



DRAPER[®]

STORMFORCE

230V 5 SPEED

BENCH DRILL

38255



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

1.1 INTRODUCTION:

USER MANUAL FOR: 230V 5 Speed Bench Drill

Stock No: 38255

Part No: D13/5DA

1.2 REVISIONS:

Date first published March 2014.

Date of first revision: February 2020.

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.

Important – Information that draws attention to the risk of damage to the product or surroundings.

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3. WARRANTY

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: +44 (0) 8049 4333 or Product Help Line +44 (0) 23 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

Five speed bench drill with a 13mm chuck. Ideal suited for the DIY and hobby user.

Designed to drill into wood, plastics, ceramics and many metals (drill bits sold separately).

This product is intended for domestic and infrequent light trade use only. Any application other than that it was intended for, is considered misuse.

4.2 SPECIFICATION

Stock No	38255
Part No.	D13/5DA
Motor:	
Rated voltage	230V~50Hz
Rated input	350W
Speed settings	5
Revolutions per minute (no load)	580 – 2,650r/min
Chuck capacity	1.5mm – 13mm
Spindle travel	50mm
Throat	104mm
Column Ø	46mm
Chuck to table	0 – 165mm
Chuck to base	0 – 255mm
Table tilt	±45°
Head rotation	360°
Table rotation	360°
Table dimensions	162 × 162mm
Base dimensions	200 × 320mm
Height	580mm
Sound pressure level (LpA)*:	73dB(A)
Sound power level (LWA)**:	86dB(A)
Uncertainty (K):	3dB(A)
Weight (machine only)	16.5kg

* *Continuous A-Weighted Sound Pressure Level at the workstation in accordance to and declared according to EN60745.*

** *The typical A-weighted noise level determined according to EN60745.*

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

5. HEALTH AND SAFETY INFORMATION

before making any adjustments, carrying out maintenance operations or just finishing using the tool.

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 SPECIFIC SAFETY INSTRUCTIONS FOR DRILL PRESSES

Mechanical hazards:

- **Crushing:** When setting/changing a tool or maintaining the machine avoid crushing injuries sustained between fixed and moving elements of the machine.
- **Cutting or severing:** At all times the workpiece shall be clamped as manual support will lead to injury.
- **Entanglement:** Switch off the machine for maintenance, workpiece loading/unloading, swarf/chip removal, cutting/lubrication fluid application as contact with rotating spindle or tool will cause entanglement and possibly lead to injury and entrapment.
- **Impact:** Ensure the workpiece is securely clamped at all times to avoid sudden movement (rotation) or ejection causing injury. Ensure any special tools associated with tool exchange, i.e. chuck key are removed prior to attempting to start the machine.
- **Stabbing, cutting or puncture wounds:** Take care when handling the tools and avoid contact with swarf and burrs created during drilling as they are extremely sharp.

Electrical hazards:

- **Contact with live parts:** During commissioning, maintenance and trouble shooting operations do not remove, open or expose any electrical, terminal and control boxes due to the danger of electrocution. If the main cable is damaged, unplug the machine immediately and have the cable replaced before continuing.

Audible hazards:

- **Hearing Loss:** Wear ear defenders during operation to avoid damage to hearing, however ensure this does not interfere with speech communications or audible warnings.

Material hazards:

- **Contact and inhalation:** Wear personal protective equipment to avoid contact from harmful fluids, gases or dust thrown or created during the drilling process.
- **Fire or explosion:** Do not drill or drill in the vicinity of flammable or combustible materials.

5. HEALTH AND SAFETY INFORMATION

Location:

- **Posture:** Ensure when mounting the machine that the chosen location does not lead to unhealthy posture or repetitive strain during normal operation.
- **Lighting:** Adequate lighting must be provided to ensure no operations are light impaired possibly leading to injury.
- **Reach:** Do not reach over or around the machine at any time.

Unexpected start-up:

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

Errors of fitting:

- **Tools:** Ensure a suitable tool for the job in hand is securely and correctly fitted prior to starting the machine. Guards shall be fitted and in place at all times.

Stability:

- **Toppling:** The drill shall be securely bolted down to a suitable and level surface to prevent the machine from overturning leading to injury.
- **Slipping:** Ensure the area is clean of any residue cutting/lubrication fluid and other materials which may lead to a slip, trip or other such hazard.


5.3 RESIDUAL RISK

Important: 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!

5.4 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 BS Kite marked.

ASTA 

BSI 


Make sure the power supply information on the machine's rating plate are compatible with the power supply you intend to connect it to.

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 shall be disabled to prevent connection to a live electrical outlet.

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

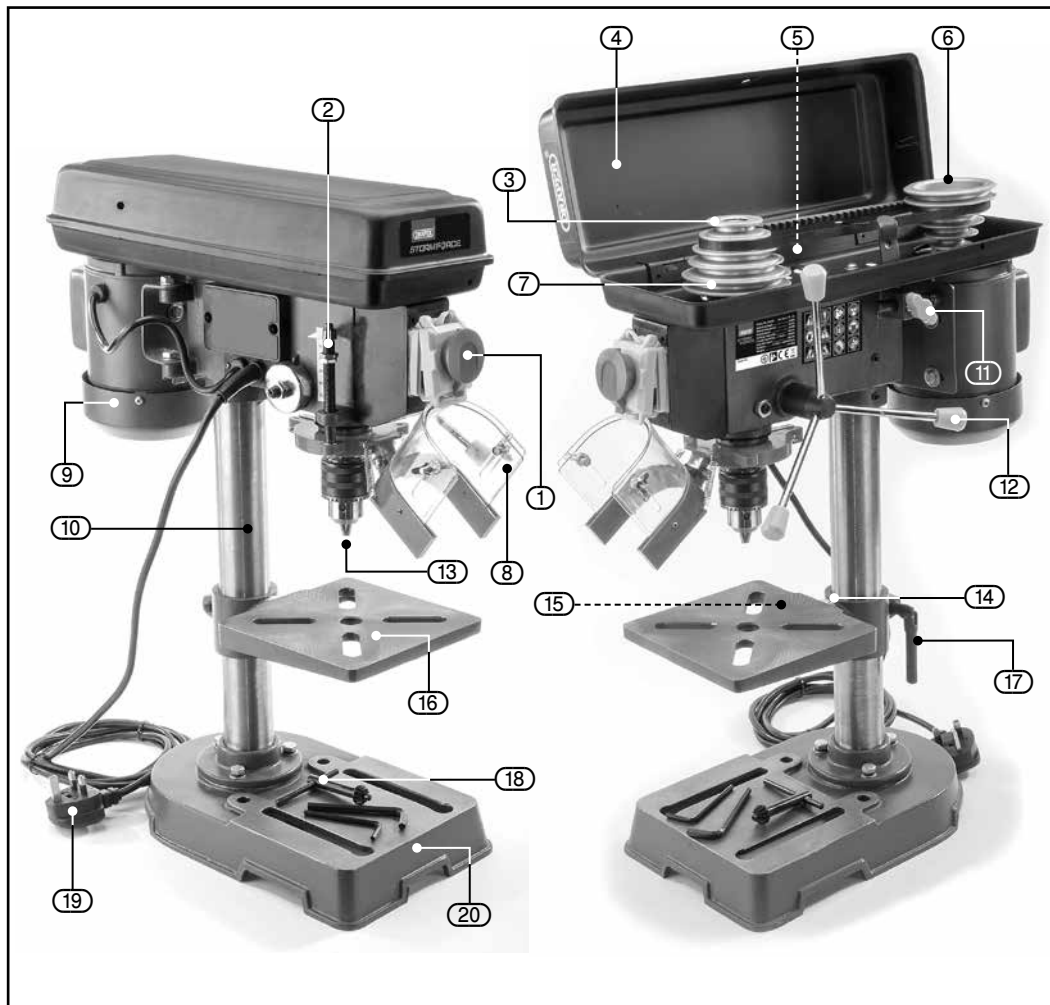
If an extension lead is required, use an approved and compatible lead rated for this appliance. Follow all the instruction supplied with the extension lead.

†Earthed:  This product requires an earth connection to protect against electric shock from accessible conductive parts in the event of a 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 No-volt on/off switch.

② Depth stop

③ Spindle

④ Pulley cover

⑤ Motor cut-out microswitch

⑥ Motor pulley

⑦ Spindle pulley

⑧ Guard

⑨ Motor

⑩ Column

⑪ Motor/belt tension adjuster

⑫ Plunge handle assembly

⑬ Geared chuck

⑭ Work table tilt scale

⑮ Work table tilt locking bolt

⑯ Work table

⑰ Work table height/rotation lock

⑱ Chuck key

⑲ Moulded plug & cable

⑳ Base

8. ASSEMBLING THE BENCH DRILL

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

8.1 BASE TO COLUMN – FIG. 1

Align the column (10) onto the base (20) and secure with the three 12mm bolts and washers (21).

Note: Do not over-tighten the bolts as this may crack the flange.

8.2 TABLE – FIG. 2

Pass the table bracket (16) over the column and secure the locking lever (17).

Note: Adjust the height to suit and position the table centrally over the base.

8.3 HEAD – FIG. 3

Lift the head (23) onto the top of the column. When aligned and located fully tighten grub screw with the hexagon key supplied.

Note: Adjust the drill head over the table and base before securing.

8.4 PLUNGE HANDLES – FIG. 4

Screw the three plunge handles (22) into the pinion shaft (12).

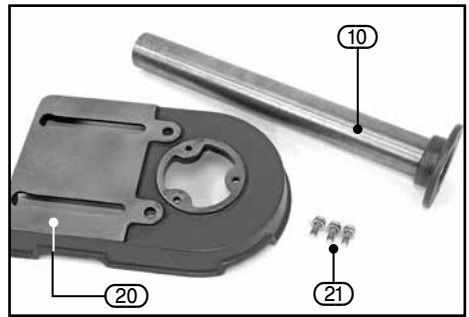


FIG.1

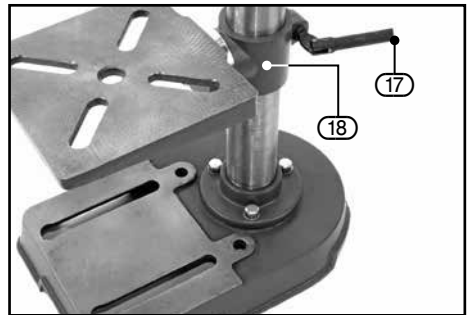


FIG.2



FIG.3

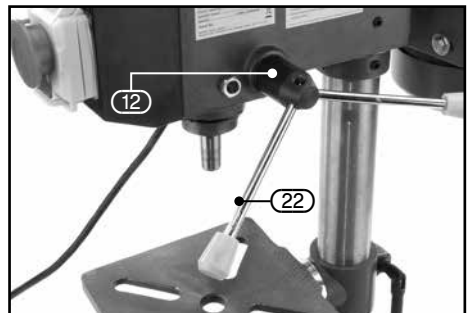


FIG.4

8. ASSEMBLING THE BENCH DRILL

8.5 CHUCK – FIG. 5

Ensure both mating surfaces of the spindle (13.1) and chuck (13) are clean before pushing the chuck (13) onto the taper. A sharp tap with a soft blow mallet will secure the chuck in place.

Note: Ensure the chuck jaws are fully recessed prior to striking with the mallet.

8.6 CHUCK GUARD – FIG. 6

Loosen the cross slot machine screw and nut. Pass the chuck guard assembly (26) over the chuck onto collar (13.1). When located fully and aligned on the collar, tighten the machine screw and nuts to secure the chuck guard in place.

Secure the fixings but do not over-tighten.

Note: The chuck guard shall be inspected before each use to determine effectiveness and correct functionality.

The chuck guard shall be adjusted and positioned between the chuck and operator for all processes.

Replace a damaged or missing chuck guard before continuing to use the drilling machine.

8.7 BENCH MOUNTING

Securely bolt the drilling machine to a work bench or other secure surface through the various points in the base (fixings are not supplied). Ensure there is enough clear space around the drilling machine to accommodate larger items which may be drilled.

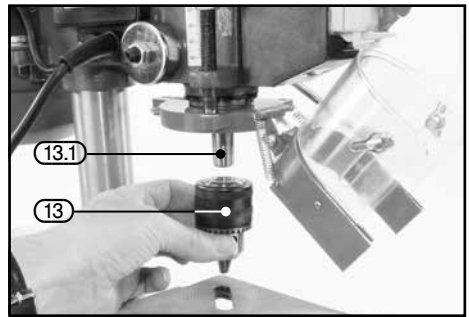


FIG.5

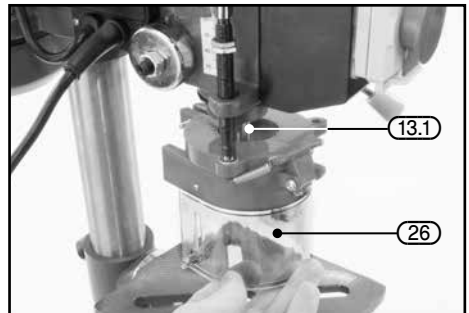


FIG.6

9. SETTING THE BENCH DRILL

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

9.1 SPINDLE SPEED ADJUSTMENT – FIGS. 7 – 8

This drilling machine is equipped with 5 drilling speeds.

- Remove the pulley cover securing screw (4.1).
- Select the speed most suitable for the intended application†.
- Drilling wood too slowly can cause splintering.
- Loosen the motor/belt tension adjuster (11) releasing the tautness across the drive belt.
- Move the belt to the corresponding sections of the motor and spindle pulleys ensuring the belt remains horizontal.
- Apply pressure to the motor mounting plate (9.1) to tension the drive belt. With the correct tension achieved lock in position with the motor/belt tension adjuster (11).
- Gently lower the pulley cover before tightening pulley cover securing screw (4.1).
- Never attempt to operate the drilling machine with the pulley cover open or not fully secured.

Caution: Over tensioning the drive belt will accelerate belt wear, increase the loading on drive bearings and the motor possibly leading to premature failure. Under tensioning the drive belt will lead to the drive belt slipping and increased noise.

† As a general rule material with a softer composition can be drilled faster as they cut more easily. Harder materials require a slower speed as attempting to make the hole at a high speed will result in the drill bit over heating which may result in a poorly finished hole, the bit annealing or the bit breaking.

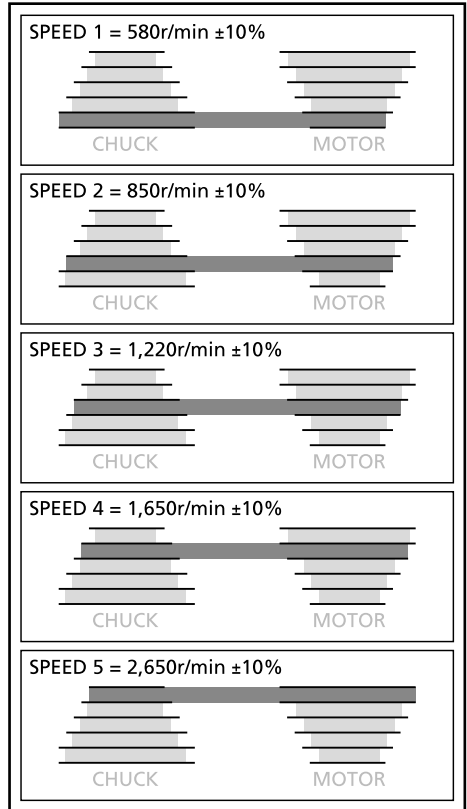


FIG.7

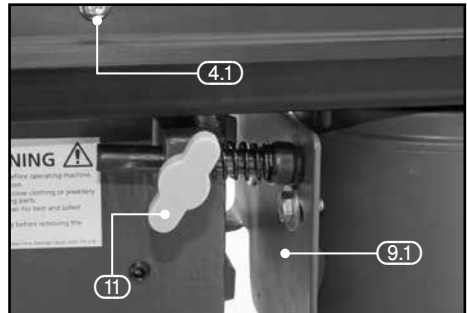


FIG.8

10. MAINTENANCE AND TROUBLESHOOTING

10.1 TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy
Machine will not start.	1. Fuse.	1. Replace/reset time delay fuse or circuit breaker.
	2. Unsure.	2. Return to an authorised service agent for diagnosis.
Noisy operation.	1. Incorrect belt tension.	1. Adjust tension.
	2. Dry spindle.	2. Lubricate spindle with grease.
	3. Loose spindle pulley or motor pulley.	3. Tighten set screws in pulleys.
Bit burns or smokes.	1. Incorrect speed.	1. Change speed.
	2. Swarf not coming out of hole.	2. Retract bit frequency to clear swarf.
	3. Blunt bit.	3. Sharpen or replace bit.
	4. Feeding too slow.	4. Feed fast enough to allow drill to cut.
	5. Not lubricated.	5. Lubricate bit.
Excessive drill run-out or wobble.	1. Bent bit.	1. Use a straight bit.
	2. Worn spindle bearings.	2. Return to an authorised service agent.
	3. Bit not properly installed in chuck.	3. Install bit centrally.
	4. Chuck not properly installed.	4. Refit chuck properly.
Drill binds in workpiece.	1. Workpiece pinching bit or excessive feed pressure.	1. Support or re-clamp workpiece.
	2. Improper belt tension.	2. Adjust tension.

10. MAINTENANCE AND TROUBLESHOOTING

10.2 MAINTENANCE

Warning: For your safety always turn the main switch on the machine “OFF” and remove the plug from the power supply before carrying out any maintenance or trouble shooting.

- 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. Avoid blocking the air inlets and vacuum the ventilation slots regularly.

10.3 LUBRICATION – FIG.9

- Always lubricate drill bits with suitable oil when drilling.
- This will prolong the life of drill bits.

Caution: Do not use water-based coolant or any kind of continuous coolant pump.

- Remove all swarf and dust after each operation.
- Spread oil onto unplated surfaces especially if the machine is not used for long periods. Lubricate the spindle and motor pulley drives (3.1) and (6.1) with oil every six months.
- Spindle guide screw should be checked periodically to finger tightness.

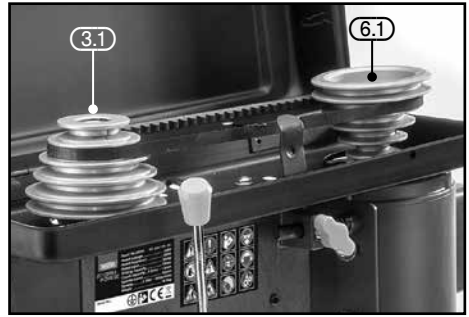


FIG.

11. OPTIONAL ACCESSORIES

11.1 OPTIONAL ACCESSORIES

A full range of accessories are available from Draper Tools.

Please visit our website for details: 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

13.1 EXPLANATION OF SYMBOLS



Read the instruction manual.



Wear face mask and safety glasses.



Wear ear defenders.



Regular attention required.



Do not abandon into the environment.



Class1/Earthed product.



European conformity.



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



Do not

Wear protective gloves.



Warning!



Warning!

Risk of electric shock.



Warning!

Keep out of the reach of children.



Warning!

Risk of entanglement.



General mandatory action required.



Long hair must be tied back.



Remove plug from power supply
before carrying out any
maintenance tasks.



Keep essential machine parts
regularly lubricated.

CONTACTS

Draper Tools Limited, Hursley Road,
Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. U.K.

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Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the Draper Tools Help Line for details of an agent in your local area.

YOUR DRAPER STOCKIST

RDCH0320

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