

# 150mm BENCH GRINDER





MD3215M
ORIGINAL INSTRUCTIONS

## INTRODUCTION

Thank you for purchasing a CHALLENGE XTREME 150mm Bench Grinder. We would like you to be completely satisfied with your new product and hope you get many years of satisfaction out of this tool.

The bench grinder is intended for grinding and sharpening metal tools such as drills, chisels etc. and metal items. The device is not intended for commercial use. Any other use or modification to the device shall be considered as improper use and could give rise to considerable dangers.

The manufacturer will not accept liability for loss or damage arising from improper use.

# GENERAL SAFETY INSTRUCTIONS

When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following.

Read all these instructions before attempting to operate this product and save these instructions.

# 1. Keep work area clear

Cluttered areas and benches invite injuries.

#### 2. Consider work area environment

Do not expose tools to rain.
Do not use tools in damp or wet locations.
Keep work area well lit.
Do not use tools in the presence of flammable liquids or gases.

# 3. Guard against electric shock

Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

## 4. Keep other persons away

Do not let persons, especially children, not involved in the work touch the tool or the extension cord and keep them away from the work area.

#### 5. Store idle tools

When not in use, tools should be stored in a dry locked-up place, out of reach of children.

#### 6. Do not force the tool

It will do the job better and safer at the rate for which it was intended.

## 7. Use the right tool

Do not force small tools to do the job of a heavy duty tool.

Do not use tools for purposes not intended; for example do not use circular saws to cut tree limbs or logs.

#### 8. Dress properly

Do not wear loose clothing or jewellery, they can be caught in moving parts.

Non-skid footwear is recommended when working outdoors.

Wear protective hair covering to contain long hair.

# 9. Use protective equipment

Use safety glasses.
Use face or dust mask if working operations create dust.

#### 10. Do not abuse the cord

Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

#### 11. Secure work

Where possible use damps or a vice to hold the work. It is safer than using your hand

#### 12. Do not overreach

Keep proper footing and balance at all times.

#### 13. Maintain tools with care

Keep cutting tools sharp and clean for better and safer performance.

Follow instruction for lubricating and changing accessories.

Inspect tool cords periodically and if damaged have them repaired by an authorized service facility.

Inspect extension cords periodically and replace if damaged.

Keep handles dry, clean and free from oil and grease.

#### 14. Disconnect tools

When not in use, before servicing and when changing accessories such as blades, bits and cutters, disconnect tools from the power supply.

# 15. Remove adjusting keys and wrenches

Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

# 16. Avoid unintentional starting

Ensure switch is in "off" position when plugging in.

#### 17. Use outdoor extension leads

When the tool is used outdoors, use only extension cords intended for outdoor use and so marked.

## 18. Stay alert

Watch what you are doing, use common sense and do not operate the tool when you are tired.

# 19. Check damaged parts

Before further use of tool, it should be carefully checked to determine that it will operate properly and perform its intended function.

Check for alignment of moving parts,

binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation.

A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated in this instruction manual.

Have defective switches replaced by an authorized service centre.

## 20. Warning

The use of any accessory or attachment other than one recommended in this instruction manual may present a risk of personal injury.

# 21. Have your tool repaired by a qualified person

This electric tool complies with the relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

22. If the replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.

#### **ADDITIONAL SAFETY RULES**

Do not use damaged or misshapen grinding wheels or brushes;

Use only grinding wheels recommended by the manufacturer which have a marked speed equal to or greater than the speed marked on the nameplate of the tool;

Adjust the spark arrestor frequently so as to compensate for wear of the wheel, keep the distance between the spark arrestor and the wheel as small as possible and in any case not greater than 2mm;

Instruction for the safe use, handling and storage of abrasive wheels taking into account the requirements of the CEN standard for abrasive products for the type of tool covered by this standard. It is assumed that wheels will not be dressed.

If wheel dressing is intended then suitable precautions should be taken;

If the grinder is intended to be bolted down, an instruction requesting it to be secured to a suitable work surface.

For bench grinders and combined bench grinders equipped with straight-sided flanges, the recommended values of the thickness T and the diameter of the hole see the technical data;

For combined bench grinders, to always keep the brush assembled on the spindle in order to limit the risk of contact with the rotating spindle.

# ADDITIONAL SAFETY INSTRUCTIONS FOR YOUR BENCH GRINDERS

- Always remove the plug from the mains socket before making any adjustments or maintenance, including changing the wheel.
- Always wear eye protection and check that the eye shields on the grinder are properly adjusted.
- Always turn the grinder off when it is not in use and never leave it unattended without first switching off and removing the power plug. Never leave the grinder until the grinding wheels have come to a complete stop.
- 4. Make sure that any replacement wheel is rated at 3000RPM or higher.
- Do not let anyone under 18 years operate this tool.
- Rags, cloths, cord, string and the like should never be left around the work area.
- If you are interrupted when operating the tool, complete the process and switch off before looking up.

- 8. Periodically check that all nuts, bolts and other fixings are properly tightened.
- Do not use a wheel that has received a blow, especially to the side of the wheel.
- 10. Replace a cracked or suspect wheel.
- Always allow a new wheel to run for a few minutes at full speed before using it. Stand to one side at start up.
- 12. Check that the wheel rotates freely each time before start up.
- Do not use the grinder unless all the guards are properly fitted and secure.
- Check that the tool rests are properly adjusted before commencing use.
- 15. Do not overload the grinder. Allow the grinder to run at full speed, or close to full speed during use.
- Never apply excessive pressure to the wheel. It might shatter causing personal injury.
- 17. Make sure that the wheel is not in contact with the work when you start the grinder.
- 18. When using the grinder, use safety equipment including safety goggles or shield, ear protection, dust mask and protective clothing including safety gloves.
- 19. The adjustment of the spark arrestor shall be made frequently ,so as to compensate the wear of the wheel, keeping the distance between the guard and the wheel as small as possible, but in any case not greater than 2 mm.
- 20. The adjustment of the work rest shall be done gradually so as to compensate the wear of the wheel, keeping the distance between the work rest and the wheel as small as possible, but in any case not greater than 2 mm.

# **SYMBOLS**



To reduce the risk of injury, user must read instruction manual



Warning



Wear eye protection



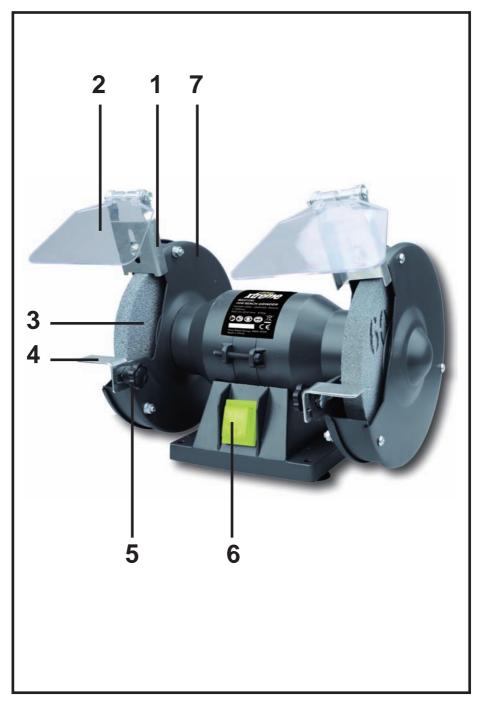
Wear ear protection



Wear dust mask



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authorities or retailer for recycling advice.



## **COMPONENT LIST**

- 1. Adjusting guard plate
- 2. Eye shield
- 3. Grinding wheel
- 4. Work rest
- 5. Work rest fixing knob
- 6. On/Off switch
- 7. Wheel guard

Not all the accessories illustrated or described are included in standard delivery.

## **TECHNICAL DATA**

Rated voltage 230-240V~50Hz
Rated power 150W (S2: 30min)
Rated no load speed 2950/min
Wheel size Ø150 x 16 x Ø12.7 mm (36/60grit)
Weight 5.5 kg

# **ACCESSORIES**

Work rest 2set
Eye shields 2set
Discs (preassembled) 2pcs

We recommend that you purchase your accessories from the same store that sold you the tool. Use good quality accessories marked with a well-known brand name. Choose the type according to the work you intend to undertake. Refer to the accessory packaging for further details. Store personnel can assist you and offer advice.

## **OPERATING INSTRUCTIONS**

Before using the tool, read the instruction book carefully.

# 1. INSTALLATION OF SPARK PROTECTION ASSEMBLY (See Fig. A, B)

For reasons of packing the spark protection assembly is not factory installed and needs to be user installed before operation of the machine. Fig. A shows the components of the spark protection assembly and how they are installed to the grinding wheel cover on the right hand side.

Installation to the left hand side wheel cover is similar.

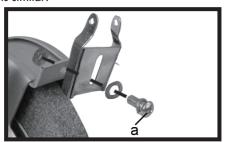


Fig. A



Fig. B a: head screw b: hexagon nut c: lock washer

d: head bolt

# 2. SETT ING OF TOOL REST AND SPARK ARRESTER BRACKET (See Fig. C, D)

The tool rest and spark protection assembly's spark arrester bracket have to be set from time to time to compensate for grinding wheel wear. The gap between tool rest and wheel should not be more than 2mm and not more than 2mm between wheel and spark arrester bracket.

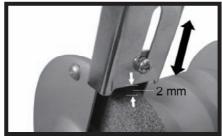


Fig. C



Fig. D

# 3. COMMISSIONING

This double bench grinder is used for rough grinding. Please note that it is not intended for continuous operation. To prevent possible overloading/overheating it should not be operated for more than 15 - 30 minutes at a time. Let grinder cool down before operating again.

Apply moderate pressure when holding the workpiece against the grinding wheel. Remember that the metal heats up by the grinding. The workpiece should therefore regularly cooled by submerging it in cold water. The dry grinding wheels of this bench grinder are suitable for rough grinding only.

#### 4. SIZE OF PART TO BE MACHINED

The part to be machined must at least be large enough to hold securely in both hands.

A larger work piece must also be able to be held securely in and must not slip from the work piece support during the grinding process. When selecting the size of the work pieces, please bear in mind the grinding capacity of your grinding machine.

#### 5. DRILL GRINDING

The work piece support on the right grinding wheel is fitted with a trough for drill grinding. After switching on the double grinding machine hold the drill to be ground with both hands and push it into the trough. Then carefully guide the tip of the drill towards the grinding wheel and slowly turn the drill throughout the entire grinding process.

# 6. SELECTING A SUITABLE GRINDING WHEEL

This double bench grinder is factory fitted with two different normal corundum grinding wheels. On one side a wheel with a coarse grit is mounted, on the other side a fine grit grinding wheel. As a rule, the bulk of the arising grinding works such as the grinding of various axes, drill bits and screw drivers can be accomplished with this grinding wheel. For other jobs, especially the sharpening of knifes as well as the machining of hardened steel, a suitable grinding wheel according to the table should be selected. Please keep in mind that there is no grinding wheel type suitable for all different requirements and the choice of the right grinding wheel is critical for the result of your work.

# 7. GRINDING WHEEL CHECK (See Fig. E)

Before a new grinding wheel is mounted it should be subjected to a visual inspection and a resonance test, to detect any possible defects or cracks. For the resonance test, let the wheel hang from a piece of string and tap lightly with a screwdriver handle or similar (no metal!). If the sound is not clear, but rather dull and hollow the wheel is likely to be damaged and should not be used. The grinding wheel should slide onto the arbor easily.

Forcing it on the arbor, e.g. by striking with a hammer, may break the wheel and is not permissible for safety reasons. For the same reason the drilling out of too small an arbor bore is not permitted.

After the new wheel is mounted it should be left running idle for at least 5 minutes. Screen off workplace to prevent damage in case the wheel breaks and stay out of the danger zone.

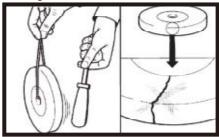


Fig. E

# 8. CHANGING THE GRINDING WHEEL (See Fig. F)

If the wheel needs replacement because it is worn down or you want to use a different type of grinding wheel, the mounted wheel is to be removed. Please make sure that the hexagon nut on the left side of the machine has a lefthanded thread, i.e. must be turned in a clockwise direction to undo. Installation to the right hand side wheel is similar. (See Fig. F)



Fig. F

## **MAINTENANCE**

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

There are no user serviceable parts in your power tool. Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place. Keep the motor ventilation slots clean. Keep all working controls free of dust. Occasionally you may see sparks through the ventilation slots. This is normal and will not damage your power tool.

## PLUG REPLACEMENT

Your Bench Grinder is supplied with a fitted plug, however if you should need to fit a new plug follow the instruction below.

#### **IMPORTANT**

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

#### Blue = Neutral Brown = Live Green/Yellow = Earth

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

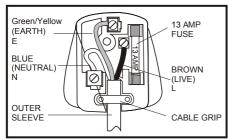
The wire which is coloured blue must be connected to the terminal which is marked with N. The wire which is coloured brown must be connected to the terminal which is marked with the letter L.

The green/yellow wire to the earth terminal marked  $\mathbf{E}$  or  $\pm$ .

If a 13 AMP (BS 1363/A) Plug is used, a 13 AMP Fuse must be fitted, or if any other type of plug is used a 13 AMP Fuse must be fitted, either in the Plug or Adaptor, or on the Distribution Board.

**NOTE:** If a moulded plug is fitted and has to be removed take great care in disposing of the plug and severed cable, it must be destroyed to prevent engaging into a socket.

If the supply cord is damaged it must be replaced by a service agent or a similarly qualified person in order to avoid hazard.



# DISPOSAL



Do not dispose of electrical appliances with your domestic waste!

The packaging comprises exclusively environmentally- friendly material. Dispose of it in your local recycling containers.

# **GUARANTEE**

This product is selected for DOMESTIC USE ONLY and not for business use. This product is guaranteed against manufacturing defects for a period of 12 months. This does not cover the product where the fault is due to misuse, abuse, use in contravention of the instructions, or where the product has been the subject of unauthorised modifications or alterations, or has been the subject of commercial use. In the event of a problem with the product within the guarantee period please contact the service centre for assistance on 08454 505299. If the item is shown to have an inherent defect present at the time of sale, you will be provided with a replacement. Your statutory rights remain unaffected.

Guarantor: Home Retail Group, MK9 2NW



# **EC Declaration of Conformity**

Year of 1st Issue.

12

# **Argos Ltd**

489-499 Avebury Boulevard Saxon Gate West Milton Keynes Buckinghamshire MK9 2NW

We hereby certify that the product stipulated above complies with all the relevant provisions of the following EC new approach directive/s.

This declaration of conformity is issued under the sole responsibility of the manufacturer

Type of Product: 150mm Bench Grinder

Model Number: MD3215M Cat / Article Number: 9000025

**Product Description:** 

Voltage: 230-240V~50Hz Rated power: 150W (S2: 30min) Rated no load speed: 2950/min

Wheel size: Ø150 x 16 x Ø12.7mm (36/60grit)

Weight: 5.5 kg

Photograph:



Applicable EC Directives		
<ul> <li>         ≥ 2006/42/EC (MD)         </li> <li>         ≥ 2006/95/EC (LVD)         </li> <li>         ≥ 2009/125/EC (ErP)         </li> <li>         ≥ 2009/142/EC (Gas)     </li> </ul>	2004/108/EC (EMC) 2009/105/EC (Press) 2009/48/EC (Toys) 89/106/EEC (Constru	ure) 2000/14/EC Annex , 2005/88/EC L <sub>WA</sub> =76dB(A), L <sub>PA</sub> =63dB(A), K=3dB(A)
Applicable Harmonized Standards:	Report Date	Verification of conformity Certificate Notified Body
EN 61029-1/A11: 2010 EN 61029-2-4: 2011	2011.11.18	GS TUV
EN 55014-1/A1: 2009 EN 55014-2/A2: 2008 EN 61000-3-2/A2: 2009 EN 61000-3-3: 2008	2011.03 18	EMC TUV
EC Type approval certificate number		

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Signed: R. Parlaulant

Creator: Max Shi Name: Roger Panton-Kent

Position: QA Position: Head of Quality Assurance

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