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Food processing machinery - Automatic back splitting machines of butchery carcasses - Safety and hygiene requirements

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15166:2009 sisaldab Euroopa standardi EN 15166:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 15166:2009 consists of the English text of the European standard EN 15166:2008.
Standard on kinnitatud Eesti Standardikeskuse 29.01.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 29.01.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 03.12.2008.	Date of Availability of the European standard text 03.12.2008.
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Nahrungsmittelmaschinen - Automatische Rückenspaltmaschinen für Schlachttierkörper - Sicherheits- und Hygieneanforderungen

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Foreword

This document (EN 15166:2008) has been prepared by Technical Committee CEN/TC 153 “Food processing machinery — Safety and hygiene specifications”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by June 2009, and conflicting national standards shall be withdrawn at the latest by June 2009.

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 98/37/EC and 2006/42/EC.

For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This document is a type C standard as stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

1 Scope

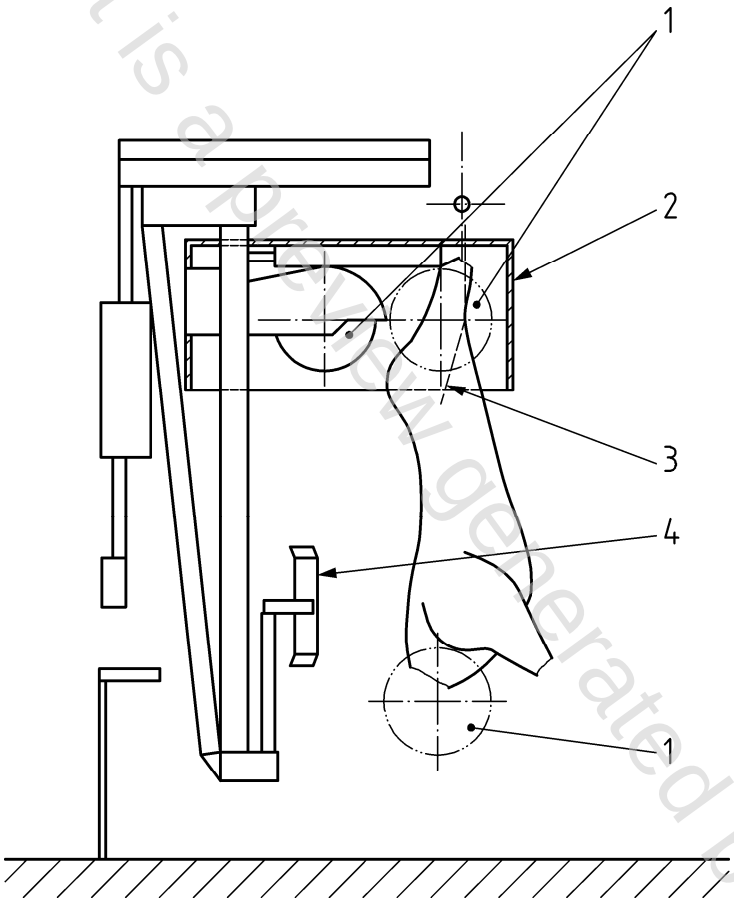
1.1 General

This European Standard applies to automatic back splitting machines and specifies safety and health requirements for machines used in slaughterhouses in order to fully automatically split meat animal (beef and pork) along the back-bone axis, splitting the carcass into two parts (see Figure 1).

This document deals with all significant hazards, hazardous situations and events relevant to automatic back splitting machines, when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Clause 4).

This document deals with the significant hazards, hazardous situations and events during transport, assembly and installation, commissioning and use as defined in EN ISO 12100-1:2003, 5.3.

This document is not applicable to automatic back splitting machines, which are manufactured before the date of its publication as EN.



Key

1 saw blade
2 saw blade cover
3 guiding device
4 bearing device
1 + 2 + 3 + 4 = cutting system

Figure 1 —Back splitting machine for beef, type C

1.2 Description of the concerned machines

The machines concerned by this standard are those used in slaughterhouses. They are fitted with a cutting device and are driven by electric, hydraulic and/or pneumatic energy.

The utilized cutting tools are:

— circular saws,

— splitting tools.

Three types of machines are considered (see Figures 1 to 11):

— Splitting machines for pork carcasses, type A (splitter),

— Splitting machines for pork carcasses, type B (circular saw),

— Splitting machines for beef carcasses, type C (circular saw).

There are two different operation cycles:

— carcasses can be splitted when they are at standstill (in general they are hanging on a sequence conveyed transport system);

— carcasses can also be splitted during their continuous movement by conveyor; in this case the movement of the tool is synchronized with that of the carcass.

When the split is finished, the cutting tool returns automatically to its initial position.

The machines run automatically. Under normal operating conditions there is no manual intervention.

2 Normative references

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

EN 614-1, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 953:1997, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

EN 982, *Safety of machinery — Safety requirements for fluid power systems and their components — Hydraulics*

EN 983, *Safety of machinery — Safety requirements for fluid power systems and their components — Pneumatics*

EN 1005-1, *Safety of machinery — Human physical performance — Part 1: Terms and definitions*

EN 1005-2, *Safety of machinery — Human physical performance — Part 2: Manual handling of machinery and component parts of machinery*

EN 1005-3, *Safety of machinery — Human physical performance — Part 3: Recommended force limits for machinery operation*

EN 1088:1995, *Safety of machinery — Interlocking devices associated with guards — Principles for design and selection*

EN 1672-2:2005, *Food processing machinery — Basic concepts — Part 2: Hygiene requirements*

EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)*

EN 60529, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN 61310-1, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals (IEC 61310-1:2007)*

EN ISO 3744:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994)*

EN ISO 4871, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11204:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Method requiring environmental corrections (ISO 11204:1995)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles* (*ISO 12100-2:2003)*

EN ISO 13849-1, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

EN ISO 13850, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

EN ISO 14121-1, *Safety of machinery — Risk assessment — Part 1: Principles (ISO 14121-1:2007)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply.

3.1
guiding device
device for guiding the saw blade

3.2
bearing device
system for fixation of carcass during splitting process

3.3
circular saw
cutting tool in shape of a dented disc