



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 12-020
Date Opened: 07/19/2012
Investigator: Kareem Habib
Approver: Frank Borris
Subject: Power steering hose failure

Date Closed: 12/07/2012
Reviewer: Jeff Quandt

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Chrysler Group LLC
Products: MY 2012 Jeep Grand Cherokee
Population: 147,346

Problem Description: The power steering return hose may fail at the outlet of the power steering cooler due to excessive pressure resulting from a dislodged power steering cooler turbulator fin.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	2	24	24**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: This preliminary evaluation is closed.

Summary:

The Office of Defects Investigation (ODI) analyzed complaint data provided by Chrysler as well as complaints submitted to ODI from consumers. ODI's analysis identified a total of 24 unique reports indicating power steering hose blow-offs resulting from a dislodged power steering cooler turbulator fin in some early production vehicles. According to Chrysler, a dislodged fin can occur when the turbulator is inserted into the power steering cooler or loaded into the assembly machine. A dislodged fin may block the flow of power steering fluid creating excess back-pressure in the power steering system leading to the possibility of a return hose blow-off. Chrysler and its power steering cooler supplier, Dana, modified the cooler assembly process to address factors that may contribute to hose blow-offs. The redesigned turbulator assembly stations were completely implemented in production by April 2012.

During PE12-020, Chrysler identified occurrences where the power steering return hose may blow-off at the power steering cooler. This is a condition that typically occurs early in the life of the vehicle with 65% occurring at less than 2,000 miles and 96% occurring with less than 8,000 miles. The data also shows that 88% of the conditions occurred with less than 4 months in service. Over 50% of the blow-off complaints occurred on vehicles with build dates between November 22, 2011 and December 23, 2011. None of the conditions occurred with more than 12,000 miles or 7 months in service. Chrysler's complaint analysis indicates up-to 14 additional vehicles may experience the hose blow off condition.

None of the 24 unique reports with the hose blow-off condition alleged smoke or fire in the engine compartment. In the event of a blow-off, it is highly unlikely for power steering fluid to reach any of the ignition sources in the engine compartment and result in an engine fire. Complaint analysis identified five reports alleging engine compartment fires that resulted from other or unknown causes, including one attributed to an overheated transmission fluid. Two fires of unknown cause cited in the opening resume for PE12-020 involved vehicles equipped with V8 SRT 6.4L engines which are not equipped with the steering system affected by the turbulator fin concern. ODI will continue to monitor

field experience in Jeep Grand Cherokee vehicles equipped with that engine.

There have been no reports of loss of steering control, crashes or injuries as result of this condition. Additionally, all affected vehicles that may have experienced a hose blow-off condition were repaired under Chrysler's 3 year/36,000 mile manufacturer's warranty at no cost to the owner and supplier's process improvements put in place have eliminated the likelihood of power steering hose blow offs. There is no indication of loss of motive power or unreasonable safety risk associated with the alleged defect in the subject vehicles. This preliminary evaluation is closed.

The ODI reports cited above can be viewed at www-odi.nhtsa.dot.gov/complaints under the following identification numbers (ODI Nos.): 10465379, 10461736, 10459178.