MIL-W-20096D
6 July 1987
SUPERSEDING
MIL-W-20096C
16 May 1962
(See 6.4)

MILITARY SPECIFICATION

WEIGHT, BALLAST

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

1. SCOPE

1.1 Scope. This specification covers ballast weights used to ballast ships.

1.2 Classification. Ballast weights shall be of the following types, as specified (see 6.2):

Type A - Lead.
Type B - Iron.
Type C - Concrete aggregate.

2. APPLICABLE DOCUMENTS

2.1 Government documents. (Not applicable)

2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DoDISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

UNIFORM CLASSIFICATION COMMITTEE AGENT
Uniform Freight Classification Ratings, Rules and Regulations

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

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, SEA 55Z3, Department of the Navy, Washington, DC 20362-5101 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 2040

(Nongovernment standards and other publications are normally available from the organizations which prepare or which 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 Material. Material shall be as specified hereinafter.

3.1.1 Recovered materials. Unless otherwise specified herein, all material incorporated in the products covered by this specification shall be new and may 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 Cleanliness. Weights shall be clean and reasonably free from adhering foreign matter.

3.3 Weight and dimensions. Unless otherwise specified (see 6.2), weight and dimensions shall be in accordance with table I.

TABLE I. Weight and dimensions.

Type	Dimensions, approximate	Weight, approximate
	Inches	Pounds
A	3-1/8 by 3-1/8 by 14	50 to 60
B	4 by 4 by 10	48
C	4 by 8 by 18	67
	8 by 8 by 9	67
	6 by 8 by 18	106
	1/ 6 by 24 by 24	400

1/ Suitable inserts for handling shall be provided.

3.4 Variation of density. Permissible variation of density and size of weight shall not exceed plus or minus 5 percent.

3.5 Type A, lead. Type A weights shall be made from lead and shall have a minimum density of 700 pounds per cubic foot.

3.6 Type B, iron. Type B weights shall be made from iron scrap which, due to contamination by tin, copper and so forth is unsuitable for more important purposes, and shall have a minimum density of 425 pounds per cubic foot.

3.7 Type C, concrete aggregate. Type C weights shall be made from inorganic material that, when formed, shall have a minimum compression strength of 2,500 pounds per square inch and a minimum density of 200 pounds per cubic foot. Blocks shall be resistant to crumbling in handling.

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 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 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 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 in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.2 Sampling.

4.2.1 Lot. All weights of the same type offered for delivery at the same time shall be considered a lot.

4.2.2 Sampling for examination. A random sample of weights shall be selected from each lot in accordance with table II for the examination specified in 4.3.

TABLE II. Sampling for examination.

Number of weights in lot	Number of weights in sample	Acceptance number (defectives)	Rejection number (defectives)
40 and under	3	0	1
41 to 110	5	0	1
111 to 300	7	0	1
301 to 500	10	0	1
501 to 800	15	1	2
801 to 1,300	25	1	2
1,301 and over	35	2	3

4.2.3 Sampling for density test. A random sample of weights shall be selected from each lot in accordance with table III, and shall be tested as specified in 4.4.

TABLE III. Sampling for density test.

Number of weights in lot	Number of weights in sample
110 or under	2
111 to 500	3
501 to 1300	5
1301 and over	7

4.3 Examination. Sample weights selected in accordance with 4.2.2 shall be examined and weighed to verify conformance to the requirements of this specification. Any weight in the sample containing one or more defects shall be rejected, and if the number of defective weights in the sample exceeds the acceptance number for that sample, the lot represented by the sample shall be rejected.

4.4 Density test. Sample weights selected in accordance with 4.2.3 shall be checked for density to determine conformance to the requirements of this specification. Any sample weight which does not meet the requirements for that sample shall cause rejection of the lot represented by the sample.

4.5 Inspection of packaging. Sample packages and packs, and the inspection of the preservation-packaging, packing and marking for shipment and storage shall be in accordance with the requirements of section 5 and the documents specified therein.

5. PACKAGING

(The packaging requirements specified herein apply only for direct Government acquisition.)

5.1 Packing. Material shall be packed in a manner which will insure acceptance by common carrier and safe delivery at destination. Containers or method of shipment shall conform to the Uniform Freight Classification Rules or other carrier regulations as applicable to the mode of transportation.

5.2 Marking. In addition to the marking required by the contract or order, units or pallets, as applicable, shall be tagged or marked with the stock number, quantity or pallet, name of the contractor and the contract or purchase order number.

6. NOTES

6.1 Intended use. Weights covered by this specification are intended for use as ships' ballast.

6.2 Ordering data. Acquisition documents should specify the following:

(a) Title, number, and date of this specification.
(b) Type required (see 1.2).
(c) Dimensions and weight (see 3.3).

6.3 Subject term (key word) listing.

Concrete
Iron
Lead

6.4 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:
Army - ME
Navy - SH

Preparing activity:
Navy - SH
(Project 2040-0172)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
MIL-W-20096D	WEIGHT, BALLAST

3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION *(Mark one)*
	☐ VENDOR
	☐ USER
b. ADDRESS *(Street, City, State, ZIP Code)*	☐ MANUFACTURER
	☐ OTHER *(Specify)*: _____

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*

DD FORM 82 MAR 1426 PREVIOUS EDITION IS OBSOLETE.

(TO DETACH THIS FORM, CUT ALONG THIS LINE.)