ASME B107.34-2003
(Revision of ASME B107.34M-1997)

Socket Wrenches for Spark Plugs

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

ASME B107.34-2003
(Revision of ASME B107.34M-1997)

Socket Wrenches for Spark Plugs

AN AMERICAN NATIONAL STANDARD

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

Date of Issuance: December 30, 2004

This Standard will be revised when the Society approves the issuance of a new edition. There will be no addenda issued to this edition.

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.

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

CONTENTS

FOREWORD

The American National Standards Committee B107, Socket Wrenches and Drives, under sponsorship by The American Society of Mechanical Engineers, was reorganized as an ASME Standards Committee and its title was changed to Hand Tools and Accessories. In 1996 its scope was expanded to include safety considerations.

The purposes of this Standard are to define dimensional, performance, and safety requirements specifically applicable to socket wrenches for spark plugs and to specify test methods to evaluate performance relating to the defined requirements.

This Standard is a revision of B107.34M-1997, Socket Wrenches for Spark Plugs. Updated references, finish requirements, test requirements, and dimensional data are included.

The format of this Standard is in accordance with *The ASME Codes & Standards Writing Guide 2000*. Requests for interpretations and suggestions for the improvement of this Standard should be addressed to The American Society of Mechanical Engineers, Secretary, B107 Standards Committee, Three Park Avenue, New York, NY 10016-5990.

The requirements of this Standard become effective at the time of publication. ASME B107.34-2003 was approved as an American National Standard on May 1, 2003.

ASME B107 COMMITTEE
Hand Tools and Accessories

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

OFFICERS

G. E. Olson, *Chair*
W. T. Pagac, *Vice Chair*
J. R. Bird, *Secretary*

COMMITTEE PERSONNEL

J. R. Bird, The American Society of Mechanical Engineers
J. Davidson, Sears Roebuck and Co.
P. A. Desmarais, Danaher Tool Group
J. S. Foote, Trade Association Management, Inc.
A. Herskovitz, Consultant
D. S. McKitrick, Western Forge
G. E. Olson, Gene Olson Engineering Consultant, Ltd.
W. T. Pagac, Snap-on
D. M. Eggert, *Alternate,* Snap-on
J. M. Ster, General Services Administration
I. I. Harding, *Alternate,* General Services Administration
R. B. Wright, Wright Tool Co.
W. C. Snyder, *Alternate,* Wright Tool Co.

SUBCOMMITTEE 1 - SOCKET AND ATTACHMENTS

R. B. Wright *Chair,* Wright Tool Co.
J. Davidson, Sears Roebuck and Co.

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, and attending Committee meetings. Correspondence should be addressed to:

Secretary, B107 Standards Committee
The American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

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.

Interpretations. Upon request, the B107 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.

The request for 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.
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. The inquirer may also include any plans or drawings, which are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in this format may be rewritten in the appropriate format by the Committee prior to 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.

Attending Committee Meetings. The B107 Standards Committee regularly holds meetings, which are open to the public. Persons wishing to attend any meeting should contact the Secretary of the B107 Standards Committee.

SOCKET WRENCHES FOR SPARK PLUGS

1 SCOPE

This Standard provides dimensional, performance, and safety requirements for detachable hand use socket wrenches with square drive for spark plugs. Inclusion of dimensional data in this Standard is not intended to imply that all of the products described herein are stock production sizes. Consumers are requested to consult with manufacturers concerning list of stock production sizes.

2 CLASSIFICATION (see Fig. 1)

Figure 1 shows the different Types and Classes of socket wrenches for spark plugs.

Type I: Socket, single hexagon (6 point)
Class 1: Regular length
Class 2: Long length

Type II: Universal sockets, single hexagon (6 point)
Class 1: Square block
Class 2: Ball swivel

3 NORMATIVE REFERENCES

The following is a list of publications referenced in this Standard.

ASME B46.1-1995, Surface Texture (Surface Roughness, Waviness, and Lay)

ASME B107.4M-1995, Driving and Spindle Ends for Portable Hand Air and Electric Tools (Percussion Tools Excluded)

ASME B107.17M-1997, Gages, Wrench Opening, Reference

Publisher: American Society of Mechanical Engineers (ASME International), Three Park Avenue, New York, NY 10016; Order Department: 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

ASTM B 117-97, Standard Practice for Operating Salt Spray (Fog) Apparatus

ASTM B 537-70(1997) Standard Practice for Rating of Electroplated Panels Subjected to Atmospheric Exposure

ASTM B 571-97, Standard Test Methods for Qualitative Adhesion Testing of Metallic Materials

ASTM D 968-93, Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive

ASTM E 18-00, Standard Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials

Publisher: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428

Guide to Hand Tools-Selection, Safety Tips, Proper Use and Care

Publisher: Hand Tools Institute (HTI), 25 North Broadway, Tarrytown, NY 10591

4 REQUIREMENTS

4.1 Figures

The figures herein are descriptive and not restrictive, and are not intended to preclude the manufacture of sockets that are otherwise in accordance with this Standard.

4.2 Materials

The materials used in the manufacture of the sockets shall be such as to produce tools conforming to requirements specified in this Standard.

4.3 Marking

Sockets shall be marked in a plain and permanent manner with the manufacturer's name or with a trademark of such known character that the source of manufacture and country of origin may be readily determined. In addition, sockets shall be marked in a plain and permanent manner with the nominal size of the wrench opening (distance across flats).

4.4 Hardness

Sockets shall be heat treated to a hardness of 38 HRC to 54 HRC.

4.5 Proof Torque

When tested as specified, tools shall withstand the proof torque specified in the applicable tables without failure or permanent deformation (set), that might affect the durability or serviceability of the tools.

4.6 Finish

All external surfaces shall be free from uncoated areas, pits, blisters, nodules, forge flash, burrs, cracks, and any