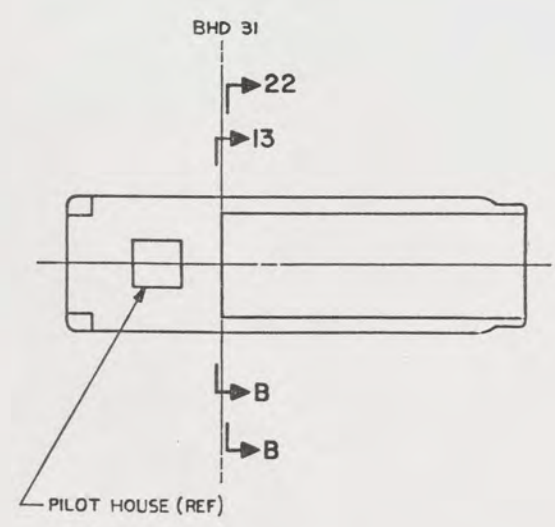


- NOTES:
1. WELDING AND BRAZING REQUIREMENTS SHALL BE IN ACCORDANCE WITH NAVSEA STD ITEM NO. 009-12.
  2. TEMPLATE ALL WORK FROM LCM-8 AND EQUIPMENT.
  3. EQUIPMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH USCG AND ABS REGULATIONS.
  4. REPAIR ALL PAINT DAMAGED BY THIS INSTALLATION AND PAINT ALL NEW STEEL IN ACCORDANCE WITH U.S. ARMY TECHNICAL BULLETIN TB43-0144.
  5. MATERIAL ORDERED ON THIS DRAWING IS NOT INTENDED TO BE RESTRICTIVE. SUBSTITUTION OF EQUAL QUALITY MATERIAL MAY BE MADE EXCEPT FOR ITEMS MARKED GFE.
  6. SLIGHT DEVIATIONS FROM DIMENSIONS SHOWN ARE PERMISSIBLE TO SUIT ACTUAL CONDITIONS FOUND ABOARD THE VESSEL.
  7. COMPONENTS SHOWN BY SOLID, HEAVY LINES ARE NEW AND ARE TO BE INSTALLED IN ACCORDANCE WITH THIS DRAWING. PHANTOM LINES INDICATE EXISTING COMPONENTS INSTALLED BY DRAWINGS REFERENCED AS NOTED.
  8. PROJECTING CORNERS AND EDGES TO BE WELL ROUNDED OR PADDED TO PROTECT PERSONNEL.
  9. PIPING SHALL BE SUITABLY SECURED BY PIPE HANGERS TO PREVENT VIBRATION AND PROTECT AGAINST DAMAGE IN ACCORDANCE WITH NAVSEA B04-1385781.
  10. PIPING SYSTEMS SHALL BE THOROUGHLY CLEANED BY FLUSHING WITH THE MEDIUM FOR WHICH THE SYSTEM IS INTENDED.
  11. ALL THREADED PIPE JOINTS SHALL BE ASSEMBLED USING ANTI-SEIZE TAPE, FIND NO. M-10, AND SHALL BE TESTED HYDROSTATICALLY WITH WATER AND ALL JOINTS INSPECTED FOR TIGHTNESS IN ACCORDANCE WITH LCM-8 INSTALLATION INSTRUCTIONS; 85-1906-217-1. TESTS SHALL BE CONDUCTED PRIOR TO PAINTING.
  12. IDENTIFY PIPING SYSTEM IN ACCORDANCE WITH TB43-0144.
  13. REMOVE EXISTING PIPING WHERE SHOWN CROSS HATCHED. PLUG BULKHEAD AND SHELL PENETRATIONS WATERTIGHT.
  14. RELOCATE EXISTING DECK DRAIN ON STBD SIDE TO DIMENSION SHOWN FROM WING WALL. PLUG PENETRATION WATERTIGHT AND GRIND FLUSH WITH DECK.
  15. PIPES OR HOSES OBSCURED BY FLOOR PLATING OR ENGINE ROOM EQUIPMENT SHALL BE IDENTIFIED BY (COPPER, BRASS, CRES) TAGS IN ACCORDANCE WITH MIL-STD-130. TERMINATIONS AND USE SHALL BE CLEAR.

REFERENCE DRAWINGS		
NO.	DRAWING NO.	TITLE
1	13226E9471	LCM-8, MOD-1, SALT WATER PIPING ARRANGEMENT
2	122-5103207	BULKHEADS AND TRANSOM DETAILS
3	13226E9465	LCM-8, MOD-1, PIPING FOR HYD MTR PIPING SYSTEM
4	13226E9461	LCM-8, MOD-1, MOD TO HYD POWER STEERING SYSTEM

SHEETS		STATUS OF REVISIONS		DATE	APPROVED
NO.	DATE	DESCRIPTION	DATE	APPROVED	
4					
3					
2					
1					



KEY VIEW 5-A  
SCALE: NONE

THIS DRAWING APPLIES  
TO HULL NUMBERS  
8540 THROUGH 8560 AND  
8580 THROUGH 8618 ONLY

YARD	NO.	SIZE	AR	TAPE, ANTI-SEIZE (SEE NOTE 11)	MIL-T-27730	MATERIAL
YARD	M-16					
YARD	M-15	24161	76W	2 2 5/8" ID HOSE, WATER, N-PLY X 5" L (GATES)	COHL	RUBBER
YARD	M-14	24161	76W	2 2 5/8" ID HOSE, WATER, N-PLY X 5" L (GATES)	COHL	RUBBER
YARD	M-13			1 PLATE, 6" OD X 3 1/8" ID X 3/16" STK	ASTM A36	STEEL
YARD	M-12			2 ANGLE, 2" X 2" X 1/4" STK X 10" LB	ASTM A36	STEEL
YARD	M-11	24161	76W	2 2 1/2" ID HOSE, WATER, N PLY X 5" L (GATES)	COHL	RUBBER
YARD	M-10			AR SHEET, 1/16" X 1" X 1" L	ASTM D2000	RUBBER
YARD	M-9			N NUT, HEX, .375-16 UNC-2B		CRES
YARD	M-8	80925	FIG. 120	1 U-BOLT, 3" PIPE (GRINNELL)	COHL	STEEL
YARD	M-7	80925	FIG. 120	1 U-BOLT, 2" PIPE (GRINNELL)	COHL	STEEL
YARD	M-6	80925	FIG. 130	2 CLAMP, 1 1/2" PIPE SIZE, PIPE THREADED (GRINNELL)	COHL	N. L. ZN PL
YARD	M-5			10 CLAMP, HOSE, LOW PRESSURE, 2 9/16" X 3 1/2" RANGE		CRES
YARD	M-4	24161	35W	AR 1 5/8" ID HOSE, WATER, N PLY X 5" L (GATES)	COHL	RUBBER
YARD	M-3			8 CLAMP, HOSE, LOW PRESSURE, 1 13/16" - 2 3/4"		CRES
YARD	M-2			10 CLAMP, HOSE, LOW PRESSURE, 1 1/16" - 2" RANGE		CRES
YARD	M-1			1 PLATE, 6" OD X 1 5/8" ID X 3/16" STK	ASTM A36	STEEL
GFE	Y-4	12160	S-113-R	1 3" CHECK VALVE, 125 LB SWP, C X C (NIBCO)	COHL	BRONZE
YARD	Y-3	93061	DC004-6	2 3/8" DRAINCOCK (PH)	COHL	BRONZE
GFE	Y-2	12160	S-121	2 1/2" GATE VALVE, 125 LB SWP, C X C (NIBCO)	COHL	BRONZE
GFE	Y-1	12160	S-121	2 2" GATE VALVE, 125 LB SWP, C X C (NIBCO)	COHL	BRONZE
YARD	F-13	12160	733-3	2 UNION, C X F, 2" NOM SIZE (NIBCO)	COHL	BRONZE
YARD	F-12	72423	4171-445	2 BUSHING, INSIDE HEX, 2 1/2" X 3/8" IPS, THREADED (FLAGG)	COHL	BRONZE
YARD	F-11	72423	N171-000	2 BUSHING, HEX, 1/2" X 3/8" IPS (FLAGG)	COHL	CU ALY
YARD	F-10	12160	717	2 CAP, 2" NOM SIZE (NIBCO)	COHL	CU ALY
YARD	F-9			2 TEE, CL125, 2 1/2" IPS, THREADED	ANSI B16.15	CU ALY
YARD	F-8			2 ST ELBOW, 90°, CL125, 2" IPS, THREADED	ANSI B16.15	CU ALY
YARD	F-6	72423	3030-478	1 TEE, REDUCING, 3" X 2" X 2" (FLAGG)	COHL	BRONZE
YARD	F-5			1 TEE, C X C X C, 1 1/2" NOM SIZE	ANSI B16.22	CU ALY
YARD	F-4			2 ELBOW, 45°, C X C, 3" NOM SIZE	ANSI B16.22	CU ALY
YARD	F-3			2 ADAPTER, FT8 X M, 2 1/2" NOM SIZE	ANSI B16.22	CU ALY
YARD	F-2			3 ELBOW, 90°, C X C, 2" NOM SIZE	ANSI B16.22	CU ALY
YARD	F-1			1 ELBOW, 90°, C X C, 1 1/2" NOM SIZE	ANSI B16.22	CU ALY
YARD	P-7			2 NIPPLE, CLOSE TYPE, 2" NPS		CU ALY
YARD	P-6			2 PIPE, BLACK, SCHED 40, 1/4" NPS X 7' L	ASTM A53	STEEL
YARD	P-5			2 UNS C12000-050 AR SEAMLESS COPPER WATER TUBE, 2 1/2" STD SIZE X .095" WALL	ASTM B88	CU ALY
YARD	P-4			2 UNS C12000-050 AR SEAMLESS COPPER WATER TUBE, 3" STD SIZE X .109" WALL	ASTM B88	CU ALY
YARD	P-3			2 NIPPLE, CLOSE TYPE, 2 1/2" NPS		CU ALY
YARD	P-2			2 UNS C12000-050 AR SEAMLESS COPPER WATER TUBE, 2" STD SIZE X .093" WALL	ASTM B88	CU ALY
YARD	P-1			2 UNS C12000-050 AR SEAMLESS COPPER WATER TUBE, 1 1/2" STD SIZE X .072" WALL	ASTM B88	CU ALY

DESIGNED BY: JER  
 CHECKED BY: GY PEG  
 DATE: 7 AUG 84

CONTRACT NO. 97403

DESIGN APPROVAL: Robert M. Smith  
 DATE: 15 MAY 84

APPROVED FOR PROCUREMENT: Joseph P. Wallace  
 DATE: 15 MAY 84

U.S. ARMY MOBILITY EQUIPMENT  
 RESEARCH AND DEVELOPMENT COMMAND  
 FORT BELVOIR, VIRGINIA 22060

**LCM-8, MOD-1,  
 MODIFICATION  
 BILGE PIPING SYSTEM**

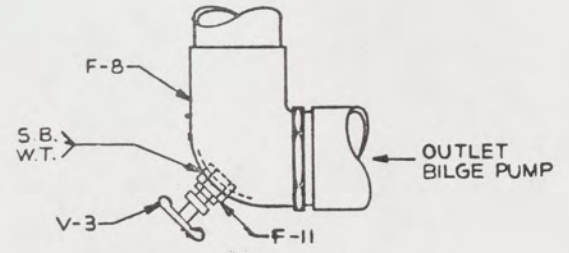
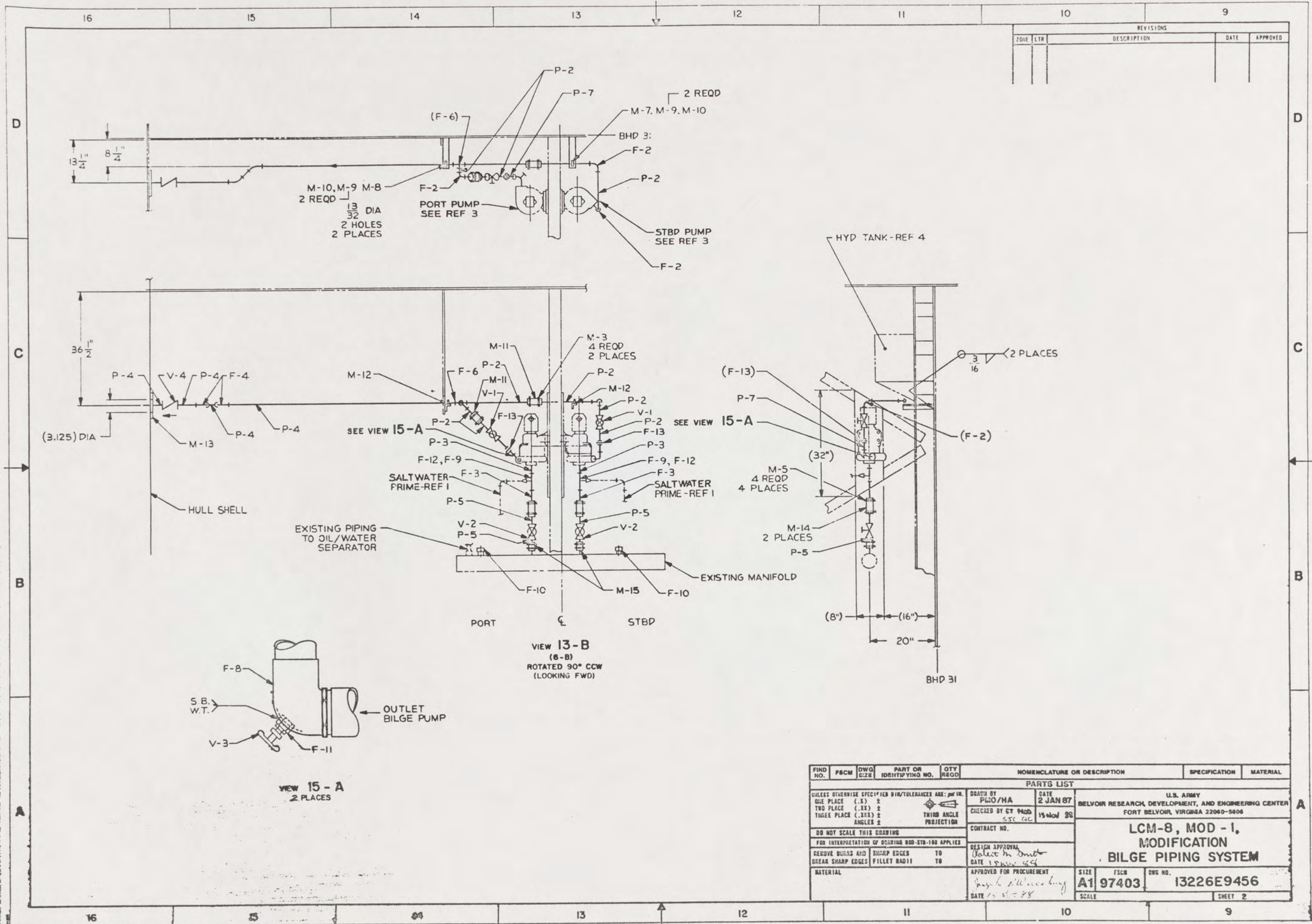
FIG. NO. 97403  
 SHEET NO. 13226E9456  
 SCALE: 1" = 1'-0"

MASTER SET 1

26



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED



VIEW 15 - A  
2 PLACES

VIEW 13 - B  
(B-B)  
ROTATED 90° CCW  
(LOOKING FWD)

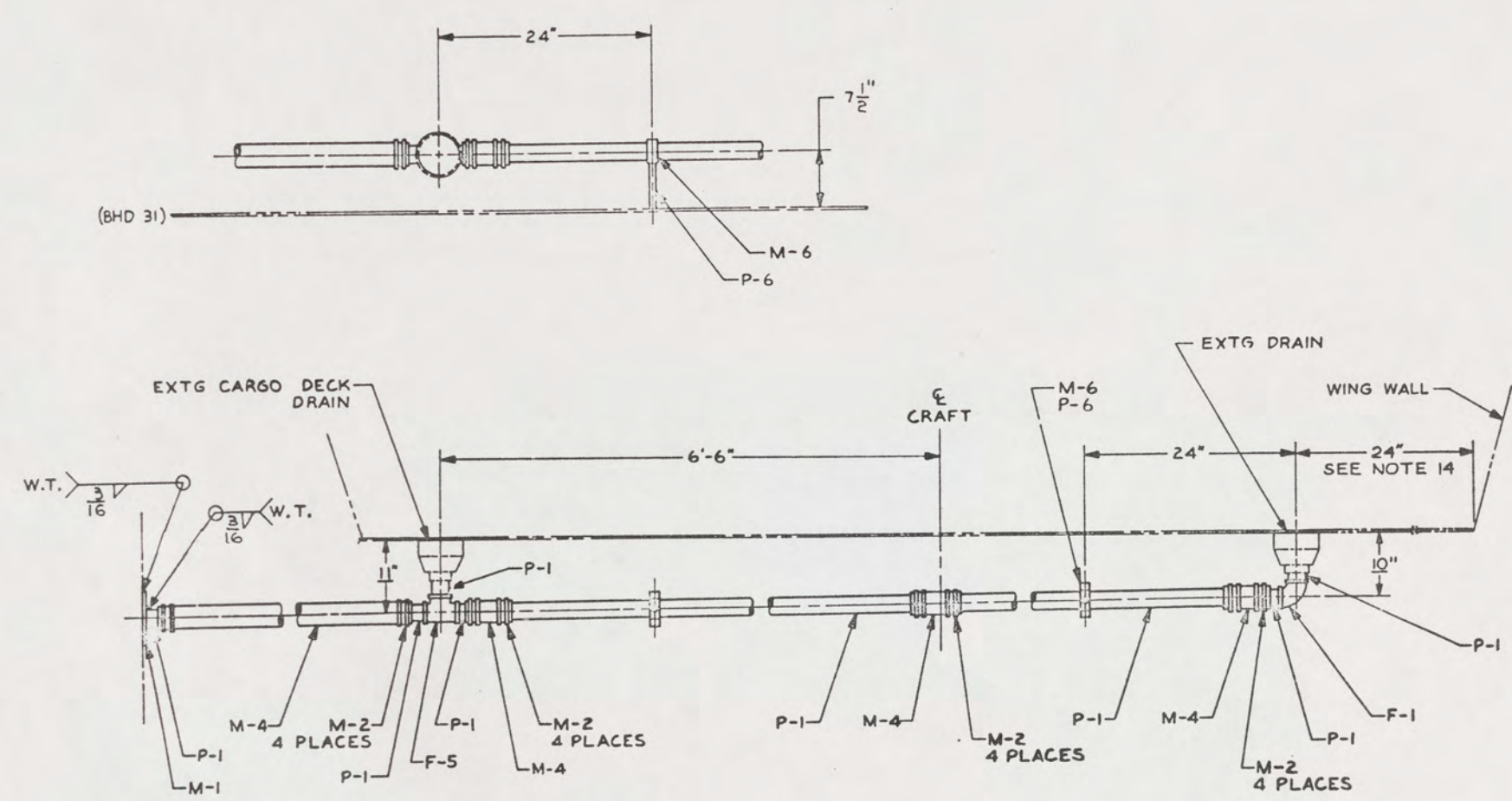
FIG. NO.	FROM	DWG. SIZE	PART OR IDENTIFYING NO.	QTY. REQD.	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: $\pm$ IN.				DRAWN BY: PLO/HA		DATE: 2 JAN 67	
ONE PLACE (.1)				CHECKED BY: ST/ROD		DATE: 15 MAR 68	
TWO PLACE (.01)				THIRD ANGLE PROJECTION		CONTRACT NO.	
THREE PLACE (.001)				DESIGN APPROVAL: <i>Robert M. Smith</i>			
ANGLES				DATE: 15 MAR 68			
DO NOT SCALE THIS DRAWING				APPROVED FOR PROCUREMENT: <i>Joseph M. ...</i>			
FOR INTERPRETATION OF DRAWING 800-STD-100 APPLIES				DATE: 15 MAR 68			
REMOVE BURLS AND DRESS SHARP EDGES TO				SIZE: A1			
REMOVE BURLS AND DRESS SHARP EDGES TO				FSCN: 97403			
DRESS SHARP EDGES TO				DWG. NO.: 13226E9456			
DRESS SHARP EDGES TO				SCALE: SHEET 2			

27



24 23 22 21 20 19 18 17

REV		DESCRIPTION	DATE	APPROVED



SECTION 22-B  
(6-B)  
ROTATED 90° CCW

28

24 23 22 21 20 19 18 17

UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: <i>per DR</i> ONE PLACE ( .01 ) ± TWO PLACE ( .00 ) ± THREE PLACE ( .000 ) ± FOURTH PLACE ( .0000 ) ±	DRAWN BY LAM CHECKED BY G.T. P... DATE 21 AUG 84	U.S. ARMY MOBILITY EQUIPMENT RESEARCH AND DEVELOPMENT COMMAND FORT BELVOIR, VIRGINIA 22060  <b>LCM-8, MOD-1, MODIFICATION BILGE PIPING SYSTEM</b>
	DO NOT SCALE THIS DRAWING FOR INTERPRETATION OF DIMENSIONS SEE DRAWING 000-170-100 APPLIES METRIC DIMENSIONS AND CLEARANCE DIMENSIONS TO SHARP EDGES TO FILED DIMENSIONS TO CATEGORY	



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REVISIONS				
NO.	DATE	DESCRIPTION	BY	APPROVED

D

D

C

C

B

B

A

A

SEE NOTE 13

SEE NOTE 13

EXTG PIPING TO O/W SEPARATOR

EXISTING BILGE SYSTEM AFT OF BHD 31  
VIEW LOOKING AFT

DECK DRAIN (RETAIN 2 PLACES)

CARGO DECK

SEE NOTE 13

AFT

BHD 31

PLAN VIEW AT C AND BHD 31  
EXISTING DECK DRAINS

29

UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE IN IN. ONE PLACE (1.0) ± TWO PLACE (1.00) ± THREE PLACE (1.000) ± ANGLES ±		DRAWN BY TER	DATE 8 MAR 85	U.S. ARMY MOBILITY EQUIPMENT RESEARCH AND DEVELOPMENT COMMAND FORT BELVOIR, VIRGINIA 22060	
DO NOT SCALE THIS DRAWING FOR DIMENSIONS OF BEARING DIM AND APPLIES		CHECKED BY C.T. PLOD S.T.C. RC	DATE 15 NOV 85	<b>LCM-8, MOD-1 MODIFICATION          BILGE PIPING SYSTEM</b>	
DESIGN APPROVAL Robert H. Director DATE 15 MAR 85		APPROVED FOR PROCUREMENT James H. McInerney DATE 15 MAR 85		SIZE <b>A1</b>	PSCN <b>97403</b>
SHARP CORNERS TO FILLET RADIUS TO MATERIAL		SCALE		DWA NO <b>13226E9456</b>	
				SHEET 4	

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