

8 7 6 5 4 3 2 1

NOTES:

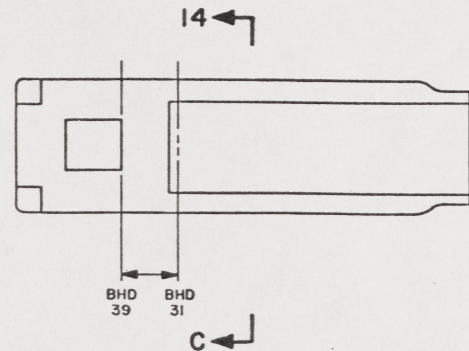
- RELOCATE EXISTING DECK FITTING AND EXPANSION TANK TO POSITION SHOWN. PROVIDE OPENING AND HOLES FOR HARDWARE IN DECK AND SECURE WITH EXISTING HARDWARE. PLUG ORIGINAL HOLES WATERTIGHT.
- TEMPLATE ALL WORK FROM LCM-8 AND EQUIPMENT.
- EQUIPMENT AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH USCG AND ABS REGULATIONS.
- REPAIR ALL PAINT DAMAGED BY THIS INSTALLATION AND PAINT ALL NEW STEEL IN ACCORDANCE WITH U.S. ARMY TECHNICAL BULLETIN 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.
- SLIGHT DEVIATIONS FROM DIMENSIONS SHOWN ARE PERMISSIBLE TO SUIT ACTUAL CONDITIONS FOUND ABOARD THE VESSEL.
- 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.
- WELDING AND BRAZING REQUIREMENTS SHALL BE IN ACCORDANCE WITH NAVSEA STD ITEM NO. 009-12.
- PIPING SHALL BE SUITABLY SECURED BY PIPE HANGERS TO PREVENT VIBRATION AND PROTECT AGAINST DAMAGE IN ACCORDANCE WITH NAVSHIPS 804-1385781.
- PIPING SYSTEMS SHALL BE THOROUGHLY CLEANED BY FLUSHING WITH THE MEDIUM FOR WHICH THE SYSTEM IS INTENDED.
- ALL THREADED PIPE JOINTS SHALL BE ASSEMBLED USING ANTISEIZE TAPE M-10. PIPING SHALL BE TESTED HYDROSTATICALLY WITH WATER AND ALL JOINTS INSPECTED FOR TIGHTNESS IN ACCORDANCE WITH LCM-8 INSTALLATION INSTRUCTIONS: 55-1905-217-1.
- IDENTIFY PIPING SYSTEM IN ACCORDANCE WITH TB43-0144.
- BULKHEAD PENETRATIONS SHALL BE IN ACCORDANCE WITH NAVSHIPS 810-2145801. PENETRATIONS NO LONGER USED SHALL BE CLOSED OFF WATERTIGHT.
- REMOVE EXISTING BULKHEAD PENETRATION FITTING AND PROVIDE NEW FITTINGS ACCORDING TO VIEW 10-C AT SAME EXISTING LOCATION.
- INSIDE DIAMETER OF P-6 TO BE BORED TO SUIT OUTSIDE DIAMETER OF FITTING F-4 AND BRAZED IN PLACE.
- UNLESS OTHERWISE SHOWN, PIPING ARRANGEMENT FOR BOTH PORT AND STARBOARD ENGINES WILL BE THE SAME.
- 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 APPLICABLE TO HULL NUMBERS 8540 THRU 8560 AND 8580 THRU 8618		
NO.	DRAWING NO.	TITLE
1	145-4510945	LCM-8 MOD-1 SYSTEM ENGINE COOLING
2	145-4681045	LCM-8 MOD-1 USAT 1 SYSTEM ENGINE COOLING
3	145-4510321	BULKHEAD AND TRANSOM
4	145-4510916	DECK PLATING

REFERENCE DRAWINGS APPLICABLE TO HULL NUMBERS 8520 THRU 8539		
NO.	DRAWING NO.	TITLE
1	209-2534213	LCM-8 MOD-1 SYSTEM ENGINE COOLING
2	145-4681045	LCM-8 MOD-1 USAT 1 SYSTEM ENGINE COOLING
3	145-2534195	BULKHEAD AND TRANSOM
4	145-2534202	DECK PLATING

SHEETS		STATUS OF REVISIONS	
3	2	ZONE	DESCRIPTION

YARD	NO.	QTY	DESCRIPTION	UNIT	COMPL.	MATERIAL
YARD	M-13		ANGLE, 1 1/2" X 1 1/2" X 1/4" X 6 1/2" L			ASTM A36 STL
YARD	M-12		MS35842-14 CLAMP, HOSE, LOW PRESSURE, 2 9/16"-3 1/2" RANGE			CRES
YARD	M-11	24161	76W HOSE, 3 1/4" ID X 6" L (GATES)		COMPL.	RUBBER
YARD	M-10		SIZE 11 TAPE, ANTI-SEIZE (SEE NOTE 11)			MIL-T-27730
YARD	M-9		M1BC510 SHEET, 1/8" X 1" AR L			ASTM D2000 RUBBER
YARD	M-8	80996	FIG. 138 CLAMP, PIPE, 3" IPS CD PL, 1/2" PIPE THREAD (GRINNELL)		COMPL.	MI
YARD	M-7	24161	35W HOSE, 2 1/2" ID X 5" L (GATES)		COMPL.	RUBBER
YARD	M-6	24161	76W HOSE, 3 1/2" ID X 3" L (GATES)		COMPL.	RUBBER
YARD	M-5		MS35842-15 CLAMP, HOSE, LOW PRESSURE, 3 5/16"-4 1/4" RANGE			CRES
YARD	M-4		MS35842-12 CLAMP, HOSE, LOW PRESSURE, 1 1/16"-2" RANGE			CRES
YARD	M-3	24161	35W HOSE, 1 5/16" ID X 6" L (GATES)		COMPL.	RUBBER
YARD	M-2	24161	75W HOSE, 1/2" ID X 6" L (GATES)		COMPL.	RUBBER
YARD	M-1		MS35842-11 CLAMP, HOSE, LOW PRESSURE, 1 1/16"-1 1/4" RANGE			CRES
GFE	V-2	12168	T-413-B VALVE, SWING CHECK, CLASS 125, 1" IPS THD (NIBCO)		COMPL.	BRONZE
GFE	V-1	12168	S-413-B VALVE, SWING CHECK, 125 LB SWP, 3" C X C (NIBCO)		COMPL.	BRONZE
YARD	F-8	72423	5528-040 UNION, FEMALE, 1/4" SIZE, FF X MALE THD W/SB RING (FLAGG)		COMPL.	BRONZE
YARD	F-7		ALLOY NO. OPTL REDUCING COUPLING, C X C, 3" X 2 1/2"			ANSI B16.22 CU ALY
YARD	F-6		COUPLING, 1/2" IPS, CL 125			ANSI B16.15 BRONZE
YARD	F-5		ELBOW, 45°, 1" IPS, CL 125			ANSI B16.15 BRONZE
YARD	F-4		25 ELBOW, 90°, 3" STD WATER TUBE SIZE, C X C			ANSI B16.18 CU ALY
YARD	F-3		M1183/11-35A3 UNION ELBOW, 90°, 1" IPS W/SB RING			MIL-F-1183/11 BRONZE
YARD	F-2		M1183/5-01A ELBOW, 90°, 1/4" IPS W/SB RING			MIL-F-1183/5 BRONZE
YARD	F-1		ELBOW, 90°, STREET, 1" IPS, CL 125			ANSI B16.15 BRONZE
YARD	P-10		UNS C12000-061 SMLS COPPER PIPE, 1/2" IPS, REGULAR			ASTM B42 CU ALY
YARD	P-9		MS1846-24 NIPPLE, SHORT, 1/4" IPS			BRASS
YARD	P-8		TY AND GR OPTL PIPE, BLACK, 1/2" IPS X SCHED 40 TOE			ASTM A53 STL
YARD	P-7		UNS C12000-050 SMLS COPPER WATER TUBE, 2 1/2" STD SIZE X .095 WALL X 3" L			ASTM B88 CU ALY
YARD	P-6		UNS C12000-061 SMLS COPPER PIPE, 3" IPS, REGULAR X 1 3/4" L			ASTM B42 CU ALY
YARD	P-5		GR 1026, TY 5 TUBE, 3 1/8" OD X 2.75 ID			ASTM A513 STL
YARD	P-4		UNS C12000-050 SMLS COPPER WATER TUBE, 3" STD SIZE X .072 WALL			ASTM B88 CU ALY
YARD	P-3		UNS C12000-061 SMLS COPPER PIPE, 1" IPS, REGULAR			ASTM B42 CU ALY
YARD	P-2		COPPER NO. OPTL THREADLESS COPPER PIPE, 1" IPS X .065 WALL			ASTM B302 CU ALY
YARD	P-1		COPPER NO. OPTL THREADLESS COPPER PIPE, 1/4" IPS X .065 WALL			ASTM B302 CU ALY



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

UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: .001 IN.

ONE PLACE (.1) ±
TWO PLACE (.01) ±
THREE PLACE (.001) ±
ANGLES ±

DO NOT SCALE THIS DRAWING

FOR INTERPRETATION OF DRAWING 800-STD-100 APPLIES

REMOVE BURRS AND SHARP EDGES TO
BREAK SHARP EDGES FILLET RADI TO

MATERIAL

DESIGN APPROVAL
DATE 15 NOV 88

APPROVED FOR PROCUREMENT
DATE 15 NOV 88

DRWN BY DSK/HA DATE 22 OCT 86
CHECKED BY C.T. Frip
S.E.C. G.C. 15 NOV 88

CONTRACT NO.

U.S. ARMY
BELVOIR RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER
FORT BELVOIR, VIRGINIA 22060-8406

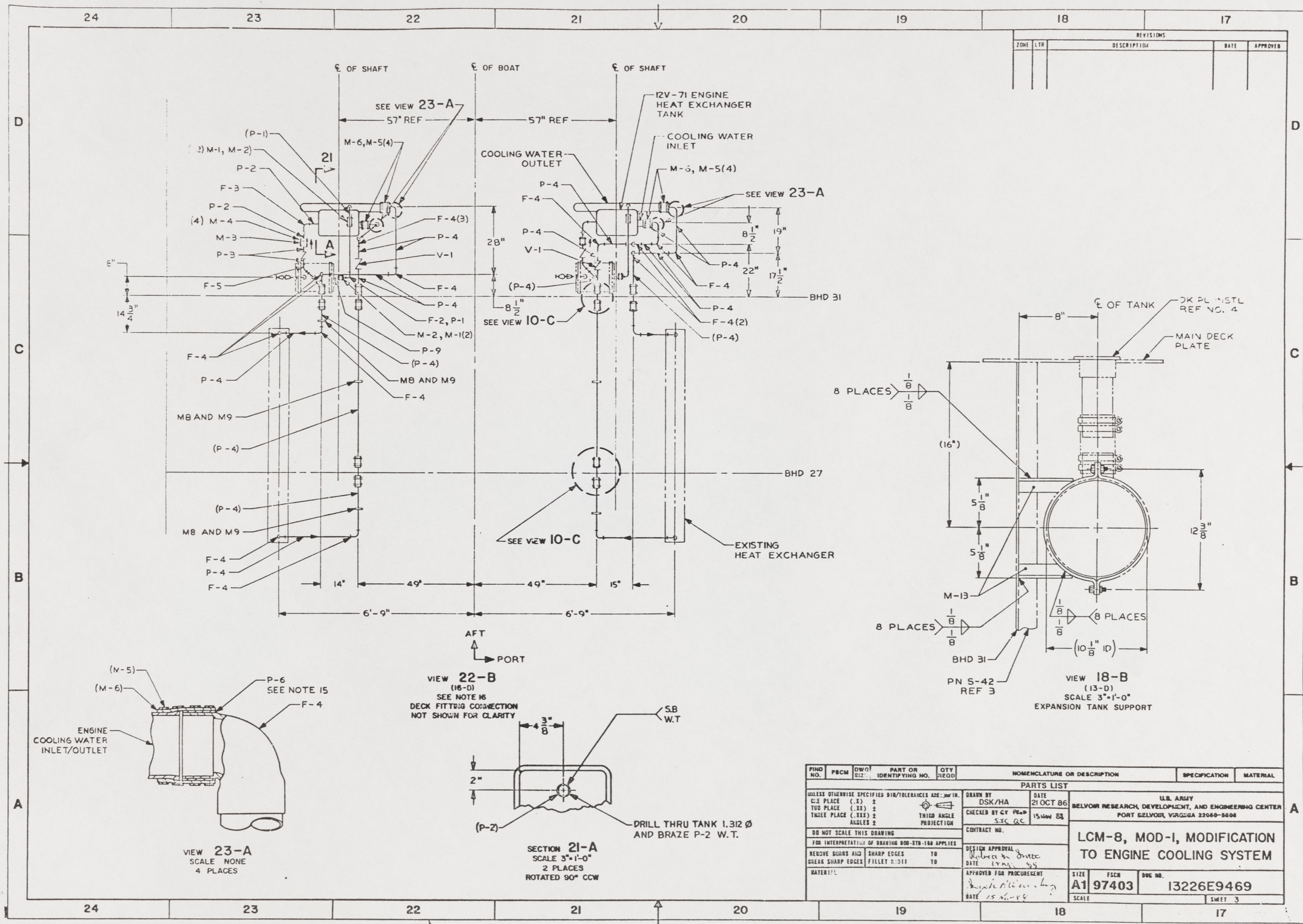
LCM-8, MOD-1, MODIFICATION TO ENGINE COOLING SYSTEM

SIZE A1 FSCB DWG NO. 13226E9469
SCALE 3/4" = 1'-0"

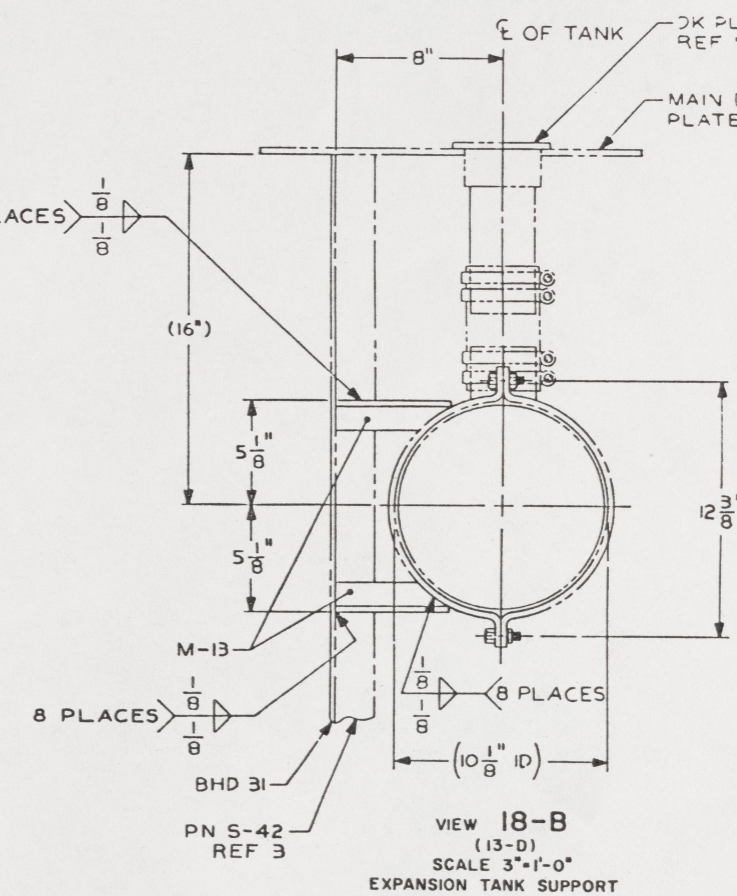
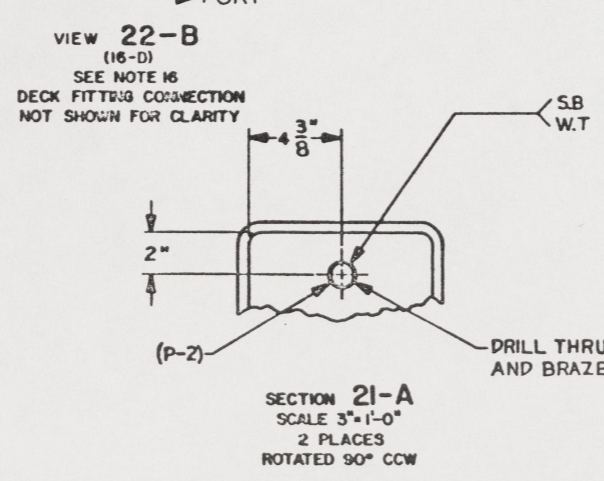
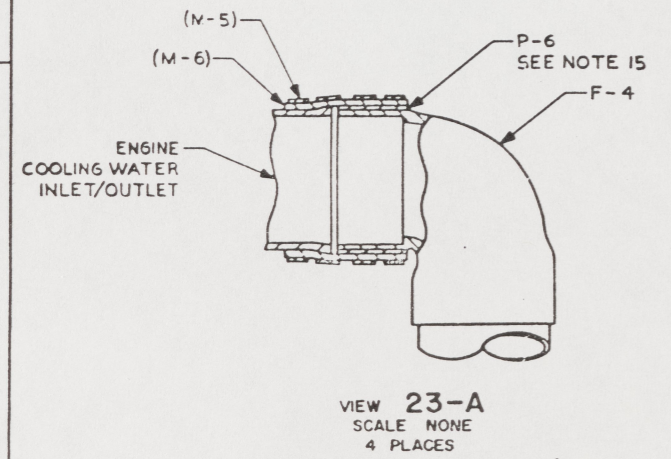
SHEET 1 OF 3

8 7 6 5 4 3 2 1

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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED



FIND NO.	PBCM	DWG/ QTY	PART OR IDENTIFYING NO.	QTY REQD	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	MATERIAL
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIM/TOLERANCES ARE: .001 IN.					DRAWN BY DSK/HA DATE 21 OCT 86		
8/8 PLACE (.XX) 2					CHECKED BY STG/OC DATE 15 NOV 88		
TUD PLACE (.XXX) 2					THIRD ANGLE PROJECTION		
BREAK SHARP EDGES					CONTRACT NO.		
DO NOT SCALE THIS DRAWING					DESIGN APPROVAL		
FOR INTERPRETATION OF DRAWING 800-570-100 APPLIES					DATE 15 NOV 88		
REMOVE BURRS AND BREAK SHARP EDGES					APPROVED FOR PROCUREMENT		
SHARP EDGES TO					DATE 15 NOV 88		
FILLET R:0.01					SIZE A1		
WATER TIGHT					FSCN 97403		
					DUC NO. 13226E9469		
					SCALE		
					SHEET 3		

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