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Working Party on General Safety Provisions (GRSG) (Eighty-seventh session, 12-15 October 2004, agenda item 10.1.)

AMENDMENT PROPOSAL TO DRAFT GLOBAL TECHNICAL REGULATION ON HAND CONTROLS, TELL-TALES AND INDICATORS
PRESENT ON CATEGORY 1 AND 2 VEHICLES
(TRANS/WP.29/2000/8/Rev.3)

Transmitted by the expert from the India

<u>Note</u>: The text reproduced below is based on the text of informal document No. GRSG-86-27 (TRANS/WP.29/GRSG/65, para. 30.).

Note: This document is distributed to the Experts on General Safety Provisions only.

A. PROPOSAL

 $\underline{\underline{\text{Table 1}}}$, the following symbols should be included:

| No | Column 1 | Column 2 | Column 3 | Column 4 | Column 5 |
|-----|---|----------|----------|--------------|----------|
| | ITEM | SYMBOL | FUNCTION | ILLUMINATION | COLOUR |
| 41. | Fuel selector switch In case of Bi-fuel 12/ vehicles: a) For vehicles fitted with electronic fuel injection (Two position switch) | | Control | Yes | |
| | a1.) Vehicles running on CNG | CNG | | | |
| | a2.) Vehicles running on LPG | CNG | | | |
| | | | | | |

| | b) For all other vehicles (Three position switch) b1.) Vehicles running on CNG | ° CNG | | | |
|----|--|--|--|-----|--------|
| | b2.) Vehicles running on LPG | O CONTRACTOR OF THE PROPERTY O | | | |
| 42 | CNG Fuel level | CNG | Tell-tale | Yes | Yellow |
| | | | Indicator */(Example of indicator is given below) | Yes | |

| LPG Fuel level | LPG | Tell-tale | Yes | Yellow |
|----------------|-----|--|-----|--------|
| | | Indicator */(Example of indicator is given below) | Yes | |

Add the following footnote 12/:

"12/ Bi-fuel system is defined as a system equipped to operate either on CNG / LPG or some other fuel e.g. petrol."

Table 2,

Symbols for controls, tell-tales and indicators required in electric or hybrid electric road vehicles should be included in other symbols.

* * *

B. JUSTIFICATION

India is one of the largest operators of automotive vehicles running on Bi-fuel i.e. on CNG / LPG or petrol.

Re. Table 1

In Bi-fuel vehicles, a fuel selector switch (control) is required for the selection of fuel to be used from the available fuels (e.g. CNG / LPG and petrol). Identification of this switch (control) is necessary hence a symbol is suggested.

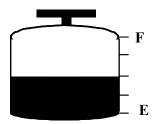
In case of Bi-fuel vehicles fitted with electronic fuel injection systems, a two-position switch (control) is required for selection of fuel.

In the case of other Bi-fuel vehicles (e.g. carburettor fitted), a three-position switch (control) is required, particularly when switching over from petrol to CNG mode to empty the petrol from the carburettor bowl.

Symbols No. 7 of Table 1 used for fuel level tell-tale and indicator are normally used for fuel petrol/diesel. A separate symbol as given above is available in ISO:2575:2000 for CNG / LPG fuel and suggested to be used in the case of CNG / LPG fuel level tell-tale and indicators.

"

*/ Example of indicator for fuel level.



Reference for symbols:

| 1. | B | ISO 2575:2000 (E) Road Vehicles- Symbols for controls, indicators and tell-tales Annex G- Fuel System G-01 |
|----|-----|--|
| 2. | CNG | ISO 2575:2000 (E) /Amd. 1:2001(E) Annex Z-Special Signs Z-4 |
| 3. | LPG | ISO 2575:2000 (E) /Amd. 1:2001(E) Annex Z-Special Signs Z-5 |

Re. Table 2

There is a need for the symbols to identify the controls, tell-tales and indicators, such as state of propulsion battery, electric motor, etc. to be used in electric or hybrid electric road vehicles.