SLOVENSKI STANDARD
SIST EN 16831:2016

01-oktober-2016

Traktorji ter kmetijski in gozdarski stroji - Varnost - Format za poročanje o nesrečah

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

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

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

Ta slovenski standard je istoveten z: **EN 16831:2016**

ICS:

13.200	Preprečevanje nesreč in katastrof	Accident and disaster control
35.240.68	Uporabniške rešitve IT v kmetijstvu	IT applications in agriculture
65.060.10	Kmetijski traktorji in prikolice	Agricultural tractors and trailed vehicles

SIST EN 16831:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16831

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

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 16831:2016 E

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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of an identical text or by endorsement, at the latest by February 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.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.

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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 ESAW[1)] 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

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=/statisstics_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.

4.1.3.3 Accident scene

This cell defines the location where the accident happened and there is a choice between the typical agricultural scenes in which the equipment covered by this document is operating.

Refer to Annex A, code 500 - 599.

4.1.3.4 Specific physical activity at the time of the accident

This cell defines the part of the lifecycle in which the human interaction took place at the time of the accident. These are the relevant life cycles from EN ISO 12100:2010, 5.3, a) and tailored to the typical activities which are applicable to the equipment covered by this document.

Refer to Annex A, code 600 - 699.

4.1.3.5 Mode in which the equipment was used

This cell defines the mode or manner the equipment was used at the time of the accident. There is a choice between “normal use as intended” and other parameters describing various non-intended uses.

Refer to Annex A, code 700 - 799

4.1.4 Environmental factors

4.1.4.1 General

This section defines the physical environment in which the equipment was used at the time of the accident and is tailored for a typical agricultural environment, being weather, soil and crop.

4.1.4.2 Weather

This cell defines the weather conditions at the time of the accident. The option “not applicable/not relevant” shall be selected when the weather conditions were not relevant for the accident in question.

Refer to Annex A, code 800 - 899.

NOTE The parameters for the weather are aligned with those of the CARE – CADAS data set.

4.1.4.3 Soil or road

This cell defines the soil, track or road conditions at the time of the accident. The option “not applicable/not relevant” shall be selected when the soil, track or road condition was not relevant for the accident in question.

Refer to Annex A, code 900 - 999.

4.1.4.4 Crop

This cell defines the crop conditions at the time of the accident. The option “not applicable/not relevant” shall be selected when the crop conditions were not relevant for the accident in question.

Refer to Annex A, code 1000 - 1099.

4.1.5 Human factors

4.1.5.1 General

This section defines the physical and mental properties and behaviour of the victim at the time of the accident and is based on EN ISO 12100:2010, 5.3, c). It defines also the harm in terms of severity and kind according to the ESAW methodology. In order to preserve the anonymous profile of the data, the recorded data in the public part shall not contain private information about owner and victim.

4.1.5.2 Function of the victim

This cell defines the function of the victim and his/her relation with the equipment at the time of the accident.

Refer to Annex A, code 11000 - 11999 (ESAW codes).

4.1.5.3 Properties of the victim

This cell defines the properties of the victim at the time of the accident in terms of training and awareness about the hazards.

Refer to Annex A, code 1200 - 1299.

4.1.5.4 Behaviour of the victim

This cell defines the behaviour of the victim at the time of the accident in terms of fitness, mental condition and stress.

Refer to Annex A, list 17, code 1300 - 1399.

4.1.5.5 Part of the body injured

This cell defines the part of the body that has been injured.

Refer to Annex A, code 1400 - 1499 (ESAW codes).

4.1.5.6 Type of injury

This cell defines the type of the harm.

Refer to Annex A, code 15000 - 15999 (ESAW codes).

4.1.5.7 Days lost (severity of harm)

This cell defines the severity of the harm expressed in lost working days.

Refer to Annex A, code 000 - 999 (ESAW codes).

4.1.5.8 Age of the victim

This cell defines the age of the victim, expressed in years.

4.2 Entry sheet

Refer to Annex B.

5 Reporting format of the concealed part

5.1 Content of concealed part

This form contains cells which are identifying in detail the owner's name, address, name of harmed persons, brands, types and serial number of the machinery in question. It is obvious that all this information allows to retrieve the accident in question and that for reasons of privacy, this shall be kept separated from the public and generic information about the accident. It is the responsibility of the user of this document to find means to secure the concealed information.

5.2 Entry sheet

Refer to Annex C.