

April 28, 2006

Jeffrey L. Quandt, Chief
Vehicle Control Division
Office of Defects Investigation
NHTSA Enforcement
Room #5326
400 Seventh Street, S.W.
Washington, D.C. 20590

GM-686 Supplement 1

NVS-213cla
PE06-006

Dear Mr. Quandt:

This is a supplement to General Motors' (GM) letter, dated April 12, 2006, in response to your information request (IR), dated February 16, 2006, regarding alleged timing chain failure resulting in engine stall while driving on 2000-2003MY Saturn L-series vehicles, 2002-2003MY Saturn Vue vehicles, and 2003MY Saturn Ion vehicles equipped with the 2.2L engine (L61) manufactured for sale or lease in the United States.

In its response, GM provided field reports and warranty claims for two categories, "Stall while driving" and "Other". The "Other" category contained reports/claims where the claim comments mentioned stall, engine quit/ died, no start, or the timing chain broke/ replaced, but there was no information to determine if this occurred when the vehicle was parked or if the engine stalled while driving. GM's judgment is that the majority of these warranty incidents occurred while the vehicle was parked since the timing chain is more likely to break during high chain load situations, such as engine startup. It is possible that a small percentage of the claims in the "Others" category may have experienced the alleged defect. A realistic IPTV for the alleged defect is somewhere between the "Stall while driving" figures and the "Other" figures. Therefore, all analyses included each category separately and combined.

In response to question 14 of the IR, GM discussed the results of a warranty analysis for 2001MY L-series vehicles built from November 2000 through February 2001. GM has completed another analysis for the same vehicles and time period using the combined warranty data and field report data from question 2. See Table 1 below.

"Stall while driving", 4 month build period	12 month cumulative IPTV	24 month Cumulative IPTV	Estimated IPTV by mileage	Weibull Slope*
Warranty claims	0.49	1.93	8.64 at 100,000 miles	0.84
Warranty claims and field reports	0.50	2.22	8.06 at 70,000 miles/ 5 years	0.83

TABLE 1: WEIBULL ANALYSIS RESULTS

* The Weibull slope for the estimated IPTV by mileage is less than 1 indicating that the incidents are at a decreasing rate.

GM is providing this information in the Attachment 1 CD-Confidential, in the folder labeled "Warranty and Field Report Analysis". Utilizing the available warranty data, the estimated 2001MY L-series fleet average mileage is 70,500 miles and the fleet average age is 60.5 months or 5 years.

GM is also providing a warranty analysis for 2000-2003MY L-series minus the 4 month build period. The cumulative IPTV at 5 years is 0.80 for "Stall while driving" and 12.23 for "Other". This

information is provided in the Attachment 1 CD- Confidential, in the folder labeled "Warranty and Field Report Analysis".

In reference to question 8 (Action 8H, Engine Validation), GM has received the low speed durability test report for the original engine design, timing chain, and oil nozzle performed by the supplier. GM is providing this report on the Attachment 2 CD, in the folder labeled "Low speed durability test".

Please contact me if you require further information about this response.

Sincerely,



Gay P. Kent
Director
Product Investigations

Attachments