



Service Bulletin

Bulletin No.: 18-NA-334

Date: February, 2019

INFORMATION

Subject: Information On Perceived Longer Crank, Misfire, Hesitation Feel and/or Surge

Brand:	Model:	Model Year:		Breakpoint:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Silverado	2017	2018			Equipped with 6.6L Diesel Engine (RPO L5P)	Equipped with 6 Speed Allison Transmission (RPO MW7)
	Silverado 2500/3500	2019	2019				
GMC	Sierra	2017	2018				
	Sierra 2500/3500	2019	2019				

Involved Region or Country	North America and Israel
Condition	Some customers may comment on a longer crank, hesitation and/or surge.
Cause	This condition may be caused by the customer comparing the characteristics of the old engine to the new engine.
Correction	Listed below are some of the characteristics of the vehicles new engine.

Extended Crank

Some customers may have noticed that this new engine takes more time to start after turning the key to start than a 2011 – 2016. This is due to the change in the fuel system and calibration and should be considered normal.

Fuel Injector Small Quantity Adjustment

Fuel injector small quantity adjustment or, SQA, is the adjustment of the energize time for each fuel injector in the engine to compensate for individual injector differences. It can take up to 1400 miles for SQA to properly adjust each injector timing to its optimized setting. On a vehicle with low mileage, or low miles since an injector was replaced, or low miles since Fuel Injection Small Quantity Data Reset was performed, a customer may state that the engine runs rough or misfires. During this time, some roughness and misfire may be experienced.

1. If a customer reports a misfire or a running rough engine. Confirm no DTC's are present.
 - ⇒ If any DTCs are present, follow normal diagnostics for that DTC in service information (SI).
2. Inspect the air filter (refer to PIP5489) and
3. Confirm transmission shift quality.
 - ⇒ If necessary, reset the Transmission Adaptive Values Learn using GDS2.

4. Check in VIS that all required field actions have been performed:
 - If all field actions are closed, please check that the ECM has been updated with the latest software.
 - If the ECM does need to be updated, please perform a Fuel Injection Small Quantity Data Reset after programming.
5. Confirm mileage since last reset or injector replacement:
 - A: If greater than 1400 miles, follow normal diagnostics in service information (SI) for misfire.
 - B: If less than 1400 miles, and items 1-4 are confirmed, consider informing the customer about the SQA function and the expectation that the engine operation will become more smooth as injector learning occurs.

Transmission Torque Request Override

This new engine has increased horse power and torque. Because of this, a customer may notice after slowing down then pressing on the accelerator that there is a short delay in response from the engine. This same delay may be felt when changing gears like when plowing snow. This delay is to help to protect the rest of the drivetrain from a sudden torque increase. The transmission control module overrides the torque request the driver is asking for via the accelerator pedal in order to control engine torque to a level which protects the transmission hardware when making a gear change. This is normal vehicle behavior. This behavior is most often noticed when a 6th to 4th gear

downshift occurs from applying the accelerator to 70% or greater between 72 and 88 km/h (45 and 55 mph) or when applying the accelerator after a moderate to aggressive braking maneuver from 32-48 km/h (20-30 mph) down to 0-16 km/h (0-10 mph) where a 3rd to 1st gear downshift occurs.

Transmission Adapt Learns

On a vehicle with relatively low miles on it or low miles since the transmission control module was reprogrammed, a customer may state that the transmission seems to shift hard or that the engine seems to flair in between shifts. There may also be bumps or jerks when the vehicle down shifts. To address this concern, please perform a transmission shift adapt quick learn using GDS2.

Change in Torque Converter Lock Up Strategy

In this new vehicle, the torque converter is now being locked in third gear instead of fifth. Because of this, the vehicle will feel more responsive when accelerating from third gear and higher and you may be able to better feel transmission downshifts. On very light accelerator pedal applications when the torque converter is locked, the customer may perceive a hesitation, shutter, or stumble. This feeling is a result of the very high torque the Duramax is capable of producing at low engine speeds and the engine being directly coupled to the rear drive wheels. When the torque converter clutch is not locked it can serve as a viscous damper between the engine and rear drive tires. When the torque converter clutch is locked on 100% of the rapidly increasing torque is delivered to the rear tires.

Differences in Regeneration

A customer may see a difference in how this truck performs a regeneration. The regeneration in these trucks should be shorter, but you may find that they are more frequent.

Version	2
Modified	Released November 07, 2018 Revised February 06, 2019 - Added Fuel Injector Small Quantity Adjustment section.

Additional Keywords: Allison, LCT1000, A1000, MW7 shift up, up shift, down, downshift, shudder, shutter, TCC, flare, TCM, misfire

