#10-06-01-008A: Engine Oil Consumption on Aluminum Block Engines with Active Fuel Management (AFM) (Install AFM Oil Deflector and Clean Carbon from Cylinder) - (Sep 28, 2010)

Subject: **Engine Oil Consumption on Aluminum Block Engines with Active Fuel Management (AFM) (Install AFM Oil Deflector and Clean Carbon from Cylinder)**

Models: **2007-2008 Cadillac Escalade, Escalade ESV, Escalade EXT**

2007-2008 Chevrolet Avalanche, Silverado 1500, Suburban, Tahoe

2007-2008 GMC Sierra 1500, Sierra Denali, Yukon, Yukon XL, Yukon Denali, Yukon Denali XL

2008 Pontiac G8 GT

Equipped with Aluminum Block V8 Engine with Active Fuel Management (AFM) (RPOs LC9, LH6, L76, LFA, L92)

with Greater than 45,000 km (28,000 mi)

This bulletin is being revised to update the Condition/Cause/Correction sections, add 4WD labor time and add information about replacement of spark plugs if necessary. Please discard Corporate Bulletin Number 10-06-01-008 (Section 06 - Engine/Propulsion System).

Condition

Some customers may comment about engine oil consumption of vehicles with higher mileage (approximately 48,000 to 64,000 km (30,000 to 40,000 mi). Verify that the induction system is assembled correctly and that there is no evidence that the engine has been ingesting dirty air due to a mis-assembled induction system. Also verify that the PCV system is functioning properly. If diagnostic procedures indicate that oil consumption is piston/piston ring related, verify that oil consumption is less than 3,000 km (2,000 mi) per liter/quart. If these conditions are met and oil consumption is less than 3,000 km (2,000 mi) per liter/quart, perform the service indicated in this bulletin.

Cause

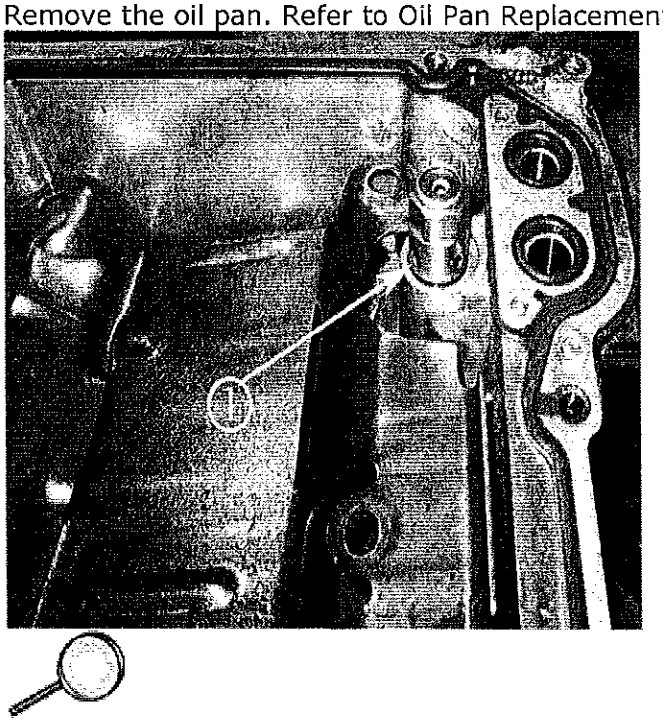
This condition may be caused by oil spray that is discharged from the AFM pressure relief valve within the crankcase. Under most driving conditions and drive cycles, the discharged oil does not cause a problem. Under certain drive cycles (extended high engine speed operation), in combination with parts at the high end of their tolerance specification, the oil spray quantity may be more than usual, resulting in excessive deposit formation in the piston ring grooves, causing increased oil consumption.

Correction

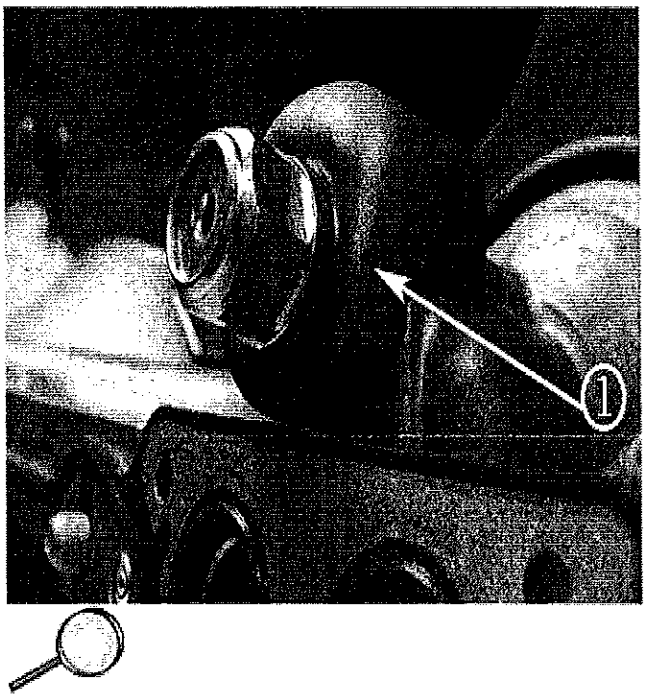
To correct this condition, perform the piston cleaning procedure as described in this document, and install a shield over the AFM pressure relief valve per the procedure outlined in this document. Monitor oil consumption after this repair to ensure oil consumption has improved to acceptable levels. If this repair does not correct the condition, it may be necessary to replace the piston assemblies (piston and rings) with new parts.

Important: It is critical in this cleaning process that the engine/fuel injector cleaner remain in the cylinders for a minimum of 2.5 hours to fully clean the components. The cleaner solution must be removed before a maximum of three hours.

1. Verify the oil consumption concern following Corporate Bulletin Number 01-06-01-011F. If oil consumption is found, continue on with this bulletin.
2. Remove the spark plugs and ensure that none of the pistons are at top dead center (TDC).
3. Clean the pistons by putting 118-147 ml (4-5 oz) of Upper Engine and Fuel Injector Cleaner, GM P/N 88861802 (in Canada, use 88861804), in each cylinder. Allow the material to soak for at least 2.5-3.0 hours, but no more than three hours and then remove the cleaner. A suggested method of removing the cleaner is cranking engine over. Make sure to unplug the ignition coils and fuel injector before cranking the engine over. Also make sure that the painted surfaces are covered so no damage is done.
4. Remove the oil pan. Refer to Oil Pan Replacement in SI.



5. Remove the AFM valve (1).



6. Install the new shield (1), GM P/N 12639759, and tighten the AFM valve to the oil pan to 28 N·m (20 lb ft).

   Important: Ensure that the engine cleaner is thoroughly removed before reinstalling the spark plugs. Failure to do so may result in a hydro-lock condition.

7. Reinstall the spark plugs. Replace the spark plugs if necessary due to full of carbon. Refer to the parts catalog.
8. Reinstall the oil pan. Refer to the Oil Pan Installation procedure in SI. Replace the oil pan gasket if necessary. Refer to the parts catalog. Replace the engine oil if necessary.
9. Re-evaluate the oil consumption. Document on the repair order. If the oil consumption is still greater than 0.946 L (1 qt) in 3,200 km (2000 mi), replacement of the pistons and rings will be required.

Parts Information

Part Number	Description	Qty
12639759	DEFLECTOR-OIL PRESS RLF VLV (quantity of 3 per order)	1
88861802 (in Canada, use 88861804)	CLEANER, F/INJR 16 OZ LIQUID POUR (Upper Engine and Fuel Injector Cleaner)	3

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
J7555*	Install AFM Oil Deflector and Clean Carbon from Cylinder	3.5 hrs
	Install AFM Oil Deflector and Clean Carbon from Cylinder (4WD)	4.5 hrs

	Install AFM Oil Deflector and Clean Carbon from Cylinder (G8 Only)	10.5 hrs
*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		