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

**GB/T 41603.2-2022**

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**Self-propelled agricultural machinery - Assessment of stability -  
Part 2: Determination of static stability and test procedures**

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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 2 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 identical to ISO 16231-2:2015 "Stability Evaluation of Self-Propelled Agricultural Machinery Part 2. Determination of Static Stability"

and Test Procedures".

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

A hazard assessment is used to determine whether this hazard should be considered in the context of a particular machine, and how to avoid or minimize this hazard to the operator protection measures taken.

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 potential impact on rollovers

or any other parameter of tipping 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 2.Determination and test procedures for static stability

## 1 Scope

This document specifies the method for the determination of the center of mass of unloaded self-propelled agricultural machinery, the determination of the center of mass of fully loaded machines and combined working machines with accessories

method, and a method for the determination of the static roll angle.

NOTE. Requirements related to self-defense structures and ROPS will be given in other standards.

## 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.

Part 6.Centreofgravity)

Note. GB/T 3871.15-2006 Agricultural Tractor Test Procedures Part 15.Center of Mass (ISO 789-6.1982, MOD)

Note. GB/T 41603.1-2022 Stability Evaluation of Self-Propelled Agricultural Machinery Part 1.Principles (ISO 16231.1-2013, IDT)

## 3 Terms and Definitions

Terms and definitions defined in ISO 16231-1 and the following apply to this document.

### 3.1

For any type of self-propelled machine and in any orientation, the maximum incline value at which the machine can operate in accordance with Good Agricultural Practice.

Note. expressed in %.

### 3.2

In the case where the machine body is not leveled, for example, internal components are not leveled, separation system kinematics are not adjusted, airflow is not adjusted

A system for improving the functioning of agricultural machinery when working on slopes, either gas mode or both.

### 3.3

Body leveling system bodylevelingsystem

By leveling the main body of the machine vertically or horizontally or a combination of the two, it improves the functionality, driving, and driving of agricultural machinery when working on slopes.

System for driver comfort, ability to work on slopes and stability.

## **4.1 Determination and calculation method of no-load machine center of mass (COG)**

The center of mass of the unladen machine is determined by a scale and stand (see Table 1, Table 2 and Figures 1, 2, and 3).