



U.S. Department  
of Transportation

**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

Investigation: EA 09-013  
 Prompted By: PE09-020  
 Date Opened: 08/18/2009  
 Principal Investigator: Derek Rinehardt  
 Subject: Vehicle Rollaway Allegations

Manufacturer: Ford Motor Company  
 Products: MY 2002 – 2005 Ford Explorer/Mercury Mountaineer  
 Population: 1,500,000 (estimated)

Problem Description: Consumers are alleging unintended vehicle movement after the transmission is shifted to park.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	18	182	200
Crashes/Fires:	9	76	85
Injury Incidents:	4	27	31
# Injuries:	4	28	32
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	4	879	883

\*Description of Other: Consumer reports of alleged difficulty or inability to shift to park.

Action: An Engineering Analysis has been opened.

Engineer: Derek Rinehardt *DR*  
 Div. Chief: Jeffrey L. Quandt  
 Office Dir.: Kathleen C. DeMeter

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Summary: In response to an Information Request (IR) letter sent by the Office of Defects Investigation (ODI), Ford stated consumer reports of higher than expected efforts when shifting into and out of park could be a result of a groove being worn into the swing arm ramp of the steering column. The swing arm is a component bolted to the steering column that assists in shifting through the transmission gears. An engineering evaluation conducted by Ford of returned steering columns found the groove could be created over time if consumers shift more quickly from the drive or reverse to park than the brake shift interlock (BSI) solenoid pin retracts after the brake pedal is applied.

In November of 2004 Ford released a redesigned BSI solenoid with a shorter pin retracting time as a serviceable component. Ford has noted the shorter retraction time significantly lessens the likelihood of BSI solenoid pin to swing arm contact even with rapid consumer shifts. Ford also issued a Technical Service Bulletin, TSB 04-22-12, to instruct service technicians on the proper diagnosis and vehicle repair.

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Reviewing complaints to ODI and data submitted by Ford, ODI has identified 200 alleged incidents of unintended vehicle movement after consumers believe they have shifted the vehicle into park, resulting in 85 alleged crashes and 32 alleged injuries. In addition to the reports of alleged incidents of unintended vehicle movement, ODI has also identified 883 reports of consumers alleging difficulty or the inability to shift the vehicle into park.

Preliminary Evaluation PE09-020 has been upgraded to an Engineering Analysis to further assess the scope, frequency and risk to motor vehicle safety of the alleged defect in the subject vehicles.

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