

Clarke®



DIE GRINDER KIT

MODEL NO: CAT201

PART NO: 3120518

OPERATING & MAINTENANCE INSTRUCTIONS

UK
CA | CE

ORIGINAL INSTRUCTIONS

DL0522 - ISS 2

INTRODUCTION

Thank you for purchasing this CLARKE Die Grinder Kit.

Before attempting to use this product, please read this manual 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 your purchase giving you long and satisfactory service.

Please keep these instructions in a safe place for future reference.

SPECIFICATIONS

Model Number	CAT201
Dimensions (L x W x H)	169 x 37 x 66 mm
Weight	0.38 kg
Collet size	1/4" (6 mm)
Air Inlet Size	1/4" BSP (female)
Operating Pressure	90 psi (6.2 bar)
Air Consumption	4 cfm (average)
No Load Speed	25,000 rpm @ 90psi
Speed Settings and rpm	Setting 1 - 8,300 rpm Setting 2 - 13,000 rpm Setting 3 - 22,000 rpm Setting 4 - 25,000 rpm
Sound Pressure Level (LpA dB)	88 dB(A)
Sound Power Level (LwA dB)	99 dB(A)
Vibration Levels	2.9 m/s ²

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.

GENERAL SAFETY RULES



CAUTION: FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN PERSONAL INJURY, AND/OR DAMAGE TO PROPERTY.

THE WORK ENVIRONMENT

1. ALWAYS keep the work area clean and tidy.
2. ALWAYS dress appropriately - Do not wear loose clothing or jewellery. Tie long hair out of the way.
3. ALWAYS keep children and bystanders away - Do not let children handle air tools.
4. DO NOT operate the air tool where there are flammable liquids or gases.

USE OF AIR POWERED TOOLS

1. ALWAYS stay alert and use common sense - do not operate the air tool when you are tired or under the influence of alcohol, drugs or medication.
2. ALWAYS wear eye protectors when using the air tool - Eye protectors must provide protection from flying particles from the front and the side.
3. ALWAYS wear ear protectors when using the air tool.
4. DO NOT overreach - Keep proper footing and balance at all times.
5. NEVER use oxygen, CO², combustible gases or any type of bottled gas as a source of power for the air tool.
6. DO NOT connect the air supply hose with your finger on the trigger.
7. DO NOT exceed the maximum pressure for the air tool of 90 psi / 6.2 bar.
8. Check hoses for leaks or worn condition before use, and ensure that all connections are secure.
9. DO NOT use the air tool for any other purpose than that described in this manual.
10. Keep the air supply hose away from heat, oil and sharp edges.
11. DO NOT fit the air tool to a stand or clamping device that may damage it.
12. DO NOT carry out any alterations or modifications to the air tool.
13. ALWAYS disconnect from the air supply when:
 - Performing any maintenance

- The air tool is not in use
- The air tool will be left unattended
- Moving to another work area

14. NEVER use the air tool if it is defective or operating abnormally.

15. ALWAYS avoid damaging the tool by applying excessive force.

16. ALWAYS maintain the air tool with care. Keep it clean for the best and safest performance.

17. Quick change couplings should not be located at the air tool. They add weight and could fail due to vibration.

18. DO NOT force or misuse the air tool. It will do a better and safer job at the rate for which it was designed.

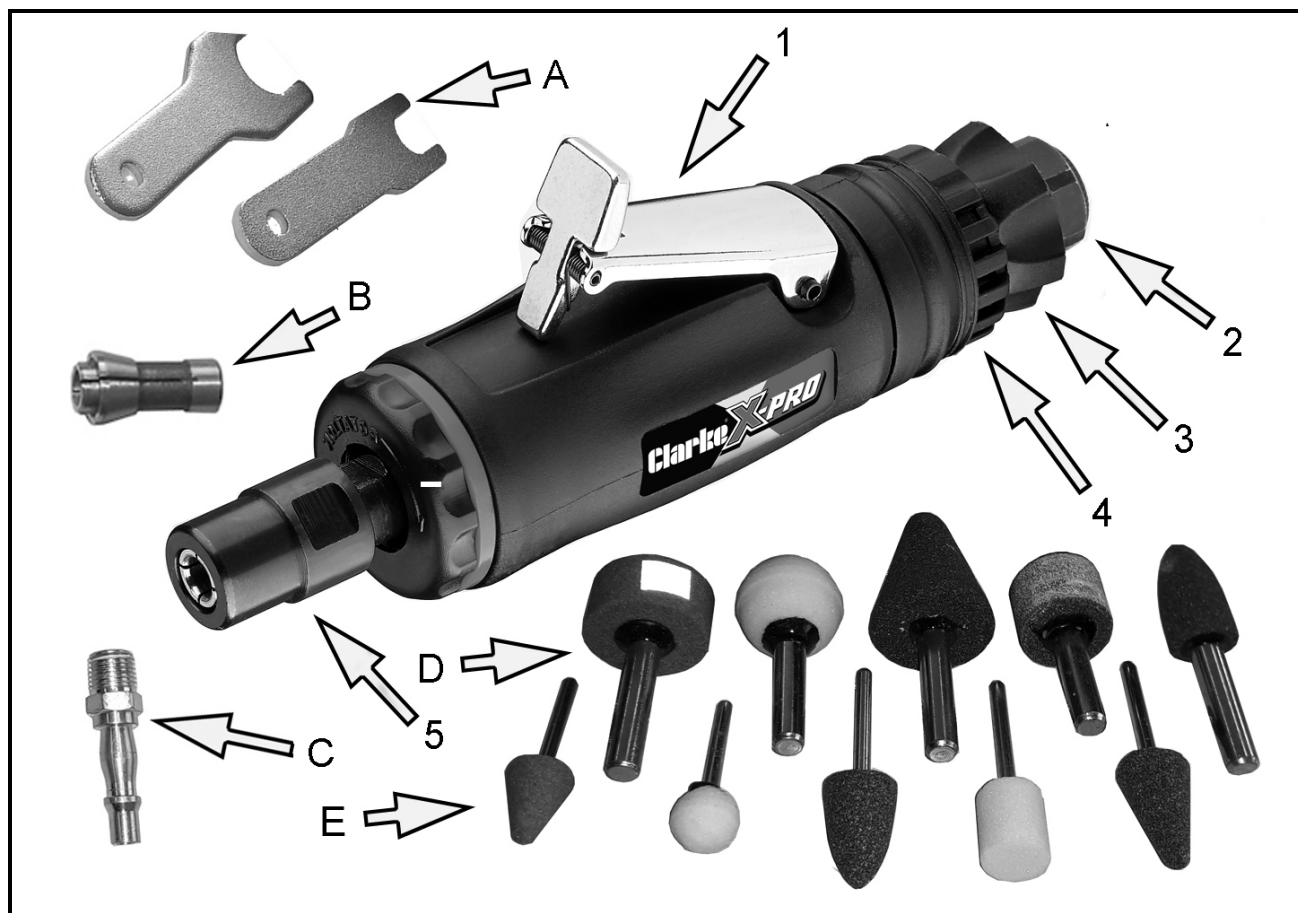
19. This air tool vibrates with use. Vibration may be harmful to your hands or arms. Stop using the air tool if discomfort, a tingling feeling or pain occurs. Seek medical advice before resuming use.

20. NEVER carry the air tool by the air supply hose.

21. NEVER carry the air tool with your finger on the trigger.

22. When not in use the air tool must be disconnected from the air supply and stored in a dry place out of the reach of children.

OVERVIEW



When opening the blow moulded case for the first time, check that all the items are present. Any damage or deficiency should be reported to your CLARKE dealer immediately.

NO	DESCRIPTION	NO	DESCRIPTION
A	2 x Collet wrenches (11mm & 17mm)	D	Grinding stones (6mm shank)
B	Spare collet	E	Grinding stones (3mm shank)
C	1/4" BSP Air hose connector		

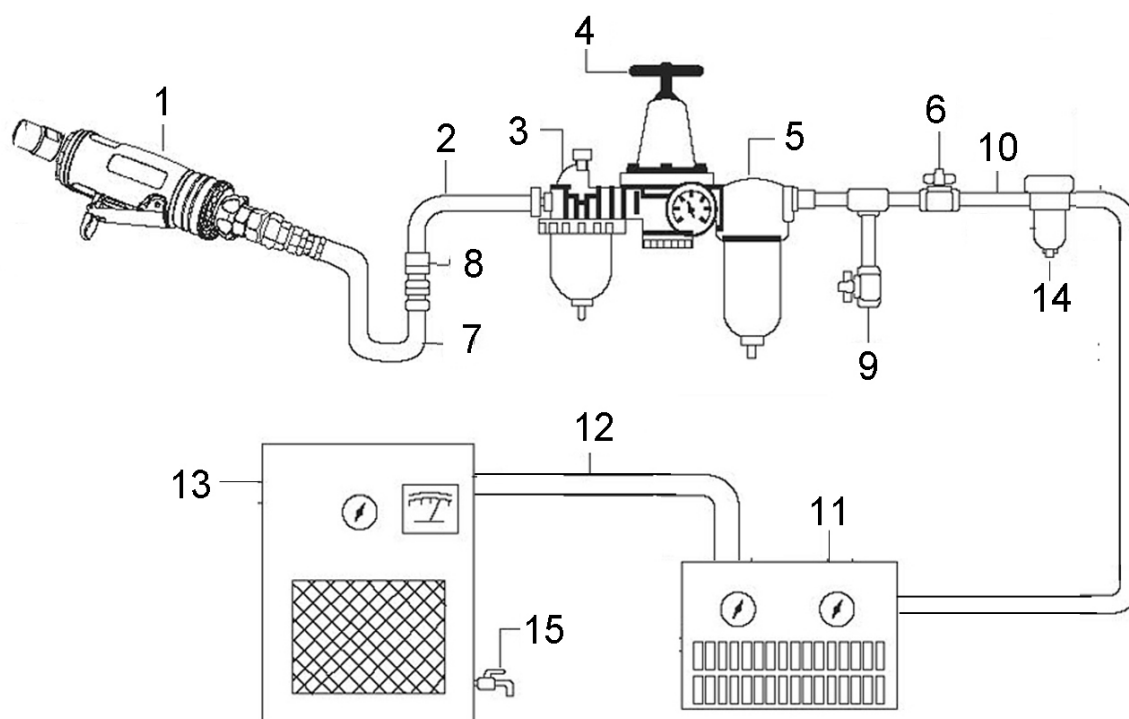
1	Trigger	4	Exhaust deflector
2	Air Inlet	5	Screw cap
3	Speed control		

COMPRESSED AIR REQUIREMENTS



WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.

A typical air line layout is shown below. If an automatic in-line filter/regulator is used it will keep the tool in good condition, but should be regularly checked and topped up with oil. SAE 10 oil should be used and the lubricator adjusted to approx 2 drops per minute.



AIR SYSTEM LAYOUT :

- | | |
|-------------------------------|-------------------------------------|
| 1. Air Tool | 9. Drain Valve |
| 2. Air Hose | 10. 1/2" Or Larger Pipe And Fitting |
| 3. Oiler | 11. Air Dryer |
| 4. Pressure Regulator | 12. 1" Or Larger Pipe And Fitting |
| 5. Filter | 13. Air Compressor |
| 6. Shut Off Valve | 14. Auto Drain |
| 7. Whip Hose | 15. Drain Valve |
| 8. Coupler Body And Connector | |

Use only clean, dry, regulated compressed air as a power source.

Air compressors used with the tool must comply with the appropriate European Community Safety Directives.

A build-up of moisture or oil in the air compressor will accelerate wear and corrosion in the tool. ensure any moisture is drained from the compressor daily and the inlet filter is kept clean.

If an unusually long air hose is required, (over 8 metres), the line pressure or the hose inside diameter may need to be increased. The air hose must be rated at least 150% of the maximum operating pressure of the air tool.

Never exceed the maximum operating pressure for the tool. It is recommended that air pressure to this tool does not exceed 90 psi at the tool when running. Higher pressures and unclean air will shorten the life of the tool due to faster wear and is a possible safety hazard.

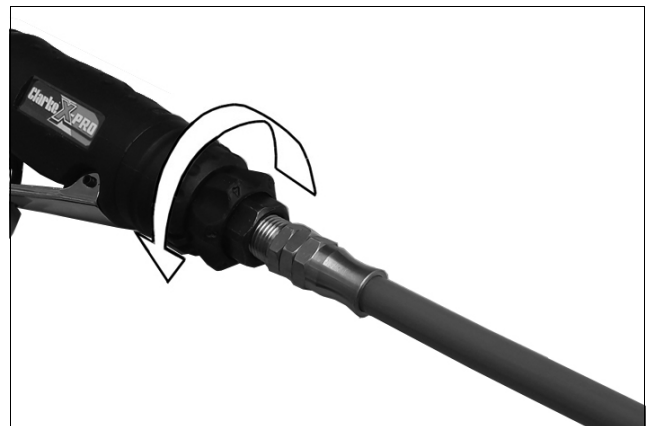
BEFORE USE



WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF AIR COMPRESSORS AND COMPRESSED AIR SUPPLY.

NOTE: Ensure the compressor is turned off.

1. Remove the plastic blanking plug from the air inlet connection.
2. Pour 2-3 drops of airline oil into the oil filling port. This should be done regardless of whether or not a lubricated air supply is to be used.
3. If required, connect an in-line mini oiler to the tool.
 - A mini oiler helps to prolong the life of any air tool.
4. Connect a suitable hose as shown or use the snap connector supplied to connect directly to the hose.
5. Connect the other end of the hose to the compressor.
 - PTFE tape may be useful for sealing threaded connections.
6. Turn on the air supply and check for air leaks. Rectify any found before proceeding.
7. If using a mini oiler, place a sheet of paper next the exhaust port and hold the throttle open for approximately 30 seconds. The oil volume is correctly

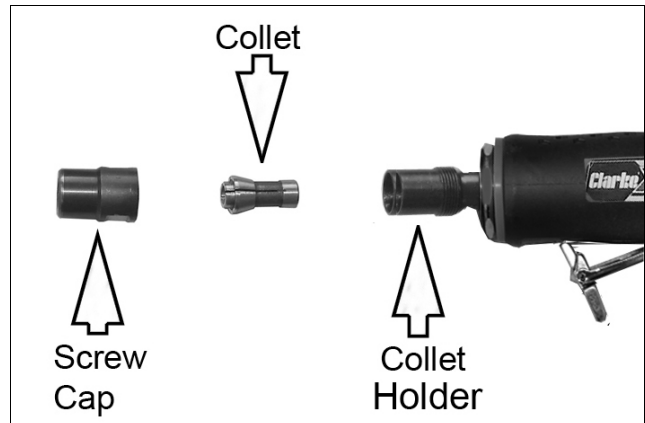


set when a light stain of oil can be seen on the paper. Excessive oil should be avoided.

Your die grinder is now ready for use.

INSTALLING THE COLLET

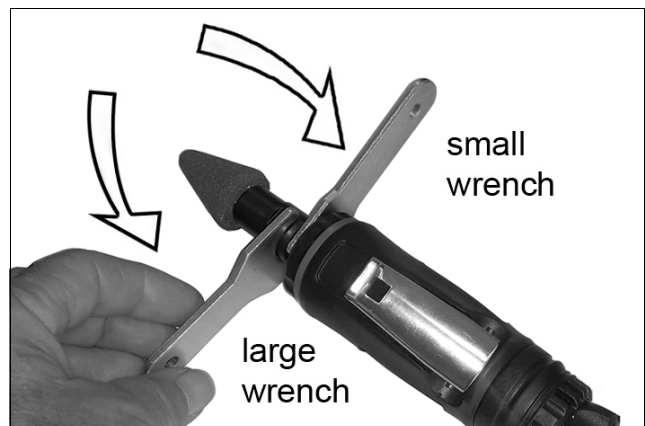
1. Select the grinding stone you require.
2. Two collets of different sizes are provided. Select whichever fits the shank of the stone you have chosen.
 - The larger collet is probably already installed in the grinder.
3. If the other collet is to be used, undo the screw cap completely and pull out the collet from the collet holder. Replace it with the new collet and screw the cap loosely back on.



FITTING THE GRINDING STONE

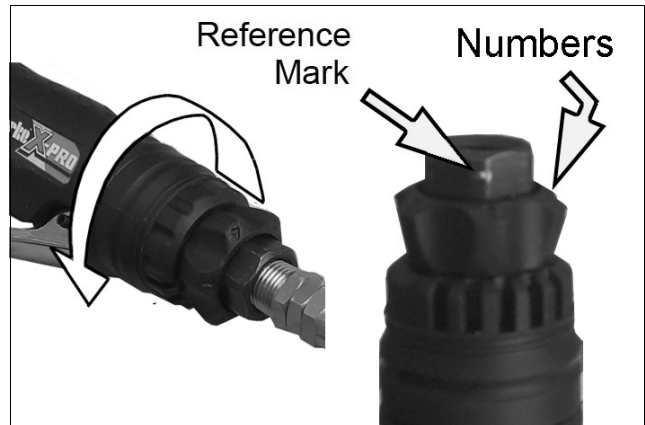
IMPORTANT: Never use chipped or cracked grindstones.

1. Slip the shank of the chosen stone into the collet and tighten the screw cap finger tight.
2. Place the smaller of the two wrenches (11mm) over the collet seat to stop the tool from rotating.
3. Use the larger wrench (17mm) to fully tighten the collet and grip the stone in position as shown.
4. If another collet is to be used, undo the screw cap completely and pull out the collet from the collet seat. Replace it with the new collet and screw the cap loosely back on.



ADJUSTING THE SPEED

1. Set the tool speed by rotating the control to one of the four settings.
 - The numbers on the speed control knob indicate the speed setting when aligned with the reference mark on the air inlet.
 - Speeds available are: 8300, 13000, 22000 or 25000 rpm (+/- 10%).



OPERATING THE DIE GRINDER

1. Slide the throttle locking lever forward while squeezing the trigger against the tool body.
2. Do not use pressure on the stone as this will shorten its life.
3. Release the trigger to stop the grinder.
 - The tool will continue to rotate for a short time after the trigger has been released.
4. Always ensure the grinder has stopped before putting it down.



DISCONNECTING THE AIR SUPPLY

1. Do not disconnect the air hose until the supply is isolated at a shut-off valve.
2. Once the pressure has been isolated, disconnect the air supply hose from the air tool.
3. Shut down the compressor at the end of the work session.

TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
Tool runs at normal speed but slows down under any load.	<ol style="list-style-type: none"> 1. Excessive pressure on tool. 2. Motor parts worn. 3. Worn or sticking mechanism due to lack of lubricant. 	<ol style="list-style-type: none"> 1. Reduce the force applied to the tool. 2. Return to CLARKE dealer for repair. 3. Drip air tool lubricating oil into air inlet. Allow oil to soak moving parts before using.
Tool runs slowly. Air flows weakly from exhaust.	<ol style="list-style-type: none"> 1. Motor parts jammed with gum/dirt. 2. Regulator in closed position. 3. General airflow blocked by dirt. 	<ol style="list-style-type: none"> 1. Examine inlet air filter for cleanliness and clean if necessary. 2. Adjust regulator to open position. 3. Operate tool in short bursts.
Tool will not run. Air flows freely from exhaust.	<ol style="list-style-type: none"> 1. Motor vanes stuck due to buildup of foreign material. 	<ol style="list-style-type: none"> 1. Disconnect air supply and rotate tool assembly manually. 2. Try operating tool in short bursts. 3. Drip a few drops of air tool lubricating oil into air inlet to soak moving parts.
Tool will not shut off.	<ol style="list-style-type: none"> 1. Throttle O-rings damaged or ill-fitting in seat. 	<ol style="list-style-type: none"> 1. Return to CLARKE dealer for repair.

STORAGE

If the tool 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.

When not in use, disconnect from air supply, clean tool and store in a safe, dry place. When storing, replace the blanking plug to the air inlet once the airline is disconnected.

Avoid storing the tool where the temperature is below 0°C.

MAINTENANCE



WARNING: MAKE SURE THAT THE AIR TOOL IS DISCONNECTED FROM THE AIR SUPPLY BEFORE STARTING ANY CLEANING OR MAINTENANCE.

DAILY

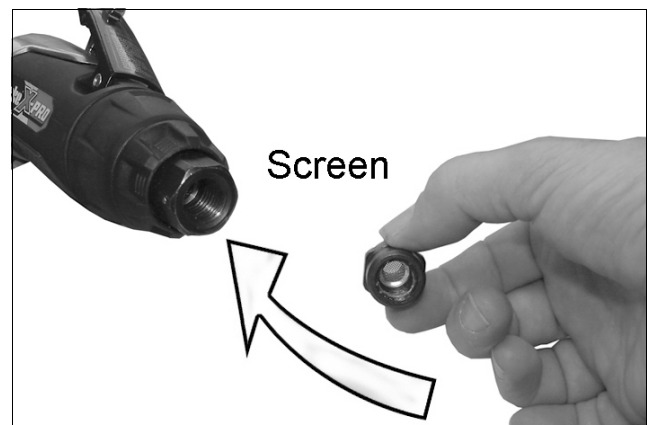
1. Before use, drain water from the air reservoir, air line and compressor.
2. If no line lubricator or mini oiler is used, ensure that oil is applied to the air tool on a daily basis through the air inlet connection. Run a few drops of oil through the tool before use. It may be entered into the air tool air inlet, (ensuring the strainer is clear), or into the hose at the nearest connection to the air supply.
3. This procedure should be repeated after every two to three hours of use or at the start of the working day.
4. Keep the body of the tool clean and free from debris.

WEEKLY

1. Check the air inlet screen filter for blockage and clean if necessary.

CLEANING

1. Grit or gum deposits inside an air tool may reduce its efficiency.
2. After extensive use, remove the inlet screen filter and flush out the mechanism with gum solvent oil or an equal mixture of CLARKE air-line oil and paraffin. Allow to dry before use.



SERVICE AND REPAIR

1. If the air tool runs erratically or becomes inefficient although the air supply is in good order, it may be necessary to dismantle the air motor and replace any worn or damaged parts. Such servicing and repair work should be carried out by a qualified service technician.
2. If the air tool still runs erratically or becomes inefficient, and the air supply is of good quality, it may be necessary to dismantle the air motor and replace worn or damaged parts.

3. You may prefer to take the air tool to your CLARKE dealer if internal maintenance is required.

PERFORMANCE

Please note that outside factors may effect the operation and efficiency of the air tool.

These include reduced compressor output, excessive drain on the airline, moisture ingress, restrictions in the air-line such as the use of connectors of incorrect size or poor condition which will reduce the air supply.

Your air tool has been designed to give long & trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local CLARKE dealer.

ACCESSORIES

A wide range of accessories are available including filter/regulators, lubricators, high-pressure hoses (5 to 50 metres) etc.

Contact your CLARKE dealer for further information or CLARKE International Service Department.

CLARKE Air Line Oil (part no. 3050825) is available from your CLARKE dealer.

SUITABLE STONES INCLUDE:

CAT144 (10 piece grinding stone set) part no 3120158.

DECLARATION OF CONFORMITY

UK
CA

Clarke
INTERNATIONAL

Hemmel Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following statutory requirement(s):

Supply of Machinery (Safety) Regulations 2008

The following standards have been applied to the product(s):

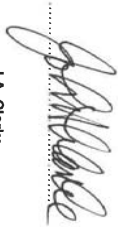
EN/ISO 11148-9:2011

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2022

Product Description: 1/2" Air Angle Die Grinder Kit
Model number(s): CAT201
Serial / batch Number: N/A
Date of Issue: 23/05/2022

Signed:



J.A. Clarke
Director

CAT201 UKCA Clarke DOC 052322

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CE

Clarke
INTERNATIONAL

Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2006/42/EC Machinery Directive

The following standards have been applied to the product(s):

EN/ISO 11148-9:2011

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2019

Product Description: 1/2" Air Angle Die Grinder Kit
Model number(s): CAT201
Serial / batch Number: N/A
Date of Issue: 23/05/2022

Signed:

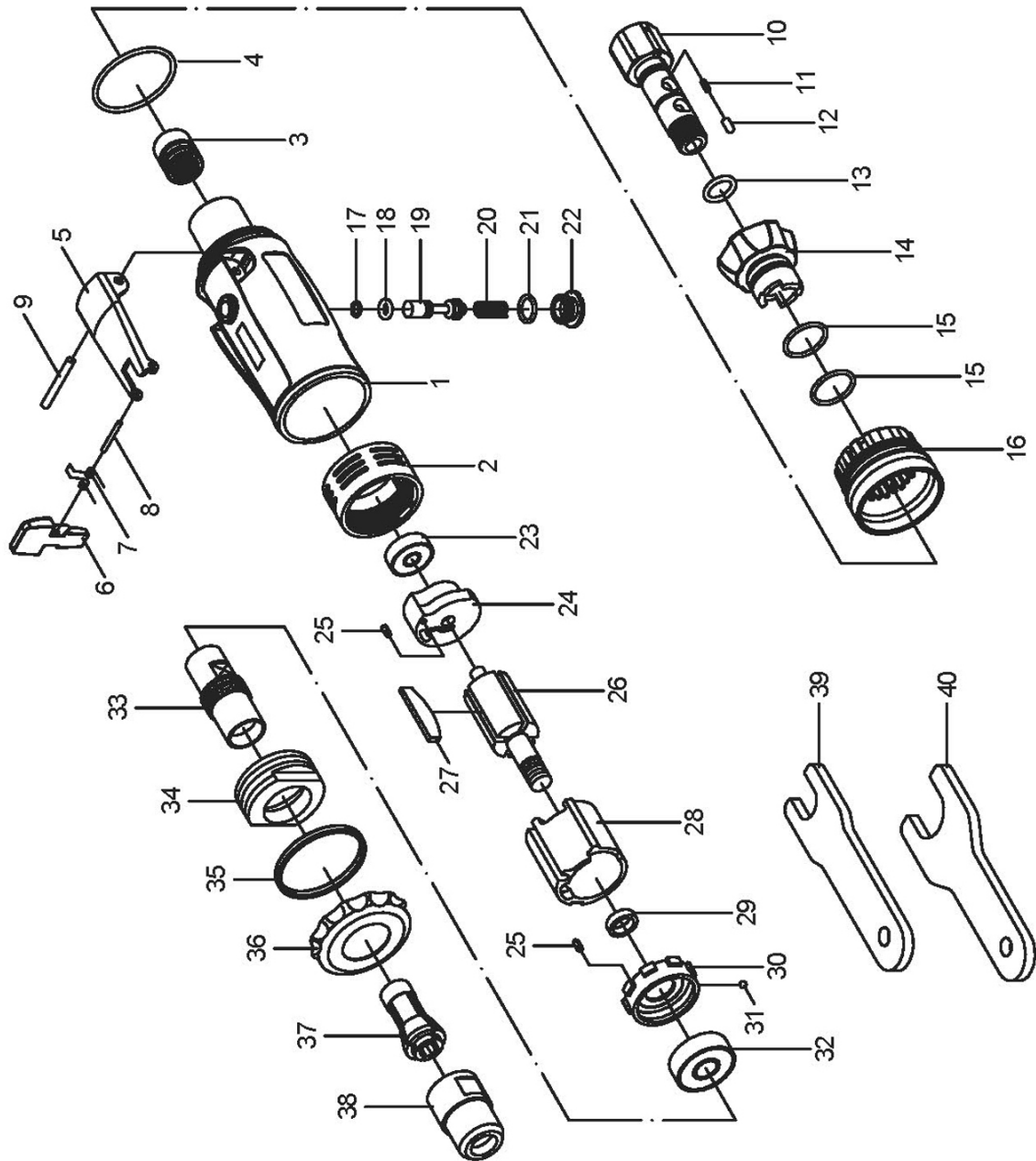


J.A. Clarke
Director

CAT201 CE Clarke DOC 052322

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COMPONENT PARTS



COMPONENT PARTS - STRAIGHT DIE GRINDER

No	Description
1	Main Housing
2	Housing liner
3	Bushing
4	O-ring
5	Trigger
6	Lever
7	Spring
8	Roll pin
9	Trigger pin
10	Air inlet
11	Spring
12	Pin
13	O-ring
14	Air regulator
15	O-ring
16	Exhaust deflector
17	O-ring
18	O-ring
19	Valve stem
20	Spring

No	Description
21	O-ring
22	Screw
23	Bearing
24	Rear plate
25	Set pin
26	Rotor
27	Rotor blade
28	Cylinder
29	Bushing
30	Front plate
31	Steel ball
32	Bearing
33	Collet seat
34	Lock ring
35	Decoration ring
36	Front protective cover
37	Collet
38	Collet jacket
39	Small wrench (11mm)
40	Large wrench (17mm)

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required 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 its intended purpose. Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not affect your statutory rights.

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