U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

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Investigation: PE 20-011
Date Opened: 07/05/2020
Investigator: Sean Hays
Approver: Tanya Topka
Subject: Fuel Line Leak

Date Closed: 08/17/2023
Reviewer: Sharon Yukevich

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: General Motors, LLC
Products: 2008-2010 Chevrolet Cobalt / 2008-2009 Chevrolet HHR
Population: 475,156

Problem Description: Metal fuel lines under the vehicle may corrode and leak fuel

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	523	124	632**
Crashes/Fires:	2	0	2
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	20	20

***Description of Other:** General Motors warranty claims

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close Preliminary Evaluation PE20-011.

Summary:

On July 5, 2020, the Office of Defects Investigations (ODI) opened PE20-011 to investigate instances of metal fuel lines under the vehicle corroding and leaking fuel in model year (MY) 2008 through 2010 Chevrolet Cobalt and 2008 through 2009 Chevrolet HHR passenger cars manufactured by General Motors (GM). The metal fuel lines are corroding and leaking fuel in the area between the front and rear wheels on the driver's side of the vehicle before the muffler. Most consumers allege a fuel odor and/or an observable fuel leak that alerts them to the condition.

The subject metal fuel lines have a protective "AGE" coating and, in the vicinity of the left rear wheel, are further wrapped in a foil heat shield. The "AGE" coating consists of an annealed zinc aluminum alloy metal coating with extended corrosion protection paint. Under certain conditions, water and corrosive road deicing agents may enter a crevice between the heat shield and the AGE coating. With extended environmental exposure in high corrosive environments, the AGE coating can degrade. If it degrades enough, the base metal lines may begin to corrode beneath the heat shield.

Corrosion to the fuel lines may eventually cause a perforation to develop in the line, allowing fuel vapors to escape from between the line and the heat shield, emitting a fuel odor that will be detectable to the vehicle operator. If the corrosion progresses, fuel may begin to weep from the line. Further metal degradation due to corrosion could create a drip or a mist of fuel. If this occurs, vehicle owners may see drips, spots, or puddles on the ground near the rear portion of the vehicle, primarily along the driver's side rear wheel.

The majority of allegations (85%) were reported for vehicles that are operated in the "salt belt" region of the United States. This area includes states in the Northeast, mid-Atlantic, and Midwest regions. Additionally, the average failure

mileage in the subject vehicles is approximately 111,000 across all data sources.

Considering the low manufacturer complaint/warranty rates of fuel line replacement, the fact that the majority of failures are concentrated in "salt belt" states, high failure mileages, as well as the field exposure time for the subject vehicles, and the highly detectable and progressive nature of this failure over time, the potential safety consequences of this issue are very low. To date, there have been no reported crashes, injuries, or fatalities related to this issue. There are two reported fires in ODI data and no reported fires in GM data. Both ODI reported fires were minor, occurred after the vehicle was parked, and were extinguished utilizing fire extinguishers.

In view of the progressive failure occurring at high mileages, the age of the subject vehicles, the high detectability of the leak, and the majority of failures occurred in "salt belt" states, this Preliminary Evaluation is closed. The agency reserves the right to take additional action if warranted by new circumstances.

Review the ODI reports cited above at nhtsa.gov under the attached identification numbers.

PE20-011 Closing VOQ List

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