TUNDRA® INDUSTRIAL

USER MANUAL

TUNDRMAGM40-110
TUNDRMAGM40-230

40mm MINI MAGNETIC DRILL

RoHS 2011/65/EU

TUNDRA® INDUSTRIAL

USER MANUAL

TUNDRMAGM40-110
TUNDRMAGM40-230

Contents

Important: *Please read all these instructions before operating this product and save these instructions. This manual has been compiled by Tundra Industrial and is an integrated part of the product with which it's enclosed and should be kept with it for the future reference.*

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation or, before performing any kind of adjustment to the product and prior to any maintenance tasks. By following all the general safety instructions contained in this manual you will help to ensure operator safety and extend the potential lifespan of the equipment.

All photographs and drawings in this manual are supplied by Tundra Industrial to help illustrate the operation of the product. Whilst every effort has been made to ensure accuracy of information contained in this manual our policy of continuous improvement determines the right to make modifications without prior warning.

Note: *The information contained in this Instruction Manual is designed to assist you in the safe operation and maintenance of the equipment. Some illustrations in this Instruction Manual may show details or attachments that differ from those on your own model. Contact your nearest Tundra Industrial Dealer if you are unsure about any information included in this manual or require any additional information about the safe use, operation maintenance, or repair of this equipment.*

USER MANUAL

TUNDRMAGM40-110
TUNDRMAGM40-230

1. INTRODUCTION

This portable magnetic drill is designed for drilling holes in steel fabrication work. It is an ideal portable drilling solution equally suited for use in building sites or the workshop environment and can be used to cut in horizontal, vertical and overhead positions.

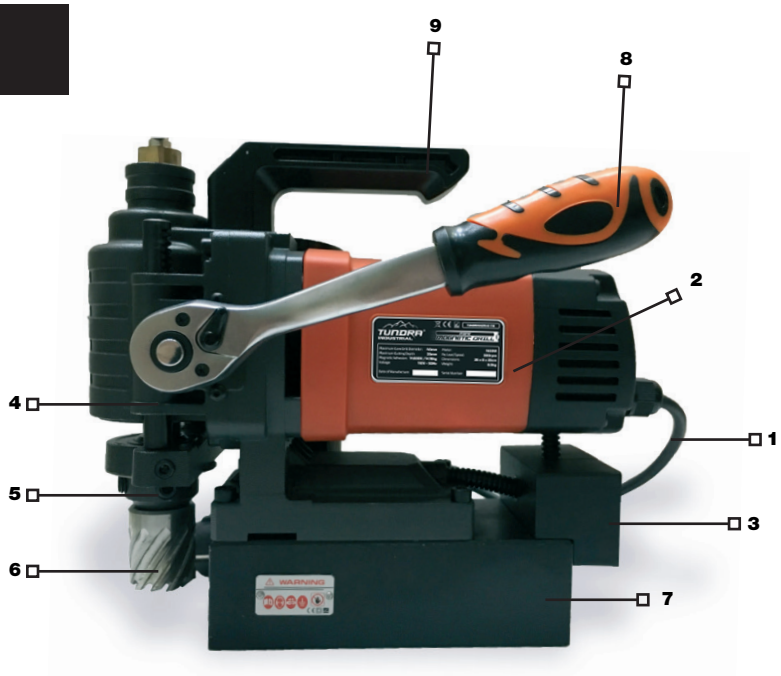
The magnetic drill uses an annular hole cutter (sometimes called a slugger bit) to cut clean and accurate holes without pre-drilling or step drilling. After cutting through the steel the cutter produces a "slug" (a cylindrical lump of steel) that falls from the centre of the cut.

2. SPECIFICATIONS

	TUNDRMAGM40-110	TUNDRMAGM40-230
Maximum Core Drill Diameter:	40mm	40mm
Maximum Cutting Depth:	35mm	35mm
Magnetic Adhesion:	14500N / 1478kg	14500N / 1478kg
Voltage ~ Frequency:	110V ~ 50Hz	230V ~ 50Hz
Motor:	1650W	1650W
No Load Speed:	500 rpm	500 rpm
Dimensions:	26 x 8 x 25cm	26 x 8 x 25cm
Weight:	8.5kg	8.5kg

3. EQUIPMENT GUIDE

Number	Part Name
1	**Power Cable**
2	**Motor Housing**
3	**Control Panel** (Motor & Magnet On/Off)
4	**Gear Box**
5	**Arbour**
6	**Annular Hole Cutter (Slugger Bit)**
7	**Magnetic Base**
8	**Feed Control**
9	**Carry Handle**



4. GENERAL SAFETY GUIDELINES

4.1 General Safety

Important: Ensure that you have read and understand the information contained in this manual before operating this equipment.

- This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities. The equipment must not be operated by children or by any persons who have not been instructed in the correct operation.
- Children and pets should be kept away from the working environment at all times during operation.
- Please read these instructions carefully and keep in a safe location for future reference. Ensure that the manual is passed on should ownership of the equipment change at any time.
- Contact your nearest Tundra Industrial Dealer for advice on correct usage, accessories (including compatible detergents), servicing and replacement parts.
- Do not modify this equipment for any other purpose than those originally intended buy the manufacturer.
- Ensure that the product is used in accordance with the guidelines described in this manual. Failure to do so can result in personal injury and may void the warranty.
- Ensure that you disconnect from the power supply before carrying out any adjustments maintenance or servicing on this equipment.

4.2 Working Environment

- Ensure that the working environment is kept clear and uncluttered. There should be plenty of light available for safe operation.
- Do not use this equipment in wet or windy conditions or damp or wet conditions.
- Do not use this equipment in the presence of flammable liquid or gases.
- Protect against electric shock by preventing contact with earthed or ground surfaces (e.g. pipes, radiators, cookers and refrigerators).
- We recommend using a suitable residual current device (RCD) for electrical safety when using this equipment.
- This equipment should be grounded while in use to protect the operator from electric shock.
- Store idle tools when not in use in a dry and secure location, out of reach of children.
- Do not force the tool during operation or use the equipment for a larger job than which it was designed.

4.3 Personal Protection Equipment (PPE)

- Do not wear loose clothing or jewellery during operation incase they get caught in moving parts.
- Wear protective hair covering to prevent long hair getting caught up in the tool.
- Ensure that suitable safety equipment is worn during use these include:

    - Safety glasses
    - Ear defenders
    - Protective gloves

- Wear a hard hat (if working with magnetic drill above head height to prevent injury from ejected slugs after cutting). Use a face or dust mask if cutting operations create dust. Non-slip, steel toecap footwear is recommended.
- Cutters are sharp. Wear gloves when installing or removing cutter from the arbor. Do not grab a rotating cutter.
- Keep tools sharp and clean for better and safer performance. Do not use dull or broken cutters.
- Follow safety instructions for lubricating and changing accessories (always check compatibility of annular cutters before use). Inspect tool cords periodically and, if damaged, have them repaired by a qualified electrician or an authorised Tundra Industrial Repair Centre.

5. OPERATION GUIDE

1. Make sure the workpiece is suitable for magnetic adhesion and that both the surface of the workpiece and that the magnetic base of the drill is clean and free of dirt, grease and debris.
2. Secure the magnetic drill to the unit to workpiece with safety chain provided.
3. Position the drill by sliding it and gently feeding the arbor so that pilot pin is in contact with the centre of the hole you need to cut.
4. Activate the magnet by pressing the MAGNET button to the **ON** position.
5. Turn the Feed Handle, raising the annular cutter until the pilot pin is above the work surface.
6. Open the cutting fluid valve.
8. Make certain that the annular cutter is clear of the workpiece and turn the motor on by pressing the MOTOR button to the **ON** position.
9. Feed the cutter slowly onto the workpiece. Carefully establish a cutting depth of about 1/16" before using the full force of the drill on the cut by turning the feed handle to lower the arbor as required.
10. Ease up on feed pressure as the cutter starts to break through the workpiece.
11. When you have completed the cut, turn off the motor by pushing the motor button into the STOP position.
12. Turn feed handles to raise the arbor away from the hole. This will cause the slug to fall free (if it hasn't already) so take care to ensure it does not fall in a way that can cause bodily harm to the operator or any other persons in the vicinity.
13. Turn the MAGNET **OFF** by pushing the magnet button to the **OFF** position. As the magnet de-activates the base should lift up off the work surface.
14. Disconnect the equipment from the power source.
15. Remove any chips or debris from the cutter and the magnet wearing a pair of protective working gloves and a set of pliers to protect your hands from sharp materials.
16. Disconnect the safety chain and carefully remove the drill to complete the procedure.

Important: *The magnetic strength of the drill base is related to the thickness of the steel ,or other ferrous metal, in the workpiece. Magnetic adhesion can also be affected by the cleanliness of the metallic surface you are fixing to. Material that is clean and free from coatings will offer the best surface for the magnet.*

Factors that can reduce the effectiveness of the magnet and safe operation of the equipment include:
- *Coatings or paint layers on material*
- *Material less than 3/8" thick*
- *Workpieces with dirt, grease or debris between the magnet and the metallic surface*
- *Curved or uneven work surfaces (The surface of the workpiece should be flat. For pipe applications, a pipe adapter should be used.)*
- *Workpieces that are smaller than the dimensions of the metallic base.*

6. CLEANING & MAINTENANCE

- Keep the machine, the cutter and electric cables clean from drilling debris.
- Always turn off the machine and unplug from the mains before carrying out any cleaning.
- Clean the motor by means of dry compressed air.
- Clean and grease any sliding surfaces regularly.
- Carbon brushes should be replaced after approximately 250 hours running time.
- When not in use the magnetic drilling machine should be stored securely in the transport case lying flat in a dry storage space.

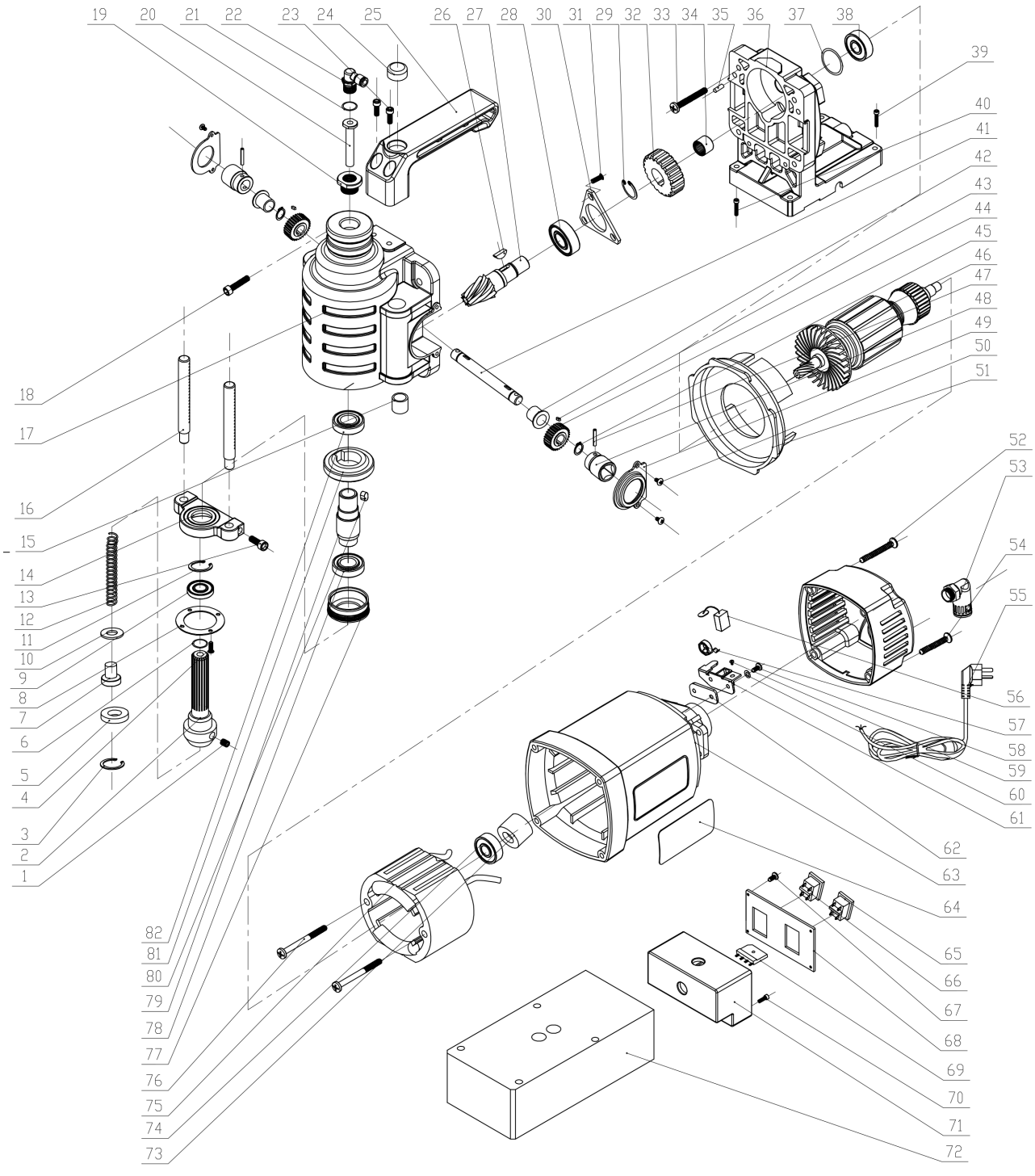
Note: Excessive sparking may indicate the presence of dirt in the motor or worn out carbon brushes.

We recommend that you periodically check the brushes for wear and tear and replace them when they reach 6mm. Keep moving parts lubricated. Maintenance, checks and repairs should only be made by qualified electricians or a Tundra Industrial approved technician.

We recommend that the machine should be serviced after approximately 250 hours running time.

Only use genuine spare parts. A full list is available at the end of this manual. Contact your nearest Tundra Industrial **dealer for further information.**

8a. PARTS DIAGRAM



8b. PARTS LIST

Part Number	Description	Quantity
1	Set Screw	2
2	Spindle	1
3	Circlip,inner	1
4	Cross Screw	4
5	Rubber Washer	1
6	O-ring	1
7	Key for Spring	1
8	Cover Plate	1
9	Bearing	1
10	Washer	1
11	Circlip, Inner	1
12	Spring	1
13	socket head cap screws	2
14	Bail	1
15	Bearing	2
16	Rack	2
17	Gearbox	1
18	socket head cap screws	2
19	Adaptor	1
20	Cooling unit tube	1
21	O-ring	1
22	Angle Bolting	1
23	socket head cap screws	2
24	Level	1
25	Handle	1
26	Key	1
27	Gear Shaft	1
28	Bearing	1
29	Circlip	1
30	Triangle plate	1
31	Cross Screw	3
32	Gear for armature	1
33	Self-Tapping screw	4
34	Bearing	1
35	Round Key	2
36	Diaphragm Assy.	1
37	O-ring	1
38	Bearing	1
39	socket head cap screws	2
40	socket head cap screws	2
41	Arbor	1

Part Number	Description	Quantity
42	Bushing bearing	2
43	Square Key	4
44	Gear	2
45	Circlip	2
46	Armature	1
47	Dowel Pin	2
48	Bushing	2
49	Cover Plate	2
50	socket head cap screws	4
51	Baffle	1
52	Self-Tapping screw	2
53	Protection Sleeve	1
54	Self-Tapping screw	2
55	Power Line	1
56	Carbon Brush	2
57	Snap Rings	2
58	Cross Screw	4
59	Copper Screw	2
60	Washer	4
61	Brush Holder	2
62	Isulation Panel	2
63	Motor Housing	1
64	Nameplate	1
65	Magnet Switch	1
66	Motor Switch	1
67	Stainless Screw	4
68	Front Panel	1
69	bridge rectifier	1
70	socket head cap screws	2
71	Switch Box	1
72	Magnet	1
73	Bearing Cover	1
74	Bearing	1
75	Field	1
76	Self-Tapping screw	2
77	Bearing Cover	1
78	Bearing	1
79	Spindle	1
80	Square Key	1
81	Gear	1
82	Bearing	1

EC Declaration of Conformity

We, Tundra Industrial, as the authorised European Community representative of the manufacturer, declare that the following equipment conforms to the requirements of the following Directives:

Directive:	Description:
2006/42/EC (as amended)	Machinery Directive
2006/95/EC (as amended)	Low Voltage Directive
2004/108/EC (as amended)	Electromagnetic Compatibility

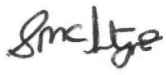
Equipment Category: Magnetic Drills

Product Name/Model: ***TUNDRMAGM40-110*** ***TUNDRMAGM40-230***

Notified Body: ECM Via Ca' Bella, 243/A - loc. Castello di Serravalle 40053 Valsamoggia (BO) Country : Italy

Notified Body Number: 1282

Signed by: Stephen McIntyre



Position in the company: Operations Director

Date: 17 October 2017

Name and address of manufacturer or authorised representative:

Tundra Industrial, Chester Business Park, Chester, United Kingdom, CH4 9QR

Telephone: +44 (0)1244 646 048
Fax: +44 (0)1244 241 191
Email: enquiries@jeffersontools.com

LIMITED WARRANTY STATEMENT

Tundra Industrial warrants its customers that its products will be free of defects in workmanship or material. Tundra Industrial shall, upon suitable notification, correct any defects, by repair or replacement, of any parts or components of this product that are determined by Tundra Industrial to be faulty or defective.

This warranty is void if the equipment has been subjected to improper installation, storage, alteration, abnormal operations, improper care, service or repair.

Warranty Period

Tundra Industrial will assume both the parts and labour expense of correcting defects during the stated warranty periods below.

All warranty periods start from the date of purchase from an authorised Tundra Industrial dealer. If proof of purchase is unavailable from the end user, then the date of purchase will be deemed to be 3 months after the initial sale to the distributor.

1 Year
• TUNDRMAGM40-110 • TUNDRMAGM40-230 (40mm Mini Industrial Magnetic Drill)

90 Days
• All replacement parts purchased outside of the warranty period

Important: *All parts used in the repair or replacement of warranty covered equipment will be subject to a minimum of 90 days cover or the remaining duration of the warranty period from the original date of purchase*.

Warranty Registration / Activation

You can register and activate your warranty by visiting the Tundra Industrial Tools website using the following address: **www.jeffersontools.com/warranty** and completing the online form.

Online warranty registration is recommended as it eliminates the need to provide proof of purchase should a warranty claim be necessary.

Warranty Repair

Should Tundra Industrial confirm the existence of any defect covered by this warranty the defect will be corrected by repair or replacement at an authorized Tundra Industrial dealer or repair centre.

Packaging & Freight Costs

The customer is responsible for the packaging of the equipment and making it ready for collection. Tundra Industrial will arrange collection and transportation of any equipment returned under warranty. Upon inspection of the equipment, if no defect can be found or the equipment is not covered under the terms of the Tundra Industrial warranty, the customer will be liable for any labour and return transportation costs incurred. These costs will be agreed with the customer before the machine is returned.

** Tundra Industrial reserve the right to void any warranty for damages identified as being caused through misuse*

Warranty Limitations

Tundra Industrial will not accept responsibility or liability for repairs made by unauthorised technicians or engineers. Tundra Industrial's liability under this warranty will not exceed the cost of correcting the defect of the Tundra Industrial products.

Tundra Industrial will not be liable for incidental or consequential damages (such as loss of business or hire of substitute equipment etc.) caused by the defect or the time involved to correct the defect. This written warranty is the only express warranty provided by Tundra Industrial with respect to its products.

Any warranties of merchantability are limited to the duration of this limited warranty for the equipment involved.

Claiming Warranty Coverage

The end user must contact Tundra Industrial (Tel: **+44 (0) 1244 646 048**) or their nearest authorised Tundra Industrial dealer where final determination of the warranty coverage can be ascertained.

Step 1 - Reporting the Defect

Online Method:

- Visit our website www.jeffersontools.com/warranty and complete the Warranty Returns form. You can complete the form online and submit it to us directly or download the form to print out and return by post.

Telephone Method:

Contact your Tundra Industrial dealer or sales representative with the following information:

- Model number
- Serial number (usually located on the specification plate)
- Date of purchase

A Warranty Returns form will be sent to you for completion and return by post or fax, together with details of your nearest authorised Tundra Industrial repair centre. On receipt of this form Tundra Industrial will arrange to collect the equipment from you at the earliest convenience.

Step 2 - Returning the Equipment

It is the customer's responsibility to ensure that the equipment is appropriately and securely packaged for collection, **together with a copy of the original proof of purchase**. Please note that Tundra Industrial cannot assume any responsibility for any damage incurred to equipment during transit. Any claims against a third party courier will be dealt with under the terms & conditions of their road haulage association directives.

Please note: *Tundra Industrial will be unable to collect or process any warranty requests without a copy of the original proof of purchase.*

Step 3 - Assessment and Repair

On receipt, the equipment will be assessed by an authorised Tundra Industrial engineer and it will be determined if the equipment is defective and in need of repair and any repairs needed are covered by the warranty policy. In order to qualify for warranty cover all equipment presented must have been used, serviced and maintained as instructed in the user manual.

Where repair is not covered by the warranty a quotation for repair, labour costs and return delivery will be sent to the customer (normally within 7 working days). **Note:** If the repair quotation is not accepted Tundra Industrial will invoice **1 hour labour time at £30 per hour plus return carriage costs (plus VAT)**.

In cases where no fault can be found with the equipment, or, if incorrect operation of the equipment is identified as the cause of the problem, a minimum of 1 hour labour at **£30 per hour plus carriage costs** will be required before the equipment will be despatched back to the customer.

Any equipment repaired or replaced under warranty will normally be ready for shipment back to the customer within 7 working days upon receipt of the equipment at an authorised Tundra Industrial Repair centre (subject to part availability). Where parts are not immediately available Tundra Industrial will contact you with a revised date for completion of the repair.

General Warranty Enquiries

For any further information relating to Tundra Industrial warranty cover please call **+44 (0) 1244 646 048** or send your enquiry via email to: **warranty@jeffersontools.com**

Disclaimer:
The information in this document is to the best of our knowledge true and accurate, but all recommendations or suggestions are made without guarantee. Since the conditions of use are beyond their control, Tundra Industrial disclaim any liability for loss or damage suffered from the use of this data or suggestions. Furthermore, no liability is accepted if use of any product in accordance with this data or suggestions infringes any patent. Tundra Industrial reserve the right to change product specifications and warranty statements without further notification. All images are for illustration purposes only.


TUNDRA®
INDUSTRIAL