



BSI Standards Publication

Rough-terrain trucks - Safety requirements and verification

Part 1: Variable-reach trucks

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National foreword

This British Standard is the UK implementation of EN 1459-1:2017. It supersedes BS EN 1459:1998+A3:2012, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MHE/7, Industrial trucks.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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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.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents		Page
European foreword		4
Introduction		6
1	Scope	7
2	Normative references	8
3	Terms and definitions	11
4	Safety requirements and/or protective measures	15
4.1	General.....	15
4.2	Starting/moving.....	16
4.3	Brakes.....	17
4.4	Electrical and electronic systems.....	17
4.5	Controls.....	18
4.6	Power systems and accessories	23
4.7	Stabilizing devices	24
4.8	Design requirements for maintenance purposes.....	26
4.9	Systems for lifting, tilting and reaching	26
4.10	Operator's station	29
4.11	Operator access.....	33
4.12	Protective measures and devices	34
4.13	Stability requirements	35
4.14	Visibility.....	36
4.15	Lighting.....	36
4.16	Fire protection	36
4.17	Retrieval, transportation and lifting.....	36
4.18	Noise	37
4.19	Electromagnetic compatibility	38
5	Verification of requirements and safety measures	38
5.1	General.....	38
5.2	Functional verification.....	38
5.3	Structural verification	38
5.4	Load holding verification	39
6	Information for use	40
6.1	General.....	40
6.2	Graphical symbols and warning	40
6.3	Instruction handbook.....	44
6.4	Marking.....	48
6.5	Load chart	48
Annex A (informative) List of significant hazards		51
Annex B (informative) Consistency of motions		57
Annex C (normative) Rules for the construction and layout of pedals		58
C.1	Definitions	58
C.2	Requirements	58
C.3	Design and manufacture	59

This is a preview of "BS EN 1459-1:2017". [Click here to purchase the full version from the ANSI store.](#)

Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered.....	61
Bibliography	65

This is a preview of "BS EN 1459-1:2017". [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 1459-1:2017) 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 March 2018 and conflicting national standards shall be withdrawn at the latest by September 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.

Together with EN ISO 3691-2:2016 and prEN 16307-2:2017, this document supersedes EN 1459:1998+A3:2012.

In comparison with the previous edition, 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.

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*

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- *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 organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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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.

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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;
- attachments (covered by prEN 1459-5).

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).