

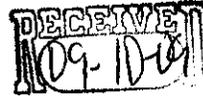


Automotive Safety Office
Environmental and Safety Engineering

Fairlane Plaza South
330 Town Center Drive
Dearborn, MI 48126-2738 USA

September 8, 2009

Ms. Kathleen C. DeMeter, Director
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E. W45-302
Washington, D.C. 20590



Dear Ms. DeMeter:

Subject: PE09-033 NVS-213swmc

The Ford Motor Company (Ford) response to the agency's July 27, 2009, letter concerning reports of alleged loss of motive power due to torque converter failure in model year (MY) 2004 and 2005 Ford Freestar and Mercury Monterey vehicles is attached.

The overall complaint rate for loss of motive power based on the torque converter failure is low, and is comparable to rates of stalling related investigations that the agency has recently closed. 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 vehicle immobility are also provided in this response per the agency's request, but are related to numerous other transmission components and not the torque converter.

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, only 2% of customer complaints express any safety related concern with their vehicles. 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.

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

Sincerely,

James P. Vondale

Attachment



FORD MOTOR COMPANY (FORD) RESPONSE TO PE09-033

Ford's response to this Preliminary Evaluation 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 Preliminary Evaluation.

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.

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 July 27, 2009, 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, Office of the General Counsel, and Global Product Development.

Request 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. Date warranty coverage commenced.; and
- g. 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 "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Answer

Ford records indicate that the approximate total number of subject vehicles sold in the United States (the 50 states and the District of Columbia) and its protectorates and territories (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands) is 205,219.

The number of subject vehicles sold in the United States by model and model year is shown below:

Model	2004 MY	2005 MY
Freestar	105,230	72,654
Monterey	20,635	6,700

The requested data for each subject vehicle is provided in Appendix A1.

Request 2

State, by model and model year, the number of subject vehicles Ford has manufactured for sale or lease in the United States for which Ford sold an extended service plan. Separately, for each vehicle, state the following:

- a. Vehicle identification number (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Name of extended service plan;
- f. The mileage at which the extended service plan expires; and
- g. The number of months from the warranty start date at which the extended service plan expires.

Provide the table in Microsoft Access 2003, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Answer

Ford is providing the requested information in Appendix A2.

Request 3

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, or vehicle disablement and/or the sudden loss of motive power due to a transmission failure of any type. For those cases in which Ford is unable to determine if

the vehicle experienced disablement and/or the sudden loss of motive power because of the alleged defect, Ford is to include those and may categorize them as undetermined:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
- e. Third-party arbitration proceedings where 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 "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.

Answer

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/vehicle disablement due to torque converter
A2	Alleged loss of motive power/vehicle disablement due to transmission
B1	Alleged loss of motive power/vehicle disablement, unknown cause
B2	Torque converter malfunction – unable to determine if disabled
B3	Transmission malfunction – unable to determine if disabled

We are providing electronic copies of reports categorized as "B1", "B2", and "B3" 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.

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 categorized 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 C. 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 D. 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 categorized 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 C. 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 C but are not included in the field report count.

Many field reports provided in this response were generated for administrative purposes only and are not typical field reports requesting diagnosis or repair assistance. Though torque converters can be separately serviced, a torque converter malfunction sometimes damages other transmission components, requiring complete transmission replacement. Ford's warranty policy for transmission replacement requires that technicians at the majority of 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. Though they do not meet the repair diagnostic criteria for which field reports are typically generated, Ford is nevertheless providing them in this response as they are contained in Ford's field report database.

VOQ Data: NHTSA sent Ford by email 178 Vehicle Owner's Questionnaires (VOQs), two of which were duplicative. 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 on 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 C and have been identified by a "Y" in the "VOQ Dup" field.

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 found 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.

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 C 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 E. With regard to these lawsuits and claims, Ford has not undertaken to contact outside law firms to obtain additional documentation.

Request 4

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 3, state the following information:

- a. Ford's file number or other identifier used;
- b. The category of the item, as identified in Request No. 3 (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;
- f. Vehicle's model;
- g. Vehicle's model year;

- h. Vehicle's mileage at time of incident;
- i. Incident date;
- j. Report or claim date;
- k. Causal component alleged (use undetermined if no component is specified);
- l. Whether a crash is alleged;
- m. Whether property damage is alleged;
- n. Number of alleged injuries, if any; and
- o. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2003, 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 C in response to Request 4. To the extent information sought in Request 4 is available for owner and field reports, it is provided in the database. To the extent information sought in Request 4 is available for lawsuits and claims, it is provided in the Log of Lawsuits and Claims in Appendix C.

Request 5

Produce copies of all documents related to each item within the scope of Request No. 3. 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 C in response to Request 5. Copies of complaints, first notices, or MORS reports relating to matters shown on the Log of Lawsuits and Claims are provided in Appendix E. To the extent information sought in Request 5 is available, it is provided in the referenced appendices.

Request 6

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 (1) replacement of the subject component, (2) transmission replacements performed because of a torque converter fault/failure, or (3) transmission replacements to correct a condition that caused a loss of motive power: 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 reformation:

- a. Ford's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;

- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Whether there is a towing claim for the vehicle within three days of the repair date;
- k. Concern stated by customer;
- l. Whether the repair involved a condition that resulted in a vehicle disablement (use "yes," "no," or "unknown" for this field and include a description of the method Ford used to make the assessment);
- m. Whether the disablement occurred while driving or upon start-up;
- n. Cause and correction as stated by the dealer/technician; and
- o. Additional comments, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2003, 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. To the extent that the claims provided in response to this request may involve different components of the transmission or different root causes, provide a table summarizing Ford's assessment of the counts by causal component and mode of failure.

Answer

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

Category	Allegation
A1	Alleged loss of motive power/vehicle disablement due to torque converter
A2	Alleged loss of motive power/vehicle disablement due to transmission
B1	Alleged loss of motive power/vehicle disablement, unknown cause
B2	Torque converter replacement – unable to determine if disabled
B3	Transmission replacement – unable to determine if disabled
B4	Torque converter replacement – not disabled

We are providing electronic copies of reports categorized as "B1," "B2," and "B3" 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.

Records identified in a search of the AWS database, as described in Appendix B, were reviewed for relevance and categorized in accordance with the categories described in the response to Request 6. 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 C. 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 C but are not included in the report count above.

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 3. Such claims that were honored are included in the warranty data provided.

Additionally, the agency has requested information related to claims for vehicle towing within three days of the subject component repair claim. Ford provides roadside assistance as part of the new vehicle limited warranty and certain optional extended service plans. The roadside assistance program is administered by an outside supplier and Ford does not have access to claims made for vehicle towing through this service. Recently, Ford has begun importing roadside assistance claims into its MORS database. However, the claims do not indicate what type of assistance was required, only that assistance was requested. The customer and technician comments provided with warranty claims provide the best source of information regarding possible incident-related vehicle towing.

Request 7

Describe in detail the search criteria used by Ford to identify the claims identified in response to Request 6, including the labor operations, problem codes, part numbers and any other pertinent parameters used, including the specific method for assessing whether the claim was associated with a loss of motive power incident. 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.

Answer

Detailed descriptions of the search criteria, including all pertinent parameters, used to identify the claims provided in response to Request 6 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, time in service and mileage increments. The number of vehicles that are covered under each such extended warranty is reported in Appendix A2.

Request 8

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.

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 identified no SSMs and no 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.

Request 9

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.

Answer

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 F.

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 G 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 10

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 component, 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 is provided in Appendix H.

Request 11

Produce one of each of the following:

- a. Exemplar samples of each design version of the subject component;
- b. Field return samples of the subject component exhibiting the subject failure mode; and
- c. Any kits that have been released, or developed, by Ford for use in service repairs to the subject component which relate, or may relate, to the alleged defect in the subject vehicles.

Answer

Ford is providing the following samples:

1. One field return torque converter cover with damaged splines. The torque converter was manufactured on August 24, 2004. Only the cover is provided because the splines cannot be seen when the cover is attached to the assembly.
2. One torque converter cover with undamaged splines. This torque converter is an engineering sample component.

There are no service kits relating to this subject.

Request 12

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. Subject component;
- b. Transmission assemblies, new or remanufactured; 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 transmission assemblies by part number (both service and engineering) and year of sale, where available, in Appendix I. Information pertaining to production and service usage for each part number, and supplier point of contact information, is included in Appendix K.

Request 13

Provide a detailed description of the design and operation of the subject component, including exploded parts and cutaway photographs or diagrams showing and naming all subcomponents and individual parts.

Answer

Ford is providing the requested information in Appendix J.

Request 14

Provide the following information regarding remanufactured transmissions and/or torque converters:

- a. Describe Ford's process for servicing subject component/assemblies with remanufactured parts, including the core return process and all data recorded by the repairing dealer and remanufacturer; and
- b. Provide the name, address and contact information for all Ford authorized remanufacturers.

Answer

Approximately twelve months after Original Equipment (OE) production of the transmission model year ends, remanufactured units are used for service replacements instead of new units. The same applies to torque converters.

When a remanufactured transmission or torque converter is used in service, a core charge is applied to the sale of the unit as an incentive for the purchaser to return the replaced unit to Ford. The purchaser is reimbursed the core charge when the replaced unit is returned to Ford.

Replaced transmission and torque converter cores are collected by local or regional powertrain distributors from Ford and Lincoln-Mercury dealers. These individual distributors consolidate the cores and disposition them as directed by Ford as follows:

- Send the parts to a Ford core warehouse for storage
- Send the parts to a Ford authorized remanufacturer for remanufacturing
- Sell or scrap the core
- Send to a designated location for analysis

A small percentage (less than 2%) of the OE transmission cores that are returned to the remanufacturer are analyzed for the cause of transmission replacement. Customer complaint and repairing dealer comments are not forwarded to the remanufacturer.

Information pertaining to Request 14(b) is provided in Appendix K.

Request 15

Provide the following information for all transmission assemblies removed from the subject vehicles that have been returned to Ford:

- a. VIN of the subject vehicle from which the transmission assembly was removed;
- b. Mileage at the time of removal;
- c. Customer complaint/reason for transmission replacement;
- d. Dealer/repair shop/technician comments regarding reason for replacement; and
- e. Remanufacturer's analysis for reason of failure.

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

Answer

Ford's response to Request 15(a) through 15(d) is provided in Appendix C.

As stated in the answer to Request 14, a small percentage of the field return transmissions are evaluated by the remanufacturer. Ford is providing the requested information in Appendix L.

Request 16

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

The torque converter multiplies and transmits torque from the engine to the transmission. The torque converter in these vehicles also turns a shaft for the transmission oil pump, providing fluid pressure to the transmission.

With respect to the reports that form the basis for this Preliminary Evaluation, investigation has found that the primary cause for the majority of the reported torque converter failures relates to the transmission oil pump shaft. Seven transmissions were returned from the field and analyzed by Ford's transmission remanufacturer, and five were found to have damaged or sheared splines at the oil pump shaft attachment to the torque converter cover. Damaged or sheared splines at this interface can cause a loss of transmission oil pressure, resulting in a loss of motive power. Analysis of torque converter covers with damaged or sheared splines found that these components did not meet Ford's heat treatment specification.

Even if damaged or sheared splines cause a loss of transmission oil pressure resulting in a loss of motive power, the engine will continue to run; power assisted braking, steering and electrical function for components such as vehicle lighting remain functional and unaffected and 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.

Warranty Claims

The warranty claim rate, including extended warranties and goodwill adjustments, specifically relating to the alleged defect on these vehicles is low (1.4%), especially considering time in service. The agency also requested not only claims that specifically allege a torque converter malfunction, but also those relating to transmission failure of any type resulting in loss of motive power. As the agency is aware, a transmission can malfunction for a wide variety of reasons. In fact, analysis of the more general transmission-related claims requested by the agency and provided in this response found a variety of parts other than the torque converter 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. Yet the warranty rate for this broader category of transmission replacements based on loss of motive power is also very low – only 0.8%.

Owner Reports

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

Few of the customer complaints, less than 2%, express any safety related concerns with their vehicles. Ford found one allegation that states 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 incident. As previously stated, a vehicle that experiences immobility resulting from torque converter failure can still be safely maneuvered and secured in "park." The single allegation of some kind of "accident" is from a population of 205,000 vehicles, some that have been on the road for over six years. Ford also found no accidents that were alleged to have resulted from a transmission failure in the broader review of all transmission reports and claims requested by the agency.

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 3, Ford's warranty policy for transmission replacement requires that technicians at the majority of 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. Though they do not meet the repair diagnostic criteria for which field reports are typically generated, Ford has nevertheless provided them as they are contained in Ford's field report database. 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 rates in the subject vehicles are 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. An analysis finds that the complaint rate for owner and field reports (exclusive of those related to prior approval as discussed above) for vehicle disablement allegations based on the torque converter in the subject vehicles is less than 2.5 complaints per 1,000 vehicles (2.5/K). The complaint rate for vehicle disablement allegations based on other transmission issues in the subject vehicles is approximately 3.5/K. As previously noted, the warranty claim rate, including extended warranties and goodwill adjustments, relating to this subject is also low. In comparison the complaint rate for the subject vehicles in PE08-061, which the agency closed 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 based on the torque converter failure is low, and is comparable to rates of stalling related investigations that the agency has recently closed. 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 vehicle immobility are also provided in this response per the agency's request, but are related to numerous other transmission components and not the torque converter.

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, only 2% of customer complaints express any safety related concern with their vehicles. 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.

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