

Part 573 Safety Recall Report

18V-576

Manufacturer Name : General Motors LLC**Submission Date :** SEP 24, 2018**NHTSA Recall No. :** 18V-576**Manufacturer Recall No. :** 18279**Manufacturer Information :**

Manufacturer Name : General Motors LLC

Address : 29427 Louis Chevrolet Road
MAIL CODE 480-210-2V WARREN MI
48093

Company phone : 5961733

Population :

Number of potentially involved : 210,628

Estimated percentage with defect : 1 %

Vehicle Information :

Vehicle 1 : 2018-2019 Chevrolet Cruze

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 19, 2018 - JUN 19, 2018

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

Vehicle 2 : 2018-2019 Chevrolet Equinox

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 19, 2018 - JUN 19, 2018

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

Vehicle 3 : 2018-2019 Chevrolet Impala

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then

correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : APR 18, 2018 - JUN 21, 2018

VIN Range 1 : Begin : NR End : NR

Not sequential

Vehicle 4 : 2018-2018 Chevrolet Malibu

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 27, 2018 - JUN 19, 2018

VIN Range 1 : Begin : NR End : NR

Not sequential

Vehicle 5 : 2018-2019 Chevrolet Volt

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 27, 2018 - JUN 20, 2018

VIN Range 1 : Begin : NR End : NR

Not sequential

Vehicle 6 : 2018-2019 GMC Terrain

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 19, 2018 - JUN 15, 2018

VIN Range 1 : Begin : NR End : NR

Not sequential

Vehicle 7 : 2018-2019 Buick LaCrosse

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 27, 2018 - JUN 22, 2018

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

Vehicle 8 : 2018-2019 Buick Regal

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAY 16, 2018 - JUN 25, 2018

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

Vehicle 9 : 2018-2019 Cadillac XTS

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : APR 18, 2018 - JUN 21, 2018

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

Vehicle 10 : 2018-2019 Cadillac XTS Professional

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data. Recalled parts were not properly coated during the manufacturing process.

Production Dates : APR 18, 2018 - JUN 21, 2018

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

Vehicle 11 : 2018-2019 Chevrolet Bolt

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Supplier production information was used to identify the start and end date of the improper coating process which was then correlated with manufacturing data.

Recalled parts were not properly coated during the manufacturing process.

Production Dates : MAR 27, 2018 - JUL 17, 2018

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 2018–2019 model year GMC Terrain vehicles; 2018 model year Chevrolet Malibu vehicles; 2018–2019 model year Chevrolet Cruze, Equinox, Volt, Impala, and Bolt vehicles; 2018–2019 model year Buick Lacrosse and Regal vehicles; and 2018–2019 model year Cadillac XTS vehicles. In a small number of these vehicles, the rear-brake caliper pistons may contain trapped hydrogen gas that could be released into the vehicle's brake system.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If gas is present in the brake system, rear-brake performance may be reduced, increasing the risk of a crash.

Description of the Cause : The manufacturer of the brake pistons failed to properly chrome and temper the brake pistons during the manufacturing process. In this condition, hydrogen gas can remain trapped in the piston body. When the vehicle is assembled and a piston that contains trapped gas contacts brake fluid, this gas can be released into the vehicle's brake system.

Identification of Any Warning that can Occur : If gas is present in the brake system, the customer will notice a soft or spongy feel when applying the brake pedal even though stopping distances may not be affected. According to GM's supplier, all trapped gas in a defective piston should be released within 23 days of vehicle assembly and will be noticeable to the driver within 15 days of assembly.

Supplier Identification :

Component Manufacturer

Name : ZF

Address : 12025 Tech Center Drive
Livonia MICHIGAN 48150

Country : United States

Chronology :

On May 7, 2018, a GM quality engineer filed a Speak Up For Safety submission based on dealer reports indicating that three GM vehicles failed pre-delivery inspection because of soft brake pedals. GM opened a formal product investigation into the issue on June 12, 2018.

ZF, the supplier of the brake calipers at issue, was also investigating similar reports from other OEMs, although GM was not aware of this investigation. In its July 2018 part 573 report, ZF stated that: (i) Volkswagen/Audi notified ZF of a potential issue involving ZF-manufactured brake calipers in Volkswagen/Audi vehicles on May 18, 2018; (ii) ZF notified BMW, another purchaser of the brake calipers, of its investigation on May 23, 2018; and (iii) ZF concluded its root-cause analysis with its brake-piston supplier on May 29, 2018.

ZF did not notify GM of the issue until June 14, 2018, and did not list GM as a purchaser of affected brake calipers in its part 573 filing. After receiving notice from ZF, GM worked with ZF to identify the vehicle population that may have been manufactured with a suspect brake caliper and assess the condition's impact on brake performance. On July 27, 2018, GM engineers at GM's Milford Proving Grounds conducted brake-performance testing on a Chevrolet Cruze vehicle equipped with hydraulic equipment that simulated the effect of five cubic centimeters of gas in one or both rear brake systems. On August 10, 2018, GM conducted additional brake-performance testing on a vehicle with seven cubic centimeters of gas in the left rear brake system.

As of August 23, 2018, GM had received approximately 375 warranty claims relating to this condition; in 306 of these claims, the dealer was able to identify and correct the condition as part of routine pre-delivery inspection checks. GM is not aware of any crashes caused by this condition. On August 23, 2018, GM's Safety and Field Action Decision Authority (SFADA) decided to conduct a safety recall.

Description of Remedy :

Description of Remedy Program : Dealers will "bleed" the brake system to remove any gas from the rear brake system. Pursuant to 49 C.F.R. § 573.13(d)(1), all covered vehicles are under warranty so reimbursement is not offered.

How Remedy Component Differs from Recalled Component : The brake system was properly manufactured and does not contain trapped hydrogen gas.
Recalled Component Name: CALIPER ASM-RR BRK / CALIPER ASM-RL BRK
Recalled Component Description: Right Rear Brake Caliper Assembly / Left Rear Brake Caliper Assembly
Recalled Component Part Number: 39062769, 39062770, 84323160, 84323161, 84323158, 84323159, 84144904, 84144905, 13498176, 13498177

Identify How/When Recall Condition was Corrected in Production : Vehicles produced after July 17, 2018 contain rear brake caliper pistons that were manufactured without the defect.

Recall Schedule :

Description of Recall Schedule : General Motors will provide dealer bulletin and owner letter notification dates when available.

Planned Dealer Notification Date : AUG 30, 2018 - AUG 30, 2018

Planned Owner Notification Date : OCT 11, 2018 - OCT 12, 2018

* NR - Not Reported