

LX4 LUBRICITY EXTREME resolves CP4 High-Pressure Fuel Injection Pump incompatability issues with American produced Ultra-Low Sulfur Diesel (ULSD) fuel.

# DIESEL FUEL LUBRICITY, OR THE LACK THEREOF

Today's Ultra-Low Sulfur Diesel (ULSD) does not contain the lubricity needed to fully protect our vehicles. The Bosch CP4 fuel pump has an unusually high failure rate in the U.S., upwards of 7%, when compared to 1% failure rate in Europe. This is due to the U.S. diesel fuel's lack of lubricity. General Motors is currently facing a lawsuit because of the issue.

# DIESEL FUEL LUBRICITY SPECIFICATIONS

A fuel's lubricity is tested by measuring the size of the wear scar after the fuel is tested by a High Frequency Reciprocating Rig (HFRR ASTM D-6079). The specification for diesel fuel in the U.S. per ASTM D-975 for lubricity is a maximum wear scar of 520 microns. In comparison, the EN-590 European diesel

specification is 460 microns. The lower the wear scar, the better - meaning less wear is taking place. This almost 12% difference in specification is the root cause of a 5-7% failure rate of Bosch CP4 Fuel Pumps in the US compared to less than 1% in Europe.

CHEVROLET

2011-2016 GM Silverado HD trucks with 6.6L V8 Duramax LML/LGH engines

2010-2011 Chevy Express vans with diesel engines

## ENGINES AFFECTED BY FAILING CP4 PUMPS

#### GM

- · 2011-2016 GMC Sierra HD trucks with 6.6L V8 Duramax LML/LGH engines
- 2010-2011 GMC Savana vans with diesel engines
- Certain GMC Sierra diesel trucks with RPO ZW9 chassis cabs or pickup box delete

### **FORD**

- · 2011-2022 Ford SuperDuty pickups with 6.7L V8 PowerStroke

# RAM/JEEP

- · 2014-2021 Ram/Jeep with 3.0L EcoDiesel
- 2019-2020 Ram with 6.7L Cummins

## NISSAN

2016-2019 Nissan Titan XD 5.0L Cummins

# CP4 FUEL INJECTION PUMP COMPONENTS



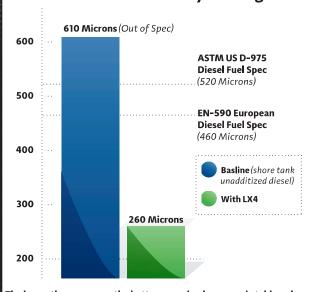


The lack of lubricity in ULSD is the main factor in the catastrophic failures of the CP4 Fuel pumps. High rates of wear introduce metal shavings into the fuel system, creating wear that damages your injectors, cylinder walls, pistons and rings costing several thousands of dollars to repair.

## THE FIX ► LX4 LUBRICITY EXTREME

he Engine Manufacturers Association recommends all diesel fuel should be below the 460-micron specification to protect all fuel injection systems, 3rd party ASTM D-6079 testing of LX4 showed that fuel that was out of specification would be brought down below the 460-micron level that is necessary to protect injectors and pumps from premature failure.

# **Diesel Fuel Lubricity Testing**



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