

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS

AIR COMPRESSORS

From DIY to industrial. Plus air tools, spray guns and accessories.

GENERATORS

Prime duty or emergency standby for business, home and leisure.

POWER WASHERS

Hot and cold, electric and engine driven - we have what you need.

WELDERS

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

METALWORKING

Drills, grinders and saws for DIY and professional use.

WOODWORKING

Saws, sanders, lathes, mortisers and dust extraction.

HYDRAULICS

Cranes, body repair kits, transmission jacks for all types of workshop use.

WATER PUMPS

Submersible, electric and engine driven for DIY, agriculture and industry.

POWER TOOLS

Angle grinders, cordless drill sets, saws and sanders.

STARTER/CHARGERS

All sizes for car & commercial use.



Clarke®



0504

ANGLE HEAD DIE GRINDER

MODEL No. CAT83

Part No. 3110815

Clarke INTERNATIONAL

For spare parts and servicing, please contact your nearest dealer, or Clarke International on

020 - 8988 - 7400

e-mail: Parts@clarkeinternational.com e-mail: Service@clarkeinternational.com

OPERATING & MAINTENANCE INSTRUCTIONS

PARTS & SERVICE CONTACTS

Please contact your nearest dealer, or
CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400

PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

HAND-ARM VIBRATION

Employers are advised to refer to the HSE publication "Guide for Employers".

All hand held power tools vibrate to some extent, and this vibration is transmitted to the operator via the handle, or hand used to steady the tool. Vibration from about 2 to 1500 herz is potentially damaging and is most hazardous in the range from about 5 to 20 herz.

Operators who are regularly exposed to vibration may suffer from Hand Arm Vibration Syndrome (HAVS), which includes 'dead hand', 'dead finger', and 'white finger'. These are painful conditions and are widespread in industries where vibrating tools are used.

The health risk depends upon the vibration level and the length of time of exposure to it.....in effect, a daily vibration dose.

Tools are tested using specialised equipment, to approximate the vibration level generated under normal, acceptable operating conditions for the tool in question. For example, a grinder used at 45° on mild steel plate, or a sander on softwood in a horizontal plane etc.

These tests produce a value 'a', expressed in metres per second per second, which represents the average vibration level of all tests taken, in three axes where necessary, and a second figure 'K', which represents the uncertainty factor, i.e. a value in excess of 'a', to which the tool could vibrate under normal conditions. These values appear in the declaration on page 7.

You will note that a third value is given in the specification - the highest measured reading in a single plane. This is the maximum level of vibration measured during testing in one of the axes, and this should also be taken into account when making a risk assessment.

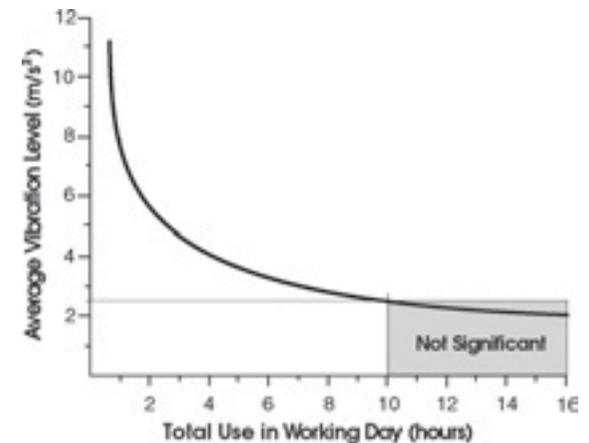
'a' values in excess of 2.5 m/s² are considered hazardous when used for prolonged periods. A tool with a vibration value of 2.8 m/s² may be used for up to 8 hours (cumulative) per day, whereas a tool with a value of 11.2 m/s² may be used for ½ hour per day only.

The graph below shows the vibration value against the maximum time the respective tool may be used, per day.

The uncertainty factor should also be taken into account when assessing a risk. The two figures 'a' and 'K' may be added together and the resultant value used to assess the risk.

It should be noted that if a tool is used under abnormal, or unusual conditions, then the vibration level could possibly increase significantly. Users must always take this into account and make their own risk assessment, using the graph as a reference.

Some tools with a high vibration value, such as impact wrenches, are generally used for a few seconds at a time, therefore the cumulative time may only be in the order of a few minutes per day. Nevertheless, the cumulative effect, particularly when added to that of other hand held power tools that may be used, must always be taken into account when the total daily dose rate is determined.



ACCESSORIES

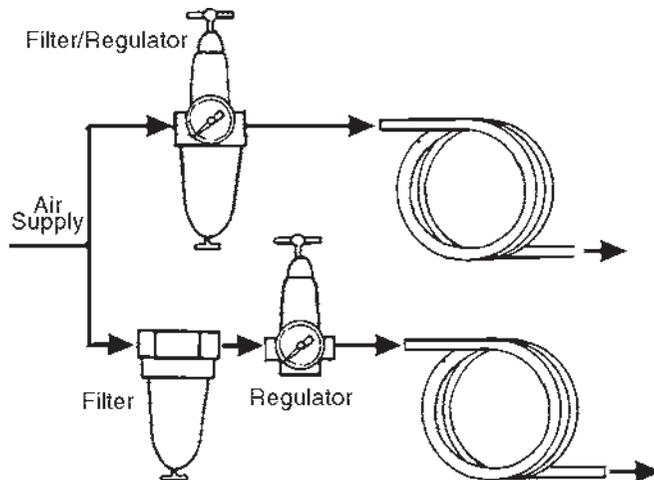
A wide range of Airline accessories is available, including Filter/Regulators, Lubricators, High Pressure Hoses from 5 to 100 Metres, etc. Contact your CLARKE dealer for further information, or CLARKE International Sales Department on 01992 565300

SPECIFICATIONS

Air Inlet	1/4" BSP
Min. Hose Size (ID)	8mm (5/16")
Ave. Air Consumption	10 CFM
Max. Speed	25,000 RPM
Air Pressure Max.	90 PSI (6.1 BAR)
Vibration Level	>2.5m/s ²
Part No.	3110815

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machine's data plate

RECOMMENDED AIR SUPPLY CONNECTION



Clarke
INTERNATIONAL

Please read these instructions carefully before operating the tool

Thank you for purchasing this CLARKE Angle Head Die Grinder, designed for use when carrying out 'smart', localised repairs to vehicle bodywork etc.

Before using the Grinder, please read this leaflet thoroughly and follow the instructions carefully, in doing so you will ensure the safety of yourself and that of others around you, and you can look forward to giving long and satisfactory service.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase. This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

⚠ WARNING ⚠

Compressed air can be dangerous. Ensure that you are thoroughly familiar with all precautions relating to the use of compressors and compressed air supply.



SAFETY PRECAUTIONS

IMPORTANT

Failure to follow these precautions could result in personal injury, and/or damage to property.

- When operating this tool, ALWAYS wear:
 - a. approved impact resistant SAFETY GOGGLES. (Eye glasses are NOT safety glasses)
 - b. a DUST MASK
 - c. EAR DEFENDERS
 - d. a good pair of INDUSTRIAL GLOVES
- ALWAYS disconnect the tool when not in use, and before carrying out any maintenance
- ALWAYS keep a safe distance between yourself and other people when using the tool.
- ALWAYS maintain the tool with care. Keep it clean for best and safest performance.
- NEVER wear ill fitting clothing, remove watches and rings.
- Quick change couplings should not be located at the tool. They add weight and could fail due to vibration.
- DO NOT over-reach. Keep your proper footing and balance at all times.
- DO NOT force or misuse the tool. It will do a better and safer job at the rate for which it was designed.
- DO NOT abuse hoses or connectors. NEVER carry a tool by the hose, or yank it to disconnect from the air supply. Keep hoses away from heat, oil and sharp edges. Check hoses for leaks or worn condition before use, and ensure that all connections are secure.
- DO NOT exceed 90 PSI at the tool.
- DO NOT modify the tool in any way.
- DO NOT remove any labels. Damaged labels should be replaced.
- This tool vibrates with use. Vibration may be harmful to your hands or arms. Stop using the tool if discomfort, a tingling feeling or pain occurs. Seek medical advice before resuming use.
- ALWAYS use screens to protect people in the vicinity from flying debris.
- NEVER point the tool at anyone.

AIR SUPPLY

Tools of this type, operate on a wide range of air pressures. It is recommended that air pressure to this tool does not exceed 90 PSI, at the tool when running. Higher pressure and unclean air, will shorten the tools' life because of faster wear, and could be a safety hazard.

Water in the air line will cause damage to the tool, ensure it is properly maintained at all times.

The recommended procedure to connect this tool to an air supply, is shown at fig. 2 on page 5.

The air inlet used for connecting air supply, has a standard 1/4" BSP thread.

Line pressure, or hose inside diameter, should be increased to compensate for unusually long air hoses (over 10m). Minimum hose diameter should be 8mm (5/16") ID., and fittings should have the same inside dimensions.

ASSEMBLY

With the air supply turned OFF, connect the hose of the Grinder to your airline and then insert the spindle of the tool to be used into the collet of the drive spindle, tightening the collet nut using the two spanners provided.

Your Grinder is now ready for use.

OPERATION

Turn ON the air supply, and check for air leaks. If any are apparent, rectify before proceeding.

Hold the tool so that the operating lever is in the palm of one hand. With the airline pressure set to 90 lbf/in² (6.1bar), push the spring loaded safety latch, mounted in the operating lever, forward. This allows the operating lever to be depressed, starting the tool.

To stop the tool, release the trigger. The safety latch will automatically lock the operating lever preventing further operation until it is again pushed forward.

NOTE: The speed of the tool is factory set to 25,000RPM, and should not need adjusting.

MAINTENANCE

Daily before use.

1. Drain water from air tank, air line and compressor.
2. Check and clean, if necessary, the air inlet gauze filter.
3. Pour a few drops of CLARKE Air Line Oil (approx 3cc), into the air inlet. This should be carried out regardless of whether or not an air line lubricator is used. If an Air line lubricator is NOT used, this procedure should be repeated after every two to three hours of use.

If the Grinder is to be stored, or is idle for longer than 24 hours, run a few drops of Clarke Air Line Oil into the air inlet, and run the tool for 5 seconds in order to lubricate the internal parts.

For lubricating the air motor when in operation, an air line lubricator should be used, with Clarke Air Line Oil, adjusted to 2 drops per minute.

Clarke Air Line Oil is available from your CLARKE dealer, part no. 3050825.

Be aware that factors other than the tool may effect its operation and efficiency, such as reduced compressor output, excessive drain on the airline, moisture or restrictions in the line, or the use of connectors of improper size or poor condition which will reduce air supply.

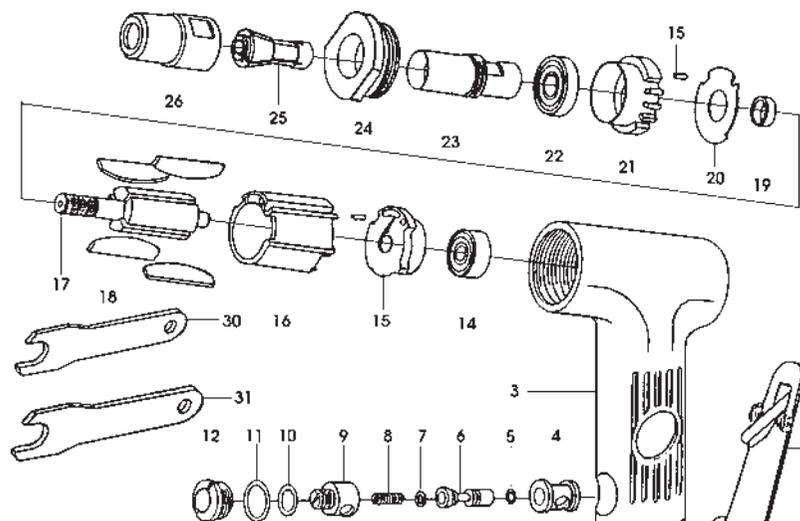
Grit or gum deposits in the tool may also reduce efficiency. This condition can be corrected by cleaning the air strainer and flushing out the tool with gum solvent oil, or failing this, the tool should be dis-assembled, thoroughly cleaned, dried and re-assembled.

If the tool runs erratically or becomes inefficient, and the air supply is sound, dismantle the air motor and replace worn or damaged parts, or take the tool to your CLARKE dealer.

IMPORTANT:

The use of parts other than CLARKE replacement parts may result in safety hazards, decreased tool performance and may invalidate your warranty.

PARTS LIST & DIAGRAM



No. Description

Part No.

1	Throttle Lever	0308AH001
2	Spring Pin	0308AH002
3	Housing	0308AH003
4	Valve Bushing	0308AH004
5	O-Ring	0308AH005
6	Valve Stem	0308AH006
7	O-Ring	0308AH007
8	Valve Spring	0308AH008
9	Air Controller	0308AH009
10	O-Ring	0308AH010
11	O-Rin	0308AH011
12	Valve Screw	0308AH012
13	Bearinfg	0308AH013
14	End Plate	0308AH014
15	Pin	0308AH015
16	Cylinder	0308AH016
17	Rotor	0308AH017
18	Blade	0308AH018
19	Collar	0308AH019
20	Steel Plate	0308AH020
21	Front Plate	0308AH021
22	Beariong	0308AH022
23	Spindle	0308AH023
24	Lock Ring	0308AH024
25	Collet	0308AH025
26	Collet Nut	0308AH026
27	Exhaust Sleeve	0308AH027
28	O-Ring	0308AH028
29	Air Inlet	0308AH029
30	11mm Wrench	0308AH030
31	17mm Wrench	0308AH031
32	O-Ring	0308AH032
33	Clamp Ring	0308AH033
34	Air Hose Assy	0308AH034