ASME B30.8-2020
(Revision of ASME B30.8-2015)

Floating Cranes and Floating Derricks

Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

ASME B30.8-2020
(Revision of ASME B30.8-2015)

Floating Cranes and Floating Derricks

Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers
Two Park Avenue • New York, NY • 10016 USA

Date of Issuance: May 21, 2021

The next edition of this Standard is scheduled for publication in 2025. This Standard will become effective 1 year after the Date of Issuance.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Interpretations are published on the ASME website under the Committee Pages at http://cstools.asme.org/ as they are issued.

Errata to codes and standards may be posted on the ASME website under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

The Committee Pages can be found at http://cstools.asme.org/. There is an option available to automatically receive an e-mail notification when errata are posted to a particular code or standard. This option can be found on the appropriate Committee Page after selecting “Errata” in the “Publication Information” section.

The American Society of Mechanical Engineers
Two Park Avenue, New York, NY 10016-5990

CONTENTS

Tables

FOREWORD

This American National Standard, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings, has been developed under the procedures accredited by the American National Standards Institute (ANSI). This Standard had its beginning in December 1916, when an eight-page "Code of Safety Standards for Cranes," prepared by the American Society of Mechanical Engineers (ASME) Committee on the Protection of Industrial Workers, was presented at the annual meeting of the ASME.

Meetings and discussions regarding safety on cranes, derricks, and hoists were held from 1920 to 1925 involving the ASME Safety Code Correlating Committee, the Association of Iron and Steel Electrical Engineers, the American Museum of Safety, the American Engineering Standards Committee (AESC) [later changed to American Standards Association (ASA), then to the United States of America Standards Institute (USASI), and finally to ANSI], Department of Labor — State of New Jersey, Department of Labor and Industry — State of Pennsylvania, and the Locomotive Crane Manufacturers Association. On June 11, 1925, the AESC approved the ASME Safety Code Correlating Committee's recommendation and authorized the project with the U.S. Department of the Navy, Bureau of Yards and Docks, and ASME as sponsors.

In March 1926, invitations were issued to 50 organizations to appoint representatives to a Sectional Committee. The call for organization of this Sectional Committee was sent out October 2, 1926, and the Committee was organized on November 4, 1926, with 57 members representing 29 national organizations.

Commencing June 1, 1927, and using the eight-page Code published by ASME in 1916 as a basis, the Sectional Committee developed the "Safety Code for Cranes, Derricks, and Hoists." The early drafts of this safety code included requirements for jacks, but due to inputs and comments on those drafts, the Sectional Committee decided in 1938 to make the requirements for jacks a separate code. In January 1943, ASA B30.2-1943 was published addressing a multitude of equipment types, and in August 1943, ASA B30.1-1943 was published addressing only jacks. Both documents were reaffirmed in 1952 and widely accepted as safety standards.

Due to changes in design, advancement in techniques, and general interest of labor and industry in safety, the Sectional Committee, under the joint sponsorship of ASME and the Bureau of Yards and Docks (now the Naval Facilities Engineering Command), was reorganized on January 31, 1962, with 39 members representing 27 national organizations. The new Committee changed the format of ASA B30.2-1943 so that the multitude of equipment types it addressed could be published in separate volumes that could completely cover the construction, installation, inspection, testing, maintenance, and operation of each type of equipment that was included in the scope of ASA B30.2. This format change resulted in B30.3, B30.5, B30.6, B30.11, and B30.16 being initially published as "Revisions" of B30.2, with the remainder of the B30 volumes being published as totally new volumes. ASA changed its name to USASI in 1966 and to ANSI in 1969, which resulted in B30 volumes from 1943 to 1968 being designated as ASA B30, USAS B30, or ANSI B30, depending on their date of publication. In 1982, the Committee was reorganized as an Accredited Organization Committee operating under procedures developed by ASME and accredited by ANSI.

This Standard presents a coordinated set of rules that may serve as a guide to government and other regulatory bodies and municipal authorities responsible for the guarding and inspection of the equipment falling within its scope. The suggestions leading to accident prevention are given both as mandatory and advisory provisions; compliance with both types may be required by employers of their employees. In case of practical difficulties, new developments, or unnecessary hardship, the administrative or regulatory authority may grant variances from the literal requirements or permit the use of other devices or methods, but only when it is clearly evident that an equivalent degree of protection is thereby secured. To secure uniform application and interpretation of this Standard, administrative or regulatory authorities are urged to consult the B30 Committee, in accordance with the format described in Section IX of the B30 Standard Introduction, before rendering decisions on disputed points.

Safety codes and standards are intended to enhance public safety. Revisions result from committee consideration of factors such as technological advances, new data, and changing environmental and industry needs. Revisions do not imply that previous editions were inadequate.

ASME B30.8 was first published in 1977; new editions were published in 1982, 1988, 1993, 1999, 2004, and 2010. The 2015 edition incorporated many global B30 changes, including the addition of sections on personnel competence, translations, and responsibilities, along with other revisions. This 2020 edition contains updated references.

This edition of the ASME B30.8 Volume was approved by the B30 Committee and by ASME and was approved by ANSI and designated as an American National Standard on June 11, 2020.

ASME B30 COMMITTEE
Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

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

STANDARDS COMMITTEE OFFICERS

T. L. Blanton, *Chair*
E. D. Fidler, *Vice Chair*
K. Peterson, *Secretary*

STANDARDS COMMITTEE PERSONNEL

N. E. Andrew, AM/NS Calvert
B. B. Bacon, Tennessee Valley Authority
T. L. Blanton, NACB Group, Inc.
P. A. Boeckman, The Crosby Group, Inc.
P. W. Boyd, The Boeing Co.
J. Burkey, Columbus McKinnon Corp.
B. D. Closson, Craft Forensic Service
J. A. Danielson, The Boeing Co.
D. R. Decker, Becket, LLC
L. D. Demark, Sr., Equipment Training Solutions, LLC
D. W. Eckstine, Eckstine and Associates
R. J. Edwards, NBIS Claims and Risk Management, Inc.
E. D. Fidler, Grove U.S., LLC
J. A. Gilbert, Associated Wire Rope Fabricators
G. B. Hetherston, Hetherston Consulting, LLC
M. M. Jaxtheimer, Navy Crane Center
P. R. Juhren, Morrow Equipment Co., LLC
R. M. Kohner, Landmark Engineering Services
A. J. Lusi, Jr., Lumark Consulting, LLP
L. D. Means, Means Engineering and Consulting
M. W. Mills, Liberty Mutual Insurance
W. E. Osborn, Ingersoll Rand
R. M. Parnell, Industrial Training International — Field Service
J. T. Perkins, All Material Handling
K. Peterson, The American Society of Mechanical Engineers
B. A. Pickett, Systems Engineering and Forensic Services
J. A. Pilgrim, Manitowoc Cranes
S. K. Rammelsberg, McDermott
K. Reynolds, Shell Exploration and Production
J. E. Richardson, U.S. Department of the Navy
D. W. Ritchie, Dave Ritchie Consultant, LLC
J. W. Rowland III, Consultant
A. R. Ruud, Atkinson Construction
L. K. Shapiro, Howard I. Shapiro and Associates
D. W. Smith, STI Group
W. J. Smith, Jr., NationsBuilders Insurance Services
R. S. Stemp, Lampson International, LLC
R. G. Strain, Advanced Crane Technologies, LLC
J. Sturm, Sturm Corp.
D. P. Sullivan, International Union of Operating Engineers Local 542 Joint Apprenticeship and Training Committee
P. D. Sweeney, Riverside Engineering, LLC
E. P. Vliet, Consultant
J. D. Wiethorn, Haag Engineering Co.
R. C. Wild, CJ Drilling, Inc.
S. D. Wood, Terex Corp.
R. J. Bolen, *Alternate*, Consultant
D. Boyle, *Alternate*, The Crosby Group
B. M. Casey, *Alternate*, Electric Boat
W. C. Dickinson, Jr., *Alternate*, Crane Industry Services, LLC
J. Dudley, *Alternate*, The Walsh Group
D. Duerr *Alternate*, 2DM Associates, Inc.
M. Eckstine, *Alternate*, Safelift, LLC
S. R. Fletcher, *Alternate*, Cowles, Murphy, Glover, and Associates
M. Gardiner, *Alternate*, Haag Engineering Co.
J. B. Greenwood, *Alternate*, Navy Crane Center
D. A. Henninger, *Alternate*, Bridon Bekaert, The Ropes Group
D. F. Jordan, *Alternate*, American International Crane Bureau
K. Kennedy, *Alternate*, Navy Crane Center
D. P. Lavoie, *Alternate*, Liberty Mutual Insurance
J. Lindsay, *Alternate*, Link-Belt Construction Equipment
J. Mihlbauer, Jr., *Alternate*, All Ship and Cargo Surveys, Ltd.
G. D. Miller, *Alternate*, Manitowoc Cranes
D. A. Moore, *Alternate*, Unified Engineering
L. S. Olver, *Alternate*, Kolo Holdings, Inc.
J. M. Randall, *Alternate*, McDermott
K. Rask, *Alternate*, NationsBuilders Insurance Services, Inc.
C. L. Richardson, *Alternate*, Lone Star Rigging, LP
M. Riggs, *Alternate*, Rigging Institute, LLC
J. R. Schober, *Alternate*, American Bridge Co.
J. Schoppert, *Alternate*, NBIS Claims and Risk Management
T. Sicklesteel, *Alternate*, Leavitt Cranes, USA
C. H. Smith, *Alternate*, Morrow Equipment Co., LLC
J. A. Stewart, *Alternate*, General Service Administration
J. J. Van Egeren, *Alternate*, Manitowoc Cranes
C. Warren, *Alternate*, Webber, LLC
M. P. Zerba, *Alternate*, Lampson International, LLC
J. W. Downs, Jr., *Honorary Member*, Downs Crane and Hoist Co.
J. L. Franks, *Honorary Member*, Consultant
C. W. Ireland, *Honorary Member*, Consultant
J. M. Klibert, *Honorary Member*, Lift-All Co., Inc.
R. W. Parry, *Honorary Member*, Parry Parry and Glen
J. C. Ryan, *Honorary Member*, Boh Bros. Construction Co.
D. N. Wolf, *Honorary Member*, Consultant

B30.8 SUBCOMMITTEE PERSONNEL

A. R Ruud, *Chair*, Atkinson Construction
J. Barlow, Weeks Marine, Inc.
R. H. Bolton II, Cianbro Corp.
B. D. Closson, Craft Forensic Service
A. J. Egging, IPS Worldwide
T. L. Hinton, Naval Station Norfolk
G. Lee, Marine Design Center
J. Mihlbauer, Jr., All Ship and Cargo Surveys, Ltd.
J. E. Richardson, U.S. Department of the Navy
J. R. Schober, American Bridge Co.
D. Sidelinger, Cianbro Corp.
R. L. Signorino, The Blueoceana Co., Inc.
M. Supkis, Seatrax
J. J. Van Egeren, Manitowoc Cranes

B30 INTEREST REVIEW GROUP

O. Akinboboye, Ropetech Engineering Services
J. D. Cannon, U.S. Army Corps of Engineers
B. Dobbs, Lifting Equipment Engineers Association
M. J. Eggenberger, Berry Contracting, Inc.
J. B. Greenwood, Navy Crane Center
N. C. Hargreaves, Hargreaves Consulting, LLC
H. A. Hashem, Saudi Aramco
J. Hui, Si Pai Lou, School of Civil Engineering
A. C. Mattoli, Prowinch, LLC
J. Mellott-Green, All Canadian Training Institute, Inc.
J. Mihlbauer, Jr., All Ship and Cargo Surveys, Ltd.
L. S. Olver, Kolo Holdings, Inc.
G. L. Owens, Consultant
A. Payne, Bureau of Safety and Environmental Enforcement
K. Reynolds, Shell Exploration and Production Co.
A. G. Rocha, Industrial Training International
L. Shapiro, Howard I. Shapiro and Associates
C.-C. Tsaur, Institute of Occupational Safety and Health

B30 REGULATORY AUTHORITY COUNCIL

C. N. Stribling, Jr., *Chair*, Kentucky Labor Cabinet
K. Peterson, *Secretary*, The American Society of Mechanical Engineers
R. D. Jackson, U.S. Department of Labor
D. E. Latham, State of Maryland Department of Labor, Licensing and Regulation
M. J. Nelmida, State of California, Occupational Safety and Health Standards Board
C. Shelhamer, New York City Department of Buildings
T. Taylor, Minnesota Department of Labor and Industry
G. M. Thomas, South Carolina Department of Labor, Licensing and Regulation
A. O. Omran, *Alternate*, New York City Department of Buildings
N. Reynolds, *Alternate*, Maryland Occupational Safety and Health (MOSH)

(20)

B30 STANDARD INTRODUCTION

SECTION I: SCOPE

The ASME B30 Standard contains provisions that apply to the construction, installation, operation, inspection, testing, maintenance, and use of cranes and other lifting and material-movement-related equipment. For the convenience of the reader, the Standard has been divided into separate volumes. Each volume has been written under the direction of the ASME B30 Standards Committee and has successfully completed a consensus approval process under the general auspices of the American National Standards Institute (ANSI).

As of the date of issuance of this Volume, the B30 Standard comprises the following volumes:

B30.1 Jacks, Industrial Rollers, Air Casters, and Hydraulic Gantries

B30.2 Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)

B30.3 Tower Cranes

B30.4 Portal and Pedestal Cranes

B30.5 Mobile and Locomotive Cranes

B30.6 Derricks

B30.7 Winches

B30.8 Floating Cranes and Floating Derricks

B30.9 Slings

B30.10 Hooks

B30.11 Monorails and Underhung Cranes (withdrawn 2018 — requirements found in latest revision of B30.17)

B30.12 Handling Loads Suspended From Rotorcraft

B30.13 Storage/Retrieval (S/R) Machines and Associated Equipment

B30.14 Side Boom Tractors

B30.15 Mobile Hydraulic Cranes (withdrawn 1982 — requirements found in latest revision of B30.5)

B30.16 Overhead Underhung and Stationary Hoists

B30.17 Cranes and Monorails (With Underhung Trolley or Bridge)

B30.18 Stacker Cranes (Top or Under Running Bridge, Multiple Girder With Top or Under Running Trolley Hoist)

B30.19 Cableways

B30.20 Below-the-Hook Lifting Devices

B30.21 Lever Hoists

B30.22 Articulating Boom Cranes

B30.23 Personnel Lifting Systems

B30.24 Container Cranes

B30.25 Scrap and Material Handlers

B30.26 Rigging Hardware

B30.27 Material Placement Systems

B30.28 Balance Lifting Units

B30.29 Self-Erecting Tower Cranes

B30.30 Ropes

B30.31 Self-Propelled, Towed, or Remote-Controlled Hydraulic Platform Transporters[1]

B30.32 Unmanned Aircraft Systems (UAS) Used in Inspection, Testing, Maintenance, and Lifting Operations[1]

SECTION II: SCOPE EXCLUSIONS

Any exclusion of, or limitations applicable to, the equipment, requirements, recommendations, or operations contained in this Standard are established in the affected volume's scope.

SECTION III: PURPOSE

The B30 Standard is intended to

(a) prevent or minimize injury to workers, and otherwise provide for the protection of life, limb, and property by prescribing safety requirements

(b) provide direction to manufacturers, owners, employers, users, and others concerned with, or responsible for, its application

(c) guide governments and other regulatory bodies in the development, promulgation, and enforcement of appropriate safety directives

SECTION IV: USE BY REGULATORY AGENCIES

These volumes may be adopted in whole or in part for governmental or regulatory use. 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 regulations of the governmental authorities.

[1] This volume is currently in the development process.