Clarke®

air


# AIRLINE REGULATOR

## MODEL NO: CAT189

PART NO: 31205506

## OPERATING & MAINTENANCE INSTRUCTIONS

ORIGINAL INSTRUCTIONS

GC0122 - Rev 2

# INTRODUCTION

Thank you for purchasing this CLARKE Airline Regulator.

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.

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

# SPECIFICATIONS

| | **CAT189** |
|---|---|
| Dimensions (H x W x D) mm | 170 x 80 x 73 |
| Air Inlet /Outlet Size | 3/4"BSP (female) |
| Max Flow | 220 CFM |
| Max Inlet Pressure | 300 psi |
| Regulating range | 5-150 psi |
| Max working Temperature | 175 deg F |

# GENERAL SAFETY RULES

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

## WORK ENVIRONMENT

1. Keep the work area clean and tidy.
2. 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 tools.
4. Do not operate air tools where there are flammable liquids or gases.

## USE OF AIRLINE EQUIPMENT

1. Stay alert and use common sense - do not operate an air tool when you are tired or under the influence of alcohol, drugs or medication.
2. Do not overreach - Keep proper footing and balance at all times.
3. Never use oxygen, $CO_2$, combustible gases or any type of bottled gas as a source of power for air tools.
4. Do not exceed the maximum pressure for the airline component stated in the specification.
5. Check airline hoses for leaks or worn condition before use and ensure that all connections are secure.
6. Keep the air supply hose away from heat, oil and sharp edges.
7. Avoid damaging the component for example by applying excessive force of any kind.
8. Always maintain the air tool with care. Keep it clean for the best and safest performance.

# COMPRESSED AIRLINE REQUIREMENTS

1. Use only clean, dry, regulated compressed air as a power source.
2. Air compressors must comply with the appropriate European Community Safety Directives.
3. A build-up of moisture in the air compressor will accelerate wear and corrosion in the air tool. Ensure any moisture is drained from the compressor daily and the airline filter is kept clean.
4. 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.

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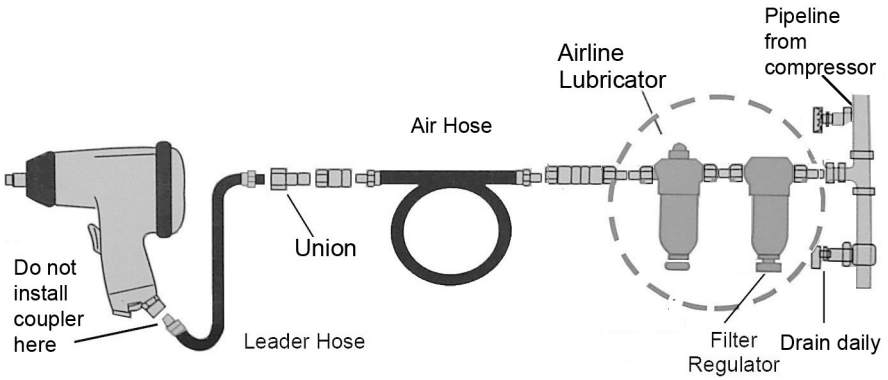



5. A typical air line layout is shown above. If an automatic in-line filter/ regulator is used it will keep the tool in good condition. The lubricator should be adjusted to approx 2 drops per minute and SAE 10 oil should be used.
6. Never exceed the maximum operating pressure for the air tool. Ensure that air pressure does not exceed that stated in the specification for the tool when running. Higher pressures and contaminated air will shorten the life of the air tool due to faster wear and is a possible safety hazard.

## INSTALLATION

1. Shut off air pressure from the system.
2. Ensure that the regulator is installed with inlet/outlet air flow in the direction of the arrow on the regulator body. The regulator should be installed upstream of lubricator(s), and cycling valve(s) in the air line, and should be as close as possible to the air tool (s).
3. Fit the mounting bracket to a suitable support, situated in line with the compressed air supply. Fit the regulator to the mounting bracket from below and secure with the retaining ring.
4. Remove the blanking plugs from the connection ports and connect to the supply and delivery lines. Connect air lines using pipe thread sealant tape on male threads only. When screwing pipes together, prevent ingress of shavings and sealant to the interior of the unit. Contamination in the unit may cause it to fail.
5. Make sure that all connections to the regulator are tight and secure.
6. Install a pressure gauge to either of the gauge ports facing the operator. The other gauge port should be plugged or can be used as an additional air outlet for regulated air.
7. It is recommended that an air line filter should be installed upstream of the regulator.
8. The regulator must be installed in such a way that no mechanical force or tension occurs and with reasonable accessibility for adjustment and servicing whenever possible.
9. Your regulator is now ready for use.

## OPERATION

1. Ensure that the pressure to the air inlet of the regulator from air line does not exceed the maximum pressure specified.
2. Before applying inlet pressure, pull the adjustment upwards until you hear the click, turn it anti-clockwise to release all force on the regulating spring. Then push the adjustment downwards until you hear the click.
3. Air inlet pressure can be set by turning the adjustment. Pull the adjustment upwards until you hear the click, turn it clockwise to increase the pressure or counterclockwise to decrease the pressure. When the desired pressure is obtained, press the adjustment knob downwards until you hear the click to secure the adjustment.

- + and - are marked on the knob.

4. The set air pressure can be read on a pressure gauge if fitted.
5. Always approach the desired pressure gradually.

# MAINTENANCE

## DISASSEMBLY

1. The regulator can be disassembled without removal from air line.
2. Shut OFF the inlet pressure. Reduce pressure in inlet and outlet lines to zero.
3. Turn the adjustment knob fully counterclockwise.
4. Disassemble in accordance with the parts illustrated on page 7.

## CLEANING

1. Clean parts with warm water and soap.

**CAUTION: Some components may be made from polycarbonate which can be severely damaged if it comes into contact with some chemicals. These include acetone, benzene, carbon tetrachloride, ethylene di-chloride, gasoline or synthetic fire resistant lubricants.**

2. Rinse and dry parts. Blow out internal passages in body with clean, dry compressed air. Inspect parts and replace those found to be damaged.

## ASSEMBLY

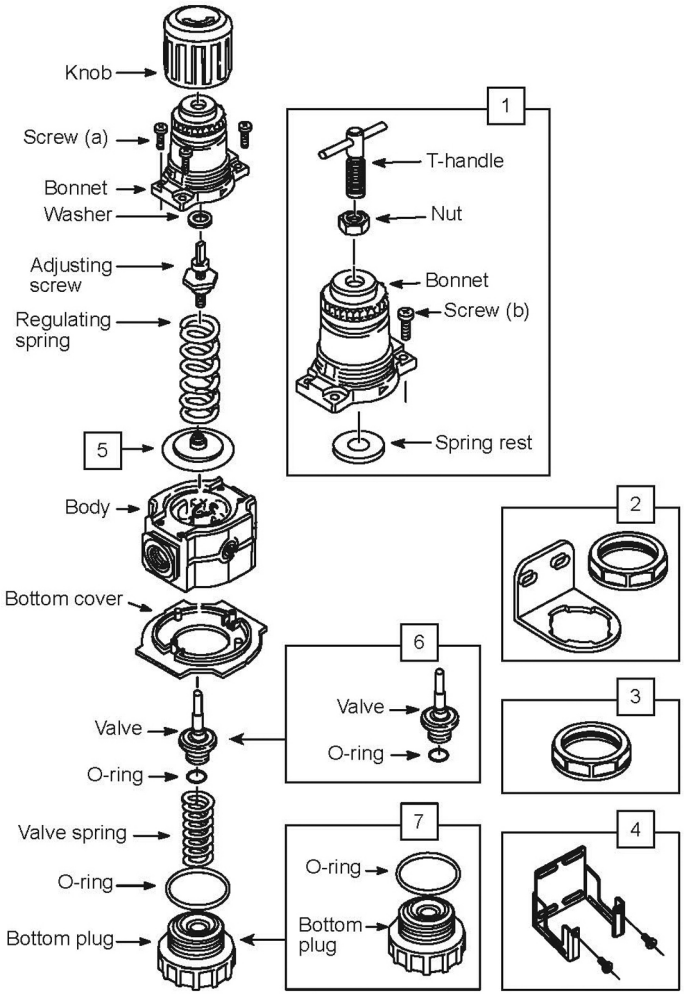
1. Lubricate the o-rings, bore in bottom plug, valve stem, adjusting screw threads and tip and the outer circumference and both sides of the thrust washer with a light coat of good quality o-ring grease.
2. Assemble the unit as shown on page 7.
3. Tighten items listed in the table below.

| Torque Settings | |
|---|---|
| **Part** | **Inch Pounds (N-m)** |
| Screws a & b | 25 to 35 (2.8 to 3.9) |
| Bottom plug | 20 to 30 (2.3 to 3.4) |

## ACCESSORIES

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.

# COMPONENT PARTS




| No | Description |
|---|---|
| 1 | T-handle kit |
| 2 | Wall bracket & panel nut |
| 3 | Panel nut |
| 4 | Universal wall bracket |

| No | Description |
|---|---|
| 5 | Diaphragm |
| 6 | Valve assembly |
| 7 | Bottom plug assembly |
| | |

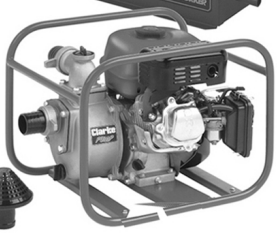
# A SELECTION FROM THE VAST RANGE OF

Clarke®

## QUALITY PRODUCTS







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## 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 the purpose for which it was intended. Faulty goods should be returned to their place of purchase, no product can be returned without prior permission.

This guarantee does not affect you statutory rights.

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