

ICS 53.060



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

GB/T 43657.3-2024

**Energy efficiency of industrial trucks - Test methods - Part 3:
Container handling lift trucks**

工业车辆能效 试验方法 第3部分：集装箱搬运车

(English Translation)

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Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives

for Standardization - Part 1.Rules for the Structure and Drafting of Standardizing Documents.

This document is Part 3 of GB/T 43657 Energy Efficiency of Industrial Trucks - Test Methods.

GB/T 43657 has issued the following parts.

---Part 1.General;

---Part 2.Operator Controlled Self Propelled Trucks, Towing and Burden Carrier Trucks;

---Part 3.Container Handling Lift Trucks.

This document identically adopts ISO 23308-3.2020 Energy Efficiency of Industrial Trucks - Test Methods - Part 3.Container Handling Lift Trucks.

Please be noted that certain content of this document may involve patents. The institution

issuing this document does not undertake the responsibility of identifying these patents.

This document was proposed by China Machinery Industry Federation.

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

The drafting organizations of this document. Beijing Kezhengping Engineering Technology Testing Research Institute Co., Ltd.; Beijing Materials Handling Research Institute Co., Ltd.; Anhui Heli Co., Ltd.; Hangcha Forklift Co., Ltd.; Ningbo Ruyi Joint Stock Co., Ltd.; Liuzhou Liugong Forklift Co., Ltd.; FJ Controlling (Suzhou) Co., Ltd.

1 Scope

This document specifies the energy efficiency test methods for the container handling lift trucks

defined in ISO 5053-1.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in the text. In terms of references with a specified date, only

versions with a specified date are applicable to this document. In terms of references without a

specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 26949.9-2018 Industrial Trucks - Verification of Stability - Part 9. Counterbalanced Trucks with Mast Handling Freight Containers of 6 m Length and Longer (ISO 22915-9:2014, IDT)

GB/T 26949.12-2021 Industrial Trucks - Verification of Stability - Part 12. Industrial Variable-reach Trucks Handling Freight Containers of 6 m Length and Longer (ISO 22915-12:2015, IDT)

GB/T 43657.1-2024 Energy Efficiency of Industrial Trucks - Test Methods - Part 1. General (ISO 23308-1:2020, IDT)

ISO 668 Series 1 Freight Containers - Classification, Dimensions and Ratings

NOTE: GB/T 1413-2023 Series 1 Freight Containers - Classification, Dimensions and Ratings
(ISO 668.2020, IDT)

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 23308-1 Energy Efficiency of Industrial Trucks - Test Methods - Part 1.General

NOTE: GB/T 43657.1-2024 Energy Efficiency of Industrial Trucks - Test Methods - Part 1.General
(ISO 23308-1.2020, IDT)

3 Terms and Definitions

The terms and definitions defined in ISO 5053-1 and ISO 23308-1 are applicable to this document.

4.1 General

The operating position shall comply with the provisions of 4.2 in GB/T 26949.9-2018 and 4.2

in GB/T 26949.12-2021.The vertical distance between the bottom of the container and the seat

index point (SIP) as defined in ISO 5353 shall not exceed 0.9 m, and the height of the container

bottom shall ensure adequate forward visibility for the operator.

For telescopic container handlers in the operating position, the telescopic arm shall be fully retracted.

Additional requirements for the test conditions shall be in accordance with the provisions of ISO 23308-1.

4.2 Lifting Cranes for Heavy Containers

The test load for the lifting cranes for heavy containers shall be 70% of the rated lifting capacity.

4.3 Lifting Cranes for Empty Containers

The containers used for the test of the lifting cranes for empty containers shall comply with the

provisions of ISO 668.

Container with a height of 2,591 mm (8ft6in) and a length of 6.1 m (20ft) shall be used for the

test (minimum container mass 2,200 kg).

5.1 General

Chapter 5 of GB/T 43657.1-2024, together with 5.2 and 5.3 of this document, which describe

specific information regarding container handling lift trucks (hereinafter referred to as "the trucks"), shall apply.

5.2 Test Setup

The trucks shall be tested when loaded and adequately supported, with the rotary lock engaged

at operating height, and starting from position "A".

Telescopic container handling lift trucks are permitted to be tested with the boom

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