



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 15-020
Date Opened: 05/20/2015
Investigator: Chris Lash
Approver: Stephen Ridella
Subject: Wheel Separation
Date Closed: 01/04/2016
Reviewer: Jeff Quandt

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Ford Motor Company
Products: 2014 Ford Edge w/Sport Trim 22 inch alloy wheels
Population: 6,937
Problem Description: A wheel fracture could cause the circular face of the rim to separate, resulting in a sudden detachment of the wheel and tire from the vehicle.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	1	1**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: The preliminary evaluation is closed.

Summary:

On November 29, 2014, ODI received a complaint reporting the complete separation of an original equipment 22-inch alloy wheel rim mounted on the right front position of a model year 2014 Ford Edge vehicle (VOQ 10661278). The driver indicated that the right-front corner of the vehicle suddenly dropped while driving, causing the vehicle to go off the road to the right and into a field. The right-front wheel rim was found to have broken into two pieces. The owner said that there was no prior warning or wheel related problems with the vehicle. The vehicle had been driven approximately 8,500 miles at the time of the incident.

On May 29, 2015 ODI sent an information request to Ford asking for detailed information related to the specific 22 inch alloy wheel used on the Edge as well as any peer vehicles which used the same type of wheel. On July 17, 2015 Ford provided ODI with the requested information. Ford's search showed that the single incident reported to ODI is the only instance of a wheel failure on the subject or peer vehicles.

The failed wheel was sent to the National Transportation Service Board (NTSB) materials analysis laboratory for examination. The NTSB determined that the wheel failed because of a severe impact that caused a crack that rapidly propagated around the circumference of the wheel, "The rim fracture surface had a predominantly rough appearance consistent with an overstress fracture (rapid fracture) There were no abnormalities or unique features associated with the fracture initiation site." Metallurgical analysis of the rim found that the material was within specification and no anomalies were identified that could have contributed to the failure. See the full NTSB report for more details.

Based on the absence of additional failures and the results of the wheel material testing and failure analysis, this investigation is closed. The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. The Agency will continue to monitor complaints and other information relating to the alleged defect in the subject vehicles and take further action in the future if warranted.

The following VOQ is associated with this investigation: 10661278