ASME B107.56-2018

(Partitioned From ASME B107.400-2008 and Revised)

REAFFIRMED 2023

Body Repair Tools

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

ASME B107.56-2018
(Partitioned From ASME B107.400-2008 and Revised)

Body Repair Tools

AN AMERICAN NATIONAL STANDARD

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

Date of Issuance: January 31, 2019

This Standard will be revised when the Society approves the issuance of a new edition.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Interpretations are published on the Committee web page and under http://go.asme.org/InterpsDatabase. Periodically certain actions of the ASME B107 Committee may be published as Cases. Cases are published on the ASME website under the B107 Committee Page at http://go.asme.org/B107committee 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 B107 Committee Page can be found at http://go.asme.org/B107committee. 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.

ASME is the registered trademark of The American Society of Mechanical Engineers.

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.

ASME does not “approve,” “rate,” or “endorse” any item, construction, proprietary device, or activity.

ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor assume any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

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

No part of this document may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.

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

Copyright © 2019 by
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
All rights reserved
Printed in U.S.A.

CONTENTS

Foreword iv

Committee Roster v

Correspondence With the B16 Committee vi

1 Scope 1

2 Definitions 1

3 References 5

4 Classification 5

5 Performance Requirements 6

6 Tests 8

7 Safety Requirements and Limitations of Use 11

Figures

2.1-1 Nomenclature for Body Repair Hammers 2

2.1-2 Typical Styles of Body Repair Hammers 3

2.2-1 Nomenclature for Dolly Blocks 4

2.3-1 Nomenclature for Body Spoons 5

5.1.2-1 Typical Styles of Dolly Blocks 7

5.1.3-1 Typical Styles of Body Spoons 9

6.2-1 Striking Test Setup for Body Repair Hammers 10

6.3-1 Typical Static Force Test 11

FOREWORD

The American National Standards Committee B107 on Socket Wrenches and Drives was originally under the sponsorship of The American Society of Mechanical Engineers (ASME). It was subsequently reorganized as an ASME Standards Committee and its title was changed to Hand Tools and Accessories. In 1996, the Committee's scope was expanded to include safety considerations.

In 1999, ASME initiated a project to consolidate hand tool standards by category of tool. The initial implementation included distinct standards within a single publication bearing a three-digit number corresponding to the responsible B107 subcommittee. It was intended that subsequent revisions would integrate the component standards resulting in a more traditional document.

During the consolidation revision of ASME B107.400, Striking Tools, it was determined that since ASME B107.56 included both striking and struck tools with different applications than the other striking tools in ASME B107.400, it should revert to a stand-alone standard under separate cover. This is the first publication of ASME B107.56 since its inclusion in ASME B107.400-2008.

The purpose of ASME B107.56 is to define essential performance and safety requirements specifically applicable to the various tools covered herein. It specifies test methods to evaluate conformance to the defined requirements and indicates limitations of safe use.

This Standard is intended for voluntary use by establishments that use or manufacture the tools covered. It may also be used as a guide by state authorities or other regulatory bodies in the formulation of laws or regulations.

This Standard is also meant to serve as a guide in developing manuals and posters and for training personnel to work safely.

Members of the Hand Tools Institute Striking and Struck Tools Standards Committee, through their knowledge and hard work, have been major contributors to the development of the B107 Standards. Their active efforts in the promotion of these standards are acknowledged and appreciated.

ASME B107.56-2018 was approved by the ASME B107 Standards Committee on February 21, 2018. It was approved as an American National Standard on July 20, 2018. The requirements of this Standard take effect upon its issue date.

ASME B107 COMMITTEE
Hand Tools and Accessories

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

STANDARDS COMMITTEE OFFICERS

J. S. Foote, *Chair*
B. Price, *Vice Chair*
E. Lawson, *Secretary*

STANDARDS COMMITTEE PERSONNEL

N. C. Cantlon, Jore Corp.
J. D. Davidson, IDEAL Industries, Inc.
D. M. Eggert, Snap-on, Inc.
J. S. Foote, Trade Association Management, Inc.
D. R. Kritikos, Channellock, Inc.
E. Lawson, The American Society of Mechanical Engineers
G. E. Olsen, Gene Olson Engineering Consultant Ltd.
W. T. Pagac, Forever Associates LLC
B. Price, Stanley Black & Decker
B. Rutledge, The Home Depot
W. C. Snyder, Wright Tool Co.
H. Yin, Microalloying International, Inc.
B. List, *Contributing Member*, Apex Tool Group, LLC

SUBCOMMITTEE 4 — STRIKING AND STRUCK

D. L. Chambers, *Chair*, Vaughan & Bushnell Manufacturing Co.
J. D. Davidson, IDEAL Industries, Inc.
J. S. Foote, Trade Association Management, Inc.
C. Kuznia, General Services Administration
G. E. Olson, Gene Olson Engineering Consultant Ltd.
W. T. Pagac, Forever Associates
B. Price, Stanley Black & Decker

CORRESPONDENCE WITH THE B107 COMMITTEE

General. ASME Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions or a case, and attending Committee meetings. Correspondence should be addressed to:

Secretary, B107 Standards Committee
The American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016-5990
http://go.asme.org/Inquiry

Proposing Revisions. Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

Proposing a Case. Cases may be issued to provide alternative rules when justified, to permit early implementation of an approved revision when the need is urgent, or to provide rules not covered by existing provisions. Cases are effective immediately upon ASME approval and shall be posted on the ASME Committee web page.

Requests for Cases shall provide a Statement of Need and Background Information. The request should identify the Standard and the paragraph, figure, or table number(s), and be written as a Question and Reply in the same format as existing Cases. Requests for Cases should also indicate the applicable edition(s) of the Standard to which the proposed Case applies.

Interpretations. Upon request, the B107 Standards 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 B107 Standards Committee.

Requests 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 of the B107 Standards Committee at the above address. The request for an interpretation should be clear and unambiguous. It is further recommended that the Inquirer submit his/her request in the following format:

Subject:	Cite the applicable paragraph number(s) and the topic of the inquiry in one or two words.
Edition:	Cite the applicable edition of the 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 an approval of a proprietary design or situation. Please provide a condensed and precise question, composed in such a way that a "yes" or "no" reply is acceptable.
Proposed Reply(ies):	Provide a proposed reply(ies) in the form of "Yes" or "No," with explanation as needed. If entering replies to more than one question, please number the questions and replies.
Background Information:	Provide the Committee with any background information that will assist the Committee in understanding the inquiry. 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.

Requests that are not in the format described above may be rewritten in the appropriate format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

Moreover, ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Standard requirements. If, based on the inquiry information submitted, it is the opinion of the Committee that the Inquirer should seek assistance, the inquiry will be returned with the recommendation that such assistance be obtained.

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.

Attending Committee Meetings. The B107 Standards Committee regularly holds meetings and/or telephone conferences that are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the B107 Standards Committee. Future Committee meeting dates and locations can be found on the Committee Page at http://go.asme.org/B107committee.

INTENTIONALLY LEFT BLANK

BODY REPAIR TOOLS

1 SCOPE

This Standard provides performance and safety requirements for body repair hammers, dolly blocks, and spoons that are intended specifically for the reshaping of sheet metal panels normally found on bodies and fenders of motor vehicles. These tools are intended to be used separately or together for repairs.

This Standard is intended to serve as a guide in selecting, testing, and using the hand tools covered herein. It is not the purpose of this Standard to specify the details of manufacturing.

This Standard is also intended to serve as a guide for the development of manuals and posters, and for training personnel to work safely.

2 DEFINITIONS

dinging: the removal of minor imperfections in metal; straightening damaged metal whether spoons, hammers, or dolly blocks are used.

equivalent: interpreted in this Standard to mean alternative designs or features that will provide an equal degree of performance and safety.

hardness: resistance to indentation. Heat treatment will produce changes to hardness of metal.

safety message: the information imprinted on or affixed to the repair hammer, dolly block, or spoon that is intended to promote safety.

shall: indicates mandatory requirements of this Standard.

should: indicates that a provision is of an advisory nature or is stated as a recommendation.

2.1 Type I: Body Repair Hammers

See Figures 2.1-1 and 2.1-2 for illustrations of the body repair hammer features and styles described in this section.

bell: the portion of the hammerhead directly behind the striking face.

bumping, dinging, finishing face: the area of the hammer- head used to restore the damaged sheet metal panel to its original shape by striking.

chamfer: the bevel or equivalent radius encircling the perimeter of the striking face.

cheeks: the sides of the hammerhead proximate to the eye.

eye: an opening or aperture in the hammerhead into which the handle is inserted, if the handle is separate.

handle: the portion that protrudes from the hammerhead and by which the hammer is held.

handle grip: the material securely attached to the grip end of some styles of hammer handles.

neck: the reduced cross-section portion of the hammer-head located between the bell and the eye, or the peen and the eye, or both.

peen: the striking surface of the hammerhead located in front of the neck.

pick: the elongated tapered portion of the hammerhead extending from the eye to the point.

point: the striking surface located at the end of the pick.

shrinking: the contracting of stretched sheet metal by heating and upsetting the stretched metal into the heated spot with the body repair hammer.

shrinking face: a striking surface that is normally serrated. It may be flat or crowned.

striking face: the portion of the hammerhead located in front of the bell and chamfer that contacts the sheet metal.

striking-face crown: the convex shape or radius of the striking face.

striking surface: the surface of a hammerhead, peen, chisel, or pick intended to contact the sheet metal.

struck face: the portion of the hammerhead, exclusive of the chamfer, intended to be struck with a striking tool.