



DESCRIPTION

Liquid Intelligents 224 Lifter-Free is formulated to harmlessly dissolve and dislodge harmful varnish and carbon deposits that accumulate within and around hydraulic lifters and cam followers.

Hydraulic lifter noise can be caused by several different factors:

Mechanical damage to camshaft lobe and/or lifter

Broken parts within the lifter e.g. relief valve spring

Hard carbon particles blocking relief or delivery ports

Sludge, wax or varnish deposits causing a sticky lifter

Liquid Intelligents 224 Lifter-Free can be used to remedy sludge, wax or varnish deposits causing a sticky lifter. Replacement of components is the only remedy for mechanical damage to camshaft lobe and broken parts within the lifter e.g. relief valve spring

Liquid Intelligents 224 Lifter-Free can be used as an inexpensive method of diagnosing the cause of lifter noise. Simply add the product to the engine oil. If the noise has not disappeared after 1 days or 10 km, it can be assumed that previous mechanical damage has caused the lifter noise.. Lifter noise is often caused by poor maintenance, i.e. not changing oil at the correct intervals. As the oil oxidises and forms hard carbon deposits, particles of the carbon break away and are carried into the lifter, where they accumulate and restrict oil flow. Poor servicing also contributes to the formation of varnish, which reduces tolerances and causes the lifter to stick. Flush the engine prior to oil and filter change using Liquid Intelligents 220 Engine Flush Additive to help rid the system of sludge and carbon.

The use of high viscosity engine oils will contribute to lifter noise as it reduces the flow of oil through the lifter and takes longer to pump up initially. Reduced flow means more opportunity for particles to settle in the lifter. High viscosity oils generally oxidise more readily and produce more carbon. This is because the thicker oil takes longer to drain away from the top of the cylinder head (the hottest lubricated part of the engine). Generally speaking, high viscosity engine oils take longer to drain to the sump for cooling and longer to circulate; hence they do not carry away heat as quickly. This contributes to accelerated oxidation and carbon and sludge formation. Benefits:

- Quietens noisy hydraulic lifters / cam followers
- Removes sludge and soft carbon
- Cleans oil galleys in hydraulic lifters
- Frees-up sticky lifters
- Will not affect oil viscosity

SERVICE BULLETIN

Features:

- Suitable for petrol, gas and diesel engines
- Safe to use in older engines
- Will not harm oil seals or gaskets
- Can be safely left in the engine until the following oil change
- Safe to use in all types of engine oil

Directions for Use:

- After changing engine oil and filter, add 250ml to 500mls per 5 litres of engine oil capacity.

Note: It may take 1 days or 10 km to achieve maximum benefit.

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