



Service Bulletin

File in Section: 06 - Engine

Bulletin No.: 10-06-01-003C

Date: September, 2013

INFORMATION

Subject: Diagnostic Information on Internal Engine Noise or Damage After Oil Filter Replacement

Models: 2004-2006 Buick Rendezvous
2005-2014 Buick LaCrosse, Allure (Canada Only)
2008-2014 Buick Enclave
2010-2014 Buick LaCrosse
2010-2014 Cadillac SRX
2013-2014 Cadillac ATS, XTS
2008-2014 Chevrolet Malibu
2008-2014 Chevrolet Equinox
2009-2014 Chevrolet Traverse
2014 Chevrolet Impala
2007-2014 GMC Acadia
2010-2014 GMC Terrain
2007-2009 Pontiac G6
2008-2009 Pontiac Torrent
2007-2009 Saturn AURA
2007-2010 Saturn OUTLOOK
2008-2009 Saturn VUE
Equipped with 2.8L (RPO LAU), 3.0L (RPOs LF1, LFW) or 3.6L (RPOs LLT, LY7, LFX)
6 Cylinder Engine

Attention: Oil filter misapplication may cause abnormal engine noise or internal damage. Always utilize the most recent parts information to ensure the correct part number filter is installed when replacing oil filters. Do not rely on physical dimensions alone. Counterfeit copies of name brand parts have been discovered in some aftermarket parts systems. Always ensure the parts you install are from a trusted source. Improper oil filter installation may result in catastrophic engine damage. Some aftermarket oil filters share the outside dimension of Factory Equipment and AC Delco service replacement filters. Though they look the same, these filters do not meet GM specification and function requirements. In recent warranty engine teardown reviews, it has been found that aftermarket filters have caused internal engine failures and/or noise due to the lack of lubrication.

This bulletin has been revised to include the Impala model and RPO LAU and update the model years to 2014. Please discard Corporate Bulletin Number 10-06-01-003B.

Important: Engine damage that is the result of an incorrect or improperly installed engine oil filter is not a warrantable claim. The best way to avoid oil filter quality concerns is to purchase ACDelco® oil filters directly from General Motors Customer Care and Aftersales (GMCC&A).

This condition may be caused by aftermarket oil filter internal failure. Filter debris can be transferred throughout the engine this way.

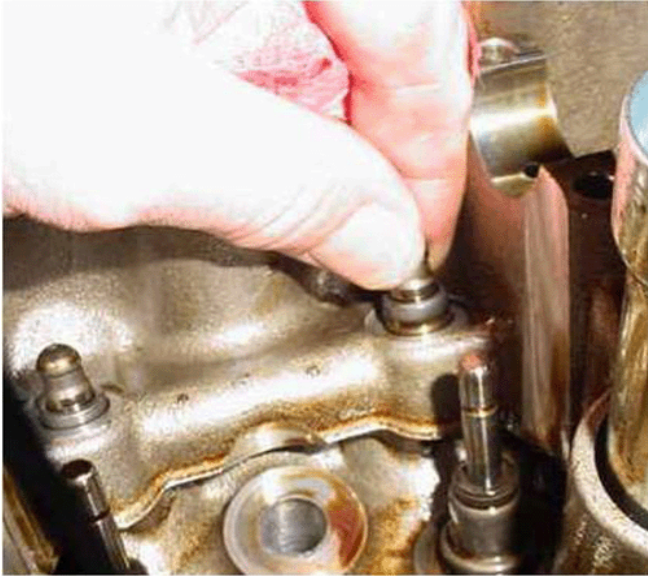
Important: Aftermarket oil filter failure is not covered by GM Powertrain warranty.

The following information is being communicated to aid the technician in proper diagnostics.

Engine Ticking Noise in Valve Train

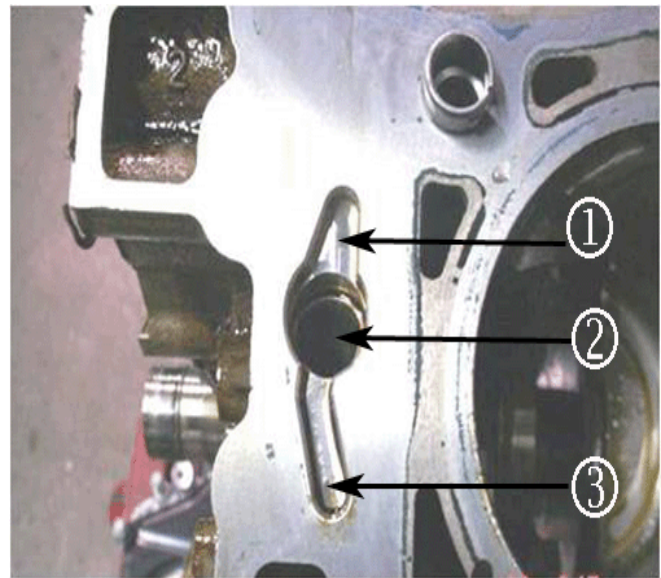
First, the location of the tick must be determined (exhaust or intake, front or rear engine bank). Using a suitable listening device such as chassis ears and/or a stethoscope, determine the location of the ticking noise.

1. Does the noise only come from one bank location (intake or exhaust lifters area)?
2. If the noise is in the one bank location, then the oil galley lubrication hole may be obstructed with foreign material.



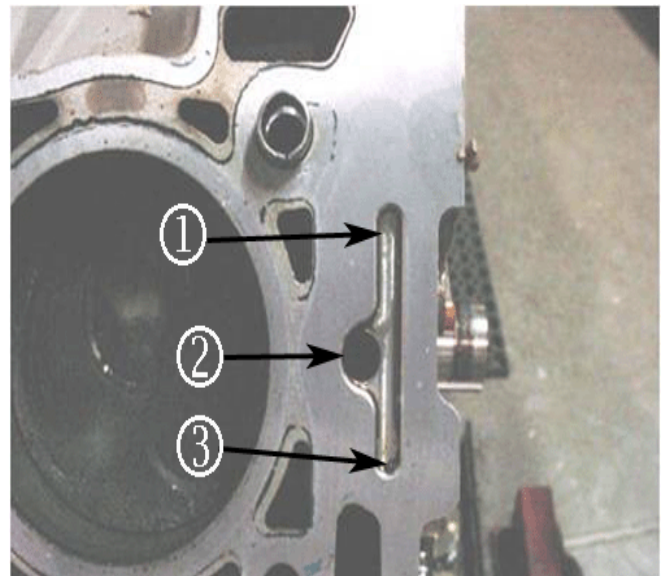
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3. When the location is determined, the technician should remove the valve cover and inspect the lifters for aeration. Remove the stationary hydraulic lifter assemblies (SHLA) for the suspect location / cylinder. For Example; Bank 2 Cylinder # 1 A & B exhaust lifters are making noise. Inspect the lifters for the presence of oil. If oil is present, SHLA will be pumped and hard to compress. If aeration is present, the lifter will be spongy. Test by trying to compress with your fingers or a suitable tool.
4. Spongy SHLA (lifters) mean aeration and obstruction to flow oil to SHLA is present. Reference the oil lubrication description document in SI for details of system operation.



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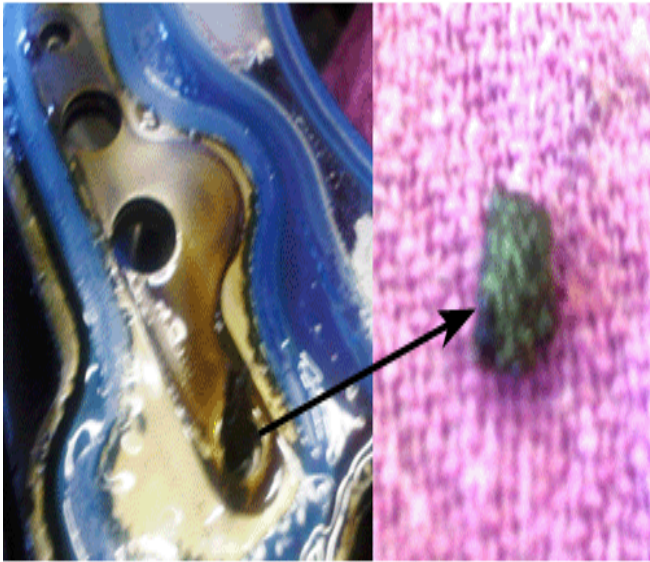
5. (A) Bank 1 (2, 4, 6) Reference 1—Intake oil galley for lifters, Reference 2—Camshaft Actuator (Phaser) Oil Galley, Reference 3- Exhaust Oil Galley for Lifters.



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- (B) Bank 2 (1, 3, 5) Reference 1—Intake oil galley for lifters, Reference 2—Camshaft Actuator (Phaser) Oil Galley, Reference 3- Exhaust Oil Galley for Lifters.

An obstruction to oil flow is present at the engine block deck passage under the head gasket for lifter oil pressure. The passage is the location in the front engine block deck. The oiling passage can be identified as a hole with eye brows cut to each side. See figures above.

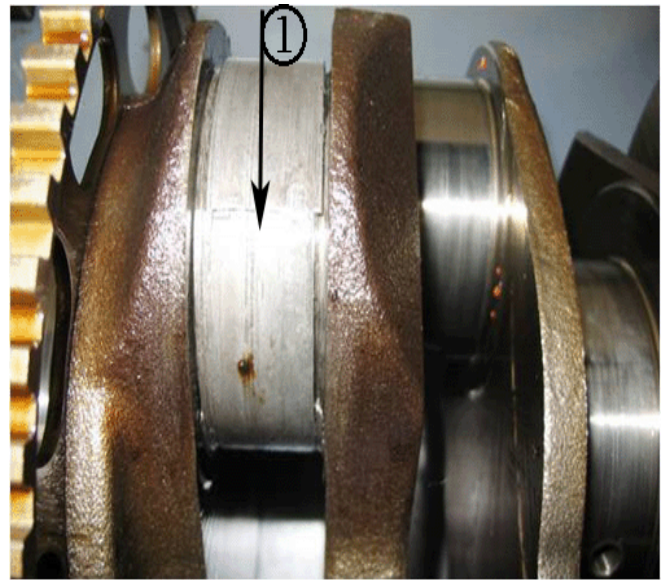


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6. One example of obstruction is shown above. Filter media material plugging the 2 mm lubrication passage hole creating aeration in the exhaust lifter oil galley. The obstruction can be filter media material or an orange silicone rubber material. The above example is filter media.
7. Engine oil passages will have to be cleaned of aftermarket filter media debris or orange silicone rubber.

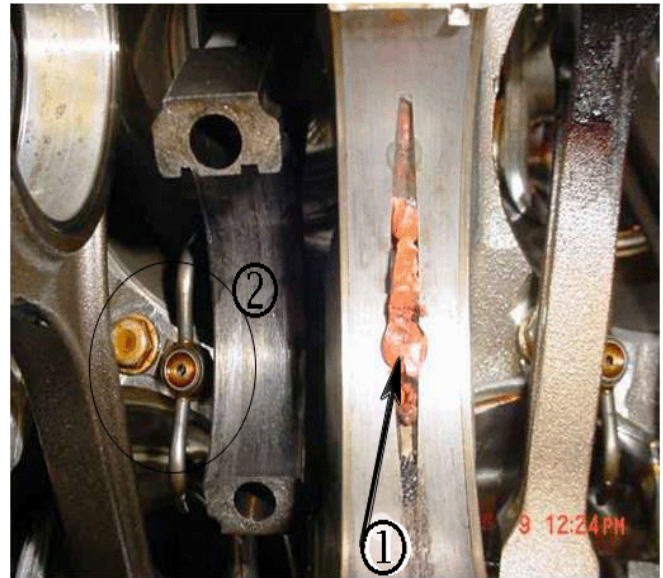
Engine Knocking / Piston Skirt Knock-Topic 2

1. Follow the procedures in SI for the source of a knock condition. Additional diagnosis is required by removal of the oil pan for main and rod bearing inspection. Further inspection for the source of bearing failure is required. Recent failed engine analysis reviews reveal the bearings are not removed and oil passages are not being checked in many cases. Technicians need to inspect for oil galley obstruction, which is a source for oil starvation and bearing life in some cases.
2. One source for oil starvation is due to aftermarket oil filter anti-drain back valves deterioration. Orange silicone rubber material has been found in many cases of oil starvation underneath the main and rod bearings, with material contained in the oil lubrication galley in both blocks and crankshaft lubrication holes. The orange silicone rubber is from aftermarket oil filters anti drain back valve assembly, which is located under the filter media and above the screw on the base. Orange silicone rubber is not used in the assembly of the High Feature V6 as well as most GM engine applications. Examples are below.



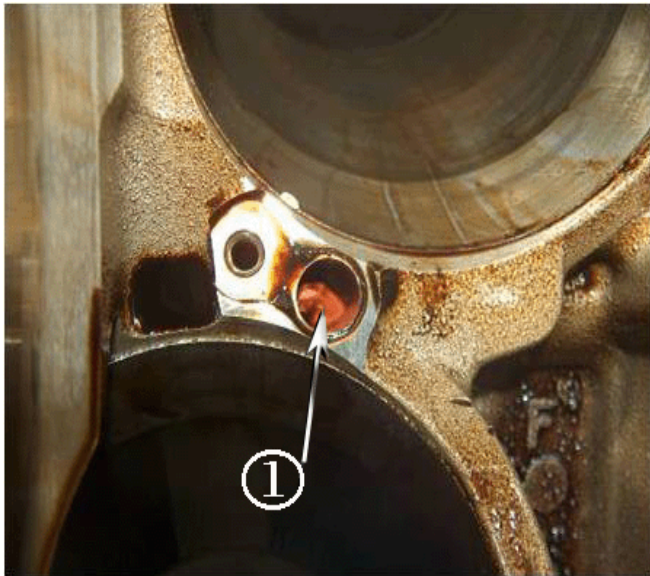
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Rod bearing welded to crankshaft (1).

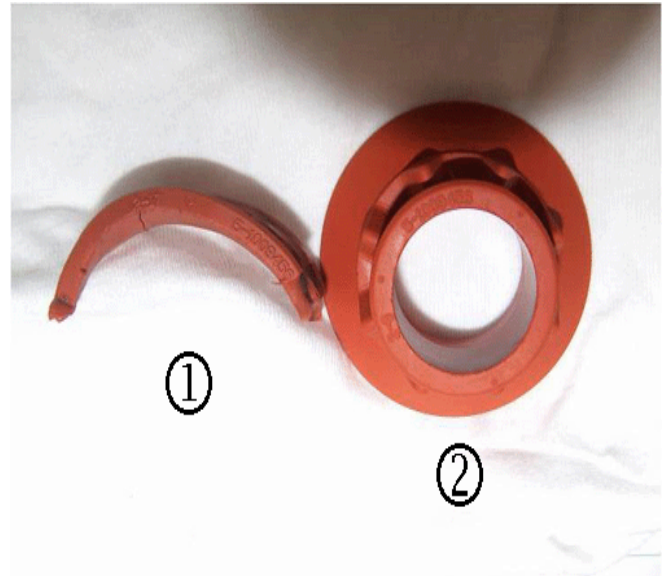


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Orange silicone rubber obstructing the oil flow to the main and rod bearings in the engine block webbing (1).



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Silicone rubber found in main and rod bearing and in the piston skirt squirter (sprayers) (1).

Sprayer is removed to show obstruction material.

- 3. Such related failures as shown in the examples above are not considered to be warranty by General Motors.

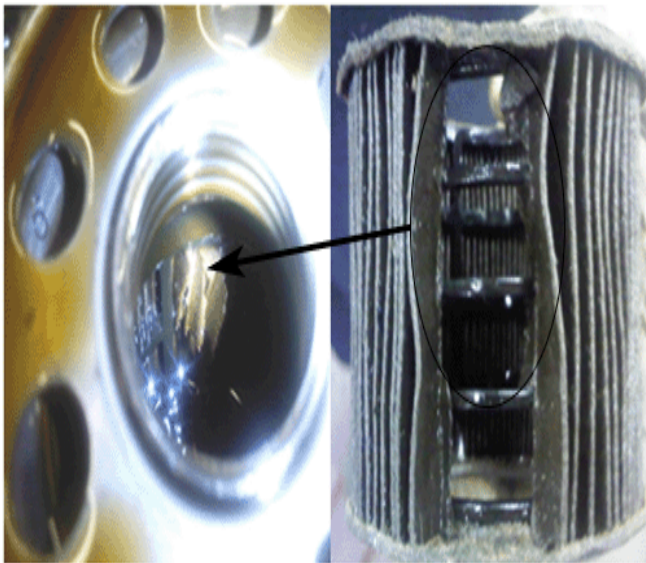
This is an oil filter that is tear-down. The left (1) shows a part removed from a failed engine oil main bearing gallery. The right one (2) is a new seal removed from a new aftermarket filter. This is what a drainback valve looks like prior to failure.

Conclusion

Repair as necessary to remove filter media/debris from oil galleys and piston squirter sprayer in the cylinder head. Repair and/or replace damaged engine components as necessary.

GM Powertrain engines require oil filters that can meet the challenges of today oil filtration systems, engine oil pressure requirements (both hot and cold) and Oil Life Monitoring systems. Improper oil filter usage may result in catastrophic engine damage or failure that is not covered by the GM Powertrain warranty.

Example of Aftermarket Filter Failures



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First do a general inspection for possible source. With the metal can cut off, you can see detail of media failure.

