



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

ODI RESUME

Investigation: PE 05-017

Date Opened: 04/07/2005

Date Closed: 09/23/2005

Principal Investigator: Cheryl Rose

Subject: Engine Stall/ Engine Compartment Fires

Manufacturer: Saab Cars USA, Inc.

Products: 1999-2002 Saab 9-3 and 9-5

Population: 157,584

Problem Description: Ignition discharge module (IDM) failure resulting in engine stall or fire.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	54	245	299
Crashes/Fires (1):	1	9	10
Injury Incidents:	0	0	0
# Injuries:	0	0	0
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	43,292	43,292

*Description of Other: IDM warranty claims; (1) Fires - reports where corroborating evidence indicated that a flame was present.

Action: This Preliminary Evaluation (PE) has been closed (Recall 05V-399).

Engineer: Cheryl Rose *CR*

Date: 09/23/2005

Div. Chief: Jeffrey L. Quandt

Date: 09/23/2005

Office Dir.: Kathleen C. DeMeter

Date: 09/23/2005

Summary: ODI opened PE05-017 based on 35 reports of alleged engine stalling due to the failure of the IDM "cassette" on the subject vehicles. All complainants reported that the engine shut down suddenly without warning and most reported that the vehicle would not restart. In 3 incidents, the complainants reported smoke and/or fire resulted from the IDM failure. During PE05-017, additional failure data was identified as noted in the failure report summary above. The complaint data represents incidents where the complainants alleged a stall or fire.

On September 13, 2005, General Motors (GM) notified NHTSA of a safety defect on 95,081 MY 2000-2002 Saab 9-3 and 9-5 vehicles with 4-cylinder gasoline engines and 8,117 MY 2001 9-5 vehicles with 6-cylinder gasoline engines (Recall 05V-399). The notification stated that "certain vehicles within these populations may experience overheating and burnout of the isolated gated bipolar transistor (IGBT) within the IDM due to increased susceptibility to electrical loads. Overheating of the IGBT occurs most often at engine start-up for both a 4-cylinder and 6-cylinder engine, but it may also occur while the engine is running. When the IDM fails on a 4-cylinder while it is running, the engine may stall without warning, with no ability to be restarted.

When the IDM fails on a 6-cylinder engine while it is running, the driver will initially experience reduced power and rough operation because the engine will only be running on three cylinders. The check engine light will flash. If the driver continues, unburnt fuel in the exhaust can cause thermal damage to the catalytic converter. The engine may stall and not restart. Thermal damage to other underhood components and the underbody may also result from prolonged driving."

The recall population encompasses 84% of the stalling and fire complaints (215 for vehicles with 4-cylinder engines and 36 for vehicles with 6-cylinder engines). The 36 months in service (MIS) stalling rates for each model year of recalled vehicles with 4-cylinder engines were all greater than two percent. Although the 36 MIS stall rate for the recalled MY 2001 vehicles with V6 engines was lower, at 1.3 percent, these vehicles also had the highest rate of confirmed (open flame verified) fires at 62 per 100,000 vehicles.

GM will instruct owners to bring their vehicles to a dealer for IDM inspection and replacement, if necessary. Consequently, this investigation is closed. ODI will monitor the effectiveness of the scope and remedy of GM's action and take further action if warranted.