



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

MAY 18 2009

1200 New Jersey Avenue SE
Washington, DC 20590

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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

NVS-213dlr
PE09-020

Dear Mr. Vondale:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE09-020) to investigate allegations of unattended vehicle rollaway following attempted shifts to Park in model year (MY) 2002 through 2005 Ford Explorer and Mercury Mountaineer vehicles manufactured by Ford Motor Company, and to request certain information.

This office has received 12 reports of alleged vehicle rollaways after the driver attempted to shift the vehicle into Park in MY 2002 through 2005 Ford Explorer and Mercury Mountaineer vehicles. Eight of the 12 complainants allege that the rollway resulted in a crash and 4 alleged injuries from being struck by the vehicle during the rollaway incident. Sixty-one other reports received by this office allege failure of the gearshift lever mechanism while shifting from or to the Park position. A copy of each of the reports is enclosed for your information.

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

- **Subject vehicles:** all MY 2002 through 2005 Ford Explorer and Mercury Mountaineer vehicles.
- **Subject components:** The steering column assemblies (including the gear shift lever) manufactured for use as original equipment or service parts in the subject vehicles.
- **Subject bulletin:** Ford Technical Service Bulletin TSB 04-22-12, "Gear Selector Lever – Increased Effort to Shift from Drive to Park."
- **Ford:** Ford Motor Company, 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

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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 *January 1, 2000* 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.
- **Alleged defect:** Any one or more of the following symptoms or conditions: (1) any movement, either powered or un-powered, of the vehicle once the consumer has attempted to shift into Park, including all incidents in which subsequent investigation determined that the vehicle was not in Park; (2) any allegations that the shift mechanism provides any tactile or other feedback to the driver that the vehicles is in Park when it is not (i.e., park pawl is not engaged); and (3) any allegations of difficulty or inability to shift the vehicle into, or out of, Park.
 - **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 and model year, the number of subject vehicles Ford has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Ford, state the following:
 - a. Vehicle identification number (VIN);
 - b. Make;
 - c. Model;
 - d. Model Year;
 - e. Date of manufacture;
 - f. Assembly Plant;
 - g. Transmission Model;
 - h. Date warranty coverage commenced; 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 2003, or a compatible format, entitled "PE09-020 PRODUCTION DATA." See Enclosure, A Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

2. State 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 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; and
 - 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 "c" 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 "d" 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.

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),
 - d. Vehicle owner address,
 - e. Vehicle owner telephone number;
 - f. Vehicle's VIN;
 - g. Vehicle's make,
 - h. Vehicle's model
 - i. Vehicle's model year;
 - j. Vehicle's mileage at time of incident;
 - k. Incident date;
 - l. Report or claim date;
 - m. Whether a crash is alleged;
 - n. Whether TSB 04-22-12 was performed;
 - o. If TSB 04-22-12 was performed, provide the date the TSB was performed

- p. Whether property damage is alleged;
- q. Number of alleged injuries, if any; and
- r. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2003, or a compatible format, entitled "PE09-020 REQUEST NUMBER TWO DATA." See Enclosure, a Data Collection Disc, for a pre-formatted table that provides further details regarding this submission.

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 Ford used for organizing the documents.
5. State, by model and model year, total counts 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 alleged defect in the subject vehicles, including all claims relating to Brake Shift Interlock (BSI) switches: 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. The response to this request should include all claims related to each of the following: the subject bulletin, the shift linkage swing arm, and damaged shift levers.

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

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

Provide this information in Microsoft Access 2003, or a compatible format, entitled "PE09-020 WARRANTY DATA." See Enclosure, a Data Collection Disc, for a pre-formatted table that 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 alleged defect in the subject

vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Ford 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 Ford 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.

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 Ford 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 Ford is planning to issue within the next 120 days.
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, Ford. 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.

9. Describe all modifications or changes made by, or on behalf of, Ford in the design, material composition, manufacture, quality control, supply, or installation of the subject components and the BSI switch, 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 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 Ford is aware of which may be incorporated into vehicle production within the next 120 days.

10. State the number of each of the following that Ford 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 components;
 - b. Any of the component parts of the shift linkage assembly that can be serviced/replaced separately, including the shift levers and swing arms; and
 - c. BSI switches.

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 Ford is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

11. Produce *five* samples of each of the following, including part tags and/or a file with all relevant details about the associated vehicle and repair/claim:
 - a. Warranty/field return samples of the subject component shift linkage swing arm exhibiting deformation on the surface contacted by the BSI switch pin that were associated with the subject bulletin condition, including at least one sample representative of a worst case deformation for such swing arms (include a description of how Ford measured deformation severity);
 - b. Warranty/field return samples of the subject component shift linkage swing arm exhibiting deformation on the surface contacted by the BSI switch pin that were not associated with the subject bulletin condition (i.e., no problem identified with the BSI switch), including at least one sample representative of a worst case deformation condition for such swing arms;
 - c. Warranty/field return BSI switches exhibiting the condition described in the subject bulletin, including at least one sample representative of a worst case sticking or delayed retraction condition;
 - d. Warranty/field return shift levers broken or deformed due to difficulty shifting into Park in the subject vehicles; and
 - e. One sample for each of the following:
 - i) A quarter sectioned BSI switch;
 - ii) The shift lever assembly gate system with shift lever, tang and detent/gates; and
 - iii) The inner manual/detent lever with cantilever spring and roller arm.

12. Provide the following information regarding the shift assembly used in the subject vehicles;

- a. A chart showing shift effort as a function of shift lever rotation from Drive to Park with the brake pedal depressed;
 - b. A chart showing shift effort as a function of shift lever rotation from Drive to Park when the brake pedal is not depressed and the shift linkage swing arm is not deformed;
 - c. Ford's assessment of the effect of swing arm deformation on the shift effort shown in 12.b;
 - d. A free-body diagram of the manual lever showing the forces from the cantilever spring and roller in all positions from gated Reverse to gated Park that would act to rotate the lever to either the Park or Reverse gates/detents, should the shift lever be released in some position between gated Reverse and gated Park;
 - e. The nominal frictional forces in the shift linkage assembly resisting the spring forces described in 12.d; and
 - f. Ford's assessment of the influence of a BSI switch pin acting against a swing arm with or without deformation on the frictional forces described in 12.e.
13. Identify, describe, and provide copies of all engineering standards, design guidelines, and specifications that relate in any way to the potential for the vehicle operator to achieve a static shift position between Reverse and Park in the gear selector assemblies used in the subject vehicles.
14. Provide the following information regarding the automatic transmission shift assembly and related electronics, controls and interlocks used in the subject vehicles:
- a. A flow chart of the electronics logic for the for the shifter (e.g., ignition lock, steering lock, and park lock);
 - b. Detailed assembly drawings of the shift column and peripheral equipment (e.g., shifter and cable) for the entire system from the shift lever to the manual valve and associated components in the transmission;
 - c. A detailed description of the control and operation of the BSI switch, including a diagram of the control circuit;
 - d. A diagram of the switch construction (e.g., cutaway drawing) with all internal components labeled;
 - e. Short descriptions of the material composition and function of each internal component of the BSI switch; and
 - f. A description of the control logic and engineering specifications for the switch.
15. Provide the following information related to the subject bulletin:
- a. The root cause of the time delay of the BSI pin retraction;
 - b. Copies of all documents related to the subject bulletin condition, including all tests and inspections of return parts;
 - c. Ford's assessment of the frequency of the BSI condition as a function of vehicle service (time or mileage) in the subject vehicle population, including a tabulation of related repairs by model year;
 - d. Ford's assessment of how the condition described in the bulletin may affect tactile feedback to the driver when attempting to shift into Park, when there isn't preexistent deformation of the swing arm surface; and

- e. Step 10 of the subject bulletin service procedure, which provides instructions for checking BSI function after replacing the switch, indicates that the BSI pin should "spring up one (1) second after releasing the brake pedal." Describe in detail the effect of the BSI switch condition addressed by the subject bulletin on the time required for the pin to "spring up" after releasing the brake pedal and provide copies of all related return part evaluations and other relevant test data.
16. Provide the following information related to deformation of the subject component swing arm:
- a. The root cause(s) of the deformation;
 - b. Ford's assessment of the frequency of the deformation condition as a function of vehicle service (time or mileage) in the subject vehicle population, including a description of all efforts by, or for, Ford to determine this information through inspection, complaint data, repair data, or other means;
 - c. State whether Ford's service procedures allow for servicing/replacing the swing arm separately;
 - d. Ford's assessment of the effect of the condition described in the subject bulletin on deformation of the shift linkage swing arm by the BSI pin;
 - e. Ford's assessment of the frequency of the deformation condition specifically in (1) vehicles that experienced the BSI switch condition addressed by in the subject bulletin, and (2) vehicles with no history of BSI switch anomalies;
 - f. Ford's assessment of how the condition described in the bulletin may affect tactile feedback to the driver when attempting to shift into Park, when there is preexistent deformation of the swing arm surface;
 - g. Ford's assessment of the effect of driver shift behavior (e.g., shifting into Park when brake pedal is not depressed or releasing the brake pedal while shifting into Park) on deformation of the swing arm; and
 - h. Ford's assessment of how driver shift behavior (e.g., shifting into Park when brake pedal is not depressed or releasing the brake pedal while shifting into Park) may affect tactile feedback to the driver when attempting to shift into Park, both with and without existing deformation of the swing arm surface.
17. Furnish Ford's assessment of each element of the alleged defect in the subject vehicles, including:
- a. The causal or contributory factors;
 - b. The failure mechanisms;
 - c. The failure modes;
 - d. The risk to motor vehicle safety;
 - e. What warnings, if any, the operator and the 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.

This letter is being sent to Ford 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. Ford's

failure to respond promptly and fully to this letter could subject Ford 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.) Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$6,000 per day, with a maximum of \$16,375,000 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 71 Fed. Reg. 28279 (May 16, 2006)). This includes failing to respond to ODI information requests.

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.

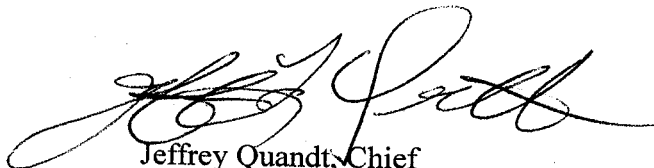
Ford's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by July 9, 2009. **All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not 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 PE09-020 in Ford's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel. 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) 366-5207 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, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., 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.** 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 512.6(c)). *See* Federal Register, volume 72, page 59434 (October 19, 2007).

Please send email notification to *Derek Rinehardt* (derek.rinehardt@dot.gov) and to ODI_IRresponse@dot.gov when Ford sends its response to this office and indicate whether there is confidential information as part of Ford response.

If you have any technical questions concerning this matter, please call Derek Rinehardt of my staff at (202) 366-3642.

Sincerely,



Jeffrey Quandt, Chief
Vehicle Control Division
Office of Defects Investigation

Enclosure, one CD ROM titled Data Collection Disc containing 4 files:

PE09-020 PRODUCTIONDATA.mdb
PE09-020 REQUEST NUMBER TWO DATA.mdb
PE09-020 WARRANTYDATA.mdb
PE09-020 VOQs.pdf