16mm VARIABLE SPEED DRILL PRESS

Model No CDP350V
Part No 6500267

OPERATING & MAINTENANCE INSTRUCTIONS
INTRODUCTION

Thank you for purchasing this CLARKE Drill Press.

Before attempting to operate the machine, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

ENVIRONMENTAL RECYCLING POLICY

Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.
PARTS & SERVICING

For parts & servicing, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400
PARTS & SERVICE FAX: 020 8558 3622
or e-mail as follows:
PARTS: Parts@clarkeinternational.com
SERVICE: Service@clarkeinternational.com

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GENERAL SAFETY RULES

GENERAL SAFETY IN THE WORKPLACE

1. ALWAYS ensure that air can circulate around the machine and that the air vents are unobstructed.
2. ALWAYS keep work area clean & tidy. Cluttered work areas and benches invite accidents.
3. NEVER over-reach. Keep proper footing and balance at all times.
4. NEVER use or store equipment in a wet/damp environment or expose to rain.
5. KEEP children and bystanders at a safe distance from work area.
6. NEVER operate a machine when under the influence of alcohol, drugs or medication.
7. ALWAYS ensure the workplace is well lit. Ensure that lighting is placed so that you will not be working in your own shadow.

CARE & USE OF THE EQUIPMENT

1. ALWAYS check for any damage or any condition that could affect the operation of the machine. Any damaged part should be properly repaired.
2. NEVER remove the cover panel unless the machine is disconnected from the supply, and never use the machine with cover panels removed.
3. NEVER attempt any electrical or mechanical repair unless you are a qualified technician. If you have a problem with the machine contact your local CLARKE dealer.
4. NEVER use this product for any other purpose than that described in this booklet.
5. NEVER abuse the mains cable by yanking the cable to disconnect it from the socket. Keep the cable away from sharp edges/hot surfaces.
6. NEVER stand on the machine. Serious injury could occur if the machine topples over.
7. Avoid accidental starting by making sure the power switch is off before plugging in the power cable.
8. Never leave the machine running unattended until it has come to a complete stop.
WARNING: AS WITH ALL MACHINERY, THERE ARE CERTAIN HAZARDS INVOLVED WITH THEIR OPERATION AND USE. EXERCISING RESPECT AND CAUTION WILL CONSIDERABLY LESSEN THE RISK OF PERSONAL INJURY. HOWEVER, IF NORMAL SAFETY PRECAUTIONS ARE OVERLOOKED, OR IGNORED, PERSONAL INJURY TO THE OPERATOR, OR DAMAGE TO PROPERTY MAY RESULT.

PROTECTIVE CLOTHING

1. Dress properly. Loose clothing, gloves, neckties, rings, bracelets, or other jewellery may get caught in moving parts. Non-slip footwear is recommended. Long hair should be tied back.
2. ALWAYS wear safety glasses. Everyday glasses are not safety glasses.
3. Wear a face mask if drilling into any material which produces dust.

CARE OF POWER TOOLS

1. Know your machine. Read the manual carefully. Learn the machines applications and limitations, as well as the specific potential hazards peculiar to it.
2. ALWAYS keep the guards in place and in working order.
3. Remove any adjusting keys or wrenches before starting. Form the habit of checking to ensure that keys, wrenches and tools are removed from the machine.
4. Don’t force the machine. It will do the job better and safer, at the rate for which it was designed.
5. Use the correct tool. Don’t force a tool or attachment to do a job for which it was not designed.
7. ALWAYS disconnect the machine from the power supply before carrying out any servicing or changing of accessories.
8. CHECK for any damage before use. Damage to moving parts or major components should be inspected by a qualified technician before operating the machine. Contact your local dealer for advice.
ADDITIONAL SAFETY RULES FOR DRILL PRESSES

1. IMPORTANT: You should not operate this machine unless you are thoroughly familiar with drilling machines and drilling techniques. If there is any doubt whatsoever you should consult a qualified person.

2. NEVER operate the machine until it is completely assembled and you have read and understood this entire manual.

3. ALWAYS use clamps, or a drill vice bolted to the table, to hold the work. It should never be held in bare hands.

4. ALWAYS shut off the power and remove the drill bit before leaving the machine.

5. ALWAYS make all adjustments with the power OFF.

6. ALWAYS use the correct drilling speeds for the drill size and the type of material being drilled (see page 23).

7. NEVER leave the drill unattended whilst it is running. Turn the machine OFF and do not leave until it has come to a complete stop.

8. ALWAYS remove and store the drill bits when you have finished with the machine.

9. CAUTION: This machine is designed for use with drill bits and morticing attachments only. The use of other cutting tools or accessories could be hazardous.

10. NEVER attempt to drill into a workpiece that does not have a flat surface unless a suitable support is used.

11. ALWAYS stop the drill before removing workpieces, work supports or swarf from the table.

12. ALWAYS Make sure you remove the chuck key before turning the machine on.

13. Adjust the table or depth stop to avoid drilling into the table surface.

14. ALWAYS be sure that the drill bit is securely locked in the chuck.

15. NEVER assemble or set up any work on the table while the drill is running.

16. ALWAYS ensure the table lock is tight before starting the drill.

17. ALWAYS keep hands and fingers away from the drill bit.

WARNING: DUST GENERATED FROM CERTAIN MATERIALS CAN BE HAZARDOUS TO YOUR HEALTH. ALWAYS OPERATE THE DRILL IN A WELL VENTILATED AREA. USE A DUST COLLECTION SYSTEM WHENEVER POSSIBLE.
LASER SAFETY

- The laser light beam used in this system is Class II. 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:**

1. NEVER aim the beam at any person or object other than the workpiece.
2. NEVER project the laser beam into the eyes of others.
3. ALWAYS ensure the laser beam is aimed at a workpiece that does not possess reflective surfaces as the laser beam could be reflected into the eyes.
**ELECTRICAL CONNECTIONS**

Connect the mains lead to a standard, 230 Volt (50Hz) electrical supply through an approved 13 amp BS 1363 plug, or a suitably fused isolator switch.

**WARNING! THIS APPLIANCE MUST BE EARTHED**

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

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

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

- Connect GREEN & YELLOW cord to plug terminal marked with letter “E” or Earth symbol \(\mathbb{E}\), or coloured GREEN or GREEN & YELLOW.
- Connect BROWN cord to plug terminal marked letter “L” or coloured RED.
- Connect BLUE cord to plug terminal marked letter “N” or coloured BLACK.

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

1. The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
2. Never use the plug without the fuse cover fitted.
3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
4. Replacement fuse covers can be obtained from your local dealer or most electrical stockists.
5. The fuse in the plug must be replaced with one of the same rating (13 amps) and this replacement must be ASTA approved to BS1363.
UNPACKING

When unpacking, check for damage or omissions etc. Any found should be reported to your CLARKE dealer where the appliance was originally purchased. Do not discard the packaging until the machine is assembled.

To protect the machine parts from moisture, a protective coating has been applied to the outside surfaces. Remove this coating with a soft cloth, moistened with kerosene. Do not use acetone, gasolene or thinners for cleaning. Apply a coat of paste wax to the table and column and then wipe all parts with a clean, dry cloth.

The Drill Press is delivered with the following components:

A  Head/motor assembly  
B  Column assy (support, column tube, toothed rack & collar - supplied loose)  
C  Table with support bracket, worm drive pinion & spindle  
D  Base  
E  Chuck  
F  Extension wing with integrated rollers  
G  Chuck key  
H  Wing nuts (2)  
I  Table locking handles (2)  
J  Foot/base fixing bolts (4)  
K  Table crank handle  
L  Hex keys (3)  
M  Feed & speed handles (4)  
N  Chuck guard assembly  
P  Table adjustment wrench  
Q  Drift Wedge  

Instruction manual (this document)
WARNING: IF ANY PART IS MISSING OR DAMAGED, DO NOT PLUG THE BENCH DRILL PRESS IN UNTIL THE MISSING OR DAMAGED PART IS REPAIRED OR REPLACED AND ASSEMBLY IS COMPLETE.

TOOLS NEEDED FOR ASSEMBLY
- Adjustable wrench or socket set
- Cross-head screwdriver
- Hammer and block of wood

COLUMN ASSEMBLY TO BASE (FIG 1)
1. Place the column tube (1) with its support, onto the base (2), aligning the column support holes with the base holes.
2. Install a bolt (3) in each column support hole and tighten bolts using a wrench.

TABLE & SUPPORT BRACKET (FIG 2)
1. Insert the table worm drive spindle (2) through the table support bracket from inside before sliding the crank handle (1) onto the spindle. Secure in place with the set-screw (3).
2. Thread the table lock handles (4) into the front and rear of the table support bracket.
3. Take the toothed rack (6) and hold it against the column while lowering the table support bracket down the column until the drive gear meshes with the rack teeth. Wind the table crank handle to lower the height of the table.
4. Lower the table support bracket and rack until the rack seats in the top lip of the column support (7).
5. Lower the rack securing collar (8) over the column until it rests over the top of the rack. Position the table support in the same direction as the base. Fix the rack securing collar (8) in place with the set-screw.

6. Install the table (5) on its support bracket & tighten the table lock handle (4).

**DRILL PRESS HEAD TO COLUMN (FIG 3)**

CAUTION: The drill press head is heavy. To avoid injury, two people should lift it into position.

1. Carefully lift the drill press head assembly (1) and position it with its mounting opening (3) over the top of the column (2). Swivel the assembly to ensure it is seated properly on the column.

2. Align the direction of the drill press head with the direction of the base and the table.

3. Tighten the set screw (4) using a hexagon key.

**FEED HANDLES (FIG 4)**

1. Screw the three feed handles (1) into the threaded holes in the feed hub (2) and tighten by hand.

Note: When using the drill, one or two of the feed handles may be removed if an unusually-shaped workpiece interferes with handle rotation.
SPEED HANDLE (FIG 5)
1. Screw the feed handle (1) into the threaded hole on the speed hub (2) and manually tighten the handle.

MOUNT THE DRILL PRESS (FIG 6)
1. The drill press must be securely fastened through the mounting holes (1) to a stand or floor with heavy-duty fasteners (not supplied). This will prevent the machine from tipping over, sliding, or walking during operation.
WARNING: DISCONNECT THE DRILL PRESS FROM THE POWER SOURCE BEFORE INSTALLING, ADJUSTING, OR REMOVING THE CHUCK.

TO INSTALL THE CHUCK (FIG 7)
1. Inspect and clean the taper hole in the chuck (1) and the spindle (2). Remove all grease, coatings & particles from the chuck and spindle surfaces with a clean cloth.
2. Open the chuck jaws (3) by manually turning the chuck barrel clockwise. Make sure the jaws are completely recessed inside the chuck.
3. Insert the chuck arbor (4) into the opening at the top of the chuck (1).
4. Seat the chuck and chuck arbor on the spindle by placing a block of wood (5) under the chuck (1) and tapping the wood with a hammer (6) or tap the chuck with a rubber mallet.

CAUTION: TO AVOID DAMAGING THE CHUCK, MAKE SURE THE JAWS ARE COMPLETELY RECESSED INTO THE CHUCK. DO NOT USE A METAL HAMMER TO DRIVE THE CHUCK INTO THE SPINDLE.

TO REMOVE THE CHUCK (FIG 8)
1. Turn the feed handles (1) to lower the chuck (2) to the lowest position.
2. Place a tapered drift key (3) into the corresponding slot in the quill assembly and tapped lightly with a mallet (4) to release the tapered chuck spindle. The chuck can then be supported over a tube or vice and the spindle driven out with a hammer and suitably sized parallel punch.
ADJUSTMENTS

TO RAISE & LOWER THE TABLE (FIG 9)
1. Loosen the support lock handle (1) and turn the crank handle (2) until the table is at the desired height.
2. Tighten the table lock before drilling.

TO ROTATE THE TABLE (FIG 9)
1. Loosen the support lock handle (1) & turn the table around the column to the desired position.

Note: The rack should rotate around the column with the table support bracket. If the rack binds and will not rotate, slightly loosen the set screw in the rack collar.
2. Tighten the support lock before drilling.

TO TILT THE TABLE (FIG 10)
1. Loosen the bevel lock bolt (1).
2. Tilt the table to the desired angle, using the bevel scale (2) as a basic guide.
   • Check the angle using a protractor or square for greater accuracy.
3. Re-tighten the bevel lock bolt.
4. To return the table to its original horizontal position, loosen the bevel lock bolt (1).
5. Re-align the table to the 0° setting.
6. Tighten the bevel lock bolt with the wrench.

INSTALL THE TABLE EXTENSION (FIG 11)
1. Insert the two rods (1) of the table extension into the channels (2) at each side of the table.
2. Screw a wing knob (3) into the bottom of each channel and tighten to secure the extension to the table.
TO INSTALL DRILL BITS (FIG 12)

1. Engage the chuck key (1) with the chuck (2) and turn counterclockwise to open the jaws (3).

2. Insert a drill bit (4) into the chuck, far enough to obtain maximum gripping of the chuck jaws.

3. Centre the drill bit in the chuck jaws before final tightening.

4. Tighten the chuck jaws using the chuck key to ensure that the drill bit will not slip while drilling.

5. Remove the chuck key.

WARNING: TO AVOID INJURY, MAKE SURE THAT THE CHUCK KEY IS REMOVED FROM THE CHUCK BEFORE STARTING ANY DRILLING OPERATION.

TO SQUARE THE TABLE TO THE DRILL BIT (FIG 13)

1. Insert a 3" (7.6 cm) long drill bit (1) into the chuck (2) and tighten the jaws with the chuck key.

2. Raise the table using the crank handle (3), and secure the table with the locking handle (4) approximately 1" (2.5 cm) below the drill bit.

3. Place a combination square (5) on the table as shown. Make sure the drill bit is parallel or aligned exactly to the straight edge of the square.

4. If adjustment is needed, loosen the bevel lock bolt (6) with a wrench.

5. Tilt the table slightly until the combination straight edge is aligned perfectly with the drill bit.

6. Tighten the bevel lock when aligned perfectly.

Note: Adjustments for the correct function of your drill press return spring have been done at the factory. Please do not modify them. However, prolonged use of the drill press may make some re-adjustment necessary.
TO USE THE LASER LINE (FIG 14 AND 15)

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.

1. Place a workpiece on the table.
2. Turn the laser switch (1) to the ON position.
3. Lower the drill bit to meet the workpiece (2). The two laser lines should cross where the drill meets the workpiece.
4. If the laser needs to be adjusted:
   a. Using a 3 mm hex key, turn the laser adjustment set screws (3) counter-clockwise.
   b. Rotate the laser light housing (4) until the two laser lines intersect where the drill meets the workpiece. DO NOT stare directly at the laser lines.
5. Re-tighten the adjustment set-screws (3).
SPINDLE RETURN SPRING (FIG 16)
The spindle is equipped with an auto-return mechanism comprising a spring and a notched housing. The spring tension was set at the factory and should not be adjusted unless absolutely necessary.

1. Unplug the drill press.
2. Place a screwdriver into the loop (1) to hold the spring in place.
3. Loosen the two housing nuts (2) approximately 1/4" (6 mm). Do not remove the nuts from the threaded shaft. Do not allow the spring or spring housing to slip out of control.
4. While firmly holding the spring housing (3), carefully pull the spring housing out until it clears the raised notch (4).
5. Turn the housing so that the next notch (5) is engaged with the raised notch (4).
   • To increase the spindle return tension, turn the spring housing counter-clockwise.
   • To decrease the tension, turn the spring housing clockwise.
6. Tighten the two housing nuts but not excessively. If the nuts are tightened too much, the movement of the spindle and feed handles will become sluggish.

ANGULAR "PLAY" OF THE SPINDLE (FIG 17)
Move the spindle to the lowest downward position and hold in place. Try to make the spindle revolve around its axis while also moving it with a side motion. If there is too much play, proceed as follows:
1. Loosen the locknut (1).
2. Without obstructing the upward and downward motion of the spindle, turn the screw (2) clockwise to eliminate the play.
   Note: A little play is normal.
3. Tighten the locknut (1).
OPERATION

ON/OFF SWITCH (FIG 18)
1. To turn the drill press ON, slide the red cover guard (1) upwards to lift it away and access the ON/OFF buttons. Press the green push-button (2) to start the machine.
   • As a safety feature, the ON button cannot be pressed without raising the guard.
2. To turn the drill press OFF, press either the OFF button (3) if holding the guard raised or press the guard cover at any time.

LASER LINE ON/OFF SWITCH (FIG 19)
The laser line switch (4) is located below the ON/OFF switch.

POSITION THE TABLE AND WORKPIECE (FIG 19)
Always place a piece of backup material (1) such as wood, plywood, etc. on the table underneath the workpiece (2).

This will prevent splintering on the underside of the workpiece as the drill bit breaks through.

To keep the material from spinning out of control, it must contact the left side (3) of the column as illustrated, or be clamped (4) to the table.

Note: For small workpieces that cannot be clamped to the table, use a drill press vice (not included). The vice must be securely clamped or bolted to the table.
GENERAL DRILLING GUIDELINES

WARNING: TO PREVENT THE WORKPIECE AND THE BACKUP MATERIAL FROM SLIPPING FROM YOUR HAND WHILE DRILLING, POSITION WORKPIECE AND BACKUP MATERIAL TO THE LEFT SIDE OF THE COLUMN. IF THE WORKPIECE AND THE BACKUP MATERIAL ARE NOT LONG ENOUGH TO REACH THE COLUMN, CLAMP THE WORKPIECE AND BACKUP MATERIAL TO THE TABLE. FAILURE TO DO THIS COULD RESULT IN PERSONAL INJURY.

TO DRILL A HOLE
1. Mark where you want to drill on the workpiece by using a centre punch or turn ON the Laser Line to mark the drilling point.
2. Clamp the workpiece in place. Before turning on the drill, turn the feed handles to bring the drill bit down. Line the drill bit tip up with the mark.
3. Turn on the drill and pull down on the feed handles with appropriate force needed to allow the drill bit to drill into the material.

Note: FEEDING TOO SLOWLY might cause the drill bit to turn in the chuck. FEEDING TOO RAPIDLY might stop the motor, cause the belt to slip, force the workpiece loose, or break the drill bit. Practice with scrap material to get the feel of the machine before attempting any drilling operation.

TO ADJUST DRILLING DEPTH (FIG 20)
The depth gauge controls the maximum distance the drill bit will move up or down.

To stop the drill bit at a pre-measured depth:
1. Rotate the upper depth knob (2) until the bottom of the knob is aligned with the desired depth mark (5) on the gauge scale.
2. Rotate the depth scale lock knob (1) until it meets the lower depth scale knob (3). The chuck will stop after descending to the selected height.

TO ADJUST QUILL (RETURN) HEIGHT (FIG 20)
To adjust the upward distance the quill (the shaft that moves up and down) can travel:
1. Turn the feed handles until the quill is at the desired height & hold it there.
2. Rotate the lower depth knob (3) until it rests against the bottom of the metal gauge support (4).

Drilling an un-measured blind hole (not all the way through the workpiece) to a given depth can be done two ways: using the depth scale method or workpiece method.

**DEPTH SCALE METHOD (FIG 21)**
1. Make sure the 0 (" or mm) mark on the depth gauge rests at the top edge of the metal support (3) when the quill is fully retracted.
2. Put the workpiece on the table, and raise the table until the tip of the drill bit just touches the top of the workpiece. Lock the table in place.
3. Determine the drill depth for this workpiece.
4. Rotate the lower depth knob (2) until it is aligned with the desired depth mark (4) (for example, 1") on the gauge scale.
5. Rotate the upper depth lock knob (1) until it meets the lower depth knob (2). The chuck will be stopped at the distance selected on the depth scale.

**WORKPIECE METHOD (FIG 21 & 22)**
1. Mark the desired depth (5) of the drill hole on the side of the workpiece.
2. With the drill press in the OFF position, bring the drill bit (6) down until the tip is level with the mark.
3. Holding the feed handles at this position, rotate the lower depth knob (2) until it meets the metal support.
4. Rotate the upper depth scale lock knob (1) until it meets the lower knob (2). The chuck and the drill bit will now be stopped at the distance selected on the depth scale.
MECHANICAL VARIABLE SPEED (FIG. 23)
To increase or decrease the speed when operating, raise or lower the speed handle (1). The speed (rpm) is displayed by the digital readout.

Use the table on page 23 to determine the recommended speed for the drill size you are using and the type of material you are to drill. Check the speed on the digital speed read-out (2) while drilling.

DRILLING SPEEDS
Important factors when determining the best drilling speed are:

- Material type
- Hole size
- Drill bit or cutter type
- Quality desired

Generally, smaller drill bits require greater speed than large drill bits. Softer materials require greater speed than harder materials. See page 23 for approximate recommended speeds for the workpiece material.

WARNING: DO NOT ATTEMPT TO CHANGE THE DRIVE SPEED WHEN THE DRILL PRESS IS TURNED OFF.

DRILLING METAL
- Use metal-piercing twist drill bits.
- It is always necessary to lubricate the tip of the drill with oil to prevent overheating the drill bit.
- All metal workpieces should be clamped down securely. Any tilting, twisting, or shifting causes a rough drill hole, and increases the potential of drill bit breakage.
- Never hold a metal workpiece with your bare hands. The cutting edge of the drill bit may seize the workpiece and throw it, causing injury. The drill bit will break if the metal piece hits the column.
- If the metal is flat, clamp a piece of wood under it to prevent turning. If it cannot be laid flat on the table, then it should be blocked and clamped.

DRILLING WOOD
- Brad point bits are preferred. Metal piercing twist bits may be used on wood.
• Do not use auger bits which turn so rapidly that they can lift the workpiece off the table and whirl it around.
• Always protect the drill bit by positioning the table so that the drill bit will enter the centre hole when drilling through the workpiece.
• To prevent splintering, feed drill bit slowly when the bit is about to cut through to the reverse side of the workpiece.
• To reduce splintering and protect the point of the bit, use scrap wood as a backing or a base block under the workpiece.

FEEDING THE DRILL BIT
• Pull down on the feed handles with only enough force to allow the drill bit to cut.
• FEEDING TOO RAPIDLY could stall the motor, cause the belt to slip, damage the workpiece, or break the drill bit.
• FEEDING TOO SLOWLY could cause the drill bit to heat up and burn the workpiece.

<table>
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<th>Units</th>
<th>Speed Range (RPM)</th>
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<tr>
<td></td>
<td>mm</td>
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<tr>
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</tr>
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<td></td>
<td>mm</td>
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<td></td>
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<tr>
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MAINTENANCE

For maximum performance, it is essential that the machine is properly maintained. Always inspect before use. Any damage should be repaired and faults rectified.

If the mains lead is damaged it should be replaced immediately.

Please refer to TROUBLESHOOTING on page 26. If you are unable to rectify any faults, please contact your local dealer or Clarke International Service Department on 0208 988 7400 for assistance.

AFTER USE

Always remove drill bits, and store in a safe place. The machine requires very little maintenance other than the following guidelines.

1. Vacuum clean any dust or swarf that accumulates in or on the motor, drive housing, table and work surface.
2. Lubricate the table bracket and locking handles if they become difficult to use. Components should be dry, with machined surfaces lightly oiled.
3. Check all cables periodically for security, and that they are in good condition and not cracked.

**IMPORTANT - Disconnect from mains power before cleaning.**

MONTHLY (when in constant use)

1. Check tightness of mounting bolts and head and column securing set screws.
2. Check belt for wear and replace if frayed or otherwise damaged.
3. Blow out any dust/swarf that may have accumulated in the motor fan.
4. Apply a thin coat of wax paste or light oil to the table and column for lubrication and to help prevent corrosion.
5. Pull the spindle down and lightly oil the spindle sleeve every three months.
   - The ball bearings in the spindle are greased and permanently sealed at the factory and require no further lubrication.

**DO NOT attempt to carry out repairs yourself, unless you are fully competent, all work must be carried out by a qualified technician or the Clarke service department.**
WARNING: DISCONNECT THE DRILL PRESS FROM THE POWER SUPPLY BEFORE OPENING THE COVER.

TO REPLACE THE BELT (FIG 24)
Belt tension and drill press speed is controlled by automatic adjustments made to the diameter of the front pulley when the drive handle is moved.

1. Remove the fixing screw and open the housing cover (1).
2. Remove the belt (2) from the housing if it is broken. If it is not broken, but is too stretched to operate correctly, work the belt off the drive (motor) pulley (3). Then remove the belt from the front pulley (4).
3. Replace the belt by putting a new belt over the front pulley (4) and carefully sliding the belt over the drive (motor) pulley (3).
<table>
<thead>
<tr>
<th>DEFECTS</th>
<th>CAUSES</th>
<th>SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chuck falls off spindle.</td>
<td>1. Dirt, grease or oil on the tapered surface of the spindle or chuck.</td>
<td>Clean the tapered surface of both the chuck and the spindle with a household detergent. See &quot;To Install the Chuck&quot; in ASSEMBLY.</td>
</tr>
<tr>
<td>The workpiece splinters on the underside.</td>
<td>1. No backing material to support the underside.</td>
<td>Always use a backing material. See &quot;Position the Table and Workpiece&quot; in OPERATION.</td>
</tr>
<tr>
<td>The workpiece is slipping from your hand.</td>
<td>1. Workpiece needs to be properly supported or clamped.</td>
<td>Support the workpiece using extension wing or clamps. See &quot;Position the Table and Workpiece&quot; in OPERATION.</td>
</tr>
<tr>
<td>Motor will not run.</td>
<td>1. Defective/broken switch.</td>
<td>Defer to your Clarke dealer for repair.</td>
</tr>
<tr>
<td></td>
<td>2. Damaged power cable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Open circuit, loose connections or burned out motor.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Blown fuse or circuit breaker.</td>
<td>Replace fuse or re-set circuit breaker. Turn off other machines on the same circuit.</td>
</tr>
<tr>
<td></td>
<td>5. Low voltage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Low voltage</td>
<td>Check the power supply for correct voltage. Use another circuit or have a qualified electrician upgrade the service.</td>
</tr>
<tr>
<td>Motor will not start</td>
<td>1. Short circuit in motor or</td>
<td>Defer to your Clarke dealer for repair.</td>
</tr>
</tbody>
</table>
Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.
<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Code</th>
<th>No</th>
<th>Description</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Base</td>
<td>DD13301001F</td>
<td>28</td>
<td>Chuck Key</td>
<td>DD1610300E-1</td>
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<tr>
<td>2</td>
<td>Column Support</td>
<td>DD13401002</td>
<td>29</td>
<td>Chuck</td>
<td>DD1610300E</td>
</tr>
<tr>
<td>3</td>
<td>Hex Bolt</td>
<td>M10 x 30 mm</td>
<td>30</td>
<td>Chuck Guard</td>
<td>DD13308002</td>
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<tr>
<td>4</td>
<td>Hex Setscrew</td>
<td>M8 x 8 mm</td>
<td>31</td>
<td>Chuck Arbor</td>
<td>DD16103007A</td>
</tr>
<tr>
<td>5</td>
<td>Handlebar Assy</td>
<td>DD13401009</td>
<td>32</td>
<td>Spindle</td>
<td>DD13303001</td>
</tr>
<tr>
<td>6</td>
<td>Hex Setscrew</td>
<td>M6 x 10 mm</td>
<td>33</td>
<td>Screw</td>
<td>M6 x 16mm</td>
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<td>7</td>
<td>Worm</td>
<td>DD13201008</td>
<td>34</td>
<td>Ball Bearing 6204</td>
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<tr>
<td>8</td>
<td>Gear Pin</td>
<td>DD13201007</td>
<td>35</td>
<td>Lock Collar</td>
<td>W134B08005-1A</td>
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<tr>
<td>9</td>
<td>Helical Gear</td>
<td>DD13201006</td>
<td>36</td>
<td>Nut</td>
<td>M6</td>
</tr>
<tr>
<td>10</td>
<td>Column Clamp</td>
<td>DD16101013B</td>
<td>37</td>
<td>Thumb Nut</td>
<td>DDW13408005-2</td>
</tr>
<tr>
<td>11</td>
<td>Table Support</td>
<td>DD13401004B</td>
<td>38</td>
<td>Quill Tube</td>
<td>DD13303002</td>
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<tr>
<td>12</td>
<td>Angle Scale</td>
<td>DD1346002A</td>
<td>39</td>
<td>Lock-depth Bolt</td>
<td>DDW13408005-5</td>
</tr>
<tr>
<td>13</td>
<td>Pan hd screw</td>
<td>M4 x 8 mm</td>
<td>40</td>
<td>Quill Gasket</td>
<td>DD13303006</td>
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<tr>
<td>14</td>
<td>Table Arm</td>
<td>DD13401005</td>
<td>41</td>
<td>Ball Bearing 6201</td>
<td>BRG6201</td>
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<tr>
<td>15</td>
<td>Hex Bolt,</td>
<td>M16 x 35 mm</td>
<td>42</td>
<td>Circlip 11mm</td>
<td>DD894.1-86</td>
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<tr>
<td>16</td>
<td>Lock Knob</td>
<td>DD13102005B</td>
<td>43</td>
<td>Bolt</td>
<td>M8 x 20</td>
</tr>
</tbody>
</table>
## PARTS LIST

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>109</td>
<td>Washer 6mm</td>
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<tr>
<td>110</td>
<td>Foam Washer</td>
<td>DD20105012</td>
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<td>111</td>
<td>Rubber Bush</td>
<td>DD201050112</td>
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<tr>
<td>112</td>
<td>Pulley Cover</td>
<td>DDW134B05000</td>
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<tr>
<td>113</td>
<td>Pulley Disc (lower)</td>
<td>DDW13305009-2</td>
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<td>114</td>
<td>Spring Seat</td>
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<td>115</td>
<td>Spring Drill Press</td>
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<tr>
<td>116</td>
<td>Spring Cover</td>
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<td>117</td>
<td>V-belt</td>
<td>DDW13405007</td>
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<tr>
<td>118</td>
<td>Motor Pulley (upper)</td>
<td>DDW13305005-2</td>
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<tr>
<td>119</td>
<td>Motor Pulley (upper)</td>
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<tr>
<td>120</td>
<td>Circlip</td>
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<td>121</td>
<td>Hex screw</td>
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<td>122</td>
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<td>123</td>
<td>Cam</td>
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<td>124</td>
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<td>125</td>
<td>Circlip</td>
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<td>126</td>
<td>Spindle Pulley Disc</td>
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<tr>
<td>127</td>
<td>Adjustment Wrench</td>
<td>DD13105009</td>
</tr>
</tbody>
</table>

## ACCESSORIES

The following range of accessories is available from your Clarke dealer:

- Mortising Attachment: CMA 6500023
- Mortise Chisels:
  - 6mm 6500025
  - 9mm 6500026
  - 13mm 6500027
  - 16mm 6500028
- Drill Press Vices:
  - CDV30B 6501901
  - CDV40B 6501902
  - CDV50B 6501903
  - CDV60B 6501904
  - DDW13202031A
  - DD61907
  - 6501901
  - 6501902
  - 6501903
  - 6501904
DECLARATION OF CONFORMITY

We hereby declare that this product(s) complies with the following directive(s):

- 2006/95/EC  Low Voltage Equipment Directive
- 2002/95/EC  Restriction of Hazardous substances

The following standards have been applied to the product(s):


The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2008

Product Description: Variable Speed Drill Press
Model number(s): CDP350V
Serial / batch Number: 6500267
Date of Issue: 27/07/2009

Signed:

J.A. Clarke
Director
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