

1999 - 2002 Corvette: Service Bulletin: Higher Than Expected Oil Consumption

Subject: Higher Than Expected Oil Consumption (Replace Rings and Engine Valley Cover)

Source: Chevrolet Dealer Technical Service Bulletin

Number: 01-06-01-023A

Models: 1999-2001 Chevrolet Camaro, 1999-2002 Chevrolet Corvette, 1999-2001 Pontiac Firebird, with 5.7L Engine (VINs G, S -- RPOs LS1, LS6)

This bulletin is being revised to add model years for the Corvette, information on the LS6 engine and parts information. Please discard Corporate Bulletin Number 01-06-01-023 (Section 6 - Engine).

Condition

Some owners may comment on higher than expected oil consumption. When checked, the oil consumption could be in the range of 400-600 miles per quart (700-1000 km/L).

On the LS6 engine only, the technician may find oil behind the engine throttle plate and in the intake manifold.

Cause

The cause for this condition may be an interaction between the piston rings and the cylinder bore in vehicles that are operated at higher RPMs -- typically manual transmission vehicles driven in a manner where the engine is frequently or consistently operating at greater than 3200 RPM.

On the LS6 engine only, the engine has a unique aluminum valley cover that has composite oil separating baffles and PCV plumbing incorporated. In some cases, the PCV baffle may not be properly sealed to the valley cover, causing oil to enter the PCV system.

Correction

On the LS6 engine only, replace the engine valley cover if oil is found behind the throttle body or in the intake manifold before replacing the piston ring. Refer to Engine Valley Cover Replacement in the Engine Mechanical - 5.7L subsection of the Corvette Service Manual.

A new set of piston rings is currently available through GMSPO. The new rings are part of a complete piston ring kit. Install only the number 2 compression ring and the oil expander ring from the piston ring kit. All other rings in the piston ring kit should be discarded. The original number 1 compression ring and the oil ring rails should be re-used in their original positions on the piston. All pistons should be used in the same cylinder bore.

Important

Do not dress or hone the cylinder bore. Nothing should be done to change the bore finish for this condition. Changing the bore finish may aggravate the condition.

Refer to the Unit Repair Manual for appropriate ring removal and replacement procedure.

The number 1 compression ring and the upper and lower oil expander rails are re-used because they are already broken in for the bore that they are in. The new number 2 compression ring is made with a very sharp edge that will break in quickly.

Changing only the piston rings noted, with no change in driving style, should change oil consumption to an acceptable level. Changes in driving style that reduce the amount of time spent at higher RPMs will also positively affect oil consumption.

In addition to the standard size piston ring kit listed below, a 0.25 mm oversized piston ring kit is available. The oversized piston ring kit should only be used in those rare instances where the cylinder bore size has been machined larger to accommodate the 0.25 mm oversized piston rings.

Parts Information

Part Number	Description	Qty
12568002	Valley Cover	1
88984247	Ring Kit, Piston	8

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
J0250	Manifold or Gasket Intake - Replace Manifold	Use Published Labor Operation Time
J1307	Piston, Rod and/or Rings -- Replace, Both Banks	Use Published Labor Time

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