



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: DP 09-005
Prompted by: Defect Petition by the Center for Auto Safety
Date Opened: 11/06/2009 **Date Closed:** 08/23/2010
Investigator: Lawrence Hershman **Reviewer:** Scott Yon
Approver: Richard Boyd
Subject: Fuel Storage System Crash Related Fires

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: CHRYSLER GROUP LLC
Products: Model Years 1993-2004 Jeep Grand Cherokee
Population: 3,037,000 (Estimated)

Problem Description: Fuel tank presents fire hazard in crashes

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	12	0	12
Crashes/Fires:	12	0	12
Injury Incidents:	5	0	5
Number of Injuries:	9	0	9
Fatality Incidents:	1	0	1
Number of Fatalities:	1	0	1
Other*:	10	0	10

*Description of Other: FARS fatal rear-impact crashes where fire is the MHE, resulting in 13 occupant deaths.

ACTION / SUMMARY INFORMATION

Action: Grant the Defect Petition and open Preliminary Evaluation PE10-031.

Summary:

In a letter dated October 2, 2009, the Center for Auto Safety (CAS) petitioned NHTSA to open a defect investigation and recall model year 1993-2004 Jeep Grand Cherokees. CAS alleged that the subject vehicles have defective fuel tank storage systems that present a fire hazard in crashes.

CAS alleged that the plastic fuel tank's placement behind the rear axle and below the rear bumper, and the lack of adequate shielding, make it more vulnerable to rupture or leakage from a rear-impact by another vehicle (including damage from other components located on the Grand Cherokee), or in the case of rollover crashes, from other external objects. CAS also alleged that the fuel filler neck tears off in crashes. In its petition, CAS cites data from NHTSA's Fatality Analysis Reporting System (FARS) showing 172 fatal fire crashes with 254 fatalities involving the subject vehicles from calendar years 1992 through 2008. CAS stated that there have been at least 44 crashes with 64 total fatalities (subject and non-subject vehicles) where fire was entered as the Most Harmful Event (MHE) in the FARS database.

In response to the CAS petition, ODI made a preliminary examination of available data. FARS data showed 2,988 occupants of the subject vehicles have died in crashes since 1992. Of those, 55 died in 44 crashes where fire was listed as the Most Harmful Event. Identifying crashes most likely associated with the alleged defect as described by CAS (defined as the subject vehicle being struck at the 5, 6 or 7 o'clock positions) isolated 10 crashes with 13 occupant fatalities. ODI also reviewed the Vehicle Owner Questionnaires (VOQ) database and identified 12 reports alleging A) a post-crash fuel tank leak and/or B) a post-crash fire potentially related to a fuel tank leak. Of the 12 reports, 10 involved fires (two involved fuel leaks only) with 9 alleged injuries and 1 alleged fatality. The existence of these post-crash fires does not, by itself, establish a defect trend. Further review and investigation into these incidents

is needed to determine the existence of any relationship between the alleged defect and each fire or leak. It should be noted that ODI also conducted a preliminary review of the Early Warning Reporting (EWR) data that did not find the subject vehicles to be over-represented for post-crash fires.

ODI's initial review neither supports nor excludes the possibility that a defect exists in the subject vehicles. However, ODI has always taken the position that vehicle fires pose a significant safety risk. Accordingly, ODI has granted the petition to further investigate the conditions associated with post-crash fires in these vehicles.