OMB Control No.: 2127-0004

Part 573 Safety Recall Report

19V-645

Manufacturer Name: General Motors LLC

Submission Date: OCT 04, 2019 NHTSA Recall No.: 19V-645 Manufacturer Recall No.: N192268490



Manufacturer Information:

Manufacturer Name: General Motors LLC

Address: 29427 Louis Chevrolet Road

MAIL CODE 480-210-2V WARREN MI

48093

Company phone: 586-596-1733

Population:

Number of potentially involved: 3,456,719

Estimated percentage with defect: 2 %

Vehicle Information:

Vehicle 1: 2015-2017 Cadillac Escalade

Vehicle Type: **Body Style:** Power Train: NR

Descriptive Information: Some vehicles manufactured within this period are equipped with a specific vacuum

brake assist pump design that has demonstrated an elevated rate of the condition.

2015 was the first model year of this generation vehicle. Prior model years used a different brake assist system design. Vehicles manufactured after the designated

period are not equipped with the affected pump design.

131,022 Cadillac Escalades vehicles are affected by this recall.

Production Dates: JUN 17, 2013 - AUG 19, 2017

VIN Range 1: Begin: NR End: NR Not sequential

Vehicle 2: 2014-2018 Chevrolet Silverado 1500

Vehicle Type: **Body Style:** Power Train: NR

Descriptive Information: Some vehicles manufactured within this period are equipped with a specific vacuum

brake assist pump design that has demonstrated an elevated rate of the condition.

2014 was the first model year of this generation vehicle. Prior model years used a different brake assist system design. Vehicles manufactured after the designated

period are not equipped with the affected pump design.

Vehicles previously serviced under customer satisfaction program N182206730 are

not included in this recall.

	1,773,885 Chevrolet Silverado 1500 vehicles are affected by this recall.						
Production Dates :	Production Dates: SEP 05, 2013 - AUG 31, 2017						
VIN Range 1:	Begin:	NR	End: NR	■ Not sequential			
				-			
Vehicle 3:	2015-2018 Che	vrolet Suburbar	1				
Vehicle Type :	Vehicle Type :						
Body Style :							
Power Train :							
		nanufacturad w	ithin this period are equipped w	ith a specific vacuum			
Descriptive information.	 ion: Some vehicles manufactured within this period are equipped with a specific vacual brake assist pump design that has demonstrated an elevated rate of the condition. 2015 was the first model year of this generation vehicle. Prior model years used a 						
	different brake assist system design. Vehicles manufactured after the designated						
	period are not equipped with the affected pump design.						
202,668 Chevrolet Suburban vehicles are affected by this recall.							
Production Dates:	APR 04, 2013 -	SEP 01, 2017					
VIN Range 1:	Begin:	NR	End: NR	■ Not sequential			
	2015-2018 Che	vrolet Tahoe					
Vehicle Type :							
Body Style :							
Power Train :	NR						
Descriptive Information:	: Some vehicles manufactured within this period are equipped with a specific vacuum						
	brake assist pump design that has demonstrated an elevated rate of the condition.						
	2015 was the first model year of this generation vehicle. Prior model years used a						
	different brake assist system design. Vehicles manufactured after the designated						
	period are not equipped with the affected pump design.						
	Vehicles previously serviced under customer satisfaction program N182206730 are						
	not included in this recall. 356,104 Chevrolet Tahoe vehicles are affected by this recall.						
Production Dates: MAR 19, 2013 - SEP 01, 2017							
VIN Range 1:	Begin:	NR	End: NR	☐ Not sequential			
Vehicle 5: 2014-2018 GMC Sierra 1500							
Vehicle Type :							
Body Style :							
Power Train:		0					
Descriptive Information :	Some vehicles manufactured within this period are equipped with a specific vacuum						
brake assist pump design that has demonstrated an elevated rate of the condition 2014 was the first model year of this generation vehicle. Prior model years used							
							2011 Was the H

	different brake assist system design. Vehicles manufactured after the designated period are not equipped with the affected pump design.							
	696,225 GMC Sierra 1500 vehicles are affected by this recall.							
Production Dates :	SEP 03, 2013 - AUG 31, 2017							
VIN Range 1:		NR	End:	NR	☐ Not sequential			
Vehicle 6: 2015-2018 GMC Yukon								
Vehicle Type :								
Body Style :								
Power Train :	NR							
Descriptive Information :	Some vehicles manufactured within this period are equipped with a specific vacuum brake assist pump design that has shown an elevated rate of the increased brake pedal effort condition.							
	2015 was the first model year of this generation vehicle. Prior model years used a different brake assist system design. Vehicles manufactured after the designated period are not equipped with the same pump design.							
	296,815 GMC Yukon vehicles are affected by this recall.							
Production Dates :	MAR 20, 2013	- AUG 30, 20	17					
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 2014-2018 model year Cadillac Escalade, Chevrolet Silverado, Chevrolet Suburban, Chevrolet Tahoe, GMC Sierra, and GMC Yukon vehicles. In some circumstances, these vehicles may have a condition in which the enginemounted mechanical vacuum pump output may decrease over time, decreasing

the amount of vacuum/power brake assist.

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: If the vacuum level drops, customers may experience increased brake pedal

effort, hard brake pedal, and/or potentially increased stopping distance. The Driver's Information Centre (DIC) "Service brake assist" alert will activate 2-5 minutes after the vacuum level drops, and a Diagnostic Trouble Code (DTC) will also be set. The condition is more prevalent at low speed when softly applying the brakes. At all times, the brakes remain functional and exceed the requirements of S7.11 of Federal Motor Vehicle Safety Standard (FMVSS) No.

135, "Light Vehicle Brake Systems."

Description of the Cause: The vehicles' vacuum assist pump is lubricated with engine oil, which flows

into the pump through a filter screen. Under certain conditions and over a period of time, debris such as oil sludge can accumulate on the filter screen, potentially restricting the flow of oil into the pump over time and gradually

reducing the amount of vacuum pressure generated. Failure to follow recommended oil change intervals could contribute to this condition. These vehicles are equipped with a secondary, hydraulic power brake assist system that activates to provide power brake assist if the vacuum drops, however, as calibrated the hydraulic brake boost assist is limited at lower speeds.

Identification of Any Warning The driver may feel vibration in the brake pedal or a change in the amount of that can Occur: pressure required to depress the brake pedal. The operator and persons inside the vehicle may hear a ticking noise coming from the engine compartment or activation of the secondary hydraulic brake assist system. In addition, a "Service Brake Assist" message will appear in the Driver Information Center within two to five minutes of vacuum level less than 10 kPA.

Supplier Identification:

Component Manufacturer

Name: NR Address: NR

NR

Country: NR

Chronology:

On November 20, 2018, the National Highway Traffic Safety Administration (NHTSA) opened a preliminary evaluation (PE18-012) to investigate the subject condition. In cooperation with NHTSA, GM also conducted its own internal investigation.

On December 13, 2018, after concluding its investigation and having reviewed the results with NHTSA, GM's Safety & Field Action Decision Authority (SFADA) decided to extend warranty coverage for vacuum pump replacements for the subject vehicles.

On February 7, 2019, NHTSA issued an Information Request relating to the condition. GM responded and provided the requested information on March 27, 2019.

On July 18, 2019, NHTSA provided GM with additional field data reports. GM opened a new investigation into the issue on July 22, 2019. GM's investigator reviewed the new data provided by NHTSA and refreshed the field data from other sources.

On August 29, 2019, GM's Safety & Field Action Decision Authority decided to conduct a safety recall to update affected vehicles with the new software calibration.

Description of Remedy:

Description of Remedy Program: Dealers will reprogram the Electronic Brake Control Module in these

vehicles with a new calibration that will improve how the system utilizes the hydraulic brake boost assist function when vacuum assist is depleted. Pursuant to 573.13, General Motors does not plan to provide notice about reimbursement to owners because a remedy of this type was not available

prior to this recall.

How Remedy Component Differs The new calibration improves how the system utilizes the hydraulic brake

from Recalled Component: boost assist function when vacuum assist is depleted.

Recalled Component Name: DATA FILE-ELEK BRK CONT MDL CALN **Recalled Component Description: Braking Control Module (BCM)**

calibration

Recalled Component Part Number: 84110293 thru 84110320,

84110322 thru 84110332, 84110336

Recalled Component Country of Origin: U.S.

Identify How/When Recall Condition NR was Corrected in Production:

Recall Schedule:

Description of Recall Schedule: Dealers will be notified on September 6, 2019. GM is planning to begin

mailing owner letters on September 27, 2019.

Planned Dealer Notification Date: SEP 06, 2019 - SEP 06, 2019

Planned Owner Notification Date: SEP 27, 2019 - NR

^{*} NR - Not Reported