

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

JT/T 1284-2020

Technical specification of low-floor semi-trailer

低平板半挂车技术规范

(English Translation)

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Foreword

This standard is in accordance with GB/T 1. Drafting of the rules given in 1-2009.

This standard was proposed by the Science and Technology Department of the Ministry of Transport of the People's Republic of China.

This standard is under the jurisdiction of the Trailer Subcommittee of the National Automotive Standardization Technical Committee (SAC/TC114/SC13).

1 Scope

This standard specifies the general technical requirements for low-bed semi-trailers, special requirements, test methods, and inspection rules for low-bed reinforced semi-trailers.

As well as identification, vehicle-mounted documents and storage, etc.

This standard applies to the design, production, inspection and use of low-flat semi-trailers.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated references, the latest version (including all amendments) applies to this document.

GB/T 1413 series 1 container classification, size and rated quality GB 1589 External dimensions, axle load and mass limits of automobiles, trailers and automobile trains GB/T 1835 series 1 container corner fittings GB/T 4606 The basic dimensions, installation and interchangeable dimensions of No. 50 traction pin for road vehicle semi-trailer traction seat

GB/T 4607 The basic dimensions, installation and interchangeable dimensions of the No. 90 traction pin of the tractor seat of the road vehicle semi-trailer GB 4785 Installation regulations for external lighting and light signal devices of automobiles and trailers GB 7258-2017 Safety technical conditions for motor vehicle operation GB 11567 Requirements for the side and rear bottom protection of automobiles and trailers GB/T 12540 Automobile minimum turning diameter, minimum turning channel circle diameter and outer swing value measurement method standard GB 12676 Technical requirements and test methods for braking systems of commercial vehicles and trailers GB/T 13594-2003 Anti-lock braking performance and test methods for motor vehicles and trailers GB/T 13873 Test method for road vehicle freight trailer GB/T 14172 Bench test method for static rollover stability of automobiles GB/T 15088 Road vehicle traction pin strength test GB/T 18411 road vehicle product label GB/T.20070 The interchangeability of mechanical connections between road vehicle tractors and semi-trailers GB/T 23336 General technical requirements for semi-trailers GB/T 2597 Test method for lateral stability of road vehicles, heavy commercial vehicles, trains and articulated passenger cars GB/T 2677 Supporting device for trailer GB/T 2678 Performance requirements and test methods for automobile and train GB 3459 Performance requirements and measurement methods of anti-splash systems for automobiles and trailers JB/T 5943 General technical requirements for welding parts of construction machinery JB/T 9832.1 Visual assessment method of paint film color difference of agricultural and forestry tractors and machinery JT/T 475 trailer axle JT/T 885 safety performance requirements and testing methods for service semi-trailers JT/T 1178.2-2019 Safety technical requirements for commercial trucks Part 2: Towing vehicles and trailers QC/T 252 Model Test Regulations for Special Vehicles QC/T 484 automotive paint coating JT/T 1284-2020 QC/T 518 Tightening torque of threaded fasteners for automobiles

3 Terms and definitions

The following terms and definitions defined in GB 1589 apply to this document.

Low deck semi-trailer low deck semi-trailer the general term for low flatbed special semi-trailer and low flatbed reinforced semi-trailer.

Low deck special semi-trailer low deck semi-trailer for special purpose Semi-trailers for transporting large objects that cannot be dismantled mainly have the following structural and technical characteristics.

---The nominal section width of the tire does not exceed 8.25in or no more than 245mm;

---The connection with the tractor is a gooseneck type;

---Using a low cargo platform (the height of the cargo platform bearing surface from the ground is not more than 1150mm).

Note: Rewrite GB 1589-2016, definition 3.10.

Low flatbed reinforced semi-trailer enhanced low deck semi-trailer on the basis of the special semi-trailer for low flatbed, the semi-trailer can be strengthened and expanded through the structure to improve the carrying capacity. In addition to having low flat in addition to the basic purposes of semi-trailers, they can also be used to transport super-wide and super-heavy special large objects. It can be designed as three-axis and variable five-axis.

Three-axle low-plate reinforced semi-trailer enhanced low deck semi-trailer with three axles A low-flat semi-trailer with expandable bearing surface width. It has the following structure and technical characteristics.

- The connection with the tractor is a gooseneck type, with a low cargo platform, a flat bearing surface, and a ladder (transition springboard);
- The nominal section width of the tire does not exceed 8.25in or no more than 245mm;
- The basic outline size of the whole vehicle is within the limit of GB 1589, and the width of the expanded bearing surface does not exceed 3,400mm;
- The maximum design loading mass is not less than 42 000 kg.

Variable five-axle low-flatbed reinforced semi-trailer enhance low deck semi-trailer with film change changeable axles A low-plate semi-trailer with expandable bearing surface width and increased number of axles. It has the following structure and technical characteristics.

- The connection with the tractor is a gooseneck type, with a low cargo platform, a flat bearing surface, and a ladder (transition springboard);
- The nominal section width of the tire does not exceed 8.25in or no more than 245mm;
- The basic outline size of the whole vehicle is within the limit of GB 1589, and the width of the expanded bearing surface does not exceed 3,400mm;
- The axle base is in the state of three axles, if necessary, two additional axles can be added to become the state of five axles;
- The maximum design loading mass is not less than 42 000 kg in the three-axis state and not less than 55,000 kg in the five-axis state.

4.1 Basic requirements

4.1.1

The low-flat semi-trailer shall be manufactured in accordance with the drawings and technical documents approved by the prescribed procedures.

4.1.2

The purchased parts and outsourcing parts shall comply with the relevant standards and be accompanied by the manufacturer's certificate. Only after the vehicle manufacturer's inspection is qualified use. All self-made parts can be used after passing the inspection.

4.1.3

The design and installation of the low-flat semi-trailer shall ensure reasonable matching with the semi-trailer tractor, reliable connection, and related gas, electricity and control use it should be safe and reliable.

4.1.4

The interchangeability of the mechanical connection between the semi-trailer tractor and the low-bed semi-trailer shall meet the requirements of GB/T.20070.

4.2 Main parameter requirements

4.2.1

The main dimensional parameters of the low-bed semi-trailer shall meet the requirements of Table 1.

4.2.2

The main quality parameters of the low-bed semi-trailer shall meet the requirements of Table 2.

4.3 Performance requirements

4.3.1

The braking performance of the special low-flat semi-trailer and the automobile train composed of it shall meet the requirements of GB 7258 and GB 12676.

4.3.2

The parking brake performance of the low-flat semi-trailer and the automobile train consisting of it shall comply with the 7 of GB 7258-2017.10.3 of Regulations.

4.3.3

When the low-plate special semi-trailer train is fully loaded, the lateral stability is tested at a test speed of 80km/h.

The amplification factor at the rear of the acceleration should not be greater than 1.5.

4.3.4

The low-flat semi-trailer truck runs 500m in a straight line on a flat and dry road at a speed of 30km/h under no-load conditions.