



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

**Investigation:** PE 12-017  
**Date Opened:** 06/19/2012  
**Investigator:** Chris Lash  
**Approver:** Frank Borris  
**Subject:** Electric power steering failure

**Date Closed:** 06/12/2014  
**Reviewer:** Jeff Quandt

## MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** Ford Motor Company  
**Products:** 2011 - 2013 Ford Explorer  
**Population:** 179,027

**Problem Description:** The Electric Power Assisted Steering (EPAS) can suddenly fail while driving, resulting in increased steering effort.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
<b>Complaints:</b>	352	750	969**
<b>Crashes/Fires:</b>	3	15	15**
<b>Injury Incidents:</b>	1	0	1
<b>Number of Injuries:</b>	1	0	1
<b>Fatality Incidents:</b>	0	0	0
<b>Other*:</b>	0	4,059	4,059

\*Description of Other: Warranty claims

\*\* Total eliminates duplicates received by ODI and manufacturer.

## ACTION / SUMMARY INFORMATION

**Action:** This preliminary evaluation is closed. Recall 14V-286.

### Summary:

On May 27, 2014 and amended June 2, 2014, Ford Motor Company (Ford) submitted a Defect Information Report (DIR) to NHTSA describing a safety defect that may result in a sudden loss of power steering assist in approximately 179,027 model year (MY) 2011 through 2013 Ford Explorer vehicles equipped with electric power assisted steering (EPAS), including 82,328 MY 2011 Explorers that are the subject of PE12-017. Ford has assigned the recall number 14S06. The NHTSA recall number is 14V-286. Ford's DIR indicates that loss of power steering assist while driving would require higher steering effort at lower vehicle speeds, which may result in an increased risk of a crash.

Sudden loss of power steering assist while driving can occur in the subject vehicles if the system loses electrical power or whenever the system detects a fault that requires it to enter fail-safe mode, which removes power from the EPAS motor and defaults to manual steering. Ford's DIR indicates that the majority of steering assist failures in the recalled vehicles have been caused by an intermittent electrical connection in the Power Steering Control Module (PSCM) that can lead to a loss of the motor position sensor signal. Ford's remedy instructs dealers to check the PSCM for diagnostic trouble codes (DTC). If upon initial inspection a loss of steering assist DTC is present, dealers will replace the steering gear at no charge to the owner and update the PSCM with revised software. Following detection of a motor position sensor signal fault, the revised software will provide audible and visual warnings to the driver that a power steering system fault has been detected and will maintain steering assist for the remainder of that drive cycle. If no DTC is present, dealers will reprogram the PSCM with the revised software.

Analysis of information from all sources identified a total of 969 complaints and 4,059 warranty claims related to loss of

power steering assist while driving in the MY 2011 through 2012 Explorer vehicles, resulting in a complaint rate of 5.4 incidents per thousand vehicles and a warranty claim rate of 2.3 percent. ODI identified 15 crashes with evidence indicating loss of power steering assist may have been a factor. All 15 crashes involved low-speed impacts with roadside objects during turning maneuvers, resulting in minor vehicle damage or no damage. In one incident that occurred in a low-speed curve, the driver attempted to brake in response to the sudden increase in steering effort and inadvertently applied the accelerator pedal instead. This caused the vehicle to run off the side of the road and strike a wooden pole at approximately 15 mph. Another incident occurred when the driver was unable to negotiate a left-turn at an intersection and ran off the road into a shallow ditch, resulting in moderate front-end damage to the vehicle and minor injuries to the driver that did not require medical treatment.

This investigation is closed. All ODI complaints associated with this closing resume are listed in the Attachment 1.

All ODI complaints associated with PE12-017 closing resume are listed in this attachment.

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