HONDA

American Honda Motor Co., Inc.
1919 Torrance Boulevard
Torrance, CA 90501-2746
Phone (310) 783-2000

December 1, 2011

Ms. Nancy Lewis
Associate Administrator for Enforcement
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
Attn: Recall Management Division (NVS-215)
1200 New Jersey Avenue, SE
Washington, DC 20590

11V-567
(5 Pages)

Re: Recall Notification
2001-10 and 2012 Model Year GL1800
Secondary Master Cylinder

Dear Ms. Lewis:

On November 25, 2011, Honda Motor Co., Ltd. (HMC) determined that a potential defect relating to motor vehicle safety exists in the secondary master cylinder on certain 2001-10 and 2012 model year GL1800 motorcycles, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with the requirements of 49 CFR Part 573 Defect and Noncompliance Reports.

573.6(c)(1)

Name of manufacturers: Honda Motor Co., Ltd. (HMC)
Honda of America Manufacturing, Inc. (HAM)

Manufacturer's agent: Jay Joseph
American Honda Motor Co., Inc. (AHM)
1919 Torrance Blvd.
Torrance, CA 90501-2746

573.6(c)(2)

Identification of potentially affected vehicles:

See Attachment 1.

Description of the basis for the determination of the recall population:

The recall population was determined based on manufacturing records. The VIN ranges on Attachment 1 reflect all possible vehicles that could potentially experience the problem.

573.6(c)(2)(iv)

Identification of affected component:

Component:	Secondary Master Cylinder
Country of Origin:	Japan
Manufacturer:	Nissin Kogyo Co., Ltd.
Contact Name:	Fumihiko Takahashi, Senior Sales Engineer
Address:	801 Kazawa, Tomi-shi, Nagano-ken, 389-0514, Japan
Telephone No.:	81-268-62-5280

573.6(c)(3)

Total number of potentially affected vehicles: 126,000

573.6(c)(4)

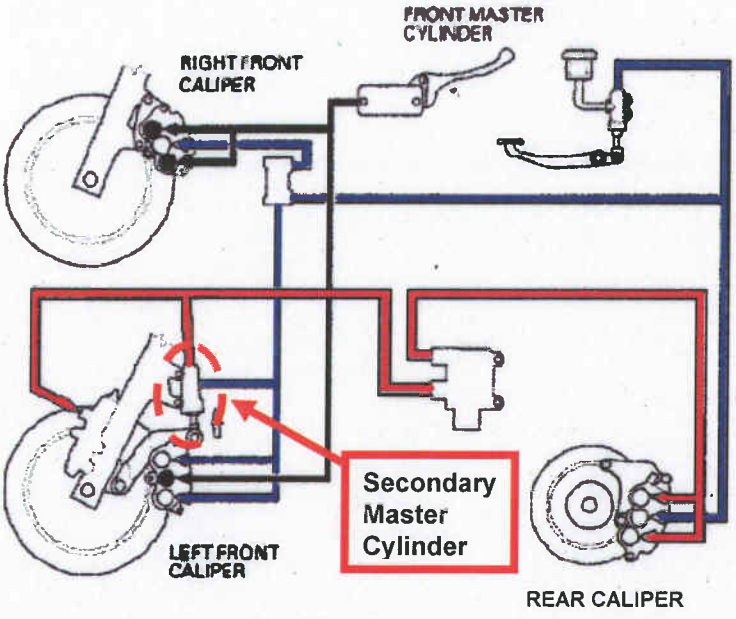
Percentage of affected vehicles that contain the defect: 4%

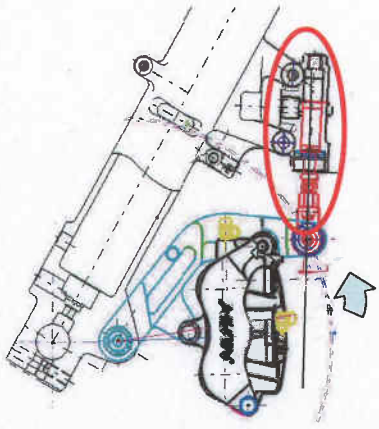
573.6(c)(5)

Defect description:

Some vehicles may experience rear brake drag after the rider releases the rear brakes. The combined brake system utilizes a secondary master cylinder (illustrated below) mounted on the left front fork that is actuated by a torque-reaction of the left front brake caliper. As with a typical master cylinder, the secondary master cylinder includes a compensating port to facilitate expansion of brake fluid as the brake temperature increases. Due to production tolerance stack-up, the secondary master cylinder may be mounted at an increased angle compared to the design specification. Swelling of the secondary master cylinder pressure cup may also occur after prolonged exposure to brake fluid and high temperatures. These factors in combination may result in the compensating port becoming blocked. If the compensating port becomes blocked, the rear brake will drag and the brake fluid temperature will increase, causing the fluid to expand and the braking force/drag to increase. Unexpected braking/dragging increases the risk of a crash and continued riding with the rear brake engaged/dragging may generate enough heat to cause the rear brake to catch fire.

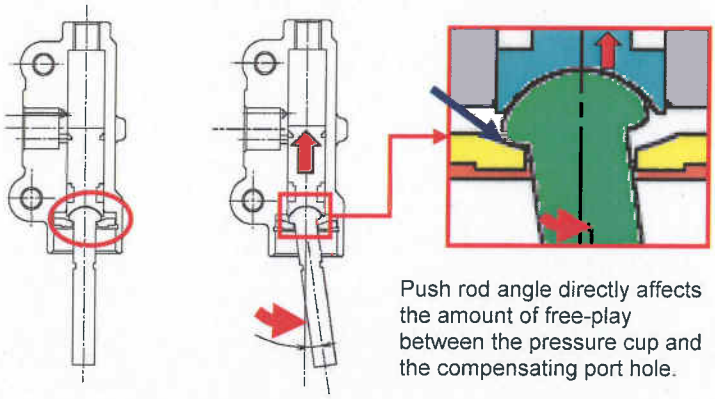
Location of the secondary master cylinder in the combined braking system.





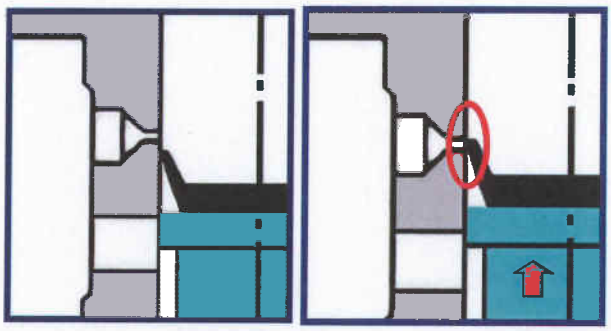
The secondary master cylinder is actuated by a torque reaction of the left front brake caliper whenever the front brake is applied

Stacking of manufacturing tolerances in the mounting of the secondary master cylinder causes the operating angle of the push rod to increase, which reduces free-play between the pressure cup and the compensating port.



Push rod angle directly affects the amount of free-play between the pressure cup and the compensating port hole.

If the free-play is completely expended due to an increased pushrod angle and the pressure cup swells due to prolonged exposure to brake fluid and high temperature, the compensating port hole can become blocked and fluid cannot freely return after the rider releases the brake lever or pedal.



573.6(c)(6)

Chronology:

July 14, 2010	AHM issues a report to HMC regarding a customer claim of a motorcycle's rear brakes dragging 40 miles after a service that included a brake fluid flush. The report advises that after parking the motorcycle, the customer heard a small explosion, saw fire emanating from the rear brake area, and used a fire extinguisher to put out the flames.
Aug. – Nov. 2010	HMC analyzes the motorcycle's hydraulic pressure system and parts. Analyses indicate components are within specifications.
November 16, 2010	AHM reproduces a customer's complaint of rear brake dragging at a dealership.
December 2010	HMC and the braking system supplier conduct a joint analysis and testing of the hydraulic pressure system and are able to reproduce rear brake dragging under certain conditions.

Jan. – Apr. 2011	HMC continues analysis and testing in order to determine the conditions in which compensating port blockage may occur. Joint analysis and testing conducted with the front fork and secondary master cylinder suppliers.
June – August 2011	HMC studies and ascertains that compensating port blockage is affected by: (1) the tilt angle of the push rod, which is determined by the mounting position of the secondary master cylinder; (2) the free-play or the distance between the compensating port and the pressure cup when the piston is fully extended; and (3) pressure cup swelling. HMC tests indicate the likelihood of the compensating port being blocked increases when the push rod tilt angle is increased, the initial free-play is small and, due to increased temperatures and prolonged exposure to brake fluid, the pressure cup swells (but still within FMVSS tolerances), further reducing the free-play.
Sept. – Oct. 2011	HMC studies the relationship and probability of production variation on the vehicle population as well as develops and tests countermeasures with the secondary master cylinder supplier.
Nov. 25, 2011	HMC completes its investigation and determines that a safety-related defect exists and decides to conduct a safety recall.

To date, a total of 26 complaints regarding rear brake dragging in the U.S. have been confirmed. Two of the complaints reported a small fire in the rear brake area. These complaints and the potential for similar complaints in other markets were considered in the market action decision.

573.6(c)(8)(i)

Program for remedying the defect:

Honda motorcycle dealers will inspect the secondary master cylinder of all affected motorcycles in dealership stock or sold to customers (consumers and commercial entities) using a specially developed tool. If an inspection indicates that the compensating port can be blocked, the dealer will replace the secondary master cylinder with one that has additional free-play. Registered owners of affected motorcycles will be contacted by mail and asked to take their motorcycle to a Honda dealer. The dealer will inspect the motorcycle, and if necessary, replace the secondary master cylinder, free of charge.

573.6(c)(8)(ii)

The estimated date to e-mail preliminary notification to dealers:	Dec. 2, 2011
The estimated date to provide service bulletin to dealers:	Dec. 3, 2011
The estimated date to begin sending notifications to owners:	Jan. 4, 2012
The estimated date of completion of the notification:	Jan. 31, 2012

573.6(c)(9)

Representative copies of all notices, bulletins and other communications:

A copy of the dealer service bulletin and text of the final customer notification letter will be submitted to your office as soon as possible.

573.6(c)(10)

Proposed owner notification letter submission:

A draft of the owner notification letter is included with this submission

573.6(c)(11)

Manufacturer's campaign number:

S03

Sincerely,

AMERICAN HONDA MOTOR CO., INC.

Jay Joseph
Senior Manager
Product Regulatory Office

JWJ:dj