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

November 22, 2011

Mr. Scott Yon, Chief
Vehicle Integrity Division
Office of Defects Investigation
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
1200 New Jersey Ave., SE
Washington, DC 20590

Re: PE11-034
2008-2010 Honda Odyssey
Power Liftgate

Dear Mr. Yon:

In reply to your letter dated September 30, 2011, we are submitting our response regarding the allegations of failure of the liftgate struts in model year (MY) 2008 through 2010 Honda Odyssey vehicles. We will not be submitting any data for the 2008 MY Odyssey EX-L because this trim level was not equipped with a power liftgate.

1. **State, by model year and model trim level (e.g., Odyssey Touring and Odyssey EX-L), the number of subject vehicles that Honda has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Honda, state the following:**

   a) **Vehicle identification number (VIN);**
   b) **Make**
   c) **Model Trim Level;**
   d) **Model Year;**
   e) **Date of manufacture;**
   f) **Date warranty coverage commenced; and**
   g) **The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).**

   Provide the table in Microsoft Access 2007, or a compatible format, entitled "PRODUCTION DATA."

   Response:

   The data elements "a" through "g" are provided in the file titled "PRODUCTION DATA" on the enclosed CD. There are separate tables for each model by trim level.

Model	Model Year	Trim Level	# Manufactured for Sales/Lease
Odyssey	2008	EX-L	*
		Touring	14,548
	2009	EX-L	42,419
		Touring	6,960
	2010	EX-L	65,589
		Touring	11,640

*The 2008 MY Odyssey EX-L was not equipped with a power liftgate.

2. **State the number of each of the following, received by Honda, or of which Honda is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:**

   a) **Consumer complaints, including those from fleet operators;**
   b) **Field reports, including dealer field reports;**
   c) **Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;**
   d) **Property damage claims;**
   e) **Third-party arbitration proceedings where Honda is or was a party to the arbitration; and**
   f) **Lawsuits, both pending and closed, in which Honda is or was a defendant or codefendant.**

   For subparts "a" through "f" state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

   In addition, for items "c" through "f" provide a summary description of the alleged problem and causal and contributing factors and Honda's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f" identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

Response:

The total number of reports for items "a" through "f" are stated in the table below. See Attachment #Q2 on enclosed CD for summary description for items "c" through "f".

Note: Honda does not have any fleets or participate in fleet sales.

Model	Model Year	Trim Level	A Owner/ Fleet Reports	B Field/ Dealer Reports	C-1 Crash Reports	C-2 Injury Reports	C-3 Fatality Reports	D Property Damage	E Third-Party Arbitration	F Lawsuits
Odyssey	2008	EX-L	*	*	*	*	*	*	*	*
		Touring	15	14	0	4	0	0	0	1
	2009	EX-L	42	16	0	10	0	0	0	0
		Touring	7	2	0	1	0	0	0	0
	2010	EX-L	3	20	0	1	0	0	0	0
		Touring	0	5	0	0	0	0	0	0

*The 2008 Odyssey EX-L was not equipped with a power liftgate

We are also providing an additional table showing the breakdown of Model Year and Trim Level by Category.

Category	2008		2009			2010			Grand Total
	Touring	Total	EX-L	Touring	Total	EX-L	Touring	Total	
FALLS	10	10	25	4	29	1	0	1	40
INOP	7	7	9	2	11	8	2	10	28
LEAK	1	1	2	0	2	0	0	0	3
REPLACE	0	0	4	1	5	0	0	0	5

NOISE	0	0	2	0	2	3	0	3	5
PARTIAL	0	0	0	1	1	1	1	2	3
WON'T CLOSE	3	3	5	0	5	3	1	4	12
WON'T OPEN	8	8	11	1	12	7	1	8	28
RUST	1	1	0	0	0	0	0	0	1
Grand Total	30	30	58	9	67	23	5	28	125

Source(s): Customer Relations, Tech Line, Field Reports, Claims and Lawsuits.
As of: Nov. 2, 2011

3. **Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:**

   a) **Honda's file number or other identifier used;**
   b) **The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);**
   c) **Vehicle owner or fleet name (and fleet contact person), address, and telephone number;**
   d) **Vehicle's VIN;**
   e) **Vehicle's make, model and model year;**
   f) **Vehicle's mileage at time of incident;**
   g) **Incident date;**
   h) **Report or claim date;**
   i) **Whether a crash is alleged;**
   j) **Whether property damage is alleged;**
   k) **Number of alleged injuries, if any; and**
   l) **Number of alleged fatalities, if any.**

   Provide this information in Microsoft Access 2007, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

   Response:

   The data elements "a" through "l" are provided in the file titled "REQUEST NUMBER TWO DATA" on the enclosed CD.

   Source(s): Customer Relations, Tech Line, Field Reports, Claims and Lawsuits.
   As of: Nov. 2, 2011

4. **Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Honda used for organizing the documents.**

   Response:

   See Attachment #Q4 for copies of all documents on enclosed CD.

   The documents are organized by category (i.e., consumer complaints, field reports, etc.) and within each category the documents are organized by model year, trim level then the last six digits of the VIN.

   Source(s): Customer Relations, Tech Line, Field Reports, Claims and Lawsuits.
   As of: Nov. 2, 2011

5. **State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Honda to date that relate to, or may relate to, the alleged defect in the subject vehicles including all claims for repairs of the subject components: warranty claims; extended warranty claims; claims for goodwill services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin (TSB) or customer satisfaction campaign. Also, state, by model and model year, a total count for all claims that relate to repairs related to any TSBs involving the subject components**

Separately, for each such claim, state the following information:

a) Honda's claim number;
b) Vehicle owner or fleet name (and fleet contact person) and telephone number;
c) VIN;
d) Repair date;
e) Vehicle mileage at time of repair;
f) Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
g) Labor operation number;
h) Problem code;
i) Whether or not the repair is related to a TSB (and if so, identify the TSB number);
j) Replacement part number(s) and description(s);
k) Concern stated by customer;
l) Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2007, or a compatible format, entitled "WARRANTY DATA."

Response:

The total warranty counts are provided in the table below. The data elements "a" through "l" are provided in the file titled "WARRANTY DATA" on the enclosed CD.

Model	Model Year	Trim Level	Warranty Claims	Extended Warranty	Goodwill Claims	Warranty Claims - TSB
Odyssey	2008	EX-L	*	*	*	*
		Touring	1312	0	80	0
	2009	EX-L	3405	0	120	0
		Touring	740	0	22	0
	2010	EX-L	136	0	0	0
		Touring	33/	0	0	0

*The 2008 MY Odyssey EX-L was not equipped with a power liftgate

We are also providing an additional table showing the breakdown of Model Year and Trim Level by Category.

Category	2008		2009			2010			Grand Total
	TOURING	Total	EX-L	TOURING	Total	EX-L	TOURING	Total	
Main Category									
FALL	1049	1049	2757	579	3336	81	15	96	4481
PARTIAL	55	55	187	42	229	6	1	7	291
BOUNCE	5	5	9	3	12	6	1	7	24
RECALL	2	2	2	0	2	0	0	0	4
Main Category Total	1111	1111	2955	624	3579	93	17	110	4800
Subcategory									
INOP	146	146	250	72	322	15	6	21	489
LEAK	40	40	70	18	88	8	1	9	137
OTHER	5	5	3	1	4	0	0	0	9
NOISE	16	16	34	14	48	14	7	21	85
NO DETAIL	47	47	98	17	115	3	1	4	166
SCRATCH	0	0	2	0	2	0	0	0	2
RUST	0	0	0	0	0	1	1	2	2
DOES NOT OPEN	22	22	102	14	116	2	0	2	140
DOES NOT CLOSE	5	5	11	2	13	0	0	0	18
Main Subcategory Total	281	281	570	138	708	43	16	59	1048
Grand Total	1392	1392	3525	762	4287	136	33	169	5848

Source(s): Warranty claim data.
As of: Oct. 7, 2011

6. **Describe in detail the search criteria used by Honda to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by model year, the terms of the new vehicle warranty coverage offered by Honda on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Honda offered for the subject vehicles and state by model year and model trim level, the number of vehicles that are covered under each extended warranty.**

Response:

Search Criteria: Using warranty data for all subject vehicles, claims were pulled based on the power liftgate strut part number. The contention text description was reviewed for each claim to identify the following symptoms: 1) failure of the liftgate strut to hold the liftgate in the open position; 2) other failure or malfunction of the liftgate strut(s) or parts therein; 3) unexpected closing of the liftgate; or 4) failure of the liftgate to remain open.

Coding and Descriptions: See Attachment #Q6

Warranty Coverage: All subject vehicles are covered by a new vehicle limited warranty for three years or 36,000 miles, whichever comes first. Under the terms of the new vehicle limited warranty, Honda will repair or replace any part that is defective in material or workmanship under normal use. This warranty covers all systems except emission

control systems, accessories, battery, or tires which have their own warranties. Honda has not issued extended warranty coverage related to the alleged defect in any of the subject vehicles.

Source(s): Warranty claim data.
As of: Oct. 7, 2011

7. **Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Honda has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Honda is planning to issue within the next 120 days.**

Summarize and provide a brief chronology of all actions taken by Honda leading to each of the technical service bulletins that have been issued relating to the alleged defect in the subject vehicles. Provide copies of all documents, organized in chronological order, related to the development of these bulletins.

Response:
Currently no communication is planned within the next 120 days.

As no communications or other actions have been taken by Honda, there are no copies of documents related to this request.

8. **Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Honda. This includes, but is not limited to, any and all actions by the subject component manufacturer relating to the alleged defect. For each such action, provide the following information:**

a) Action title or identifier;
b) The actual or planned start date;
c) The actual or expected end date;
d) Brief summary of the subject and objective of the action;
e) Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
f) A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action. If an action is not complete, provide a detailed schedule for the work to be done, tentative findings and/or conclusions, and provide an update within 10 days of completion of the action.

Response:

The following summaries describe 2 documents included in Attachment #Q8.

Document 1 : Quality improvement sheet (QIS)
a) ***Action title or identifier:*** *QIS SHJA07101201; Odyssey Liftgate Open Stay Failure*
b) ***The actual or planned start date:*** *11/12/2007*
c) ***The actual or expected end date:*** *11/30/2007*
d) ***Brief summary of the subject and objective of the action:*** *An earlier effort to*

reduce the failure rate of the gas struts for the 2007 model year Odyssey had not yielded any appreciable reduction in the failure rate. This QIS requested analysis to determine whether or not it is acceptable to use the pre-countermeasure components, or to dispose of them.

e) ***Engineering group(s)/supplier(s) responsible for designing and for conducting the action:*** *Honda Manufacturing of Alabama (HMA) requested that the Parts Quality department of HMA work with Stabilus (supplier) and American Honda to determine on-hand inventory and appropriate disposition of these components.*

f) ***A brief summary of the findings and/or conclusions resulting from the action: HMA concluded the following:***
   - *The strut seals leaked due to damage occurring during strut assembly at the supplier. This was addressed by changing from a metal seal protector that was burred and causing the initial damage to a plastic seal protector that would not cause similar damage during seal installation.*
   - *Strut piston concentricity was not being maintained while in use due to an imbalance of force being leveraged through the rod to the piston at the rod guide. This was addressed by the inclusion of a second rod guide.*
   - *The method of securing the rods during the riveting process was also identified as a cause of damage on the rods. This method of nesting the rods in the riveting tool was changed to a clamping tool that could avoid the damage.*
   - *The method of identifying damage to the rod during inspection of rods prior to strut assembly was insufficient. The process was modified to adjust the Eddy current testing tool to be more sensitive to material defects in the rod surfaces.*

Document 2 : Quality improvement sheet (QIS)

a) ***Action title or identifier:*** *QIS HMA09070801; Liftgate Open Stay Failures*

b) ***The actual or planned start date:*** *7/8/2009*

c) ***The actual or expected end date:*** *11/11/2009*

d) ***Brief summary of the subject and objective of the action:*** *Analysis of market returned parts and observation that claim rates had appeared elevated during warmer months and in southern regions.*

e) ***Engineering group(s)/supplier(s) responsible for designing and for conducting the action:*** *It is not specified on the document, but the analysis was completed by the HMA Market Quality department.*

f) ***A brief summary of the findings and/or conclusions resulting from the action:*** *Damage to the rod of the gas struts was being caused by contact to the rod guide. The countermeasure was to apply a second spacer to the strut, improving alignment throughout rod travel and preventing scratches to the rod.*

9. State all design and performance specifications, requirements, guidelines, and estimated performance characteristics developed and/or used by Honda or on its behalf (e.g., by a supplier) that were suggested, considered, and/or used in the design of the subject component as originally designed for the subject vehicles, including:

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a) **The strut lifting capacity (in pound force), including lifting capability at different strut extension lengths and at different ambient temperatures, when the struts are new and as the strut lifting capacity degrades over time/usage;**
b) **The design usage cycles (one cycle comprising an extension and compression) from when the strut is installed on the subject vehicles until the strut can no longer maintain the liftgate in the fully-open position; and**
c) **The estimated usage rate in the field and expected amount of time a strut will be in service on a subject vehicle before the strut is no longer capable of maintaining the liftgate in the fully-open position.**

Response: *See Attachment #Q9*

a) The reactive force specified on the design drawing for the strut is F3=825N±15N. The liftgate holding load is 68.6N with median reaction value at 20 deg C. The load is 16N with minimum reaction value at -20 deg C. The strut reactive force reduction specified on the design drawing for the 2005-2010MY Odyssey power liftgate holding strut is to remain within 10% of the values listed above after completing durability testing of [redacted] ⇒close cycles.
⇒ The internal Honda design requirement specifications (in Japanese and English) are title as follows:
QB08A0280022 (J) and QB08A0280022 (E)
⇒The design drawing for the liftgate strut is titled 74820SHJ_ZX10M1__C4722863

b) The design specifications for the power liftgate gas strut do not include a service life for holding the liftgate in the full open position. Durability of the entire power liftgate system is confirmed by testing the complete liftgate to [redacted] while maintaining proper function. Proper function through durability testing means that there can be no mechanical failures of the system, and it must remain functional at the conclusion of the test. This does not include the replacement of wear parts such as the liftgate struts (comparable examples of wear parts would be windshield wiper blades, brake pads and tires), however in the case of this testing the liftgate gas struts remained functional through the [redacted] and completed component level testing to [redacted], as described in answer "a)" above.

⇒The design drawings (in Japanese and English) are titled as follows:
QB08A0230029 (J) and QB08A0230029 (E)

c) Honda does not have a designed failure specification for this component. Durability of production samples are confirmed to perform properly at [redacted] ⇒close cycles, which corresponds to approximately [redacted] of typical use in the market.

10. **Describe all modifications or changes made by or on behalf of Honda (e.g., by a supplier) in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from the start of production of MY2008 subject vehicles to the end of production mY2010 subject vehicles, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:**

a) **The date or approximate date on which the modification or change was incorporated into vehicle production;**
b) **A detailed description of the modification or change;**
c) **The reason(s) for the modification or change;**
d) **The part number(s) (service and engineering) of the original component;**
e) **The part number(s) (service and engineering) of the modified component;**
f) **Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;**
g) **When the modified component was made available as a service component; and**
h) **Whether the modified component can be interchanged with earlier production components.**

Also, provide the above information for any modification or change that Honda is aware of which may be incorporated into vehicle production within the next 120 days.

Response: *See Attachment #Q10*
From October 2007 through August 2010 Honda produced the 2008 through 2010 model year Honda Odyssey vehicles with power liftgates. Within this time period two design changes to the original part # 74820-SHJ-A612-M1 design were applied, identified as DC# C4722863 involving part # 74820-SHJ-A710-M1 and HMA MI# AXA900926 involving part # 74820-SHJ-A710-C1. The responses below are explained in terms of these three part numbers:

1) *The first design change design for the 2008 model year Honda Odyssey power liftgate gas strut was applied in October, 2007 based on DC# C4722863 involving part number 74820-SHJ-612-M1:*
   a) ***The date or approximate date on which the modification or change was incorporated into vehicle production;***
   This design was applied to mass production on October 2010.
   b) ***A detailed description of the modification or change;***
   This design change consisted of a reduction of the reactive force of the gas struts from 865N to 825N to accommodate the reduced overall mass of the power liftgate structure and maintain proper opening speed, and proper feel for manual operation. The reduced mass was the result of the minor model change design for the 2008 model year, including the application of lighter weight LED taillamp assemblies and other changes.
   c) ***The reason(s) for the modification or change;***
   The overall design change was the result of a previously planned update of the 2005 model year Odyssey for the 2008 model year. This was driven by sales and marketing direction to maintain a competitive product in the marketplace.
   d) ***The part number(s) (service and engineering) of the original component;***
   The original component is part number 74820-SHJ-A612-M1.
   e) ***The part number(s) (service and engineering) of the modified component;***
   The replacement service and engineering part is identified as number 74820-SHJ-A710-M1.
   f) ***Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;***
   The original unmodified component was superceded by 74820-SHJ-A710-M1 and was not withdrawn from production or sale, it was sold until supply was depleted, then replaced by 74820-SHJ-A710-M1.
   g) ***When the modified component was made available as a service component; and***
   The 74820-SHJ-A710-M1 component was made available as a service component on October 15, 2007.

h) ***Whether the modified component can be interchanged with earlier production components.***
The 74820-SHJ-A612-M1 and 74820-SHJ-A710-M1 components are interchangeable on 2008-2010 model year Honda Odyssey vehicles with a power liftgate with no tangible effect on performance or durability.

2) *The second design change to this component occurred on September 24, 2009 when a second spacer was added to prevent rod contact with the guide, which was determined to be the primary cause of rod scratching. This change is identified as HMA MI#AXA900926 involving part # 74820-SHJ-A710-C1.*

a) **The date or approximate date on which the modification or change was incorporated into vehicle production;**
This design change was applied to mass production on September 24, 2009.
b) **A detailed description of the modification or change;**
This design change consists of adding a second spacer inboard of the rod to gas cartridge seal. This can be visually identified by the position of the spacer holding groove in the gas cartridge, which is located 18.5 mm further from the end of the gas cartridge.
c) **The reason(s) for the modification or change;**
This design change was applied after determining that the primary cause of strut failures was scratches to the rod. The cause of the scratches to the rod was identified as contact with the spacer. The addition of a second spacer was applied to prevent rod contact to the spacers by maintaining proper alignment of the rod.
d) **The part number(s) (service and engineering) of the original component;**
The original part number was 74820-SHJ-A710-M1.
e) **The part number(s) (service and engineering) of the modified component;**
The modified service and engineering part number of the modified component is 74820-SHJ-A710-C1.
f) **Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;**
The original unmodified component was not withdrawn from production or sale, the supply was depleted due to sales and it was replaced with the modified component.
g) **When the modified component was made available as a service component; and**
The 74820-SHJ-A710-M1 component was made available as a service component on October 15, 2007.
h) **Whether the modified component can be interchanged with earlier production components.**
The modified component may be interchanged with earler production components.

Also, provide the above information for any modification or change that Honda is aware of which may be incorporated into vehicle production within the next 120 days.
Production of this generation of the Honda Odyssey concluded in 2010 with the 2010 model year. A new generation Honda Odyssey was introduced in the 2011 model year using new specifications and new components for the power liftgate.

11. **State the weight of the liftgate as installed on the subject vehicles. If this value varies for any reason (for example, if certain vehicle options add to or subtract from the weight of the liftgate), provide the reason(s) for the variation and the respective weight of the liftgate associated with each variation.**

Response:
The weight of the power liftgate varies by model year and trim level, as reflected in the data below:

VIN	Model Year	Grade	Tailgate Weight (kgf)
5FNRL38769B[redacted]	2009	EXL	**38.5**
5FNRL38739B[redacted]	2009	EXL	**38.0**
5FNRL38759B[redacted]	2009	EXL	**38.0**
5FNRL38959B[redacted]	2009	Touring	**38.0**
5FNRL38998B[redacted]	2008	Touring	**37.0**

12. **Describe in detail all aspects of the operation of the power liftgate feature in the subject vehicles, including any built-in safety features and any features designed to mitigate potential injuries from a descending or otherwise failing liftgate. Describe in detail the safety-related features that operate or activate when the struts can no longer maintain the liftgate in the open position. In your answer, include a discussion of how the safety features operate; including a description of the circumstances in which the safety features will activate and a description of how the safety features operate in each circumstance.**

Response:
The power liftgate feature of the 2008-2010 Honda Odyssey (EX-L and Touring trim levels) are designed to allow the user to open the liftgate under its own power on command by pressing a control button on the instrument panel or on the remote key fob. The power liftgate is designed to close under its own power when commanded by the user by use of a control switch located at the bottom interior edge of the open power liftgate, by a control on the key fob or via the control on the intstument panel. The liftgate may be opened manually, with no power support, by using the outer release handle.

If the power liftgate is opened by motor power with insufficient gas liftgate strut support, this condition is detected by the logic of the motor and motor controller, which are programmed to detect the drop rate of an open liftgate. If the drop rate exceeds the programmed criteria, this power liftgate motor is used to re-open the liftgate before the liftgate has dropped more than approximately four inches. Should the drop rate exceed the criteria again, the liftgate will follow the same routine. If the liftgate drops at a rate exceeding the criteria a third time an audible alert sounds, and the power liftgate closes under power at a controlled rate. Should the power liftgate encounter resistance, as measured by motor torque during a powered closing operation, the liftgate will attempt to re-open.

These functions are explained in more detail in Attachment #Q12.

13. **Describe in detail the operation of the power liftgate feature in the subject vehicles when equipped with struts that cannot support the liftgate in the open position. In your description, discuss how this feature operates and include nominal speed threshold (including tolerances) required to activate the power-close feature.**

Response:
The operation of the power liftgate when the struts are unable to support the liftgate in the open position is described in Attachment #Q13. The liftgate drop speed threshold required for detection is 3.16 degrees per second. We are also including a video file that depicts this condition.

14. **State whether the controlled (power or automatic) closing design feature of the liftgate will activate when the struts cannot support the liftgate and the operator manually opens liftgate to the fully-open position, as well as when the operator manually opens the liftgate to a position less than fully-open.**

Response:
When operating with power, drop detection (automatic close operation) activates only when the liftgate drops at a speed of 3.16 degrees per second or more.

If operating manually, the controlled closing feature does not activate, however if the struts are unable to support the weight of the liftgate the user should recognize the increased effort required to raise the liftgate to any position, and the liftgate should begin closing as soon as the user has released the liftgate. We believe this condition should be readily observed by the user.

15. **Describe any variation in the power liftgate operation that can be programmed in the power liftgate control module in the subject vehicles.**

Response:
The software control specification was changed for the 2009 model year to reduce power consumption when the power liftgate is not in use. The change consisted of setting the ECU to transition to a partial sleep condition and disable communication between the ECU and frame-related CAN BUS when power liftgate operation is not necessary and the liftgate is in the closed position. At the same time, the ECU was set to "wake up" more quickly to return to normal operating condition when the power liftgate is required.

These changes are outlined in further detail in the attached documents (See Attachment #Q15)

Model year 2008 specifications: 7497Z-SHJ-A620-M1, issued February 23, 2007
Model year 2009 specifications: 7497Z-SHJ-A630-M1

16. **Produce two of each of the following:**
    a) **Exemplar samples of each design version of the subject components;**
    b) **Field-returned samples of the subject components exhibiting the alleged defect condition; and**
    c) **Any kits and software changes (including patches, modifications, and reflashes) that have been released or developed, by Honda for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles.**

Response:

a) *Examplar samples are being provided under separate shipment.*
b) *Field returned samples of the subject components exhibiting the alleged defect condition are beign provided under separate shipment*
c) *No kits or software changes were applied, and therefore none are available.*

17. **State, by model year, all part numbers of the subject components that have been installed on subject vehicles as assembled by Honda. State, by model year, the service part numbers of the subject components Honda designates for installation on subject vehicles. State, by month, year, and part number, the total number of subject components sold as service parts by Honda. Identify any kits that Honda has released or developed for use in service repairs to the subject components or assembly.**

For each subject component part number, provide the supplier's name, address, and point of contact used by Honda (name, title, and telephone number). Also, identify by make, model and model year, any other vehicles of which Honda is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

Response: *See Attachment #Q17 for parts demand.*
Honda has not released or developed any kits.

Supplier's Name:
Stabilus
36225 Mound Road
Sterling Heights, MI 48310

Contact:
Susan Barker
Title: Project Manager
Phone(desk): 586-446-3943
Phone(mobile): 586-242-0141

18. **Furnish Honda's assessment of the alleged defect in the subject vehicles, including:**
    a. **The causal or contributory factor(s);**
    b. **The failure mechanism(s);**
    c. **The failure mode(s);**
    d. **The risk to motor vehicle safety that it poses; and**
    e. **What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and**
    f. **The VOQ reports referenced in this inquiry.**

Response:

a. *Failure of the gas struts for the power liftgate of certain 2008-2009 model year Honda Odyssey vehicles could occur as a result of damage to the rod that results in scratching or scoring. A scratched or scored rod could result in leaking of the strut oil, and ultimately a loss of reactive force.*
b. *Our analysis concluded that the failure mechanism was primarily related to damage to the rod as a result of misalignment caused by insufficient rod guidance throughout its stroke.*

c. *The failure mode is a loss of reactive force in one or both of the gas struts that provide support for the liftgate motor and hold the liftgate in the opened position. Should one or both of the struts fail this would usually occur gradually and as described above in response to question 12, the fail-safe protection designed into the power liftgate will both help to prevent injury of the user and inform the user of abnormal operation by nature of the warning tone.*

d. *Similar to our assessment of the risks associated with this condition in response to an earlier NHTSA inquiry into comparable allegations on 2005 model year Odyssey vehicles, we do not believe that this posesses an unreasonable risk to motor vehicle safety. In the event that one or both of the liftgate struts fails the power liftgate system is designed to alert the user visibly, audibly and by operating in an unfamiliar manner at predictable and controlled speeds.*

e. *Should one or both of the gas struts in the power liftgate system of the subject vehicles of this inquiry lose reactive force, the power liftgate will fail to remain in the fully opened position. If this happens, the system is designed to detect that the liftgate has not remained open, and is programmed to re-open the liftgate by the power of the electric motor. Should the liftgate fail to remain open a second and third time, the vehicle will emit audible warning tones and close the power liftgate under power. We understand that these failsafes remain the state of the art in the auto industry.*

f. *We have reviewed the VOQs provided by NHTSA and have determined that they do not offer sufficient information to draw any additional conclusions. Should NHTSA be able to provide any further details about the specific conditions of the failures, specifically the nature and cause of the alleged injuries, we would cooperate in further analysis of the VOQs.*

Sincerely,

AMERICAN HONDA MOTOR CO., INC.

Jay Joseph
Senior Manager
Product Regulatory Office

JWJ:nis

Attachments