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

GB/T 42538.2-2023

**Tractors for agriculture and forestry - Safety - Part 2:
Narrow-track and small tractors**

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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 2 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 26322-2:2010 "Safety of agricultural and forestry tractors - Part 2: Narrow wheelbase and small tractors":

The technical differences between this document and ISO 26322-2:2010 and their reasons are as follows:

--- ISO 26322-1:2008 was replaced by GB/T 42538:1-2023 with normative references (see Chapter 3 and Chapter 4), two documents

The degree of consistency between the components is modified to adapt to the technical conditions of our country and increase operability;

--- Added the term and definition of "minimum quality for use" (see 3:1) to meet the needs of this document;

---Change ISO 4252 to a dated reference (see 4:4:2:1) to increase operability;

--- Increase the explanation of the meaning of the symbol ah (see Table 1) to meet the needs of this document;

--- Replaced ISO 5353 (see 4:4:2:3) with the normatively quoted GB/T 6236 to adapt to my country's technical conditions and increase operability

active;

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

GB/T 33641:3 replaces ISO 3776-3 (see 4:4:3) to adapt to my country's technical conditions and increase operability;

--- Replace ISO 500-1 and GB/T 1592:2 with the normatively quoted GB/T 1592:1 (see 4:5), to

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

--- Replaced ISO 8759-1 (see 4:5) with the normatively quoted GB/T 10916 to adapt to the technical conditions of our country and increase the operability

active:

The following editorial changes have been made to this document:

--- Replaced ISO 12100:2010 with the informative referenced GB/T 15706-2012, and included "references";

--- Corrected typographical errors in ISO 26322-2:2010 Table 1;

--- Added "Plane C" in Figure 1:

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 Standards Organization (ISO) standards on tractor safety, aiming to help domestic tractor companies understand the international standards

Standard regulations, to facilitate 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 2: Narrow track and small tractors

1 Scope

This document specifies the general safety requirements for the design and manufacture of agricultural and forestry narrow wheel base and small tractors and their test verification methods: Manufacturers provide

The type of information provided for safe operation, including residual risks, and the enhancement of operator and other tasks during normal operation, use and maintenance of the tractor:

Technical measures for the degree of personal safety of personnel:

This document applies to vehicles with at least two axles and the minimum value of the fixed wheel base (gauge) or adjustable wheel base (gauge) is not greater than 1150mm

Wheeled or crawler tractors are also applicable to small tractors with a minimum operating mass of not more than 600kg:

This document does not include requirements for tractor vibration and braking:

Note: The minimum value of fixed wheel base (gauge) or adjustable wheel base (gauge) is greater than 1150mm, and the minimum operating mass of tractors is greater than 600kg:

GB/T 42538:1:

2 Normative references

The contents of the following documents become 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 1592:2 Agricultural tractors rear PTO shaft type 1, 2, 3 and 4 Part 2: Narrow wheel base tractor protective cover ruler

Inch and clearance range (GB/T 1592:2-2016, ISO 500-2:2004, MOD)

GB/T 6236 Agricultural and forestry tractors and mechanical driving seat marking points (GB/T 6236-2008, ISO 5353:1995, MOD)

GB/T 10916 Agricultural Wheeled Tractor Front Mounting Part 1: Power take-off shaft and three-point hitch

(GB/T 10916-2003, ISO 8759-1:1998, IDT)

GB/T 24660:2-2009 Agricultural tractor passenger seat (ISO 23205:2006, MOD)

Note: There is no technical difference between the referenced content of GB/T 24660:2-2009 and the referenced content of ISO 23205:2006:

GB/T 33641:1 Safety belts for agricultural and forestry tractors and machinery Part 1: Requirements for the location of anchorage devices (GB/T 33641:1-2017, ISO 3776-1:2006, MOD)

GB/T 33641:2 Safety belts for agricultural and forestry tractors and machinery - Part 2: Requirements for the strength of the fixing devices (GB/T 33641:2-2017, ISO 3776-2:2013, MOD)

GB/T 33641:3 Safety belts for agricultural and forestry tractors and machinery Part 3: Assembly requirements (GB/T 33641:3-2017, ISO 3776-3:2009, MOD)

GB/T 42538:1-2023 Agriculture and Forestry Tractor Safety Part 1: Basic Tractors (ISO 26322:1-2008, MOD)

ISO 4252:2007 Driver's working position, cab doorway and emergency exit dimensions of agricultural tractors (Agricultural

ISO 12003-1 Agricultural and forestry tractors Narrow track tractor rollover protection device Part 1: Front type (Tractorsforagri-ROPS)