



GENERAL MOTORS LLC  
Global Interior and Safety Center

February 10, 2012

Scott Yon, Chief  
Vehicle Integrity Division  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
1200 New Jersey Ave, SE, Room W46-409  
Washington, DC 20590

N110359

NVS-212eer  
PE11-040

Dear Mr. Yon:

This letter is General Motors (GM) response to your preliminary evaluation (PE11-040), dated December 28, 2011, to investigate allegations of failure of the fuel filler pipe on model year (MY) 2003 Chevrolet Express vehicles with a left side passenger door manufactured by General Motors Company, and to request certain information.

Your requests and our corresponding replies are as follows:

1. **State, by model and model year, the number of subject vehicles GM has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by GM, state the following:**
  - a. **Vehicle identification number (VIN);**
  - b. **Make;**
  - c. **Model;**
  - d. **Model year;**
  - e. **Date of manufacture;**
  - f. **Date warranty coverage commenced;**
  - g. **The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).**

**Provide the table in Microsoft Access 2007, or a compatible format, entitled "PRODUCTION DATA."**

The 2003 MY Chevrolet Express and GMC Savana vans with the optional left hand side door and the 2004 MY Chevrolet Express and GMC Savana vans with V6 engines and the optional left hand side doors utilize the same (or substantially similar) subject component.



General Motors is providing the number of subject vehicles produced for sale or lease in the United States by make, model and model year in Table 1 below:

Make/Model	2003 MY	2004 MY	TOTAL
Chevrolet Express	11,398	964	12,362
GMC Savana	5,244	198	5,442
Total	16,642	1,162	17,804

TABLE 1: SUBJECT VEHICLE PRODUCTION

The production information requested in 1a – 1g is provided on the ATT\_1\_GM disk; folder labeled "Q\_01". Refer to the Microsoft Access file labeled: "Q\_01\_PRODUCTION DATA".

2. **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;**
  - b. **Field reports, including dealer field reports;**
  - c. **Reports involving a fire, 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 component, 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 "c" through "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 2-1 summarizes records with allegations of fuel filler pipe failure that may be related to the alleged defect in the subject vehicles. GM has organized the records by the GM file number within each attachment. Refer to access database "Q\_03\_COMPLAINT\_2\_Data" included on the ATT\_1\_GM disk.

There are six (6) records that are not included in Table 2-1, that have been provided on the ATT\_1\_GM disk in the folder labeled, "Q\_03\_COMPLAINT\_2\_Data". These additional records include replacement of the subject component, but do not include enough information to determine if they are related to the alleged defect.

TYPE OF REPORT	GM REPORTS	SUBCATEGORIES			
		CORRESPONDING TO NHTSA REPORTS	NUMBER WITH PROPERTY DAMAGE	NUMBER WITH CRASH	NUMBER WITH INJURIES/FATALITIES
Owner Reports	24	0	0	0	0/0
Field Reports	1	0	0	0	0/0
Not-In-Suit Claims	0	0	0	0	0/0
Subrogation Claims	0	0	0	0	0/0
Third Party Arbitration Proceedings	0	0	0	0	0/0
Product Liability Lawsuits	0	0	0	0	0/0
Total Reports (Including Duplicates)	25	0	0	0	0/0
Total Vehicles with Reports (Unique VIN)	25	0	0	0	0/0

TABLE 2-1: ALLEGATIONS OF FUEL FILLER PIPE FAILURE THAT MAY RELATE TO THE ALLEGED DEFECT

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

SOURCE SYSTEM	LAST DATE GATHERED
Customer Assistance Center	1/10/2012
Technical Assistance Center	1/12/2012
Field Information Network Database (FIND)	2/1/2012
Field Product Report Database (FPRD)	1/24/2012
Company Vehicle Evaluation Program (CVEP)	1/31/2012
Captured Test Fleet (CTF)	1/31/2012
Early Quality Feedback (EQF)	1/31/2012
Legal/Employee Self Insured Services (ESIS)/Product Liability Claims/Lawsuits	1/17/2012

TABLE 2-2: DATA SOURCES

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

**Provide this information in Microsoft Access 2007, or a compatible format, entitled "REQUEST NUMBER TWO DATA."**

The requested information is provided on the ATT\_1\_GM disk; folder labeled "Q\_03". Refer to "Q\_03\_COMPLAINT\_2\_DATA".

- 4. 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 2-1 are embedded in the file provided in ATT\_1\_GM disk; folder labeled "Q\_03". Refer to the Microsoft Access file labeled "Q\_03\_COMPLAINT\_2\_DATA". GM has organized the records by the GM file number within each attachment.

- 5. 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 or replacement 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. Whether the claim occurred subsequent to a recall repair;
- k. Concern stated by customer; and
- l. Comment, if any, by dealer/technician relating to claim and/or repair or replacement.

Provide this information in Microsoft Access 2007, or a compatible format, entitled "WARRANTY DATA."

Table 5-1 summarizes regular warranty claims, MIC extended service contract claims and UWC extended service contract claims of fuel filler pipe replacement that may be related to the alleged defect in the subject vehicles. GM has organized the records by the GM file number within each attachment. Refer to access database "Q\_05\_Warranty\_Data" included on the ATT\_1\_GM disk.

There are additional warranty claim records included in the access database "Q\_05\_Warranty\_Data" on the ATT\_1\_GM disk that are not included in Table 5-1. These additional claim records include replacement of the subject component, but do not include enough information to determine if they are related to the alleged defect.

MODEL YEAR	MAKE	MODEL	NUMBER OF CLAIMS			
			REGULAR	MIC	UWC	TOTAL
2003	Chevrolet	Express	14	26	5	45
	GMC	Savanna	10	11	3	24
2004	Chevrolet	Express	0	1	0	1
	GMC	Savanna	0	0	0	0
TOTAL			24	38	8	70

TABLE 5-1: REGULAR WARRANTY CLAIMS, MIC EXTENDED SERVICE CONTRACT CLAIMS, AND UWC EXTENDED SERVICE CONTRACT CLAIMS

The sources of the requested information and the last date the searches were conducted are tabulated in Table 5-2 below.

SOURCE SYSTEM	LAST DATE GATHERED
GART - Regular Warranty	1/9/2012
Motors Insurance Corporation (MIC) - Service Contract Claims	2/8/2012
Universal Warranty Corporation (UWC) - Service Contract Claims	1/10/2012

TABLE 5-2: DATA SOURCES

For this response, GM searched the GM Global Analysis and Reporting Tool (GART-regular warranty), the Motors Insurance Corporation (MIC- service contract claims) and the Universal Warranty Corporation (UWC- service contract claims) databases to collect the warranty and service contract claims data.

GM's warranty database does not contain the vehicle owner's name or telephone number. Some of the replacement part numbers; part descriptions and customer concern code descriptions are not included in the GM warranty database. GM is providing a field labeled "Verbatim Text". The verbatim text is an optional field in the GM warranty system for the dealer to enter any additional comments that may be applicable to the warranty claim. The verbatim text field is not required to be completed for every warranty claim.

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.

A summary of the GM warranty and goodwill claims, MIC/UWC service contract claims and MIC goodwill claims for the subject vehicles, including the information requested in 5(a-k), is provided on the Att\_1\_GM disk in the folder labeled "Q\_05"; refer to the Microsoft Access file labeled, "Q\_05\_WARRANTY DATA".

- 6. 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.**

For this response, GM searched the labor codes listed in Table 6-1 which are used for fuel filler neck replacement.

L1040	Neck, Fuel Tank Filler - Replace
L1063	FUEL TNK FILLER NECK HOSE &/OR VENT HOSE - RPL
L1065	Neck, Hose And/Or Vent Hose, Fuel Tank Filler - Left Tank - Replace
L1068	Neck, Hose And/Or Vent Hose, Fuel Tank Filler - Replace
L1100	Hose, Fuel Tank Filler Neck - Replace
L9716	Replace Fuel Tank Fill Pipe and Cap

TABLE 6-1: LABOR CODES USED IN REGULAR WARRANTY AND MIC SEARCH

After identifying claims using the above labor codes, each claim, including any available verbatim description, was reviewed to determine if the claim may be related to the alleged defect. Numerous factors were considered in totality in making this determination. These included any mention of corrosion or rust, identification of the fuel fill pipe as the causal part number, causal part replacement cost, mention of a leak or hole, indication that a Check Engine Malfunction Indicator Light (MIL) had come on, and the length of time that the vehicle had been in service.

Universal Warranty Corporation (UWC) does not use labor codes or trouble codes.

The number of extended service contracts on the subject vehicles that have been sold by MIC as of February 8, 2012 and UWC as of January 10, 2012 regardless of status (in-force, expired or cancelled) is contained in Table 6-2.

Make	Model	MY	MIC	UWC
Chevrolet	Express	2003	253	62
Chevrolet	Express	2004	15	3
GMC	Savana	2003	128	53
GMC	Savana	2004	5	0

TABLE 6-2: SUBJECT VEHICLES: MIC AND UWC EXTENDED SERVICE CONTRACTS SOLD (REGARDLESS OF STATUS: IN-FORCE, EXPIRED OR CANCELLED)

- 7. 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 issued any Technical Service Bulletins (TSB) or other documents that may relate to, the subject condition in the subject vehicles, to dealers, regional or zone offices, field offices, fleet purchasers or other entities.

GM is not planning to issue within the next 120 days any service, warranty or other technical documents or communications to its dealers, regional or zone offices, regarding the subject condition in the subject vehicles.

This information was provided by GM Service Operations on January 23, 2012.

- 8. 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:**
- a. Action title or identifier;**
  - b. The actual or planned start date;**
  - c. The actual or expected end date;**
  - d. Brief summary of the subject and objective of the action;**
  - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and**
  - f. 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.**

The information listed in Table 8 below is a summary of actions that have been conducted, are being conducted, are planned or are being planned by or for GM regarding the subject condition on the subject vehicles as of February 3, 2012. Documents and additional supporting information are included in the Attachments as noted in the table.



General Motors requested assistance and documents from suppliers in responding to this question and this response includes those documents and the information received from suppliers.

<p><b>Action 8-A:</b> Vehicle Technical Specification (VTS) and Subsystem Technical Specifications: 20.6 Fuel Storage &amp; Handling (SSTS) for the subject vehicles. <b>Start Date:</b> 1999 <b>End Date:</b> 1999 <b>Engineering Group:</b> GM Engineering <b>Attachments:</b> ATT_2_GM_Conf disk; folder labeled "Q_08-A" <b>Description:</b> Technical Specifications for the vehicle and the vehicle's fuel storage and handling sub-system. <b>Summary:</b> The VTS and SSTS were utilized in the design of the Subject vehicles.</p>
<p><b>Action 8-B:</b> Subject Component Design Information and Vehicle Level Durability Testing <b>Start Date:</b> April 2002 <b>End Date:</b> August 2002 <b>Engineering Group:</b> GM Engineering <b>Attachments:</b> ATT_1_GM_disk; folder labeled "Q_08_B" ATT_2_GM_Conf disk; folder labeled "Q_08_B" <b>Description:</b> Subject Vehicle/Subject Component information and Durability Testing. <b>Summary:</b> The subject vehicle and subject component completed durability testing.</p>
<p><b>Action 8-C:</b> Supplier "actions" and documentation related to the Subject Component. PFMEA, Process Flow and Process Control Plan <b>Start Date:</b> January 2002 <b>End Date:</b> October 2003 <b>Engineering Group:</b> Fluid Routing Solutions, Inc <b>Attachments:</b> ATT_3_FluidRS_Conf disk; folder labeled "Q_08_C" <b>Description:</b> Supplier provided information related to the subject component. <b>Summary:</b> Supplier provided PFMEA, Process Flow and Control Plan related to the subject component.</p>
<p><b>Action 8-D:</b> GM Investigation <b>Start Date:</b> December 2011 <b>End Date:</b> Continuing <b>Engineering Group:</b> GM Engineering <b>Attachments:</b> ATT_1_GM_disk; folder labeled "Q_08_D" ATT_2_GM_Conf disk; folder labeled "Q_08_D" <b>Description:</b> GM's investigation of the alleged defect in the subject vehicles. <b>Summary:</b> GM documentation related to the investigation and analysis of the alleged defect in the subject vehicles.</p>
<p><b>Action 8-E:</b> Field return information <b>Start Date:</b> November 2011 <b>End Date:</b> January 2012 <b>Engineering Group:</b> GM Engineering <b>Attachments:</b> ATT_1_GM_disk; folder labeled "Q_08-E" <b>Description:</b> GM's information related to reviews of vehicles and parts from the field that may relate to the alleged defect. <b>Summary:</b> GM documents, studies and photos related to parts in the field that may relate to the alleged defect in the vehicles.</p>

- 9. Describe all modifications or changes made by, or on behalf of, GM in the design, material composition, manufacture, quality control, supply, warnings or instructions for the use of the subject component(s) that may impinge on or affect the subject components, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles.**

**For each such modification or change, provide the following information:**

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;**
- b. A detailed description of the modification or change;**
- c. The reason(s) for the modification or change;**
- d. The part numbers (service and engineering) of the original component;**
- e. The part number (service and engineering) of the modified component;**
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;**
- g. When the modified component was made available as a service component; and**
- h. Whether the modified component can be interchanged with earlier production components;**
- i. The supplier of each modified component;**
- j. The models and model years of vehicles affected by the modification.**

**Also, provide the above information for any modification or change that GM is aware of which may be incorporated into vehicle production within the next 120 days.**

Beginning in the 2003 MY, GM began offering an optional 60/40 left side cargo door option on the subject vehicles, which created the need to relocate the fuel filler pipe on vehicles built with this option.

At the start of the 2003 MY production, the fuel filler pipe for these vehicles was part number 25746083. After several months in production, a tie was added around the conduit and ground strap at the lower end of the fuel filler pipe. Consequently the production part number and service part number were changed to 25755765.

Production part number 25755765 was used in production for the remainder of the 2003 MY and 2004 MY production period without changes to the production part. This is still the part number used for service of 2003 and 2004 MY vehicles.

Subsequent changes to the service part included adding a tin coating to the copper ground strap, due to supplier availability. The supplier also increased the diameter of the conduit from 31 to 39 mm. The service part number is still 25755765.

For the 2004 MY vehicles with optional left doors and V8 engines a new fill pipe

assembly was developed. This includes a vapor recirculation tube, which requires a looser conduit which is slit along its entire length for installation. This design has remained in production through 2012 MY. These fuel fill pipes are not interchangeable with the subject fill pipes from 2003/2004 MY V6 vehicles and are not considered to be substantially similar.

The Engineering Work Orders (EWOs) related to the modifications are provided on the Att\_2\_GM\_Conf disk in the folder labeled "Q\_09".

**10. Produce or provide one of each of the following:**

- a. **One unused sample of each unique version of the subject components originally supplied with the subject vehicles (as an OE part) or supplied to GM dealers as a service replacement components for use on the subject vehicles;**
- b. **Engineering drawings, including material specifications, of all subject components used or offered for use on the subject vehicles.**

a. GM is sending the current service part which is used for the 2003 MY V6/V8 and 2004 MY V6 vehicles with the optional left side door. It is GM part number 25755765. An unused sample of the original production part is no longer available.

b. Engineering drawings for the subject component are provided on the Att\_2\_GM disk in the folder labeled "Q\_10".

**11. State the number of each of the following that GM has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used, and month/year of sale (including the cut-off date for sales, if applicable):**

- a. **Subject fuel filler pipes; and**
- b. **Any kits that have been released, or developed, by GM for use in service repairs or replacements to the subject fuel filler pipes.**

**For each fuel filler pipe design, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which GM is aware that contain the identical fuel filler pipe, whether installed in production or in service, and state the applicable dates of production or service usage.**

A summary of the GM service parts sales for part number 25755765 is provided on the Att\_1\_GM disk in the folder labeled "Q\_11". There are no kits which have been developed or released for replacement of the subject fuel filler pipes.

**12. Furnish GM's assessment of the alleged defect in the subject vehicles, including:**

- a. The causal or contributory factor(s);**
- b. The failure mechanism(s);**
- c. The failure mode(s);**
- d. The risk to motor vehicle safety that it poses;**
- e. What warnings, if any, the operator and other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and**
- f. The reports included with this inquiry.**

On vehicles equipped with the left side cargo door option, the fuel filler is located above the left rear wheel and routed through the inner wheel well opening to the fuel tank. The filler pipe, and a ground strap that runs the length of the filler pipe assembly, are covered by a protective corrugated plastic conduit that shields the fuel filler pipe assembly from exposure to stones and road debris in the inner wheel well environment.

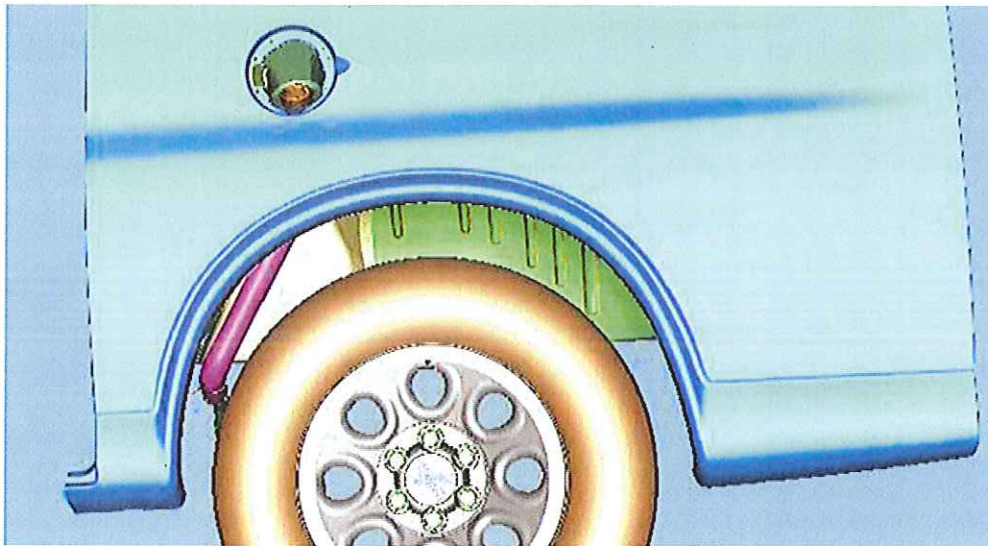


Figure 12-1: Fuel Filler Pipe Assembly as it appears in the inner wheel well opening

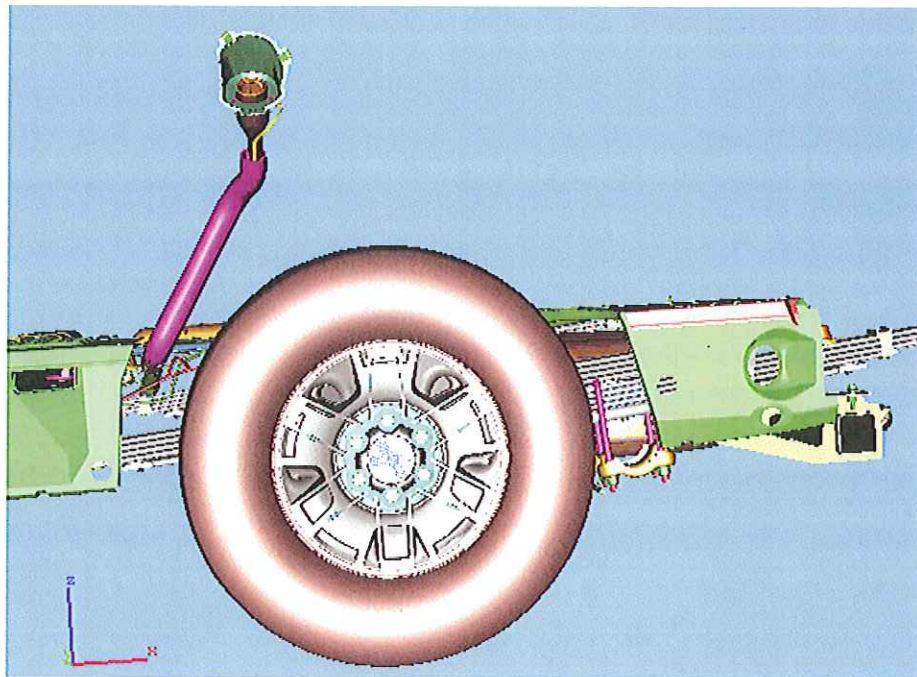


Figure 12-2: Cutaway view of the Fuel Filler Pipe Assembly

Localized corrosion of the steel fuel filler pipe may occur in isolated areas along the length of the filler pipe where the copper ground strap is closely tethered to the filler pipe. The localized corrosion is the result of a galvanic reaction between the copper ground strap and the steel filler pipe, and tends to occur in areas where the strap may be closely wrapped on the filler pipe by the corrugated conduit, tape, or band ties. The condition may be aggravated by relative movement and abrasion of the conduit and ground strap on the pipe, along with water and road contaminants that become entrapped in the conduit. This configuration may result in premature localized corrosion of the steel fill pipe in corrosive environments or certain geographical locations.

Eventually, this corrosion may create a small perforation in the steel fuel filler pipe, through which fuel vapors could pass. At this time, the vehicle operator may notice a fuel odor.

As time and use of the vehicle continue, additional corrosion could cause larger perforations to develop. The vehicle on-board diagnostic (OBD) algorithm is calibrated to detect a hole with effective diameter of 0.020", and to alert the vehicle operator through a Malfunction Indicator Light (MIL) that service is required. The vehicle will store the "P0442" diagnostic trouble code (DTC), which indicates a small leak in the fuel system.

Once a small leak is detected, and the MIL light comes on, the light will stay on until the leak is fixed, or the code is manually cleared. Clearing the code requires specialized equipment. Even if the code is manually cleared, the light will come back on as soon as the vehicle runs the diagnostic algorithm again and detects the leak again.

If left unaddressed for additional weeks or months, the perforation in the steel fuel filler pipe may continue to develop into a larger opening that could allow fuel to spill from the filler pipe onto the ground during vehicle refueling. The amount of liquid fuel contacting the ground in the area of the rear wheel well will depend on the size of the perforation, the amount of fuel being added and the rate of fuel fill. Small leaks in the filler neck would not likely result in fuel on the ground since the filler neck is covered with the corrugated conduit which would capture fuel in the corrugations.

Fuel leakage would only be possible during vehicle refueling. Fuel leakage does not occur during any time other than refueling, due to the presence of an inlet check valve (ICV) that is located at the top of the fuel tank. The ICV prevents fuel from traveling up the fuel filler pipe from the fuel tank.

It is important to note that, during the months required for the perforation to grow large enough to permit a fuel leak which could be noticed on the ground under the vehicle, the MIL light will be continuing to warn the operator that the vehicle is in need of service. The vehicle owner's manual describes the actions a driver should take when a Check Engine MIL is illuminated. It states, in part: "The Check Engine light comes on to indicate there is a problem and service is required. Malfunctions often will be indicated by the system before any problem is apparent. This may prevent more serious damage to your vehicle."

Many customer comments indicated that these two warnings (a fuel odor and the illuminated MIL) were present and observed for many weeks or months before the vehicle was serviced, or before fuel leakage was noticed during vehicle refueling. Many claims noted that the repair technician found a diagnostic trouble code (DTC) of P0442 stored in the onboard engine control module when the vehicle was brought in for service.

GM has examined the reports and claims that may be related to the alleged defect. Of the cases identified that may be related to the alleged defect, over 85% occurred in states identified by the NHTSA as corrosion states.

In addition, GM received 5 vehicle owner questionnaires (VOQs) from the NHTSA. Based on the information in each of these VOQs, they all appear to be related to corrosion of the fuel filler neck on the subject vehicles. This is consistent with the characterization of the alleged defect as a corrosion issue.

In summary, General Motors is continuing the investigation into this alleged defect. The conclusions to date include:

- There have been no reports of fires, injuries or fatalities related to the alleged defect.
- Because of the on-board vehicle diagnostics, a hole as small as 0.020" would set a diagnostic code and illuminate a "Check Engine" warning light.
- If the vehicle owner fails to have the vehicle repaired when the MIL warns of an issue, fuel on the ground is possible as the perforation size increases.
- The fuel on the ground would only occur during refueling of the vehicle. The fuel tank has a check valve that prevents any fuel in the tank from sloshing back into the filler neck.

\* \* \*

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 past and present officers and employees, whether assigned to their principal offices or any of its field or other locations, including 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 1997, 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,

A handwritten signature in blue ink, appearing to read "M. Carmen Benavides". The signature is fluid and cursive, with a long horizontal stroke at the end.

M. Carmen Benavides, Director  
Product Investigations and Safety Regulations

Attachments