

274. I. Sewage Retention - Amidship House

Furnish labor and material required to modify the existing sewage overboard discharge system to add two (2) sewage holding tanks in the amidship square, one port and one starboard. The system is to be complete with tank level and alarm system, saltwater wash down system, and tank self-drainage system (one system per tank). The modified sewage handling system is to be capable of going overboard or to a holding tank.

Modify the sewage piping to collect only black water. Insure that all newly installed drain lines are properly sloped (at least 1/4" drop per foot of pipe run). All new piping is to be extra strong galvanized.

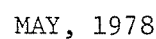
Fabricate and install two 1,000 gallon holding tanks (approximate size 4'25. x 5' x 6'6 - see attached sketch) in the amidship square (one port and one starboard). Each tank is to have smooth interior with no internal framing (external framing for strengthening). They are to be shaped so as to allow last gallon drainage. Interiors are to have surface preparation of white metal blast (SS SA3), then apply two (2) coats of rust ban 6692 black coal tar epoxy or equal 8 MDFT each coat (16 MDFT total). Exterior of tank and foundation are to have surface preparation of white metal blast (SS SA3), they apply one (1) coat rust ban 191 or equal 4 MDFT, one (1) coat rust ban 6259 or equal 1 MDFT, and one (1) coat rust ban AK6403 or equal 2 MDFT. The tank shall be constructed with a suitable manhole access centered over the suction penetration. Furnish and install a 4" drain system from the tank to overboard scupper. Supply and install piping and valve. A 2 1/2" vent system is to be incorporated from each tank to a suitable location above deck.

Install a tank level and alarm system for each tank to alarm in the ship's cargo office and indicate tank level. Level switches are to be DeLaval, Gems Single Station Liquid Level Switches - series LS1950. The level switches are to indicate when the tanks are 3/4 full.

Install a saltwater spray-down system in each holding tank supplied from the ship's saltwater service system. The spray-down system is to consist of one (1) 6353-3/8-22 (stainless steel) nozzle per tank. Also install a backflush line to the tank drain suction tail piece, from the ship's saltwater service system.

Develop piping layout, design details, and equipment purchases. Provide engineering services to produce drawings and obtain approvals from USCG, ABS, USPHS, owners and others as required. Approval is to be obtained in the final drawings for all revisions or modifications. After completion, prove operation to satisfaction of all concerned.

EXXON GETTYSBURG - AHIOSHIP SEWAGE RETENTION - ~~EXISTING~~ ———
PORT FWD 4 IC STARBOARD FWD 4



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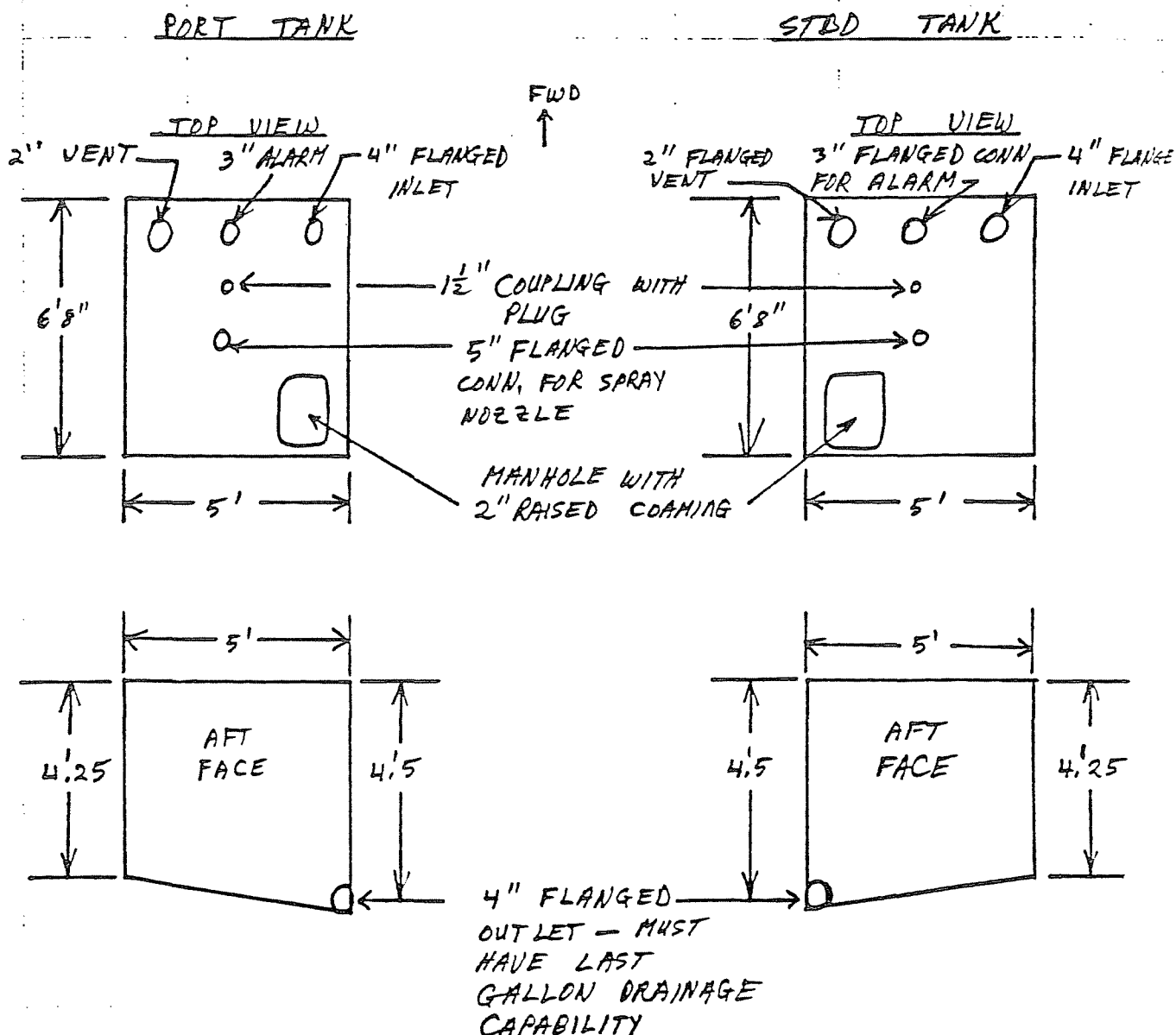
STARWIND FLD 7



EXX-MOR-010658

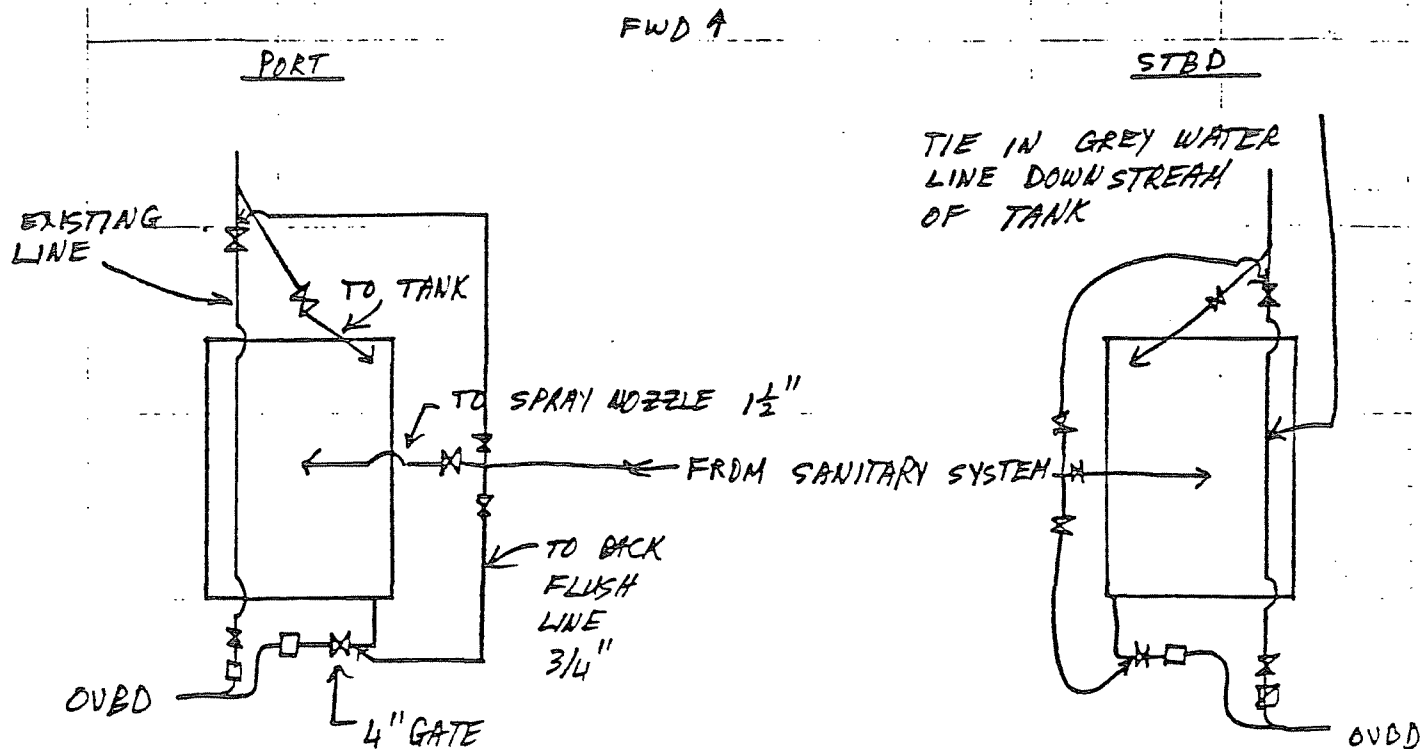
EXXON GETTYSBURG 1978 SHIPYARD SPECIFICATIONS - AMENDED 1
6/2/78

SEWAGE RETENTION TANKS - AMIDSHIP HOUSE

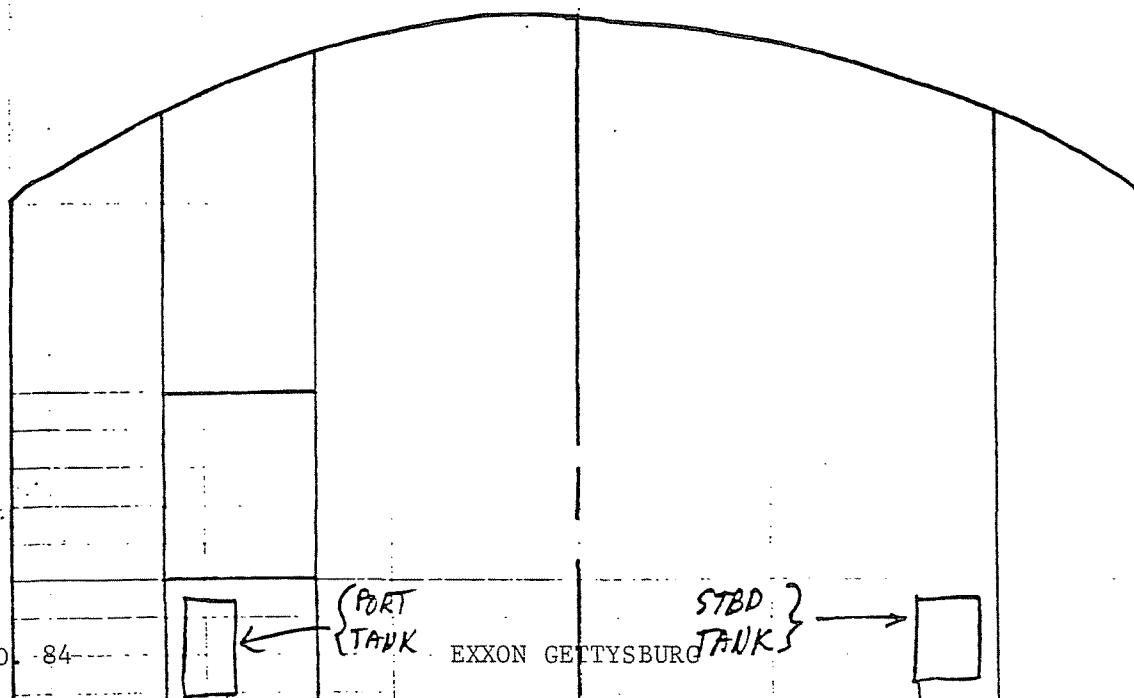


NOTE: TANK IS TO HAVE EXTERNAL STIFFENING - ALL SMOOTH INTERIOR SURFACES

EXXON GETTYSBURG - 1978 SHIPYARD SPECIFICATIONS (2)
 SEWAGE TANKS - AMIDSHIP - AMENDED 6/2/78



TANK ORIENTATION



SHEET NO. 84

EXXON GETTYSBURG

MAY, 1978

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III. Cargo Manifold Modification

Provide labor and material to modify the port and starboard cargo manifolds in accordance with the attached sketch. Only line A is to be altered. Spacing is to be as follows:

A ₁ to A ₂	4'6"
A ₂ to B ₁	2'

Remove two existing cargo line Y-connections (A port and A starboard), and furnish and install two (2) new cargo line Y- connections. Remove the existing spool reduction pieces from these Y-connections, and install them in the same sequence on the new Y-connections. Each new Y is to be properly supported and tied to the existing stripper line(s). A centrally located 1-1/2" drain line and ball valve are to be furnished and installed with each new Y. The drain line is to allow drainage from the cargo line to the collection pan.

Furnish and install a 2-1/2' extension to the forward side of the existing drip pan, port and starboard. Support as needed.

Provide engineering services to develop details, produce drawings, and obtain approvals from USCG, ABS, owners and others as required. All final drawings are to have approval from all concerned. After completion of work, prove to satisfaction of owners and others as required.

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STARBOARD CARGO MANIFOLD - EXISTING (———)
 PORT IS MIRROR IMAGE NEW PIPING (---->)

FWD ↑

