

SURFACE VEHICLE RECOMMENDED PRACTICE

An American National Standard

SAE J370

REAF.
MAY1998

Issued 1968-11
Reaffirmed 1998-05

Superseding J370 JUN94

Bolt and Capscrew Sizes for Use in Construction and Industrial Machinery

Foreword—This Reaffirmed Document has been changed only to reflect the new SAE Technical Standards Board Format. The AMSE Documents were changed to 2.1.3.

1. Scope—This SAE Recommended Practice covers the use of preferred bolt and capscrew sizes, wherever applicable, on construction and industrial machinery to ease serviceability.

1.1 Purpose—Designers, in their efforts to determine the proper fastener for heavy equipment, sometimes overlook the practical aspects of serviceability. When a particular component requires frequent service, it is much faster and easier for the serviceman to work with common size, easily distinguished bolts, and capscrews which require a minimum of tools.

Section 4 lists eight diameters of recommended bolts and capscrews, some of which can be found in any hardware store, require only standard tools, are easy to distinguish, and at the same time cover proof loads from 1043 kg (2300 lb) on up at convenient intervals.

While some applications may require other sizes and/or fine threaded fasteners for greater clamping forces and/or area restrictions, the convenience of UNC threads in the sizes indicated is preferred wherever possible.

2. References

2.1 Related Publications—The following publications are provided for information purposes only and are not a required part of this document. The latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J429—Mechanical and Material Requirements for Externally Threaded Fasteners

SAE J871—Hi Head Finished Hex Bolts

2.1.2 ANSI PUBLICATIONS—Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ANSI/ASME B18.2.2—Square and Hex Nuts—Inch Series

ANSI B18.6.1—Wood Screws (Inch Series)

ANSI B18.6.3—Slotted and Recessed Head Machine Screws and Machine Screw Nuts

ANSI B18.6.4—Screws, Tapping and Metallic Drive, Inch Series, Thread Forming and Cutting

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

TO PLACE A DOCUMENT ORDER; (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS <http://www.sae.org>

2.1.3 AMSE PUBLICATIONS—Available from ASME, 345 East 47 Street, New York, NY 10017-2330.

ASME B18.2.1—Square and Hex Bolts and Screws—Inch Series

ASME B18.6.2—Slotted Head Cap Screws, Square Head Set Screws, and Slotted Headless Set Screws

3. **Threads**—Unified Coarse Thread Series (UNC).

4. **Diameters**—3/8, 1/2, 5/8, 7/8, 1, 1-1/8, 1-1/4.

- a. Diameters above 1-1/4 in to increase in 1/4-in increments
- b. Diameter deviations below 1/2-in decrease in 1/16-in increments

PREPARED BY THE SAE FASTENERS COMMITTEE

SAENORM.COM : Click to view the full PDF of J370_199805