



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 12-003
Prompted by: PE11-039
Date Opened: 04/23/2012
Investigator: Michael Lee
Approver: Frank Borris
Subject: Corrosion of Third-Row Seat Attachment

Date Closed: 05/02/2013
Reviewer: Scott Yon

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Ford Motor Company
Products: 2004-2007 Ford Freestar and Mercury Monterey
Population: 196,667

Problem Description: The front portion of the third-row stowable seat is latched to strikers mounted to the rear wheel wells. Corrosion and subsequent material degradation of the wheel well area can result in the loss of seat attachment at one or both strikers.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	78	52	106**
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	1	1

*Description of Other: Warranty claim

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close this Engineering Analysis (Recall No. 13V-081).

Summary:

Ford is conducting a safety recall to repair the third-row seat's latch mechanisms in approximately 196,667 model year (MY) 2004 through 2007 Ford Freestar and Mercury Monterey vehicles (see NHTSA recall 13V-081 for more details). The recall covers vehicles originally sold, or currently registered, in the "salt belt" states or high corrosion areas of the United States: Connecticut, Delaware, the District of Columbia, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.

Approximately 100,000 remaining MY 2004-2007 Freestar and Monterey vehicles--those vehicles that were not originally sold, or are not currently registered, in salt belt states--are not included in the recall action. Although these vehicles are the same as the ones described above, they experience significantly lower failure rates because of reduced road salt exposure. ODI is currently aware of only one complaint on vehicle outside of the recall scope. ODI will monitor complaints and take further action if warranted by the circumstances. For owners of vehicles that are outside of the recall scope but exhibit the defect condition, owners (and affected Ford dealers) can contact Ford to request the recall repair.

This Engineering Analysis is closed. See attached report and associated recall file for additional information.

The ODI reports cited above can be reviewed online at <http://www-odi.nhtsa.dot.gov/owners/SearchNHTSAID> under the following identification numbers: 10399896, 10410491, 10420028, 10424850, 10433928, 10436592, 10438529,

10440616, 10441489, 10441641, 10442809, 10446564, 10450295, 10450559, 10450587, 10452933, 10453826, 10454977, 10455545, 10456985, 10457423, 10457910, 10458738, 10459042, 10460511, 10461074, 10462910, 10463126, 10463262, 10463366, 10463600, 10464243, 10467003, 10467680, 10468429, 10469188, 10469200, 10470216, 10470510, 10471280, 10471520, 10471813, 10471978, 10472514, 10473087, 10473159, 10477025, 10477387, 10477954, 10478449, 10479247, 10479758, 10480611, 10480665, 10481054, 10481412, 10482213, 10482236, 10482613, 10482620, 10487872, 10489445, 10490515, 10490641, 10490663, 10490744, 10491495, 10492220, 10493470, 10493572, 10496348, 10497631, 10497976, 10498310, 10498433, 10499681, 10499861, 10500495.

EA12-003

Additional Information

When the third-row stowable seat is in its seating (in-use) position, the front portion of the base section of the seat in model year (MY) 2004-2007 Ford Freestar and Mercury Monterey vehicles is latched to strikers that are mounted to the rear wheel wells by a stud mounting plate and a reinforcement plate. These plates are welded to the exterior of the rear wheel well. These plates were not adequately sealed and thus allow moisture to collect in the areas around the plates. The moisture can cause premature corrosion and lead to degradation of the inner wheel well material. The rear portion of the seat is anchored to the vehicle floor by two pivot-hinge attachments, which are not affected by corrosion.

ODI and Ford have received 106 non-duplicative reports alleging severe corrosion in the rear wheel well area in MY 2004-2005 Freestar and Monterey vehicles with all of these reports submitted from the “salt belt” states. Some of the complaints indicated difficulty or inability to latch the third row seat, while other complaints reported an entire seat striker plate completely detached from the vehicle (rear wheel well). NHTSA’s inspections of several complaint vehicles confirmed evidence of severe corrosion and degradation of rear wheel well material on one or both striker plates. Complaint reporting frequency indicates an increasing trend over time.

Ford stated the recall is being conducted to address corrosion in the rear wheel well area that could affect the ability to secure the third row seats forward latch. Ford also stated it is not aware of any accidents or injuries related to the defect condition, and that the seat belts and seat rear anchorage to the vehicle are unaffected.

ODI has evaluated the potential for reduced occupant protection—or increased injury risks—due to the defect condition for the third-row seat occupants during vehicle crashes. NHTSA conducted several rear-impact crash tests of complaint Freestar vehicles (with a striker plate completely detached from vehicle on one side) and “good” Freestar vehicles (both striker mechanisms in good condition). These tests simulated a moderate severity rear crash. The tests were conducted with instrumented crash test dummies in the third-row seat to measure injury potentials. The results showed a greater occupant head/upper torso excursion through the liftgate (rear) window in a failed seat compared to a good seat. The results also showed that the head injury criterion (HIC) values were generally higher in tests with a failed seat compared to a good seat although they were all well below the HIC injury criteria specified in NHTSA’s frontal occupant protection test requirements.

Finally, although ODI’s testing was limited to the rear-impact crash mode described above, it believes the defect condition in the subject vehicles could create the potential for increased injury risks in various crash modes and conditions, including frontal crashes, rollover crashes, and multiple-impact events.