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March 26, 2002  
Ref. No. GA02-024C

02V-079 ① of ⑤  
*Revised*

Mr. Kenneth N. Weinstein  
Associate Administrator for Safety Assurance - NSA-01  
**National Highway Traffic Safety Administration**  
400 Seventh Street, S.W.  
Washington, D.C. 20590

Re: **Revised Subaru 2002MY Legacy Brake Master Cylinder  
Part 573, Defect Information Report**

Dear Mr. Weinstein:

The attached Defect Information Report (DIR) replaces the DIR dated March 11, 2002 on the same subject. The number of potentially affected vehicles changed as a result of some additional vehicles found in the loading yard with the affected lot number master cylinders. In addition, we neglected to add the 258 Canadian vehicles to the total number of vehicles affected.

The Revised information is shown in "bold" and "italic" print.

Should you have any questions about this report, please contact me at (856) 488-8644 or Brian DeAscentiis at (856) 488-3465.

Sincerely,

SUBARU OF AMERICA, INC.



Don Bearden, Director  
Governmental Affairs

DB:ds  
Attachment

**DEFECT INFORMATION REPORT**

02V-079 ②of⑤

**REVISED**

**1. Vehicle Manufacturer Name:**

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

**Assembly Facility:**

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

**Affiliated U.S. Sales Company:**

Subaru of America, Inc. ["SOA"]  
Subaru Plaza  
P.O. Box 6000  
Cherry Hill, NJ 08034-6000

**2. Identification of Affected Vehicles:**

Based on supplier and vehicle production records, we have determined the affected vehicle population as follows:

Make/Model: Subaru Legacy

Model year: 2002

Production dates: Certain vehicles produced between February 8, 2002 through March 1, 2002

VIN Range:

See Attachment 1 (floppy disk) for VIN's of all potentially affected Legacy vehicles ***distributed in the USA.***

**Component supplier:**

Robert Bosch Corporation  
38000 Hills Tech Drive  
Farmington Hills, MI 48331

Phone: (248) 553-9000

**3. Total Number of Vehicles Potentially Affected:**

Based on supplier and SIA records, **1510** Legacy vehicles are potentially affected, **258 of which were shipped to Canada.**

**4. Percentage of Vehicles Estimated to Actually Contain Defect:**

Based on supplier records, 2198 brake master cylinders were provided to SIA that may contain this defect. Since **1860** of these affected master cylinders were identified and replaced during inspections at SIA, only **338** affected master cylinders were installed on vehicles that were shipped out of the SIA loading yard to dealers **in the USA and Canada.**

**5. Description of Problem:**

The master cylinder supplier produced 2,198 master cylinders under lot numbers "21Q" and "21R" with the inner bore diameter dimension that was less than the specification. Because of insufficient clearance between the bore and the primary piston, this can result in the primary brake system primary piston seizing in the master cylinder bore under below freezing temperatures. The primary piston seizure will occur after the brake pedal is depressed since the piston return spring is not strong enough to return the piston to the "released" position. This may result in the brakes remaining "applied" until the under-hood temperature rises and allows the master cylinder bore to expand slightly and the primary piston returns to the "released" position.

**6. Chronology of Principal Events:**

On February 28, 2002, during vehicle loading of vehicles on truck trailers and railway freight cars, 2 vehicles evidenced the problem of "locked" brakes after the brake pedal was released. The ambient temperature was about -5 degrees C. The master cylinder "lot" numbers on these 2 master cylinders was "21Q". All truck and rail loading was halted while SIA personnel inspected all remaining vehicles already loaded on the truck trailers and rail cars and vehicles in the loading yard.

Further inspection of other vehicles on March 1 and March 2, 2002, also identified a second lot number ("21R") that was affected with the same condition. Subsequent investigation indicated that the master cylinder brake pressure was not releasing the brake hydraulic pressure causing the brake system to remain "applied". Several affected master cylinders were shipped to the master cylinder supplier for their investigation of this condition. The supplier confirmed the improper master cylinder bore size and that the condition was limited to the 2 lot numbers that had already been identified during vehicle inspection. The supplier also confirmed that 2,198 master cylinders with lot numbers of "21Q" and "21R" were improperly finished.

A total of **1860** master cylinders with lot numbers of "21Q" and "21R" were identified and replaced in the SIA loading yard. **338** master cylinders with the affected lot numbers remain to be identified and replaced in the **1510** potentially affected vehicles.

Some of the **338** master cylinders with the affected lot numbers may have been installed on 258 possibly affected vehicles that were exported to Canada.

**7. Description of Corrective Repair Action:**

The master cylinder of all potentially affected vehicles will be inspected for affected lot numbers ("21Q" and "21R"). All master cylinders with these lot numbers will be replaced with a new master cylinder.

Revised

**8. Recall Schedule:**

On March 7, 2002, SOA notified all dealers to "stop sale" of the potentially affected vehicles. We are in the process of determining if any of the potentially affected vehicles have been sold to retail customers. If potentially affected vehicles have been sold to retail customers, those customers will immediately be notified by telephone and first class mail to return their vehicles to a Subaru dealer for inspection and possible replacement of the brake master cylinder.