



Volvo Cars of North America, LLC

October 1, 2003

Mr. Thomas Z. Cooper, Chief
Vehicle Integrity Division
Office of Defects Investigation
National Highway Traffic Safety Administration
Room 5328
400 Seventh Street, S.W.
Washington, D.C. 20590

NVS-212jfa
EA03-008

Dear Mr. Cooper:

This letter and its enclosures comprise the first part of the response of Volvo Cars of North America, LLC (VCNA) to your August 1, 2003 request for information relating to Engineering Analysis EA03-008, received on August 1, 2003. As per Volvo's agreement with NHTSA, this letter summarizes our response to questions 1 - 7, 12, 13, 14, and 18. As agreed the responses for the remaining questions will be provided at a later date.

In order to respond to EA03-008, Volvo undertook a thorough and diligent search. Volvo in good faith reviewed all available documentation within its control to answer NHTSA's questions 1 - 7, 12, 13, 14 and 18 pertaining to the alleged fuel leakage from the fuel storage tank of the subject vehicles model year 1993 through 1998 model 850 Volvo passenger cars and other vehicles as defined in Volvo's submission for PE03-003. We spoke to a variety of affected persons, in the United States and Sweden, who in the course of their daily business are responsible for the various items related to the request. They, in good faith, conducted a thorough search for the information. Our response is based upon this diligent and thorough search.

We have provided below and as separate enclosures (a combination of hardcopy and electronic documents), answers to questions 1 - 7, 12, 13, 14, and 18 using the documentation that was available to us. Please note that for the purpose of this EA we are using data up through and including August 5, 2003 when our search began for this information.

1. As it relates to Volvo's May 2, 2003 response to question number nine of ODI's February 10, 2003 information request in PE03-003, i.e., "other Volvo vehicles," state, by model and model year, the number of other vehicles that Volvo has manufactured for sale or lease in the United States that contain one or more identical components relating to the alleged defect in the subject vehicle. Separately, for each such vehicle manufactured to date by Volvo, state the following:
 - a. Vehicle Identification Number (VIN);
 - b. Model;

- c. Model year;
- d. Date of manufacture;
- e. Date warranty coverage commenced; and
- f. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).
- g. Shared part(s); and
- h. Periods of application (mm/dd/yyyy) of shared part(s).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA/OTHER VEHICLES." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

850	1997	42511
C70 (872, 873)	1998	2678
	1999	4837
	2000	6316
	2001	5434
	2002	3377
	2003	1869
	2004	2306
S/V70 (874, 875)	1998	95428
	1999	41766
	2000	38859
	Total	247093

The table with the complete information for the "other" vehicles that contain one or more identical components relating to the alleged defect in the subject vehicle is provided to NHTSA on the enclosed CD-ROM, in Microsoft Access format. Please note that for certain vehicles data is missing. After a thorough and diligent search we were unable to obtain this data.

2. State the number of each of the following, received by Volvo, or which Volvo is otherwise aware, which relate to, or may relate to, the alleged defect in the "other Volvo vehicles" identified in response to question number one above:
 - a. Consumer complaints, including those from fleet operators [11];
 - b. Field reports [10 Technical Reports];
 - c. Reports involving crash, injury, or fatality [None];
 - d. Reports involving a fire [None];
 - e. Property damage claims [None];
 - f. Third party arbitration [None];
 - g. Lawsuits [None];

For subparts "a" through "d", state the total number of each item separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately.

In addition, for items "c" through "g", provide a summary description of the alleged problem for causal and contributing factors and Volvo's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g" 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.

Regarding (a) in your letter, "Consumer complaints":

- In two cases there are two reports for a customer and we have provided copies of both reports. These two cases are for customer Elliot (MY1997 850, VIN YV1LS5727VJ379215) and SV70 customer Pokalaki (MY1998 SV70, VIN YV1LS5976W2516917). We have counted each case as one because the second report in each case is a follow-up report. In other words there was no repair between the first and second report.
- In the case of Catherine Campbell, the VIN in the VIN column does not match the text in the report. We diligently attempted to determine which of Catherine Campbell's vehicles this report belonged to. For the purposes of this report it was put with the "other vehicles" as a MY1998 874.

Regarding (b) in your letter, "Field reports":

- Report #106767 is for two vehicles and is counted as two reports (Chassis #'s 712111 & 892654).
- Report #102438 is included in the submission for "other vehicles" because it includes one vehicle of the four included in the report that is categorized as an "other vehicle" (Chassis #290333). It is also included in the submission for "subject vehicles" because it includes three vehicles that are categorized as "subject vehicles".
- Report #17040 and #17089 are for the same vehicle and for the same concern. Two different people reviewed the car and filed distinct reports a day apart, therefore they will be counted as one report.

3. State the number of each of the following, received by Volvo, or which Volvo is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles that were not previously provided to ODI in its response to ODI's information request letter in PE03-003:

- a. Consumer complaints, including those from fleet operators [13];
- b. Field reports [5 Technical Reports];
- c. Reports involving crash, injury, or fatality [None];
- d. Reports involving a fire [None];
- e. Property damage claims [None];
- f. Third party arbitration [None];
- g. Lawsuits [None];

For subparts "a" through "d", state the total number of each item separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately.

In addition, for items "c" through "g", provide a summary description of the alleged problem for causal and contributing factors and Volvo's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g" 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.

Regarding (a) in your letter, "Consumer complaints":

- In one case, for customer Riley (MY1995 850, VIN YV1LS5716S1225629) two VINS were provided in the text of the report. The second VIN is YV1LS5511S2207583, also a MY1995 850. We have therefore counted customer Riley as two vehicles and two reports.

Regarding (b) in your letter, "Field reports":

- **Volvo has undergone a very thorough and continuous technical review of its PE Field Report submission by experts from Volvo in North America and Sweden. As a result of this review we have come to the conclusion that two technical reports that we submitted with the PE should have not been included with the PE. For the EA submission we request that Report #15500 and Report #18299 be removed (Chassis numbers 179041 and 346645 respectively) from the PE submission so that the PE submission now includes only 9 technical reports for the subject vehicle. We have provided copies of these two reports with our EA submission for your ease of reference.**
 - **Report # 15500 (Chassis number 0179041) has been eliminated because it did not have an actual fuel leak, it had a Diagnostic trouble code 611 for a fuel tank system leak which was repaired with a new purge valve. DTC 611 is caused by a leak in the fuel tank system which is equal to or greater than one millimeter or by a blockage in the EVAP purge line anywhere between the manifold vacuum source and the fuel tank pressure sensor, located on the fuel tank. A restricted or sticking purge valve could also cause this condition being that the purge valve is located in the purge line and supplies the tank system with the manifold vacuum needed to run the leakage diagnostic test. After thoroughly reviewing this report it has been determined that the technician wasn't correctly fault tracing the vehicle. The vehicle was being repaired using the process of elimination technique. Unfortunately the technician replaced many components including the fuel tank before replacing the purge valve.**
 - **Report #18299 (Chassis number 0346645) clearly does not apply to the alleged defect. It was simply a search error on the keyword fuel. There was not fuel leak associated with this vehicle.**
 - **In summary, the following Volvo file numbers are new reports for the subject vehicles. They are new since the PE submission:**
 1. Case 970319013
 2. Case 991102030
 3. Case 980909021
 4. Case 981221031
 5. Case 102438 (only Chassis # 203038 within this report is new)
 - **Photographs to support Technical Report #35295 (from the PE submission) are provided electronically. They were inadvertently not provided with the PE.**
 - **Report #102438 is for three vehicles and is counted as three reports (Chassis #'s 0318284 & 0302269 & 203038). This report now includes one more report than was provided in the PE.**
4. **Separately for each item (complaint, report, claim notice, or matter) within the scope of your response to Request Numbers two and three above, state the following information:**
- a. **Volvo's file number or other identifier used;**
 - b. **The category of the item identified;**
 - c. **Vehicle owner name, address, and telephone number;**
 - d. **VIN;**
 - e. **Vehicle make, model and model year;**
 - f. **Vehicle mileage at time of the incident;**
 - g. **Incident date;**
 - h. **Report or claim date;**
 - i. **Whether a crash is alleged;**

- j. Whether a fire is alleged;
- k. Whether property damage is alleged;
- l. Number of alleged injuries, if any; and
- m. Number of alleged fatalities, if any.

Provide the table in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO AND THREE DATA." Provide separate tables for the subject vehicles and the "other Volvo vehicles." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

This information is provided to NHTSA on the enclosed CD-ROM, in Microsoft Access format.

Please note:

- ◆ *The Volvo identifier for the Customer Concern cases in this submission is the customer name. In many of the Customer Concern cases we do not have "vehicle mileage at the time of the incident" or "incident date". When available, this information has been provided. The report date has been provided, this being the date that Volvo was made aware of the alleged occurrence.*
- ◆ *In many of the Field Report cases we do not have "Vehicle owner" information or "incident date". When available, this information has been provided. The report date has been provided, this being the date that Volvo was made aware of the alleged occurrence.*

There are no alleged crashes, fires, property damage, injuries or fatalities within the scope of Request Numbers two and three above.

- 5. Produce copies of all documents related to each item within the scope of Request Numbers two and three above. Organize the documents separately by model, Model year and category (i.e. consumer complaints, field reports, etc.) and describe the method Volvo used for organizing the documents.
- *This information is provided to NHTSA on the enclosed CD-ROM. The electronic files are organized by category, model and model year in electronic file folders. There are two letters provided as hardcopies.*
- *Regarding our customer complaint records:*
 - ◆ *Volvo does not keep the faxes that are referred to in the customer complaint reports. These faxes are transcribed into the electronic record of the customer complaint.*
 - ◆ *We have conducted a thorough and diligent search of our customer complaint records for this EA submission.*
 - *We have provided a spreadsheet that indicates customer concerns that we have provided a copy of a letter, email or associated document. Two letters are provided as hardcopies, the others are provided electronically.*
 - *In the case of customer Pokalski we have provided a copy of a letter that is referred to. There is also reference to a postcard sent to the customer and a California lemon law claim. Volvo did not find these other two documents after a good faith effort.*
- 6. State by model and model year, a total count for all of the following categories of claims.

collectively, that have been paid by Volvo to date that relate to, or may relate to, the alleged defect in the subject vehicles that were not previously provided to ODI in its response to PE03-003: 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. Volvo's claim number
- b. Vehicle owner 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; and
- k. Comments, if any, by dealer/technician relating to claim and/or repair.

Provide the table in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Warranty claims, extended warranty claims; claims for good will services that were provided that have been paid by Volvo up to and including August 5, 2003 that relate to, or may relate to, the alleged defect in the subject vehicles that were not previously provided to ODI in its response to PE03-003 are provided to NHTSA on the enclosed CD-ROM, in Microsoft Access format. The subject vehicles are provided on the same table as the "other" vehicles and are identified by model and model year. The following is a total count of vehicles not provided in the PE for the model 850 series by model year:

850 Series

MY 1993:	1 vehicle
MY 1994:	4 vehicles
MY 1995:	3 vehicles
MY 1996:	8 vehicles

There were no warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

7. State by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Volvo to date that relate to, or may relate to, the alleged defect in the "other Volvo vehicles" identified in response to question number one: 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. Volvo's claim number
- b. Vehicle owner 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; and
- k. Comments, if any, by dealer/technician relating to claim and/or repair.

Provide the table in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Warranty claims, extended warranty claims; claims for good will services that were provided that have been paid by Volvo up to and including August 5, 2003 that relate to, or may relate to, the alleged defect in the "other" vehicles are provided on the enclosed CD-ROM, in Microsoft Access format. The "other" vehicles are provided on the same table as the "subject" vehicles and are identified as by model and model year.

The following is a total count of vehicles by model and model year:

	<u>850 Series</u>
MY1997:	19 vehicles
	<u>S and V70</u>
MY1998:	16 vehicles
MY1999:	2 vehicles
MY2000:	3 vehicles
	<u>G70</u>
MY2000:	1 vehicle
MY2001:	1 vehicle

There were no warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

12. Provide engineering drawings and specifications for all fuel tanks that were or are original equipment or replacement equipment designated by Volvo for use in the subject vehicles. Information in the drawings and specifications should include, but not be limited to, tank capacities, the Volvo or SAE fuel fill reference line, i.e., full tank fill level.

This information is provided to NHTSA as hardcopies enclosed with this letter (Data Confidential and appropriate documents).

13. Provide engineering drawings and specifications for all fuel tank heat shields that were or are original equipment or replacement equipment designated by Volvo for use in the subject vehicles. Information in the drawings should include all vehicle and fuel tank applications for which they are intended.

Mr. Thomas Z. Cooper
October 1, 2003

8

This information is provided to NHTSA as hardcopies enclosed with this letter (Data Confidential and appropriate documents).

14. Provide exploded drawings of the fuel tank, fuel tank heat shields, heat shield attachment hardware, fuel tank to vehicle mounting hardware, and exhaust system in the subject vehicles.

This information is provided to NHTSA on the enclosed CD-ROM (Data Confidential).

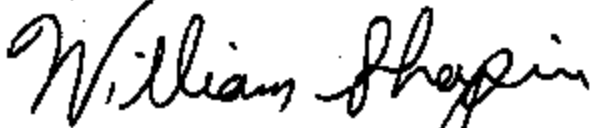
18. Three of the consumer complaints provided in Volvo's May 2, 2003 response to ODI's February 10, 2003 information request letter are not readable documents. Provide readable documents for the vehicles identified by the following VIN's: YV1LW5713R202285, YV1LS5511P2037363, and YV1LW5712R202009.

The information for consumer complaint VINs YV1LW5713R2022853, YV1LS5511P2037363 and YV1LW5712R2020091 is provided to NHTSA on the enclosed CD-ROM.

We would be glad to provide any additional information you may require or to meet with you, or your staff, to discuss any aspect of this response. Please note that in this and in our PE submission Volvo has no alleged fires about this alleged defect. As agreed the second and final part of our response is now due on October 20, 2003. If there are any questions or clarifications please contact Diana Lidgett or myself.

Sincerely yours,

VOLVO CARS OF NORTH AMERICA, LLC
Aftersales Business Unit



William Shapiro, P.E.
Manager, Regulatory and Product Compliance

Enclosure