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Docket Management Facility
U.S. Department of Transportation
400 Seventh Street, SW
Nassif Building, Room PL-401
Washington, DC 20590

Subject: Docket No. NHTSA-2007-26833
Request for Comments
49 CFR Part 571
Child Restraint Systems and Child Restraint
Anchorage Systems

Dear Sir or Madam:

Enclosed are the comments of Honda Motor Co., Ltd. and American Honda Motor Co., Inc. regarding the above-referenced docket.

We thank you for this opportunity to provide our comments. If you have any questions, require additional data or further clarification, please contact us at your earliest convenience.

Sincerely,

AMERICAN HONDA MOTOR CO., INC.



William R. Willen
Managing Counsel
Product Regulatory Office

WRW:nis

Enclosure

**Comments of Honda Motor Co., Ltd
and American Honda Motor Co., Inc.
in Response to NHTSA's Request for Comments
on Federal Motor Vehicle Safety Standards; Child Restraint Systems and
Child Restraint Anchorage Systems**

Docket No. 2007-26833

April 9, 2007

Honda appreciates the opportunity to comment on these regulations, as well as other issues related to Lower Anchors and Tethers for Children (LATCH) usage with child restraint seats by the general public. Honda also appreciates the opportunity to support the increased and proper use of LATCH through ongoing efforts, both independently and in cooperation with NHTSA, child seat manufacturers and other automakers. The safety benefits of LATCH are clear, and we share NHTSA's goal of achieving the highest possible use of LATCH. NHTSA has already completed an important first step by studying usage. The information obtained by NHTSA, and expressed in the LATCH usage report issued late last year provide a valuable foundation to address the obstacles to proper and prevalent use of LATCH with child seats.

In the Request for Comments, NHTSA posed several questions to the panelists participating in the public meeting on February 7, 2007, and sought responses from various entities with a specific role or interest in the use of LATCH. Honda's comments respond to these inquiries as appropriate, though we decline to comment on subjects where our expertise may be lacking, or there is not adequate data to form a complete and informed response. In the interest of clarity, each question is repeated verbatim before providing Honda's reply.

Tether Anchors

NHTSA Question: What are the design considerations/constraints for locating tether anchors in various types of vehicles? Why do some SUVs, vans and trucks have tether anchors under the seat, etc., which consumers have found difficult to access when installing their child restraints?

Honda Response:

- The main restriction for locating tether anchors is the strength of the tether anchor. The strength requirements sometimes make it difficult to locate a tether anchor in a more convenient or more visible location, leading to the use of routing devices and other means of meeting the regulation.
- In the case of SUVs, the structure for mounting the seats and the seatbelt anchorages is located beneath the seats, providing a relatively accessible location for tether anchors that has adequate strength to meet the requirements of FMVSS 225. Other flooring areas of SUVs and similar vehicles may not be able to meet the strength requirements without significant modification, if that is even practical.
- In the case of vehicles equipped with three rows of seating the tether anchor for the middle seat in the third row may be located on the roof, behind and above the seat. In this configuration, the tether strap should be accessible to an occupant sitting in either outboard rear seating position.

- It is also important that when the tether straps are attached, they should not interfere with the ingress, egress, seating or comfort of other vehicle occupants, nor should they present a hazard to those occupants by encroaching on their required excursion space in a crash.

NHTSA Question: What can be done to make access to the upper and lower anchors easier or make the anchors more visible?

Honda Response:

- There are a few options available that may help make upper and lower anchors more visible and more easily recognized by users. One example would be to apply anchor covers (see Attachment #1). These types of anchor covers are encouraged by Euro-NCAP for ISOFIX anchors, and seem to aid in identification of proper child seat anchorages. However, there may be design trade-offs with respect to seat comfort for some occupants, and even aesthetic considerations.

NHTSA Question: What would be the feasibility and/or implications of further restricting where tether anchors may be placed by amending Standard 225?

Honda Response:

- If NHTSA proceeds to amend FMVSS 225 to further restrict the locations of tether anchors, Honda requests that NHTSA address the following considerations:
 - Understand the best tether locations for most users in various vehicle configurations
 - Harmonize these requirements with other regulations, possibly through the propagation of a Global Technical Regulation
 - Consider the effects of any amendments to the requirements for tethers and anchors on other vehicle occupants and on use of multiple child restraints, including the potential adverse effects noted above, cost and the potential for increased weight to reduce fuel economy

Lower Anchors

NHTSA Question: What feedback are you obtaining from consumers? Are you getting complaints?

Honda Response:

- In reviewing Honda's customer service contacts, there were virtually no complaints received from consumers related to any aspect of LATCH. Occasional inquiries are received about use of LATCH and weight restrictions, but not enough complaints are received to identify any discernable trends.

NHTSA Question: NHTSA has not had any complaints that the lower anchors are causing occupant discomfort. Would it be feasible and desirable to amend the seat bight depth requirement to require that anchors be located more forward in the seat bight? Would this make the installation and/or removal of child restraint systems easier?

Honda Response:

- Based on our own evaluations, we have determined that the current lower anchor location required by FMVSS No. 225 is adequate to provide an appropriate minimal level of comfort for adult occupants. We are concerned that moving this

location more forward could have a negative affect on seat comfort, and could even create new design challenges for seat arrangement and adjustability for folding seats (see Attachment #2). There may be some possibility to increase the clearances around the lower anchors in their existing locations to make installation and removal easier. More studies would be necessary to understand the potential benefits and effects before proceeding with any changes.

NHTSA Question: Are there any technical or other reasons why consumers who wish to place their child restraint in a rear center seat location using the inboard lower anchors from the outboard seating locations should not do so? If the child restraint can be snugly secured with this installation to “create” a middle LATCH seating position, is there any reason that doing this should be considered misuse?

Honda Response:

- Currently, Honda does not recommend that consumers use a middle LATCH seating position, even if it can be accommodated, because:
 - The lower anchor bars are not spaced 280 mm apart, as required by FMVSS 225
 - While child restraint seats with soft lower tether straps may still fit into the center seating position despite the lower anchor spacing being less than 280 mm, child restraint seats with rigid anchors, such as those commonly found in Europe, cannot fit into this center seating position.
- Honda does not support the creation of a mandatory middle LATCH seating position, especially if it must be achieved independently of the existing inboard lower anchors from the current outboard LATCH positions.
- However, if a middle LATCH position can be accommodated, with appropriate lower anchor spacing by using either the inboard anchors from the outboard LATCH positions or one of the inboard anchors and an additional lower anchor, Honda would support this being allowed, but not required. This would appear to extend the range of usability of LATCH, and potentially encourage greater use.
- This direction will be difficult to harmonize with European requirements, as the rigid anchors required for European child seats cannot be used in the middle seating positions described above. While the European type rigid-mount child seats are very uncommon in the U.S., Honda hopes some level of harmonization between U.S. LATCH, EU ISOFIX and other requirements can be achieved.
- Some research is also necessary to determine if there is a minimum or maximum spacing that would compromise the forward and/or lateral crash performance of child restraints. This could be a function of the child restraint design (e.g., a single loop lower attachment strap or two separate lower attachment straps). Some extreme spacing could also result in lower anchorage loadings which could compromise their ability to properly manage crash forces.
- Finally, a rear center seating position would need to meet the spacing requirements for a proper LATCH position, or it would be considered misuse. This discrepancy must be reconciled before this change could proceed.

NHTSA Question: Will you be increasing over time the proportion of your fleet that is equipped with lower anchors in the center-rear seating position?

Honda Response:

- The factors that influence this are based more on vehicle width, customer demand based on the anticipated family for a particular vehicle's target customer,

cost and other design considerations. Honda does intend to increase the number of models with rear center LATCH positions, if the vehicle has adequate width, and it is appropriate for the vehicle concept.

Child Seat Designs

NHTSA Question: Are there child restraint hook designs that consumers find easier to install/remove?

Honda Response:

- Honda respectfully declines to respond to questions directed toward child seat manufacturers, as this is not an area where we have experience or expertise.

NHTSA Question: What would be the feasibility and/or implications of incorporating the most consumer friendly hooks in all child restraints?

Honda Response:

- Honda respectfully declines to respond to questions directed toward child seat manufacturers, as this is not an area where we have experience or expertise. However, Honda encourages NHTSA to study this issue with consumers in a variety of vehicles to better understand this aspect of LATCH usability.

Regarding LATCH Ease-of-Use

NHTSA Question: What are the considerations in developing more consumer-friendly child restraint hooks or other features (e.g., what are the trade-offs in child restraint cost, ease-of-use ratings, and retail sales)?

Honda Response:

- Honda respectfully declines to respond to questions directed toward child seat manufacturers, as this is not an area where we have experience or expertise.

NHTSA Question: NHTSA is considering providing consumer information on LATCH anchor locations and the numbers of lower anchor-equipped seating positions in each vehicle make/model. What are your comments on this initiative?

Honda Response:

- Honda encourages NHTSA to provide this information to consumers through appropriate means, as it may be relevant to consumers while they are selecting a vehicle for their family, and after purchasing a vehicle they may still want convenient access to this information.

NHTSA Question: Should NHTSA provide consumer information on including use of inboard lower anchors to “create” a middle LATCH seating position?

Honda Response:

- From the standpoint of global harmonization, Honda is concerned that this initiative may be difficult to achieve. However, considering the prevalence of child seats with soft lower tethers in the U.S., Honda believes that NHTSA should pursue including consumer information on using the middle LATCH seating position while working toward harmonization. If a feasible technical

solution to this concern is adopted that would enable harmonization, Honda could fully support this direction.

NHTSA Question: In the past, the agency has determined that given the number of child restraints and vehicle make/models, it was not feasible for the agency to test and provide vehicle child restraint ease-of-use ratings. Are there other approaches the agency should consider? Are there voluntary initiatives underway or being jointly considered by the child restraint and vehicle manufacturers that would provide useful consumer information regarding child restraint and vehicle ease-of-use compatibility?

Honda Response:

- Certain information should be readily available to consumers, for example a tether strap routing procedure that requires use of a routing device or the adjustment or removal of a head restraint. Honda also recommends that NHTSA should further study the causes of misuse of LATCH, and focus on providing information that will address those causes. This would be consistent with the main purpose of the LATCH regulations, which was to prevent misuse of seatbelts used to secure child restraint seats.

Regarding LATCH Education

NHTSA Question: What questions have users asked your organization with regard to –

- Tether use;
 - **Honda Response:** Honda receives a small number of questions about proper upper tether routing
- Lower anchor use;
 - **Honda Response:** Honda receives occasional questions about the weight limits for children in LATCH-equipped child restraint seats
- Center rear seat use?
 - **Honda Response:** Honda receives occasional questions about whether or not this location is “approved by Honda”

NHTSA Question: What public information and marketing strategies are being conducted to inform consumers of proper or optimal use of child restraints?

Honda Response:

- Honda currently provides information on the proper use of LATCH and child restraint installation in the owner’s manual for each passenger vehicle.
- Honda also provides financial support to SafetyBeltSafe, an organization that disseminates consumer information about child seat use and certifies Child Passenger Safety Technicians.
- There are several other national and local efforts in the U.S. at this time, but some of the information they distribute seems to be in conflict, such as how important it is to use LATCH independently of a seatbelt when securing a child seat in a vehicle.
 - These areas of conflict should be studied, and the information should be consistent from one organization to the next to minimize confusion among consumers. We believe that an in-depth analysis of the messages used by the major child safety organizations, and an effort to coordinate those messages would be beneficial to the child seat users.

NHTSA Question: What could organizations do to reach consumers more broadly and provide more useful information to consumers about child restraint installation?

Honda Response:

- Honda believes that information about child seats would be most effective if it is presented to child seat users in the most appropriate context. The written instructions prepared by automakers and child seat makers seem to be simple and direct, but perhaps they could be better coordinated to work together.
- Honda encourages organizations that provide parents and caregivers with information about the proper use of child seats to do so at pertinent and relevant times. These times may include initial training in the weeks or days before the birth of a child, at the time of a child's first time traveling in a passenger vehicle and each time a child graduates to the next appropriate child restraint or booster seat. We believe that training and retraining people who are responsible for child seat usage in their vehicle with their seat are crucial to successful education.

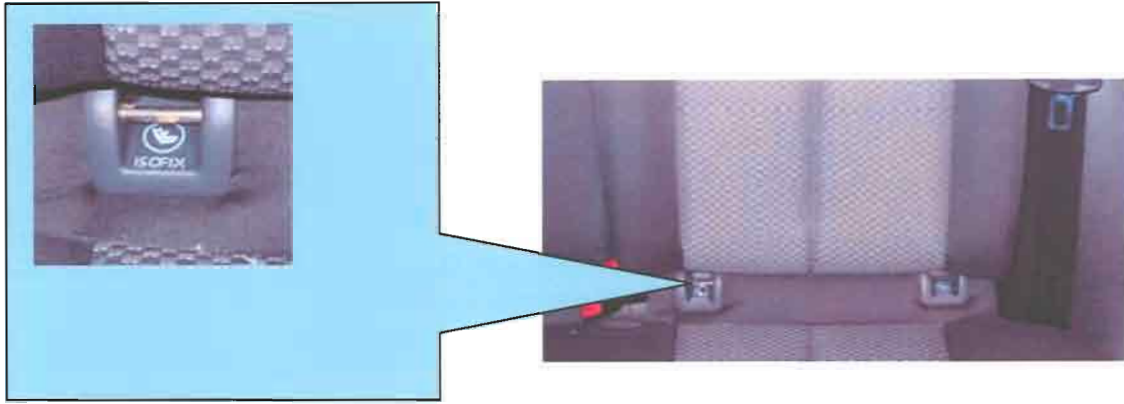
NHTSA Question: What information should we provide consumers regarding the effectiveness of seat belts versus LATCH in securing child restraints?

Honda Response:

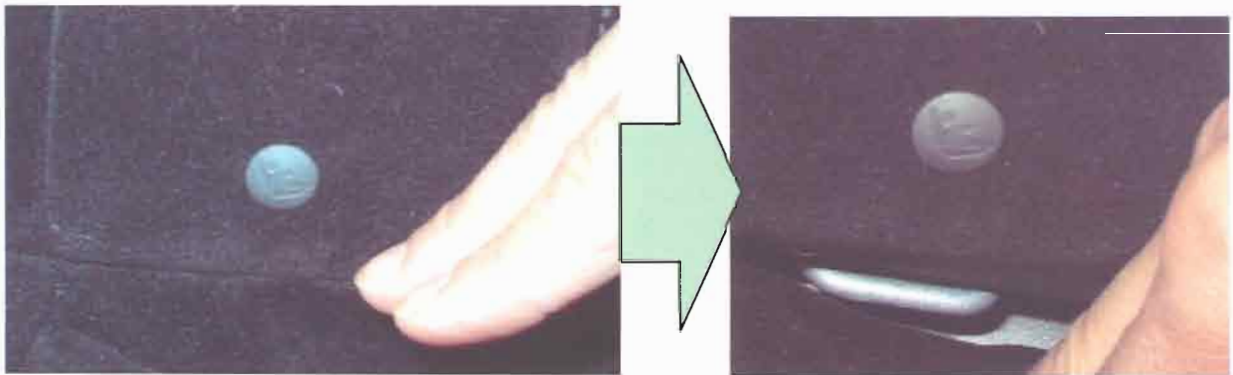
- This would require some understanding of what the differences are between the use of seat belts versus LATCH, as well as an understanding of the perceived differences among users. Honda believes NHTSA should focus their efforts on bridging the gap between facts and consumer perceptions. Important aspects of proper use, such as how to determine the proper tension for either seat belts or LATCH upper and lower tethers should be expressed to consumers in simple terms, and why this is important should also be explained in a manner that is easy to understand.
- One of the principal issues is the maximum recommended child weight for securing a child restraint or booster with the LATCH system or with the seat belts. Honda is actively participating in a joint LATCH working group with the Juvenile Product Manufacturers Association, the Association of International Automobile Manufacturers and the Alliance of Automobile Manufacturers. This working group is conducting appropriate research and analysis to try to ascertain if it is feasible to develop more uniform guidelines to address this important aspect of proper child restraint and booster seat use with LATCH or seatbelts.

Attachment #1

Example of easily identifiable ISOFIX lower anchors in an European manufacturer's vehicle from the European market



Example of compliant LATCH lower anchor position that requires adjustment of seat material to view the anchor directly from U.S. market vehicle:



Attachment #2

Example of seat configuration that would be negatively affected by relocating the lower anchors further forward

This image of a U.S. 2007 model year Honda Fit shows the second row seat in two seating configurations. The white arrow indicates the right side seat, with the seatback folded down. The yellow arrow indicates the left side seat with the seat cushion folded up.



This design for flexible seating configurations would be negatively affected if the lower anchor position were moved forward. Due to the narrow overall width of this vehicle, the lower anchors impede on the nominal seating area for adults in both center seating position, as indicated in the illustration below.