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VASTAVUSKONTROLL. OSA 5: LISASEADME LIIDES

Rough-terrain trucks - Safety requirements and
verification - Part 5: Attachment interface

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 1459-5:2020+A1:2025 sisaldab Euroopa standardi EN 1459-5:2020+A1:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.04.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 1459-5:2020+A1:2025 consists of the English text of the European standard EN 1459-5:2020+A1:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 16.04.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

EN 1459-5:2020+A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Rough-terrain trucks - Safety requirements and verification - Part 5: Attachment interface

Chariots tout-terrain - Prescriptions de sécurité et vérification - Partie 5 : Interface de l'accessoire

Geländegängige Stapler - Sicherheitstechnische Anforderungen und Verifizierung - Teil 5: Zugehörige Schnittstellen

This European Standard was approved by CEN on 23 November 2020 and includes Amendment 1 approved by CEN on 2 March 2025.

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

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European foreword

This document (EN 1459-5:2020+A1:2025) 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of an identical text or by endorsement, at the latest by October 2025, and conflicting national standards shall be withdrawn at the latest by October 2025.

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 includes Amendment 1 approved by CEN on 2 March 2025.

This document supersedes A1 EN 1459-5:2020 A1.

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

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, 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 freely suspended loads;*
- *Part 5: Attachment interface;*
- *Part 6: Application of EN ISO 13849-1 to slewing and non-slewing variable-reach rough-terrain trucks;*
- *Part 8: Variable-reach tractors.*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, 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, Türkiye and the United Kingdom.

Introduction

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

All quantities are in metric units.

Tools

Being excluded from interchangeable equipment according to Directive 2006/42/EC (as amended) Article 2 b), tools as such are not subject to the Machinery Directive. Characteristics of tools which may be fitted to the machinery can be found in the instructions for use given by the truck manufacturer according to 1.7.4.2 (n) Directive 2006/42/EC.

Interchangeable equipment

An interchangeable equipment is not part of the truck, according to Directive 2006/42/EC (as amended) Article 2 b), because it is assembled with the truck by the operator himself in order to change its function or attribute a new function. The instructions for machinery allow several uses intended by design depending on the equipment used and the instructions for the interchangeable equipment contain the information necessary for safe assembly and use of the basic machinery and the interchangeable equipment that can be fitted (see Directive 2006/42/EC, 3.6.3.2).

The following items should be taken into account:

- a) identification of a specific point on the truck for the installation of the interchangeable equipment, i.e. truck-related side of the interface (hereafter referred to as “interface”): the carriage;
- b) interface safety-related design and coupling performances:

- avoidance of unintentional displacements: locking (normal operation condition and truck power supply failure condition);
 - strength requirements: calculation and static and dynamic test;
 - controls;
 - information.
- c) interchangeable equipment compatibility in order to be installable on the truck, i.e. choice of approved types of interchangeable equipment, correct usage in combination with the truck, minimum safety requirements.

Guide to application of the Machinery Directive 2006/42/EC states that “The manufacturer of the interchangeable equipment must ensure that the combination of the interchangeable equipment and the basic machinery with which it is intended to be assembled fulfils all the relevant essential health and safety requirements of Annex I and must carry out the appropriate conformity assessment procedure”.

This document considers primary function of the truck the load handling, stacking and lifting function, e.g. with forks.

1 Scope

This document specifies requirements for the truck side of the attachment interface of rough-terrain non-slewing and slewing variable reach trucks (hereafter referred to as “trucks”) dealt with in **EN 1459-1:2025**, **EN 1459-2:2015+A1:2018** and **EN 1459-4:2020+A1:2025**.

This document covers the interface for the attachments fitted to the telescopic boom carriage or mounted on the forks when it is used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer. This document does not cover:

- interface for interchangeable equipment designed for lifting person(s) (covered by EN 1459-3:2015);
- interface for equipment for container handling (e.g. spreader);
- interface for equipment permanently installed on the machine and not intended to be removed by the user.

NOTE In this case, equipment becomes part of the truck.

This document does not give requirements for the completed assembly of a truck fitted with an attachment. This document does not address risks to parts of the truck other than the interface with the attachment.

This document is not applicable to interfaces manufactured before the date of its publication.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1459-1:2025, *Rough-terrain trucks - Safety requirements and verification - Part 1: Variable-reach trucks*

EN 1459-2:2015+A1:2018, *Rough-terrain trucks - Safety requirements and verification - Part 2: Slewing variable-reach trucks*

EN 1459-3:2015, *Rough-terrain trucks - Safety requirements and verification - Part 3: Interface between the variable-reach truck and the work platform*

EN 1459-4:2020+A1:2025, *Rough terrain trucks - Safety requirements and verification - Part 4: Additional requirements for variable reach trucks handling suspended loads*

EN IEC 62061:2021, *Safety of machinery - Functional safety of safety-related electrical, Electronic and programmable electronic control systems*

ISO 2867:2011, *Earth-moving machinery - Access systems (ISO 2867:2011)*

ISO 3411:2007, *Earth-moving machinery - Physical dimensions of operators and minimum operator space envelope (ISO 3411:2007)*

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

EN ISO 13849-1:2015, *Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)*

ISO 5053-1:2020, *Industrial trucks - Terminology and classification - Part 1: Types of industrial trucks*

ISO 7000:2019, *Graphical symbols for use on equipment - Registered symbols*

ISO 15870:2000, *Powered industrial trucks - Safety signs and hazard pictorials - General principles*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ^{A1} EN 1459-1:2025 ^{A1}, EN 1459-2:2015+A1:2018, ^{A1} EN 1459-4:2020+A1:2025 ^{A1}, ISO 5053-1:2020 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

tool

attachment which does not change the primary function of the truck

3.2

interchangeable equipment

device assembled with the truck by the operator which changes the primary function of the truck or attributes a new function to the truck

Note 1 to entry: Interchangeable equipment when assembled does not change the designation of the machinery as variable-reach rough-terrain truck.

3.3

interface

devices and method to mechanically assemble and, if needed, hydraulically and/or electrically connect the attachment to the truck

3.4

attachment

tool or interchangeable equipment

3.5

carriage

specific part of the boom for mounting attachments to the truck

3.6

type

one or more interfaces representative of a given design, technical characteristics and application

Note 1 to entry: A type of interface can be produced in series or as a single unit.

Note 2 to entry: One type of interface can have variants; they are considered as belonging to the same type, provided they have the same basic design, present similar hazards and have similar protective measures.