



PIA-H-7195C
26 January 2015

Superseding
PIA-H-7195C
15 November 2010

The following commercial specification is originally adopted from the military document. Revision A includes all known accepted revisions, amendments, notices, and Department of Defense (DoD) engineering changes previously developed for this item. Revision B and forward include changes adopted to reflect technology and design evolution.

HARDWARE, PARACHUTE, GENERAL SPECIFICATION FOR

The Parachute Industry Association makes this document available for use by Industry and Government organizations that wish to apply this specification to their products.

1. SCOPE

1.1 Scope. This specification covers the general requirements for all types of parachute hardware.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in Sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification nor is it recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements cited in Sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government publications.

2.2.1 Government publications. The following Government publications form a part of this document.

SPECIFICATION

MILITARY

MIL-DTL-3688	- Wax Emulsion (Rust Inhibiting)
MIL-A-8625	- Anodic Coatings, for Aluminum and Aluminum Alloys
MIL-DTL-16232	- Phosphate Coating, Heavy, Manganese or Zinc Base

DISTRIBUTION STATEMENT: All Rights Reserved. No Part of this publication may be reproduced without prior written permission from Parachute Industry Association. Additional copies may be purchased online from PIA Specifications and Products at: www.pia.com.

AA Documents
Document Sharing Hub

STANDARDS

MILITARY

MIL-STD-889 - DISSIMILAR METALS

(Unless otherwise indicated, copies of specifications and standards are available from the DLA Document Services, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094. Electronic copies of Military Specifications and Federal Standards may be obtained from <https://assist.daps.dla.mil/quicksearch/>

2.3 Non-government publications. The following non-government publication forms a part of this document.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

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

(Application for copies of ASME publications should be addressed to American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990. Electronic copies may be obtained from www.asme.org/.)

AMERICAN SOCIETY FOR QUALITY (ASQ)

ANSI/ASQ Z1.4 - Sampling Procedures and Tables for Inspection by Attributes

(Copies are available online: www.asq.org or from the American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203.)

ASTM INTERNATIONAL (ASTM)

ASTM A 370	- Standard Test Methods and Definitions for Mechanical- Testing of Steel Products
ASTM E 18	- Standard Test Method for Rockwell Hardness of Metallic Materials
ASTM E 1444	- Standard Practice for Magnetic Particle Testing

(Application for copies should be addressed to the ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Electronic copies may be obtained from www.astm.org.)

SAE INTERNATIONAL (SAE)

AMSQQP416	- Plating, Cadmium (Electrodeposited)
AMS2700	- Passivation of Corrosion Resistant Steels
AMS2759	- Heat Treatment of Steel Parts, General Requirements
AMSH6875	- Heat Treatment of Steel Raw Materials

(Application for copies should be addressed to SAE International, 400 Commonwealth Drive, Warrendale, PA 15096. Electronic copies may be obtained from www.sae.org.)

2.4 Order of precedence. Unless otherwise stated herein or in the contract, in the event of a conflict between the text of this document and the 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.

3. REQUIREMENTS

3.1 First article. When specified in the contract or purchase order, samples shall be subjected to first article inspection (see 4.3 and 6.1).

3.2 Materials. Materials shall be as specified on the applicable detail drawing or military standard.

3.2.1 Metals.

3.2.1.1 Dissimilar metals. Unless suitably protected against electrolytic corrosion, dissimilar metals shall not be used in contact with each. Dissimilar metals are defined in MIL-STD-889.

3.2.1.2 Heat treatment. Unless otherwise specified, steel hardware shall be heat-treated in accordance with AMS2759 or the applicable drawings or specifications.

3.2.1.3 Hardness. The Rockwell Hardness values, resulting from tests conducted in accordance with ASTM E 18, shall be used as a measure of tensile strength of the applicable alloy steel hardware. The Rockwell Hardness range of values for the hardware shall be equivalent to the tensile strength range per ASTM A 370 and allowances per ASTM E 18.

3.3 Construction. The hardware shall be constructed in accordance with the applicable detail drawing or military standard (see 6.1). When this specification and the drawing/standard conflict, the drawing/standard shall govern.

3.3.1 Method of manufacture. Unless otherwise specified, the method of manufacturing of the hardware shall be by forging, stamping, forming, machining, casting, or by any other methods which meet specified requirements.

3.3.2 Hardware. Hardware shall be manufactured of material traceable to the original manufacturing source to confirm positively that it complies with all requirements specified herein, particularly related to required physical properties of metals. Hardware shall not be surplus property or repaired.

3.4 Performance.

3.4.1 Proof loading. When specified on the applicable drawing or military standard, the hardware shall be subjected to the proof load specified thereon. No breakage or deformation shall occur when tested per 4.4.2.3 and examined per 4.4.2.4.

3.4.2 Magnetic particle inspection. When specified in the applicable military standard or detail drawing, the hardware shall be subjected to magnetic particle inspection. Unless otherwise