



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE07-023

Date Opened: 4/25/2007

Date Closed: 09/25/2007

Principal Investigator: Andrea Noel

Subject: Loss of Power Steering Assist

Manufacturer: General Motors Corporation

Products: MY 2005-2006 Pontiac G6

Population: 215,342

Problem Description: The Electronic Power Steering (EPS) system may fail and default.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	49	1,886	1,913
Crashes/Fires:	1	9	9
Injury Incidents:	1	1	1
# Injuries:	1	1	1
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	4,145	4,145

*Description Of Other: Warranty Claims

Action: This Preliminary Evaluation has been closed.

Engineer: Andrea Noel *A.N.* 10/01/07

Date: 09/25/2007

Div. Chief: Jeffrey L. Quandt

Date: 09/25/2007

Office Dir.: Kathleen C. DeMeter

Date: 09/25/2007

Summary: During this investigation, General Motors (GM) indicated that approximately 15,600 Model Year (MY) 2005 Pontiac G6 vehicles built from November 3, 2004 through January 5, 2005 may experience a loss of power steering assist due to an insufficient crimp at the torque and position sensor transducer located in the steering column assembly. GM has indicated that it will send letters to the owners of these vehicles to inform them that it will extend the warranty coverage for the EPS system in their vehicles to 7 years or 70,000 miles. Statistical analysis of the failures in the population affected by the wiring crimp problem indicates that the problem is an early life failure that should occur within the terms of the extended coverage.

GM's investigation of EPS failures in the subject vehicles identified a problem with the connector crimps during the two month production range covered by the warranty extension. During this period the crimps may be asymmetrical, resulting in inadequate pressure on the wire that can lead to electrical noise in the signal from the sensor to the controller. The controller may interpret this electrical noise as a malfunction of the system and default to manual mode (i.e., turn off the EPS system). If the power steering assist is lost, the Driver Information Center (DIC) displays a power steering warning message, a chime is sounded, and the service vehicle soon light will illuminate. In manual mode the steering requires increased effort, especially at speeds less than 20 miles per hour (mph).

continued

ODI's analysis of the failure data show that approximately 30 percent of the complaints and field reports (569 of 1913) involve vehicles built in the range covered by GM's extended policy, which account for only about 7 percent of the subject vehicle population. The complaint rate for the non-peak months is relatively high, at 673 per 100,000 vehicles. The rate for the peak months is 5 times higher at 3,645 per 100,000 vehicles. Similar differences are evident in the warranty data, with approximately 27 percent of the EPS warranty claims (1120 of 4145) involving vehicles built in the peak months. The warranty rate for the non-peak months is 1.5% and the rate for the peak months is 7.2%.

ODI identified 9 crashes that are potentially related to EPS system failure in the subject vehicles. The crashes occurred at low speeds, such as driveway and parking lot type maneuvers. The crashes resulted in one alleged injury, but ODI was unable to obtain information about the type or severity of the injury. None of the crashes involve vehicles built in the two month period covered by GM's extended warranty coverage.

The subject vehicles use the same EPS system as the MY 2004 Chevrolet Malibu vehicles investigated by ODI in EA04-018. Although the failure rates are high in this investigation, particularly for the peak months, they are significantly lower than for the Malibu vehicles investigated in EA04-018. As in those vehicles, the effects on steering effort are small at speeds greater than 15-20 mph. Accordingly, this investigation is closed. The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. The agency will continue to monitor complaints and information relating to the alleged defect in the subject vehicles and take further action in the future if warranted.

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