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

GB/T 22417-2025

Replacing GB/T 22417-2008

**Industrial trucks - Fork arm extensions and telescopic fork
arms - Technical characteristics and strength requirements**

工业车辆 货叉叉套和伸缩式货叉 技术性能和强度要求

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document supersedes GB/T 22417-2008 "Technical Performance and Strength Requirements for Forklift Fork Extensions and Telescopic Forks", and is consistent with...

Compared with GB/T 22417-2008, apart from structural adjustments and editorial changes, the main technical changes are as follows.

- Four new symbols have been added. CR-EXT, DR-EXT, g, and sigma (see Chapter 4);
- The yield strength and safety factor have been changed (see 6.3, 2008 edition of 6.3);
- The requirements for lateral clearance have been changed (see 6.6, 2008 version of 6.6);
- Added calculation of the bending strength of the fork sleeves (see 8.2);
- The usage information for fork sleeves has been changed (see 9.1, 2008 version 9.1);
- The labeling for telescopic forks has been changed (see 10.2, 2008 version 10.2).

This document adopts ISO 13284:2022 "Technical performance and strength requirements for fork sleeves and telescopic forks of industrial vehicles".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Industrial Vehicles (SAC/TC332).

1 Scope

This document specifies the technical performance and strength requirements for fork sleeves and telescopic forks used in industrial vehicles.

This document applies to fork sleeves and telescopic forks as defined in ISO 5053-2, and these fork sleeves and telescopic forks are respectively designed...

This design applies to industrial vehicles with fork carriages and stacking lifting vehicles as defined in ISO 5053-1. It is applicable when equipped with fork sleeves.

The forks comply with ISO 2330.

This document does not apply to integral lateral telescopic forklifts or scissor-action reach mechanisms.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 5182-2008 Technical requirements and test methods for forklift forks (ISO 2330:2002, IDT) ISO 3691-1 Safety requirements and validation for industrial vehicles - Part 1: Self-propelled industrial vehicles (excluding driverless vehicles and telescopic boom vehicles) Note. GB/T 10827.1-2014 Safety requirements and verification for industrial vehicles - Part 1: Self-propelled industrial vehicles (excluding driverless vehicles and telescopic boom vehicles) Forklifts and transport vehicles (ISO 3691-1:2011, IDT) ISO 3691-2 Safety requirements and validation for industrial vehicles - Part 2: Self-propelled telescopic boom forklifts Note. GB/T 10827.2-2021 Safety requirements and validation for industrial vehicles - Part 2: Self-propelled telescopic boom forklifts (ISO 3691-2:2016) IDT)

3 Terms and Definitions

The following terms and definitions apply to this document.

Parent forklift

A fork with a rated lifting capacity at the center distance of the rated load, and whose horizontal section length and horizontal section cross-section serve as the basis for fork sleeve design.

test load

Loads (FEX and FT) applied in physical tests or calculated to verify the strength of fork sleeves and telescopic forks.

4 Symbols

The following symbols apply to this document.