

By Recall Management Division at 7:10 am, May 31, 2013



Steve M. Kenner, Global Director Automotive Safety Office Sustainability, Environment & Safety Engineering

Fairlane Plaza South, Suite 400 330 Town Center Drive Dearborn, MI 48126-2738

May 28, 2013

Ms. Nancy Lewis Associate Administrator for Enforcement National Highway Traffic Safety Administration 1200 New Jersey Avenue SE, Room W45-306 Washington, DC 20590

Dear Ms. Lewis:

Subject: Ford Motor Company (Ford) Recall No. 13S04 - Fuel Delivery Modules on Certain 2013 Model Year Ford Explorer, Taurus, Flex, Fusion, Police Interceptor Sedan, Police Interceptor Utility and Certain 2013 Model Year Lincoln MKS, MKT and MKZ Vehicles

Summary

- Ford Action Ford is conducting a voluntary safety recall involving certain 2013 model year Ford Explorer, Taurus, Flex, Fusion, Police Interceptor Sedan, Police Interceptor Utility vehicles and certain 2013 Model Year Lincoln MKS, MKT and MKZ vehicles to replace the Fuel Delivery Module (FDM).
- Number of Vehicles Involved Approximately 390,783 vehicles in the United States and federalized territories are potentially affected.
- Effect on Vehicle Operation Some of the fuel delivery modules in the suspect population may develop a crack at the insert-molded vertical port that could potentially result in a fuel leak. Warranty data indicates that the customer is likely to experience fuel odor or, in some cases, observe evidence of a fuel leak on the ground.
- Service Procedure Owners will be notified by mail and instructed to take their vehicle(s) to a Ford or Lincoln dealer to have their FDM replaced.

The detailed information required by the applicable portions of 49 CFR Part 573 - Defect and Non-Compliance Information Report is attached.

Sincerely,

Steven M. Kenner

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Attachment

49 CFR PART 573 – DEFECT INFORMATION REPORT 13S04 – FUEL DELIVERY MODULES ON CERTAIN 2013 MODEL YEAR FORD EXPLORER, TAURUS, FLEX, FUSION, POLICE INTERCEPTOR SEDAN, POLICE INTERCEPTOR UTILITY AND CERTAIN 2013 MODEL YEAR LINCOLN MKS, MKT AND MKZ VEHICLES

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, Defect and Non-Compliance Reports, Ford Motor Company submits the following information concerning a safety recall action that it is voluntarily initiating.

573.6 (c) (2) - Potentially Affected Vehicles

Vehicles potentially affected are:

- 2013 model year Ford Explorer, Taurus, Police Interceptor Sedan, Police Interceptor Utility vehicles and certain 2013 model year Lincoln MKS vehicles built at the Chicago Assembly Plant (CAP) from August 25, 2011, through January 10, 2013.
- 2013 model year Ford Flex and certain 2013 model year Lincoln MKT vehicles built at the Oakville Assembly Complex (OAC) from September 12, 2011, through January 30, 2013.
- 2013 model year Ford Fusion and certain 2013 model year Lincoln MKZ vehicles built at the Hermosillo Stamping and Assembly Plant (HSAP) from March 3, 2012, through March 22, 2013.

These vehicles are not produced in VIN order. Information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-866-436-7332) or by contacting a local Ford or Lincoln dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

The information for the supplier of the FDM, that is the subject of this defect report, is provided below:

Fuel Delivery Module

Supplier Name: DENSO International America, Inc.

Supplier Address: 24777 DENSO Drive, Southfield, MI 48086

Supplier Telephone: 248-350-7500 Supplier Contact: Bridgette LaRose

Country of origin for the component: USA (with some Japan-sourced components)

573.6 (c) (3) - Estimated Population of Vehicles Potentially Affected

Approximately 390,783 vehicles in the United States and federalized territories are potentially affected.

573.6 (c) (4) - Estimated Percentage of Affected Vehicles with the Defect Condition

Unknown.

573.6 (c) (5) - Description of the Defect

Some of the fuel delivery modules in the suspect population may develop a crack at the insert-molded vertical port that could potentially result in a fuel leak. Warranty data indicates that the customer is likely to experience fuel odor or, in some cases, observe evidence of a fuel leak on the ground.

There are no reports of accident, injury, or fire related to this condition.

573.6 (c) (6) - Chronology of Events

<u>August thru October 2012</u> – Engineering was informed of two vehicles that exhibited a leak at the Fuel Delivery Module (FDM) in August 2012 and requested the parts for analysis. Engineering subsequently identified 15 vehicles which exhibited leaks from Ford Explorer, Taurus, Flex vehicles and from the Lincoln MKS and MKT vehicles. Initial analysis of returned FDMs showed the fuel outlet port had cracked. Engineering analysis of the field parts indicated that the cracks may have been caused by fatigue loading.

From September 18, 2012 to October 5, 2012, multiple Interim Containment Actions (ICAs) were implemented at the fuel tank supplier and FDM supplier to minimize any inadvertent side loading on the outlet port during the component manufacturing and installation process.

<u>November 2012</u> – Engineering advised that 4 FDMs from the middle-east region were returned to the warranty return center and were scheduled for analysis. Engineering began working to develop a new test fixture that would pressurize FDMs at high temperature to evaluate the effect of swelling on the FDM materials.

<u>December 2012</u> – Analysis of returned field parts confirmed fatigue as the cause of crack propagation; however, the initial cause of the crack was unknown. On December 14, Engineering started a 1,000-hour pressurized fuel soak evaluation, on multiple parts, to confirm if port swelling was induced by various fuel/alcohol combinations. Engineering reported that the FDM supplier had re-inspected 78 original durability parts used on Explorer, Taurus, Flex, MKS and MKT vehicles for cracks. Forty parts were identified as having small surface cracks, however, none of the 40 durability parts with surface cracks exhibited leaks.

<u>January 2013</u> – Engineering began evaluating differential swell stresses in the vertical port, potentially caused by fuel/alcohol inside the port and air outside of the port, to determine if the stresses could exceed the material yield strength.

<u>February 2013</u> – Engineering developed a fuel tank assembly vibration test to see if parts which had already developed small surface cracks would eventually develop fatigue cracks.

<u>March 2013</u> – Engineering reported that the tank assembly vibration test showed that some small surface cracks could propagate into cracks large enough to cause leaks, while others did not propagate.

<u>April 2013</u> – Engineering presented a work plan to understand why some FDM outlet ports developed cracks and others did not develop cracks. The test plan included analysis of prestressed ports, accelerated soak and dynamic vehicle-based testing.

Engineering advised that a subsequent re-inspection of Fusion / MKZ PV parts by the FDM supplier identified small surface cracks which had not previously been visually detected by the supplier after original PV testing was completed. None of the parts exhibited leaks.

Engineering updated the warranty data analysis and advised that pressurized fuel soak testing had shown small surface cracks on 5 of the 6 test samples for Fusion / MKZ FDMs, after 300 hours of testing. Engineering advised that even though there were no related warranty reports on the Fusion and MKZ vehicles, their testing and analysis indicated that over time, these FDMs, and the FDMs on the Explorer, Taurus, Flex, MKS and MKT vehicles, could be susceptible to the development of small surface cracks, which in some cases, could propagate into leaks.

May 20, 2013 - The Field Review Committee reviewed the issue and approved a field action.

573.6 (c) (8) - Service Program

Owners will be notified by mail and instructed to take their vehicle(s) to a Ford or Lincoln dealer to have their FDM replaced. There will be no charge to owners for this service.

Notification to dealers will occur May 30, 2013. An initial notification letter will be mailed to all owners the week of July 15, 2013. However, due to part availability, owners who have not had this service performed will be mailed a second letter when parts are available, advising them to schedule a service appointment. Part availability and subsequent re-notification is expected to be completed in the 4th quarter of 2013.

In accordance with Part 573.13(d)(1), Ford is excluding reimbursement for costs incurred by owners for repair of this concern because Ford's original warranty program would provide for a free repair for this concern for customers.

573.6 (c) (10) - Press statement and Dealer/Owner Letters

National media attention is likely as with most Ford recalls when posted to NHTSA's safercar.gov website. Ford will provide public comments when requested. A news release will not be issued.

Ford will forward a copy of the notification letters to dealers and owners when available.

573.6 (c) (11) - Recall Number

Ford has assigned recall number 13S04 to this action.

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