



Tech Tip

COMEBACKS 159

DEALING WITH COMEBACKS The Condition May Be Factory Induced

Factory-induced problems can drive a technician to assume some bad habits, as he often gets blamed for conditions beyond his control. Have you ever serviced a vehicle and had the customer tell you the problem or symptom was not there until you serviced their vehicle? Unfortunately, comebacks are a normal occurrence, and they are just a part of the automotive repair business.

When customers return with a complaint it can be a frustrating encounter, especially if the condition or symptoms are unrelated to the services that you performed. You have no choice...you must deal with those claims and emotions, or take the risk of losing a good customer who will likely share his experiences with others. Unfortunately, if the customer hears a noise after you perform a lube service, it is only natural for them to assume it was related to your service. Don't panic or take an immediate defensive position. Most often the customer lacks the technical knowledge to know that you were not at fault. Often you will encounter some factory-induced symptoms that you can't control, but you will get blamed simply because you were the last person working on the vehicle. Remain calm and do your homework. Review the factory service bulletins for the described symptoms and solutions. It certainly eases the tension when you can produce a description of the symptom in the form of a factory service bulletin, which may identify a solution or explain that the condition is a normal characteristic. Let's consider some cases that present problems that are inherent in the vehicle by design, for which you may take the blame, following a routine lube service:

CLICKING/TICKING NOISES

GM advises that a clicking or ticking noise during cold start-up that decreases during warm-up may be a normal characteristic. While the noise level decreases once the engine reaches normal operating temperature, it never totally diminishes. You may have just performed a lube service and the customer has returned with an engine noise complaint.

Vehicles affected include:

- 2009–2011 Buick Enclave
- 2010–2011 Buick LaCrosse
- 2008–2011 Cadillac CTS, STS
- 2010–2011 Cadillac SRX
- 2009–2011 Chevrolet Traverse
- 2010–2011 Chevrolet Camaro, Equinox
- 2009–2011 GMC Acadia
- 2010–2011 GMC Terrain

2009–2010 Saturn Outlook

Equipped with 3.0L or 3.6L with Variable Valve Timing & Direct Injection

The mentioned engines are fitted with a direct fuel injection system that operates at very high fuel pressures. The injection system produces a rapid clicking and ticking sound that can be heard from the engine compartment. The sound is more evident when outside the vehicle with the hood open. The clicking noise is more pronounced during idle speed and during a cold start, but the noise level lowers once the engine reaches normal operating temperature. The rapid ticking noise on cold start-up emanates from the fuel pump located on the rear of the left cylinder head. The noise is due to the pump building up high fuel pressure. The high pressure pump will continue to tick at a rate of one tick per second during idle, once the engine warm-up cycle is completed. The clicking sound is from the fuel injectors pulsing off and on under the presence of high fuel pressures. Some may confuse these sounds with that of noisy valve lifters. These conditions are normal for the direct fuel injection system and no attempt should be made to reduce the noise level.

VALVE LIFTER TICKING NOISES

GM vehicles equipped with Active Fuel Management (AFM) may encounter a valve lifter ticking noise on start-up following an engine shut-down of two hours or more. The symptoms and solutions illustrated here do not apply to vehicles not equipped with AFM. For those unfamiliar with AFM, it is basically a system that provides displacement on-demand. It is a variable displacement technology that allows a V8 or V6 powertrain to turn off half of its cylinders under a light load condition to improve fuel economy.

Vehicles affected include:

- 2007 Buick Rainier
- 2009 Buick LaCrosse Super, Allure Super (Canada)
- 2007 Cadillac Escalade
(Built Prior to April 1, 2006 with 6.2L engine RPO L92)
- 2010–2011 Cadillac Escalade, ESV and EXT
- 2007 Chevrolet Monte Carlo
- 2007–2009 Chevrolet Impala
- 2007–2011 Chevrolet Avalanche, Silverado, Suburban, Tahoe, TrailBlazer, EXT
- 2010–2011 Chevrolet Camaro SS
- 2007–2011 GMC Envoy, XL, Sierra, Yukon, Yukon Denali, Yukon XL and XL Denali

2007–2008 Pontiac Grand Prix
2008–2009 Pontiac G8
2007–2009 Saab 9-7X
Equipped with AFM and V8 Engine RPO L76, L94, L99, LC9,
LFA, LH6, LMG, LS4, LY5, or LZ1

GM advises that customer complaints of an engine valve lifter ticking noise that occurs during start-up, after the engine has been shut down for a minimum of two hours, and continues for a few seconds to ten minutes, may be caused by one of the following:

- 1) Aerated oil in the valve lifter body, which can result in the valve lifter being unable to purge the air until the engine has run for a few seconds to ten minutes.
- 2) Contaminated or dirty engine oil.
- 3) Incorrect oil viscosity or low oil level.
- 4) Low internal valve lifter oil reservoir level.
- 5) A dirty or contaminated valve lifter.
- 6) Valve lifter leak down rate too high.

If the aforementioned inspection fails to identify the cause of the valve lifter ticking noise and the oil pressure is normal, GM recommends the following:

- 1) If the engine is more than one quart low or the improper oil viscosity is suspected, the oil and filter should be changed.
- 2) Allow a two hour heat soak and then start the engine and observe for a valve lifter ticking noise.
- 3) If the noise is still present, GM recommends replacing all 16 valve lifters.

Be advised that the V8 engines equipped with AFM require 8 AFM valve lifters and 8 non-AFM lifters.

EXCESSIVE OIL CONSUMPTION

Engine oil consumption on GM vehicles equipped with V8 aluminum block engines with active fuel management (AFM) may require an engine component modification to reduce the oil consumption.

Imagine servicing a customer's vehicle since they purchased it new, and the vehicle developing an oil consumption condition. They are not going to be happy. Chances are someone at the dealership may try to blame the type of oil and filter being used in the engine. We have all heard those claims.

Be aware that GM has addressed complaints of engine oil consumption on their aluminum block V8 engines equipped with AFM once the vehicle logs 30K miles, and especially on vehicles that are driven a lot at highway speeds.

Vehicles affected include:

2007–2009 Cadillac Escalade, Escalade ESV and EXT
2007–2009 Chevrolet Avalanche, Silverado 1500, Suburban,
Tahoe

2007–2009 GMC Sierra 1500, Sierra Denali, Yukon, Yukon XL, Yukon Denali, Yukon Denali XL
2008–2009 Pontiac G8 GT
Equipped with aluminum block V8 engines with AFM (RPOs LC9, LH6, L76, LFA, and L92 with mileage exceeding 28K miles)

GM acknowledges that some customers may comment about increased oil consumption, once one of the mentioned vehicles accumulates 30K to 40K miles. They advise to thoroughly inspect the air induction system for any evidence of dust or dirt entering the engine due to improperly sealed duct work, which can promote premature wear. Also, inspect the PCV system for proper operation, and make certain the system is not pulling oil back into the intake manifold and burning it.

Further, GM advises that the excessive oil consumption condition may be the result of oil spray from the AFM pressure relief valve located in the crankcase. It has been determined that under certain drive cycles, such as extended highway speeds, in combination with parts at the high end of their tolerance specification may result in excessive oil spray, causing deposits to form in the piston ring grooves. When this occurs, the piston rings stick, promoting excessive oil consumption.

On 2009 engines, GM has a new rocker arm cover (GM P/N 12642655) for the left side. On these applications the revised cover has relocated the PCV drain holes, which prevents oil from being pulled into the intake manifold.

On 2007–2008 vehicles, GM recommends a piston cleaning procedure illustrated in GM service bulletin No. 10-06-01-008B. The procedure involves soaking the pistons and rings (while still in the block) in a fuel injector cleaner for 2.5 to 3 hours. Be certain to remove all cleaners from the cylinders prior to starting the engine, as a hydro-lock condition could cause major engine damage. In addition, a deflector shield (GM P/N 12639759) should be installed on the AFM pressure relief valve located in the crankcase. This requires pulling the oil pan. The shield will prevent oil from spraying directly on the pistons and ring assemblies during extended high speed driving. The oil consumption should be monitored following this procedure. If the repair fails to correct the condition, new pistons and rings will be necessary.

Having access to this type of information can save you and your customer much frustration. It may well save a customer and prevent your shop from assuming liability for repairs that are not your responsibility. Most important of all, the information helps maintain good customer relations.

Scheduled maintenance is imperative for the mentioned applications. Contaminated oil can impair the operation of any system. Engine oil viscosity and cleanliness is a major factor in the performance of today's powerplants.

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