



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 03-024
Prompted By: PE-03-029
Date Opened: 11/19/2003
Principal Investigator: LUKE LOY
Subject: BRAKING SYSTEM/ABS

Manufacturer: SUBARU OF AMERICA, INC.
Products: 2002, 2003 SUBARU IMPREZA WRX
Population: 50701

Problem Description: REDUCED BRAKING AND/OR EXTENDED STOPS WHEN
ATTEMPTING TO SLOW DOWN ON BUMPS, GRAVEL, RIPPLES OR OTHER
IRREGULARITIES IN THE PAVEMENT

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	93	189	263
Crashes/Fires:	5	12	17
Injury Incidents:	0	0	0
# Injuries:	0	1	1
Fatality Incidents:	0	0	0
# Fatalities:	0	0	0
Other*:	0	332	322

*Description Of Other: WARRANTY CLAIMS TOTAL 331 AS REPORTED BY SUBARU IN
THEIR SEPTEMBER 29, 2003 PE-IR RESPONSE.

Action: OPEN AN ENGINEERING ANALYSIS

Engineer: Luke W. Loy 

Date: 11/19/2003

Div. Chief: Richard Boyd

Date: 11/19/2003

Office Dir.: Kathleen C. DeMeter

Date: 11/19/2003

Summary: Subaru's supplemental response of September 29, 2003, identified that the 2002, 2003 Subaru WRX models are equipped with the Bosch 5.3 ABS system, and identified that other model Subaru vehicles are also equipped with the Bosch 5.3 ABS system, but have different calibrations than the WRX model vehicles. Subaru identified that changes were made in the ABS ECU to address a calibration logic issue when driving the vehicle with the spare tire mounted. Subaru reported that both the abs hydraulic unit and the ABS ECU were modified, and gave VIN numbers to identify the implementation of the modified units in production.

Testing is underway to gain an understanding of the WRX vehicle performance during an ABS activation. Further, analysis of the differences in vehicle performance resulting from abs software changes will be examined.

*Not
fixed
11/20/03*