



Preliminary Information

PIP5537A 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 NOT found, 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 on the affected bank 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 all pushrods are intact, technicians are advised to check valve lift height and for an adjuster at the end of it's limit. This could be an indication of a rotated valve lifter. If you are able to verify that a lifter has rotated in the bore and ground away at the cam shaft, engine replacement is required.

If a cylinder has low compression AND high leakage rate, this could be an indication of a stuck open valve. Refer to Service Information.

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

Version History

Version	2
Modified	Created 12/13/17 12/20/17 Updated To remove reference of the engine exchange and add information about if a broken pushrod is not found.

