



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

1200 New Jersey Avenue SE.
Washington, DC 20590

SEP 30 2009

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Timothy LaFon
Manager, Regulatory Affairs Customer Satisfaction
Volvo Trucks North America
7900 National Service Road
Greensboro, NC 27409-6115

NVS-214bby
EA09-003

Dear Mr. LaFon:

As you are aware, the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has upgraded its investigation concerning the steering drag link assembly on Model Year (MY) 1998 through 2005 Volvo VNL and VN trucks. This letter is to request additional information to assist us in our investigation.

This office has received 31 reports of drag link failures in MY 1998 through 2005 Volvo VNL and VN trucks. Twelve of the complaints allege that due to the drag link assembly failure, the vehicle was involved in a crash.

ODI's review of the matter indicates that the drag-link assembly may fail at the attachment to the steering arm. This type of failure results in a total loss of steering control.

In order to evaluate the alleged defect, ODI is requesting specific information from Volvo.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** All Model Year 1995 through 2006 Volvo VNL and VN trucks manufactured for sale or lease in the United States.
- **Subject component:** The steering system drag-link assembly including the front and rear ball joints used on subject vehicles.
- **Sealed Ball Joint:** Any ball joint that is not intended to have grease added to the component after initial manufacture. These ball joints are also known as "maintenance free", "service free", or "non-greasable" ball joints.



- **Greasable Ball Joint:** Any ball joint that is intended to have grease added to the component during normal maintenance procedures. These ball joints have a grease fitting or some other means to add or replace grease to the working joint of the component.

- **Volvo:** Volvo, Volvo Group, AB Volvo, Volvo Group – AB Volvo, Volvo Trucks Global and Volvo Trucks North America all of their past and present officers and employees, whether assigned to their principal offices or any of their 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 Volvo (including all business units and persons previously referred to), who are or, in or after 1995, 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.

- **TRW:** TRW Incorporated, TRW Automotive U.S. LLC, TRW Vehicle Safety Systems Inc., Kelsey-Hayes Company, REMSA of America, Inc. all of their past and present officers and employees, whether assigned to their principal offices or any of their 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 TRW (including all business units and persons previously referred to), who are or, in or after 1995, were involved in any way with any of the following related to the alleged defect in the subject vehicles:
 - e. Design, engineering, analysis, modification or production (e.g. quality control);
 - f. Testing, assessment or evaluation;
 - g. 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
 - h. 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.

- **Lemforder:** Lemforder Incorporated, ZF Ag Holding, Inc, ZF Lemforder Corporation, ZF North American Operations, ZF products, ZF Lenksysteme, ZF SACHS, ZF Driveline

and Chassis Technology, ZF Group all of their past and present officers and employees, whether assigned to their principal offices or any of their 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 Lemforder (including all business units and persons previously referred to), who are or, in or after 1995, were involved in any way with any of the following related to the alleged defect in the subject vehicles:

- i. Design, engineering, analysis, modification or production (e.g. quality control);
 - j. Testing, assessment or evaluation;
 - k. 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
 - l. 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.
- **Alleged defect:** Any failure of the subject component.
 - **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Volvo, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-

identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by Volvo or not. **If a document is not in the English language, provide both the original document and an English translation of the document.**

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as Volvo has previously provided a document to ODI, Volvo may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Volvo's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject vehicles Volvo has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Volvo, 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. Drag Link Ball Joint Manufacturer;
 - h. Drag Link Ball Joint Part Number; and
 - i. 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 2000, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State the number of each of the following, received by Volvo, or of which Volvo 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 Volvo is or was a party to the arbitration; and
 - f. Lawsuits, both pending and closed, in which Volvo 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 Volvo's assessment of the problem, with a summary of the significant underlying facts and evidence

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. Volvo'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. 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 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 this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

4. 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 for 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. Volvo'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. Whether the vehicle was towed to the dealer for the repair (y/n);
- k. Concern stated by customer; and
- l. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information 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.

5. Describe in detail the search criteria used by Volvo to identify the claims identified in response to Request No. 4, 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 and all labor operations Volvo used to identify vehicles that had been towed and/or vehicles with secondary component damage. State, by make and model year, the terms of the new vehicle warranty coverage offered by Volvo 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 Volvo 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.
6. Produce copies of pertinent sections (including all revisions) of all service, warranty, maintenance, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Volvo has issued from 1995 to the present to any dealers, regional or zone offices, field offices, fleet purchasers, vehicle owners, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications. Also include the latest draft copy of any communication that Volvo is planning to issue within the next 120 days, and state the date on which Volvo plans to issue the communication.

7. Describe in detail Volvo's procedure for issuing and distributing the items (bulletins, advisories, informational documents, training documents, maintenance documents, communications, etc.) within the scope of Request No. 6. In your response, state the recipient(s) (dealers, fleets, independent owners, zone offices, etc.) of each item, how Volvo determines which recipient receives the item, how each recipient is likely to receive the item (e.g. regular mail, electronic mail) and whether Volvo includes instructions to the recipient to further distribute the items to additional persons or entities.
8. Explain in detail Volvo's decision to incorporate the sealed ball joints in to the subject vehicle design. In its response, state the advantages and disadvantages the sealed ball joint has over a greasable ball joint and the factors that ultimately led to Volvo's decision to incorporate sealed ball joints in the design of the subject vehicles.
9. Produce copies of all pamphlets, brochures, advertisements, presentations, or other marketing materials that reference the sealed ball joints on the subject vehicles and used or presented by Volvo, or on behalf of Volvo, in the promotion or sale of the subject vehicles to potential customers, purchasers, fleet representatives or other persons.
10. 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, Volvo, TRW, or Lemforder. 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.

11. Describe all modifications or changes made by, or on behalf of, Volvo in the design, material composition, manufacture, quality control, supply, or installation of the subject component, from the start of production to date on 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 number(s) (service and engineering) of the original component;
 - e. The part number(s) (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.

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

12. Provide engineering and design drawings for each ball joint used in the subject component on the subject vehicles, including, but not limited to, the ball joints with the following part numbers: 8079525, 20371221, 21128332, 8083227, 20588242, 21128334, 8073373, 20407667.
13. Produce, with cover page and date page, pertinent sections (including all revisions and the revision dates) of the maintenance requirements/manuals for the drag-link system in the subject vehicles. Also, state the name, address and telephone number, and type of entity (dealers, fleets owners, zone offices, etc., where Volvo sent each such document and explain in detail how these documents are distributed from one entity to another once they are released.
14. State the name, address, telephone number, and contact person of any fleet of which Volvo is aware, that at any time in the last two years has maintained 50 or more of the subject Volvo vehicles.
15. Produce copies of each and every communication between Volvo and the subject component manufacturer that are related to the alleged defect.
16. State the number of each of the following that Volvo 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 component (both sealed and greasable drag-link assembly(s) if the subject components are not sold/serviced separately) identified by manufacturer and part number; and
 - b. Any kits that have been released, or developed, by Volvo for use in service repairs to the subject component/assembly also my manufacturer and part number.

For each component part number, 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 Volvo is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

17. Furnish Volvo's detailed assessment of the alleged defect in the subject vehicle, 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; and
- 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.

This letter is being sent to Volvo pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information. Volvo's failure to respond promptly and fully to this letter could subject Volvo to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Please note that maximum civil penalties under 49 U.S.C. § 30165 have increased as a result of the recent enactment of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law No. 106-414 (signed November 1, 2000). Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$5,000 per day, with a maximum of \$16,050,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 69 Fed. Reg. 57864 (Sept. 28, 2004)). This includes failing to respond to ODI information requests.

If Volvo cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Volvo does not submit one or more requested documents or items of information in response to this information request, Volvo must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

Volvo's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by November 6, 2009. **All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition do not submit any business confidential information in the body of the letter submitted to this office. Please refer to EA09-003 in Volvo's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel. If Volvo finds that it is unable to provide all of the information requested within the time allotted, Volvo must request an extension from Mr. Richard Boyd at (202) 366-4933 no later than five business days before the response due date. If Volvo is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Volvo then has available, even if an extension has been granted.

If Volvo claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C.

§ 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Volvo must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Volvo is required to submit **two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.** Please remember that the word "CONFIDENTIAL BUSINESS INFORMATION" must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 5 U.S.C. § 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats (49 CFR 512.(c)). See Federal Register, volume 72, page 59434 (October 19, 2007).

Please send email notification to Bruce York (bruce.york@dot.gov) and to ODI_IRresponse@dot.gov when Freightliner sends it's response to this office and indicate whether there is confidential information as part of Freightliner's response.

If you have any technical questions concerning this matter, please call Bruce York of my staff, at (202) 366-6938.

Sincerely,



Richard Boyd, Chief
Medium Heavy Trucks
Office of Defects Investigation
Enforcement

Enclosure 1, one CD ROM titled Data Collection Disc containing three files