

Report on the second meeting of the GRRF-informal group TPMS (Tyre Pressure Monitoring Systems) held on 18./19.March 2008 in Bonn, Germany.

Venue: Bundesinstitut für Arzneimittel und Medizinprodukte, Bonn, Germany
Chairman: Mr. Walter Reithmaier (TÜV SÜD Automotive)
Attendance-list: see attachment

Mr. Hans Hesse (German Department of Transport) and Mr. Walter Reithmaier opened the meeting.

1. Report on the first meeting.

The report was accepted without comments.

2. Agenda for the second meeting.

The delegate from NL asked to discuss also the amendment of ECE-Regulation 64 with regard to TPMS. The group accepted this request, but decided to put this item at the end of the agenda.

The secretary reported that activities about TPMS-requirements in China have been brought to his attention and asked the group how these activities should be dealt with. He asked if China should be invited to participate in this group. The group saw little chances for such a participation but agreed that as a first step China will be invited to participate in the relevant ISO-groups for TPMS.

3. Results from the 63rd meeting of GRRF.

A report of the secretary about the discussion of TPMS during the 63rd GRRF-meeting is available on the GRRF-website as document TPM-01-11. OICA reported that the time pressure from the GRRF-chairman to receive a final draft regulation on TPMS has been reduced.

4. Report of the task force group for the collection of tyre pressure data on vehicles on the road

The task force under the chairmanship of Mr. WimVerhoeve (CLEPA) had successfully collected tyre pressure data measured on passenger cars by various organisations in various countries (NL, F, GB, J, EU). The collected data and the calculation of the changes in rolling resistance, fuel consumption and tyre wear (which had been prepared during two meetings of the task force) have been distributed and explained by a CLEPA-member (see doc. TPM-02-02). The group thanked CLEPA and the other members of the task force group for their good job which will allow as a next step the drafting of cost/benefit analysis for different TPMS. There was some criticism of the data, because the determination of under- or overinflation was made in different ways (comparison of the real pressure values with the lowest or highest values of the recommended pressure [loaded or unloaded], temperature compensation). The CLEPA-paper shows that an exact calculation of the potential for improvement is not possible

because the results are influenced by the driver's behaviour (distance and speed with under inflated tyres, reaction on the tyre pressure warning signal). Nevertheless, within a certain range, the calculation can figure out the increase in fuel consumption and tyre wear caused by underinflation.

OICA will try to get some more information about the increase in fuel consumption depending on the availability of TPMS by comparing the tyre pressures on vehicles with and without TPMS.

As a next step the calculated increase in fuel consumption and tyre wear will be used to establish cost/benefit-analysis for various TPMS. Mr. Hesse offered the conduction of this analysis by BAST (Bundesanstalt für Strassenwesen), a scientific organisation which belongs to the German Department of Transport and which has a great experience with cost/benefit-analysis. Several delegates, however, were of the opinion the analysis should be made by the task force group which had collected the tyre pressure data because the members of this group now know a lot about the data and can contribute to the cost/benefit-analysis.

It was agreed, that the analysis will be made by the task force group and BAST will join the group and contribute with its specific knowlegde.

5. Discussion and amendment of informal document GRRF-63-23 / TPM-02-03.

Mr. Hesse reported that inf. doc. GRRF-63-23 was produced under time pressure and there is certainly room for improvement. The document is based on the following philosophy: There are two main aspects related to tyre pressure, the environmental aspect (fuel consumption/CO₂-emission) and the safety aspect (tyre failure due to low pressure). The environmental aspect could be covered by TBW, a systems which reminds the driver to check his tyre pressure after a certain period and to refill the air which is lost due to natural diffusion. The safety aspect could be covered by a TPMS which warns the driver if the tyre pressure has decreased considerably, e.g. by a tyre defect. Details about the performance of TPMS still need to be discussed. Germany could accept low cost indirect systems when they are in addition to a reminder system like TBW.

OICA agreed with this philosophy and presented a diagram which shows that TBW could even lead to less underinflation than TPMS because TPMS needs bigger warning thresholds in order to avoid false alarms which could have the consequence that the driver disregards the warning completely. In any case the reminder intervals of TBW must be chosen carefully. Too short intervals could have the same consequence as false warnings of TPMS, they could be disregarded by the driver. OICA will look into this this question more deeply and will try to answer the question if TBW could be improved by taking into accout further parameters like driven distances or temperatures.

Some delegates could not follow this philosophy because they fear that the driver does not regard the signal of a TBW.

Japan proposed to introduce TBW in combination with a TPMS, which is based on US-FMVSS 138. The discussion about this item could not be finished during this meeting. In order to make progress it was decided to continue the discussion in a new task force group which will be chaired by OICA. The first meeting of this group will take place on 1st April 2008 in Paris, starting at 11.00 h. OICA will sent the invitation for this meeting to all members of this group.

6. Introduction of TPMS-requirements into ECE-Regulation 64.

The delegate from NL proposed to enlarge the scope of ECE-R64 and to introduce requirements for TPMS into it. Several delegates raised objection against this for the following reasons:

- TPMS and temporary use spare wheels are items of very different nature.
- R 64 is a regulation for spare parts and not mandatory.
- R 64 is not accepted by all contracting parties of the 58 agreement.
- The proposal of NL is not an item for this group.

7. Further actions

The group confirmed that the task given by GRRF is the drafting of an ECE-Regulation which covers all categories of vehicles, even motorcycles and trucks. As a first step the draft will however only cover passenger cars and light commercial vehicles (M1 and N1). Heavy vehicles will be discussed in a second step. More information about the availability of TPMS for heavy vehicles, also for trailers is needed.

8. Next meeting.

The next meeting will take place on June, 19 and 20, 2008 in Paris, starting at 11.00 o'clock. It will be hosted by OICA.

Manfred Hörner
(secretary)