

# *Ford Motor Company*

James P. Vondala, Director  
Automotive Safety Office  
Environmental & Safety Engineering

December 12, 2003

Ms. Kathleen C. DeMeter, Director  
Office of Defects Investigation Safety Assurance  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

Dear Ms. DeMeter:

Subject: RQ03-008:NVS-213cat

The Ford Motor Company (Ford) response to the agency's October 28, 2003 letter concerning reports of alleged brake lamp switch failures in 2000-2001 Ford Taurus and Mercury Sable vehicles is attached.

In March 2001, Ford initiated field service action (FSA) 01S08 to address brake lamp switch failures in certain model year 2000 and 2001 Taurus and Sable vehicles equipped with power adjustable pedals. The root cause of the reported failures was determined to be contamination of the switch due to oil separating from the low temperature grease used on the pivot spring in the power adjustable pedal assembly. This separated oil may enter the brake lamp switch and contaminate the contacts. Over time, this contamination may cause a build up of carbon on the contacts, which can result in the brake lights remaining on (thus causing the speed control to be inoperative and possibly causing the battery to drain and prevent the vehicle from being started), or may result in the inability to shift the vehicle out of park with non-functioning brake lamps.

The grease used on vehicles equipped with power adjustable pedals manufactured after those included in the FSA is a high temperature grease that is not susceptible to the separation that may occur in the grease used in the vehicles included in the FSA. (Note that some vehicles manufactured immediately after the ending date of vehicles included in the FSA used the low temperature grease; the grease was wiped at the assembly plant prior to vehicle assembly.) The FSA service procedure instructed technicians to wipe off excess grease from the adjustable pedal assembly and to replace the switch. Based upon our ongoing investigation, we believe that repeat occurrences of switch failure on these vehicles equipped with power adjustable pedals, including those that had the grease wiped at the assembly plant, have resulted from low temperature grease remaining in the assembly even after the service.

Analysis of the data gathered as a result of this inquiry indicates a higher than expected rate of reports of brake lamps being inoperable with inability to shift the transmission out of park in model year 2000 Taurus and Sable vehicles equipped with fixed pedals. Ford believes these complaints are related to fatiguing of the wire harness connected to the brake lamp



switch. The potential for this occurrence was identified in August 2000 and resolved in vehicle production by revising the wire length and adding a protective "hockey-stick" and tie-wrap to secure the wire on both fixed and adjustable pedal equipped vehicles. Ford considered this condition as not presenting a risk to safety because operators were abundantly aware of the issue by virtue of being unable to shift the vehicle out of "park."


Based on the information provided in VOQ 748887, which concerns a 2001 model year Taurus [VIN 1FAFP52UX1G158508], NHTSA indicated that an accident allegedly occurred as a result of brake lamp switch malfunction and that as a result the owner or passengers suffered injuries. However, based on owner reports available in Ford's database, Ford believes the alleged incident is related to a service brake malfunction and not to brake lamp switch failure because the customer mentions inability to stop and presence of oil in the brake line. A brake switch malfunction will not result in an inability to stop the vehicle.

No reports alleging accidents or injury were identified at the time of Ford's decision to conduct FSA 01808; nonetheless, Ford initiated the FSA as a safety recall in March 2001 based on a high number of warranty claims related to the brake lamp switch in model year 2000 Taurus and Sable vehicles equipped with adjustable pedals. At the time of the FSA decision, approximately 22,000 warranty claims could be attributed to the alleged defect in the approximately 180,000 model year 2000 vehicles with adjustable pedals; at the time the vehicles had an average of 7.4 months in service. Based on these numbers (more than 18 R/1000/average month in service) Ford believed the condition warranted a field service action. However, analysis of the warranty claims for model year 2001 and 2002 Taurus and Sable vehicles indicates a significantly lower repair rate than for those vehicles that were recalled. The comparable R/1000/average month in service for vehicles manufactured after the FSA is approximately two. Ford believes this improvement is attributed to the changes incorporated into production at the time of initiation of the FSA, including the change from low temperature to high temperature grease and the revised length of the connector wire to eliminate wire fatigue. With respect to the vehicles with fixed pedal assemblies, the R/1000/average month in service for vehicles manufactured prior to August 2000 is approximately four. The approximate rate for vehicles manufactured after the August 2000 change for fixed pedal vehicles is less than one.

Ford notes that failure of the brake lamp switch has overt symptoms that would indicate to the operator that service is required. The symptoms are the inability to take the vehicle out of park or the brake lamps remaining on, which causes the speed control to be inoperative and may drain the battery (thus preventing the vehicle from being started). The relative lack of accidents or injuries in this population of vehicles confirms that the condition is overt causing operators to seek repair before any notable risk to safety occurs. With respect to 2001 and 2002 model year vehicles, the substantially lower complaint rate and absence of any responsive reports of accidents or injuries confirms that there is no pattern of defect related to the brake lamp switch failure in these vehicles that presents an unreasonable risk to safety.

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 RQ03-006**

Ford's response to this Recall Query (RQ) 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 every effort to provide thorough and accurate information, and we would be pleased to meet with agency personnel to discuss any aspect of this Recall Query.

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, as more fully described in this response. 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.

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 October 28, 2003, the date of your inquiry. Ford has searched business units and/or affiliates within the following offices for responsive documents: Environmental and Safety Engineering, Ford Customer Service Division, Marketing and Sales Operations, Purchasing, Quality, Global Core Engineering, Office of the General Counsel, Vehicle Operations and North American Car Product Development.

**Request 1**

1. State, by model and model year, the number of MY 2000 - 2002 Ford Taurus and Mercury Sable vehicles Ford has manufactured for sale or lease in the United States. Separately, for each MY 2000 - 2002 Ford Taurus and Mercury Sable 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. Type of Brake Pedal Assembly (power adjustable or fixed);
  - g. Brake Pedal Assembly Part Number;
  - h. Date warranty coverage commenced; and
  - i. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "ProductionDataResponse." 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 2000-2002 model year Taurus and Sable 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 1,329,000. The information requested in parts "a" through "i" except "g" is provided electronically in Appendix A (file: 2003-12-12\_Appendix\_A) on the enclosed CD. Ford's vehicle production volume database does not track part numbers that are installed on individual vehicles, and therefore the information requested in part "g" is not readily available.

Request 2

State the number of each of the following by make and model year, received by Ford, or of which Ford are otherwise aware, which relate to, or may relate to, the alleged defect in MY 2000 -2002 Ford Taurus and Mercury Sable vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a MY 2000 - 2002 Ford Taurus and Mercury Sable vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims; and
- e. Third-party arbitration proceedings where Ford is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which Ford is or was a defendant or codefendant.

For subparts "a" through "d," state, by model and model year, 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 potentially involving the alleged defect and any related documents, Ford has gathered "owner reports" and "field reports" maintained by Ford Customer Service Division (FCSD), Intensified Customer Concern Definition (ICCD) data maintained by Ford's Quality Office, fleet reports maintained in a Fleet Test Database, and claim and lawsuit information maintained by Ford's Office of the General Counsel (OGC).

Descriptions of the FCSD owner and field report systems, the ICCD and the Fleet Test Database systems, and the criteria used to search each of these are provided electronically in Appendix B (file: 2003-12-12\_Appendix\_B) on the enclosed CD.

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

**Category      Allegation**

A1	Brake lamp switch, Open: No brake light, Won't shift out of park
A2	Brake lamp switch, Closed: Brake lights on, Can't engage cruise control
A3	Wire harness/loom, Open: No brake light, Won't shift out of park
A4	Wire harness/loom, Closed: Brake lights on, Can't engage cruise control
A5	Inability to disengage cruise control while driving with ref. to brake lamp switch
B1	Brake lamp failure/Wiring: Ambiguous <sup>1</sup>
B2	Shift lever stuck in park: Ambiguous <sup>1</sup>
B3	Cruise control engage/disengage issue: Ambiguous <sup>1</sup>
B4	Ambiguous, dead battery, etc. <sup>1</sup>

<sup>1</sup> Ford is providing electronic copies of these reports 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.

For expediency in preparing this response, except where noted, items responsive to subparts "a" through "f" of Request 2 that are related to 2000 model year Taurus and Sable vehicles and 2001 model year vehicles that were involved in FSA 01508 are excluded from this response. We have, however, provided information concerning accidents allegedly related to the brake lamp switch failure on vehicles included in the FSA population. We will also provide copies of the non-accident reports and claims upon request.

**Owner Reports:** The search and review of the Ford Master Owner Relations System (MORS) database records, as described in Appendix B, identified the following number of owner reports in accordance with the categories described above:

**MORS**

Category	A1	A2	A3	A4	A5
Reports	24	27	1	0	0

Copies of these owner reports are provided in the MORS III portion of the electronic database contained in Appendix C (file: 2003-12-12\_Appendix\_C) on the enclosed CD. 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 is marked accordingly, and the group is 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, four category A1 MORS reports are duplicative of VOQ reports and are provided in Appendix C but are not reflected in the report count above.

**Legal Contacts:** Ford is providing in Appendix B a description of Legal Contacts and the activity that is responsible for this information, Litigation Prevention. To the extent that responsive (i.e., not ambiguous) owner reports reflect that they are Legal Contacts, Ford has gathered the related files from the Litigation Prevention section. Based on this search, three files were located; copies are provided in Appendix D.

**ICCD Information:** A search of the ICCD database as described in Appendix B located two reports that may relate to the alleged defect; copies of these reports are provided in Appendix E (file: 2003-12-12\_Appendix\_E) on the enclosed CD.

**Fleet Reports:** In addition to fleet reports that may be contained in the owner reports or field reports identified in this response, Ford conducted a search of its Fleet Test Database as described in Appendix B for reports that may relate to the alleged defect in the subject vehicles. No fleet reports were identified.

**Field Reports:** The search and review of the Ford Common Quality Indicator System (CQIS) records, as described in Appendix B, identified the following number of field reports, excluding duplicates, in accordance with the categories described above:

**CQIS**

Category	A1	A2	A3	A4	A5
Reports	13	57	2	5	0

Copies of these field reports are provided in the CQIS portion of the electronic 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 field reports for an alleged incident were received, each of these duplicate reports is marked accordingly, and the group is 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, one category A2 CQIS report is duplicative of an owner report and is provided in Appendix C but is not reflected in the report count above.

**Unified Database:** The Unified Database (UDB) was created to facilitate parts availability by tracking part sales and is not intended as a problem reporting system. However, because a small percentage of the records may contain verbatim comments that could potentially relate to the agency's inquiry, we are including any related reports in response to Request 2. A search of UDB, as described in Appendix B, was conducted and copies of potentially relevant reports and ambiguous reports are provided in the UDB portion of the electronic database contained in Appendix C on the enclosed CD.

**UDB**

Category	A1	A2	A3	A4	A5
Reports	190	204	22	2	0

The categorization of each report is identified in the "Category" field. When we were able to identify that responsive (i.e., not ambiguous) duplicate UDB reports for an alleged incident were received, each of these duplicate reports is marked accordingly, and the group is 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, 78 category A1, 131 category A2, and eight category A3 UDB records are duplicative of warranty reports and are provided in Appendix C but are not reflected in the report count above.

**VOQ Data:** This information request had an attachment that included 81 Vehicle Owner's Questionnaires (VOQs). Ford made inquiries of its MORIS database for customer contacts, and its CQIS database for field reports regarding the vehicles reflected 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 electronic database provided in Appendix C, as appropriate, and have been identified by a "Y" in the "VOQ Dup" field.

**Crash/Injury Incident Claims:** For purposes of identifying alleged accidents or injuries potentially related to the alleged defect, Ford reviewed responsive (i.e., not ambiguous) owner and field reports, lawsuits and claims, and warranty claims. Based on a reasonable and diligent search, Ford located one owner (MORS) report on 2000 model year Taurus [VIN: 1FAPP52U2YG290785] alleging an accident. Although this vehicle had a prior brake lamp switch repair, based on the customer verbatim Ford cannot determine if the accident was caused by the alleged defect; Ford's searches did not identify any lawsuit or legal claim involving this vehicle. Ford also located one owner report involving a 2001 model year Taurus [VIN: 1FAPP52UX1G158508] alleging injury. This owner report identifies the same alleged incident reported in VOQ 748867. Ford's review of the owner report in MORS suggests that the alleged incident is unrelated to the alleged defect. The customer report alleges an inability to stop and the presence of oil in the brake line, which indicates a service brake concern and not a brake switch concern. These owner reports are included in the MORS portion of the electronic database provided in Appendix C. Ford also identified one lawsuit on a 2000 model year Taurus [VIN: 1FAPP554YA282698] alleging a defect in the brake-shift interlock mechanism that allowed the shift lever to be moved out of park without depressing the brake pedal and causing an injury. In addition, Ford identified one subrogation claim on a 2001 model year Taurus [VIN: 1FAPP68S31A112088] that alleges vehicle damage caused in an unspecified incident due to Recall 01S08. A summary of this lawsuit and the claims is provided in Appendix F.

**Claims, Lawsuits, and Arbitrations:** For purposes of identifying incidents potentially related to the alleged defect, Ford 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.

Based on a reasonable and diligent search, Ford located one lawsuit, 11 claims or consumer breach of warranty lawsuits, and no arbitrations that appear to relate to the alleged defect in the subject vehicles. We are providing the requested detailed information, where available, on the responsive and ambiguous lawsuits and claims in our Log of Lawsuits and Claims, as Appendix F. With regard to these lawsuits and claims, Ford has not undertaken to contact outside law firms to obtain additional documentation.

Ford was unable to locate 24 consumer lawsuit files and, therefore, is unable to determine if the cases are related to the alleged defect. 23 of these 24 consumer files (along with thousands of other files) were removed from their regular storage location and are not currently available for response to this inquiry. Ford has been reviewing these files as part of its reporting obligations under the TREAD Act. As these files are "consumer files" (lemon law lawsuits, etc.), Ford does not expect these files to contain additional accident and/or injury incidents. In addition, one product claim file (Furr) that appears on the log in response to Request 2 has been removed for TREAD review. Once these files are again available, Ford will determine if a supplement to this inquiry is required, and provide as appropriate.

### Request 3

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

- a. Ford's file number or other identifier used;
- b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
- c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- d. Vehicle's VIN;
- e. Vehicle's make, model and model year;
- f. Vehicle's mileage at time of incident;
- g. Incident date;
- h. Report or claim date;
- i. Whether a crash is alleged;
- j. Whether property damage is alleged;
- k. Number of alleged injuries, if any;
- l. Number of alleged fatalities, if any; and
- m. Summary.

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

#### Answer

Ford is providing owner and field reports in the electronic database contained in Appendix C on the enclosed CD in response to Request 2. To the extent that the information requested in Request 3 is available, it is provided in that database.

#### Request 4

Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by model, model year, and category (i.e., consumer complaints, field reports, etc.) and describe the method Ford used for organizing the documents.

#### Answer

Ford is providing electronic copies of responsive as well as ambiguous owner and field reports in the database contained in Appendix C on the enclosed CD in response to Request 2. The categorization of each report as to whether the report appears to be responsive or ambiguous, is identified in the "Category" field. These reports are provided under separate sections for owner (MORSIII) reports and field (CQIS) reports in the database.

#### Request 5

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, or may relate to, the alleged defect in MY 2000 - 2002 Ford Taurus and Mercury Sable vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

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



- a. Ford's claim number;
- b. 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. Concern stated by customer; and
- k. Comment, if any, by dealer/technician relating to claim and/or repair.

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

#### Answer

In responding to this information request, Ford electronically searched its Analytical Warranty System (AWS) for all claims meeting the criteria described in Appendix B. The resulting claims were then reviewed individually for allegations that may relate to the alleged defect. This search and review of the Ford AWS database records identified the following number of non-duplicative warranty claims in accordance with the categories described above:

Category	A1	A2	A3	A4	A5
Reports	4,646	6,223	353	95	4

Electronic copies of these claims are provided in the AWS portion of the electronic 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 is marked accordingly and the group is 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. Ford assumes that providing the warranty claims in the electronic database format meets the requirements of this request, because the agency can review or order the claims as desired.

For expediency in preparing this response, warranty claims that are related to 2000 model year Taurus and Sable vehicles and 2001 model year vehicles that were in FSA 01S08 are excluded from this response. We have, however, provided information concerning accidents allegedly related to the brake lamp switch failure on vehicles included in the FSA population. We will provide copies of the non-accident claims upon request.

Requests for "claims for good will services that were provided; field, zone, or similar adjustments and reimbursements" received by Ford to date that relate to the alleged defect in the subject vehicles that were honored would be provided in the warranty section of Appendix C. Such requests that were not honored, if any, would be included in the MORS reports identified above in response to Request 2.

Request 6

Describe in detail the search criteria used by Ford to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in MY 2000 - 2002 Ford Taurus and Mercury Sable 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

The criteria used for searching Ford's Analytical Warranty System (AWS) are described in Appendix B. All claims coded under the selected part numbers were included in this search regardless of labor operations or problem codes. The resulting claims were then reviewed individually for allegations that may relate to the alleged defect.

The standard new vehicle warranty coverage for 2000-2001 model year Ford Taurus and Mercury Sable vehicles is 3 years or 38,000 miles, whichever occurs first. A list of Extended Service Plans (ESP) that cover the subject components is provided in Appendix G along with time-in-service and mileage coverage by plan. This appendix also includes the count of subject vehicles that are covered by each ESP.

Request 7

Provide a technical description of each of the following systems used on the subject vehicles:

- a. Brake Lamp Circuit;
- b. Cruise Control Circuit; and
- c. Shift-Interlock System.

Include in each description how the overall system works, a description of how the system interacts with the brake pedal assembly (including any sensors, switches, and potentiometers used in the assembly), the names and acronyms Ford uses to refer to the various systems and components that make up the systems, approximate dates where relevant system changes occurred (including supplier changes, new system introductions, and new component introductions), and any models other than the subject vehicles that also use the same (or similar) systems.

Answer

A brief description of the brake lamp switch system is provided in Appendix H (File: 2003-12-12\_Appendix\_H) along with schematics and the requested list of acronyms. Ford is providing information concerning design changes that pertain to the subject component in a separate appendix in response to Request 10. The same brake lamp switch is used on 2002-2004 Ford Explorer and Mercury Mountaineer and 2003-2004 Lincoln Aviator vehicles. Ford notes that most Ford and many competitor vehicles use similar loss travel type brake lamp switches.

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 the alleged defect in the subject vehicles, 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 the 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, Internal Service Messages, and the Field Review Committee files and the search criteria used are provided in Appendix B.

OASIS Messages: Ford has identified two SSMs and five TSBs that relate to the subject component on the subject vehicles and is providing copies of those in Appendix I.

Internal Service Messages: Ford has identified one ISM that relates to the subject component on the subject vehicles; a copy of this ISM is provided in Appendix J.

Field Review Committee: Communications related to the field service action, 01S08, which is a basis for this RQ are provided in Appendix K. Ford will be submitting these documents with a request for confidentiality under separate cover to the NHTSA's Office of the Chief Counsel pursuant to 49 CFR, Part 512. Ford notes that a copy of the 14D related to the 01S08 FSA is provided in pages Bates numbered 15258-15284 of the confidential documents.

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 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 L, which contains documents provided electronically on CD's and also paper documents. Ford is not providing documents responsive to this request that contain information protected by the attorney-client privilege and/or work-product doctrine. Such documents are described in a privilege log provided in Appendix M (file: 2003-12-12\_Appendix\_M) on the enclosed CD.

To the extent that the information requested in a-f is available, it is included in the documents provided. Should the agency have questions concerning any of the documents, please advise.

Ford will be submitting additional related documentation with a request for confidentiality under separate cover as Appendix N to the NHTSA's Office of the Chief Counsel pursuant to 49 CFR, Part 512.

Ford notes that it is not producing certain confidential electronic files containing various vehicle test analysis data that may be responsive to this request, because (1) it is impossible to view those files without using proprietary software and, (2) the information in the files is likely summarized in other documents that have been or are being provided with this response. If after reviewing this response, the agency determines it would like to review those files, please contact us and we will make arrangements for the data to be viewed.

### 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 MY 2000 - 2002 Ford Taurus and Mercury Sable 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 changes related the brake lamp switch, wire harness and the power adjustable pedals that may relate to this investigation is provided electronically as Appendix O (file: 2003-12-12\_Appendix\_O) on the enclosed CD.

Request 11

Produce each of the following:

- a. Two exemplar samples of each design version of the subject component;
- b. Two field return samples of the subject component which are expected to exhibit the subject failure mode;
- c. One exemplar sample of the adjustable brake pedal assembly used in the subject vehicles;
- d. One exemplar example of the fixed brake pedal assembly used in the subject vehicles; and
- e. Any kits that have been released, or developed, by Ford for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.

Answer

The requested parts are provided in a separate box as part of this response. Ford has included new and returned switches, a wire harness extension service kit, fixed and adjustable pedal assemblies and a switch replacement kit that will soon be available for service. This kit includes a newly designed brake lamp switch from a different supplier along with wire harness extension and accessories including tie-wraps.

Request 12

State the number of each of the following that Ford has sold that may be used in MY 2000 - 2002 Ford Taurus and Mercury Sable vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (*including the cut-off date for sales, if applicable*):

- a. Subject component; and
- b. Any kits that have been released, or developed, by Ford for use in service repairs to the subject component/assembly.

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 on which a particular part was installed, or the reason that the installation was made.

Ford is providing in electronic form in Appendix P (file: 2003-12-12\_Appendix\_P) on the enclosed CD the total number of Ford service replacement brake lamp switches and wire harness extension kits by part number (both service and engineering) and calendar month and year of sale where available. A list of models and model years for which these parts are released and supplier names and contacts are also provided in this appendix. Ford notes that the part sales database does not contain sales information broken down by month for historic data. Parts used for FSA 01S08 repairs are also included in this sales information. Ford released a service kit in October 2003 that includes a new brake lamp switch, wire harness and accessories to address repeat repair issues in 2000 model year vehicles. Because this kit has not been sold to date, there is no part sales information to provide for this kit.

### Request 13

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

In March 2001, Ford initiated field service action (FSA) 01S08 to address brake lamp switch failures in certain 2000 and 2001 model year Taurus and Sable vehicles equipped with power adjustable pedals. The root cause was determined to be contamination of the switch due to oil separating from the low temperature grease used on the pivot spring in the power adjustable pedal assembly. Oil from the grease may enter the brake lamp switch and contaminate the contacts. Over time, this contamination may cause a build up of carbon on the contacts, and in some cases, cause a short, which can result in one or more of the following symptoms:

- Brake lights will not actuate with inability to shift the vehicle out of park
- Brake lights remain on, which will not allow the speed control to be activated or may cause the battery to discharge
- ABS warning light illuminates (if equipped with ABS)

The grease used on vehicles equipped with power adjustable pedals manufactured after those included in the FSA is a high temperature grease that is not susceptible to the separation that may occur in the grease used in the vehicles included in the FSA. (Note that some pedals manufactured immediately after the ending date for vehicles included in the FSA used the low temperature grease; the grease was wiped at the assembly plant prior to vehicle assembly.) The FSA service procedure instructed technicians to wipe off excess grease from the adjustable pedal assembly and to replace the switch. Based upon our ongoing investigation, we believe that repeat occurrences of switch failure on these vehicles equipped with power adjustable pedals, including those that had the grease wiped at the assembly plant, have resulted because low temperature grease remained in the assembly even after the service.

Analysis of the data gathered as a result of this inquiry indicates a higher than expected rate of reports of brake lamps being inoperable with inability to shift the transmission out of park in 2000 model year Taurus and Sable vehicles equipped with fixed pedals. Ford believes these

complaints are related to fatiguing of the wire harness connected to the brake lamp switch. The potential for this occurrence was identified in August 2000 and resolved in vehicle production by revising the wire length and adding a protective "hockey-stick" and tie-wrap to secure the wire on both fixed and adjustable pedal equipped vehicles. Ford considered this condition as not presenting a risk to safety because operators were abundantly aware of the issue by virtue of being unable to shift the vehicle out of "park."

NHTSA included 61 VOQs with this RQ that allege brake lamp malfunction caused by the brake lamp switch. Of these VOQs, 57 pertain to 2000 model year vehicles. Based on the information provided in VOQ 748867, which concerns a 2001 model year Taurus [VIN: 1FAPP62UX1G168508], NHTSA indicated that an accident allegedly occurred as the result of a brake lamp switch malfunction and that the owner or passengers suffered injuries. However, based on owner reports available in Ford's database, Ford believes that the incident is related to a service brake malfunction and not due to a brake lamp switch failure, because the customer alleges an inability to stop and presence of oil in the brake line. A brake switch malfunction will not result in an inability to stop the vehicle. The related reports are provided in the database in Appendix C for the agency's review. In addition to the alleged accident reported in

VOQ 8017122 on a 2000 Taurus [VIN: 1MEFM55SXYG824489], Ford is aware of one other owner report of an accident allegedly related to a brake lamp switch malfunction. The report, which is provided in Appendix C, pertains to a 2000 model year Taurus [VIN: 1FAPP52U2YG290785]. Although, this vehicle had a prior brake lamp switch repair, based on the customer verbatim, Ford cannot determine if the alleged accident is related to the alleged defect. Ford did not find any lawsuit or legal claim on this vehicle in its searches. Ford identified one lawsuit alleging a defect in the brake-shift interlock mechanism that allowed the shift lever to be moved out of park without depressing the brake pedal and causing injury. This lawsuit relates to a 2000 model year Taurus [VIN: 1FAPP5554YA282898].

No reports alleging accidents or injury were identified at the time of Ford's decision to conduct the FSA 01S08; nonetheless, Ford initiated the FSA as a safety recall in March 2001 based on the high number of warranty claims related to the brake lamp switch in 2000 model year Taurus and Sable vehicles equipped with adjustable pedals. At the time of the FSA decision, approximately 22,000 warranty claims could be attributed to the alleged defect in the approximately 180,000 2000 model year vehicles with adjustable pedals; at that time the vehicles had an average of 7.4 months in service. Based on these numbers (more than 16 R/1000/average month in service), Ford believed the condition warranted a field service action. However, analysis of the warranty claims for 2001 and 2002 model year Taurus and Sable vehicles indicates a significantly lower repair rate than for those vehicles that were recalled. The comparable R/1000/average month in service for vehicles manufactured after the FSA is approximately two. Ford believes this improvement is attributed to the changes incorporated into production at the time of initiation of the FSA, including the change from low temperature to high temperature grease and the revised length of the connector wire to eliminate wire fatigue. With respect to the vehicles with fixed pedal assemblies, the R/1000/average month in service for vehicles manufactured prior to August 2000 is approximately four. The approximate rate for vehicles manufactured after the August 2000 change for fixed pedal vehicles is less than one.

Ford notes that failure of the brake lamp switch has overt symptoms that would indicate to the operator that service is required, such as the inability to take the vehicle out of park or the brake lamps remaining on which causes the speed control to be inoperative and may drain the battery, preventing the vehicle from being started. The relative lack of accidents or injuries in this population of vehicles confirms that the condition is overt causing operators to seek repair before any notable risk to safety occurs. With respect to 2001 and 2002 model year vehicles,

the substantially lower complaint rate and absence of any responsive reports of accidents or injuries confirms that there is no pattern of defect related to the brake lamp switch failure that would pose an unreasonable risk to safety.

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