



Designation: A952/A952M – 02

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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

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 B30.10, and ASME B30.9.

1.4 The values stated in either inch-pound 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 exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the specification.

2. Referenced Documents

2.1 *ASTM Standards*:²

- A29/A29M Specification for Steel Bars, Carbon and Alloy, Hot-Wrought, General Requirements for
- A391/A391M Specification for Grade 80 Alloy Steel Chain
- A751 Test Methods, Practices, and Terminology 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 Verification of Testing Machines

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.

Current edition approved May 10, 2002. Published June 2002. Originally published as A952-96. Last previous edition A952-98. DOI: 10.1520/A0952_A0952M-02.

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.

E44 Definitions of Terms Relating to Heat Treatment of Metals³

E165 Practice for Liquid Penetrant Examination 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. 1.12

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.

3.1.5 *master coupling link (secondary or intermediate link)*—a link used on three and four leg slings to connect the legs to a master link. See Fig. 1.

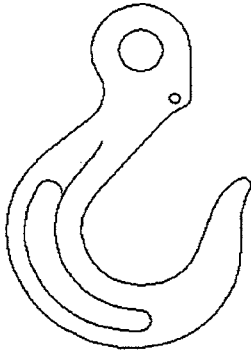
3.1.6 *proof test*—a quality control tensile test applied to components for the purpose of verifying manufacturing and material quality. It is the minimum force in pounds or newtons which the component has withstood at the time it left the producer, under a test in which a constantly increasing force has been applied in direct tension. Proof test loads are a manufacturing integrity test and shall not be used as criteria for service.

³ Withdrawn.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

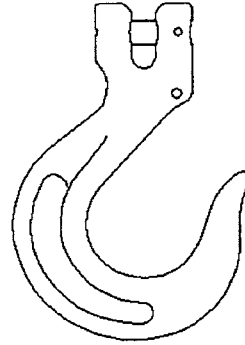
⁴ Available from OSHA.

⁵ Available from ASME, 345 E. 47th Street, New York, NY 10017.

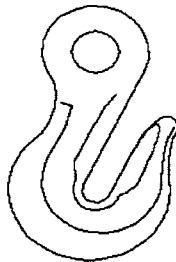
*A Summary of Changes section appears at the end of this standard.



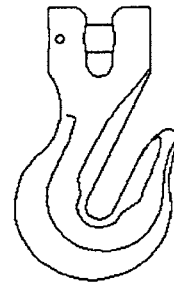
Class ESH
Eye Sling Hook



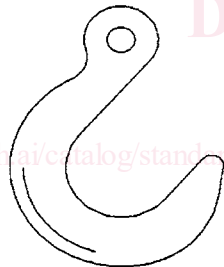
Class CSH
Clevis Sling Hook



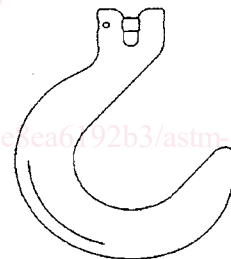
Class EGH
Eye Grab Hook



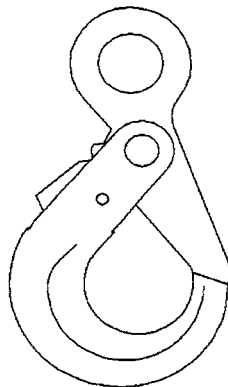
Class CGH
Clevis Grab Hook



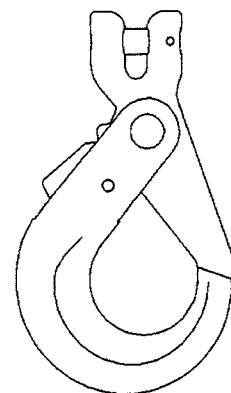
Class EFH
Eye Foundry Hook



Class CFH
Clevis Foundry Hook

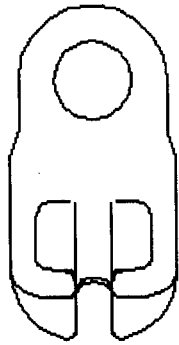


Class ESLH
Eye Self-Locking Hook

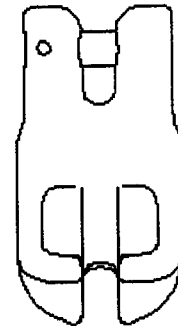


Class CSLH
Clevis Self-Locking Hook

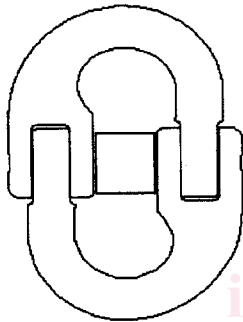
FIG. 1 General Component Configuration



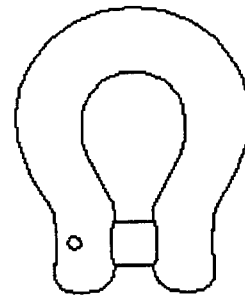
Class ECGH
Eye Claw Grab Hook



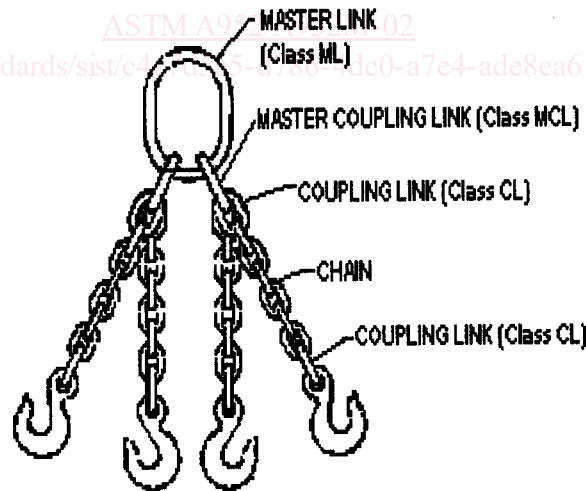
Class CCGH
Clevis Claw Grab Hook



Class CLM
Coupling Link, Mechanical



Class CCL
Clevis Coupling Link



Class ML, MCL, CL
Master Link, Master Coupling Link, Coupling Link

FIG. 1 General Component Configuration (continued)