



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
Investigator: Sharon Yukevich **Reviewer:** Gregory Magno
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	2

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

ACTION / SUMMARY INFORMATION

Action: Open Engineering Analysis (EA)

Summary:

In December 2017, NHTSA conducted two New Car Assessment Program (NCAP) tests on the 2018 MY Volkswagen (VW) Tiguan. Both tests were 35 mph, 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. in Wisconsin (MGA) and December 13, 2017 at the Transportation Research Center of Ohio (TRC).

During both crash tests, the driver seat belt webbing completely separated in tension where it looped through the seat belt latch tongue (see attached photos). Based on its analysis of the NCAP test results, VW asserted that the test dummy umbilical cord exerted additional forces on the seat belt system causing the separation. To support this theory, VW conducted several sled tests.

The Office of Defects Investigation (ODI) opened a Preliminary Evaluation (PE18-001) on 01/10/2018 to evaluate the two (2) incidents of seat belt separation. ODI and NCAP reviewed the sled test data submitted by VW in support of their theory. Micro analysis, conducted by the Materials Laboratory at the National Transportation Safety Board (NTSB), verified the seat belts failed in tension and not due to cuts or abrasion.

ODI is upgrading PE18-001 to an Engineering Analysis to further examine seat belt behavior in the subject vehicles and to determine, among other things, a root cause for the seat belt separation. ODI will perform a thorough review of any vehicle and seat belt design changes for the new 2018 MY Tiguan platform and their effects on the performance of the seat belt system.

Separated Seatbelt Webbing

TRC



MGA

