Designation: F1145 – 05 (Reapproved 2011)

An American National Standard

Standard Specification for Turnbuckles, Swaged, Welded, Forged[1]

This standard is issued under the fixed designation F1145; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This specification covers swaged welded, cast, or forged turnbuckles with and without jam nuts.

1.2 A turnbuckle is an internally threaded loop or sleeve intended for assembly with a threaded stud, eye, hook, or jaw at each end, used for applying tension to rods, wire rope, and so forth.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

A29/A29M Specification for General Requirements for Steel Bars, Carbon and Alloy, Hot-Wrought

A153/A153M Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

B633 Specification for Electrodeposited Coatings of Zinc on Iron and Steel

D3951 Practice for Commercial Packaging

2.2 *AWS Standards:*[3]

AWS A5.1 Covered Carbon Steel Arc Welding Electrodes

AWS A5.2 Iron and Steel Oxyfuel Gas Welding Rods

AWS A5.5 Low Alloy Steel Covered Arc Welding Electrodes

2.3 *ANSI Standards:*[4]

ANSI B1.1 Unified Inch Screw Threads (UN and UNR Thread Form)

ANSI B18.2.2 Square and Hex Nuts

2.4 *Military Standards:*[5]

MIL-STD-1186 Cushioning, Anchoring, Bracing, Blocking, and Waterproofing; with Appropriate Test Methods

MIL-STD-2073-1 DoD Material Procedures for Development and Application of Packaging Requirements

2.5 *Military Specification:*[5]

MIL-P-116 Preservation, Methods of

MIL-L-19140 Lumber and Plywood, Fire-Retardant Treated

2.6 *Federal Specifications:*[4]

PPP-B-636 Boxes, Shipping, Fiberboard

PPP-F-320 Fiberboard: Corrugated and Solid Sheet Stock (Container Grade) and Cut Shapes

2.7 *Federal Standard:*[5]

FED-STD-123 Marking for Shipment (Civil Agencies)

3. Classification

3.1 Turnbuckles covered under this specification shall be of the following types and grades, as specified (see 4.1.3 and 4.1.7):

3.1.1 *Type I*—Open turnbuckle bodies (see 5.2.4–5.2.7)

3.1.1.1 *Grade:*

(1) Forged

(2) Spread

(3) Resistance welded

(4) Arc or gas welded

3.1.2 *Type II*—Pipe turnbuckle bodies (see 5.2.8).

3.1.3 *Type III*—Rigging turnbuckle bodies (see 5.2.9).

3.2 Turnbuckles covered under this specification shall be of the following classes and sizes, as specified (see 4.1.3):

3.2.1 *Classes:*

A—turnbuckle, body only without end pulls, heads not drilled.

[1] This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.07 on General Requirements.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from American Welding Society (AWS), 550 NW LeJeune Rd., Miami, FL 33126, http://www.aws.org.

[4] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

[5] Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, http://dodssp.daps.dla.mil.

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