



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 10-001
Prompted by: Consumer Complaints, PE09-046
Date Opened: 01/13/2010 **Date Closed:** 04/25/2011
Investigator: Peter Ong **Reviewer:** Scott Yon
Approver: Frank Borris
Subject: Inadvertent airbag deployment

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: FORD MOTOR COMPANY
Products: Model Year (MY) 2004-2006 Ford F-150 Pickups
Population: 1,563,098

Problem Description: The driver's side frontal airbag may deploy inadvertently (without a vehicle crash) due to electrical shorting of an airbag harness (the clockspring jumper wire).

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	37	281	318
Crashes/Fires:	0	0	0
Injury Incidents:	22	99	121
Number of Injuries:	22	99	121
Fatality Incidents:	0	0	0
Other*:	6	102	108

*Description of Other: Repairs for airbag warning light illumination with clockspring harness replacement.

ACTION / SUMMARY INFORMATION

Action: Close this Engineering Analysis (See recall campaign 11V-107 and its supplement for further details)

Summary:

ODI opened this investigation based on reports of inadvertent airbag deployment. Data provided by Ford indicated that the airbag clockspring jumper wire, which is situated inside the steering wheel assembly, was installed in a manner that would allow it to rub (abrade) against a sharp metal edge on the nearby horn plate. Because the horn plate is electrically grounded the abrasion of an airbag wire on the sharp edge could cause a short circuit condition. As a result the airbag light may illuminate and/or the airbag may inadvertently deploy. Inadvertent deployments are most likely to occur during the airbag system's self-diagnostic test that initiates when the ignition switch is turned on.

Ford modified the vehicle design in late January 2006 adding a protective tape over the sharp metal edge of the horn plate. Ford made additional design changes on MY 2007 vehicles to the horn plate, the clockspring jumper, and the connector layouts to further address this issue.

ODI identified 318 deployment incidents with 121 alleged injury reports from subject vehicles. All but one of the incident and injury reports occurred in vehicles built before the January 2006 modification. In addition, there was one incident and alleged injury reported in the MY 2006 Mark LT vehicles that share the same design.

In letters dated February 21 and April 11, 2011, Ford announced a recall of all of the approximately 1.3 million MY 2004-2006 F-150 vehicles built prior to January 24, 2006, the date the initial vehicle modification was made. In addition, approximately 14,000 MY 2006 Mark LT vehicles built prior to January 24, 2006 will also be recalled. Vehicles built after that date, which contain the modification, are not within the recall scope. Accordingly the investigation is closed.