



File in Section: 06 - Engine  
Bulletin No.: 12-06-01-009E  
Date: April, 2014

# Service Bulletin

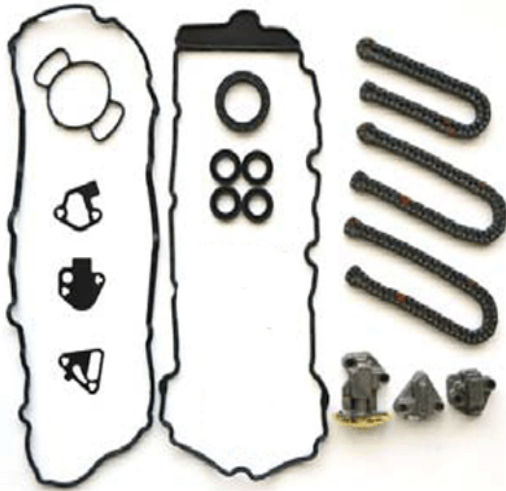
## INFORMATION

**Subject:** Information on High Feature V6 Timing Chain Kits and Chain Guide Replacements, DTCs P0008, P0009, P0016, P0017, P0018 and/or P0019

**Models:** 2007 Buick Allure (Canada) (RPOs LY7)  
2007-2012 Buick LaCrosse (RPOs LY7, LLT, LF1)  
2008-2012 Buick Enclave (RPOs LY7, LLT)  
2007-2011 Cadillac STS (RPOs LY7, LLT)  
2007-2012 Cadillac SRX (RPOs LY7, LAU, LF1, LFX)  
2008-2012 Cadillac CTS (RPOs LY7, LP1, LLT, LF1)  
2008-2012 Chevrolet Captiva (RPO LY7)  
2008-2012 Chevrolet Equinox (RPOs LY7, LF1, LFW)  
2008-2012 Chevrolet Malibu (RPO LY7)  
2009-2012 Chevrolet Traverse (RPO LLT)  
2010-2012 Chevrolet Camaro (RPOs LLT, LFX)  
2012 Chevrolet Impala (RPO LFX)  
2007-2012 GMC Acadia (RPOs LY7, LLT)  
2010-2012 GMC Terrain (RPOs LF1, LFW)  
2007-2010 Pontiac G6 (RPO LY7)  
2008-2009 Pontiac G8 (RPO LY7)  
2008-2009 Pontiac Torrent (RPO LY7)  
2007-2009 Saturn AURA (RPO LY7)  
2008-2010 Saturn OUTLOOK (RPOs LY7, LLT)  
2008-2010 Saturn VUE (RPO LY7)  
Equipped with 3.6L High Feature V6 Engine (VINs D, T, V, 3)  
Built After July 15, 2006

**Attention:** For 2007 Cadillac models, please refer to the most current version of Corporate Bulletin Number 07-06-01-013 for early build timing chain identification.

This bulletin has been revised to add the Aura model to Parts Information. Please discard Corporate Bulletin Number 12-06-01-009D.



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Customer Care and Aftersales is pleased to announce the release of three timing chain service kits for the High Feature V6 engine applications available for use as of April 2012. These comprehensive timing chain kits were designed to fulfill all the parts requirements necessary while servicing High Feature V6 engine applications from 2007 to 2012. These kits were developed with the latest product enhancement in mind, while reducing vehicle downtime for our customers at a very competitive price. These kits contain all of the necessary parts for repairing worn timing chains minus the RTV sealer and timing chain guides.

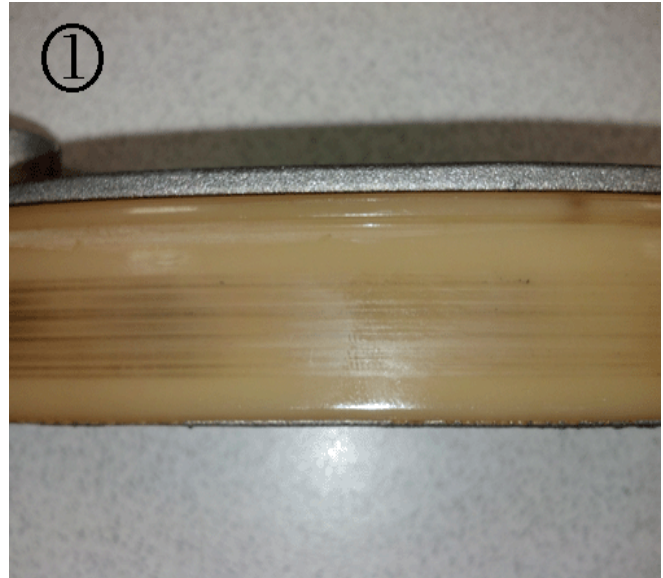
These kits should be used on vehicles covered under the terms of the Powertrain Warranty coverage, Special Coverage terms. Please do not order or use parts separately while repairing a vehicle covered by warranty.

These kits do not contain idler sprockets, camshaft actuator gears, crankshaft driven gear or the chain guides as these parts should not be replaced for a stretched timing chain setting DTCs P0008, P0009, P0016, P0017, P0018 and/or P0019. Idler gears, camshaft actuators, crankshaft driven gears and timing chain guides are being replaced unnecessarily and are not worn and should not be replaced.

If this concern is encountered, follow the guidelines below to install the necessary timing chain service kit:

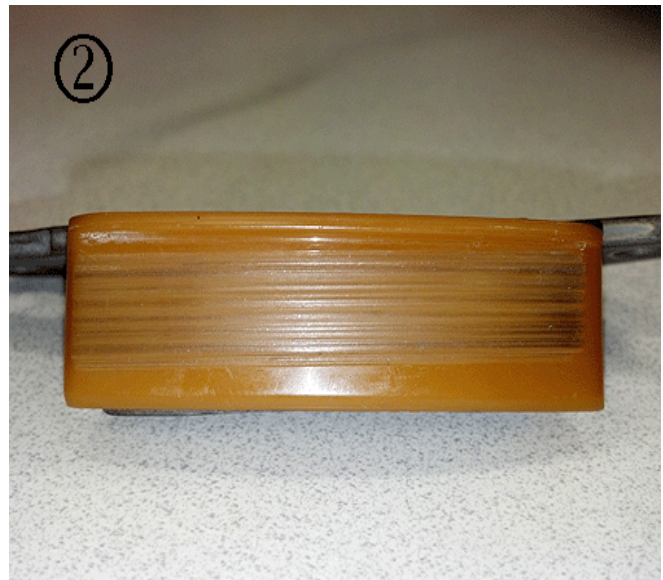
### Part A

#### Clean and Reuse



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#### Replace



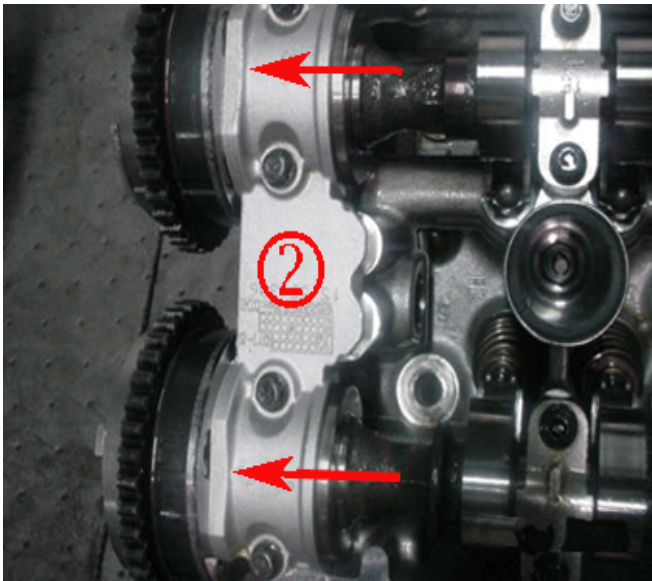
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When replacing timing chain kits, the timing chain guides should not always be replaced; they should only be replaced in cases where the guide wear block surface is worn down into the base friction material, leaving friction wear witness marks. Refer to the above pictures showing an example of normal wear (1) which should not be replaced, and a worn guide (2) which should be replaced.



**Part B**

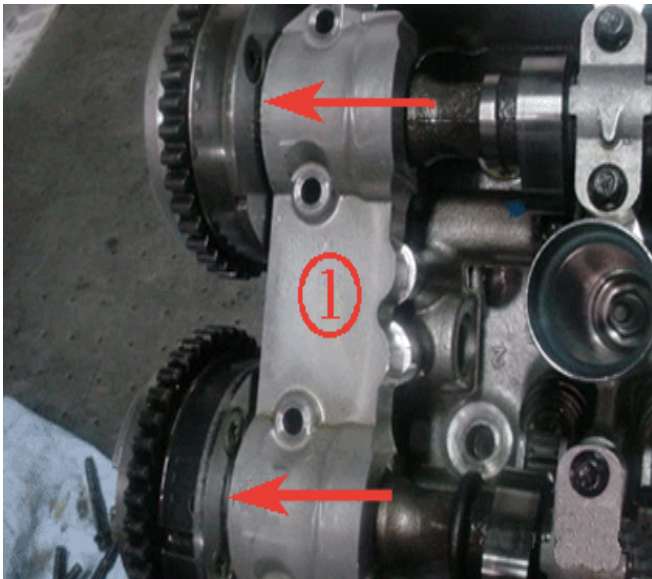
While the engine is disassembled, refer to Global Warranty for the vehicle build date. If the vehicle was built before 06/05/2009, also inspect the camshaft saddle caps.



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If the subject cylinder head is of the 2nd design shown above (2), no further action is required for this section of the bulletin listed as part B.

For 1st design shown below, visually inspect for teflon camshaft thrust washers being present between the camshaft actuator and the saddle cap. 1st design (1) is for both intake and exhaust. Refer to the examples below:



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**Inspection of the 1st design Saddle Cap with no Teflon washer present**

**5 screw design uses P/N 12630941 thrust washer**



2911226

**4 screw design uses P/N 12632859 thrust washer**



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Install one camshaft thrust washer between each camshaft and actuator if not present.

**Part C**

Is the vehicle a 2007-2011 Buick Enclave, GMC Acadia, Chevrolet Traverse, Saturn OUTLOOK or Chevrolet Malibu or 2007-2010 Pontiac G6? If YES, then replace the PCV foul air tube and bank 2 rocker cover following the procedures below:

**2007-2008 Enclave, Malibu, Traverse, Acadia, G6, OUTLOOK**

1. Clean the PCV orifice with low VOC brake cleaner. Allow to air dry with compressed shop air.
2. Replace the bank 1 camshaft cover gasket.
3. Reassemble the bank1 camshaft cover.

**Tighten**

Tighten the camshaft cover bolts to 10 N•m (89 lb in).

4. Replace the bank 2 camshaft cover and replace the camshaft cover gasket.
5. Reassemble the bank 2 camshaft cover.

**Tighten**

Tighten the camshaft cover bolts to 10 N•m (89 lb in).

6. Install the insulated PCV tube.

**2009-2010 Enclave, Malibu, Traverse, Acadia, G6, OUTLOOK**

1. Clean the PCV orifice with low VOC brake cleaner. Allow to air dry with compressed shop air.
2. Replace the bank 1 camshaft cover gasket.
3. Reassemble the bank 1 camshaft cover.

**Tighten**

Tighten the camshaft cover bolts to 10 N•m (89 lb in).

4. Replace the bank 2 camshaft cover and replace the camshaft cover gasket.
5. Reassemble the bank 2 camshaft cover.

**Tighten**

Tighten the camshaft cover bolts to 10 N•m (89 lb in).

**2011 Enclave, Malibu, Traverse, Acadia**

1. Remove the bank 2 camshaft cover for servicing of the PCV system. Refer to Camshaft Cover Replacement Left Side in SI.
2. Clean the PCV orifice with low VOC brake cleaner. Allow to air dry with compressed shop air.
3. Replace the bank 2 camshaft cover and replace the camshaft cover gasket.
4. Reassemble the bank 2 camshaft cover.

**Tighten**

Tighten the camshaft cover bolts to 10 N•m (89 lb in).

**Part D**

Does the vehicle have the latest calibration update for Oil Life Monitor? Refer to Global Warranty for calibration completions in paid warranty claims. If NO, reprogram the vehicle with the latest calibration for Oil Life Monitor enhancement - Reference Field Actions 11083, 10287C and PI0777.

**Parts Information**

Timing Chain Kit Part Number	Application
12650230 (For 2007 Models)	Buick Allure, Enclave, LaCrosse LY7 (2007) Cadillac CTS, SRX, STS LP1, LY7 (2007) Chevrolet Traverse LY7 (2007) GMC Acadia LY7 (2007) Pontiac G6 LY7 (2007) Saturn AURA (2007) Saturn OUTLOOK LY7 (2007) Saturn VUE (2007)
12650231 (For 2008-2012 Models)	Buick Enclave LY7 (2008) Cadillac CTS LP1, LY7 (2008-09) Cadillac SRX LY7 (2008-09), LAU (2010-11) Chevrolet Malibu LY7 (2008-12) Chevrolet Equinox LY7 (2008-09) Chevrolet Traverse LY7 (2008) GMC Acadia LY7 (2008) Pontiac G6, G8 LY7 (2008-10) Pontiac Torrent LY7 (2008-09) Saturn AURA LY7 (2008-09) Saturn OUTLOOK LY7 (2008) Saturn VUE LY7 (2008-10)
12651450 (For 2008-2012 Models)	Buick LaCrosse LF1 (2010), LLT (2010-11), LFX (2012) Buick Enclave LLT (2009-12) Cadillac CTS LLT (2008-11), LF1 (2010-11), LFX/LFW (2012) Cadillac SRX LF1 (2010-11), LFX/LFW (2012) Cadillac STS LLT (2008-11) Chevrolet Camaro LLT (2010-11), LFX (2012) Chevrolet Equinox LF1 (2010), LFW (2011-12) Chevrolet Impala LFX (2012) Chevrolet Traverse LLT (2009-2012) GMC Acadia LLT (2009-12) Saturn OUTLOOK LLT (2009-10)

**Parts Information Part A**

Part Number	Description	Quantity
25177917	FILTER, OIL (CTS, SRX, STS)	1
19167894	FILTER, OIL (Enclave, Acadia, Traverse, OUTLOOK)	1
11609932	BOLT, HFH, (M14X2X160) (Enclave, Acadia, Traverse, OUTLOOK)	2
11609933	BOLT, HFH, (M14X2X185) (Enclave, Acadia, Traverse, OUTLOOK)	2
12345885 - US 10953468 - CAN	OIL, ENG (CTS, SRX, STS)	6
12345610 - US 19264705 - CAN	OIL, ENG (Enclave, Acadia, Traverse, OUTLOOK)	6
12346290 - US 10953464 - CAN	COOLANT, ENG	2
89021185 - US 89021186 - CAN	FLUID, P/S	1
88861037 - US 19264717 - CAN	FLUID, A/TRANS	1
12378521 - US 88901148 - CAN	SEALANT, RTV	1
12356150 - US 10953485 - CAN	REFRIGERANT, A/C (R134A)	-

**Parts Information Part B**

Part Number	Description	Quantity
12630941	Washer, Camshaft Thrust (Aisin Actuator 5 screw design)	2 per Cylinder Head
12632859	Washer, Camshaft Thrust (Delphi Actuator 4 screw design)	2 per Cylinder Head

**Parts Information Part C****Parts Information (2007-2008 Enclave, Malibu, Traverse, G6, Acadia, OUTLOOK)**

Part Number	Description
19301853	Tube, PCV (Enclave, Traverse, Acadia, OUTLOOK)
12616914	Tube, PCV (Malibu, G6)
12647768	Cover, Camshaft (LH) (LY7)

**Parts Information (2009-2010 Enclave, Malibu, Traverse, G6, Acadia, OUTLOOK)**

Part Number	Description
12647772	Cover, Camshaft (LH) (LLT)
12647768	Cover, Camshaft (LH) (LY7)

**Parts Information (2011 Enclave, Malibu, Traverse, Acadia)**

Part Number	Description
12647772	Cover, Camshaft (LH) (LLT)
12647768	Cover, Camshaft (LH) (LY7)

**Parts Information Part D**

No Parts are used- Obtain the latest Calibration from TIS2WEB.

## Warranty Information

For vehicles repaired under the 5 year/100,000 mile (160,000 km) powertrain warranty, use:

Labor Operation	Description	Usage	Labor Time
4080088*	Install Camshaft Timing Chain Kit	2008-2009 Pontiac Torrent	5.3 hrs
		2007 Buick Allure 2007-2008 Buick LaCrosse 2008-2011 Cadillac STS	6.2 hrs
		2010-2012 Cadillac SRX	7.2 hrs
		2010-2012 Cadillac SRX (LAU)	7.5 hrs
		2008-2012 Cadillac CTS 2007 Cadillac STS 2007 Cadillac SRX 2008-2012 Chevrolet Captiva 2008-2012 Chevrolet Malibu 2007-2010 Pontiac G6 2008-2009 Pontiac G8 2007-2009 Saturn AURA	6.9 hrs
		2008-2009 Chevrolet Equinox FWD	7.5 hrs
		2010-2012 Chevrolet Camaro	7.8 hrs
		2008-2010 Saturn VUE	8.0 hrs
		2008-2012 Buick Enclave FWD 2009-2012 Chevrolet Traverse FWD 2007-2012 GMC Acadia FWD 2008-2010 Saturn OUTLOOK FWD	9.5 hrs
		2008-2009 Chevrolet Equinox AWD	8.3 hrs
		2008-2012 Buick Enclave AWD 2009-2012 Chevrolet Traverse AWD 2007-2012 GMC Acadia AWD 2008-2010 Saturn OUTLOOK AWD	9.7 hrs
		2010-2012 Chevrolet Equinox 2010-2012 GMC Terrain	8.7 hrs
		2010-2012 Buick LaCrosse 2012 Chevrolet Impala	9.2 hrs
		Add	Install Camshaft Thrust Washers
Add	Oil Life Monitor Calibration Update		0.4 hr
*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.			

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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