



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 22-001
Prompted by:
Date Opened: 04/04/2022
Investigator: Lemeola Kamanya **Reviewer:** Tanya Topka
Approver: Stephen Ridella
Subject: Engine Stall - Turbo Failure

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Volkswagen Group of America, Inc.
Products: 2013-2016 Audi A8, S6, S7, S8, RS7
Population: 23,347 (Estimated)

Problem Description: The complaints allege that the vehicle stalls suddenly with no prior warning while driving on the highway or in city traffic. Several complaints attribute the failure to oil starvation of the turbocharger due to clogging of the oil strainer

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	98	838	709**
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 Report

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Open an Engineering Analysis.

Summary:

On March 29, 2021, the Office of Defects Investigation (ODI) opened Preliminary Evaluation (PE) 21-009 after the agency received 58 reports alleging engine stalling in 2013-2016MY Audi vehicle models A8, S6, S7, S8 & RS7. The subject vehicles are equipped with a 4.0L, twin-turbocharged engine. Complainants reported that the vehicles stall suddenly with no warning while driving on the highway or in city traffic. Several of the complainants alleged an inability to restart. The complaints allege the major contributing factor to the engine stalling is the failure of the turbochargers. The complaints further allege the turbocharger failure is a result of oil starvation due to a clogged oil strainer.

The location of the oil strainer in the turbocharger oil supply line is in the inner valley of the engine. It is not easily accessible, making regular service difficult. The oil strainer removes dirty particles and carbon deposits from the oil before flowing to lubricate the turbochargers. Over time, if the debris is not removed from the oil strainer, it clogs the strainer and prevents free flow of oil to the turbochargers and causes the turbine bushings to run dry and overheat resulting in turbine shaft failure due to thermal stress.

In VW's response to ODI's Information Request letter, VW provided approximately 611 warranty claims with unique VINs, 70 Field Reports and 45 Consumer complaints. These reports allege engine stalling due to turbocharger failure similar to the NHTSA reports described above. To date, NHTSA has received approximately 98 allegations of stall due to turbocharger failures. The total of 709 reports shown in the table above eliminates all duplicate reports received by both ODI and the manufacturer.

An Engineering Analysis (EA) has been opened to further assess the scope, frequency, and potential safety related consequences of the alleged defect, engine stalling due to turbocharger failure.

The ODI complaints cited above can be viewed at www.NHTSA.gov under the following ODI identification numbers:

11452589, 11452584, 11452383, 11450995, 11450988, 11449661, 11447092, 11442867, 11440536, 11440052, 11439959, 11438691, 11436461, 11435619, 11431661, 11429704, 11429584, 11426929, 11424203, 11423603, 11423337, 11421084, 11420626, 11420342, 11418884, 11418437, 11418433, 11417635, 11417351, 11416095, 11414235, 11413359, 11413214, 11413285, 11413133, 11407510, 11407450, 11407289, 11406821, 11406416, 11406291, 11406277, 11406273, 11406256, 11406251, 11406229, 11406222, 11406204, 11406197, 11406182, 11404665, 11404426, 11404348, 11403430, 11403268, 11399435, 11397821, 11396241, 11394763, 11391037, 11388662, 11387166, 11377446, 11363283, 11354107, 11344193, 11342497, 11342360, 11340302, 11325065, 11324163, 11322168, 11321144, 11318477, 11306754, 11279429, 11268109, 11256706, 11252723, 11246579, 11234853, 11234714, 11231582, 11231013, 11230589, 11229484, 11222281, 11218822, 11218749, 11217604, 11209168, 11209142, 11197149, 11191243, 11175842, 11170776, 11164032, 11152418.