UN Vehicle Regulations Agreements  
World Forum for Harmonization of Vehicle Regulations,  
WP.29

Content

I. WP.29
   a) WP.29 Activities
   b) WP.29 scope and organization

II. The tools of WP.29
   a) Vehicle approval: the 1958 Agreement
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   c) Periodic technical inspections (PTI): the 1997 Agreement

III. Technical Roadside Inspections / vehicle import
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The World Forum for Harmonization of Vehicle Regulations (WP.29)

- UNECE Sustainable Transport Division: secretariat to WP.29 for more than 70 years
- WP.29 is:
  - the unique worldwide regulatory forum for the automotive sector
  - administrating three Multilateral UN Agreements

Certification regulations
1958 Agreement – Type Approval Regulations with mutual recognition of the type approvals
1998 Agreement – Global Technical Regulations

In Use PTI regulations
1997 Agreement – Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspection
Historical background of WP.29

• 1949: Convention on Road Traffic -> Resolution No. 45
• 1952: Establishment of WP.29
• 1958: ‘58 Agreement
• 1997: ‘97 Agreement
• 1998: ‘98 Agreement
• 2000: World Forum

What is WP.29 doing?

- Emissions of pollutants and CO₂
- General safety
- Passive safety
- Noise and tyres
- Automated/autonomous and connected vehicles
- Lighting and light signalling
The WP.29 structure

World Forum for Harmonization of Vehicle Regulations (WP.29)

- Active Safety and Automation
- Passive Safety
- General Safety
- Environmental protection

Committee for Coordination of Work (AC.2)

3 Treaty bodies, 6 subsidiary working parties (Groupes des Rapporteurs) and ~40 non-permanent technical groups (Informal Working Groups)

Global network of ~4,000 experts

WP.29 is worldwide, unique and transparent

- Agreements open to all Nations of the UN
- Participation open to States, Governmental Organizations (GOs) and NGOs, but
  Decisions are taken by Governments (of CPs)

No other worldwide organization covers this area
WP.29 and SDGs

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III. Technical Roadside Inspections / vehicle import
Why does it matter?

Why vehicle regulations?

Several versions of a given model, because:
- Left Hand Drive
- Right Hand Drive
- The US/Canada version
- The Rest of the World...

Same type
Same model
Same brut price

Different safety depending on national legal requirements
(no airbags, lower quality material, less welding points, fewer structure components, etc...)

Principal Elements of the 1958 Agreement

Eligible Contracting Parties to the 1958 Agreement:
- Members of UN

The 1958 Agreement provides:
- Legal framework for the adoption of uniform UN Regulations on vehicle approval
  (performance and test requirements, conformity of production and administrative provisions)
- Reciprocal recognition of Type Approval
  Approved once and accepted everywhere (CPs)
Principal Elements of the **1958 Agreement**

- All vehicle parts and systems approved according to UN Regulations under the 1958 Agreement bear the unique **E**-marking. **E63** for Nigeria.

  *E stands for Excellence Effective Economic Efficient...*

- The Type-Approval with an approval number and the approval date + test reports.

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Principal Elements of the **1958 Agreement**

- 1958 Agreement provides the **legal framework** for the establishment and amendment of harmonized technical **United Nations Regulations** for wheeled vehicle, equipment and parts,
- Conditions for **reciprocal recognition of approvals granted** on basis of these UN Regulations.
- Construction of **Safer** and more **Environmentally friendly** vehicles
- Today 150 UN Regulations annexed to the 1958 Agreement
- 56 Contracting Parties
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Principal Elements of the 1998 Agreement

Eligible Contracting Parties to the 1998 Agreement:

Members of UN

The 1998 Agreement provides:

Legal framework for the adoption of uniform Global Technical Regulations
- UN GTRs -

Performance and test requirements, no administrative provisions
(for self certification and homologation)
Principal Elements of the 1998 Agreement

**Contracting Parties to the 1998 Agreement**
- Commit themselves to implement a GTR into national legislation, when voting in favour.
- Need a system/agency for market surveillance and enforcement of production compliance.

**The 1998 Agreement requests**
- Regular reporting by Contracting Parties on the implementation of GTRs in their national law.

Objectives of the 1998 Agreement

- 1998 Agreement provides the legal framework for the establishment and amendment of United Nations Global Technical Regulations (UN GTR) for wheeled vehicle, equipment and parts,
- Construction of Safer and more Environmentally friendly vehicles
- Global harmonization
- Today 20 UN GTRs annexed to the 1998 Agreement
- 38 Contracting Parties
The 1998 Agreement (1)

Key provisions:
• Compendium of Candidate UN GTRs: national regulations
• Develop UN GTR at the highest level of stringency
• UN GTRs may specify alternative non-global levels of stringency as well as alternative test procedures when needed to facilitate the regulatory activities of developing countries
• Adoption of GTRs by consensus vote of the Executive Committee (AC.3) of the Agreement, present and voting
• Registry of established UN GTRs
• Initiate adoption into national/regional legislation
• Periodical reports to the SG on adoption

The 1998 Agreement (2)

UN GTRs include:
• technical prescriptions regarding the testing method (eventually alternative methods)
• performance requirements (e.g. limit values)

No certification procedure
No conformity of production
No reciprocal recognition
The 1998 Agreement (3)

Compendium of Candidate UN GTRs:
• Catalogue of regulations that are candidates for the development of UN GTR (UNECE Regulations are candidates)
• Any CP may suggest listing any technical regulation in the Compendium
• Voting in AC.3: At least 1/3 of the CPs presenting and voting, with a positive vote by USA, EC or Japan

The 1998 Agreement (4)

Global Registry:
• The Global Registry contains all established UN GTRs
• Adoption by consensus vote of CPs present and voting
• New UN GTRs considered to be established in the Registry on the date of the consensus vote by AC.3 in favour of the UN GTR
• CPs objecting shall provide explanations within 60 days, otherwise they are considered as voting in favour
• The Secretariat creates and maintains the Global Registry
• 20 UN GTRs established in the Global Registry
• UN GTRs can be transposed into national law with amendments
Implementation of 1998 Agreement

- Amendments to national legislation
  - Full transposition of the UN GTR into national legislation
  - Introduce provisions for self-certification or homologation
  - Requirements for vehicle registration (e.g. vehicle certification as prerequisite)
  - Responsibilities and sanctions

- National Authority for market surveillance and enforcement of production compliance
  - Procedures for market surveillance and enforcement of production compliance
  - Technical capacity for performing compliance tests once vehicle models are put on the market
  - Enforcement of recall activities and sanctions against manufacturers
  - Acting as liaison point to the WP.29 secretariat
  - Mandatory status report to AC.3

Useful Information

- WP.29 Website
The most important UN Vehicle Regulations to make a change to road safety

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<tr>
<th>Topic</th>
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<th>PTWs</th>
<th>Commercial vehicles</th>
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<td>Electronic Stability Control</td>
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<td>Safety belts</td>
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<td>Seats/ head restraints</td>
<td>R 17, R 25/ GTR 7</td>
<td>R 94</td>
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<td>R 135/ GTR 14</td>
<td>R 127/ GTR 9</td>
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<td>Pedestrian safety</td>
<td>R 44</td>
<td>R 44</td>
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<td>Child restraints</td>
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<td>R 136</td>
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<td>Electric PTW safety</td>
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<td>Cabs strength</td>
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<td>General safety</td>
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<td>Buses and coaches</td>
<td>R 43/ GTR 6</td>
<td>R 43</td>
<td>R 46</td>
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<td>Safety glazing</td>
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<td>Devices for indirect vision</td>
<td>R 58, R 93</td>
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<td>Underrun protection</td>
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<td>Installation of lighting</td>
<td>R 48</td>
<td>R 53, R 74</td>
<td>R 48</td>
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<tr>
<td>Lighting and light installation</td>
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III. Technical Roadside Inspections / vehicle import
Why does it matter?

Why PTI?

- Evidence base:
  - Technical defects related to fatal accidents (based on in-depth accident analysis)
    - 8 to 15% in high income countries (EU)
    - 15 to 25% in middle income countries
  - 1997 Agreement?
    - New specifications for new technologies

Why Periodic Technical Inspections

- So called “low hanging fruit”
- Immediate effect on road safety
- Covers existing fleet
Why Periodic Technical Inspections

Vehicle Lifecycle

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 - cars, vans, trucks, buses and heavy trailers
(Test frequency, test items, test methods, examples of main defects, assessment of defects according to risk)

Reciprocal recognition of certificates of such inspections for cross-border use of vehicles
**Principal Elements of the 1997 Agreement**

- Resolution R.E.6 test-equipment, skills & training of inspectors, supervision of test centers
- For environmental issues
- For safety inspection
- LNG/LPG/CNG fueled vehicles
- EV and HEV vehicles

**1997 Agreement main provisions**

- Treaty body Administrative Committee AC.4
  - Quorum
  - Election of Chair and Vice-Chair
  - Body where votes take place
- Provisions on establishing/amending Rules
  - Amendments voted in AC.4 and submitted to Secretary General (NY) by secritariat
  - Notification by Secretary General
  - Contracting Parties six month following notification for rejection (1/3 of CPs)
  - Entry into force immediately after end of six month notification
- Rules shall cover
  - Scope and frequency; items (equipment and/or parts) to be inspected; test methods; conditions for granting inspection certificate and date of entry into force
1997 Agreement main provisions (cont.)

- Provisions on amending the agreement
  - Amendments to be proposed by a Contracting Party to Secretary General (NY)
  - Notification by Secretary General
  - Contracting Parties six month following notification for rejection
  - Entry into force three month following end of 6 month notification period only if NO Contracting Party rejected

- Reciprocal recognition of Inspection Certificates in international traffic
- Harmonized International vehicle Inspection Certificate (incl. specimen)
- Accession to agreement and application of rules
- Disputes and arbitration procedures

1997 Agreement main provisions (cont.)

- Proposed amendments to the agreement
  - Including definitions of roadworthiness and approval,
  - Deficiencies, inspector, competent authority
  - Test center and supervising body
  - ....

- Possibility of electronic Inspection Certificates
- Amendment to content of inspection certificant (mileage at test)
- New Appendix on Conformity of periodic technical inspection process
  - System for authorisation, supervision, withdrawal, suspension or cancellation of authorisation including requirements for
  - Testing facilities and equipment; testing centres, inspectors and supervision
1997 Agreement – Rules Nos. 1 and 2

- Rule 1 focuses on environmental issues
  - Pollutant emissions, noise and leakages
- Rule 2 focuses on safety related issues
  - Identification of the vehicle;
  - Braking equipment;
  - Steering;
  - Visibility;
  - Lighting equipment and parts of electric system;
  - Axles, wheels, tyres, suspension;
  - Chassis and chassis attachments;
  - Other equipment;
  - Additional inspections of vehicles for the commercial carriage of passengers.
- Contains: scope, test frequency, inspection items, test methods, reason for failures and guidance on assessment of defects

1997 Agreement – Rules Nos. 1 and 2

- Latest amendments to the Rules
  - Extend scope to M1 and N1 vehicles
  - Maximum intervals between two consecutive inspections (M1, N1: 4-2-2; N2, N3, M2, M3, O3, O4, and taxis & ambulances 1-1-1)
  - System of severity of defects (minor-major-dangerous)
  - Clear assessment of defects according to their severity
  - Final assessment of vehicle in accordance to the most severe defect (taking into consideration combined effects of defects)
  - Introduce testing of electronic controlled systems
1997 Agreement – Rule 1 & Rule 2

3. Periodicity of technical inspections

<table>
<thead>
<tr>
<th>Vehicle Categories</th>
<th>Maximum Inspection Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger-carrying motor vehicles: $M_1$, except taxis and ambulances</td>
<td>Four years after the first entry into service of the first registration and every two years thereafter</td>
</tr>
<tr>
<td>Goods vehicles: $N_1$</td>
<td></td>
</tr>
<tr>
<td>Passenger-carrying motor vehicles: $M_1$ used as taxi or ambulances, $M_2$ and $M_3$</td>
<td>One year after the first entry into service of the first registration and annually thereafter</td>
</tr>
<tr>
<td>Goods vehicles: $N_2$ and $N_3$</td>
<td></td>
</tr>
<tr>
<td>Trailers: $O_3$ and $O_4$</td>
<td></td>
</tr>
</tbody>
</table>

7.2. Deficiencies that are found during periodic testings of vehicles shall be categorised in one of the following groups:

(a) "Minor deficiencies" having no significant effect on the safety of the vehicle or impact on the environment, and other minor non-compliances;

(b) "Major deficiencies" that may prejudice the safety of the vehicle or have an impact on the environment or put other road users at risk, or other more significant non-compliances;

(c) "Dangerous deficiencies", constituting a direct and immediate risk to road safety or having an impact on the environment which justifies that, a Member State or its competent authorities may prohibit the use of the vehicle on public roads.

7.3. A vehicle having deficiencies falling into more than one of the deficiency groups referred to in paragraph 7.2, above shall be classified in the group corresponding to the more serious deficiency. A vehicle showing several deficiencies within the same inspection area as identified in the scope of the test referred to in paragraph 2 of Annex I, may be classified in the next most serious deficiency group if it can be demonstrated that the combined effect of those deficiencies results in a higher risk to road safety.
1997 Agreement – Rule 1 & Rule 2

- Establishes minimum requirements for a PTI regime and details specific administrative and technical provisions for PTI
- Minimum requirements for technical inspection facilities and test equipment
  - Test lane with pit or lift
  - Equipment for brake testing; wheel play detector; sound meter; emission test devices (4-gas analyser / smoke meter); headlamp aiming device; tread depth meter; OBD scan tool and LPG/CNG/LNG leakage detector
  - Calibration requirements
1997 Agreement – Resolution R.E.6 (cont.)

• Minimum requirements concerning competence, training and certification of inspectors
  – Areas of knowledge and experience
  – Initial and refresher training / examination
  – Certificate of competence

• Supervising bodies
  – tasks and activities of supervising bodies
  – requirements concerning supervising bodies
  – Contents of rules and procedures

Implementation of 1997 Agreement

• Amendments to national legislation
  – Requirements for periodic technical inspection (e.g. reference to UN Rules and R.E.6)
  – Requirements for reciprocal recognition of PTI certificates for cross border traffic
  – Requirements for vehicle registration (e.g. PTI as prerequisite)
  – Responsibilities and sanctions

• National PTI Authority
  – Administrative procedures for granting, extending, suspension of authorisation for PTI test centres and for inspectors
  – Requirements for test centres, equipment, skills & training of inspectors and supervision of test centres
  – Acting as liaison point to other PTI Authorities and the WP.29 secretariat

• Test Centres
Content

I. Why Periodic Technical Inspection

II. Periodic Technical Inspections (PTI): the 1997 Agreement
   a) The 1997 Agreement and proposed amendments
   b) Rule 1 and Rule 2
   c) Resolution R.E.6

III. Technical Roadside Inspections / vehicle import

Technical Roadside Inspections
Mainly, but not only, for commercial transport
Different areas to be covered

- Driver permit
- Transport license
- Vehicle registrations
- Weights and dimensions
- Driving time and Resting time (AETR)
- Transport of dangerous goods (ADR)
- Technical condition of vehicles
- Securing of cargo

- need for specialised body & good cooperation with police
- need for specialised equipment need for intelligent selection tool (risk rating)
Technical Roadside Inspections

**THE AIM**

TO IMPROVE ROAD-SAFETY BY ENFORCEMENT
Vehicle import

- **New vehicle**
  - Approved type
    - National TA document
    - Vehicle registration
  - Not approved type
    - Individual approval (IA)
      - Documentation
      - Testing
    - National IA document
    - Vehicle registration

Vehicle import

**Used vehicle**

- **Approved type**
  - Individual approval based on TA
  - National IA document
  - Periodic technical Inspection
  - Vehicle registration

- **Not approved type**
  - Individual approval based
    - Documentation
    - Testing
  - National IA document
  - Periodic technical Inspection
  - Vehicle registration
Vehicle Registration

• Main purpose
  • Final permission to use in road traffic
  • Identification of vehicle by issuing a registration plate and a corresponding registration certificate

• Preconditions for registration:
  – Vehicle approval
  – Periodic technical inspection
  – Third party liability insurance
  – Payment of duties and fees

Leaflets and Publications

• Child restraint systems
• World Forum for Harmonization of Vehicle Regulations (WP.29) – How It Works, How to Join It

• Motorcycle helmets
THANK YOU FOR YOUR ATTENTION

UNECE Sustainable Transport Division


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