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**Economic Commission for Europe** 

**Inland Transport Committee** 

**World Forum for Harmonization of Vehicle Regulations** 

**Working Party on General Safety Provisions** 

One hundredth session Geneva, 11 – 15 April 2011

Draft New Global technical regulation on motorcycle controls, tell-tales and indicators

Proposal for global technical regulation concerning the **Location, Identification and Operation of Motorcycle Controls, Tell-tales and Indicators** 

Submitted by the expert from Italy \*

Canadian suggested changes are highlighted and marked as follows: new text

In accordance with the programme of work of the Inland Transport Committee for 2006–2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

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**Justification** 

**ECONOMIC COMMISSION FOR EUROPE** 

**INLAND TRANSPORT COMMITTEE** 

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

Working Party on General Safety Provisions (GRSG)

The text reproduced below was prepared by the expert from Italy as a result of the discussion of the informal group on motorcycle controls, tell-tales and indicators regarding a proposal for a new global technical regulation on motorcycle controls, tell-tales and indicators.

PROPOSAL FOR A NEW DRAFT GLOBAL TECHNICAL REGULATION CONCERNING LOCATION AND IDENTIFICATION OF MOTORCYCLE CONTROLS, TELL TALES AND INDICATORS

### **COMMENTS TO INFORMAL GROUP SECRETARY BY 17 DECEMBER 2010**

### I. Proposal

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

II. Statement of Technical Rationale and Justification

### 1. Introduction

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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 GRSG Working Party. 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.

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 recognised 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.

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.

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.

However, when implementing this global technical regulation into national legislation, Contracting Parties may continue to maintain their current required words in conjunction with or in place of any symbols given in this global technical regulation. Contracting Parties may also define other installation, identification and operational requirements than those given in this global technical regulation.

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.

This gtr also describes alternative requirements for location and operation of controls. Such alternatives may be permitted by a Contracting Party, if they specifically desire to do so.

The contracting parties shall inform UN secretariat, as per article 7.2 of the 1998 agreement, the options they intend to accept.

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.

### 2. Procedural Background

During the XXX session of GRSG in 2002, IMMA proposed the development of ECE Regulations regarding controls, tell-tales and indicators.

It had been agreed 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.

### 3. Discussion of Issues Addressed by the GTR (Symbols)

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.

GRSG Working Party 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 recognisibility to allow for further harmonization of the symbols, tell-tales and indicators.

# 4. Existing Regulations, Directives and International Voluntary Standards

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:

- EC Directive 2009/80/EC of the European Parliament and of the Council of 13 July 2009 on the identification of controls, tell-tales and indicators for two or three-wheel motor vehicles (codified version);
- FMVSS 123: Motorcycle controls and displays
- Canada Motor Vehicle Safety Regulation No. 123 Motorcycle controls and displays.

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- Japan Article 10

- Japan Article 46

- ECE Regulation 60

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

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.

### 5. Regulatory Impact and Economic Effectiveness

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.

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.

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.

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.

### 6. SCOPE AND APPLICATION

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

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### A. STATEMENT OF TECHNICAL RATIONALE AND JUSTIFICATION

### I. INTRODUCTION

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 GRSG Working Party. 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.

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 recognised 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.

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.

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.

When However, when implementing this global technical regulation into national legislation, Contracting Parties may continue to maintain their current required words in conjunction with or in place of any symbols given in this global technical regulation. Contracting Parties may also define other installation, identification and operational requirements than those given in this global technical regulation.

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.

[This gtr also describes alternative requirements for location and operation of controls. Such alternatives may be permitted by a Contracting Party as alternate, if they specifically desire to do so.

The contracting parties shall inform UN secretariat, as per article 7.2 of the 1998 agreement , the options they intend to accept.]

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).

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This set of symbols was selected because it is currently used internationally and is accepted by most manufacturers and Contracting Parties. It is the intention that for any new symbols added to the GTR, should have undergone ISO recognition studies to ensure a full and global comprehension of the symbol.

### II. PROCEDURAL BACKGROUND

During the XXX session of GRSG in 2002, IMMA proposed the development of ECE Regulations regarding controls, tell-tales and indicators.

It had been agreed 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.

### III. DISCUSSION OF ISSUES ADRESSED BY THE GTR (SYMBOLS)

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.

GRSG Working Party has successfully obtained agreement on most of the criteria for the location, operation, illumination and position of the controls and display. One issue regarding the use of certain symbols remains. (To address this issue, the The global technical regulation proposal calls for inclusion of a table that will identifyies 326 functions determined to be essential for safety. Each Most of these functions will beare associated with a symbol. The current global technical regulation defines some mandatory symbols based on the ISO standard. This was determined appropriate as all these symbols are already accepted by most Contracting Parties. The remaining Other safety symbols will need to be selected by the Contracting Parties on the basis of their applicability to motorcycles and their global recognisibility to allow for further harmonization of the symbols, tell tales and indicators.)

# IV. EXISTING REGULATIONS, DIRECTIVES AND INTERNATIONAL VOLUNTARY STANDARDS

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 global technical regulation in the compendium of candidates for global technical regulations, GRSG has considered the documents listed below:

EC Directive 2009/80/EC of the European Parliament and of the Council of 13 July 2009 on the identification of controls, tell-tales and indicators for two or three-wheel motor

**vehicles (codified version);** Identification of controls, tell tales and indicators as amended by Commission Directive 93/91/EEC;

- FMVSS 123: Motorcycle controls and displays
- Canada Motor Vehicle Safety Regulation CMVSR No. 123 Motorcycle controls and displays.
- Japan Article 10
- Japan Article 46
- ECE Regulation 60

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

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.

### V. REGULATORY IMPACT AND ECONOMIC EFFECTIVENESS

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 vehicle controls, tell-tales and indicators.

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.

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.

Defining the installation**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.

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

### 1. SCOcope and PurposePE AND PURPOSE

This global technical regulation specifies requirements for the location, identification, **illumination** and operation of motorcycle 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 that would otherwise be caused by the diversion of the rider's attention from the driving task by mistakes in selecting controls.

### 2. Application

This global technical regulation applies to power-driven vehicles of category 3-3 as defined in SR1<sup>1</sup>that are driven on the public roads. The application of this global technical regulation to other sub categories in category 3 still needs to be investigated and reviewed.

### 3. **DEFINITIONS**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.

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<sup>&</sup>lt;sup>1</sup> (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) (http://www.unece.org/trans/doc/2005/wp29/TRANS-WP29-1045e.doc))

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- 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.
- 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.
- "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.
- 3.210.1 "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.
- **3.3.2312.** "*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.
- 3.3.24.13. "Tell-tale" means an optical signal which indicates the actuation of a device, correct or defective functioning or condition, or failure to function.
- **3.143.25.** "Symbol" means a diagram from which to identify a control, a tell-tale or an indicator.
- 3.153.26. "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

**4.1.1.** 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

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to the location, identification, operation, illumination, and colour of that control, tell-tale or indicator.

When implementing this global technical regulation into national legislation, Contracting Parties may allow the use of supplementary word(s) in conjunction with or in place of symbol(s) and may define specific requirements concerning the identification of controls, tell-tales and indicators for functions other than those listed in Table 1.

4.1.2. When implementing this global technical regulation into national law or regulations, a Contracting Party shall notify the Secretary General in writing of the intent to continue to allow or require

- word(s) or abbreviation(s) in conjunction with, or in place of symbol(s) listed in Table 1; and

 any specific requirements concerning the identification of controls, tell-tales and indicators for functions other than those listed in Table 1,

4.1.3. For functions for which no symbol is available in Table 1, the manufacturer may use a symbol following the appropriate ISO standards. Where no ISO 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-in-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.
- 4.2.4. 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.
- 4.2.5. Paragraph 4.2.3. does not apply to multi-function controls, if:
- 4.2.5.1. the control is associated with a multi-task display, and

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- 4.2.5.2. the associated multi-task display is visible to the driver, and
- 4.2.5.3. identifies the control with which it is associated, either graphically or in words, and
- 4.2.5.4. all of the vehicle systems for which control is possible from the multifunction control are identified on a multi-task display. Sub-functions of those systems need not be shown on the top-most layer of the multi-task display, and
- 4.2.5.5. does not display tell-tales listed in Table 1

### JUSTIFICATION:

Paragraph 4.2.5. does not read well. The multi-function-control is confused with the multi-task-display.

### Alternative wording suggested by Canada:

- 4.2.5. 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, either graphically or in words, 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. Small deviations in the design shape of the symbols listed shown in column 3 of Ttable 1 are allowed.

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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.

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When implementing this global technical regulation into national legislation, Contracting Parties may allow the use of supplementary words in conjunction with or in lieu or with any symbol.

- 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. Identification symbols shall be provided for the control of each function of the automatic vehicle speed system (cruise control).
- 4.3.7. 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:
- 4.4.2 [Means may be provided for illuminating tell tales and their identification symbols to make them visible to the driver under daylight and night time driving conditions.]
- 4.4.32. 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..4.43 At the manufacturers' option, the identification symbols provided on controls may be illuminated.

### 4.5. Colour

4.5.1. Subject to paragraph 4.6.6., The light of each tell-tale shall be of the colour as specified in Table 1.

- 4.5.2. The colour of indicators, tell-tales and the identification symbols for indicators and controls not listed in Table 1 shall can be selected by the manufacturer in accordance with paragraphs 4.5.3-and 4.5.4. 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 shall be selected 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 <del>yellowamber</del> 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

Except as provided in 4.6.3, a-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 paragraph 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 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
  - 1. repeated automatically in sequence, or
  - 2. indicated by visible means and capable of being selected for viewing by the driver when seated in the driving position.

### MCSYSM 02 01 Rev 1 4.6.4 The tell-tales for the brake system malfunction, brake system malfunction, headlamp driving beam and direction indicator shall not be shown in the same common space. Justification: Add if the brake system malfunction is reinserted into Table 1. 4.6.5 If condition of activation exists for the following tell-tales: brake system malfunction, headlamp driving beam and direction and direction indicator are displayed on a common space with other tell-tale, they shall have priority over anything else in the common space. Justification: Add if the brake system malfunction is reinserted into Table 1. 4.6.6 Information displayed in the common space may be cancellable automatically or by the driver, except for the tell-tales of for headlamp driving beam, and a direction indicator and those for which the colour red is required by Table 1

shall not be cancellable if the condition exists for their activation.

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Table-1. Symbols identifying controls, tell-tales and indicators

No.	Column 1	Column 23	Column 34	Column 45	Column 56	Column 67	Column 78	1	
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION		
1	Supplemental engine stop control (OFF)	X	Control	_ <u>Located on the right</u> handlebar,			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 cutout (Supplemental engine stop).		Formatted
	Supplemental		<del></del>						Formatted
	engine <b>stop</b>				f				Formatted
2	start control (RUN)								Formatted
3	Ignition Switch	<b>*</b>	Control			The device that enables the engine to run, and may also allow operation of other electrical systems on a vehicle	In the case of a rotary switch, the direction of motion shall be clockwise from the ignition "off" position to the ignition "on" position.		Formatted
4	Electric Starter	(3)	Control		-				
5	Manual Choke	\	Control	The control need not be visible from the rider's position	-				
		• •	Tell-Tale (Optional)		Amber			I	
6	Neutral Indicator (Gearbox Selection)	NI	Indicator  Is this  indicator		-				Formatted

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r0	~			
		Tell-tale	Green	The telltale is illuminated when the gear selector is in
				neutral position

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No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	<del>page 19</del>	
- 101	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION		
7	Fuel Tank Shutoff Valve Manual -off (OFF)	•	Control	The control need not to be visible from the rider's position		"	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		
8	Fuel Tank Shutoff Valve Manualon (ON)	Д					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.		
9	Fuel Tank Shutoff Valve Manual— Rreserve or Res or Res (RES)	П					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		
10	Speedometer		Indicator				Shall be legible day or night. The display isshall be illuminated whenever the position lamp (if available) or headlamp is activated		Formatted
11	Audible		Control	OPTION A:			Button or switch Push to activate	1.	Formatted
	warning device (Horn)	b		on the left handlebar for vehicles with a gear selection control operated independently of a hand operated clutch.;				,	Formatted
				However, Contracting Parties may adopt the following requirements and conditions: on right handlebarOPTION					Formatted
				B <mark>.</mark> : However,					Formatted
				Contracting Parties may adopt the following requirements and conditions: on right handlebar on right handlebar ffor vehicles with					

# MCSYSM 02-01 Rev 1 page 20 gear selection located on the left handlebar and operated in conjunction with the hand operated clutch.}

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								<del>page 19</del>	
No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7		
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION		
12	Driving beam		Control	OPTION A; on the left handlebar					Formatted
	(Main, high or upper -beam)	_		on the left handlebar for vehicles with a					Formatted
	_	=()		gear selection					Tormatteu
	(Hi)	=		control operated					
				independently of a hand operated					
				clutch.					
				However, Contracting Parties	<b>-</b>	<del> </del>			(Formatted
				may adopt the					
				may adopt the following requirements and					
				requirements and conditions: on right					
				<del>handlebar</del>					
				OPTION B:	L				Formatted
				However,					
				Contracting Parties may adopt the					
				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]					
			Tell-Tale	caren	Blue				

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ļ	<del>page 2</del>	0				•	,	
	13	Passing Beam		Control	on the left handlebar			 Formatted
		(Dipped, low or <del>dipped</del>	_		for vehicles with			 Formatted
		lower Beam) -			gear selection			Tormuttou
		-	<b>=()</b>		control operated			
		-(Lo)			independently of a			
					hand operated			
					clutch,			
					However, Contracting Parties			 Formatted
					Contracting Parties			
					may adopt the following			
					requirements and			
					conditions: on right			
					<del>handlebar</del>			
					FOPTION B:			 Formatted
					However,			
					Contracting Parties			
					may adopt the following			
					roguirements and			
					requirements and conditions:			
					on right handlebar			
					[for vehicles with			
					gear selection			
					located on the left			
					handlebar and			
					operated in conjunction with the			
					hand operated			
1					clutch]			
				Tell-Tale		Green		
1	14	Optical		Control	If so aguinned the	_	- May be an additional function of the Driving Beam/Passing	
	14	<del>Optical</del> <del>warning</del>	-	COHUOI	-If so equipped, the control for this	-	Beam SwitchControl	
		device			device shall be		When released, the beam shall go back to the Passing	
					adjacent to the		Beam	
					Driving			
					Beam/Passing Beam SwitchControl			
					SwitchControl			
				1	1	l		

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No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	1.00
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION	
14	Optical warning		Control	adjacent to the Driving			May be an additional function of the Driving Beam/Passing Beam Control	
	device			Beam/Passing Beam Control			When <b>Control is</b> released, the beam shall go back to	Formatted
		<b>~</b>					the Passing Beam	
15	Fog lamps -	- UN-	Control				If one control is used for both front and rear fog lamps, rear	
	front	£)					fog lamp symbol is used.	
		<b>ネ</b> し	Tell-Tale		Green			
16	Fog lamps - rear	2+	Control				If one control is used for both front and rear fog lamps, rear fog lamp symbol is used.	
		ナレ	Tell-Tale		Amber			
17	Direction indicators	<b>\$</b> \$	Control	Switch-Control(s) is/are to be located on the handlebar in clear view from the operator's seat and shall be marked clearly			The control shall be so designed that, when viewed from the rider's seat, operation of the left hand portion or movement to the left of the control actuates the left side indicators and vice versa for the right side indicators.	
			Tell-Tale		Green		The pair of arrows is a single symbol. When the controls or telltales for left and right turn operate independently, however, the two arrows may be considered separate symbols and be spaced accordingly.	

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No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION	
18	Hazard warning signal -		Control					
			Tell-Tale	_	Red	Represented by either the direction indicator tell- tale(s) flashing		
		or	Tell-Tale	-		(simultaneously), or by athe given triangle symbol.		
		◆⇔			Green			
19	Position Lamp	`n a=	Control			Represented by the given symbols for position lamps, master lamp control and parking lamp but if all lamps	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	
		<del>=00=</del>	Tell-Tale		Green	are automatically lit when vehicle is in operation, no position or master lamp control symbol need appear.	provided that they are clearly indicated.  The light control switch may be combined with the ignition switch if so desired.	
20	Master Lamp	\ <b>Q</b> /	Control			Without prejudice to the requirements as provided in paragraph 4.4.1.1. the tell-tale function may be		
		- <u>,</u> Q-	Tell-Tale		Green	provided by means of instrument cluster illumination.		
<mark>21</mark>	Parking		Control		<u> </u>		- <mark>, USTIFICATION:</mark>	<b>Formatted</b>
	Lamp	/				If the Parking Lamp function is incorporated in	Parking lamps are not required on motorcycles. There is no need for this control or tell tale.	Formatted
		₽ <del></del>	Tell-Tale	1	Green	the ignition switch, identification is optional	- Propose to delete from the Table,	Formatted
22	Fuel Indicator		Indicator	-	-	-	1	Formatted
			Tell-Tale		Amber	-	-	

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No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION
22	Fuel Indicator		Indicator				
			Tell-Tale		Amber		
23	Engine coolant temperature	Ľ	Indicator				
		<b>≈</b>	Tell-Tale		Red		
24	Electrical charging	<b></b>	Indicator				
		- +	Tell-Tale		Red		
25	Engine Oil	<b>NT</b> 4	Indicator				
			Tell-Tale		Red		
26	Engine Speed Control (cruise control)		Control	On the right handlebar.			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
	23 24 25	22 Fuel Indicator  23 Engine coolant temperature  24 Electrical charging  25 Engine Oil  26 Engine Speed Control (cruise	22 Fuel Indicator  23 Engine coolant temperature  24 Electrical charging  25 Engine Oil  26 Engine Speed Control (cruise)	Tell-Tale  Engine coolant temperature  Electrical charging  Engine Oil  Engine Coolant temperature  Tell-Tale  Indicator  Tell-Tale  Tell-Tale  Tell-Tale  Control  Control  Control	TEM SYMBOL FUNCTION LOCATION  Indicator  Tell-Tale  23 Engine coolant temperature  Tell-Tale  24 Electrical charging  Tell-Tale  Indicator  Tell-Tale  25 Engine Oil  Indicator  Tell-Tale  Control On the right handlebar.	TIEM SYMBOL FUNCTION LOCATION COLOUR    Tell-Tale	TIEM SYMBOL FUNCTION LOCATION COLOUR DEFINITION    Colour   Colour   Colour

No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION
27	Front wheel brake		Control	On the right handlebar. However, in the case of vehicles equipped with a combined brake system, the front wheel brake may operate simultaneously with the rear wheel brake when the combined brake system is activated			Hand lever
28	Foot rear wheel brakes control		Control	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			Pedal
29	Hand rear wheel brake control		Control	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 when the combined brake system is activated			Hand lever Not allowed for vehicles with hand operated clutch
30	Parking brake		Control	Hand or foot control with no special requirements.			Hand lever or pedal

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31	Clutch	-	Control	If so equipped, a	-	Hand lever
				control on the left		Squeeze to disengage clutch.
				<del>handlebar</del>		Shall not prohibit the use of devices on the left side of the
						vehicle that combine operations of a clutch and gear selector

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No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION
31	Clutch		Control	on the left handlebar			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
32	Foot selector Manual gear shift Control		Control	On the left side of the frame			OPTION A: 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. Alf a separate, positive "neutral" position shall beis 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).  OPTION B: 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 shifting to a lower gear position, and - downward movement for shifting to a higher gear position
33	Hand Selector Manual gear shift Control		Control	On the left handlebar			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. Alf a separate, positive "neutral" position shall beis provided it shall be in either-the first or second-position in the gear selection order (i.e: 1-N-2-3-4)  For vehicles with an engine capacity of less than 200ce, transmissions with the following shift patterns may be fitted:  -Rotary pattern (i.e: N-1-2-3-4-5-N-1.)  -Reverse rotary pattern, The rotating handgrip, after gear selection, may return to neutral position.

No.	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7		
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION		
34	Automatic or Semi- automatic Gear Selector Control		Control	On the left side of the frame or on the left handlebar			Movement of the foot lever in a rearward direction shall progressively select gears giving an increased speed and conversely for the selection of gears giving a reduced speed. A separate, positive "neutral" position shall be provided (i.e: N-1-2-3-4).		Formatted
							Operation of the control through buttons: Activation by the thumb shall progressively select gears giving an increased forward speed and activation by the index select gears giving a reduced speed. A separate, positive "neutral" position shall be provided in the first position in the gear selection order (i.e: N-1-2-3-4).		
							Justification This text was in the previous draft of the proposal and looks like it was inadvertently removed.		
35	Anti-lock Brake System Malfunction	(ABS)	Tell-Tale		Amber				
36	Emissions related Malfunction Indicator Lamp	ł <u>C</u> J	Tell-Tale		Amber	Shall be used to convey powertrain related failures which may affect emissions			
37	Brake System Malfunction		Tell-Tale		Red				Formatted
	Manufaction								Formatted
								,'	
		<b></b>						 	Formatted

,	,				00							
J	u	S	t	l	fi	C	a	t	l	0	n	

CMVSS 122, 123, FMVSS 122, Reg 13 and 13H as well as gtr 3 require or prescribe brake malfunction tell tale on motorcycles. Brake system malfunction is a safety-critical tell-tale and it should be included in this gtr.

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	Column 1	Column 23	Column 34	Column 45	Column 56	Column 67	Column 78
	ITEM	SYMBOL	FUNCTION	LOCATION	COLOUR	DEFINITION	OPERATION
35	Automatic or Semi-automatic Gear Selector Control (continued)						
3 <del>56</del>	Anti-lock Brake System Malfunction	(ABS)	Tell-Tale	-	Amber	ABS system: Required.	-
<del>367</del>	Emissions related Malfunction Indicator Lamp	<del></del>	Tell-Tale		-Amber	This (or any similar) symbol shall not be used to convey non-emissions related failures or operation states Shall be used to convey powertrain related failures which may affect emissions	