



U.S. Department
of Transportation

Memorandum

**National Highway
Traffic Safety
Administration**

Subject: Defect Panel Review – Unintended
Power Liftgate Closing on Model
Year 2005 Honda Odyssey Vehicles
(EA08-015)

Date: August 13, 2009

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The Office of Defects Investigation (ODI) requests your participation in a Multi-Disciplinary Review Panel that will be convened on Monday, August 17, 2009, to review a safety defect investigation of unintended closing of the power liftgate on approximately 21,000 model year (MY) 2005 Honda Odyssey vehicles manufactured by American Honda Motor Co., Inc. (Honda). During this meeting a determination should be made as to whether a safety recall request letter is warranted. The meeting will be held in Conference Room W45-201 from 2 to 3:30 pm. Please indicate whether you, or an alternate representative from your office, will be able to participate in this panel review.

Background

In April 2008, ODI opened a Preliminary Evaluation (PE08-026) to investigate unintended closing of the liftgate on MY 2005 Honda Odyssey vehicles equipped with power liftgates. The liftgate struts used in these vehicles are gas-filled, piston-cylinder type struts that assist in lifting and that support the liftgate in the open position. ODI analyzed field and technical information from Honda during the PE08-026 investigation and found that the liftgate gas struts for the Odyssey vehicles may have damaged gas seals that allow the liftgate to close unexpectedly. Some of the complaints alleged injury incidents resulting from unexpected contact of the liftgate to the person's head or body. Based on these findings, in August 2008, ODI upgraded the investigation to an Engineering Analysis (EA08-015).

To assess the alleged defect in the subject Odyssey vehicles, ODI gathered information regarding liftgate strut design and field experience with strut failures and unintended closing of the liftgate.

ODI's analysis of information gathered from Honda showed that the struts can leak gas due to internal component failures, including seal damage. Honda has implemented a manufacturing change in late MY 2005 Odyssey vehicles to help prevent gas leaks in the struts. Analysis showed high complaint and warranty claim rates of strut failures: 295.3 complaints per 100,000 vehicles and 10.3 warranty claims per 100 vehicles, respectively, for the MY 2005 Odyssey vehicles built before the manufacturing change (approximately 21,000 vehicles). Analysis also showed that the struts were failing prematurely, well below its design/expected life. In addition, Weibull analysis of the warranty claim data predicted an increasing failure trend in the future.

ODI's review of the complaints on the subject vehicles showed that with failed struts the liftgate can power-close without command after the liftgate has been opened automatically (i.e., power-open) and mostly without any adequate prior warnings. The liftgate system has an "auto reverse" feature which is designed to reverse its direction if an obstruction is met during operation. Also, the system has a pinch protection feature that will reverse the liftgate if, for example, a person's arm is caught between the side of liftgate and the rear of vehicle body.

There have been 12 reported injuries that were caused by the unintended closing of the liftgate to people under the liftgate. Most of the injuries were minor soft tissue injuries such as bumps and bruises. One person was knocked to the ground by the closing liftgate.

ODI gathered complaint, injury and warranty data from peer manufacturers. The subject Odyssey vehicles rank high among several peer vehicle in terms of complaint, injury and warranty rates related to strut failures.

The Vehicle Research and Test Center has evaluated the consequences of using the power liftgates with failed struts in the Odyssey and peer vehicles. The evaluation did not reveal any significant differences among these vehicles (except for one of the peer vehicles) with respect to the liftgate operation with failed struts and the potential for injuries. We will review the results of the VRTC evaluation in ODI's presentation.

In summary, ODI believes that the liftgate struts in the subject Odyssey vehicles have been failing prematurely and present an unreasonable risk of injury when the liftgate power-closes unexpectedly on unsuspecting people under the liftgate with some in vulnerable positions.

In its August 2008 and December 2008 letters, Honda stated that it does not believe a defect that poses a risk to motor vehicle safety exists. Honda has stated that in the event one or both liftgate struts fail, the operation of the power liftgate is designed to change in a "dramatic and obvious way" that would alert the user to the change. Honda believes that the struts are a wear item and some may not last the life of the vehicle.

Meeting Agenda

The meeting will begin with an ODI presentation, followed by a period for questions and comments from panel members. The ODI presentation will include information regarding a review of the complaints, failure frequencies and trends, peer comparisons, vehicle testing, and Honda's position

on the issue. At the conclusion of the meeting, the panel will be asked to arrive at a consensus regarding recommendations that will be proposed by ODI.

The ODI Investigation Process

ODI conducts investigations into alleged safety defects in order to determine whether such defects exist and whether a manufacturer should conduct a recall. The basis for a recall is to eliminate the defect and reduce the potential safety risk. Investigations are opened based on consumer complaints, petitions, manufacturer service bulletins, reports from police, media reports, etc. The investigation process is staged into two phases, in general opening with a Preliminary Evaluation (PE). If analysis of the problem during the PE indicates that the investigation merits a more detailed analysis, an Engineering Analysis (EA) is opened. At the conclusion of an EA, ODI either closes the investigation or asks the manufacturer to conduct a recall by sending a recall request letter.

After the manufacturer responds to the recall request letter, ODI may recommend to the Associate Administrator for Enforcement that he/she make an Initial Decision that there is a defect related to motor vehicle safety. Following that, a public meeting will be held to get the views of all interested parties. After the public meeting, the Administrator will both make a Final Decision that a defect related to motor vehicle safety exists and order the manufacture to conduct a safety recall, or decide that the investigation should be closed.

As a result of a review of ODI procedures conducted in accordance with NHTSA's strategic plan, in 1995, ODI modified the procedures leading to issuance of a recall request letter. Previously, the recall request letter had been sent to the manufacturer at the close of the EA phase of the investigation, but not necessarily after all technical investigation had been completed. NHTSA received congressional criticism that the recall request letter, as it had been used, could have an adverse impact on the safety reputation of the product and the manufacturer; that the letter was exploited by product liability lawyers; and that it could be issued by the Office of Defects Investigation without appropriate input from higher-level agency officials.

As a result of this review, the new process now places the recall request letter at the end of ODI's technical evaluation and provides for agency-wide input into the decision as to whether such a letter should be sent. After ODI has analyzed all appropriate technical information, it now calls for a meeting of a defect panel to provide a technical peer review. If the panel concurs, ODI will inform the manufacturer that it plans to send the recall request letter. After a predetermined amount of time (usually several days), if the manufacture takes no action, ODI sends the letter.

Answers to Potential Questions Posed by Panel Members

Q: What is a defect?

A: A defect is defined by statute as any defect in performance, construction, a component, or material of a motor vehicle or motor vehicle equipment.

Q: What is a motor vehicle safety?

A: The statute defines motor vehicle safety as the performance of a motor vehicle or motor vehicle equipment in a way that protects the public against unreasonable risk of crashes occurring because of the design, construction, or performance of a motor vehicle, and against unreasonable risk of death or injury in an accident, and includes non-operational safety of a motor vehicle.

Q: What is unreasonable risk of crashes or deaths and injuries in crashes?

A: Whether a particular risk is "unreasonable" cannot be quantified and must be decided after consideration of all relevant circumstances. ODI assesses the risk to safety by evaluating the complaint reports, the potential for injury, the defect trend (is it likely to worsen over time), and comparing the risk to that presented by peer vehicles or items of equipment.

Q: If the panel agrees that a recall request letter should be sent, is that decision irrevocable?

A: The Director of ODI makes the decision to send the recall request letter and the panel serves an oversight function. The Director has the option of not sending the letter or after sending the letter, may recommend not going forward with an Initial Decision, depending on additional information or action the company takes. Once a recall request letter is sent, a decision not to proceed to an Initial Decision is generally based on new information or proposals from the manufacturer.