



Ms. Nancy Lewis
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
Attn: Recall Management Division (NVS-215)
1200 New Jersey Avenue SE, Room W45-306
Washington, DC 20590

September 24, 2013

Dear Ms. Lewis,

Re.: Submission of <u>Updated</u> Part 573 report for 2009-2013 model year Mazda6 (Door Latch concern)

Pursuant to Part 573 of Title 49 of the Code of Federal Regulations, "Defect and Noncompliance Reports," Mazda North American Operations (MNAO), on behalf of Mazda Motor Corporation of Hiroshima, Japan (Mazda), submits the following information concerning a voluntary recall action that it is initiating.

Sec. 573.6 (c)(1) - Manufacturer's Name:

Mazda Motor Corporation with Designated Agent:

David G. Robertson, Group Manager Environmental, Safety and Powertrain Engineering Mazda North American Operations 1500 Enterprise Drive, Allen Park Michigan 48101-2053

Sec. 573.6 (c)(2) – Potentially Affected Vehicles:

Identification of the vehicles potentially affected:

2009-2013 model year Mazda6, built from February 4, 2008 through August 24, 2012 at Auto Alliance International, Inc. Flat Rock, Michigan. This period covers the start of production of the Mazda6 at Auto Alliance International for the 2009 model year through the end of production for the 2013 model year.

Basis of determination of the recall population:

The vehicle population was based on manufacturing records of Mazda.



Sec. 573.6 (c)(3) – Estimated Population of Vehicles Potentially Affected:

Approximately 161,400 vehicles in the United States and its territories are potentially affected.

Sec. 573.6 (c)(4) – Estimated Percentage of Affected Vehicles with the Defect Condition:

Unknown.

Sec. 573.6 (c)(5) – Description of the Defect:

In certain 2009-2013 model year Mazda6, the door latch mounting screws may become loose due to lack of torque during manufacturing and/or unevenness of the door shell in the latch mounting area. This situation may cause the screw's axial force to decrease, which in turn may cause the screw to loosen while the vehicle is in use. If all three door latch mounting screws become excessively loose the door latch mechanism would not engage and the door ajar warning light will illuminate. However, if the warning light goes unnoticed and the vehicle is driven, the door might open while the vehicle is in motion increasing the risk of accident or injury.

Sec. 573.6 (c)(6) - Chronology of Events:

On May 13, 2013, NHTSA opened a Preliminary Evaluation investigation (PE13-015) into the failure that side doors fail to properly latch when closed and/or open inadvertently after being closed. In accordance with this action, Mazda began the investigation on this failure.

On June 12th, as a part of the root cause investigation, Mazda started a field investigation to measure torque on any 2009 Mazda6 vehicles going to US dealerships for any service.

By July 8th, Mazda confirmed that screws wouldn't loosen while driving as long as they are tightened with the stipulated torque, and that no abnormality was found with parts (door latch & screw) collected in the field. Also, since there was neither record of engineering change found nor records of manufacturing process change or state of control kept, the cause of this failure couldn't be identified. So in Mazda's response to NHTSA's Preliminary Evaluation submitted on July 8th, Mazda reported the progress of the root cause investigation and the fact that Mazda was continuing the investigation.

On July 16th Mazda obtained results of the field investigation started on June 12th. As a result, Mazda confirmed that there were loosened screws (below the specified torque) and missing screws in some cases. In parallel with the root cause investigation, Mazda started the investigation to identify impact to reliability performance for screws that were below the specified torque.

On August 2nd, as a result of door opening/closure durability testing, Mazda confirmed that the screw wouldn't loosen even though the torque decreases to 1.5 Nm relative to the specified torque of 4.2 to 6.2 Nm. Therefore, Mazda determined that the condition found in the field investigation which tightening torque of the screw is below the specification wouldn't lead to screws falling-out immediately.

On August 14th, as the investigation result up to that time, Mazda verbally reported to NHTSA about the facts that screw loosening (below the specified torque) and screw missing were observed in the field investigation of in-use vehicles, and that Mazda was continuing to investigate the root cause of failure and the affected range (manufacturing period).

On September 10th, according to the investigation results so far, given the facts that no engineering/manufacturing issue which may cause screw loosening was found for the door latch and the screw, Mazda identified that only remaining potential root cause is screw's axial force decrease due to lack of torque at manufacturing and/or unevenness of door shell in the latch mounting area.

On September 19th, Mazda decided a voluntary safety recall for 2009-2013 model year Mazda6 vehicles because there is unreasonable safety risk if the door opens while driving in case that users start driving without being aware of the door ajar warning even though such warning illuminates whenever the latch is not fully engaged. And also because this failure may continue to occur on all 2009-2013 model year Mazda6 vehicles based on the fact that customer complaints stating screws were loose or missing on 2010 and later model year vehicles.

Sec. 573.6 (c)(7) – Basis of Non-Compliance Determination:

Not applicable.

Sec. 573.6 (c)(8) - Service Program:

Owners of the affected vehicle will be notified of this issue and instructed to take their vehicles to a Mazda dealer to remove the door latch mounting screws on all doors, apply a thread locking adhesive, and retighten the screws to the specified torque. In case of missing screws, a new screw will be treated with thread locking adhesive, and tightened to the specified torque. The repair will be performed free of charge to the vehicle owners.

Dealers will be notified of the voluntary recall in the week of October 7, 2013. The mailing of owner notification letters by first class mail will begin in the week of October 14, 2013.

A copy of the reimbursement application form to be sent to owners and dealers as an attachment to the owner notification letter will be provided to you for review when it becomes available.

Sec. 573.6 (c)(9) – Service Program for Tire Replacement:

Not applicable.

Sec. 573.6 (c)(10) – Copy of notification letters:

A draft of the planned owner notification letter will be provided for your review when it becomes available.

Sec. 573.6 (c)(11) – The Manufacturer's Campaign Number:

Mazda has assigned recall number 7013I to this action.

Sincerely yours,

David G. Robertson, Group Manager,

Environmental, Safety & Powertrain Engineering

Mazda North American Operations