



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 11-006
Prompted by: Consumer complaints, PE10-036
Date Opened: 05/04/2011 **Date Closed:** 08/19/2011
Investigator: Lawrence Hershman **Reviewer:** Scott Yon
Approver: Frank Borris
Subject: Fuel Tank Strap Failure Due to Corrosion

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: FORD MOTOR COMPANY
Products: MY1997-2004 Ford F-150
Population: 1,340,349

Problem Description: The fuel tank straps can fail due to severe corrosion, possibly resulting in the fuel tank dropping (detaching) and causing a fuel leak. Leaking gasoline presents a fire hazard.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	503	282	700**
Crashes/Fires:	5	4	8**
Injury Incidents:	1	1	1**
Number of Injuries:	1	1	1**
Fatality Incidents:	0	0	0
Other*:	0	8	8

*Description of Other: Warranty reports.

** Count indicates duplicate reports received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close this investigation; Ford is conducting NHTSA Safety Recall 11V-385 (Salt Belt States).

Summary:

One or both of the steel straps holding up the fuel tank and attaching it to the truck frame can corrode and fail (break or separate). If one strap fails, the tank may tilt and drop and possibly contact the road surface. If both straps break, the entire tank may drop to the road. If either failure occurs while the vehicle is being driven, contact with the road can abrade the tank and create a hole from which gasoline can spill. When the tank drops, it remains attached to the vehicle only by the fuel filler hose and/or supply lines, or in rare instances, by the skid plate, if present. In some cases the weight of the tank sufficiently strained the hoses and fittings and caused separation and subsequent fuel leaks from those connections. The fire hazard created by leaking gasoline is increased by the possible presence of sparks created by the metal tank being dragged along the road.

Corrosion of the straps appears to be caused by prolonged exposure to road deicers, frequently road salt, used to treat snow or ice covered roads. States in which large quantities of deicers are applied to roads during the winter season ("salt belt states") account for the predominant portion of strap failures. Vehicles in these salt belt states are prone to experience corrosion related failures more frequently and earlier in a vehicle's life cycle. Ford reports approximately 97 percent of reports it received relating to strap failure involve vehicles that were operated in these high corrosion areas, and 95 percent of the reports to NHTSA involved such vehicles. Approximately one-third of F-150 U.S. production was sold in salt belt states.

ODI has included in the above counts reports it has received from consumers and reports it has received from Ford in which either the complaint involved confirmed strap corrosion or ODI's assessment of available information suggests

corrosion caused the reported problem. Among the incidents reported to NHTSA, 441 involved one or both straps failing due to corrosion, 353 involved the fuel tank dropping and/or dragging on the ground, and 180 involved fuel leakage. ODI has received four reports of strap failure in which the leaking fuel ignited but self-extinguished, and one incident in which fire destroyed the vehicle and injured its driver. Ford reported the same injury incident and three other unique fire incidents, including two in which the leaking fuel ignited and fire destroyed the vehicle. There were no injuries associated with the three unique Ford incidents.

Ford has agreed to conduct a recall to repair the subject vehicles. The recall will cover vehicles that were originally sold or are currently registered in salt belt states (regardless of vehicle age). The vehicles included in the recall are those subject vehicles that are, or have ever been, registered in Connecticut, Delaware, Iowa, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin, or the District of Columbia. Ford's recall action appears to adequately address the problem at this time.

The above vehicle population (1,340,349) includes subject vehicles originally delivered or sold in salt belt states. ODI does not know the current or historical locations of all subject vehicles. According to Ford approximately 73% of the recall population is currently registered (a 27% attrition rate). Ford is also recalling certain MY 1997-1999 F-250 vehicles (under 8,500 GVWR), and MY2002-2003 Lincoln Blackwood vehicles for the same condition, resulting in an estimated 1.1 million total vehicles covered by the recall (see Safety Recall 11V-385 for further details).