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REFERENCE DRAWINGS
APPLICABLE TO HULL NUMBERS 8540 THRU 8560 AND 8580 THRU 8618

NO.	DRAWING NO.	TITLE
1	13226E9463	LCM-8,MOD-1,CONTROL CONSOLE MODIFICATIONS
2	13226E9455	LCM-8,MOD-1,MODIFICATION HYD START SYSTEM
3	13226E9454	LCM-8,MOD-1,BATTERY BOX INSTALLATION
4	13226E9448	LCM-8,MOD-1,ENGINE FOUNDATIONS
5	13226E9459	LCM-8,MOD-1,STOWAGE LOCKER
6	13226E9458	LCM-8,MOD-1,MODS FOR INSTALLATION OF NAV LTS
7	13226E9470	LCM-8,MOD-1,FUEL SYSTEM MODIFICATION
8	13226E9464	LCM-8,MOD-1,MISCELLANEOUS STRUCTURAL DETAILS
9	13226E9468	LCM-8,MOD-1,MARINE SANITATION DEVICE

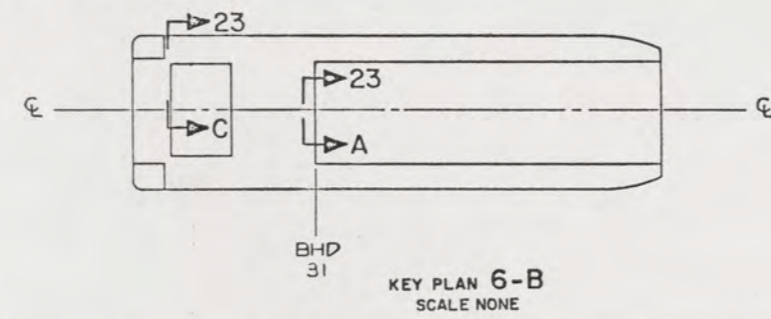
SHEETS				STATUS OF REVISIONS				
5	4	3	2	ZONE	LTR	DESCRIPTION	DATE	APPROVED
A	A	A	-		A	SEE ECP NO. 90HE3102	16 JUN 78	[Signature]
A	A	B	-		B	SEE ECP NO. 90HE3309 AND 90HE3310	18 JUN 78	[Signature]

- NOTES:
- THIS DRAWING HAS BEEN DEVELOPED FROM BOAT DRAWINGS FOR ACCOMPLISHING THE INSTALLATION OF NEW ENGINES AND ELECTRICAL EQUIPMENT.
 - TEMPLATE ALL WORK FROM VESSEL AND EQUIPMENT. ROUTING SHALL BE THRU EXISTING STUFFING BOXES AND ALONG EXISTING WIRE WAYS.
 - EQUIPMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH USCG,ABS,USPHS AND IEEE 45 REGULATIONS.
 - REPAIR ALL PAINT DAMAGED BY THIS INSTALLATION AND PAINT ALL NEW STEEL IN ACCORDANCE WITH U.S. ARMY TB43-0144.
 - MATERIAL ORDERED ON THIS DRAWING IS NOT INTENDED TO BE RESTRICTIVE. SUBSTITUTION OF EQUAL QUALITY MATERIAL MAY BE MADE, EXCEPT ITEMS MARKED GFE.
 - CABLE RUNS ARE DIAGRAMMATIC ONLY.
 - EQUIPMENT NOT GROUNDED BY METHOD OF ATTACHMENT TO VESSEL STRUCTURE SHALL BE BONDED TO GROUND.
 - ALL CURRENT CARRYING CONDUCTORS SHALL BE UNGROUNDED.
 - INSTALLING ACTIVITY SHALL PROVIDE SUITABLE MOUNTING AND HARDWARE FOR COMPONENTS AND CABLE CLAMPS FOR CABLES.
 - VOLTAGE PROTECTOR, FIND NO. 9, COMES WITH 3-NO. 10 SHEET METAL SCREWS.
 - LOCATE COMPONENTS SHOWN IN VIEW 12-C ON LEFT SIDE OF ENGINE FOUNDATIONS, BELOW SOLE PLATE AND BETWEEN FORWARDMOST SIDE GUSSETS,SEE REF 4.
 - ENGINE ROOM INSTRUMENT PANELS COME WITH ENGINES, ORDERED ON REF 4.
 - FIND NUMBERS IDENTIFIED WITH * AVAILABLE FROM EXISTING ELECTRICAL ARRANGEMENT AND ARE TO BE SALVAGED AND USED IN THIS INSTALLATION.
 - ALL OTHER WIRING NOT SHOWN ON THIS DRAWING SHALL BE REPLACED.
 - RELOCATE FANS AND RECEPTACLES ON BHD 31 TO CLEAR ENGINE COOLING SYSTEM AND BILGE PIPING.
 - 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.
 - MOUNT BARRIER BLOCK, FIND NO. 53, TO BOX, FIND NO. 31, BY PROVIDING FOUR .155-.160 DIA HOLES IN PANEL USING BARRIER BLOCK AS TEMPLATE. MOUNT BARRIER BLOCK WITH HARDWARE FIND NO. 54, 55 AND 56.
 - TERMINAL LUGS SHALL BE MS25036 TYPE, PROPERLY SIZED TO WIRE AND RING TONGUE DIAMETER.

REFERENCE DRAWINGS
APPLICABLE TO HULL NUMBERS 8520 THRU 8539

NO.	DRAWING NO.	TITLE
1	13226E2254	LCM-8,MOD-1,CONTROL CONSOLE MODIFICATIONS
2	13226E9455	LCM-8,MOD-1,MODIFICATION HYD START SYSTEM
3	13226E9454	LCM-8,MOD-1,BATTERY BOX INSTALLATION
4	13226E9448	LCM-8,MOD-1,ENGINE FOUNDATIONS
5	13226E9459	LCM-8,MOD-1,STOWAGE LOCKER
6	13226E9458	LCM-8,MOD-1,MODS FOR INSTALLATION OF NAV LTS
7	13226E9470	LCM-8,MOD-1,FUEL SYSTEM MODIFICATION
8	13226E9464	LCM-8,MOD-1,MISCELLANEOUS STRUCTURAL DETAILS
9	13226E9468	LCM-8,MOD-1,MARINE SANITATION DEVICE

THIS DRAWING APPLIES TO HULL NUMBERS 8520 THROUGH 8560 AND 8580 THROUGH 8618 ONLY



YARD	FIND NO.	PSCH	DWG SIZE	PART OR IDENTIFYING	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
YARD 57	75915			TY155009A	1	FUSEHOLDER, BAYONET KNOB IN-LINE, 32V, 20A.	COML	VARIOUS
YARD 56				MS35649-282	4	14 AWG WIRE, WITH SFE 9 FUSE (9A) (LITTELFUSE)		
YARD 55				MS35338-42	4	NUT, PLAIN, HEX, .164-32 UNC-2B		C.S.
YARD 54				MS35206-246	4	WASHER, LOCK-SPRING, HELICAL, NO. 8 NOM SIZE		C.S.
YARD 53	71785			004-00343-9	1	SCREW, MACHINE-PAN HD, CROSS RECESSED, NO. 8-32 UNC-2A X .625 L		
YARD 52	18179			90PC08B	2	BARRIER BLOCK, 141 SERIES, 12 CONTACTS (LABINAL)	COML	VARIOUS
YARD 51	18179			90PC01B	2	PROTECTIVE BOOT, NO. 8 GAUGE SIZE (JULIAN)	COML	RBR
YARD 50	18179			90PC06B	4	PROTECTIVE BOOT, NO. 6 GAUGE SIZE (JULIAN)	COML	RBR
YARD 49				MS24524-22	1	PROTECTIVE BOOT, NO. 1 GAUGE SIZE (JULIAN)	COML	RBR
YARD 48				MB1824/1-3	2	SWITCH, TOGGLE, DPDT, ON/OFF	MIL-S-81824/1	CPR, INSUL
YARD 47				M24643/3-10UN	AR	SPLICE, ELECTRIC, PERMANENT, WIRE RANGE 16-12 AWG	MIL-C-24643/3	
YARD 46	29812			WT10-3/8P	2	CABLE, ELECTRICAL, 600 V, TYPE LSDHOF, SIZE 3, 16 AWG	COML	LEAD
YARD 45	29812			CL90-38 ET	2	BATTERY, TERMINAL, WING TYPE, POS (JACKSON)	COML	COPPER
YARD 44				M24643/14-02UN	1	LUG, SOLDERING, 3/8 STUD SIZE (JACKSON)	MIL-C-24643/14	
YARD 43	29812			CL90-56ET	2	CABLE, ELECTRICAL, 1000 V, TYPE LSDSGU, SIZE 75, 1 AWG X 12'L	COML	COPPER
SUPPLIER	FIND NO.	PSCH	DWG SIZE	PART OR IDENTIFYING	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL

GFE	FIND NO.	PSCH	DWG SIZE	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
YARD 42	37919			MDL 150,520-012	1	RUDDER ANGLE INDICATOR, INCLUDES RUDDER FOLLOW-UP AND WATERPROOF MOUNT WITH CONNECTING CABLES (WAGNER)	COML	VARIOUS
YARD 41	71607			AGC-1	2	FUSE, GLASS, 1/4" X 1 1/4", 1 AMP, 250 V (BUSSMAN)	COML	VARIOUS
YARD 40	71607			HKP	2	FUSE HOLDER, 30A, 250V (BUSSMAN)	COML	VARIOUS
39				ORD ON REF 6	REF	STARBOARD LIGHT, WITH 24 V BULB		
38				ORD ON REF 6	REF	PORT LIGHT, WITH 24 V BULB		
37				ORD ON REF 6	REF	RECEPTACLE, PLUG, ELECTRICAL, 15A, 125/250 V		
36				ORD ON REF 6	REF	ANCHOR LIGHT, WITH 24 V BULB		
35				ORD ON REF 6	REF	MASTHEAD LIGHT, WITH 24 V BULB		
34				ORD ON REF 6	REF	NOT UNDER COMMAND LIGHT, WITH 24 V BULB		
33				ORD ON REF 6	REF	STERN LIGHT, WITH 24 V BULB		
YARD 32				M19622/1-006	4	TUBE, STUFFING, STRAIGHT TYPE, SIZE 5 TUBE	MIL-S-19622/1	NYLON
YARD 31	00843			A-1008 CHNFSS	2	JIC BOX, WATERTIGHT W/ PANEL A-10P855 (HOFFMAN)	COML	CRES
30				ORD ON REF 4	REF	INSTRUMENT PANEL (SEE NOTE 12)		
YARD 29	29812			WT10-5/16N	2	BATTERY TERMINAL, WING NUT TYPE, NEG (JACKSON)	COML	LEAD
YARD 28				M19622/17-04	1	PACKING ASSEMBLY, .425 ID	MIL-S-19622/17	
27				ORD ON REF 5 OR 9	REF	FIXTURE, INCAND, WT WITH GUARD, 100 W		
26				ORD ON REF 5 OR 9	REF	SWITCH, ROTARY, 10 AMP, 125 VDC		
YARD 25				M19622/1-002	1	TUBE, STUFFING, STRAIGHT TYPE, SIZE 2 TUBE	MIL-S-19622/1	NYLON
YARD 24					1	RECEPTACLE, SINGLE, WT, 15A-125/250 V GND-S/PH	MIL-R-2726/47	
YARD 23				M19622/20-0010	4	PACKING ASSEMBLY, 1.113 ID	MIL-S-19622/20	
YARD 22				MS51922-17	8	NUT, SELF-LOCKING, 1/4-20 UNC-2B, CD PL		STEEL
YARD 21	40337			4181-3118-S-2	35	STAND-OFF, MALE/FEMALE, 1/2" DIA X 1"L, 5/16"-18 THD (RAF ELECT HRDW)	COML	STEEL
YARD 20				MS51922-9	21	NUT, SELF-LOCKING, 5/16"-18 UNC-2B, CD PL		STEEL
YARD 19					2	SHEET, .120 X 10" X 6"	ASTM A569	STEEL
YARD 18				MS24630-46	6	SCREW, TPG-THRD CUTTING, 1/2"L, NO. 10-24, TYPE D		CRES
YARD 17				MS35307-336	2	SCREW, CAP, HEX HD, 5/16"-18 UNC-2A X 1 1/4"L		CRES
YARD 16				TYPE III, GRADE 1	2	SHEET, METACRYLATE, (LUCITE), .125" X 6" X 10"	ASTM D702	PLASTIC
YARD 15				MS24523-31	2	SWITCH, TOGGLE, SPDT, 3 POS MOM ON/OFF/ON		
YARD 14				M24643/16-02UN	AR	CABLE, ELECTRICAL, 1000 V, TYPE LSTSGU, SIZE 4, 14 AWG	MIL-C-24643/16	
13				ORD ON REF 2	REF	VALVE, SOLENOID, HYDRAULIC		
YARD 12				M24643/15-02UN	AR	CABLE, ELECTRICAL, 1000 V, TYPE LSDSGU, SIZE 4, 14 AWG	MIL-C-24643/15	
GFE 11				MS52149-1	2	BATTERY, 12 V, 120 AH, LOW MAINTENANCE, TYPE 611		
YARD 10				M24643/15-07UN	AR	CABLE, ELECTRICAL, 1000 V, TYPE LSDSGU, SIZE 75, 1 AWG	MIL-C-24643/15	
YARD 9	31211			MODEL 9-20	2	PROTECTOR, VOLTAGE, 24 V (VPT-4G) (MOTOROLA) (SEE NOTE 10)	COML	VARIOUS
*	8	31211		B5A-5006P	REF	ALTERNATOR, 28.5 V, 70 AMP (MOTOROLA)	COML	VARIOUS
*	7	31211		16-63	REF	HARNES, 4 LEAD W/GND SHIELD, 17"L (MOTOROLA)	COML	VARIOUS
YARD 6	31211			BRD-3025B	2	REGULATOR, VOLTAGE 28.5 V, THICK FILM (MOTOROLA)	COML	VARIOUS
YARD 5	31211			1744555A07	2	RESISTOR, 150 OHM, W-W, MODEL NO. 17-10 (MOTOROLA)	COML	VARIOUS
YARD 4				M24643/15-04UN	AR	CABLE, ELECTRICAL, 1000 V, TYPE LSDSGU, SIZE 14, 9 AWG	MIL-C-24643/15	
*	3	31211		16-61	REF	HARNES, CABLE, 3 LEADS W/INS PLUGS, 110"L (MOTOROLA)	COML	VARIOUS
*	2	31211		16-62	REF	HARNES, CABLE, SNG LEAD W/GND SHLD, 24"L (MOTOROLA)	COML	VARIOUS
YARD 1				M24643/43-050U	AR	CABLE, ELECTRICAL, 600 V, TYPE LST2SJ, SIZE 14, 14 AWG	MIL-C-24643/43	

UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: IN. ONE PLACE (.X) ± .015 TWO PLACE (.XX) ± .005 THREE PLACE (.XXX) ± .001 ANGLES ± .5°

THIRD ANGLE PROJECTION

DO NOT SCALE THIS DRAWING

FOR INTERPRETATION OF DRAWING DIMENSIONS APPLY: REMOVE BURRS AND BREAK SHARP EDGES SHARP EDGES — TO — FILLET RADIUS — TO —

MATERIAL

DATE 13 OCT 87

DESIGN APPROVAL [Signature]

APPROVED FOR PROCUREMENT [Signature]

DATE

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

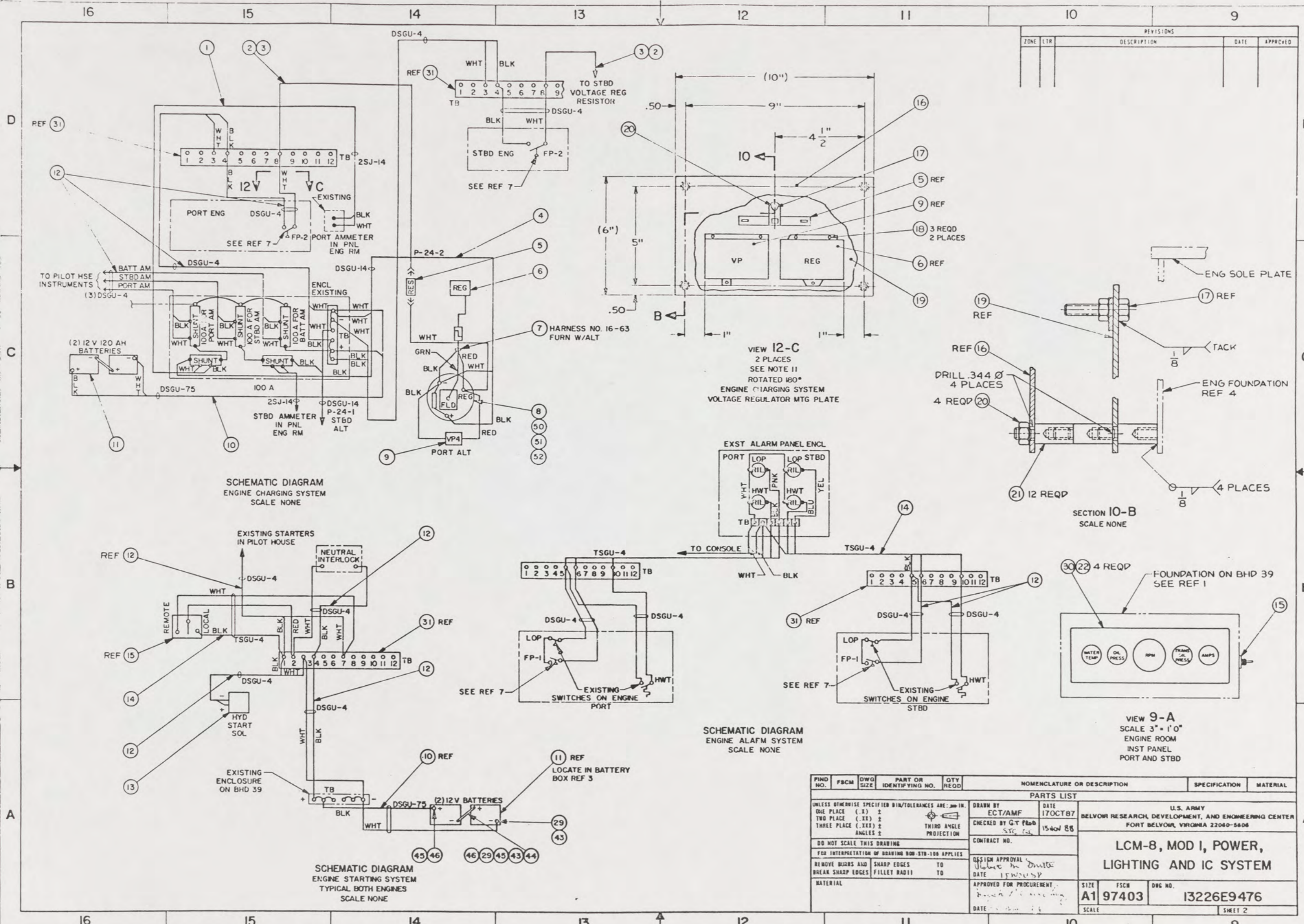
CONTRACT NO.

LCM-8, MOD I, POWER, LIGHTING AND IC SYSTEM

SIZE A1 FSC 97403 DWG NO. 13226E9476

SCALE 6" = 1' 0"

SHEET 1 OF 5

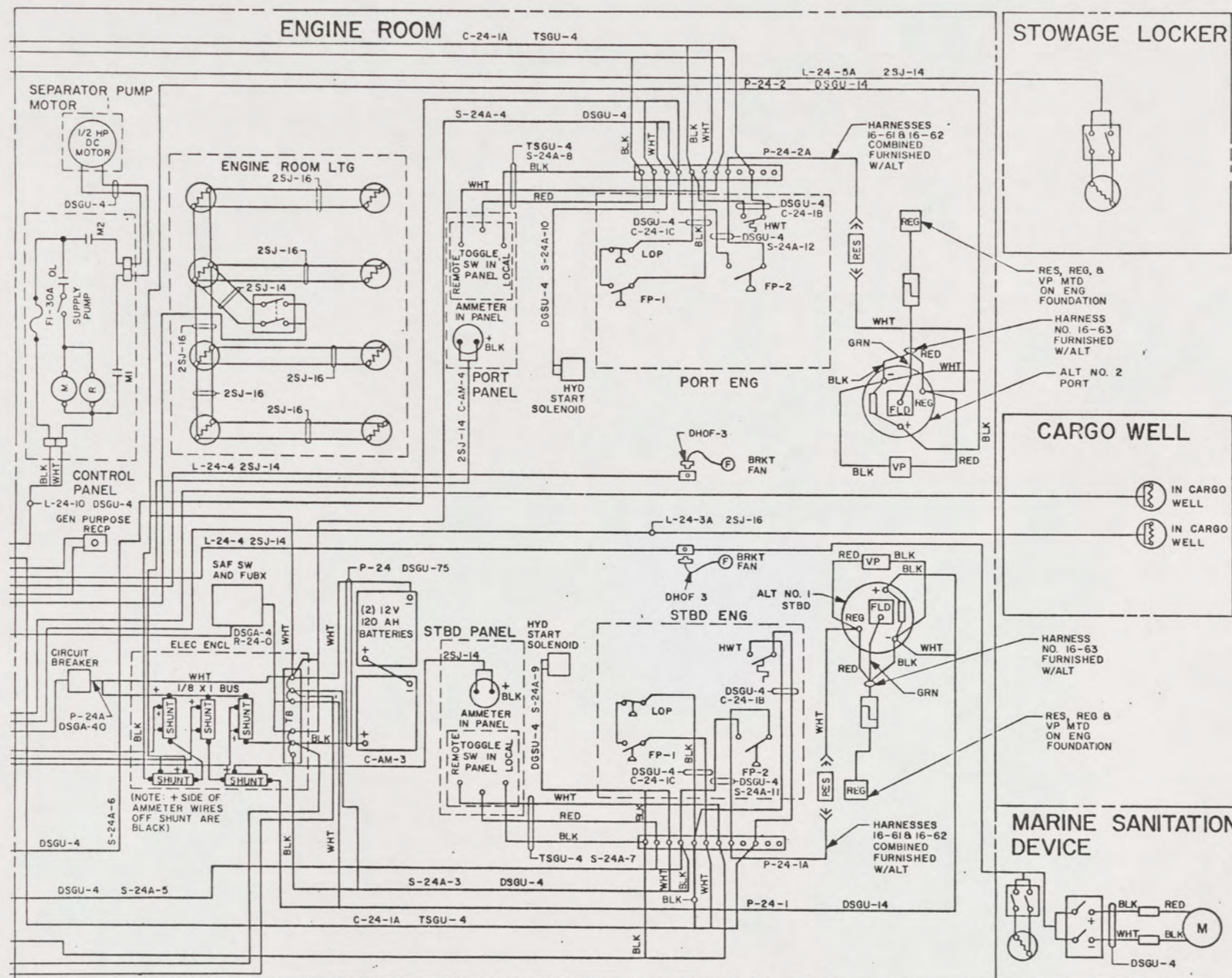


REVISIONS				
ZONE	LTN	DESCRIPTION	DATE	APPROVED

PWD NO.	FSCM	DWG SIZE	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: .001 IN.					PARTS LIST		
ONE PLACE (.I) ±	DRAWN BY ECT/AMF		DATE 17OCT87		U.S. ARMY		
TWO PLACE (.II) ±	CHECKED BY GT P200		DATE 1540N 88		BELVOIR RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER		
THREE PLACE (.III) ±	THIRD ANGLE PROJECTION		CONTRACT NO.		FORT BELVOIR, VIRGINIA 22060-5606		
ANGLES ±	DO NOT SCALE THIS DRAWING		DESIGN APPROVAL		LCM-8, MOD I, POWER, LIGHTING AND IC SYSTEM		
REMOVE BURS AND BEAR SHARP EDGES	SHARP EDGES TO	DATE 17OCT87		APPROVED FOR PROCUREMENT		SIZE A1	FSCM D9G NO.
FILLET RADI	DATE 17OCT87		DATE 17OCT87		97403	13226E9476	
MATERIAL	DATE 17OCT87		DATE 17OCT87		SCALE	SHEET 2	

96
100

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	SEE ECP NO. 90HE3103	10/11/83	11/1/85



LEGEND

A	AMPS
AM	AMMETER
F	FUSE
FLD	FIELD
FP	FUEL PRESSURE
FUBX	FUSE BOX
GND DET	GROUND DETECTOR
HWT	HIGH WATER TEMPERATURE
HYD	HYDRAULIC
ISLN	ISOLATING
LOP	LOW OIL PRESSURE
MSTHD	MASTHEAD
NUC	NOT UNDER CONTROL
R	RESISTOR
RAI	RUDDER ANGLE INDICATOR
REG	REGULATOR
RES	RESISTOR
RIL	RED INDICATOR LIGHT
RMHS	REMOTE MAGNETIC HEADING SYSTEM
SAF	SAFETY
SW	SWITCH
STBD	STARBOARD
TB	TERMINAL BOARD
VP	VOLTAGE PROTECTOR
XFR	TRANSFER
XMTR	TRANSMITTER
	SWITCH, DOUBLE POLE
	PUSH BUTTON SWITCH, SINGLE POLE
	LIGHT
	RECEPTACLE
	ROTARY SWITCH
	MOTOR
	PRESSURE SWITCH
	TEMPERATURE SWITCH
	FUSE (NO INDICATES CIRCUIT)
	FUSE
	NAVIGATION LIGHT RECEPTACLE

ELECTRICAL WIRING DIAGRAM

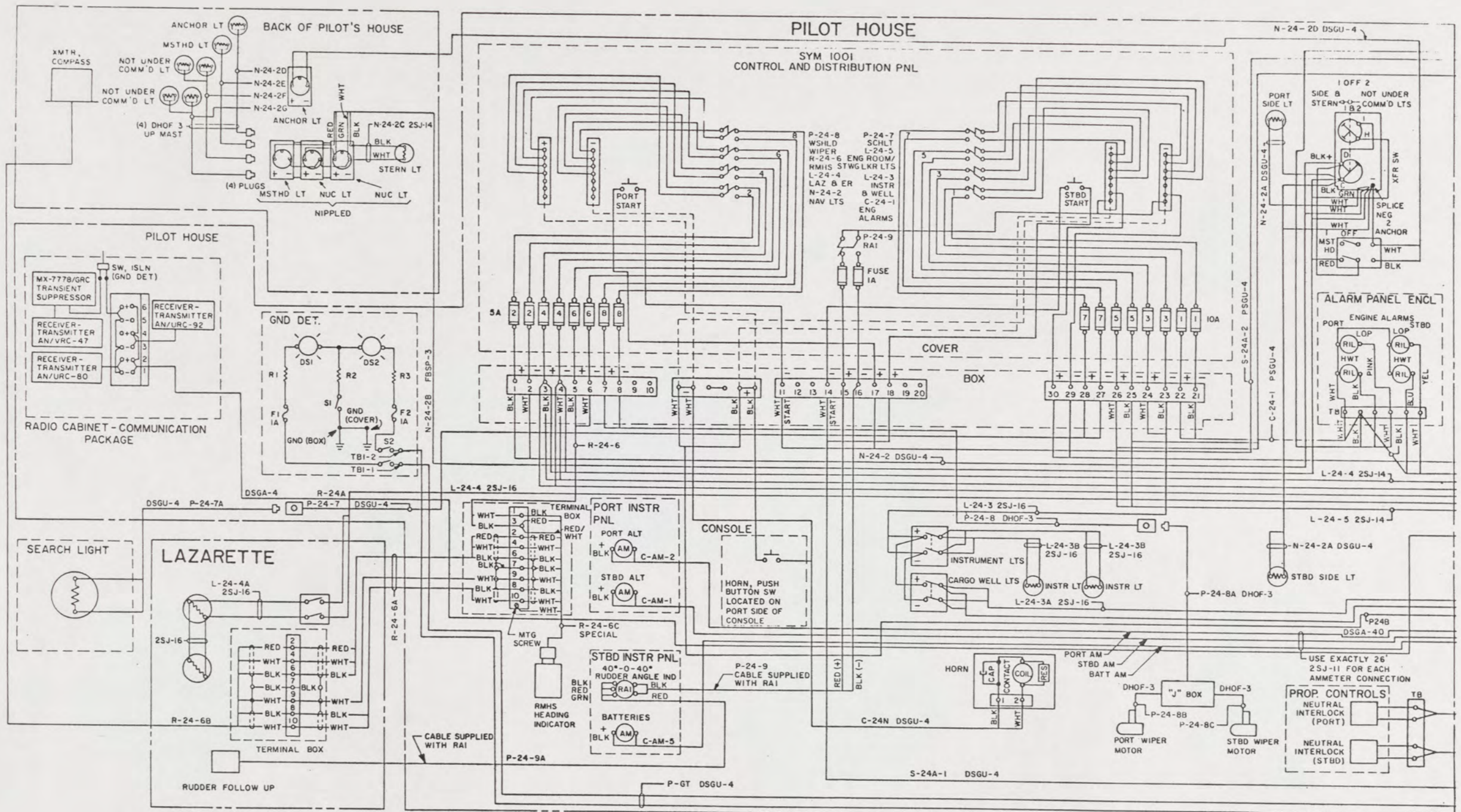
MATCHLINE M1 (33-A)

FIND NO.	FSCM	DWG SIZE	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: IN.					DRAWN BY RKK/JI DATE 9 NOV 87		
ONE PLACE (.1) ±					CHECKED BY CT Prod DATE 15 NOV 88		
TWO PLACE (.XX) ±					DESIGN APPROVAL		
THREE PLACE (.XXX) ±					DATE		
ANGLES ±					APPROVED FOR PROCUREMENT		
DO NOT SCALE THIS DRAWING					DATE		
FOR INTERPRETATION OF DRAWING DDD-STD-100 APPLIES					SIZE A1		
REMOVE BURRS AND SHARP EDGES TO					FSCM 97403		
BREAK SHARP EDGES FILLET RADI TO					DWG NO. 13226E9476		
MATERIAL					SCALE		
					SHEET 4		

LCM-8, MOD I, POWER, LIGHTING AND IC SYSTEM

98
102

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		SEE ECP NO. 90HE3103	20m 30	R N S



MATCHLINE MI (32-A)

FIND NO.	FSCM	DWG SIZE	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: .001 IN.				DRAWN BY RKK/J1 DATE 9 NOV 87			
ONE PLACE (.X) ±				CHECKED BY CT PWD DATE 15 NOV 88			
TWO PLACE (.XX) ±				THIRD ANGLE PROJECTION			
THREE PLACE (.XXX) ±				CONTRACT NO.			
ANGLES ±				DESIGN APPROVAL			
DO NOT SCALE THIS DRAWING				APPROVED FOR PROCUREMENT			
FOR INTERPRETATION OF DRAWING 900-STD-100 APPLIES				DATE			
REMOVE BURRS AND BREAK SHARP EDGES				SHARP EDGES TO FILLET RADI			
MATERIAL				DATE			
SIZE A1 97403		FSCM		DWG NO. 13226E9476		SHEET 5	

99
103