Fuji Heavy Industries U.S.A., Inc.
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Cherry Hill, NJ 08034-6000
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11V-562
(4 Pages)

November 28, 2011
Ref. No.: GR11-080

Ms. Nancy Lummen Lewis
Associate Administrator for Enforcement,
National Highway Traffic Safety Administration
Attention: Recall Management Division (NVS–215)
1200 New Jersey Ave. SE
Washington, DC 20590

RE: Part 573 Defect Information Report – Increased Brake Pedal Travel Distance on 2012MY Subaru Impreza (except WRX/STI), Legacy and Outback Vehicles

Dear Ms. Lewis,

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 Brake Master Cylinder on certain 2012 model year Subaru Impreza (except WRX/STI), Legacy and Outback vehicles sold in the United States. Our internal designation for this recall campaign will be: WVY-35.

If you have any questions on the enclosed report, please contact me at (410) 884-4075 or jfro@subaru.com.

Sincerely,

John Frooshani
Safety Activities Manager
Government Relations
Fuji Heavy Industries USA, Inc.

Enclosure

cc: Fuji Heavy Industries, Ltd. (Japan)

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): 2012
Model(s): Impreza (except WRX/STI), Legacy and Outback vehicles
Production Dates:

- Impreza (except WRX/STI): April 21, 2011 through November 15, 2011
- Legacy and Outback: October 17, 2011 through November 23, 2011

VIN ranges:

- 2012 Impreza Sedan (except WRX/STI): JF1GJAA6XCH002001 through JF1G3AB69CH010315
- 2012 Impreza Wagon (except WRX/STI): JF1GPAA65CH200001 through JF1GPAC68CH209529
- 2012 Legacy: 4S3BMBK65C3008608 through 4S3BMBC6XC3015679
- 2012 Outback: 4S4BRCC8C3216490 through 4S4BRBAC7C3232791

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

Model Year	Model	Number of Vehicles Potentiallly Involved
2012	Impreza (Sedan + Wagon)	11,553
2012	Legacy/Outback	20,406
	Total	**31,959**

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

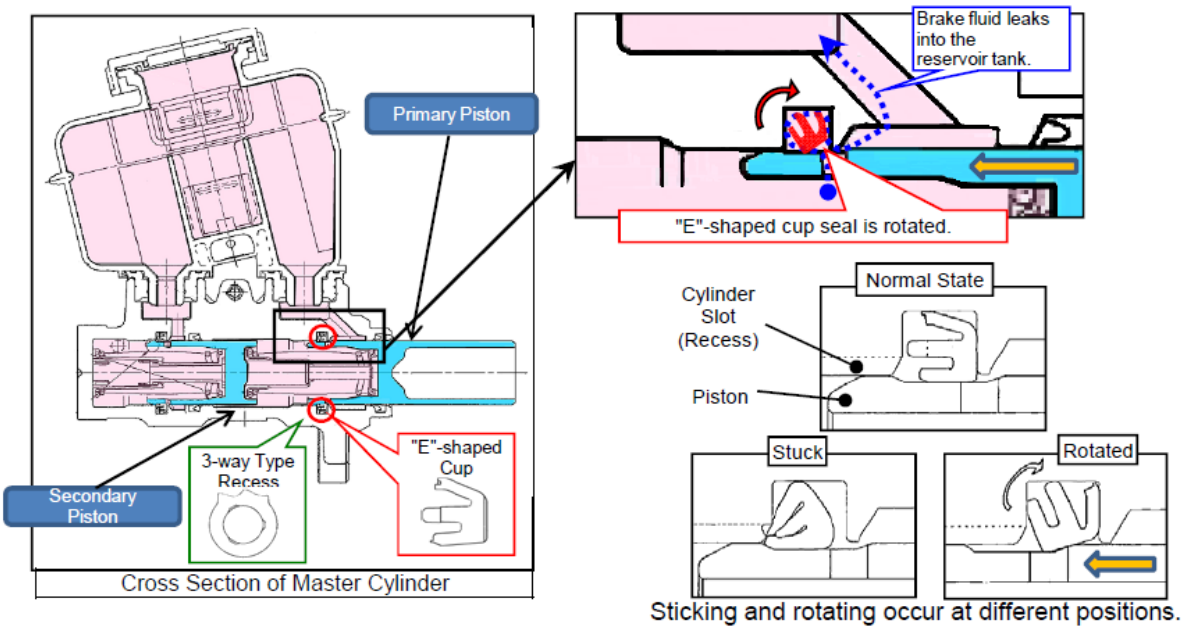
It is not possible to determine an estimated percentage of the affected vehicles that may actually experience this condition. We have received 3 confirmed technical reports of the problem from U.S.A. and Canada. 109 field reports in addition to the 3 confirmed technical reports were received. The majority of the reports were received from the dealer network and distribution centers.

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

(1) Evaluation result of returned parts

Investigation result of returned parts

As the "E"-shaped cup seal of the primary piston in the master cylinder rotates, brake fluid leaks into the reservoir tank.



(2) Failure occurrence mechanism

i) During production, the brake system is filled with hydraulic fluid using high pressure. This pressure collapses the “E”-shaped cup seal causing it to deform and get “stuck” in the cylinder slot recess (refer to the “stuck” picture in 573.6(c)(5)(1) above).

This event only occurs on the primary circuit. There is no impact on the secondary circuit.

ii) The “stuck” condition results in a force that pushes a portion of the E-shaped cup seal against the primary piston

iii) When the piston is actuated during braking, the piston moves left and the chamfer portion of it engages and rotates the “E”-shaped cup seal. This new orientation of the “E”-shaped cup seal compromises the hydraulic sealing of the system.

(3) Cause of the Defect

Design of the “E”-shaped cup seal cannot tolerate the process, during production, under which the brake system is filled with hydraulic fluid using high pressure.

(4) Consequence

In the failure mode described above, brake pedal travel distance will increase. The driver might misjudge the amount of brake pedal travel required to achieve the desired stopping distance, possibly resulting in a crash.

The service brake system will continue to comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 135.

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

- November 4th, 2011: FHI received an initial confirmed technical report of increased brake pedal travel from Subaru of America, Inc.
- November 5th, 2011: FHI started an investigation, which continued until November 23rd, 2011.
- November 24th, 2011: 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

(i) The remedy plan calls for dealers to inspect, and if necessary, replace the master cylinder assembly with a new one that incorporates a proven cup seal design in place of the “E”-shaped cup seal design.

(ii) Subaru of America, Inc. notified U.S. dealers on November 25, 2011. Subaru will start preparing modified parts. It is expected that owner notification will begin within 30 days. Subaru will update NHTSA if the situation changes significantly.

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: WVY-35.

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.