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

GB/T 41603.1-2022

**Self-propelled agricultural machinery - Assessment of stability -
Part 1: Principles**

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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 of Standardization Documents" drafted.

This document is part 1 of GB/T 41603 "Stability Evaluation of Self-Propelled Agricultural Machinery". GB/T 41603 has been released to the next part.

--- Part 1. Principles;

--- Part 2. Determination and test procedures for static stability.

This document is equivalent to ISO 16231-1:2013 "Stability Evaluation of Self-Propelled Agricultural Machinery Part 1. Principles".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

During the intended operation, self-propelled agricultural machinery with a ride-on operator (driver) may face the danger of tipping or tipping over. wind

Risk assessment is used to determine whether the risk applies to a particular machine and, where appropriate, actions to avoid or minimize rides

protective measures against this danger. For many machines, this risk assessment will be reflected in the specific product standard requirements.

The risk assessment takes into account the operating conditions in which the machine is intended to be used, the physical characteristics of the machine, the skills required to operate the machine, and the possible effects of rollover

or any other parameter of dumping risk.

GB/T 41603 "Stability Evaluation of Self-Propelled Agricultural Machinery" consists of two parts.

--- Part 1.Principles;

--- Part 2.Determination and test procedures for static stability.

Evaluation of the stability of self-propelled agricultural machinery

Part 1.Principles

1 Scope

This document specifies the design and manufacture of self-propelled ride-on agricultural machinery, and the use of the machine under the manufacturer's intended and foreseeable conditions

Criteria for evaluating the hazardous stability of a device when a rollover, tipping, or both rollover and tipping occurs. This document also specifies the manufacturer's

Type of information on safe operations (including residual risks).

This document does not apply to the following situations.

--- Machines with no-load mass less than 400kg;

--- Machines that have rollover or tipping protections specified in other specific standards, such as agricultural tractors, forestry tractors;

--- Hazards associated with road transport operations;

--- Free fall events;

--- Rollover caused by collision.

This document does not apply to machines manufactured prior to the publication of this document.

2 Normative references

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

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to

this document.

ISO 3776-1.2006 Safety belts for agricultural and forestry tractors and machinery - Part

1.Requirements for the location of anchors (Tractorsandma-

Note. GB/T 33641.1-2017 Agricultural and forestry tractors and machinery seat belts - Part

1.Positioning requirements for fixing devices (ISO 3776-1.2006, MOD)

ISO 3776-2.2013 Agricultural and forestry tractors and machinery seat belts - Part

2.Strength requirements for anchorages (Tractorsandma-

Note. GB/T 33641.2-2017 Agricultural and Forestry Tractors and Machinery Seat Belts Part

2.Strength Requirements for Fixtures (ISO 3776-2.2013, MOD)

Note. GB/T 33641.3-2017 Agricultural and forestry tractors and machinery seat belts - Part

3.Assembly requirements (ISO 3776-3.2009, MOD)

Note. GB 10395.1-2009 Agricultural and Forestry Machinery Safety Part 1.General (ISO 4254-1.2008, MOD)

3 Terms and Definitions

ISO 4254-1.2013 and the following terms and definitions apply to this document.

3.1

Any automatic system that reduces the likelihood of a machine rolling over or tipping over through the machine's control functions or triggers without operator intervention.