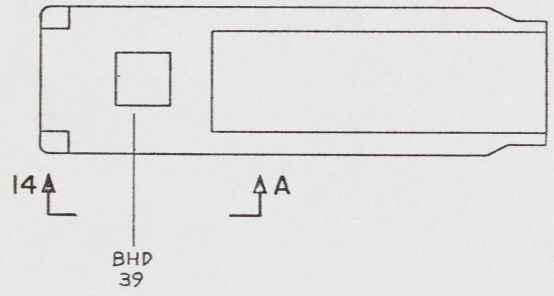


SK

NOTES:

- THIS DRAWING HAS BEEN DEVELOPED FROM SHIPCHECK INFORMATION FOR ACCOMPLISHING THE INSTALLATION OF A CO<sub>2</sub> FIRE PROTECTION SYSTEM ON LCM-8, MOD-1.
- ALL FABRICATION WELDING AND INSPECTION TO BE IN ACCORDANCE WITH NAVSEA 0900-LP-014-5010, WELD SIZES BASED ON USE OF AWS A5.1, CLASS E7018 ELECTRODES.
- EQUIPMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH USCG AND ABS REGULATIONS.
- REPAIR ALL PAINT DAMAGED BY THIS INSTALLATION AND PAINT ALL NEW STEEL IN ACCORDANCE WITH U.S. ARMY TECHNICAL BULLETIN TB 43-0144.
- MATERIAL ORDERED ON THIS DRAWING IS NOT INTENDED TO BE RESTRICTIVE. SUBSTITUTION OF EQUAL QUALITY MATERIAL MAY BE MADE EXCEPT FOR ITEMS MARKED GFE.
- SLIGHT DEVIATIONS FROM DIMENSIONS SHOWN ARE PERMISSIBLE TO SUIT ACTUAL CONDITIONS FOUND ABOARD THE VESSEL.
- 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.
- BULKHEAD AND DECK PENETRATIONS SHALL BE IN ACCORDANCE WITH NAVSEA 810-2145801.
- PIPING SHALL BE SUITABLY SECURED BY PIPE SUPPORTS TO PREVENT VIBRATION AND PROTECT AGAINST DAMAGE IN ACCORDANCE WITH NAVSEA 804-1385781. EXISTING PIPING AND PIPE SUPPORTS MAY BE REUTILIZED WHERE APPROPRIATE.
- SECURE WARNING LABEL, FIND NO. 19, TO CENTER INSIDE SURFACE OF MSD DOOR, BELOW SIREN IN ENGINE ROOM AND TO UPPER INBOARD SIDE OF PORT FUEL TANK, USING ADHESIVE, FIND NO. 26.
- ELECTRIC CABLE, FIND NO. 14, SHALL BE SUITABLY SECURED USING STUDS AND HANGERS, FIND NO. 2 AND 40.
- COPPER TUBING, FIND NO. P-7, SHALL BE SUITABLY SECURED USING SCREWS, NUTS AND CLAMPS, FIND NO. 13, 8 AND 41.



KEY PLAN 5-B

THIS DRAWING APPLIES TO HULL NUMBERS 8520 THROUGH 8580 AND 8580 THROUGH 8618 ONLY

YARD	FIND NO.	CAGE	DWG SIZE	PART OR IDENTIFYING NO.	QTY	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
YARD	F-11	73168		5281-0300	6	NUT, TUBING, 3/16" TUBE SIZE (KIDDE)	COML	BRASS
YARD	F-10	73168		5281-0370	2	TEE (WITHOUT NUTS) 3/16" TUBE SIZE (KIDDE)	COML	BRASS
YARD	F-9			TYPE OPTIONAL	1	CAP, 1/2" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	F-8				1	ELBOW, STREET, 45°, 1/2" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	F-7				3	REDUCER, 3/4" IPS X 1/2" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	F-6				1	ELBOW, 45°, 3/4" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	F-5				6	TEE, 1/2" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	F-4				2	UNION, 1/2" IPS, 300 LB, THREADED	ANSI B16.39	MI
YARD	F-3				8	ELBOW, 90°, 1/2" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	F-2				2	UNION, 3/4" IPS, 300 LB, THREADED	ANSI B16.39	MI
YARD	F-1				4	TEE, 3/4" IPS, 300 LB, THREADED	ANSI B16.3	MI
YARD	P-7				AR	TUBE, 3/16" OD X .030 WALL, ANNEALED	ASTM B280	COPPER
YARD	P-6			MS51953-73	7	NIPPLE, PIPE, STD, 1/2" IPS, CLOSE, STL		
YARD	P-5			MS51953-97	4	NIPPLE, PIPE, STD, 3/4" IPS, CLOSE, STL		
YARD	P-4			TYPE S, GR OPTL	AR	PIPE, 3/4" IPS, BLACK, SEAMLESS, SCHED 40	ASTM A53	STL
YARD	P-3			TYPE S, GR OPTL	AR	PIPE, 1/2" IPS, BLACK, SEAMLESS, SCHED 40	ASTM A53	STL
YARD	P-2			TYPE S, GR OPTL	AR	PIPE, 1/4" IPS, BLACK, SEAMLESS, SCHED 40	ASTM A53	STL
YARD	P-1			TYPE S, GR OPTL	AR	PIPE, 3/8" IPS, BLACK, SEAMLESS, SCHED 40	ASTM A53	STL
SUPPLIER	FIND NO.	CAGE	DWG SIZE	PART OR IDENTIFYING NO.	QTY	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL

PARTS LIST (CONTINUED)

SHEETS			STATUS OF REVISIONS				
3	2	1	ZONE	LTR	DESCRIPTION	DATE	APPROVED
A	A		A		SEE ECP NO. 90HE3309 AND 90HE3310	12 MAR 90	RMS

YARD	FIND NO.	CAGE	DWG SIZE	PART OR IDENTIFYING NO.	QTY	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
YARD	41			MS21333-97	16	CLAMP, LOOP-STEEL, CUSHIONED, .188 NOM DIA		
YARD	40	85105		101-107-102	20	CABLE HANGER, .375-531 RANGE, PVC COATED (NELSON)	COML	VARIOUS
GFE	39	73168		803367	2	MULTIJET NOZZLE, CODE NO. 3.5, RED PAINT FINISH (KIDDE)	COML	STL
YARD	38			MS51922-37	2	NUT, SELF-LOCKING, HEX, 1/2-13 UNC-2B, STL, CD PL		
YARD	37			MS51412-9	2	WASHER, FLAT, .531 ID X 1.062 OD X .095 THK, STL, CD PL		
YARD	36				2	BAR, RD, 1/2" DIA X AR L	ASTM A36	STL
GFE	35			8560	2	3 CYLINDER OAK FRONT (KIDDE)	COML	WOOD
GFE	34			251821	3	FLEX LOOP, 3/4" NPT (KIDDE)	COML	VARIOUS
YARD	33	73168		870287	3	CARBON DIOXIDE CYLINDER, 75 LB (KIDDE)	COML	VARIOUS
GFE	32	73168		872450	3	DISCHARGE HEAD (KIDDE)	COML	
GFE	31	73168		8558	2	3 CYLINDER OAK BACK (KIDDE)	COML	WOOD
GFE	30	73168		872335	1	PNEUMATIC CONTROL HEAD (KIDDE)	COML	VARIOUS
GFE	29	73168		803381	1	MULTIJET NOZZLE, CODE NO. 2, RED PAINT FINISH (KIDDE)	COML	STL
YARD	28			M24235/10-02	2	STUFFING TUBE FOR DECK AND BULKHEADS, SIZE B	MIL-S-24235/10	STL
YARD	27			CL 2, TY 1	2	PACKING, SIZE B	MIL-P-16685	
YARD	26			TYPE 1, CL OPTL	AR	ADHESIVE, CYANOACRYLATE	MIL-A-46050	
YARD	25	71607		AGC-1	1	FUSE, GLASS, 1/4" X 1 1/4", 1C AMP, 250 V (BUSSMAN)	COML	VARIOUS
YARD	24	71607		HKP	1	FUSE HOLDER, 30 A, 250 V (BUSSMAN)	COML	VARIOUS
GFE	23	73168		803369	2	MULTIJET NOZZLE, CODE NO. 4.5, RED PAINT FINISH (KIDDE)	COML	STL
YARD	22	80996		FIG 138	10	PIPE CLAMP, SPLIT EXTENSION, 1/2" PIPE SIZE (GRINNELL)	COML	MI
YARD	21			M19622/1-002	3	STUFFING TUBE, STRAIGHT TYPE, SIZE 2 TUBE	MIL-S-19622/1	NYLON
GFE	20	73168		486536	1	PRESSURE OPERATED SWITCH (KIDDE)	COML	STL
GFE	19	73168		206561	3	WARNING LABEL (KIDDE)	COML	AL ALY
YARD	18	80996		FIG 138	2	PIPE CLAMP, SPLIT EXTENSION, 3/4" PIPE SIZE (GRINNELL)	COML	MI
YARD	17			M19622/3-002	5	STUFFING TUBE, 3/4" NPT, SIZE 2 TUBE	MIL-S-19622/3	NYLON
YARD	16			M19622/17-04	8	PACKING ASSEMBLY, .425 ID	MIL-S-19622/17	VARIOUS
GFE	15	73274		RBWT	3	ROTATING LIGHT, W/AMBER LENS, BOX MOUNT, 24V(HOSE McCANN)	COML	VARIOUS
YARD	14			M24643/15-02UN	AR	CABLE, ELECTRICAL, 1000 V, TYPE LSDSGU, SIZE 4, 14 AWG	MIL-C-24643/15	
YARD	13			MS35206-281	34	SCREW, MACH-PAN HD, 1/4-20 UNC-2A X 3/4" L, STL, CD PL		
YARD	12	95405		630	12	WELDING PAD, 1/4-20 UNC-2B X 3/4" L (PAULUHN)	COML	STL
GFE	11	73168		841241	3	PNEUMATIC HEAT DETECTOR, RED PAINT FINISH (KIDDE)	COML	STL
GFE	10	73168		871071	1	DISCHARGE DELAY (KIDDE)	COML	VARIOUS
YARD	9	80996		FIG 120	1	U-BOLT, 3/4" PIPE SIZE (GRINNELL)	COML	STL
YARD	8			MS51922-1	24	NUT, SELF-LOCKING, HEX, 1/4-20 UNC-2B, STL, CD PL		
YARD	7			MS51959-83	2	SCREW, MACHINE, FLAT CSK HD, 82°, 1/4-20 UNC-2A X 1" L, CRES		
GFE	6	73168		871403	1	PULL BOX, BREAK GLASS (KIDDE)	COML	VARIOUS
YARD	5	58533		S063TA	AR	CABLE, CONTROL, 1/16" DIA, 7 X 19 CONSTRUCTION (CMA)		CRES
GFE	4	73168		803808	5	CORNER PULLEY (WT) (KIDDE)	COML	VARIOUS
YARD	3			MS51922-17	8	NUT, SELF-LOCKING, HEX, 3/8-16 UNC-2B, STL, CD PL		
YARD	2	85105		101-017-186	24	STUD WITH FERRULE, 3/8-16 UNC-2A X 1 1/2" L (NELSON)	COML	STL
GFE	1	73168		981574	2	PRESSURE OPERATED SIREN (KIDDE)	COML	VARIOUS

UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: .001 IN. ONE PLACE (.1) ± TWO PLACE (.XX) ± THREE PLACE (.XXX) ± THIRD ANGLE PROJECTION

DO NOT SCALE THIS DRAWING FOR INTERPRETATION OF DRAWING DOD-STD-100 APPLIES REMOVE BURRS AND SHARP EDGES TO BREAK SHARP EDGES FILLET RADII TO MATERIAL

DESIGN APPROVAL: *William Smith* DATE: 12 MAR 90

APPROVED FOR PROCUREMENT: *Joseph P. Weathers* DATE: 15 MAR 90

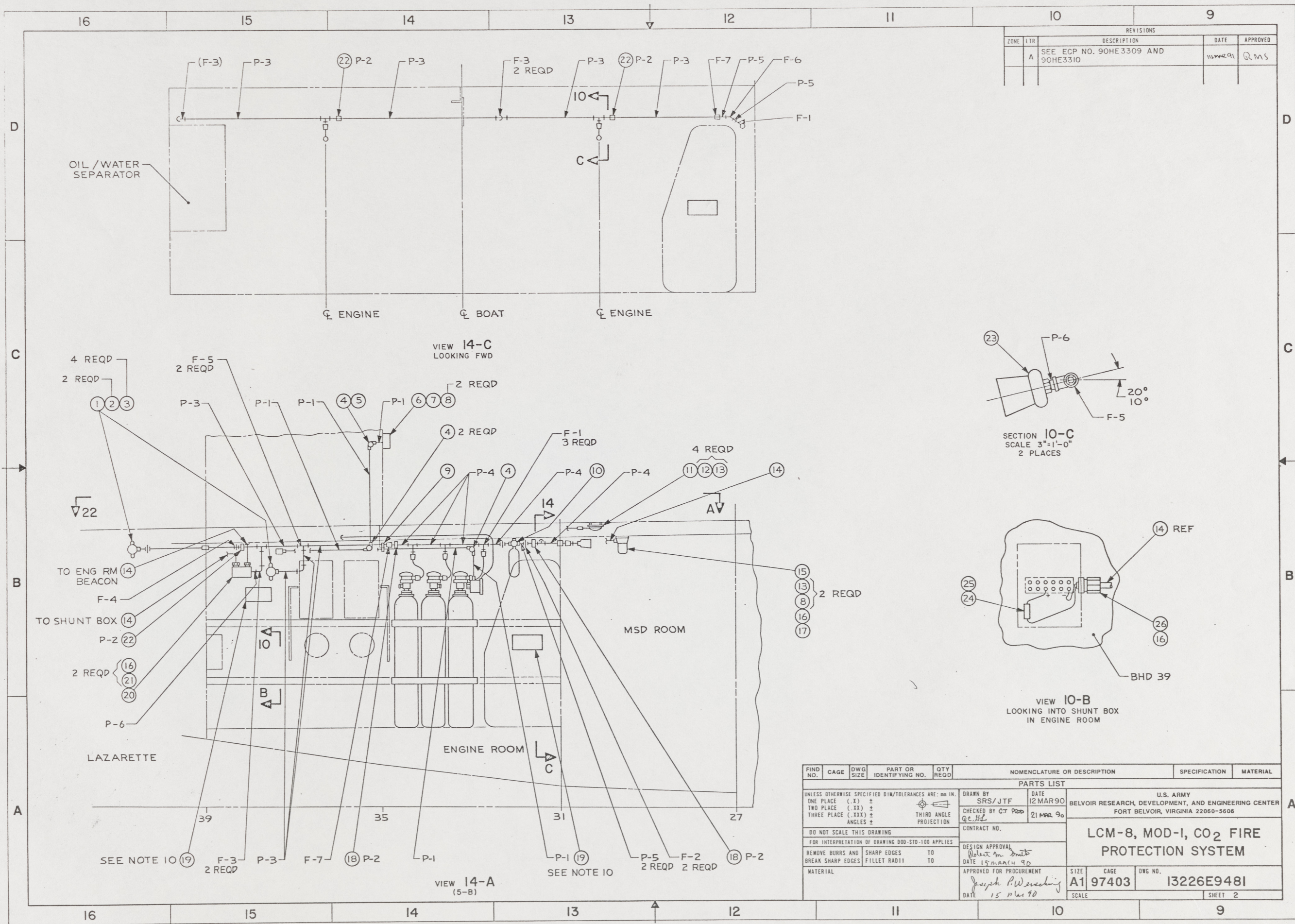
U.S. ARMY BELVOIR RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER FORT BELVOIR, VIRGINIA 22060-5606

CONTRACT NO. \_\_\_\_\_

LCM-8, MOD-1, CO<sub>2</sub> FIRE PROTECTION SYSTEM

SIZE: A1 CAGE: 97403 DWG NO.: 13226E9481 SCALE: NONE SHEET 1 OF 3

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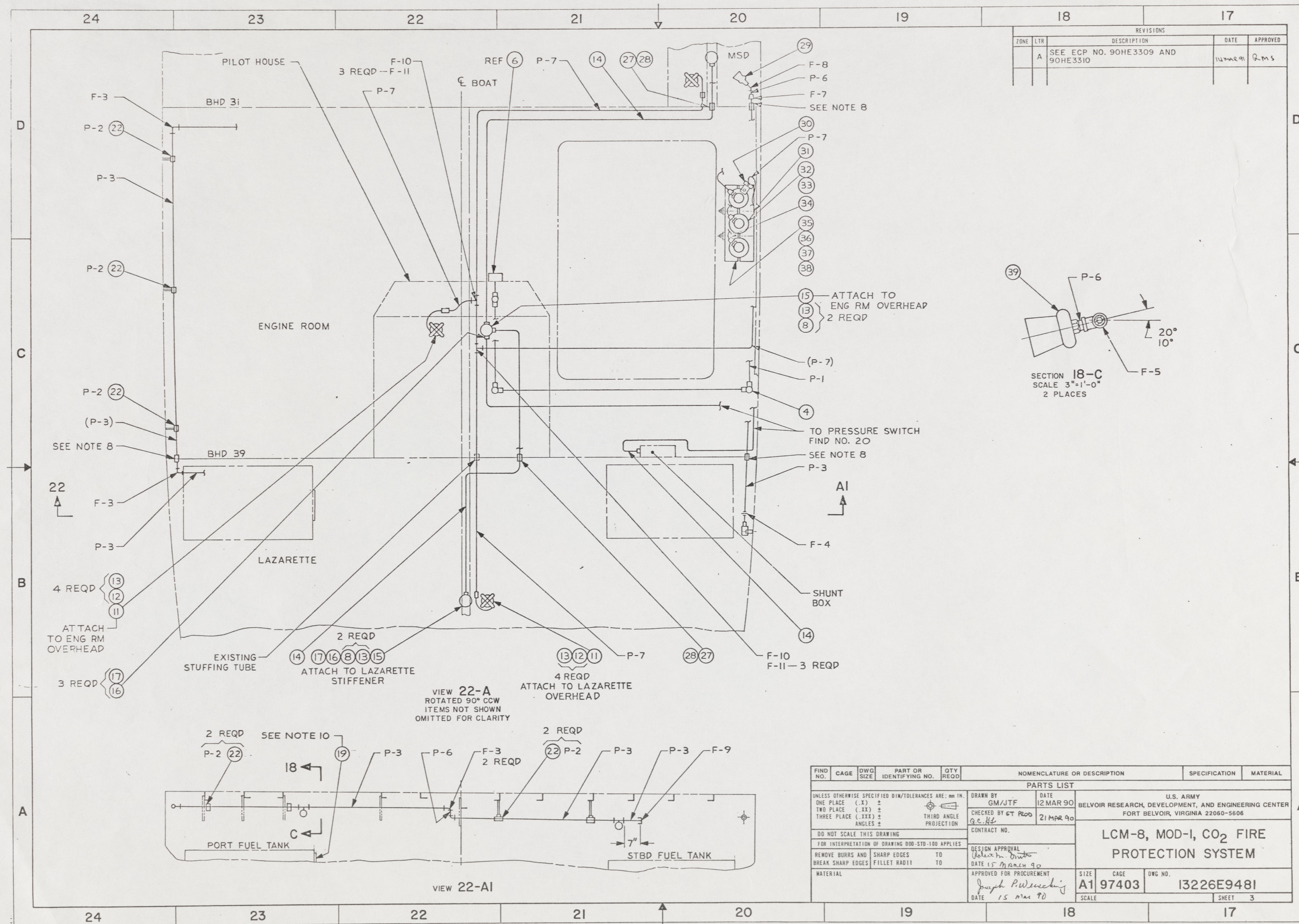


REVISIONS				
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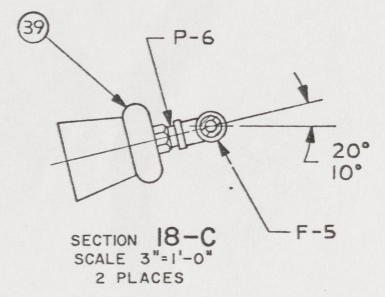
FIND NO.	CAGE	DWG SIZE	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: mm IN.				DRAWN BY SRS/JTF		DATE 12 MAR 90	
ONE PLACE (.X) ±				CHECKED BY CT PDD		DATE 21 MAR 90	
TWO PLACE (.XX) ±				THIRD ANGLE PROJECTION			
THREE PLACE (.XXX) ±							
ANGLES ±							
DO NOT SCALE THIS DRAWING				CONTRACT NO.			
FOR INTERPRETATION OF DRAWING ODD-STD-100 APPLIES				DESIGN APPROVAL		U.S. ARMY	
REMOVE BURRS AND BREAK SHARP EDGES				DATE 15 MAR 90		BELVOIR RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER	
SHARP EDGES TO				APPROVED FOR PROCUREMENT		FORT BELVOIR, VIRGINIA 22060-5608	
FILLET RADI1 TO				DATE 15 MAR 90			
MATERIAL				Joseph P. Wesseling			
		SIZE A1	CAGE 97403	DWG NO. 13226E9481			
		SCALE		SHEET 2			

11.3

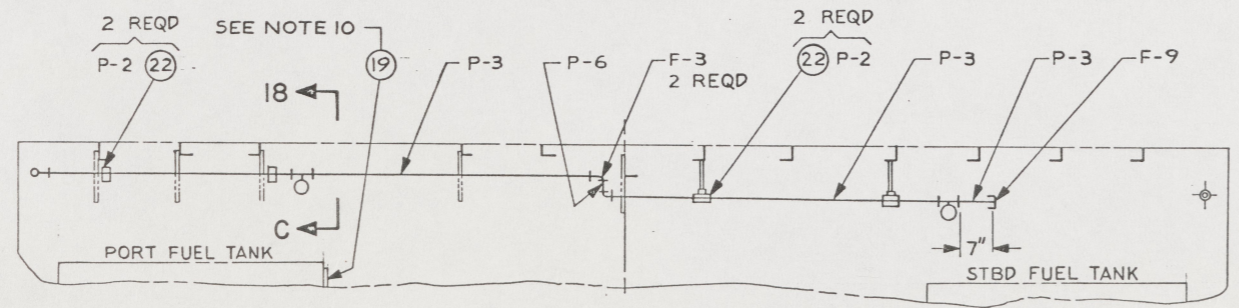
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	SEE ECP NO. 90HE3309 AND 90HE3310	14 MAR 90	Rms



VIEW 22-A  
 ROTATED 90° CCW  
 ITEMS NOT SHOWN  
 OMITTED FOR CLARITY



FIND NO.	CAGE	DWG SIZE	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: mm IN.				DRAWN BY GM/JTF DATE 12 MAR 90			
ONE PLACE (.X) ±				CHECKED BY CT PROD DATE 21 MAR 90			
TWO PLACE (.XX) ±				CONTRACT NO.			
THREE PLACE (.XXX) ±				DESIGN APPROVAL			
ANGLES ±				DATE 15 MAR 90			
THIRD ANGLE PROJECTION				APPROVED FOR PROCUREMENT			
DO NOT SCALE THIS DRAWING				DATE 15 MAR 90			
FOR INTERPRETATION OF DRAWING DOD-STD-100 APPLIES				SIZE CAGE DWG NO.			
REMOVE BURRS AND SHARP EDGES TO				A1 97403 13226E9481			
BREAK SHARP EDGES FILLET RADIUS TO				SCALE SHEET 3			

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