

MIL-S-24584 (SH)
1 December 1978

MILITARY SPECIFICATION
STOPPERS, CARPENTER AND ASSOCIATED BRIDLES
(WIRE ROPE AND CHAIN LINK)

This specification is approved for use by the Naval Sea Systems Command and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers carpenter stoppers and associated bridles (chain and wire rope).

1.2 Classification. Carpenter stoppers shall be specified by size (see 6.2.1). Bridle assemblies shall be specified by type and class (for carpenter stopper size specified).

1.2.1 Carpenter stoppers. Carpenter stoppers shall be of the following sizes. (Sizes of carpenter stoppers correspond to the wire rope size with which the carpenter stopper is used.) All sizes are in inches.

Size 1/4	Size 1-1/8	Size 2-1/8
Size 5/16	Size 1-1/4	Size 2-1/4
Size 3/8	Size 1-3/8	Size 2-3/8
Size 1/2	Size 1-1/2	Size 2-1/2
Size 5/8	Size 1-5/8	Size 2-5/8
Size 3/4	Size 1-3/4	Size 2-3/4
Size 7/8	Size 1-7/8	Size 2-7/8
Size 1	Size 2	Size 3

1.2.2 Bridle assemblies. Bridle assemblies covered by this specification shall be of the following types and classes, as specified (see 6.2.1):

Type I - Bridle, wire rope.
Type II - Bridle, chain link.

Class 1 - For use with 1/4 or 5/16 size carpenter stopper.
Class 2 - For use with 3/8 or 1/2 size carpenter stopper.
Class 3 - For use with 5/8 or 3/4 size carpenter stopper.
Class 4 - For use with 7/8 or 1 size carpenter stopper.
Class 5 - For use with 1-1/8 or 1-1/4 size carpenter stopper.
Class 6 - For use with 1-3/8 or 1-1/2 size carpenter stopper.
Class 7 - For use with 1-5/8 or 1-3/4 size carpenter stopper.
Class 8 - For use with 1-7/8 or 2 size carpenter stopper.
Class 9 - For use with 2-1/8 or 2-1/4 size carpenter stopper.
Class 10 - For use with 2-3/8 or 2-1/2 size carpenter stopper.
Class 11 - For use with 2-5/8 or 2-3/4 size carpenter stopper.
Class 12 - For use with 2-7/8 or 3 size carpenter stopper.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

PPP-B-601 - Boxes, Wood, Cleated-Plywood.
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Ship Engineering Center, SEC 6124, Department of the Navy, Washington, DC 20362 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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- MIL-P-116 - Preservation-Packaging, Methods of.
- MIL-P-23236 - Paint Coating Systems, Steel Ship Tank, Fuel and Salt Water Ballast.

STANDARDS

MILITARY

- MIL-STD-129 - Marking for Shipment and Storage.
- MIL-STD-130 - Identification Marking of U.S. Military Property.
- MIL-STD-147 - Palletized and Containerized Unit Loads 40" X 48" Pallets, Skids, Runners or Pallet Type Base.
- MIL-STD-271 - Nondestructive Testing Requirements for Metals.
- MIL-STD-482 - Configuration Status Accounting Data Elements and Related Features.
- MIL-STD-1186 - Cushioning, Anchoring, Bracing, Blocking, and Waterproofing, with Appropriate Test Methods.

DRAWINGS

MILITARY

- S2605-662515 - Carpenter Stopper for 3" & 2-7/8" Dia Wire Rope-Assembly.
- S2605-662516 - Carpenter Stopper for 3" & 2-7/8" Dia Wire Rope Loose Wedge Block.
- S2605-662517 - Carpenter Stopper for 3" & 2-7/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662518 - Carpenter Stopper for 3" & 2-7/8" Dia Wire Rope Cover.
- S2605-662519 - Carpenter Stopper for 3" & 2-7/8" Dia Wire Rope Details.
- S2605-662526 - Bridle, Wire Rope for 3" & 2-7/8" Carpenter Stopper Assembly & Details.
- S2605-662591 - Bridle, Wire Rope for 3/4" & 5/8" Carpenter Stopper Assembly & Details.
- S2605-662662 - Carpenter Stopper for 3/4" & 5/8" Dia Wire Rope Loose Wedge Block.
- S2605-662663 - Carpenter Stopper for 3/4" & 5/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662664 - Carpenter Stopper for 3/4" & 5/8" Dia Wire Rope Details.
- S2605-662696 - Carpenter Stopper for 1-1/4" & 1-1/8" Dia Wire Rope Assembly.
- S2605-662697 - Carpenter Stopper for 1-1/4" & 1-1/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662698 - Carpenter Stopper for 1-1/4" & 1-1/8" Dia Wire Rope Loose Wedge Block.
- S2605-662699 - Carpenter Stopper for 1-1/4" & 1-1/8" Dia Wire Rope Details.
- S2605-662700 - Carpenter Stopper for 1" & 7/8" Dia Wire Rope Assembly.
- S2605-662701 - Carpenter Stopper for 1" & 7/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662702 - Carpenter Stopper for 1" & 7/8" Dia Wire Rope Loose Wedge Block.
- S2605-662703 - Carpenter Stopper for 1" & 7/8" Dia Wire Rope Details.
- S2605-662704 - Carpenter Stopper for 1/2" & 3/8" Dia Wire Rope Assembly.
- S2605-662705 - Carpenter Stopper for 1/2" & 3/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662706 - Carpenter Stopper for 1/2" & 3/8" Dia Wire Rope Details.
- S2605-662732 - Carpenter Stopper for 3/4" & 5/8" Dia Wire Rope Assembly.
- S2605-662733 - Carpenter Stopper for 1-3/4" & 1-5/8" Dia Wire Rope Assembly.
- S2605-662734 - Carpenter Stopper for 1-3/4" & 1-5/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662735 - Carpenter Stopper for 1-3/4" & 1-5/8" Dia Wire Rope Loose Wedge Block.
- S2605-662736 - Carpenter Stopper for 1-3/4" & 1-5/8" Dia Wire Rope Details.
- S2605-662737 - Carpenter Stopper for 1-1/2" & 1-3/8" Dia Wire Rope Assembly.
- S2605-662738 - Carpenter Stopper for 1-1/2" & 1-3/8" Dia Wire Rope Smooth Wedge Block.
- S2605-662739 - Carpenter Stopper for 1-1/2" & 1-3/8" Dia Wire Rope Loose Wedge Block.
- S2605-662740 - Carpenter Stopper for 1-1/2" & 1-3/8" Dia Wire Rope Details.
- S2605-662741 - Carpenter Stopper (Adaptor Type) for 1-3/4", 1-5/8", 1-1/2" & 1-1/4" Dia Wire Rope Adaptor Block.
- S2605-662742 - Carpenter Stopper for 2" & 1-7/8" Dia Wire Rope Assembly.

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- S2605-662805 - Bridle, Chain for 1/2" & 3/8" Carpenter Stopper Assembly & Details.
- S2605-662843 - Bridle, Chain for 3/4" & 5/8" Carpenter Stopper Assembly & Details.
- S2605-662851 - Bridle, Wire Rope for 1/2" & 3/8" Carpenter Stopper Assembly & Details.
- S2605-663001 - Carpenter Stopper for 2" & 1-7/8" Dia Wire Rope Loose Wedge Block.
- S2605-663002 - Carpenter Stopper for 2" & 1-7/8" Dia Wire Rope Smooth Wedge Block.
- S2605-663003 - Carpenter Stopper for 2" & 1-7/8" Dia Wire Rope Details.
- S2605-663004 - Bridle, Wire Rope for 1" & 7/8" Carpenter Stopper Assembly & Details.
- S2605-663005 - Bridle, Wire Rope for 1-3/4" & 1-5/8" Carpenter Stopper Assembly & Details.
- S2605-663006 - Bridle, Wire Rope for 2" & 1-7/8" Carpenter Stopper Assembly & Details.
- S2605-663007 - Carpenter Stopper for 2-1/4" & 2-1/8" Dia Wire Rope Assembly.
- S2605-663008 - Carpenter Stopper for 2-1/4" & 2-1/8" Dia Wire Rope Smooth Wedge Block.
- S2605-663009 - Carpenter Stopper for 2-1/4" & 2-1/8" Dia Wire Rope Loose Wedge Block.
- S2605-663010 - Carpenter Stopper for 2-1/4" & 2-1/8" Dia Wire Rope Details.
- S2605-663011 - Carpenter Stopper for 2-1/2" & 2-3/8" Dia Wire Rope Assembly.
- S2605-663012 - Carpenter Stopper for 2-1/2" & 2-3/8" Dia Wire Rope Smooth Wedge Block.
- S2605-663013 - Carpenter Stopper for 2-1/2" & 2-3/8" Dia Wire Rope Loose Wedge Block.
- S2605-663014 - Carpenter Stopper for 2-1/2" & 2-3/8" Dia Wire Rope Details.
- S2605-663015 - Carpenter Stopper for 2-3/4" & 2-5/8" Dia Wire Rope Assembly.
- S2605-663016 - Carpenter Stopper for 2-3/4" & 2-5/8" Dia Wire Rope Smooth Wedge Block.
- S2605-663017 - Carpenter Stopper for 2-3/4" & 2-5/8" Dia Wire Rope Loose Wedge Block.
- S2605-663018 - Carpenter Stopper for 2-3/4" & 2-5/8" Dia Wire Rope Details.
- S2605-663019 - Bridle, Chain for 1" & 7/8" Carpenter Stopper Assembly & Details.
- S2605-663020 - Bridle, Wire Rope for 1-1/4" & 1-1/8" Carpenter Stopper Assembly & Details.
- S2605-663021 - Bridle, Chain for 1-1/4" & 1-1/8" Carpenter Stopper Assembly & Details.
- S2605-663022 - Bridle, Wire Rope for 1-1/2" & 1-3/8" Carpenter Stopper Assembly & Details.
- S2605-663023 - Bridle, Chain for 1-1/2" & 1-3/8" Carpenter Stopper Assembly & Details.
- S2605-663024 - Bridle, Chain for 1-3/4" & 1-5/8" Carpenter Stopper Assembly & Details.
- S2605-663025 - Bridle, Chain for 2" & 1-7/8" Carpenter Stopper Assembly & Details.
- S2605-663026 - Bridle, Wire Rope for 2-1/4" & 2-1/8" Carpenter Stopper Assembly & Details.
- S2605-663027 - Bridle, Chain for 2-1/4" & 2-1/8" Carpenter Stopper Assembly & Details.
- S2605-663028 - Bridle, Wire Rope for 2-1/2" & 2-3/8" Carpenter Stopper Assembly & Details.
- S2605-663029 - Bridle, Chain for 2-1/2" & 2-3/8" Carpenter Stopper Assembly & Details.
- S2605-663030 - Bridle, Wire Rope for 2-3/4" & 2-5/8" Carpenter Stopper Assembly & Details.
- S2605-663031 - Bridle, Chain for 2-3/4" & 2-5/8" Carpenter Stopper Assembly & Details.
- S2605-663032 - Bridle, Chain for 3" & 2-7/8" Carpenter Stopper Assembly & Details.
- S2605-663033 - Carpenter Stopper (Adaptor Type) for 1-3/4", 1-5/8", 1-1/2" & 1-1/4" Dia Wire Rope Assembly.
- S2605-663034 - Carpenter Stopper (Adaptor Type) for 3/4", 5/8", 1/2" & 1/4" Wire Rope Assembly.
- S2605-663035 - Carpenter Stopper (Adaptor Type) for 3/4", 5/8", 1/2" & 1/4" Wire Rope Adaptor Block.

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- S2605-663036 - Carpenter Stopper (Adaptor Type) for 1", 1/8", 3/4" & 1/2" Wire Rope Assembly.
- S2605-663037 - Carpenter Stopper (Adaptor Type) for 1", 7/8", 3/4" & 1/2" Wire Rope Adaptor Block.
- S2605-663038 - Carpenter Stopper (Adaptor Type) for 1-1/4", 1-1/8", 1" & 3/4" Wire Rope Assembly.
- S2605-663039 - Carpenter Stopper (Adaptor Type) for 1-1/4", 1-1/8", 1" & 3/4" Wire Rope Adaptor Block.
- S2605-663040 - Carpenter Stopper (Adaptor Type) for 1-1/2", 1-3/8", 1-1/4" & 1" Dia Wire Rope Assembly.
- S2605-663041 - Carpenter Stopper (Adaptor Type) for 1-1/2", 1-3/8", 1-1/4" & 1" Dia Wire Rope Adaptor Block.
- S2605-663042 - Carpenter Stopper (Adaptor Type) for 2", 1-7/8", 1-3/4" & 1-1/2" Wire Rope Assembly.
- S2605-663043 - Carpenter Stopper (Adaptor Type) for 2", 1-7/8", 1-3/4" & 1-1/2" Wire Rope Adaptor Block.
- S2605-663044 - Carpenter Stopper (Adaptor Type) for 2-1/2", 2-3/8", 2-1/4" & 2" Wire Rope Assembly.
- S2605-663045 - Carpenter Stopper (Adaptor Type) for 2-1/2", 2-3/8", 2-1/4" & 2" Wire Rope Adaptor Block.
- S2605-663046 - Carpenter Stopper (Adaptor Type) for 3", 2-7/8", 2-1/2" & 2" Dia Wire Rope Assembly.
- S2605-663047 - Carpenter Stopper (Adaptor Type) for 3", 2-7/8", 2-1/2" & 2" Wire Rope Adaptor Block.
- S2605-663048 - Carpenter Stoppers for 1/4"-3" Dia Wire Rope Composite Assembly of Standard Type.
- S2605-663049 - Carpenter Stoppers for 1/4"-3" Dia Wire Rope Composite Assembly of Adaptor Type.
- S2605-663050 - Bridle, Wire Rope for 1/4"-3" Dia Carpenter Stoppers Composite Assembly.
- S2605-663051 - Bridle, Chain for 1/4"-3" Dia Carpenter Stoppers Composite Assembly.
- S2605-663052 - Carpenter Stopper for 1/4" & 5/16" Dia Wire Rope Assembly.
- S2605-663053 - Carpenter Stopper for 1/4" & 5/16" Dia Wire Rope Smooth Wedge Block.
- S2605-663054 - Carpenter Stopper for 1/4" & 5/16" Dia Wire Rope Details.
- S2605-663055 - Bridle, Wire Rope for 1/4" & 5/16" Carpenter Stopper Assembly & Details.
- S2605-663056 - Bridle, Chain for 1/4" & 5/16" Carpenter Stopper Assembly & Details.
- S2605-663057 - Carpenter Stopper for 1/2" & 3/8" Dia Wire Rope Loose Wedge Block.
- S2605-663058 - Carpenter Stopper for 1/4" & 5/16" Dia Wire Rope Loose Wedge Block.
- 80060-520-2883154 - (3 sheets) Carpenter Stopper 1-3/4" & 1-5/8" Dia Wire Rope, Wedge & Wedge Retaining Screw Mods.
- 80060-520-2883155 - (3 sheets) Carpenter Stopper 2" & 1-7/8" Dia Wire Rope, Wedge & Wedge Retaining Screw Mods.
- 80060-520-2883156 - (3 sheets) Carpenter Stopper 2-1/2" & 2-1/8" Dia Wire Rope, Wedge & Wedge Retaining Screw Mods.
- 80060-520-2883157 - (3 sheets) Carpenter Stopper 2-1/4" & 2-1/8" Dia Wire Rope Wedge, Wedge Retaining Screw Mods.
- 80060-520-2883158 - (3 sheets) Carpenter Stopper 5/8", 7/8" 1-5/8", 2", 2-1/4", 2-1/2" Dia Wire Rope Cover Stress Relief & Bearing Strip to Loose Wedge Block Resurfacing Mods.
- 80060-520-2883191 - (3 sheets) Carpenter Stopper 1-5/8" and 2" Dia Wire Rope Interim Wedge Details.
- 80060-520-2883192 - (2 sheets) Carpenter Stopper 5/8", 7/8", 2-1/4", & 2-1/2" Dia Wire Rope Replacement Wedge Details.

(Copies of above drawings may be obtained from Commanding Officer, Code 3831, Navy Ships Parts Control Center, Mechanicsburg, PA 17055.)

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PUBLICATIONS

MILITARY

NAVAL SEA SYSTEMS COMMAND (NAVSEA)

- 0994-LP-000-3010 - U.S. Navy Ship Salvage Manual, Vol. 1.
- 0994-LP-000-3020 - U.S. Navy Ship Salvage Manual, Vol. 2.
- 0994-LP-004-8010 - Operation and Maintenance Instruction Carpenter Stopper.

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

STEEL STRUCTURES PAINTING COUNCIL

Surface Preparation Specification No. 10, Near-White Blast Cleaning SSPC-SP-10.

(Application for copies should be addressed to the Steel Structures Painting Council, 4400 Fifth Avenue, Pittsburgh, Pennsylvania 15213.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 "P" Street, N.W., Washington, DC 20036.)

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 Material. Material covering the construction of carpenter stoppers and bridle assemblies shall be as specified on the applicable drawings listed in 2.1.

3.1.1 Recovered material. Unless otherwise specified herein, all equipment, material, and articles incorporated in the products covered by this specification shall be new and shall be fabricated using materials produced from recovered materials to the maximum extent practicable without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this specification unless otherwise specifically specified.

3.2 Construction.

3.2.1 Fabrication and construction. All carpenter stoppers and associated bridle assemblies shall be fabricated and constructed as specified on the applicable drawings of 2.1.

3.2.2 Forgings. Repair of forgings by welding is not permitted. Damaged forgings shall be rejected and replaced.

3.2.3 Wedge block. Interim wedge blocks shall be used to accommodate variations in the pitch of previously procured 1-5/8 inch diameter and 2-inch diameter wire rope. NAVSEA 0994-LP-004-8010 shall be used for details and explanation.

3.2.3.1 Slight abrasion of the smooth wedge block and helical surface of the wedge are permissible when subjected to the latch test of 4.2.3.

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3.2.4 Deviations. Deviations from specified requirements are not permissible without prior written authorization from the contracting officer or the authorized government representative.

3.3 Performance characteristics.

3.3.1 Nondestructive evaluation (NDE). Nondestructive evaluation shall be as shown on the applicable drawing (see 2.1). Magnetic particle indication shall not exceed 1/6 inch on machined surfaces and 1/8 inch on forged surfaces, when tested in accordance with 4.2.1.

3.3.2 Proof load. The proof load shall be as shown on the applicable reference drawing (see 2.1), when tested in accordance with 4.2.2.

3.3.3 Unlatching. The carpenter stopper shall be capable of being opened under load, when tested in accordance with 4.2.3.

3.3.4 Carpenter stopper damage. The carpenter stopper shall hold the gripped wire rope so that there shall be no damage or deformation to either the bridle assembly or the carpenter stopper, when inspected in accordance with 4.2.4.

3.3.5 Rope damage. The carpenter stopper shall hold the gripped wire rope so that there is no permanent deformation of the gripped wire rope, when inspected in accordance with 4.2.4.

3.4 Finish.

3.4.1 Cleaning. Prior to painting, all forgings shall be cleaned with trichloroethylene or wiped with an all-purpose paint thinner to remove all dirt and grease. Surfaces shall then be cleaned by abrasive blasting and shall meet the requirements of the Steel Structures Painting Council, Surface Preparation Specification No. 10, Near-white Blast Cleaning, SSPC-SP-10.

3.4.2 Painting. After cleaning, a 3 to 5-mil dry film thickness of MIL-P-23236 type I, class 3, shall be applied in accordance with manufacturer's instructions to coat surfaces of all forged components in conformance with the applicable drawings (see 2.1).

3.5 Product markings.

3.5.1 Identification and serialization. Marking of the carpenter stoppers and the associated bridle assemblies for the purpose of identification and serialization shall be in accordance with MIL-STD-130, MIL-STD-482, and the following format:

<u>Size in</u> <u>1/8ths</u>	<u>Year</u> <u>mfg</u>	<u>Alpha serial</u> <u>designator</u>
00	00	00A

3.5.2 Piece marking location. Piece marking and serialization shall be in accordance with the following:

<u>Piece</u>	<u>Location</u>
Cover	Between cover ribs
Smooth wedge block	Near eye lug end
Loose wedge block	Near eye lug end
Wedge	As shown on applicable drawings
Lock	Opposite side of striking area
Equalizing thimble	As shown on applicable drawings
Flounder plate	As shown on applicable drawings

(All marking shall be accomplished prior to final load testing.)

3.6 Government-furnished equipment. Tools and equipment will be available from the Government. The kind and amount of Government-furnished equipment shall be as specified in the contract (see 6.2.1).

3.7 Personnel qualification. All personnel performing nondestructive testing shall be qualified in accordance with MIL-STD-271.

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3.8 Workmanship. All parts shall be shaped without sharp edges at openings, free from flaws, burrs, seams, fins, slivers, cracks, and other injurious defects. Parts shall be coated in a smooth uniform manner without over-lapping lubricated surfaces. Markings shall be clean, correct, and readily visible.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Certification data/report. The contractor shall prepare a certification data/report in accordance with the data ordering document included in the contract (see 6.2.2). In addition to the general requirements covered by the certification data/report, the following unique technical features shall be included:

- (a) Identification of part or assembly (heat number, part number).
- (b) Copies of certified test reports and inspection data setting forth the results of examinations and tests. A copy of certification documents are to be sent to the consignee and the acquiring activity, or as otherwise specified.
- (c) Statement: "Records are available covering the heat number of the material, processing of forgings, dimensional control employed, non-destructive testing, heat treatment, chemistry, and mechanical properties."

4.2 Quality conformance inspection. Each carpenter stopper with its associated bridle assembly shall be subjected to the following tests:

4.2.1 Nondestructive tests. Nondestructive testing shall be performed in accordance with the applicable drawing (see 2.1 and 3.3.1).

4.2.2 Proof test. Each carpenter stopper with its associated bridle assembly shall be subjected to proof loading in conformance with the applicable reference drawing and held for 10 minutes after which the load will be reduced to the load shown on the applicable drawing (see 2.1), and released by unlatching in compliance with 3.3.3. Gripped wire rope shall be used as recommended (see 6.1.1, and 6.1.2). CAUTION: Testing of carpenter stoppers and bridle assemblies shall be accomplished using operating, lubricating, and safety procedures in accordance with NAVSEA 0994-LP-004-8010.

4.2.3 Latch test.

- (a) While the carpenter stopper assembly is under the load shown on the applicable drawing (see 2.1), the latch pin shall be removed. Upon removal of the latch pin, the latch and cover shall remain in their original holding positions.
- (b) After the latch pin has been removed and the latch struck, the cover shall fully open without assistance (see 3.3.3).

4.2.4 Visual inspection. After final proof load testing (see 3.3.2), each carpenter stopper and bridle assembly shall be inspected for conformance with 3.3.4. The gripped wire rope shall be inspected for conformance with 3.3.5.

4.3 Acceptance criteria.

4.3.1 Parts not meeting the requirements of this specification shall be rejected. Retesting shall not be permitted.

4.3.2 In addition to all other requirements, all tests shall be witnessed by a Government representative.

4.4 Inspection of preparation for delivery. The preservation-packaging, packing, and marking shall be inspected for compliance with the requirements of section 5 of this specification.

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5. PREPARATION FOR DELIVERY

(The preparation for delivery requirements specified herein apply only for direct Government acquisitions. For the extent of applicability of the preparation for delivery requirements of referenced documents listed in section 2, see 6.3.)

5.1 Preservation-packaging. The preservation-packaging shall be level A or C, as specified (see 6.2.1).

5.1.1 Level A.

5.1.1.1 Disassembly. Disassembly shall be confined to the removal of parts and components that would otherwise increase cubage, such as the bridle assembly that can be removed and reinstalled without the use of special tools.

5.1.1.2 Preservative. The carpenter stoppers and bridle assemblies shall be preserved-packaged to afford protection against deterioration and damage from the supply source to the final destination including storage. Exposed unprotected metal surfaces of the carpenter stopper and bridle assemblies requiring the application of a contact preservative in accordance with MIL-P-116 shall be cleaned, dried and coated with type P-1 or P-19 preservative conforming to the applicable specification listed in and applied in accordance with MIL-P-116.

5.1.1.3 Packaging. Packaging of carpenter stopper and bridle assemblies is not required.

5.1.2 Level C. The carpenter stopper and bridle assemblies shall be preserved-packaged to afford protection against deterioration and damage from the supply source to the initial destination. The contractor may use his standard practice providing it fulfills these requirements.

5.2 Packing. Packing shall be level A, B, or C as specified (see 6.2.1).

5.2.1 Level A/B. The carpenter stopper and bridle assemblies preserved-packaged as specified (see 6.2.1) shall be individually packed in wood or wood-created boxes conforming to PPP-B-621, class 2, or PPP-B-601, overseas, type. Container selection and box style shall be at the option of the contractor. Interior blocking, bracing and anchoring to prevent movement of the assembly within the box shall be in accordance with MIL-STD-1186. Box closure and flat strapping shall be in accordance with the appendix to the applicable box specification.

5.2.2 Level C. The carpenter stopper and bridle assemblies preserved-packaged as specified (see 6.2.1), shall be packed in a manner to assure carrier acceptance and safe delivery to destination at the lowest ratings of the carrier in compliance with Uniform Freight Classification Rules or with National Motor Freight Classification Rules.

5.2.3 Palletization. When specified (see 6.2.1), the carpenter stopper and bridle assemblies, preserved-packaged, and packed as specified herein for level A or C, shall be palletized in accordance with MIL-STD-147, load type, as applicable.

5.3 Marking. In addition to any special marking required by the contract, (see 6.2.1) packages, shipping containers, and palletized loads, shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. Carpenter stoppers and associated bridle assemblies provide a means of gripping and holding wire rope under load (see NAVSEA 0994-LP-000-3010, 0994-LP-000-3020, and 0994-LP-004-8010 for typical Navy use).

6.1.1 Gripped wire rope. Carpenter stoppers are designed for gripping and holding 6-strand right regular lay type I, general purpose, class 3, drawn galvanized or uncoated wire rope in accordance with RR-W-410.

6.1.2 Gripped rope pitch. It is recommended that wire rope used with carpenter stoppers have a pitch 1.5 percent less than the load of the carpenter stopper's wedge block helix. Additionally, the following table is furnished for the most frequently used wire rope sizes.

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<u>Wire rope dia.</u>	<u>Pitch range</u>
5/8	4.219 4.062
7/8	5.096 5.607
1-5/8	11.781 11.375
2	14.500 14.000
2-1/4	15.187 14.625
2-1/2	16.875 16.250

6.2 Ordering data.

6.2.1 Acquisition requirements. Acquisition documents should specify the following:

- Title, number and date of this specification.
- Size(s) of carpenter stopper required (see 1.2.1).
- Type and class of bridle(s) required (see 1.2.2).
- Government furnished equipment, as required (see 3.6).
- Whether the carpenter stopper(s) and associated bridle assembly shall be packaged level A or C or packed level A/B or C (see 5.1 and 5.2).
- Palletization, if required (see 5.2.3).
- Special marking required (see 5.3).

6.2.2 Data requirements. When this specification is used in a contract which invokes the provision of the "Requirements for Data" of the Defense Acquisition Regulation (DAR), the data identified below, which are required to be developed by the contractor, as specified on an approved Data Item Description (DD Form 1664), and which are required to be delivered to the Government, should be selected and specified on the approved Contract Data Requirement List (DD Form 1423) and incorporated in the contract. When the provisions of the "Requirements for Data" of the DAR are not invoked in a contract, the data required to be developed by the contractor and required to be delivered to the Government should be selected from the list below and specified in the contract.

<u>Paragraph</u>	<u>Data requirements</u>	<u>Applicable DID</u>	<u>Option</u>
4.1.1	Certification data/report	UDI-A-23264	--

(Copies of data item descriptions required by the contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.)

6.2.2.1 The data requirements of 6.2.2 and any task in section 3, 4, or 5 of the specification required to be performed to meet a data requirement may be waived by the contracting/acquisition activity upon certification by the offeror that identical data were submitted by the offeror and accepted by the Government under a previous contract for identical item acquired to this specification. This does not apply to specific data which may be required for each contract regardless of whether an identical item has been supplied previously (for example, test reports).

6.3 Sub-contracted material and parts. The preparation for delivery requirements of referenced documents listed in section 2 do not apply when material and parts are acquired by the contractor for incorporation into the equipment and lose their separate identity when the equipment is shipped.

Preparing activity:
Navy - SH
(Project 4010-N015)

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1714-S-24584

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