GTR7 Informal Working Group
Progress Report and Work Schedule
December 2014
Content

IWG Terms of Reference
Head Restraint Height
Dynamic Test
BioRID II:
  Certification
  R&R
Injury Criteria
Mutual Resolution
Timeline
November 2009: WP.29/AC.3 agreed a joint proposal from Japan, the United Kingdom and the United States of America to develop an amendment to GTR7 – Head Restraints.

The Terms of Reference were to consider:

(a) The head restraint height of 850 mm;
(b) The appropriate dynamic test, including the test procedure, injury criteria and associated corridors for the Biofidelic Rear Impact Dummy II (BioRID II).

(low speed rear impact crashes only - injuries in higher speed rear impact crashes to be considered as a further step.)
Head Restraint Height

• Measurement of Height
  • “Effective Height” defined and replaces “Maximum Height”
  • New measuring procedures developed and trialled

• Height value
  • No agreement reached within the Informal Group – Decision required by Contracting Parties
Dynamic Test

Agreed
- Sled Pulse
- Dummy Seating procedure
- Head restraint setting
BioRID II: Certification

Finalised Tests:
- Spine quasi-static setup
- Jacket impact
- Pelvis Impact (bottom only)

Tests for review following NHTSA correlation study:
- Mini-sled without head restraint
- Mini-sled with seat back and head restraint (Gen X)

(Corridors to be confirmed)
BioRID II: R&R

Activities

• Extensive European Commission funded study conducted (BASt/TRL)
  • Repeatability good
  • Reproducibility higher CoV on some data channels
• New Certification Test (Gen X)
  • Better discrimination of dummies during certification

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<th>Min – %CoV</th>
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Injury Criteria

Shortlist of candidate injury criteria developed:

- Neck Injury Criterion (NIC)
- Neck Displacement Criterion-rotation (NDCr) (flexion and extension)
- Upper neck force and lower neck force (Fx)

Issues

- angular rate sensors for determination of NDCr to be specified.
- Pass/fail values to be established – NHTSA PMHS/BioRID correlation studies ongoing at VRTC.
Mutual Resolution

Status of Addendum 1

• Replacing manufacturer part numbers with UN ECE numbers
• BioRID certification procedure to be introduced (awaiting finalisation)
• Drawing set under quality review by manufacturer
Activity Timeline

Schedule 2015
• NHTSA PMHS/BioRID correlation complete end of January
• IWG Meeting 1\textsuperscript{st} or 2\textsuperscript{nd} week of February
• Initial proposal (GTR7 + MR1) to the 57\textsuperscript{th} session of GRSP – May
• Potential IWG meetings April, June and September
• Final Proposal (GTR7 + MR1) to the 58\textsuperscript{th} session of GRSP – December.

Schedule 2016
• Recommendation to amend GTR7 and MR1 - WP29 June
To be continued ..........