RECEIVED
By Recall Management Division at 8:08 am, Jun 03, 2011

11V-310
(5 Pages)

HONDA

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

June 1, 2011

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

Re: Recall Notification
2010-11 Model Year VT750
Bank angle sensor

Dear Mr. Harris:

On May 27, 2011, Honda Motor Co., Ltd. (HMC) determined that a potential defect relating to motor vehicle safety exists in the bank angle sensor of certain 2010-11 model year VT750 motorcycles, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

573.6(c)(1)

Name of manufacturer: Honda Motor Co., Ltd. (HMC)

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:

Make/Model/Type	Description	VIN Range/Dates of Manufacture
Honda VT750C-A	Certain 2011 model year	JH2RC5002BK700001 – JH2RC5006BK700180 Nov. 19, 2010 to March 28, 2011
Honda VT750C-AC	Certain 2011 model year	JH2RC5011BK700001 – JH2RC5015BK700020 Nov. 23, 2010 to February 24, 2011
Honda VT750C2B-A	Certain 2010 model year	JH2RC5379AK000001 – JH2RC537XAK001481 June 25, 2009 to May 26, 2010
Honda VT750C2B-A	Certain 2011 model year	JH2RC5373BK100001 – JH2RC5372BK101110 October 13, 2010 – March 7, 2011
Honda VT750C2B-AC	Certain 2010 model year	JH2RC5388AK000001 – JH2RC5389AK000122 July 7, 2009 to October 7, 2009
Honda VT750C2B-AC	Certain 2011 model year	JH2RC5382BK100001 – JH2RC5387BK100110 October 13, 2010 to March 3, 2011

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

The recall population was based on manufacturing records. The VIN range reflects all possible vehicles that could potentially experience the problem.

573.6(c)(2)(iv)

Identification of affected component:

Component:	Bank angle senor
Country of Origin:	Japan
Manufacturer:	Toyo Denso Co., Ltd.
Contact Name:	Motonari Tateyama
Address:	1053 Ohtagaya, Tsurugashima-City Saitama Prefecture 350-2280 Japan
Telephone No.:	81-49-285-1259

573.6(c)(3)

Total number of potentially affected vehicles: 3,020

573.6(c)(4)

Percentage of affected vehicles that contain the defect: unknown

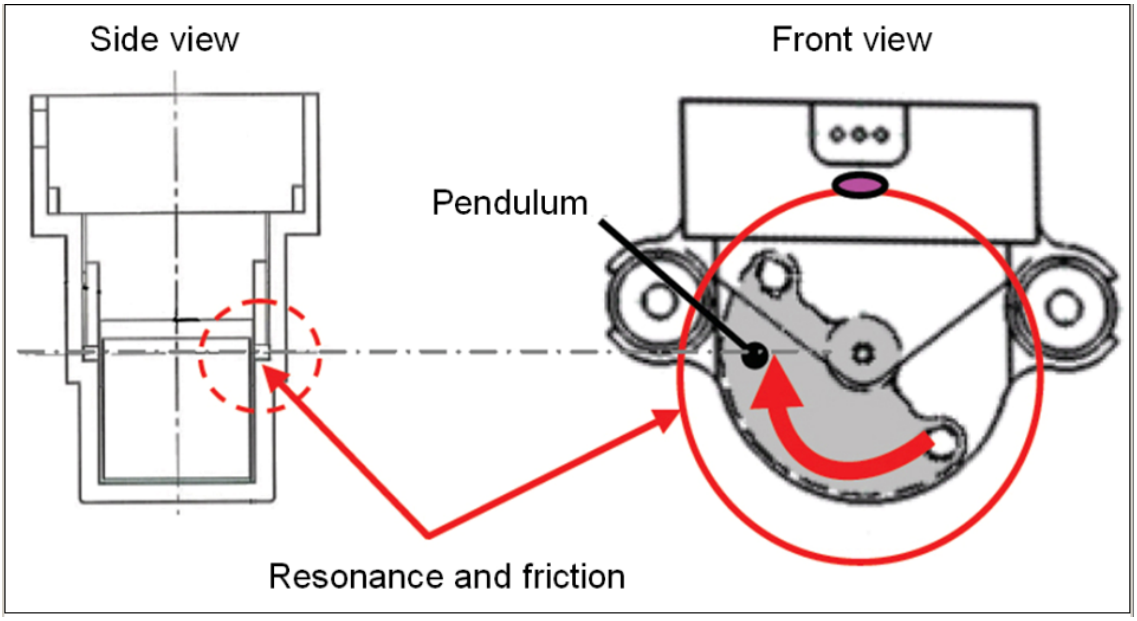
573.6(c)(5)

Defect description:

A limited number of riders have reported that the engines have stopped unexpectedly on one or more occasions during the first 500 miles of riding and could not be restarted unless the ignition key was cycled off and then on again. No reports of unexpected engine shut-off have been received for motorcycles with odometer readings of more than 500 miles.

Through our investigation, Honda has determined that unexpected engine stopping results from a combination of resonance in the motorcycle's bank angle sensor and friction between the sensor's pendulum and case. Under certain operating conditions, resonance caused by engine vibration (when operated at approximately 3,000 rpm) can move the pendulum as if the motorcycle were leaning, even though it is not. Subsequently, friction characteristics unique to the inside surface of a newly manufactured sensor hinder the pendulum's return to the center (non-angled) position as would normally occur due to gravity.

Computer simulation has shown that with (a) sufficient friction in the new sensor and (b) operation in the resonance zone for a sufficient period of time, the pendulum can move to the specified shut-off angle of 42.5 degrees, which causes the engine to stop. Simulation also shows that as the contact surfaces inside the sensor wear with motorcycle use and surface friction is reduced, the likelihood of the pendulum moving to the shut-off angle without the motorcycle being leaned decreases significantly. The simulated behavior explains why no claims have been received for motorcycles with more than 500 miles of use, and the reported symptoms could not be reproduced with returned claim parts.



Note: The bank angle sensor is comprised of a weighted pendulum and a switching mechanism designed to stop the flow of electrical power to the ignition and fuel injection systems in the event the motorcycle falls onto its side.

573.6(c)(6)

Chronology:

May 27, 2010	AHM issues a report to HMC regarding one claim of engine stalling that was repaired by replacing the bank angle sensor. The provided information references four other similar but unconfirmed complaints regarding unexpected engine stalling.
June 14, 2010	HMC receives the bank angle sensor reported on May 27.
June 24, 2010	HMC cannot duplicate engine stalling with claimed bank angle sensor. However, HMC determines that the bank angle sensor detection angle is slightly shallower than the drawing specification. Consequently, HMC implements a corrective measure in the supplier's testing to change the timing of when the detection angle is measured.
August 4, 2010	HMC repurchases one of the four motorcycles referenced in AHM's report.
August 27, 2010	HMC repurchases a second motorcycle referenced in AHM's report.
Sept. 2010 to Oct. 2010	HMC determines that the bank angle sensors of the repurchased motorcycles have detection angles within the drawing specification. HMC tests the repurchased motorcycles under conditions similar to those in which unexpected stalling was claimed but is unable to reproduce the reported stalling.

	HMC tests the repurchased motorcycles under conditions similar to those in which unexpected stalling was claimed but is unable to reproduce the reported stalling.
	HMC requests the supplier manufacture a sensor with transparent case material and tests this sensor on a buy-back motorcycle. HMC observes that the pendulum moves to 18 degrees without the motorcycle being leaned, but it does not reach the 42.5 degree angle necessary to stop the engine.
Feb. 2011 to March 2011	Computer simulation verifies movement of the pendulum during high resonance and demonstrates how increased surface friction reduces the pendulum's ability to return to the center position as designed.
May 27, 2011	HMC completes its investigation and determines that a safety-related defect exists. HMC decides to conduct a safety recall.
	To date, a total of 12 complaints for unexpected engine stalling have been received in the U.S. 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 replace the bank angle sensor in all affected motorcycles delivered to Honda dealerships or sold to consumers. The owners of affected motorcycles will be contacted by mail and asked to take their motorcycle to a Honda dealer. The dealer will replace the bank angle sensor free of charge.

573.6(c)(8)(ii)

The estimated date to e-mail preliminary notification to dealers:	June 1, 2011
The estimated date to provide service bulletin to dealers:	June 6, 2011
The estimated date to begin sending notifications to owners:	June 20, 2011
The estimated date of completion of the notification:	June 24, 2011

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 will be submitted to your office as soon as possible.

573.6(c)(11)

Manufacturer's campaign number:

R80

Sincerely,

AMERICAN HONDA MOTOR CO., INC.

Jay Joseph
Senior Manager
Product Regulatory Office

JWJ:dj