

ICS 43.020
CCS T 40



中华人民共和国国家标准
NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 12538-2023
Replaces GB/T 12538-2003

Road Vehicles—Determination of Center of Gravity
道路车辆 质心位置的测定

(ISO 10392:2011, MOD)

Issued on 2023-11-27

Implemented on 2024-06-01

Jointly Issued by
State Administration for Market Regulation of the People's Republic of China &
Standardization Administration of the People's Republic of China

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Road Vehicles—Determination of Center of Gravity

1 SCOPE

This document specifies the methods for determining the center of gravity (CG) of road vehicles, and describes one method for determining the CG horizontal position and three methods for determining the CG height.

This document is applicable to the motor vehicles, trailers and combination vehicles, where the axle lift method used for measuring the CG height is not applicable to articulated bus, semi-trailer, draw-bar trailer (the draw-bar can support), center axle trailer, or combination vehicle.

2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

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|-------------|--|
| GB/T 3730.1 | Terms and definitions of motor vehicles, trailers and combination vehicle - Part 1: Types |
| GB/T 3730.3 | Motor vehicles and towed vehicles - Dimensions of vehicles - Terms and definitions (GB/T 3730.3-1992, ISO 612:1978, NEQ) |
| GB/T 12549 | Terms and definitions for vehicle controllability and stability (GB/T 12549-2013, ISO 8855:1991, NEQ) |
| GB/T 12673 | Motor vehicle main dimensions measurement method |
| GB/T 12674 | Motor vehicles - Weight parameter – Measuring method |

3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions given in GB/T 3730.1, GB/T 3730.3 and GB/T 12549 apply.

4 MEASUREMENT PREPARATIONS AND PRELIMINARY MEASUREMENTS

4.1 Axis System

The vehicle axis system specified in GB/T 12549 applies, i.e., the positive direction of x-axis points forward along the vehicle's primary motion direction, the positive direction of y-axis points to the left horizontally, and the positive direction of z-axis points upward.

4.2 Vehicle Preparation

4.2.1 Loading

The loading condition of the vehicle shall be determined as required by measurement; the measurement of CG location in unladen state shall be made under the complete vehicle kerb mass. If simulated loads are required, all loads shall be secured reliably.



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