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(Forty-seventh session, 1-5 October 2001,
agenda item 2.1.)

PROPOSAL FOR DRAFT AMENDMENTS (SUPPLEMENT 22 TO THE 02 SERIES)
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 introduce in the Regulation a new filament lamp, category H14. The proposal was considered and approved by GTB at its ninety-first plenary session held in Rome, from 9-11 May 2001.

Note: This document is distributed to the Experts on lighting and light-signalling only.

GE.01-22609

A. PROPOSAL

List of contents, annexes,

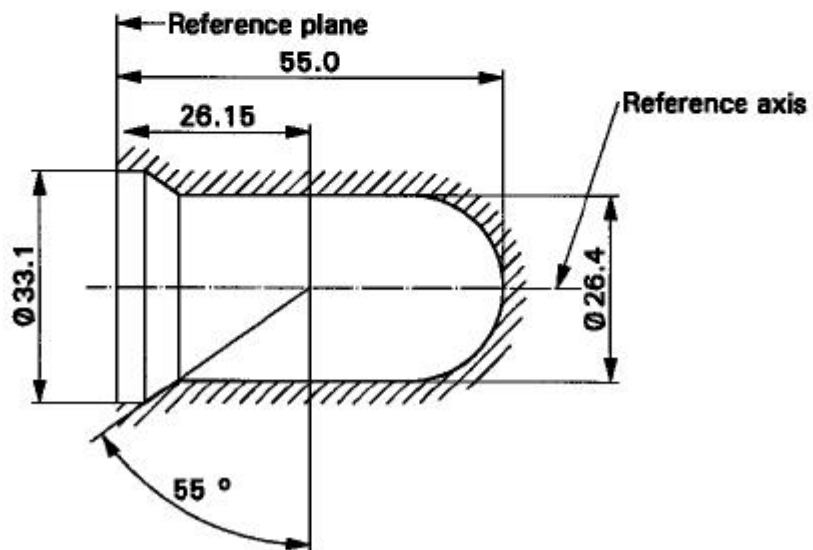
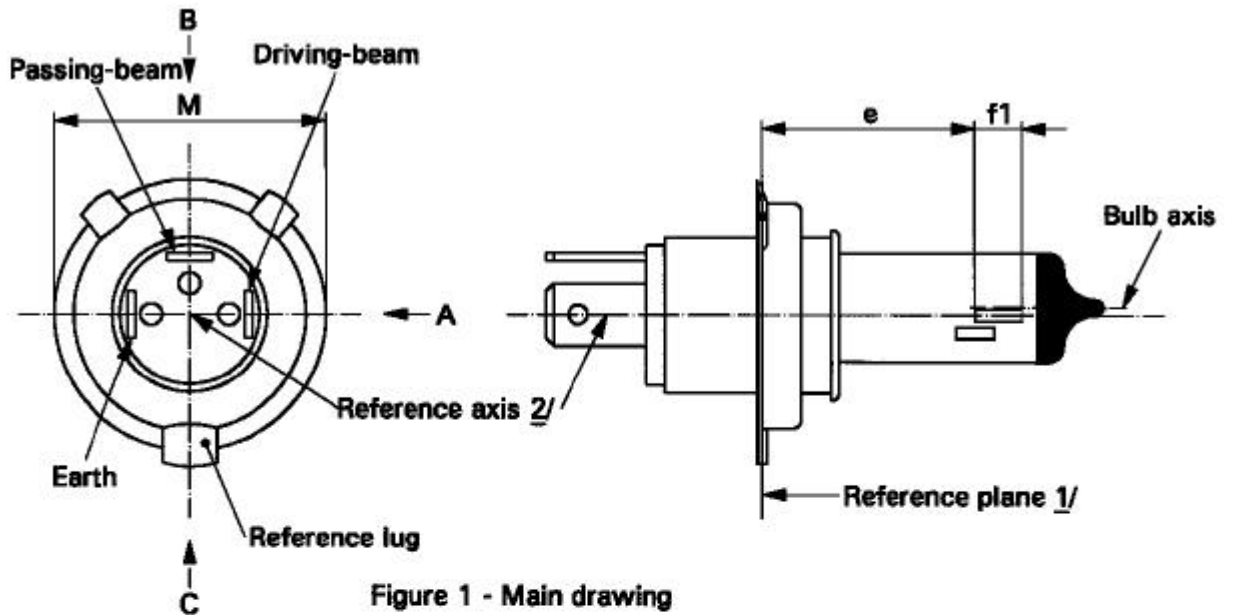
Annex 1, add at the end of the list new sheets, to read:

".....
Sheets H14"

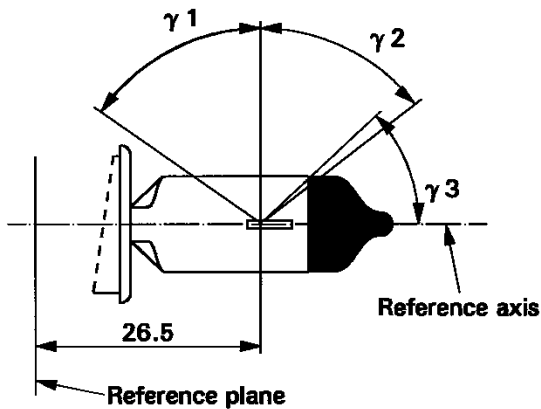
Annex 1,

Add at the end new data sheets H14/1 to H14/4, to read:

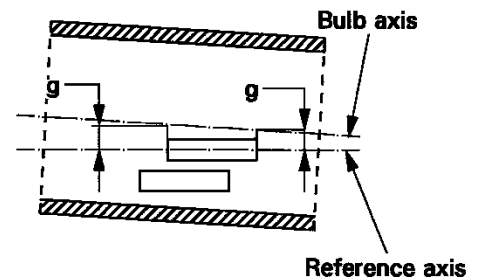
The drawings are intended only to illustrate the essential dimensions (in mm) of the filament lamp



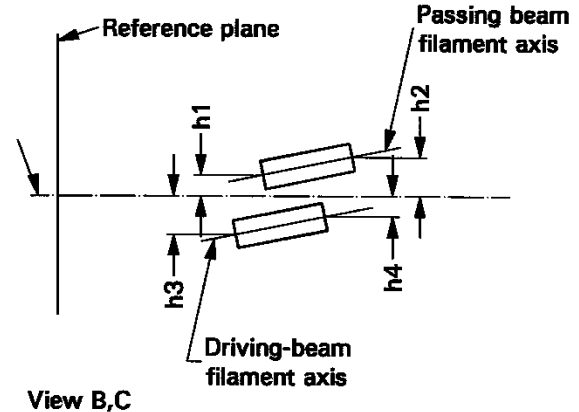
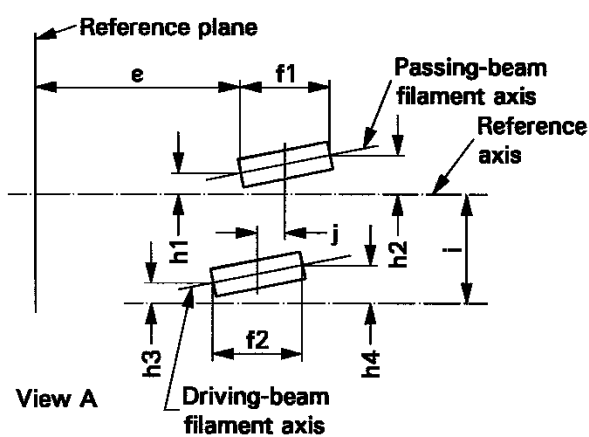
- 1/ The reference plane is defined by the points on the surface of the holder on which the three lugs of the cap ring will rest.
- 2/ The reference axis is perpendicular to the reference plane and passing through the center of the cap ring diameter 'M'.
- 3/ Glass bulb and supports shall not exceed the envelope as indicated in figure 2. The envelope is concentric to the reference axis.



View B Figure 3 - Distortion free area 4/
and black top 5/



View A Figure 4 - Bulb eccentricity 6/



View A View B,C Figure 5- Offset of filament axis 7/
(for standard filament lamps only)

- 4/ Glass bulb shall be optically distortion free within the angles γ_1 and γ_2 . This requirement applies to the whole bulb circumference within the angles γ_1 and γ_2 .
- 5/ The obscuration shall extend at least to angle γ_3 and shall extend at least to the cylindrical part of the bulb on the whole bulb top circumference.
- 6/ Eccentricity of bulb with respect to passing-beam filament axis is measured in two planes parallel to the reference plane where the projection of the outside of the end turns nearest to or furthest from the reference plane crosses the passing-beam filament axis.
- 7/ The offset of the filaments with respect to the reference axis is measured only in viewing direction A, B and C as shown in figure 1 on sheet H14/1. The points to be measured are those where the projection of the outside of the end turns nearest to or furthest from the reference plane crosses the filaments axis.

CATEGORY H14

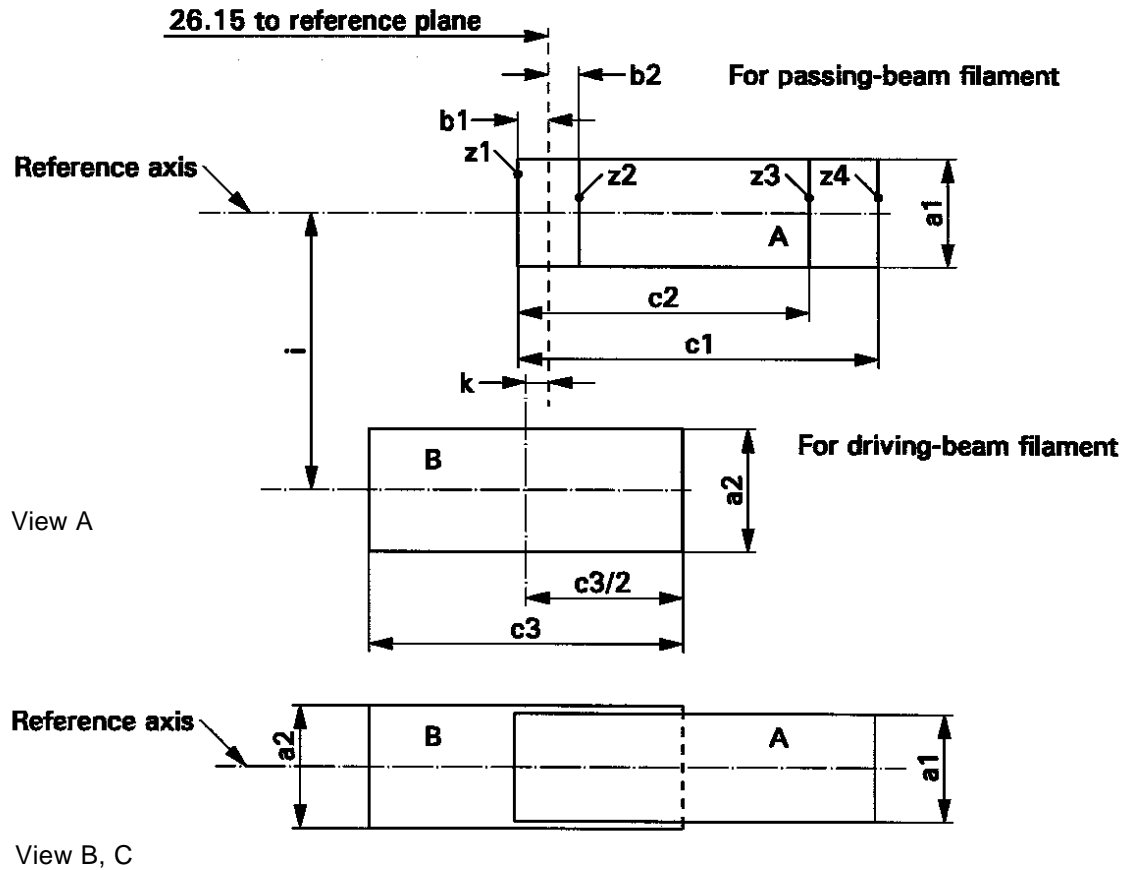
Sheet H14/3

Dimensions in mm		Filament lamp of normal production	Standard filament lamps		
e	<u>8/</u> 26.15	<u>12/</u>	± 0.1		
f1	<u>8/ 9/</u> 5.3	<u>12/</u>	± 0.1		
f2	<u>8/ 9/</u> 5.0	<u>12/</u>	± 0.1		
g	0.3 min.				
h1	0	<u>12/</u>	± 0.1		
h2	0	<u>12/</u>	± 0.15		
h3	0	<u>12/</u>	± 0.15		
h4	0	<u>12/</u>	± 0.15		
i	2.7		-		
j	2.5	<u>12/</u>	± 0.1		
γ1	55° min.	-	-		
γ2	52° min.	-	-		
γ3	43°	0/-5°	0/5°		
Cap P38t-33 in accordance with IEC Publication 60061 (sheet 7004-....-1)					
ELECTRICAL AND PHOTOMETRIC CHARACTERISTICS					
Rated values	Volts	12		12	
	Watts	55	60	55	60
Test voltage	Volts	13.2		13.2	
Objective values	Watts	68 max.	75 max.	68 max.	75 max.
	Luminous flux	1150 ± 15%	1750 ± 15%		
Reference luminous flux at approximately. 12 V				860	1300

- 8/ The ends of the filaments are defined as the points where, when the viewing direction is direction A as shown in figure 1 on sheet H14/1, the projection of the outside of the end turns crosses the filaments axis.
- 9/ "f1" represents the length of the passing-beam filament and "f2" represents the length of the driving-beam filament.
- 10/ "d1" represents the diameter of the passing-beam filament and "d2" represents the diameter of the driving-beam filament.
- 11/ Notes concerning the filaments diameter.
 - No actual diameter restrictions apply but the objective for future developments is to have d1 max. = 1.6 mm and d2 max. = 1.6 mm.
 - For the same manufacture, the design diameter of standard filament lamps and filament lamps of normal production shall be the same.
- 12/ To be checked by means of a "Box system; sheet H14/4.

Screen projection requirements

This test is used to determine, by checking whether the filaments are correctly positioned relative to the reference axis and the reference plane, whether a filament lamp complies with the requirements.



a1	a2	b1	b2	c1	c2	c3	i	k
d1 +0.5	1.6 * d2	0.2		5.8	5.1	5.75	2.7	0.15

d1 is diameter of the passing beam filament and d2 that of the driving beam filament

The positions of the filaments are checked solely in directions A, B and C as shown in figure 1 on sheet H14/1.

The passing-beam filament shall lie entirely in the rectangle A and the driving beam filament entirely in rectangle B

The ends of the passing-beam filament as defined on sheet H14/3, note g/ shall lie between lines Z1 and Z2 and between lines Z3 and Z4.

B. JUSTIFICATION

The proposed draft amendments concern the addition of a new double filament lamp H14. This filament lamp was developed for application in headlamps with complex shape reflector and is in production in Japan. The light source has no internal shield and is equipped with a metal cap with IEC designation P38t-33. The cap will be standardised in IEC.

At the time H13 and H14 were under consideration by the GTB, an attempt has been made to combine both proposals. This appeared to be impossible. Despite some similarities like no internal shield, the cap is the major difference between these new categories of filament lamps.
