
Information for first and second responders

Propulsion energy identification

ISO/TC 22/SC 36/WG 7

CTIF Commission for Extrication and New Technology
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Brussels 08/06/2014 CEN/TC 441 Meeting



Different Parts of NWIP proposed by CTIF to ISO

This ISO work item is part of 3 proposals introduced by the CTIF Commission for Extrication and New Technology. All of them with the same objective:

to provide "***crucial Information for first and second responders***"

Part 4 is made together with TMC as their recommended practice.

- Part 2 : Rescue sheet for busses, coaches and heavy commercial vehicles
- Part 3 : Standardized Emergency Response Guides
- Part 4 : Propulsion energy identification

First responders: fire fighters, police, medical personal,...

Second responders: towing and maintenance personal...

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INTERNATIONAL ASSOCIATION OF FIRE AND RESCUE SERVICES
INTERNATIONALE VEREINIGUNG DES FEUERWEHR- UND RETTUNGSWESENS
L'ASSOCIATION INTERNATIONALE DES SERVICES D'INCENDIE ET DE SECOURS



About CTIF

CTIF was founded in 1900 in Paris for encouraging and promoting co-operation among fire fighters and other experts in fire and rescue throughout the world.



Events

CTIF organises international conferences and competitions attended by more than 3.000 fire fighters and youth fire brigades from around the world.



Statistics

CTIF develops comprehensive world fire statistics by publishing annual reports which offer data on fire issues from 80 different countries and 90 capital cities.

CTIF is the international association of fire and rescue services, representing firefighters in **37 different countries** all over the world.

Scope of the proposed deliverable

This international standard defines the labels and related colours for **indication** of the fuel or propulsion energy of a road vehicle, especially for the case of new vehicle technology and/or power sources, including hybrid drive lines.

In a road vehicle accident, a **quick and correct identification** of the fuel or propulsion energy by the rescue team promotes the correct action with respect to the vehicle technology concerned, and it supports the rescue team extricating the occupants **as fast and as safe as possible**.

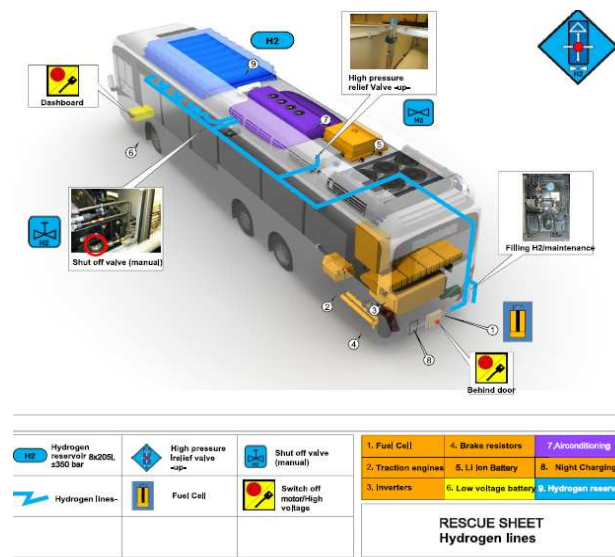


Scope of the proposed deliverable.

This standard is applicable to passenger cars, buses, coaches, light and heavy commercial vehicles according to ISO 3833.

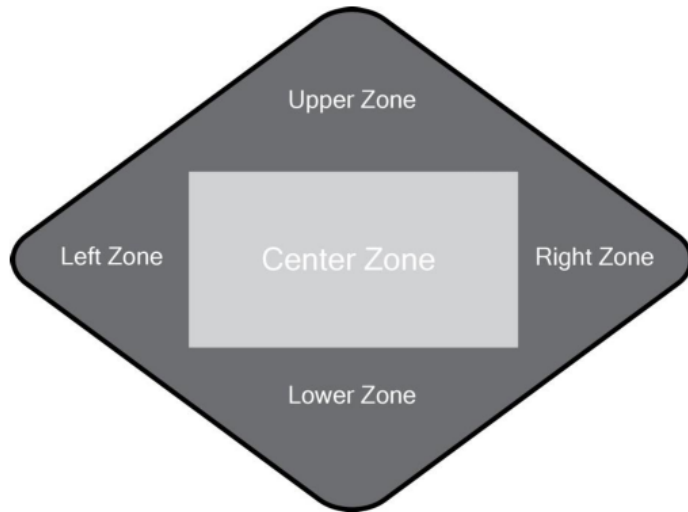
The location of labels on the vehicle, on the rescue sheet, or in the emergency response guide is outside the scope of this standard.

The colours for the propulsion identification have strong relationships to the colours used in the Rescue Sheet and ERG (ISO 17840 parts 1, 2 and 3).



Layout and contents of the propulsion identification label





Label shape and appearance/zones:





Label zone information categories

Zone	Information category
Centre	Main information, main power source
Upper	Secondary information, secondary power source
Lower	Specific information
Left	Special warnings
Right	State of aggregation




Colour definitions

Colour	RGB code	Fuel / Propulsion energy
Grey 	127,127,127	Liquid group 1 (Diesel, Bio Diesel, ...)
Red 	161,37,3	Liquid group 2 (Petrol/Gasoline, Ethanol, ...)
Blue 	0,176,240	Hydrogen group (FCEV, ...)
Green 	0,176,80	Gas group (CNG, LNG, LPG, DME, ...)



Colours needed for indication of electric vehicles and hybrid technology


White	255,255,255	Air group (hybrid air, ...)
Brown 	153,102,51	Oil group (hybrid oil, ...)
Orange 	255,165,0	High voltage (Class B voltage)

Centre zone pictograms

Main power source	Pictogram Text or image	Note
Petrol Gasoline (including Ethanol mix)		ISO 7000-0245 Fuel
Diesel		ISO 7000-1541 Diesel fuel
Hydrogen	H₂	—
Liquified Petroleum Gas	LPG	Element of ISO 7000-2489
Compressed Natural Gas	CNG	—
Liquified Natural Gas	LNG	—
Di-Methyl Ether (Gas)	DME	—
Electric High Voltage (Class B)		IEC 60417-5036 Element of ISO 7010-W012

Upper zone pictograms

Secondary power source	Pictogram Text or image	Note
Electric High Voltage (Class B)		IEC 60417-5036 Element of ISO 7010-W012
High pressure air accumulator		Pressure of 15 bar or above Elements of ISO 7000-1413




Secondary power source	Pictogram Text or image	Note
High pressure hydraulic oil accumulator		Pressure of 15 bar or above Elements of ISO 7000-1413

Lower zone pictograms


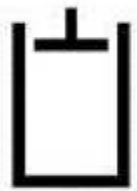

Lower zone may contain words or characters by the respective country of region to make the label more understandable. (a few examples shown below)

Specific information	Text	Note
Vehicle using combined power sources	HYBRID	
Natural Gas Vehicle	NGV	
Fuel Cell Electric Vehicle	FCEV	
Electric Vehicle	EV	
Common name for liquefied petroleum gas	AUTOGAS	




Left zone pictograms


Special warnings	Pictogram Text or image	Note
Gas, heavier than air		
Gas, lighter than air		
Gas, combination of both		E.g. LNG

Right zone pictograms



State of aggregation	Pictogram Text or image	Note
Liquid		Element of ISO 7000-1413
Compressed		Elements of ISO 7000-1413
Cryogenic		ISO 7000-0027

Examples



Vehicle on CNG	 A green diamond-shaped sign with a black border. It features an upward-pointing arrow on the left, the text 'CNG' in the center, a small icon of a gas cylinder on the right, and the text 'NGV' at the bottom.
Vehicle on LNG	 A green diamond-shaped sign with a black border. It features a double-headed vertical arrow on the left, the text 'LNG' in the center, a snowflake icon on the right, and the text 'NGV' at the bottom.
Vehicle on LPG	 A green diamond-shaped sign with a black border. It features a downward-pointing arrow on the left, the text 'LPG' in the center, a small icon of a gas cylinder on the right, and the text 'AUTOGAS' at the bottom.

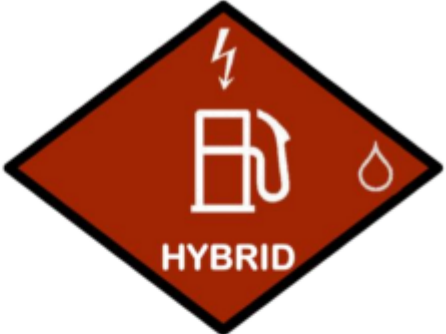

Vehicle on Di-Methyl Ether	 A green diamond-shaped sign with a black border. It features a downward-pointing arrow on the left, the text 'DME' in the center, and a small icon of a gas cylinder on the right.
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Examples



Vehicle on Diesel	
Vehicle on Petrol/Gasoline	


Examples

<p>Vehicle on Hydrogen Fuel Cell Electric Vehicle</p>	
<p>Hybrid Electric Vehicle on Diesel</p>	



<p>Hybrid Electric Vehicle on Petrol/Gasoline</p>	
<p>Electric Vehicle</p>	

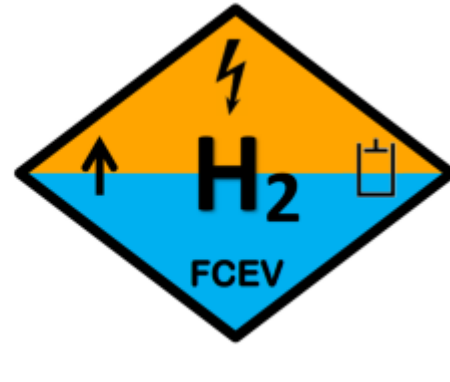
Examples

Hybrid Air Vehicle on Diesel	 <p>A diamond-shaped fuel label with a grey background and a black border. At the top is a battery icon with a plus sign. Below it is a fuel pump icon. To the right of the pump is a small white drop icon. The word "HYBRID" is printed in white capital letters at the bottom.</p>
Hybrid Oil Vehicle on Diesel	 <p>A diamond-shaped fuel label with a grey background and a black border. At the top is an oil can icon. Below it is a fuel pump icon. To the right of the pump is a small white drop icon. The word "HYBRID" is printed in white capital letters at the bottom.</p>



Vehicle on Flex fuel E85	 <p>A diamond-shaped fuel label with a red background and a black border. At the top, the text "E 85" is printed in white. Below it is a fuel pump icon. To the right of the pump is a small white drop icon. The text "FLEX F" is printed in white capital letters at the bottom.</p>
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Examples using 2 colours





Hybrid Electric Vehicle on Diesel	 A diamond-shaped sign with a black border. The top half is yellow and contains a black lightning bolt icon. The bottom half is grey and contains a black fuel pump icon and a black drop icon. The word "HYBRID" is written in black capital letters at the bottom.
Hybrid Electric Vehicle on Petrol/Gasoline	 A diamond-shaped sign with a black border. The top half is yellow and contains a black lightning bolt icon. The bottom half is red and contains a black fuel pump icon and a black drop icon. The word "HYBRID" is written in black capital letters at the bottom.

Vehicle on Hydrogen Fuel Cell Electric Vehicle	 A diamond-shaped sign with a black border. The top half is yellow and contains a black lightning bolt icon. The bottom half is blue and contains a black upward-pointing arrow icon, the chemical formula "H ₂ " in large black letters, and a black battery icon. The word "FCEV" is written in black capital letters at the bottom.
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Examples using 2 colours

<p>Hybrid Air Vehicle on Diesel</p>	 <p>A diamond-shaped sign with a black border. The top half is white and contains a black icon of an air filter. The bottom half is grey and contains a black icon of a fuel pump nozzle and a single black drop. The word "HYBRID" is printed in black capital letters at the bottom of the diamond.</p>
<p>Hybrid Oil Vehicle on Diesel</p>	 <p>A diamond-shaped sign with a black border. The top half is brown and contains a black icon of an oil can. The bottom half is grey and contains a black icon of a fuel pump nozzle and a single black drop. The word "HYBRID" is printed in black capital letters at the bottom of the diamond.</p>




Resume: Corelation on basic colours between ISO and CEN

Colour	RGB code	Fuel / Propulsion energy
Grey 	127,127,127	Liquid group 1 (Diesel, Bio Diesel, ...)
Red 	161,37,3	Liquid group 2 (Petrol/Gasoline, Ethanol, ...)
Blue 	0,176,240	Hydrogen group (FCEV, ...)
Green 	0,176,80	Gas group (CNG, LNG, LPG, DME, ...)

Resume: Corelation on pictograms between ISO and CEN

Main power source	Pictogram Text or image	Note
Petrol Gasoline (including Ethanol mix)		ISO 7000-0245 Fuel
Diesel		ISO 7000-1541 Diesel fuel
Hydrogen	H₂	—
Liquified Petroleum Gas	LPG	Element of ISO 7000-2489
Compressed Natural Gas	CNG	—
Liquified Natural Gas	LNG	—
Di-Methyl Ether (Gas)	DME	—
Electric High Voltage (Class B)		IEC 60417-5036 Element of ISO 7010-W012

Resume: Correlation on pictograms between ISO and CEN

State of aggregation	Pictogram Text or image	Note
Liquid		Element of ISO 7000-1413
Compressed		Elements of ISO 7000-1413
Cryogenic		ISO 7000-0027

Resume: Correlation on pictograms between ISO and CEN

Standard :

IEC 60417 — Graphical Symbols for Use on Equipment



Title :

Household socket outlet, EV and PHEV charging

Function/description :

To indicate the household socket outlet suitable for charging electric vehicles (EV) and plug-in hybrid electric vehicles (PHEV).

Information

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