock knob with your left hand.

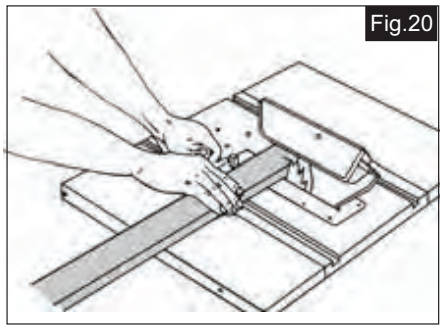


Fig.20

## 8. Compound Mitre Cutting

Compound mitre cutting is a combination of mitre cutting and bevel crosscutting. The cut is made at an angle other than 90º to both the edge and the flat side of the wood.

Adjust the mitre gauge and the blade to the desired angle, and ensure the mitre gauge body is locked.

**WARNING!**
**WHEN MITRE CUTTING, AN AREA OF BLADE IS EXPOSED.**
**GREAT CARE MUST BE TAKEN WHEN USING THE MACHINE FOR THIS OPERATION.**

# MAINTENANCE

**WARNING!**
**FOR YOUR OWN SAFETY, SWITCH MACHINE OFF AND REMOVE PLUG FROM POWER SOURCE BEFORE ADJUSTING, MAINTAINING OR LUBRICATING YOUR SAW.**

Do not allow sawdust to accumulate inside the saw. Use a dust extractor if possible, if not, frequently blow out any dust that may accumulate inside the saw cabinet and the motor.

Inspect the power cable frequently. If it is worn or cut, or damaged in any way, have it replaced immediately.

***NOTE: Certain cleaning agents and solvents can damage plastic parts. Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents which contain ammonia. Avoiding the use of these and other types of cleaning agents will minimise the possibility of damage.***

A coat of wax applied to the table will help to keep the surface clean and allow workpieces to slide more freely.

## 1. Changing the Blade

**IMPORTANT:** 1. Use only Clarke Blade, **(see parts list for part numbers).**

2. Replace the blade when teeth become damaged or dull.

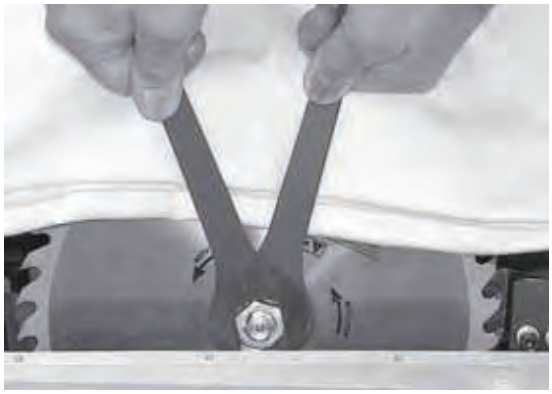
**WARNING!**
1. **TO PREVENT PERSONAL INJURY, ALWAYS DISCONNECT PLUG FROM POWER SOURCE BEFORE CHANGING BLADES.**
2. **TAKE GREAT CARE WHEN HANDLING SAW BLADES - THE TEETH ARE EXTREMELY SHARP, AND CARELESSNESS CAN CAUSE SERIOUS PERSONAL INJURY**

1. Raise the blade as far as possible, then remove the blade Guard... a single mounting bolt.

   It also helps to turn the blade angle adjuster so as to lay the blade on its side to some degree.

***NOTE: From this point, take great care to avoid contact with the tips of the saw blade, preferably place a thick cloth over the teeth, as shown in Fig 21.***

Fig.21



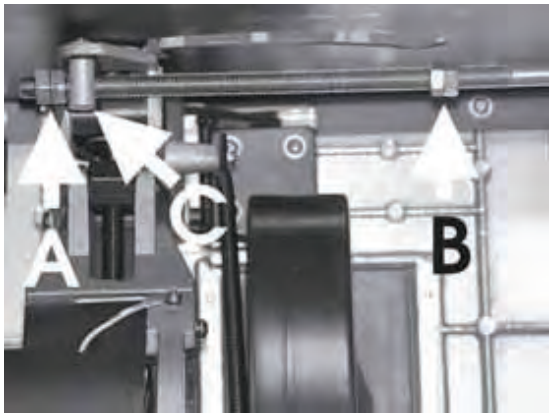
2. Undo the Blade securing nut, using the two spanners provided, one to engage with the flats on the outer flange, the other to remove the nut.
3. Replace the blade in reverse order, ensuring the teeth point down towards the table at the front, and it sits snugly on the boss on the inner flange before replacing the outer flange and tightening the securing nut.

## 2. Adjusting 90 and 45 Degree Positive Stops

***WARNING!***
***ENSURE THE PLUG IS DISCONNECTED FROM THE POWER SUPPLY BEFORE PROCEEDING***

### 2A. Adjusting Positive Stop at 90 Degrees

Fig.22




(i) Raise the blade to maximum height.

(ii) Turn machine so that it rests on its back edge, and

(iii) Turn the blade angle adjusting handle until it hits the 90° stop.

(iv) Place a combination square on the table with one end of square against the blade and check to see if the blade is 90° to the table.

If the blade is not 90° to the table, proceed as follows:

(a) Undo the locknut and spin the adjuster nut shown at 'A' Fig 22

(b) Turn the adjuster handle until the blade is precisely 90°

(c) Carefully spin ther adjuster nut up to meet the stop on the rod shown at 'C', then screw up the locknut and tighten.

***NOTE: BEFORE replacing the bottom grille, it is prudent to check the blades' 45°. setting and make any necessary adjustments as described below.***

### 2B. Adjusting Positive Stop at 45 Degrees.

The procedure is the same as that above, but using a 45° gauge, with the blade held firmly against the 45° stop, shown at 'B' above.

When adjustments are complete, replace the bottom grille securely.

## 3. Renewing Motor Brushes

Fig.23

1. Remove bottom grille.
2. Unscrew and remove the Brush Caps, then withdraw the brush with springs attached as shown in Fig 23.
3. Carefully insert the brushes and screw on the caps.....this operation should be carried out with care...by gently turning the cap whilst pressing down against spring pressure, the spring cap will eventually find its way into its guide within the holder, when the cap may then be tightened.

## TROUBLE SHOOTING

| *TROUBLE* | *PROBABLE CAUSE* | *REMEDY* |
|---|---|---|
| Saw will not start | 1. Saw not plugged in<br>2. Fuse blown or circuit breaker tripped<br>3. Power cable damaged | 1. Plug in the machine<br>2. Replace fuse or reset circuit breaker<br>3. Have cable replaced by authorised service centre |
| Does not make accurate 45º and 90º Rip Cuts | 1. Positive stops not adjusted | 1. Check blade with square and correctly adjust positive stops and adjust pointer to zero |
| Material Pinches Blade When Ripping | 1. Rip fence not aligned with blade<br>2. Warped wood, edge against fence not straight | 1. Check and adjust rip fence<br>2. Select another piece of wood |
| Material binds on Riving Knife | 1. Riving knife not aligned correctly with blade | 1. Check and align riving knife with blade |
| Saw makes unsatisfactory cuts | 1. Dull blade<br>2. Blade mounted backwards<br>3. Gum or pitch on blade<br>4. Incorrect blade for work<br>5. Gum or pitch on table causing erratic feed | 1. Replace blade<br>2. Turn blade around<br>3. Remove blade and clean with turpentine and coarse steel wool<br>4. Change the blade<br>5. Clean table with turpentine and steel wool and apply wax |
| Material kicked back from blade slot | 1. Rip fence out of alignment<br>2. Riving knife not aligned with blade<br>3. Feeding stock without rip fence<br>4. Riving knife not in place<br>5. Letting go of material before it is all the way past the saw blade<br>6. Dull blade<br>7. Mitre angle lock knob is not tight | 1. Align rip fence with blade<br>2. Align riving knife with blade<br>3. Install and use rip fence<br>4. Install and use riving knife with guard<br>5. Push material all the way past blade before releasing work<br>6. Replace blade<br>7. Tighten knob |
| Blade does not raise or tilt freely | 1. Sawdust and dirt in raising and tilting mechanism | 1. Brush or blow out loose dust and dirt |
| Blade does not come up to speed | 1. Extension cable too light or too long<br>2. Low voltage | 1. Replace with adequate size cable<br>2. Contact your electric company |
| Machine vibrates | 1. Saw not mounted securely to Stand or work bench<br>2. Stand or bench on uneven floor<br>3. Damaged saw blade | 1. Tighten all mounting hardware<br>2. Reposition on flat level surface Fasten to floor if necessary<br>3. Replace blade |
| Does not make accurate 45º and 90º crosscuts | 1. Mitre gauge out of adjustment | 1. Adjust mitre gauge |

## PARTS LISTS

| No. | Description | Qty | Part No | No. | Description | Qty | Part No |
|---|---|---|---|---|---|---|---|
| 1 | Connecting Bolt | 1 | CTS10D001 | 44 | Bearing | 1 | CTS10D044 |
| 2 | Flat Washer | 1 | CTS10D002 | 45 | Gear Shaft | 1 | CTS10D045 |
| 3 | Blade Guard | 1 | CTS10D003 | 46 | Key | 1 | CTS10D046 |
| 4 | Nut | 1 | CTS10D004 | 47 | Gear | 1 | CTS10D047 |
| 5 | Riving Knife | 1 | CTS10D005 | 48 | Retaining Ring | 1 | CTS10D048 |
| 6 | Locking Knob | 1 | CTS10D006 | 49 | Gear Box | 1 | CTS10D049 |
| 7 | Washer | 1 | CTS10D007 | 50 | Screw | 4 | CTS10D050 |
| 8 | Mitre Gauge | 1 | CTS10D008 | 51 | Inner Ring | 1 | CTS10D051 |
| 9 | Mitre Gauge Fence | 1 | CTS10D009 | 52 | Bearing | 1 | CTS10D052 |
| 10 | End Cover | 2 | CTS10D010 | 53 | Rotor | 1 | CTS10D053 |
| 11 | Screw | 2 | CTS10D011 | 54 | Screw | 2 | CTS10D054 |
| 12 | Knob | 2 | CTS10D012 | 55 | Stator | 1 | CTS10D055 |
| 13 | Sliding Bar | 1 | CTS10D013 | 56 | Bearing | 1 | CTS10D056 |
| 14 | Main Table | 1 | CTS10D014 | 57 | Motor Housing | 1 | CTS10D057 |
| 16 | Sliding Bar | 1 | CTS10D016 | 58 | Carbon Brush Holder | 2 | CTS10D058 |
| 17 | Extension Table (A) | 1 | CTS10D017 | 59 | Carbon Brush | 2 | CTS10D059 |
| 18 | Extension Table (B) | 1 | CTS10D018 | 60 | Carbon Brush Cap | 2 | CTS10D060 |
| 19 | Front Rail End Cap | 2 | CTS10D019 | 61 | End Cover | 1 | CTS10D061 |
| 20 | Front Rail - Left | 1 | CTS10D020 | 63 | Motor Support | 1 | CTS10D063 |
| 22 | Front Rail Connector | 1 | CTS10D022 | 64 | Elastic Pin | 4 | CTS10D064 |
| 23 | Support Bar | 4 | CTS10D023 | 67 | Flat Wahser | 1 | CTS10D067 |
| 27 | Scale Label | 1 | CTS10D027 | 68 | Elevating Device | 1 | CTS10D068 |
| 28 | Scale Label | 1 | CTS10D028 | 69 | Elastic Pin | 2 | CTS10D069 |
| 29 | Front Rail - Right | 1 | CTS10D029 | 71 | Flat Washer | 1 | CTS10D071 |
| 30 | Rip Fence | 1 | CTS10D030 | 72 | Nut | 4 | CTS10D072 |
| 31 | End Cover | 2 | CTS10D031 | 73 | Turning Support | 1 | CTS10D073 |
| 32 | Locking Paw | 1 | CTS10D032 | 74 | Fixing Shaft | 4 | CTS10D074 |
| 33 | Rip Fence Look | 1 | CTS10D033 | 75 | Elastic Pin | 1 | CTS10D075 |
| 34 | Screw | 1 | CTS10D034 | 76 | Fixing Plate (A) | 1 | CTS10D076 |
| 35 | Square Washer | 1 | CTS10D035 | 78 | Fixing Plate B) | 1 | CTS10D0078 |
| 36 | Screw | 2 | CTS10D036 | 79 | Nut | 4 | CTS10D079 |
| 37 | Fixing Ring | 1 | CTS10D037 | 80 | Outer Flange | 1 | CTS10D080 |
| 39 | Fixing Plate | 1 | CTS10D039 | 81 | Saw Blade | 1 | CTS10D081 |
| 40 | Riving Knife Support | 1 | CTS10D040 | 82 | Inner Flange | 1 | CTS10D082 |
| 41 | Pin | 1 | CTS10D041 | 83 | Retaining Ring | 1 | CTS10D083 |
| 43 | Gear Cover | 1 | CTS10D043 | 86 | Lower Blade Guard | 1 | CTS10D086 |

| No. | Description | Part No | Qty |
|---|---|---|---|
| 87 | Dust Tube | 1 | CTS10D087 |
| 88 | Spring | 1 | CTS10D088 |
| 89 | Angle Pointer | 1 | CTS10D089 |
| 90 | Spring Bar | 1 | CTS10D090 |
| 91 | Turning Handle | 2 | CTS10D091 |
| 92 | Retaining Ring | 2 | CTS10D092 |
| 94 | Angle Fixing Device | 1 | CTS10D094 |
| 95 | Angle Adjusting Rod | 1 | CTS10D095 |
| 98 | Side Rating Label | 1 | CTS10D098 |
| 99 | Locking Wheel | 1 | CTS10D099 |
| 100 | Clamping Plate | 1 | CTS10D100 |
| 101 | Elevating Adjust Bolt | 1 | CTS10D101 |
| 102 | Elastic Washer | 1 | CTS10D102 |
| 103 | Motor Holder | 1 | CTS10D103 |
| 106 | Fixing Holder | 1 | CTS10D106 |
| 107 | Triangle Steel Plate | 1 | CTS10D107 |

| No. | Description | Part No | Qty |
|---|---|---|---|
| 108 | Cable Clamping Plate | 1 | CTS10D108 |
| 109 | Cable Holder | 1 | CTS10D109 |
| 111 | Dust Adaptor | 1 | CTS10D111 |
| 112 | Machine Housing | 1 | CTS10D112 |
| 113 | Bottom Plate | 1 | CTS10D113 |
| 115 | Capacitor | 1 | CTS10D115 |
| 116 | Switch Cover | 1 | CTS10D116 |
| 117 | Cable & Plug | 1 | CTS10D117 |
| 119 | Front Label | 1 | CTS10D119 |
| 120 | Magnetic Switch | 1 | CTS10D120 |
| 121 | Fuse Link | 1 | CTS10D121 |
| 130 | Push Stick Clip | 2 | CTS10D130 |
| 131 | Push Stick | 1 | CTS10D131 |
| 132 | End Cover 2 | 1 | CTS10D132 |
| 133 | Spring Washer | 14 | CTS10D133 |
| 134 | Side Cover | 1 | CTS10D134 |

## PARTS AND SERVICE CONTACTS

**For Spare Parts and Service, please contact your nearest dealer, or CLARKE International, on one of the following numbers.**

**PARTS & SERVICE TEL: 020 8988 7400**

**PARTS & SERVICE FAX: 020 8558 3622**

**or e-mail as follows:**

**PARTS: Parts@clarkeinternational.com**

**SERVICE: Service@clarkeinternational.com**

## PARTS DIAGRAM