# **DAIMLER CHRYSLER**

RECEIVED 2007 SEP. - 14 AM 9:00 DEFECTS INVESTIGATION RECALL MGMT DIV.

DaimlerChrysler Corporation
Stephan J. Speth
Director
Vehicle Compliance & Safety Affairs

September 11, 2007

Mr. Daniel C. Smith
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
West Building, Fourth Floor
Washington, D.C. 20590

07V-434 (3 Pages)

Dear Mr. Smith:

Attached is Chrysler LLC's ("Chrysler") Defect Information Report, complying with the requirements of 49 CFR Part 573, Defect and Noncompliance Reports, which contains details of a potential safety related defect in some 2006-2007 model year Jeep Grand Cherokee and Commander and 2007 model year Jeep Wrangler and Dodge Nitro vehicles. The software programmed into the anti-lock brake system (ABS) electronic control module may allow a momentary delay in braking when coasting up a hill during certain conditions. Chrysler will conduct a safety recall to reprogram the ABS electronic control module software on all affected vehicles.

Sincerely,

Steehaff I. Speth

Enclosure: Defect Information Report for Chrysler LLC Recall G40

cc: K.C. DeMeter, NHTSA

Division of Occupational Safety & Health California Department of Industrial Relations

### DEFECT INFORMATION REPORT FOR CHRYSLER LLC RECALL G40

Page 1

Submission date: September 11, 2007

## Identifying classification of vehicles potentially affected:

Make	Model	Model Year	Inclusive Dates of Manufacture	Volume (estimated)
Dodge	Nitro	2007	1/31/05 through	296,550
Jeep	Wrangler	1	7/12/07	
	Grand Cherokee,	2006-		
	Commander	2007		_

Estimated percentage containing defect: 100%

### **Description of defect:**

The software programmed into the ABS electronic control module may allow a momentary delay in braking when coasting up a hill during certain conditions. This could cause a crash without warning.

# The name, address and telephone number of the supplier who manufactured the subject components:

Continental Teves
1103 Jamestown Road
Morganton, NC 28655
828-584-5518

# The following chronology of principal events occurred between April and September of 2007 and led to the determination of a defect:

- In late April of 2007 Chrysler received several reports noting a hard pedal condition when braking on an uphill grade. Vehicles identified were from Pennsylvania and West Virginia.
- Chrysler and brake system supplier engineers traveled to Morgantown, Pennsylvania in May
  of 2007 to review the subject vehicles. The condition was unable to be reproduced and
  there were no warning lights set or stored diagnostic trouble codes.
- Chrysler Engineering instrumented two vehicles and returned to Pennsylvania. Two
  occurrences were captured and data files were sent to the supplier in June of 2007.
- The supplier analyzed the data and was eventually able to replicate this condition using grades at Chrysler's Chelsea, Michigan Proving Grounds.
- When the condition occurs, the brake pedal will at first be hard and there is a momentary delay in braking. The vehicle will then begin to decelerate. A vibration from ABS activity may also be felt in the pedal.

#### DEFECT INFORMATION REPORT FOR CHRYSLER LLC RECALL G40

Page 2

- Additional analysis in July and August of 2007 determined that an offset calibration added to
  the longitudinal acceleration sensor signal was calculated incorrectly for the ABS electronic
  control module. The offset calibration factor, when added to the longitudinal acceleration
  signal, was too small which allowed the condition to occur when the vehicle is braking on an
  8% to 10% uphill grade.
- The probability of occurrence is dependent upon pedal apply rate, vehicle speed, deceleration and coast time, along with the vehicle being operated on an 8% to 10% uphill grade.
- Investigation determined that the offset calibration was calculated correctly in the 2005 model year product, but an error occurred during revisions for the 2006 model year. The Jeep Wrangler and Dodge Nitro were new for the 2007 model year. The software was corrected for all potentially affected 2008 model year vehicles before release.
- The company is aware of one accident that appears potentially related to this condition.
- This data was presented to the Chrysler Vehicle Regulations Committee on September 4, 2007 who decided to conduct a safety recall to reprogram the ABS electronic control module software.

#### Statement of measures to be taken to correct defect:

Chrysler will reprogram the ABS electronic control module on the affected vehicle population with new software that prevents this condition. Chrysler expects to initiate national notification to both dealers and to owners in September of 2007.

Chrysler has a longstanding policy and practice of reimbursing owners who have incurred the cost of repairing a problem that subsequently becomes the subject of a field action. To ensure consistency, Chrysler, as part of the owner letter, will request that customers send original receipt and/or other adequate proof of payment to the company for confirmation of the expense.