

U.S. Department of Transportation

National Highway Traffic Safety Administration

## **ODI RESUME**

Investigation: EA06-008 Prompted By: PE06-004 Date Opened: 05/31/2006

Principal Investigator: Kyle Bowker

Subject: Front Suspension Ball Joint Separation

Manufacturer: DaimlerChrysler Corporation

Products: 2002-2006 Jeep Liberty

Population: 481,521

Problem Description: Alleged front suspension lower ball joint separation while driving.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	50	472	495
Crashes/Fires:	0	3	3
Injury Incidents:	0	3	3
# Injuries:	0	3	3
Fatality Incidents:	0	, 0	0
# Fatalities:	0	0	0
Other*:	0	2,150	2,150

<sup>\*</sup>Description Of Other: Warranty claims paid to replace or repair the front suspension lower ball joint for any or unspecified cause.

Action: An Engineering Analysis has been opened.

 Engineer:
 Kyle M. Bowker
 KMB
 Date:
 05/31/2006

 Div. Chief:
 Jeffrey L. Quandt
 Date:
 05/31/2006

 Office Dir.:
 Kathleen C. DeMeter
 Date:
 05/31/2006

Summary: On January 6, 2006, the Office of Defects Investigation (ODI) opened a Preliminary Evaluation to investigate alleged front suspension lower ball joint separation while driving in certain model year (MY) 2004 Jeep Liberty vehicles. ODI sent a letter to the manufacturer on February 7, 2006, requesting information about these and other Jeep Liberty vehicles. Based on the information reviewed in PE06-004, the range of subject vehicles under investigation has been expanded to include all MY 2002-06 Jeep Liberty vehicles that use the same or substantially similar front suspension lower ball joint.

ODI is aware of 495 non-duplicative complaints that allege involuntary front suspension lower ball joint separation in the subject vehicles. ODI is also aware of one non-injury crash and three alleged injury incidents (two crash incidents and one non-crash incident) related to the alleged defect resulting in minor injuries. It should be noted that the complaint counts reported above only include MY 2002-03 Liberty vehicles if it was determined the alleged ball joint separation occurred after prior recall repairs were performed (see below) or if the vehicle was not subject to the prior recall because its Vehicle Identification Number (VIN) fell outside the scope of affected vehicles identified by the manufacturer.

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## Summary continued:

The manufacturer conducted a prior safety recall (03V-460) to address the subject issue in certain MY 2002-03 Jeep Liberty vehicles. According to DaimlerChrysler's Defect Information Report to the agency (in accordance with 49 CFR Part 573) dated November 4, 2003, "the constant tension lower control arm ball joints may experience a loss of lubrication which can lead to corrosion, accelerated wear and possibly separation from the steering knuckle. A constant tension ball joint which has separated from the knuckle may result in loss of vehicle directional control with minimal advanced warning." The manufacturer has made numerous changes in the design, material composition, manufacture, quality control, supply, and installation of the subject ball joints since the prior safety recall was initiated in an effort to improve performance with respect to sealing, lubrication, and joint retention capability.

The manufacturer's investigation into alleged front suspension lower ball joint separation in the subject vehicles is ongoing. Accordingly, this investigation has been upgraded to an Engineering Analysis to further study the frequency and scope of the alleged defect and the adequacy of the remedy provided by the prior safety recall.