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1998 AGREEMENT – GTR ON LIGHTING INSTALLATION

UK comments

Transmitted by the expert from the United Kingdom

Vehicle Technology and Standards
Department for Transport
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GTR comments

A. Philosophical comments

1. How will the GTR overlay other Regulations? Will we still need Regulation 48 or the equivalent EC Directive. Or will the EC Directive say – "approval to GTR 01 is accepted with the following lamps mandatory: rear fog lamps, etc." and the following colours of lamps (indicators – shall be amber, etc.).
But if acceptance of a GTR must be qualified by reference to it in national/regional legislation, is it still a GTR ? An ECE Regulation, once signed, must be accepted without qualification by Contracting Parties.
The process of a nations signatory to the GTR will also need a memorandum setting out the qualifications to its acceptance. However this will then necessitate a supplementary examination of the vehicle (in nations or economic regions with type approval) to ensure that the vehicle has the correct specification. So this might be an increased rather than a reduced burden for the manufacturer.

2. There are some "Use" requirements in the document. E.g. 4.15.5.
In the UNECE and EC regulatory "type approval" systems, "use", or the behaviour of the driver or owner of the vehicle is not regulated. Only the vehicle in its state as constructed and as submitted for type approval is regulated. National law covers "use" and the modifications that can or can not be made by the user.
Temporary modifications to the vehicle, extra equipment, lamps such as warning beacons and novel "cosmetic" lights (e.g. blue lights on the windscreen washer jets or truck dashboards) can only be regulated and enforced at the national level.

B. Technical comments

1/2. Scope. There is an exemption to permit additional lamps on "public works vehicles" and a suggestion to replace this with "special vehicles designated by Contracting Parties". This makes sense. We must remember that a GTR in and of itself is not mandatory, but it is for Contracting Parties to state in national (or regional in the case of the EU/EEA) legislation that certain vehicle categories must comply to the GTR. Therefore there should always be an ability for CPs to exempt particular vehicles from the GTR, or mandate extra lamps for unusual types of vehicle, such as public works vehicles, police vehicles, etc.

3.2.6, 3.2.7 Operating and circuit closed tell-tale. Need to add failure tell-tale: "Failure tell tale" means a tell-tale indicating that a device is not functioning correctly.
This is a tell-tale that only comes on when a lamp fails, and is necessary for e.g. AFS, stop lamps. In contrast to a operating (illuminated when the lamp is switched on and working) and circuit closed (illuminating when the lamp is switched on - regardless of whether it is working) tell tale.

3.3.17 Single lamp - should follow recent GRE discussion.

4.3 Should we be more prescriptive about adjustment devices ? In some countries the ability to have horizontal and vertical adjustment of headlamps is mandatory. They should certainly be mandatory for asymmetric beams.

4.9 (US comments) Measure to edges of lamps is acceptable, except in the case of measuring the indicator to headlamp distance for determining the indicator category,

where the US solution is more sensible because it gives credit to large direction indicators – "measure to the centre of direction indicators".

4.10 Should follow the discussion in GRE on this subject.

4.11.2 Needs some editorial improvements to the second paragraph:
"…This requirement shall not apply, however, to the driving or passing beams when they are flashed momentarily, nor when they are used at reduced intensity as daytime running lamps (where permitted)".
4.11.2 Can the driving or passing beam be used at reduced intensity as DRL? This is not acceptable in some countries so should not be permitted. Instead this could be catered for by allowing CPs to mandate the presence of DRL and to regulate the kind of lamp allowed to be used as DRL. When used as DRL the passing beam lamp is not fulfilling the function of passing beam and so the requirements of 4.11.2 do not apply.

Add some text to clarify switching arrangements.
"4.11.5 Stop lamps, cornering lamps and reversing lamps: These lamps shall not operate or cease to operate at any time, unless the circumstances specified in the individual specifications under electrical connections are fulfilled."

"4.11.6 All lamps other than those mentioned in 4.11.5:
Subject to 4.11.1, 4.11.2 and the individual specifications, these lamps shall have a control within reach of the driver in his normal seating position which enables all the lamps with the same function to be turned on and off simultaneously and not otherwise."

Paragraph 4.15.2.2 (allowing a warning notice in the vehicle when lamps are obscured by movable components) should not apply to retro-reflectors as in this case it should always be possible for an alternative device to be fitted, such as an extra reflector inside the rear door when it obscures a reflector when it is open.

4.15.5 This is more of a "use" requirement so is not appropriate. Equipment mounted on the original vehicle can not obscure the lamps otherwise it will not meet the requirements. Equipment added later on must not compromise the vehicle's conformance to national law.

4.16 This sentence is confusing. Prefer:
"No lamp shall be installed on a vehicle component that can easily be removed from the vehicle."

4.20 We do not agree to extra lamps being part of the GTR. Allowing them should be at Contracting party discretion – which should not be overridden by such an open statement. This statement appears to give a blanket authorisation for a manufacturer to add extra unregulated lamps to a vehicle that is then given "free passage" because it has a GTR and can be sold anywhere. Prefer:
"Lamps that are not described in this Regulation, are outside the scope of this Regulation and may not be installed on a vehicle unless they are permitted by legislation in the particular Contracting Party where that vehicle is to be registered."
This could cater for roof mounted warning beacons, work lamps, lamps on bus exterior door controls, lamps on ramps on buses and rear tail-lifts on trucks. However these would not be covered by the type approval/GTR self-cert. so a vehicle would not have free passage to be registered anywhere without a check on the lamps.

4.22 Could this be explained ? Is this paragraph actually used in practice? We would prefer to revert to the original R48 text.

5.1.2 (US comments) See 5.1.7.2.

5.1.3 We can accept passing beam lower or higher than driving beam if it contributes to allowing all vehicles to have the passing beam at roughly the same height. Preferably the passing beam is outboard of the driving beam. And the DI is outboard of this. However we can consider acceptance of the possibility of inboard passing beam if the DI is always required to be outboard of the passing beam.

5.1.7.1 Substitute "control" instead of "switch". This term is used in many other regulations.

5.1.7.2, 5.1.7.3. We disagree. Why can four driving beams not be switched on simultaneously? There should not be extra switching options for the driver – except on unusual heavy vehicles.

5.1.7.5 We do not agree to this. If automatic switching off for the driving beam is allowed, users will become accustomed to this and will forget to do it when they see a cyclist or pedestrian.

5.1.9.1 Swivelling driving beams. Presumably this should be qualified with more detail. Re. AFS ?

5.2.3 (see above - 5.1.3)

5.2.6 Agree that aim is at the discretion of CPs or regions. The aiming is something that must be done on each vehicle and so type approval of aim is meaningless. What should be type approved is the marking on the vehicle which notes the intended aim – e.g. 1.3. Every headlamp on every vehicle must be aimed – not just the sample. At type approval only the procedures of the manufacturer can be checked. However it is possible to include a requirement that the aim does not vary over time due to vibration.
5.2.6.2 cont. "…The manufacturer must put in place sufficient procedures to ensure that the initial aiming of the headlamps on every vehicle conforms to the requirements of the Contracting party where the vehicle will be registered. The headlamp must be assembled rigidly to the vehicle in such a way that the aim does not change under normal usage and loading conditions."

5.2.7 Delete part of last sentence "Each Contracting party may require that".
To leave: "It shall always be possible… etc."

Is it not enough to leave the manufacturer to decide whether or not the main and dipped beams can be on together (due to heat concerns?) In any case, the maximum output of main beam is regulated by the markings on the headlamp in the ECE countries.

I presume bend lighting is not mentioned because it will be covered by AFS Regulation.

5.3.7.1 What do we want to say here? Some CPs require that fog lamps are only used independently of headlamps. However others do not. The current law requires independent operation. I.e. the fog lamps must be able to operate both with and without the headlamps. We know of one vehicle that does not meet the letter of the law and when the fog lamps are turned on the headlamps are turned off automatically. Maybe this requirement is too stringent and it should be for vehicle manufacturer discretion whether or not to allow simultaneous fog lamps and dipped beam usage.

"The front fog lamps [may]/shall be capable of being switched on and off independently of driving/or passing beam headlamps."
OR
"It must be possible to switch on the front fog lamps while the headlamps are switched off".

We are not aware of fog sensors being available so would be opposed to automatic operation of fog lamps at this stage. In the UK, the greatest number of lighting complaints we get (after headlamp glare) is misuse of front fog lamps so would like to consider how to prevent this. We would like to consider if the rear fog lamps can operate with the front fog lamps off.

5.4.4.2 prefer to keep a height requirement for reversing lamps. It is easier to enforce than visibility.

5.4.7.1 It should be possible to simplify this text.
"The reversing lamp shall not operate if the reverse gear is not engaged, and shall not operate if the device which controls the starting and stopping of the engine is in such a position that operation of the engine is possible.

5.5.3.2 The ECE should use the US regulations on direction indicator intensity as they are more stringent than the ECE for DI that are close to passing beam headlamps/front fog lamps. And should measure to centre of indicator not edge.

5.7.4.2 The third stop lamp should be high mounted and should not be below the rear window – except on a convertible. It would preferably be at the top of the rear window.

5.7.7 Follow GRRF discussion on stop lamp activation.

5.7.8 For the stop lamp it is a "failure tell-tale", not "operational tell-tale".

5.9.1 Functional purpose needs revision – in the UK it is required to use front (and rear) position lamps (but not headlamps) from sunset until half an hour after sunset (when headlamps must be turned on), and similarly for the half hour before sunrise. It is also illegal to leave the headlamps on while parked. The position lamps must be used at all times when parked after dark on roads outside built-up areas.
In any case the Functional Purpose paragraphs should not be proscriptive as they is simply information. Prefer the definition of rear position lamps.

5.12 Why do we keep reference to Parking lamps ? Surely this is just a switching arrangement of the Position lamps. No modern vehicle has only 2 parking lamps ?

5.19.7 Why the change to mention a "specified time or distance" ?

DRL should turn off when position lamps are switched on.

5.21.9.1 Cornering lamp: Prefer 100mm distance to DI.

5.22 Conspicuity treatment needs to cater for European design – red to rear and yellow to side.