



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION



Investigation: RQ23007
Prompted By: VOQ Review, EWR Field Report Review
Date Opened: 12/12/2023
Investigator: Sean A Hays **Reviewer:** Sharon Yukevich
Approver: Tanya Topka
Subject: Fuel Leak due to Suction Jet Pump Failure within Fuel Tank
 (Remedy Effectiveness of Recall 16V-647)

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Volkswagen Group of America, Inc.
Products: 2015 Audi A3, 2016 Audi A3, 2017 Audi A3, 2018 Audi A3, 2019 Audi A3, 2020 Audi A3, 2015 Volkswagen Golf, 2016 Volkswagen Golf, 2017 Volkswagen Golf, 2018 Volkswagen Golf, 2019 Volkswagen Golf, 2020 Volkswagen Golf
Population: 447,497 (Estimated)
Problem Description: Alleged suction jet pump failure can lead to a fuel leak.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	79	0	0	0	79	CONF
Crashes/Fires:	0	0	0	0	0	0
Injury Incidents:	0	0	0	0	0	0
Number of Injuries:	0	0	0	0	0	0
Fatality Incidents:	0	0	0	0	0	0
Number of Fatalities:	0	0	0	0	0	0

ACTION/SUMMARY INFORMATION

Action: A Recall Query (RQ) has been opened.

Summary:

The Office of Defects Investigation (ODI) has received 79 complaints and several TREAD (Transportation Recall Enhancement, Accountability and Documentation) field reports alleging a fuel leak, refueling spit back, refueling shutoff, or fuel odor in model year (MY) 2015-2020 Audi A3 and Volkswagen Golf vehicles manufactured by Volkswagen (VW). The complaints allege that these conditions are caused by the failure of

the suction jet pump located in the fuel tank.

Some consumers report puddles, pools, or spots of fuel in the rear right area of the vehicle, near the fuel tank filler door and rear right wheel well. The fuel tank either straddles the exhaust pipe leading to the muffler or is adjacent to this pipe in these vehicles. Fuel leaking near exhaust system components has a higher potential risk of fire as the components are operating at higher temperatures compared to other areas of the vehicle. No fires have been connected to this issue to date.

VW issued recall 16V-647 on September 2, 2016, for the suction jet pump inside the fuel tank, which was designed to purge fuel from the evaporative emissions (EVAP) system and stated the suction jet pump may have been damaged during assembly. VW states that this damage could potentially allow fuel to flow directly into the EVAP system which may, over time, accumulate in and cause a leak from the charcoal canister filter element. This recall covered certain MY 2015-2016 Audi A3 and Volkswagen Golf vehicles. Repair in recall 16V-647 replaces the suction jet pump only.

In October 2022, VW issued warranty extensions (AWA-22-12 & VWP-22-12) for the fuel tank suction jet pump in MY 2015-2020 Audi A3 / Volkswagen Golf and MY 2019-2020 Jetta GLI vehicles for 15 years or 150,000 miles, whichever comes first. Warranty extension repair is the replacement of the fuel tank. The new fuel tank includes an improved suction jet pump. Vehicles included within recall 16V-647 are included within the scope of the warranty extensions. Should the suction jet pump installed as the remedy for recall 16V-647 fail, these vehicles will receive an improved suction jet pump in the new fuel tank. The warranty extension only applies to vehicles that experience the subject failure. Consumers received notification of the warranty extensions via mail.

ODI is opening this Recall Query (RQ) to assess the remedy repair effectiveness of recall 16V-647 and to fully assess the potential safety-related problems.

To review the ODI reports cited in the Opening Resume ODI Report Identification Number document, go to [NHTSA.gov](https://www.nhtsa.gov).



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OPENING RESUME ODI REPORT IDENTIFICATION NUMBERS

Investigation ID: RQ23007

Date Opened: 12/12/2023

Subject: Fuel Leak due to Suction Jet Pump Failure within
Fuel Tank (Remedy Effectiveness of Recall 16V-
647)

List of 79 ODI Report reference numbers:

11415615, 11426137, 11430297, 11433810, 11434613, 11435173, 11436229, 11437383, 11441391, 11441821,
11443427, 11446531, 11447546, 11448469, 11458345, 11459897, 11465326, 11467645, 11468880, 11470122,
11470551, 11472767, 11474307, 11474603, 11475400, 11475578, 11476551, 11476587, 11476600, 11478485,
11479765, 11480048, 11480310, 11482153, 11482470, 11482655, 11483625, 11485047, 11485522, 11486106,
11488320, 11490211, 11491839, 11492055, 11493326, 11493720, 11493878, 11494004, 11495757, 11500524,
11504539, 11507697, 11508690, 11512060, 11517819, 11519371, 11526428, 11526561, 11526988, 11529296,
11530737, 11533709, 11534630, 11535411, 11535597, 11537018, 11537410, 11538196, 11538456, 11542548,
11547266, 11549263, 11549709, 11549719, 11550419, 11552952, 11554733, 11555847, 11558501

Part 573 Safety Recall Report

16V-647

Manufacturer Name : Volkswagen Group of America, Inc.**Submission Date :** OCT 04, 2016**NHTSA Recall No. :** 16V-647**Manufacturer Recall No. :** 20Y6/20Y5**Manufacturer Information :**

Manufacturer Name : Volkswagen Group of America, Inc.

Address : 3800 Hamlin Road

Auburn Hills MI 48326

Company phone : 1-800-893-5298

Population :

Number of potentially involved : 110,042

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2015-2016 Audi A3 Cabriolet

Vehicle Type : LIGHT VEHICLES

Body Style : ALL

Power Train : NR

Descriptive Information : A3 Cabriolet: 1,975
1.8T FWD

Production Dates : JUN 06, 2014 - FEB 18, 2016

VIN Range 1 : Begin : WAU5CLFF2F1023290 End : WAU57LFF5G1085238 Not sequential

Vehicle 2 : 2015-2016 Audi A3 Sedan

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : A3 Sedan: 26,000
1.8T

Production Dates : NOV 28, 2013 - FEB 24, 2016

VIN Range 1 : Begin : WAUCCGFF0F1000668 End : WAUA7GFF5G1086590 Not sequential

Vehicle 3 : 2015-2016 Volkswagen Golf

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Golf: 25,890
1.8T

Production Dates : MAR 28, 2014 - MAR 15, 2016

VIN Range 1 : Begin : 3VW217AU9FM000730 End : 3VW217AU4GM051716 Not sequential

Vehicle 4 : 2015-2016 Volkswagen GTI

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : GTI: 45,495
1.8T

Production Dates : DEC 06, 2013 - MAR 16, 2016

VIN Range 1 : Begin : 3VW4T7AU4FM000072 End : 3VW4T7AU8GM051723 Not sequential

Vehicle 5 : 2015-2016 Volkswagen Golf SportWagen

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : Golf SportWagen: 10,682
1.8T

Production Dates : OCT 21, 2014 - MAR 11, 2016

VIN Range 1 : Begin : 3VW217AUXFM500122 End : 3VWC17AU8GM520083 Not sequential

Description of Defect :

Description of the Defect : The suction pump inside the fuel tank designed to purge fuel from the Evaporative Emissions (EVAP) system may be compromised resulting in fuel flowing directly into the EVAP system. If this happens, fuel could accumulate in the EVAP system and leak through the charcoal canister filter element.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Leaking fuel, in the presence of an ignition source, may result in a fire.

Description of the Cause : Due to a manufacturing issue, seal rings inside a suction pump in the fuel tank were assembled with too much tension. This could have pre-damaged the seals, potentially leading to fuel ingress into the EVAP system. Should the EVAP system be flooded, fuel could leak through the charcoal canister filter element.

Identification of Any Warning that can Occur : Customers could experience re-fueling issues (early stopping fuel nozzles, spillback) when fuel accumulated in the EVAP system. Fuel smell may also be noticed by the driver/vehicle occupants.

Supplier Identification :**Component Manufacturer**

Name : ALFMEIER PRÄZISION AG
Address : Industriestr. 5
Treuchtlingen FOREIGN STATES 91757
Country : Germany

Chronology :

July/Aug 2015: First failures were reported from the field and investigation was initiated.
Oct/Nov. 2015: Decrease of reported failures was noted and early failure of a limited number of components assumed. Failures were traced to automatic assembly process at supplier, possibly pre-damaging seal rings.
Nov 2015: Assembly process was changed at supplier, field monitoring concluded.
Apr/May 2016: Increase of failures observed in the field. Vast majority reported from Puerto Rico. Analysis initiated as to why only Puerto Rico seems affected.
June/July 2016: High amount of aromatic compounds in Puerto Rico fuel identified as cause for excess failures. Additional failures observed in mainland USA.
August 26, 2016: The matter was brought to Volkswagen's product safety committee and the presence of a defect was determined.
August 29, 2016: The matter was brought to Audi's product safety committee and the presence of a defect was determined.

Description of Remedy :

Description of Remedy Program : The potentially affected suction pump inside the fuel tank will be replaced. Reimbursement should not occur as vehicles are still covered under New Vehicle Limited Warranty.

How Remedy Component Differs from Recalled Component : Supplier has changed from automated to careful manual assembly which removed the risk of pre-damage during assembly.

Identify How/When Recall Condition was Corrected in Production : Parts went into Audi vehicle production in February 2016 and Volkswagen implemented into vehicle production in March 2016.

Recall Schedule :

Description of Recall Schedule : Recall notification: TBD
Planned Dealer Notification Date : NR - NR
Planned Owner Notification Date : NR - NR

* NR - Not Reported