



Fuji Heavy Industries U.S.A., Inc.

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> 08V-460 (5 Pages)

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September 8, 2008 Ref. No.: GR08-034

Mr. Daniel C. Smith Associate Administrator for Enforcement, NVS-200 National Highway Traffic Safety Administration Room W 45-306 1200 New Jersey Ave. SE Washington, DC 20590

RE: Part 573 Defect Information Report – 2007-2009 Subaru 2.5 Liter Turbo Engine Oil Supply Pipe

Dear Mr. Smith,

In accordance with 49 CFR Part 573 Defect and Noncompliance Responsibility and Reports, Fuji Heavy Industries USA, Inc. on behalf of Subaru of America, Inc. and Fuji Heavy Industries, Ltd., submits the enclosed notification and report concerning a defect in the 2.5 liter turbo engine oil supply pipe on certain 2007-2009 model year Subaru Legacy, Impreza and Forester vehicles sold in the United States. Our internal designation for this recall campaign will be: WVF-16.

If you have any questions on the enclosed report, please contact me.

Sincerely,

Fuji Heavy Industries USA, Inc.

Maurice Arcangeli, Safety Activities Manager

Government Relations

Enclosure

cc: Fuji Heavy Industries, Ltd. (Japan)

Subaru of America, Inc. (Cherry Hill, NJ)

RECEIVED 2008 SEPTEMBER 11 – 11:30 AM OFFICE OF RECALL MANAGEMENT DIVISION

Defect Information Report (49 CFR Part 573.6)

573.6(c)(1) - Manufacturer's Name

Vehicle Fabricating Manufacturers:

Fuji Heavy Industries, Ltd. ["FHI"] 1-7-2 Nishi-Shinjuku Shinjuku-ku Tokyo 160-8316, Japan

Subaru of Indiana Automotive, Inc. ["SIA"] 5500 State Road 38 East Lafayette, Indiana 47903

Designated U.S. Agency:

Fuji Heavy Industries USA, Inc. 2235 Rt. 70 West Cherry Hill, NJ 08002

573.6(c)(2)(i) - Identification of Vehicles Containing the Defect

Based on vehicle production records, we have determined from production dates that the recall affected passenger car population is as follows:

Make: Subaru Model Year(s): 2007 - 2009

Model(s): Legacy, Impreza and Forester 2.5L Turbo Vehicles

Production Dates: June 12, 2006 through January 17, 2008.

VIN Ranges: 2007 Legacy Sedan: 7*200020 - 7*215147 (Last 8 Digits) 2007 Legacy Wagon: 7*300013 - 7*346075

2008 Legacy Wagon: 7 300013 - 7 340073 2008 Legacy Sedan: 8*200003 - 8*222000 2008 Legacy Wagon: 8*300006 - 8*351020 2008 Impreza Sedan: 8*500002 - 8*522433 2008 Impreza Wagon: 8*800005 - 8*823185 2009 Forester: 9H700001 - 9H700139

Note 1: Although the involved vehicles are within the above VIN ranges, not all vehicles in these ranges were sold in the U.S. Note 2: Various characters occupy the VIN positions identified

by "*".

573.6(c)(3) - Total Number of Vehicles Potentially Containing the Defect

<u>Model</u>	<u>Year</u>	Number of Vehicles Potentially Involved
Legacy	2007	3,544
Legacy	2008	4,940
Impreza	2008	8,210
Forester	2009	21
	TOTAL	16,715

573.6(c)(4) - Percentage of Vehicles Estimated to Actually Contain the Defect

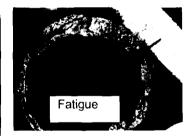
While it is not possible to determine an exact percentage, our investigation results indicate that very few vehicles (i.e., a small percentage) may have been produced with the suspect cylinder head-side oil supply pipe and turbocharger-side pipe having been assembled with a gap in position.

573.6(c)(5) - Description of the Defect

- (1) A warranty claim part returned from the market indicated the following: The oil supply pipe to the turbocharger cracked at the stay brazing on the cylinder head-side and the cracked surface appeared to be a fatigue breakage.
- (2) Production change giving rise to the problem: The design of the oil supply pipe was changed in '07MY Legacy vehicles, when a secondary air valve was newly incorporated.







(3) Cause of the Defect

Rigidity of the oil supply pipe was degraded due to a design change and deformation occurring in the assembly process. Under these circumstances, a gap could be created between the position of the cylinder head-side and turbocharger-side oil supply pipes. If the amount of the deformation exceeds the material limit, it could also exceed the fatigue limit of the pipe when resonance vibration is introduced to the pipe. That vibration would occur while driving, and over time could eventually result in cracking the pipe, which would allow oil to leak. If leaking oil contacts components operating at high temperatures, an engine compartment fire could occur.

573.6(c)(6) - Chronology of Principal Events

November 10, 2006: FHI received the first field technical report from Subaru of America, Inc. (SOA) concerning a bad odor and white smoke emitted from the engine compartment. After investigating the returned oil supply pipe, which was connected to the turbocharger oil pipe, a crack at the stay brazing of the pipe on the cylinder head-side was detected and the cracked surface showed signs of fatigue breakage. Assembly plants were instructed to install the pipe with care.

December 2006: FHI decided to monitor field status because the occurrence seemed to be an isolated case.

July 2007: FHI received another report from SOA concerning a bad odor and white smoke emitted from the engine compartment. FHI reinstituted an investigation and confirmed deformation of the pipe. Assembly plants were re-instructed about employing careful installation procedures.

FHI's investigation found the following:

- (a) The design of the oil supply pipe was changed in '07MY Legacy vehicles when a secondary air valve was newly incorporated.
- (b) FHI confirmed that stress will be concentrated at the pipe and its investigation raised the possibility that this situation may lead to cracks as a result of resonance vibration. To eliminate that possibility, the design of the pipe was changed by incorporating an additional stiffener in December 2007 in both SIA and FHI production lines.

January 2008: FHI continued its investigation of returned claim parts.

May 13, 2008: FHI started discussing whether a field fix was necessary and exploring a field fix method for affected vehicles.

September 3, 2008: FHI concluded its investigation and determined that this condition relates to motor vehicle safety; accordingly, FHI will conduct a recall campaign.

573.6(c)(8) - Description of the Manufacturer's Remedy Program

The remedy plan calls for dealers to inspect each affected vehicle to see if there is any damage (cracking) or an oil leak at the oil supply pipe at the cylinder head-side. If there is no abnormality detected, an additional bracket will be installed to increase rigidity of the pipe. If any abnormality is found, the pipe assembly will be replaced with a modified part.

All inspections and repairs will be at no charge to the owner. Dealers will be reimbursed for the labor and any parts by Subaru of America, Inc. upon submission of the usual recall claim. Subaru incorporates by reference its existing 573.13 reimbursement plan on file with NHTSA.

(ii) Subaru of America, Inc. expects to notify U.S. dealers around mid-October 2008 and include complete inspection and repair instructions. Owner notices are expected to be mailed in early November 2008.

573.6(c)(10) - Submission of Recall Communications

Fuji Heavy Industries USA, Inc. will provide copies of all notices, bulletins and other recall related communications within 5 days after their distribution.

573.6(c)(11) - Manufacturer's Campaign Number

Our identification code for this recall campaign will be: WVF-16.

577.5(a) - Submission of Owner Notification Letter

A copy of the owner notification letter will be submitted to NHTSA's Recall Management Division at least 5 days prior to mailing.