

**MIL-H-15021A**

28 NOVEMBER 1950

SUPERSEDING

MIL-H-15021(SHIPS)

15 March 1950

Navy 42H28e

1 October 1945

**MILITARY SPECIFICATION****HOOKS, SNAP BOLT, SWIVEL-EYE, AND RINGS**

*This specification was approved by the Departments of the Army, the Navy, and the Air Force for use of procurement services of the respective Departments.*

**1. SCOPE**

**1.1 Scope.**—This specification covers snap bolt, swivel-eye hooks and rings for application requiring rapid attachment and easy detachment for temporary fastenings.

**1.2 Classification.**—Snap bolt hooks shall be of the following types, as specified (see 6.2):

Type I—Regular

Type II—Quick-acting

**2. APPLICABLE SPECIFICATIONS AND OTHER PUBLICATIONS**

**2.1 Specifications.**—The following specifications, of the issue in effect on date of invitation for bids, form a part of this specification:

**FEDERAL SPECIFICATIONS**

NN-B-601 —Boxes; Wood-Cleated-Plywood, for Domestic Shipment.

NN-B-621 —Boxes; Wood, Nailed and Lock-Corner.

NN-B-631 —Boxes; Wood, Wirebound, for Domestic Shipment.

**MILITARY SPECIFICATIONS**

JAN-P-100—Packaging and Packing for Overseas Shipment — General Specification for.

JAN-P-105—Packaging and Packing for Overseas Shipment — Boxes, Wood, Cleated, Plywood.

JAN-P-106—Packaging and Packing for Overseas Shipment — Boxes, Wood, Nailed.

JAN-B-107—Boxes, Wood, Wirebound (Overseas Type).

JAN-P-122—Packaging and Packing for Overseas Shipment—Barrels, Slack.

JAN-P-134—Packaging and Packing for Overseas Shipment—Kegs, Slack.

**U. S. ARMY SPECIFICATION**

100-2 —Standard Specifications for Marking Shipments by Contractors.

**NAVY DEPARTMENT SPECIFICATION**

General Specifications for Inspection of Material.

(Army.—Copies of specifications should be obtained from the procuring agency or as directed by that agency. Both the title and identifying number or symbol should be stipulated when requesting copies.)

(Navy.—Copies of Federal, Military, and Navy Department specifications may be obtained upon application to the Bureau of Supplies and Accounts, Navy Department, Washington 25, D. C., except that activities of the Armed Forces should make application to the Commanding Officer, Naval Supply Center, Norfolk 11, Va. Both the title and identifying number or symbol should be stipulated when requesting copies.)

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(*Marine Corps*.—Copies of Federal and Military specifications may be obtained upon application to the Quartermaster General, Headquarters U. S. Marine Corps, Navy Department, Washington 25, D. C., or the Depot Quartermaster, Marine Corps Depot of Supplies, 1100 South Broad Street, Philadelphia 46, Pa. Both the title and identifying number or symbol should be stipulated when requesting copies.)

**2.2 Other publications.** — The following publications, of the issue in effect on date of invitation for bids, form a part of this specification:

**MILITARY PUBLICATION**

**MIL-STD-105** — Sampling Procedures and Tables for Inspection by Attributes.

**BUREAU OF SUPPLIES AND ACCOUNTS PUBLICATION**

**Navy Shipment Marking Handbook.**

(Copies of Military publications and the Navy Shipment Marking Handbook should be obtained from the sources given for obtaining specifications.)

**3. REQUIREMENTS****3.1 Material.**

**3.1.1 Snap hooks and rings.**—Snap hooks and rings shall be made of brass.

**3.1.2 Snap hook springs.** — Snap hook springs shall be made of corrosion resistant material.

**3.2 Type I—Regular.**

**3.2.1 Snap hooks.** — Regular snap hooks shall be of the size and shape shown on figure 1. They shall be operated by forcing back the bolt-snap against a substantial spring and releasing it to close over the ring.

**3.2.2 Swivel eye.**—Snap hooks shall have a nominal  $\frac{3}{4}$  inch round swivel eye, conforming in size and shape to the dimensions shown on figure 1. The greatest width of the swivel eye shall be at the point shown on figure 1.

**3.2.3 Rings.** — Unless otherwise specified, regular snap hooks shall be provided with a seamless ring, round in cross section and of the dimensions shown on figure 2.

**3.2.4 Tolerances.**

**3.2.4.1 Snap hooks.**—A tolerance of plus or minus  $\frac{1}{16}$  inch will be permitted in the length of the hooks. On all other dimensions except the swivel eye a tolerance of plus or minus 5 percent will be permitted.

**3.2.4.2 Swivel eye.**—The dimensions of the swivel eye shown on figure 1 shall not be exceeded by more than  $\frac{1}{32}$  inch.

**3.3 Type II—Quick-acting.**

**3.3.1 Snap hooks.** — Quick-acting snap hooks shall be of the size and shape shown on figure 3. The snap hook shall be provided with a bolt snap and substantial spring. The jaws shall be of the proper contour and finish to permit easy engagement with the ring.

**3.3.2 Swivel eye.**—Snap hooks shall have a nominal  $\frac{3}{4}$  inch round swivel eye, conforming in size and shape to the dimensions shown on figure 3. The greatest width of the swivel eye shall be at the point shown on figure 3.

**3.3.3 Rings.**—The rings shall be as specified in 3.2.3.

**3.3.4 Tolerances.**

**3.3.4.1 Snap hooks.**—The tolerances for the quick-acting snap hooks shall be as specified in 3.2.4.1.

**3.3.4.2 Swivel eye.**—The dimensions of the swivel eye shown on figure 3 shall not be exceeded by more than  $\frac{1}{32}$  inch.

**3.4 Workmanship.**—Snap hooks and rings shall be of good workmanship and free from defects and flaws which may affect the appearance or serviceability.

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#### 4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 Inspection procedures.—For Naval purchases, the general inspection procedures shall be in accordance with General Specifications for Inspection of Material.

4.2 Inspection lot.—All hooks and rings of the same type presented at one time shall be considered a lot for purposes of acceptance inspection.

##### 4.3 Sampling for lot acceptance.

4.3.1 *Sampling for inspection of major defects.*—A random sample of hooks and rings shall be selected from each inspection lot of material offered for Government inspection of visual and dimensional characteristics with lot acceptance based on the following sampling inspection requirements in accordance with Standard MIL-STD-105<sup>1</sup>:

TABLE I.—*Sampling for visual and dimensional inspection—AQL (approx.) major defects = 0.65 to 1.2 percent defective*

Number of hooks and rings in inspection lot	Number of hooks and rings in sample	Acceptance number (defectives)	Rejection number (defectives)
1 to 10	All <sup>1</sup>	—	—
11 to 25	10	0	1
26 to 50	15	0	1
51 to 100	20	0	1
101 to 200	30	1	2
201 to 300	40	1	2
301 to 500	55	2	3
501 to 800	75	2	3
801 to 1300	115	3	4
1301 to 3200	150	4	5
3201 and over	225	5	6

4.3.1.1 *Sampling for inspection of minor defects.*—Sampling inspection for minor defects shall be in accordance with MIL-STD-105 utilizing Inspection Level II and an AQL = 4.4 to 5.3 percent defective.

<sup>1</sup> At the option of the Government inspector, the equivalent double or sequential sampling plan from MIL-STD-105 may be used.

#### 4.4 Inspection.

4.4.1 *Visual and dimensional inspection.*—Each of the sample hooks and rings selected in accordance with Table I and 4.3.1.1 shall be visually and dimensionally inspected by the Government inspector to verify compliance with this specification. Material defects such as pits, cracks, seams, and rough surfaces; the thickness of stressed sections, width of opening, free action of the swivel eye and the bolt, the spring characteristic, and knurling are considered of major importance as defined in MIL-STD-105. Any hooks and rings in the sample containing one or more visual or dimensional defects shall be rejected, and if the number of defective hooks and rings in any sample exceeds the acceptance number for that sample, the lot represented by the sample shall be rejected. Rejected lots may be offered again for Government inspection provided the contractor has removed all nonconforming hooks and rings. The Government inspector shall again select and examine samples from such rejected lots to verify compliance with the specification requirements.

#### 5. PREPARATION FOR DELIVERY

##### 5.1 Packing.

5.1.1 *For domestic shipment.*—Snap bolt hooks shall be packed in cleated plywood, nailed wood, or wirebound boxes, or in slack barrels or slack kegs, as follows:

5.1.1.1 Wood-cleated-plywood boxes, nailed wood boxes, and wirebound boxes shall conform to Specification NN-B-601, NN-B-621, or NN-B-631, respectively. No strapping will be required. In cleated plywood boxes, no water resistant or toxic-treated plywood will be required. The gross weight shall not exceed approximately 150 pounds.

5.1.1.2 Slack barrels and kegs shall conform to Specifications JAN-P-122 and JAN-P-134, respectively. The gross weight shall not exceed approximately 150 pounds. Heads shall be well battened.

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5.1.2 *For overseas shipment.* — Snap bolt hooks shall be packed in cleated plywood, nailed wood, or wirebound boxes, conforming to Specifications JAN-P-105, JAN-P-106, and JAN-B-107, respectively. No waterproof liner will be required. The gross weight shall not exceed approximately 150 pounds.

5.2 **Marking.**—In addition to any special marking required by the contract or order, each shipping container shall be marked in accordance with Specification 100-2, for the Army; in accordance with the Navy Shipment Marking Handbook, for the Navy.

**6. NOTES****6.1 Intended use.**

6.1.1 Type I regular snap bolt hooks are for general purpose use and for use with flags except signal flags and pennants.

6.1.2 Type II quick-acting snap bolt hooks with rings are for use with all signal flags and pennants.

6.2 **Ordering data.** — Procurement documents should specify the following:

- a. Title, number, and date of this specification.
- b. Type of snap bolt hook required (see 1.2).
- c. Whether the subject commodity is to be prepared for domestic or overseas shipment (see 5.1).

**Notice.**—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

**Custodian:**

Navy—Bureau of Ships

Other interest:

Army—OQST

Navy—MCS.

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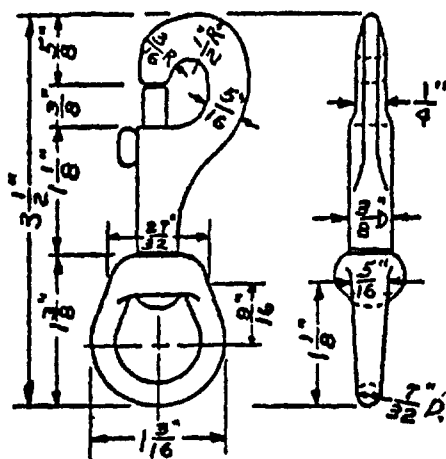


FIGURE 1.—Type I Regular.

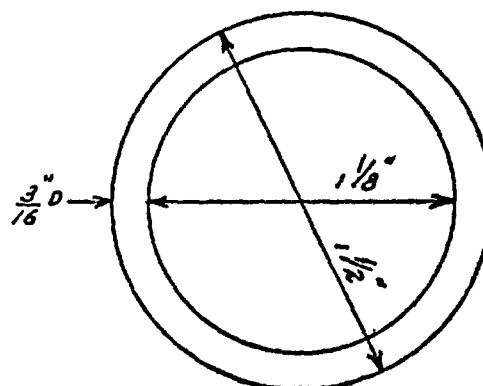


FIGURE 2.—Ring.

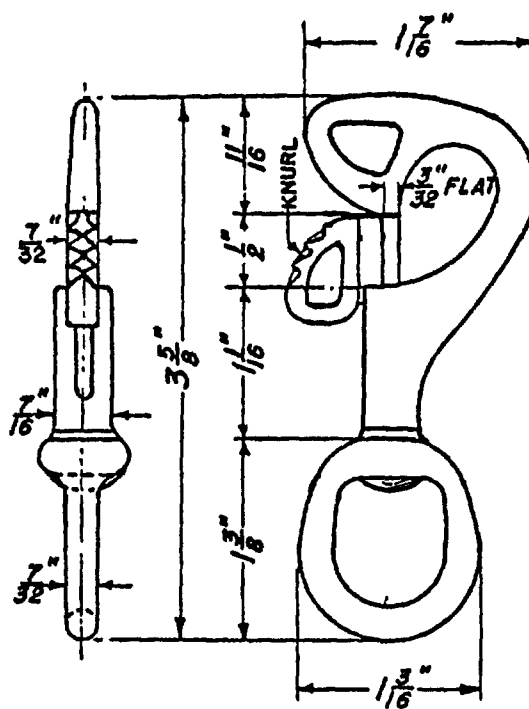


FIGURE 3.—Type II Quick-acting.