

# Champro®



**WARNING: READ THESE INSTRUCTIONS BEFORE USE**

## 3 LEGGED GLAZE BREAKER

MODEL NO: CHT259

PART NO: 1801259

## OPERATION & MAINTENANCE INSTRUCTIONS

ORIGINAL INSTRUCTIONS

LS0819 - ISS 1

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## INTRODUCTION

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Thank you for purchasing this CLARKE 3 legged glaze breaker.

The tool must be attached to a variable speed (400-800 rpm) drill and has been designed to De-glaze and remove unevenness from the inside surfaces of engine cylinders up to a diameter of 180 mm.

If you do not use the tool as described, you may damage the tool or the engine on which you are working. You may also injure yourself.

We cannot consider any warranty claim if you have used the tool in any way other than that described in these instructions, or if you have used it for any other purpose than that for which it is intended nor can we be held responsible in any way for injury caused while using the tool.

Read these instructions through carefully before you use the tool.

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## PERSONAL PROTECTION EQUIPMENT (PPE)

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**The operator and any bystanders must wear eye and respiratory protection and work gloves during use.**

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## HOW TO USE THE 3 LEGGED GLAZE BREAKER

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### EXAMINE

Examine each cylinder. If they are badly scored, show signs of excessive wear, out of true or tapered, the cylinder block will have to be re-bored and fitted with new oversized pistons.

### HONING THE CYLINDERS

1. Mount the cylinder to a study bench and secure in place.
2. Attach the tool to a suitable variable speed drill (400-800 rpm).
  - Make sure that the chuck is fully tightened.
  - Do this with the drill disconnected from the mains electricity supply or compressed air line.
3. Turn the knurled nut anti-clockwise until it reaches the top of the shaft.
  - This reduces the spring tension to minimum to allow easy access to the cylinder
4. Now squeeze the three arms together and insert into the first cylinder.

5. Release the arms.
  - The arms will spring out and make contact with the walls of the cylinder.
6. Turn the knurled nut at the top of the shaft clockwise to increase the pressure of the stones against the cylinder wall.
7. Connect the drill to the mains electricity supply or air line.
8. Pour light oil down the cylinder wall to act as a cutting lubricant and switch on the drill, making sure you have a secure grip.
  - Allow the glaze breaker to rotate inside the cylinder while moving it up and down the cylinder. There should be a fine cross hatch pattern on the cylinder wall with the lines intersecting at about 50° to 60° or at 20° to 35° to the horizontal.
  - Some piston manufacturers may specify a different cross hatch pattern, so check with the instructions supplied with the new piston rings.
  - Use plenty of light oil and try to remove as little metal as possible from the cylinder wall to achieve the specified finish.
  - Do not exceed the maximum speed



**WARNING: NEVER REMOVE THE TOOL FROM THE CYLINDER WHILE THE DRILL IS RUNNING AND THE TOOL IS STILL TURNING. ALWAYS SWITCH OFF THE DRILL AND ONLY REMOVE FROM THE CYLINDER ONCE IT HAS STOPPED TURNING.**

9. Squeeze the arms together before removing them from the cylinder.
10. Wipe the cylinder clean of excess oil and steel dust. Then block it with a cotton cloth while you work on the other cylinders.
11. It is most important to remove all traces of the abrasive grit produced during the honing operation. Use a suitable cleaner to clean the whole engine block thoroughly and brush out all oil holes.
12. You can detect any remaining residues by using a clean white lint-free cloth dampened with clean engine oil to wipe each cylinder until no dirt or grit collects on the cloth.
13. Finally, when you have cleaned the cylinder properly, dry it and then lightly oil the exposed machined surfaces to prevent rust forming.

## REPLACEMENT GRINDING STONES

The grinding stones are a consumable item, Replacement stones are available from your CLARKE dealer.

Type	Part No:
Fine	1800905

Type	Part No:
Medium	1800906

Type	Part No:
Coarse	1800907

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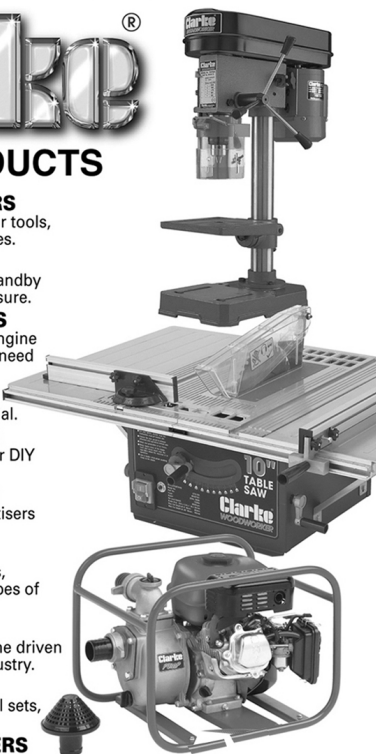
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