U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

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Investigation: PE 21-008
Date Opened: 03/29/2021
Investigator: Sean Hays
Approver: Stephen Ridella
Subject: Fuel Injector Leak

Date Closed: 10/03/2022
Reviewer: Sharon Yukevich

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Volkswagen Group of America, Inc.
Products: 2018-2020 Atlas/Atlas Cross Sport
Population: 196,613

Problem Description: Fuel leaks from the fuel injectors in the engine compartment have a higher risk of fire.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	7	136	141**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	Confidential	Confidential

***Description of Other:** Early Warning Reporting (EWR) field reports

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close Preliminary Evaluation PE21-008.

Summary:

On March 29, 2021, the Office of Defects Investigations (ODI) opened PE21-008 to investigate instances of fuel injectors leaking in the engine compartment in model year (MY) 2018 through 2020 Volkswagen Atlas and Atlas Cross Sport SUVs. These vehicles are equipped with either a 3.6 or 2.0 liter engine. The subject investigation concerns vehicles equipped with 3.6L engines. Prior to opening the investigation, ODI also observed that warranty data for the fuel system from TREAD reporting was an outlier for the MY 2018 Atlas.

The allegation involved fuel injectors leaking fuel near engine compartment components that operate at high temperatures. Consumers allege a fuel leak, fuel odor, and/or an illuminated check engine malfunction indicator light (MIL) on that alerts them to the condition. Fuel leaking in the engine compartment has a higher potential risk of fire as nearby components are operating at higher temperatures compared to other areas of the vehicle. No fires have been connected to this issue to date.

The 3.6L engine is a "VR6" type engine. Due to its specific design, the VR6 has two types of injectors with different designs installed. Cylinders 1, 3, and 5 use "long" injectors and cylinders 2, 4, and 6 use "short" injectors. Unlike the "short" injectors, the "long" injectors require an "extension pipe" necessary to reach cylinders 1, 3, and 5. Volkswagen stated that the potential root cause for a leaking injector is typically either a damaged, misaligned, or missing supporting ring or a damaged O-ring. These rings assist in connecting the injector to the "extension pipe". If one of these conditions is present in a vehicle, the O-ring has difficulty withstanding fuel pressure over time.

Volkswagen stated that an analysis of warranty data related to leaking injectors in vehicles equipped with 3.6L engines showed that the vast majority of leaking allegations were related to "internal" leaks. Fuel can leak into the cylinder

causing misfiring in the affected cylinders. This condition would not cause fuel to enter into the engine compartment. Volkswagen states that these "internal" leaks pose no unreasonable risk to motor vehicle safety.

Analysis of all relevant data indicates that the subject condition is an early-life failure with a relatively low failure rate. The average failure mileage calculated from all data sources was determined to be approximately 14,000 miles. Only two failures were reported outside of the vehicles' warranty coverage period. The average time to failure for the subject vehicle population is approximately 12 months in service (MIS). The majority of failures were below the average of 14,000 miles or 12 MIS. Analysis of reported failures showed that the failure rate is approximately 0.08% or 0.8 incidents per thousand vehicles (IPTV).

To date, there have been no reported fires, crashes, injuries, or fatalities related to this issue. In view of the low rate of failure, the nature of early-life failure, and low potential hazard to drivers, this Preliminary Evaluation is closed. The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. 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 following identification numbers:
11446833, 11438403, 11382958, 11298402, 11291955, 11218819, 11218780