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**Traktorer och maskiner för lantbruk och skogsbruk – Säkerhet –
Format för rapportering av olyckor**

**Tractors and machinery for agriculture and forestry – Safety –
Format for reporting accidents**

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Denna standard är framtagen av kommittén för Lantbruksmaskiner, SIS/TK 228.

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EUROPEAN STANDARD

EN 16831

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2016

ICS 13.200; 35.240.99

English Version

Tractors and machinery for agriculture and forestry - Safety - Format for reporting accidents

Tracteurs agricoles et forestiers - Sécurité - Format des
rapports d'accidents

Land- und forstwirtschaftliche Traktoren und
Maschinen - Sicherheit - Datenerfassungsbogen für
Unfälle

This European Standard was approved by CEN on 18 June 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents		Page
European foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Reporting format of the public part	6
4.1	Main structure of the cells	6
4.1.1	General	6
4.1.2	Equipment	6
4.1.3	Nature of the accident	7
4.1.4	Environmental factors	8
4.1.5	Human factors	8
4.2	Entry sheet	9
5	Reporting format of the concealed part	9
5.1	Content of concealed part	9
5.2	Entry sheet	9
Annex A (normative) Accident Reporting Protocol		10
Annex B (informative) Example of Entry Form for the public information		24
Annex C (informative) Example of Entry Form for concealed information		25

European foreword

This document (EN 16831:2016) has been prepared by 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 February 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.

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

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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.

Introduction

This European Standard establishes a uniform format to record data related to accidents where tractors and/or agricultural machinery are involved.

The reporting format defined in this document is intended to be used by all stakeholders dealing with these accidents, such as manufacturers of the products covered by its scope, health and safety bodies, insurance companies, market surveillance authorities, labour authorities and professional organizations.

The standardized reporting format, based on a selection of defined cell content, will allow statistical processing of the data, and the confidence level will grow together with the quantity of the data entered in a database.

Where possible and appropriate, the codes from ESAW¹⁾ have been used.

The standardized reporting format, when used by the different stakeholders, will allow an easy and understandable exchange of data and enhance the confidence level of the data which are provided by the different stakeholders. The implementation of the ESAW methodology, where appropriate, may accelerate the integration of the technical aspects of accidents with agricultural machinery in the Phase III of the ESAW project:

[http://ec.europa.eu/eurostat/statistics-explained/index.php/Accidents at work statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Accidents_at_work_statistics)

This document is considering the technical aspects of the equipment, but addresses also in detail other parameters, such as human behaviour and fitness, the environment and the mode in which the equipment was used at the time of the accident.

The nature of the data defined by this document is split in two parts, a public part and a concealed one. This will allow to keep the concealed information separated from the public information. The data for public information is anonymous, in order to avoid that the data of a particular accident do allow retrieval of the details of the accident in question. So there are no names, no exact places, no brands, nor models of equipment in the public part.

1) ESAW, European Statistics At Work, register developed since 1990 by the EU Commission (DG EMPL and EUROSTAT) together with the Member States.

http://ec.europa.eu/employment_social/publications/2002/ke4202569_en.html

http://circa.europa.eu/Public/irc/dsis/hasaw/library?l=/statistics_methodology/esaw_methodology/ke4202569_en.pdf/

1 Scope

This European Standard establishes a uniform format for reporting accidents where the following equipment are involved:

- agricultural and forestry tractors (NACE code 09.02.03.01);
- equipment fitted on tractors (e.g. a front – end loader) (NACE code 09.02.99.00);
- equipment mounted on the tractor (front and/or rear) (NACE code 09.02.99.00);
- equipment towed by tractors (trailers and machinery) (NACE code 09.02.04.99);
- self-propelled machinery (NACE code 09.02.03.02);
- telescopic loaders (NACE code 09.02.03.02);
- lawn and gardening equipment (NACE code 09.02.99.00);
- powered hand-held machinery used in agriculture (NACE code 09.02.99.00).

Accidents with this equipment on road use are also covered by this document.

Are excluded from the scope of this document:

- the above-mentioned equipment when used in another environment than agriculture, forestry and landscape gardening (e.g. tractors used on construction sites);
- material handling equipment other than telescopic loaders, skid steer loaders, wheel loaders and front-end loaders mounted on tractors.

All profiles of harmed persons should be in the scope. There should be no distinction/exemption between employers, employees, self-employed persons, bystanders or other persons involved in the accident.

Situations that are excluded from the scope of this document:

- near-miss accidents and other incidents, not resulting in harm;
- chronic diseases as a result of physical agents.

Fire hazards are only in the Scope for those fire accidents that have caused physical harm.

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.

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

3.1 equipment

tractors and machinery listed as being in the scope of this document

3.2 bystander

person other than the operator/driver that is exposed to harm, either involved or not in the activities of the equipment

3.3 victim

person that has been harmed as a result of an accident

4 Reporting format of the public part

4.1 Main structure of the cells

4.1.1 General

All recorded data related to a particular accident can be grouped into four main sections:

- a) the equipment involved;
- b) the nature of the accident;
- c) the environmental factors; and
- d) the human factors.

For each cell, one of the defined options as given in Annex A of this document shall be selected. It is not possible to enter other options than those defined in Annex A.

This coding is in line with the ESAW methodology.

NOTE Filtering the relevant codes of Table A.3 in function of the category of accident and category of equipment could be dealt with at the next revision of the standard or in new part of this standard, under evaluation. In particular this would be interesting in the case that the content of this standard would be used in digital applications.

In the case there is more than one harmed person, there shall be a separate form made for each of them.

4.1.2 Equipment

4.1.2.1 General

This section defines the technical characteristics of the equipment that can be recorded and which one is relevant for the purpose of this document.

In order to preserve the anonymous profile of the data, the recorded data in the public part shall not contain brand names, type descriptions, or serial numbers.

4.1.2.2 Classification of the equipment

This cell defines the classification of the equipment at a very high level and is based on the NACE codes (starting with 09.02 for agricultural equipment). An "x" shall be entered in the appropriate box in Annex A, Table A.1.

4.1.2.3 Category and type of equipment (in alphabetical order)

This cell defines the equipment in further detail. Refer to Annex A, Table A.2.

4.1.2.4 Age of the equipment

This cell defines the age of the equipment. When the equipment is a combination of a tractor and a machine or trailer from different ages, then the equipment which is deemed to be primarily involved in the accident shall be considered. The year of manufacturing shall be entered in Annex A, Table A.3. The spread sheet returns the age of the equipment at the time of the accident.

4.1.2.5 Maintenance condition

This cell defines the maintenance condition of the equipment. When the equipment is a combination of a tractor and a machine or a trailer with a different maintenance condition, then the equipment which is primarily deemed to be involved in the accident shall be considered.

Maintenance shall also consider the general condition of the machine (cleanliness, dents, wrecked, etc.). Refer to Annex A, code 100 - 199.

4.1.2.6 Protections

This cell defines the status of protective structures and systems on the equipment. Only those which have relevance for the accident in question shall be considered.

Refer to Annex A, code 200 - 299.

4.1.2.7 Performance and problems

This cell defines the degree of performance and possible technical problems with the equipment. Only those which have relevance for the accident in question shall be considered.

Refer to Annex A, code 300 - 399.

4.1.2.8 Compliance with regulations and standards

This cell defines the compliance with regulations and standards. Only those which have relevance for the accident in question shall be considered. It is also assumed that the compliance shall be assessed at the time the equipment was first placed on the market, but it is recognized that it will not always be easy to retrieve exactly the legislation which applied at that time.

Refer to Annex A, code 400 - 499.

4.1.3 Nature of the accident

4.1.3.1 General

This section defines the nature of the accident. The parameters and terminology are those from EN ISO 12100:2010, Clauses 4 and 5.

4.1.3.2 Category of accident

This cell defines the hazard category which caused harm as a result of the accident. These are the relevant hazards from EN ISO 12100:2010, Clause 4. In case the victim has been subject to more than one harm, then the hazard category which resulted in the most severe harm (see 4.1.5) shall be considered. The algorithm of the spread sheet is based on the category of accident, in a way that the options for entering a code are related to the category of the accident.