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INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Lighting and Light-Signalling (GRE)
(Fiftieth session, 7-11 April 2003, agenda item 2.2.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 37
(Filament lamps)

Transmitted by the expert from the Working Party "Brussels 1952" (GTB)

Note: The text reproduced below was prepared by the expert from GTB in order to insert into the Regulation provisions for a new double filament lamp of category HS5 for motorcycles. The suggested amendments to the Regulation are marked in bold characters. The text is based upon:

- The text of Revision 3;
- Including (draft) Supplements 21 and 22;
- Including draft Corrigendum 1 to Revision 3;
- Draft proposals to introduce red filament light source (TRANS/WP.29/GRE/2002/36);
- Draft proposals for editorial amendments (TRANS/WP.29/GRE/2002/31);
- Informal document No. 2 distributed during the forty-ninth session of GRE.

Note: This document is distributed to the Experts on Lighting and Light-Signalling only.
A. PROPOSAL

Text of the Regulation,

Annex 1.

List of categories of filament lamps, amend to read:

```
Category  Sheet number(s)
```

```
...  
  HS2  HS2/1..3 
  HS5  HS5/1..4 
  R2   R2/1..3 
...
```

List of sheets for filament lamps, amend to read:

```
Sheet number(s)
```

```
...  
  HS2/1..3  
  HS5/1..4  
  P19W/1..3 
...  
```

New sheets HS5, insert in between sheet HS2/3 and sheet P19W/1 as indicated in the List of sheets above, to read:

(see next pages)

* * *

B. JUSTIFICATION

The proposed draft amendments concern the addition of a new double filament lamp for motorcycles. The proposed introduction of a new harmonized symmetrical beam pattern was the immediate cause to this development. The proposal also corrects a few editorial errors.
The drawings are intended only to illustrate the essential dimensions (in mm) of the filament lamp.

**FILAMENT LAMP FOR MOTORCycles**

1/ The reference plane is defined by the three ramp inside surface.

2/ The reference axis is perpendicular to the reference plane and passing through the centre of the 23 mm cap diameter.

3/ Glass bulb and supports shall not exceed the envelope as indicated in figure 1. The envelope is concentric to the reference axis.

4/ Glass bulb shall be optically distortion free within the angles $\gamma_1$ and $\gamma_2$. This requirement applies to the whole bulb circumference within the angles $\gamma_1$ and $\gamma_2$.

5/ The obscuration shall extend at least to angle $\gamma_3$ and shall extend at least to the cylindrical part of the bulb on the whole top circumference.

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**Figure 1 Main drawing**

**Figure 2 Distortion free area 4/ and black top 5/**
Figure 3
Filament position and dimensions
### Filament lamps of normal production

<table>
<thead>
<tr>
<th>Dimensions in mm</th>
<th>Filament lamps of normal production</th>
<th>Standard filament lamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>e</td>
<td>26</td>
<td>± 0.15</td>
</tr>
<tr>
<td>lc</td>
<td>7 / 4.6</td>
<td>± 0.3</td>
</tr>
<tr>
<td>k</td>
<td>0</td>
<td>± 0.2</td>
</tr>
<tr>
<td>h1, h3</td>
<td>0</td>
<td>± 0.15</td>
</tr>
<tr>
<td>h2, h4</td>
<td>0</td>
<td>± 0.2</td>
</tr>
<tr>
<td>lr</td>
<td>7 / 4.6</td>
<td>± 0.3</td>
</tr>
<tr>
<td>j</td>
<td>0</td>
<td>± 0.2</td>
</tr>
<tr>
<td>g1, g3</td>
<td>0</td>
<td>± 0.30</td>
</tr>
<tr>
<td>g2, g4</td>
<td>2.5</td>
<td>± 0.40</td>
</tr>
<tr>
<td>γ1</td>
<td>50° min.</td>
<td>-</td>
</tr>
<tr>
<td>γ2</td>
<td>23° min.</td>
<td>-</td>
</tr>
<tr>
<td>γ3</td>
<td>50° min.</td>
<td>-</td>
</tr>
</tbody>
</table>

Cap P23t in accordance with IEC Publication 60061 (sheet 7004-.....-1)

### ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS

<table>
<thead>
<tr>
<th>Rated values</th>
<th>Voltage V</th>
<th>12</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wattage W</td>
<td>35</td>
<td>30</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test voltage</th>
<th>V</th>
<th>13.2</th>
<th>13.2</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Objective Values</th>
<th>Wattage W</th>
<th>40 max.</th>
<th>37 max.</th>
<th>40 max.</th>
<th>37 max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminous flux</td>
<td>lm</td>
<td>620</td>
<td>515</td>
<td></td>
<td></td>
</tr>
<tr>
<td>±%</td>
<td>15</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reference luminous at approximately 12V

460 lm  380 lm

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6/ To be checked by means of a “box-system”. Sheet HS5/4.

7/ The positions of the first and the last turn of the filament are defined by the intersections of the outside of the first and the outside of the last light-emitting turn, respectively, with the plane parallel to and 26 mm distant from the reference plane.
Screen projection requirement
This test is used to determine whether a filament lamp complies with the requirements by checking whether:
(a) the passing-beam filament is correctly positioned relative to the reference axis and the reference plane; and whether
(b) the driving-beam filament is correctly positioned relative to the passing-beam filament.

Side elevation

Front elevation

The filaments shall lie entirely within the limits shown.
The centre of the filament shall lie within the limits of dimension k.