

# TECHNICAL DATA

*Dimensions are in inches unless otherwise stated*

## PETROL ENGINES

|   | <b>2½ litre</b>                                | <b>2.6 litre</b>  |
|---|--|-------------------|
| Bore and stroke .. .. .   | 90.47 x 88.8 mm                                | 77.8 x 92.075 mm  |
| Compression ratio .. .. .   | 7:1 or 8:1                                     | 7:1 or 7.8:1      |
| <b>Crankshaft:</b>  |  |                   |
| Main journal diameter .. .. .   | 2.4995 to 2.50                                 | 2.6240 to 2.6245  |
| Main bearing clearance .. .. .  | .001 to .0025                                  | .0006 to .002     |
| Main journal minimum regrind diameter .. .. .                             | 2.460  | 2.584             |
| End float .. .. .   | .002 to .006                                   | .002 to .006      |
| Crankpin diameter .. .. .   | Early models 2.126<br>Late models 2.312        | All models 1.875  |
| Crankpin minimum regrind diameter .. .. .                                 | 2.272  | 1.835             |
|   | <i>(Early models may not be ground)</i>        |                   |
| <b>Connecting rods:</b>   |  |                   |
| Bearing fit on crankpin .. .. .   | .001 to .0025                                  | .001 to .002      |
| End float at big-end .. .. .  | .007 to .011                                   | .006 to .015      |
| Gudgeon pin bush, fit in rod, interference .. .. .                        | .001 to .003                                   | .001 to .003      |
| Gudgeon pin bush internal diameter .. .. .                                | 1.000 + .0003                                  | .8755— .0005      |
| Gudgeon pin fit in bush, clearance .. .. .                                | .0003 to .0005                                 | .0002 to .0006    |
| <b>Pistons:</b>   |  |                   |
| Type .. .. .  | Light alloy tin plated, both engines           |                   |
| Clearance top of skirt .. .. .  | .003 to .004                                   | .003 to .0035     |
| Clearance bottom of skirt: Series II and IIA .. .. .                      | .0019 to .0023                                 | .002 to .0025     |
| Series III .. .. .  | .0023 to .0027                                 | .0019 to .0024    |
| Rings .. .. .   | Two compression, one oil control, both engines |                   |
| Compression rings:  |  |                   |
| Type .. .. .  | Taper periphery, both engines                  |                   |
| Gap .. .. .   | .015 to .020 both engines                      |                   |
| Clearance in groove .. .. .   | .0018 to .0038 both engines                    |                   |
| Oil control ring:   |  |                   |
| Type .. .. .  | Slotted, square edge                           | Duaflex 61        |
| Gap .. .. .   | .015 to .020                                   | .015 to .033      |
| Clearance in groove .. .. .   | .0015 to .0035                                 | .002 to .004      |
| Fit of gudgeon pin in piston, interference .. .. .                        | 0 to .0002                                     | Push fit at 60°F  |
| <b>Camshaft:</b>  |  |                   |
| Journal diameter .. .. .  | 1.842 to .001                                  | .999              |
| End float .. .. .   | .0025 to .0055                                 | .0045 to .0065    |
| Clearance in bearings .. .. .   | .001 to .002                                   | .001 to .0025     |
| Cam lift, inlet .. .. .   | .257   | .374              |
| Cam lift, exhaust .. .. .   | .257   | .403              |
| <b>Tapet clearance:</b>   |  |                   |
| Inlet .. .. .   | .010 hot or cold                               | .006 hot          |
| Exhaust .. .. .   | .010 hot or cold                               | .010 hot or cold  |
| <b>Valves:</b>  |  |                   |
| Seat angle inlet .. .. .  | 30 deg.  | 30 deg.           |
| Seat angle exhaust .. .. .  | 45 deg.  | 45 deg.           |
| Stem diameter inlet .. .. .   | .3112  | .3425             |
| Stem diameter exhaust .. .. .   | .3415  | .3425             |
| <b>Valve springs:</b>   |  |                   |
| Inner inlet:  |  |                   |
| Free length .. .. .   | 1.68   | 1.703             |
| Length under 17.7 lb load .. .. .   | 1.462  |                   |
| Length under 21.5 lb load .. .. .   |  | 1.437             |
| Outer inlet:  |  |                   |
| Free length .. .. .   | 1.822  | 1.960             |
| Length under 46 lb load .. .. .   | 1.587  |                   |
| Length under 69.5 lb load .. .. .   |  | 1.625             |
| <i>Exhaust valve springs on 2½ litre models are the same as the inlet</i> |  |                   |
| Inner exhaust:  |  |                   |
| Free length .. .. .   |  | 1.703             |
| Length under 16.4 lb load .. .. .   |  | 1.500             |
| Outer exhaust:  |  |                   |
| Free length .. .. .   |  | 1.861             |
| Length under 41.8 lb load .. .. .   |  | 1.625             |
| <b>Valve timing:</b>  |  |                   |
| Inlet opens .. .. .   | 6 deg. BTDC                                    | 12 deg. BTDC      |
| Inlet closes .. .. .  | 52 deg. ABDC                                   | 46 deg. ABDC      |
| Exhaust opens .. .. .   | 34 deg. BBDC                                   | 47 deg. BBDC      |
| Exhaust closes .. .. .  | 24 deg. ATDC                                   | 17 deg. ATDC      |
| <b>Oil pump:</b>  |  |                   |
| Type .. .. .  | Skew gear                                      | Spur gear         |
| Gear end float:   |  |                   |
| Steel gear .. .. .  | .002 to .005                                   | .002 to .005      |
| Aluminium gear .. .. .  | .003 to .006                                   | .003 to .006      |
| Radial clearance of gears .. .. .   | .001 to .004                                   | .001 to .004      |
| Backlash .. .. .  | .006 to .012                                   | .006 to .012      |
| Oil pressure, engine warm, 2000 rev/min .. .. .                           | 45 to 65 lb/sq in                              | 40 to 50 lb/sq in |