

Alignment of definitions between two and four wheelers in OBD2

Background

- There was request from EPPR chairman to align definitions between two and four wheelers which currently having mismatch.
- IMMA committed to EPPR to work on alignment of definitions in OBD2.

Our policy for alignment of definitions

- Definition of words in OBD2gtr will be aligned with R83 as much as possible.
- For the words which are unable align with R83, the words will be reviewed so as to avoid having different definitions using same word.
(i.e. warm up cycle→warm up cycle for category 3 vehicle)

Words which need confirmation 1/4

Words	Four wheelers (R83)	Action of two wheelers	Items need to be confirmed
Access	"Access" means the availability of all emission-related OBD data including all fault codes required for the inspection, diagnosis, servicing or repair of emissions-related parts of the vehicle, via the serial interface for the standard diagnostic connection (pursuant to paragraph 3.12. of Annex 1).	We would like to adopt identical definition to R83.	Does WLTP have plan to adopt revise the definition? e.g. wireless connection
Calculated load value	A "Calculated load value" refers to an indication of the current airflow divided by peak airflow, where peak airflow is corrected for altitude, if available. This definition provides a dimensionless number that is not engine specific and provides the service technician with an indication of the proportion of engine capacity that is being used (with wide open throttle as 100 per cent); $CLV = \frac{\text{Current airflow}}{\text{Peak airflow (at sea level)}} \cdot \frac{\text{Atmospheric pressure (at sea level)}}{\text{Barometric pressure}}$	We would like to adopt identical definition to R83 for the wording. For the formula, we think it is preferable to be described in main text. We propose to move the formula to the main text.	Can WLTP adopt definition which formula is being eliminated from definition?
Useful life	Although this word is used, it is not defined in R83.	It is defined as below in two wheelers "Useful life" means the relevant period of distance and/or time over which compliance with the OBD system has to be assured.	Can WLTP adopt same definition as two wheelers when WLTP decides to define this term?

Words which need confirmation 2/4

Words	Four wheelers (R83)	Action of two wheelers	Items need to be confirmed
Engine misfire	<p>"Engine misfire" means lack of combustion in the cylinder of a positive ignition engine due to absence of spark, poor fuel metering, poor compression or any other cause. In terms of OBD monitoring it is that percentage of misfires out of a total number of firing events (as declared by the manufacturer) that would result in emissions exceeding the limits given in paragraph 3.3.2. of this annex or that percentage that could lead to an exhaust catalyst, or catalysts, overheating causing irreversible damage.</p>	<p>Last half of text in R83 is turned into definition of misfire rate . We would like to eliminate part which defines misfire rate.</p> <p>‘engine misfire’ means a lack of combustion in the cylinder of a combustion engine due to the absence of spark, poor fuel metering, poor compression or any other cause.</p>	<p>Can WLTP adopt same definition as two wheelers?</p>
Deficiency	<p>"Deficiency" means, in respect of vehicle OBD systems, that up to two separate components or systems that are monitored contain temporary or permanent operating characteristics that impair the otherwise efficient OBD monitoring of those components or systems or do not meet all of the other detailed requirements for OBD. Vehicles may be type approved, registered and sold with such deficiencies according to the requirements of paragraph 4. of this annex.</p>	<p>We would like to adopt identical definition to R83 except for very last part. We would like to delete type approval part, since it is out of scope of gtr.</p>	<p>Can WLTP adopt same definition as two wheelers?</p>
OBD threshold limit	<p>Although this word is used, it is not defined in R83.</p>	<p>We plan to use following definition. ‘OBD thresholds limits’ means limits of the pollutant emission constituents above which the malfunction indicator shall be activated;</p>	<p>Can WLTP adopt same definition as two wheelers?</p>

Words which need confirmation 3/4

Words	Four wheelers (R83)	Action of two wheelers	Items need to be confirmed
Limp-home	Although this word is used, it is not defined in R83.	<p>We plan to use following definition.</p> <p>"Limp-home" means an operation mode triggered by the control system that restricts fuel quantity, intake air quantity, spark delivery or other powertrain control variables resulting in significant reduction of output torque or engine revolution or vehicle speed;</p>	Can WLTP adopt same definition as two wheelers?
DTC	Not defined in R83.	<p>We plan to adopt definition used in gtr No.5.</p> <p>"Diagnostic trouble code (DTC)" means a numeric or alphanumeric identifier which identifies or labels a malfunction.</p>	When WLTP decides to define this term, can WLTP adopt same definition as two wheelers and heavy duty vehicles?
Pending DTC	Not defined in R83.	<p>We plan to adopt definition used in gtr No.5.</p> <p>"Pending DTC" means a DTC that is stored by the OBD system because a monitor has detected a situation where a malfunction may be present during the current or last completed operating sequence.</p>	When WLTP decides to define this term, can WLTP adopt same definition as two wheelers and heavy duty vehicles?
Readiness	Not defined in R83.	<p>We plan to adopt definition used in gtr No.5.</p> <p>"Readiness" means a status indicating whether a monitor or a group of monitors have run since the last erasing by request of an external OBD scan-tool.</p>	When WLTP decides to define this term, can WLTP adopt same definition as two wheelers and heavy duty vehicles?

Words which need confirmation 4/4

Words	Four wheelers (R83)	Action of two wheelers	Items need to be confirmed
Scan-tool	Not defined in R83.	We plan to adopt definition used in gtr No.5. "Scan-tool" means an external test equipment used for standardized off-board communication with the OBD system in accordance with the requirements of this module.	When WLTP decides to define this term, can WLTP adopt same definition as two wheelers and heavy duty vehicles?
Software calibration identification	Not defined in R83.	We plan to adopt definition used in gtr No.5. "Software calibration identification" means a series of alphanumeric characters that identifies the emission-related calibration / software version(s) installed in the engine system.	When WLTP decides to define this term, can WLTP adopt same definition as two wheelers and heavy duty vehicles?

Request to WLTP OBD TF

- Please provide us comment on the definitions of listed words by end of June 2017.
- Please share the information with EPPR whenever WLTP seek to revise, add, or delete definition from R83.