



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE05-020
Date Opened: 04/28/2005
Principal Investigator: Chris Lash
Subject: Unwanted ABS Brake Activation

Manufacturer: General Motors Corp.
Products: 1999-02 General Motors C/K series trucks in Salt Belt states
Population: 1,276,000 (estimated)

Problem Description: Stopping distances during low-speed (less than 10 mph) brake applications may increase due to corrosion build-up on ABS wheel speed sensor mounting surfaces.

FAILURE REPORT SUMMARY

| | ODI | Manufacturer | Total |
|---------------------|-----|--------------|-------|
| Complaints: | 120 | 0 | 0 |
| Crashes/Fires: | 22 | 0 | 0 |
| Injury Incidents: | 1 | 0 | 0 |
| # Injuries: | 4 | 0 | 0 |
| Fatality Incidents: | 0 | 0 | 0 |
| # Fatalities: | 0 | 0 | 0 |
| Other*: | 0 | 0 | 0 |

*Description Of Other:

Action: A Preliminary Evaluation has been opened.

Engineer: Christopher Lash *Orl*
Div. Chief: Jeffrey L. Quandt
Office Dir.: Kathleen C. DeMeter

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Summary: In November 2004, GM notified ODI that it was recalling approximately 150,000 model year 1999-2002 C/K model trucks in eastern Canada to correct a condition in the antilock brake system (ABS) that may result in unwanted ABS activation and increased stopping distances during low-speed brake applications. GM indicated that the condition can occur if corrosion forms under the wheel speed sensor and moves the sensor away from the integral speed-sensor toothed ring. The condition does not set any ABS codes nor does it illuminate the ABS warning lamp. GM's recall procedure involved removing the wheel speed sensors, cleaning the sensor mounting surfaces on the bearings, applying Zinc-X to the cleaned surfaces, greasing the mounting surfaces, reinstalling the speed sensors, and verifying that the wheel speed signal output voltages were within specification. GM reported a failure rate of 0.32 incidents per thousand vehicles in the vehicles covered by the recall in Canada. GM indicated that the corresponding rate in U.S. corrosion states was 0.03 IPTV and that it would continue to monitor that experience. ODI has received 120 complaints involving MY 1999-2002 C/K trucks in U.S. Salt Belt states, which appear to be related to the defect condition addressed by GM's safety recall in Canada. Twenty-two of the complaints allege that a crash occurred, including one that involved 6 vehicles and resulted in 4 injuries. A preliminary evaluation has been opened to assess the incident frequency and trend associated with the wheel speed sensor condition in the United States.

*Orl
VLS
4-28-05*