

COMSCINST <b>9000.2A</b>	COG CODE <b>N71</b>	DATE <b>25 SEP 1981</b>
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**DEPARTMENT OF THE NAVY**  
COMMANDER MILITARY SEALIFT COMMAND  
WASHINGTON NAVY YARD BLDG 210  
901 M STREET SE  
WASHINGTON DC 20398-5540

COMSCINST 9000.2A  
M-4E4  
25 September 1981

COMSC INSTRUCTION 9000.2A

Subj: Engineering Drawing (Plans) and Charts to be carried aboard MSC nucleus fleet ships

Encl: (1) List of drawings for MSC nucleus fleet ships

1. Purpose. To provide guidance for determining those engineering drawings to be carried aboard MSC ships.

2. Cancellation. COMSCINST 9000.2.

3. Action

a. Each cognizant administrative command will ensure that all necessary drawings are aboard each ship under its command. Enclosure (1) shall be used as a guide.

b. As received drawings aboard ex-USS fleet support ships will be considered satisfactory and will not be modified to conform to enclosure (1).

c. Ship's force shall not use the Ship's Drawing Index (SDI) as a check off list for the sole purpose of obtaining a complete set of all drawings listed therein. If experience in service indicates the need for certain additional plans, they may be requested from appropriate MSC administrative command.

"Signed"  
W. C. HAMM, Jr.  
Deputy

Distribution:

SNDL 41B (MSC area commanders) (less FE) (50)  
41B (MSC area commanders) (FE only) (10)

**LIST OF DRAWINGS FOR MSC NUCLEUS FLEET SHIPS**

1. Drawings and Charts for mounting. One (1) "Metal Photo" graphic lamocoid or equal chart of each of the following drawings of the ship as actually constructed shall be provided and mounted in suitable locations in the ship or applicable operating stations:
  - a. Heating, ventilation, and air conditioning diagrammatic arrangement and instructions (to be posted in fan rooms)
  - b. Gyro compass and gyro pilot arrangement, wiring diagram, and instructions (to be posted in Master Gyro Room and Pilot House)
  - c. Refrigerated cargo temperature recording system, location of resistance thermometer bulbs
  - d. Instructions for cold ship starting (installed in emergency generator room and engine room)
  - e. One line diagram of ship's electric power and lighting distribution system
  - f. Fire fighting and fire control systems (diagrammatic) including hose station markings and hose sizes.
  - g. Fire extinguishing and smoke detection systems (diagrammatic)
  - h. Bilge system (diagrammatic)
  - i. Ballast systems (diagrammatic)
  - j. Cargo oil system (diagrammatic)
  - k. Fuel oil transfer system (diagrammatic)
  - l. Tank oil transfer system (diagrammatic)
  - m. Fire main system (diagrammatic)
  - n. Steering gear, arrangement, wire diagram and operating, lubrication, and emergency change-over instructions (to be posted in Steering Gear Room)
  - o. Mooring winches, operating instructions

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- p. Main and emergency switchboards, detail wiring diagrams
- q. Instructions for operating emergency generator (to be mounted in emergency generator room)
- r. Lifeboat operating instructions
- s. Hatch cover, operating instructions
- t. Container crane, revolving crane, and/or heavy lift boom operating and maintenance instructions

Fire Control Display Plans shall be mounted within ready access to all ship's personnel.

Three prints of the Capacity Plan (with deadweight scale) shall be furnished and mounted in passageways as directed.

2. Drawings for filing aboard ship. Except as noted, one (1) blueprint of each drawing folded individually in accordion fashion to 9 x 15 inch size with the title block showing, shall be placed aboard each ship prior to delivery. Plans to be filed aboard ship shall be comprised of the following:

a. Hull. Selected set of principle hull structural and arrangement drawings as designed by COMSC from the Contractor's Plan Schedule. As a minimum, this set shall consist of:

- (1) Booklet of General Plans (2 copies)
- (2) Midship and Typical Sections
- (3) Outboard Profile
- (4) General Arrangement
- (5) Inboard Profile
- (6) Shell Expansion
- (7) Capacity Plan (5 copies)
- (8) Docking Plan (2 blueprint copies and 1 rolled reproducible)

- (9) Stern Tubes
- (10) Stem
- (11) Stern Frame
- (12) Rudder and Stock
- (13) Arrangement of Rigging with operating instructions in booklet form
- (14) Body Plan showing sight edges and shell traces
- (15) Deck plating
- (16) Inner bottom plating
- (17) Main bulkheads, transverse and longitudinal
- (18) Framing and floors
- (19) Tank Calibration and Sounding Tables
- (20) Compartment Testing Plan
- (21) Location of safety devices
- (22) Side and stern doors, side and stern ramps (as applicable)
- (23) Register of Cargo Gear (2 copies)
- (24) Stability Test Report
- (25) Trim and Stability Booklet (2 copies)
- (26) Paint Schedule

b. Machinery

(1) A complete set of all principle design, arrangement, and construction plans and some detail plans (to be selected by COMSC from contractor's plan schedule). As a minimum, this set shall be comprised of:

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- (a) Arrangement plans of machinery, elevations, and sections
- (b) Arrangement and details of shafting, stern tube, and bushings, including diagram of shafting removal and shafting calculations.
- (c) Propellers (design and detail plans)
- (d) Propulsion heat balance diagrams (port, normal power, and maximum design power)
- (e) Diagrammatic and arrangement plans of:
  - 1. Heating, ventilation, air conditioning systems (including piping, list of fans, heaters, coils. etc.) and chill water piping system.
  - 2. Lubricating oil system
  - 3. Bilge and clean ballast system
  - 4. Fuel oil bill, transfer, and oily ballast system
  - 5. Feed, condensate, air ejector, and feed vent and drain systems
  - 6. Fire and sanitary system (and foam if separate system on drawing)
  - 7. Fresh water systems
  - 8. Main and auxiliary salt water circulating system
  - 9. Weather deck drains, plumbing drains, and soil drains
  - 10. Sounding tubes and vents or air escapes
  - 11. Steam (main steam, superheated, auxiliary, reduced, gland seal, desuperheated) exhaust and steam drain systems
  - 12. Valve operating gear
  - 13. Compressed air system
  - 14. Fuel oil system, purification and treatment

15. Evaporator system
16. Refrigeration system
17. Telemotor system
18. Sewage system
19. Automation control system
20. Impressed current (CAPAC) system
21. CO2 system
22. Butterworth system
23. Liquid cargo systems
24. Controllable pitch propeller
25. Bow thrusters
26. Diesel exhaust system

(2) Two copies of Hull, Machinery and Electrical Ship Test Reports and one (1) copy of the preliminary Report of Sea Trials.

(3) Two loose leaf bound reduced scale copies of piping diagrams, including both Hull and Engineering Systems (unless included as part of Engineers Operating Manual).

(4) List of machinery and equipment nameplate data, including serial numbers for hull and engineering equipment.

(5) Lubricating oil and grease schedule.

c. Electrical. A complete set of principle electrical installation plans, as designated by COMSC from the contractor's plan schedule. As a minimum, this set shall comprise of:

(1) One-line wiring diagram, electric power and lighting system.

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(2) All electric deck arrangement plans for power, lighting, and interior communications systems and associated cable lists.

(3) Electric load analysis of all generating systems

(4) Fault current analysis of the electrical system.

(5) List of motors and controllers giving HP and RPM, type, speed variation, and other pertinent data (unless part of EOM)

(6) Elementary wiring diagram of all electrical control circuits.

(7) Diagrammatic of interior communication system

(8) Diagrammatic of navigation light circuits

(9) Manufacturer's wiring diagram and nameplate lists for each control box (to be mounted on inside of control box cover)

d. Electronic. A complete set of principle electronic installation plans, as designated by Commander, Military Sealift Command from the Contractor's plan schedule. As a minimum, this set shall comprise of:

(1) Antenna arrangement

(2) One-line drawing of entire electronic systems

e. Some of the above-mentioned items may be supplied in Technical Manual form.