

OICA Response to GRPE-82-10 and GRPE-82-11

(Proposed amendments to UNR 154
submitted directly to WP.29 by EC and Japan)



Background

- UNR 154 was adopted by WP.29 in June 2020 under great time pressure
- Although the original version is in force (yet to be published), the significant „start point“ is the entry into force of the 01 Series of Amendments which is due this Summer.
- OICA members have therefore been reviewing the content.
- OICA members identified 2 concerns which need resolution and prepared working documents for this session
- Japan informally requested OICA to delay such working documents in order to avoid frequent amendments to GTR15 and UNR 154
- As the EC plans were unknown, OICA agreed to this request



Issues

(detailed in following slides)

- „Coasting“
 - Coasting is defined in GTR 15 and UNR 154 and must be deactivated for testing
 - This in hindsight brings great concerns for the approval of many hybrid vehicles and for conventional vehicles with modern start stop systems
- „Single roller dynamometer in 4WD operation“
 - This combination is forbidden by GTR 15 and UNR 154 for the Type 1 test
 - ATCT and Type 6 test procedures reference type 1
 - There appears to be no reason for this ban (restraint systems must meet requirements for all configurations) other than an assumption that the configuration is not used for type 1 testing



„Coasting“ - Legislative Text

- Agreed at IWG WLTP in Septemebr 2019 in Ittigen (Bern – CH)
- Definition:
 - 3.2.36. "Coasting" means a functionality of either an automatic transmission or a clutch which decouples the engine from the drivetrain automatically when no propulsion or a slow reduction of speed is needed and during which the engine may be idling or switched off.
- Requirement:
 - 2.4.2.1.1. At the option of the Contracting Party, if the vehicle is equipped with a coasting functionality, this functionality shall be deactivated either by a switch or by the vehicle's dynamometer operation mode during chassis dynamometer testing, except for tests where the coasting functionality is explicitly required by the test procedure.



„Coasting“ - Concern

- "Coasting" means a functionality of either an automatic transmission or a clutch which decouples the engine from the drivetrain automatically when no propulsion or a slow reduction of speed is needed and during which the engine may be idling or switched off."
- It has been noticed that the definition also covers many hybrid operation strategies developed by vehicle manufacturers.
- It can also be interpreted to cover some latest generation engine start-stop systems which initiate before the vehicle is fully stationary.
- Neither of these interpretations were intended by the IWG and it would be very damaging if such systems "shall be" disabled



„Coasting“ - Solution

- Sadly, discussions within the vehicle industry have not reached a mutually acceptable status for amending the definition of coasting.
- Although OICA sees the need for further discussion of the exact wording of the definition, it is critical that the consequences of possible misinterpretations are removed.
- OICA therefore requests GRPE members to find a way to bring the following amendment into documents WP29-2021-056 and -057:

Amend paragraph 2.4.2.1.1. to read „ . . . this functionality ~~shall~~ **may** be deactivated “

The Definition can then be amended at a later stage



Should twin roller 4WD dynamometers be permitted?

- Existing text in GTR 15 & UN-R 154
 - Annex 5
 - 2.3.1. For testing in 4WD operation, the chassis dynamometer shall have a single roller configuration. The 4WD control system shall be designed such that the following requirements are fulfilled when tested with a vehicle driven over the WLTC.
- Questions from OICA
 - Is there a reason for forbidding twin roller 4WD dynamometers?
 - Was the assumption merely that they don't exist?
- Proposed next action
 - If this test (underlined) is recognised by GRPE as unnecessary, a record of such recognition in the report would be helpful and the amendment to GTR 15 (and UN-R 154) can follow once it is timely to introduce such amendments.



Next steps

- As WP.29/2021/56 and 57 bring changes to UNR 154 that are not in GTR 15, an amendment to GTR 15 is necessary.
- Without any action, we can anticipate the following timescale for UNR 154:

March 21	Nov. 21	October 21	April 22	May 22	June 22	Nov. 22	January 23	July 23
WP.29 Adoption of supplement 1 changes	WP.29 Adoption of supplement 2 changes (OICA proposal)				WP.29 Adoption of supplement 3 changes (Japan proposal)			
		Entry into force supp. 1 ov	Entry into force supp. 1 01 SoA	Entry into force supp. 2 ov		Entry into force supp. 2 01 SoA	Entry into force supp. 3 ov	Entry into force supp. 3 01 SoA



Possible alternative 1

- OICA believes that the process could be simplified by integrating the 2 highlighted issues in in the EC/Japan proposal to produce working papers for the June session of WP.29:

June 21	January 22	July 22	June 22	January 23	July 23
WP.29 Adoption of supplement 1 changes (EC/Japan/OICA proposal)			WP.29 Adoption of supplement 2 changes (Japan proposal)		
	Entry into force supp. 1 ov	Entry into force supp. 1 01 SoA		Entry into force supp. 3 ov	Entry into force supp. 3 01 SoA



Possible alternative 2

- OICA understands that small changes could be adopted with the documents 56 and 57 if proposed during the WP.29 meeting in March
- OICA considers the proposals described to be both minor and essential and requests either GRPE or individual Contracting Parties to propose and support them in WP.29:
 - In UNR 154 original version and 01, Annex B6, amend paragraph 2.4.2.1.1. to read:

“ . . . this functionality ~~shall~~ **may** be deactivated ”
 - In UNR 154 original version and 01, Annex B5, amend paragraph 2.3.1. to read:

“2.3.1. ~~For testing in 4WD operation, the chassis dynamometer shall have a single roller configuration.~~ The 4WD control system shall be designed such that the following requirements are fulfilled when tested with a vehicle driven over the WLTC.”