

Informal document GRSP-51-17  
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agenda item 22 (a))

# Proposal to Amend the FMVSS 210 Test Procedure

Presentation to 51<sup>st</sup> session of GRSP

# FMVSS 210

## Seat Belt Assembly Anchorages

- FMVSS 210 applies to passenger cars, multipurpose passenger vehicles (MPVs), trucks, and buses.
- The standard establishes requirements for seat belt assembly anchorages to ensure the anchorages are properly located for effective occupant restraint and to reduce the likelihood of their failure.
- As to the latter, the standard requires seat belt anchorages to withstand specified forces to increase the likelihood that the belts will remain attached to the vehicle structure in a crash.

# Notice of Proposed Rulemaking

- On March 30, 2012, NHTSA proposed to amend the test procedure in FMVSS 210 to specify a new force application device (FAD) for use as a testing interface to transfer loads onto the seat belt anchorage system during compliance tests of anchorage strength.
  - The FAD consists of an upper torso portion and a pelvic portion hinged together to form a one-piece device.
  - The FAD comes in two sizes, one representative of a mid-size adult male, and the other of a small occupant.
- NHTSA proposed to begin using the new device to test vehicles manufactured on or after the first September 1<sup>st</sup> that is three years from the date of publication of the final rule.

# Comparison of Test Procedure

**Side view with current body block in foreground**



**Front view with both FADs and current body block**



# Rational for Proposing this Change

- The FAD provides a consistent test configuration and load paths to the seat belt assembly anchorages.
- The FAD does not put an unrealistic bending force on the belt buckle, unlike the current pelvic body block, and therefore reduces the likelihood of the seat belt buckle breaking during testing.
- The FADs provide a more realistic range of motion because they are shaped like a human, with the upper torso portion hinged to the pelvic portion thus the torso and pelvic portion cannot move as independently of each other as can the current body blocks, resulting in less seat belt spool-out and thereby eliminating the problem of bottoming-out the hydraulic cylinders during the test.
- The FAD requires significantly less effort and time to install in a test vehicle.

# Comments

- Comments due May 29, 2012.
- Notice can be found at 77 FR 19155.
- Docket NHTSA-2012-0036 – submissions to the docket can be viewed at [www.regulations.gov](http://www.regulations.gov) .