

March 19, 2008 Ref. No.: GR08-009



Fuji Heavy Industries U.S.A., Inc. c/o Subaru of America Subaru Plaza PO Box 6000 Cherry Hill, NJ 08034-6000 856-488-8500 856-488-9279 fax

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 – 2002-2003 Subaru Impreza Rear Gate Stay Attachment Bolt Breakage

Dear Mr. Smith,

Gerald Plante

General Manager

Government Relations Direct Dial: (856) 488-3226 Fax: (856) 488-8669 E-mail: gplante@subaru.com

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 installation of the rear gate stay attachment bolts on certain 2002-2003 model year Subaru Impreza vehicles imported into the United States. Our internal designation for this recall campaign will be: WVD-14

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

Sincerely,

Fuji Heavy Industries USA, Inc.

un for Gerald Plante

Gerald Plante, General Manager Government Relations

Enclosure

cc: Fuji Heavy Industries, Ltd. (Japan) Subaru of America, Inc. (Cherry Hill, NJ)

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DEFECTS INVESTIGATION RECALL MGMT DIV.

08V-135 (5 pages)

#### Defect Information Report 49 CFR Part 573.6

### 573.6(c)(1) – Manufacturer's Name

Vehicle Fabricating Manufacturer:

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

Designated U.S. Agency:

Fuji Heavy Industries USA, Inc. Subaru Plaza, PO Box 6000 2235 Rt. 70W Cherry Hill, NJ 08034-6000

# 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:

<ul> <li>Although the involved vehicles are within the above VIN ranges, not all vehicles in these ranges were sold in the U.S.</li> <li>Various characters occupy the VIN positions identified by "*".</li> </ul>
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#### 573.6(c)(3) - Total Number of Vehicles Potentially Containing the Defect

Model	Year	Number of Vehicles Potentially Involved
Impreza Impreza	2002 2003	30,803 <u>5,988</u> 36,791

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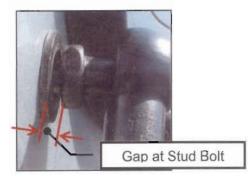
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## 573.6(c)(4) - Percentage of Vehicles Estimated to Actually Contain the Defect

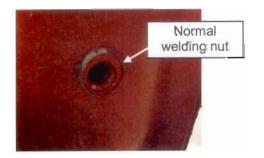
While it is not possible to determine an exact percentage, our investigation results indicate that very few vehicles (i.e., a small percentage) may have been produced with the suspect rear gate stay stud bolt having been tightened insufficiently during vehicle assembly. Please see also 573.6(c)(6)(e) findings.

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

(1) The stud bolt(s) of rear gate stay may have been tightened with insufficient tightening torque and a certain gap may have resulted between rear gate panel and stud bolt base.



(2) After repeated rear gate operations (opening and closing), the rear gate inner panel at the welding nut (rear gate stay fitting portion) may break, which will lead to detachment of the rear gate stay, and the rear gate dropping down.





(3) In case someone is underneath or near the rear gate, there is a possibility that a dropping rear gate panel may hit them. We are not aware of any injuries reported in the U.S.

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#### 573.6(c)(6) – Chronology of Principal Events

July 22, 2002: FHI received the first field technical report from the Japanese domestic market concerning a broken and dropped welding nut at the rear gate stay fitted portion on a new 2002 model year Impreza.

August 5, 2002: Tightening torque of the rear gate stay stud bolt was changed from 14 to 20Nm.

February 24, 2003: FHI decided to monitor field status since the July 22, 2002 occurrence seemed to be an isolated case.

July 25, 2007: FHI received another report in the Japanese domestic market concerning sudden rear gate dropping followed by a minor head injury. FHI reinstituted an investigation.

FHI's investigation found the following:

(a) Inspection results of the two affected vehicles The welding nut (W/N) to secure the rear gate stay was broken and dropped down at the rear gate reinforcement.

(b) Duplication test result

-The welded portion of the W/N breaks if the clearance between the stud bolt base and the rear gate inner panel is more than 1mm.

-If the stud bolt base contacts the rear gate inner panel with no clearance, even if the stud bolt tightening torque is zero, the rear gate stay attachment will not break as reported. Under this condition, the rear gate stay attachment at the body side will break first.

(c) Confirmation result of stud bolt loosening progress

-If the stud bolt tightening torque is low (less than 3 Nm) or if there is a certain clearance at the base, the stud bolt is initially loosened (3/10 through 6/10 revolutions: 0.20 through 0.42mm) but it did not progress thereafter with rear gate operations (opening/closing).

(d) Inspection result of stud bolt tightening procedure in production line Stud bolts are tightened with an air impact wrench and the discrepancy was not duplicated.

(e) Tightening torque inspection result at rear gate side stud bolt on in-use vehicles (97 x both sides)

-1 Nm or higher: 167 cases (86.1%)

-0 Nm: 20 cases (10.3%)

-Clearance at the stud bolt base is 1mm or higher: 7 cases (3.6%)

 (f) Inspection result of welding nut threads
 -Rear gate fitting portion was broken in 4 vehicles: No trace of tightening was confirmed in W/N threads of these vehicles.

-Vehicles (3 units) with more than 1mm clearance in (e): No trace of tightening was confirmed in W/N threads of these vehicles.

It is presumed that the stud bolts of these vehicles may not have been tightened adequately on the production line.

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February 13, 2008: FHI decided to conduct a field fix procedure and to start discussing the method with Ministry of Land Infrastructure and Transport (MLIT) of Japan.

March 17, 2008: FHI submitted a "Kaizen-Taisaku" (Improvement-Countermeasure) report of the issue to MLIT. (Since the "Rear Gate" is not covered by Japanese Safety Standards, it is not considered a non-compliance recall in Japan. However, since there was one case of injury, it is also not a service campaign. Kaizen-Taisaku is a unique field fix procedure undertaken in the Japanese market.)

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

(i)

The remedy plan calls for dealers to inspect each affected vehicle to see if there is any gap at the stud bolt of the rear gate stay installation. If there is any gap found, the stud bolt will be removed to check for damage to the welding nut. If cracks are found at the welding nut, the rear gate stay will need to be replaced.

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 April 1, 2008 and include complete inspection and repair instructions. Owner notices are expected to be mailed the week of June 2, 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: WVD-14.

### 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.