Relaxation Zone and GVWR Application for US

9th GRSP Ad Hoc Meeting
Geneva, Switzerland
December 5-6, 2005
1998 AGREEMENT
ARTICLE 4 & 6
REGISTRY OF GLOBAL TECHNICAL REGULATIONS

• 4.1.2.1. provide for high levels of safety, environmental protection, energy efficiency or anti-theft performance; and

• 6.3.4. In response to a proposal referred to it for developing a new global technical regulation, the Working Party shall use transparent procedures to:
  • 6.3.4.1. develop recommendations regarding a new global technical regulation by:
    • 6.3.4.1.1. giving consideration to the objective of the proposed new global technical regulation and the need for establishing alternative levels of stringency or performance;
    • 6.3.4.1.2. considering technical feasibility;
    • 6.3.4.1.3. considering economic feasibility;
    • 6.3.4.1.4. examining benefits, including those of any alternative regulatory requirements and approaches considered;
    • 6.3.4.1.5. comparing potential cost effectiveness of the recommended regulation to that of the alternative regulatory requirements and approaches considered;
    • 6.3.4.1.6. verifying whether the new global technical regulation under development satisfies the stated objective of the Regulation and the criteria in Article 4.
TERMS OF REFERENCE

The aim of the group is to present a performance-based proposal for the testing and qualification of vehicles, including passenger cars, vans, and light trucks, with respect to pedestrian safety, which could reasonably be incorporated in a global technical regulation (gtr).

– objective(s) and benefits of any new regulation (or amendments to existing regulations) with reference to present levels and sources of knowledge;
– use of the best available technology and improvements in technology that will provide significant steps in developing methods and in achieving and improving benefits, including both active and passive safety measures;
– the costs, both monetary and social, that may be attendant to each level of regulatory stringency or performance;
– the relationship or potential interaction of any proposed technical regulation to other regulations currently in force or to be adopted either individually by any Contracting Party or under existing Agreements administered by WP.29.

• ....the informal group shall develop complete and detailed recommendations, in compliance with paragraph 6.3.4. of Article 6 of the 1998 Agreement, by the end of 2005.
GTR Feasibility – Head Tests

- Six Vehicles
  - Toyota Camry, Toyota Sienna, GMC Savana, Ford Escape, Dodge Ram, Honda Civic

- Child and Adult Headforms

- GTR Speeds and Angles

- Various Locations:
  - 50th Percentile WAD
  - High/Low Clearance Areas
GTR Feasibility – Head Tests

Results

Most tests passed the GTR HIC requirements

- Tests falling in relaxation zone

Most tests passed the GTR HIC requirements
GTR Feasibility – Head Tests
Vehicle Application for US

GVWR for tested vehicles

2001 Honda Civic - 3505 lbs (1590 kg)
2001 Ford Escape - 4140 lbs (1878 kg)
2004 Toyota Camry - 4167 lbs (1894 kg)
2004 Toyota Sienna - 5689 lbs (2580 kg)
2004 GMC Savana - 7200 lbs (3266 kg) †
2003 Dodge Ram - 8650lbs (3924 kg) †

† Pass gtr requirements with HIC relaxation zone for 1/3 area @ HIC = 1700.
(Test results in INF GR PS 132.)
Information needed to assess cost/benefit of head requirements

• Baseline performance of current fleet and projection of benefits to be derived from this gtr

• Cost to meet head requirements
  – TRL feasibility information adequate & ok?

• Implications on other standards/regulations
  – E.g., c.g. data on implementation of Phase I?