

ASME PASE-2014
(Revision, Redesignation, and Consolidation of
ASME PALD-2009 and ASME ASP-2010)

Safety Standard for Portable Automotive Service Equipment

AN AMERICAN NATIONAL STANDARD



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Mechanical Engineers**

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FOREWORD

This ASME Standard, Safety Standard for Portable Automotive Service Equipment, has been developed under the procedures for ASME Codes and Standards development committees. This Standard had its beginning in June 1979 when the Jack Institute addressed the B30 Committee on Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings. The Jack Institute requested the B30 Committee either to develop a standard for automotive jacks or to include this equipment as part of the revision of ASME B30.1, Jacks. The B30 Committee declined this request.

As a result, the Jack Institute petitioned the American National Standards Institute (ANSI) in July 1979 for the formation of a committee to promulgate safety and/or performance standards for portable automotive lifting devices, requesting the designation of ASME as sponsor of the project.

In September 1979, ASME's Policy Board, Codes and Standards, approved sponsorship of the committee to operate under the procedures developed by ASME and accredited by ANSI. A nominating committee was appointed to recommend a proposed membership to the ASME Safety Codes and Standards Committee for approval. The membership was approved at the beginning of May 1980.

The inaugural meeting of the ASME Committee on Portable Automotive Lifting Devices (PALD) was held in July 1980. The Committee determined that the format of this Standard would be such that separate volumes, each complete as to design, marking, identification, testing, operation, inspection, and maintenance, would cover the different types of equipment included in the PALD scope. In the 1993 edition, the various volumes were combined into one Standard with common requirements in one place and the information specific to a particular type of equipment set out in succeeding Parts. This allowed for greater consistency in requirements and eliminated redundancy.

In April 2007, the ASME Committee on PALD recognized the need to develop a standard for PALD-related equipment not covered under the ASME PALD Standard. As a result, an ASME PALD subcommittee was appointed by members currently serving on the ASME PALD Committee to propose a new standard for these products. This subcommittee then drafted a basic scope and outline of this new Standard and petitioned the ASME Council of Codes and Standards for permission to proceed with the development of this Standard to cover equipment described in the charter of the ASME PALD Committee. The Standard was approved by the American National Standards Institute on February 3, 2010, as the Safety Standard for Automotive Service and Maintenance Products (ASP).

In July 2011, the PALD Committee approved changing the name and charter of the PALD Committee to the Portable Automotive Service Equipment (PASE) Committee to encompass both the ASME PALD and ASME ASP published Standards. As a result of this change, the Committee decided to combine the two Standards into this new Safety Standard for Portable Automotive Service Equipment. This Standard presents a coordinated set of rules that may serve as a guide to manufacturers, to government and other regulatory bodies, to municipal authorities, and to commercial users responsible for the inspection, maintenance, and instruction in the use of the equipment falling within its scope.

Safety codes and standards are intended to enhance public health and 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.

This Standard was approved by the American National Standards Institute on October 30, 2014.



ASME PASE COMMITTEE

Portable Automotive Service Equipment

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

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R. Nuttall, *Vice Chair*
D. R. Alonzo, *Secretary*

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PREFACE

GENERAL

This Standard is one of many safety standards on various subjects that have been formulated under the general auspices of The American Society of Mechanical Engineers (ASME). 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, suppliers, purchasers, and operators of the equipment. If adopted for governmental use, the references to other national standards in this Standard may be changed to refer to the corresponding regulations of the governmental authorities.

The use of portable automotive service equipment (PASE) is subject to certain hazards that cannot be precluded 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 careful, competent, trained, and qualified in the safe operation of the equipment and its proper use when servicing motor vehicles and their components. Examples of hazards are dropping, tipping, or slipping of motor vehicles or their components caused primarily by improperly securing loads; overloading; off-centered loads; use on other than hard, level surfaces; and using equipment for a purpose for which it was not designed.

The PASE Committee fully realizes the importance of proper size, strength, and stability as safety factors in the design of this equipment. This equipment is used on various motor vehicles and their components under variable working conditions. These conditions have been considered to provide safety and flexibility in its use. The requirements given in this Standard must be interpreted accordingly and judgment should be used in determining their application.

MANDATORY AND ADVISORY RULES

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

SI (METRIC) CONVERSIONS

This Standard contains SI (metric) units as well as U.S. Customary units. The values stated in

U.S. Customary units are to be regarded as the standard. The SI units in the text have been directly (soft) converted from the U.S. Customary units.

PROPOSING REVISIONS

Comments on the Standard's requirements and suggestions for its improvement, based on experience in the application of the rules, may be sent to the PASE Committee.

Suggestions for changes to the Standard should be submitted to the Secretary of the Committee on Portable Automotive Service Equipment, ASME, Two Park Avenue, New York, NY 10016-5990, and should be in accordance with the following format:

- (a) Cite the specific Part or section and paragraph designation.
- (b) Indicate the suggested change (addition, deletion, revision, etc.).
- (c) Briefly state the reason or evidence for the suggested change.
- (d) Submit suggested changes to more than one paragraph in the order in which the paragraphs appear in the Standard.

The PASE Committee will consider each suggested change in a timely manner according to its procedures.

INTERPRETATIONS

Upon request, the PASE Committee will render an interpretation of any requirement of the Standard. Interpretations can be rendered only in response to a written request sent to the Secretary of the PASE Committee at the address shown above.

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

- Subject: Cite the applicable part or section and paragraph number, 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 also may include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in this format will be rewritten in this format by the Committee before being answered,

which may inadvertently 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.



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SAFETY STANDARD FOR PORTABLE AUTOMOTIVE SERVICE EQUIPMENT

Part 1 Introduction

1-1 SCOPE

The scope of this Standard is the standardization of safety and performance requirements for portable automotive service equipment (PASE) including, but not limited to, the following:

- (a) attachments, adapters, and accessories
- (b) hydraulic hand jacks
- (c) transmission jacks
- (d) engine stands
- (e) vehicle support stands
- (f) emergency tire-changing jacks
- (g) mobile lifts
- (h) service jacks
- (i) wheel dollies
- (j) shop cranes
- (k) auxiliary stands
- (l) automotive ramps
- (m) high-reach supplementary stands
- (n) forklift jacks
- (o) vehicle transport lifts
- (p) vehicle-moving dollies
- (q) wheel lift jacks
- (r) shop presses
- (s) oil filter crushers
- (t) strut spring compressors
- (u) oil and antifreeze handlers
- (v) portable hydraulic power kits

This Standard includes requirements for safety, health, design, production, construction, maintenance, performance, or operation of electrical, mechanical, hydraulic, or pneumatically powered equipment, and qualification of personnel. Safety and construction requirements for electrical equipment are included in UL 201, Standard for Safety for Garage Equipment, and UL 2089, Standard for Safety for Vehicle Battery Adapters. As deemed necessary by the ASME PASE Committee, additional equipment classified as PASE-related equipment can be added as the need arises to ensure the safe operation of the equipment by the end user.

1-2 APPLICATION

This Standard applies to design, construction, marking, operation, maintenance, and owner or operator inspection of the portable automotive service equipment listed in section 1-1 used during service, maintenance, and storage of components, vehicles, or both. Operation and maintenance instructions in this Standard are intended for general application. The equipment manufacturer or supplier shall be consulted for specific operating and maintenance instructions. This Standard does not apply to similar lifting devices designed and manufactured for other commercial or industrial uses, such as those within the scope of ASME B30.1, Jacks, Industrial Rollers, Air Casters, and Hydraulic Gantries; and automotive lift standards ANSI/ALI ALCTV, Safety Requirements for Construction, Testing, and Validation; ANSI/ALI ALIS, Safety Requirements for Installation and Service; and ANSI/ALI ALOIM, Safety Requirements for Operation, Inspection, and Maintenance.

1-3 PURPOSE

This Standard is designed to

- (a) guard against and mitigate injury, and otherwise provide for the protection of life, limb, and property by prescribing safety requirements
- (b) provide direction to purchasers, owners, employers, supervisors, and others concerned with, or responsible for, its application
- (c) guide governmental and other regulatory bodies in the development, promulgation, and enforcement of appropriate safety directives

1-4 REFERENCES

The following is a list of standards and specifications referenced in this Standard:

ANSI/ALI ALCTV, Standard for Automotive Lifts — Safety Requirements for Construction, Testing, and Validation

