

<b>STN</b>	<b>Samohybné poľnohospodárske stroje. Posúdenie stability. Časť 2: Stanovenie statickej stability a skúšobné postupy (ISO 16231-2: 2015).</b>	<b>STN EN ISO 16231-2</b>  47 0015
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Self-propelled agricultural machinery - Assessment of stability - Part 2: Determination of static stability and test procedures (ISO 16231-2:2015)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/16

Obsahuje: EN ISO 16231-2:2015, ISO 16231-2:2015

**122272**



Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016  
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 16231-2**

September 2015

ICS 65.060.01

English Version

**Self-propelled agricultural machinery - Assessment of  
stability - Part 2: Determination of static stability and test  
procedures (ISO 16231-2:2015)**

Machines agricoles automotrices - Évaluation de la  
stabilité - Partie 2: Détermination de la stabilité  
statique et modes opératoires d'essai (ISO 16231-  
2:2015)

Selbstfahrende Landmaschinen - Bewertung der  
Standfestigkeit - Teil 2: Bestimmung der statischen  
Standfestigkeit und Prüfverfahren (ISO 16231-2:2015)

This European Standard was approved by CEN on 29 August 2015.

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## European foreword

This document (EN ISO 16231-2:2015) has been prepared by Technical Committee ISO/TC 23 “Tractors and machinery for agriculture and forestry” in collaboration with Technical Committee CEN/TC 144 “Tractors and machinery for agriculture and forestry” the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2016, and conflicting national standards shall be withdrawn at the latest by March 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 16231-2:2015 has been approved by CEN as EN ISO 16231-2:2015 without any modification.

## **Annex ZA** (informative)

### **Relationship between this European standard and the Essential Requirements of EU Directive 2006/42/EC**

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirement 3.4.3 of that Directive and associated EFTA regulations.

**WARNING** — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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

*Machines agricoles automotrices — Évaluation de la stabilité —  
Partie 2: Détermination de la stabilité statique et modes  
opératoires d'essai*





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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 3, *Safety and comfort*.

ISO 16231 consists of the following parts, under the general title *Self-propelled agricultural machinery — Assessment of stability*:

- *Part 1: Principles*
- *Part 2: Determination of static stability and test procedures*

## Introduction

Self-propelled agricultural machinery with a ride-on operator (driver) can be exposed to the hazard of rolling or tipping over during the intended operation. A risk assessment is used to determine whether this hazard is to be considered in case of a specific machine and the protective measures to be used in order to avoid or minimize this hazard for the ride-on operator.

The risk assessment considers the operating conditions in which the machine is intended to be used, the physical properties of the machine, and the required skills to operate the machine as well as any other parameter which can have an impact on the risk for roll- or tip-over.

# Self-propelled agricultural machinery — Assessment of stability —

## Part 2: Determination of static stability and test procedures

### 1 Scope

This part of ISO 16231 specifies a method to determine the centre of gravity of un-laden self-propelled machines, a method to determine the centre of gravity of laden machines and combinations with attachments, and methods to determine the static overturning angle.

NOTE Requirements related to self-protective structures and ROPS are to be dealt with in a separate International Standard.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 789-6, *Agricultural tractors — Test procedures — Part 6: Centre of gravity*

ISO 16231-1, *Self-propelled agricultural machinery — Assessment of stability — Part 1: Principles*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**