



Woodworking machinery at its best!

12" MITRE SAW 305DB

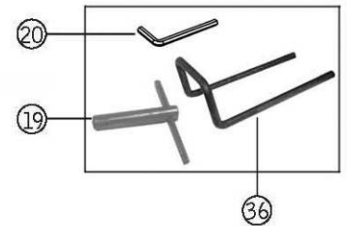
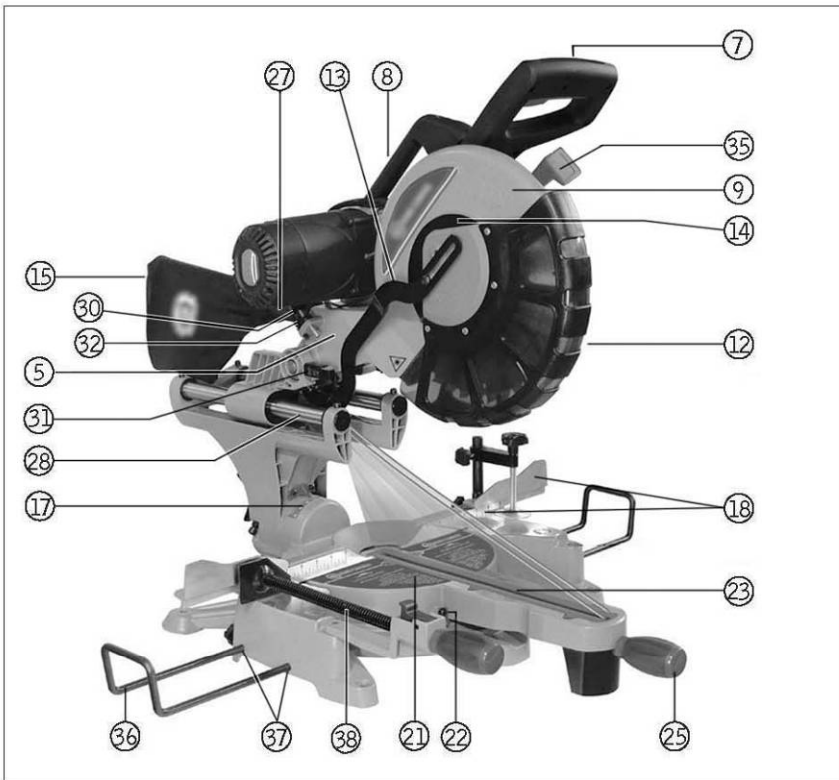
OPERATORS MANUAL



Charnwood, Cedar Court, Walker Road, Hilltop Ind Est, Bardon, Leicestershire LE67 1TU
Tel. 01530 516926 e-mail; sales@charnwood.net
View our full product range at www.charnwood.net

Contents

I-	Partslist	1
II-	Technical data.....	3
III-	Safety instructions.....	3
IV-	Getting Started.....	7
V-	Operation.....	9
VI-	Maintenance and repair.....	11



11 24 10



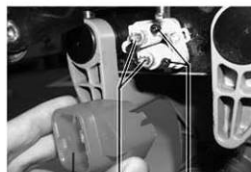
16 33 34



26



2



3 1 4



6 29

I - Parts list

- 1 Laser assembly
- 2 Laser light on/off switch
- 3 Laser cover
- 4 Laser pitch control
- 5 Saw arm
- 6 Release knob
- 7 Operating handle
- 8 Carrying handle
- 9 Upper fixed blade guard
- 10 Clamp assembly -- A
- 11 Clamp assembly lock(x2)
- 12 Rotating blade guard
- 13 Guard retraction arm
- 14 Blade bolt cover
- 15 Dust bag
- 16 Bevel lock
- 17 Bevel scale
- 18 Fence
- 19 Blade wrench
- 20 Hexkeys(6mm)
- 21 Mitre table
- 22 Mitre scale
- 23 Table insert(kerfplate)
- 24 Switch trigger
- 25 Mitre lock
- 26 Spindle lock button
- 27 Dust extraction port
- 28 Slide bars
- 29 Slide lock
- 30 Trenching depth adjustment screw
- 31 Trenching stop
- 32 Trenching depth lock nut
- 33 45° Bevel adjustment screw
- 34 0° Bevel adjustment screw
- 35 Release latch
- 36 Side support bars(x2)
- 37 Side support bar location holes(2sets)
- 38 Clamp assembly -- B

II - Technical data

This tool is double insulated. There are two independent barriers of insulation to protect you from the possibility of electric shock.

Voltage:	230–240V ~ 50Hz
Input power:	2000W
Noload speed:	4500min ⁻¹
Blade diameter:	Ø305mm
Blade teeth:	60TCT
Blade arbour:	Ø30mm
Minimum blade thickness:	2mm
Maximum blade thickness:	4mm
Mitre table angles:	-45°/0°/+45°
Straight cut at 0° x 0°:	340mm x 102mm
Mitre cut at 45° x 0°:	240mm x 102mm
Bevel cut at	
0°x 45°(L):	340mm x 55mm
0°x 45°(R):	340mm x 40mm
Compound mitre cut at	
45°(L)x 45°:	240mm x 55mm
45°(R)x 45°:	240mm x 40mm
Weight:	18.1 kg

III - Safety Instructions

WARNING. Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury. The term “power tool” in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Safety rules for laser lights

The laser light/laser radiation used in the system is Class 2 with maximum 1mW and 650nm wavelengths. These lasers do not normally present an optical hazard, although staring at the beam may cause flash blindness.

WARNING. Do not stare directly at the laser beam.

A hazard may exist if you deliberately stare into the beam, please observe all safety rules as follows;

- The laser shall be used and maintained in accordance with the manufacturer’s instructions.
- Never aim the beam at any person or an object other than the workpiece.
- The laser beam shall not be deliberately aimed at

personnel and shall be prevented from being directed towards the eye of a person for longer than 0.25s.

- Always ensure the laser beam is aimed at a sturdy workpiece without reflective surfaces. I.e. wood or rough coated surfaces are acceptable. Bright shiny reflective sheet steel or the like is not suitable for laser use as the reflective surface could direct the beam back at the operator.

- Do not change the laser light assembly with a different type. Repairs must be carried out by the laser manufacturer or an authorised agent.



CAUTION. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

General safety instructions

To use this tool properly, you must observe the safety regulations, the assembly instructions and the

operating instructions to be found in this Manual. All persons who use and service the machine have to be acquainted with this Manual and must be informed about its potential hazards. Children and infirm people must not use this tool. Children should be supervised at all times if they are in the area in which the tool is being used. It is also imperative that you observe the accident prevention regulations in force in your area. The same applies for general rules of occupational health and safety.

WARNING. When using power tools, basic safety

precautions should always be taken to reduce the risk of fire, electric shock and personal injury. Also, please read and heed the advice given in the additional important safety instructions.

Even when the tool is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the tool's construction and design:

- Contact with the blade.
- Kickback of workpiece and parts of workpiece.
- Blade fracture.
- Catapulting of blade pieces.
- Damage to hearing if effective earmuffs are not worn.
- Harmful emissions of sawdust when the machine is used in closed rooms. Always use supplementary dust extraction where possible.
- Do not use blades that are deformed or cracked.
- Always remove the plug from the mains socket before making any adjustments or maintenance, including changing the blade. To ensure safe operation of the mitre saw you must follow these guidelines:
 - Select the correct blade for the material to be cut.
 - Do not use the saw to cut materials other than those recommended by the manufacturer.
- The mitre saw can be safely carried by the main handle but only once it has been removed from the mains power and secured in the locked down position.
- Do not use the saw without the guards in position, in good working order and properly maintained.
- Ensure that the arm is properly secure when bevelling.
- Keep the floor area around the machine level, well maintained and free of loose materials.
- Provide adequate lighting.
- Ensure that you are trained in the use, adjustment and operation of the machine.
- Use correctly sharpened blades and observe the maximum speed marked on the blade.
- Do not remove any cut-offs from the cutting area until the guard is fully locked in place and the blade has come to rest.
- Ensure that the mitre saw is fixed to a bench wherever possible.
- When cutting long pieces which extend well over the table width ensure that the ends are adequately supported at the same height as the saw table top. Supports should be positioned in such a way to ensure that the workpiece does not fall to the ground. once the cut has been made. A number of supports at regular intervals may be required if the workpiece is extremely long.

WARNING. When using power tools, basic safety precautions should always be taken to reduce the risk of fire, electric shock and personal injury. Also, please read and heed the advice given in the additional important safety instructions.

1. Keep the work area clean and tidy. Cluttered work areas and benches invite accidents and injury.

2. Consider the environment in which you are working. Do not use power tools in damp or wet locations. Keep the work area well lit. Do not expose power tools to rain. Do not use power tools in the presence of flammable liquids or gases.

3. Keep visitors away from the work area. All visitors and onlookers, especially children and infirm persons, should be kept well away from where you are working. Do not let others in the vicinity make contact with the tool or extension cord.

4. Store tools safely. When not in use, tools should be locked up out of reach.

5. Do not force the tool. The tool will do the job better and safer working at the rate for which it was designed.

6. Use the correct tool for the job. Do not force small tools or attachments to do the job best handled by a heavier duty tool. Never use a tool for a purpose for which it was not intended.

7. Dress correctly. Do not wear loose clothing or jewellery. They can be caught in moving parts. Rubber gloves and non-slip footwear are recommended when working outdoors. If you have long hair, wear a protective hair covering.

8. Use safety accessories. Safety glasses and earmuffs should always be worn. A face or dust mask is

also required if the drilling operation creates dust.

9. Do not abuse the power cord. Never pull the cord to disconnect the tool from the power point. Keep the cord away from heat, oil and sharp edges.

10. Secure the workpiece. Use clamps or a vice to hold the workpiece. It is safer than using your hand and frees both hands to operate the tool.

11. Do not overreach. Keep your footing secure and balanced at all times.

12. Look after your tools. Keep tools sharp and clean for better and safer performance. Follow the instructions regarding lubrication and accessory changes. Inspect tool cords periodically and, if damaged, have them repaired by an authorised service facility. Inspect extension cords periodically and replace them if damaged. Keep tool handles dry, clean and free from oil and grease.

13. Disconnect idle tools. Switch off the power and disconnect the plug from the power point before servicing, when changing accessories and when the tool is not in use.

14. Remove adjusting keys and wrenches. Check to see that keys and adjusting wrenches are removed from the tool before switching on.

15. Avoid unintentional starting. Always check that the switch is in the OFF position before plugging in the tool to the power supply. Do not carry a plugged in tool with your finger on the switch.

16. Use outdoor rated extension cords. When a tool is used outdoors, use only extension cords that are intended for outdoor use and are so marked.

17. Stay alert. Watch what you are doing. Use common sense. Do not operate a power tool when you are tired.

18. Check for damaged parts. Before using a tool, check that there are no damaged parts. If a part is slightly damaged, carefully determine if it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, proper mounting and any other conditions that may affect the operation of the tool. A part that is damaged should be properly repaired or replaced by an authorised service facility, unless otherwise indicated in this Instruction Manual. Defective switches must be replaced by an authorized service facility. Do not use a tool if the switch does not turn the tool on and off correctly.

19. Guard against electric shock. Prevent body contact with grounded objects such as water pipes, radiators, cookers and refrigerator enclosures.

20. Use only approved parts. When servicing, use only identical replacement parts. Use an authorised service facility to fit replacement parts.

WARNING. The use of an accessory or attachment, other than those recommended in this Instruction Manual, may present a risk of personal injury.

Additional safety rules for mitre saws

WARNINGS. Before connecting a tool to a power source (mains switch power point receptacle, outlet, etc.) be sure that the voltage supply is the same as that specified on the nameplate of the tool. A power source with a voltage greater than that specified for the tool can result in serious injury to the user, as well as damage to the tool. If in doubt, do not plug in the tool. Using a power source with a voltage less than the nameplate rating is harmful to the motor. Your tool is double insulated for additional protection against a possible electrical insulation failure within the tool. Always remove the plug from the mains socket before making any adjustments or maintenance, including changing the blade.

- When operating the saw, use safety equipment including safety goggles or shield, ear protection, dust mask and protective clothing including safety gloves.
- Ensure that there is adequate general or localized lighting.
- Do not use the saw unless the guards are in place.
- Do not use the saw to cut metal or masonry.
- Do not let anyone under 18 years operate this saw.
- Ensure that the operator is adequately trained in the use, adjustment and operation of the machine.
- Do not use this saw to cut firewood.
- Keep the area free of tripping hazards.
- Report faults in the machine, including guards and saw blades, as soon as they are discovered.
- Ensure that the machine is always fixed to a bench, whenever possible.
- Always stand to one side when operating the saw.
- Never use a cracked or distorted saw blade.
- When cutting round wood, use clamps that prevent the workpiece from turning on both sides of the blade.
- Never use your hands to remove sawdust, chips or waste close by the blade.
- Use only blades as recommended by the manufacturer and which conform to EN 847-1.
- Do not use blades of High Speed Steel (HSS blades).

- If the table insert is damaged or worn, have it replaced by an authorised service centre.
- Rags, cloths, cord and string and the like should never be left around the work area.
- Avoid cutting nails. Inspect the workpiece and remove all nails and other foreign objects before beginning sawing.
- Support the work properly.
- Refrain from removing any cut-offs or other parts of the workpiece from the cutting area whilst the machine is running and the saw head is not in the rest position.
- Do not attempt to free a jammed blade before first switching off the machine.
- Do not slow or stop a blade with a piece of wood. Let the blade come to rest naturally.
- If you are interrupted when operating the saw, complete the process and switch off before looking up.
- Periodically check that all nuts, bolts and other fixings are properly tightened.
- Do not store materials or equipment above a machine in such a way that they could fall into it.
- Always hold the saw on parts that are insulated. If you accidentally cut into hidden wiring or the saw's own cable, the metal parts of the saw will become "live". Switch off at the mains and remove the plug immediately.
- Never saw near combustible liquids or gases.
- Note the direction of rotation of the motor and the blade.
- Do not lock the movable guard in the open position and always ensure that it is working properly, freely rotating and returning to fully cover the teeth of the blade.
- Connect the saw to a dust collection device and ensure that it is operated properly. As the operator of the saw, please make sure that you understand factors that influence exposure to dust, including the type of material to be machined, the importance of local extraction and the proper adjustment of hoods/baffles/shoots of your dust extraction system. We recommend that you always wear a dust mask when operating this saw.
- Wear gloves when handling saw blades and rough materials.
- Saw blades shall be carried in a holder wherever possible.
- Select saw blades in relation to the material being cut.
- Use correctly sharpened saw blades and observe the maximum speed marked on the blade.
- Take additional care when trenching (slotting).
- The mitre saw can be safely carried by the carrying handle but only once it has been removed from the mains power and secured in the locked down position.
- Ensure that the arm is properly secure when bevelling.
- Keep the floor area around the machine level, well maintained and free of loose materials.
- Ensure that you are trained in the use, adjustment and operation of the machine.
- Do not remove any cut-offs from the cutting area until the guard is fully locked in place and the blade has come to rest.
- When cutting long pieces which extend well over the table width, ensure that the ends are adequately supported at the same height as the saw table top. Supports should be positioned in such a way to ensure that the workpiece does not fall to the ground once the cut has been made. A number of supports at regular intervals may be required if the workpiece is extremely long.

Symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.



Wear hearing protection. Wear eye protection.



Double insulated for additional protection.



Conforms to relevant safety standards.



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.



Read the instruction manual.

IV- Getting Started

1 ACCESSORIES

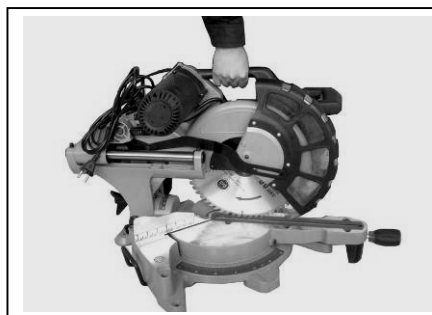
This SLIDE COMPOUND MITRE SAW comes with the following accessories:

- 24 Teeth blade (fitted)
- Dust bag
- Work clamp
- Blade socket wrench
- Side support bar (x 2)
- 6mm Hex keys

2 TRANSPORTATION

Lift the mitre saw only when the saw arm is locked in the down position, the saw is switched off and the plug is removed from the power point.

You must only lift the saw by the carrying handle (8) or outer castings. Do not lift the saw using the guard or operating handle (7).



3 BENCH MOUNTING

The saw base has holes to facilitate bench mounting.

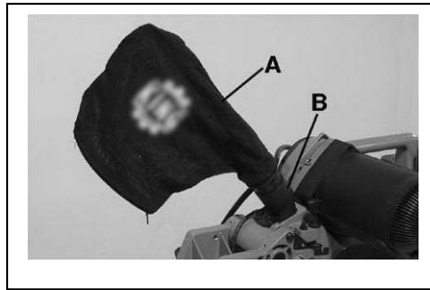
Attach the saw to a level, horizontal bench or work table using bolts (not supplied) through the fixing holes in the saw base.

NOTE! If desired, you can mount the saw to a piece of 13mm or thicker plywood which can then be clamped to your work support or moved to other job sites and reclamped.

CAUTION! Make sure that the mounting surface is not warped as an uneven surface can cause binding and inaccurate sawing.

4 The dust bag (15) fits in the dust extractor port (27). For efficient operation, empty the dust bag when it is no

more than half full. This allows better air flow through the bag.



5. SETTING THE TABLE SQUARE WITH THE BLADE

Make sure that the electrical plug is removed from the power point

6 Push the saw arm (5) down to its lowest position and engage the release knob (6) to hold the saw arm in the transport position.

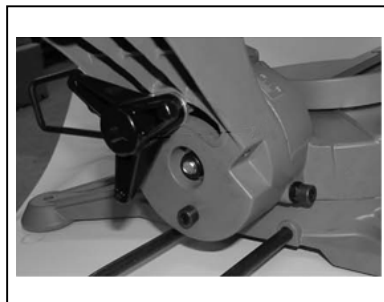
7 Loosen the mitre lock (25).

8 Rotate the table (21) until the pointer is positioned at 0°.



9 Tighten the mitre lock (25).

10 Loosen the bevel lock (16) and set the saw arm (5) at 0° bevel (the blade at 90° to the mitre table). Tighten the bevel lock (16).



11 Place a set square against the table (21) and the flat part of the blade.

NOTE. Make sure that the square contacts the flat part of the saw blade, not the teeth. Rotate the blade by hand and check the blade-to-table alignment at several points. The edge of the set square and the saw blade should be parallel.

12 If the saw blade angles away from the set square, adjust as follows:

- Use a 13mm wrench or adjustable wrench to loosen the lock nut securing the 0° bevel adjustment screw (34). Also, loosen the bevel lock (16).
- Adjust the 0° bevel adjustment screw (34) with the wrench to bring the saw blade into alignment with the square.
- Loosen the screw holding the pointer of the bevel scale (17) and adjust the position of the pointer so that it accurately indicates zero on the scale. Retighten the screw.
- Retighten the bevel lock (16) and the lock nut securing the 0° bevel adjustment screw (34).

13 NOTE. The above procedure can also be used to check the angle of the saw blade to the table at 45° bevel

angle. The 45° bevel adjustment screw (33) is on the opposite side of the saw arm.

14. ADJUSTING THE LASER LINES

Switch on the laser lights with the on/off switch (2).



15 TRENCH DEPTH ADJUSTMENT

In its normal position, the trenching stop (31) permits the saw blade to cut right through a workpiece.

When the saw arm is lifted, the trenching stop can be adjusted so that the trenching depth adjustment screw (30) contacts the stop as the saw arm is lowered.

This restricts the cut to a “trench” in the workpiece. The depth of the trench can be adjusted with the trenching depth adjustment screw (30) and locked in position with the trenching depth lock nut (32).

16 SIDE SUPPORT BARS

The side support bars (36) can be used to support long pieces of timber.

There are two location holes (37) for a support bar on either side of the table.

Ensure that the side bars are fully inserted before using them to support the workpiece.

V-Operation

WARNINGS.

- Do not stare directly at the laser beam. Never aim the beam at any person or an object other than the workpiece.
- Do not deliberately aim the beam at personnel and ensure that it is not directed towards the eye of a person for longer than 0.25s.
- Always ensure the laser beam is aimed at a sturdy workpiece without reflective surfaces. Wood or rough coated surfaces are acceptable. Bright shiny reflective surfaces are not suitable for laser use as the reflective surface could direct the beam back at the operator.
- Always remember to switch off the laser on/off switch (2) after finishing a job. Only turn the laser beam on when the workpiece is on the mitre saw table.
- Mark the line of the cut on the workpiece.
- Adjust the angle of mitre and bevel of the cut as required.

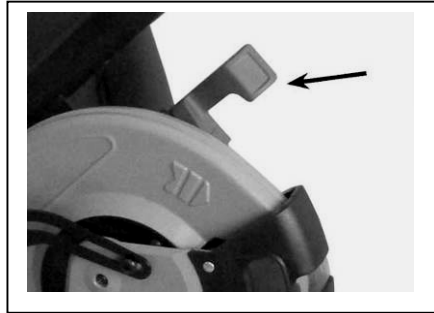
1. Normal cutting operation

1). Connect the plug to the power point.

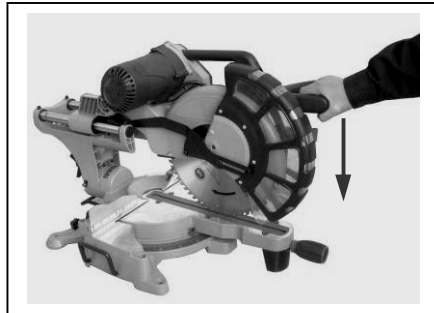
Switch on the laser light on/off switch (2).

2). Clamp the workpiece in position using the laser lines to align the blade with the pencil mark on the workpiece and switch on the motor.

3). Press the release latch (35).



4). Lower the saw head



5). Press the switch trigger (34)



6). When the blade is at its maximum speed (approximately 2 seconds), lower the blade through the workpiece. After completing the cut, release the switch trigger (24), stop the motor and blade, switch off the laser light on/off switch (2).

7). With the saw arm (5) in the raised position, use a soft brush to dust away the sawdust build-up around the assembly.

NOTE. Wear eye and respiratory protection whilst brushing the dust away.

2 CROSS-CUTTING (WITHOUT SLIDE ACTION)

When cutting a narrow piece of wood it is not necessary to use the slide mechanism. In these cases ensure that the slide lock (29) is screwed down to prevent the saw arm from sliding.

1) A crosscut is made by cutting across the grain of the workpiece. A 90° crosscut is made with the mitre table set at 0°. Mitre crosscuts are made with the table set at some angle other than zero.

Pull on the release knob (6) and lift the saw arm (5) to its full height.

2) Loosen the mitre lock (25).

Rotate the mitre table (21) until the pointer aligns with the desired angle.

Retighten the mitre lock (25).

WARNING. Be sure to tighten the mitre lock before making a cut. Failure to do so could result in the table moving during the cut and cause serious personal injury.

Place the workpiece flat on the table with one edge securely against the fence (18). If the board is warped, place the convex side against the fence (18). If the concave side is placed against the fence, the board could break and jam the blade.

3) When cutting long pieces of timber, support the opposite end of the timber with the side support bars (36), a roller stand or a work surface that is level with the saw table.

4) Use the clamp assembly (10) to secure the workpiece wherever possible.

It is possible to remove the clamp assembly (10) by loosening the clamp assembly lock (11) and moving it to the other side of the table. Make sure the clamp assembly lock is tight before using the clamp.

Before turning on the saw, perform a dry run of the cutting operation to check that there are no problems.

5) Hold the operating handle (7) firmly and squeeze the switch trigger (24). Allow the blade to reach maximum speed.

Press the release latch (35) and slowly lower the blade into and through the workpiece.

Release the switch trigger (24) and allow the saw blade to stop rotating before raising the blade out of the workpiece. Wait until the blade stops before removing the workpiece.

3 CROSS-CUTTING (WITH SLIDE ACTION)

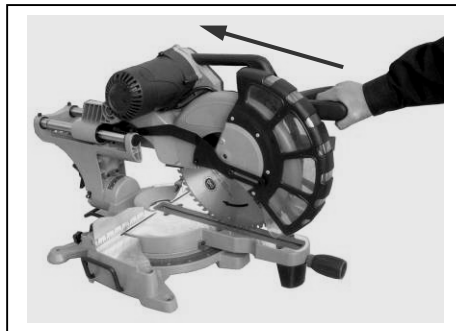
When cutting wide workpieces, first unscrew the slide lock (29).

Pull on the release knob (6), raise the saw arm (5) to its highest position and slide it towards you.

Hold the handle firmly and squeeze the switch trigger (24). Allow the blade to reach maximum speed.

Press the release latch (35) and slowly lower the blade into the workpiece and slide it away from you at the same time until the workpiece is cut.

Release the switch trigger (24) and allow the saw blade to stop rotating before raising the blade out of the workpiece. Wait until the blade stops before removing the workpiece.



4 BEVEL CUT

A bevel cut is made by cutting across the grain of the workpiece with the blade angled to the fence and mitre table. The mitre table is set at the zero degree position and the blade set at an angle between 0° and 45°.

Use the slide action when cutting wide workpieces.

Repeat Steps 29 and 30.

Loosen the bevel lock (16) and move the saw arm (5) to the left to the desired bevel angle (between 0° and 45°).

Tighten the bevel lock (16).

Repeat Steps 31 and 32.

5 COMPOUND MITRE CUT

A compound mitre cut involves using a mitre angle and a bevel angle at the same time.

It is used in making picture frames, to cut mouldings, making boxes with sloping sides and for roof framing. Always make a test cut on a piece of scrap wood before cutting into the good material.

Use the slide action when cutting wide workpieces.

VI - Maintenance and repair

DANGER.

- Never try to use a blade larger than the stated capacity of the saw. It might come into contact with the blade guards.
- Never use a blade that is too thick to allow the outer blade washer to engage with the flats on the spindle. It will prevent the blade screw from properly securing the blade on the spindle.
- Do not use the saw to cut metal or masonry.
- Ensure that any spacers and spindle rings that may be required suit the spindle and the blade fitted.
- Make sure that the electrical plug is removed from the power point.

1 CHANGING A BLADE

1) Push down on the operating handle (7) and pull the release knob (6) to disengage the saw arm (5). The release knob (6) can be turned so that it is held in the retracted position. Raise the saw arm (5) to its highest position.

2) Remove the hex screw that secures the blade bolt cover (14).

3) Pull the rotating blade guard (12) down then swing it up together with the blade bolt cover (14).

4) When the rotating blade guard (12) is positioned over the upper fixed blade guard (9) it is possible to access the blade bolt.

5) Hold the rotating guard (12) up and press the spindle lock button (26). Rotate the blade until the spindle locks.

6) Use wrench (19) to remove the blade bolt. (Loosen in a clockwise direction as the blade screw has a left hand thread).

7) Remove the outer blade washer and the blade.

Wipe a drop of oil onto the inner blade washer and the outer blade washer where they contact the blade.

Fit the new blade onto the spindle taking care that the inner blade washer sits behind the blade.

CAUTION. To ensure correct blade rotation, always install the blade with the blade teeth and the arrow printed on the side of the blade pointing down. The direction of blade rotation is also stamped with an arrow on the upper blade guard.

8) Replace the outer blade washer.

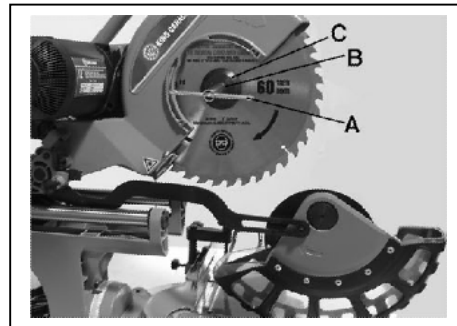
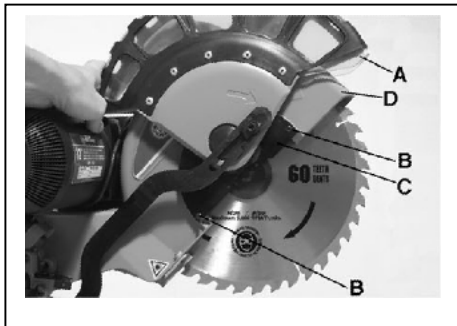
Depress the spindle lock button (26) and replace the blade bolt.

9) Use the blade wrench (19) to tighten the blade screw securely (anticlockwise).

Hold the rotating lower blade guard (12) and blade bolt cover (14) in position and tighten the fixing screw.

Check that the blade guard operates correctly and covers the blade as the saw arm is lowered.

Connect the saw to the power supply and run the blade to make certain that it is operating correctly.



2 MAINTENANCE

- Keep the tool's air vents unclogged and clean at all times.
- Regularly check to see if any dust or foreign matter has entered the grills near the motor and around the trigger switch. Use a soft brush to remove any accumulated dust. Wear safety glasses to protect your eyes whilst cleaning.
- Re-lubricate all moving parts at regular intervals.
- If the body of the tool needs cleaning, wipe it with a soft damp cloth. A mild detergent can be used but nothing like alcohol, petrol or other cleaning agent.
- Never use caustic agents to clean plastic parts.

CAUTION. Water must never come into contact with the tool.

3 GENERAL INSPECTION

Regularly check that all the fixing screws are tight, particularly the outer flange. They may vibrate loose over time. The supply cord of the tool and any extension cord used should be checked frequently for damage. If damaged, have the cordset replaced by an authorised service facility. Replace the extension cord if necessary.

4. LUBRICATION

The grease in the gearbox will require replacement after extensive use of the tool. Please refer to an authorised service agent to provide this service.