

**MILITARY SPECIFICATION**  
**SHORES, DAMAGE CONTROL, AUTOMATIC, ADJUSTABLE**  
**TELESCOPING STEEL**

**1. SCOPE**

1.1 This specification covers damage control automatic adjustable telescoping steel shores for ship-board use.

1.2 Classification. - Damage control automatic adjustable telescoping steel shores shall be in the following models:

Model 3-5 - Adjustable from a minimum of 3 feet-0 inch plus or minus 3 inches to a maximum of 5 feet-0 inch plus or minus 3 inches.

Model 6-11 - Adjustable from a minimum of 6 feet-0 inch plus or minus 3 inches to a maximum of 11 feet-0 inch plus or minus 3 inches.

**2. APPLICABLE DOCUMENTS**

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

**SPECIFICATIONS****FEDERAL**

QQ-Z-325 - Zinc Coating, Electrodeposited, Requirements for.

**MILITARY**

MIL-P-8585 - Primer Coatings, Zinc-Chromate, Low-Moisture-Sensitivity.

MIL-P-15328 - Coating, Pretreatment (Formula No. 117 for Metals).

**STANDARDS****MILITARY**

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

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

**3. REQUIREMENTS**

3.1 Preproduction sample. - Prior to beginning production a sample shall be tested as specified in 4.2 (see 6.2).

**3.2 General requirements. -**

3.2.1 Materials and design. - Materials and design of the shores shall be as specified herein. Materials not definitely specified shall be of the quality best suited for the purpose intended. Steel parts shall be suitably protected against corrosion.

3.2.2 Construction. - The complete shore shall be compact, simple in operation, and as rugged as practicable.

**3.2.3 Finishing. -**

3.2.3.1 Priming. - All metal parts shall be primed in accordance with best commercial practice. One coat of pretreatment primer in accordance with MIL-P-15328 and one coat of zinc chromate primer

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in accordance with MIL-P-8585 shall be applied to the inside and outside of the inner and outer tubes, in addition to all other fixed parts. Moving parts shall be zinc coated, type II class 3 of QQ-Z-325.

**3.2.3.2 Enamel.** - All exterior and interior surfaces of the tubes shall be given a final finish of blue enamel of good commercial grade which will not chip, scratch or mar. The lower 13-1/2 inches of the inner tube of model 3-5 and the lower 16 inches of the inner tube of model 6-11 shall be finished in yellow or bright red.

**3.3 Detail requirements.**

**3.3.1 Material.** - The tubes shall be fabricated of steel or other noncombustible materials, with continuous welding. The thickness of the tube shall be sufficient to assure the required strength and stiffness to withstand rough handling.

**3.3.2 Weight.** - The total weight of model 3-5 shall not exceed 43 pounds and model 6-11 shall not exceed 60 pounds.

**3.3.3 Marking.** - Each shore shall be marked in a plain and permanent manner with the model number of the shore and the manufacturer's name or with a trademark of such known character that the source of manufacture may be readily determined.

**3.3.4 Test loads.** - Shores shall withstand the test loads specified in tables I and II for each type and size without permanent deformation, formation of cracks, or fracture of any part of the shores, including locking pins, adjustable devices, screw jack, swivel, and without binding or loosening of the movable parts or indentation or gouging of the slots, which would impair the utility of the shore.

Table 1 - Model 3-5 test loads.

Length when Closed + 3 inches	Length when extended max. +3 inches	Vertical load when closed but extended 1 inch on screw jack	Vertical load when extended to maximum
3 feet-0 inch	5 feet-0 inch	20,000 pounds	12,000 pounds

Table II - Model 6-11 test loads.

Length when closed +3 inches	Length when extended max. +3 inches	Vertical load when closed but extended 1 inch on screw jack	Vertical load when extended to maximum
6 feet-0 inch	11 feet-0 inch	20,000 pounds	6,000 pounds

**3.3.5 Outer tube.** - The outer tube of the shore shall be 2-1/4 inches square, with swivel base, automatic adjusting devices, and screw jack for closer mechanical adjustments.

**3.3.6 Inner tube.** - The inner tube of the shore shall be 2 inches square with swivel base. Slots 3/8-inch wide x 1-5/8 inches long on 4-1/2 inch centers shall be in all four sides. The slots in the opposite sides are in the same plane. The slots on the alternate sides are offset 2-1/4 inches from the slots on the other two sides.

**3.3.7 Automatic adjustment.** - The automatic adjustment shall consist of four spring loaded locking devices. The locks on the opposite sides are in the same plane. The locks on alternate sides are offset 2-1/4 inches with the locks on the other two sides. This shall provide four point locking with automatic spaces 4-1/2 inches apart.

**3.3.8 Screw jack.** - The screw jack shall provide 6 inches of manual closer adjustment.

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**3.3.9 Swivel base.** - The swivel base, (ball and socket) on both tubes, shall permit swiveling the shore to any angle, from 0 degree to 180 degrees. The base plate shall be angular shaped to conform to flat surface as well as a corner. The base shall have six 3/8-inch diameter holes.

**3.3.10 Design.** - The shore shall consist of two telescoping square tubes; with slots on the four sides of the inner tube; four spring loaded locking devices on the outer tube; swivel base plate on one end of the inner tube; swivel base plate and screw jack on the outer tube. The entire shore shall consist of only two separable parts, otherwise there shall be no loose parts. The shore must be ready for use without the use of any tools.

**3.3.11 Surface finish.** - The surface shall be finished in accordance with good commercial practices and shall be free from fins, scale, cracks, seams, burrs, or any defects which may affect the serviceability or durability of the shore.

**3.3.12 Workmanship.** - Workmanship shall be first class in every respect.

#### 4. QUALITY ASSURANCE PROVISIONS

**4.1 Responsibility for inspection.** - Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspection set forth in the specifications, where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

**4.2 Preproduction inspection.** - Preproduction inspection shall consist of the examination and tests specified in 4.4 and 4.5. Production shall not be started until the preproduction inspection report has been approved by the bureau or agency concerned.

#### 4.3 Quality conformance inspection.-

**4.3.1 Inspection lot.** - All shores of the same size offered for delivery at one time shall be considered a lot for the purpose of quality conformance inspection.

**4.3.1.1** The supplier shall furnish written certification with each inspection lot, that he has determined (either by actual test, or through adequate control of the manufacturing process, or by certification by manufacturer), that each type of metal meets the specification requirements. Certification shall contain actual test, examination or other verifiable quality data. The proportion of each chemical element shall be shown for comparison with specification. This certification will be acceptable evidence of conformance, unless the comparison test in 4.6 is required and proves nonconformance.

**4.3.2 Sampling for examination.** - Sample shores shall be selected at random in accordance with table IIIA of MIL-STD-105 at inspection level III, for the examination specified in 4.4. The AQL shall be .015 defective. Any shore in the sample containing one or more defects shall not be offered for delivery and if the number of nonconforming shores in any sample exceeds the acceptance number for that sample, the lot represented by the sample shall not be offered for delivery.

**4.3.3 Sampling for quality conformance tests.** - Sample shores shall be selected at random in accordance with table IIIA of MIL-STD-105 at inspection level I, for tests specified in 4.5. The AQL shall be 2.5 defective. Any shore in the sample containing one or more defects shall not be offered for delivery and if the number of nonconforming shores in any sample exceeds the acceptance number for that sample, the lot represented by the sample shall not be offered for delivery.

**4.4 Examination.** - Each of the sample shores selected in accordance with 4.3.2 shall be examined to verify compliance with this specification. Examination shall be conducted as specified in table III. Any shores in the sampling containing one or more defects shall not be offered for delivery. If the number of defective shores in any sample exceeds the acceptance number for that sample, this shall be cause for rejection of the lot represented by the sample.

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Table III - Classification of defects in accordance with MIL-STD-105

Category	Defects
<b>Critical:</b>	
1	Evidence of distortion
2	Poor welding
3	Yellow or bright red missing from lower end of inner tube.
<b>Major:</b>	
101	Type and size of shore
102	Screw jack not operating freely by hand
103	Evidence of pits, cracks, blowholes, or forging
104	Not free from fins, burrs or sharp edges
105	Tubes not of one piece construction
106	Movable parts stick or bind; evidence of excessive looseness
107	Length when closed more than maximum specified
108	Length when opened less than the minimum specified
<b>Minor:</b>	
201	Total weight more than the maximum specified
202	Swivel base angle less than that minimum specified
203	Lack of uniform painting
204	Holes missing from swivel bases
205	Marking, manufacturer's name or trademark missing, illegible, incorrect or not permanent.

**4.5 Quality performance tests.** - Each of the sample shores selected in accordance with 4.3.3 shall be tested in accordance with 4.6 to verify compliance with load tests. Any sample shore which does not meet the requirements for proofload shall not be offered for delivery. If the number of nonconforming shores in any sample exceeds the acceptance number for that sample, this shall be cause for rejection of the lot represented by the sample.

#### 4.6 Test procedures.-

**4.6.1 Load test (extended position).** - The assembled shore shall be placed in a vertical position in a jig so that the end having the ball and socket adjustable base is at the top and against a bracket welded to a horizontal steel member. The lower end resting on top of a calibrated hydraulic jack equipped with a pressure gauge. Extend the screw jack at the lower end for a length of 4 inches, and the inner tube extending out of the outer tube so that the extended shore equals the maximum length required. Apply the maximum pressure for the extended shore as specified in tables I and II. Retain under pressure for 1/2 hour. After release of pressure, there shall be no visible distortion of any part and the tubes shall telescope freely.

**4.6.2 Load test (closed position).** - The assembled shore shall be placed in the jig in the same manner as in 4.6.1, except that the screw jack shall be extended 1 inch and the inner tube locked into the outer tube in the first set of slots so that the tension will be applied to the four spring loaded locking devices.

### 5. PREPARATION FOR DELIVERY

**5.1 Packaging.** - Shores shall be packaged in accordance with suppliers commercial practice. However, not more than two shores of any one size shall be in one package (see 6.1).

**5.2 Packing.** - Shores shall be wrapped or packed in containers of the type, size and kind commonly used for the purpose and in a manner which will insure acceptance by a common carrier and safe delivery at destination. Shipping containers shall comply with the carrier rules and regulations applicable to the mode of transportation (see 6.1).

5.3 Marking. - Containers shall be marked in accordance with the suppliers commercial practice including the following:

- (a) Nomenclature
- (b) Contractor's name

6. NOTES -

6.1 Ordering Data. - Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Classification model number (see 1.2)
- (c) Level of preservation, packaging, packing and marking required (see 5.1).

6.2 Preproduction. - Invitations for bids should provide that the Government reserves the right to waive requirement for preproduction samples as to those bidders offering a product which has been previously procured or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending procurement.

Preparing activity:  
Navy - Ships  
(Project 2090-N06158)

## SPECIFICATION ANALYSIS SHEET

Form Approved Budget Bureau No. 119-R004

## INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity.

SPECIFICATION

ORGANIZATION

CITY AND STATE

CONTRACT NO.

QUANTITY OF ITEMS PROCURED

DOLLAR AMOUNT

\$

MATERIAL PROCURED UNDER A

 DIRECT GOVERNMENT CONTRACT SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?  
A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

YES  NO IF "YES", IN WHAT WAY?

4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)

SUBMITTED BY (Printed or typed name and activity)

DATE

DD FORM 1426  
1 APR 68

REPLACES NAVSHIPS FORM 4863, WHICH IS OBSOLETE