ASME B107.14-2004
(Revision of ASME B107.14M-1994)

Hand Torque Tools (Mechanical)

AN AMERICAN NATIONAL STANDARD

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Three Park Avenue • New York, NY 10016

Date of Issuance: September 12, 2005

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

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FOREWORD

The American National Standards Committee B107, Socket Wrenches and Drives, under sponsorship of 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 address safety considerations.

The purposes of this Standard are to define performance and safety considerations specifically applicable to setting and limiting torque instruments and specify test methods to evaluate performance relating to the defined requirements.

Members of the Hand Tools Institute Striking and Struck Tools Standards Committee have been major contributors to the development of this Standard in their committee work, their knowledge of the products, and their active efforts in the promotion of the adoption of this Standard.

This Standard is a revision of ASME B107.14M-1994, Hand Torque Tools. Principal changes in this edition of the Standard are the inclusion of safety considerations and addition of flexible head instruments. Updated finish requirements and dimensional data are included, and are updated references.

The format of this standard is in accordance with *The ASME Codes & Standards Writing Guide.* Requests for interpretations, and suggestions for the improvement of this Standard, should be addressed to the 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 B107.14-2004 was approved as an American National Standard on December 16, 2004.

ASME B107 STANDARDS COMMITTEE
Hand Tools and Accessories

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

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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 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.

HAND TORQUE TOOLS (MECHANICAL)

1 SCOPE

This Standard provides performance and safety requirements for manually operated torque instruments, commonly used for mechanical measurement of torque for control of the tightness of threaded fasteners. It is not intended to describe products infrequently utilized or those designed for special purposes.

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

2 CLASSIFICATION

Type I: Indicating
- *Class A*: Deflecting beam
  - Style 1: Plain scale
  - Style 2: Scale with signal mechanism
  - Style 3: Scale with memory indicator
- *Class B*: Deflecting beam with interchangeable head
  - Style 1: Plain scale
  - Style 2: Scale with signal mechanism
  - Style 3: Scale with memory indicator
- *Class C*: Rigid housing
  - Style 1: Plain scale
  - Style 2: Scale with signal mechanism
  - Style 3: Scale with memory indicator
- *Class D*: Rigid housing with interchangeable head
  - Style 1: Plain scale
  - Style 2: Scale with signal mechanism
  - Style 3: Scale with memory indicator
- *Class E*: Screwdriver grip
  - Style 1: Enclosed dial
  - Style 2: Exposed dial

Type II: Setting
- *Class A*: Graduated
  - Style 1: Nonratcheting
    - Design A: Clockwise (right hand) and counterclockwise (left hand) torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
  - Style 2: Ratcheting
    - Design A: Clockwise and counterclockwise torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
  - Style 3: Interchangeable head
    - Design A: Clockwise (right hand) and counterclockwise (left hand) torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
  - Style 4: Flexible ratchet head
    - Design A: Clockwise and counterclockwise torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
- *Class B*: Nongraduated
  - Style 1: Nonratcheting
    - Design A: Clockwise and counterclockwise torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
  - Style 2: Standard ratcheting head
    - Design A: Clockwise and counterclockwise torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
  - Style 3: Interchangeable head
    - Design A: Clockwise and counterclockwise torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing
  - Style 4: Flexible ratchet head
    - Design A: Clockwise and counterclockwise torquing
    - Design B: Clockwise torquing
    - Design C: Counterclockwise torquing

Type III: Limiting
- *Class A*: Screwdriver grip
  - Style 1: Graduated
    - Design A: External square drive
    - Design B: Internal hex drive
  - Style 2: Nongraduated
    - Design A: External square drive
    - Design B: Internal hex drive
- *Class B*: "T" handle grip
  - Style 1: Nonratcheting
  - Style 2: Ratcheting

3 REFERENCES

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

ASME B107.4-1995, Driving and Spindle Ends for Portable Hand Air and Electric Tools