



U.S. Department  
of Transportation  
**National Highway  
Traffic Safety  
Administration**

# ODI RESUME

Investigation: EA07-012  
 Prompted By: PE07-019  
 Date Opened: 08/14/2007  
 Principal Investigator: Derek Rinehardt  
 Subject: Front Differential/Driveshaft Failure

Manufacturer: Land Rover  
 Products: MY 2003-2005 Land Rover, Range Rover  
 Population: 36,910

Problem Description: Consumers are alleging failure of the front differential and/or the front driveshaft, resulting in a loss of propulsion and subsequent immobilization of the vehicle.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	56	135	187
Crashes/Fires:	0	1	1
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	4368	4368

\*Description of Other: Warranty claims of front differential/axle failure.

Action: An engineering analysis has been opened.

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

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Summary: In response to an information request letter sent by the Office of Defects Investigation (ODI), Ford stated that the primary cause for the majority of the reported front differential/drive shaft failures is a misalignment of the joint between the two components. Certain levels of misalignment may over time cause an uneven wear of the splines. Continued wear of the splines may result in a shearing of the splines and the inability of the driveshaft to transfer torque to the front differential.

To address the issue in the field, Ford initiated a service campaign in June 2003 to correct the misalignment issue and, if necessary, replace the front drive shaft and/or differential. The service campaign covered model year (MY) 2003 and 2004 vehicles built from April 18, 2002 through July 3, 2003. In production, Ford introduced a change to the lubricating grease of the joint in February 2003 and a change to the assembly plant alignment process in July 2003 to address the misalignment and wear issue.

ODI identified one crash related to the alleged defect. The crash involved a subject vehicle being struck in the rear after becoming disabled by a front differential/driveshaft failure and pulling to the side of the road.

Preliminary Evaluation PE07-019 has been upgraded to an Engineering Analysis to further assess the scope, frequency and safety consequences of front differential/driveshaft failures in the subject vehicle population.