ASME P30.1-2019
(Revision of ASME P30.1-2014)

Planning for Load Handling Activities

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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Two Park Avenue • New York, NY • 10016 USA

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The next edition of this Standard is scheduled for publication in 2022. 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.

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FOREWORD

As load handling activities grow in complexity, there is an increased need to develop a set of recognized planning guidelines. While some guidance for planning of load handling activities, also referred to as lift planning, has been available in publications, literature from equipment manufacturers, and in-house procedures of various organizations and companies, there has not been any published comprehensive, broadly authoritative guidance available. The absence of uniform considerations or comprehensive practices has created an uneven range of planning activities.

In 2008, the B30 Standard Committee created a Task Group to consider the feasibility of developing a standard for lift planning. Based upon the report of the Task Group, the B30 Standard Committee favored the creation of a standard but recognized that such a standard would not fit the equipment-based orientation of B30. The American Society of Mechanical Engineers (ASME) and the American National Standards Institute (ANSI) were petitioned to form a committee to develop a lift planning standard.

The formation of the ASME P30 Standards Committee, Planning for the Use of Cranes, Derricks, Hoists, Cableways, Aerial Devices, and Lifting Accessories, was approved by ASME on June 8, 2010, and a Project Initiation Notification System (PINS) was posted in ANSI Standards Action on July 2, 2010. The Committee held its inaugural meeting on September 20, 2010, with the intent to develop a standard that provides guidance on general planning considerations and practices for load handling operations occurring in all industries, so that users could apply the Standard as a template and adapt it to the needs of their specific industry or situation.

The first edition of ASME P30.1 was approved by ANSI on January 14, 2014. The 2019 edition contains changes to Nonmandatory Appendix A, additional guidance on rigging planning and how to establish a limiting wind speed for a load handling activity as part of the lift-planning process.

ASME P30.1-2019 was approved by the P30 Committee and by ASME, and was approved by ANSI and designated as an American National Standard on May 3, 2019.

ASME P30 COMMITTEE
Planning for the Use of Cranes, Derricks, Hoists, Cableways, Aerial Devices, and Lifting Accessories

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

STANDARDS COMMITTEE OFFICERS

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P30 STANDARD INTRODUCTION

SECTION I: CHARTER FOR P30 — PLANNING FOR THE USE OF CRANES, DERRICKS, HOISTS, CABLEWAYS, AERIAL DEVICES, AND LIFTING ACCESSORIES COMMITTEE

The development and maintenance of standards that support load handling activities where mechanical equipment including, but not limited to, cranes, derricks, hoists, cableways, aerial devices, material lifting accessories, and combinations thereof are used.

(19) SECTION II: PURPOSE

The P30 Standard is intended to

(a) prevent or minimize injury, and provide for the protection of life, limb, and property by offering guidance for planning efforts that enhance the safety of load handling activities

(b) provide guidance to work site personnel, equipment owners, employers, users, and others concerned with or responsible for the safety of load handling activities

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

SECTION III: USE BY REGULATORY AGENCIES

This Standard may be adopted in whole or in part for governmental or regulatory use. If adopted for governmental use, the references to other codes and standards in this Standard may be changed to refer to the corresponding regulations of the regulatory agency or governmental authorities.

SECTION IV: EFFECTIVE DATE

(a) Effective Date. The effective date of this Standard shall be 1 yr after its date of issuance.

(b) The need to meet the guidelines established in the current edition of this Standard shall be evaluated by a qualified person, and any recommended changes to the user's planning activities shall be made within 1 yr.

SECTION V: REQUIREMENTS AND RECOMMENDATIONS

Requirements of this Standard are characterized by use of the word *shall*. Recommendations of this Standard are characterized by the word *should*.

SECTION VI: REQUESTS FOR REVISION

The P30 Standards Committee will consider requests for revision. Such requests should be directed to

Secretary, P30 Standards Committee
ASME Standards and Certification
Two Park Avenue
New York, NY 10016-5990

SECTION VII: REQUESTS FOR INTERPRETATION (19)

Request for interpretation should preferably be submitted through the online Interpretation Submittal Form. The form is accessible at http://go.asme.org/InterpretationRequest. Upon submittal of the form, the Inquirer will receive an automatic e-mail confirming receipt.

If the Inquirer is unable to use the online form, he/she may mail the request to the

Secretary, P30 Standards Committee
ASME Standards and Certification
Two Park Avenue
New York, NY 10016-5990

SECTION VIII: ADDITIONAL GUIDANCE

Load handling activities addressed by the P30 Standard are subject to hazards that cannot be abated solely through planning. Only by the application of knowledge, care, common sense, and experience can safe load handling activities be anticipated. It is therefore essential that personnel responsible for the planning and implementation of load handling activities are competent, qualified, and trained with the skills to satisfactorily accomplish their assigned tasks.

The P30 Standards Committee recognizes the importance of proper design factors, minimum or maximum dimensions, and other limiting criteria of equipment used in load handling activities. The P30 Committee expects that the equipment used to execute load handling activities meets the requirements of applicable equipment safety standards. The P30 Committee also expects that any recommendations or requirements provided in those standards are interpreted and applied correctly.

ASME P30.1-2019
SUMMARY OF CHANGES

Following approval by the ASME P30 Committee and ASME, and after public review, ASME P30.1-2019 was approved by the American National Standards Institute on May 3, 2019.

ASME P30.1-2019 includes the following changes identified by a margin note, **(19)**.

Page	*Location*	*Change*
vii	Introduction	(1) Section II(a) revised
		(2) Section VII editorially revised
1	1-1	Last paragraph deleted
1	1-2	Definitions of *rigging* added
2	2-1	(1) First paragraph revised
		(2) Subparagraphs (d)(4), (e), (e)(1), (e)(2), and (e)(2)(-g) revised
		(3) Subparagraph (e)(3) redesignated as (e)(2)(-k)
		(4) Subparagraphs (f) through (h) redesignated as (g) through (i), correspondingly, and new (f) added
3	Figure 2-1-1	Revised
6	4-1	Second paragraph revised
7	5-1	Second paragraph revised
7	5-2.3	Title and subpara. (g) revised
8	5-2.6	Subparagraphs (a)(2) and (a)(5)(-c) revised
10	A-1	Revised
10	A-2	Title revised
10	A-2.2	Revised
10	A-2.3.2	Subparagraphs (a) through (c) revised
11	A-2.3.3	Third paragraph and Note deleted
11	A-2.3.4	Added
11	A-2.3.5	Renumbered from A-2.3.4 and revised
11	A-2.3.6	Renumbered from A-2.3.5 and subpara. (b) revised
11	A-2.3.7	Renumbered from A-2.3.6 and second paragraph revised
12	A-3	Added
12	A-4	Added
12	A-5	Added
14	Figure A-1-1	Revised
18	Nonmandatory Appendix B	Added
22	Nonmandatory Appendix C	Added
32	Nonmandatory Appendix D	Former Nonmandatory Appendix B redesignated and revised

Chapter 1
Scope and Definitions

(19) 1-1 SCOPE

This Standard establishes planning considerations and practices that apply to load handling equipment (LHE), other associated equipment, and activities when moving loads vertically or horizontally. The planning guidance contained in this Standard is divided into two categories dependent upon the nature of the load handling activity and the degree of exposure to the issues that impact safety. The categories are designated as standard lift plan and critical lift plan. This Standard does not preclude the user of this Standard from creating subcategories based on their specific load handling activity considerations.

The P30.1 Standard does not exclude any particular equipment or industry. This Standard may not address all of the hazards that could be encountered during a load handling activity. It is the responsibility of the user of this Standard to assess and address the hazards associated with a particular load handling activity.

(19) 1-2 DEFINITIONS

D/d ratio: the ratio between the diameter of curvature, *D*, taken by the sling when in contact with an object and the diameter of the wire rope, synthetic rope, or chain, *d*.

dynamic load: forces introduced into the LHE as a result of change in motion.

lift: to move a load vertically or horizontally with the LHE.

lift director (load handling director): the person designated to direct the load handling activity.

lift plan: information and/or instruction, written or verbal, used in support of a load handling activity.

load handling equipment (LHE): equipment used to move a load vertically or horizontally.

qualified person: a person who, by possession of a recognized degree or certificate of professional standing in an applicable field, or by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

rigging (noun): the components, hardware, and devices used to attach a load to the load handling equipment (LHE).

rigging (verb): the process of attaching a load to the load handling equipment (LHE) by means of components, hardware or devices.

shall: term used to indicate that a rule is mandatory and must be followed.

should: term used to indicate that a rule is a recommendation, the advisability of which depends on the facts in each situation.