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Proposal for a protocol to manage drawings, calibration and maintenance procedures associated with test tools referenced by UN Regulations and UN Global Technical Regulations in the framework of the 1958 and 1998 Agreements

Proposal to develop a Resolution for both the 1958 and 1998 Agreements

Submitted by the representatives of the United Kingdom and United States of America*

The text reproduced below was prepared by the representatives of the United Kingdom and the United States of America for both the 1958 and 1998 Agreements, in which the drawings and technical specifications of any test device used in UN Regulations and UN GTRs could be incorporated as addenda to a Resolution. It is based on Informal document WP.29-157-16, distributed at the 157th session of the World Forum for Harmonization of Vehicle Regulations (WP.29) and it is expected to be amended by a further proposal drafted by the representative of the United Kingdom (ECE/TRANS/WP.29/1097, paragraph 67). It is submitted to WP.29 for consideration.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

Special Resolution No. 2 concerning the description and performance of test tools and devices necessary for the assessment of compliance of wheeled vehicles, equipment and parts according to the technical prescriptions specified in Regulations and global technical regulations made under the 1958 and 1998 Agreements (S.R.2).

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Preamble

1. The Administrative Committee of the 1958 Agreement (AC.1) and the Executive Committee of the 1998 Agreement (AC.3),
2. DESIRING to harmonise technical requirements while ensuring high levels of safety, environmental protection, energy efficiency and anti-theft performance of wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles,
3. BEARING IN MIND that the 1958 Agreement established on 20 March 1958 provides for the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition by Contracting Parties of approvals granted on the basis of these prescriptions,
4. BEARING IN MIND that the 1998 Agreement provides for the establishment of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles was opened for signature in Geneva on 25 June 1998,
5. BEARING IN MIND that both Agreements facilitate the trade of wheeled vehicles, equipment and parts with harmonized performance requirements among the respective Contracting Parties,
6. BEARING IN MIND that the assessment of compliance with the technical prescriptions of regulations made under the 1958 Agreement and global technical regulations made under the 1998 Agreement requires the use of test tools and equipment,
7. BEARING IN MIND that the assessment of compliance may take place in any of the territories of the Contracting Parties and at a variety of laboratories within those territories,
8. BEARING IN MIND that to facilitate the application of the Agreements, AC.1 and AC.3 have decided that the test tools and devices necessary for compliance assessment should be comprehensively defined in terms of their essential characteristics and performance in Special Resolution 2 (S.R.2),
9. BEARING IN MIND that this resolution does not hold regulatory status within Contracting Parties.
10. RECOMMENDS that Contracting Parties and manufacturers refer to this S.R.2 when establishing the suitability of their test tools and devices when used for the assessment of compliance with the prescriptions regulations or global technical regulations made under the 1958 or 1998 Agreements respective Agreements.

I. Statement of technical rationale and justification

11. Harmonisation of technical prescriptions of Contracting Parties with respect to wheeled vehicles, equipment and parts is the declared objective of both the 1958 and 1998 Agreements. An essential element of this objective is the confidence that the assessment of compliance is robust and not subject to variation depending upon the test tools or devices used in the assessment process.

12. Informal working groups under the responsibility of the working party on passive safety (GRSP) reported that the new generation of test tools being considered were of a higher level of complexity than those used previously. They also noted that even amongst those tools present in the market, and identified by a common descriptor from the manufacturer, different build levels existed. Also of concern is that the tools were available only from a single supplier and it was considered desirable to establish some resilience should the supplier cease to support a tool for any reason.

13. At its 155th session, the World Forum for Harmonization of Vehicle Regulations (WP.29) agreed an approach for indexing the information for test devices, as indicated in ECE/TRANS/WP.29/2011/85), as Addenda to the Consolidated Resolution on the Construction of Vehicles (R.E.3) and hence for application under the 1958 Agreement.

14. At the 156th session of WP.29, the Secretariat and the representative of the United Kingdom, through Informal document WP.29-156-18, presented a proposal to amend the Consolidated Resolution (R.E.3) so as to establish a repository for the technical description and performance requirements for test tools and devices that are themselves specified as necessary for use in the assessment of compliance with technical prescriptions of regulations made under the 1958 Agreement.

15. WP.29 reaffirmed the desirability of such a repository but also recognised the added value that would be secured were it to be applicable to regulations made under the 1958 Agreement and global technical regulations made under the 1998 Agreement. S.R.2 is written to fulfil this objective and its applicability is defined by reference to a particular test tool or device from within the individual regulations or global technical regulations.

16. S.R.2 is written to define the test tool or device and its preparation for use in a regulatory context. The specific conditions for the deployment of the test tool or device are contained within the body of the regulation or global technical regulation made under the 1958 or 1998 Agreements respectively.

17. WP.29 was clear that the repository should provide for the inclusion of a wide range of different test tools and not be restricted to the anthropometric test devices specifically recognised by the informal working groups of GRSP. The construction of this S.R.2 is designed to permit the addition of discrete addenda for each and any test tool or device, as appropriate. The essential elements of any addenda are the engineering drawings that define the tool/device and the associated user manual that is comprised of details on its parts, assembly and disassembly. Further elements may be included according to the nature of the specific tool or device.

18. Additions to or amendments of the individual addenda are subject to the agreement of A.C.1 and/or of A.C.3 as appropriate to the needs of the respective Agreements.

II. Special Resolution concerning the description and performance of test tools and devices necessary for the assessment of compliance of wheeled vehicles, equipment and parts according to the technical prescriptions specified in Regulations and global technical regulations made under the 1958 and the 1998 agreements (S.R. 2).

1. Scope

- 1.1. This Special Resolution details specific test devices and equipment that are referenced in individual regulations made under the "1958 Agreement" and/or global technical regulations established under the "1998 Agreement", as necessary, for the determination of regulatory compliance of "wheeled vehicles, equipment and parts which can be fitted and/or used on wheeled vehicles".

2. General provisions

- 2.1. This Special Resolution contains those details associated with any test tool or device that are necessary to establish that the test tool or device is appropriate for use in determining the compliance of a wheeled vehicle, equipment or part with a regulation or global technical regulation. These details are those associated with the essential design of the test tool or device, its assembly, calibration and general preparation for use for that purpose.
- 2.2. The technical prescriptions for each test tool or device can be found in a discrete addendum to this Special Resolution.
- 2.3. The regulatory prescriptions for the use of the tool can be found in the individual regulation or global technical regulation for which the test tool or device is specified.
- 2.4. Engineering Drawings.
 - 2.4.1. While manufacturer part numbers and drawing numbers exist for individual components of the test tool, the protocol for this Special Resolution is to ascribe a unique UN drawing number to each drawing of a set. The number follows the convention "TRANS/WP.29/XXXX" followed by a reference to the specific Addendum for the particular tool and a drawing number, e.g. "TRANS/WP.29/XXXX/Add.1/Dwg 001".
 - 2.4.2. The Drawing Index is included as a Table in each Addendum and an example is shown as "Appendix 1: Table 1 - Drawing Index" in the Appendix to this Special Resolution.
- 2.5. In the event that a test tool shares parts with another tool registered within this Special Resolution, the drawings are not duplicated but reference is made to a master drawing in a "parent" Addendum.
- 2.6. With the exception of paragraph 2.5, where the manufacturer makes changes to a part that is shared with one or more tools, and it is not demonstrated that all these tools are unaffected, a new drawing is listed for the tool affected by the change. Where this change affects a master drawing, the original drawing is reallocated to a new and alternative parent Addendum and references revised. Revised drawings follow the numbering convention, i.e. "TRANS/WP.29/XXXX/Add.1/Dwg 001/Rev.1".

- 2.7. A Table of Drawing Revisions is provided in each Addendum and an example is shown as "Annex 1, Table - Drawing Revisions" in the Appendix to this Special Resolution.
- 2.8. Parts
- 2.8.1. Test tools also use parts that are generic in nature and readily available in the market. These parts are identified and described in the drawing set. For completeness, these parts are identified in a separate table in each Addendum together with the Part Number ascribed by the Test Tool manufacturer.
- 2.8.2. The Parts Index is included as a Table in each Addendum and an example is shown as "Appendix 1: Table 2 - Parts Index" in the Appendix to this Special Resolution.

3. Specific provisions

- 3.1. The table below details the individual addenda to this Special Resolution in which details of the design, construction, maintenance and preparation of the test devices or equipment can be found.

<i>ECE/TRANS/WP.29/XXXX/Add</i>	<i>Generic name of the Test Tool</i>	<i>UN Regulation(s) Requiring the test Tool Device</i>	<i>UN Global Technical Regulation(s) requiring the Test Tool or Device</i>	<i>Date of adoption of the Addendum</i>
1	(Reserved) BioRID Dummy			
2	(Reserved) WorldSID Dummy			
3	(Reserved) FlexPLI			
4	(Reserved) Q-Dummy			

- 3.2. The regulations and/or global technical regulations listed in the table above require the use of the tools as prescribed in the relevant addenda to this Special Resolution. Compliance with these prescriptions may not be necessary for other regulations using tools with the same generic name.

Appendix

Example of layout for an Addendum to this Special Resolution.

Addendum X - Specifications for the Construction, Preparation and Certification of the 50th percentile male XXXXX anthropometric test device.

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Template (with examples) for the Tables listed for the Annex and Appendices above:

Annex 1, Table - Drawing Revisions

Note: This table lists all drawing revisions that are entered in detail in any of the following Appendices.

<i>Drawing Ref</i> <i>TRANS/WP.29/XXXX/Add.1/...</i>	<i>Appendix / Table</i>	<i>Title</i>	<i>Description of change</i>
<u>Example</u> Dwg.4/Rev.1	1 / 1	Plate, Interface – Occipital Condyle	Material change

Appendix 1: Table 1 - Drawing Index

Note: Drawing revisions should be entered immediately after the drawing they replace and the revision also recorded in the Table, “Drawing Revisions”, to Annex 1.

<i>TRANS/WP.29/XXXX/Add.1/...</i>	<i>Part Number</i>	<i>Description</i>	<i>Drg. Rev.</i>	<i>No. of Sheets</i>	<i>QTY Per Assembly</i>	<i>QTY Per Dummy</i>	<i>Common with Addenda(s)</i>
App.1/Dwg. 1	4947	Ballast, Skull	C	1	1	1	
App.1/Dwg. 2	4956	Assy - S.R. Neck Loadcell	C	1	1	1	
App.1/Dwg. 3	4956	S.R. Neck Load Cell	C	1	1	1	
App.1/Dwg. 4 App.1/Dwg.4/Rev.1	ARA-100	Plate, Interface-Occipital Condyle	P S	1	1	1	
App.1/Dwg. 5	ARA-103	Head Assembly	D	1	1	1	

Appendix 1: Table 2 - Parts Index

<i>Part No.</i>	<i>Description</i>	<i>Dwg. Rev.</i>	<i>No. of sheets</i>	<i>Qty per Assy</i>	<i>Qty per Dummy</i>	<i>Common with Addenda(s)</i>
9010104	Thread Insert, M6 X 1.0 X 9mm LG					