

KRAANAD. LAADURKRAANAD

Cranes - Loader cranes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12999:2011+A2:2018 sisaldab Euroopa standardi EN 12999:2011+A2:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 12999:2011+A2:2018 consists of the English text of the European standard EN 12999:2011+A2:2018.
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English Version

Cranes - Loader cranes

Appareils de levage à charge suspendue - Grues de
chargement

Krane - Ladekrane

This European Standard was approved by CEN on 13 May 2012 and includes Amendment 2 approved by CEN on 10 March 2017.

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European foreword

This document (EN 12999:2011+A2:2018) has been prepared by Technical Committee CEN/TC 147 “Cranes - Safety”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

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 includes Amendment 1 approved by CEN on 13 May 2012.

This document includes Amendment 2 approved by CEN on 10 March 2017.

This document supersedes A2 EN 12999:2011+A1:2012 A2.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A2 A2.

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.

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Introduction

This European Standard is a harmonized standard to provide one means for loader cranes to conform to the essential health and safety requirements of the Machinery Directive 2006/42/EC.

This European Standard is a type C standard as stated in EN ISO 12100.

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.

The machinery concerned and the extent to which hazards are covered are indicated in the scope of this European Standard.

1 Scope

This European Standard specifies minimum requirements for design, calculation, examinations and tests of hydraulic powered loader cranes and their mountings on vehicles or static foundations.

This European Standard does not apply to loader cranes used on board ships or floating structures or to articulated boom system cranes which are designed as total integral parts of special equipment such as forwarders.

The hazards covered by this standard are identified in Clause 4.

This European Standard does not cover hazards related to the lifting of persons.

This European Standard is not applicable to loader cranes which are manufactured before the date of its publication as EN. ^{A2} The amended provisions concerning stress calculations are not compulsory for cranes designed before the date of availability of EN 12999:2011+A2:2017. ^{A2}

NOTE The use of cranes for lifting of persons can be subject to specific national regulations.

2 Normative references

^{A1} 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. ^{A1}

^{A2} NOTE In the event of conflicting statements between referenced documents and this document, the statements in this document apply. ^{A2}

EN 349:1993+A1:2008, *Safety of machinery - Minimum gaps to avoid crushing of parts of the human body*

EN 12077-2:1998+A1:2008, *Cranes safety - Requirements for health and safety - Part 2: Limiting and indicating devices*

EN 14492-2:2006+A1:2009, *Cranes - Power driven winches and hoists - Part 2: Power driven hoists*

EN 12644-1:2001+A1:2008, *Cranes - Information for use and testing - Part 1: Instructions*

EN 12644-2:2000+A1:2008, *Cranes - Information for use and testing - Part 2: Marking*

EN 13001-1:2004+A1:2009, *Cranes — General design — Part 1: General principles and requirements*

EN 13001-2:2004+A3:2009, *Cranes safety — General design — Part 2: Load effects*

^{A2} EN 13001-3-1 ^{A2}, *Cranes — General design — Part 3-1: Limit states and proof competence of steel structure*

^{A2} EN 13001-3-2, *Cranes - General design - Part 3-2: Limit states and proof of competence of wire ropes in reeving systems* ^{A2}

EN 13557:2003+A2:2008, *Cranes - Controls and control stations*

EN 13586:2004+A1:2008, *Cranes - Access*

^{A2} EN 14033-2, *Railway applications – Track – Railbound construction and maintenance machines – Part 2: Technical requirements for working* ^{A2}

EN 61000-6-2:2005, *Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity for industrial environments (IEC 61000-6-2:2005)*

EN 61000-6-4:2007, *Electromagnetic compatibility (EMC) — Part 6-4: Generic standards — Emission standard for industrial environments (IEC 61000-6-4:2006)*

EN 60204-32:2008, *Safety of machinery — Electrical equipment of machines — Part 32: Requirements for hoisting machines (IEC 60204-32:2008)*

EN 954-1:1996, *Safety of machinery — Safety related parts of control systems — Part 1: General principles for design*

EN ISO 3744:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 4413:2010, *Hydraulic fluid power - General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4871:2009, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 5353:1998, *Earth-moving machinery, and tractors and machinery for agriculture and forestry - Seat index point (ISO 5353:1995)*

EN ISO 11201:2010, *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN ISO 11688-1:2009, *Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995)*

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

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