

RIVVAL ONLINE

ADDER MAGNETIC DRILLING MACHINE

Model No. **RP05520/2**

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1) INTENDED USE

The magnetic drill is intended for use to drill a hole in a ferrous material. The magnet is used to hold the drill in place whilst the drill is functioning elevating the stress placed on the user and increase the low precision that would be incurred when using a hand held drill. It is designed for use in Fabrication, Construction, Railways, Petrochemical and any other application when drilling ferrous metal. Any deviation from its intended use will not be the subject of responsibility from Rotabroach.

WARNING! Read and understand all instruction before operating any drilling system. Failure to follow all instructions listed below may result in electrical shock, damage to drilling system and even personal injury.

2) GENERAL SAFETY INSTRUCTIONS

Work area

Keep your working area clean and well lighted. Cluttered benches and working stations causes accidents as well as dark spaces. Always ensure working stations are clean and well lit.

Do not operate power tools in explosive atmosphere, such as in the presence of flammable liquids, gases or extreme dust. Power tools create sparks that may ignite gases as well as flammable liquids. Dust may enter the ventilation system causing clogging and causing overheating.

Keep bystanders, children and visitors away from moving parts of the power tool. Any distractions can cause you to lose control of the power tool and an injury could take place.

Electrical Safety

Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the ground prong or modify the three prong in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

Never carry a tool by the cord or hose and “yanking” the cord or the hose to disconnect it from the receptacle. Always carry the power tools properly and store in dry and dust free place.

Keep cords and hoses away from heat, oil and sharp edges. Damaged cords increase the risk of electric shock.

Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock. **When operating a power tool outside, use an outdoor extension cord marked .W-A. or. W..**

These cords are rated for outdoor use and reduce the risk of electric shock.

Personal Safety

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewellery. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery, or long hair can be caught in moving parts.

Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

Remove adjusting keys or switches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

Do not overreach. Keep a proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hardhat, or hearing protection must be used for appropriate conditions.

Tool use and care

Use clamps or other practical way to secure and support the work piece to a stable platform.

Holding the work by hand or against your body is unstable and may lead to loss of control.

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.

Do not use tool if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

Store idle ling tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.

Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation.

If damaged, have the tool serviced before using. Poorly maintained tools cause many accidents.

Use only accessories that are recommended by the manufacturer for your model.

Accessories that may be suitable for one tool may become hazardous when used on another tool.

Service

Only qualified repair personnel must perform tool service. Service or maintenance performed by unqualified personnel could result in a risk of injury.

When servicing tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance

Instructions may create a risk of electric shock or injury.

Symbols used in this manual

IMPORTANT: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

Terminology used in the manual

1. Warning: This term means that there is a risk of physical harm or death to the operator or people nearby.
2. Caution: This term means that there is a risk of damage to the machine, cutting tool or other equipment.
3. Note: These terms offer useful information relating to the operation of the machine or its maintenance.

| Symbol | Name | Designation/Explanation |
|--------------|------------------------|--|
| V | Volt | Voltage (potential) |
| A | Amperes | Current |
| Hz | Hertz | Frequency (cycles per second) |
| W | Watt | Power |
| kg | Kilograms | Weight |
| min | Minutes | Time |
| s | Seconds | Time |
| φ | Diameter | Size of drill bits |
| No | No load speed | Rotational speed, at no load |
| .../min | Revolutions per minute | Revolutions, strokes, surface speed per minute. |
| 0 | Off position | Zero speed, zero torque... |
| 1, 2, 3, ... | Selector settings | Speed setting, higher number means greater speed |
| ~ | Alternating current | Type or a characteristic or current |
| □ | Class II construction | Double Insulated, construction tool |
| ⚠ | Warning symbol | Alerts user to warning messages |

Foreseeable Misuse

- During operation, failure to keep the cable away from the machine body, will result in the cable damaged by drill bit, causing electric conduction and other accidental injury.
- Before operation, when plugging the power source, failure to turn all the switches to position <off>, may result in accidental start-up from the machine, causing accidental injury.
- During suspended operation, failure to tie the safety belt to fasten the magnetic drill, when power failure or power down suddenly, causing magnetic drill to get out of the work surface and resulting in the accident.

Other risks

- During operation, wear loose clothing or jewellery, failure to wear protective hair covering to containing long hair, they can be caught in moving parts, may present an accidental injury.
- During operation, put in effort to push and press the machine, will result the magnet getting out of the work surface suddenly, causing accidental injury.
- Before mounting or removing the drill bit, failure to disconnect the supply, will result the accidental start-up, causing personal injury.

SPECIFIC SAFETY RULES AND REGULATIONS

Always use safety chain. Mounting can release.

The magnet's adhesion depends on the thickness of the work piece. Always ensure that the work piece is a minimum of 12mm (7/16 in.) thick. If it is not, then use a piece of steel plate at least 12mm thick and larger than the magnet below the work piece to supplement the magnetic adhesion.

Metal chips and other debris will seriously hamper magnetic adhesion. Always ensure that the magnet is clean.

Other units used on the same receptacle will cause uneven voltage that could lead to the magnet releasing. Always use the tool alone on the receptacle.

It is hazardous to use the drill upside-down. Do not exceed 90 degrees from horizontal.

Avoid the magnet releasing. Ensure that the magnet has properly adhered to the work piece before beginning drilling.

Avoid operating annular cutters without coolant. Always lubricate the cutter and add as needed during the cut. Always lubricate the cutter and add as needed during the cut.

Do not operate with dull or damaged cutting tools. This may overload the motor.

Protect the motor. Never allow cutting fluid, water, or other contaminants enter the motor.

Metal chips are often very sharp and hot. Never touch them with bare hands. Clean up with a magnetic chip collector and a chip hook or other appropriate tool.

CAUTION: NEVER position machine on a work piece between the electrode and the ground of any arc type welder. Damage to the machine will result, as the welder will ground through the machine's ground cable.

WARNING: NEVER attempt to use machine with incorrect current or abnormally low voltage.

Check machine nameplate to ensure that correct voltage and Hz are used.

USING THE SAFETY STRAP

The safety strap must always be used.

Loop the strap through the slot above the magnet and around the work piece. Push on the spring buckle and thread the loose end of the strap through the loop and pull tight. Push on the spring buckle to release strap.

3) Machine Specification



| | |
|---------------------------|---|
| Model Number | CM/705/1A / CM/705/3A |
| Motor specification | 110V full load 10.8A 1100W 230V full load 5.4A 1100W |
| No Load rpm | 650 rpm |
| Max hole cutting capacity | 35mm x 25mm deep |
| Overall dimensions | Height 210mm Width 100mm Length 285mm |
| Net weight | 10Kg |
| Spindle bore | 19.05 (3/4") |
| Magnetic adhesion | 1500kgs |
| Safety feature | Electronic overload |

Note: This machine is fitted with an electronic overload protection. To reset please turn off the machine using the magnet switch and leave for 5 seconds then restart the machine as normal.

4) OPERATION-GENERAL

WARNING: Always ensure that the magnet is adhered properly to the work piece before beginning drilling.

NOTE: If mounting to a curved surface beam, mount the machine parallel to the curve in the work piece.

WARNING: Avoid operating at more than 90 degrees from horizontal. When drilling at such an angle take precautions to prevent cutting coolant from entering the motor. Paste-type stick lubricant should be used.



NOTE: Always ensure that the cutting tool is sharp. A dull cutter typically will have finer and/or choppy shavings.

WARNING: ALWAYS clear chips when there is too much build-up. Excessive chip build-up could result in a jammed cutter or other hazardous situation.

WARNING: the slug ejects at end of cut and is very hot. Always provide a method of catching the slug, where the ejected slug may cause injury to people below.

CAUTION: Never attempt to cut half-circles or to stitch drill (drill overlapping holes) with a TCT cutter. This may destroy the cutter.

REVERSING OR CHANGING THE POSITION OF THE CRANK LEVER

The Crank Lever is quick-release and adjustable to suit different operating conditions.

If it is required to mount the crank lever on the opposite side or to change its position, push the Release Button in the center of the Crank Hub and remove. Press the Button and mount on the opposite side or in the desired position.



THE LED WORK LIGHT

Models equipped with the LED WORK LIGHT have a light which is always on whenever the machine is plugged in. This can be useful when working in dark work spaces.



CAUTION: Never attempt to re enter a half-finished cut if the magnet has been turned off and the machine shifted in the interim. This may destroy the cutter.

5) MOUNTING ANNULAR CUTTERS

CAUTION: Never use a cutting tool that is larger than the maximum rated capacity of the machine.

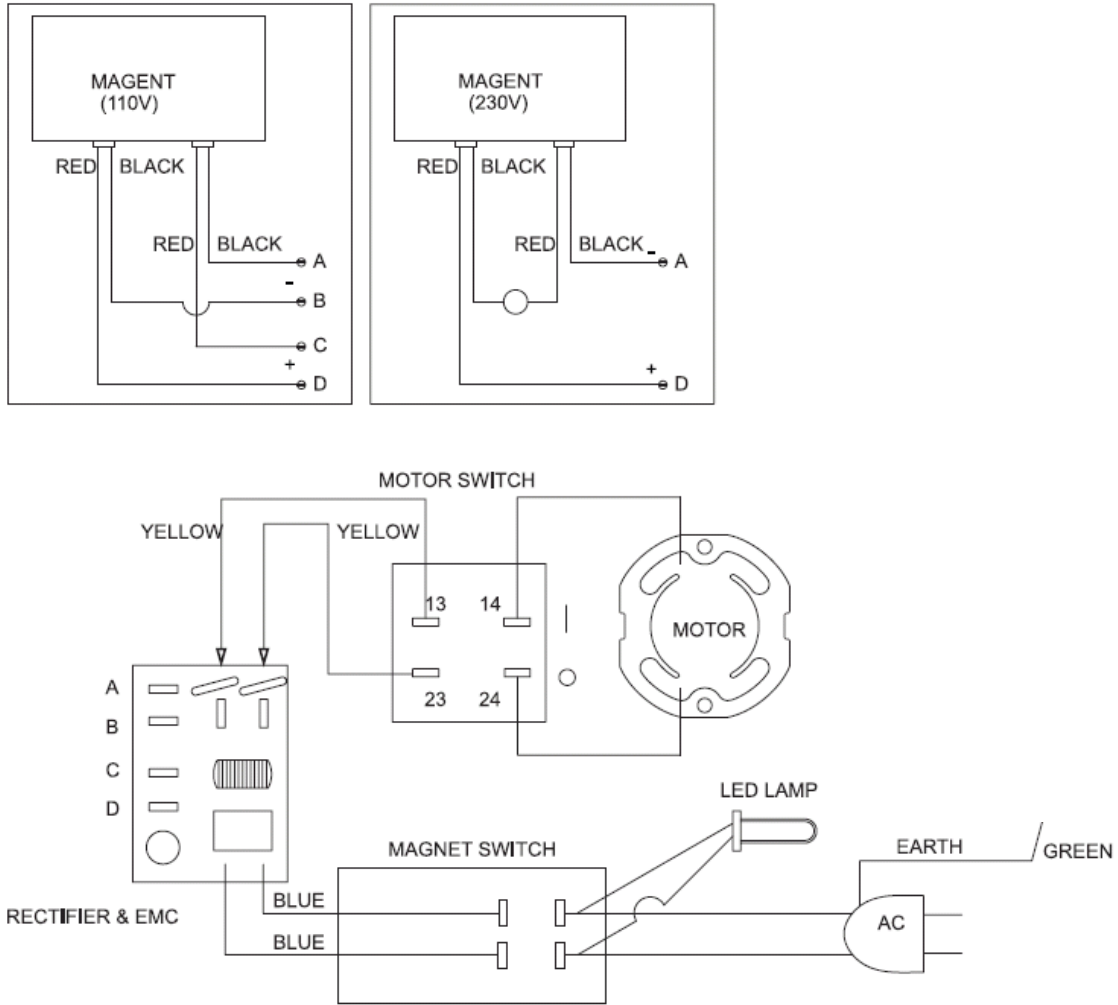
- The machine has been made to accept cutters having 19.05mm (3/4") dia. shanks.
- The following procedure is to be used when mounting cutters.
- Lay the machine on its side with feed handles uppermost, ensuring arbor is wound down to its lowest point to enable access to socket screws RD4066.
- Take appropriate pilot and place through the hole in cutter shank. Insert shank of cutter into bore of arbor, ensuring alignment of two drive flats with socket screws.
- Tighten both screws using hexagon key.

6) REMEDIES FOR HOLE MAKING PROBLEMS

| <i>Problem</i> | <i>Cause</i> | <i>Remedy</i> |
|---|---|--|
| 1) Magnetic base won't hold effectively | Material being cut may be too thin for efficient holding. Swarf or dirt under magnet. Irregularity on magnet contact or work-piece. Insufficient current going to magnet during drilling cycles. | Attach an additional piece of metal under work-piece where magnet will be located, or mechanically clamp magnetic base to work-piece. Clean magnet. Use extreme care; file any imperfections flush to surface. Confirm power supply and output from control unit, check supply cable. |
| 2) Cutter skips out of centre-punch mark at initiation of cut | Magnetic base is not holding effectively. Worn arbor bushing and/or ejector collar. Too much feed pressure at start of cut. Cutter is dull, worn, chipped or incorrectly sharpened. Poor centre-punch mark; weak pilot spring; pilot not centred in centre-punch mark. Worn or bent pilot, worn pilot hole. Loose bolts on motor bushing support bracket, main casting or loose gib adjusting set screws. | See causes and remedies above. Replace! Only a few thousandths wear permissible. New arbor bushing is needed. Light pressure only is needed until a groove is cut. The groove then serves as a stabilizer. Replace or re-sharpen. Sharpening service is available. Improve centre-punch and/or replace worn parts Replace part or parts Adjust where necessary |
| 3) Excessive drilling pressure required | Incorrectly re-sharpened, worn or chipped cutter. Coming down on swarf lying on surface of work-piece. Gibs out of adjustment or lack of lubrication. Swarf accumulated (packed) inside cutter. | Re-sharpen or replace. Take care not to start a cut on swarf. Adjust setscrews, and lubricate. Clear cutter. |
| 4) Excessive cutter breakage | Steel swarf or dirt under cutter. Incorrectly re-sharpened or worn cutter. Cutter skipping. Slide-ways need adjustment. Cutter not attached tightly to arbor. Insufficient use of cutting oil or unsuitable type of oil. | Remove cutter, clean part thoroughly and replace. Always have a new cutter on hand to refer to for correct tooth geometry, together with instruction sheet. See causes and remedies (2). Tighten sideways. Retighten. Inject oil of light viscosity into the coolant-inducing ring and check that oil is being metered into cutter when pilot is depressed. If not, check pilot groove and arbor internally for dirt or apply oil externally. (Even a small amount of oil is very effective). |
| 5) Excessive cutter wear | See cause and remedy above | |

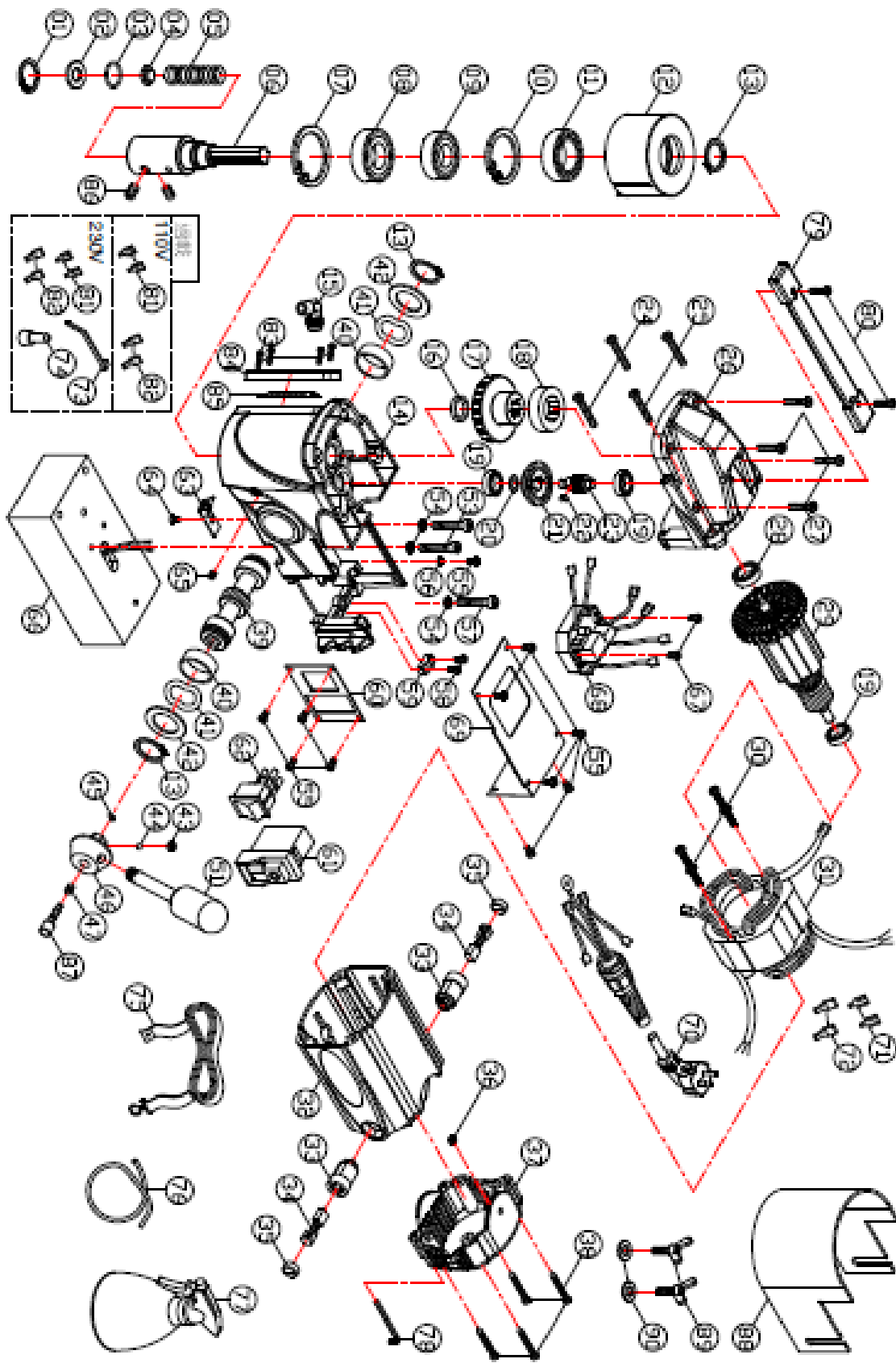
| | | |
|--|--|---|
| | <p>Incorrectly re-sharpened cutter.</p> <p>Insufficient or spasmodic cutting pressure.</p> | <p>Refer to instructions and a new cutter for proper tooth geometry.</p> <p>Use sufficient steady pressure to slow the drill down. This will result in optimum cutting speed and chip load.</p> |
|--|--|---|

7) Wiring Diagram



8) Exploded Diagram of the machine

MODEL : CM705 Magnetic core drill



9) Parts List

| No. | Parts Name | Part number | Qty | No. | Parts Name | Part number | Qty |
|------|-------------------|-------------|-----|------|--------------------|-------------|-----|
| 1.) | INTERNAL CIRCLIP | RD49000 | 1 | 46.) | CRANK HUB | RD49049 | 1 |
| 2.) | ARBOR WASHER | RD49001 | 1 | 47.) | SPRING | RD49050 | 1 |
| 3.) | O-RING | RD49212 | 1 | 51.) | CRANK LEVER | RD49054 | 1 |
| 4.) | COOLANT SEAL | RD49002 | 1 | 52.) | GRIP | RD49055 | 1 |
| 5.) | SPRING | RD49003 | 1 | 53.) | SOCKET CAP SCREW | RD49056 | 2 |
| 6.) | SPINDLE | RD49213 | 1 | 54.) | SPRING WASHER | RD49057 | 3 |
| 7.) | INTERNAL CIRCLIP | RD49214 | 1 | 55.) | SCREW | RD49067 | 11 |
| 8.) | OIL SEAL | RD49215 | 1 | 56.) | SUN WASHER | RD49074 | 1 |
| 9.) | OIL SEAL | RD49216 | 1 | 57.) | SOCKET CAP SCREW | RD49072 | 1 |
| 10.) | INTERNAL CIRCLIP | RD49015 | 1 | 58.) | SCREW | RD49234 | 2 |
| 11.) | BEARING | RD49016 | 1 | 59.) | CABLE CLIP | RD49062 | 1 |
| 12.) | SPINDLE GUIDE | RD49017 | 1 | 60.) | MOUNTING PLATE | RD49235 | 1 |
| 13.) | EXTERNAL CIRCLIP | RD49018 | 3 | 61.) | MOTOR SWITCH 110V | RD49236 | 1 |
| 14.) | GEAR CASE | RD49217 | 1 | 61.) | MOTOR SWITCH 230V | RD49237 | 1 |
| 15.) | COOLANT CONNECTOR | RD49218 | 1 | 62.) | MAGNET SWITCH | RD49066 | 1 |
| 16.) | BUSHING | RD49020 | 1 | 63.) | LED LAMP | RD49058 | 1 |
| 17.) | QUILL GEAR | RD49021 | 1 | 64.) | FLAT HEAD SCREW | RD49059 | 1 |
| 18.) | BEARING | RD49219 | 1 | 65.) | SCREW | RD49238 | 1 |
| 19.) | BALL BEARING | RD49023 | 3 | 66.) | MAGNET BASE | RD49060 | 1 |
| 20.) | FLAT WASHER | RD49220 | 1 | 67.) | SCREW | RD49239 | 2 |
| 21.) | BEVEL GEAR | RD49024 | 1 | 68.) | OVERLOAD UNIT 110V | RD49240 | 1 |
| 22.) | PARALLEL KEY | RD49025 | 1 | 68.) | OVERLOAD UNIT 230V | RD49241 | 1 |
| 23.) | INTERMEDIATE GEAR | RD49026 | 1 | 69.) | SWITCH BRACKET | RD49242 | 1 |
| 24.) | SCREW | RD49027 | 2 | 70.) | POWER SUPPLY CABLE | RD49243 | 1 |
| 25.) | SCREW | RD49028 | 2 | 71.) | WIRE CONNECTOR | RD49244 | 2 |
| 26.) | GEAR COVER | RD49221 | 1 | 72.) | POST WRAP | RD49245 | 2 |
| 27.) | SCREW | RD49222 | 4 | 73.) | BELT | RD49246 | 1 |
| 28.) | BEARING | RD49031 | 1 | 74.) | CONNECTOR | RD49247 | 1 |
| 29.) | ARMATURE 110V | RD49223 | 1 | 75.) | SAFETY BELT | RD49248 | 1 |
| 29.) | ARMATURE 230V | RD49224 | 1 | 76.) | COOLANT TUBE | RD49249 | 1 |
| 30.) | SCREW | RD49033 | 2 | 77.) | COLLANT TANK | RD49250 | 1 |
| 31.) | STATOR 110V | RD49225 | 1 | 78.) | HEX. WRENCH | RD49251 | 1 |
| 31.) | STATOR 230V | RD49226 | 1 | 79.) | STRAP COVER | RD49252 | 1 |
| 32.) | MOTOR HOUSING | RD49227 | 1 | 80.) | SCREW | RD49253 | 2 |
| 33.) | BRUSH HOLDER | RD49228 | 2 | 81.) | WIRE CONNECTOR | RD49254 | 2 |
| 34.) | CARBON BRUSH | RD49229 | 2 | 82.) | POST WRAP | RD49255 | 2 |
| 35.) | BRUSH CAP | RD49230 | 2 | 83.) | SCREW | RD49256 | 4 |
| 36.) | NUT | RD49231 | 1 | 84.) | VALVE PLATE | RD49257 | 1 |
| 37.) | MOTOR TAIL COVER | RD49232 | 1 | 85.) | RUBBER PLUG | RD49258 | 1 |
| 38.) | SCREW | RD49233 | 4 | 86.) | Screw M8 x 7 | RD49259 | 2 |
| 39.) | CRANK SPINDLE | RD49044 | 1 | 87.) | PLUNGER | RD49260 | 1 |
| 40.) | CRANK BUSHING | RD49045 | 2 | 88.) | CHIP GUARD | RD49261 | 1 |
| 41.) | WASHER | RD49075 | 2 | 89.) | SCREW | RD49262 | 2 |
| 42.) | THRUST WASHER | RD49046 | 2 | 90.) | FLAT WASHER | RD49263 | 2 |
| 43.) | BALL SEAT | RD49047 | 1 | | | | |
| 44.) | CHECK BALL | RD49048 | 1 | | | | |
| 45.) | E-CLIP | RD49234 | 1 | | | | |
| | | | | | | | |
| | | | | | | | |

10) Tips for keeping your machine in correct working order.

In order to 'get the best life' out of your Rotabroach machine always keep in good working order. A well maintained machine is a happy machine.

A number of items must always be checked on Rotabroach machines.

Always before starting any job make sure the machine is in good working order and that there are no damaged or loose parts. Any loose parts must be tightened.

Before proceeding with any maintenance work; be certain that the power supply is disconnected.

| Description | Every operation | 1 week | 1 Month |
|------------------------------------|-----------------|--------|---------|
| Visual check of machine for damage | X | | |
| Operation of machine | X | | |
| Check brush wear | | X | |
| Check magnetic base | X | | |
| Check alignment of the machine | | | X |
| Check grease | | | X |
| Check Armature | | | X |

Visually check the machine for damage.

Machine must be checked before operation for any signs of damage that will affect the operation of the machine. Particular notice must be taken of the mains cable, if the machine appears to be damaged it should not be used failure to do so may cause injury or death.

Check operation of the machine.

The machines operation must be checked to ensure that all components are working correctly.

Machine Brushes - should be checked to make sure there is no abnormal wear present this should be checked at least once a week if used frequently. If the brush has worn more than 2/3 the original length the brushes should be changed. Failure to do so may cause damage to the machine.

The carbon brushes are a normal wearing part and must be replaced when they reach their wear limit.

Caution: Always replace the brushes as a pair.

To replace:

1. Remove the 2 brush caps
3. Unscrew the screw to remove the brush lead. The old carbon brush may now be lifted away.
4. Install a new brush. Installation is the reverse of removal.

CARBON BRUSHES

Due to the brush design, if the machine comes to a stop without any reason, the brushes have to be checked. The brush design stops the machine before the carbon brushes are finished and protects the motor.

Magnetic base – before every operation the magnetic base should be checked to make sure that the base is flat and there is no damage present. An uneven magnet base will cause the magnet not to hold as efficiently and may cause injury to the operator.

Check machines grease.

The gearbox grease should be checked once a month to ensure all moving components are covered to prevent wear. The grease should be changed at least once a year to ensure you gain the best from the machine.

Check Armature of the machine.

This should be checked at least 1 per month to check that there are visual signs of damage to the body or to the commutator. Some signs of wear will be seen on the commutator over a period of time this is normal as this is the part that comes in contact with the brushes but any signs of abnormal damage and the part should be replaced.

11) TROUBLE SHOOTING

| | |
|---|---|
| Magnet and motor do not function | <ul style="list-style-type: none"> - The magnet switch is not connected to the power supply - Damaged or defective wiring - Defective fuse - Defective magnet switch - Defective Control Unit - Defective power supply |
| Magnet does function, the motor does not | <ul style="list-style-type: none"> - Damaged or defective wiring - Carbon brushes are stuck or worn out - Defective magnet switch - Defective On / off switch - Defective Control Unit - Defective armature and/or field - Defective magnet protective switch |
| Magnet does not function, the motor does | <ul style="list-style-type: none"> - Defective magnet - Defective Control Unit |
| Hole cutters break quickly, holes are bigger than the hole cutter | <ul style="list-style-type: none"> - Play in the guide - Bent spindle - Defective Magnet causing movement - Shaft extending from the motor is bent - Uneven work surface causing lack of magnetic adhesion. - Bent pilot |
| Motor running roughly and/or seizing up | <ul style="list-style-type: none"> - Bent spindle - Shaft extending from the motor is bent - Triangular guide not mounted straight - Dirt between spindle and triangular guide |
| Motor making a rattling sound | <ul style="list-style-type: none"> - Gear bearing (bottom of the armature) worn out - Gear(s) worn out - No grease in gear box |
| Motor humming, big sparks and motor has no force | <ul style="list-style-type: none"> - Armature burned - Field burned - Carbon brushes worn out |
| Motor does not start or fails. | <ul style="list-style-type: none"> - Damaged or defective wiring - Dirt in sensor of Speed Control Unit - Defective Speed Control Unit - Defective speed control or its wiring - Defective or loose magnet on top of armature - Damaged or defective brushes |
| Guiding takes a great deal of effort | <ul style="list-style-type: none"> - Guide is set too tight - Guide is dry - Guide/gear- rack/rotation system dirty or damaged |
| Insufficient magnetic force | <ul style="list-style-type: none"> - Damaged or defective wiring - Bottom of magnet not clean and dry - Bottom of magnet not flat - Work piece is not bare metal - Work piece is not flat - Work piece is too thin less than 10mm - Defective Control Unit - Defective magnet |
| Motor only runs at maximum rpm | <ul style="list-style-type: none"> - Defective speed switch - Damaged / defective wiring - Defective Control Unit |
| Frame under voltage | <ul style="list-style-type: none"> - Damaged / defective wiring - Defective magnet - Motor seriously dirty |
| Fuse blows when magnet switch is turned on | <ul style="list-style-type: none"> - Damaged or defective wiring - Wrong value fuse - Defective magnet switch - Defective Control Unit - Defective magnet |
| Fuse blows when motor is started up | <ul style="list-style-type: none"> - Damaged or defective wiring - Wrong value fuse - Motor running roughly - Defective Armature and / or Field - Carbon brushes worn out - Defective Control Unit |
| Rotation system free stroke too long | <ul style="list-style-type: none"> - Loose or defective gear-rack - Defective rotation system |



WARRANTY STATEMENT

Rotabroach® warrants its machines to be free from faulty materials, or workmanship under normal use for a period of 6 months from initial date of purchase and 90 days for all other parts (excluding cutters), provided that the warranty registration card (or online registration) has been completed and returned to Rotabroach®, or its designated distributor within a period of (30) days from the purchase date, failure to do so will void the warranty. If the stated is adhered to Rotabroach® will repair or replace (at its option) without charge any faulty items returned.

This Warranty does not cover:

1. Components that are subject to natural wear and tear caused by the use in accordance with the operators instructions
2. Defects in the tool caused by non-compliance with the operating instructions, improper use, abnormal environment conditions, inappropriate operating conditions overload or insufficient servicing or maintenance.
3. Defects caused by using accessories, components or spare parts other than original Rotabroach® parts.
4. Tools to which changes or additions have been made.
5. Electrical components are subject to manufacturer's warranty.

Your online registration can be submitted on www.rotabroach.co.uk

The warranty claim must be lodged within the warranty period. This requires the submission or sending of the **complete** tool in question with the original sales receipt which must indicate the purchase date of the product. A complaint form must also be submitted prior to the return.

This can be found online at www.rotabroach.co.uk Failure to complete this form will result in the delay of your claim.

All goods returned defective must be returned pre-paid to Rotabroach®, in no event shall Rotabroach® be liable for subsequent direct, or indirect loss or damage.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, (EXPRESSED OR IMPLIED) INCLUDING ANY WARRANTY OF MECHANICALITY OR FITNESS FOR A PARTICULAR PURPOSE. ROTABROACH® RESERVE THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE

Known and Trusted Worldwide for Quality, Performance and Reliability