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

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Replacing GB 16151.5-1996

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**Technical requirements for the operating safety of agricultural  
machinery - Part 5: Trailers**

农业机械运行安全技术条件 第5部分：挂车

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### Foreword

All technical content of this Part is mandatory. GB 16151 "Safety technical requirements for agricultural machinery operating" contains the following parts: - Part 1: Tractor; - Part 5: Trailer; - Part 12: Grain combine-harvester. This Part is Part 5 of GB 16151. This Part is revision to GB 16151.5-1996. Compared with GB 16151.5-1996, the main changes in this Part are as follows: - added the printing and marking requirements for the trademark or factory mark, model and exit-factory number of the whole vehicle part; - added the requirements of braking system to trailer braking system; - added the requirements of hydraulic dumping system part for set-up lifting lock device; - added the requirements of signal device for rear reflector; - deleted all terms not related to operational safety; - deleted the terms of poor operability and inconvenience for inspection and testing. This Part shall replace GB 16151.5-1996 after its implementation. This Part was proposed by Ministry of Agriculture of the People's Republic of China. This Part shall be under the jurisdiction of National Technical Committee on Agricultural Machinery of Standardization Administration of China. The drafting organizations of this Part: General Station of Agricultural Machinery Supervision, Ministry of Agriculture; General Station of Agricultural Machinery Test and Appraisal, Ministry of Agriculture; Jiangsu Agricultural Machinery Supervision Office, Nanjing Agricultural College, Institute of Power Machinery and Vehicle Engineering, Zhejiang University. Safety technical requirements for agricultural machinery operating - Part 5: Trailer

## 1 Scope

Part 5 of GB 16151 covers agricultural trailers, both semi-trailers and full trailers drawn behind a tractor. It sets the safety requirements for the body and frame, the suspension, the coupling and the turntable, the running gear, the braking system, the hydraulic tipping mechanism and the signalling devices - the items an inspector checks and the ones that fail on an overloaded farm trailer. It is short but mandatory. Issued on 4 July 2008, in force since 1 January 2009, replacing GB 16151.5-1996. 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 edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

This Part of GB 16151 specifies basic technical requirements for operational safety of semi-trailer, full-trailer (hereinafter referred to as the trailer) and carriage, frame and suspension, traction frame and turntable, walking device, braking system, hydraulic dumping system, signal device. This Part is applicable to agricultural trailers used in China.

## 2 Normative references

The following documents contain the provisions which, through reference in this Part of GB 16151, become the provisions of this Part. For dated references, their subsequent amendments (excluding corrigendum) or revisions do not apply to this Part. However, the parties who enter into agreement based on this Part are encouraged to investigate whether the latest versions of these documents are applicable. For undated reference documents, the latest versions apply to this Part.

GB 16151.1, Technical requirements of operating safety for agricultural machinery - Part 1: Tractor

## 3 Whole vehicle

3.1 The trailer shall be equipped with a Chinese label of the product that can be maintained continuously. The product label shall be fixed in an obvious location that is not affected by replacement parts. Its specific location shall be specified in the product technical documentation requirements. The label shall indicate the brand, model, total mass, load mass, exit-factory number, exit-factory year, month and manufacturer name.

3.2 The model and exit-factory number of the trailer shall be printed (or cast) on the frame for easy visibility and easy rubbing. The print character height is 10mm. The depth shall not be less than 0.3mm. Model number is printed ahead of the exit-factory number. The starting and ending marks shall be printed on both ends. The specific location shall be specified in the product technical documentation requirements. locked reliably. The traction ring rotates

flexibly in the tractor traction fork.

6.3 After the trailer is coupled to the walking tractor, the gap between the bolt and the hole of the traction frame shall ensure that the up and down movement range of the control handle shall not be greater than 200mm.

6.4 The upper and lower turntables of the trailer are relatively flexible.

## 7 Walking device

7.1 The tire model shall meet the requirements of the product technical documentation. The left and right tires on the same axis have roughly the same type and degree of wear. Air pressure meets the requirements of product technical documents. Do not use tires with inner pads and outer wraps, flat treads, treads and sidewalls with a length of more than 25mm and a depth sufficient to expose the ruptures and cuts of the ply.

7.2 The wheel rim shall be free of cracks and deformation. The nuts are complete and reliable.

7.3 The wheels shall be flexibly rotating, without rubbing and loosening phenomenon. The locking of adjusting nuts at the bearing are reliable. Set up a dust cover.

## 8 Braking system

8.1 The trailer shall have a reliable braking system. The trailer with a load capacity greater than 1t and less than 3t matched with wheeled tractor shall be equipped with a hydraulic and/or pneumatic brake system. The trailer with a load not less than 3t shall be equipped with a pneumatic shut-off brake system.

8.2 After the brake on the walking tractor trailer has the maximum braking effect, more than one-fifth of the reserved itinerary shall be reserved.

8.3 After the trailer is coupled to the tractor, when driving on dry and flat concrete or asphalt roads, its braking performance shall meet the requirements of GB 16151.1.