WORLD FORUM FOR HARMONIZATION OF VEHICLE REGULATIONS
WP.29

Improving the Environment by Cleaner Vehicles in Use

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The World Forum for Harmonization of Vehicle Regulations, WP.29

What is WP.29 doing?

- Emissions of pollutants and CO2
- General safety
- Passive safety
- Noise
- Active safety
- Lighting and light signalling

Geographical scope of WP.29
Vehicle Pollutant Emissions

Transport Pollutant Emissions

Babylonian language problem

Vehicle regulation
- Exhaust gas at tailpipe
  - PM [mg/km] or [g/kWh]
  - NO₂ [mg/km] or [g/kWh]
  - CO [mg/km] or [g/kWh]
  - HC [mg/km] or [g/kWh]

Environmental legislation
- Mean air concentration
  - PM 10μm µg/m³ 24-hour mean
  - PM 2,5μm µg/m³ 24-hour mean
  - NO₂ µg/m³ 1-hour mean
  - SO₂ µg/m³ 10-minute mean
  - O₃ µg/m³ 8-hour mean

- First phase of Worldwide harmonized Light vehicle Test Procedures (WLTP) - March 2014
  - Discrepancy between test results and real consumption increased
  - New test cycle better reflects real driving
  - Established as a new global technical regulation (GTR No. 15) into the Global Registry
  - Impact:
    - more accurate information on fuel consumption and CO₂ emissions for both regulators and consumers
UNECE and Vehicle Emission Regulations

- **UN Regulations**
  - No. 24 - compression-ignition engines visible pollutants
  - No. 40 - motorcycles positive-ignition gaseous pollutants
  - No. 47 - mopeds positive-ignition gaseous pollutants
  - No. 49 - heavy duty vehicles compression-ignition & positive-ignition engines gaseous and particulate pollutants

- **UN GTRs**
  - No. 2 - Two-wheeled motorcycles measurement of the emission of gaseous pollutants, CO₂ emissions and fuel consumption
  - No. 4 - test procedure for compression-ignition engines and positive-ignition engines fuelled with NG or LPG regarding the emission of pollutants
  - No. 5 - technical requirements for OBD
  - No. 10 - Off-cycle emissions

- No. 83 - emission of pollutants according to engine fuel requirements
- No. 96 - agricultural and forestry vehicles compression-ignition engines pollutants
- No. 101 - passenger cars CO2 emission and fuel consumption
- No. 103 - replacement pollution control devices
- No. 132 - heavy duty vehicles, agricultural and forestry tractors Retrofit Emission Control device

- Annex 4

  Recommendation on market fuel quality

  1. Purpose of the recommendation

  This recommendation has been developed to inform governments about the appropriate market fuel quality that is protective of vehicle emission control

- No. 11 - test procedure for compression-ignition engines for agricultural and forestry tractors and in Non-Road-Mobile-Machinery regarding the emission of pollutants
- No. 15 - Worldwide harmonized Light vehicle Test Procedures
The 1997 Agreement

Principal elements of the 1997 Agreement:

Eligible Contracting Parties to the 1997 Agreement:
- Members of UN

The 1997 Agreement provides:
- Legal framework for the adoption of uniform UN Rules for PTI of vehicles in use
- Reciprocal recognition of certificates of such inspections for cross-border use of vehicles

UN Rule No. 1
- Scope: Road passenger vehicles (category M1) and commercial vehicles (category N, N1, N2, N3)
- For environmental issues

UN Rule No. 2
- Scope: Coaches and buses (category M2 and M3 with a mass > 3.5t)
- For safety inspection

WT.29 has agreed to update the UN Rules

Current PTI regulations & PTI Rules
- Commercial vehicles - Vehicles of Category N2 and N3
- Coach and buses - Vehicles of Category M2 and M3 (Mass > 3.5t)

Possible scope: Amendments to existing rules
- Scope extension - Including vehicles below 3.5t, i.e., passenger cars and vans
- Update of technical provisions - e.g., for cars

Future
- Extend content - Include elements relevant for level of PTI (test-equipment, skills & training of inspectors, supervision)
- Make it a set of harmonized technical provisions - for vehicles in use derived from those of the 1958 & 1998 Agreements
SAFE, CLEAN, SECURE AND EFFICIENT MOBILITY FOR PEOPLE AND FREIGHT

- Inclusive International Legal Architecture
- Effective Public Administration
- International Cooperation
- Innovative Financing
- New Technologies
- Social Responsibility

objectives:
- Seamless B/C
- Facilitated international transport
- Reduced GHG emissions
- Reduced air/noise pollution
- Increased P.T. Mobility Choices
- Zero traffic fatalities and injuries
- Efficient transport services
- Enjoyable walking and cycling

The future Inland Transport WE WANT!