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

GB 30510-2024

Replacing GB 30510-2018

Fuel consumption limits for heavy-duty commercial vehicles

重型商用车辆燃料消耗量限值

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020 "Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents". This document replaces GB 30510-2018 "Fuel consumption limits for heavy-duty commercial vehicles". Compared with GB 30510-2018, in addition to structural adjustments and editorial changes, the main technical changes in this document are as follows:

- a) The method for determining the comprehensive fuel consumption of vehicle models has been changed (see 4.1, 4.2 of this Edition; Chapter 4 of Edition 2018);
- b) The applicable requirements for fuel consumption limits for concrete mixer trucks have been added (see 4.3 of this Edition);
- c) The vehicle fuel consumption limits have been changed (see 5.1~5.5 of this Edition; Chapter 5 of Edition 2018);
- d) The calculation method of CO₂ emissions corresponding to the limit value has been added (see 5.6 of this Edition);
- e) The requirements for production consistency have been changed (see Chapter 6 of this Edition; Chapter 6 of Edition 2018);
- f) The determination conditions for same type have been added (see Chapter 7 of this

Edition). Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority shall not be held responsible for identifying any or all such patent rights. This document was proposed by and shall be under the jurisdiction of Ministry of Industry and Information Technology of the People's Republic of China, Ministry of Transport of the People's Republic of China. Versions of standard substituted by this document are: - It was first published in 2014 as GB 30510-2014. It was first revised in 2018; - This is the second revision. Fuel consumption limits for heavy-duty commercial vehicles

1 Scope

GB 30510-2024 is the Chinese national standard on fuel consumption limits for heavy-duty commercial 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 29 September 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2025. Classification: ICS 43.020, CCS T40. 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 fuel consumption limits, production consistency, type determination and implementation of the standard for heavy-duty commercial vehicles. This document applies to commercial vehicles that can be fueled by gasoline or diesel fuel and have a maximum design gross mass greater than 3,500 kg, including trucks, semi-trailer tractors, ordinary buses, dump trucks and city buses. This document does not apply to special purpose vehicles.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 3730.1, Terms and definitions of motor vehicles, trailers and combination vehicle -- Part 1: Types

GB/T 3730.2, Road vehicle. Masses. Vocabulary and codes

GB/T 17350, Terms marks and designation for special purpose vehicles and special trailers

GB/T 19596, Terminology of electric vehicles

GB/T 19754-2021, Test methods for energy consumption of heavy-duty hybrid electric

vehicles

GB/T 27840-2021, Fuel consumption test methods for heavy-duty commercial vehicles

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 3730.1, GB/T 3730.2, GB/T 17350 and GB/T 19596 apply. NOTE 1: No difference in body type means that there is no obvious difference in the structure, shape and size of the body, but does not include changes in the body structure, shape and size caused by optional front and rear anti-collision bars, lighting fixtures, additional/optional roof air conditioning, roof luggage racks, rear luggage ladders, indirect vision devices, body cameras, radars, changes in the number and position of doors and windows, and changes in the opening and closing methods of doors and windows.

h) There is no difference in the type of truck cab; NOTE 2: No difference in cab type means that there is no obvious difference in the structure and shape of the cab, but does not include changes in shape and size caused by optional front hood, front bumper, additional/optional deflector, additional lighting and indicator lights, indirect vision devices, body cameras, radars, etc. A series of cabs consisting of ordinary cabs, semi-high-top cabs, high-top cabs, or single-row cabs, row-and-a-half cabs, and double-row cabs can be considered to have no difference in cab type.

i) The frontal area is the same or reduced, or increased by no more than 5% (except for the increase in frontal area caused by the installation/option of a deflector);

j) The vehicle width and height are the same or reduced, or increased by no more than 5% (except for the increase in width and height caused by the installation/option of a deflector);

k) The maximum design total mass is the same or reduced, or increases by no more than 5% within the same mass range;

l) The drive type is the same;

m) The transmission type is the same. The number of gears is the same or increased;

n) The minimum overall transmission ratio is the same or reduced, or increased by no more than 8%;

o) The static load radius of the tire is the same or increases;

p) Radial tires and bias tires can be considered to be the same type.

7.2 For hybrid electric vehicles, in addition to the requirements of 7.1, the following conditions shall also be met:

a) The classification of hybrid electric vehicles (series, parallel, hybrid, whether there is an external charging mode, whether there is a manual driving mode selection function) is the

same;

b) The model and manufacturer of the energy storage device are the same;

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