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September 14, 2021

Mr. Otto Matheke, Acting Director
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 New Jersey Avenue SE, Room W45-302
Washington, D.C. 20590

Dear Mr. Matheke:

Subject: PE21-010:NEF-101km

The Ford Motor Company (Ford) response to the Agency's August 3, 2021, letter requesting certain information concerning 2020-2021 model year Ford and Lincoln vehicles equipped with Autoliv ADPS 1.5 driver airbag inflators is attached. Ford understands that there is no alleged defect with respect to any of its vehicles and is providing this information as part of the agency's investigation of another manufacturer's vehicles.

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

Sincerely,



Attachment

FORD MOTOR COMPANY (FORD) RESPONSE TO PE21-010

Ford's response to this Preliminary Evaluation peer vehicle information request was prepared pursuant to a diligent search for the information requested. We 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 peer vehicle information request.

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.

In an August 13, 2021, email, Kevin Miller, of the Agency, update the following items in the information request:

- Subject Vehicle: information to be limited to the 2020 – 2021 model years
- Request 1(e): the information supplied should reflect the part number and design version of the air bag module that uses the subject component
- Request 10(a): exemplar parts supplied should be air bag modules that use the subject component.

On September 3, 2021, Ford identified two additional vehicle lines (Ford GT and Lincoln Continental) that were manufactured with Autoliv ADPS 1.5 driver airbag inflators. In a September 7, 2021, phone call with the Agency, Ford requested a two-week extension to produce responsive documents related to the additional vehicle lines. The Agency requested that Ford produce responsive documents for all other vehicle lines on the September 14, 2021, due date. Documents responsive to Requests 8 and 9 will be due on September 28, 2021. Additionally, part production in response to Request 10 will be due on September 28, 2021. Ford has completed its review of potentially responsive reports and documents for the two additional vehicle lines and will be providing a complete submission at this time.

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 August 3, 2021, the date of your inquiry. Ford has searched within the following offices for responsive documents: Sustainability, Environment and Safety Engineering, Ford Customer Service Division, Purchasing, Global Core Engineering, Office of the General Counsel, North American Product Development.

Request 1

State, by model and model year, the number of subject vehicles Ford Motor Co. has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Ford Motor Co., state the following:

- a. Vehicle identification number (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Subject component part number and design version installed as original equipment;
- f. Name of supplier of original equipment part;
- g. 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 2010, or a compatible format, entitled "PRODUCTION DATA."

Answer

Ford records indicate that the approximate total number of subject peer vehicles equipped with ADPS 1.5 frontal air bag inflator 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 610,893.

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

Make	Model	2020 MY	2021 MY
Ford	Edge	145,993	36,615
	Fusion	122,723	
	Fusion HEV	18,238	
	Fusion PHEV	4,450	
	Ford GT	186	98
	Mustang	73,422	29,130
Lincoln	Aviator	29,073	17,855
	Continental	6,321	
	Corsair	27,986	16,085
	MKZ	11,482	
	MKZ HEV	2,441	
	Nautilus	29,242	11,866
	Navigator	17,979	9,708

The requested data for each subject peer vehicle is provided in Appendix A. Because the Ford GT is designed, developed, and manufactured by Multimatic Inc., Ford could not obtain the driver airbag part number installed on each vehicle. Ford is providing the driver airbag part numbers, when available, for all other subject vehicles.

Request 2

State the number of each of the following, received by Ford Motor Co., or of which Ford Motor Co. is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality;
- d. Reports involving a fire;
- e. Property damage claims; and
- f. Third-party arbitration proceedings where Ford Motor Co. is or was a party to the arbitration; and
- g. Lawsuits, both pending and closed, in which Ford Motor Co. is or was a defendant or codefendant.

For subparts "a" through "g," 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 "g," provide a summary description of the alleged problem and causal and contributing factors and Ford Motor Co.'s assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g," 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 ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended 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, the Fleet Test Database 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	Allegation of "Air Bag Warning Light" illumination due to air bag inflator housing rust
A2	Allegation of an air bag no-deploy in a crash where a deployment would be expected due to air bag inflator housing rust
C	Non Responsive

Owner Reports: Records identified in a search of the GCCT/FMC360 Owner Relations Systems, as described in Appendix B, were reviewed for relevance and categorized in accordance with the categories described above. Ford has not identified any responsive owner reports with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

Legal Contacts: Ford is providing in Appendix B a description of Legal Contacts and the activity that is responsible for this information. Ford has not identified any responsive legal contacts with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

Field Reports: Records identified in a search of the Common Quality Indicator System (GCQIS) database, as described in Appendix B, were reviewed for relevance and categorized in accordance with the categories described above. Ford has not identified any responsive field reports with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

Crash/Injury Incident Claims: For purposes of identifying allegations of accidents or injuries that may have resulted from airbag inflator house rust that may cause the driver frontal air bag to not operate as intended, Ford has reviewed the reports and has not identified any responsive crash/injury incident claims with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

Claims, Lawsuits, and Arbitrations: For purposes of identifying incidents that may relate to airbag inflator house rust that may cause the driver frontal air bag to not operate as intended. Ford has reviewed the reports and has not identified any responsive claims, lawsuits, or arbitrations with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

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 a fire is alleged;
- k. Whether property damage is alleged;
- l. Number of alleged injuries, if any; and
- m. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "REQUEST NUMBER TWO DATA,"

Answer

Ford's review of reports has not identified any responsive reports with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

Request 4

Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Ford Motor Co. used for organizing the documents. Describe in detail the search methods and search criteria used by Ford Motor Co. to identify the items in response to Request No. 2.

Answer

Ford's review of reports has not identified any responsive reports with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

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 Motor Co. to date that relate to, or may relate to, the alleged defect in the subject 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 reformation:

- a. Ford Motor Co.'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(s);
- h. Problem code(s);

- i. Diagnostic trouble code(s);
- j. Replacement part number(s) and description(s);
- k. Concern stated by customer;
- l. Cause as stated on the repair order;
- m. Correction as stated on the repair order;
- n. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2010, or a compatible format, entitled "WARRANTY DATA."

Answer

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 2. Ford has not identified any responsive warranty claims with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended.

Request 6

Describe in detail the search criteria used by Ford to identify the claims identified in response to Request 5, including the labor operations, problem codes, diagnostic trouble 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, diagnostic trouble codes and diagnostic trouble code descriptions applicable to the alleged defect in the subject vehicles. State whether the diagnostic trouble codes are automatically reported to the warranty database electronically or manually entered into the warranty database by a claims administrator. State how long the diagnostic trouble code is stored in the system, where it is stored and if it is deleted is there any history that would indicate it was previously active.

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 5 are described in Appendix B.

When a driver airbag module malfunction is detected, the restraint control module (RCM) generates and stores the applicable diagnostic troubleshooting code (DTC) that describes the malfunction and illuminates an Airbag Warning Light to inform the driver. The RCM continually monitors the inflatable restraint circuits from key-on to key-off. If the fault is intermittent or no longer present, the RCM will store the code for 40 Key-On cycles, after which time the DTC will be stored as historical data.

For vehicles with internet connectivity, DTC codes are presently stored in the SCA-V database and are used for quality monitoring purposes to identify potential early trends. The DTC codes do not get stored in Ford's warranty system via internet connectivity. If a customer brings their vehicle to a dealer for repair, the service technician may enter the DTC codes into the dealer management system. It is up to the dealer's warranty analyst to enter the DTC codes into Ford's warranty system.

For 2020 through 2021 model year Ford Edge, Fusion, Ford GT, and Mustang 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. The New Vehicle Limited Warranty, Safety Restraint System Coverage begins at the warranty started date and lasts for five years or 60,000 miles, whichever occurs first.

For 2020 through 2021 model year Lincoln Aviator, Continental, Corsair, MKZ, Nautilus, and Navigator vehicles, the New Vehicle Limited Warranty, Bumper-to-Bumper Coverage begins at the warranty start date and lasts for four years or 50,000 miles, whichever occurs first. The New Vehicle Limited Warranty, Safety Restraint System Coverage begins at the warranty started date and lasts for five years or 60,000 miles, whichever occurs first.

Optional Extended Service Plans (ESPs) were available to cover various vehicle systems, time in service and mileage increments. The details of the various plans are provided in Appendix C. As of the date of the information request, 74,461 vehicle ESP policies had been purchased on 2020 through 2021 model year Ford and Lincoln subject vehicles.

Request 7

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Ford Motor Co. has issued to may 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 airbag inflator house rust that may cause the driver frontal air bag to not operate as intended, 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 this type 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 has not identified any SSMs or any TSBs that may relate to airbag inflator house rust that may cause the driver frontal air bag to not operate as intended in the subject peer vehicles.

Internal Service Messages: Ford has not identified any ISMs that may relate to airbag inflator house rust that may cause the driver frontal air bag to not operate as intended.

Field Review Committee: Ford has not identified any field service action communications that may relate to airbag inflator house rust that may cause the driver frontal air bag to not operate as intended in the subject peer vehicles.

Request 8

Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Ford Motor Co.. 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 conducted a thorough search of documents related to the alleged defect in the subject vehicle and has not identified any responsive documents containing information related to airbag inflator house rust that may cause the driver frontal air bag to not operate as intended.

For the 2020 through 2021 model years, Multimatic Inc. engineered, developed, and manufactured the Ford GT for Ford Motor Company. As a result, Ford could only search Ford GT documents that it has in its possession. Ford has not identified any responsive documents in its possession regarding the alleged defect in the 2020 through 2021 MY Ford GT.

Request 9

Describe all modifications or changes made by, or on behalf of, Ford Motor Co. 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 number(s) (service and engineering) of the original component;
- e. The part number(s) (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and
- h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Ford Motor Co. is aware of which may be incorporated into vehicle production within the next 120 days.

Answer

Ford is providing a component change log that incorporates the two additional vehicle lines in Appendix D.

Request 10

Produce two 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 alleged defect taken from vehicle with a manufacture date prior to January 1, 2021; and
- c. Any kits that have been released, or developed, by Ford Motor Co. for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.

Answer

As requested, Ford is obtaining two examples of each design version of the subject component. In the event the part is no longer available (e.g., the part is out of production or the part has been superseded and the obsolete parts have been scrapped), Ford will supply the equivalent service part. The exemplar sample parts have been ordered from the suppliers and Ford will provide delivery timing when available.

In response to the Agency's request, Ford did not identify any field return parts that exhibit the alleged defect in its possession.

Ford has not designed, developed, or released any service parts or kits that related or may relate to the alleged defect in the subject vehicles.

Request 11

State the number of subject components that Ford Motor Co. 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:

- a. Subject component; and
- b. Any kits that have been released, or developed by Ford Motor Co. 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 Motor Co. is aware that contain the identical component, whether installed in production or is 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 dealers. Ford has no means 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 driver air bags equipped with ADPS 1.2 frontal air bag inflators by part number (both service and engineering) and year of sale, where available, in Appendix E1. Information pertaining to production and service usage for each part number, and supplier point of contact information, is included in Appendix E2.

In its response to this information request, Ford has provided a detailed list of all vehicle lines that were originally manufactured using driver airbag modules equipped with Autoliv ADPS 1.5 inflators. Ford has also provided a list of service parts, usage, and annual sales volumes.

Request 12

Furnish Ford Motor Co.'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; and
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring, or subject component was malfunctioning; and

- f. The reports included with this inquiry.

Answer

Ford vehicles are equipped with Restraint Control Modules (RCMs) that continuously monitor the status of the supplemental restraint system from key-on to key-off. Should the RCM detect a fault with the driver air bag deployment circuits, the RCM is designed to attempt to deploy the driver airbag in the event of a crash regardless of the fault. Additionally, the RCM will inform the driver that a fault exists in the restraint system by illuminating the airbag warning light and a message to have their vehicle repaired.

Ford's supplemental restraint systems are design to deploy various components depending on the severity of the crash. For example, for low velocity crashes, the RCM may only deploy a pyrotechnic pretensioning seatbelt. For more severe crashes, the RCM is designed to deploy the frontal airbags based on multiple factors, belted versus unbelted occupant, occupant stature, and the speed, direction, and impact location. Customers may also have an expectation that their crash was of sufficient severity to warrant deployment of the airbags, when in fact, the event may not have met the design thresholds to require supplemental restraint system deployment. The only method to definitively determine the severity of a crash event is to download the data from the RCM post-crash and have the data analyzed.

Ford's review of consumer complaints, field reports, lawsuits and claims, and warranty claims has not identified any responsive reports containing allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended. Ford also reviewed documents that could potentially contain information regarding the alleged defect on the subject vehicles and did not identify any responsive information. Based on the lack of reports with allegations of an ADPS 1.5 frontal air bag inflator housing rust that may cause the driver frontal air bag to not operate as intended, Ford does not believe this condition exists on the subject vehicles.

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