



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Industrial trucks - Safety requirements and verification - Part 2:
Self-propelled variable-reach trucks**

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents.

This Document is Part 2 of GB/T 10827 Industrial Trucks - Safety Requirements and Verification. GB/T 10827 has published the following parts:

- Part 1: Self-Propelled Industrial Trucks, other than Driverless Trucks, Variable-Reach Trucks and Burden-Carrier Trucks;
- Part 2: Self-Propelled Variable-Reach Trucks;
- Part 5: Pedestrian-Propelled Trucks.

This Document equivalently adopted ISO 3691-2:2016 Industrial Trucks - Safety Requirements

and Verification - Part 2: Self-propelled Variable-Reach Trucks.

Please note some contents of this Document may involve patents. The issuing agency of this

Document shall not assume the responsibility to identify these patents.

This Document was proposed by China Machinery Industry Federation.

This Document shall be under the jurisdiction of National Technical Committee on Industrial Trucks of Standardization Administration of China (SAC/TC 332).

Drafting organizations of this Document: Noblelift Intelligent Equipment Co., Ltd.; Beijing Materials Handling Research Institute Co., Ltd.; Zhejiang Provincial Special Equipment Inspection and Research Institute; Anhui Heli Co., Ltd.; Hangcha Group Co., Ltd.; Lonking (Shanghai) Forklift Co., Ltd.; Sunward Intelligent Equipment Co., Ltd.; and Vehicle Quality Supervision and Inspection Center in National Field (Factory).

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Industrial Trucks - Safety Requirements and

Verification - Part 2: Self-Propelled Variable-Reach Trucks

1 Scope

This Document gives safety requirements and the means for their verification for self-propelled

industrial variable-reach trucks and variable-reach container handlers/reach stackers as defined

in ISO 5053-1 (hereafter referred to as trucks), equipped with forks or integral load-handling devices for normal industrial duties (e.g., fork arms or means, such as spreaders, for handling containers).

It is not applicable to

--- rough-terrain variable-reach trucks,

--- rough-terrain variable-reach trucks for handling containers,

--- machines designed primarily for earth-moving (e.g., loaders and dozers), even when their

buckets and blades are replaced with forks,

--- machines from which the load can swing freely in all directions.

For the purposes of this Document, fork arms and integrated attachments are considered to be

a part of the truck, whereas attachments/equipment mounted on the load carrier or on the fork

arms which are removable by the user are not. Nevertheless, requirements for such attachments

are also given by this Document.

This Document deals with all significant hazards, hazardous situations or hazardous events, as

listed in Annex B, with the exception of the following, relevant to the applicable machines when

used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

It does not establish requirements for hazards that can occur

--- during construction,

--- when using trucks on public roads,

--- when operating in potentially explosive atmospheres, or

--- when lifting persons.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates

indicated are applicable to this Document; for the undated documents, only the latest version

(including all the amendments) is applicable to this Document.

GB/T 8420-2011 Earth-Moving Machinery - Physical Dimensions of Operators and Minimum Operator Space Envelope (ISO 3411:2007, IDT)

GB/T 15706-2012 Safety of Machinery - General Principles for Design - Risk Assessment and Risk Reduction (ISO 12100:2010, IDT)

ISO 2328 Fork-Lift Trucks - Hook-on Type Fork Arms and Fork Arm Carrier - Mounting Dimensions

NOTE: GB/T 5184-2016 Fork-Lift Trucks - Hook-on Type Fork Arms and Fork Arm Carrier -

Mounting Dimensions (ISO 2328:2011, IDT)

ISO 2330 Fork-Lift Trucks - Form Arms - Technical Characteristics and Testing

NOTE: GB/T 5182-2008 Fork-Lift Trucks - Form Arms - Technical Characteristics and Testing

(ISO 2330:2002, IDT)

ISO 2867 Earth-Moving Machinery - Access Systems

NOTE: GB/T 17300-2017 Earth-Moving Machinery - Access Systems (ISO 2867:2011, IDT)

ISO 3287 Powered Industrial Trucks - Symbols for Operator Controls and Other Displays

NOTE: GB/T 7593-2008 Powered Industrial Trucks - Symbols for Operator Controls and Other

Displays (ISO 3287:1999, IDT)

ISO 3795 Road Vehicles, and Tractors and Machinery for Agriculture and Forestry -

Determination of Burning Behavior of Interior Materials

NOTE: GB/T 20953-2007 Tractors and Machinery for Agriculture and Forestry - Determination of

Burning Behavior of Cab Interior Materials (ISO 3795:1989, MOD)

ISO 4413 Hydraulic Fluid Power - General Rules and Safety Requirements for Systems and their Components

NOTE: GB/T 3766-2015 Hydraulic Fluid Power - General Rules and Safety Requirements for

Systems and their Components (ISO 4413:2010, MOD)

ISO 5053-1 Industrial Trucks - Terminology and Classification - Part 1: Types of Industrial Trucks

NOTE: GB/T 6104.1-2018 Industrial Trucks - Terminology and Classification - Part 1: Types of

Industrial Trucks (ISO 5053-1:2015, IDT)

ISO 5353 Earth-Moving Machinery, and Tractors and Machinery for Agriculture and Forestry - Seat Index Point

NOTE: GB/T 8591-2000 Earth-Moving Machinery - Seat Index Point (eqv ISO 5353:1995)

ISO 6055:2004 Industrial Trucks - Overhead Guards - Specification and Testing