

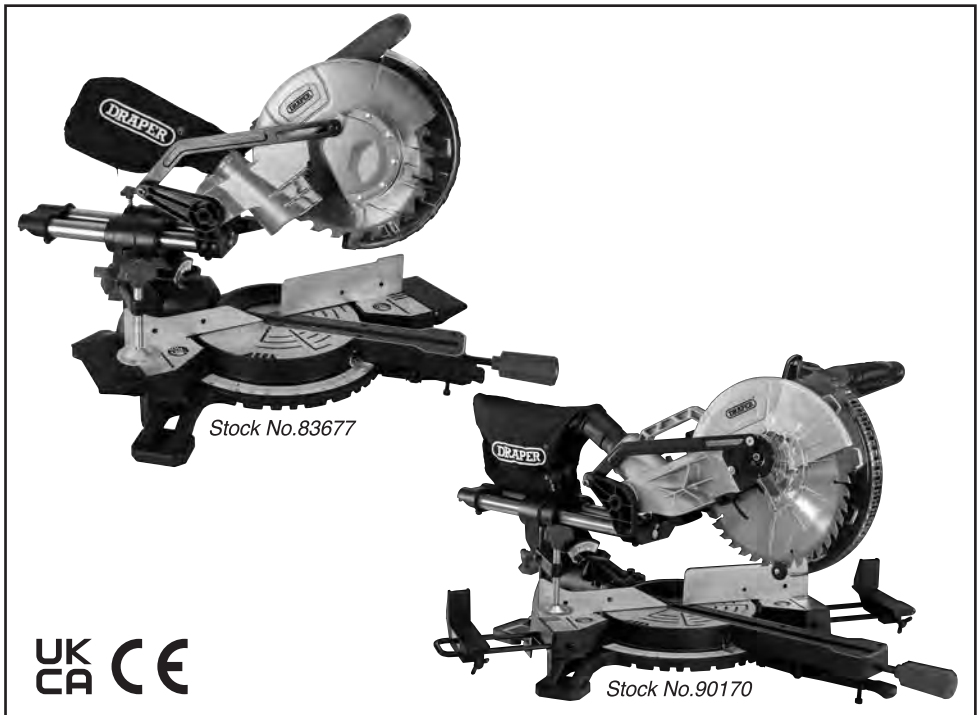


**DRAPER**<sup>®</sup>

230V 210/255mm

# SLIDING COMPOUND MITRE SAW

83677 & 90170



UK  
CA CE

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

# 1. TITLE PAGE

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## 1.1 INTRODUCTION:

**USER MANUAL FOR: 230V 210/255mm Sliding Compound Mitre Saw**

**Stock No's: 83677 & 90170**

**Part No: SMS210B & SMS250D1800**

## 1.2 REVISIONS:

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**Date first published February 2019.**

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**Date first revision June 2022.**

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As our user manuals are continually updated, users should make sure that they use the very latest version.

**Downloads are available from:** <http://drapertools.com/manuals>

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## 1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

**WARNING!** – Information that draws attention to the risk of injury or death.

**CAUTION!** – Information that draws attention to the risk of damage to the product or surroundings.

## 1.4 COPYRIGHT © NOTICE:

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## 3. WARRANTY

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### 3.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact

**Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England.**

**Telephone Sales Desk: (023) 8049 4333 or Product Help Line (023) 8049 4344.**

A proof of purchase **must** be provided with the tool.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. The warranty is extended to 24 months for parts only. This warranty does not apply to any consumable parts, any type of battery or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

**Note:** If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

Your Draper warranty is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the warranty period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

**Draper Tools Limited.**

# 4. INTRODUCTION

## 4.1 SCOPE

This machine is designed to cut wood; for example, timber frames and roof frames, etc.

As part of our core range, this product is suitable for enthusiasts and tradespeople alike. Any application other than that it was intended for, is considered misuse.

## 4.2 SPECIFICATION

Stock No .....	83677 .....	90170
Part No .....	SMS210B .....	SMS250D1800
Motor:		
Rated voltage .....	230V~ .....	230V~
Rated frequency .....	50Hz .....	50Hz
Rated input .....	1500W .....	1800W
Revolutions per minute (no load) .....	4500r/min .....	5000r/min
Blade diameter .....	210mm .....	255mm
Blade thickness .....	2.4mm .....	3.0mm
Bore diameter .....	30mm .....	30mm
Mitre table angles .....	0 – 45° left/right .....	0 – 45° left/right
Bevel cut .....	0 – 45° left .....	0 – 45° left
Cross cut:		
0 × 0°: .....	70 × 220mm .....	75 × 305mm
Mitre cut:		
45 × 0° (left and right): .....	70 × 155mm .....	75 × 210mm
Bevel cut:		
0 × 45° (left only): .....	35 × 220mm .....	38 × 305mm
Compound mitre cut:		
45° × 45° (left only): .....	35 × 155mm .....	38 × 210mm
Laser guide:		
Classification .....	Class 2 .....	Class 2
Certification .....	EN62841 .....	EN62841
Output power .....	<1mW .....	<1mW
Wavelength .....	650nm .....	650nm
Sound pressure level (LpA)*: .....	93.6dB(A) .....	94.3dB(A)
Sound power level (LWA)**: .....	106.6dB(A) .....	107.3dB(A)
Uncertainty (K): .....	3dB(A) .....	3dB(A)
Weight (nett) .....	10.5kg .....	14kg

\* *Continuous A-Weighted Sound Pressure Level at the workstation in accordance to and declared according to EN62841.*

\*\* *The typical A-weighted noise level determined according to EN62841.*

## 4.3 HANDLING AND STORAGE

- Care must be taken when handling this product.
  - Dropping this power tool could have an effect on its accuracy and could also result in personal injury. This product is not a toy and must be respected.
- Environmental conditions can have a detrimental effect on this product if neglected.
  - Exposure to damp air can gradually corrode components.
  - If the product is unprotected from dust and debris, components will become clogged.
  - If not cleaned and maintained correctly or regularly, the machine will not perform at its best.

## 5. HEALTH AND SAFETY INFORMATION

---

### 5.1 GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE

When using any type of power tool there are steps that should be taken to make sure that you, as the user, remain safe.

Common sense and a respect for the tool will help reduce the risk of injury.

**Read the instruction manual fully.** Do not attempt any operation until you have read and understood this manual.

Most important you must know how to safely start and stop this machine, especially in an emergency.

**Keep the work area tidy and clean.** Attempting to clear clutter from around the machine during use will reduce your concentration. Mess on the floor creates a trip hazard. Any liquid spilt on the floor could result in you slipping.

**Find a suitable location.** If the machine is bench mounted, the location should provide good natural light or artificial lighting as a replacement. Avoid damp and dust locations as it will have a negative effect on the machine's performance. If the machine is portable do not expose the tool to rain. In all cases do not operate power tools near any flammable materials.

**Keep bystanders away.** Children, onlookers and passers by must be restricted from entering the work area for their own protection. The barrier must extend a suitable distance from the tool user.

**Unplug and house all power tools that are not in use.** A power tool should never be left unattended while connected to the power supply. They must be housed in a suitable location, away locked up and from children. This includes battery chargers.

**Do not overload or misuse the tool.** All tools are designed for a purpose and are limited to what they are capable of doing. Do not attempt to use a power tool (or adapt it in any way) for an application it is not designed for. Select a tool appropriate for the size of the job. Overloading a tool will result in tool failure and user injury. This covers the use of accessories.

**Dress properly.** Loose clothing, long hair and jewellery are all dangerous because they can become entangled in moving machinery. This can also result in parts of body being pulled into the machine. Clothing should be close fitted, with any long hair tied back and jewellery and neck ties removed. Footwear must be fully enclosed and have a non-slip sole.

**Wear personal protective equipment (PPE).** Dust, noise, vibration and swarf can all be dangerous if not suitably protected against. If the work involving the power tool creates dust or fumes wear a dust mask. Vibration to the hand, caused by operating some tools for longer periods must be protected against. Wear vibration reducing gloves and allow long breaks between uses. Protect against dust and swarf by wearing approved safety goggles or a face shield. These are some of the more common hazards and preventions, however, always find out what hazards are associated with the machine/work process and wear the most suitable protective equipment available.

**Do not breathe contaminated air.** If the work creates dust or fumes connect the machine (if possible) to an extraction system either locally or remotely. Working outdoors can also help if possible.

**Move the machine as instructed.** If the machine is hand held, do not carry it by the power supply cable. If the product is heavy, employ a second or third person to help move it safely or use a mechanical device. Always refer to the instructions for the correct method.

**Do not overreach.** Extending your body too far can result in a loss of balance and you falling. This could be from a height or onto a machine and will result in injury.

**Maintain your tools correctly.** A well maintained tool will do the job safely. Replace any damaged or missing parts immediately with original parts from the manufacturer. As applicable, keep blades sharp, moving parts clean, oiled or greased, handles clean, and emergency devices working.

**Wait for the machine to stop.** Unless the machine is fitted with a safety brake, some parts may continue to move due to momentum. Wait for all parts to stop, then unplug it from the power supply before making any adjustments, carrying out maintenance operations or just finishing using the tool.

## 5. HEALTH AND SAFETY INFORMATION

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**Remove and check setting tools.** Some machinery requires the use of additional tools or keys to set, load or adjust the power tool. Before starting the power tool always check to make certain they have been removed and are safely away from the machine.

**Prevent unintentional starting.** Before plugging any machine in to the power supply, make sure the switch is in the OFF position. If the machine is portable, do not hold the machine near the switch and take care when putting the machine down, that nothing can operate the switch.

**Carefully select an extension lead.** Some machines are not suitable for use with extension leads. If the tool is designed for use outdoors, use an extension lead also suitable for that environment. When using an extended lead, select one capable of handling the current (amps) drawn by the machine in use. Fully extend the lead regardless of the distance between the power supply and the tool. Excess current (amps) and a coiled extension lead will both cause the cable to heat up and can result in fire.

**Concentrate and stay alert.** Distractions are likely to cause an accident. Never operate a power tool if you are under the influence of drugs (prescription or otherwise), including alcohol or if you are feeling tired. Being disorientated will result in an accident.

**Have this tool repaired by a qualified person.** This tool is designed to conform to the relevant international and local standards and as such should be maintained and repaired by someone qualified, using only original parts supplied by the manufacturer. This will ensure the tool remains safe to use.

### 5.2 SAFETY INSTRUCTIONS FOR MITRE SAWS

**Mitre saws are intended to cut wood or wood-like products. They cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.

**Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 100 mm from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.

**The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut “freehand” in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.

**Push the saw through the workpiece. Do not pull the saw through the workpiece. To make a cut, raise the saw head and pull it out over the workpiece without cutting, start the motor, press the saw head down and push the saw through the workpiece.** Cutting on the pull stroke is likely to cause the saw blade to climb on top of the workpiece and violently throw the blade assembly towards the operator.

**Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece “cross handed” i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.

**Do not reach behind the fence with either hand closer than 100 mm from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.

**Inspect your workpiece before cutting. If the workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of the cut.** Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting. There should be no nails or foreign objects in the workpiece.



## 5. HEALTH AND SAFETY INFORMATION

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**Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.

**Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.

**Ensure the mitre saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the mitre saw becoming unstable.

**Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and will not interfere with the blade or the guarding system.** Without turning the tool “ON” and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.

**Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the mitre saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.

**Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.

**The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.

**Always use a clamp or a fixture designed to properly support round material such as rods or tubing.** Rods have a tendency to roll while being cut, causing the blade to “bite” and pull the work with your hand into the blade.

**Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.

**If the workpiece or blade becomes jammed, turn the mitre saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack; then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the mitre saw.

**After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.

**If the machine is equipped with a brake.** Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position. The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.

### 5.3 ADDITIONAL SAFETY INSTRUCTIONS FOR CIRCULAR SAW BLADES

**Maximum speed.** The maximum speed marked on the tool shall not be exceeded. Where stated, the speed range shall be adhered to.

**Use of loose rings or bushes to “make up” bore sizes on circular saw blades shall not be permitted.**

## 5. HEALTH AND SAFETY INFORMATION

### 5.4 ADDITIONAL SAFETY INSTRUCTIONS FOR LASER PRODUCTS

The laser used in this product is a Class 2 laser with a maximum power of <math><5\text{mW}</math> and a wavelength of 630 – 650nm.

**Warning!** Avoid direct eye contact with the laser. The laser should not normally present an optical hazard, however, there is a risk of flash blindness when staring directly at the beam.

Please observe the following safety rules:

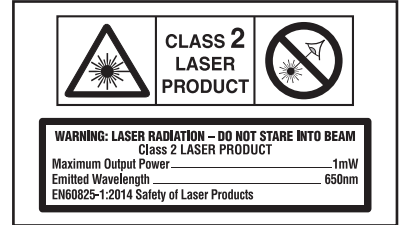
- The laser must be operated and maintained in accordance to the manufacturer's guidelines and instructions.
- **NEVER** switch the laser guide on until the tool is in the correct cutting position.
- **NEVER** aim the beam into the eyes of any person, animal, or any other object other than the workpiece.
- Always ensure the laser is aimed at suitable workpiece that has non-reflective surfaces, such as wood or other similar rough-coated surfaces. Reflective metallic surfaces such as sheet steel, or similar, are not suitable as the laser beam guide could be reflected back at the operator.
- **DO NOT** modify or adjust the laser light assembly. Repairs must only be carried out by the manufacturer or an authorised agent. **DO NOT** fit a different type of laser to the product.

**Warning!** Use of controls, adjustments or performance of procedures other than those specified herein could result in hazardous radiation exposure.

Please refer to the relevant EN standards; EN60825-1:2014 for more information on lasers.

### 5.5 RESIDUAL RISK

**Important note:** Although the safety instructions and operating manuals for our tools contain extensive instructions of safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!



## 5. HEALTH AND SAFETY INFORMATION

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### 5.6 CONNECTION TO THE POWER SUPPLY

**Caution:** Risk of electric shock. Do not open.

This appliance is supplied with a moulded 3 pin mains plug for your safety. The value of the fuse fitted is marked on the pin face of the plug. Should the fuse need replacing, ensure the substitute is of the correct rating, approved to BS1362 and ASTA or BSI Kite marked.

ASTA 

BSI 


The fuse cover is removable with a small plain slot screwdriver. Ensure the fuse cover is replaced before attempting to connect the plug to an electrical outlet. If the cover is missing, a replacement must be obtained or the plug replaced with a suitable type.

If a replacement plug is to be fitted this must be carried out by a qualified electrician.

The damaged or incomplete plug, when cut from the cable should be disabled to prevent connection to a live electrical outlet.

This appliance is Class II<sup>†</sup> and is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

If an extension lead is required, use an approved and compatible lead rated for this appliance. Follow all the instructions supplied with the extension lead.

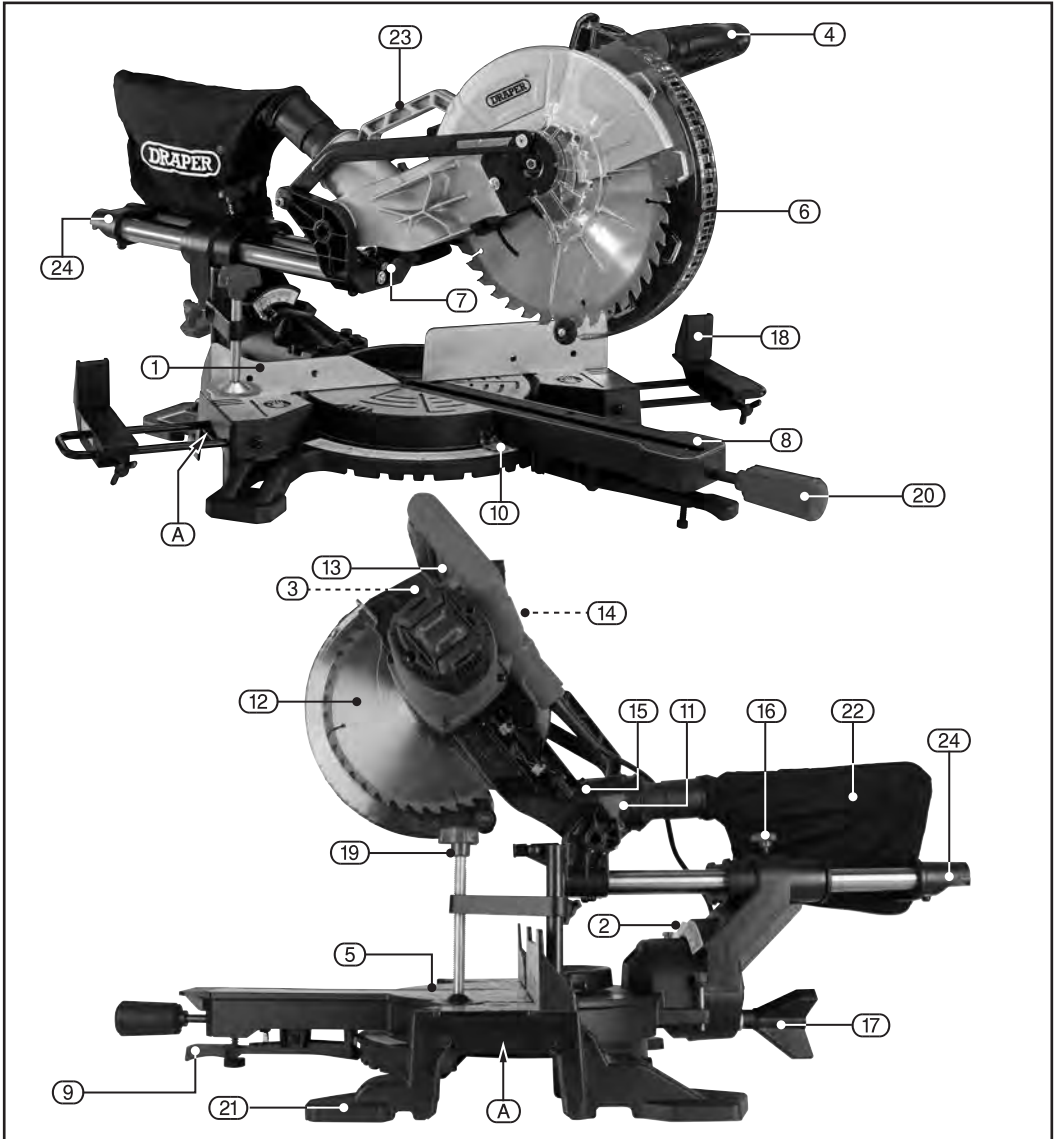
<sup>†</sup>*Double insulated* : *This product requires no earth connection as supplementary insulation is applied to the basic insulation to protect against electric shock in the event of failure of the basic insulation.*

#### **IMPORTANT**

**If using an extension lead, follow the instructions that came with your lead regarding maximum load while cable is wound. If in doubt, ensure that the entire cable is unwound. Using a coiled extension lead will generate heat which could melt the lead and cause a fire.**

# 6. TECHNICAL DESCRIPTION

## 6.1 IDENTIFICATION



- |                        |   |  |
|------------------------|---|--|
| ① Fence.               | ⑪ Saw head locking pin.                             | ⑲ Workpiece vice.  |
| ② Bevel pointer.       | ⑫ Blade.  | ⑳ Mitre locking handle.                                      |
| ③ Spindle lock button. | ⑬ On/Off trigger.                                   | ㉑ Work bench mounting points.                                |
| ④ Plunge handle.       | ⑭ Laser On/Off switch.                              | ㉒ Dust extraction bag.                                       |
| ⑤ Table.               | ⑮ Adjustable depth stop.                            | ⑳ Top carry handle<br>(Stock No.90170 only).                 |
| ⑥ Lower blade guard.   | ⑯ Slide lock.                                       | ㉔ Rear carry handle.<br>(Stock No.90170 only).               |
| ⑦ Laser guide.         | ⑰ Bevel locking knob.                               | Ⓐ Machine lifting/carrying points.<br>(Stock No.83677 only). |
| ⑧ Table insert.        | ⑱ Extending support wings<br>(Stock No.90170 only). |  |
| ⑨ Mitre latch.         |   |  |
| ⑩ Mitre pointer.       |   |  |

## 7. UNPACKING AND CHECKING

### 7.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing, please contact the Draper Help Line (the telephone number appears on the Title page) and do not attempt to use the product.

The packaging material should be retained at least during the guarantee period, in case the machine needs to be returned for repair.

**Warning!** Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly, according to local regulations.

### 7.2 WHAT'S IN THE BOX

As well as the sliding compound mitre saw, there are several parts not fitted or attached to it.



- (17) Bevel locking knob
- (18) Extending support wings (Stock No.90170).
- (19) Workpiece vice.
- (20) Mitre locking handle.
- (22) Dust extraction bag (Stock No.83677).
- (25) Dust extraction bag (Stock No.90170).
- (26) Extension plates (Stock No.83677).

## 8. PREPARING THE COMPOUND MITRE SAW

**Note:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

### 8.1 TRANSPORTATION

Always transport the mitre saw with the sliding mechanism locked and the saw head locked down.

**Note:** Do not lift the saw by the guard or plunge handle.

**Stock No.83677:** The saw can be lifted and carried using the handling points located at the outer castings of the machine base.

- Section 6.1 Identification, on page 12 indicates the two handling points, marked (A).

**Stock No.90170:** The saw can be lifted and carried using the rear carry handle (24) together with the top carry handle (23).

### 8.2 BENCH MOUNTING – FIG.1

**Note:** For safe working practice the saw must be mounted on a secure level surface.

- Using the 4 workbench mounting points in the base (22) and 4 suitable bolts (not supplied), secure the saw to the workbench.
- Avoid mounting the saw where large workpieces will be difficult to manoeuvre or support.

### 8.3 MITRE HANDLE – FIG.2

- Attach the mitre handle (20) by screwing it into position. When tight, this handle stops the table from rotating.

**Note:** Before making any cuts, make sure the handle is tightened preventing any movement.

### 8.4 MOUNTING THE EXTENSION PLATES (Stock No.83677) – FIG.3

- Mount the extension plates (26) to each end of the base using the four screws (26.1) supplied.

### 8.5 EXTENDING WORKPIECE SUPPORT WINGS (Stock No.90170) – FIG.4

- Locate the extension wings (18) through the mounting holes in each side of the base.
- Push them in completely and lock them in place with the grub screws. Ensure the screws are tight.

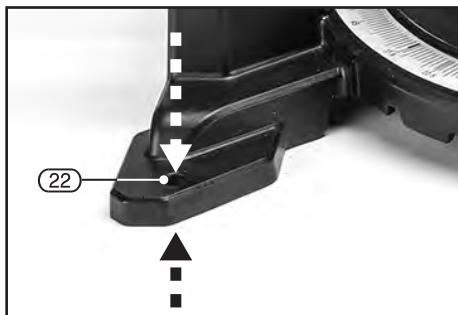


FIG.1



FIG.2

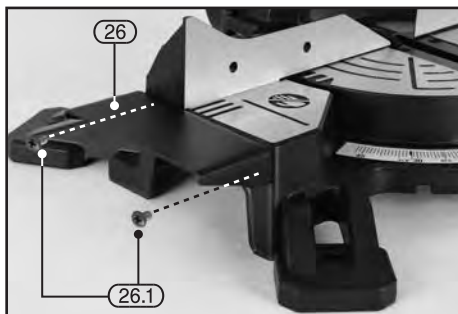


FIG.3

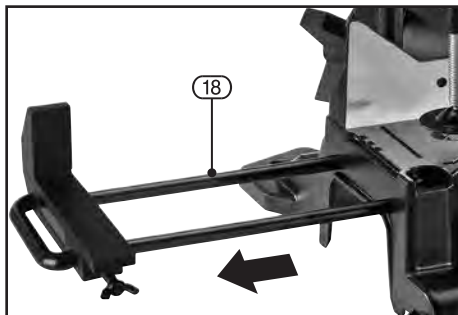


FIG.4



## 8. PREPARING THE COMPOUND MITRE SAW

### 8.6 WORKPIECE VICE – FIG.5

- The workpiece vice (19) can be attached either side of the table on the rear fence.
- Insert the rod on the appropriate side of the cutting head and secure by tightening locking screw (19.3).
- To set the correct height use locking knob (19.2). Turn knob (19.1) to make the fine height adjustments.

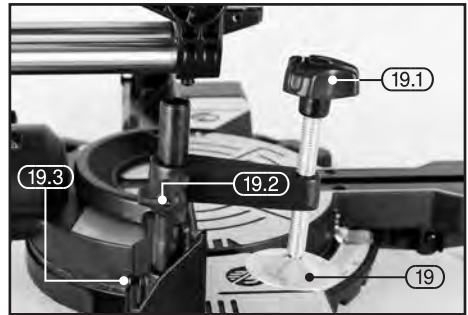


FIG.5

### 8.7 SAW HEAD LOCKING PIN – FIG.6

The saw head is locked in the down position for transport purposes and should be returned to this position when not in use.

- To release the saw head slightly press down on the saw head before pulling out the locking pin (11).

**Note:** The pin does not detach from the saw.

- The saw head can now be raised up fully. Only carry the saw with the head locked in the down position.

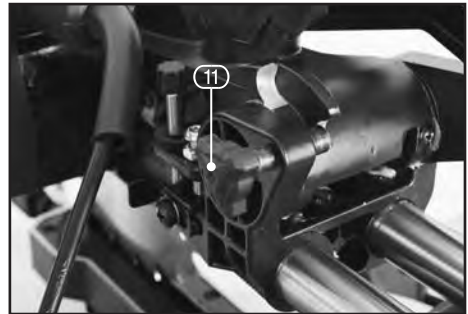


FIG.6

### 8.8 MITRE LOCKING ASSEMBLY – FIG.7

- It is possible to set the mitre angle from 0° to 45° on both the left and right side with quick stops (10.1) set at 0°, 15°, 22.5°, 31.6° and 45°.
- Operate the mitre latch (9) and with the locking knob (21) loose rotate the table.
- If the mitre latch (9) is released while the table is rotated it will automatically engage in the next quick stop position. To avoid this keep the mitre latch (9) pressed while rotating the table.
- When the desired angle is set, tighten locking knob (21) to secure.

**Note:** Never make any cuts until the locking knob (21) is fully tightened.

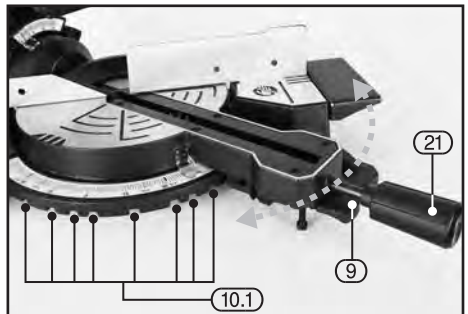


FIG.7

### 8.9 DUST EXTRACTION – FIGS.8 – 9

Both models of machine feature dust extraction capabilities and are supplied with dust extraction cloth bags.

**Stock No.83677 (Fig.8):**

- Pinch the spring clip (22.1) open and slide bag (22) onto extraction port, release clip slowly.

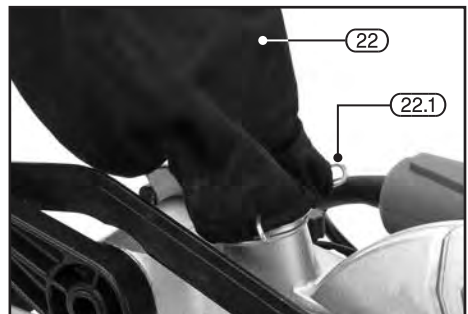


FIG.8

## 8. PREPARING THE COMPOUND MITRE SAW

### Stock No.90170 (Fig.9):

- Slot the bag assembly (25) over the dust extraction outlet (25.1).
- Twist to secure in place.
- Empty the dust bag regularly or when full.
- When cutting large pieces of material or cutting for a longer period, exchange the dust bag with a dust extractor to allow more efficient removal of harmful airborne dust particles.
- It may be necessary to source an appropriate adaptor to adjust the dust outlet size to suit the vacuum hose.

**Note:** A dust mask must be worn for any cutting operations.

### 8.10 DEPTH OF CUT STOP – FIG.10

- In its normal position, the depth of cut stop (15.2) permits the saw blade to cut right through a workpiece.
- When the saw arm is lifted, the depth of cut stop (15.2) can be pulled out so that the depth adjustment screw (15) contacts the stop as the saw arm is lowered.
- This restricts the cut to an adjusted depth in the workpiece. The depth of cut can be adjusted with the adjustment screw (15) and locked in position with lock nut (15.1).

### 8.11 BEVEL ADJUSTMENT – FIG.11

It is possible to set the bevel angle from 0° to 45°.

- Loosen lock (17) and adjust the bevel angle as indicated by the bevel pointer (2) on the bevel scale (2.1). Tighten locking knob (17) to secure.

### 8.12 CHECKING THE TABLE TO BLADE ALIGNMENT – FIGS.12 – 13

**Note:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

- Lower and lock the saw head. Set the mitre and bevel angles to zero and lock.
- Place a small engineers square flat against the table and the blade making sure that the square contacts the flat side of the blade and not the teeth.

**Note:** The saw head may need to be unlocked and raised up slightly to accommodate the square.

- The edge of the square should be parallel to the side of the blade. If any adjustment is required loosen the bevel locking knob.



FIG.9

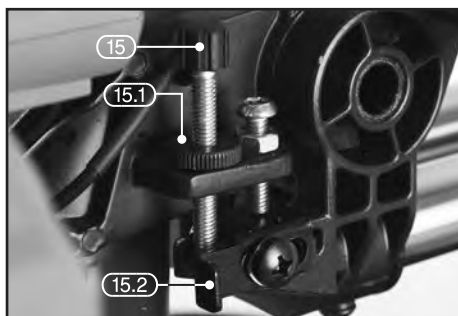


FIG.10

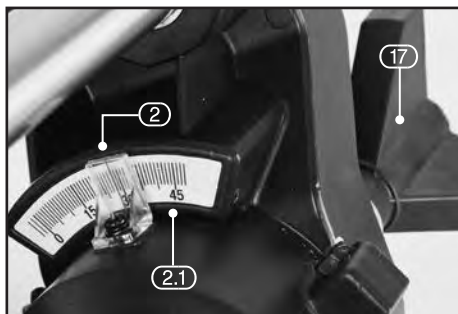


FIG.11



FIG.12



## 8. PREPARING THE COMPOUND MITRE SAW

- Adjust the 90° stop by turning grub screw (2.1) which is slightly recessed in the housing. Move the screw anti-clockwise to angle the blade away from the square and clockwise to angle toward the square.
- If required move the pointer to correct. It is possible to check the 45° bevel end stop (2.2) using an engineers protractor in place of the square. If necessary adjust the 45° stop by turning grub screw.

### 8.13 CHECKING THE FENCE TO BLADE ALIGNMENT – FIG.14

**Note:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

- Lower and lock the saw head. Set the mitre and bevel angles to zero and lock.
- Place a small engineers square flat against the fence and the blade making sure that the square contacts the flat side of the blade and not the teeth.
- The edge of the square should be parallel to the blade. If any adjustment is required loosen the hex. socket bolts at the rear of the fence.
- Position the fence against the square and re-tighten.

### 8.14 SLIDING LOCK – FIG.15

For most operations the sliding feature will be required to allow full capacity cutting, however it is possible to lock the sliding bars by tightening locking knob (16).

### 8.15 LASER GUIDE – FIGS.16 – 17

**Warning! DO NOT stare into beam. Class 2 Laser product.**

- Mark the line of the cut on the workpiece.
- Adjust the mitre and/or bevel angles of the cut as required before clamping the workpiece in position using the vertical vice.
- *Continued overleaf.*



FIG.13



FIG.14

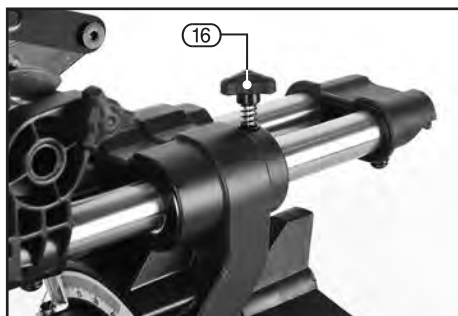


FIG.15

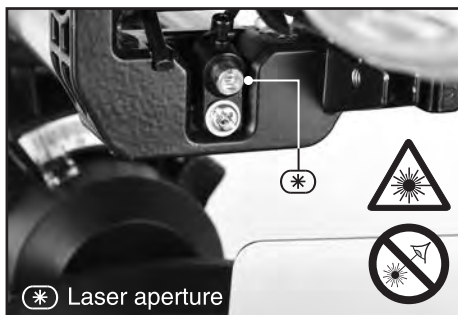


FIG.16

## 8. PREPARING THE COMPOUND MITRE SAW

- Turn on the laser guide system by operating the switch (14) and align the line of the cut on the workpiece with the laser guide beam.
- When the blade is at its maximum speed (approx. 2 sec.) lower the blade through the workpiece.
- Switch off the laser guide system on completion of the cut (after the blade has stopped rotating).

**Note:** The laser is set to the centre of the blade, so an allowance will need to be made for the width of the saw tips. Make a test cut first on a piece of scrap wood.

### 8.16 BLADE REPLACEMENT

#### – FIGS.18 – 20

**Note:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

- With the saw head in the raised position, swing the lower blade guard assembly clear of the blade fixing.
- Press the spindle lock button (3) and with the hex. key loosen and remove the blade securing bolt (clockwise to loosen as the bolt has a left-hand thread).
- Remove the clamping flange, taking note of the correct orientation for re-assembly and remove the blade.
- Ensure the specification of the replacement blade conforms with the machine (i.e. outer diameter, width, RPM and type, e.g. woodcutting etc).
- Before fitting the new blade wipe a drop of oil on the inner and outer flanges where the arbor locates.
- Re-assemble the flanges and blade and secure.

**Note:** Install the blade with the direction of rotation arrow matching the direction of rotation arrow on the blade guard. The teeth face downward at the front of the saw.

**Note:** This saw is not designed to cut metal or masonry.

**Warning!** For your own safety, read and understand all safety instructions and operating procedures throughout the manual before using this machine.

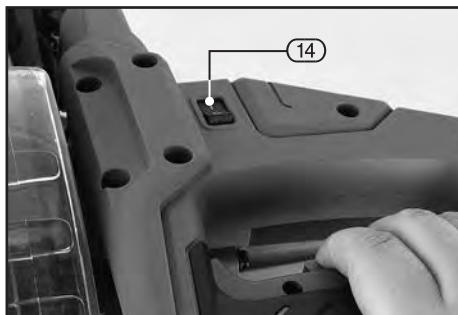


FIG.17



FIG.18

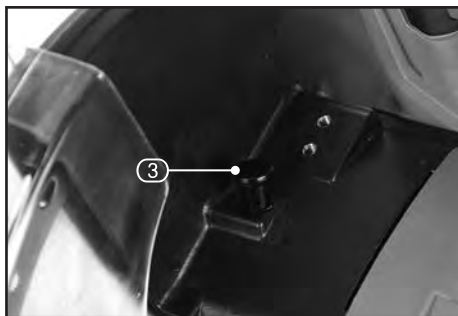


FIG.19



FIG.20

## 9. BASIC COMPOUND MITRE SAW OPERATIONS

### 9.1 STARTING THE MITRE SAW – FIG.21

The mitre saw is fitted with a safety switch to prevent accidental starting. To start the mitre saw:

- Move the lever (13.1) in the centre of the trigger (13) to the left, then depress the trigger.
- To stop the mitre saw, release the trigger.

### 9.2 BODY AND HAND POSITION – FIG.22

Proper positioning of your body and hands when operating the mitre saw will make cutting easier and safer.

- Never place hands near cutting area. Place hand at least 4" from path of blade. Hold workpiece firmly to the fence to prevent movement towards the blade.
- Keep hands in position until trigger has been released and the blade has completely stopped. Before making a cut, make a "dry run" with the power off so you can see the path of the blade.

**Warning!** Do not try to cut short pieces, you cannot properly support the workpiece and hold down the workpiece by hand and keep your hand the required distance from the blade.

### 9.3 MITRE CUT – FIG.23

When a mitre cut is required, move the saw to the desired angle. Do not stand in front of the saw table. Move with the handle to the mitre angle to make the cut.

### 9.4 BEVEL CUT – FIG.24

When a bevel cut is required, tilt the blade to the desired bevel angle. Stand to the left side of the handle to make the cut.

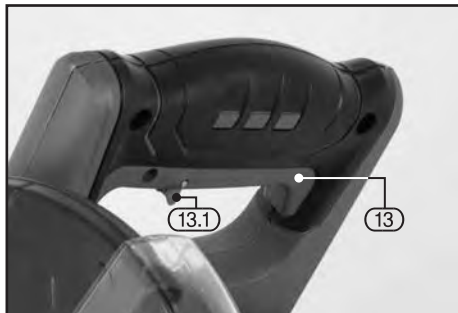


FIG.21



FIG.22



FIG.23



FIG.24

## 9. BASIC COMPOUND MITRE SAW OPERATIONS

### 9.5 COMPOUND CUT – FIG.25

When a compound cut is required, select the correct bevel and mitre position. Move with the handle to the mitre angle to make the cut.

### 9.6 CUTTING CURVED OR WARPED MATERIAL – FIGS.26 – 27

Before cutting a workpiece, check to make sure it is flat. If it is curved or warped, the workpiece must be positioned and cut as illustrated.

- Do not position workpiece incorrectly or try to cut the workpiece without the support of the fence. This will cause pinching of the workpiece on the blade.
- The workpiece could suddenly jump or move and your hand could hit the blade.

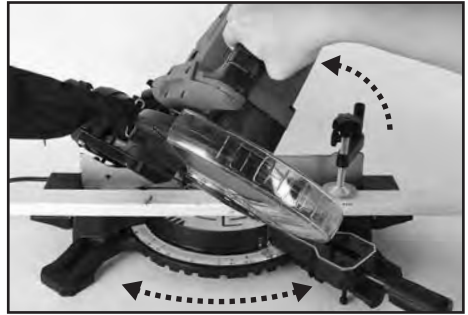


FIG.25

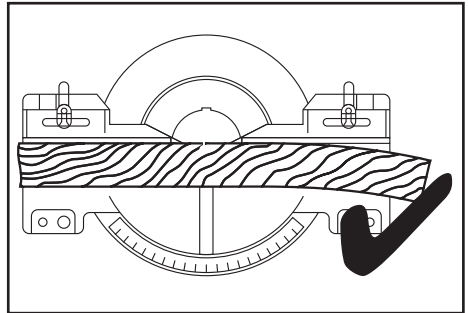


FIG.26

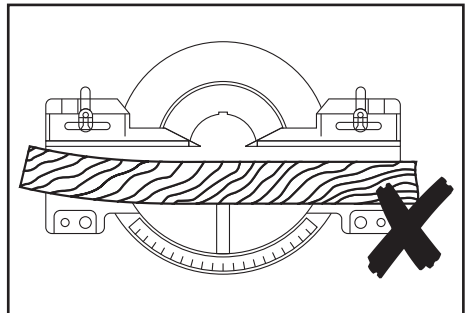


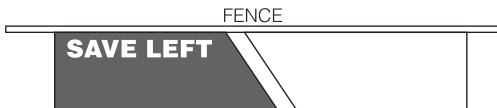
FIG.27

# 9. BASIC COMPOUND MITRE SAW OPERATIONS

## 9.7 CUTTING CROWN MOULDINGS

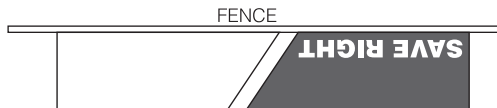
### To cut an inside corner:

- Cut the left side by aligning the **top of the moulding against the fence.**
- Set the bevel to 33.9°
- Set the mitre to 31.6° to the **right hand side.**
- Make the cut and **save the piece to the left of the cut line.**



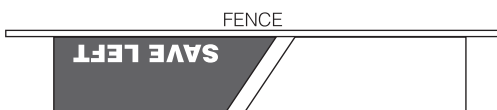
### To cut an outside corner:

- Cut the left side by aligning the **bottom of the moulding against the fence.**
- Set the bevel to 33.9°
- Set the mitre to 31.6° to the **left hand side.**
- Make the cut and **save the piece to the right of the cut line.**



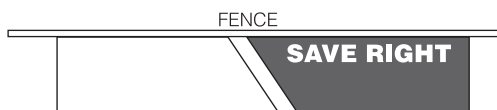
### To cut the right side:

- Align the **bottom of the moulding against the fence.**
- Set the bevel to 33.9°
- Set the mitre to 31.6° to the **left hand side.**
- Make your cut and again **save the piece to the left of the cut line.**



### To cut the left side:

- Align the **top of the moulding against the fence.**
- Set the bevel to 33.9°
- Set the mitre to 31.6° to the **right hand side.**
- Make your cut and again **save the piece to the right of the cut line.**



## 9.8 EXTENDING WORKPIECE SUPPORT WINGS (Stock No.90170)

### – FIG.28

Long workpieces need extra support during cutting.

#### Stock No.83677

- Extra support must be placed under the workpiece so the workpiece does not sag and the hand holding the workpiece is positioned 4" or more from the blade path.
- The support must let the workpiece lay flat on the machine table and be worktable during the cutting operation.

#### Stock No.90170

- This model is supplied with extending workpiece support wings (18) for the above purpose.

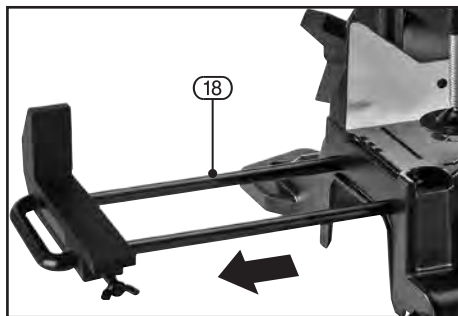


FIG.28

# 10. MAINTENANCE AND TROUBLESHOOTING

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tool in good working condition.

The motor must be correctly ventilated during tool operation. For this reason avoid blocking the air inlets. After use disconnect the tool from the power supply and vacuum the ventilation slots.

If the replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.

Always unplug the power cable before any maintenance check on this saw.

**Danger!** Never put lubricants on the blade whilst it is spinning.

**Warning!** To avoid injury from unexpected starting or electrical shock, unplug the power cable before working on the saw.

**Warning!** For your safety, this saw is double insulated. To avoid electrical shock, fire or injury, use only parts identical to those identified in the parts list, reassemble exactly as original assembly to avoid electrical hazards.

## 10.1 TABLE INSERT REPLACEMENT – FIG.29

If the table insert becomes worn or damaged it must be replaced. Remove the screws (8.1) securing the table insert (8). Ensure the replacement table insert is fitted before attempting to operate the saw.

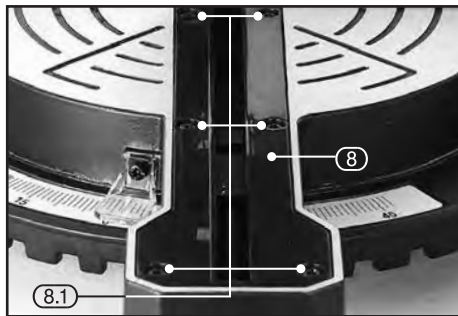


FIG.29

## 10.2 BLADE GUARD

Do not use the saw without the lower guard. The lower blade guard is attached to the saw for protection. Should the lower guard become damaged, do not use the saw until damaged guard has been replaced. Develop a regular check to make sure the lower guard is working properly. Clean the lower guard of any dust or build up with a damp cloth, with the power supply disconnected.

**Caution! DO NOT use solvents on the guard.** They could make the plastic 'cloudy' and brittle.

**Warning!** When cleaning lower guard, unplug the saw from the outlet to avoid unexpected start-up or electrical shock.

## 10.3 SAWDUST

Periodically, sawdust will accumulate under the worktable, base and around the switch mechanisms. This could cause difficulty in the movement of the worktable when setting up a mitre cut or switching operations. Frequently vacuum up the sawdust.

## 10.4 RECOMMENDED ACCESSORIES

**Warning!** To avoid injury from unsafe accessories, use only Draper accessories.

## 10.5 PROHIBITED ACCESSORIES

The use of any cutting tool except saw blades which meet the requirement under recommended accessories is prohibited. Do not use accessories such as shaper cutters or dado sets. Ferrous and non-ferrous metal cutting and the use of abrasive wheels are prohibited.

## 10.6 LUBRICATION

All the motor bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions, therefore, no further lubrication is required.

All the ball bearings are sealed and lubricated for life and will require no maintenance.



# 10. MAINTENANCE AND TROUBLESHOOTING

## 10.7 CLEANING

After use, wipe off chips and dust adhering to the tool with a cloth or the like. Keep the blade guard clean. Lubricate the sliding portions with machine oil to prevent rust.

To maintain product safety and reliability, repairs and, any other maintenance or adjustment should be performed by your nearest authorised service centre.

## 10.8 TROUBLESHOOTING GUIDE

**Note:** Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

<b>Problem</b>	<b>Possible Cause</b>	<b>Remedy</b>
Motor does not start.	<ol style="list-style-type: none"><li>1. Fuse.</li><li>2. Brushes worn.</li><li>3. Other.</li></ol>	<ol style="list-style-type: none"><li>1. Replace/reset time delay fuse or circuit breaker.</li><li>2. Have brushes replaced by an authorised service agent.</li><li>3. Contact an authorised service agent.</li></ol>
Sliding action stiff or binding.	<ol style="list-style-type: none"><li>1. Slide lock engaged.</li><li>2. Build up of sawdust.</li></ol>	<ol style="list-style-type: none"><li>1. Loosen slide lock.</li><li>2. Vacuum up sawdust and lubricate mechanism.</li></ol>
Poor cutting performance.	<ol style="list-style-type: none"><li>1. Saw blade blunt.</li><li>2. Saw blade incorrectly mounted.</li><li>3. Incorrect saw blade selection.</li></ol>	<ol style="list-style-type: none"><li>1. Stop machine immediately. Replace saw blade.</li><li>2. Stop machine immediately. Remove and refit saw blade as per instructions.</li><li>3. Seek advice on suitable saw blades.</li></ol>
Saw vibrates.	<ol style="list-style-type: none"><li>1. Saw blade distorted.</li><li>2. Saw blade incorrectly mounted.</li></ol>	<ol style="list-style-type: none"><li>1. Stop machine immediately and replace blade.</li><li>2. Stop machine immediately. Remove and refit saw blade as per instructions.</li></ol>
Mitre position difficult to move.	Build up of sawdust under table.	Vacuum up sawdust.

# 11. OPTIONAL ACCESSORIES

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## 11.1 OPTIONAL ACCESSORIES

A full range of accessories are available from Draper Tools.

Please visit our website for details: [www.drapertools.com](http://www.drapertools.com)



## 12. DISPOSAL

---

### 12.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not dispose of WEEE\* as unsorted municipal waste.



\* *Waste Electrical & Electronic Equipment.*

# 13. EXPLANATION OF SYMBOLS

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## 13.1 EXPLANATION OF SYMBOLS



Read the instruction manual.



Wear face mask and safety glasses.



Wear ear defenders.



Wear protective gloves.



Do not abandon into the environment.



Keep out of the reach of children.



**Warning!**



Class II construction  
*(Double insulated).*



WEEE –  
Waste Electrical &  
Electronic Equipment.  
*Do not dispose of Waste Electrical  
& Electronic Equipment in with  
domestic rubbish.*



**Warning!**  
Class 2 laser product





## CONTACTS

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General Enquiries: (023) 8026 6355

Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the  
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