



Service Bulletin

Bulletin No.: 19-NA-212

Date: February, 2020

TECHNICAL

Subject: Diagnostic Tip for Crank/No Start

This bulletin replaces PIP5168F. Please discard PIP5168F.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	CTS	2016	2019			LT4	
	Escalade	2015	2020			L83, L86	
Chevrolet	3500/4500 Medium Duty (LCF)	2016	2019			L96	
	Camaro	2016	2020			LT1, LT4	
	Corvette	2014	2019			LT1, LT2, LT4, LT5	
	Express	2011	2020			LV1, L20, L96, LC8	
	Silverado	2010	2018			LV3, LV4, L82, L83, L84, L86, L87, L8T, L96, LC8	
	Silverado 1500 (New Model)	2019	2019				
	Silverado 2500/3500	2019					
	Silverado LD	2019					
	Silverado 1500	2020	2020				
	Silverado 2500HD/3500HD	2020					
	Suburban	2015					
Tahoe	2015						

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
GMC	Savana	2011	2020			LV1, L20, L96, LC8	
	Sierra	2010	2018			LV3, LV4, L82, L83, L84, L86, L87, L8T, L96, LC8	
	Sierra 1500 (New Model)	2019	2019				
	Sierra 2500/3500	2019					
	Sierra Limited	2019					
	Sierra 1500	2020	2020				
	Sierra 2500HD/ 3500HD	2020					
	Yukon	2015					

Involved Region or Country	North America, N.A. Export Regions
Condition	Some customers may comment that the vehicle cranks but doesn't start.
Cause	<p>This condition may be caused by a sheared camshaft sprocket locating pin.</p> <ul style="list-style-type: none"> – The camshaft may seize to the camshaft bearings at one time during engine operation. – On rare occasions, a crank no start may be encountered. Typically, when this occurs, it is generally when the vehicle still has low mileage, possibly during the Pre-Delivery inspection.
Correction	<p>During diagnosis, the technician will find proper fuel pressure, spark from each spark plug wire and proper injector pulse. However, the following concerns will be noted during their diagnosis:</p> <ul style="list-style-type: none"> • Low static compression • Excessive cylinder leakage past an intake or exhaust valve • The engine may start, but runs poorly if the CMP sensor is disconnected • The valve train may not move while cranking the engine <p>If this concern is encountered, refer to the Service Procedure below and perform the suggested steps as necessary.</p>

Service Procedure

1. Crank the engine while checking for movement in the valve train.

Note: This can be done by shining light down the oil fill tube on most models.

- If the valve train appears to be moving normally while the crankshaft is turning, continue to step 2.
 - If you determine valve train is not moving while the crankshaft is turning, move ahead to step 4.
2. Disconnect the CMP sensor to see if the engine will start.
 - ⇒ If the engine starts, move ahead to step 4.

3. Perform the following SI diagnostic procedures as necessary:
 - 3.1. Engine Cranks But Does Not Run diagnosis.
 - 3.2. Engine Compression Test (document results).
 - 3.3. Cylinder Leakage Test (document results).
 - ⇒ If the SI procedures above isolate an engine mechanical concern (low compression; excessive cylinder leakage through the exhaust or intake, any type of valve train damage, etc.), continue to step 4.

Note: Before removing the front cover, follow the latest version of Bulletin 09-06-04-026 to verify the ECM calibrations in case engine replacement is necessary. If this is a new dealer stock unit, it is not necessary to verify the ECM calibrations.

4. After completing steps 1, 2, or 3, remove the front cover to inspect for a sheared cam sprocket locator pin.
 - ⇒ If the cam sprocket locator pin has sheared, engine replacement is required.

Parts Information

No parts are required for this repair.

Warranty Information

The correction for this concern may be one of several repairs described above. For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the actual cause and repair.

Version	3
Modified	Released September 16, 2019 November 18, 2019 – Added the 2016-2019 3500/4500 Medium Duty (LCF) vehicles to the Model section and added N.A. Export Regions to Involved Region or Country section. January 27, 2020 – Added the 2011-2013 Model Years to the Express/Savana models and added the 2020 Model Year to certain vehicles.

