

## Hydraulic Valve Lifters

Most hydraulic lifters can be stripped down and re-assembled. However, due to the very fine tolerances that these components are manufactured to and the 'bedding in' that will have taken place, when carrying out this operation on 'used' lifters it is important that the component parts are not interchanged with other lifters.

Inspect the lifters internally and externally for signs of wear or damage and (in the case of dynamic lifters) measure the radius on camshaft contact face. Re-grind the contact face if necessary, taking care not to break through the surface hardness. Thoroughly clean the component parts of the lifters, re-assemble and perform a 'leak down test'.

If 'OE' leak-down specifications are unavailable then the general guide is that the plunger must return to its original position within 10 - 60 seconds of being compressed by .125" (3.0mm).

The most common problem encountered with hydraulic lifters is 'pump-up'. This condition is brought about when the lifter over-extends, sometimes preventing the valve from closing, resulting in piston to valve collision.

This condition is commonly caused by weak/broken valve springs or over-revving the engine. However, foreign particles circulating in the lubricating oil can block the check valve inside the lifter with similar results.

