



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

GB/T 4352-2022

Fuel consumption for trucks in operation

载货汽车运行燃料消耗量

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Table of Contents

Foreword	3
1 Scope	5
2 Normative References	5
3 Terms and Definitions	5
4 Classification of Truck Operating Conditions and Correction Coefficients	6
5 Fuel Consumption for Truck in Operation	8

Foreword

This document was issued on 30 December 2022 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 30 December 2022.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

1 Scope

GB/T 4352-2022 covers how the fuel consumption of a truck in service is calculated, not how it is measured on a test bench. Terms come from JT/T 719 and are extended here, beginning with fuel consumption for a truck in operation, defined as the amount of fuel a truck consumes during operation. Two working clauses carry the document. The first classifies truck operating conditions and assigns correction coefficients to them, opening with road category and the fuel consumption correction coefficient of the road, which is tabulated by class of road. The second sets out the calculation itself, built on values for basic fuel consumption and for fully loaded fuel consumption, and handled separately for trucks above 3500 kg maximum gross mass and for those no heavier than that. Two informative appendices work a full calculation example through for each of those two cases. What the correction coefficients exist for is comparability: a consumption figure quoted for a truck means nothing until the road, the load and the operating conditions behind it are named, and a haulier comparing vehicles, a shipper auditing a fuel claim or an authority setting a consumption ceiling all need those conditions fixed the same way for everyone. Fleet operators, transport authorities and truck manufacturers are the readers.

This Document specifies the classification of truck operating conditions and correction factors,

as well as the calculation method of fuel consumption for operation.

This Document is applicable to the calculation of the fuel consumption of trucks running on highways and urban roads that use gasoline or diesel as the single fuel. The fuel consumption

quota management of road transport enterprises shall be used as a reference.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates

indicated are applicable to this Document; for the undated documents, only the latest version

(including all the amendments) is applicable to this Document.

GB/T 19233 Measurement methods of fuel consumption for light-duty vehicles

JT/T 719 Limits and measurement methods of fuel consumption for commercial vehicle for cargos transportation

3 Terms and Definitions

For the purposes of this Document, the terms and definitions given in JT/T 719 apply.

3.1 Fuel consumption for truck in operation

The amount of fuel a truck consumes during operation.

NOTE: The unit is L.

3.2 Basic fuel consumption of truck

When a truck with a total mass of more than 3500kg is under the comprehensive working conditions given in JT/T 719, and a truck with a total mass of no more than 3500kg is under the

comprehensive working conditions given in GB/T 19233, the fuel consumption per 100 km, if

they drive with curb mass (no load).

NOTE: The unit is L/100km.

3.3 Fuel consumption of fully loaded truck

When a truck with a total mass of more than 3500kg under the comprehensive working

conditions given in JT/T 719, and a truck with a total mass of no more than 3500kg under the

comprehensive working conditions given in GB/T 19233, the fuel consumption per 100km if they drive with total mass (full load).

NOTE: The unit is L/100km.

3.4 Changes in fuel consumption per unit load of truck

For every 1000kg (1 ton) increase in the loading capacity of a truck, the fuel consumption increased by driving 100km.

NOTE: The unit is L/(t.100km).

3.5 Fuel consumption correction coefficient of road

The ratio of the fuel consumption of a truck running on a certain type of road to the fuel consumption of a Type 1 road (other operating conditions are the same).

3.6 Fuel consumption correction coefficient of temperature

The ratio of the fuel consumption when a truck is running in a certain monthly average temperature range to the fuel consumption when the monthly average temperature range is 5°C

to 28°C (inclusive) (other operating conditions are the same).

3.7 Fuel consumption correction coefficient of traffic congestion

The ratio of the fuel consumption of a truck in a certain average speed range to the fuel consumption of an average speed of 30km/h to 40km/h (inclusive) (other operating conditions

are the same) when the truck is operating on urban roads.

4 Classification of Truck Operating Conditions and

Correction Coefficients

4.1 Road category and fuel consumption correction coefficient of road

Road category and fuel consumption correction coefficient of road (Kr) is according to Table 1.

4.4 Fuel consumption correction coefficient of other influential factors

The correction coefficient Kx of other factors that affect the fuel consumption of trucks in

operation (such as the running-in period of trucks, seasonal rainy seasons and ice and snow

roads in the operating area, loading of dangerous goods, loading of over-limited goods, road

construction, etc.), the unit shall be decided by the truck users.

5 Fuel Consumption for Truck in Operation

5.1 Values for basic fuel consumption of truck and fuel consumption of fully loaded truck

5.1.1 Trucks more than 3500kg

The value of basic fuel consumption is the comprehensive fuel consumption of the vehicle under the test conditions specified in JT/T 719 and at no load; and the unit is L/100km.

The value of full-loaded fuel consumption is the comprehensive fuel consumption obtained under the test conditions specified in JT/T 719, or the comprehensive fuel consumption given

in the announcement issued by the competent department of transportation for the qualified types of road transport vehicles; and the unit is L/100km.

5.1.2 Trucks no more than 3500kg

The value of the basic fuel consumption is the comprehensive fuel consumption obtained under

the test cycle conditions specified in GB/T 19233, or the light vehicle fuel consumption label query; and the unit is L/100km.

The value of full-loaded fuel consumption is the comprehensive fuel consumption obtained under the test cycle conditions specified in GB/T 19233 when the vehicle is fully-loaded; and

the unit is L/100km.

5.2 Changes in fuel consumption per unit load of truck

5.2.1 Calculation

When the basic fuel consumption and full-loaded fuel consumption are given by the automobile

manufacturer, the changes in fuel consumption per unit load of the truck is calculated according