
Contents

I. Attendance........................................................................................................................................ 1 3
II. Adoption of the agenda (agenda item 1) ................................................................................................. 2–3 3
III. Regulation No. 66 (Strength of superstructure) (agenda item 2).......................................................... 4 3
IV. Regulation No. 107 (M2 and M3 vehicles) (agenda item 3) ................................................................. 5–15 4
   A. Proposals for further amendments (agenda item 3(a)) ................................................................. 5–13 4
   B. Requirements for service doors, windows and emergency exits (agenda item 3(b))....................... 14–15 5
V. Regulation No. 118 (Burning behaviour of materials) (agenda item 4)................................................. 16 5
VI. Regulation No. 34 (Fire risks) (agenda item 5)....................................................................................... 17–18 5
VII. Regulation No. 43 (Safety glazing) (agenda item 6)............................................................................. 19–21 6
VIII. Regulation No. 46 (Devices for indirect vision) (agenda item 7)...................................................... 22–25 6
IX. Regulation No. 58 (Rear under run protection) (agenda item 8)......................................................... 26–27 7
X. Regulation No. 67 (Equipment for liquefied petroleum gases (LPG)) (agenda item 9)...................... 28–30 7
XI. Regulation No. 121 (Identification of controls, tell-tales and indicators) (agenda item 10)............... 31–33 8
XII. Regulation No. 122 (Heating systems) (agenda item 11) ................................................................. 34–35 9
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>XIII.</td>
<td>Regulation No. 125 (Forward field of vision of drivers) (agenda item 12)</td>
<td>35-36</td>
</tr>
<tr>
<td>XIV.</td>
<td>Proposal to develop a gtr on motorcycle controls, tell-tales and indicators (1998 Agreement) (agenda item 13)</td>
<td>37</td>
</tr>
<tr>
<td>XV.</td>
<td>Revisions and extensions of approvals (agenda item 14)</td>
<td>38-39</td>
</tr>
<tr>
<td>XVI.</td>
<td>Consolidated Resolution on the Construction of Vehicles (R.E.3) (agenda item 15)</td>
<td>40-43</td>
</tr>
<tr>
<td>XVII.</td>
<td>Other business (agenda item 16)</td>
<td>44-47</td>
</tr>
<tr>
<td>A.</td>
<td>Guidelines on scopes, administrative provisions and alternative requirements (agenda item 16(a))</td>
<td>44</td>
</tr>
<tr>
<td>B.</td>
<td>Regulation No. 110 (CNG vehicles) (agenda item 16(b))</td>
<td>45</td>
</tr>
<tr>
<td>C.</td>
<td>New EU anti-tampering measures (agenda item 16(c))</td>
<td>46</td>
</tr>
<tr>
<td>D.</td>
<td>Regulations Nos. 97 (Vehicle alarm systems) and 116 (Anti-theft and alarm systems) (agenda item 16(d))</td>
<td>47</td>
</tr>
<tr>
<td>XVIII.</td>
<td>Provisional agenda for the 101st session</td>
<td>48</td>
</tr>
</tbody>
</table>

**Annexes**

| I. | List of informal documents considered during the session | 13 |
| II. | Draft amendments to Regulation No. 107 | 15 |
| III. | Draft amendments to Regulation No. 118 | 17 |
| IV. | Draft amendments to Regulation No. 34 | 18 |
| V. | Draft amendments to Regulation No. 43 | 19 |
| VI. | Draft amendments to Regulation No. 58 | 20 |
| VII. | Draft amendments to Regulation No. 67 | 22 |
| VIII. | Proposal to develop a gtr on motorcycle controls, tell-tales and indicators | 25 |
| IX. | GRSG informal groups | 48 |
I. Attendance

1. The Working Party on General Safety Provisions (GRSG) held its 100th session from 11 (afternoon) to 15 April 2011 (morning) in Geneva. The meeting was chaired by Mr. A. Erario (Italy). Experts from the following countries participated in the work, following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690 and TRANS/WP.29/690/Amend.1): Belgium, Canada, China, Czech Republic, Finland, France, Germany, Hungary, India, Italy, Japan, Latvia, Luxembourg, Netherlands, Norway, Poland, Republic of Korea, Russian Federation, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America. An expert from the European Commission (EC) also participated. Experts from the following non-governmental organizations participated: European Association of Automobile Suppliers (CLEPA), International Motorcycle Manufacturers Association (IMMA), International Organization for Standardization (ISO), International Organization of Motor Vehicle Manufacturers (OICA) and International Road Transport Union (IRU). Upon the special invitation of the Chairman, experts from the International Association of the Body and Trailer Building Industry (CLCCR) and the Transportation Technical Supervision (TDT) project participated.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRSG/2011/1
Informal document GRSG-100-01

2. GRSG considered and adopted the agenda proposed for the 100th session (ECE/TRANS/WP.29/GRSG/2011/1) with the addition of the following agenda items:
   16(a) Guidelines on scopes, administrative provisions and alternative requirements
   16(b) Regulation No. 110 (CNG vehicles)
   16(c) New EU anti-tampering measures
   16(d) Regulations Nos. 97 (Vehicle alarm systems) and 116 (Anti-theft and alarm systems)

3. GRSG also adopted the running order GRSG-100-01.

III. Regulation No. 66 (Strength of superstructure) (agenda item 2)

4. Noting that no document had been provided at this session, GRSG agreed to remove this item from the agenda.
IV. Regulation No. 107 (M₂ and M₃ vehicles) (agenda item 3)

A. Proposals for further amendments (agenda item 3(a))

Documentation:  ECE/TRANS/WP.29/GRSG/2010/33/Rev.1
ECE/TRANS/WP.29/GRSG/2011/3
ECE/TRANS/WP.29/GRSG/2011/4
ECE/TRANS/WP.29/GRSG/2011/9
ECE/TRANS/WP.29/GRSG/2011/10
ECE/TRANS/WP.29/GRSG/2011/18
Informal documents GRSG-100-03, GRSG-100-06, GRSG-100-07 and
GRSG-100-16, GRSG-100-24 and GRSG-100-31

5. GRSG considered GRSG-100-06 superseding ECE/TRANS/WP.29/GRSG/2010/33/Rev.1 by the expert from EC on the accessibility of prams. GRSG noted a number of comments, in particular from the United Kingdom (GRSG-100-24). GRSG generally supported this proposal, but was of the opinion that the case of small buses should be better taken into account. GRSG agreed to consider again this proposal at its next session on the basis of a revised proposal prepared by the expert from EC.

6. The expert from France presented ECE/TRANS/WP.29/GRSG/2011/3 proposing to clarify the definition of Class II vehicles designed principally for the carriage of seated passengers. After discussion, GRSG could not support this proposal and agreed to remove it from the agenda.

7. The expert from OICA withdrew ECE/TRANS/WP.29/GRSG/2011/4 on the number of priorities seats. The expert from CLCCCR regretted that this proposal had been withdrawn.

8. The expert from IRU withdrew ECE/TRANS/WP.29/GRSG/2011/9 on driver seats with no suspension system.

9. The secretariat introduced ECE/TRANS/WP.29/GRSG/2011/10 deleting the cross reference to Regulation No. 66 on the strength of superstructure. GRSG adopted the proposal and requested the secretariat to submit it to the World Forum on Vehicle Regulations (WP.29) and the administrative Committee of the 1958 Agreement (AC.1) for consideration at their November 2011 session, as part of draft Supplement 1 to the 04 series of amendments to Regulation No. 107 (see also para. 14).

10. GRSG considered ECE/TRANS/WP.29/GRSG/2011/18 prepared by the experts from France, Germany, Norway and Sweden to introduce requirements on fire detection systems. After discussion, GRSG adopted the proposal, as reproduced in GRSG-100-31 and Annex II, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft 05 series of amendments to Regulation No. 107.

11. The expert from Spain presented GRSG-100-03 on flat monitors located on the roof of the gangway. GRSG noted a number of comments and agreed to reconsider this topic at its next session. The secretariat was requested to make GRSG-100-03 available with an official symbol.

12. The expert from Russian Federation introduced GRSG-100-07 clarifying the Russian version of Regulation No. 107. GRSG adopted the proposal, as reproduced in Annex II and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft Corrigendum 1 to Supplement 1 to the 03 series of amendments and as draft Corrigendum 7 to Revision 2 to Regulation No. 107.
13. The expert from CLCCR introduced GRSG-100-16 on the lateral stability of rearward facing wheelchairs. GRSG noted a number of comments and agreed to reconsider this matter at its October 2011 session on the basis of a revised proposal prepared by CLCCR, including additional justification.

B. Requirements for service doors, windows and emergency exits (agenda item 3(b))

Documentation:
- ECE/TRANS/WP.29/GRSG/2011/13
- Informal document GRSG-100-09

14. The expert from OICA introduced ECE/TRANS/WP.29/GRSG/2011/13 clarifying the number of exits in articulated vehicles. GRSG adopted the proposal, not amended, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as part of draft Supplement 1 to the 04 series of amendments to Regulation No. 107 (see also para. 9).

15. The Chairman of the informal group on Service Doors, Windows and Emergency Exits in buses and coaches (SDWEE) reported on the progress made by his group. He introduced GRSG-100-09 as an intermediate proposal for amendments to Regulation No. 107 on emergency exits. Recalling that the mandate of this group was expiring in April 2011, he requested an additional year to complete the work on a number of issues. GRSG supported this proposal, subject to the consent of WP.29 at its June 2011 session.

V. Regulation No. 118 (Burning behaviour of materials) (agenda item 4)

Documentation:
- ECE/TRANS/WP.29/GRSG/2011/11
- Informal document GRSG-100-32

16. The experts from France, Germany, Norway and Sweden presented ECE/TRANS/WP.29/GRSG/2011/11 covering the burning behaviour of materials used in the interior compartment, the engine compartment or any compartment where the combustion heater is located. GRSG adopted ECE/TRANS/WP.29/GRSG/2011/11 as reproduced in GRSG-100-32 and Annex III, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft 02 series of amendments to Regulation No. 118.

VI. Regulation No. 34 (Fire risks) (agenda item 5)

Documentation:
- ECE/TRANS/WP.29/GRSG/2009/21,
- Informal documents GRSG-99-15, GRSG-100-08 and GRSG-100-11

17. The expert from OICA presented GRSG-100-11, superseding ECE/TRANS/WP.29/GRSG/2009/21 and GRSG-99-15, to exempt diesel vehicles from charge dissipation devices. GRSG noted a number of comments and agreed to consider again this issue on the basis of a revised proposal from OICA. However, GRSG adopted the corrections to Annex 1, Appendix 2 of Regulation No. 34 proposed in GRSG-100-11, and requested the secretariat to submit them, as reproduced in Annex IV, to WP.29 and AC.1 for consideration at their November 2011 session, as draft Corrigendum 1 to Revision 1 of Regulation No. 34.
18. The expert from the Netherlands introduced GRSG-100-08 clarifying the text of Regulation No. 34. GRSG adopted GRSG-100-08 as reproduced in Annex IV and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft Corrigendum 1 to Supplement 3 to the 02 series of amendments of Regulation No. 34.

VII. Regulation No. 43 (Safety glazing) (agenda item 6)

*Documentation: Informal documents GRSG-99-25, GRSG-100-04, GRSG-100-05 and GRSG-100-17*

19. GRSG considered GRSG-100-04 from CLEPA proposing to amend Regulation No. 43 on the burn rate for rigid plastic panes. GRSG agreed that this proposal should be considered in detail by the informal group on plastic glazing. The secretariat was requested to make GRSG-100-04 available with an official symbol for the next session of GRSG.

20. GRSG considered GRSG-100-05 from CLEPA proposing editorial corrections to the 01 series of amendments to Regulation No. 43. GRSG adopted GRSG-100-05 as reproduced in Annex V to this report, and requested the secretariat to insert these corrections when issuing the 01 series of amendments to Regulation No. 43.

21. The expert from Germany introduced GRSG-100-17 on the progress of the informal group on plastic glazing. GRSG agreed to discuss the issue of the sampling methods used for the headform test at its next session. GRSG noted that the next meeting would be held on 14 and 15 June 2011 in Hamburg (Germany) and agreed to keep as reference document GRSG-99-25 on the draft schedule of work of the informal group.

VIII. Regulation No. 46 (Devices for indirect vision) (agenda item 7)


22. The Chairman of the informal group on Camera Monitor Systems (CMS) presented ECE/TRANS/WP.29/GRSG/2010/21/Rev.1 on camera monitor systems replacing class V and VI mirrors. GRSG adopted the proposal with the removal of the square brackets in para. 6.2.2.2.1.2. and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft 03 series of amendments to Regulation No. 46.

23. The CMS Chairman recalled ECE/TRANS/WP.29/GRSG/2010/22 on camera monitor systems replacing all mirrors in vehicles. The expert of OICA introduced ECE/TRANS/WP.29/GRSG/2011/5 amending the wording of ECE/TRANS/WP.29/GRSG/2010/22. The expert from ISO presented in GRSG-100-23 the progress made on the drafting of the ISO standard dealing with the technical requirements of camera monitor systems, which should be completed by the end of 2013. GRSG agreed to consider again this item at its next session on the basis of a revised version of ECE/TRANS/WP.29/GRSG/2010/22 prepared by the CMS Chairman, taking into account the comments made by OICA.
24. The expert from the United Kingdom proposed ECE/TRANS/WP.29/GRSG/2010/29/Rev.1 and GRSG-100-26 to reduce the blind spot on the passenger side of N2 and N3 vehicles. A number of experts requested more time to study the justifications provided in GRSG-100-26. GRSG agreed to consider again ECE/TRANS/WP.29/GRSG/2010/29/Rev.1 at its next session and agreed to keep GRSG-100-26 as reference document.

25. The expert from OICA proposed in ECE/TRANS/WP.29/GRSG/2011/12 to align the provisions on external projections of rear view mirrors with those of Regulation No. 26 (External projections). GRSG noted a number of comments, in particular from France and agreed to consider again this proposal at its October 2011 session.

IX. Regulation No. 58 (Rear under run protection) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSG/2011/19
ECE/TRANS/WP.29/GRSG/2011/20
Informal documents GRSG-100-12-Rev.1 and GRSG-100-25

26. The expert from Germany presented ECE/TRANS/WP.29/GRSG/2011/19 and GRSG-100-25 strengthening the requirements on rear underrun protection devices. GRSG noted a number of comments and agreed to consider again this proposal at its next session. It was agreed to keep GRSG-100-25 as reference document.

27. The experts from the Netherlands, EC and CLCCR introduced ECE/TRANS/WP.29/GRSG/2011/20 extending the scope of Regulation No. 58 to certain categories of vehicles. The experts from Japan and OICA introduced GRSG-100-12-Rev.1 clarifying the text ECE/TRANS/WP.29/GRSG/2011/20. Following the discussion, GRSG adopted ECE/TRANS/WP.29/GRSG/2011/20, as reproduced in Annex VI and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft Supplement 1 to the 02 series of amendments to Regulation No. 58.

X. Regulation No. 67 (Equipment for liquefied petroleum gases (LPG)) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRSG/2011/14
ECE/TRANS/WP.29/GRSG/2011/14/Corr.1
ECE/TRANS/WP.29/GRSG/2011/15
Informal documents GRSG-100-02-Rev.2, GRSG-100-27 and GRSG-100-28

28. The expert from the Netherlands introduced ECE/TRANS/WP.29/GRSG/2011/14 and ECE/TRANS/WP.29/GRSG/2011/14/Corr.1 amending Regulation No. 67 to cover direct injection LPG systems. The expert from Italy proposed in GRSG-100-02-Rev.2 to improve the wording of ECE/TRANS/WP.29/GRSG/2011/14. GRSG adopted ECE/TRANS/WP.29/GRSG/2011/14, as amended by Annex VII, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as part as draft Supplement 10 to the 01 series of amendments to Regulation No. 67 (see also para. 29).

29. The expert from Italy introduced ECE/TRANS/WP.29/GRSG/2011/15 and GRSG-100-28 which clarify the text of the Regulation on the activation of the LPG running mode. GRSG adopted ECE/TRANS/WP.29/GRSG/2011/15, as amended by Annex VII, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their
November 2011 session, as part as draft Supplement 10 to the 01 series of amendments to Regulation No. 67 (see also para. 28).

30. The expert from Germany presented GRSG-100-27 to improve the requirements relating to hoses and couplings. GRSG noted a number of comments and agreed to reconsider this issue at its next session. The secretariat was requested to make GRSG-100-27 available with an official symbol.

XI. Regulation No. 121 (Identification of controls, tell-tales and indicators) (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRSG/2010/20
ECE/TRANS/WP.29/GRSG/2011/6
ECE/TRANS/WP.29/GRSG/2011/7
ECE/TRANS/WP.29/GRSG/2011/8
Informal documents GRSG-100-10 and GRSG-100-14

31. The expert from Canada recalled ECE/TRANS/WP.29/GRSG/2010/20 proposing the addition of more symbols in Regulation No. 121. The expert from OICA introduced ECE/TRANS/WP.29/GRSG/2011/6 and GRSG-100-10 commenting on ECE/TRANS/WP.29/GRSG/2010/20. Noting that the input from other Working Parties on this proposal was needed, GRSG invited the expert from Canada to present this proposal to the Working Party on Brakes and Running Gear (GRRF) and Working Party on Lighting and Light-Signalling (GRE). GRSG agreed to consider the matter at its October 2011 session together with the feedback from GRE and GRRF. GRSG requested the secretariat to merge ECE/TRANS/WP.29/GRSG/2011/6 and GRSG-100-10 for consideration at its October 2011 session.

32. GRSG considered ECE/TRANS/WP.29/GRSG/2011/7 by OICA on the parking brake tell-tale. GRSG agreed to reconsider again this item at its October 2011 following the detailed consideration of ECE/TRANS/WP.29/GRSG/2011/7 by GRRF at its September 2011 session.

33. The expert from Canada presented ECE/TRANS/WP.29/GRSG/2011/8 and GRSG-100-14 clarifying the text of Regulation No. 121 and aligning the terminology used for passing and driving beams in lighting Regulations. The expert from OICA pointed out that the terminology used throughout Regulation No. 48 should also be made more consistent. GRSG adopted ECE/TRANS/WP.29/GRSG/2011/8, as amended by GRSG-100-14 reproduced below, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft Supplement 6 to Regulation No. 121.

Paragraph 2.5., amend to read:

"2.5. "Tell-tale" means an optical signal that, when alight, indicates the actuation or deactivation of a device, a correct or defective functioning or condition, or a failure to function."

XII. Regulation No. 122 (Heating systems) (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRSG/2010/25/Rev.1

34. The expert from CLEPA introduced ECE/TRANS/WP.29/GRSG/2010/25/Rev.1 allowing the use of a Liquid Petroleum Gas (LPG) heating of a trailer while it is in motion. GRSG adopted ECE/TRANS/WP.29/GRSG/2010/25/Rev.1, as corrected below, and
requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft Supplement 3 to Regulation No. 122.

1. **Paragraph 1.1.1.**
   
   *For EN 624:2010 read EN 624:2011*

2. **Paragraphs 1.1.2. and 1.1.3.**

   *For EN:1949:2010 read EN 1949:2011*

---

### XIII. Regulation No. 125 (Forward field of vision of drivers) (agenda item 12)

**Documentation:**  
ECE/TRANS/WP.29/GRSG/2011/16  
ECE/TRANS/WP.29/GRSG/2011/17

35. The expert from Japan proposed ECE/TRANS/WP.29/GRSG/2011/16 to clarify the definition of the "A pillar" and to improve the perception of motorcycles by car drivers. GRSG noted a number of comments and agreed to resume consideration of this subject at its next session on the basis of a revised proposal, including transitional provisions, prepared by the expert from Japan.

36. GRSG considered ECE/TRANS/WP.29/GRSG/2011/17 prepared by the expert from OICA to correct the text of the Regulation. GRSG adopted ECE/TRANS/WP.29/GRSG/2011/17, not amended, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their November 2011 session, as draft Corrigendum 1 to Supplement 3 to Regulation No. 125.

---

### XIV. Proposal to develop a gtr on motorcycle controls, tell-tales and indicators (1998 Agreement) (agenda item 13)

**Documentation:**  
ECE/TRANS/WP.29/AC.3/22, ECE/TRANS/WP.29/GRSG/2011/2  
Informal documents GRSG-100-29 and GRSG-100-30

37. The secretariat of the informal group on the gtr on motorcycle controls, tell-tales and indicators reported on the progress made by his group and introduced ECE/TRANS/WP.29/GRSG/2011/2 as draft text for the gtr. After discussion, GRSG adopted the proposed gtr text (ECE/TRANS/WP.29/GRSG/2011/2 superseded by GRSG-100-29 reproduced in Annex VIII) as well as the technical report (GRSG-100-30 as reproduced in Annex VIII) and requested the secretariat to submit them to WP.29 and AC.1 for consideration at their November 2011 session, subject to a final review of the technical report by GRSG at its October 2011 session.
XV. Revision and extensions of approvals (agenda item 14)

Documentation: ECE/TRANS/WP29/2010/111
Informal document GRSG-100-13

38. GRSG noted the adoption by WP.29 of ECE/TRANS/WP29/2010/111 introducing the notion of revisions in Regulation No. 46. GRSG agreed to address this subject again at its October 2011 session on the basis of outcome of the WP.29 discussion on the generalisation to other Regulations of the notion of revision.

39. The expert from the Netherlands presented GRSG-100-13 introducing the concept of extension in the Communication of Regulation No. 61 (External projections of commercial vehicles). The expert from France suggested introducing this concept into the core text of the regulation. GRSG agreed to resume consideration of the matter on the basis of a revised proposal prepared by the expert from the Netherlands.

XVI. Consolidated Resolution on the Construction of Vehicles (R.E.3) (agenda item 15)

Documentation: ECE/TRANS/WP.29/2011/42
ECE/TRANS/WP.29/GRSG/2010/36
Informal documents GRSG-100-15 and GRSG-100-20

40. The secretariat informed GRSG that ECE/TRANS/WP.29/2011/42, consolidating the different amendments to R.E.3, had been adopted by WP. 29 at its March 2011 session and would become Revision 2 of R.E.3.

41. The expert from the Russian Federation recalled ECE/TRANS/WP.29/GRSG/2010/36 on possible definitions for buses with less than eight seats. After discussion, GRSG could not support this proposal, but agreed to keep this subject on the Agenda.

42. The expert from EC introduced GRSG-100-15 amending the definition of N₁ vehicles to take into account the special design of electric vehicles. GRSG noted a number of comments and requested the secretariat to make GRSG-100-20 available with an official symbol.

43. The expert from the Russian Federation introduced GRSG-100-20 amending the definition of N₁ vehicles to take into account the special design of electric vehicles. GRSG noted a number of comments and requested the secretariat to make GRSG-100-20 available with an official symbol.

XVII. Other business (agenda item 16)

A. Guidelines on scopes, administrative provisions and alternative requirements (agenda item 16(a))

Documentation: ECE/TRANS/WP.29/2011/48

44. At the request of the World Forum (ECE/TRANS/WP.29/1087, para. 71), GRSG considered ECE/TRANS/WP.29/2011/48 and gave an overall support to this proposal.
Experts were invited to send possible additional comments via their WP.29 delegate for the June 2011 session of WP.29.

B. Regulation No. 110 (CNG vehicles) (agenda item 16(b))

*Documentation:* informal document GRSG-100-19-Rev.1

45. GRSG noted the invitation from the informal group on Gaseous Fuelled vehicles for a special meeting dealing with liquefied natural gas, to be held on 16 May 2011 in Brussels, Belgium. Useful information may be found in GRSG-100-19-Rev.1

C. New EU anti-tampering measures (agenda item 16(c))

*Documentation:* Informal document GRSG-100-18

46. The expert from EC informed GRSG that a competition had been launched with the view of proposing new measures to prevent the tampering of vehicles of category L. Useful information may be found in GRSG-100-18.

D. Regulations Nos. 97 (Vehicle alarm systems) and 116 (Anti-theft and alarm systems) (agenda item 16(d))

*Documentation:* Informal documents GRSG-100-21, GRSG-100-22 and WP.29-153-02

47. The expert from Japan introduced GRSG-100-21 and GRSG-100-22 proposing to update, in Regulations Nos. 97 and 118, the reference to Regulation No. 10. GRSG noted that GRRF had held a similar discussion and that OICA had proposed in WP.29-153-02 that cross references be also covered by the new guidelines on scopes, administrative provisions and alternative requirements. GRSG agreed to reconsider the matter at its next session and requested the secretariat to make GRSG-100-21 and GRSG-100-22 available with an official symbol.

XX. Provisional agenda for the 101st session

48. The following provisional agenda was adopted for the 101st session of GRSG, scheduled to be held in Geneva from 18 (starting at 2.30 p.m.) to 21 (concluding at 12.30 p.m.) October 2011:

1. Adoption of the agenda.
2. Regulation No. 107 (M₂ and M₃ vehicles):
   (a) Proposals for further amendments;
   (b) Requirements for service doors, windows and emergency exits.
3. Regulation No. 34 (Fire risks).
4. Regulation No. 43 (Safety glazing).
5. Regulation No. 46 (Devices for indirect vision).
6. Regulation No. 58 (Rear under run protection).
7. Regulation No. 67 (Equipment for liquefied petroleum gases (LPG)).
8. Regulation No. 121 (Identification of controls, tell-tales and indicators).
9. Regulation No. 125 (Forward field of vision of drivers).
11. Revisions and extensions of approvals.
13. Other business.
Annex I

List of informal documents considered during the session

List of informal documents (GRSG-100-…) distributed during the session (English only except when marked with a footnote *)

<table>
<thead>
<tr>
<th>No.</th>
<th>(Author)</th>
<th>Title</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(GRSG Chairman)</td>
<td>Running order of the provisional agenda</td>
<td>(f)</td>
</tr>
<tr>
<td>2</td>
<td>(Italy) Rev.1</td>
<td>Comments on ECE/TRANS/WP.29/GRSG/2011/14 (Draft Amendment to Regulation No. 67/01 by the expert from the Netherlands)</td>
<td>(a)</td>
</tr>
<tr>
<td>3</td>
<td>(Spain)</td>
<td>Proposal for amendments to Regulation No. 107 (M2 and M3 vehicles)</td>
<td>(c)</td>
</tr>
<tr>
<td>4</td>
<td>(CLEPA)</td>
<td>Proposal for a change to the burn rate specified in Annex 3 to Regulation No. 43. (Safety Glazing)</td>
<td>(c)</td>
</tr>
<tr>
<td>5</td>
<td>(CLEPA)</td>
<td>Editorial comments on ECE/TRANS/WP.29/2011/35 - Proposal for the 01 series of amendments to Regulation No. 43 (Safety Glazing)</td>
<td>(a)</td>
</tr>
<tr>
<td>6</td>
<td>(EC)</td>
<td>Proposal for an amendment to Regulation No 107 (M2 and M3 vehicles)</td>
<td>(e)</td>
</tr>
<tr>
<td>7*</td>
<td>(Russian Federation)</td>
<td>Предложения по проекту исправлений Правил № 107 (Транспортные средства категорий М2 и М3) (Russian only)</td>
<td>(a)</td>
</tr>
<tr>
<td>8</td>
<td>(Netherlands)</td>
<td>Proposal for a corrigendum to Regulation 34 (fire risks)</td>
<td>(a)</td>
</tr>
<tr>
<td>9</td>
<td>(Poland/SDWEE)</td>
<td>Proposal for amendments to Regulation No. 107 (M2 and M3 vehicles)</td>
<td>(e)</td>
</tr>
<tr>
<td>10</td>
<td>(OICA)</td>
<td>Proposal for changes to document GRSG/2011/6 - Regulation N°121 (Identification of controls, tell-tales and indicators)</td>
<td>(e)</td>
</tr>
<tr>
<td>11</td>
<td>(OICA)</td>
<td>Proposal for amendments to Regulation No. 34 (Fire risks)</td>
<td>(b)</td>
</tr>
<tr>
<td>12- Rev.1</td>
<td>(OICA/Japan)</td>
<td>Proposal for a change to document GRSG/2011/20 with regards to Regulation No. 58. (Rear under run protection)</td>
<td>(a)</td>
</tr>
<tr>
<td>13</td>
<td>(Netherlands)</td>
<td>Proposal for a change to the Communication form in Annex 1 to Regulation No. 61. (external projections forward of the cab’s rear panel)</td>
<td>(e)</td>
</tr>
<tr>
<td>14</td>
<td>(Canada)</td>
<td>Proposal for Supplement to Regulation No. 121 (identification of controls, tell-tales and indicators)</td>
<td>(a)</td>
</tr>
<tr>
<td>15</td>
<td>(EC)</td>
<td>Communication (Resolution RE.3)</td>
<td>(f)</td>
</tr>
<tr>
<td>16</td>
<td>(CLCCR)</td>
<td>Proposal for draft amendments to Regulation No. 107 (M2 and M3 vehicles)</td>
<td>(e)</td>
</tr>
<tr>
<td>17</td>
<td>(Germany/IGPG informal group)</td>
<td>1st Progress Report of the Informal Group on Plastic Glazing</td>
<td>(f)</td>
</tr>
<tr>
<td>18</td>
<td>(EC)</td>
<td>Competition launched to develop solutions for tampering prevention on L-category vehicles</td>
<td>(f)</td>
</tr>
<tr>
<td>19- Rev.1</td>
<td>(Netherlands)</td>
<td>Invitation for GRSG experts for a meeting on LNG equipment standards in Regulation No. 110</td>
<td>(f)</td>
</tr>
<tr>
<td>20</td>
<td>(Russian Federation)</td>
<td>Proposal for amendments to the Consolidated Resolution on the Construction of Vehicles</td>
<td>(c)</td>
</tr>
<tr>
<td>21</td>
<td>(Japan)</td>
<td>Proposal for corrigendum to Regulation No. 97 (Vehicle alarm systems)</td>
<td>(c)</td>
</tr>
<tr>
<td>22</td>
<td>(Japan)</td>
<td>Proposal for corrigendum to Regulation No. 116 (Anti-theft and alarm systems)</td>
<td>(c)</td>
</tr>
<tr>
<td>No.</td>
<td>(Author) Title</td>
<td>Follow-up</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>(ISO) Status ISO/TC22/SC17/WG2 bzw. ISO 16505</td>
<td>(f)</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>(United Kingdom) Comments on Informal Document GRSG-100-06 (Regulation No. 107-M2 and M3 vehicles)</td>
<td>(f)</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>(Germany) Proposal for draft amendments to Regulation No. 58 (Rear Underrun Protection Devices) - Justification for amendments proposed in document GRSG/2011/19</td>
<td>(d)</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>(United Kingdom) The identification of ‘Blind Spots’ in direct and indirect vision for Category N2 &amp; N3 vehicles using Digital Human Modelling - Regulation No. 46 (Devices for indirect vision)</td>
<td>(d)</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>(Germany) Draft amendments to Annex 8 to Regulation No. 67 (LPG vehicles)</td>
<td>(c)</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>(Italy) Additional proposal to ECE/TRANS/WP.29/GRSG/2011/15 (Draft amendment to Regulation No. 67/01 by the expert from Italy)</td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>(IMMA) Draft report on the proposal for a gtr on motorcycle controls, tell-tales and indicators (1998 Agreement)</td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>(IMMA) Proposal for global technical regulation concerning the Location, Identification and Operation of Motorcycle Controls, Tell-tales and Indicators</td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>(Secretariat) Adopted amendments to ECE/TRANS/WP.29/GRSG/2011/18 - Proposal for amendments to Regulation No. 107 (M2 and M3 vehicles)</td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>(Secretariat) Adopted amendments to ECE/TRANS/WP.29/GRSG/2011/11 - Proposal for amendments to Regulation No. 118 (Burning behaviour of materials)</td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>(Secretariat) Summary of decisions - 100th session of GRSG</td>
<td>(f)</td>
<td></td>
</tr>
</tbody>
</table>

**Reconsideration of informal documents from the previous sessions of GRSG or other Working Parties (English only)**

<table>
<thead>
<tr>
<th>No.</th>
<th>(Author) Title</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRSG-99-25</td>
<td>(Germany) Draft Schedule of Informal Group on Plastic Glazing</td>
<td>(d)</td>
</tr>
</tbody>
</table>

**Notes:**

(a) Adopted with no change and submitted to WP.29 for consideration.
(b) Adopted with changes and submitted to WP.29 for consideration.
(c) Resume consideration on the basis of an official document.
(d) Kept as reference document/continue consideration.
(e) Revised proposal for the next session.
(f) Consideration completed or to be superseded.
Annex II

Draft amendments to Regulation No. 107

Draft 05 series of amendments to Regulation No. 107

The adopted changes to ECE/TRANS/WP.29/GRSG/2011/18 are shown in bold characters.

*Insert new paragraphs 10.21. to 10.23., to read:*

"10.21. As from the official date of entry into force of the 05 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 05 series of amendments.

10.22. As from 24 months after the date of entry into force of the 05 series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 05 series of amendments.

10.23. As from 36 months after the entry into force of the 05 series of amendments, Contracting Parties applying this Regulation may refuse to grant national/regional approvals and first national registration (first entry into service) of a vehicle which does not meet the requirements of the 05 series of amendments to this Regulation."

*Annex 3, insert new paragraphs 7.5.6. to 7.5.6.3., to read:*

"7.5.6. Fire Detection.

7.5.6.1. Vehicles shall be equipped with an alarm system detecting either an excess temperature or smoke in toilet compartments, driver’s sleeping compartments and other separate compartments.

7.5.6.2. Upon detection, the system given in paragraph 7.5.6.1. shall provide the driver with both an acoustic and a visual signal in the driver’s compartment.

7.5.6.3. The alarm system shall be at least operational whenever the engine start device is operated, until such time as the engine stop device is operated, regardless of the vehicle's attitude."

Draft Corrigendum 1 to Supplement 1 to the 03 series of amendments
(Russian only)

Текст Правил, пункт 2.15, исправить следующим образом:

"2.15. "Основной проход" означает пространство, обеспечивающее доступ пассажиров от любого сиденья или ряда сидений или каждой зоны для пассажиров в инвалидных колясках к любому другому сиденью или ряду сидений или каждой зоны для пассажиров в инвалидных колясках либо к любому входному проходу в месте расположения от любой служебной двери или междуетажной лестницы и к любой площадке для стоящих пассажиров либо к ним; к нему не относятся:"
Draft Corrigendum 7 to Revision 2 to Regulation No. 107 (Russian only)

Приложение 3, Пункт 7.6.2.7, исправить следующим образом:

“7.6.2.7. При наличии аварийных люков они должны размещаться следующим образом: если имеется только один люк, то он должен устанавливаться в средней трети транспортного средства пассажирского салона; если имеется два люка, то они должны быть разнесены, причем расстояние между ближайшими краями отверстий, измеренное по линии, параллельной продольной оси транспортного средства, должно быть не менее 2 м”.

Приложение 3, Пункт 7.12.4, исправить следующим образом:

“7.12.4. Подъем каждой ступеньки и лестницы в междуетажной лестнице двухэтажного транспортного средства должен быть закрыт”.

---

ECE/TRANS/WP.29/GRSG/79

16
Annex III

Draft amendments to Regulation No. 118

Draft 02 series of amendments to Regulation No. 118

Adopted modifications to ECE/TRANS/WP.29/GRSG/2011/11 are shown in bold for new characters.

Paragraph 4.5.3.1., amend to read:

"4.5.3.1. Symbols indicating the direction which the material may be installed:

↔ for the horizontal direction (see para. 6.2.1.),

↕ for the vertical direction (see paras. 6.2.3. and 6.2.4.),

∧ for the horizontal and vertical directions (see paras. 6.2.1., 6.2.3. and 6.2.4.);"

New paragraph 6.2.4. (including new footnote 3), amend to read:

"6.2.4. Materials achieving an average CFE (critical heat flux at extinguishment) value greater or equal to 20 kW/m², when tested according to ISO 5658-2, are deemed to comply with the requirements of paragraphs 6.2.2. and 6.2.3., provided no burning drops are observed when taking the worst test results into account.

---


New paragraphs 12.7. and 12.8., amend to read:

"12.7. As from 48 months after the official date of entry into force of the 02 series of amendments, Contracting Party applying this Regulation shall grant ECE approvals only if the component type to be approved meet the requirements of this Regulation as amended by the 02 series of amendments.

12.8. As from 60 months after the official date of entry into force of the 02 series of amendments, Contracting Party applying this Regulation shall grant ECE approvals only if the vehicle type to be approved meet the requirements of this Regulation as amended by the 02 series of amendments."

Annex 1

Paragraph 3.2.4., amend to read:

"3.2.4. Tested according to paragraph 6.2.1., 6.2.2., 6.2.3., 6.2.4.:

---

Paragraph 3.3.4., amend to read:

"3.3.4. Tested according to 6.2.1., 6.2.2., 6.2.3., 6.2.4., 6.2.5.:

---

Annex 5. Example 2 of approval mark, the third paragraph, shall be deleted
Annex IV

Draft amendments to Regulation No. 34

Draft Corrigendum 1 to Revision 1 of Regulation No. 34

GRSG-100-11 adopted as below. Modifications to the existing text of Regulation No. 34 are shown in bold for new characters.

Annex 1-Appendix 2, items 5. and 5.1., correct to read:

"5. Brief description of fuel tank and of the fuel feeding installation..........................
5.1. Characteristics of fuel tank and fuel: ...........................................................................

Draft Corrigendum 1 to Supplement 3 to the 02 series of amendments of Regulation No. 34

GRSG-100-08 adopted as below. Modifications to Supplement 3 to the 02 series of amendments of Regulation No. 34 are shown in bold for new characters.

Annex 5, paragraph 5.2.3, correct to read:

"5.2.3. For each test, the tank and its accessories shall be installed in a testing fixture simulating actual mounting conditions as far as possible. The method whereby the tank is fixed in the fixture shall correspond to the relevant specifications for its installation. In the case of tanks designed for a specific vehicle use, vehicle parts which protect the tank and its accessories against exposure to flame or which affect the course of the fire in any way, as well as specified components installed on the tank and plugs shall be taken into consideration. All openings shall be closed during the test, but venting systems shall remain operative. Immediately prior to the test the tank shall be filled with the specified fuel to 50 per cent of its capacity.”
Annex V

Draft amendments to Regulation No. 43

Editorial corrections to be inserted when issuing the 01 series of amendments to Regulation No. 43

GRSG-100-05 adopted as below.

1. The list of "Contents" in Regulation No. 43

The list must be changed to follow the changes in definitions involving the use of the term "panes" to replace the words "other than windscreens".

Annex 9, however, should be changed from "Safety-glass panels faced with plastic material (on the inside)" to "Safety glazing faced with plastic material (on the inside)"

2. Annex 2 as shown in ECE/TRANS/WP29/2011/35

Page 10 Change the heading to read "Rigid Plastic Glazing Panes"
Page 11 Change the heading to read "Flexible Plastic Glazing Panes"
Page 11 Change the heading to read "Laminated glass panes"

3. Annex 3 (Fire Resistance Test) in Regulation No. 43

The reference in 10.9.2. should be changed from 2.5. to 2.6. as a result of the renumbering of items in section 2 definitions.

4. Annex 9 (Fire Resistance Test) in Regulation No. 43

Change the title from "Safety-glass panels faced with plastic material on the inside" to "Safety glazing faced with plastic material (on the inside)"

5. Annex 14 to Regulation No. 43

Change the title from "Rigid plastic glazings other than windscreens" to "Rigid plastic panes"

6. Annex 15 to Regulation No. 43

Change the title from "Flexible plastic glazings other than windscreens" to "Flexible plastic panes"
Annex VI

Draft amendments to Regulation No. 58

ECE/TRANS/WP.29/GRSG/2011/20 adopted as follows. Changes to ECE/TRANS/WP.29/GRSG/2011/20 are shown in bold for new characters.

Paragraph 1.1.1., amend to read:
"1.1.1. PART I: … of categories M, N and O;"

Paragraph 1.1.2., amend to read:
"1.1.2. PART II: … of categories M, N and O … Regulation;"

Paragraph 1.1.3., amend to read:
"1.1.3. PART III: … of categories M, N and O … RUPD"

Insert new paragraph 1.1.4. (footnote 1/ remains unchanged), to read:
"1.1.4. Vehicles of categories M₁, M₂, M₃, N₁, O₁ and O₂ 1/ on grounds of rear underrun protection."

Paragraph 2., amend to read:
"2. General requirements"

Insert new paragraphs 2.1. to 2.3. (footnote 1/ remains unchanged), to read:
"2.1. All vehicles shall be so constructed and/or equipped as to offer effective protection over their whole width against under-running of vehicles mentioned in paragraph 1. of this Regulation in the event of rear collision with vehicles of category M₁ and N₁.1/"

2.2. The vehicle shall be tested under the conditions as laid down in paragraph 2 of Annex 5.

2.3. Any vehicle in one of the categories M₁, M₂, M₃, N₁, O₁ or O₂ will be deemed to satisfy the condition set out above:

(a) if it satisfies the same conditions as set out in Part II or Part III, or

(b) if the ground clearance of the rear part of the unladen vehicle does not exceed 550 mm over a width which is not shorter than that of the rear axle by more than 100 mm on either side (excluding any tyre bulging close to the ground), or

(c) if, in case of vehicles of categories O₁ and O₂ where the tyres project for more than half of their width outside the bodywork (excluding the wheel guards) or outside the chassis in the absence of bodywork, the ground clearance of the rear part of the unladen vehicle does not exceed 550 mm over a width which is not less than 100 mm deducted from the distance measured between the innermost points of the tyres (excluding any tyre bulging close to the ground), on either side.

Where there is more than one rear axle, the width to be considered is that of the widest.

This requirement must be satisfied at least on a line:
(a) at a distance of not more than 450 mm from the rear extremity of the vehicle;

(b) that may have interruptions totalling not more than 200 mm."

Paragraph 15.1., amend to read:

"15.1. If the vehicle ... 16 below and has been tested following the conditions set out in paragraph 2.2., approval... granted."

Paragraph 16.2., amend to read:

"16.2. The width of ... nor must the RUPD be more than 100 mm shorter on either side. However, in case of vehicles of categories O₁ and O₂ where the tyres project for more than half of their width outside the bodywork (excluding the wheel guards) or outside the chassis in the absence of bodywork, the width of the RUPD shall not be less than 100 mm deducted from the distance measured between the innermost points of the tyres, excluding the bulging of the tyres close to the ground, on either side. Where there... form."

Paragraph 24.1., amend to read:

"24.1. If the vehicle ... 25 below and has been tested following the conditions set out in paragraph 2.2., approval... granted."

Paragraph 25.3., amend to read:

"25.3. The width of ... nor must the RUP be more than 100 mm shorter on either side. However, in case of vehicles of categories O₁ and O₂ where the tyres project for more than half of their width outside the bodywork (excluding the wheel guards) or outside the chassis in the absence of bodywork, the width of the RUP shall not be less than 100 mm deducted from the distance measured between the innermost points of the tyres, excluding the bulging of the tyres close to the ground, on either side. Where there... not apply."
Annex VII

Draft amendments to Regulation No. 67

Adopted changes to ECE/TRANS/WP.29/GRSG/2011/14 and ECE/TRANS/WP.29/GRSG/2011/15 are shown in bold for new characters.

Paragraph 2, amend the text to read:

"Class 0 High pressure parts including tubes and fittings containing liquid LPG with a pressure > 3,000 kPa"

Figure 1, amend as follows:
Insert new paragraphs 2.20. and 2.21., to read:

"2.20. "LPG running mode" means an operational mode during which only LPG or more than one fuel is supplied to the engine."
2.21. "Bi-fuel vehicle" means a vehicle that, originally or after the application of a LPG retrofit system, is equipped with two separate fuel storage systems, can run on petrol and also on LPG and is designed to run on only one fuel at a time."

Insert a new paragraph 17.6.1.3, to read:

"17.6.1.3. Notwithstanding the provision of paragraph 17.6.1.2, in case of liquid injection systems, if a fuel recirculation is required to purge the system from gas bubbles (vapour lock), it is allowed to keep the remotely controlled service valve with excess flow valve open for a period not longer than 10 seconds before starting the engine in LPG running mode."

Insert a new paragraph 17.9.5, to read:

"17.9.5. Notwithstanding the provision of paragraph 17.9.4., in case of liquid injection systems, if a fuel recirculation is required to purge the system from gas bubbles (vapour lock), it is allowed to keep the remotely controlled shut-off valve open for a period not longer than 10 seconds before starting the engine in LPG running mode and during the fuel switching-over."

Annex 3, paragraph 5.3, amend the text to read:

"5.3. Classification pressure:

Parts of Class 0 WP declared
Parts of Class 1 3,000 kPa"

Annex 4, paragraph 2, amend to read:

"2. Component classification (according to Figure 1, para. 2.):

Class 0 for the part which is in contact with liquid LPG at a pressure >3,000 kPa;
Class 1 for the part which is in contact with liquid LPG at a pressure ≤3,000 kPa."

Annex 6, paragraph 2, amend the text to read:

"2. Component classification (according to Figure 1, para. 2.):

Class 0: for the part which is in contact with LPG at a pressure > 3,000 kPa.
Class 1: for the part which is in contact with the pressure ≤ 3,000 kPa.
Class 2: for the part which is in contact with the regulated pressure and with a maximum regulated pressure during operation of 450 kPa.
Class 2A: for the part which is in contact with the regulated pressure and with a maximum regulated pressure during operation of 120 kPa."

Annex 7, paragraph 1.3, amend the text to read:

"1.3. Classification pressure: 3,000 kPa or WP declared if > 3,000 kPa."

Annex 7, paragraph 3.3., amend the text to read:

"3.3. Classification pressure: 3,000 kPa or WP declared if > 3,000 kPa."
Annex VIII

Proposal to develop a gtr on motorcycle controls, tell-tales and indicators

Draft text for the gtr

Adopted changes to ECE/TRANS/WP.29/GRSG/2011/2 are shown in bold for new characters.

Draft new global technical regulation concerning the Location, Identification and Operation of Motorcycle Controls, Tell-tales and Indicators

I. Statement of technical rationale and justification

A. Introduction

1. This proposed global technical regulation (gtr) establishes the criteria on location, identification and operation of motorcycle controls, tell-tales and indicators which is determined to be critical for safety by the Working Party on General Safety Provisions (GRSG). The objective of the proposal is to reduce the safety hazards caused by rider distraction. Specifically, the proposal is intended to reduce distractions resulting from an error in control selection or inconsistency in graphical representations of tell-tales and indicators from one motorcycle to another.

2. One of the main purposes of this proposal is to standardize and harmonize markings identifying controls, tell-tales and indicators. One way of doing this is through the use of symbols. A clear advantage of symbols, or pictograms, over wording is that symbols, once they have been taught to and have been recognized by the target group, to overcome language barriers. Drivers shall be able to operate motorcycles safely, even if they cannot understand the language of the country they are visiting. Recognition that is independent of language is an advantage in a global motorcycle market.

3. Furthermore, some Contracting Parties have more than one official language and require that motorcycle safety information be presented in all official languages. This could result in a requirement to provide a language selection function to drivers or a means to display wording in all official languages, which would be difficult on space-limited dash panels.

4. Symbols are one of the efficient ways of communicating information to drivers. The consistent use of a selected symbol in all new motorcycles will increase its recognition. Symbols have the potential to simplify motorcycle design and, once taught and recognized, to reduce driver confusion.

5. However, when implementing this global technical regulation into national legislation, Contracting Parties may continue to maintain their current required words in addition to the symbols given in this gtr. Contracting Parties may also define other operational requirements than those given in this global technical regulation.
6. As this may lead to a situation where too many variations are occurring, this GTR attempts to reduce the variety by covering the requirements of as many controls as possible. This does not imply that all those controls and their requirements included in this GTR are mandatory. Each Contracting Party decides the mandatory controls and the related requirements such as e.g., colour and presence of telltales in their region through specific legislation.

7. The symbols in this global technical regulation are based on regulations and standards, including the ISO 6727 standard of the International Organization for Standardization (ISO). This set of symbols was selected because it is currently used internationally and is accepted by most manufacturers and Contracting Parties.

B. Procedural background

8. It had been agreed at GRSG that there was a need to harmonize the way in which motorcycle controls, tell-tales and indicators are installed and identified, and establish a commonality in the world-wide use of the symbols, which would justify the development of a global technical regulation.

C Discussion of issues addressed by the gtr (Symbols)

9. It has been argued that the meaning of some symbols is not immediately clear and that riders would have to consult the owner's manual to discover their meaning. It is agreed that Safety symbol recognition should be part of learning process to ride a motorcycle. By standardizing symbols around the world, the GRSG Working Party will provide riding schools and evaluation organizations with a standard from which it will be possible to educate and test new riders. The riding population would be informed of the meaning of new symbols as they are added. In fact, it is expected that the global technical regulation itself could improve the communication of safety symbols to the riding public. Contracting Parties have a responsibility to inform their populations of the set of requirements.

10. GRSG has successfully obtained agreement on the criteria for the location, operation, illumination and position of the controls and display. One issue regarding the use of certain symbols remains. The global technical regulation calls for inclusion of a table that identifies 36 functions. Most of these functions are associated with a symbol. Other safety symbols will need to be selected by the Contracting Parties on the basis of their applicability to motorcycles and their global recognition to allow for further harmonization of the symbols, tell-tales and indicators.

D. Existing Regulations, Directives and International Voluntary Standards

11. GRSG followed the recommendations of paragraph 4. of TRANS/WP29/2002/882. In the absence of a UNECE Regulation under the 1958 Agreement or a technical regulation in the compendium of candidates for global technical regulations, GRSG has considered the documents listed below:

- Federal Motor Vehicle Safety Standards (FMVSS) 123: Motorcycle controls and displays
• Canada Motor Vehicle Safety Regulation No. 123 – Motorcycle controls and displays
• Japan Article 10
• Japan Article 46
• ECE Regulation 60

12. GRSG has also considered the UNECE Regulation 60, developed in the framework of the 1958 Agreement as well as the known voluntary standards on the subject listed in the proposal, specifically:
• ISO 6727-1981 *Road vehicles - Motorcycles - Symbols for controls, indicators and telltales*
• ISO 9021-1988 *Motorcycles - Controls - Types, positions and functions*

13. All known regulations and voluntary standards on the subject of the installation and identification of controls, tell-tales and indicators were considered during development of the draft UNECE Regulation. GRSG has decided to use the documents and standards listed above as the basis for development of the new global technical regulation.

E. Regulatory Impact and Economic Effectiveness

14. Although this proposal does not specify or create any measurable threat to motorcycle safety, GRSG has agreed that there is a need to harmonize identification, operation and location of motorcycle controls, tell-tales and indicators.

15. Additionally, driver distraction is a significant contributor to incidents involving motorcycles. Standardizing controls, tell-tales and indicators could reduce driver distraction, resulting in improved safety for all road-users.

16. Since all the symbols prescribed in the global technical regulation are currently accepted by most of the Contracting Parties, the cost is minimal. The global technical regulation would ensure better understanding of safety symbols by riders around the world.

17. Defining the location, operation and identification of controls and displays is of sufficient importance to warrant this global technical regulation. This proposed global technical regulation is a first step. As other controls, tell-tales and indicators get used and get recognition these would be added to the current list through revisions and addendums to the global technical regulation. Table 1 will be updated from time to time to prescribe more symbols and to further increase global harmonization.

F. Scope and application

18. The application of this global technical regulation to categories other than 3-3\(^1\) shall be investigated and reviewed. However, Contracting Parties should consider appropriate elements for transposition into national legislation.

---
\(^1\) Special Resolution No. 1, Concerning the Common Definitions of Vehicle Categories, Masses and Dimensions (S.R.1) (ECE/TRANS/WP.29/1045 and Amend.1)
II. Text of the Regulation

1. Purpose

This global technical regulation specifies requirements for the location, identification, illumination and operation of motorcycle controls, tell-tales and indicators. This global technical regulation also harmonizes a set of symbols, if fitted, for controls, tell-tales and indicators.

The purpose of this global technical regulation is to ensure the accessibility, visibility, and recognition of motorcycle controls, tell-tales, and indicators and to facilitate the proper selection of controls under daylight and night-time conditions. The intention of the global technical regulation is also to reduce the safety hazards caused by the diversion of the rider's attention from the driving task by mistakes in selecting controls.

2. Application and Scope

This global technical regulation applies to power-driven vehicles of category 3-3 as defined in SR1\(^2\) that are driven on the public roads.

3. Definitions

For the purposes of this global technical regulation, the following definitions apply.

3.1. "Adjacent", with respect to a symbol identifying a control, tell-tale or indicator, means that the symbol is in close proximity to the control, tell-tale or indicator and no other control, tell-tale, indicator, identification symbol or source of illumination appears between an identification symbol and the control, tell-tale, or indicator which that symbol identifies.

3.2. "Common space" means an area on which more than one tell-tale, indicator, identification symbol, or other message may be displayed but not simultaneously.

3.3. "Control" means any part of the vehicle or a device directly actuated by the driver which changes the state or functioning of the vehicle or any part thereof.

3.4. "Device" means an element or an assembly of elements used to perform one or more functions.

3.5. "Handlebars" means any part of the bar or bars connected to the head of the forks (steering head) by means of which the vehicle is steered.

3.6. "Handlebars: right side" means any part of the handlebars which, when facing the direction of forward movement, lies on the right side of the longitudinal median plane of the vehicle.

---

\(^2\) Special Resolution No. 1, Concerning the Common Definitions of Vehicle Categories, Masses and Dimensions (S.R. 1) (ECE/TRANS/WP.29/1045 and Amend.1)
3.7. "Handlebars: left side" means any part of the handlebars which, when facing the direction of forward movement, lies on the left side of the longitudinal median plane of the vehicle.

3.8. "Handlebars: forward" means any part of the handlebars lying on the side furthest from the driver when seated in a driving position.

3.9. "Handgrip" means that part of the handlebars, furthest from the centre, by which the handlebars are held by the driver of the vehicle.

3.10. "Rotating handgrip" means a handgrip, operating some functional mechanism of the vehicle, which is free to rotate around the handlebar when so turned by the driver of the vehicle.

3.11. "Frame" means any part of the frame, chassis or cradle of the vehicle, to which is attached the engine and/or transmission unit, and/or the engine and transmission unit itself.

3.12. "Frame: left side" means any part of the frame which, when facing the direction of forward movement, lies on the left side of the longitudinal median plane of the vehicle.

3.13. "Frame: right side": means any part of the frame which, when facing the direction of forward movement, lies on the right side of the longitudinal median plane of the vehicle.

3.14. "Lever" means any device consisting of an arm turning on a fulcrum, by means of which some functional mechanism of the vehicle is operated.

3.15. "Hand lever" means a lever operated by the hand of the driver;

Note. Unless otherwise stated, a hand lever is operated by compression, (that is, movement of the apex of the lever towards the supporting structure), e.g. to engage a brake mechanism or to disengage the clutch mechanism.

3.16. "Foot lever" means a lever operated by contact between the foot of the driver and a spur projecting from the arm of the lever.

3.17. "Pedal" means a lever operated by contact between the foot of the driver and a pad on the lever, so placed as to allow pressure to be applied to the arm of the lever.

Note. Unless otherwise stated, a pedal is operated by depression, for example to engage a brake mechanism.

3.18. "Rocker arm" means a lever, pivoted at or near its centre and having a pad or spur at each end, operated by contact between the foot of the driver and the said pads or spurs.

3.19. "Footrest" means the projections on either side of the vehicle on which the driver places his/her feet when seated in the driving position.

3.20. "Clockwise" means the direction of rotation around the axis of the part considered, following the motion of the hands of a clock when viewed from the upper or the outer side of the part considered.

3.21. "Anticlockwise" has the inverse meaning;

3.22. "Combined brake" means a system of operation (by hydraulic action or mechanical linkage, or both) whereby both the front and the rear brakes of the vehicle are brought into operation at least partially by the use of only one control.
3.23. "Indicator" means a device which presents information on the functioning or situation of a system or a part of a system, for example a fluid level.

3.24. "Tell-tale" means an optical signal which indicates the actuation of a device, correct or defective functioning or condition, or failure to function.

3.25. "Symbol" means a diagram from which to identify a control, a tell-tale or an indicator.

3.26. "Optical Warning Device" means a headlamp where the beam can be flashed to give signals to the oncoming or preceding traffic, e.g., when a vehicle is about to overtake a slower preceding vehicle.

4. Requirements

4.1 General

A motorcycle, if fitted with a control, tell-tale or indicator identified in Table 1, shall comply with the requirements of this global technical regulation with respect to the location, identification, operation, illumination, and colour of that control, tell-tale or indicator.

For functions for which no symbol is available in Table 1, the manufacturer may use a symbol following the appropriate standards. Where no symbol is available, the manufacturer may use a symbol of its own conception. Such a symbol shall not cause confusion with any symbol specified in Table 1.

4.2. Location

4.2.1. The controls, listed in Table 1, shall be located so that they are operable and within reach of the driver when seated in the driving position.

4.2.2. The tell-tales and indicators listed in Table 1, and their identification symbols shall be located so that they are visible to a driver when seated in the driving position, during daylight and night-time driving. Tell-tales, indicators and their identification symbols need not be visible when not activated.

4.2.3. The identification symbols for controls, tell-tales, and indicators shall be placed on or adjacent to the controls, tell-tales or indicators that they identify except as provided in paragraph 4.2.5.

Controls for hazard warning lamps, passing and driving beam headlamps, direction indicators, supplemental engine stop, audible warning device, brakes and clutch shall be always accessible to the driver as primary function of the corresponding control without the removal of the driver’s hands from the respective handgrips.

4.2.4 Paragraph 4.2.3. does not apply to multi-function controls, if the control is associated with a multi-task display that:

4.2.5.1 is visible to the driver; and

4.2.5.2 identifies the control with which it is associated; and

4.2.5.3 identifies all of the vehicle systems for which control is possible from the multi-function control. Sub-functions of those systems need not be shown on the top-most layer of the multi-task display, and

4.2.5.4 does not display tell-tales listed in Table 1.

4.3 Identification
4.3.1. Each control, tell-tale and indicator listed in Table 1, shall be identified by the relevant specified symbol.

4.3.2. Supplementary symbols, words or abbreviations may be used at the manufacturer’s discretion in conjunction with any symbol, word or abbreviation specified in Table 1.

4.3.3. Each additional or supplementary symbol, word or abbreviation used by the manufacturer shall not cause confusion with any symbol specified in this global technical regulation.

4.3.4. If the control, indicator or tell-tale for the same function are combined, one symbol may be used to identify that combination.

4.3.5. All identification symbols for the tell-tales, indicators and controls provided on handle bar or instrument cluster shall be positioned so as to appear to the driver to be perceptually upright except for an audible warning device. For rotating controls that have an “off” position, this requirement applies to the control in the “off” position.

4.3.6. When fitted, each control that regulates a system function over a continuous range shall have identification provided for the limits of the adjustment range.

4.4. Illumination

4.4.1. At the manufacturer’s option, any control, indicator and their respective identification symbols may be capable of being illuminated. If so illuminated:

4.4.1.1. The indicators such as speedometers and tachometers, their identifications and the identifications of controls shall not be illuminated when the headlamps are being flashed or operated as daytime running lamps, except when such headlamps switch on automatically under dark ambient conditions.

4.4.2. A tell-tale shall emit light when the malfunction or vehicle condition it is meant to indicate occurs. It shall not emit light at any other time, except during a bulb check.

4.4.3 At the manufacturers’ option, the identification symbols provided on controls may be illuminated, without prejudice to the requirements of paragraph 4.4.1.1.

4.5. Colour

4.5.1. The light of each tell-tale shall be of the colour as specified in Table 1.

4.5.2. The colour of tell-tales not listed in Table 1 can be selected by the manufacturer in accordance with paragraphs 4.5.3. The colour selected shall not mask or interfere with the identification of any tell-tale, control or indicator specified in Table 1.

4.5.3. Colours are recommended in accordance with the following colour code:

4.5.3.1. red: danger to persons or very serious damage to equipment is immediate or imminent;

4.5.3.2. amber: caution, outside normal operating limits, vehicle system malfunction, damage to vehicle likely, or other condition which may produce hazard in the longer term;
4.5.3.3. **green**: safe, normal operating condition (except if blue or amber is required by Table 1).

4.5.4. Each symbol used for the identification of a tell-tale, control or indicator shall be in a colour that stands out clearly against the background.

4.5.5. The filled-in part of any symbol may be replaced by its outline and the outline of any symbol may be filled in.

4.6 Common space for displaying multiple messages

A common space may be used to show information from any source, subject to the following requirements:

4.6.1 The tell-tales and indicators displayed in the common space shall meet the requirements for paragraphs 4.3., 4.4. and 4.5. and shall illuminate at the initiation of the condition they are designed to identify.

4.6.2 The tell-tale and indicators that are listed in Table 1 and are shown in the common space shall illuminate at the initiation of any underlying condition.

4.6.3 Except as provided in paragraphs 4.6.4., 4.6.5. and 4.6.6., when the condition exists for actuation of two or more tell-tales, the information shall be either

   (a) repeated automatically in sequence, or

   (b) indicated by visible means and capable of being selected for viewing by the driver when seated in the driving position.

4.6.4 The tell-tales for the brake system malfunction, headlamp driving beam and direction indicator shall not be shown in the same common space.

4.6.5 If condition of activation exists for the following tell-tales: brake system malfunction, headlamp driving beam and direction indicator are displayed on a common space with other tell-tale, they shall have priority over anything else in the common space.

4.6.6 Information displayed in the common space may be cancelled automatically or by the driver, except the tell-tales for brake system malfunction, headlamp driving beam, direction indicator and those for which the colour red is required by Table 1 shall not be cancelled if the condition exists for their activation.
<table>
<thead>
<tr>
<th>No.</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td>1</td>
<td>Supplemental engine stop control (OFF)</td>
<td>![Symbol]</td>
<td>Control</td>
<td>Located on the right handlebar,</td>
<td>-</td>
<td></td>
<td>As a means of stopping the engine, alternative to the main switch or a decompression valve control, the vehicle may be equipped with an engine electrical power supply cut-out (Supplemental engine stop).</td>
</tr>
<tr>
<td>2</td>
<td>Supplemental engine stop control (RUN)</td>
<td>![Symbol]</td>
<td>Control</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ignition Switch</td>
<td>![Symbol]</td>
<td>Control</td>
<td>-</td>
<td>The device that enables the engine to run, and may also allow operation of other electrical systems on a vehicle</td>
<td>In the case of a rotary switch, the direction of motion shall be clockwise from the ignition &quot;off&quot; position to the ignition &quot;on&quot; position.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Electric Starter</td>
<td>![Symbol]</td>
<td>Control</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Manual Choke</td>
<td>![Symbol]</td>
<td>Control</td>
<td>The control need not be visible from the rider’s position</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td></td>
<td></td>
<td>Amber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Neutral (Gearbox Selection)</td>
<td>![Symbol]</td>
<td>Tell-tale</td>
<td>Green</td>
<td></td>
<td></td>
<td>The tell-tale is illuminated when the gear selector is in neutral position</td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------</td>
<td>----------</td>
<td>----------</td>
<td>------------------</td>
<td>----------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Fuel Tank Shutoff Valve Manual (OFF)</td>
<td>●</td>
<td>Control</td>
<td>The control need not to be visible from the rider’s position</td>
<td></td>
<td></td>
<td>The control shall have separate positive positions for “OFF”, “ON” and “RESERVE” (where a reserve supply is provided). The control shall be in the ON position when it is in the direction downstream of the flow of fuel from the tank to the engine: in the OFF position when it is in a direction perpendicular to the flow of fuel, and in the RESERVE position (where applicable) when it is in the direction upstream of the flow of fuel. In case of a system in which the fuel flow is stopped when the engine is switched off, and if equipped with a control, the symbols and control positions shall be the same as identified for Manual Fuel Shut-Off Control.</td>
</tr>
<tr>
<td>8</td>
<td>Fuel Tank Shutoff Valve Manual (ON)</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Fuel Tank Shutoff Valve Manual (RES)</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>---------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>10</td>
<td>Speedometer</td>
<td>Indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The display <strong>shall be</strong> illuminated whenever the position lamp (if available) or headlamp is activated</td>
</tr>
<tr>
<td>11</td>
<td>Audible warning device (Horn)</td>
<td>Control</td>
<td>On the left handlebar for vehicles with a gear selection control operated independently of a hand operated clutch. However, Contracting Parties may adopt the following requirements and conditions: on right handlebar for vehicles with gear selection located on the left handlebar and operated in conjunction with the hand operated clutch</td>
<td></td>
<td></td>
<td></td>
<td>Push to activate</td>
</tr>
<tr>
<td>12</td>
<td>Driving beam (Main, high or upper beam) – (Hi)</td>
<td>Control</td>
<td>On the left handlebar for vehicles with a gear selection control operated independently of a hand operated clutch. However, Contracting Parties</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td>13</td>
<td>Passing Beam (Dipped, low or lower Beam) - (Lo)</td>
<td>Tell-Tale</td>
<td>Blue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

may adopt the following requirements and conditions: on right handlebar for vehicles with gear selection located on the left handlebar and operated in conjunction with the hand operated clutch.
<table>
<thead>
<tr>
<th>No.</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td></td>
<td>and operated in conjunction with the hand operated clutch</td>
<td>Tell-Tale</td>
<td>Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Optical warning device</td>
<td>Control</td>
<td>adjacent to the Driving Beam/Passing Beam Control</td>
<td>May be an additional function of the Driving Beam/Passing Beam Control When control is released, the beam shall go back to the previous state</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Fog lamps - front</td>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td>Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>16</td>
<td>Fog lamps - rear</td>
<td><img src="image1.png" alt="Symbol" /></td>
<td>Control</td>
<td>.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Direction indicators</td>
<td><img src="image2.png" alt="Symbol" /></td>
<td>Control</td>
<td>Control(s) is/are to be located on the handlebar in clear view from the operator's seat and shall be marked clearly</td>
<td></td>
<td>Tell-Tale</td>
<td>Amber</td>
</tr>
<tr>
<td>18</td>
<td>Hazard warning signal</td>
<td><img src="image3.png" alt="Symbol" /></td>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Represented by either the direction indicator tell-tale(s) flashing (simultaneously), or by the given triangle symbol.</td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Represented by the given symbols for position lamps, master lamp control and parking lamp but if all lamps are automatically lit when vehicle is in operation, no position or master lamp control symbol need appear. Without prejudice to the requirements as provided in paragraph 4.4.1.1. the tell-tale function may be provided by means of instrument cluster illumination.</td>
</tr>
<tr>
<td>19</td>
<td>Position Lamp</td>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In the case of a rotary switch, operation of the switch in a clockwise direction shall engage, progressively, the vehicle's position lights and then the vehicle's main lights. This shall not prevent the inclusion of additional switch positions provided that they are clearly indicated. The light control switch may be combined with the ignition switch if so desired.</td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Master Lamp</td>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Parking Lamp</td>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tell-Tale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If the Parking Lamp function is incorporated in the ignition switch, identification is optional.</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>22</td>
<td>Fuel Indicator</td>
<td>Indicator</td>
<td>Tell-Tale</td>
<td>Amber</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Engine coolant</td>
<td>Indicator</td>
<td>Tell-Tale</td>
<td>Red</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Electrical charging</td>
<td>Indicator</td>
<td>Tell-Tale</td>
<td>Red</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Engine Oil</td>
<td>Indicator</td>
<td>Tell-Tale</td>
<td>Red</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Engine Speed Control</td>
<td>Control</td>
<td>On the right</td>
<td></td>
<td></td>
<td></td>
<td>Hand operated control. Anticlockwise rotation increases speed. The control shall be self-closing to idle in a clockwise direction after release of the hand unless a vehicle speed control device is activated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>handlebar.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td>--------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>27</td>
<td>Front wheel brake</td>
<td></td>
<td>Control</td>
<td>On the right handlebar. However, in the case of vehicles equipped with a combined brake system, the front wheel brake may operate with the rear wheel brake when the combined brake system is activated</td>
<td></td>
<td></td>
<td>Hand lever</td>
</tr>
<tr>
<td>28</td>
<td>Foot rear wheel brakes control</td>
<td></td>
<td>Control</td>
<td>On the right side of the frame. However, in the case of vehicles equipped with a combined brake system, the rear wheel brake may operate with the front wheel brake when the combined brake system is activated</td>
<td></td>
<td></td>
<td>Pedal</td>
</tr>
<tr>
<td>29</td>
<td>Hand rear wheel brake control</td>
<td></td>
<td>Control</td>
<td>On the left handlebar. However, in the case of vehicles equipped with a combined brake system, the rear wheel brake may operate with the front wheel brake</td>
<td></td>
<td></td>
<td>Hand lever Not allowed for vehicles with hand operated clutch</td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td></td>
<td>when the combined brake system is activated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Parking brake</td>
<td>Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hand lever or pedal</td>
</tr>
<tr>
<td>31</td>
<td>Clutch</td>
<td>Control</td>
<td>on the left handlebar</td>
<td></td>
<td></td>
<td></td>
<td>Hand lever Squeeze to disengage clutch. Shall not prohibit the use of devices on the left side of the vehicle that combine operations of a clutch and gear selector</td>
</tr>
<tr>
<td>32</td>
<td>Foot selector Manual gear shift Control</td>
<td>Control</td>
<td>On the left side of the frame</td>
<td></td>
<td></td>
<td></td>
<td>Foot lever or rocker arm Moving the forward part of the foot lever or rocker arm shall progressively select the gears: upward movement of the forward part for shifting to a higher gear position and downward movement for shifting to a lower gear position. If a separate, positive &quot;neutral&quot; position is provided, it shall be in either the first or second position in the gear selection order (i.e: 1-N-2-3-4-…. or N-1-2-3-4-….). However, Contracting Parties may adopt the following requirements and conditions: For vehicles with an engine capacity of less than 200cc, transmissions with the following shift patterns may be fitted: - Rotary pattern (i.e. N-1-2-3-4-5-N-1.) - Reverse pattern, where moving the forward part of the foot lever or rocker arm shall progressively select the gears: upward movement of the forward part for</td>
</tr>
<tr>
<td>No.</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
<td>Column 6</td>
<td>Column 7</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>ITEM</td>
<td>SYMBOL</td>
<td>FUNCTION</td>
<td>LOCATION</td>
<td>COLOUR</td>
<td>DEFINITION</td>
<td>OPERATION</td>
</tr>
<tr>
<td>33</td>
<td>Hand Selector</td>
<td>Manual gear shift Control</td>
<td>Control</td>
<td>On the left handlebar</td>
<td></td>
<td></td>
<td>shifting to a lower gear position, and - downward movement for shifting to a higher gear position</td>
</tr>
<tr>
<td>34</td>
<td>Anti-lock</td>
<td>Brake System Malfunction</td>
<td>Tell-Tale</td>
<td></td>
<td>Amber</td>
<td></td>
<td>If the operation of the control is through rotation of the handgrip, the anticlockwise rotation shall progressively select gears giving an increased forward speed and conversely for a reduced forward speed. If a separate, positive &quot;neutral&quot; position is provided it shall be in the first position in the gear selection order (i.e: N-1-2-3-4-...).</td>
</tr>
<tr>
<td>35</td>
<td>Malfunction</td>
<td>Indicator Lamp</td>
<td>Tell-Tale</td>
<td></td>
<td>Amber</td>
<td></td>
<td>Shall be used to convey power-train related failures which may affect emissions</td>
</tr>
</tbody>
</table>
Draft report on the proposal for a gtr on motorcycle controls, tell-tales and indicators (1998 Agreement)

GRSG-100-29 adopted as follows.

I. Statement of technical rationale and justification

A. Introduction

1. It is important to note that many vehicle collisions result from driver distraction. One identifiable source of such distraction is diversion of the driver’s attention from the driving task. This can be caused by confusing information displayed in the drivers' field of vision and unclear identification, location and, or operation of the controls necessary for vehicle operation.

2. The objective of the gtr is to reduce the safety hazards caused by rider distraction. Specifically, the proposal is intended to reduce distractions resulting from an error in control selection or inconsistency in graphical representations of tell-tales and indicators from one motorcycle to another.

3. When people purchase new vehicles in countries allowing motorcycles certified in different jurisdictions, they are faced with different tell-tales and means of identifying controls. Drivers need time to learn their dashboard messages and to identify their vehicle controls. During this time such drivers have to divide their attention between the increasingly difficult task of driving, the identification of controls and the comprehension of tell-tales provided to "ease" the driving task.

4. One of the main purposes of this gtr is to standardize and harmonize markings identifying controls, tell-tales and indicators. One way of doing this is through the use of symbols. A clear advantage of symbols, or pictograms, over wording is that symbols, once they have been taught to and have been recognised by the target group, overcome language barriers. Drivers shall be able to operate motorcycles safely, even if they cannot understand the language of the country they are visiting. Recognition that is independent of language is an advantage in a global motorcycle market.

5. Furthermore, some Contracting Parties have more than one official language and require that motorcycle safety information be presented in all official languages. This could result in a requirement to provide a language selection function to drivers or a means to display wording in all official languages, which would be difficult on space-limited dash panels.

6. This gtr is developed to harmonize the way in which motorcycle controls, tell-tales and indicators are installed and identified.

7. This gtr applies to all on-road motorcycles. It specifies requirements for the location, identification, operation, colour, and illumination of motorcycle tell-tales, indicators and controls. It also harmonizes a set of symbols for, if fitted, controls, tell-tales and indicators.

8. This gtr ensures the accessibility, visibility, and recognition of motorcycle controls, tell-tales, and indicators and facilitates the proper selection of controls under daylight and night-time conditions. The gtr also aims at reducing the safety hazards caused by the diversion of the rider's attention from the driving task by mistakes in selecting controls.
9. When implementing this GTR into national legislation, Contracting Parties may continue to offer the option to use their current required words, in addition to allowing for symbols only or symbols and supplementary words and other operational requirements than those given in this global technical regulation.

10. This GTR is based on existing regulations listed below. It includes the common elements from the existing regulations so as to allow the rapid acceptability of the GTR.

11. This GTR is currently applicable to category L 3-3, only so as to have agreement on the harmonization of symbols for controls, tell-tales and indicators. Once the GTR has been established it is the intention to study further extension to other L category vehicles.

12. This GTR is a first step in the harmonization process: as other controls, tell-tales and indicators get used these will be considered to be added to the current list.

B. Existing Regulations and International Voluntary Standards

13. GRSG followed the recommendations of paragraph 4. of TRANS/WP29/2002/882. In the absence of a technical regulation in the compendium of candidates for GTRs, GRSG considered the documents listed below:

- Federal motor Vehicle Safety Standard (FMVSS) 123: Motorcycle controls and displays;
- Canada Motor Vehicle Safety Regulation No. 123 – Motorcycle controls and displays;
- Japan Article 10;
- Japan Article 46;
- ECE Regulation 60; developed in the framework of the 1958 Agreement.

14. GRSG has also considered the known voluntary standards on the subject, specifically:

- ISO 6727-1981 Road vehicles - Motorcycles - Symbols for controls, indicators and tell-tales;
- ISO 9021-1988 Motorcycles - Controls - Types, positions and functions;

15. The above regulations and voluntary standards on the subject of the installation and identification of controls, tell-tales and indicators were used as the basis of development of the GTR.

16. Symbols are one of the efficient ways of communicating information to drivers. The consistent use of a selected symbol in all new motorcycles will increase its recognition. Symbols have the potential to simplify motorcycle design and, once taught and recognised, to reduce driver confusion.

17. This GTR attempts to reduce the variety by covering the requirements of as many controls as possible. This does not imply that all those controls and their requirements included in this GTR are mandatory. Each Contracting Party still decides the mandatory controls and the related requirements such as e.g., presence of tell-tales in their region through specific legislation.
C. Background to gtr

18. The proposal to establish this gtr was adopted by the Executive Committee (AC.3) of the 1998 Global Agreement at its twenty-fifth session, in March 2009. It is described in document ECE/TRANS/WP.29/AC.3/22 (appended to this gtr in conformity with paragraph 6.2.7. of the Agreement).

19. Italy agreed to sponsor the proposal for the gtr and in 2008, IMMA undertook to review the similarity between the symbols used for cars and motorcycles, the recognition of symbols and market practice.

20. The results of the IMMA study of how the symbols were being used was presented to 95/GRSG and 139/WP29. The study stated that the symbols listed by IMMA were used worldwide. This justified them being used in the gtr whereas those which were frequently found in some regions only could be considered for future amendments of the gtr.

21. The study also concluded that several Contracting Parties allowed the use of language as an alternative means of marking controls and this practice should not be affected by the adoption of the gtr by such administrations.

22. The first full discussion, based on the comparison document drafted by IMMA was held at 97/GRSG.

23. 97/GRSG proposed the formation of an Informal Group on motorcycle controls, tell-tales and indicators (MCSYM) under the chairmanship of Italy and with secretarial support from IMMA. The meetings were open to all interested parties. The participants in the informal groups included representatives of Canada, India, Japan, Korea, USA, the European Commission and IMMA.

D. Procedural background and development of the gtr

24. This gtr was developed by the GRSG Informal Group on motorcycle controls, tell-tales and indicators (MCSYM).

25. The first Informal Group meeting was held in April 2010 and agreed upon the terms of reference and rules of procedure. These were then presented for agreement at 98/GRSG. Having witnessed the development of a similar gtr for cars, it was agreed that only symbols that were common and agreeable to the Contracting Parties would be included in a first phase of the gtr.

26. The Informal Group agreed to a time plan that would have delivered the gtr to WP.29 for adoption in March 2011. The original timing has slipped as the collection and consideration of comments has taken more time than planned.

27. One of the key issues for this gtr continued to be how to ensure that motorcycles with symbols only would also be allowed where the administrations had implemented language as an alternative means of marking controls. The Informal Group noted that the existence of the gtr would in no way reduce the possibilities of Contracting Parties to accept motorcycles with language instead of symbols or in addition to symbols in their territory as long as products that comply with the gtr are accepted also.

28. Another key issue for this gtr was the request by some administrations for the inclusion of options on the location of the controls. The Informal Group noted that the presence of options would not only push this gtr away from harmonization, it would also reduce the level of safety as riders could be faced with different locations or identifications of controls. However, in limited cases where certain technical solutions would lead to
physical difficulties to operate multiple controls at the same time, provisions for different locations are included.

29. This gtr was developed during and in between three Informal Group meetings and was approved by GRSG at its 100th session.

E. Regulatory impact and economic effectiveness

30. Although this gtr does not quantify any measurable threat to motorcycle safety, GRSG has agreed that there is a need to harmonize identification, operation and location of motorcycle controls, tell-tales and indicators.

31. Driver distraction significantly contributes to incidents involving motorcycles. Standardizing controls, tell-tales and indicators could reduce driver distraction, resulting in improved safety for all road-users.

32. Since all the symbols prescribed in the gtr are currently accepted by most of the Contracting Parties, the cost is minimal. The gtr ensures better understanding of safety symbols by riders around the world.

33. Defining the location, operation and identification of controls and displays is of sufficient importance to warrant this gtr. This gtr is a first step. As other controls, tell-tales and indicators get used and get recognition these will be considered to be added to the current list through revisions and addendums to the gtr.
Annex IX

GRSG informal groups

<table>
<thead>
<tr>
<th>Informal group</th>
<th>Chairperson</th>
<th>Secretary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera Monitor Systems (CMS)</td>
<td>Mr. H. Jongenelen (Netherlands)</td>
<td>Mr. O. Fontaine (OICA)</td>
</tr>
<tr>
<td>Tel: +31 79 3458268</td>
<td>Tel: +33 1-43590013</td>
<td></td>
</tr>
<tr>
<td>Fax: +31 793458041</td>
<td>Fax: +33 1-45638441</td>
<td></td>
</tr>
<tr>
<td>Email: <a href="mailto:hjongenelen@rdw.nl">hjongenelen@rdw.nl</a></td>
<td>Email: <a href="mailto:ofontaine@oica.net">ofontaine@oica.net</a></td>
<td></td>
</tr>
<tr>
<td>Service Doors, Windows and Emergency Exits in Buses and coaches (SDWEE)</td>
<td>Mr. J. Kownacki (Poland)</td>
<td></td>
</tr>
<tr>
<td>Tel: +48 22 8112510</td>
<td>Tel: +43 1-43590013</td>
<td></td>
</tr>
<tr>
<td>Fax: +48 22 8114062</td>
<td>Fax: +33 1-45638441</td>
<td></td>
</tr>
<tr>
<td>Email: <a href="mailto:jerzy.kownacki@its.waw.pl">jerzy.kownacki@its.waw.pl</a></td>
<td>Email: <a href="mailto:ofontaine@oica.net">ofontaine@oica.net</a></td>
<td></td>
</tr>
<tr>
<td>Plastic glazing</td>
<td>Mr. K. Preusser (Germany)</td>
<td>Mr. O. Fontaine (OICA)</td>
</tr>
<tr>
<td>Tel: +49 230443623</td>
<td>Tel: +33 1-43590013</td>
<td></td>
</tr>
<tr>
<td>Fax: +49 2304467544</td>
<td>Fax: +33 1-45638441</td>
<td></td>
</tr>
<tr>
<td>Email: <a href="mailto:dr.klaus.preusser@t-online.de">dr.klaus.preusser@t-online.de</a></td>
<td>Email: <a href="mailto:ofontaine@oica.net">ofontaine@oica.net</a></td>
<td></td>
</tr>
<tr>
<td>gtr on motorcycle controls, tell-tales and indicators</td>
<td>Mr. A. Erario (Italy)</td>
<td>Mr. R. Choda (IMMA)</td>
</tr>
<tr>
<td>Tel: +39 06 4158 6228</td>
<td>Tel: +41 22 920 21 20</td>
<td></td>
</tr>
<tr>
<td>Fax: +39 06 4158 3253</td>
<td>Fax: +41 22 920 21 21</td>
<td></td>
</tr>
<tr>
<td>E-mail: <a href="mailto:antonio.erario@mit.gov.it">antonio.erario@mit.gov.it</a></td>
<td>E-mail: <a href="mailto:ravchoda@immamotorcycles.org">ravchoda@immamotorcycles.org</a></td>
<td></td>
</tr>
</tbody>
</table>