

INFORMATION Redacted PURSUANT TO THE FREEDOM OF INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

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~~OFFICE OF DEFECTS & INVESTIGATIONS
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James P. Vondale, Director
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January 17, 2011

Mr. Richard P. Boyd, Acting Director
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue SE, Room W45-302
Washington, DC 20590

OFFICE OF DEFECTS & INVESTIGATIONS
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cab

Dear Mr. Boyd:

Subject: EA09-016:NVS-213 swm

The Ford Motor Company (Ford) response to the agency's November 16, 2010, letter concerning reports of alleged loss of motive power due to transmission failure in 2004 and 2005 Ford Freestar and Mercury Monterey vehicles is attached.

Ford's review of information pertaining to this subject is consistent with Ford's previous analysis that was provided to the agency in our September 8, 2009, response to PE09-033. The overall complaint rate for loss of motive power due to torque converter failure is low, and is comparable to rates of stalling related investigations that the agency has recently closed with no manufacturer safety recall. Ford's review of consumer complaints found them to be highly influenced by the cost of the repair. Our review also found that a majority of the field reports do not meet the traditional definition of a field report and are duplicative of warranty claims because of Ford's warranty claim process requirements for transmission replacement. Furthermore, allegations of transmission failure for any reason that resulted in loss of motive power are provided in this response per the agency's request, but our analysis has found that the reported malfunctions resulted from many differing causes and are not necessarily related to the torque converter, which we understand is the focus of the agency's investigation.

As the agency is aware, vehicles may lose motive power for any number of reasons and Ford believes that each individual cause must be considered separately for its potential effect on the safe operation of the vehicle. For the alleged defect that is the subject of this investigation, Ford is not aware of any reports of customers alleging that they were unable to maintain control of their vehicle. A vehicle that loses motive power due to torque converter failure remains readily controllable and can be safely maneuvered and stopped. Steering and braking are unaffected and the vehicle can be safely parked using the transmission park system. In fact, less than 2% of customer complaints express any safety related concern with their vehicles after experiencing a loss of motive power due to a torque converter malfunction. Consideration



Mr. Richard P. Boyd

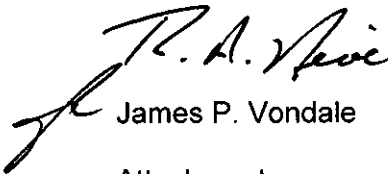
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January 17, 2011

of all the factors relating to this subject supports the conclusion that this does not present an unreasonable risk to safety in these vehicles.

If you have any questions concerning this response, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "J. P. Vondale". The signature is written in a cursive style with a large initial "J".

James P. Vondale

Attachment

FORD MOTOR COMPANY (FORD) RESPONSE TO EA09-016

Ford's response to this Engineering Analysis information request was prepared pursuant to a diligent search for the information requested. While we have employed our best efforts to provide responsive information, the breadth of the agency's request and the requirement that information be provided on an expedited basis make this a difficult task. We nevertheless have made substantial effort to provide thorough and accurate information, and we would be pleased to meet with agency personnel to discuss any aspect of this Engineering Analysis.

The scope of Ford's investigation conducted to locate responsive information focused on Ford employees most likely to be knowledgeable about the subject matter of this inquiry and on review of Ford files in which responsive information ordinarily would be expected to be found and to which Ford ordinarily would refer. Ford notes that although electronic information was included within the scope of its search, Ford has not attempted to retrieve from computer storage electronic files that were overwritten or deleted. As the agency is aware, such files generally are unavailable to the computer user even if they still exist and are retrievable through expert means. To the extent that the agency's definition of Ford includes suppliers, contractors and affiliated enterprises for which Ford does not exercise day-to-day operational control, we note that information belonging to such entities ordinarily is not in Ford's possession, custody or control.

Ford has construed this request as pertaining to vehicles manufactured for sale in the United States, its protectorates and territories.

In a December 2, 2010, telephone conversation, Mr. Stephen McHenry of the agency clarified that Requests 13, 14, 15, and 21, relating to transmissions, transmission torque converters and/or output shafts, only seek records that relate to the alleged defect.

Ford notes that some of the information being produced pursuant to this inquiry may contain personal information such as customer names, addresses, telephone numbers, and complete Vehicle Identification Numbers (VINs). Ford is producing such personal information in an unredacted form to facilitate the agency's investigation with the understanding that the agency will not make such personal information available to the public under FOIA Exemption 6, 5 U.S.C. 552(b)(6).

Answers to your specific questions are set forth below. As requested, after each numeric designation, we have set forth verbatim the request for information, followed by our response. Unless otherwise stated, Ford has undertaken to provide responsive documents dated up to and including November 16, 2010, the date of your inquiry. Ford has searched within the following offices for responsive documents: Sustainability, Environment and Safety Engineering, Marketing and Sales Operations, Global Core Engineering, Vehicle Operations, Ford Customer Service Division (FCSD), Office of the General Counsel, and Global Product Development.

Request 1

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. Technical reports or requests from dealers requiring assistance to diagnose or repair, or permission to repair or replace;
- d. Reports or information from builders or remanufacturers of the subject components;
- e. 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;
- f. Property damage claims;
- g. Third-party arbitration proceedings where Ford is or was a party to the arbitration; and
- h. Lawsuits, both pending and closed, in which Ford is or was a defendant or codefendant.

For subparts "a" through "e," 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 "g" and "h," 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.

Answer

Ford notes that the definition of the alleged defect, as well as the scope of information requested by the agency in this request, are changed from the agency's previous information request associated with this subject (PE09-033). For this reason, in addition to an updated search for reports and claims responsive to this information request, we have also re-read and re-categorized all of the reports and claims that were provided to the agency in Ford's September 8, 2009, response to Request 3 of PE09-033.

For purposes of identifying reports of incidents that may be related to the alleged defect and any related documents, Ford has gathered "owner reports" and "field reports" maintained by Ford Customer Service Division (FCSD), and claim and lawsuit information maintained by Ford's Office of the General Counsel (OGC).

Descriptions of the FCSD owner and field report systems and the criteria used to search each of these are provided in Appendix B.

The following categorizations were used in the review of reports located in each of these searches:

Category	Allegation
A1	Alleged loss of motive power while driving due to torque converter
A2	Alleged loss of motive power while driving due to transmission
B1	Alleged loss of motive power while driving, unknown cause
B2	Alleged vehicle disablement due to torque converter
B3	Alleged vehicle disablement due to transmission
B4	Alleged vehicle disablement, unknown cause
B5	Torque Converter Malfunction – unable to determine if disabled
B6	Transmission malfunction – unable to determine if disabled

For the purpose of identifying records that are responsive to this information request, allegations of "loss of motive power" during a driving cycle due to the alleged defect were categorized as "A" reports, while allegations of loss of motive power not on a roadway or not during a driving cycle (e.g., in a driveway) were categorized as "B." Allegations of no vehicle movement, or unknown cause, were considered to be ambiguous and were also categorized as "B."

Allegations that involve transmission repair for which the root cause is either unknown or is a component other than the torque converter were categorized as transmission related reports.

We are providing electronic copies of reports categorized as "B1," "B2," "B3," "B4," "B5," and "B6" as "non-specific allegations" for your review because of the broad scope of the request. Based on our engineering judgment, the information in these reports is insufficient to support a determination that they pertain to the alleged defect. In fact, some reports categorized as "B2" or "B3" indicate that the vehicle was parked so they do not relate to loss of motive power "while driving."

Owner Reports: Records identified in a search of the Master Owner Relations Systems (MORS) database, as described in Appendix B, were reviewed for relevance and sorted in accordance with the categories described above. The number and copies of relevant owner reports identified in this search that may relate to the agency's investigation are provided in the MORS III portion of the database contained in Appendix A. The categorization of each report is identified in the "Category" field.

When we were able to identify that responsive (i.e., not ambiguous) duplicate owner reports for an alleged incident were received, each of these duplicate reports was marked accordingly, and the group counted as one report. In other cases, certain vehicles may have experienced more than one incident and have more than one report associated with their VINs. These reports have been counted separately.

Legal Contacts: Ford is providing, in Appendix B, a description of Legal Contacts and the activity that is responsible for this information. To the extent that responsive (i.e., not ambiguous) owner reports indicate that they are Legal Contacts, Ford has gathered the related files from the Office of General Counsel (OGC). Non-privileged documents for files that were located that are related to the responsive owner reports are provided in Appendix C. Ford notes that it was unable to locate two files.

Field Reports: Records identified in a search of the Common Quality Indicator System (CQIS) database, as described in Appendix B, were reviewed for relevance and sorted in accordance with the categories described above. The number and copies of relevant field reports identified in this search that may relate to the agency's investigation are provided in the CQIS

portion of the database contained in Appendix A. The categorization of each report is identified in the "Category" field.

When we were able to identify that responsive duplicate field reports for an alleged incident were received, each of these duplicate reports was marked accordingly, and the group counted as one report. In other cases, certain vehicles may have experienced more than one incident and have more than one report associated with their VINs. These reports have been counted separately. In addition, field reports that are duplicative of owner reports are provided in Appendix A but are not included in the field report count.

The agency has requested as part of Request 1.c., requests from dealers requiring permission to replace transmissions. Ford notes that this broad definition of field reports goes beyond the repair diagnostic criteria for which field reports are typically generated. Ford has a significant number of these "requests for permission" due to our warranty policy for transmission replacement that requires that technicians at some dealerships obtain prior approval from Ford before a transmission replacement can be conducted. This process was implemented to ensure the technician is aware of all available repair options when performing the diagnosis and repair. When a technician completes Ford's online approval form to request transmission warranty replacement, a record is automatically generated in Ford's field report database. These field reports relating to warranty replacement approval requests are generated simply for administrative purposes. Ford is providing them with this response, as requested by the agency, as they are contained in Ford's field report database.

VOQ Data: The agency sent Ford 340 Vehicle Owner's Questionnaires (VOQs) with this information request. Of these, 111 are duplicative of reports identified in a search of Ford's data systems. Ford made inquiries of its MORS database for customer contacts and its CQIS database for field reports regarding the vehicles identified on the VOQs. Ford notes that in some instances where the VOQ does not contain the VIN or the owner's last name and zip code, it is not possible to query the databases for owner and field reports specifically corresponding to the VOQs. Any reports located for a vehicle identified in the VOQs related to the alleged defect are included in the MORS and CQIS portions of the database provided in Appendix A.

Ford's analysis of the comments and information available in each of the 340 VOQs and any corresponding Ford information found 176 that allege loss of motive power while driving due to torque converter malfunction, and 124 that allege loss of motive power while driving due to transmission malfunction. The remaining 40 reports were either ambiguous or indicated that the vehicle was in a driveway or parking space when the malfunction occurred.

Crash/Injury Incident Claims: For purposes of identifying allegations of accidents or injuries that may have resulted from the alleged defect, Ford has reviewed responsive owner and field reports, and lawsuits and claims. Ford identified one accident allegation, which was received after its search for reports in response to the PE information request. This report involved an incident that occurred in December 2009 on a 2004 Ford Freestar (VIN 2FMDA51654B [REDACTED]) in which the customer alleges that the vehicle lost power due to a torque converter malfunction, stopped on a bridge and a vehicle following several vehicles behind failed to stop. A copy of reports corresponding to this incident is included in Appendix D as well as the MORS and OGC log portion of the database provided in Appendix A.

Ford did not identify any reports of accidents that are ambiguous as to whether they relate to the alleged defect.

In its response to PE09-033, Ford previously identified one allegation that simply states "customer's wife was coasting to side of the road [following torque converter malfunction] and was hit by another vehicle." The customer was calling to request financial assistance. No other detail was provided to Ford, nor has this customer made any subsequent contact with Ford regarding this allegation. This report is included in the MORS portion of the database provided in Appendix A.

These are the only two reports of accidents received by Ford that relate to the alleged defect.

Claims, Lawsuits, and Arbitrations: For purposes of identifying incidents that may relate to the alleged defect, Ford has gathered claim and lawsuit information maintained by Ford's OGC. Ford's OGC is responsible for handling product liability lawsuits, claims, and consumer breach of warranty lawsuits and arbitrations against the Company.

Lawsuits and claims gathered in this manner were reviewed for relevance and categorized in accordance with the categories described above. Ford has also located other lawsuits, claims or consumer breach of warranty lawsuits, each of which is ambiguous as to whether it meets the alleged defect criteria. We have included these lawsuits and claims as "non-specific allegations" for your review because of the broad scope of the request. Based on our engineering judgment, the information in these lawsuits and claims is insufficient to support a determination that they pertain to the alleged defect.

We are providing the requested detailed information, where available, on the responsive and ambiguous lawsuits, and claims in our Log of Lawsuits and Claims, provided in Appendix A in the Legal Claim/Lawsuits tab. The number of relevant lawsuits and claims identified is also provided in this log. To the extent available, copies of complaints, first notices, or MORS reports relating to matters shown on the log are provided in Appendix D. With regard to these lawsuits and claims, Ford has not undertaken to contact outside law firms to obtain additional documentation.

Request 2

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2 [**Request No. 1**], 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 [**Request No. 1**] (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. Make;
- f. Model;
- g. Model year;
- h. Vehicle's mileage at time of incident;
- i. Incident date;
- j. Report or claim date;
- k. Whether a crash is alleged;
- l. Whether property damage is alleged;
- m. Number of alleged injuries, if any; and

- n. Number of alleged fatalities, if any.
- o. If there was a repair, rebuild, remanufacturer, or replacement of a subject component, what was done, and the date and location of the action.

Provide this information in Microsoft Access 2003 or 2007, or a compatible format, entitled "REQUEST NUMBER TWO DATA," See Enclosure 1, Data Collection Disc, for a preformatted table which provides further details regarding this submission.

Answer

Ford is providing owner and field reports in the database contained in Appendix A in response to Request 1. To the extent information sought in Request 2 is available for owner and field reports, it is provided in the database. To the extent information sought in Request 2 is available for lawsuits and claims, it is provided in the Log of Lawsuits and Claims provided in Appendix A in the Legal Claim/Lawsuits tab.

The agency has requested as part of Request 2.o., details of the repair that was performed. Ford notes that its field reports typically contain information relating to the diagnosis of the symptoms and do not generally include details of the eventual repair except for those occasionally entered at the option of the repairing technician.

Request 3

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.

Answer

Ford is providing owner and field reports in the database contained in Appendix A in response to Request 1. Copies of complaints, first notices, or MORS reports relating to matters shown on the Log of Lawsuits and Claims provided in Appendix A in the Legal Claim/Lawsuits tab are provided in Appendix D. To the extent information sought in Request 3 is available, it is provided in the referenced appendices.

Request 4

State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Ford to date that relate to, in the subject vehicles: (1) the alleged defect, (2) transmission replacements performed because of a fault/failure of one or more of the subject components, and (3) repairing transmissions because of fault or failure of one or more of the subject components:

- a. Warranty claims;
- b. Extended warranty claims;
- c. Claims for good will services that were provided;
- d. Field, zone, or similar adjustments and reimbursements; and
- e. Warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Answer

Ford notes that the definition of the alleged defect, as well as the scope of information requested by the agency in this request, are changed from the agency's previous information request associated with this subject (PE09-033). For this reason, in addition to an updated search for reports and claims responsive to this information request, we have also re-read and re-categorized all of the reports and claims that were provided to the agency in Ford's September 8, 2009, response to Request 6 of PE09-033.

The following categorizations were used in the review of reports located in each of these searches:

Category	Allegation
A1	Alleged loss of motive power while driving due to torque converter
A2	Alleged loss of motive power while driving due to transmission
B1	Alleged loss of motive power while driving, unknown cause
B2	Alleged vehicle disablement due to torque converter
B3	Alleged vehicle disablement due to transmission
B4	Alleged vehicle disablement, unknown cause
B5	Torque converter malfunction – unable to determine if disabled
B6	Transmission malfunction – unable to determine if disabled
C1	Torque converter malfunction – vehicle not disabled
C2	Transmission malfunction – vehicle not disabled

For the purpose of identifying records that are responsive to this information request, allegations of "loss of motive power" during a driving cycle due to the alleged defect were categorized as "A" reports, while allegations of loss of motive power not on a roadway or during a driving cycle (e.g., in a driveway) were categorized as "B." Allegations of no vehicle movement, or unknown cause, were considered to be ambiguous and for that reason were also categorized as "B." All other general transmission repairs were categorized as "C".

We are providing electronic copies of reports categorized as "B1," "B2," "B3," "B4," "B5," and "B6" as "non-specific allegations" for your review because of the broad scope of the request. Based on our engineering judgment, the information in these reports is insufficient to support a determination that they pertain to the alleged defect. In fact, some reports categorized as "B2" or "B3" indicate that the vehicle was parked so they do not relate to loss of motive power "while driving." As the agency requested we are providing reports categorized as "C1" which include repair or replacement of the transmission due to the subject components. We are also providing reports categorized as "C2" which include repair or replacement of the transmission due to any other internal malfunction.

Allegations that involve transmission repair for which the root cause is either unknown or is a component other than the torque converter were categorized as transmission related reports.

Records identified in a search of the AWS database, as described in Appendix B, were reviewed for relevance and sorted in accordance with the categories described above. The number and copies of relevant warranty claims identified in this search that may relate to the agency's investigation are provided in the AWS portion of the database contained in Appendix A. The categorization of each report is identified in the "Category" field.

When we were able to identify that duplicate claims for an alleged incident were received, each of these duplicate claims was marked accordingly and the group counted as one report. In other cases, certain vehicles may have experienced more than one incident and have more than one claim associated with their VINs. These claims have been counted separately. Warranty claims that are duplicative of owner and/or field reports are provided in Appendix A but are not included in the report count.

Requests for "goodwill, field or zone adjustments" received by Ford to date that relate to the alleged defect that were not honored, if any, would be included in the MORS reports identified in response to Request 1. Such claims that were honored are included in the warranty data provided.

Request 5

Separately, for each such claim listed in items "a" through "e" in Question No. 4 above, state the following information:

- a. Ford's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. Make;
- d. Model;
- e. Model year;
- f. VIN;
- g. Repair date;
- h. Vehicle mileage at time of repair;
- i. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- j. Labor operation number;
- k. Problem code;
- l. Whether the repair involved installation of a remanufactured or rebuilt transmission;
- m. Whether the repair involved repairing or replacing the torque converter;
- n. Whether the repair involved repairing or replacing the output shaft;
- o. Whether the repair involved a condition that resulted in loss of motive power (use "yes," "no," or "unknown" for this field and include a description of the method Ford used to make the assessment);
- p. When the loss of motive power occurred (e.g., while driving or upon start-up, etc.);
- q. Concern stated by customer;
- r. Cause as stated by the dealer/technician;
- s. Correction as stated by the dealer/technician;
- t. Additional comments, if any, by dealer/technician relating to claim and/or repair; and;
- u. Indicate the type of coverage under which Ford paid the claim (e.g., base warranty, goodwill, extended warranty, etc.).

Provide this information in Microsoft Access 2003 or 2007, 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.

Answer

Ford is providing warranty claims in the database contained in Appendix A in response to Request 4. To the extent information sought in Request 5 is available, it is provided in Appendix A and Appendix E.

Information requested by the agency in this request includes a listing of components that were repaired, replaced, or remanufactured during the repair. We are providing this information separately in Appendix E. The information is provided for each repair and sorted by Claim Key. The Claim Key for each repair is included in the database contained in Appendix A. The Claim Key is unique for each model year so we are providing a table for the 2004 and the 2005 model year.

The agency has also requested the type of warranty coverage under which Ford paid the claim. The Transaction Code for each repair indicates whether the repair was covered by base warranty, goodwill, or extended warranty. The Transaction Code is included in the database contained in Appendix A and the description for each code is included at the end of Appendix B.

Request 6

Describe in detail the search criteria used by Ford to identify the claims identified in response to Request Nos. 4 and 5 above, 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.

Answer

Detailed descriptions of the search criteria, including all pertinent parameters, used to identify the claims provided in response to Request 4 and 5 are described in Appendix B.

For 2004 through 2005 model year Ford Freestar and Mercury Monterey vehicles, the New Vehicle Limited Warranty, Bumper-to-Bumper Coverage begins at the warranty start date and lasts for three years or 36,000 miles, whichever occurs first. Optional Extended Service Plans (ESPs) are available to cover various vehicle systems, and are available in various time-in-service and mileage increments. The details of the various plans are provided in Appendix F.

Request 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, including transmission rebuilders, transmission remanufacturers and torque converter rebuilders and remanufacturers. This includes, but is not limited to, bulletins, advisories, informational documents, orders or authorizations for repair, rebuild, remanufacture, or other disposition (such as replacement) of the subject components, 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.

Answer

For purposes of identifying communications to dealers, zone offices, or field offices pertaining, at least in part, to loss of motive power due to the torque converter, Ford has reviewed the following FCSD databases and files: The On-Line Automotive Service Information System (OASIS) containing Technical Service Bulletins (TSBs) and Special Service Messages (SSMs); Internal Service Messages (ISMs) contained in CQIS; and Field Review Committee (FRC) files. We assume this request does not seek information related to electronic communications between Ford and its dealers regarding the order, delivery, or payment for replacement parts, so we have not included these kinds of information in our answer.

A description of Ford's OASIS messages, ISMs, and the Field Review Committee files and the search criteria used are provided in Appendix B.

OASIS Messages: Ford did not identify any SSMs or TSBs that may relate to this request.

Internal Service Messages: Ford identified no ISMs that may relate to this request.

Field Review Committee: Ford identified no field service action communications that may relate to this request.

Ford is not aware of any forthcoming communications related to the alleged defect in subject vehicles.

Request 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. This includes but is not limited to actions related to the torque converter, output shaft, and transmission in the subject vehicles. 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.

Answer

Ford notes that the information requested by the agency in this request is more expansive than the information requested by the agency in PE09-033, and now includes the transmission. For this reason, Ford conducted an updated search for documents that included transmissions as well as torque converters and output shafts.

Ford is construing this request broadly and is providing not only studies, surveys, and investigations related to the alleged defect, but also notes, correspondence, and other communications that were located pursuant to a diligent search for the requested information. Ford is providing the responsive non-confidential Ford documentation in Appendix G.

To the extent that the information requested is available, it is included in the documents provided. If the agency should have questions concerning any of the documents, please advise.

Ford is submitting additional responsive documentation in Appendix H with a request for confidentiality under separate cover to the agency's Office of the Chief Counsel pursuant to 49 CFR, Part 512.

In the interest of ensuring a timely and meaningful submission, Ford is not producing non-responsive materials or items containing little substantive information. Examples of the types of materials not being produced are meeting notices, raw data lists (such as part numbers or VINs) without any analytical content, duplicate copies, non-responsive elements of responsive materials, and draft electronic files for which later versions of the materials are being submitted. Through this method, Ford is seeking to provide the agency with substantive responsive materials in our possession in the timing set forth for our response. We believe our response meets this goal. Should the agency request additional materials, Ford will cooperate with the request.

Request 9

Describe all modifications or changes made by, or on behalf of, Ford in the design, material composition, manufacture, remanufacture, quality control, supply, or installation of a torque converter, output shaft, and transmission in the subject vehicles, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:

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

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.

Answer

A table of the requested changes for the torque converter and a table for the requested changes for the transmission are provided in Appendix I. Ford is not aware of any changes made to the output shaft that relate to the alleged defect.

Request 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 the sale (including the cut-off date for sales, if applicable):

- a. Transmission output shafts;
- b. Transmission torque converters; and
- c. Any kits that have been released, or developed, by Ford for use in service repairs to the subject component.

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.

Answer

As the agency is aware, Ford service parts are sold in the U.S. to authorized Ford and Lincoln-Mercury dealers. Ford has no means by which to determine how many of the parts were actually installed on vehicles, the vehicle model or model year on which a particular part was installed, the reason for any given installation, or the purchaser's intended use of the components sold.

Ford is providing the total number of Ford service replacement torque converters and output shafts by part number (both service and engineering) and year of sale, where available, in Appendix J. Information pertaining to production and service usage for each part number, and supplier point of contact information, is included in Appendix K. The 2004 model year Freestar and Monterey torque converters are unique. The 2005 model year Freestar and Monterey vehicles with 3.9L engines share the same torque converter as the 2006 and 2007 model year Freestar and Monterey with 3.9L engines. The 2005 model year Freestar and Monterey vehicles with 4.2L engines share the same torque converter as the 2006 and 2007 model year Freestar and Monterey with 4.2L engines. The output shaft is common for all 2004 through 2007 model year Freestar and Monterey vehicles. The output shaft was released into production for all Taurus and Windstar transmissions during the 2003 model year. It could service back to 2001 model year on Taurus and Windstar vehicles.

Request 11

- . Furnish Ford's 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;
- 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.

Answer

Ford's review of information pertaining to this subject is consistent with Ford's previous analysis that was provided to the agency in our September 8, 2009, response to PE09-033. The complaint rate for loss of motive power while driving based on torque converter failure remains low, and is notably lower for this Engineering Analysis than the rate for vehicles that were the subject of a Preliminary Evaluation (PE08-061) that the agency closed without action. Reports continue to show that the primary cause for torque converter failures relates to damaged or sheared oil pump driveshaft splines, resulting in a loss of motive power. Yet the engine will continue to run; power assisted braking, steering and electrical function for components such as vehicle lighting remain functional and unaffected; there is no associated effect on the park function of the transmission; the transmission will engage "park" when the selector lever is placed in the "park" position and the driveline remains engaged to hold the vehicle. Most of the owner reports are solely conveying frustration with the cost of repair which can range from \$1000 to over \$3000.

Warranty Claims

The warranty claim rate, including extended warranties and goodwill adjustments, specifically relating to the alleged defect, loss of motive power due to transmission malfunction (including torque converter and all other causes), on these vehicles is low (0.7%), especially considering time in service. As the agency is aware, a transmission can malfunction for a wide variety of reasons. While we understand that the agency's investigation primarily relates to the torque converter, the agency also requested reports pertaining to all transmission related repairs. For transmission related repairs that do not specifically mention the torque converter, analysis of claims found a variety of other parts that were the cause for the transmission repair or replacement, e.g., clutches, planetary gears, gaskets, seals, rollers, valve bodies, or other various internal components. The warranty rate relating to loss of motive power due to torque converter malfunction on these vehicles is 0.5%, the warranty rate for other causes is 0.2%.

Owner Reports

Ford's review of the owner reports that relate to the alleged defect found that 90% are seeking financial assistance with the repair. While a torque converter replacement typically can cost over \$1000, a torque converter malfunction can sometimes damage other transmission components, requiring complete transmission replacement, which typically costs approximately \$3000.

Few of the customer complaints, less than 2%, express any safety related concerns with their vehicles after experiencing a loss of motive power while driving due to a torque converter malfunction. In its search for reports to respond to this EA, Ford identified only one allegation of an accident relating to the subject that has been received in the 14 months following the PE; in this report a vehicle allegedly lost power due to a torque converter malfunction while

driving on a bridge resulting in an accident caused by a driver that did not properly control their vehicle that was several vehicles behind the Freestar. In its response to PE09-033 Ford previously identified one allegation that stated the vehicle "was coasting to side of the road [following torque converter malfunction] and was hit by another vehicle." We have received no further contact from this customer pertaining to this allegation. As previously stated, a vehicle that experiences loss of motive power resulting from torque converter failure can be safely maneuvered and secured in "park." Ford found no accidents that were alleged to have resulted from a transmission failure in its review of all transmission reports and claims requested by the agency. These two accident allegations related to the alleged defect are from a population of 205,000 vehicles, some that have been on the road for over seven years.

Field Reports

Review of the field reports provided in this response found that over half were created simply to facilitate technician requests for transmission replacement approval. Over 70% have an associated warranty claim for transmission replacement that is also provided in this response. As described in response to Request 1, Ford's warranty policy for transmission replacement requires that technicians at some dealerships obtain prior approval from Ford before a transmission replacement can be conducted. This process was implemented to ensure the technician is aware of all available repair options when performing the diagnosis and repair. When a technician completes Ford's online approval form to request transmission replacement, a record is automatically generated in Ford's field report database. Field reports relating to warranty replacement approval requests are generated simply for administrative purposes. They do not meet the repair diagnostic criteria for which field reports are typically generated. For these reasons, less than half of the field reports provided in this response are typical field reports in which technicians request assistance with diagnosis and repair of torque converter or transmission complaint vehicles.

Similar Investigations

The complaint rate in the subject vehicles remains low and is comparable to those of engine stalling related investigations the agency has recently closed. As previously described, the number of field reports provided in this response is significantly elevated based on Ford's requirement that approval be granted by Ford prior to the warranty repair, resulting in the creation of a field report simply for administrative purposes. In addition, Ford is aware of significant internet forum activity relating to this subject. It is reasonable to conclude that some owner reports result directly from encouragement within these forums to provide complaints to Ford and/or the agency, a circumstance that may not have existed to the same degree in other peer investigations.

Analysis finds that the rate for owner and field reports (exclusive of those related to prior approval as discussed above) specifically relating to loss of motive power while driving due to torque converter malfunction in the subject vehicles is 2.2 complaints per 1,000 vehicles (2.2/K). The rate including the broader category of prior approval requests is 2.5 complaints per 1,000 vehicles (2.5/K). In comparison the complaint rate for vehicle stall while driving in PE08-061, which the agency closed at the PE level in April 2009 with no action, was reported in the agency's closing resume as 3.7 complaints per thousand vehicles (3.7/K). The agency's closing resume for that investigation states "...the SWD (stalls while driving) complaint and warranty rates for the subject vehicles are similar to rates observed in prior investigations involving engine stall consequences that were closed with no action." Similarly, the agency also closed EA07-018 based on "relatively low rates ...when compared with prior

investigations" The vehicles that were the subject of that investigation had complaint rates averaging 5.3/K for 2002 through 2005 model year vehicles.

Conclusion

The overall complaint rate for loss of motive power while driving due to torque converter failure is low, and is comparable to rates of stalling related investigations that the agency has recently closed with no manufacturer safety recall. Ford's review of consumer complaints found them to be highly influenced by the cost of the repair. Our review also found that a majority of the field reports do not meet the traditional definition of a field report and are duplicative of warranty claims because of Ford's warranty claim process requirements for transmission replacement. Furthermore, allegations of transmission failure for any reason that resulted in loss of motive power are provided in this response per the agency's request, but transmission malfunctions result from many differing causes and are not necessarily related to the torque converter, which we understand is the focus of the agency's investigation.

As the agency is aware, vehicles may lose motive power for any number of reasons and Ford believes that each individual cause must be considered separately for its potential effect on the safe operation of the vehicle. Ford is not aware of any reports pertaining to this investigation where customers allege they were unable to maintain control of their vehicle. A vehicle that loses motive power due to torque converter failure remains readily controllable and can be safely maneuvered and stopped. Steering and braking are unaffected and the vehicle can be safely parked using the transmission park system. In fact, less than 2% of customer complaints express any safety related concern with their vehicles after experiencing a loss of motive power due to a torque converter malfunction. Consistent with the agency's evaluation associated with PE08-061 involving a higher rate of reports, consideration of all the factors relating to this subject supports the conclusion that this does not present an unreasonable risk to safety in these vehicles.

Request 12

For subject components, and for all part numbers identified in response to Question No. 10 above, identify all persons (both employed by Ford at any time and persons who were not employees of Ford) involved in the following activities with respect to components in and after 2005:

- a. Subject component and/or part evaluation;
- b. Subject component and in part design and assessment;
- c. Determining material performance requirements, specifications, and supplier sources;
- d. Assessing and/or modifying manufacturing processes and actions pertaining to the assembly and construction of subject components;
- e. Assessing and/or modifying manufacturing quality control and quality assurance programs, procedures and measures pertaining to the construction and assembly of subject components;
- f. Determining what testing to perform on subject components, assuring that the testing was performed, and reviewing the results of testing; and
- g. Developing procedures for determining and performing repairs, rebuilds, remanufactures, and/or replacements of subject components.

Answer

- a. The torque converter supplier, Exedy, is responsible for inspecting field returns as a part of their normal quality improvement process. The output shaft supplier, American Aikoku Alpha Inc, is responsible for inspecting field returns as a part of their normal quality improvement process. The torque converter remanufacturer, Alma Products, inspects core returns to determine which components can be reused.
- b. Ford Product Development was responsible for these functions. Ford is not aware of any design changes that were made in 2005 or later.
- c. Ford Product Development was responsible for performance requirements and specifications and the Tier 1 supplier was responsible for sourcing. Ford is not aware of any design changes or supplier changes that were made in 2005 or later for the subject components.
- d. Ford Product Development, FCSD Engineering, FCSD Purchasing, and Alma Products (the torque converter remanufacturer) were involved in a process change to allow new pump drive inserts to be installed in remanufactured torque converters beginning in November of 2008.
- e. Ongoing quality assessments were the responsibility of Ford Supplier Technical Assistance (STA) engineering for Tier 1 suppliers. The Tier 1 suppliers were responsible for ongoing quality assessments of Tier 2 suppliers. Ford is not aware of any significant manufacturing changes that were made in 2005 or later.
- f. Ford STA is responsible for reviewing Tier 1 results of production in-process destructive testing.
- g. Various functions within Ford or component suppliers are responsible for these varied items. Ford is not aware of any significant changes to the diagnostic or repair procedures that were made in 2005 and later for the subject components.

Request 13

For each Ford supplier of transmission torque converters and/or output shafts in the subject vehicles, provide copies of all written communications between Ford and that supplier in connection with that component part number, and all documentation associated with transmission torque converters and/or output shafts in the subject vehicles.

Answer

We refer the agency to Ford's response to Request 8 for information associated with this request.

Request 14

Has Ford performed a metallurgical analysis in connection with any of the subject components? If so, provide for each analysis the following information:

- a. Action title or identifier;

- b. The start date;
- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the analysis;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the analysis; and
- f. A brief summary of the findings and/or conclusions resulting from the analysis.

For each analysis 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.

Answer

We refer the agency to Ford's response to Request 8 for information associated with this request.

Request 15

Provide the results of Ford's examination of failures of one or more of the subject components in the subject vehicles, including:

- a. The date or approximate date on which the failure occurred;
- b. The name, address and telephone number of the owner from whom the failed subject component was obtained;
- c. A detailed description of Ford's examination and analysis;
- d. The part number(s) (service and engineering) of the subject component;
- e. Ford's assessment following its examination; and
- f. The present location of the failed subject component.
- g. Copies of all reports and documentation associated with Ford's examination.

Answer

We refer the agency to Ford's response to Request 8 for information associated with this request.

Request 16

What are the criteria by which Ford determines whether a subject component may be, or should be, "repaired?"

Answer

Ford does not recommend that dealership technicians attempt to repair torque converters and output shafts.

Request 17

For subject vehicles under warranty at any time (from sale to first purchaser to the end of the warranty period), describe in detail how a Ford dealer commonly diagnoses possible torque converter and/or output shaft problems and repairs the transmission, if a repair is required, including:

- a. Diagnostic procedures;
- b. How the transmission torque converter, output shaft, and/or its subparts are identified for repair;
- c. A detailed, step-by-step explanation of the repair procedures under warranty;
- d. Time(s) to complete repairs; and
- e. Costs for repair

Answer

Diagnostic procedures and repair procedures for the transmission are contained in the Ford Workshop Manual. We are providing the latest version of the complete Workshop Manual in Appendix M. Repairs conducted under warranty are at no cost to the customer. Warranty coverage is determined by Ford's Warranty and Policy Manual provided in Appendix N. The time and material required to complete repairs varies with each vehicle. Dealerships are authorized to charge Ford for warranty repairs according to the labor time standards provided in Appendix L. The hourly rate varies by dealer and region. (The nationwide average hourly labor rate for the 4th quarter of 2010 was \$88.00.) Dealerships are authorized to charge Ford for material cost according to the Warranty and Policy Manual.

All dealerships are authorized to repair transmissions; Ford's warranty policy requires that technicians at some dealerships obtain prior approval from Ford before a new, remanufactured, or rebuilt transmission can be installed.

Request 18

For subject vehicles not under warranty at any time (after the end of the warranty period), describe in detail how a Ford dealer commonly diagnoses possible torque converter and/or output shaft problems and repairs the transmission, if a repair is required, including:

- a. Diagnostic procedures;
- b. How the transmission torque converter, output shaft, and/or its subparts are identified for repair;
- c. A detailed, step-by-step explanation of the repair procedures [not] under warranty;
- d. Time(s) to complete repairs; and
- e. Costs for repair; and
- f. Any discounts or refund(s) to customers.

Answer

Diagnostic procedures and repair procedures for the transmission are contained in the Ford Workshop Manual provided in Appendix M. The time and material required to complete repairs varies with each vehicle. Dealerships are independently owned and operated and are not bound by the Ford's labor time standards or Ford's warranty policy for repairs conducted outside of warranty. Ford has not offered any discounts or refunds for transmission repairs on the subject vehicles.

Request 19

For subject vehicles under warranty at any time (from sale to first purchaser to the end of the warranty period), describe in detail how a Ford dealer commonly diagnoses possible

torque converter and/or output shaft problems and rebuilds or remanufactures the transmission, if such action is required, including:

- a. Diagnostic procedures;
- b. How the transmission torque converter, output shaft, and/or its subparts are identified for the rebuild or remanufacture;
- c. A detailed, step-by-step explanation of the repair procedures under warranty;
- d. Time(s) to complete repairs; and
- e. Costs for repair

Answer

We refer the agency to Ford's response to Request 17 for information associated with this request.

Request 20

For subject vehicles not under warranty at any time (after the end of the warranty period), describe in detail how a Ford dealer commonly diagnoses possible torque converter and/or output shaft problems and rebuilds or remanufactures, if such action is required, including:

- a. Diagnostic procedures;
- b. How the transmission torque converter, output shaft, and/or its subparts are identified for repair;
- c. A detailed, step-by-step explanation of the repair procedures [not] under warranty;
- d. Time(s) to complete repairs; and
- e. Costs for repair; and
- f. Any discounts or refund(s) to customers.

Answer

We refer the agency to Ford's response to Request 18 for information associated with this request.

Request 21

Provide copies of all written communications between Ford and any rebuilder or remanufacturer of transmission, torque converters, or output shafts in the subject vehicles identified above in Question Nos. 15-20.

Answer

We refer the agency to Ford's response to Request 8 for information associated with this request.

Request 23

Provide Ford's post-warranty failure rates for both the transmission torque converter and output shaft in the subject vehicles.

Answer

We refer the agency to Ford's response to Request 11 for an analysis of rates and other information associated with this subject.

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