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

GB/T 42538.1-2023

**Tractors for agriculture and forestry - Safety - Part 1: Standard
tractors**

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Table of Contents

foreword

Introduction

1 Scope

2 Normative references

foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents"

drafting:

This document is part 1 of GB/T 42538 "Safety of Agricultural and Forestry Tractors": GB/T 42538 has issued the following parts:

--- Part 1: Basic tractors;

--- Part 2: Narrow track and small tractors:

This document is modified to adopt ISO 26322-1:2008 "Safety of agricultural and forestry tractors - Part 1: Basic tractors":

The technical differences between this document and ISO 26322-1:2008 and their reasons are as follows:

--- Replaced ISO 12100-1:2003 (see 4:1:1) with the normative reference GB/T 15706-2012 to adapt to the technology of our country

conditions, increasing operability;

--- Replaced ISO 5131 (see 4:2:1) and ISO 7216 (see 4:2:2) with the normatively quoted GB/T 3871:8 to adapt to our country

Technical conditions, increase operability;

--- Replaced ISO 15077 (see 4:3:1:1, 4:3:2:2) with the normatively quoted GB/T 20341 to adapt to the technical requirements of our country

pieces to increase operability;

--- Replaced ISO 4254 (see 4:3:1:2, 4:4:2:1) with the normatively quoted GB/T 6238 to adapt to my country's technical conditions, adding

Increase operability;

--- Changed the maximum height from the ground of the installation position of the external control device (see 4:3:3:2, 4:3:4:1), in order to facilitate the operation of domestic tractors author uses;

--- ISO 3776-1, GB/T 33641:2 replaced ISO 3776-2,

GB/T 33641:3 replaces ISO /OECD3776-3 (see 4:4:3) to adapt to my country's technical conditions and increase operability;

--- Replaced ISO 23205 (see 4:4:4) with the normatively quoted GB/T 24660:2 to adapt to the technical conditions of our country and increase the available operability;

--- Replaced ISO 3795 (see 4:4:5) with the normatively quoted GB/T 20953 to adapt to my country's technical conditions and increase operability active;

--- ISO 500-1, GB/T 10916 replaced ISO 8759-1 (see 4:5) with the normatively quoted GB/T 1592:1, to

Adapt to the technical conditions of our country and increase operability;

--- Replaced ISO 4413 (see 4:8:1) with the normatively quoted GB/T 3766 to adapt to my country's technical conditions and increase operability active;

---Replace ISO 5700, GB/T 7121:2 replace ISO 3463 with normative reference GB/T 7121:1

(See 4:12:1) to adapt to the technical conditions of our country and increase operability;

--- Added normative references to GB/T 24644 (see 4:13), and added test procedures and specifications for tractor falling object protection devices

Specific provisions that may be required to complete the safety provisions of this document;

--- Replaced ISO 10998 (see 4:16) with the normatively quoted GB/T 19040 to adapt to the technical conditions of our country and increase the operability active;

--- Replaced ISO 3600 (see 5:1:2) with the normatively quoted GB/T 9480 to adapt to my country's technical conditions and increase operability active;

--- Replaced ISO 11684 (see 5:2:2) with the normatively quoted GB 10396 to adapt to my country's technical conditions and increase operability

active:

The following editorial changes have been made to this document:

- Replaced ISO 26322-2 with the informative referenced GB/T 42538:2;
- Replaced ISO 5353 with the informative referenced GB/T 6236;
- Deleted redundant clause number 4:5:1;
- Replaced ISO 14982 with the informative referenced GB/T 21398;
- Deleted part of "note":

Please note that some content in this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

Tractor is a kind of agricultural machinery that completes various operations while walking, and its working parts have complex structures and harsh working environment conditions:

Poor, and it is very easy to cause personal injury accidents in the process of work: The development of tractor safety requirements and standards is of great help to improve the safety technical level of tractors and reduce the

The low risk of accidents and the protection of the operator's life and property have a great promotional effect: In this regard, our country through the reference, study of international standards and

Foreign advanced standards, a set of safety-related standards have been established in the tractor industry, including mandatory national standards:

This document transforms the International Organization for Standardization (ISO) standards on tractor safety, aiming to help domestic tractor companies understand the international

Standard regulations provide convenience for the export of tractors in our country:

Tractors in my country are classified according to the rated power of the engine: International standards are carried out according to the tractor wheel base (gauge) or the minimum use quality:

Therefore, GB/T 42538 divides the tractor safety requirements into the following two parts:

- Part 1: Basic tractors: The purpose is to formulate technical requirements related to safety of conventional agricultural operation tractors:
- Part 2: Narrow track and small tractors: The purpose is to develop safety-related technical regulations for narrow track tractors and small tractors:

technical requirements:

Agriculture and Forestry Tractor Safety

Part 1: Basic tractors

1 Scope

This document specifies the general safety requirements and test verification methods for the design and manufacture of basic tractors for general purposes in agriculture and forestry: Manufacturers

The type of information provided for safe operation, including residual risks, and the ways in which the operator and other workers can be raised during normal operation, use and maintenance of the tractor:

Technical measures for the degree of personal safety of personnel:

This document applies to tractors with the following characteristics:

- There are at least two axles to install pneumatic tires;
- The minimum value of the rear axle track (gauge) is greater than 1150mm;
- The tractor's minimum use mass is greater than 600kg;

This document does not include requirements related to vibration and braking of tractors:

Note: Tractors whose minimum operating mass is not greater than 600kg, and the minimum value of fixed wheel base (gauge) or adjustable wheel base (gauge) is not greater than 1150mm are safety requirements:

Please refer to GB/T 42538:2:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document:

GB/T 1592:1 Agricultural tractor rear PTO shaft type 1, 2, 3 and 4 Part 1: General requirements, safety requirements, protection

Shield size and gap range (GB/T 1592:1-2016, ISO 500-1:2014, MOD)

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and