NOT MEASUREMENT SENSITIVE

MIL-B-22342D 26 May 1989 SUPERSEDING MIL-B-22342C 24 March 1981

MILITARY SPECIFICATION

BROWS, ALUMINUM, BEAM AND TRUSS

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

- 1.1 <u>Scope</u>. This specification covers aluminum beam and truss brows (ship's gangplanks).
- 1.2 <u>Classification</u>. Brows will be of the following types, widths, and spans, as specified (see 6.2):

Type B - Beam brows.

Widths: 3-foot (ft), 4-ft, and 5-ft.

Span (ft)	Drawing number
12	1404700
16	1404701
20	1404702

Type T - Truss brows.

| Beneficial comments (recommendations, additions, deletions) and any pertinent | data which may be of use in improving this document should be addressed to: | | Commanding Officer (Code 156), Naval Construction Battalion Center, Port | | Hueneme, CA 93043-5000, by using the self-addressed Standardization Document | Improvement Proposal (DD Form 1426) appearing at the end of this document or | by letter.

AMSC N/A FSC 2090

<u>DISTRIBUTION STATEMENT A</u>. Approved for public release; distribution is unlimited.

MIL-B-22342D

Span	3-ft width	4-ft width	5-ft width
<u>(ft)</u>	Drawing number	<u>Drawing number</u>	<u>Drawing number</u>
25	1404703	1404703	1404703
30	1404703	1404703	1404703
35	1404704	1404704	1404704
40	1404705	1404705	1404705
50	1404706	1404706	1404706
60	1404707	1404707	1404707
70	1404708	1404708	1404708
80			1404709
90			1404710

1.2.1 <u>Part or identifying numbers (PINs)</u>. The specification number, type, width and span combined to form the specification PINs for the brows covered by this specification (see 6.5). The PINs for the brows are established as follows:

	M22342	- <u>XX</u>	- <u>XX</u>	- <u>XX</u>
	1	1	1	1
Specification number	I	1	- 1	-
Type code number (see 6.5)		(ĺ	l
Width code number (see 6.5)				- 1
Span code number (see 6.5)				1

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 <u>Specifications, standards, and drawings</u>. The following specifications, standards, and drawings form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS

COMMERCIAL ITEM DESCRIPTIONS

A-A-880 - Strapping, Steel, Flat and Seals.

FEDERAL.

T-T-616 - Treatment: Mildew Resistant, for Rope and Cord.

PPP-B-601 - Boxes, Wood, Cleated-Plywood.

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

PPP-B-636 - Boxes, Shipping, Fiberboard.

MILITARY

MIL-P-116 - Preservation, Methods of.

MIL-P-5431 - Plastic Phenolic, Graphited, Sheets, Rods, Tubes and Shapes.

MIL-P-15035 - Plastic Sheet: Laminated, Thermosetting, Cotton-Fabric-Base, Phenolic-Resin. MIL-P-23469 - Pins and Collars, Swage-Locking (Lockspins) General Specification for.

STANDARDS

MILITARY

MIL-STD-129 - Marking for Shipment and Storage.

DRAWINGS

NAVAL FACILITIES ENGINEERING COMMAND

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Beam and Truss Brows - Notes and Details.
          Beam and Truss Brows - Details and Fittings.
1404696 -
1404697 - Beam and Truss Brows - Sections and Details.
          Truss Brows - Welding Notes and Details.
1404698 -
1404699 - Truss Brows - Member Forces.
1404700 - Aluminum Beam Brows - 3-12: 4-12: 5-12.
1404701 - Aluminum Beam Brows - 3-16: 4-16: 5-16.
1404702 - Aluminum Beam Brows - 3-20: 4-20: 5-20.
1404703 - Truss Brows - 3-25 & 30; 4-25 & 30: 5-25 & 30.
1404704 - Truss Brows - 3-35: 4-35: 5-35.
1404705 - Truss Brows - 3-40: 4-40: 5-40.
1404706 - Truss Brows - 3-50: 4-50: 5-50.
1404707 - Truss Brows - 3-60: 4-60: 5-60.
1404708 - Truss Brows - 3-70: 4-70: 5-70.
1404709 - Truss Brows - 5-80.
1404710 - Truss Brows - 5-90.
1404711 - Truss Brows - 5-90 Notes and Details.
1404712 - Truss Brows - 5-90 Welding Notes and Details.
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(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

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

2.2 <u>Non-Government publications</u>. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of the documents not listed in the DODISS are the issue of the documents which are current on the date of the solicitation.

AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI)

ANSI B1.1 - Screw Threads (UN and UNR Thread Form) Unified Inch.

(Application for copies should be addressed to the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 242 - High-Strength Low Alloy Structural Steel.

ASTM A 325 - High-Strength Bolts for Structural Steel Joints, Including Suitable Nuts and Plain Hardened Washers.

ASTM A 473 - Stainless and Heat Resisting Steel Forgings.

ASTM A 502 - Steel Structural Rivets.

ASTM B 209 - Aluminum and Aluminum-Alloy Sheet and Plate.

ASTM B 210 - Aluminum-Alloy Drawn Seamless Tubes.

ASTM B 211 - Aluminum-Alloy Bar, Rod and Wire.

ASTM B 221 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70 - National Electrical Code.

(Application for copies should be addressed to the National Fire Protection Association, Battery March Park, Quincy, MA 02269.)

THE ALUMINUM ASSOCIATION

Aluminum Construction Manual, Section 5.

(Application for copies should be addressed to the Aluminum Association, 900 - 19th St. N.W., Washington, D.C. 20006.

AMERICAN WELDING SOCIETY, INC. (AWS)

AWS D1.2 - Structural Welding Code, Aluminum

(Application for copies should be addressed to the American Welding Society, 550 N.W. LeJeune Rd., P.O. Box 351040, Miami, FL 33135.)

(Non-Government standards and other publications are normally available from the organizations which prepare or that distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

- 3.1 Standard commercial product. The brows shall, as a minimum, be in accordance with the requirements of this specification and shall be the manufacturer's standard commercial product. Additional or better features which are not specifically prohibited by this specification but which are a part of the manufacturer's standard commercial product, shall be included in the brows being furnished. A standard commercial product is a product which has been sold, or is being currently offered for sale on the commercial market through advertisements or manufacturers' catalogs, or brochures, and represents the latest production model.
- 3.2 <u>First article</u>. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.2.1, 6.2 and 6.4.)
- 3.3 <u>Interchangeability</u>. All units of the same classification furnished with similar options under a specific contract shall be identical to the extent necessary to ensure interchangeability of component parts, assemblies, accessories, and spare parts.
- 3.4 <u>Drawings</u>. The drawings forming a part of this specification are engineering design drawings. The contractor is responsible for preparing their own shop drawings. Where tolerances prescribed may cumulatively result in incorrect fits, the contractor shall provide tolerances within those prescribed on the drawings to ensure correct fit, assembly and operation of the items. No deviation from the prescribed dimensions or tolerances is permissible without prior approval of the contracting officer.
- 3.5 <u>Materials</u>. Materials used shall be free from defects which would adversely affect the performance or maintainability of individual components or of the overall assembly. Materials not specified herein shall be of the same quality used for the intended purpose in commercial practice. Unless otherwise specified herein, all equipment, material, and articles incorporated in the work covered by this specification are to be new and fabricated using materials produced from recovered materials to the maximum extent possible 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. Unless otherwise specified, none of the above shall be interpreted to mean that the use of used or rebuilt products are allowed under this specification.
- 3.5.1 Aluminum. Unless otherwise specified herein or on the drawings, plates, structural shapes, forgings, bolts, nuts, washers, rivets, pipe, stanchions, hangers, and fittings shall be fabricated from alloy 6061-T6 conforming to ASTM B 209, ASTM B 210, or ASTM B 211; or alloy 6061-T6 or T6511 conforming to ASTM B 221. When furnished, extruded floor gratings shall be fabricated of alloy 6063-T6 conforming to ASTM B 221. At the option of the vendor, the aluminum alloy tube may be alloy 6063-T832. When specified (see 6.2), guardrails, posts, and handrails shall be furnished with anodized finish. Floor plates, when furnished, shall be fabricated of alloy 5454 or alloy 6061 conforming to ASTM B 209, and shall be of a temper and thickness adequate to sustain, without permanent deflection, the floor test loads indicated on

drawing 1404695. The plates shall be covered with a commercially available nonslip deck coating consisting of a one-part binder combined with a nonskid grid (see 6.8).

- 3.5.2 <u>Steel</u>. When furnished, ship connections of stainless steel, including plates, hooks, bolts, nuts, and washers shall be chromium-nickel steel conforming to ASTM A 473, type 302 or 303. ASTM A 242 structural steel, ASTM A 325 bolts, nuts, washers and ASTM A 502 rivets may be substituted for stainless steel.
- 3.5.3 <u>Synthetic laminate</u>. To reduce corrosion, galvanic action between metals shall be prevented by separating dissimilar metals from each other with a non-conductor. Separation sheets 1/16-inch thick shall be provided where indicated on the drawings and may be plastic sheet conforming to MIL-P-15035 (see 6.9).
- 3.6 <u>Design and construction</u>. The design of the brows shall be as specified herein and as shown on the applicable drawings. When specified (see 6.2), truss brows shall be furnished in sections not exceeding 32 ft in length. The method of connecting the sections shall be the responsibility of the contractor. All field connections shall be designed to sustain design loading of brows.
- 3.6.1 <u>Type B, beam brows</u>. Beam brows shall have aluminum pipe handrails and floor plates except when specified (see 6.2), beam brows shall have rope handrail and extruded aluminum floor grating, or any specified combination of these components.
- 3.6.2 <u>Type T, truss brows</u>. Truss brows shall have aluminum pipe handrails and extruded aluminum floor grating.
- 3.6.3 <u>Ship connections</u>. Ship connections shall consist of bolted aluminum angles and wear plates except when specified (see 6.2), stainless steel hooks in accordance with drawing 104697 shall be provided for ship connections.
- 3.6.4 Rollers and caster wheels. Steel roller wheels shall be mounted on the shore end of each brow except when specified (see 6.2), casters shall be furnished. Bearings, pipe, plates, housings, and caster horn assemblies shall be heavy-duty type, capable of sustaining the combined dead load and floor test loads noted on drawing 1404695. Pipe rollers shall conform to the details on drawing 1404696 corresponding to the loading of the brow for which designed. Caster wheels shall be a heavy-duty commercial product designed for dead load plus live load plus safety factor, and having one or two wheels as indicated on drawing 1404696 for corresponding brow loadings. Wheels shall be mounted with bearings.
- 3.6.5 <u>Bearings</u>. Bearings shall be oil-impregnated, self-lubricating, or permanently lubricated synthetic resin construction. The rated load capacities of bearings shall be not less than the maximum combined dead and live test loads to be sustained by any individual roller or caster wheel, based on gross weights and design loadings indicated on the drawings. Bushing bearings for rollers shall be of graphite-impregnated plastic conforming to MIL-P-5431, or other low-frictional plastic, such as molybdenum disulfide filled nylon, suitable for the use and loading conditions. Low frictional plastic pillow blocks may be used when suitable.

- 3.6.6 Cleats. Cleats shall be in accordance with drawing 1404696.
- 3.6.7 <u>Nuts and bolts</u>. Nuts and bolts shall be of the size and quantity indicated on the drawings. The bolt heads and nuts shall be of the regular hexagon type. Bolts and nuts shall be aluminum-alloy conforming to 3.5.1, except where stainless steel is indicated on the drawings. Stainless steel shall conform to 3.5.2.
- 3.6.8 <u>Rope</u>. When rope handrails are provided on beam brows, they shall be 3/4-inch polypropylene rope. Rope shall be treated for mildew resistance in accordance with T-T-616.
- 3.6.9 <u>Lighting equipment</u>. When lights are specified (see 6.2), the wiring connections, accessories, and lamps shall be furnished and installed in accordance with drawing 1404725 and the National Electrical Code for weather-proof installation. Alternate lighting equipment of equivalent performance may be used when approved in advance by the contracting officer. Unless otherwise specified (see 6.2), the receptacle and switch shall be located at the shore end of the brow.
- 3.7 <u>Identification marking</u>. Identification shall be permanently and legibly marked directly on the brows or on a corrosion-resisting metal plate securely attached to the brows at the source of manufacture. Identification shall include the manufacturer's model and serial number, name and trademark to be readily identifiable to the manufacturer.
- 3.8 <u>Lifting attachments</u>. Aluminum pad eyes and lifting eyes shall be provided as detailed on the drawings.
- 3.9 <u>Workmanship</u>. The completed brows shall have a uniformly clean appearance, free from all fabrication and mill markings, smudges, and foreign materials. Handrails and all exposed surfaces and edges shall be smooth and free from sharp projections.
- 3.9.1 <u>Welding</u>. Welding procedures shall be in accordance with a nationally recognized welding code. The surface of parts to be welded shall be free from rust, scale, paint, grease, or other foreign matter. Welds shall be of sufficient size and shape to develop the full strength of the parts connected by the welds. Welds shall transmit stress without permanent deformation or failure when the parts connected by the weld are subjected to proof and service loadings.
- 3.9.1.1 Welder qualification. All welders shall be qualified for the types of welds and for the positions they are required to use in construction of the platform. Qualification shall be on the type of base material and filler utilized in actual construction or on similar alternate materials not requiring operator requalification. Welder qualification shall be performed in accordance with the applicable sections of the AWS Standard Qualification procedure. Copies of the qualification record for each qualified welder shall be kept by the manufacturer or contractor and shall be available to authorized Government inspectors. Aluminum shall not be flame cut, and weldments shall conform to the AA Manual, as applicable.

- 3.9.2 <u>Bolted connections</u>. Bolt holes shall be accurately punched or drilled and shall have the burrs removed. Washers or lockwashers shall be provided in accordance with good commercial practice, and all bolts, nuts, and screws shall be tight. Screw threads shall conform to ANSI Bl.1.
- 3.9.3 Riveted aluminum connections. When riveting is specified (see 6.2), spacing and edge distance of rivets shall conform to The Aluminum Association, Aluminum Construction Manual, Section 5. Rivet holes shall be accurately drilled to a diameter not to exceed 104 percent for cold driven rivets or 107 percent for hot driven rivets. The rivet holes shall be drilled while the structural members are clamped in their final position. Burrs and rough edges shall be removed. Heat shall not be applied in any manner which will affect the temper of the structural aluminum. Rivet heads shall be of approved shape, full, neatly made, concentric with the rivet holes, of uniform size for the same diameter rivet, and in full contact with the surface of the member. Aluminum swage-locking pins and collars in accordance with MIL-P-23469, with diameter equal to rivet diameter are acceptable in lieu of rivets. In addition, huck bilting will be acceptable as an alternative to riveting.
- 3.9.4 <u>Riveted steel connections</u>. Rivet holes shall be accurately punched or drilled and shall have the burrs removed. Rivets shall be driven with pressure tools and shall completely fill the holes. Rivet heads, when not countersunk or flattened, shall be of approved shape and of uniform size for the same diameter of rivet. Rivet heads shall be full, neatly made, concentric with the rivet hole, and in full contact with the surface of the member.

4. QUALITY ASSURANCE PROVISIONS

- 4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of 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 ensure supplies and services conform to prescribed requirements.
- 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.
- 4.1.2 <u>Component and material inspection</u>. Components and materials shall be inspected in accordance with all the requirements specified herein and in applicable referenced documents.

- 4.2 <u>Classification if inspections</u>. The inspection requirements specified herein are classified as follows:
 - a. First article inspection (see 4.2.1).
 - b. Quality conformance inspection (see 4.2.2).
- 4.2.1 <u>First article inspection</u>. The first article inspection shall be performed on brows when a first article is required (see 3.2 and 6.2). This inspection shall include the examination of 4.3 and the tests of 4.5. The first article may be either a first production item or a standard production item from the supplier's current inventory provided the item meets the requirements of the specification and is representative of the design, construction, and manufacturing technique applicable to the remaining items to be furnished under the contract.
- 4.2.2 Quality conformance inspection. The quality conformance inspection shall include the examination of 4.3, the tests of 4.5, and the packaging inspection of 4.6. This inspection shall be performed on the samples selected in accordance with 4.3.
- 4.3 <u>Examination</u>. Each brow shall be examined for defects listed in table I. Each attribute within each classification of multiple defects shall constitute one defect.

TABLE I. Classification of defects.

Classification	Defects	Requirement paragraph
Critical 1	Materials not as specified, and obviously damaged or defective affecting service-ability and reliability.	3.5-3.5.3
Major:		
101	Design and construction not as specified. Dimensions not as shown on referenced drawings. Handrails not type specified. Ship connections not stainless steel when specified. Rollers and casters not heavy duty type. Bolts and nuts not of size and quantity indicated on the drawings. Lighting equipment furnished when specified or improperly installed.	3.5-3.5.9
102	Workmanship is inferior and not as specified; handrails and all exposed surfaces not smooth and free from sharp projections; welds sparse or incomplete; holes not accurately aligned and drilled; burrs not	3.8-3.8.4

TABLE I. <u>Classification of defects</u> (continued)

Classification	Defects	Requirement paragraph
	removed; bolts, nuts, and washers not properly installed and drawn tight or not concentric with holes. Sewage-locking pins and collars not drawn tight.	
103	Lifting attachments not as specified; attachments not provided; unsuitably or awkwardly located; improperly or insecurely attached; or the design not as detailed on the drawing.	3.7
Minor: 201	Identification marking missing, incorrect, illegible, or not as specified.	3.6

- 4.3.1 <u>Visual or welds inspection</u>. In accordance with AWS D1.2, Section 6, provide AWS-certified welding inspectors for fabrication/erection inspection and testing and verification inspections. When specified (see 6.2), inspection should be used with truss welded connection. Welding inspectors shall visually inspect and mark welds, including fillet weld end returns. An inspection report shall be submitted to Government.
- 4.4 <u>Standards compliance</u>. The contractor shall make available to the contracting officer or his authorized representative evidence of compliance with the applicable standards cited in 3.5.1 and 3.5.2. The Government reserves the right to examine and test all brows to determine the validity of the certification.
- 4.5 <u>Tests</u>. The first article shall be tested as specified in 4.2.1. Each production unit shall be tested as specified in 4.2.1. Failure to pass any test shall constitute one defect.
- 4.5.1 Performance Test. Each first article brow shall be performance tested and when specified (see 6.2), a contract fabricated brow shall also be tested. Apply the test load specified on NAVFAC drawing 1404695. The brow shall be tested with the handrail removed. The load shall be applied with the brow supported at the ship and shore end in the level position. While loaded, the brow shall be moved longitudinally over a distance of 3 ft in each direction. Rollers or caster wheels shall operate freely and show no signs of jamming, binding, or distortion during or after test. Midspan deflection shall not exceed the limitation indicated on the brow drawings. Provide the Government 7 days written notice as to the time and location of the test. The Government has the option to witness the test. A written test report shall be submitted. Tests and check analysis for determining conformance to mechanical property and chemical composition requirements shall be as specified in the referenced material specifications. Check analysis for

chemical composition will be waived provided the material can be identified as having been produced under acceptable chemical composition control procedures and provided further that each length is marked to indicate the alloy designation and the producer.

- 4.5.2 <u>Lifting attachment tests</u>. When lifting attachments are required, they shall be tested in accordance with applicable drawings (see 3.8).
- 4.6 <u>Packaging inspection</u>. The inspection of the preservation, packing, and marking shall be in accordance with the requirements of Section 5. The inspection shall consist of the quality conformance inspection; and, when specified (see 6.2), a preproduction pack shall be furnished for examination and test within the time frame required (see 6.2).

5. PACKAGING

5.1 <u>Preservation</u>. The preservation shall be level A or commercial, as specified (see 6.2).

5.1.1 <u>Level A</u>.

- 5.1.1.1 <u>Disassembly</u>. Disassembly shall be the minimum needed to safeguard parts and assemblies vulnerable to pilferage, damage, and loss; to accomplish reduction in cube; and to meet carrier limitations of height, width, and weight. Removed nuts, screws, pins, and washers shall be installed in mating parts and secured to prevent loss. Gaskets and related items shall be individually preserved method IC or III and placed in the toolbox or packaged with other removable parts. Keys shall be secured in keyways of the primary components, attached with shipping documentation, or packaged separately. Disassembly should be limited to parts and components easily removed and installed using no special tools or skilled personnel. Disassembly required to preserve equipment components shall be the minimum necessary to perform preservation.
- 5.1.1.2 <u>Lighting equipment</u>. The lighting equipment shall be packaged in accordance with MIL-P-116, method III, in close-fitting boxes conforming to PPP-B-636, class weather-resistant.
- 5.1.1.3 <u>Consolidated packaging</u>. Rope, lighting equipment, and any other small disassembled part shall be packaged in close-fitting boxes conforming to PPP-B-621, class 2; or PPP-B-601, overseas type. The contents shall be blocked and braced to prevent movement within the boxes. The dimensions of the boxes shall be determined to the most practicable extent by the available space and convenience for placing and securing the boxes on the bundled brows.
- 5.1.2 <u>Commercial</u>. The complete brows shall be preserved and packaged in accordance with the supplier's standard practice.
- 5.2 <u>Packing</u>. The packing shall be level A or commercial, as specified (see 6.2.)
- 5.2.1 <u>Level A</u>. The brows, metal handrails, and stanchions shall be bundled in secure lifts not to exceed 3,000 pounds each. The items shall be nested, arranged, and secured with bolts or steel straps, or a combination of both, to form compact nonshifting bundles. Suitable wood blocking shall be used as

required under strapping to eliminate large voids or irregular shaped bundles. Strapping shall be 0.035 by 1-1/4-inch flat steel conforming to A-A-880, heavy duty, grade optional, with finish galvanized in accordance with Government grade stapled to any wood blocking provided. The boxed components (see 5.1.1.3), shall be positioned and secured to the bundles by strapping in such a manner as not to increase cubage unnecessarily or interfere with lifting of the bundles.

- 5.2.2 <u>Commercial</u>. The complete brows shall be prepared for shipment to ensure arrival at destination in satisfactory condition. Packing and containers shall conform to applicable carrier rules and regulations.
- 5.3 <u>Marking</u>. Packages, boxes, and bundles shall be marked in accordance with MIL-STD-129.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

- 6.1 <u>Intended use</u>. Aluminum brows are intended to be used as gangplanks for boarding and leaving a ship at a pier.
- 6.2 <u>Acquisition requirements</u>. Acquisition documents should specify the following:
 - a. Title, number, and date of this specification.
 - b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
 - c. Type, width, and span of brow required (see 1.2).
 - d. When a first article is required for inspection and approval (see 3.2, 4.2.1).
 - e. When guardrails, posts and handrails shall be furnished with anodized finish (see 3.5.1).
 - f. When type II brow sections shall not exceed 32 feet in length (see 3.6).
 - g. When type I brows shall have rope handrails or grating floors (see 3.6.1).
 - h. When ship connections shall consist of stainless steel hooks (see 3.6.3).
 - i. When shore end fittings shall be casters (see 3.6.4).
 - j. When lights are to be furnished (see 3.6.9).
 - k. When receptacle and switch shall be located at the ship end of the brow (see 3.6.9).
 - 1. When riveted or welded connections are required for truss brow connections (see 3.9.1 and 3.9.3).
 - m. When welding inspection is required (see 4.3.1).
 - n. When load testing is required (see 4.5.1).
 - o. When a pre-production pack and a time frame are required (see 4.6).
 - p. Level of preservation, and level of packing required (see 5.1 and 5.2).

- 6.3 <u>Data requirements</u>. When this specification is used in an acquisition and data are required to be delivered, the data requirements should be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved Contract Data Requirements List (CDRL), incorporated into the contract. When the provisions of DoD FAR Supplement, Part 27, Sub-Part 27.410-6 (DD Form 1423) are invoked and the DD Form 1423 is not used, the data should be delivered by the contractor in accordance with the contract or purchase order requirements.
- 6.4 <u>First article</u>. When a first article inspection is required, the item will be tested and should be a first article brow, or it may be a standard production item from the contractor's current inventory as specified in 4.2.1. The first article should consist of one unit. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examination, test, and approval of the first article.
- 6.5 <u>Definitive specification part number</u>. The specification part number is a definitive part number which corresponds to the type, width, and span of brows covered by this specification and defines the requirements of the options presented under this specification. The specification number, and the type, width, and span code numbers are combined to form the definitive specification part number.
- 6.5.1 <u>Cataloging data</u>. For cataloging purposes, part numbers for the brows are assigned as follows:

·	M22342	-	01	-	01	-	01
	1		-		1		-
Specification part number	1		1		- 1		- 1
Type code number (see 6.5.2)			1				
Width code number see 6.5.3)							- 1
Span code number (see 6.5.4)							_

6.5.2 <u>Types</u>. The types of the brow (see 1.2) are identified by a two-digit number (see table II).

TABLE II. Code number to type.

6.5.3 <u>Widths</u>. The widths of the brow (see 1.2) are identified by a two-digit number (see table III).

TABLE III. Code number to width.

1				
ĺ	3 f	t -	01	
j	4 f	t -	02	
İ	5 f	t -	03	
1				

6.5.4 <u>Spans</u>. The spans of the brow (see 1.2) are identified by a two-digit number (see table IV).

TABLE IV. Code number to span.

			_
			١
ft	-	01	١
ft	-	02	١
ft	-	03	ĺ
ft	-	04	Ì
ft	-	05	Ì
ft	-	06	Ì
ft	-	07	İ
ft	-	80	ĺ
ft	-	09	İ
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- 6.6 <u>Drawings</u>. It should be noted that certain details common to all brows are shown on drawings 1404695, 1404696, 1404697, and 1404725.
- 6.7 <u>Test waiver</u>. The contracting officer may waive the load test when the contractor has previously furnished and tested identical brows in compliance with this specification.
- 6.8 Non-slip deck coating. Devcon Floor Grip or 3M Scotch-Clad may be used to satisfy the requirements of 3.5.1.
- 6.9 <u>Synthetic laminate</u>. Nylatron-GS may be used to satisfy the requirements of 3.5.3.
 - 6.10 Subject term (key word) listing.

Gangplanks Gangways

6.11 <u>Changes from previous issue</u>. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodian:

Navy - YD

Preparing activity: Navy - YD

User activity:

Army - ME

Project No. 2090-0091