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Tractors and machinery for agriculture and forestry - Sustainability - Part 1: Principles (ISO 17989-1:2015)

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. 04/16

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 17989-1

December 2015

ICS 65.060.01

English Version

Tractors and machinery for agriculture and forestry - Sustainability - Part 1: Principles (ISO 17989-1:2015)

Tracteurs et matériels agricoles et forestiers - Durabilité - Partie 1: Principes (ISO 17989-1:2015)

Traktoren und Land- und Forstmaschinen - Nachhaltigkeit - Teil 1: Grundsätze (ISO 17989-1:2015)

This European Standard was approved by CEN on 21 November 2015.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 17989-1:2015) 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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.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.

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Endorsement notice

The text of ISO 17989-1:2015 has been approved by CEN as EN ISO 17989-1:2015 without any modification.

INTERNATIONAL STANDARD

ISO 17989-1

First edition
2015-12-01

Tractors and machinery for agriculture and forestry — Sustainability —

Part 1: Principles

Tracteurs et matériels agricoles et forestiers — Durabilité — Partie 1: Principes

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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*.

ISO 17989 consists of the following parts, under the general title *Tractors and machinery for agriculture and forestry — Sustainability*:

— *Part 1: Principles*

Introduction

International concern over human impact on the health of the environment (e.g. acid rain, ozone layer depletion, air, water and soil pollution, ground compaction, soil erosion) and the consumption of the limited natural resources have encouraged organizations that are involved in the design, development and marketing of machinery to give attention to how a machine can impact the environment. Social issues, such as a safe workplace, and economic issues, such as a manufacturing organization considering increasing the number of workers to increase production rates, shall be balanced by organisations. This rise in attention is driven not only by issues relating to social responsibility of manufacturers, but also purchasers of machinery who themselves can have concerns about the impact that their machine has on the environment, as well as legislative bodies that are in positions to mandate certain actions intended to reduce the adverse impact of machinery on the environment. In order to address these concerns, application of the principles of sustainability has been regarded as appropriate strategy.

The sustainability concept was developed in the forestry sector when more and more wood was used as source of energy (before the use of coal started) and has a long tradition in agriculture as agricultural and forestry production are linked to the land.

Today, sustainability standards are used in agriculture with the aim of achieving a fair balance between the three sustainability aspects:

— economic aspects, such as:
  — cost-effectiveness;
  — liquidity;
  — stability / steady economic condition.
— environmental aspects, such as:
  — climate effects;
  — resource consumption;
  — biodiversity;
  — soil protection;
  — water and air pollution.
— social aspects, such as:
  — work and employment (education, training, safety);
  — social involvement.

It is recognized that a product's design and its use over its lifetime can have a significant impact on the quality and sustainability of the environment in which it operates. Taking steps during a product's design and development stage that are aimed at reducing the impacts of the product is an important factor in sustaining the environment. In this sense, designing for sustainability can be seen as a process and set of considerations that are integrated into a product's design and development activities in support of reducing the negative impacts and improving the performance of the product. The design and use of agricultural and forestry machinery, being very closely tied to the environment in the production of food, fibres, fuel and lumber for humans and livestock, is no exception to this objective.

Standards which provide designers and manufacturers of agricultural and forestry machinery with guidelines for the incorporation of sustainability into a machine's design and development are desired and would be useful in advancing the state of the art of sustainability in design in this industry sector, and could provide machinery purchasers with the means of fairly comparing the impacts of competing products.

This part of ISO 17989 is the first of a series of standards that specifies principles related to sustainability and recommends to regard ‘sustainability’ as a management task to be addressed to the manufacturer. Other parts of this series are planned to address specific product families and to specify approaches related to sustainability in the design and use of products/machines.

Tractors and machinery for agriculture and forestry — Sustainability —

Part 1: Principles

1 Scope

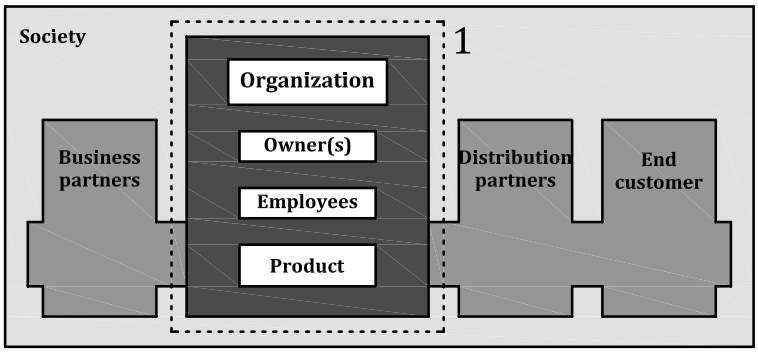
This part of ISO 17989 provides guidelines to assist designers and manufacturers of tractors and machinery for agriculture and forestry to integrate sustainability principles, practices and considerations into their organizations and processes. This part of ISO 17989 is specifically applicable to equipment used in the production of food, fibres, fuel and lumber for humans and livestock.

NOTE This part of ISO 17989 includes three different levels for the application: principles, recommendations and additional information (annexes).

This part of ISO 17989 is addressed to the organization management and provides guidance for considering sustainability aspects relevant for the organization and the product life cycle. It defines the factory gate as the system boundary (Figure 1).

This part of ISO 17989 is not applicable to contractual or regulatory purposes or to registration and certification.

Except when they are closely related to sustainability, this part of ISO 17989 does not address issues of occupational health and safety or operator safety aspects of a machine's design. Designers can find guidance on these issues in other International Standards.



Key

1 system boundary

Figure 1 — System boundary specifying also the scope of ISO 17989-1