Proposals from IWG-R55 to GRRF-82

- Minor corrections and clarifications
  - Typos in Annex 5 figures 12 and 17

Amend figure 12 to read:
Change dimension sleeve bore diameter Ø06H8 to Ø60H8

Amend figure 17 to read:
Proposals from IWG-R55 to GRRF-82

• Minor corrections and clarifications
  – Articulation angles as installed.
    • 5th-wheels pivoting around a transvers axis
      – 6° to the front and 7° to the rear
    • Drawbars with drawbar couplings
      – ±90° around a vertical axis
      – ±20° around a transvers axis by rear mounted couplings
      – ±6° around a transvers axis by underslung mounted couplings
  » In this case the drawbar is considered to be an endless line starting in the coupling point
Proposals from IWG-R55 to GRRF-82

• Minor corrections and clarifications
  – Identification of worst case for testing

  Amend paragraph 1.1. to read:
  1.1. Samples of coupling devices shall be tested for both strength and function. **Tests shall be performed in relation to worst case conditions.** Theoretical assessment may be carried out to determine worst case conditions. Physical testing shall be carried out wherever possible but unless

  • Clarification that worst case is supposed to be used
  – Linguistic change in relation to calculation based approval of “simple designs”
    • The word “check” is exchanged to “assessment”
Proposals from IWG-R55 to GRRF-82

• Attachment points for secondary coupling devices
  – Broadened definition of secondary coupling device
    • Addresses coupling devices in general rather than just Class B
  – Attachment point required for towing bracket/drawbeam aimed at towing of O1 and O2 trailers.
    • Location of a single or a double attachment point stated.
    • Alternatively attachment point may be integrated to the coupling mounted on the towing bracket/drawbeam
  – Attachment point required for coupling head/drawbar eye aimed at towing of O1 and O2 trailers.
  – Performance and test requirements detailed
Proposals from IWG-R55 to GRRF-82

• Separation of approval process from application assessment
  – Components can be approved without knowing anything about the vehicles where they will be installed.
    • In essence definitions and the annexes 5 and 6 set the requirements
  – The way application requirements are calculated sets the safety margin
  – All application assessment formulae are moved in the new annex 8
Proposals from IWG-R55 to GRRF-82

• Adding multi vehicle combination assessment formulae
  – The traditional two vehicle combination formulae are moved to annex 8
    • *Note*, only the formula for full trailer can be used to decide towable mass, however then it is just one out of several decisive factors.
  – Then the formulae for more than two vehicle combinations according to ISO18868 are added to annex 8
    • These formulae are by necessity more complex
      – Support structures e.g. web applications will supply easy to use vehicle combination assessment tools
      – Vehicle combinations commonly seen in the roads today can then be assessed at the same safety level in different markets
Proposals from IWG-R55 to GRRF-82

• Adding $D_c/V$-trade-off possibility to annex 8
  – Some multi vehicle combinations require high $D_c$-performance in combination with a low $V$-performance