

U.S. Department of Transportation

National Highway Traffic Safety Administration

## **ODI RESUME**

**Investigation:** PE 10-016 **Date Opened:** 05/13/2010

Investigator: Kerrin Bressant
Approver: Richard Boyd
Subject: Rear Axle Cracking

**Date Closed:** 09/22/2010 **Reviewer:** Jeff Quandt

## MANUFACTURER & PRODUCT INFORMATION

Manufacturer:FORD MOTOR COMPANYProducts:1998-2003 Ford Windstar

Population: 914,789

**Problem Description:** Rear axle fracture, possibly resulting in loss of vehicle control.

## **FAILURE REPORT SUMMARY**

ODI	Manufacturer	Total
566	491	891**
7	1	8
3	0	3
3	0	3
0	0	0
0	43	43
	ODI	ODI         Manufacturer           566         491           7         1           3         0           3         0           0         0

<sup>\*</sup>Description of Other: Warranty claims

## **ACTION / SUMMARY INFORMATION**

Action: This Preliminary Evaluation has been closed. NHTSA Recall No. 10V-385 (Ford Recall No. 10S13).

#### Summary:

In a letter dated August 26, 2010, Ford Motor Company (Ford) submitted a Defect Information Report notifying NHTSA that it will conduct a safety recall (NHTSA Recall No. 10V-385) to address a rear axle defect in model year (MY) 1998 through 2003 Ford Windstar vehicles built at the Oakville assembly plant from September 1, 1997 through February 28, 2003 and either sold or currently registered in high corrosion (Salt-Belt) states where the use of salt and other corrosive chemicals may be used to treat snow/ice covered roads. The following states are included in Ford's recall: Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia and Wisconsin.

The subject vehicles utilize a Stamped/Formed axle assembly manufactured by Benteler automotive Corporation of Galesburg, MI. According to Ford, after many years of vehicle service in the Salt-Belt states, corrosion can weaken the rear axle, making it susceptible to torsional stress. There is a risk that the combined effects of corrosion and stress can lead to cracks which, if undetected, can propagate and result in a complete fracture of the axle. A completely fractured axle can affect vehicle handling and increase the risk of a crash.

To correct the safety defect, Ford will initially inspect all of the subject vehicles brought into Ford/Lincoln-Mercury dealerships for possible cracked axles. Owners of vehicles without cracked axles will be notified when to return for the installation of reinforcement brackets to extend the axle durability in the presence of corrosion. Owners who have vehicles with cracked axles will either be offered a repair or alternative transportation until parts become available.

On May 13, 2010, the Office of Defects Investigation (ODI) opened PE10-016 to investigate complaints of rear axle cracking in MY 1999 through 2003 Ford Windstar minivans. Combining ODI and Ford complaint data, ODI is aware of a total 891 complaints alleging rear axle cracking in the subject vehicles. Over a third of the complaints (334) allege

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<sup>\*\*</sup> Count indicates duplicate reports received by ODI and manufacturer.

that the cracking progressed to a complete fracture of the rear axle, including 8 allegations of crashes resulting in 3 injuries. Approximately 57 percent of the subject vehicles (524,661) were sold in Salt-Belt states covered by Ford's recall and Ford estimates that approximately 463,000 of these remain in service. Ninety-six percent of the complaints (858) and all of the complaints alleging complete fracture were from the recall region. The action taken by Ford is sufficient to resolve the issues raised by this investigation. Accordingly, this investigation is closed.

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James P. Vondale. Director Automotive Safety Office Environmental & Safety Engineering Fairlane Plaza South 330 Town Center Drive Dearborn, MI 48126-2738 USA

August 26, 2010

Mr. Daniel C. Smith Associate Administrator for Safety Assurance National Highway Traffic Safety Administration 1200 New Jersey Avenue SE, Room W45-231 Washington, DC 20590

Dear Mr. Smith:

Subject: Ford Motor Company (Ford) Recall No. 10S13 - Certain 1998 through 2003 Model Year Ford Windstar Vehicles Rear Axle Cracking

#### Summary

- <u>Ford Action</u> Ford is conducting a voluntary safety recall in high corrosion states involving certain 1998 through 2003 model year Ford Windstar vehicles to address rear axle cracking.
- <u>Number of Vehicles Involved</u> Ford estimates that there are approximately 462,750 currently registered vehicles that were either originally sold in or are in Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.
- <u>Effect on Vehicle Operation</u> A completely fractured rear axle may lead to a loss of vehicle control. There may be little or no warning to the operator before a cracked rear axle completely fractures.
- <u>Service Procedure</u> Owners will be notified and instructed to take their vehicles to a Ford or Lincoln/Mercury dealer for an inspection of the rear axle. Owners of vehicles without axle cracking will be notified when to return for the installation of reinforcement brackets to extend the axle durability in the presence of corrosion. Owners who have vehicles with cracked axles will either be offered a repair or alternative transportation until parts become available.

Ford is voluntarily taking this action as a safety recall to address the agency's concern and to respond to any potential customer concerns. Also, Ford is extending the free remedy offer to all vehicle owners in this population, including those vehicles that are beyond the statutorily required free remedy period. The detailed information required by the applicable portions of 49 CFR Part 573 - Defect and Non-Compliance Information Report is attached.

Sincerely,

James P. Vondale
- Attachment

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# 49 CFR Part 573 -- DEFECT INFORMATION REPORT 10S13 -- 1998 THROUGH 2003 MODEL YEAR FORD WINDSTAR VEHICLES REAR AXLE CRACKING

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 certain 1998 through 2003 model year Ford Windstar vehicles built at the Oakville Assembly Plant (OAP) from September 1, 1997, through February 28, 2003, that are currently registered and that were either originally sold in or that are in Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.

Because these vehicles were 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/Mercury dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

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

Approximately 462,750 currently registered vehicles that were either originally sold in or are in the high corrosion areas of the United States 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

Ford notes the vast majority (approximately 97%) of reports received by Ford relating to this subject come from vehicles that were originally sold or are currently registered in the high corrosion areas of the United States. After many years of vehicle service in these areas, corrosion can weaken the rear axle, making it susceptible to torsional stress. There is a small risk that the combined effects of corrosion and stress can lead to cracks which, if undetected, can propagate and result in a complete fracture of the axle. A completely fractured axle can affect vehicle handling and increase the risk of a crash.

## 573.6 (c) (6) - Chronology of Events

On May 13, 2010, the NHTSA opened an investigation (PE10-016) on rear axle beam failures on 1999 through 2003 model year Ford Windstar vehicles. Ford provided its response to the agency's information request on July 20, 2010, and has continued to work with the agency as well as conduct further engineering analysis on parts gathered from the field. On August 19, 2010, Ford's Field Review Committee (FRC) reviewed the issue and approved a field action.

## 573.6 (c) (8) - Service Program

Owners of vehicles originally sold or currently registered in the high corrosion areas will be notified and instructed to take their vehicles to a Ford or Lincoln/Mercury dealer for an inspection of the rear axle. Vehicles with no signs of rear axle cracking will be returned to the owner. These owners will be notified when to bring their vehicles back for installation of rear axle reinforcement brackets, as parts become available, to extend its durability in the presence of corrosion. Owners who have vehicles with cracked axles will either be offered a repair or alternative transportation until parts become available. There will be no charge to owners for any of these services.

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Mailing of owner notification letters will begin the week of September 27, 2010. Notification to dealers will occur on August 26, 2010.

Ford's general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall was provided to the agency on February 28, 2009.

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

An initial statement relating to this action is planned. Ford will also provide public comments upon inquiry. A copy of the notification letters to dealers and owners from Ford will be forwarded to the agency when available.

## 573.6 (c) (11) - Recall Number

Ford has assigned recall number 10S13 to this action.

## 573.13 (c) (2) - Ending date for reimbursement Eligibility

The ending date for reimbursement eligibility for cost of remedies paid for by vehicle owners per Ford's general reimbursement plan is October 15, 2010.