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

GB/T 44082-2024

**Road vehicles - Coupling equipment between vehicles in
multiple vehicle combinations - Strength requirements
(English Translation)**

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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".

The modification of this document adopts ISO 18868.2013 "Commercial road vehicles -- Coupling equipment between vehicles in multiple vehicle combinations -- Strength requirements".

Compared with ISO 18868.2013, this document has more structural adjustments. See Annex A for a comparison of the structural number changes between the two documents. The technical differences between this document and ISO 18868.2013 and their reasons are as follows.

- a) Added "Test methods and judgment" as the document's prescribed content (see Chapter 1 of this document) to facilitate test and testing. Added "semi-trailer tractor" as the document's applicable scope (see Chapter 1) to comply with the actual vehicle and train models;
- b) Deleted the terms "mid-axle trailer", "semi-trailer tractor trailer", "drawbar trailer" and "semi-trailer tractor" (see 2.1, 2.2, 2.3 and 2.7 of ISO 18868.2013);

- c) Added normative reference GB/T 3730.1 (see Chapter 3 of this document);
- d) Added the terms "A-center-axle trailer", "B-center-axle trailer" and "C-trailer" (see 3.1, 3.2 and 3.6 of this document);
- e) Changed the definitions of "semi-trailer", "A-trailer" and "trailer towing vehicle" (see 3.3, 3.4 and 3.7 of this document; 2.4, 2.5 and 2.8 of ISO 18868.2013);
- f) Changed the order and names of vehicle models (see Chapter 5 of this document; Chapter 4 of ISO 18868.2013);
- g) Changed the number of axles of B-trailer to comply with the provisions of GB 1589-2016 (see Table 2 of this document; 4.5 of ISO 18868.2013);
- h) Added "Test methods and judgment" (see Chapter 7 of this document).

The following editorial changes were made to this document.

- a) To coordinate with the existing standards, the name of the standard was changed to "Road vehicles -- Coupling equipment between vehicles in multiple vehicle combinations -- Strength requirements";
- b) The amendments of ISO 18868.2013/Amd1.2020 were incorporated. The outer Road vehicles -- Coupling equipment between vehicles in multiple vehicle combinations -- Strength requirements

1 Scope

This document specifies the calculation, test methods and determination of the strength requirements for coupling equipment of five types of vehicle trains and their multiple vehicle combinations.

This document applies to vehicle trains consisting of N2 and N3 tractor vehicles and O3 and O4 trailers and/or semi-trailer tractor trailers.

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.Type

ISO 8716, Road vehicles -- Fifth wheel kingpins -- Strength test

NOTE: GB/T 15088-2009, Road vehicles -- Fifth wheel kingpins -- Strength test (ISO 8716.2001, IDT)

ISO 8717, Commercial road vehicles -- Fifth wheel couplings -- Strength tests

NOTE: GB/T 20069-2006, Road vehicle traction seat strength tests (ISO 8717.2000, MOD)

ISO 8718, Road vehicles -- Drawbar couplings and eyes for hinged drawbars -- Strength tests

NOTE: GB/T 15087-2009, Road vehicles -- Drawbar couplings and eyes for hinged drawbars -- Strength test (ISO 8718.2001, IDT)

ISO 12357-1, Commercial road vehicles -- Drawbar couplings and eyes for rigid drawbars - Part 1.Strength tests for general cargo centre axle trailers

NOTE: GB/T 44039.1-2024, Road vehicles -- Drawbar couplings and eyes for rigid drawbars -- Part 1.Strength tests for general cargo centre-axle trailers (ISO 12357-1.1999, MOD)

ISO 12357-2, Commercial road vehicles -- Drawbar couplings and eyes for rigid drawbars - Part 2.Strength tests for special applications

NOTE: GB/T 44039.2-2024, Road vehicles - Drawbar couplings and eyes for rigid drawbars - Part 2.Strength tests for special applications (ISO 12357-2.2007, MOD)

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 3730.1 as well as the followings apply.

3.1 A-center-axle trailer

A mid-axle trailer with towing function.

3.2 B-center-axle trailer

A mid-axle trailer without towing function.

3.3 semi-trailer

A trailer with the axle placed behind the vehicle's center of gravity (when the vehicle is evenly loaded) and equipped with a coupling equipment that can transmit horizontal or vertical forces to the semi-trailer tractor or semi-trailer trailer.

NOTE: The connection between the semi-trailer and the semi-trailer tractor or the semi-trailer tractor is achieved through a traction pin and a fifth wheel.

[Source. GB/T 3730.1-2022, 7.1, modified]

3.4 A-trailer

A semi-trailer that a coupling equipment is installed at the rear of the vehicle for towing a mid-axle trailer or a semi-trailer.

NOTE: The connection between the A-trailer and the mid-axle trailer or semi-trailer is achieved through the drawbar connector and the drawbar eye.

3.5 B-trailer

link-trailer

A semi-trailer with a fifth wheel mounted on the rear of the vehicle for towing another semi-trailer.

3.6 C-trailer

A semi-trailer without towing function.

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