



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

ODI RESUME

Investigation: PE03-042
 Prompted By: IE03-042, Consumer Complaints
 Date Opened: 09/17/2003 Date Closed: 01/06/2004
 Principal Investigator: Kyle Bowker
 Subject: Windshield Wiper Failure

Manufacturer: General Motors Corp.
 Products: 2002-03 GMT360 and GMT370 (Built Prior To November 2, 2002)
 Population: 578,157

Problem Description: Windshield wipers fail to operate while driving.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	20	1,194	1,172
Crashes/Fires:	0	2	2
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	43,219	43,219

*Description of Other: GM warranty claims. See summary for further detail.

Action: This Preliminary Evaluation has been upgraded to an Engineering Analysis (EA04-002).

Engineer: Kyle M. Bowker KMB
 Div. Chief: Jeffrey L. Quandt
 Office Dir.: Kathleen C. DeMeter

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Summary: The subject vehicles (Chevrolet Trailblazer (EXT), GMC Envoy (XL), and Oldsmobile Bravada) are built on the GMT360 and GMT370 platforms and were originally equipped with a windshield wiper assembly referred to as the "Family" design module (p/n 15171306 base, p/n 15171307 for vehicles equipped with Rainsense automatic moisture sensitive wipers). The windshield wiper assembly is located inside the plenum at the base of the windshield and is mounted on an incline approximately equal to the rake of the windshield. GM reports that vehicles are subject to a quality assurance water test at the assembly plant. The test exposes the vehicles to an amount of water that exceeds the plenum's capability to divert water away from the wiper module, allowing water to rise to a level that exceeds the height of the windshield wiper motor cover vent hole. Water enters through the vent hole then flows down to the bottom of the module and pools causing the electrical components on the control circuit board to corrode and short out, thus rendering the wiper motor/module inoperative.

On November 2, 2002 GM introduced into vehicle production a redesigned windshield wiper assembly referred to as the "Global" design module (p/n 15094704 base, p/n 15094705 for vehicles equipped with Rainsense) that uses a polytetrafluoroethylene membrane covered vent hole to control water intrusion. There are a total of 1,172 non-duplicative owner and field reports alleging windshield wiper failure, two vehicle crashes allegedly caused by windshield wiper failure, and 43,219 warranty claims for windshield wiper assembly or wiper control module replacement on vehicles originally equipped with the "Family" design module. This Preliminary Evaluation has been upgraded to an Engineering Analysis (EA04-002) to further study the scope and safety consequences of this issue.

KMB
1/7/04