Proposal for a Framework Document on Vehicle Whole-Life Compliance
ECE/TRANS/WP.29/2021/148
Whole-life compliance

Development and production
- Initial Assessment
- Approval
- Conformity of Production
- In Service Conformity UN-R33

Registration
- Market surveillance

Vehicle in traffic
- Road Side Inspection R.E.6
- Periodic Technical Inspection 1997 Ag.

Deregistration
- Contracting parties 1997 Agreement
- Individuals

Whole Life Compliance
Whole-life compliance
The whole-life compliance vision

• To define the appropriate provisions to ensure that the performance of vehicles, throughout their use, fulfils the legal requirements applicable at each stage and can be impartially assessed

• In-use vehicles technical conditions shall not cause any traffic accidents resulting in injury or death that are reasonably foreseeable and preventable, shall resist cyberattacks and shall be consistent with their Type Approvals

• The coordination of technical provisions and/or guidance and resolutions for whole-life compliance of the vehicles shall be conducted by WP.29 within the context of the 1958 and 1998 Geneva Agreements and the 1997 Vienna Agreement
Coordination of whole-life compliance’s stages

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Coordination of whole-life compliance’s stages

Whole-life compliance

OEM Technical services Contracting parties 1958 + 1998 Agreement
OEM Contracting parties 1958 + 1998 Agreement
OEM Contracting parties 1958
Not included in 1958/1998 Agreement
The whole-life compliance vision

• The whole-life compliance approach shows the necessary stages to better ensure the vehicles’ performance, reasonably, during their whole life. The main tool to assess the convenience of stages of whole-life compliance is the risk analysis. The risk analysis approach is also a valid framework to liaise the different stages of whole-life compliance.

• The requirements to fulfil at each stage of whole-life compliance shall be coordinated with those of the Type Approval.
Whole-life compliance

UN R13 Braking

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Whole Life Compliance
WLC provisions prescribed by UN R13 on the approval of vehicles of categories M, N and O with regard to braking

- 5.1.1.1. The braking equipment shall be so designed, constructed and fitted as to enable the vehicle in normal use, despite the vibration to which it may be subjected, to comply with the provisions of this Regulation.

- 5.1.4. Provisions for the periodic technical inspection of braking systems

- 5.1.4.6.3. The reference braking forces shall be declared such that the vehicle is capable of generating a braking rate equivalent to that defined in Annex 4 of this Regulation for the relevant vehicle (50 per cent in the case of vehicles of category M2, M3, N2, N3, O3 and O4 except semi-trailers, 45 per cent in the case of semi-trailers), whenever the measured roller braking force, for each axle irrespective of load, is not less than the reference braking force for a given brake actuator pressure within the declared operating pressure range.
UN R49&83 with regard to the emission of pollutants
The whole-life compliance approach

• The stages of whole-life compliance and their relationships shall be designed in such a way as to reasonably facilitate each others’ objectives and provide information and data when appropriate

• Performances may be verified by methods different from those prescribed in the relevant UN Regulations, Global Technical Regulations, Rules and other relevant UN ECE documents