AN AMERICAN NATIONAL STANDARD

Metric Small Solid Rivets

ANSI/ASME B18.1.3M - 1983

12 mm Nominal Diameter and Smaller

Government Key Words:
Rivet, Solid, Small — Metric

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THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

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

ERRATA

to

ANSI/ASME B18.1.3M-1983
METRIC SMALL SOLID RIVETS

Page 4, Table 3 – *Under* Main dimension 12.0 *for* Ds Min, *correct* 12.80 *to read* 11.80

Page 5, Table 4 –

(1) *Under* Main dimension 12.0 *for* Ds Min, *correct* 12.80 *to read* 11.80

(2) *Under* Main dimension 4.0 *for* Head (DK) Basic (K) Min, *correct* 2.35 *to read* 2.25

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THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
345 East 47th Street, New York, N.Y. 10017

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FOREWORD

(This Foreword is not a part of ANSI/ASME B18.1.3M-1983, Metric Small Solid Rivets.)

American National Standards Committee B18 for the standardization of bolts, screws, nuts, rivets, and similar fasteners was organized in March 1922 as Sectional Committee B18 under the aegis of the American Engineering Standards Committee (later the American Standards Association, then the United States of America Standards Institute and, as of October 6, 1969, the American National Standards Institute, Inc.), with the Society of Automotive Engineers and the American Society of Mechanical Engineers as joint sponsors. Subcommittee 1 was subsequently established and charged with the responsibility for technical content of standards covering solid rivets.

At its meeting on December 4, 1974, Committee B18 authorized preparation of a series of standards for metric fasteners. Subcommittee 1 was assigned responsibility for developing standards for metric solid rivets.

In February 1978, Committee B18 established a cooperative program with the Department of Defense to draft American National Standards for metric fasteners in such a way that they could be used directly by the Government for procurement purposes. The Department of Defense requested that each product be covered in separate standards, and Subcommittee 1 accepted this approach.

This Standard was approved by letter ballot of Committee B18 on February 4, 1983, and was subsequently approved by the sponsor and submitted to the American National Standards Institute for designation as an American National Standard. This was granted on September 8, 1983.

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Standardization of Bolts, Nuts, Rivets, Screws, Washers, and Similar Fasteners

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CONTENTS

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AN AMERICAN NATIONAL STANDARD

METRIC SMALL SOLID RIVETS
12 mm Nominal Diameter and Smaller

1 INTRODUCTORY NOTES

1.1 Scope

1.1.1 This Standard covers complete general and dimensional data for those types of metric small solid rivets recognized as American National Standard. Included is an appendix covering formulas on which dimensional data are based. It should be understood, however, that where questions arise concerning acceptance of a product, the dimensions in the tables shall govern over recalculation by formula.

1.1.2 The inclusion of dimensional data in this Standard is not intended to imply that all of the products described are stock production sizes. Consumers should consult with manufacturers concerning the availability of products. For recommended diameter–length combinations, refer to Table 7.

1.1.3 Metric small solid rivets purchased for Government use shall conform to this Standard and additionally to the requirements of Appendix II.

1.2 Comparison With ISO Standards

Except for the inclusion of the 9 mm and 11 mm diameters as nonpreferred sizes and the relegating of the 1 mm and 1.2 mm to the secondary series, the basic rivet diameters shown in this Standard are in conformance with the ISO Recommendation, Rivet Shank Diameters, ISO R1051-1969E for sizes up to and including 12 mm. At present, there are no ISO Standards for commercial small solid rivets nor are any contemplated at this time.

1.3 Rivet Diameters

The nominal sizes of metric small rivets from 1 mm through 12 mm are given in Table 1 and shall be considered American National Standard. This, however, does not preclude the manufacture or use of rivets having other diameters which shall be considered special.

1.4 Rivet Head Styles

This Standard covers specifications for flat head rivets as given in Table 3, round head rivets as given in Table 4, and flat 90° countersunk head rivets as shown in Table 5.

The proportions for heads of rivets indicated in the respective tables shall be standard; other proportions shall be considered special. Where nonstandard diameter rivets are required for special applications, the proportions of heads and points, if pointed, should preferably be based on the formulations given in Appendix I.

1.5 Dimensions

All dimensions in this Standard are given in millimeters (mm) unless otherwise stated. Symbols specifying geometric characteristics are in accordance with American National Standard, Dimensioning and Tolerancing, ANSI Y14.5.

1.6 Terminology

For definitions of terms relating to fasteners or component features thereof used in this Standard, refer to American National Standard, Glossary of Terms for Mechanical Fasteners, ANSI B18.12.

1.7 Related Standards

It should be noted that Standards for large rivets, tubular and split rivets, and other related fasteners are published under separate cover.

1.8 Referenced Standards

Copies of referenced ASTM Standards may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Copies of referenced SAE Standards may be obtained from the Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, Pennsylvania 15096.