

# Clarke®

## X-PRO



### 3" CUT-OFF TOOL

MODEL NO: CAT203

PART NO: 3120520

## OPERATING & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC1019 - ISS 1

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## INTRODUCTION

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Thank you for purchasing this CLARKE Cut-Off Tool.

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.**

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## SPECIFICATIONS

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Model Number	CAT203
Dimensions (L x W x H)	205 x 85 x 72 mm
Weight	0.79 kg
Disc Size (dia & thickness)	3" x 1/16"
Disc Bore Size	3/8"
Air Inlet Size	1/4" BSP (female)
Operating Pressure	90 psi (6.2 bar)
Air Consumption	5 cfm average (no-load)
No Load Speed	20000 rpm @ 90psi
Speed settings	1 - 9000 rpm 2 - 15000 rpm 3 - 17000 rpm 4 - 20000 rpm
Sound Pressure Level (LpA dB)	84 dB(A)
Sound Power Level (LwA dB)	95 dB(A)
Vibration Levels	3.2 m/s <sup>2</sup>

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# GENERAL SAFETY RULES

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

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## 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. Keep children and visitors away - Do not let children handle the tool.
4. DO NOT operate the tool where there are flammable liquids or gases.

## USE OF AIR POWERED TOOLS

1. 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 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, CO<sup>2</sup>, combustible gases or any type of bottled gas as a source of power for the tool.
6. DO NOT connect the air supply hose with your finger on the trigger.
7. DO NOT exceed the maximum pressure for the tool of 90 psi / 6.2 bar.
8. ALWAYS check hoses for leaks or worn condition before use, and ensure that all connections are secure.
9. DO NOT use the tool for any purpose other than described in this manual.
10. ALWAYS keep the air supply hose away from heat, oil and sharp edges.
11. DO NOT fit the tool to any stand or clamping device that may damage it.
12. DO NOT carry out any alterations or modifications to the tool.
13. ALWAYS disconnect from the air supply when:
  - Performing any maintenance.
  - The tool is not in use.

- The tool will be left unattended.
  - Moving to another work area.
14. NEVER use the tool if it is defective or operating abnormally.
  15. Avoid damaging the tool by applying excessive force.
  16. ALWAYS maintain the tool with care for the best and safest performance.
  17. Quick change couplings should not be located at the tool. They add weight and could fail due to vibration.
  18. DO NOT force or misuse the tool. It will do a better and safer job at the rate for which it was designed.
  19. 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.
  20. NEVER carry the tool by the air supply hose.
  21. NEVER carry the tool with your finger on the trigger.
  22. When not in use the tool must be disconnected from the air supply and stored in a dry place out of the reach of children.

## **USE OF CUTTING DISCS**

1. NEVER use cracked or chipped cutting discs.
2. NEVER use non-reinforced cutting discs.
3. NEVER use the cut off tool without disc guard in place.
4. NEVER use the side of the cutting disc for grinding.
5. Only use for cutting operations.

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# COMPRESSED AIR REQUIREMENTS

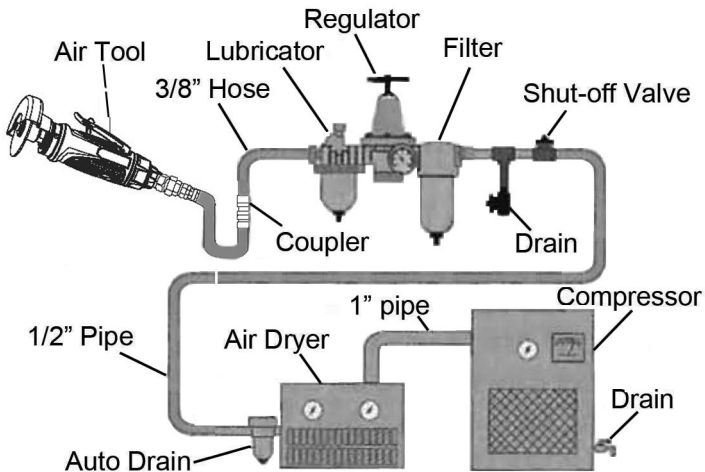
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**WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.**

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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.



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.

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

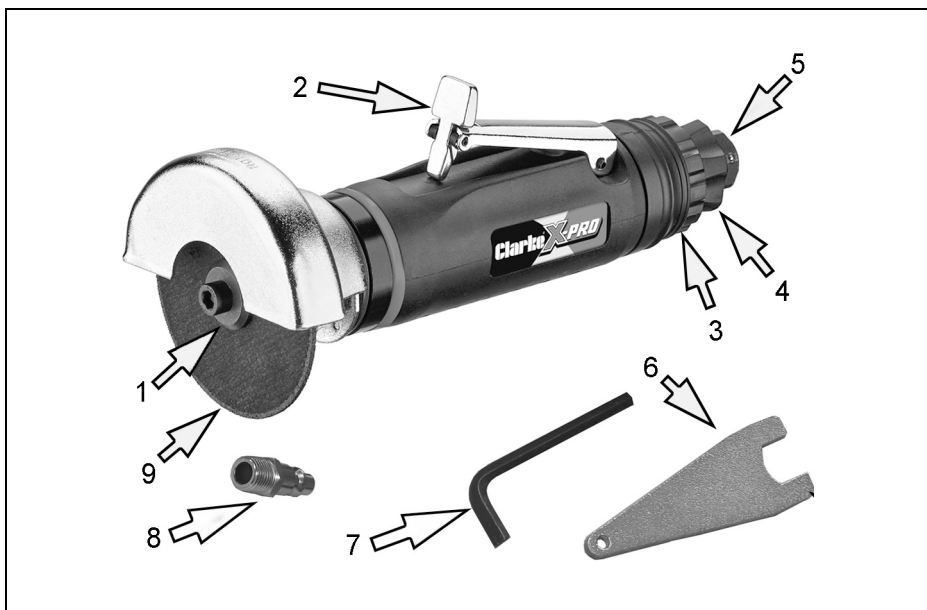
Air compressors used with the tool must comply with the appropriate European Community Safety Directives.

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 tool.

## OVERVIEW



1	Disc Retaining Washer	6	Wrench
2	Trigger	7	Hex Key
3	Air Exhaust Deflector	8	Inlet adaptor
4	Speed Control	9	3" dia, 1/16" thick 3/8" bore metal cutting disc
5	Air Inlet		Note: a pack of 10 discs is included

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

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## BEFORE USE

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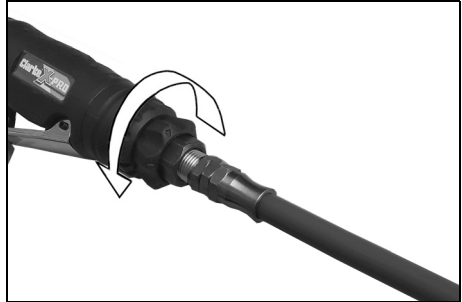


**WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF AIR COMPRESSORS AND COMPRESSED AIR SUPPLY.**

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### CONNECTING THE AIRLINE

1. Remove the plastic blanking plug from the air inlet connection.
2. Pour 2-3 drops of CLARKE 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 inlet adaptor 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 squeeze the trigger 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 air tool is now ready for use.

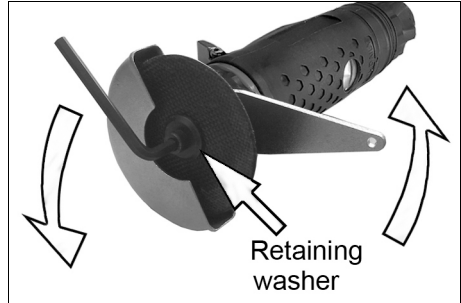
## INSTALLING THE CUTTING DISC

1. Ensure the disc being fitted has a speed rating greater than 20,000 rpm which is the maximum speed of the tool.
2. Install the disc and retaining washer using the spanner and hex key supplied.

**NOTE:** The disc must be fitted with the metal facing touching the retaining washer.

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

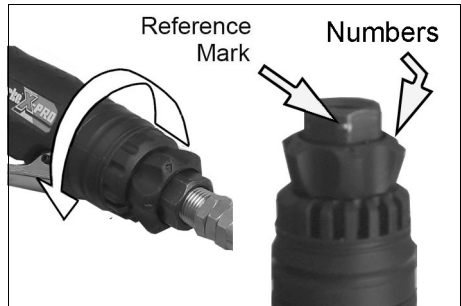
- Replacement cutting discs are available from your CLARKE dealer, - (Part number 3110731).



## SETTING THE SPEED

1. Set the tool speed by rotating the control to one of the four settings.
  - The graduations on the speed control indicate the speed setting when aligned with the reference mark on the air inlet.
  - Speeds available are: (+/-10%)

1	9,000 rpm
2	15,000 rpm
3	17,000 rpm
4	20,000 rpm





## OPERATING THE TOOL

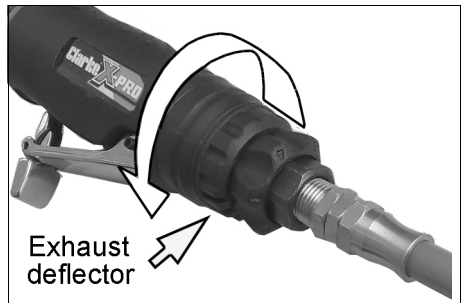
1. Use your thumb to slide the throttle locking lever forward at the same time as squeezing the trigger against the body of the tool.
  - Allow the tool to run up to full speed for a couple of seconds before offering the disc to the work piece.
2. Apply a steady, even pressure. Do not force the tool.
3. Too much pressure can cause the disc to break and may shorten the life of the tool.
4. Release the trigger to stop the tool.
  - The tool will continue to rotate briefly after the trigger has been released.
5. ALWAYS ensure the tool has stopped before putting it down.



## SETTING THE AIR EXHAUST DEFLECTOR

The direction of the exhaust air leaving the tool can be adjusted by rotating the air exhaust deflector.

Twist the air exhaust deflector sleeve to direct the air as required to deflect air away from the workpiece or operator.



## 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"> <li>1. Excessive pressure on tool.</li> <li>2. Motor parts worn.</li> <li>3. Worn or sticking mechanism due to lack of lubricant.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce the force applied to the tool.</li> <li>2. Return to CLARKE dealer for repair.</li> <li>3. Drip air tool lubricating oil into air inlet. Allow oil to soak moving parts before using.</li> </ol>
Tool runs slowly. Air flows weakly from exhaust.	<ol style="list-style-type: none"> <li>1. Motor parts jammed with gum/dirt.</li> <li>2. Regulator in closed position.</li> <li>3. General airflow blocked by dirt.</li> </ol>	<ol style="list-style-type: none"> <li>1. Examine inlet air filter for cleanliness and clean out if necessary</li> <li>2. Adjust regulator to open position.</li> <li>3. Operate tool in short bursts.</li> </ol>
Tool will not run. Air flows freely from exhaust.	<ol style="list-style-type: none"> <li>1. Motor vanes stuck due to buildup of foreign material.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disconnect air supply and rotate tool assembly manually.</li> <li>2. Try operating tool in short bursts.</li> <li>3. Tap motor housing gently with a rubber mallet.</li> <li>4. Drip a few drops of air tool lubricating oil into air inlet to soak moving parts.</li> </ol>
Tool will not shut off.	<ol style="list-style-type: none"> <li>1. Throttle O-rings damaged or ill-fitting in seat.</li> </ol>	<ol style="list-style-type: none"> <li>1. Return to CLARKE dealer for repair.</li> </ol>

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# MAINTENANCE

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

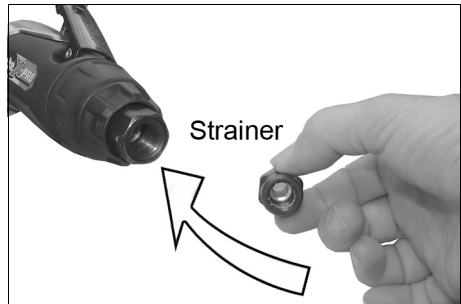
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## DAILY

1. Before use, drain water from the air tank, air line and compressor.
2. Pour a few drops of CLARKE airline oil, into the air inlet. This should be carried out regardless of whether or not an in-line mini oiler is used. If an in-line mini oiler is not used, this procedure should be repeated after every two to three hours of use.

## CLEANING

1. Check the air inlet screen filter for blockage and clean if necessary
2. Keep the body of the tool clean and free from debris.
3. Grit or gum deposits inside the tool may also reduce its efficiency. This condition can be corrected by cleaning out the air strainer inside the air inlet, and flushing out the tool with gum solvent or oil, or failing this, the motor may require dismantling. This is better left to your CLARKE dealer.



## SERVICE AND REPAIR

If the 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.

## PERFORMANCE

Please note 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 air-line, or the use of connectors of improper size or poor condition which will reduce air supply.

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

## **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 the air supply, clean and store in a safe, dry place. When storing, replace the blanking plug to the airline inlet.

Avoid storing the tool in environments where the temperature is below 0°C

## **ACCESSORIES**

Replacement cutting discs are available from your CLARKE dealer, -(Part number 3110731).

A wide range of accessories is 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.

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## **GUARANTEE**

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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 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.

# DECLARATION OF CONFORMITY



**Clarke**<sup>®</sup>  
**INTERNATIONAL**

Hemnall 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 directive(s):**

*2006/42/EC Machinery Directive.*

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

*EN ISO 11148-7:2012.*

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.

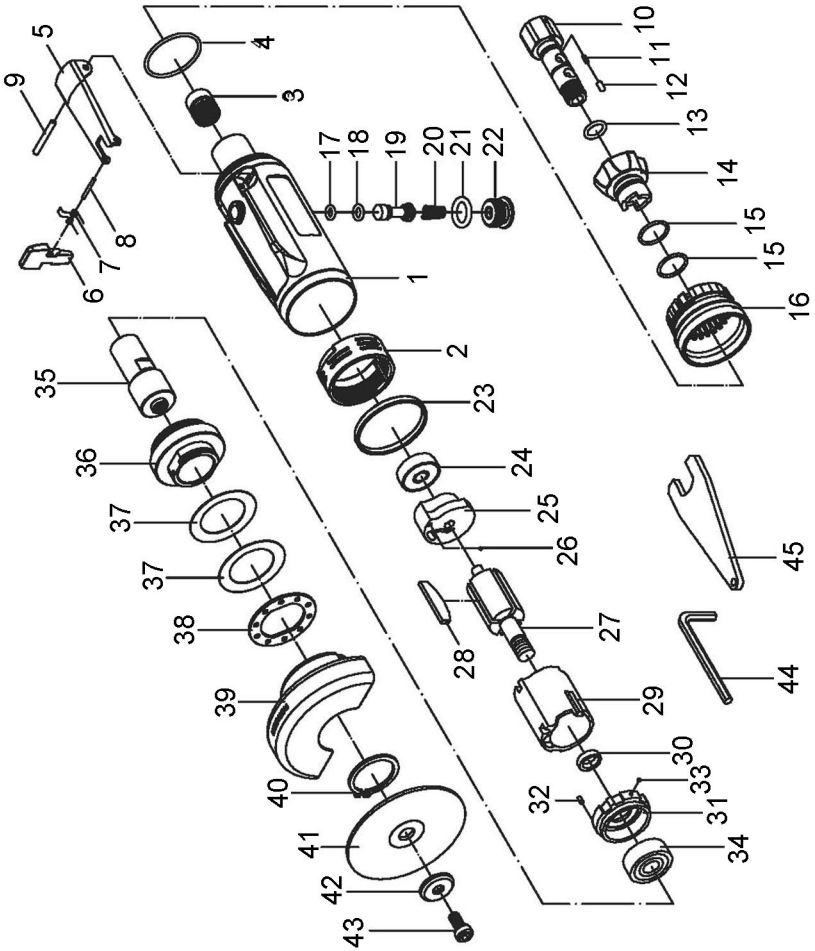
The CE mark was first applied in: 2019

**Product Description:** 3" Composite Air Cut-off Tool  
**Model number(s):** CAT203  
**Serial / batch Number:** N/A  
**Date of Issue:** 15/08/2019

**Signed:**

**J.A. Clarke**  
**Director**

# COMPONENT PARTS



## COMPONENT PARTS LIST

No	Description
1	Main housing
2	Bushing
3	Brass sleeve
4	O-ring
5	Trigger
6	Lever
7	Spring
8	Top pin
9	Trigger pin
10	Air inlet
11	Spring
12	Pin
13	O-ring
14	Air regulator
15	O-ring
16	Muffler
17	O-ring
18	O-ring
19	Valve stem
20	Spring
21	O-ring
22	Set screw
23	Sealing ring

No	Description
24	Bearing
25	Rear plate
26	Steel ball
27	Rotor
28	Rotor blade
29	Cylinder
30	Bushing
31	Front plate
32	Pin
33	Steel ball
34	Bearing
35	Collet jacket
36	Fixing ring
37	Cushion
38	Gasket
39	Metal guard
40	Circlip
41	Cutting wheel
42	Spacer
43	Set screw
44	Hex key
45	Wrench

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