



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: DP 05-005
Prompted By: Defect Petition
Date Opened: 09/22/2005 Date Closed: 01/04/2006
Principal Investigator: Cheryl Rose
Subject: Spark Plug Ejection from Cylinder Head

Manufacturers: Accubuilt, Inc., Ford Motor Company, Truck Trailer Equip. Co.
Products: 1997-2004 Ford Vehicles Equipped with Triton V-8 or V-10
Population: 10,319,810

Problem Description: A spark plug may be ejected from the engine cylinder head while driving.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	474		474
Crashes/Fires:	1		1
Injury Incidents:	0		0
# Injuries:	0		0
Fatality Incidents:	0		0
# Fatalities:	0		0
Other*:	0		0

*Description of Other: 1 fire was reported; No manufacturer complaints were solicited as part of this evaluation.

Action: This Defect Petition has been denied.

Engineer: Cheryl Rose CAR

Date: 01/04/2006

Div. Chief: Jeffrey L. Quandt

Date: 01/04/2006

Office Dir.: Kathleen C. DeMeter

Date: 01/04/2006

Summary: On September 6, 2005, ODI received a petition requesting that the agency investigate allegations of engine spark plug ejection in certain model year 1997 through 2004 Ford vehicles with Triton V-8 and V-10 engines. ODI received a total of 474 non-duplicative complaints on the subject vehicles where the complainant, or the dealer repairing the vehicle, reported that a spark plug detached from the cylinder and/or ejected from the engine. As of December 8, 2005, ODI is not aware of any allegations where the alleged defect resulted in a loss of vehicle control, a crash, an injury, or a fatality in any of the 10,319,810 subject vehicles. In addition, ODI is aware of only two incidents where the vehicle stalled without restart.

Information contained in the ODI consumer complaints and obtained from 72 telephone interviews with complainants showed the following:

- (1) 99% of the complaints were on MY 1997 to 2002 subject vehicles.
- (2) Most the complainants reported hearing a loud pop while driving or upon starting up the vehicle followed by a loud, repetitive clicking or popping sound.
- (3) Many of the complainants reported that the popping sound was accompanied by some loss of vehicle power; however, in 99% of the incidents reported, the vehicle did not stall. In the very few incidents where the vehicle did stall, most vehicles could be restarted.
- (4) Only a small percentage of the complainants cited that they smelled gas or a slight burning smell when the incident occurred.
- (5) In all but a very few incidents, vehicle damage was limited to the engine. In one incident, the complainant reported that the fuel rail was damaged and replaced after one of the spark plugs ejected from the engine; however, the complainant reported that the damage did not result in any type of fuel leak or fire. In another incident, the only incident where a fire was alleged, the complainant reported that no fluid leak was observed, but that a fire resulted after the spark plug had ejected from the engine and he had restarted the vehicle and driven to another location. None of the complainants reported any damage to the vehicle hood.
- (6) Only two complainants reported that they observed what appeared to be some drops of fuel coming from the cylinder where the spark plug had failed or on the spark plug itself; however, each of these complainants reported that there was no smoke or flames as a result of his incident.

As the petitioner noted, and ODI's analysis showed, it is possible for a spark plug to detach from the engine cylinder threads in the subject vehicles. However, ODI's analysis of 474 complaints describing such incidents found only a very few alleged any safety-related consequences. None of these showed any evidence of a serious safety consequence. Given the large population and relatively long exposure time of the subject vehicles, the complaint analysis indicates that the risk to motor vehicle safety from the alleged defect is very low.

In view of the foregoing, it is unlikely that NHTSA would issue an order for the notification and remedy of the alleged defect at the conclusion of the investigation requested in the petition. Therefore, in view of the need to allocate and prioritize NHTSA's limited resources to best accomplish the agency's safety mission, the petition is denied.

CAR
1/4/06