



Preliminary Information

PIP5537 6.6 L5P Duramax Engine Misfire Diagnosis

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Chevrolet	Silverado	2017 - 2018	All	All	6.6L L5P	All
GMC	Sierra	2017 - 2018	All	All	6.6L L5P	All
Involved Region or Country:		North America				
Additional RPO/s:		6.6 L5P				
Condition:		A customer may report a loss of power, misfire and/or SES light illuminated. The engine may have a rhythmic tick noise or exhibit a popping sound from the air filter box. Misfire DTCs including P0300 may be set in the engine control module (ECM).				
Cause:		Multiple root causes are possible, but in the most likely scenario, an intake or exhaust pushrod has broken at the upper cup causing no lift on the valves for that cylinder. Excessive valve clearance (lash), may also cause similar symptoms. Lastly, catastrophic damage to the cylinder cause by loose foreign debris such as a mishandled ceramic glow plug fragment can cause leakage past a valve seat.				

Correction:

Do not replace fuel injectors for this concern.

If an engine misfire with DTC P0300 is found and it can be isolated to a single cylinder, perform a compression test.

Note: Glow plugs must be discarded whenever removed, and replaced with NEW.

If compression less than 350 psi is measured on a single cylinder, a cylinder leakage test should be performed on the cylinder exhibiting low compression. If excessive leakage is demonstrated with the piston at top dead center (TDC), technicians are advised to remove the valve rocker cover on the affected side and to inspect for a damaged pushrod, damaged valve adjuster or excessive valve clearance (lash).

If a pushrod is found broken, technicians are advised to replace all pushrods and re-set the valve clearance (lash) for both intake and exhaust valves. Refer to Service Information (SI) for valve clearance adjustment procedure and specifications.

If no pushrods or valve adjusters are found damaged, but valve clearance is excessive and beyond the adjustment limit of the rocker arm nut, the dealer should contact Product Quality Center (PQC) for possible engine replacement. Similarly, in the event that more than 5% leakage is measured for any cylinder, there is likely damage to the cylinder and the dealer should contact Product Quality Center (PQC) for possible engine replacement.

Refer to the latest version of [PIP5434](#) for the 6.6L Diesel Engine (L5P) Engine Exchange Program.

Refer to Service Information for proper procedures on engine compression testing, cylinder leakage testing and setting valve lash.

Version History

Version	1
Modified	

