



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

IN REPLY REFER TO

NAVSEAINST 9085.1
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NAVSEA INSTRUCTION 9085.1

From: Commander, Naval Sea Systems Command

TO: All Offices Reporting Directly to COMNAVSEA
Distribution List

Subj: NAVSEA Standard and Type Drawings; preparation, distribution, and
revision of

Ref: (a) NAVSEA 0900-LP-9010; Ship Work Breakdown Structure (SWBS)
(b) DOD-D-1000; Drawings, Engineering, and Associated Lists
(c) DOD-STD-100; Engineering Drawing Practices
(d) Drawing, NAVSEA No. 803-5000913, Format Standard and Type
Drawings
(e) DOD-STD-1690; Maritime Metric Practice Guide

1. Purpose. To provide requirements for the preparation, distribution,
and revision of NAVSEA Standard and Type drawings.

2. Definitions

a. Standard drawing. A NAVSEA headquarters-controlled drawing
identified as a "Standard Drawing" which delineates arrangements or details
of systems, equipment, or components. No departure from a standard drawing
is permissible without specific approval.

b. Type drawing. A NAVSEA headquarters-controlled drawing identified
as "Type Drawing" which delineates or illustrates design features of
systems or components. No departure from any feature stated to be
mandatory is permissible without prior specific approval. The illustrative
features are subject to detail design development.

3. Background

a. NAVSEA Standard and Type drawings are standardized series approved
by NAVSEA headquarters and administered by Portsmouth Naval Shipyard as
indicated in paragraph 4. Distribution is made to all naval activities
engaged in ship construction, overhaul, repair, and maintenance. An
updated index is distributed periodically.

b. Standard and Type drawings are one of the primary means of
communicating NAVSEA engineering requirements to our contractors.
Therefore these drawings must be maintained current. Investments of time
and funds in improving these drawings will pay significant financial and
manpower dividends in the long term, as ship designs using these drawings
go into production.

4. Requirements

a. Drawing format

(1) A drawing to be designated as "Standard" or "Type" must be originated by, or prepared for, a cognizant NAVSEA code and designated 803 (Standard) or 804 (Type), in accordance with reference (a). These SWBS numbers are reserved for NAVSEA Standard and Type drawings approved and issued by headquarters. No other use of these two SWBS numbers is authorized.

(2) Drawings shall conform to references (b), (c), and (d). Drawings shall be size F.

(3) When industry products that meet Navy requirements are provided in metric, new Standard and Type drawings shall be entirely in the metric system in accordance with reference (e). No Standard or Type drawings shall be dual dimensioned. If appropriate, a conversion table may be included on the drawing. Metric dimensions shall be rounded to the same degree of exactness as the original inch-pound units, unless a standard metric size has been established.

(4) Assurance shall be made that the title accurately reflects the contents of the drawing and that the first word is the noun name of the item covered (for example: Door, Watertight, _ _ ; Valve, Globe, _ _).

(5) Type drawings shall include appropriate notes and asterisks to indicate any mandatory requirements.

(6) Original tracings shall be checked to assure suitable quality for microfilming (e.g., proper legibility, contrast, and size of lettering).

b. Drawing revision

(1) Multi-sheet drawings shall contain a "Revision Status of Sheets" block on Sheet 1. The Revision Status Block shall list the individual revision letter of each sheet. The following requirements apply to revisions:

(a) Sheet 1 shall have the highest revision letter of the set and must be revised every time any succeeding sheet is revised.

(b) Each individual sheet revision letter shall be changed only when there is a revision to that sheet. The revision letter shall be updated to the highest revision letter applicable to that sheet, which may then be different from the Sheet 1 revision letter. (Ex: Drawing 803-5170438 Rev. G; SHT 1-REV G, SHT 2-REV C, SHT 3REV B, SHT 4-REV C.)

(c) The "revision status of sheets" block on Sheet 1 shall show which sheets have been revised, added, or cancelled for each revision letter.

(d) When a sheet is deleted or cancelled, the original of the cancelled sheet shall have a statement "This sheet cancelled by REV _____" added above the title block. Later issues of the drawing need not include this sheet.

(e) Drawing sheets shall not be renumbered and new sheets shall be given the next available consecutive sheet number.

(2) Many of the Standard and Type drawing designators are still in the former 9000 and "9S" series. Previously-used 9000 and "9S" series designators and previous Consolidated Index designators 805, 810, 815, and 820 are changed to 803 or 804, as appropriate, when drawings are revised for any reason. Existing drawings which may have been inadvertently issued with 803 or 804 numbers, but were not processed in accordance with the above procedures, shall be submitted to the NAVSEA Specifications Control Board for validation (or, possibly, for determination that they should not be Standard or Type drawings).

(3) Drawings with numbers under 5,000,000 shall either retain NAVSHIPS/BUSHIPS title block and FSCM identification number 80064 or retain NAVORD/BUWEPS title block and FSCM identification number 10001.

(4) Drawings with numbers 5,000,000 and above shall have FSCM identification number 53711.

(5) The revision space in the title block for initial issue of a new drawing shall be left blank. The letter A is used for the first revision. The letters I, O, Q, and S are not used as revision letters.

(6) All changes applicable to the specific revision shall be described briefly in the "Description" column of the revision block. Approval and authority for each revision shall be included in this block.

c. Materials requirements. The following rules shall be followed in specifying materials:

(1) Dissimilar metals shall not be in contact with each other, especially for items that are exposed to the weather.

(2) Lubricants shall be selected from the standard lubricants listed in MIL-HDBK 267.

(3) Cadmium plating and asbestos shall not be used.

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(4) Industry standards shall be used in lieu of military and federal specifications when the industry standard meets Navy requirements.

(5) A brand name shall not be used to specify an item if an industry, federal, or military specification or standard can be used. If the use of a brand name is unavoidable, the words "or equal" shall immediately follow the brand name.

d. References

(1) Do not reference the General Specifications for Ships of the U.S. Navy.

(2) Assure that all references are necessary to an understanding of the drawing.

(3) All references shall be to standard, readily available documents, such as Federal or Military Specifications, Standard or Type drawings, or Industry Standards.

(4) Do not reference specific issues of documents.

e. Drawing cancellation. NAVSEA Standard and Type drawings shall be cancelled and superseded in accordance with the following procedure:

(1) For cancelled drawings, mark "cancelled," or "superseded by," on the tracing and request Portsmouth Naval Shipyard (Code 202.2) to issue a "cancellation" or "superseded" card and revise the index.

(2) For drawings retained only for repair or replacement of existing equipment, mark drawings "NOT TO BE USED FOR NEW CONSTRUCTION" and forward to Portsmouth Naval Shipyard (Code 202.2).

f. Review, approval, and issue. The following procedures shall be followed for handling and distribution of Standard and Type drawings:

(1) The cognizant NAVSEA code circulates the drawing to interested activities within and outside the Command for review and comments. Comments are adjudicated by the cognizant technical code.

(2) The drawing is presented to the Specifications Control Board by the NAVSEA cognizant code. Drawing revisions should preferably be submitted in the form of a marked-up print of the then current drawing. Final changes to the tracing are not made until after the Board's recommendation for issue. New drawings shall be the final print.

(a) After recommendation for issue by the Board, new drawings are assigned a NAVSEA drawing number (issued only by NAVSEA Engineering Standards Division, SEA 55Z), dated, and signed.

(b) Revised drawings are initialed and dated in the revision block and the appropriate revision letter entered in the title block. This procedure is followed only after the NAVSEA Specifications Control Board approval. Revision date must be clearly shown.

(3) The signed and dated drawing (original) is sent to Portsmouth Naval Shipyard (Code 202.2) for microfilming, indexing, and distribution in accordance with the established Standard and Type drawing distribution list. A copy of the forwarding letter shall be sent to SEA 55Z.

(4) Following distribution of microfilm, Portsmouth Naval Shipyard returns the original tracing to the cognizant NAVSEA code or shipyard custodian as directed by the NAVSEA transmittal letter.

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