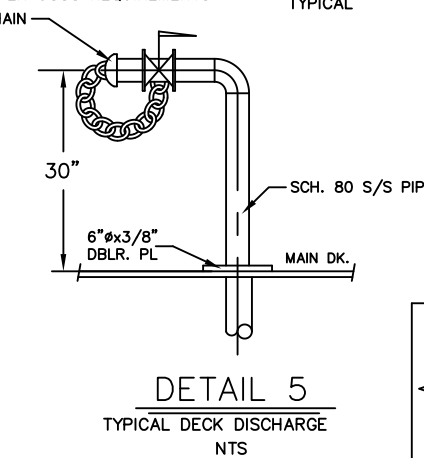
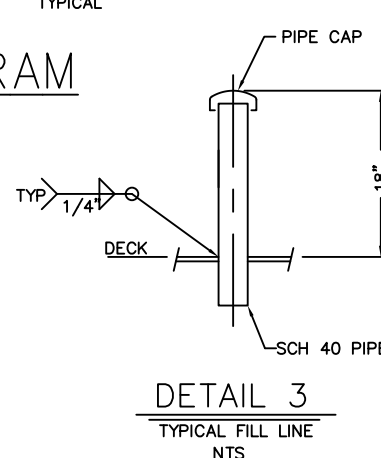
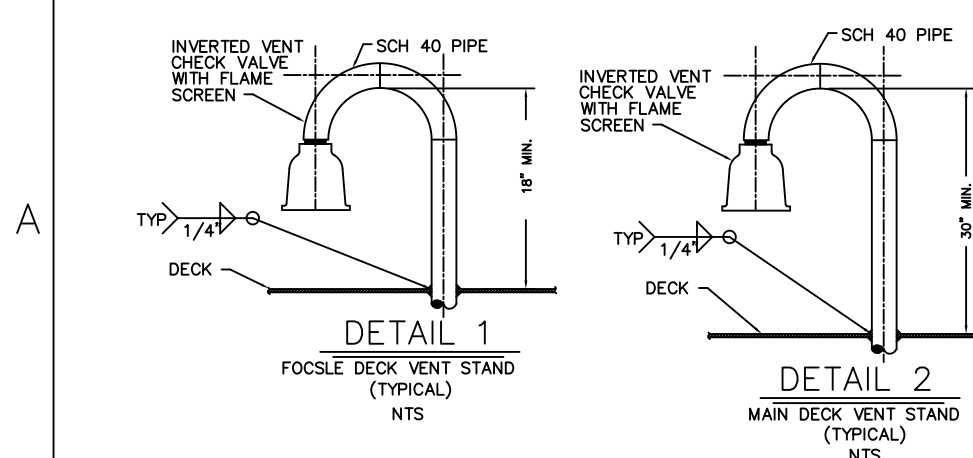
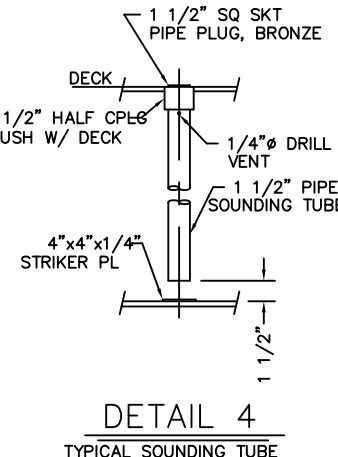
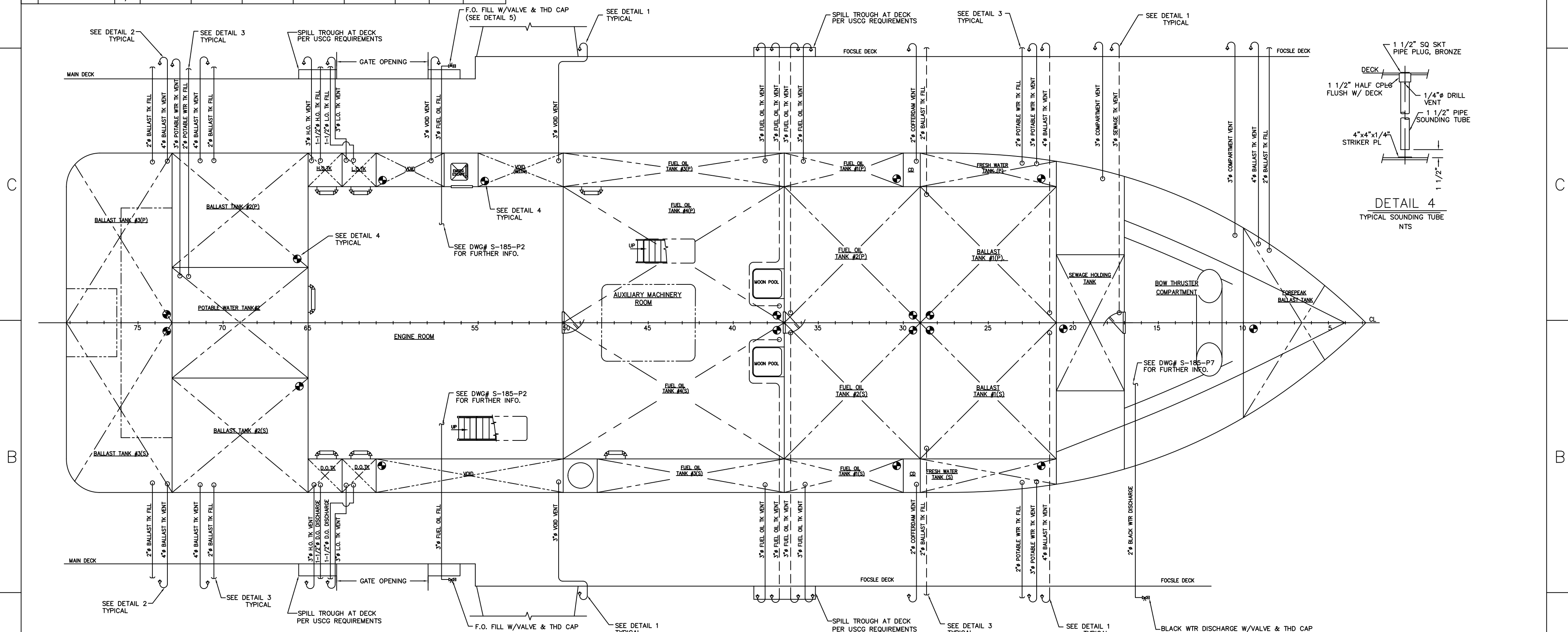


MATERIAL SCHEDULE											
NO.	SYSTEMS	SERVICE	SIZES	PIPE	VALVES		FITTINGS	TAKE-DOWN JOINTS	ASTM SPEC		GASKETS
					BODIES	TRIM			BOLTS	NUTS	
1	FILLS	ALL BELOW DECK	BLK STL ASTM A-53-B SCH 80	BUTTERFLY LUG, D.I. ASTM A-395	BRONZE	SCRD CAP, M.I. 150#, ASTM A-197	N/A	N/A	N/A	N/A	N/A
2	VENTS	ALL ABOVE DECK	STNLS STL SCH 40			WELDED 150#, ASTM A-105				N/A	N/A
3	SOUNDING TUBES	ALL	BLK STL ASTM A-53-B SCH 40	N/A	N/A	F.S. HALF CPLG W/BRZ PLUG	N/A	N/A	N/A	N/A	N/A
4	SIGHT GLASS	3/4"		BRASS		200PSI					

SYMBOL LIST	
SYMBOL	DESCRIPTION
	VALVE, BUTTERFLY
	SOUNDING TUBE
	FILL W/ THREADED CAP
	GAUGE GLASS W/ SELF CLOSING VALVES SEE GENERAL NOTE 7
	VALVE, INV VT CHECK, W/FLAME SCREEN
	PIPE TURNING DOWN
	PIPE CAP

**GENERAL NOTES**

- PIPE FITTINGS AND VALVE MATERIALS ARE SPECIFIED IN MATERIAL SCHEDULE.
- ALL TANKS AND TANK VENTS SHALL BE AIR TESTED TO 1.5 PSI.
- ALL PIPING TO BE SUPPORTED WITH HANGERS AT SUITABLE INTERVALS IN ACCORDANCE WITH GOOD MARINE PRACTICE.
- ALL DECK OR BULKHEAD PENETRATIONS SHALL HAVE DOUBLE CONTINUOUS FILLET WELDS. OPENINGS MADE BY PIPES PASSING THROUGH STRUCTURE SHALL BE REINFORCED AS NECESSARY.
- ALL FILLS, VENTS AND SOUNDS MUST BE CLEARLY MARKED.
- HEIGHTS OF ALL TANK VENTS SHALL BE A MINIMUM OF 30" ABOVE MAIN DECK AND 18" ABOVE FOCSLE DECK.
- SIGHT GLASS ON INTEGRAL HULL TANKS TO BE KENCO, MODEL 9900.
- THIS DWG REPRESENTS A DIAGRAMMATIC TYPE SYSTEM DESCRIPTION. DO NOT SCALE. SOME EQUIPMENT AND PIPE RUNS MAY BE SHOWN OUT OF PLACE TO ALLOW ALL SYSTEM COMPONENTS TO BE CLEARLY SHOWN.
- ALL FUEL OIL VENTS TO BE EQUIPPED WITH FLAME SCREENS PER U.S.C.G. REQUIREMENTS.
- LOCATE VENTS AS CLOSE TO BULKWARK/DECK HOUSE AS POSSIBLE.
- CONTAINMENT DEVICES SHALL BE INSTALLED AROUND ALL OIL TANK FILLS, VENTS, & OVERFLOWS IN ACCORDANCE WITH U.S.C.G. POLLUTION REQUIREMENTS.
- ALL FOCSLE DECK VENTS & FILL FITTINGS TO BE LOCATED ALONGSIDE DECK HOUSE STRUCTURE.
- POTABLE WATER TANK VENTS SHALL BE FITTED WITH PROPER INSECT SCREENS.



1	ISSUED FOR CONSTRUCTION.	RLP	4/29/99
NO.	ALTERATIONS	BY/DATE	
TITLE: 160'-0"x40'-0"x13'-0" RESEARCH VESSEL			
VENTS, FILLS & SOUNDS			
SYSTEM DIAGRAM			
PREPARED FOR: CAMERON OFFSHORE BOATS, INC. CAMERON, LOUISIANA			
DRAWN BY: RLP		DATE: 4/27/99	
CHECKED BY:		DATE:	
APPROVED BY:		DATE:	
APPROVED BY:		DATE:	
SCALE: NOT TO SCALE		CONTRACT NO: S-185-32	
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MARINE DESIGNERS and SURVEYORS		OF: 1	
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