ASME B30.1-2004

(Revision of ASME B30.1-1998)

Jacks

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

AN AMERICAN NATIONAL STANDARD



The American Society of Mechanical Engineers

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

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CONTENTS

Foreword iv
Committee Roster v
B30 Series Introduction vii
Summary of Changes x

Chapter 1-0 **Scope and Definitions** 1
Section 1-0.1 Scope of B30.1 1
Section 1-0.2 Definitions 1

Chapter 1-1 **Construction** 5
Section 1-1.1 General 5
Section 1-1.2 Marking and Instructions 5

Chapter 1-2 **Inspection, Testing, and Maintenance** 6
Section 1-2.1 Inspection 6
Section 1-2.2 Testing 6
Section 1-2.3 Maintenance 8

Chapter 1-3 **Operation** 9
Section 1-3.1 Operational Requirements 9
Section 1-3.2 Operational Procedures 9

Figures
1 Power-Driven Screw Jack 2
2 Single-Acting Hydraulic Jack 2
3 Double-Acting Hydraulic Jack 2
4 Ratchet Jack 3
5 Self-Contained Hydraulic Jack 3
6 Screw Jack With Ratchet 4
7 Screw Jack 4

Table
1 Minimum Inspection Schedule 7

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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 (formerly the United States of America Standards Institute). This Standard had its beginning in December 1916 when an eight-page Code of Safety Standards for Cranes, prepared by an ASME Committee on the Protection of Industrial Workers, was presented to 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 (later changed to American Standards Association and subsequently to the USA Standards Institute), 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 American Engineering Standards Committee 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 organized November 4, 1926, with 57 members representing 29 national organizations. The Safety Code for Cranes, Derricks, and Hoists, ASA B30.2-1943, was created from the eight-page document referred to in the first paragraph. This document was reaffirmed in 1952 and widely accepted as a safety standard.

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 Naval Facilities Engineering Command, U.S. Department of the Navy, was reorganized as an American National Standards Committee on January 31, 1962, with 39 members representing 27 national organizations.

The format of the previous code was changed so that separate standards (each complete as to construction and installation; inspection, testing, and maintenance; and operation) would cover the different types of equipment included in the scope of B30.

In 1982, the Committee was reorganized as an Accredited Organization Committee, operating under procedures developed by the ASME and accredited by the American National Standards Institute.

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 III, before rendering decisions on disputed points.

This volume of the Standard, which was approved by the B30 Committee and by ASME, was approved by ANSI and designated as an American National Standard on January 22, 2004.

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.

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Safety Standards 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.)

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SAFETY STANDARD FOR CABLEWAYS, CRANES, DERRICKS, HOISTS, HOOKS, JACKS, AND SLINGS

B30 SERIES INTRODUCTION

(04)

GENERAL

This Standard is one of a series of safety standards on various subjects that have been formulated under the general auspices of the American National Standards Institute. 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 the convenience of the user, the Standard has been divided into separate volumes.

B30.1 Jacks
B30.2 Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)
B30.3 Construction Tower Cranes
B30.4 Portal, Tower, and Pedestal Cranes
B30.5 Mobile and Locomotive Cranes
B30.6 Derricks
B30.7 Base Mounted Drum Hoists
B30.8 Floating Cranes and Floating Derricks
B30.9 Slings
B30.10 Hooks
B30.11 Monorails and Underhung Cranes
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
Note: B30.15-1973 has been withdrawn. The revision of B30.15 is included in the latest edition of B30.5.
B30.16 Overhead Hoists (Underhung)
B30.17 Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)
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 Manually Lever Operated Hoists
B30.22 Articulating Boom Cranes
B30.23 Personnel Lifting Systems
B30.24 Container Cranes[1]
B30.25 Scrap and Material Handlers
B30.26 Rigging Hardware[1]
B30.27 Material Placement Systems[1]
B30.28 Balance-Lifting Units[1]

If these standards are 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.

The use of cableways, cranes, derricks, hoists, hooks, jacks, and slings is subject to certain hazards that cannot be met by mechanical means but only by the exercise of intelligence, care, and common sense. It is therefore essential to have personnel involved in the use and operation of equipment who are competent, careful, physically and mentally qualified, and trained in the safe operation of the equipment and the handling of the loads. Serious hazards are overloading, dropping or slipping of the load caused by improper hitching or slinging, obstructing the free passage of the load, and using equipment for a purpose for which it was not intended or designed.

The Standards Committee fully realizes the importance of proper design factors, minimum or maximum sizes, and other limiting dimensions of wire rope or chain and their fastenings, sheaves, sprockets, drums, and similar equipment covered by the Standard, all of which are closely connected with safety. Sizes, strengths, and similar criteria depend on many different factors, often varying with the installation and uses. These factors depend on the condition of the equipment or material; the loads; the acceleration or speed of the ropes, chains, sheaves, sprockets, or drums; the type of attachments; the number, size, and arrangement of sheaves or other parts; environmental conditions causing corrosion or wear; and many variables that must be considered in each individual case. The rules given in the Standard must be interpreted accordingly, and judgment must be used in determining their application.

The Standards Committee will be glad to receive criticisms of this Standard's requirements and suggestions

[1] B30.24, B30.26, B30.27, and B30.28 are in the developmental stage.

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for its improvement, especially those based on actual experience in application of the rules.

Suggestions for changes to the Standard should be submitted to the Secretary of the B30 Committee, ASME, Three Park Avenue, New York, NY 10016-5990, and should be in accordance with the following format:

(a) Cite the specific paragraph designation of the pertinent volume.

(b) Indicate the suggested change (addition, deletion, revision, etc.).

(c) Briefly state the reason and/or evidence for the suggested change.

(d) Submit suggested changes to more than one paragraph in the order that the paragraphs appear in the volume.

The B30 Committee will consider each suggested change in a timely manner in accordance with its procedures.

SECTION I: SCOPE

This Standard applies to the construction, installation, operation, inspection, and maintenance of jacks; power-operated cranes, monorails, and crane runways; power-operated and manually operated derricks and hoists; lifting devices, hooks, and slings; and cableways.

This Standard does not apply to track and automotive jacks, railway or automobile wrecking cranes, shipboard cranes, shipboard cargo-handling equipment, well-drilling derricks, skip hoists, mine hoists, truck body hoists, car or barge pullers, conveyors, excavating equipment, or equipment falling within the scope of the following Committees: A10, A17, A90, A92, A120, B20, B56, and B77.

SECTION II: PURPOSE

This Standard is designed to

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

(b) provide direction to owners, employers, supervisors, 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 III: INTERPRETATIONS

Upon request, the B30 Committee will render an interpretation of any requirement of the Standard. Interpretations can only be rendered in response to a written request sent to the Secretary of the B30 Committee, ASME, Three Park Avenue, New York, NY 10016-5990.

The request for interpretation should be clear and unambiguous. It is further recommended that the inquirer submit his request utilizing the following format.

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

Edition: Cite the applicable edition of the pertinent volume 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 any proprietary names or information.

Requests that are not in this format will be rewritten in this format by the Committee prior to being answered, which could change the intent of the original request.

ASME 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 ASME Committee or Subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

SECTION IV: NEW AND EXISTING INSTALLATIONS

(a) Effective Date. The effective date of this volume for the purpose of defining new and existing installations shall be 1 year after its date of issuance.

(b) New Installations. Construction, installation, inspection, testing, maintenance, and operation of equipment manufactured and facilities constructed after the effective date of this volume shall conform to the mandatory requirements of this volume.

(c) Existing Installations. Inspection, testing, maintenance, and operation of equipment manufactured and facilities constructed prior to the effective date of this volume shall be done, as applicable, in accordance with the requirements of this volume.

It is not the intent of this volume to require retrofitting of existing equipment. However, when an item is being modified, its performance requirement shall be reviewed relative to the current volume. If the performance differs substantially, the need to meet the current requirement shall be evaluated by a qualified person selected by the owner (user). Recommended changes shall be made by the owner (user) within 1 year.

SECTION V: MANDATORY AND ADVISORY RULES

Mandatory rules of this volume are characterized by use of the word *shall.* If a provision is of an advisory

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nature, it is indicated by use of the word *should* and is a recommendation to be considered, the advisability of which depends on the facts in each situation.

SECTION VI: METRIC CONVERSIONS (04)

This Standard contains SI (metric) units and U.S. Customary units. The values stated in U.S. Customary units are to be regarded as the standard. The SI units are a direct (soft) conversion from the U.S. Customary units.

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ASME B30.1-2004
SUMMARY OF CHANGES

Following approval by the ASME B30 Committee and ASME, and after public review, ASME B30.1-2004 was approved by the American National Standards Institute on January 22, 2004.

ASME B30.1-2004 includes editorial changes, revisions, and corrections introduced in ASME B30.1a-1999, as well as the following changes identified by a margin note, **(04)**.

Page	*Location*	*Change*
vii–ix	General	Revised
	Section VI	Revised

SPECIAL NOTE:

The interpretations to ASME B30.1 are included in this edition as a separate section for the user's convenience.

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JACKS

Chapter 1-0
Scope and Definitions

SECTION 1-0.1: SCOPE OF B30.1

Within the general scope defined in Section I of the Introduction, B30.1 applies to general purpose, portable jacks of the following categories: hand- or power-operated hydraulic jacks, mechanical ratchet jacks, and hand- or power-operated mechanical screw jacks.

Jacks designed for automotive service, trip-lowered jacks, and those that are an integral part of other equipment are not included in the scope of this Standard. Devices designed for static support rather than lifting are not included.

1-0.1.1 Illustrations

Figures 1 through 7, on the pages that follow, show typical jacks covered by this Standard. They are not intended to be all inclusive.

SECTION 1-0.2: DEFINITIONS

appointed: assigned specific responsibilities by the employer or the employer's representative.

authorized service center: an independent service facility designated by the manufacturer to repair and test jacks of their manufacture.

controlled conditions: where the jack is evenly supported on a solid foundation, operating a gravity load only, protected against wind and other external forces such as shock loads or vibrations, and at an ambient temperature range of −20°F to 140°F (−29°C to 60°C).

control parts: parts which the operator must manipulate in extending or retracting the jack.

designated person: a person selected or assigned by the employer or the employer's representative as being competent to perform specific duties.

extender: a device that increases the jack's closed length.

jack: a portable hand- or power-operated mechanism with a base and load point designed for controlled linear movement.

jack, double-acting hydraulic: a jack that is extended and retracted under hydraulic pressure.

jack, hydraulic: a jack using liquid to move the load.

jack, mechanical: a jack using any means other than fluid to move the load.

load: the total superimposed weight or force to be overcome by the jack.

load point: the point of load application.

load point, auxiliary: any point of load application other than the load point.

load point, integral auxiliary: any nonremovable point of load application other than the load point.

load rating, auxiliary: rated load of the jack, as determined by the manufacturer, when load is applied at the auxiliary load point.

overload: any load greater than the rated load.

overtravel: movement beyond maximum travel for which the jack was designed.

power: any means other than manual of actuating a jack.

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

rated load (hydraulic jacks): maximum load, applied at a specified point, for which the jack is designed and built by a manufacturer for its specified travel.

rated load, lifting (mechanical jacks): maximum load, applied at a specified point, which the jack is designed to lift with the specified operating lever.

rated load, sustaining (mechanical jacks): maximum load, applied at a specified point, which the jack was designed to sustain.

service, normal: the use of jacks to raise or lower known axial loads at or less than 85% rated capacity, under controlled conditions.

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service, severe: use of jacks under conditions that are not rated normal service.

shall: indicates that the rule is mandatory and must be followed.

should: indicates that the rule is a recommendation, the advisability of which depends on the facts in each situation.

travel: linear extending or retracting movement of the jack.

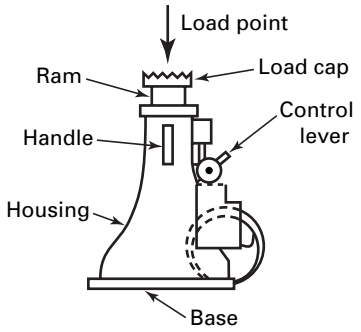
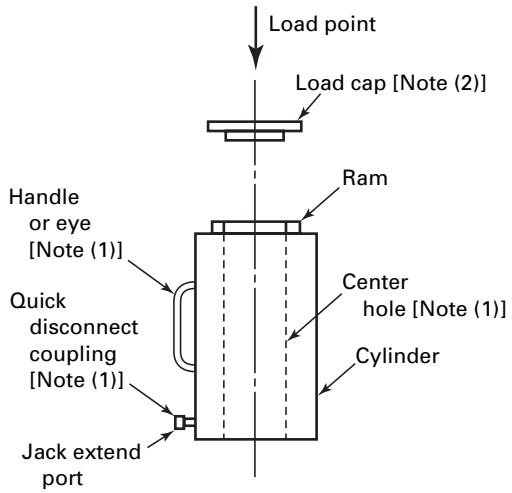
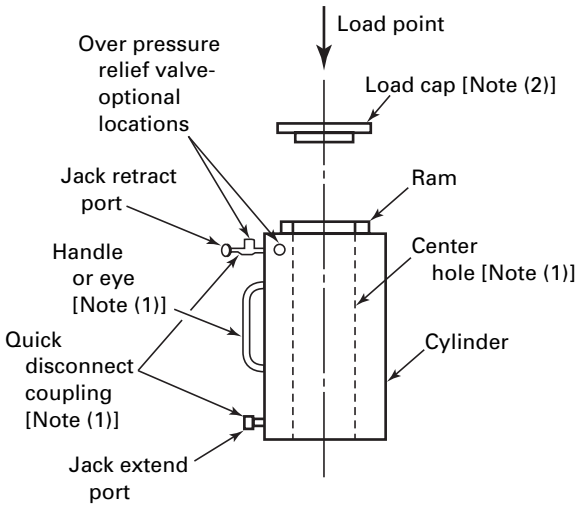


Fig. 1 Power-Driven Screw Jack



NOTES:
(1) Optional.
(2) If required by jack manufacturer.

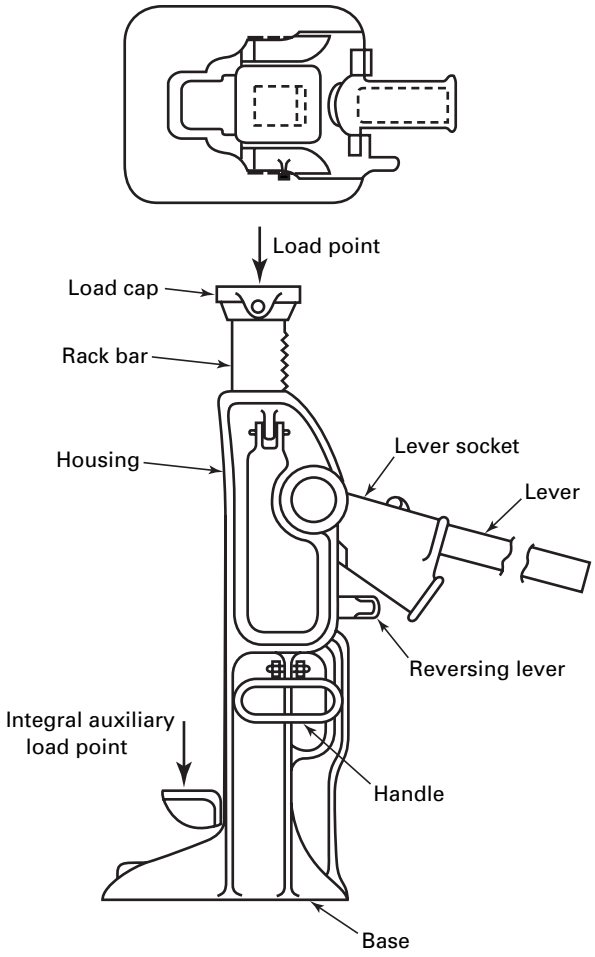
Fig. 2 Single-Acting Hydraulic Jack



NOTES:
(1) Optional.
(2) If required by jack manufacturer.

Fig. 3 Double-Acting Hydraulic Jack

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GENERAL NOTE: Track jacks look similar, but are trip lowering and are not intended for use as a general-purpose jack.

Fig. 4 Ratchet Jack

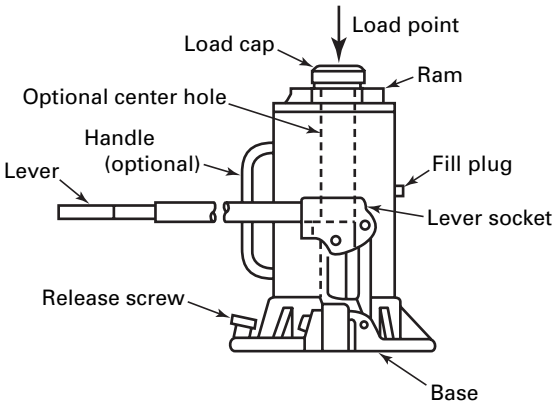
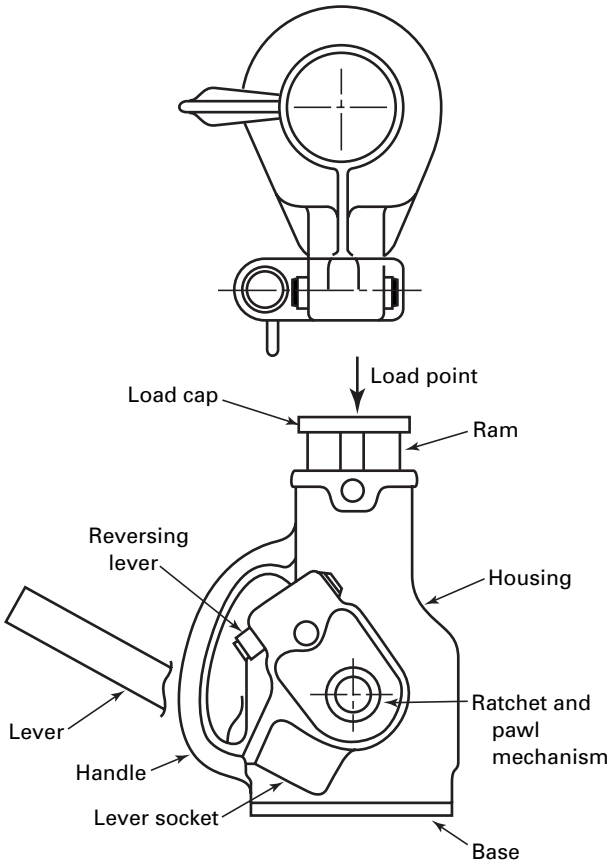


Fig. 5 Self-Contained Hydraulic Jack

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GENERAL NOTE: Some designs are used inverted and have ice lifts. Others are controlled self-lowering.

Fig. 6 Screw Jack With Ratchet

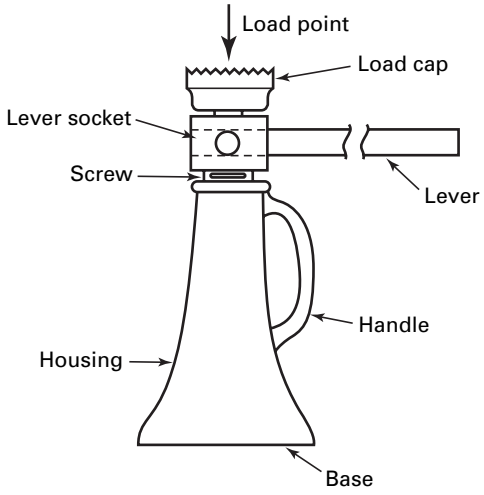


Fig. 7 Screw Jack

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Chapter 1-1
Construction

SECTION 1-1.1: GENERAL

1-1.1.1 Control Parts

Control parts shall be designed to provide a means of operation and adjustment, which will minimize exposure of the operator to injury.

1-1.1.2 Overtravel

The general construction of every jack shall incorporate a positive stop or method to prevent overtravel, but such a stop shall not alter the operating characteristics of the jack.

1-1.1.3 Features of General Design

All features of general design should be such as to minimize hazard(s) in the use, handling, and operation of the jack, and should conform to applicable industrial standards.

The jack shall be designed to meet either of the following two criteria:

(a) Design Qualification Testing. Each design or modification shall be proof tested in accordance with the following procedures:

(1) Hydraulic Jacks

(a) Dynamic Test. The jack shall be operated through ten cycles of full travel at 110% of rated load.

(b) Static Load Test. The jack or cylinder shall be pressurized at 150% of pressure at rated load 3 times, with the ram extended to approximately 90% of full extension. After this test, the jack shall be functional at rated load for full extension and be free of leaks.

(c) Integral Auxiliary Load Points. The tests as described in paras. 1-1.1.3 (a)(1)(a) and (a)(1)(b) shall be performed for each integral auxiliary load point, using appropriate rated loads as defined in Section 1-0.2 (see *load rating, auxiliary*).

(2) Mechanical Jacks

(a) Dynamic Load Test. The jack shall be loaded to 110% of its lifting rated load and operated to its full length of travel through ten cycles.

(b) Static Load Test. The jack shall be loaded 3 times to 150% of its sustaining rated load, with the lifting member at approximately 90% of full extension. After this test, the jack shall be functional for full extension under 100% of lifting rated load.

(c) Auxiliary Load Points. Tests corresponding to paras. 1-1.1.3 (a)(2)(a) and (a)(2)(b) shall be performed for each auxiliary load point, using appropriate rated loads as defined in Section 1-0.2 (see *load rating, auxiliary*).

(b) Static Design

(1) The computed stress in the structural components of the jack shall not exceed 50% of the yield strength of the material at the appropriate rated load for the components. Any degradation of physical properties caused by welding handles or eyes to stressed hydraulic ram cylinders shall be taken into account in determining the yield strength.

(2) Each double-acting hydraulic jack shall be fitted with a relief valve on the retract circuit, which bleeds the smaller effective area of the jack. A flow-restricting component shall not be present between the relief valve and the smaller area.

(3) Carrying handles, if provided, shall be capable of statically supporting 200% of the weight of the jack. If a handle or eye is welded to a stressed hydraulic ram cylinder, welding shall conform to current industrial welding standards.

SECTION 1-1.2: MARKING AND INSTRUCTIONS

1-1.2.1 Marking

The rated load shall be legibly and durably marked in a prominent location. Mechanical jacks that have two ratings (sustaining and lifting) shall be so marked. The brand name or trademark, and hydraulic pressure or lever arm length and force, shall be legibly marked on the jack. Each hydraulic jack should be marked to indicate that only recommended jack hydraulic fluid shall be used. Double-acting hydraulic jacks shall be marked to indicate the need for a relief valve, as indicated in para. 1-1.1.3(b)(2).

1-1.2.2 Integral Auxiliary Rated Load Marking

If integral auxiliary load-supporting points are provided and have different ratings from the major load support points, the manufacturer shall mark the jack with the rated load for such operation in accordance with para. 1-1.2.1.

1-1.2.3 Instructions

The manufacturer shall furnish printed operating, inspection, and maintenance instructions with each jack.

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Chapter 1-2
Inspection, Testing, and Maintenance

SECTION 1-2.1: INSPECTION

The inspection classifications in this Section are minimum requirements and should be augmented when experience from operating conditions so indicates. (See Table 1.)

1-2.1.1 Inspection Classification

(a) Initial Inspection. Prior to initial use, all new, altered, modified, or repaired jacks shall be visually inspected by the user to verify compliance with the applicable provisions of this volume.

(b) Inspection procedure for jacks in regular service is divided into two general classifications based upon the intervals at which inspection should be performed. The intervals in turn are dependent upon the nature of the critical components of the jack and the degree of wear, deterioration, or exposure to severe service. The two general classifications are herein designated as *frequent* and *periodic*, with respective intervals between inspections as defined below.

(1) Frequent Inspection. This consists of visual examinations by the operator or other designated personnel with records not required.

(a) normal service: monthly

(b) severe service: daily to weekly

(c) infrequent service: as recommended by a qualified person before and after each occurrence

(2) Periodic Inspection. This consists of visual inspection by an appointed person who makes records of apparent external conditions to provide the basis for a continuing evaluation. An external coded mark on the jack is an acceptable identification in lieu of records.

(a) normal service: equipment in place — yearly

(b) severe service: as in normal service, unless external conditions indicate that disassembly should be done to permit detailed inspection — quarterly

(c) infrequent service: as recommended by a qualified person before the first such occurrence and as directed by the qualified person for any subsequent occurrences

1-2.1.2 Frequent Inspection

Items such as those listed in paras. 1-2.1.2 (a) through (j) shall be inspected at intervals as defined in para. 1-2.1.1(b)(1). Frequent inspection shall include observations during operation. A designated person shall determine if conditions found during the inspection constitute a hazard and if a more detailed inspection is required:

(a) improper engagement or extreme wear of pawl and rack

(b) chipped, cracked, or broken rack teeth

(c) cracked or damaged housing

(d) excessive wear, bending, or other damage to threads

(e) leaking hydraulic fluid

(f) scored or damaged plunger

(g) improperly functioning swivel heads and caps

(h) loose bolts or rivets

(i) damaged or improperly assembled accessory equipment

(j) other items as specified in manufacturer's instructions which may affect operation

1-2.1.3 Periodic Inspection

(a) Same as para. 1-2.1.2, except records should be made in accordance with para. 1-2.1.1(b)(2).

(b) The jack shall be disassembled for cleaning and examination for internal wear or damage if external appearance indicates there may be internal difficulty. It is recommended that the periodic inspection be performed by an authorized service center or a qualified person.

1-2.1.4 Jacks Not in Regular Use

A jack which has been idle for one year or more shall be subject to an inspection prior to use, in accordance with para. 1-2.1.2.

1-2.1.5 Inspection Records

Dated inspection records should be kept on all periodic inspections.

SECTION 1-2.2: TESTING

1-2.2.1 Rated Load Test

(a) All new jacks shall be tested to rated load by the manufacturer.

(b) All altered or modified jacks should be tested at rated load before being placed in service.

(c) The need for load testing of a repaired jack shall be determined by a qualified person. When required, the repaired jack should be tested at rated load.

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Table 1 Minimum Inspection Schedule

Item	Normal Service		Severe Service	
	Visual, Monthly [Note (1)]	Record, Yearly [Note (2)]	Visual, Before Use [Note (3)]	Record, Yearly
Frequent Inspection				
Improper pawl engagement	X		X	
Excessive pawl wear	X		X	
Chipped, cracked, or worn rack teeth	X		X	
Cracked or damaged housing	X		X	
Damaged, bent, or worn threads	X		X	
Leaking hydraulic fluid	X		X	
Scored or damaged plunger	X		X	
Improper functioning	X		X	
Free movement of swivel, heads, and caps	X		X	
Loose bolts or rivets	X		X	
Damaged or improperly assembled accessory equipment	X		X	
Other items as specified in manufacturer's instructions	X		X	
Rack wear or bending	X		X	
Periodic Inspection				
Same as frequent inspection		X		X
Disassemble and check for wear		X [Note (4)]		X

NOTES:

(1) By operator or designated personnel with records not required.

(2) By appointed person making records of apparent external conditions to provide the basis for continuing evaluation.

(3) Or daily.

(4) If external conditions indicate possible internal difficulty.

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SECTION 1-2.3: MAINTENANCE

1-2.3.1 Lubrication

All moving parts of the jack requiring lubrication should be regularly lubricated. Lubricating systems should be checked for proper delivery of lubricant. Care should be taken to follow manufacturer's recommendations as to points and frequency of lubrication, maintenance of lubricant levels, and types of lubricants to be used.

1-2.3.2 Hydraulic Fluid

Only hydraulic jack fluid that is compatible with the jack manufacturer's specification shall be used.

1-2.3.3 Cleaning

(a) Exposed screw threads should be cleaned and relubricated as necessary.

(b) Jacks exposed to rain, sand, or grit-laden air should be cleaned prior to use.

(c) Jack operating lever and load-bearing surfaces should be free of slippery material or fluids.

1-2.3.4 Storage

Jacks should be stored where protected from the elements, abrasive dust, and damage. Hydraulic jacks should be stored in the vertical position.

1-2.3.5 Repair Parts

It is recommended that repair parts be purchased from the original equipment manufacturer or an authorized service center. Jacks that are repaired with parts other than those obtained from the original manufacturer shall conform to para. 1-1.1.3(a). A qualified person shall verify conformance with these requirements.

1-2.3.6 Additional Special Maintenance

If additional special maintenance is required, it shall be done in accordance with the manufacturer's instructions.

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Chapter 1-3
Operation

SECTION 1-3.1: OPERATIONAL REQUIREMENTS

(a) Jacks shall be visually examined for general conditions before each shift or each use, whichever is the less frequent.

(b) A determination of the load shall be made to assure that it is within the load rating of the jack.

(c) The jack shall be firmly supported at the base such that it is stable under load.

(d) Operators shall be instructed in the proper use of the jacks.

(e) When remotely operated hydraulic jacks are used, the jacking system shall have a relief valve set to a maximum of 15% above the lowest pressure rated component of the system.

SECTION 1-3.2: OPERATIONAL PROCEDURES

(a) Be familiar with the equipment and the manufacturer's instructions on its operation, maintenance, and inspection.

(b) See that the recommended operating lever is used and properly seated in its socket.

(c) See that operators do not straddle the operating lever of a mechanical jack.

(d) Remove operating levers when not in use to avoid accidental dislocation of the jack and reduce the tripping hazard.

(e) Take precautions to ensure that all personnel are clear of the load before lowering.

(f) Take measures to prevent personnel from working or passing under the load until the load is secured by cribbing, blocking, or other means.

(g) Ensure that there is sufficient swing area for the operating lever(s).

(h) Follow the load with cribbing or blocking where practical.

(i) Ensure that all operators are instructed as to signals and other procedures for multiple jacks or other special lifts.

(j) Off-center loading of jacks should be avoided.

(k) Extenders shall not be used unless authorized by a qualified person.

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ASME B30.1 INTERPRETATIONS

Replies to Technical Inquiries
October 1998 through October 2003

FOREWORD

This publication includes all of the written replies issued between the indicated dates by the Secretary, speaking for the ASME B30 Standards Committee, Safety Standards for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings, to inquiries concerning interpretations of technical aspects of ASME B30.1, Jacks.

These replies are taken verbatim from the original letters except for a few typographical corrections and some minor editorial corrections made for the purpose of improved clarity. In some few instances, a review of the interpretation revealed a need for corrections of a technical nature; in these cases, a corrected interpretation follows immediately after the original reply.

These interpretations were prepared in accordance with the accredited ASME procedures. ASME procedures provide for reconsideration of these interpretations when or if additional information is available that the inquirer believes might affect the interpretation. Further, persons aggrieved by this interpretation may appeal to the cognizant ASME Committee or Subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

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Interpretation: 1-4

Subject: ASME B30.1-1992, Jacks

Date Issued: September 20, 1999

Question (1): What is meant by the term "auto service"?

Reply (1): The "auto service" does not appear in the scope of the B30.1 volume.

Question (2): Does the scope of B30.1 include jacks used in the support of vehicles for tire changing?

Reply (2): No.

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