



BSI Standards Publication

Rough-terrain trucks — Safety requirements and verification

Part 6: Application of EN ISO 13849-1 to slewing and non-slewing variable-reach rough-terrain truck

National foreword

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**Rough-terrain trucks - Safety requirements and verification –
Part 6: Application of EN ISO 13849-1 to slewing and non-
slewing variable-reach rough-terrain truck**

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European foreword

This document (CEN/TR 1459-6:2015) has been prepared by Technical Committee CEN/TC 150 “Industrial Trucks - Safety”, the secretariat of which is held by BSI.

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.

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: 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*

Introduction

This Technical Report has been prepared to explain the rationale used to determine the minimum required Performance Levels for rough terrain variable reach trucks as listed in EN 1459 series.

It is intended to provide solid basis to the Performance Level Required (PL_r) required for the Safety Related Part of Control System (SRP/CS) referred to in prEN 1459-1, EN 1459-2 and EN 1459-3. The PL_r have been defined by using approaches from appropriate standards for safety of machinery and proven general principles for design.

The methodology described in this Technical Report may be used by other Technical Committees to assess the risk and determine PL_r for machines covered by other type C-standards.

1 Scope

This Technical Report describes the risk assessment methodology followed to determine the Performance Level required (PL_r), as defined in EN ISO 13849-1:2008, for specific safety related parts of control system (SRP/CS) of rough-terrain variable-reach trucks covered by prEN 1459-1, EN 1459-2 and EN 1459-3.

This Technical Report does not apply to SRP/CS that includes no electrical/electronic components.

NOTE It is the intention of CEN TC150 WG2 to use the same methodology to develop future standards (e.g. further parts of EN 1459).

2 Normative references

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.

prEN 1459-1:2015, *Rough-terrain trucks — Safety requirements and verification — Part 1: Variable-reach trucks*

EN 1459-2:2015 *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 ISO 12100:2010 *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13849-1:2008 *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)*

ISO/TR 14121-2:2012 *Safety of machinery — Risk assessment — Part 2: Practical guidance and examples of methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100, prEN 1459-1:2015, EN 1459-2:2015 and EN 1459-3:2015 and the following apply.

3.1

operator

competent person who controls the operation of the truck

3.2

co-worker

trained person who is working in the vicinity of the truck but not in control of the truck

3.3

by-stander

untrained person who is in the vicinity of the truck and not involved in the job site activity