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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 22757.1-2023

Replacing GB 22757.1-2017

**Energy consumption label for light-duty vehicles - Part 1: For
gasoline and diesel vehicles**

轻型汽车能源消耗量标识 第1部分：汽油和柴油汽车

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1 Scope

GB 22757.1-2023 is the Chinese national standard on energy consumption label for light-duty vehicles - part 1: for gasoline and diesel vehicles, in the field of road vehicles engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 8 September 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2024. Classification: ICS 43.020, CCS T08. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the content, format, material and pasting requirements for the energy consumption label of light-duty vehicles. This document is applicable to Category-M1, M2 and N1 vehicles capable of burning gasoline or diesel fuel, and with a maximum design total mass not exceeding 3,500 kg. It does not apply to off-vehicle-chargeable hybrid electric vehicles and battery electric vehicles and vehicles that can only burn other single fuels.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in this text. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 788 Formats and Their Sizes of Books and Magazines

GB/T 3181 Color Standard for Paint Film GB/T 18284 QR Code

GB/T 19233-2020 Measurement Methods of Fuel Consumption for Light-duty Vehicles

GB 19578 Fuel Consumption Limits for Passenger Cars

GB/T 19596 Terminology of Electric Vehicles

GB/T 19753-2021 Test Methods for Energy Consumption of Light-duty Hybrid Electric Vehicles

GB 20997 Limits of Fuel Consumption for Light-duty Commercial Vehicles

3 Terms and Definitions

What is defined in GB/T 19596, and the following terms and definitions are applicable to this document.

3.1 energy consumption label Energy consumption label refers to a label used to indicate energy consumption and related information. NOTE: the energy consumption described in this document is fuel consumption, and the energy consumption label is hereinafter referred to as "the label".

3.2 top runner fuel consumption Top runner fuel consumption refers to the calculated value of comprehensive fuel consumption of top 5% models with the lowest comprehensive fuel consumption based on model quality. NOTE: the model quality is consistent with the quality used in GB 19578 and GB 20997.

4 General Requirements

The automobile manufacturers shall print and paste paper or plastic labels in accordance with the requirements of Chapter 5 ~ Chapter 7, or print and paste electronic labels in accordance with the requirements of Appendix A.

5 Content of Label

The label shall at least include the following information:

a) Manufacturer;

- b) Vehicle model;
- c) Engine model, displacement and maximum net power, where the unit of displacement is milliliter (mL) and the unit of maximum net power is kilowatt (kW);
- d) Engine types, such as: gasoline, diesel, dual-fuel, bi-fuel and non-off-vehicle-chargeable hybrid, etc.;
- e) Transmission types: such as: manual, automatic, continuously variable, dual clutch, or the corresponding English abbreviations: MT, AT, AMT, CVT and DCT, etc.;
- f) Drive types, such as: front-wheel drive, rear-wheel drive, part-time four-wheel drive, full-time all-wheel drive, etc.
- g) Complete vehicle curb weight and maximum design total mass, expressed in (kg);
- h) Fuel consumption, expressed in (L/100 km);
- i) Estimated energy cost, expressed in (yuan/100 km);
- b) The comprehensive operating "NOVC-HEV fuel consumption" with air conditioning refrigeration turned on determined in accordance with the requirements of

6.1.3 in GB/T 19753-2021, or the industry average growth rate of the comprehensive operating fuel consumption with air conditioning refrigeration turned on compared to the type certification value (for passenger cars, take 30%1));

- c) If there are fuel consumption test results in low-temperature environments or high-altitude environments determined in accordance with the requirements of

6.1.3 in GB/T 19753-2021, the comprehensive operating "NOVC-HEV fuel consumption" in low-temperature environments or high-altitude environments is also included.

7.1 Division of Functional Areas

7.1.1 Overview The label consists of four functional areas: "title area", "information area", "description area" and "additional information area". See Figure B.1 ~ Figure B.3 in Appendix B.

7.1.2 Title area The "title area" is located at the top of the label, with "enterprise label" on the left and "label "AUTOMOBILE ENERGY CONSUMPTION LABEL" in capital letters in English, which are arranged with Chinese at the top and English at the bottom.

7.1.3 Information area

7.1.3.1 The "information area" is divided into two parts: "basic information area of model" and "energy consumption information area". The "basic information area of model" is located in the upper part of the information area, and the "energy consumption information area" is located in the lower part of the information area, which is the core part of the label.

The fuel consumption, estimated energy cost and CO₂ emission information area located in the upper part of the "energy consumption information area", the comparison information with the limit values is located in the middle of the "energy consumption information area", and the continuous comparison information is located in the lower part of the "energy consumption information area".

7.1.3.2 The "basic information of model" includes the manufacturer, vehicle model, engine model, energy type, displacement, maximum net power, transmission type, drive type, complete vehicle curb weight, maximum design total mass and other fuel consumption-related information that the enterprise needs to explain. If no other information is provided, the "other information" does not need to be labeled.

7.1.3.3 The "energy consumption information" includes fuel consumption, estimated energy cost, CO₂ emission, comparison with limit values and continuous comparison information.

a) The fuel consumption information includes basic information of fuel consumption and extended information of fuel consumption. The basic information of fuel consumption is located above the dot dash line, including comprehensive fuel Low-speed: . L/100 km Medium-speed: . L/100 km High-speed: . L/100 km Ultra-high-speed: . L/100 km³) Fuel consumption with air conditioning refrigeration turned on: . L/100 km (or industry average growth rate of fuel consumption with air conditioning refrigeration turned on is about: 30%) Fuel consumption in low-temperature environments: . L/100 km Fuel consumption in high-altitude environments: . L/100 km

b) The estimated energy cost information is located above the dot dash line, see EXAMPLE 2. EXAMPLE 2: Estimated energy cost: . yuan/100 km

c) CO₂ emission information is located above the dot dash line, see EXAMPLE 3. EXAMPLE 3: CO₂ emission: . g/km

d) The comparison information with the limit values shall be calculated in accordance with Formula (2) and indicate the comparison between the comprehensive fuel consumption of the vehicle model and the applicable limit values, see EXAMPLE 4. Where, A

---the extent, to which the comprehensive fuel consumption of the vehicle model is lower / higher than the specified limit values. The calculation results shall be rounded (off) to one decimal place (accurate to 0.1%); For Category-M1 vehicles: FC_{limit}

---the fuel consumption limit value of the model vehicle specified in GB 19578; For Category-M2 and N1 vehicles: FC_{limit}

---the fuel consumption limit value of the model vehicle specified in GB 20997. If $A > 0$, the statement is: the comprehensive fuel consumption of this vehicle model pattern at Position C. If the comprehensive fuel consumption is smaller than the top runner fuel consumption, the inverted triangle pattern at Position C shall point to Position A in the figure; if the comprehensive fuel consumption is greater than the limit value, the inverted triangle pattern