Document: SLR-HL-26/Rev.1

Date: 2022-06-27

## SLR special meeting on "Headlamp levelling"

- Hybrid session -

CLEPA Headquarters Cours Saint-Michel 30g, Brussels

> Wednesday, 18 May 2022 11:00 - 13:00 hrs (CEST)

### ALL DOCUMENTS ARE AVAILABLE HERE:

https://wiki.unece.org/pages/viewpage.action?pageId=113345289

### **REVISED MINUTES**

		Documents
1.	Welcome and opening remarks	
	The chairman opened the meeting welcoming all the participants and provided a brief overview on the purpose of this special SLR session. He also thanked CLEPA for organizing the meeting again after more than two years, in which, due to the pandemic, physical meetings were not possible.	
	A list of all participants is available in Annex 1.	
2.	Adoption of the agenda	
	The secretary informed that inputs were received by OICA and by Poland, circulated respectively as documents SLR-HL-24 and SLR-HL-25.	SLR-HL-23
	No additional input was provided by the participants who adopted the agenda without modifications.	
3.	Approval of the minutes of the last meeting	
	The minutes were shown on the screen and approved without modifications.	SLR-HL-22
4.	SLR latest proposal to amend Reg. 48 (information only)	GRE/2020/8/Rev.2
5.	Outcome of GRE-86 (information only)	ECE/TRANS/WP.29/GRE/86
	The chairman provided a comprehensive introduction covering both items 4 and 5. He recalled the latest status of the discussion in SLR and GRE and explained that there is no intention to change the agreement reached on the levelling device (i.e. auto levelling for all categories except for off-road vehicles). The only remaining discussion concerned the aiming diagram.	(Paragraph 15.)
	He informed that those experts who were not in a position to support the aiming diagram in the revised SLR proposal (doc. GRE/2020/8/Rev.2), were invited at GRE-86 to submit to SLR concrete alternative proposals for consideration.	

The secretary briefly presented the slides of the SLR report to GRE-86 dealing with the auto levelling topic (doc. GRE-86-07). Regarding the timing, he explained that the aim is to prepare an informal proposal for the GRE session in October 2022 and a formal document for the GRE session in April 2023. Such a proposal will generate a new 09 series of amendment to UN Regulation No. 48 and, to avoid a proliferation of new series, GRE agreed that this new series should also include other amendment proposals under discussion, such as "device transition provisions" and "park conditions and an answer-back signal".

#### Collection of anonymous vehicles data (based on SLR-54-11)

The expert from OICA introduced the presentation on vehicle headlamp levelling data (doc. SLR-HL-24), produced as requested by SLR. He informed that the document is based on anonymous measurement data of 15 vehicles, all equipped with automatic levelling device and that about 80% of the results was coming from type approval.

Three aiming diagrams available for consideration (namely the current requirement in Reg. 48, the SLR proposal GRE/2020/8/Rev.2 and the Polish proposal GRE-85-19) were compared among each other and used for plotting the same data results (see slide 4).

The OICA analysis showed that, with only a few exceptions, most automatic levelling systems installed on current vehicles allowed to meet the SLR proposal as far as the vertical inclination (for all loading conditions) was concerned. Nevertheless, for 80% of the vehicles measured, results were outside the diagram proposed by Poland.

The expert from Poland asked clarifications about slide 5 of SLR-HL-24, regarding initial aiming for trucks. The expert from OICA explained that the diagrams represent the possible variations (the " $\Delta$ ") of installation height - taking into account all the vehicle variants - and added that it applies, to a smaller extent, also to cars.

The expert from OICA reported that the data representative of trucks showed the large diversity of installation heights on a vehicle range, for a same headlamp model. According to the OICA analysis, except for some truck categories, the requirements of the SLR proposal could be met with the current automatic levelling devices, while the Polish proposal for initial aiming is not adapted to the variations from one vehicle to another produced by the industrial process.

The expert from Poland introduced his response (doc. SLR-HL-25) to the OICA presentation, clarifying that the document was not intended to criticise the input from OICA. However, several observations and remarks were made to the OICA document and conclusions. In particular he pointed out that vehicles were not optimised nor specifically prepared and, to verify the feasibility of the proposed requirements, he suggested to perform similar tests in more carefully controlled conditions and by independent bodies, as proposed in the past.

The expert from OICA observed that in the Polish proposal, only data for passenger cars  $(M_1)$  was presented, there was no data for commercial vehicles  $(N, M_2, M_3)$ . The vehicles were used to verify the variation of the levelling system. The procedure of Annex 6 of UN Regulation No. 48 was not followed. Moreover, it was remarked that the vehicles data presented was not anonymous.

SLR-HL-24 (OICA) SLR-HL-25 (PL)

**6.** 

	Further SLR revision of GRE/2020/8/Rev.2
	The chairman provided a general summary of the discussion about the aiming diagram, observing that the main debate concerns the left side (i.e. the most critical zone regarding avoidance of glare) and this is where the SLR focus should be.
7.	He recalled that, although there is no relaxation from the current requirements (since the -0.2% is already allowed in the CoP requirements of the current Reg. 48), equally there is no increase of stringency.
	The expert from Poland observed that the diagram in the SLR revised proposal (doc. GRE/2020/8/Rev.2) is a compromise having manual levelling in mind. He pointed out that auto levelling is able to control all variables starting from a proper initial aiming, therefore he preferred the box proposed by Poland although he was open for discussion concerning its width.
	Next steps
8.	All SLR members were invited to submit concrete proposals to improve the aiming diagram by Friday, 10 June 2022. All inputs will be considered at the next SLR special session on "Headlamp levelling".
	Next meeting(s)
9.	The next SLR special session on "Headlamp levelling" will be held at the CLEPA Headquarters in Brussels, on 27 June 2022, from 11:00 to 13:00 hrs. WebEx connection will be provided for those not able to travel to Brussels.
10.	Closure  The chairman thanked all the participants for their fruitful contribution and closed the meeting.

## Annex 1 to SLR-HL-26

# SLR special meeting on "Headlamp levelling" Brussels(\*) + WebEx, 18 May 2022

### List of participants

- 1. Mr. Derwin ROVERS (NETHERLANDS, SLR Chairman) (\*)
- 2. Mr. Davide PUGLISI (GTB, SLR Secretary) (\*)
- 3. Mr. Yoshiro AOKI (JAPAN)
- 4. Mr. Phil BAILEY (UK)
- 5. Mrs. Silke BARTON (CLEPA)
- 6. Mr. Thomas BAUCKHAGE (CLEPA)
- 7. Ms. Aurélie BERTHEL (OICA) (\*)
- 8. Mr. Alexander COSIC (OICA)
- 9. Mr. Sebastian FAHR (OICA) (\*)
- 10. Mr. Marc FISCHER (GERMANY)
- 11. Ms. Kiyomi FUJIMOTO (JAPAN)
- 12. Mr. Valter GENONE (GTB)
- 13. Mr. Mark GRAINGER (OICA)
- 14. Mr. Beny GRIGORESCU (GTB)
- 15. Mr. Frédéric HAY (CLEPA) (\*)
- 16. Ms. Yoko KATO (JAPAN)
- 17. Mr. Takahiro KOYAMA (JAPAN) (\*)
- 18. Mr. Rainer KRAUTSCHEID (GERMANY)
- 19. Mr. Gert LANGHAMMER (CLEPA) (\*)
- 20. Mr. Antoine PAMART (FRANCE)
- 21. Mr. Michael PERNKOPF (GTB)
- 22. Mr. Alfonso ROMERO (CLEPA) (\*)
- 23. Mr. Tomasz TARGOSIŃSKI (POLAND)
- 24. Mr. Seiya TATSUNO (JAPAN)