



We are the only supplier of Commando & Dominator parts using the original factory drawings. Our products are mostly made in England and to original specification. We also offer Norton Rotary spares, factory service manuals and literature for **NORTON** and **TRIUMPH** motorcycles.

### INSIST ON GENUINE FACTORY PARTS PACKAGED WITH THIS LOGO



### NORTON 500 to 850 TWIN CYLINDER BARREL: INSPECTION, MEASUREMENT & ASSESSMENT

#### Inspection

Visually check the cylinder barrel for cracks and corrosion. Inspect the threads and studs to ensure they are not damaged or stripped.

Check the cylinder bore for scuffing and scoring. Bore wear is often evident in the form of a wear ridge at the top of the bore. This ridge marks the limit of piston ring travel.

#### Measurement

Measure the diameter of each cylinder bore, front to back, in two places:-

- 1) within 1" of the top, front to rear
- 2) near the bottom below the piston ring swept area, front to rear.

Measure the diameter of each piston:-

- 3) at right angles to the gudgeon pin axis just above the base of the skirt.

#### Assessment

If the bore is in acceptable condition, the difference between the two measurements (1 & 2, above) should not exceed 0.005" .

By comparing the measured piston diameter (3, above) with the bore diameter the clearances can be calculated and assessed to see if they are within specification.

#### Rectification

If the cylinder walls are badly scuffed or scored or if the piston -to-barrel clearance is excessive then the cylinder will need to be re-bored by an engine overhaul specialist. New oversize pistons will be required.

N.B. It is important that the re-bore specialist is given both the pistons and cylinder barrel.

The pistons (even new ones) must be accurately measured to suit the re-bored cylinder. The correct piston to barrel clearance for GPM/Gandini pistons is 0.0040 to 0.0045 inches .

If the cylinders and pistons are within specification it may only be necessary to re-new the piston rings. In this case the bores should be honed to allow the new rings to bed in correctly and provide the best possible seal. This honing operation is normally left to an experienced motor engineer.

The correct piston ring end gap for GPM/Gandini pistons is 0.009 to 0.017 inches for all three rings.

#### Tools

Three good quality tools are required for the measuring operations described above:-

- a. An external micrometer with a range of 2 to 3 inches to measure 750 pistons or a range of 3 to 4 inches to measure 850 pistons.
- b. A telescope gauge with a range of 2 to 3.5 inches.
- c. A set of feeler gauges.

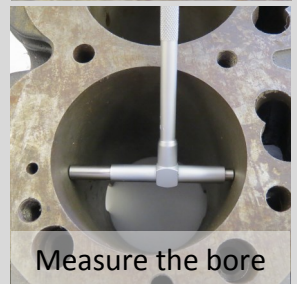
**N.B. This document does not apply to cylinder barrels that have liners fitted or cover inspection of the tappet bores**



Inspect threads & studs



Check for scoring



Measure the bore



Measure the piston



Measure ring end gap



Measuring tools