Bäumr-AG®

13mm Drill Press - DP13

User Manual

[Revision 1.0 May 2017]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

E&OE

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:

You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions.

You CAN be KILLED or SERIOUSLY INJURED if you do not follow instructions.

You CAN be INJURED if you do not follow instructions or equipment damage may occur.

It is important that you read and understand the instruction manual before use and keep the manual in a safe place for future reference. Safety information presented here is generic in nature – some advice may not be applicable to every piece of equipment.

All safety precautions must be observed to reduce the risk of personal injury when operating the equipment.

The term “equipment" refers to your product, be it electrical mains, battery or petrol engine powered.

IMPORTANT – Handle the equipment safely and carefully.

BEFORE USE - If you are not familiar with the safe operation/handling of this equipment, or are in any way unsure of any aspect of suitability or correct use it for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.

WARNINGS

- Read all safety warnings and all instructions. Failure to follow warnings and instructions may result in electric shock, fire and/or serious injury.
- Never run a combustion engine in confined areas.
- Do not operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. Engine and equipment may create sparks or heat that may ignite vapours, dust etc
- Keep clear of moving parts.
- This equipment may be a potential source of electric shock if misused.
- Do not operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do not allow others to use the equipment unless they have read this manual and are adequately trained.
- When using the equipment, basic safety precautions detailed here must always be followed to reduce the risk of fire, electric shock, personal injury and material damage.
- When wiring electrically powered equipment, follow all electrical and safety codes.
- Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting equipment.

General Work Area Safety

Work areas should be clean and well it.

Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.

Personal Safety

Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

Prevent unintentional starting of the equipment - ensure equipment and power source switches are in the OFF position before connecting or moving the equipment. Do not carry equipment with hands/fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.

Stay alert and use common sense when operating equipment. Do not overreach. Keep proper footing and balance at all times. Do not use equipment when tired or under the influence of drugs, alcohol or medication. This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. Always wear eye protection. Protective equipment such as respirators, non-skid safety shoes, hard hat, hearing protection etc should be used for appropriate conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.

If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

General Equipment Use and Care

Do not force the equipment. Use the correct equipment for your application. The correct equipment will perform better and be safer within its design parameters. Do not use the equipment if the ON/OFF switch malfunctions – any equipment that cannot be controlled with the ON/OFF switch is dangerous and must be repaired.

Use the equipment and accessories etc. in accordance with these instructions, taking into account working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.

Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorized service centre or technician before use.

Always keep the equipment and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment, controls and handles dry and free from dirt, oil and grease.

Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place the equipment in places where there are flammable materials, combustible gases or combustible liquids etc.

The equipment is not weatherproof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or very humid.

Drill Press Use and Care

- The machine is for domestic use only.
- Not for outdoor use.
- Do not exceed the range of 1.5 to 13mm diameter drills.
- The equipment is to be used only for its prescribed purposes only. Any other use or modification may present hazards and will void any warranty.
- Health risks may be present from the inhalation of sawdust. Wear a respirator. A dust extraction system is recommended.
- Switch the machine OFF and disconnect it from the electrical supply before changing drills, performing maintenance or making adjustments.
- Ensure the switch is OFF before connecting it to an electrical supply.
- Know the condition of the machine. If any part is missing, damaged, or does not operate properly, replace the component before use.
- Work-pieces must be able to be held securely in a vice or clamped to the machine table. Work-pieces thrown by the machine can lead to serious injury and/or property damage.

Electrical Information

- **Electrocution / shock hazard** - The machine MUST be connected to a properly grounded electrical socket. Check with a licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.
- Do NOT use the equipment if the electrical supply cable or plug is damaged – have the equipment repaired.
- Extension cords MUST be grounded 3-wire types. For lengths up to 25m, the wires must have a cross section of 1.5mm^2. Extension cords over 25m long must have a minimum cross section of 2.5mm^2.
- Before connecting the machine to the electrical supply, ensure the electrical supply conforms to the electrical requirements of the machine as stated on the nameplate.

General Service Information

- Have the equipment serviced or repaired at authorized service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to help ensure that equipment safety is maintained.
- Do not attempt any maintenance or repair work not described in this instruction manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before making adjustments, changing accessories or performing repair or maintenance.
- Do not make adjustments while the equipment is running.
- Perform all service related activities under suitable conditions, such as a workshop etc.
- Replace any worn, damaged or missing warning labels immediately.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.

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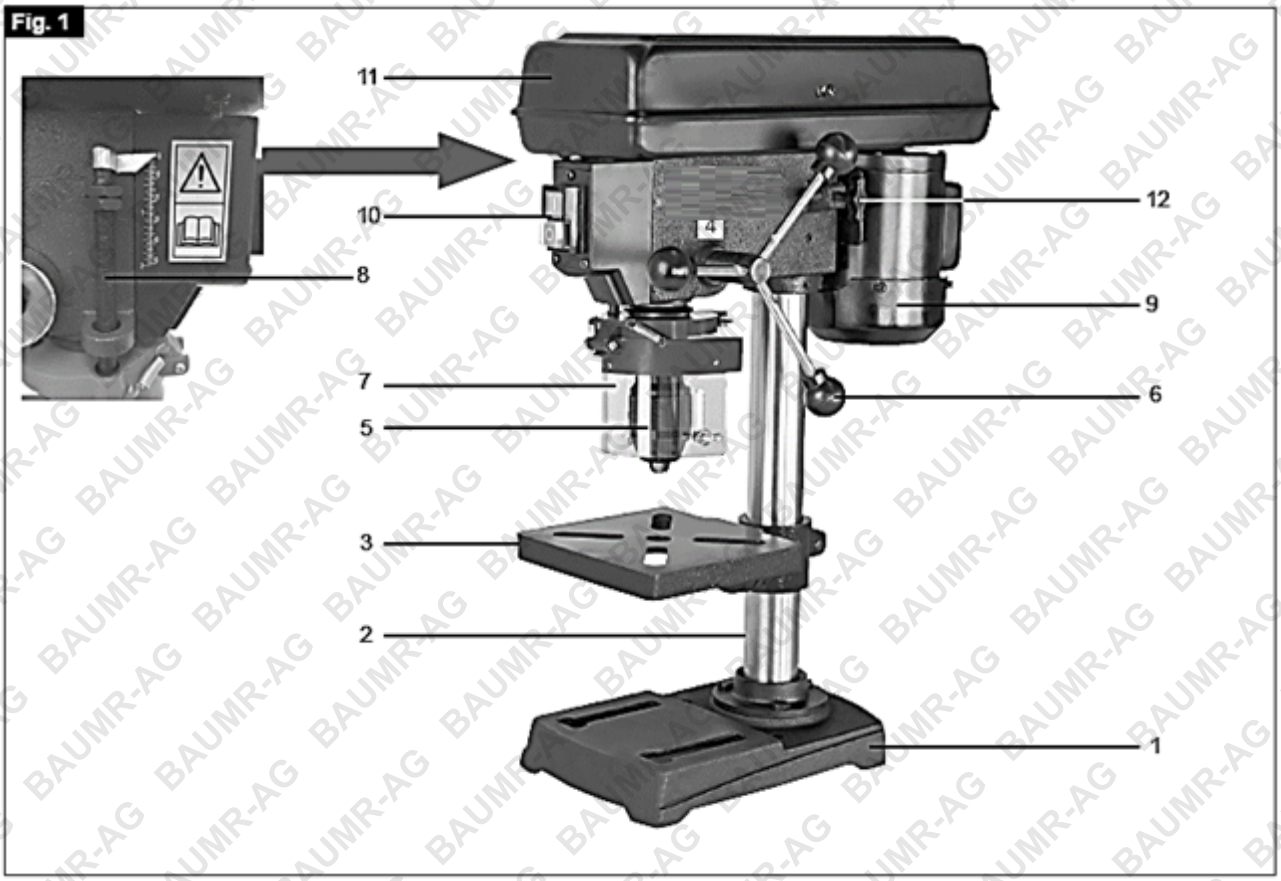
Parts Identification

Fig. 1



No.	Name	No.	Name
1	Base	7	Guard
2	Column	8	Depth stop
3	Table	9	Motor
4	Drill head	10	ON / OFF switch
5	Drill chuck	11	Belt cover
6	Handle	12	Belt tension bolt

Assembly and Set-Up

Do not attempt to modify the product or use accessories not supplied or recommended for use with this tool. Any such alteration or modification may result in hazards leading to possible serious personal injury and will void any warranty. • Do not connect the machine to an electrical supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury. • To avoid injury from accidental starting of the machine, switch the machine OFF and disconnect it from the power supply before making any adjustments.

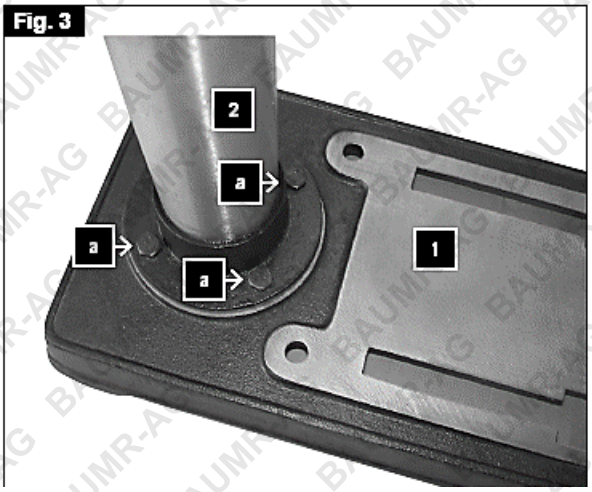
Mounting the Machine to a Workbench

If the machine is to be used in a permanent location, it is recommended you secure it to a workbench or other stable surface using suitable fasteners (not supplied). Use the base of the machine to mark and pre-drill the mounting holes.

Machine Assembly

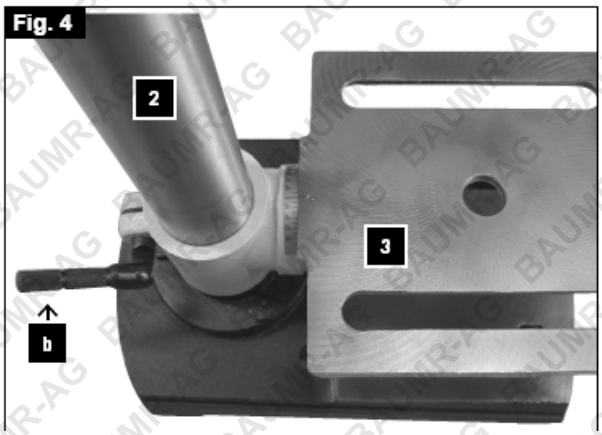
1. Place the column assembly (**2**) onto the base (**1**) and align the holes in the column mounting flange with the holes in the base. Secure the parts using 3 bolts (**a**). Firmly tighten the bolts using a suitable spanner.

Fig. 3



2. Lower the table (**3**), smooth side facing up, down over the column (**2**). Position the table directly above the base and lock it into position by rotating the locking lever (**b**) right (clockwise) until firm.

Fig. 4

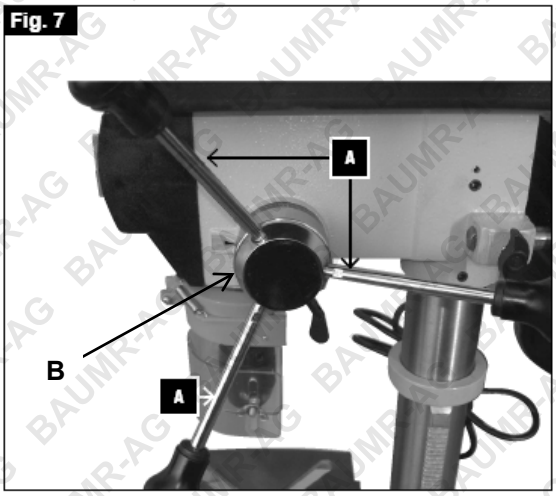


3. Place the drill head (**4**) onto the column (**2**). Position the drill head so that the spindle is aligned with the central hole in the base. Ensure that the drill head is pushed fully down onto the column, then secure it by tightening the grub screws (**c**) with the supplied Allen key.

Fig. 5

4. Screw the feed handles (**A**) tightly into the threaded holes in the hub (**B**).

Fig. 7



5. Clean the tapered hole in the back of the chuck (**5**) and the tapered machine spindle "nose" with a soft cloth. Ensure there is no dirt, grease or any substance on either surface. The slightest amount of dirt on these surfaces will prevent the chuck from seating properly, and will cause the drill bit to "wobble". If the tapered hole in the chuck is extremely dirty, use a cleaning solvent on the cloth.
6. Push the chuck up onto the spindle nose as far as it will go. It is recommended to push the chuck rapidly up onto the spindle – friction between the spindle and the hole in the chuck should be sufficient to hold the chuck in place.
7. Rotate the outer part of the chuck left (anti-clockwise) when viewed from above and open the chuck jaws fully.

Fig. 8

8. Place a flat piece of wood on the table and use the handle to lower the chuck against the wood. Press the chuck firmly against the wood to lock the chuck-spindle tapers.

Operation

Risk of injury when operating the machine. Always use caution when handling the work-piece. • Risk of injury when handling drill b its. Use caution and wear protective gloves. • Ensure that the drill bit, spindle speed and table is correctly installed and adjusted before using the machine. • Do NOT attempt to cut materials that are not suitable to the cutting speed of the machine and drill bit type. For example, hard metals and masonry. • Know the condition of the machine. If any part is missing, damaged, or does not operate properly, replace the component before use. • Properly protect your body including your eyes, hands, face, and ears. • Do not exceed the range of 1.5 to 13mm diameter drills. • Use supplied or recommended accessories only. Follow the instructions supplied with the accessory. The use of improper accessories may cause risk of injury and void any warranty. • Switch the machine OFF and disconnect it from the electrical supply before changing the drill bit, performing maintenance or making adjustments. • Make sure the machine power switch is OFF before connecting the power cord to an electric supply. • Take all necessary precautions to prevent the work-piece and/or backing material from spinning or being thrown from the machine.

Power Switch

To avoid injury from accidental start-ups, always switch the machine OFF and disconnect it from the electrical supply before moving it, changing drill bit, or making adjustments.

To switch the machine ON:

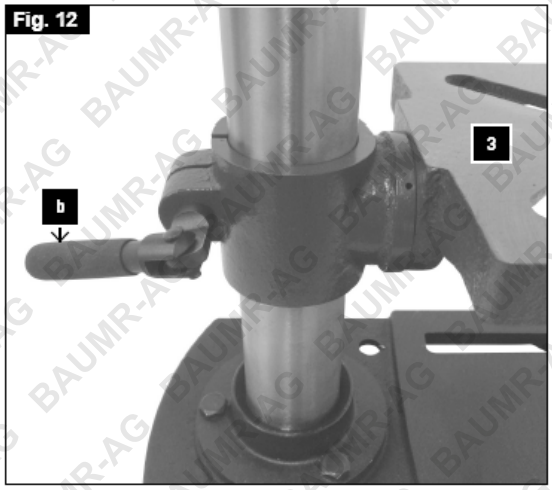
- Press the green ON ("I) button.

To switch the machine OFF:

- Press the red OFF ("O") button.

Adjusting Table Height

It is recommended to position the table so that the tip of the drill bit is just slightly above the top of the work-piece.



1. Loosen the table locking lever (**b**). Loosen only enough so that the table can slide up/down the column.
2. Slide the table (**3**) to the required position.
3. Firmly tighten the table locking lever.

Installing Drill Bits

1. Adjust the chuck jaws as required so the drill bit can be inserted. To open/close the chuck jaws, rotate the outer part of the chuck – rotate left (anti-clockwise) when viewed from above to open the jaws; rotate right (clockwise) when viewed from above to close the jaws.
2. Insert the drill bit into the chuck far enough to obtain maximum gripping by the chuck jaws. Do not insert the drill bit so far that the chuck jaws touch the drill bit flutes (spiral grooves).
3. Ensure that the drill bit is centred in the chuck.
4. Tighten the chuck using the chuck key – insert the end of the key into a hole in the outer part of the chuck and engage the "crown" on the chuck key with the teeth around the end of the chuck. Rotate the chuck key right (clockwise) to tighten; rotate left (anti-clockwise) to loosen. It is recommended to tighten the chuck jaws using all three chuck holes in succession.

Positioning the Table and Securing the Work-Piece

Take all necessary precautions to prevent the work-piece and/or backing material from spinning or being thrown from the machine. For items that are long enough to reach the column, ensure that the edge of the work-piece touches the left-hand side of the column, so the column will prevent spinning. For smaller work-pieces, clamp them to the table with suitable clamps or fasteners (not supplied). For work-pieces that cannot be clamped, hold them using a drill vice (not supplied) and clamp the vice to the table.

Always place a piece of scrap "backing" material on the table underneath the work-piece. This helps reduce burrs and splintering at the end of the drilled hole and protects the table surface.

Adjust table height so that the drill bit sits just above the work-piece. Keep the centre of the table aligned with the spindle.

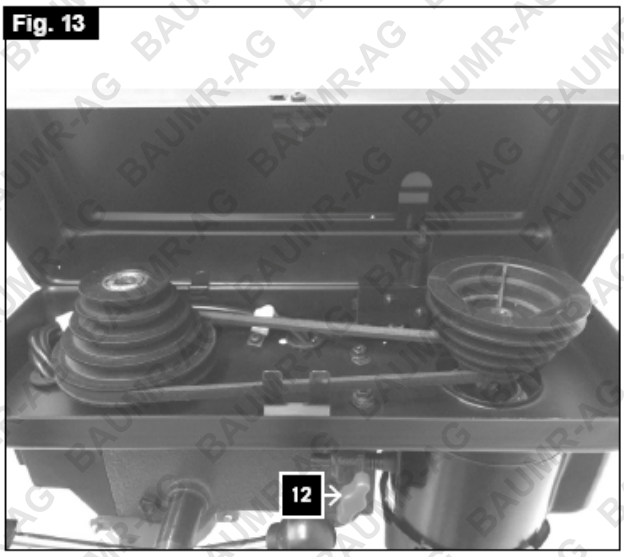
Drilling Holes

- Centre-punch (make a small depression in the surface) the work-piece where you want the hole, using a punch or a sharp nail.
- Install the required drill bit and set the drill to a suitable speed, then lower the spindle and align the centre of the drill bit with the centre-punch mark.
- Switch the machine ON and pull down on the spindle handles with only enough pressure to allow the drill to cut.
  - **FEEDING TOO SLOWLY** might cause the drill bit to burn.
  - **FEEDING TOO RAPIDLY** might stop the motor, cause the belt or drill to slip, tear the workpiece loose, or break the drill bit.
- When drilling metal, it may be necessary to lubricate the tip of the drill with a suitable lubricant to prevent over-heating the drill bit or work-piece.

Selecting Spindle Speed and Adjusting Belt Tensioning

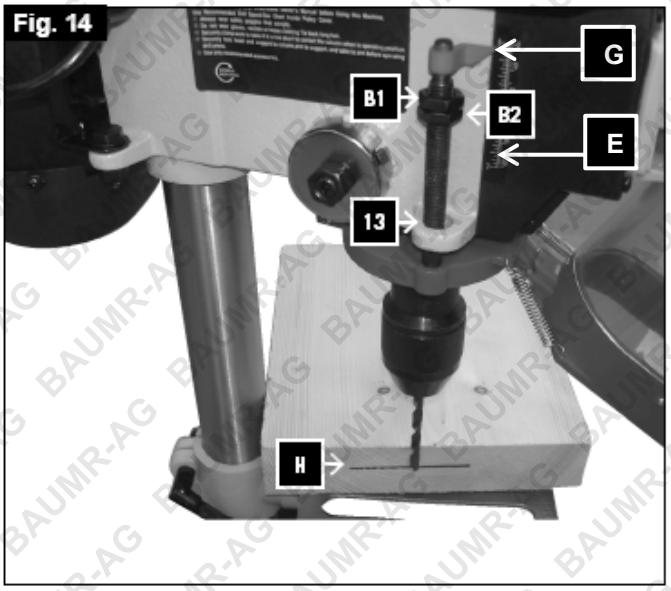
1. Lift the belt cover.
2. Loosen (rotate left) the belt tensioning bolt (**12**). Unscrew it sufficiently so that you can pull the motor forward enough to loosen the v-belt.
3. Move the v-belt to the corresponding belt pulleys. The larger the drive motor pulley and the smaller the spindle pulley, the faster the spindle speed.
4. Push the motor backwards to apply tension to the v-belt.
5. Tighten (rotate right) the belt tensioning bolt. When correctly tensioned, the belt should deflect approximately 13mm (1/2") when squeezed moderately at the mid-point between the pulleys.
6. Close the belt cover.

If belt slips while drilling, increase belt tension.



Using the Depth Stop and Depth Scale

The depth stop and depth scale enables drilling holes to a defined depth. Either method can be used or they can be used together.



Setting the Depth Stop

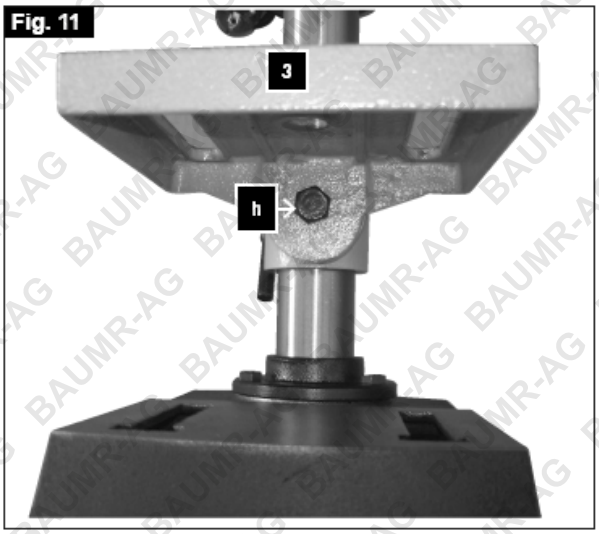
1. Install the required drill bit.
2. Mark the required drilling depth (**H**) on one side of the work-piece.
3. Bring the drill bit down until it reaches the mark and hold the spindle handle at this position.
4. Spin the lower nut (**B2**) down to contact the depth stop lug (**13**).
5. Spin the upper nut (**B1**) down and tighten it against the lower nut.
6. Downward movement of the spindle will stop when the nuts reach the depth stop lug.

Using the Depth Scale

1. Install the required drill bit.
2. Mark the required drilling depth (**H**) on one side of the work-piece
3. Bring the drill bit down until it reaches the mark and hold the spindle handle at this position.
4. Note where the indicator (**G**) points to on the depth scale (**E**). Optionally, set depth stop nuts (**B1** / **B2**).
5. When drilling, stop when the pointer reaches the required position on the depth scale. If using the depth stop, spindle movement will stop when the nuts reach the depth stop lug.

Adjusting Table Angle

1. Using a suitable spanner, loosen the table lock nut (**h**).
2. Rotate the table (**3**) to the required angle and hold in this position – there is a scale and pointer on the top of the table.
3. Firmly tighten the table lock nut.



Maintenance

Ensure the machine is switched OFF and disconnected from the electrical supply before performing any maintenance tasks. • All protection and safety devices must be immediately re-installed once the maintenance work is completed. • When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage and may void any warranty. • Some maintenance activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the tools or experience for, have the unit serviced by a service centre or qualified technician. • Do not allow chemicals, solvents or petroleum based products come into contact with plastic parts as this may damage and weaken them, creating a hazard. • The machine comes adjusted at the factory. Do not make unnecessary adjustments – adjust only when necessary through normal wear and tear.

To keep the machine performing at optimal efficiency, regular checks and maintenance is required. Proper care and maintenance ensures best performance and longest service life.

- Clean the machine after each use with a brush and cleaning cloth to help prevent the build-up of cuttings, sawdust and other particles. Do not use chemicals, solvents or abrasive materials.
- To help prevent corrosion, it is recommended to periodically apply some oil to the machine column, table and base.

Lubrication

Periodically lubricate the spindle.

1. Open the belt cover.
2. Lower the spindle fully and hold it in this position.
3. Place a few drops of clean engine oil or machine oil down through the spindle pulley, then move the spindle up and down several times to distribute the lubricant.

Chuck Removal

Open the chuck jaws fully by rotating the outer part of the chuck left (anti-clockwise) when viewed from above.

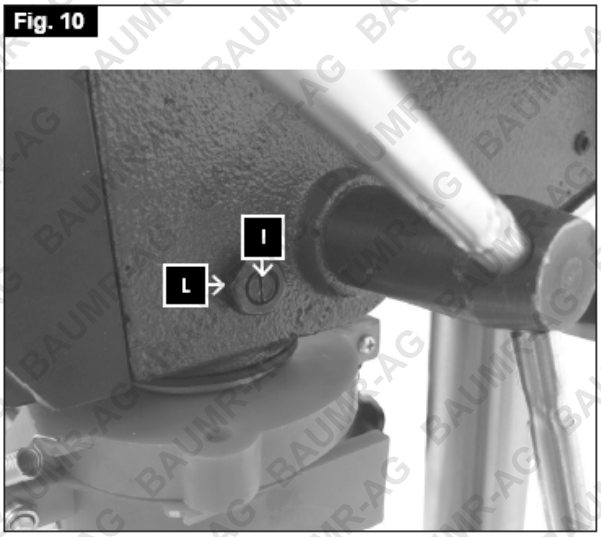
Place a hand beneath the chuck to catch it, then carefully tap the side of the chuck with mallet to release the chuck-spindle tapers.

Adjusting Spindle Side Clearance

With the spindle in an extended position, hold the end of the spindle and push-pull it to check for excessive sideways clearance. If the spindle can be moved more than 1 to 2 mm, adjust it as follows:

1. Loosen the lock nut (**L**).
2. Rotate the adjusting screw (**I**) right (clockwise) to eliminate the play. Check that spindle up/down movement is not affected (binding or requiring unnecessary force).
3. Tighten the lock nut.

Fig. 10



Troubleshooting

Chuck will not stay attached to the spindle.

Possible Fault	Action
Dirt, grease or oil in the chuck-spindle taper	Thoroughly clean and dry the tapered chuck hole and spindle taper and ensure both surfaces are completely free of any contaminants, then install the chuck.

Noisy operation or excessive vibration.

Possible Fault	Action
Incorrect belt tension	Adjust belt tension.
⬇	
Dry spindle	Lubricate the spindle.
⬇	
Loose spindle pulley	Check tightness of retaining nut on pulley, and tighten if necessary.
⬇	
Loose motor pulley	Tighten set screw in motor pulley.
⬇	
Belt no longer serviceable	Replace belt.

Drilled holes have excessive burring or splintering.

Possible Fault	Action
No "backup" behind work-piece	Use "backup" material under the work-piece.
⬇	
Drill not sharp or shaped incorrectly	Sharpen drill bit correctly.

Drill bit over-heating.

Possible Fault	Action
Incorrect speed	Adjust speed to suit bit size and material hardness. For harder materials, lubricate drill bits.
⬇	
Cut material filling hole	Retract drill bit frequently to remove cut material from the flutes.
⬇	
Drill not sharp or shaped incorrectly	Sharpen drill bit correctly.
⬇	
Feeding too slowly	Apply more pressure on spindle handle and allow drill bit to cut.

Drill bit binds in workpiece.

Possible Fault	Action
Cut material filling hole	Retract drill bit frequently to remove cut material from the flutes. Alter feed pressure
⬇	
Improper belt tension.	Adjust belt tension.

Drill "wobble"/"run-out" or holes not round.

Possible Fault	Action
Drill bit not properly installed in chuck	Install drill bit correctly.
Drill not sharp or shaped incorrectly	Sharpen drill bit correctly.
Bent drill bit	Replace drill bit.
Spindle side clearance excessive	Adjust spindle side clearance.
Worn spindle bearings	Replace bearings.

Specifications

Electrical Requirements	240VAC / 50Hz
Chuck	13mm
Speeds	500 / 950 / 1450 / 1950 / 2500 RPM
Drill Travel	50mm
Drill Throat	100mm
Base	Cast Iron

Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.