Part 573 Safety Recall Report 17V-664

Manufacturer Name : General Motors LLC
Submission Date : NOV 15, 2017
NHTSA Recall No. : 17V-664
Manufacturer Recall No. : 17399

Manufacturer Information :

Manufacturer Name : General Motors LLC
Address : 30001 VAN DYKE
MAIL CODE 480-210-2V WARREN MI 48090
Company phone : 5961733

Population :

Number of potentially involved : 35,292
Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2011-2015 Chevrolet Silverado 3500
Vehicle Type :
Body Style :
Power Train : NR
Descriptive Information : The vehicles being recalled were built with Dual Fuel Tanks (N2N) & Gas Engines (L96). The population includes vehicles with N2N and L96 content for models years that have experienced fuel leaks in the field.
Production Dates : MAY 24, 2010 - SEP 30, 2015
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 2 : 2011-2015 GMC Sierra 3500
Vehicle Type :
Body Style :
Power Train : NR
Descriptive Information : The vehicles being recalled were built with Dual Fuel Tanks (N2N) & Gas Engines (L96). The population includes vehicles with N2N and L96 content for models years that have experienced fuel leaks in the field.
Production Dates : MAY 27, 2010 - SEP 24, 2015
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Description of Defect :

Description of the Defect :	General Motors has decided that a defect which relates to motor vehicle safety exists in certain 2011 – 2015 model-year Chevrolet Silverado 3500 and GMC Sierra 3500 vehicles equipped with gas engines and dual fuel tanks. In these vehicles, if the fuel-level sensor in the front tank becomes stuck in a low-level position, the rear tank may overfill the front tank and potentially cause it to expand. In rare circumstances, the front fuel tank could expand and contact a moving drive shaft, which could create a hole in the front fuel tank and allow fuel to leak.
FMVSS 1 :	NR
FMVSS 2 :	NR
Description of the Safety Risk :	If leaked fuel encounters a potential ignition source, a fire could occur.
Description of the Cause :	If the front-tank fuel-level sensor becomes stuck in such a way that the fuel level in the front tank always registers as low, the fuel transfer pump may continue to pump fuel from the rear tank to the front tank even after the front tank is full, causing an overpressure condition in the front tank. Overpressure may cause the front tank to expand and contact the moving drive shaft.
Identification of Any Warning that can Occur :	Customers may hear a grinding or knocking noise if an overpressurized front fuel tank expands and contacts a moving drive shaft.

Supplier Identification :

Component Manufacturer

Name :	NR
Address :	NR
	NR
Country :	NR

Chronology :

On April 25, 2017, GM became aware of a NHTSA vehicle owner questionnaire (VOQ) submitted April 18, 2017 that reported a fuel leak from a commercial truck built from a 2015 Silverado 3500 chassis cab. On May 2, 2017, GM submitted the issue as a potential safety issue through GM's Speak Up For Safety program. GM opened a safety investigation on May 16, 2017.

Between May and July 2017, field data was analyzed to better understand how the overpressurized front tank was causing fuel leaks. GM reviewed its initial technical findings with NHTSA on July 27, 2017. After reviewing input from NHTSA and analyzing GM field data, there was no evidence these fuel leaks were occurring on vehicles built after model-year 2015. A design failure mode and effect analysis (DFMEA) completed on August 24, 2017 demonstrated that the potential overpressurization issue is limited to Silverado and Sierra HD trucks with gas engines and the dual-tank option. The only trucks produced with these options are the 3500 series

chassis cab vehicles (trucks without a bed and intended for modification and commercial use). This investigation was reviewed in GM's open issue reviews (OIR) on August 28 and September 25, 2017. The issue was reviewed with NHTSA again on October 2, 2017. GM's Safety and Field Action Decision Authority (SFADA) reviewed the issue on October 12, 2017 and decided to issue a safety recall.

Description of Remedy :

Description of Remedy Program :	Dealers will replace the rear-tank fuel-pump module or reflash the ECM software. Dealers will also inspect the front tank and replace if necessary. Pursuant to 577.11, GM will provide reimbursement to owners for repairs according to the plan submitted on May 19, 2017.
How Remedy Component Differs from Recalled Component :	Replacement fuel pump modules have a lower pressure limit and a lower flow rate than the recalled pumps. Updated ECM software will better detect a stuck fuel-level sensor and regulate the transfer of fuel from the rear tank accordingly. Recalled Component Name: TANK ASM-AUX FUEL Recalled Component Description: Auxiliary Fuel Tank Assembly Recalled Component Part Number: 23249060 Recalled Component Country of Origin: U.S.
Identify How/When Recall Condition was Corrected in Production :	Continuous improvement efforts to address issues with the fuel level sensor began during 2016 model year. The level sensor supplier initially limited production of parts from molds that were associated with higher rates of various level sensor field incidents. Field data for 2016-2017 model years shows no incidents of the fuel tank expansion condition. The fuel level sensor used in the front tank was redesigned for 2017 model year. In addition, a lower pressure fuel pump with a lower flow rate was implemented in the rear tank in October 2017.

Recall Schedule :

Description of Recall Schedule :	Dealers will be notified on 10/19/2017. Owners will receive interim notification on or before 12/18/2017. Recall is expected to launch by February 28, 2018.
Planned Dealer Notification Date :	OCT 19, 2017 - OCT 19, 2017
Planned Owner Notification Date :	NR - NR

* NR - Not Reported