

GRSG Task Force on UN Regulation No. R39 covering mileage values - Status Report

October 2024

Background Task Force

GRSG-125: GRSG agreed on establishing a Task Force exploring the development of uniform provisions on accuracy and anti-tampering of odometers and mileage values stored in vehicles (based on informal document [GRSG-125-05](#)).

GRSG-126: GRSG endorsed the details of work of the Task Force by its proposed Terms of Reference (Report ECE/TRANS/WP.29/GRSG/105, paragraph 16 and Annex V).

Chair: The Netherlands, Mr. Tim Guiting

Secretariat: OICA, Mr. Bart Drieghe

Documents available on [TF wiki page](#).

Activities since GRSG-127:

2 hybrid and 1 online session to complete the proposal.

1 online session for GRSG experts on Transitional Provisions.

Proposal UNR39.02 - 1/8

Documents

official document: [ECE/TRANS/WP.29/GRSG/2024/36](#)

supplemented by informal document: [GRSG-128-02e](#)

adding accuracy and anti-tampering provisions for odometers.

Proposal UNR39.02 - 2/8

Accuracy

"*Total distance indicated*": the distance as displayed by the odometer.

"*True distance travelled*": the true distance driven by the vehicle for the purpose of the test under Annex 4.

"*Total distance value*": mileage values for the purpose of being made available and related to the total distance driven by the vehicle.

Requirements:

The *total distance indicated* shall not deviate by more than $\pm[4.0]\%$ from the *true distance travelled*.

Total distance values (provided by the serial data port on the standardised data link connector) shall not deviate from the *total distance indicated*.

Proposal UNR39.02 - 3/8

Accuracy

Annex 4 type-approval test:

1. The vehicle is driven until the odometer switches to the next integer. At this point, the instrumentation is set to 0 m.
2. The vehicle is driven for 10 kilometres and the true value is read from the instrumentation at the point where the odometer switches to the 10 km integer.
3. The accuracy is calculated as follows:

$$\text{Accuracy [\%]} = (10,000 \text{ m} - T_{dt}) / (T_{dt}) * 100$$

With T_{dt} = True distance travelled (m)

Example:

1. when odometer switches from 3,529 to 3,530 km, instrumentation set to 0 m
2. when odometer switches from 3,539 to 3,540 km, instrumentation reads 10,260 m

$$3. \text{ Accuracy [\%]} = \frac{10,000 - 10,260}{10,260} * 100 = -2.5 \%$$

Proposal UNR39.02 - 4/8

Accuracy

Annex 4 type-approval test:

- Simple and effective procedure which can be performed on a test track or roller dynamometer and can potentially be combined with the speedometer testing.
- Allows for alternative test procedures (in agreement with the Technical Service and Type Approval Authority), provided it ensures at least the same level of testing accuracy.

The [4.0]% accuracy requirement relates to this Annex 4 type-approval test and does not concern odometer performance for actual vehicles on the road!

Proposal UNR39.02 - 5/8

Anti-tampering and security management

The *total distance indicated* and *total distance values* shall be protected against manipulation. This shall be deemed to be complied with when:

- (a) the manufacturer's management system encompassing cyber security is complying with the relevant requirements of UN Regulation No. 155, the original or any later series of amendments, with regard to total distance indicated and total distance values, and
- (b) proportionate mitigations are implemented, including, or equivalent to, mitigation 7 referred to in Annex 5, Part B, Table B5 of UN Regulation No. 155.

Proposal UNR39.02 - 6/8

Anti-tampering and security management

This requires compliance with the relevant requirements of UNR155 related to the processing of mileage values, but does not require certification to it.

Similar wording as currently used in many UN regulations when referencing to UNR10.

Proposal UNR39.02 - 7/8

General

- Malfunction indication in case of electrically detectable failure.
- Information document template.
- Several (editorial) amendments, corrections and new definitions in line with the new provisions and for consistency.
- L-category vehicles exempted from the anti-tampering and malfunction indication requirements.
- Exemptions for vehicles fitted with tachographs or with a purely mechanical odometer.
- Paragraph 5.1. was included in the document on request of GRSG-127 but concerns a separate UK/NL proposal and was not substantially discussed in the Task Force. This may be introduced by the UK, after consideration of the rest of the proposal.

Proposal UNR39.02 - 8/8

Unresolved

Accuracy value:

The Contracting Parties in the task force propose $\pm 4.0\%$ as compromise.

Transitional Provisions:

10.6. As from 1 September [2027], Contracting Parties applying this Regulation shall not be obliged to accept type approvals to any of the preceding series of amendments, first issued after 1 Sept. [2027].

10.7. Until 1 September [2028], Contracting Parties applying this Regulation shall accept type approvals to ~~[any of]~~ the **01** preceding series of amendments, first issued before 1 September [2027].

10.8. As from 1 September [2028], Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to any of the preceding series of amendments to this Regulation.

Request to GRSG

GRSG is invited to consider:

official document ECE/TRANS/WP.29/GRSG/2024/36
supplemented by informal document GRSG-128-02e

including the appropriate:

- accuracy value as proposed,
- Transitional Provisions.

Thank you for your attention!