

Draft agenda of the 6th meeting of the GRSG Task-force on UN Regulation No. R39 covering mileage values TF-R39MV

Date: Monday 25 March 2024 - 13:00-17:30
Tuesday 26 March 2024 - 9:30-12:30
Venue: OICA offices
4 rue de Berri
F-75008 - Paris
Hybrid: MS TEAMS link
Chairman: Tim Guiting, NL (tguiting@rdw.nl)
Secretariat: Mr. Olivier Fontaine, OICA (ofontaine@oica.net)
Documents: Task-force dedicated wikipage

1. Welcome and Introduction.

The chair is expected to recall the state of play of the discussions on the main items, e.g.

- Existing data
- Discussions on possible amendments to UN R39

2. Approval of the provisional agenda.

Document: TF-39MV-06-01

The agenda was approved without any change.

3. Approval of the draft minutes of the TF-R39MV 4th session.

Document: TF-39MV-05-07.

Last session was held on 7-8 February. The minutes were approved without any change.

4. Collecting relevant existing data, research and documentation available in the contracting parties. (wiki page)

The group may wish to discuss in particular the content of the document “ADAC report 'From speedometer fraud to cyber security’ ” as well as its presence on the dedicated wikipage.

The group discussed the document ADAC report 'From speedometer fraud to cyber security' - german language version.

Mix of facts, half true and half statements. The expert orally stated that there was a Mafia problem and mileage fraud in Switzerland, while actually the swiss authorities are not aware of it; yet the document does not mention CH.

The document mentions the possibility to tamper the vehicles easily which is not true, then the odometer could mark “zero” while the vehicle is for sale.

Mr. Reinhard mention that the document is actually very serious.

OICA requested the document be removed.

The chair informed the document was presented hence should be posted.

OICA: requested that in this case the document should be commented on.

Chair: all posted documents can provoke doubts.

NL: had doubt about Swedish document.

OICA: that S document was tabled by the Swedish authorities, with backing data. OICA pointed out that the presence of such document on the UN wiki gives it credibility it does not deserve. The OICA expert

committed to guide the group into the document to flag the controversial statements, so as the group could officially take some distance to the document.

NL: There is no harm in addressing the concerns in a counter-document that specifically deals with the items that are controversial.

Item to be re-addressed on the 2nd day of the meeting.

5. Revision of draft working document

Document:

- TF-R39MV-05-03 (Chair) Draft working document - outcome of 5th meeting- day 2.docx
- TF-R39MV-06-02 (NL)

- definitions,
- accuracy value 5/4/2.5%, incl. expectations from contracting parties and input by OICA
- Annex 4 test-method
- anti-tampering measures
- etc.

the NL expert on Cyber-Security explained that the odometer is subject to high risk of mitigation. The thread analysis in R155 could be a good way to go forward.

The chair questioned the group as to whether a reference to UNR155 would be appropriate in UN R39

OICA: the R155 is no voluntary regulation, there is no option to the manufacturer, the OEM must show how the manufacturer arrived to the conclusion they arrived. The expert insisted that there is no way a manufacturer can escape from an in-depth analysis in UN R155. The risk of tampering is quite low due to the anti-tampering measures of the OEM thanks to the provisions of the regulation.

NL: if the tampering is assessed as a “high risk”, then you must address it as such. The other NL expert shared his opinion that this group must simply make sure that odometer tampering is taken by the OEM as a high risk. OICA read an excerpt of the UN R155, pointing out that the OEM must show that they have all the processes and safeguards to ensure that the data in the vehicle are properly protected;

NL: showed Annex 5, paragraph 4, with a “may” that can permit an OEM, with good argumentation, to lower the treatment of the odometer values.

OICA: don’t mix the requirements and the strategy of the OEM to overcome the CS. Since CS is permanently evolving, the approval to UN R155 is rapidly obsolete. The technology is fast evolving. Hence the OEMs need flexibility in treating the protection of data. The good experts are in the CS IWG.

F: R155 is divided in management processes (evaluation of the processes), not subject to mutual recognition; and the technical measures and counter systems for each dedicated device. And UN R39 should not refer to the process evaluation part, rather to the technical part. In Annex 5, the OEM must demonstrate why some aspects are not covered. The R39 IWG must ensure that the reference to R39 correctly addresses the need.

NL: R155 has no strict pass/fail criteria since it is the 1st regulation addressing data protection. Hence the results are not consistent among the various technical services. This is why the proposal in document 06-02 points out the manipulation of the indicated distance + “proportionate mitigations”.

OICA (Arne): about the “definition” of CS: if the OEM must inform to the exterior world how data are protected, this will weaken the data protection.

Chair: this can be addressed.

OICA: the means for data protection should not be released.

NL: “Mitigation 7” in the regulation is high but is still achievable as an open provision. OK to add “another process of similar level of protection, in agreement the Type Approval Authority

NL: showed again the Slide 2 of the NL presentation of meeting No.5 then slides 7 & 10. The threat analysis depends on the level of importance they give to the data protection.

F: of course R155 cannot give all the details of the data protection system. The expert proposed to add “safety management” to the “technical requirements”.

OICA: suggested to bring this to GRVA, ask the IWG on CS to propose a wording that could be acceptable to all regulations in the future;

NL tabled the Table B1 in Annex 5, Table B of UN R155. The group found the Table B5, item 20.4 more appropriate;

OICA: requested the whole paragraph be reviewed by the GRVA-CS IWG, and that the 2nd bullet be totally in [].

J: [14:11] Shima Hiroyuki (島 宏之、G 1)(ゲスト)

TA of R39 should accept the approved M7 by another TA of R155, is my understanding correct? Sometime, we use different TA for R39 and R155.

NL: of course there must be a good communication between the Type Approval Authorities.

OICA: concern that this proposal assumes that the odometer uses digital technology; yet some manufacturers may decide using mechanical speedometer; not only for L6L7 categories.

NL: those technologies would not meet the 02 series of amendments to the regulation.

The group acknowledged that the provisions are not technology neutral since they assume digital speedometer/odometer.

The chair proposed that a dedicated wording opens the possibility of mechanical odometers with “the same level of protection”.

The group had a debate on the way to have requirements for purely mechanical odometers, or hybrid systems.

The group then wondered how best refer to UN R155 discriminating the CSMS from the technical provisions.

The chair then proposed the following text to permit an alternative to compliance with UN R155: “Where appropriate, and in agreement with the Technical Service and Approval Authority, the manufacturer may show by alternative means that these requirements are deemed to be complied with and of the same level as specified in ...”.

F: this alternative is already possible per UN R155 since it does not impose any methodology.

Interpretation: “relevant” refers to the CSMS provisions related to the odometer in UN R155.

There was a debate as to what evidence could a manufacturer show if there were no compliance with UN R155. The secretary interpreted the wording such that any alternative (Chinese regulations, USA regulations) should be accepted as long as the level of the provisions are at least equivalent to those of UN R155. NL: A typical alternative could be in the Tachograph with a common criteria level of security.

D: questioned the reference to “electronic control unit” as ECU is not defined. May lead to misinterpretation, hence proposed to refer to “digital input”.

NL: the possibility to program the device can be a discriminative criterion. See UN R83.

OICA: we should avoid double regulations since odometer manipulation is already addressed in R83 and Euro7.

Chair:

- there was general support for the principle.
- Wording can be improved
- However there is a need respect the time allocated to our IWG.
- Can be reviewed in the 2nd day.
- Comparison table to be set up showing the tampering and odometer requirements in the various regulations (UN R83, UN R39, UN R155, Euro7, etc.)
- About the second bullet, chair of the GRSG-R39MV to table the proposal to the GRVA TF-CS-OTA to request guidance on the wording to be used. Need to well explain the concern.
- Agreed to remove the reference to the vehicles of category L.

Paragraph 2.2.2.

The group found no good reason not to refer to the odometer. Some odometer can get their data directly from the wheels or drivetrain, without passing by the speedometer. Conclusion: odometer added.

Paragraph 2.6.

Secretary: if “driven” then a tampered odometer is no odometer anymore.

The group also debated the reference to “entry into service” since there may be a difference between the mileage when the vehicle gets out of the plant and the 1st registration. Can also be a distance between the OEM manufacturing facilities and the body builder facilities. “entry into service” would mean that you MUST reset to zero when the vehicle is 1st registered.

“recorded” could mean that there could be a switch to stop the recording for a time. The group wondered whether aligning on the Euro7.

Attention was drawn on the meaning of the definition, that the odometer is actually the display part of the odometer equipment. Proposal to add a new paragraph 2.6. "odometer equipment" with a paragraph 2.6.1. for "odometer" as the display.

Conclusion: definition in []

Paragraph 2.6.4.

Need to be consistent, wording will be reviewed later;

Paragraph 2.6.5.

OICA to make a proposal in due time, for an official document for the October session of GRSG.

Paragraph 2.8.

Change to "manipulation", justifications to be formulated. Chair committed to do it; "tampering" is the negative side of the manipulation. To be reviewed overnight.

The group subsequently agreed to use "tampering"

Paragraph 5.5.1. (discussed on the 2nd day)

The chair initiated a discussion on the scope, whether the L category should be included;

IMMA: in OBD R40 and 47 are quite outdated regulations that probably have no OBD. Then GTR2 Amend.5 does have an OBD reference, yet it is applied in a very different manner in the different regions of the world; NL

- Purely mechanical odometers: OK to exempt them from the accuracy and anti-tampering requirements since these make no sense for those technologies.
- Exempting them would also solve the current vehicles using the mechanical odometers
- Accuracy requirements for odometer display: no justification not to include the L categories since they have an electronic odometer;
- Total distance stored: OK to focus on M and N since the L category do not have any OBD, and referring to a GTR has no sense (paragraph 5.6. and 5.7. must apply to L categories)

F: Final target is to cover also the L category. Yet there are specificities for that category, to take into account. L category should be in a 2nd step (after M, N). R155 was recently amended to include all categories. Various systems are implemented in the different L categories (e.g. L3 vs. L7 are much different).

NL: purely mechanical devices should be excluded, otherwise the requirements should be decreased.

OICA accepted exempting the mechanical odometers.

The group agreed to exempt the purely mechanical odometers and to add a definition of them for well discriminating them.

Conclusion:

- M, N in the 1st step
- L category: either select the provisions or postpone all of them to a second stage
- Mechanical odometers: exempted + addition of a new definition
- All to think of a proper definition of "purely mechanical odometer"

Paragraphs 5.6. to 5.8.

D: the national legislation have 4.0 for decades. Hence the 2.5% should be reasonable due to the technical progress.

F: need to clarify whether this is +/- XX%. Also, the paragraph addresses the ideal situation of the Type Approval Authority test conditions. Hence +/-4.0% seems acceptable, the tyres themselves still have some manufacturing tolerances.

NL: 2.5% would be easy to achieve, but NL can accept +/-4.0 for flexibility.

OICA: explained the reasoning for the OICA proposal for 5%. The tolerances for the tyres are based on the information given by ETRTO, which is not a UN body. The tyre tolerance in J for example do not follow the same rules (JATMA standards slightly deviate from the European ETRTO). This must be taken into account when the total permitted tolerance must be decided.

Spectrum of tyres offered for sale:

- Which tyre size to use at the time of Type Approval? Winter tyres, summer tyres?
- The group would need to discriminate the tyres should the tolerances be less than 5%.
- D: the tolerances should not be added to each other, since there are tolerances self-compensating; some contracting parties questioned whether the discussion is about Type Approval or vehicles in service.
- OICA: correct, but OICA did not calculate any statistical distribution.
- F: suggested to impose the "worst case" as done in other regulations;

Chair: suggested to let the question for guidance from GRSG. Will be reviewed on 2nd day of the meeting.

The chair subsequently asked whether some parties may have changed their views.
OICA: recalled that the text must keep the door open for mechanical odometers e.g. for trucks w/o tachographs.
OICA informed that some OEMs still produce them.
NL suggested to simply exempt those vehicles.
F: wondered which kind of data we will provide to GRSG to help them giving guidance.
Chair: committed to produce an accurate status report with a request for guidance having background information.
OICA was keen that we define whether the vehicle subject to approval would be fitted with one particular tyre vs. with a range of tyres.
OICA pointed out that the justifications for +/-5% are well backed by data, and suggested that those promoting the other values provide their evidences.
The chair recognized that the contracting parties would have difficulties in providing data backing their positions.
The group agreed that each party provides background information for their respective position.
OICA pointed out that an increased accuracy would provoke an increase in vehicles price, which would contradict the wish to help the final user avoiding loss due to fraud.

Conclusion:

- Document to include the 3 possibilities in []
- Chair to request guidance to GRSG with proper background information
- each party to provide background information for their respective position

paragraph 5.6.: green

paragraph 5.7.: green except the tolerance values

paragraph 5.8. debate on the reference to UN R83 since it recently turned to WLTP test procedure in UN R154.

- 5.6. The accuracy of the odometer equipment shall be tested in accordance with the test procedure prescribed in Annex 4.**
- 5.7. The total distance indicated shall not deviate by more than [+/-5.0 / +/-4.0 / +/-2.5]% from the true distance travelled as established by paragraph 5.6.**
- 5.8. When total distance values are made available through the serial data port on the standardised data link connector [specified in section 6.5.3 of Appendix 1 of Annex C5 to Regulation No 154, and the reference standard documents set out in Appendix 6 to Annex 9B to Regulation No 49], those values shall not deviate from the (rounded) total distance indicated.**

The group agreed with the principle of the text above, subject to confirmation of the references with the Emission experts.

Debate on the logic of having one value of reference in paragraph 5.7. and several values in paragraph 5.8., to be aligned. The wording might need to be improved. OICA informed that the final text might imply some technical consequences and requested internal revision.

Conclusion:

- text above agreed
- text in [] to be reviewed:
 - o tolerances subject to guidance from GRSG as above
 - o references to the Emission regulations to be verified by all parties internally.
- Input to be provided to the task-force Secretary by 5 April 2024 12:00 am CEST.
- OICA to review the reference to several figures in the paragraph 5.8.

The chair then suggested reviewing the Annex 4 since it is dedicated to the accuracy of the values.

Paragraph 1.2.: OICA wondered whether there should be one tyre from the range available, or the whole range of possible tyres.

NL informed that the wording is a C/P of the paragraph 5.3.1., where there is currently no problem; in practice, the technical services and the manufacturer sit together and decide which set of tyres should equip the vehicle the question is then whether the test should be combined with that of the speedometer

OICA: the trucks with Tachograph are all calibrated individually where tire size and tire circumference are parameters stored in the calibration record. The trucks without Tachograph are handled in a similar way but

information about tire size is not stored in a tachograph, it is stored elsewhere in the vehicle. Speed and odometer calculation is then done in the same way as in the tachograph. The vehicles undergo a bi-annual control as the vehicles with tachograph do.

Paragraph 1.7.: B suggested that the speed be selected with the manufacturer and according to the possibilities of the vehicle (truck do not drive > 90 km/h). Debate on the test speeds: the test can be performed at various speeds in the range between 50 and 100 km/h. Possibility to take wording from the TPMS regulation 141. The chair suggested that the whole annex 4 be in [].

Paragraph 0.: F wondered whether simulations could be accepted under this wording. The chair explained that the intention was originally not to include simulation. NL clarified that the intention is to use the emission tests, only physical tests. OICA wondered whether all the parameters can be introduced into the simulation. F agreed to initially limit the regulation to physical tests, and assess the opportunity of opening the door to simulations in a later stage.

Paragraph 1.4.:

- “if relevant”: in paragraph 5.3.3. as well please (speedometer)

Paragraph 1.6.1.: Suggested removing “and dry”. In speedometer as well. Debate: removing dry” permits extending the time when the track is available, this is relevant when the test must run 10 km. D pointed out that the regulation is also used in COP hence deserve accurate test conditions. Debate on the alignment of the wording for the speedometer (paragraph 5.3.6.1.): all agreed to remove “dry” from that paragraph, and to submit a separate document at GRSG.

paragraph 1.8 and 1.9: J suggested reading the tripmeter indication. The group however agreed not to refer to the tripmeter since it is currently not defined in the regulation.

F: paragraph 1.6.1.: wondered whether referring to the PBC to clarify the expected adhesion. Debate: there is no need for high adhesion in a cruising situation. NL proposed: “sufficiently dry to provide sufficient adhesion”. Some measuring instrument may need dry surface.

Conclusion: to be re-discussed

F: open question on the number of curves in the track tests, in the same direction.

Conclusion::

- General agreement on the principle of Annex 4 (test procedure)
- All to check the test procedure of Annex 4
- Annex 4 fully in []
- technical services and OEMs are encouraged to perform track tests according to the proposed Annex 4 and bring back experience.

The group reverted back to the text of the regulation.

Paragraph 5.11. the chair requested confirmation of the deletion of the paragraph .

NL: this is indeed a problem since the odometer must show the total distance travelled and the replacement should not affect the value

OICA wondered whether this is a true Type Approval problem.

Conclusion: all to think about this until the next meeting.

Paragraph 5.12.

OICA: the values stored off-board are probably not fully aligned or synchronized on those on-board. The expert wondered whether data transmitted off-board the vehicle should be part of the scope of this regulation.

NL: was convinced that this data is part of the scope since any data released to the public should be robust and reliable.

Conclusion: lack of time to debate in depth.

Paragraph 5.13.: subject to further revision with competent experts.

6. AOB.

Achievement to date

- Basic agreement on the definitions.
- CS: agreement on the intentions, mitigation and CS/OTA to be approach for a common language

- Accuracy of the values: need for guidance from GRSG, then text to be also improved
- Agreement on Annex 4 (test procedure) – agreement to be reached at next session
- Data transmitted off-board and warning signal: preliminary discussions

To be still debated:

- Certification and information documents templates : to be reviewed at next session; to be included into the informal document to GRSG in [].

Chair and secretariat to work on a cleaned-up document with the proper input to be collected, the draft document will be 1st circulated internal to the IWG

Chair will prepare a status report with proper justifications.

The group will forward the document as an informal document, then will further work on an official document to be tabled at the October session of GRSG, after a further session of the IWG be organized before the summer break, and possibly an additional September meeting (virtual).

7. Next meetings.

Next meeting: Early June, Doodle to be emitted;

2 full days in June, physical, probably in Brussels (RDW?, ACEA?)

Virtual early July
