



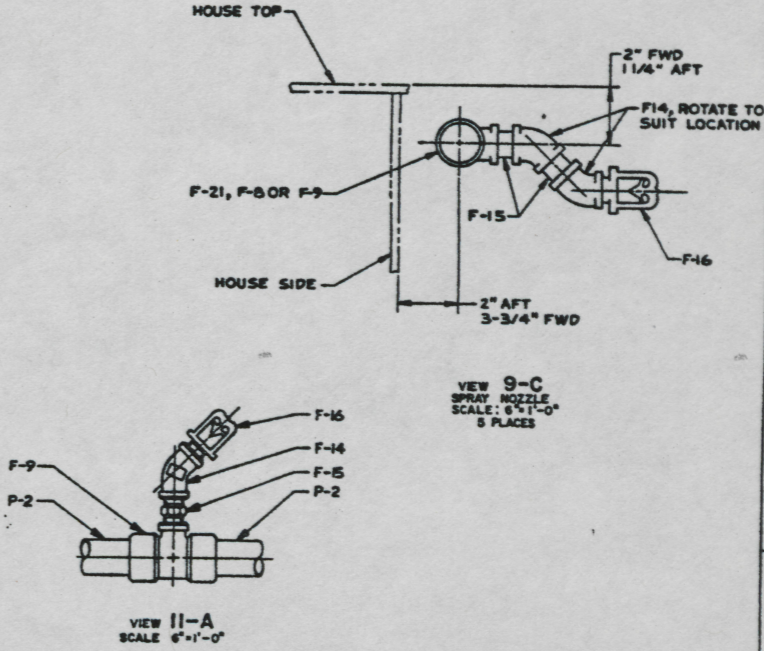
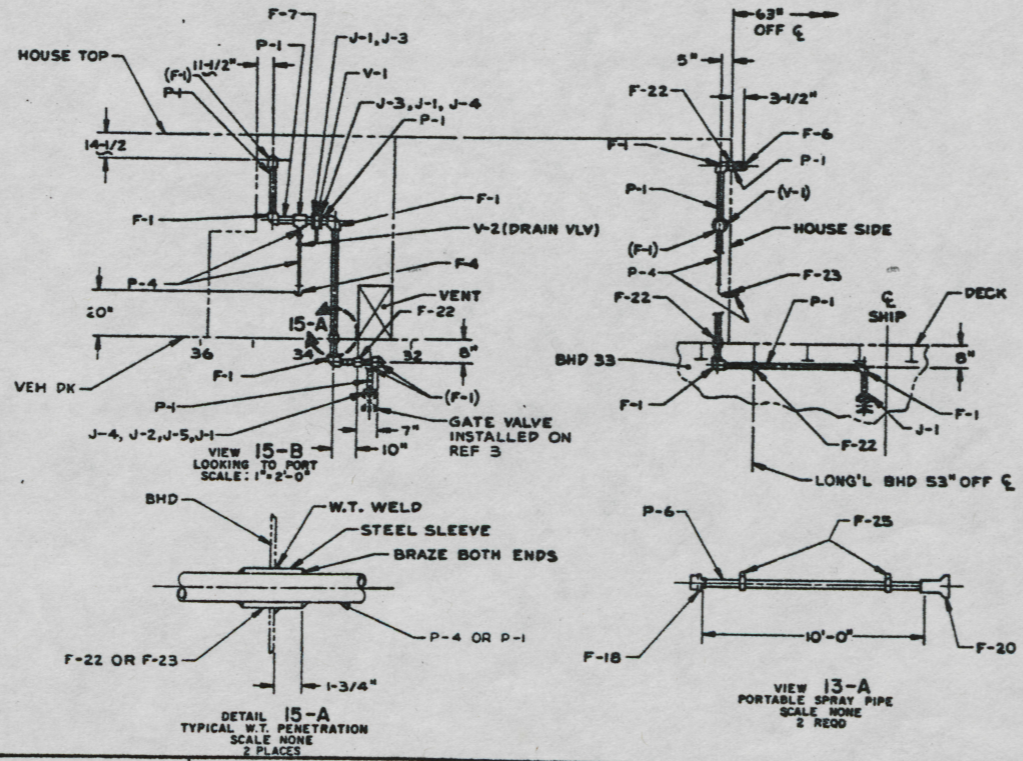
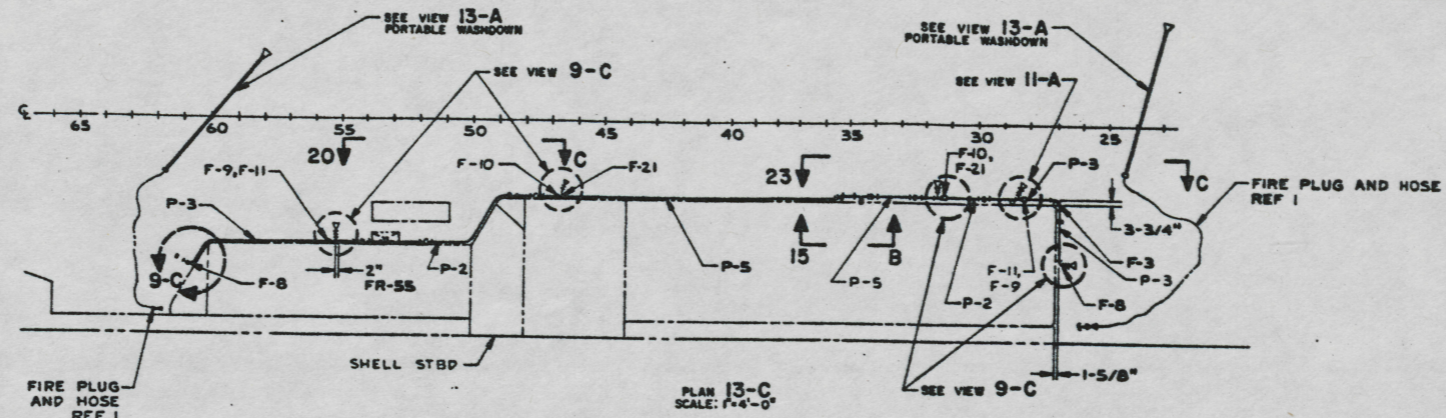
NOTES:

1. LOCATION AND QUANTITY OF COUPLINGS, FWD NO. 13, 17 AND 20, AS REQUIRED.
2. WELDING AND BAZING REQUIREMENTS SHALL BE IN ACCORDANCE WITH NAVSEA STANDARD ITEM NO. 000-19.
3. TEMPLATE ALL WORK FROM LCU AND EQUIPMENT.
4. EQUIPMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH USCG AND ABS REGULATIONS.
5. CONNECTIONS, BULKHEAD AND DECK SHALL BE IN ACCORDANCE WITH NAVSEA 010-210001.
6. REPAIR ALL PAINT DAMAGED BY THIS INSTALLATION AND PAINT ALL NEW STEEL IN ACCORDANCE WITH U.S. ARMY TECHNICAL BULLETIN TM43-0100.
7. MATERIAL ORDERED ON THIS DRAWING IS NOT INTENDED TO BE RESTRICTIVE. SUBSTITUTION OF EQUAL QUALITY MATERIAL MAY BE MADE.
8. SLIGHT DEVIATIONS FROM DIMENSIONS SHOWN ARE PERMISSIBLE TO SUIT ACTUAL CONDITIONS FOUND ABOARD THE VESSEL.
9. PIPING SHALL BE SUITABLY SECURED BY PIPE HANGERS TO PREVENT VIBRATION AND PROTECT AGAINST DAMAGE IN ACCORDANCE WITH NAVSEA 006-1200701.
10. COMPONENTS SHOWN BY SOLID, HEAVY LINES ARE NEW, ORDERED AND INSTALLED IN ACCORDANCE WITH THIS DRAWING. LIGHT, BROKEN OR PHANTOM LINES INDICATE COMPONENTS EXISTING OR ORDERED ON AND INSTALLED BY DRAWINGS REFERENCED AS NOTED.
11. FWD NO. F-10 AND F-20 CAN BE PURCHASED FROM:
ROCKWOOD SYSTEMS CORP
600 E 90TH
LANCASTER, PA 17602
12. ALL HORIZONTAL EXTERIOR PIPING SHALL BE ADEQUATELY SLOPED TO PROVIDE DRAINAGE AT ANY ONE OF THE THREE DRAIN POINTS.

REFERENCE DRAWINGS		
NO. DRAWING NO.	TITLE	
1	006-1200707	FIRE BILGE BALLAST SYS ARMSTR
2	006-1200100	WASHDOWN SYSTEM LCU 1667 TO 1670
3	120200000	NOV FIRE, BILGE AND BALLAST SYS

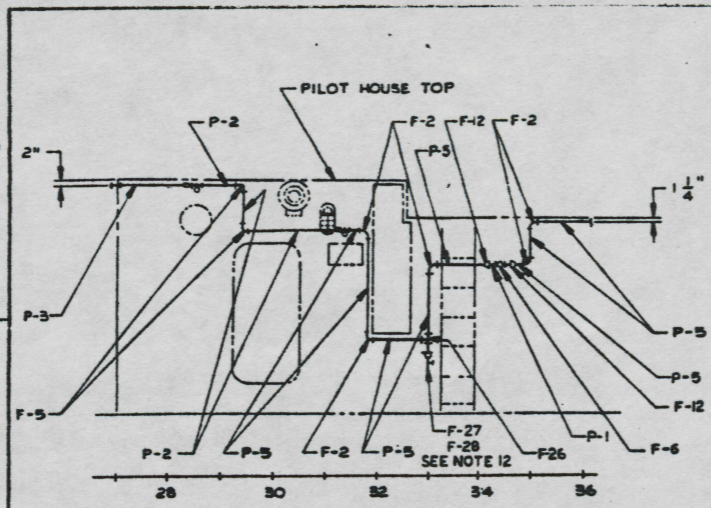
YARD	ITEM	DESCRIPTION	QTY	UNIT	MATERIAL	STATUS OF MATERIAL	
						DATE	APPROVED
YARD J-4	HS2000-000	SCREW, CAP, HEX HD, 3/8" - 16 UNF - 2A X 2" L.			CRES		
YARD J-4	HS1000-000	SCREW, CAP, HEX HD, 1/2" - 13 UNF - 2A			CRES		
YARD J-2	HS2000-070	SCREW, CAP, HEX HD, 5/8" - 10 UNF - 2A X 3 1/2" L.			CRES		
YARD J-2		FLANGE, FULL FACE, 2" NON PIPE SIZE (ANSI B16.20 FLANGE) 1/16" THICK	ANSI B16.21		COP ALY		
YARD J-1	12100	NO. 771	3	FLANGE, 2" NON SIZE (HBCD)	COML		CABY BRONZE
YARD V-2	00000	FIG. 45J	1	GATE VALVE, 120 PSI, 1/2" TUBE SIZE (WALWORTH)	COML		BRONZE
YARD V-1	01263	2" R2030-000A-1H	1	BUTTERFLY VALVE, 150 PSI, 2" VALVE SIZE (BORRIS)	COML		BRONZE BODY
YARD F-20	37220	FIG. 470	2	DRAIN COCK, TEE HANDLE, 3/8" SIZE (LOWE/BAE/HEB)	COML		BRONZE
YARD F-27			3	ADAPTER, 1" X 3/8" FTS X F	ANSI B16.22		COP ALY
YARD F-20			1	TEE, 1 1/2" X 1" X 1 1/2" NON SIZE, C X C X C	ANSI B16.22		COP ALY
YARD F-20	00070	FIGURE NO. 000-1	1	SPRING CLAMP, (PERNO)	COML		CRES
YARD F-20			AR	COUPLING, C X C, 1 1/2" NON SIZE (SEE NOTE 1)	ANSI B16.22		COP ALY
YARD F-22		TYPE 8, GR 100B	1	TUBING, 1" OD X 1/8" THK X 10 X 3 1/2" L	ASTM A513		STEEL
YARD F-22		TYPE 8, GR 100B	3	TUBING, 2" OD X 1/8" THK X 10 X 3 1/2" L	ASTM A513		STEEL
YARD F-21			2	TEE, 1 1/2" X 1 1/2" X 1 1/2" NON SIZE, C X C X F	ANSI B16.22		COP ALY
YARD F-20		TYPE 8	2	NOZZLE (SEE NOTE 1)	NAVSEA		BRONZE
YARD F-19			2	TEE, 1 1/2" X 1 1/2" X 1 1/2" NON SIZE, C X C X C	ANSI B16.22		COP ALY
YARD F-10	00000	0000000	2	CONNECTOR, HOSE, FEMALE SWIVEL, FEMALE ADAPTER, 1 1/2" - 1 1/2" SPS X 1/2" BPT (MCH-CARD)	COML		
YARD F-17			AR	COUPLING, C X C, 1 1/2" NON SIZE (SEE NOTE 1)	ANSI B16.22		COP ALY
YARD F-10		TYPE 8	3	NOZZLE, 1/2" NON PIPE THREAD (SEE NOTE 1)	NAVSEA		BRONZE
YARD F-10		SAE 1001270A	11	BIPPLE, 1/2" NON PIPE SIZE	B10-1300000		BRASS
YARD F-10		SAE 1002000A	11	ELBOW, 90°, 1/2" NON PIPE SIZE FEMALE (SEE NOTE 1)	SAE 0010		BRASS
YARD F-10			AR	COUPLING, C X C, 1" NON SIZE (SEE NOTE 1)	ANSI B16.22		COP ALY
YARD F-10			2	REDUCER, 2" X 1 1/2" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-11			2	REDUCER, 1 1/2" X 1" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-10			2	REDUCER, C X C, 1 1/2" X 1 1/2" NON SIZE	ANSI B16.22		COP ALY
YARD F-9			2	TEE, 1 1/2" X 1 1/2" X 1 1/2" NON SIZE, C X C X F	ANSI B16.22		COP ALY
YARD F-9			2	ELBOW, 90°, 1" X 1/2" NON SIZE, C X F	ANSI B16.22		COP ALY
YARD F-9			1	TEE, 2" X 2" X 1 1/2" C X C X C	ANSI B16.22		COP ALY
YARD F-8			8	ELBOW, 90°, 1 1/4" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-8			1	ELBOW, 90°, 1 1/2" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-3			1	ELBOW, 90°, 1" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-2			8	ELBOW, 90°, 1 1/2" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-1			8	ELBOW, 90°, 2" NON SIZE, C X C	ANSI B16.22		COP ALY
YARD F-8		000 070000	20 FT	PIPE, 1/2" IPS X .005" WALL, SMLS, HARD DRAWN	ASTM 0000		COPPER
YARD F-8		TY 8, COP HD OPTL 20 FT	20 FT	TUBING, 1/2" NON SIZE, SMLS, .075" WALL, DRAWN	ASTM 000		COPPER
YARD F-8		TY 8, COP HD OPTL 12 FT	12 FT	TUBING, 1/2" NON SIZE, SMLS, .085" WALL, DRAWN	ASTM 000		COPPER
YARD F-8		TY 8, COP HD OPTL 12 FT	12 FT	TUBING, 1" NON SIZE, SMLS, .005" WALL, DRAWN	ASTM 000		COPPER
YARD F-8		TY 8, COP HD OPTL 20 FT	20 FT	TUBING, 1 1/4" NON SIZE, SMLS, .005" WALL, DRAWN	ASTM 000		COPPER
YARD F-1		TY 8, COP HD OPTL 20 FT	20 FT	TUBING, 2" NON SIZE, SMLS, .005" WALL, DRAWN	ASTM 000		COPPER

CHECKED BY: _____ DATE: _____ DESIGNED BY: _____ DATE: _____ DRAWN BY: _____ DATE: _____ PARTS LIST: _____ DATE: _____	APPROVED BY: _____ DATE: _____ TITLE: _____ POSITION: _____	U.S. ARMY MILITARY EQUIPMENT RESEARCH AND DEVELOPMENT COMMAND FORT BELTONE, TEXAS 77060 WASHDOWN SYSTEM, LCU 1667-1670 A1 97403 13226E8039 SCALE: NOTED
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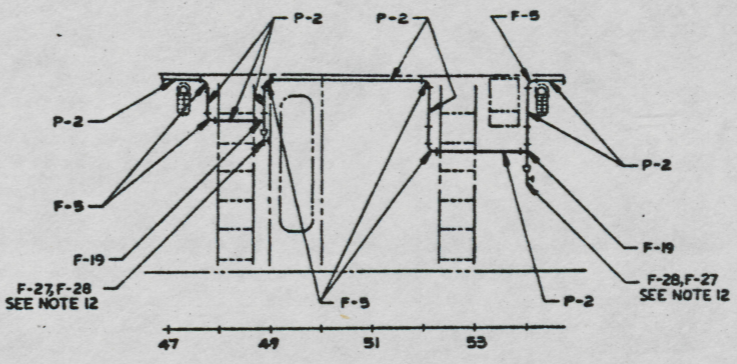


<small>BRASS STEELWORK SPECIFICATIONS AND TOLERANCES ARE SHOWN ON SHEET 10.</small> <small>ONE PLACE 1 21 2</small> <small>TWO PLACES 1 22 2</small> <small>THREE PLACES 1 23 2</small> <small>FOUR PLACES 1 24 2</small> <small>NO ONE SHALL TAKE SHORTCUTS.</small> <small>FOR INTERPRETATION OF DIMENSIONS AND FITS FOR OFFICE.</small> <small>WEIGHTS DIMENSIONS AND SPECIAL HANDLING INSTRUCTIONS.</small> <small>UNLESS SPECIFIED.</small> <small>FRIGHT PAID.</small> <small>REVISIONS:</small>			<small>DESIGNED BY</small> 275 <small>ENGINEER IN CHARGE</small> <i>William P. Lohman</i> <small>DATE</small> 18 2 58 <small>APPROVED FOR PRODUCTION</small> <i>William P. Lohman</i> <small>DATE</small> 21 AUG 66	<small>DATE</small> 18 APR 64 <small>SCALE</small> 2x <small>REVISIONS</small>	<small>U. S. ARMY MOBILITY EQUIPMENT RESEARCH AND DEVELOPMENT COMMAND</small> <small>FORT BELVOIR, MICHIGAN 48900</small> WASHDOWN SYSTEM, LCU 1667-1670 <small>ITEM</small> 1200 <small>QTY</small> 1 <small>ISSUE NO.</small> 1 13226E8039
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DATE	REV	DESCRIPTION	BY	APPROVED



VIEW 23-C
(13-D)
LOOKING TO STARBOARD
SCALE 1"=2'-0"
ROTATED 180°



VIEW 20-C
(15-D)
LOOKING TO STARBOARD
SCALE 1"=2'-0"
ROTATED 180°

13
14
15
16
17
18
19
20
21
22
23
24

FORM NO.	FORM SIZE	FORM DATE	PART NO.	QTY.	DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
QUOTE SPECIFICATIONS AND DIMENSIONS ARE PER IN.				DRAWN BY: <i>WVH</i>		DATE: 10 JUL 68	
ONE PLAIN 1 1/2 TWO PLAIN 1 1/2 THREE PLAIN 1 1/2 TOTALS: 4				CHECKED BY: <i>G. V. M.</i> DATE: 11 JUN 68		U.S. ARMY MOBILITY EQUIPMENT RESEARCH AND DEVELOPMENT COMMAND FORT BELVOIR, COLORADO 80505	
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES.				DESIGN APPROVAL: <i>[Signature]</i> DATE: 31 AUG 68		WASHDOWN SYSTEM, LCU 1667-1670	
THE SPECIFICATIONS OF THIS DRAWING APPLY TO:				APPROVED FOR PROCUREMENT: <i>[Signature]</i> DATE: 31 AUG 68		PART NO. A1 97403 DRAWING NO. 13226E8039	

24 23 22 21 20 19 18 17