



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

# ODI RESUME

Investigation: PE06-048  
Date Opened: 10/30/2006  
Principal Investigator: Kyle Bowker  
Subject: Engine Compartment Fire

Manufacturer: Ford Motor Company, Mazda Motor Corp., Mazda North American Operations  
Products: 2001-2003 Ford Escape and Mazda Tribute  
Population: 618,703 (Estimated)

Problem Description: Alleged non-crash fire originating in the engine compartment at or near the anti-lock braking system (ABS) control module.

## FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	8		
Crashes/Fires:	8		
Injury Incidents:	0		
# Injuries:	0		
Fatality Incidents:	0		
# Fatalities:	0		
Other*:	2		

\*Description Of Other: Alleged thermal events originating in the engine compartment at or near the ABS control module.

Action: A Preliminary Evaluation has been opened.

Engineer: Kyle M. Bowker KMB  
Div. Chief: Jeffrey L. Quandt  
Office Dir.: Kathleen C. DeMeter

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Summary: The Office of Defects Investigation (ODI) has received eight complaints on Ford Escape subject vehicles that allege a non-crash related fire originating in the engine compartment at or near the anti-lock braking system (ABS) electronic control module. In addition, ODI has received two reports on Ford Escape subject vehicles that allege thermal events or other fire-related phenomena originating in the engine compartment at or near the ABS control module, as evidenced by smoke, arcing and/or melted electrical connectors and associated wiring. To date, ODI has not received any complaints related to the alleged defect on Mazda Tribute subject vehicles despite being substantially similar to the Ford Escape subject vehicles.

The ABS control module is an on-board diagnostic and control computer consisting of two microprocessors and the necessary circuitry for their operation that monitors system operation during normal driving as well as during anti-lock braking events. It is located directly beneath the brake master cylinder and brake fluid reservoir and is affixed to the ABS hydraulic control unit (HCU) which contains the brake pressure control valve block and pump motor. The ABS control module is located in a circuit that is powered at all times regardless of whether the key is in the ignition switch or not.

Five complainants have alleged "key off" engine compartment fires that occurred some time after the vehicle was parked, three of which have occurred since July 2006. It should be noted that the subject vehicles are not equipped with the speed control deactivation switch that was the subject of previous ODI investigations EA02-025 and EA05-005. A Preliminary Evaluation has been opened to assess the frequency, scope and safety consequences of the alleged defect.