U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

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Investigation: PE 10-021
Date Opened: 06/28/2010 **Date Closed:** 11/29/2010
Investigator: Lawrence Hershman **Reviewer:** Scott Yon
Approver: Richard Boyd
Subject: Loss of Electric Power Steering Assist

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: MAZDA MOTOR CORP
Products: 2007-2009 Mazda3 and Mazda5
Population: 223,306

Problem Description: Failure of power steering assist results in increased steering input

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	143	2,871	2994**
Crashes/Fires:	10	5	14**
Injury Incidents:	2	2	4
Number of Injuries:	4	2	6
Fatality Incidents:	0	0	0
Other*:	0	9,507	9,507

***Description of Other:** Warranty claims involving the power steering system

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

ACTION / SUMMARY INFORMATION

Action: Close this Preliminary Evaluation, Mazda is conducting a safety recall 10V-374

Summary:

The subject vehicles have electro-hydraulic power assist steering (EHPAS). The complaint counts shown above alleged a loss of power steering assist in the subject vehicles. Usually, but not always, the loss is accompanied by the simultaneous lighting of an indicator light on the dash. The complaints include 14 alleged crashes involving 6 injuries.

On Mazda3 and Mazda5 vehicles manufactured from April 2, 2007 through November 30, 2008, rust may have formed inside the EPAS high-pressure pipe during manufacture due to improper processing. If the rust is present it may damage the power steering pump bearings leading to an increased load on the electric motor; this results in an elevated operating temperature for the EPAS system. To prevent excessive overheating of the system, which could potentially cause permanent damage, a failsafe mode which de-powers the electric pump is implemented. This causes a loss of power assist making it more difficult to steer the vehicle, especially at lower vehicle speeds. Once the failsafe is implemented the EPAS system will remain disabled until the ignition is turned off. However EPAS will be re-enabled if the operating temperature is reduced (i.e., within an acceptable range) on a subsequent drive cycle.

On August 8, 2010 Mazda submitted a Part 573 defect information report initiating Safety Recall 10V-374 to remedy the subject vehicles. The report, which contains additional details on the remedy repair, is available at http://www-odi.nhtsa.dot.gov/recalls/. ODI notes that the affected population shown in that report includes approximately 8,000 vehicles Mazda repaired prior to initiating the recall.