ILNAS

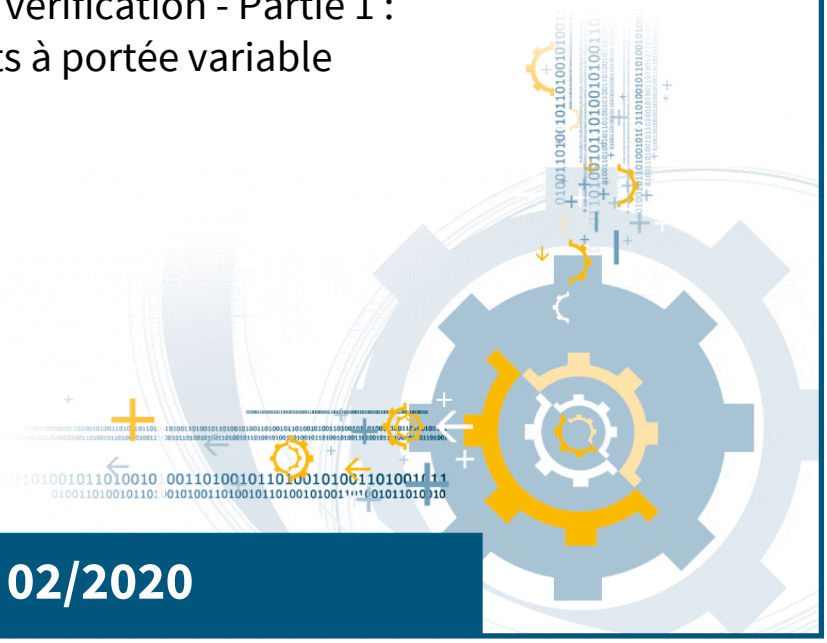
Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 1459-1:2017+A1:2020

Rough-terrain trucks - Safety requirements and verification - Part 1: Variable-reach trucks

Geländegängige Stapler - Sicherheitstechnische Anforderungen und Verifizierung - Teil 1: Stapler mit veränderlicher Reichweite

Chariots tout-terrain - Prescriptions de sécurité et vérification - Partie 1 : Chariots à portée variable



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National Foreword

This European Standard EN 1459-1:2017+A1:2020 was adopted as Luxembourgish Standard ILNAS-EN 1459-1:2017+A1:2020.

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- Participate in the design of standards
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EUROPEAN STANDARD
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English Version

Rough-terrain trucks - Safety requirements and verification - Part 1: Variable-reach trucks

Chariots tout-terrain - Prescriptions de sécurité et vérification - Partie 1 : Chariots à portée variable

Geländegängige Stapler - Sicherheitstechnische Anforderungen und Verifizierung - Teil 1: Stapler mit veränderlicher Reichweite

This European Standard was approved by CEN on 1 May 2017 and includes Amendment 1 approved by CEN on 25 November 2019.

This European Standard was corrected and reissued by the CEN-CENELEC Magagement Centre on 11 March 2020.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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European foreword

This document (EN 1459-1:2017+A1:2020) has been prepared by Technical Committee CEN/TC 150 “Industrial Trucks - 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 2020 and conflicting national standards shall be withdrawn at the latest by February 2021.

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.

This document supersedes A1 EN 1459-1:2017 A1.

This document includes Amendment 1, approved by CEN on 2019-11-25.

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

A1 Together with EN ISO 3691-2:2016 and prEN 16307-2:2017, EN 1459-1:2017 superseded EN 1459:1998+A3:2012.

In comparison with the previous edition EN 1459:1998+A3:2012, the following significant changes have been made:

— industrial variable-reach trucks have been removed from the scope and are dealt with in EN ISO 3691-2 and EN 16307-2;

— annexes giving stability tests requirements have been removed; this standard refers to the ISO 22915 series for stability tests;

— LPG-engine powered trucks have been removed from the scope;

— performance level requirements for safety functions have been added in a table;

— ergonomic requirements have been added;

— format and requirements have been influenced by the equivalent ISO standard in order to prepare the global relevance.

The most significant changes introduced by Amendment 1 FprEN 1459-1:2019 leading to the new version EN 1459-1:2017+A1:2020 of edition EN 1459-1:2017 are:

— different conditions for the test to determine if the truck can still be controlled in case of failure of the hydraulic steering;

— incorporation in this standard of the relevant requirements applicable to electric circuits, instead of referencing to EN 1175-2:1998+A1:2010;

— exclusion of some requirements of EN ISO 4413:2010, which were not relevant or applicable to trucks;

— other minor changes, mainly editorial clarifications of existing requirements. A1

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 Directives, see informative Annex ZA, which is an integral part of this document.

EN 1459 consists of the following parts, under the general title *Rough-terrain trucks — Safety requirements and verification*:

— *Part 1: Variable-reach trucks*

— *Part 2: Slewing variable-reach trucks*

— *Part 3: Interface between the variable-reach truck and the work platform*

— *Part 4: Additional requirements for variable-reach trucks handling suspended loads* (in preparation)

— *Part 5: Additional requirements for attachments and attachment interface*

— *Part 6: Application of* EN ISO 13849-1 *to slewing and non-slewing variable-reach rough-terrain trucks* (Technical Report)

— *Part 7: Test method and determination of noise emission* (in preparation)

— *Part 8: Variable-reach tractors* (Technical Specification)

NOTE Part 7 will be developed in line with the development of the revision of the Outdoor noise directive.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard covers general safety requirements and the means for verification of these requirements for rough-terrain variable-reach trucks.

All quantities are in SI units, and this includes metric units.

Considering the technical improvements to the previous version of EN 1459, a transition period of 12 months is permitted after the date of publication, such that manufacturers can develop their products sufficiently to meet the requirements of this European Standard.

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

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance etc.)

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous 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

This European Standard specifies the safety requirements of self-propelled variable-reach rough-terrain trucks (hereafter referred to as trucks), intended to handle loads, equipped with a telescopic lifting means (pivoted boom), on which a load handling device (e.g. carriage and fork arms) is fitted.

For the purpose of this standard, rough-terrain variable-reach trucks are designed to transport, lift and place loads and can be driven on unimproved terrain.

Fork arms are considered to be part of the truck. Trucks can also be equipped with a variety of attachments (e.g. bale spikes, mowers, sweepers).

This European Standard deals with all the significant hazards, hazardous situations and events relevant to the trucks when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Annex A).

This European Standard does not apply to:

— slewing variable reach rough terrain trucks covered by EN 1459-2;

— industrial variable reach trucks covered by EN ISO 3691-2;

— lorry-mounted variable reach trucks;

— variable reach trucks fitted with tilting or elevating operator position;

— mobile cranes covered by EN 13000;

— machines designed primarily for earth moving, even if their buckets and blades are replaced with forks (see EN 474 series);

— trucks designed primarily with variable length load suspension elements (e.g. chain, ropes) from which the load may swing freely in all directions;

— trucks fitted with personnel work platforms, designed to move persons to elevated working positions;

— trucks designed primarily for container handling;

— trucks on tracks;

— trucks with articulated chassis;

— [A1] attachments [A1].

This European Standard does not address hazards linked to:

— hybrid power systems;

— gas power system;

— gasoline engine system;

— battery power system;

— tractor specific devices (e.g. PTO).