ANSI/ITSDF B56.1-2020
(Revision of ANSI/ITSDF B56.1a-2018)

SAFETY STANDARD FOR LOW LIFT AND HIGH LIFT TRUCKS

AN AMERICAN NATIONAL STANDARD

INDUSTRIAL TRUCK STANDARDS DEVELOPMENT FOUNDATION

Date of Issuance: March 27, 2020

ITSDF issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Interpretations are published on the ITSDF Web site at http://www.itsdf.org as they are issued, and will also be published within the next edition of the Standard.

This code or standard was developed under procedures accredited as meeting the criteria for American National Standards. The Standards Committee that approved the code or standard was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed code or standard was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

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ITSDF accepts responsibility for only those interpretations of this document issued in accordance with the established ITSDF procedures and policies, which precludes the issuance of interpretations by individuals.

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FOREWORD

(This foreword is not part of ANSI/ITSDF B56.1-2020)

In June 1946, The American Society of Mechanical Engineers adopted a resolution to develop a Safety Code for Powered Industrial Trucks. On August 7, 1947, the American Standards Association (now called the American National Standards Institute, Inc.) approved ASME sponsorship of such a standard. An organizational meeting was held on May 20, 1948.

Comments from a first draft, dated 1949, were incorporated in a final draft dated November, 1949, which was submitted to Sectional Committee Members for letter ballot vote and was unanimously affirmed. In June, 1950, ASA (now called ANSI) approved the code as submitted, and issued it as ASA B56.1-1950, Safety Code for Industrial Powered Trucks.

In accordance with procedures to review the Standard every 5 years, revisions were developed under ASA and its successor organizations as follows:

Revision	**Started**	**Printed**	**Standard Body**
B56.1-1955	May 1948	March 1955	American Standards Association
B56.1-1959	March 1955	August 1959	American Standards Association
B56.1-1969	August 1959	September 1969	USA Standards Institute
B56.1-1975	October 1965	September 1975	American National Standards Institute
B56.1-1983	October 1975	April 1984	American National Standards Institute
B56.1-1988	April 1987	June 1988	American National Standards Institute

Revision	**Approved**	**Issued**	**Standard Body**
B56.1-1993	12 November 1993	January 1994	American National Standards Institute
B56.1-2000	19 January 2000	May 2000	American National Standards Institute
B56.1-2004	20 April 2004	22 November 2004	American National Standards Institute
B56.1-2005	16 September 2005	22 November 2004	American National Standards Institute
B56.1-2009	26 August 2009	7 October 2009	American National Standards Institute
B56.1-2012	17 February 2012	23 February 2012	American National Standards Institute
B56.1-2016	22 July 2016	2 August 2016	American National Standards Institute
B56.1a-2018	3 August 2018	15 August 2018	American National Standards Institute

ITSDF issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Interpretations are not part of the addenda to the Standard.

The 2020 revision of B56.1 was approved by the American National Standards Institute on March 26, 2020.

This Standard shall become effective 1 year after its respective Date of Issuance. Part III applies only to trucks manufactured after the effective date.

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ITSDF STANDARDS COMMITTEE ROSTER B56
Powered and Nonpowered Industrial Trucks

(The following is the roster of the Committee at the time of approval of this Standard.)

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J. E. Johnson, *Vice Chair*
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Rudy Fiers, A & R Safety
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Steve McDermitt, Crown Equipment
David Norton, The Raymond Corporation
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SUBCOMMITTEE B56.1 – LOW LIFT AND HIGH LIFT TRUCKS

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R. Kevin Smith, R K Smith Engineering Inc.
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ANSI/ITSDF B56.1-2020

SUMMARY OF CHANGES

Following approval by the ITSDF B56 Committee and after public review, ANSI/ITSDF B56.1-2020 was approved as a revision of ANSI/ITSDF B56.1a-2018 on March 26, 2020. Changes are indicated by the margin note **(20)**.

Changes in this revision include:

Protection from moving parts (7.32)
Definition for percent grade
“Battery” to “electric power source” throughout
Option to use metric or imperial units or both on nameplates (4.2, 7.4)
Removed enclosures from operator restraint systems (7.41)
Brake system requirements (7.16)
Travel controls (7.20.10)

SPECIAL NOTE:

The interpretations to ITSDF B56.1 are included in this edition as a separate section for the user’s convenience. The interpretations are not part of this edition or of the Standard itself.

B56 SERIES INTRODUCTION

GENERAL

This Standard is one of a series that have been formulated with the Industrial Truck Standards Development Foundation as Sponsor in accordance with the Accredited Organization method, the procedures accredited by the American National Standards Institute, Inc., and the following scope:

> Establishment of the safety requirements relating to the elements of design, operation, and maintenance; standardization relating to principal dimensions to facilitate interchangeability, test methods, and test procedures of powered and nonpowered industrial trucks (not including vehicles intended primarily for earth moving or over-the-road hauling); and maintenance of liaison with the International Organization for Standardization (ISO) in all matters pertaining to powered and nonpowered industrial trucks.

One purpose of the Standard is to serve as a guide to governmental authorities having jurisdiction over subjects within the scope of the Standard. It is expected, however, that the Standard will find a major application in industry, serving as a guide to manufacturers, purchasers, and users of the equipment.

For convenience, Standards of Powered and Nonpowered Industrial Trucks have been divided into separate volumes:

Safety Standards

B56.1 Low Lift and High Lift Trucks
B56.5 Guided Industrial Vehicles and Automated Functions of Manned Industrial Vehicles
B56.6 Rough Terrain Forklift Trucks
B56.8 Personnel and Burden Carriers
B56.9 Operator Controlled Industrial Tow Tractors
B56.10 Manually Propelled High Lift Industrial Trucks
B56.14 Safety Standard for Vehicle Mounted Trucks

Standardization Standards

B56.11.1 Double Race or Bi-Level Swivel and Rigid Industrial Casters
B56.11.4 Hook-Type Forks and Fork Carriers for Powered Industrial Forklift Trucks
B56.11.5 Measurement of Sound Emitted by Low Lift, High Lift, and Rough Terrain Powered Industrial Trucks
B56.11.6 Evaluation of Visibility from Powered Industrial Trucks
B56.11.7 Liquefied Petroleum Gas (LPG) Fuel Cylinders (Horizontal or Vertical) Mounting – Liquid Withdrawal – for Powered Industrial Trucks
B56.11.8 Safety Standard for Seat Belt (Lap-Type) Anchorage Systems for Powered Industrial Trucks

Safety standards that were previously listed as B56 volumes but now have different identification due to a change in standards development assignments are as follows:

NFPA 505 Fire Safety Standard for Powered Industrial Trucks – Type Designations, Areas of Use, Maintenance and Operation (formerly B56.2)
UL 583 Standard for Safety for Electric-Battery-Powered Industrial Trucks (formerly B56.3)
UL 558 Standard for Safety for Internal Combustion Engine-Powered Industrial Trucks (formerly B56.4)

If adopted for governmental use, the references to other national codes and standards in the specific volumes may be changed to refer to the corresponding governmental regulations.

The use of powered and nonpowered industrial trucks is subject to certain hazards that cannot be completely eliminated by mechanical means, but the risks can be minimized by the exercise of intelligence, care, and common sense. It is therefore essential to have competent and careful operators, physically and mentally fit, and thoroughly trained in the safe operation of the equipment and the handling of the loads. Serious hazards are overloading, instability of the load, obstruction to the free passage of the load, collision with objects or pedestrians, poor maintenance, and use of equipment for a purpose for which it was not intended or designed.

Suggestions for improvement of these Standards, especially those based on actual experience in their application, shall be submitted to the Secretary of the B56 Committee, ITSDF, 1750 K Street NW, Suite 460, Washington DC 20006.

Comments shall be written in accordance with the following format:

(a) specify paragraph designation of the pertinent volume;
(b) indicate suggested change (addition, deletion, revision, etc.);
(c) briefly state reason and/or evidence for suggested change;
(d) submit suggested changes to more than one paragraph in the order in which they appear in the volume.

The appropriate B56 Subcommittee will consider each suggested revision at its first meeting after receipt of the suggested revision(s).

SAFETY STANDARD FOR LOW LIFT AND HIGH LIFT TRUCKS

Part I
Introduction

1 SCOPE

This Standard defines the safety requirements relating to the elements of design, operation, and maintenance of low lift and high lift powered industrial trucks controlled by a riding or walking operator, and intended for use on compacted, improved surfaces.

2 PURPOSE

The purpose of the Standard is to promote safety through the design, construction, application, operation, and maintenance of low lift and high lift powered industrial trucks. This Standard may be used as a guide by governmental authorities desiring to formulate safety rules and regulations. This Standard is also intended for voluntary use by others associated with the manufacture or use of low lift and high lift powered industrial trucks.

3 INTERPRETATION

3.1 Mandatory and Advisory Rules

To carry out the provisions of this Standard, all items in Parts II, III, IV, and V are mandatory except those including the word *should*, which are recommendations.

3.2 Classification of Approved Trucks

The word *approved* means the classification or listing of trucks as to fire, explosion, and/or electric shock hazard by a nationally recognized testing laboratory, i.e., a laboratory qualified and equipped to conduct examinations and tests such as those prescribed by Underwriters Laboratories, Incorporated.

3.3 Requests for Interpretation

The B56 Committee will render an interpretation of any requirement of this Standard. Interpretations will be rendered only in response to a written request sent to the Secretary of the B56 Committee, ITSDF, 1750 K Street NW, Suite 460, Washington DC 20006. The request for interpretation shall be in the following format.

Subject: Cite the applicable paragraph number(s) and provide a concise description.

Edition: Cite the applicable edition of the pertinent standard for which the interpretation is being requested.

Question: Phrase the question as a request for an interpretation of a specific requirement suitable for general understanding and use, not as a request for approval of a proprietary design or situation. The inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

ITSDF procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ITSDF Committee or Subcommittee. ITSDF does not “approve,” “certify,” “rate,” or “endorse” any item, construction, proprietary device or activity.