



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

MAR 11 2005

400 Seventh Street, S.W.  
Washington, D.C. 20590

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. James Vondale, Director  
Automotive Safety Office  
Environmental and Safety Engineering  
Ford Motor Company  
330 Town Center Drive, Suite 400  
Dearborn, MI 48126

NVS-213cat  
EA04-024

Dear Mr. Vondale:

The Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) is conducting an Engineering Analysis (EA04-024) to investigate allegations of front suspension lower ball joint separation in model year (MY) 2002 Toyota Tundra vehicles. To assist us at this stage of the investigation, we are requesting information concerning certain other vehicles (peer vehicles).

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

- **Subject peer vehicles:** all MY 2001-2003 Ford F-150 vehicles manufactured for sale or lease in the United States.
- **Subject peer component:** all front suspension lower ball joints manufactured for use as original equipment or replacement parts on the subject peer vehicles.
- **Ford:** Ford Motor Company, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its 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 Ford (including all business units and persons previously referred to), who are or, in or after 1996, were involved in any way with any of the following related to the alleged defect in the subject peer vehicles:
  - a. Design, engineering, analysis, modification or production (e.g. quality control);
  - b. Testing, assessment or evaluation;



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888-DASH-2-DOT  
888-327-4236

- 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. Communications 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:** The front suspension lower ball joint allegedly separates and/or a front wheel separates from the vehicle while the vehicle is being driven. Incidents involving the latter condition can be excluded if they are clearly unrelated to subject peer component failure (e.g., wheel separation due to over-torquing of wheel stud).
  - **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 Ford, 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 Ford 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 Ford has previously provided a document to ODI, Ford 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 Ford's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model, model year, and drive type (two-wheel drive or four-wheel drive), the number of subject peer vehicles Ford has manufactured for sale or lease in the United States. Separately, for each subject peer vehicle manufactured to date by Ford, state the following:
  - a. Vehicle identification number (VIN);
  - b. Make;
  - c. Model;
  - d. Model Year;
  - e. Drive Type;
  - f. Date of manufacture;
  - g. Date warranty coverage commenced; and
  - h. 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 "FORD PEER PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State, by model, model year, and drive type, the number of each of the following, received by Ford, or of which Ford is otherwise aware, which relate to, or may relate to, the alleged defect in the subject peer 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 peer vehicle, property damage claims, consumer complaints, or field reports;

- d. Property damage claims;
- e. Third-party arbitration proceedings where Ford is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which Ford 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 "e" through "f," provide a summary description of the alleged problem and causal and contributing factors and Ford'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.

In a separate enclosure, provide a tabulation of the total complaint counts by source (complaints, field reports), model, model year, drive type, and complaint category for all other complaints and field reports related to the subject peer components.

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. Ford'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 the prior impact damage is alleged;
  - j. Whether a crash is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any;
  - m. Number of alleged fatalities, if any; and
  - n. Complaint summary.

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

4. Produce copies of all documents related to each item (front suspension lower ball joint separations only) within the scope of Request No. 2. Organize the documents separately by

category (i.e., consumer complaints, field reports, etc.) and describe the method Ford used for organizing the documents.

5. State, by model, model year, and drive type, a total count for all of the following categories of claims, collectively, that have been paid by Ford to date that relate to, or may relate to, the subject component in the subject peer 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. Ford's claim number;
- b. Whether the warranty claim is related to the alleged defect in the subject or peer vehicles;
- c. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- d. VIN;
- e. Repair date;
- f. Vehicle mileage at time of repair;
- g. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- h. Labor operation number;
- i. Problem code;
- j. Replacement part number(s) and description(s);
- k. Whether the vehicle was towed to the dealer within 3 days of vehicle repair (y/n);
- l. Concern stated by customer; and
- m. Comment, if any, by dealer/technician relating to claim and/or repair.

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

6. Describe in detail the search criteria used by Ford 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 subject component in the subject peer vehicles and all labor operation codes Ford used to identify vehicles that have been towed. State, by make and model year, the terms of the new vehicle warranty coverage offered by Ford on the subject peer 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 Ford offered for the subject peer vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.
7. Produce one exemplar sample (disassembled) of the current design version(s) of the subject peer component in MY 2002 (two-wheel drive and four-wheel drive) subject peer vehicles.
8. Provide the following ball joint specific information for MY 2002 (two-wheel drive and four-wheel drive) subject peer vehicles:

- a. For each drive type, provide the design life and all material specifications (including revision histories) for the subject peer component including, but not limited to ball joint stud, the ball joint socket, and the plastic bearing, in subject peer vehicles.
  - b. Describe any differences, by model, between the two-wheel drive and four-wheel drive front suspension geometry on subject peer vehicles.
  - c. For each drive type, provide a free-body diagram of the curbside loads on the front suspension upper and lower ball joints.
9. State the Lightly Loaded Vehicle Weight (LLVW), Gross Vehicle Weight Rating (GVWR), and payloads, by model, model year, and drive type, for MY 2002 (two-wheel drive and four-wheel drive) subject peer vehicles. List regular cab and extended cab body styles separately. In addition, state the maximum and minimum payload combinations for each model and body style.
10. For MY 2002 (two-wheel drive and four-wheel drive) subject peer vehicles, state the following as it refers to the tests Ford or the subject peer component manufacturer and/ or assembler has conducted in accordance with SAE J491, Steering Ball Studs and Socket Assemblies, J193, Ball Stud and Socket Assembly-Test Procedures (Reaffirmed 1996-06), Section 5.2, or any similar test procedures:
- a. The test procedures, measurements, and/or metrics used, if different from SAE J491 and SAE J193;
  - b. The tension, compression and cam-out loads applied and the angles used for the cam-out strength test (Section 5.2.4.2) for the subject peer component;
  - c. The peak loads and cycle life (Section 5.2.4.2.1) for the subject peer component;
  - d. The load and cycle life used for the endurance test (Section 5.2.4.2.2);
  - e. The predicted endurance life indicated by the endurance test (Section 5.2.4.2.2) conducted;
  - f. The pull-out and push-out strength (Section 5.2.5); and
  - g. The maximum angularity required for the subject peer component considering full jounce and full rebound.

If Ford 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, Ford does not submit one or more requested documents or items of information in response to this information request, Ford 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.

Ford's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by April 15, 2005. Please refer to EA04-024 in Ford's response to this letter. If Ford finds that it is unable to provide all of the information requested within the time allotted, Ford must request an extension from me at (202) 366-4799 no later than five business days before the response due date. If Ford 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 Ford then has available, even if an extension has been granted.

If Ford 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, Ford 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 (69 Fed. Reg. 21409 et seq; April 21, 2004), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. Ford 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.

If you have any technical questions concerning this matter, please call Ms. Cheryl Tuosto of my staff at (202) 366-1869.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. DeMeter', with a long horizontal line extending to the right.

Kathleen C. DeMeter, Director  
Office of Defects Investigation  
Enforcement

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