



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  
**Investigator:** Lawrence Hershman      **Reviewer:** Scott Yon  
**Approver:** Frank Borris  
**Subject:** Fuel Tank Strap Corrosion/Rust

### MANUFACTURER & PRODUCT INFORMATION

**Manufacturer:** FORD MOTOR COMPANY  
**Products:** 1997-2001 Ford F-150  
**Population:** 2,731,909

**Problem Description:** The straps that support the fuel tank can rust and break, possibly dropping the tank and causing a fuel leak. Leaking gasoline presents a fire hazard.

### FAILURE REPORT SUMMARY

|                            | ODI | Manufacturer | Total |
|----------------------------|-----|--------------|-------|
| <b>Complaints:</b>         | 175 | 156          | 306** |
| <b>Crashes/Fires:</b>      | 1   | 1            | 2     |
| <b>Injury Incidents:</b>   | 0   | 0            | 0     |
| <b>Fatality Incidents:</b> | 0   | 0            | 0     |
| <b>Other*:</b>             | 0   | 8            | 8     |

\*Description of Other: Goodwill warranty claims involving fuel strap failure due to corrosion.

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

### ACTION / SUMMARY INFORMATION

**Action:** Close Preliminary Evaluation PE10-036 and upgrade investigation to an Engineering Analysis.

#### Summary:

One or both of the steel straps holding up the fuel tank and attaching it to the truck frame can corrode and break. If one strap breaks, 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. This raises the possibility that the weight of the dropped tank could sufficiently strain the hoses and fittings to cause separation and fuel leaks between those components. The fire hazard created by the leaking gasoline is increased by the possible presence of sparks created by the metal tank being dragged along the road. The sparks could ignite the escaped fuel.

ODI has included in its incident counts reports it has received from consumers and reports provided by Ford in which either the complaint involved confirmed strap corrosion or ODI's investigation yielded information that strongly suggests the subject defect as the cause of the reported problem. Among the incidents reported to NHTSA or Ford, 243 involved the fuel tank dropping below the vehicle and/or dragging on the ground, 95 involved fuel leakage, and nine included reports of sparks from the tank being dragged on the road. ODI has received one report of strap failure in which the leaking fuel ignited but self-extinguished. Ford reported another incident in which the leaking fuel ignited and the resultant fire destroyed the vehicle. There have been no injuries associated with these incidents.

ODI has received reports of corrosion induced tank strap failures with other model year F-150 vehicles. ODI is upgrading this investigation to further investigate the frequency, severity and scope of this problem.