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World Forum for Harmonization of Vehicle Regulations

174th session

Geneva, 13-16 March 2018 Item 2.2 of the provisional agenda Coordination and organization of work: programme of work and documentation

Programme of Work of the World Forum for Harmonization of Vehicle Regulations (WP.29) and its Subsidiary Bodies

Note by the Secretariat*

The text reproduced below was prepared by the Secretariat for consideration by the World Forum. It takes into account the results and decisions taken at its 173rd session (ECE/TRANS/WP.29/1135) and the proposed agenda for its 174th session (ECE/TRANS/WP.29/1136) and updates also the information on the work of the six subsidiary Working Parties to WP.29.

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^{*} In accordance with the programme of work of the Inland Transport Committee for 2014–2018 (ECE/TRANS/240, para. 105 and ECE/TRANS/2014/26, cluster 02.4), the World Forum will develop, harmonize and update UN regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

Main topics of work of the World Forum for Harmonization of Vehicle Regulations and its subsidiary bodies

Top priorities for the work of the World Forum for Harmonization of Vehicle Regulations lie in the field of automated vehicles paving the way for a regulatory framework supporting the introduction of these emerging technologies towards future autonomous vehicles and in electro-mobility to address the challenges of limited fossil fuel resources, environmental protection and climate change.

1. Further development and implementation of the three Vehicle Agreements:

- 1.1. **1958 Agreement**: Following the adoption and entry into force of Revision 3 of the 1958 Agreement on 14 September 2017, the requirements for International Whole Vehicle Type Approval (IWVTA) are to be implemented via the new UN Regulation No. 0.
- 1.2. **1997 Agreement**: Further to amending the rules under the agreement, elements related to the performance and quality of periodic technical inspections have been prepared for an adaptation of the agreement and resolution R.E.6 covering skills and training for inspectors, requirements for testing equipment and supervision of test centres was established.
- 1.3. **1998 Agreement**: Following the establishment of Special resolution S.R.3, the implementation of the agreement will be followed with a more strategic approach by identifying key elements that define elements the work will focus on.

2. Horizontal activities:

- 2.1. Over the air updates of vehicle operational software, cyber security and data protection (ECE/TRANS/WP.29/1126, para. 23) as well as connectivity (V2V, V2I) and management of "big data" related to automation and to the user's profile
- 2.2. Performance requirements outside test conditions (ECE/TRANS/WP.29/1126, para. 21) and whole life compliance

3. Main topics of the Subsidiary Bodies:

- 3.1. GRB main topic is the work on a UN GTR for Quiet Road Transport Vehicles (QRTV).
- 3.2. GRE is focusing on the simplification of the lighting regulations following the establishment of the Resolution R.E.5 on the common specification of light source categories.
- 3.3. GRPE main area of work is related to the transformation of WLTP into a new UN Regulation and further harmonization of emission and energy consumption test procedures including RDE. Alternative powertrains/fuels and development of requirements for real world vehicle performance towards sustainable transport systems.
- 4.4. GRRF is establishing further elements for the UN vehicle regulatory framework towards automated driving. Amendments to UN Regulation No. 79 including ACSF both for low and high speed driving manoeuvres (automated lane-change), and amendments to UN Regulation No. 131 including AEBS for light vehicles (M₁ and N₁).

- 4.5. GRSG establishes a new UN Regulation on Advanced Driver Assistant Systems for Blind Spot Detection to early warn drivers of not automated vehicles.
- 4.6. GRSP focuses its work on a UN GTR for electric vehicle safety as well as on hydrogen vehicles, protection of vulnerable road users (e.g. UN GTR /UN Regulation on pedestrian protection and child restraint systems).

Table 1
Subjects under consideration by the World Forum (WP.29)

Subject	Document symbol Documentation ECE/TRANS/WP.29/ availability
1.1. 1958 Agreement	For document symbols and its availability, please refer to the agenda (1134)

1.1.1. Draft amendments to existing UN

Regulations to be considered at the March

2018 session

UN Regulations Nos.:

6 (Direction indicators);

13 (Heavy vehicle braking);

13-H (Brakes of M₁ and N₁ vehicles);

30 (Tyres for passenger cars);

37 (Filament light sources);

41 (Noise emissions of motorcycles);

43 (Safety glazing);

46 (Devices for indirect vision);

51 (Noise of M and N categories of vehicles);

67 (LPG vehicles);

79 (Steering equipment);

107 (M2 and M3 vehicles);

110 (CNG and LNG vehicles);

118 (Burning behavior of materials);

121 (Identification of controls, tell-tales and indicators);

122 (Heating systems);

128 (LED light sources);

140 (Electronic stability control)

1.1.2. Draft New UN Regulation:

positions

1.1.3. Draft amendments to existing UN

Regulations to be considered at the June

2018 session

UN Regulations Nos.:

13 (Heavy vehicle braking);

Document symbol Documentation
Subject ECE/TRANS/WP.29/... availability

- 13-H (Brakes of M₁ and N₁ vehicles);
- 14 (Safety-belt anchorages);
- 16 (Safety-belts);
- 22 (Protective helmets);
- 44 (Child Restraint Systems);
- 49 (Compression ignition and positive ignition (LPG and CNG) engines));
- 51 (Noise of M and N categories of vehicles);
- 54 (Tyres for commercial vehicles and their trailers);
- 63 (Noise emissions of mopeds);
- 83 (Emissions of M_1 and N_1 vehicles);
- 85 (Measurement of the net power);
- 89 (Speed limitation devices);
- 96 (Diesel emission (agricultural tractors)):
- 106 (Tyres for agricultural vehicles);
- 108 (Retreaded tyres for passenger cars and their trailers);
- 109 (Retreaded tyres for commercial vehicles and their trailers);
- 120 (Net power of tractors and non-road mobile machinery);
- 129 (Enhanced Child Restraint Systems);
- 137. (Frontal impact with focus on restraint systems);
- 139 (Brake Assist Systems (BAS));
- 140 (Electronic Stability Control (ESC))
- 1.1.4. Proposal for new UN Regulations to be considered at the June 2018 session

Hydrogen and Fuel Cell Vehicles of category L;

Mechanical coupling components of combinations of agricultural vehicles

1.1.5. Status of the Agreement and of the annexed UN Regulations, including the latest situation report

343/Rev.26

Document symbol Documentation Subject ECE/TRANS/WP.29/... availability 1.1.6. Development of an International Whole Vehicle Type Approval (IWVTA) system, 1.1.7. Consideration of amendments to the 1958 Agreement. 1.1.8. Development of an electronic database for the exchange of type approval documentation (DETA) 1.2. 1998 Agreement (Global) For document symbols and its availability, please refer to the agenda (1130)1.2.1. Consideration of draft UN GTRs and amendments to them: Proposal for a new Global Technical Regulation on Electric Vehicle Safety (EVS) 1.2.2. Consideration of Mutual Resolutions Consideration of draft amendments to Mutual Resolution No. 1 (M.R.1) Consideration of draft amendments to Mutual Resolution No. 2 (M.R.2) Consideration of new Mutual Resolutions Proposal for a new Mutual Resolution (M.R.3) of the 1958 and the 1998 Agreements concerning Vehicle Interior Air Quality (VIAQ)Nil 1.2.3. Guidance for the development of UN GTRs: Nil 1.2.4. Progress on the development of new UN GTRs and of amendments to established **UN GTRs** 1.2.5. Consideration of draft UN GTRs and amendments to them to be considered at the June 2018 session UN GTR Nos.: 15 (Worldwide harmonized Light vehicles

19 (Evaporative Test emission procedures for the Worldwide harmonized Light vehicles Test Procedures (EVAP WLTP))

Test Procedures (WLTP))

Documentation Subject ECE/TRANS/WP.29/... availability 1.2.7. Guidance for the development of UN GTRs: Nil 1.2.8. Progress on the development of new UN GTRs and of amendments to established **UN GTRs** (Worldwide Motorcycle emission Test Cycle (WMTC)); 3 (Motorcycle braking); 6 (Safety glazing); 7 (Head restraints); 9 (Pedestrian safety); 13 (Hydrogen and Fuel Cell Vehicles (HFCV) - Phase 2);(Worldwide harmonized Light vehicle Test Procedures (WLTP) -Phase 2); 16 (Tyres) Draft UN GTR on Quiet Road Transport Vehicles (QRTV) 1.2.9. Exchange of views on items for new UN Global Technical Regulations Harmonization of side impact Electric vehicles and the environment Specifications for the 3-D H point machine Hydrogen and Fuel Cell Vehicles (HFCV) (UN GTR No. 13) – Phase 2 1.3. 1997 Agreement (Inspections) For document symbols and its availability, please refer to the agenda (1130)1.3.1. Future development of the Agreement 1.3.2. Update of UN Rules Nos. 1 and 2 1.3.3. Consideration of new UN Rules Proposals for a new Rule on Periodical Technical Inspections of motor vehicles using Compressed Natural Gas (CNG) and/or Liquefied Natural Gas (LNG) in their propulsion system Proposals for a new Rule on Periodical Technical Inspections of motor vehicles with electric and hybrid-electric propulsion system

Document symbol

Table 2
Subjects under consideration by the Working Party on Noise (GRB)

Subject	•	Document symbol Documentation ECE/TRANS/WP.29/ availability
2.1.	1958 Agreement	For document symbols and its availability, please refer to the agenda of the sixty-fifth session (GRB/2017/1)
2.1.1.	Proposal for draft amendments to existing UN Regulations (1958 Agreement):	
	28 (Audible warning devices);	
	41 (Noise of motorcycles);	
	51 (Noise of M and N categories of vehicles);	
	59 (Replacement silencing systems);	
	92 (Replacement exhaust silencing systems for motorcycles);	
	117 (Tyre rolling noise and wet grip adhesion);	
2.2.	1998 Agreement (Global)	For document symbols and its availability, please refer to the agenda of the sixty-fifth session (GRB/2017/1)
	UN GTR on Quiet Road Transport Vehicles	
2.3.	1997 Agreement (Inspections)	
	Nil	
2.4.	Proposal for draft recommendations or amendments to existing recommendations	
	Nil	
2.5.	Miscellaneous items	For document symbols and its
	Influence of road surface on tyre rolling sound emissions	availability, please refer to the agenda of the sixty-fifth session (GRB/2017/1)
	Definitions and acronyms in UN Regulations under the responsibility of GRB	
	Proposal for amendments to R.E.3	
	Development of the International Whole Vehicle Type Approval (IWVTA) system	

 ${\bf Table~3} \\ {\bf Subjects~under~consideration~by~the~Working~Party~on~Lighting~and~Light-Signalling~(GRE)} \\$

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
3.1.	1958 Agreement		For document symbols and its availability, please refer to the agenda of the seventy-seventh session (GRE/2017/1)	
3.1.1.	1.1. Proposal for draft amendments to existing			
	6	(Direction indicators);		
	7	(Position, stop and end-outline lamps);		
	10	(Electromagnetic compatibility);		
	19	(Front fog lamps);		
	23	(Reversing lamps);		
	38	(Rear fog lamps);		
	45	(Headlamp cleaners);		
	48	(Installation of lighting and light-signalling devices);		
	50	(Position, stop, direction indicator lamps for mopeds and motorcycles);		
	53	(Installation of lighting and light signalling devices for L_3 vehicles);		
	77	(Parking lamps);		
	86	(Installation of lighting and light- signalling devices for agricultural tractors);		
	87	(Daytime running lamps);		
	91	(Side marker lamps);		
	98	(Headlamps with gas-discharge light sources);		
	112	(Headlamps emitting an asymmetrical passing-beam)		
	113	(Headlamps emitting a symmetrical passing-beam);		
	119	(Cornering lamps);		
	123	(Adaptive front lighting systems (AFS))		

3.1.2. Proposal for draft new UN Regulations:

Nil

Document symbol Documentation
Subject ECE/TRANS/WP.29/... availability

3.2. 1998 Agreement (Global)

Possibility to develop further UN GTRs

3.3. 1997 Agreement (Inspections)

Nil

3.4. Proposal for draft recommendations or amendments to existing recommendations

Nil

3.5. Miscellaneous items

Pending amendment proposals

Simplification of lighting and lightsignalling UN Regulations

Amendments to the Convention on Road Traffic (Vienna 1968)

Development of an international whole vehicle type approval (IWVTA)

Phantom light and colour washout

Direction for future GRE work

Work progress of the International Automotive Lighting and Light Signalling Expert Group (GTB) task forces For document symbols and its availability, please refer to the agenda of the seventy-ninth session (GRE/2018/1)

 $\label{thm:consideration} Table~4 \\ \textbf{Subjects under consideration by the Working Party on Pollution and Energy (GRPE)}$

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
4.1.	1958 Agreement		For document symbols and its availability, please refer to the agenda of the seventy-sixth session (GRPE/2018/1)	
4.1.1.	Proposal for draft amendments to existing UN Regulations (1958 Agreement):			
	68	(Measurement of the maximum speed, including electric vehicles);		
	83	(Emissions of M_1 and N_1 vehicles);		
	101	(CO ₂ emissions/fuel consumption);		
	103	(Replacement pollution control devices);		
	49	(Emissions of compression ignition and positive ignition (LPG and CNG) engines);		
	132	(Retrofit Emissions Control devices (REC));		
	85	(Measurement of the net power);		
	115	(LPG and CNG retrofit systems);		
	133	(Recyclability of motor vehicles);		
	96	(Diesel emission (agricultural tractors));		
	120	(Net power of tractors and non-road mobile machinery);		
	40	(Emission of gaseous pollutants by motorcycles);		
	47	(Emission of gaseous pollutants of mopeds)		
4.1.2.	Prop	oosal for draft new UN Regulations		
	Nil			
4.2.	1998	3 Agreement (Global)	For document symb	ools and its
	2	(Worldwide motorcycle emissions test cycle (WMTC));	availability, please of the seventy-sixth (GRPE/2018/1)	
	4	(Worldwide harmonized Heavy-Duty Certification Procedure (WHDC));	(GRI 2/10/1)	
	5	(Worldwide harmonized Heavy duty on-board diagnostic systems (WWH-OBD));		
	10	(Off-Cycle Emissions (OCE));		
	11	(Non-road mobile machinery engines);		
	15	(Worldwide harmonized Light Vehicle Test Procedure (WLTP))		

Subject Document symbol Documentation
ECE/TRANS/WP.29/... availability

4.2.1. Proposal for developing new UN Global Technical Regulations

Vehicles Interior Air Quality (VIAQ)

4.3. 1997 Agreement (Inspections)

Ni

4.4. Proposal for draft recommendations or amendments to existing recommendations

Nil

4.5. Miscellaneous items

World-wide harmonized Light vehicles Test Procedure (WLTP)

Heavy Duty Hybrids (HDH)

Particle Measurement Programme (PMP)

Gaseous Fuelled Vehicles (GFV)

Environmental and Propulsion Performance Requirements (EPPR) for Lcategory vehicles

Electric Vehicles and the Environment (EVE)

Vehicle Propulsion System Definitions (VPSD)

Fuel Quality (FQ)

International Whole Vehicle Type Approval (IWVTA)

Exchange of information on national and international requirements on emissions

Vehicles Interior Air Quality (VIAQ)

For document symbols and its availability, please refer to the agenda of the seventy-sixth session (GRPE/2018/1)

 $\begin{tabular}{ll} Table 5 \\ \textbf{Subjects under consideration by the Working Party on Brakes and Running Gear} \\ \textbf{(GRRF)} \end{tabular}$

Subjec	t		Document symbol ECE/TRANS/WP.29/	Documentation availability
5.1.	1958 Agreement		For document symbols and its availability, please refer to the agenda of the eighty-sixth session (GRRF/2018/1)	
5.1.1.		oosal for draft amendments to existing Regulations (1958 Agreement):		
	13 a	nd 13-H (Braking);		
	30	(Tyres for passenger cars and their trailers);		
	54	(Tyres for commercial vehicles and their trailers);		
	55	(Mechanical couplings);		
	64	(Temporary use spare unit, run flat tyres, run flat-system and tyre pressure monitoring system);		
	75	(Motorcycle tyres);		
	78	(Motorcycle braking);		
	79	(Steering equipment);		
	89	(Speed limitation devices);		
	90	(Replacement brake linings);		
	106	(Tyres for agricultural vehicles);		
	109	(Retreaded tyres for commercial vehicles and their trailers);		
	117	(Tyres - Rolling resistance, rolling noise and wet grip);		
	139	(Brake Assist Systems);		
	140	(Electronic Stability Control);		
	141	(Tyre Pressure Monitoring Systems);		
	142	(Tyres installation)		
5.1.2.	Prop	posal for draft new UN Regulations:		
	Nil			
5.1.3.		icle automation note Control Parking (RCP)		
	Vale	et Parking		
	Lane	e Keeping Assist System (LKAS)		
	Park	ring Assist Systems (PAS)		

Automated Controlled Steering Function

(ACSF)

Subject	t	Document symbol ECE/TRANS/WP.29/	Documentation availability
5.2.	1998 Agreement (Global)	For document symbols and its	
	3 (Motorcycle braking);	availability, please refer to the age of the eighty-sixth session	
	16 (Tyres)	(GRRF/2018/1)	
5.3.	1997 Agreement (Inspections)		
	Nil		
5.4.	Proposal for draft recommendations or amendments to existing recommendations:		
	Nil		
5.5. I	Miscellaneous items	For document symb	ools and its
	Intelligent Transport Systems (ITS)	availability, please of the eighty-sixth	
	Lane keeping assist system (LKAS) and Parking assist systems (PAS)	(GRRF/2018/1)	
	Automatically Commanded Steering Function (ACSF)		
	International Whole Vehicle Type Approval (IWVTA)		
Modular Vehicle Combinations (MVC)			
	Modular Vehicle Combinations (MVC)		
——— Table	Exchange of views on innovations and relevant national activities		
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Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 ects under consideration by the Working I	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability pols and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 ects under consideration by the Working I GG) t 1958 Agreement Proposal for draft amendments to existing	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability pols and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 ects under consideration by the Working I 1958 Agreement Proposal for draft amendments to existing UN Regulations (1958 Agreement):	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability ools and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 ects under consideration by the Working I GG 1958 Agreement Proposal for draft amendments to existing UN Regulations (1958 Agreement): 39 (Speedometer/odometer);	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability ools and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 ects under consideration by the Working I 1958 Agreement Proposal for draft amendments to existing UN Regulations (1958 Agreement): 39 (Speedometer/odometer); 43 (Safety glazing);	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability ools and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 ects under consideration by the Working I 1958 Agreement Proposal for draft amendments to existing UN Regulations (1958 Agreement): 39 (Speedometer/odometer); 43 (Safety glazing); 46 (Devices for indirect vision);	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability ools and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 6 6 6 6 7 7 7 7 7 7 7 7	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability ools and its refer to the agenda
Subject Subject 6.1.	Exchange of views on innovations and relevant national activities 6 6 6 6 6 7 1958 Agreement 1958 Agreement Proposal for draft amendments to existing UN Regulations (1958 Agreement): 39 (Speedometer/odometer); 43 (Safety glazing); 46 (Devices for indirect vision); 55 (Mechanical couplings); 60 (Driver operated controls (mopeds/motorcycles));	Document symbol ECE/TRANS/WP.29/ For document symbol availability, please	Documentation availability ools and its refer to the agenda

Subject		Document symbol ECE/TRANS/WP.29/	Documentation availability
	105 (ADR vehicles);		
	110 (CNG and LNG vehicles);		
	116 (Anti-theft and alarm systems);		
	118 (Burning behaviour of materials);		
	121 (Identification of controls, tell-tales and indicators)		
6.1.2.	Proposal for draft new UN Regulations:		
	Automatic Emergency Call Systems (AECS)		
	Advanced Driver Assistance Systems for blind spot monitoring (ADAS).		
6.2.	1998 Agreement (Global)	For document symbol availability, please for the 114th session	refer to the agenda
	Possibility to develop further UN GTRs		
	6 (Safety glazing)		
6.3.	1997 Agreement (Inspections)		
	Nil		
6.4.	Proposal for draft recommendations or amendments to existing recommendations:		
	Nil		
6.5.	Miscellaneous items	For document symbol availability, please for the 114th session	refer to the agenda
	International Whole Vehicle Type Approval (IWVTA)		
	Consolidated Resolution on the Construction of Vehicles (R.E.3)		
	Event Data Recorder		
	Three-dimensional H-point machine		

Table 7 **Subjects under consideration by the Working Party on Passive Safety (GRSP)**

Subject			Document symbol ECE/TRANS/WP.29/	Documentation availability
7.1.	1958 Agreement		For document symbols and its	
7.1.1.		draft amendments to existing ons (1958 Agreement):	availability, please for the sixty-third s (GRSP/2018/1)	refer to the agenda session
	14 (Safety-	belt anchorages);		
	16 (Safety-	belts);		
	17 (Strengt	h of seats);		
	21 (Interior	fittings);		
	22 (Protect	ive helmets);		
	25 (Head re	estraints);		
	44 (Child re	estraints systems);		
		h of seats and their ges (buses));		
	94 (Frontal	collision);		
	100 (Electric	power trained vehicles);		
	127 (Pedestr	ian safety);		
	129 (Enhance	ed child restraint systems)		
7.1.2.	Proposal for o	draft new UN Regulations:		
	Nil			
7.2.	1998 Agreement (Global)		For document symbols and its	
	1 (Door lo	ocks and door retention ents);	availability, please for the sixty-third s (GRSP/2018/1)	refer to the agenda session
	7 (Head re	estraints);	(GRS1/2010/1)	
	9 (Pedestr	ian safety);		
	13 (Hydrog	gen and Fuel Cells Vehicles)		
	Side impact d	ummies		
	Electric vehic	eles		
	Vehicle Crasl	n compatibility		
7.3.	1997 Agreen	nent (Inspections)		
	Nil			
7.4.	Proposal for amendments recommenda			

Nil

Subjec	t t	Document symbol Documentation ECE/TRANS/WP.29/ availability
7.5.	Miscellaneous items	For document symbols and its
	Exchange of information on national and international requirements on passive safety	availability, please refer to the agenda for the sixty-third session (GRSP/2018/1)
	International Whole Vehicle Type Approval (IWVTA)	
	3-D H point machine	
	Intelligent Transport Systems (ITS)	
	Definition and acronyms in UN Regulations under GRSP responsibilities	