DAIMLERCHRYSLER

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

April 6, 2004

Mr. Kenneth N. Weinstein
Associate Administrator, Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

04V-185
(4 pages)

Dear Mr. Weinstein:

Attached is DaimlerChrysler Corporation's 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 1998 through 2003 model year Dodge Ram full size vans equipped with 4-wheel antilock brake systems (ABS).

After an extensive investigation, DaimlerChrysler Corporation has determined that aftermarket batteries may leak electrolyte onto the ABS control module connector, which can compromise sealing integrity of the connector. This may allow development of a high resistive short circuit in the connector, which could eventually lead to a fire.

DaimlerChrysler Corporation will conduct a voluntary safety recall to inspect the ABS control module connector for electrolyte damage, and replace the connector as necessary. All affected vehicles will also have a shield installed to protect the connector from future battery electrolyte leakage.

Sincerely,

For

Stephan J. Speth

Enclosures: Defect Information Report for DaimlerChrysler Corporation Recall # D20

cc: K. C. DeMeter, NHTSA
Division of Occupational Safety & Health
California Department of Industrial Relations

DEFECT INFORMATION REPORT FOR DAIMLERCHRYSLER RECALL # D20

Submission date: April 6, 2004

Identifying classification of vehicles potentially affected:

Make	Model	Model Year	Inclusive Dates of Manufacture	Volume	Other
Dodge	Ram Van/Wagon	1998 - 2003	7/1/1997-6/30/2003 (estimate)	44,588 (estimate)	with 4-wheel antilock brake systems

Estimated percentage containing defect: Unknown

Description of defect:

Aftermarket batteries may leak electrolyte onto the antilock brake system (ABS) control module connector, which can compromise sealing integrity of the connector. This may allow development of a high resistive short circuit in the connector, which could eventually lead to a fire.

The following chronology of principal events occurred between September 2003 and March 2004 and led to the determination of a defect:

- In September 2003, DaimlerChrysler Corporation received a report from a fleet customer describing five minor under-hood vehicle fires involving 1998 – 2002 full size Ram vans equipped with 4-wheel ABS.
- In early October 2003, DaimlerChrysler Corporation reviewed one of the five vehicles. Investigation indicated that the fire initiated in the area of the front left corner of the vehicle near the battery.
- A report of an additional vehicle fire was received in mid-October 2003 from the same fleet.
- Initial investigation focused on the ABS hydraulic pump. Reports from the same fleet owner described an issue on a significant number of vehicles in which the ABS hydraulic pump would continue to run, independent of an ABS event and even after the vehicle was shut off, leading to higher than normal battery replacement. Pumps returned from vehicles involved in the fires were provided to the pump supplier for analysis in late October 2003.

- In early November 2003, DaimlerChrysler Corporation visited the fleet customer to review vehicle use data as well as one of the other subject fire vehicles.
- Between late November 2003 and February 2004, reports were received of four additional vehicle fires from the same fleet. Four other vehicles from the same fleet were also reported during this time frame to have ABS module connector damage, but no fire damage. Parts from these vehicles were returned to DaimlerChrysler Corporation for further analysis.
- Following extensive testing and analysis occurring between early November 2003 and late January 2004, the ABS hydraulic pump supplier established that pump run-on could not create conditions sufficient to cause any type of thermal degradation or a vehicle fire.
- Additional investigation during January and February of 2004 by DaimlerChrysler Corporation and the wire harness supplier subsequently determined that the fires originated at the vehicle wiring harness to ABS control module interface, located under the vehicle battery.
- PH paper testing of the vehicles involved in the fires showed the presence of battery electrolyte in the ABS module connectors. Connector analysis showed chemical traces and corrosion consistent with battery electrolyte damage.
- Component testing was conducted in February 2004. By placing varying concentrations of electrolyte onto ABS control module connectors, it was shown that degradation consistent with that seen on subject vehicles in the field could be reproduced.
- A battery survey of vehicles from the same fleet was completed in early February 2004 and found that 59% of aftermarket batteries leaked electrolyte from the vent system. The survey also found no OEM batteries which leaked electrolyte. Analysis of battery construction determined that OEM batteries typically utilize a heat-sealed vent, versus an aftermarket push-in vent design. Aftermarket battery leaks can occur between the vent barrel and the battery cover interface.
- Further investigation in late February and early March 2004 confirmed aftermarket batteries to be present in all vehicles involved in fires thought to be related to this condition.
- It was established that aftermarket battery electrolyte leakage can compromise the sealing integrity of the ABS control module connector, located under the battery, which may allow development of a high resistive short and eventually lead to a fire.
- A March 2004 review of vehicle change history showed that 1997 MY and earlier full size Ram vans with 4-wheel ABS contained a shield that covered the ABS electronic hydraulic control unit. This shield was removed during a redesign of the full size Ram van for the 1998 model year.
- The 2003 model year was the last year of production for the full size Ram van.
- DaimlerChrysler Corporation is aware of 10 full size Ram van fires, and 4 additional full size Ram vans with ABS module connector damage, that may relate to this issue.
- DaimlerChrysler Corporation is not aware of any injuries related to this issue.

- This data was presented to the Vehicle Regulations Committee who decided on March 30, 2004 to conduct a safety recall to repair the affected vehicles.

Statement of measures to be taken to correct defect:

DaimlerChrysler Corporation will conduct a voluntary safety recall to inspect the ABS control module connector for electrolyte damage, and replace the connector as necessary. All affected vehicles will also have a shield installed to protect the connector from future battery electrolyte leakage. DaimlerChrysler expects to initiate national notification to both dealers and owners when a sufficient quantity of parts becomes available. DaimlerChrysler's scheduling information for implementing this recall is not available at this time.

DaimlerChrysler Corporation 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, DaimlerChrysler Corporation, 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.