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**NATIONAL STANDARD OF THE
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GB/T 46909-2025

Forklift truck attachments - Design rules

叉车属具 设计规范

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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. 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). This document was drafted by: Anhui Heli Co., Ltd., Anqing Liandong Attachments Co., Ltd., and Beijing Lifting and Transport Machinery Design and Research Institute. Research Institute Co., Ltd., Longhe Intelligent Equipment Manufacturing Co., Ltd., Linde (China) Forklift Co., Ltd., Noli Intelligent Equipment Co., Ltd., Xuzhou XCMG Special Engineering Machinery Co., Ltd., Cascade (Xiamen) Forklift Attachments Co., Ltd., Hangcha Group Co., Ltd., Ningbo Ru Yiyi Co., Ltd., Toyota Industries (Kunshan) Co., Ltd., Zoomlion Anhui Industrial Vehicle Co., Ltd., Hefei Banyitong Technology Development Co., Ltd. Limited Company, Lonking (Shanghai) Forklift Co., Ltd., Zhejiang Zhongli Machinery Co., Ltd., Chengdu Special Equipment Inspection and Testing Institute, Liuzhou LiuGong Forklift Co., Ltd., Sany Marine Heavy Industry Co., Ltd., Shandong Kenshi Heavy Industry Machinery Co., Ltd., Hunan Xingbang Intelligent Equipment Co., Ltd. company. The main drafters of this document are. Shi Song, Chen Kai, Zhao Chunhui, Cao Jixing, Shi Lei, Zhang Jinxia, Wu Yan, Lin Wei, Ke Jiachang, Liu Huanwu, and Wang Qinglin. Wang Zhenqing, Yang Hongyu, Fu Min, Lu Shiming, Jiang Zhongwei, Fang Zijian, Ma Yi, Shao Botao, He Ping, He Guangmin, Liu Qingrong, Cao Shiqiao, Chen Ran Liu Guoliang. Forklift Attachment Design Specifications

1 Scope

GB/T 46909-2025 is the Chinese national standard covering the attachment that replaces or supplements a forklift's forks - clamps, rotators, side shifters and push-pulls - and the design rules for a device that changes the truck's capacity, its centre of gravity and its stability the moment it is fitted. At 34,000 words, first edition, and it belongs with the fork dimension standard GB/T 5183-2025. It was issued on 31 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the China Machinery Industry Federation. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document establishes the design principles and calculation methods for the overall, mechanism, structure, installation and connection, hydraulic, electrical and safety aspects of forklift attachments. This document applies to forklift attachments as defined in GB/T 6104.2. Other types of forklift attachments should refer to this document for further information.

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 700 Carbon Structural Steel

GB/T 985.1 Recommended bevels for gas welding, shielded metal arc welding, gas shielded welding and high energy beam welding

GB/T 985.2 Recommended bevel for submerged arc welding

GB/T 3098.1 Mechanical properties of fasteners - bolts, screws and studs

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components

GB/T 4208-2017 Degrees of protection provided by enclosures (IP code)

GB/T 4942-2021 Classification of protection levels (IP codes) for integral structures of rotating electrical machines

GB/T 5184 Mounting dimensions for forklift hook-type forks and fork carriages

GB/T 6104.2 Industrial Vehicle Terminology Part

3 Terms and Definitions

The terms and definitions defined in GB/T 6104.2 and the following terms and definitions apply to this document.

3.1 A relatively independent working device that is added to the forklift forks, fork carriage, or mast through methods such as mounting, to expand the forklift's operational functions.

[Source: GB/T 43909-2024, 3.1]

4 Symbols

The main symbols, codes, units, and meanings used in this document are as per Appendix A.