



Designation: A952/A952M – 02 (Reapproved 2022)

Standard Specification for Forged Grade 80 and Grade 100 Steel Lifting Components and Welded Attachment Links¹

This standard is issued under the fixed designation A952/A952M; 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.

1. Scope

1.1 This specification covers the requirements for forged alloy steel lifting components and welded coupling and master links for Grade 80 and Grade 100 alloy chain slings as described in Specification A906/A906M.

1.2 Two grades of components and welded links are covered:

1.2.1 Grade 80.

1.2.2 Grade 100.

1.3 This specification is a performance standard. Other standards apply to use of these products. Some of these standards are: OSHA 1910.184, ASME B30.9, and ASME B30.10.

1.4 The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

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

A391/A391M Specification for Grade 80 Alloy Steel Chain
A751 Test Methods and Practices for Chemical Analysis of Steel Products

A906/A906M Specification for Grade 80 and Grade 100 Alloy Steel Chain Slings for Overhead Lifting

A973/A973M Specification for Grade 100 Alloy Steel Chain
E4 Practices for Force Calibration and Verification of Testing Machines

E44 Definitions for Terms Relating to Heat Treatment of Metals (Withdrawn 1993)³

E165/E165M Practice for Liquid Penetrant Testing for General Industry

E709 Guide for Magnetic Particle Testing

2.2 Other Standards:

OSHA 1910.184 Slings⁴

ASME B30.9 Slings⁵

ASME B30.10 Hooks⁵

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *breaking force, minimum*—the minimum force in pounds or newtons at which the component has been found by verification testing to break when a constantly increasing force was applied in direct tension. This test is a manufacturer's design verification test and shall not be used as criteria for service.

3.1.2 *chain sling*—an assembly consisting of alloy steel chain joined to upper and lower end components for attaching loads to be lifted by a crane or lifting machine.

3.1.3 *coupling link*—a link fitted to the end of the chain to connect to another component of the sling. See Fig. 1.

3.1.4 *master link*—a link used as an upper end component of a chain sling and by means of which the sling may be attached to a crane or other device. See Fig. 1.

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.27 on Steel Chain.

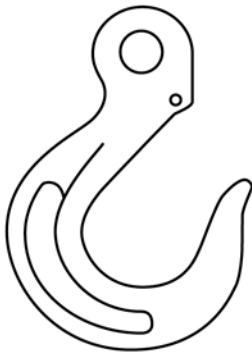
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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

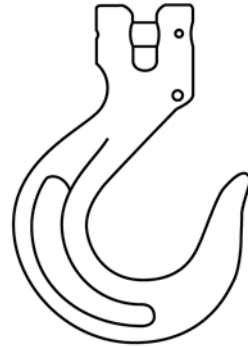
³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from Occupational Safety and Health Administration (OSHA), 200 Constitution Ave., NW, Washington, DC 20210, <http://www.osha.gov>.

⁵ Available from American Society of Mechanical Engineers (ASME), ASME International Headquarters, Two Park Ave., New York, NY 10016-5990, <http://www.asme.org>.



Class ESH
Eye Sling Hook



Class CSH
Clevis Sling Hook



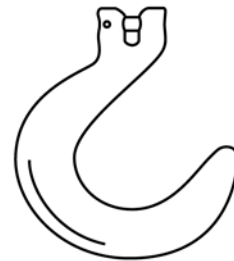
Class EGH
Eye Grab Hook



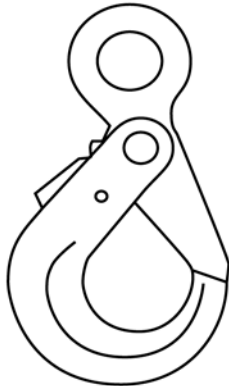
Class CGH
Clevis Grab Hook



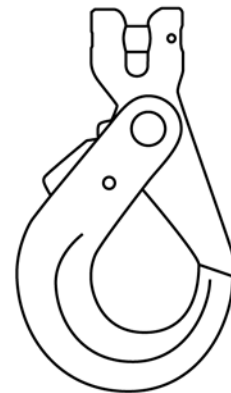
Class EFH
Eye Foundry Hook



Class CFH
Clevis Foundry Hook



Class ESLH
Eye Self-Locking Hook



Class CSLH
Clevis Self-Locking Hook

FIG. 1 General Component Configuration