



AEROSPACE STANDARD

AS4108™**REV. E**

Issued 1991-07
Reaffirmed 2015-06
Revised 2025-12

Superseding AS4108D

T-Bolt and Eye Bolt, A286 CRES, 1000 °F Fatigue Rated

RATIONALE

AS4108 no longer requires QML status. Since the eye bolts are now standalone documents, all references to clamps or coupling assemblies have been removed. Section 2.1.4, reference to NADCAP removed. Reference to AC7112 and PD2101 in 2.1.4 removed, no longer required. Section 2.2.2, reference to Clamp Supplier removed. Manufacturer accreditation and Accreditation to special process is no longer required; 3.1.1 and 3.1.2 removed.

1. SCOPE

This specification defines the requirements for A286 CRES T-bolts and eye bolts, with room temperature tensile strength of a minimum of 160000 psi, for use with clamps and V-band couplings at 1000 °F maximum ambient temperature.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 1-877-606-7323 (U.S. and Canada only) or 1-724-776-4970 (outside U.S. and Canada), www.sae.org.

AMS2700 Passivation of Corrosion Resistant Steels

AMS5731 Steel, Corrosion- and Heat-Resistant, Bars, Wire, Forgings, Mechanical Tubing, Rings, and Stock for Forgings, Rings, or Heading, 15Cr - 25.5Ni - 1.2Mo - 2.1Ti - 0.006B - 0.30V (A286), Consumable Electrode Remelted, 1800 °F (982 °C) Solution Heat Treated, Precipitation Hardenable

AMS5732 Steel, Corrosion- and Heat-Resistant, Bars, Wire, Forgings, Mechanical Tubing, Rings, and Stock for Forgings, Rings, or Heading, 15Cr - 25.5Ni - 1.2Mo - 2.1Ti - 0.006B - 0.30V (A286), Consumable Electrode Remelted, 1800 °F (982 °C) Solution and Precipitation Heat Treated

SAE Executive Standards Committee 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 revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2025 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, or used for text and data mining, AI training, or similar technologies, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 1-877-606-7323 (U.S. and Canada only)
Tel: 1-724-776-4970 (outside U.S. and Canada)
Fax: 724-776-0790
Email: CustomerService@sae.org
<http://www.sae.org>

SAE WEB ADDRESS:

Full document details: SAE AS4108E

For more information on this standard, visit
<https://www.sae.org/standards/content/AS4108E/>

Documents

Standard, visit Sharing Hub

AMS5737	Steel, Corrosion- and Heat-Resistant, Bars, Wire, Forgings, Mechanical Tubing, and Stock for Forging and Heading, 15Cr - 25.5Ni - 1.2Mo - 2.1Ti - 0.006B - 0.30V (A286), Consumable Electrode Remelted, 1650 °F (899 °C) Solution and Precipitation Heat Treated
AMS5853	Steel, Corrosion- and Heat-Resistant, Bars and Wire, 15Cr - 25.5Ni - 1.2Mo - 2.1Ti - 0.006B - 0.30V, Consumable Electrode Remelted, 1800 °F (982 °C) Solution Treated and Work-Strengthened, 160 ksi (1103 MPa) Tensile Strength Capability
AMS-QQ-P-35	Passivation Treatments for Corrosion-Resistant Steel
AMS-STD-753	Corrosion-Resistant Steel Parts: Sampling, Inspection and Testing for Surface Passivation
AS7479	Bolts and Screws, Steel, UNS S66286 1650 °F Solution Heat Treated, Precipitation Heat Treated Before Roll Threaded
AS8879	Screw Threads - UNJ Profile, Inch, Controlled Radius Root with Increased Minor Diameter

2.1.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9500, www.astm.org.

ASTM A967/A967M	Chemical Passivation Treatments for Stainless Steel Parts
ASTM E1417/E1417M	Standard Practice for Liquid Penetrant Testing
ASTM F606/F606M	Test Methods for Determining the Mechanical Properties of Externally and Internally Threaded Fasteners

2.1.3 ASME Publications

Available from ASME, Two Park Avenue, New York, NY 10016-5990, Tel: 800-843-2763 (U.S./Canada), 001-800-843-2763 (Mexico), 646-616-3100 (outside North America), www.asme.org.

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

2.1.4 U.S. Government Publications

Copies of these documents are available online at <https://quicksearch.dla.mil>.

MIL-STD-2073-1	Standard Practice for Military Packaging
----------------	--

2.1.5 NAS Publications

Available from Aerospace Industries Association, 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209-3928, Tel: 703-358-1000, www.aia-aerospace.org.

NASM1312-11	Fastener Test Methods, Method 11, Tension Fatigue
-------------	---

2.2 Definitions

2.2.1 SUPPLIER

Manufacturing activity supplying or quoting on the bolts described in this specification.

2.2.2 CONTRACT

The purchase order between the user and the supplier.

2.2.3 USER

The procuring activity purchasing the eye bolts, also could be a clamp or coupling manufacturer.

3. REQUIREMENTS

3.1 Performance

The bolts furnished under this specification shall be products that are in accordance with the applicable standards and have been tested and have passed the performance requirement tests specified herein.

3.2 Material

The bolt shall be made from A286 corrosion-resistant steel conforming to specifications AMS5731, AMS5732, AMS5737, or AMS5853, then cold worked and precipitation heat treated to a minimum tensile strength of 160000 psi. The material shall be capable of being cold headed without the formation of discontinuities or defects.

3.3 Heat Treatment

Heat treatment of the bolts shall be in conformance with 3.2, as applicable, to develop the mechanical properties as defined in 3.10.

3.4 Design and Construction

The dimensions of the finished bolt shall conform to the applicable AS standard drawing and this specification.

3.5 Head Forming

The heads shall be warm or cold forged. A fillet of not less than 0.030 inch radius for T-bolts (see Figure 1A) and 0.100 inch radius (see Figure 1B) for eye bolts shall be provided between head and shank surfaces.

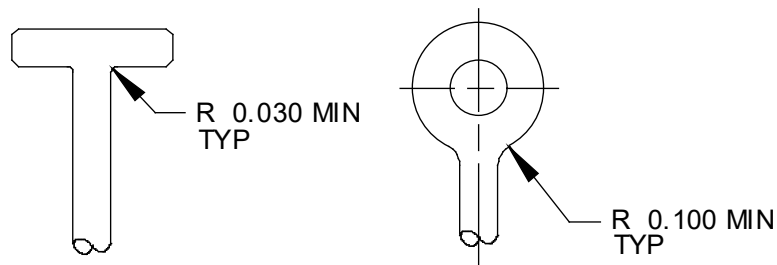


FIGURE 1A - T-BOLT

FIGURE 1B - EYE-BOLT

Figure 1