



August 28, 2008

Jeffrey L. Quandt, Chief
Vehicle Control Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Ave., S. E., Room W48-307
Washington, D.C. 20590

N080292A

NVS-213kmb
EA08-026

Dear Mr. Quandt:

This letter is General Motors (GM) response to your information request (IR), dated July 20, 2009 to investigate allegations of front suspension coil spring fracture in certain model year (MY) 2003 through 2006 Saab 9-3 vehicles manufactured by General Motors Corporation. The response includes only additional reports and claims (with the exception of MIC and UWC extended service contracts) not previously included in GM's response to PE08-051 sent November 10, 2008.

Your questions and our corresponding replies are as follows:

1. **State the number of each of the following, received by GM, or of which GM is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:**
 - a. **Consumer complaints, including those from fleet operators;**
 - b. **Field reports, including dealer field reports;**
 - c. **Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;**
 - d. **Property damage claims;**
 - e. **Third-party arbitration proceedings where GM is or was a party to the arbitration; and**
 - f. **Lawsuits, both pending and closed, in which GM is or was a defendant or codefendant.**

For subparts "a" through "d," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer

complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and GM's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

Table 1-1 below summarizes records that may relate to the subject condition that GM received after the records were gathered for the PE response sent on November 10, 2008. GM has organized the records by the GM file number within each attachment.

TYPE OF REPORT	GM REPORTS	SUBCATEGORIES			
		CORRESPONDING TO NHTSA REPORTS	NUMBER WITH PROPERTY DAMAGE	NUMBER WITH CRASH	NUMBER WITH INJURIES/FATALITIES
Owner Reports	57	6	0	0	0
Field Reports	2	0	0	0	0
Not-In-Suit Claims	0	0	0	0	0
Subrogation Claims	0	0	0	0	0
Third Party Arbitration Proceedings	0	0	0	0	0
Product Liability Lawsuits	0	0	0	0	0
Total Reports (Including Duplicates)	59	6	0	0	0
Total Vehicles with Reports (Unique VIN)	59	6	0	0	0

TABLE 1-1: REPORT BREAKDOWN FOR SUBJECT VEHICLES

To date, GM's investigation of the alleged defect has not included an assessment of the cause(s) of each incident responsive to Request No. 1. Some incident reports may not contain sufficient reliable information to accurately assess cause.

The sources of the requested information and the last date the searches were conducted are tabulated in Table 1-2 below.

SOURCE SYSTEM	LAST DATE GATHERED
Customer Assistance Center	7/23/2009
Technical Assistance Center	7/30/2009
Field Information Network Database (FIND)	7/24/2009
Company Vehicle Evaluation Program (CVEP)	7/22/2009
Field Product Report Database (FPRD)	7/23/2009
Legal / Employee Self Insured Services (ESIS)	7/22/2009

TABLE 1-2: DATA SOURCES

2. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 1, state the following information:
- GM's file number or other identifier used;
 - The category of the item, as identified in Request No. 1 (i.e., consumer complaint, field report, etc.);
 - Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
 - Vehicle's VIN;
 - Vehicle's make, model and model year;
 - Vehicle's mileage at time of incident;
 - Incident date;
 - Report or claim date;
 - Whether coil spring/ tire contact is alleged;
 - Whether a tire puncture is alleged;
 - Whether a crash is alleged;
 - Whether property damage is alleged;
 - Number of alleged injuries, if any; and
 - Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

The requested information is provided on the Att_1_GM disk in the folder labeled Q_02 refer to the Microsoft Access 2000 file labeled, "Q_02_REQUEST NUMBER TWO DATA".

3. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method GM used for organizing the documents.

Copies of the records summarized in Table 1-1 are on the Att_1_GM disk embedded in the folder labeled Q_02; refer to the Microsoft Access 2000 file

labeled, "Q_02_REQUEST NUMBER TWO DATA". GM has organized the records by the GM file number within each attachment.

- 4. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by GM to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.**

Separately, for each such claim, state the following information:

- a. GM's claim number;**
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;**
- c. VIN;**
- d. Repair date;**
- e. Vehicle mileage at time of repair;**
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;**
- g. Labor operation number;**
- h. Problem code;**
- i. Replacement part number(s) and description(s);**
- j. Concern stated by customer;**
- k. Comment, if any, by dealer/technician relating to claim and/or repair;**
- l. Whether coil spring/ tire contact is alleged; and**
- m. Whether a tire puncture is alleged.**

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA."

Tables 4-1 and 4-2 summarize the regular warranty and MIC and UWC Service Contract Claims for the subject vehicles that were collected by searching the labor codes that are related to the alleged defect. These tables include only additional claims that may relate to the subject condition that were received after records were gathered for the PE response sent on November 10, 2008. A summary of the warranty claims, including the information requested in 4(a-k), is provided on the Att_1_GM disk in the folder labeled Q_04; refer to the Microsoft Access 2000 file labeled, "Q_04_WARRANTY DATA."

MAKE	MODEL	2003	2004	2005	2006	TOTAL
Saab	9-3	298	474	372	314	1458

TABLE 4-1 REGULAR WARRANTY CLAIMS

MAKE	MODEL	2003	2004	2005	2006	TOTAL
Saab	9-3	22	24	5	2	53

TABLE 4-2 MIC AND UWC SERVICE CONTRACT CLAIMS

The sources of the requested information and the last date the searches were conducted are tabulated in Table 4-3 below.

SOURCE SYSTEM	LAST DATE GATHERED
Saab Cars USA - regular warranty	8/17/2009
Motors Insurance Corporation (MIC) - Service Contract Claims	7/28/2009
Universal Warranty Corporation (UWC) - Service Contract Claims	7/23/2009

TABLE 4-3: DATA SOURCES

The warranty data provided has limited analytical value in analyzing the field performance of a motor vehicle component. The warranty records do not contain sufficient information to establish the condition of the part at the time of the warranty correction, and service personnel may not consistently use the appropriate labor and trouble codes. Warranty numbers represent claims by our dealers for reimbursement for parts and labor costs incurred in performing warranty service for our customers.

The Saab Cars USA, Inc warranty database does not contain the following information: vehicle owner's name or telephone number, replacement part number description, or customer concern statement. GM is providing a field labeled "Verbatim Text" in response to request Question 4-k (dealer/technician comment) when included in the warranty claim.

The Motors Insurance Corp (MIC) Service Contract Claim system does not contain the vehicle owner information. The Universal Warranty Corporation (UWC) Service Contract Claim system does not use the GM labor code or labor code description and it does not contain the repairing dealer code, trouble code or trouble code description.

5. Describe in detail the search criteria used by GM to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by GM on the subject vehicles (i.e., the number of months and mileage for which coverage is

provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that GM offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

GM searched the Saab Cars USA database and the MIC Service Contract Claims database using the labor codes listed in table 5-1. The Saab Cars USA database includes verbatims for each claim. GM reviewed the verbatim for the claims that included the labor code and included those claims that stated the coil spring fractured. GM did not use trouble codes or customer codes to search for claims that may be related to the alleged condition. GM reviewed the verbatims in the UWC "Claim Note" and "Cause" fields of the data and included those claims that stated the coil spring fractured. UWC does not use labor codes or trouble codes.

LABOR CODE	DESCRIPTION:
73111	SPRING, FRONT
E3020	Springs, Front Coil - Right - Replace
E3021	Springs, Front Coil - Left - Replace
E3027	Springs, Front Coil - Both - Replace
Z1241	Product Liability/Investigation REP PR (Goodwill)
Z1242	PAR - Repairs/Reimbursement (Goodwill)

TABLE 5-1 LABOR CODES USED IN WARRANTY SEARCH

The subject vehicles are covered by a bumper-to-bumper new vehicle warranty for four years or 50,000 miles whichever occurs first. Many different extended service coverage options are available through GM/Saab dealerships. They are offered at different prices and for varying lengths of time, based on customer's preference, up to 7 years from the date of purchase or up to a total of 100,000 vehicle miles.

The total number of extended service contracts on the subject vehicles that have been sold by MIC and UWC regardless of status (in-force, expired, cancelled) as of July 23, 2009 is contained in Tables 5-2 and 5-3.

MAKE	MODEL	2003	2004	2005	2006	TOTAL
Saab	9-3	1319	1349	733	1059	4460

TABLE 5-2: MIC EXTENDED SERVICE COVERAGE CONTRACTS SOLD

MAKE	MODEL	2003	2004	2005	2006	TOTAL
Saab	9-3	42	72	127	168	409

TABLE 5-3: UWC EXTENDED SERVICE COVERAGE CONTRACTS SOLD

6. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that GM has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that GM is planning to issue within the next 120 days.

GM has not created any service bulletins related to the subject condition in the subject vehicles since the PE response.

GM may create additional dealer communication within the next 120 days, but at this time, no draft communications have been created.

The data collection was completed on August 21, 2009.

7. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, GM. For each such action, provide the following information:
- Action title or identifier;
 - The actual or planned start date;
 - The actual or expected end date;
 - Brief summary of the subject and objective of the action;
 - Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
 - A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

Action 7-1: Data Analysis
Start Date: October 2008
End Date: August 2009
Engineering Group: GM Engineering
Attachments: Att_2_GM_CONF Disk in the Response to Question 7, Action 7-1 Data Analysis\Analysis Comparison Study folder
Description: GM studied various analysis methods (Weibull and GART prognosis algorithm) to determine the best methodology to predict future coil spring fractures that may lead to tire damage or air loss.
Summary: GM Engineering determined that the use of GM's GART prognosis algorithm was the best method for determining current and future coil spring failures. The result of this analysis is used in GM's summary of this issue.

<p>Action 7-2: Presentations of investigation, analysis and engineering changes Start Date: October 2008 End Date: August 2009 Engineering Group: GM Engineering Attachment: Att_2_GM_CONF Disk in the Response to Question 7, Action 7-2 GM Presentations folder. Description: GMs investigation, analysis and rate projection and presentations of coil spring failures that may lead to tire damage or air loss Summary: The incident rate for tire air loss related to fractured coil springs is shown in the attachments</p>
<p>Action 7-3: Component Information and Analysis Start Date: October 2008 End Date: June 2009 Engineering Group: GM Engineering Attachments: Att_2_GM_CONF Disk in the Response to Question 7, Action 7-3 Component Information folder Description: GM Engineering reviewed potential changes to address incidents of front coil spring fractures in the subject vehicles. GM also analyzed warranty return coil springs that fractured in the field. Summary: GM determined that installation of a zinc washer between the coil spring and spring seat will address coil spring fractures. The failed coil spring analysis report is included in the attachment.</p>
<p>Action 7-4: Action 7-4 PE Data Analysis Update Start Date: August 2009 End Date: August 2009 Engineering Group: GM Engineering Attachments: Att_2_GM_CONF Disk in the Response to Question 7, Action 7-4 PE Data Analysis Update folder Description: GM is providing a corrected table regarding coil spring fractures and those that may cause tire air loss that was previously provided in the PE response on the Att_2_GM_CONF Disk in folder Response to Q_08 GM Investigation/Warranty Analysis, filename Q_08_Spring IPTV 36MIS_72MIS_120MIS.pdf. Summary: GM determined that the chart was incorrectly labeled in the PE response. The corrected Table for 3, 6 and 10 years is shown in the attached file. See Action 7-2 for GMs latest incident rate projections.</p>

The data collection was completed on August 26, 2009.

In total, for the Preliminary Evaluation (PE08-051) and this EA response, GM found a total of 2,735 GM reports, regular warranty claims and extended service contract claims (unique VIN) for front coil spring fractures in the 2003 - 2006 MY Saab 9-3 vehicles operated in the corrosion states. Of the 2,735 incidents in corrosion states, 93% had no indication of tire damage.

The overall rate for fractured coil springs in the corrosion states, for the 2003 – 2006 MY Saab 9-3 vehicles that cause air loss is 3.18 IPTV for the subject vehicles with an average exposure of more than 5 years.

In summary, GM does not believe the subject condition presents an unreasonable risk to motor vehicle safety for the following reasons:

- The driver will likely have warning that service is required because:
- The vehicle ride height may be lower from 0.4 – 2 inches.
- The likelihood for suspension noises associated with the alleged condition.
- Vehicle steering and handling characteristics including ride comfort may change
- The rate for tire air loss related to coil spring fracture continues to remain low.
- Based on GM test results under a variety of conditions, vehicle control was maintained during rapid tire air loss.

- All subject vehicles are equipped with the ESP/Stabilitrak system as standard equipment.
- To date, GM has found no crashes or injuries related to the alleged condition.

* * *

This response is based on searches of General Motors (GM) locations where documents determined to be responsive to your request would ordinarily be found. As a result, the scope of this search did not include, nor could it reasonably include, "all of their divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of GM (including all business units and persons previously referred to), who are or, in or after January 1, 2002, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
- b. Testing, assessment or evaluation;
- c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
- d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers."

This response was compiled and prepared by this office upon review of the documents produced by various GM locations, and does not include documents generated or received at those GM locations subsequent to their searches.

Please contact me if you require further information about this response or the nature or scope of our searches.

Sincerely,



Gay P. Kent
Director
Product Investigations

Attachments