



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 18-005
Prompted by: Seat belt webbing separation during NCAP frontal crash test
Date Opened: 07/03/2018 **Date Closed:** 02/27/2023
Investigator: Sean Hays **Reviewer:** Sharon Yukevich
Approver: Stephen Ridella
Subject: Seat Belt Webbing Failure

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Volkswagen Group of America, Inc.
Products: 2018 MY Tiguan
Population: 110,000 (Estimated)
Problem Description: Seat belt webbing separation during crash test.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	0	0	0
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	2	0	0

***Description of Other:** Seat belt webbing separation during two NCAP frontal crash tests.

ACTION / SUMMARY INFORMATION

Action: Close this Engineering Analysis (EA) - Recall 20V-724.

Summary:

In December 2017, NHTSA conducted two (2) New Car Assessment Program (NCAP) tests on the Model Year (MY) 2018 Volkswagen (VW) Tiguan. Both tests were 35mph full frontal impacts into a rigid barrier with a 50th percentile male dummy seat-belted in the driver position and a 5th percentile female seat-belted in the right front passenger position. The tests were conducted on December 8, 2017, at MGA Research Corp. (MGA) in Wisconsin and December 13, 2017, at the Transportation Research Center (TRC) of Ohio.

During both crash tests, the driver seat belt webbing completely separated at the point where the webbing loops through the Crash Locking Tongue (CLT). In both NCAP tests, the dummy injury criteria requirements, as set forth in Federal Motor Vehicle Safety Standard (FMVSS) 208, were met with one exception. The chest deceleration G force requirement was exceeded in the test conducted at TRC. The FMVSS 208 injury criteria requirement for the chest deceleration is 60 Gs and it was measured at 67 Gs in the test conducted at TRC.

It should be noted, FMVSS 208 does not include a requirement that the seat belt webbing remain intact during a frontal collision to comply with the standard. Compliance with the standard is based on the dummy injury criteria. Further, the Agency has conducted NCAP testing with no substantial protocol changes for over forty (40) years. This includes tests conducted prior and subsequent to the subject NCAP tests. During that time there has not been a similar failure of the seat belt webbing in any other NCAP tested vehicle manufactured by VW or another manufacturer.

In November 2020, VW filed a defect notice (20V-724/69BH) that recalled seat belt systems, both driver, and front passenger, that were manufactured with webbing from the same lot as the two NCAP tested MY2018 Tiguan vehicles. VW has tested and inspected several of the returned seat belt systems and found no anomalies in either the webbing or the CLT that would substantially affect system performance in a frontal collision.

The Office of Defects Investigation (ODI) estimates that between 2000 and 3500 frontal collisions involving MY2018 VW Tiguan vehicles have occurred in the field during the time these vehicles have been in service. This estimate is based on vehicle population and an estimated yearly rate of severe frontal collisions. A severe frontal collision is defined, in this instance, as being of sufficient severity to warrant a commanded deployment of the frontal air bags. These collisions would place a significant load on the seat belt system similar to loads experienced during the NCAP tests. To date, neither ODI nor VW is aware of any frontal collision in the field that resulted in separation of the seat belt webbing. ODI believes that had any field collisions involved separation of the seat belt webbing, the Agency would have been notified.

In view of the recall being conducted by VW, and lack of field data demonstrating a system defect, ODI is closing this Engineering Analysis (EA). 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 future circumstances.