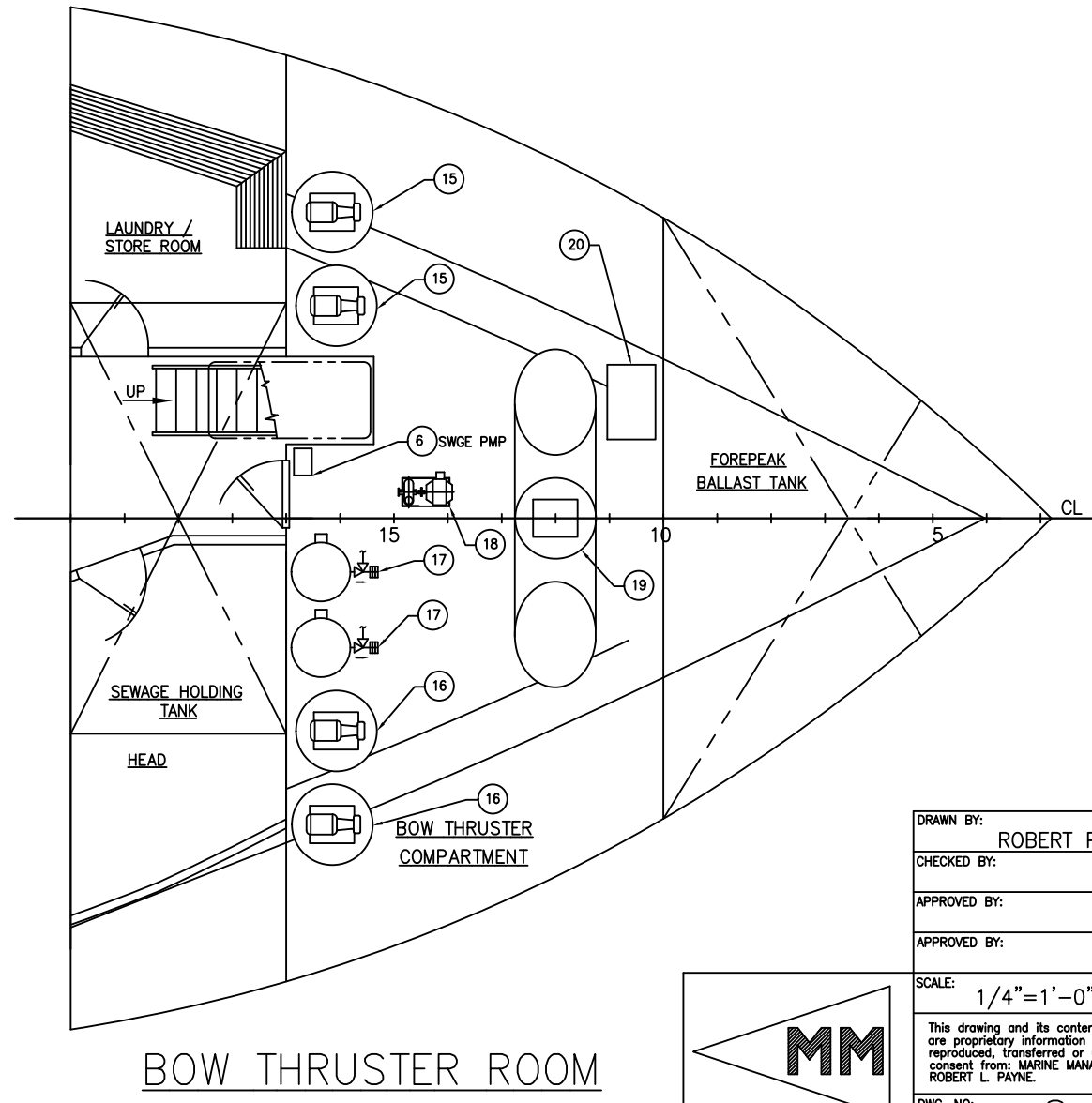
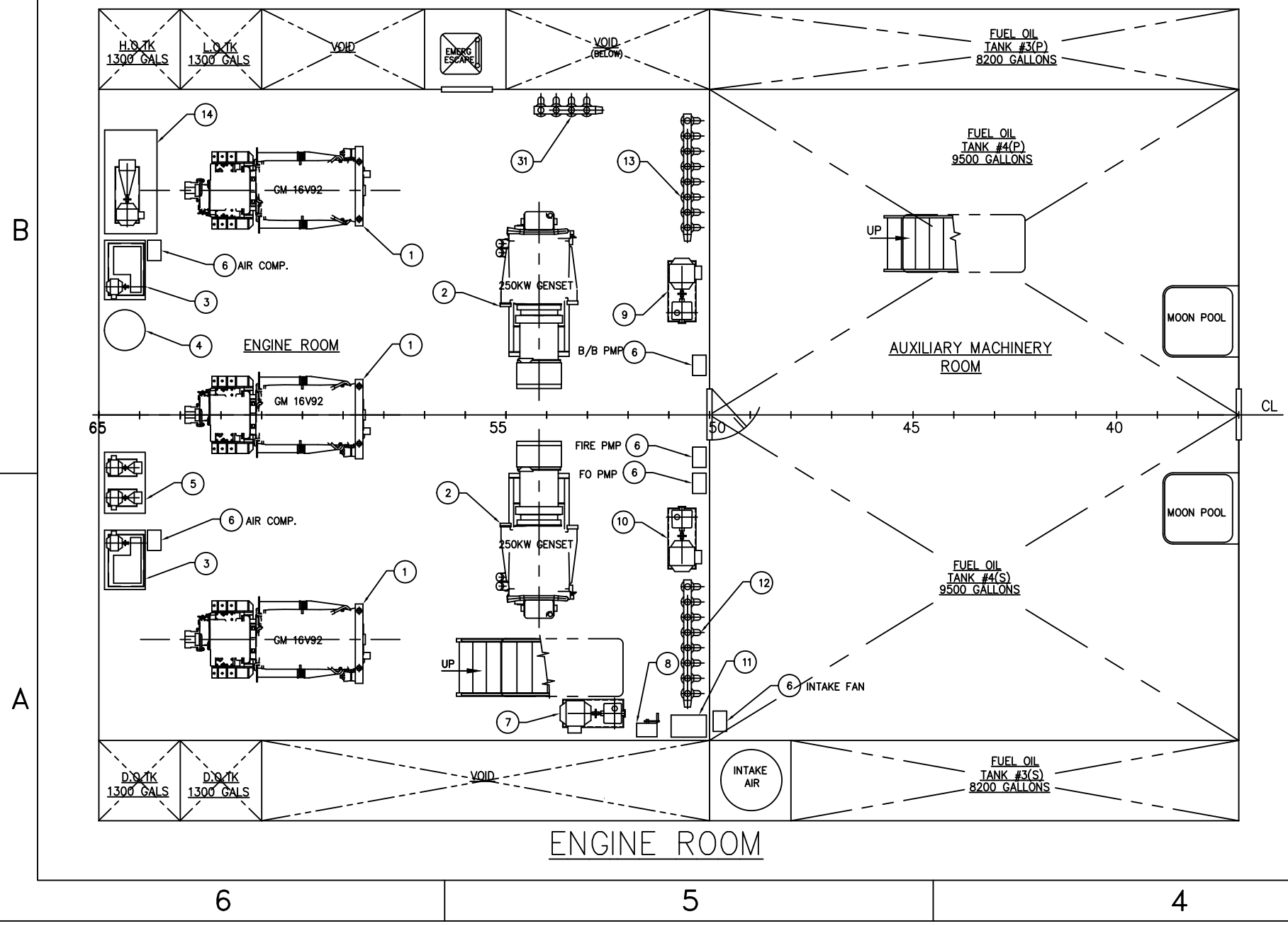


| HVAC EQUIPMENT LIST | |
|---------------------|--|
| ITEM NO. | DESCRIPTION |
| 1 | AIR HANDLER/FAN COIL UNIT ON MAIN DECK BRYANT, MOD# 524AEB09000AAGC S/N: 2099F19729 208-230/460V 3PH 60HZ HEATERS - 208-230/460V 3PH 60HZ |
| 2 | AIR HANDLER/FAN COIL UNIT ON SURVEY DECK BRYANT, MOD# 524AEB09000AAGC S/N: 2199F21367 208-230/460V 3PH 60HZ HEATERS - 208-230/460V 3PH 60HZ |
| 3 | AIR HANDLER/FAN COIL UNIT IN PILOT HOUSE BDP COMPANY, MOD# FC4BNF060 S/N: 3599A22882 208/230 1PH 60HZ |
| 4 | AIR CONDITIONER COMPRESSOR UNIT ON SURVEY DECK (STBD SIDE) BDP COMPANY MOD#569CEX090000ABAA S/N: 3799G00200, 460V 3PH 60HZ |
| 5 | AIR CONDITIONER COMPRESSOR UNITS ON SURVEY DECK (2X PORT SIDE) BDP COMPANY MOD#561CE060-E S/N: 1999E14710-4704, 460V 3PH 60HZ |
| 6 | AIR CONDITIONER COMPRESSOR UNIT ON PILOT HOUSE DECK (PORT SIDE) BDP COMPANY MOD#569CEX090000ABAA S/N: 3799G00184, 460V 3PH 60HZ |
| 7 | AIR CONDITIONER COMPRESSOR UNIT ON PILOT HOUSE DECK (PORT SIDE) BDP COMPANY MOD#561CE060-E S/N: 1999E14717, 460V 3PH 60HZ |
| 8 | AIR HANDLER/FAN COIL UNIT IN MN.DK. WORKSHOP BDP COMPANY MOD#FC4BNF060 S/N: 3599A22879, 208/230V 1PH 60HZ |

| MACHINERY LIST | |
|----------------|--|
| ITEM NO. | DESCRIPTION |
| 1 | DETROIT DIESEL 16V-92 W/TWIN DISC MG5202DC REVERSE/REDUCTION GEAR 5.04:1 RATIO S/N PORT: 3AE068 STBD: 3AE062 CTR: 3AE064 |
| 2 | GENERATOR, DETROIT DIESEL 12-71 W/250KW MARATHON/MAGNAPLUS SYNCHRONOUS A/C GENERATOR, 1800RPM, 440VOLTS, 3PH, 60HZ MOD#433PSL-1370 S/N PORT: WA-518596-0399 S/N STBD: WA-519198-0399 |
| 3 | AIR COMPRESSOR - QUINCY MODEL 150949-133 S/N: 5117945 5HP/208-230/460V 3PH, 60HZ BALDOR MOTOR: 1750RPM CAT#M3218T |
| 4 | AIR RECIEVERS - 2 STACKED, MANCHESTER TANK 120GAL, 1999, MAWP200PSI@650F CAT#35557 |
| 5 | STEERING UNIT, GULF COAST AIR & HYDRAULICS 80 GALLON RESERVOIR 2 X LEESON 10HP MOTORS, S/N 0678/0639 2XINT.FLUID POWER V20-8-1 2500PSI VANE PUMPS 2X VICKERS CONTROL VALVES MOD#88002-DG454-018C-60 |
| 6 | MOTOR STARTER, SQUARE D, NEMA 0 & 1, CLASS 8536 TYPE S STARTER #30072-007-69C |
| 7 | FUEL OIL PUMP, BARNES, 25CCE, 15HP @ 3500RPM, W/BALDOR MOTOR, 208/230/460V 3PH 60HZ SN: 0693399-0599 |

| MACHINERY LIST | |
|----------------|---|
| ITEM NO. | DESCRIPTION |
| 8 | FUEL OIL HAND PUMP, MONARCH V-110 1"x1" |
| 9 | BILGE/BALLAST PUMP, BARNES, 25CCE, 15HP @ 3500RPM, W/BALDOR MOTOR, 208/230/460V 3PH 60HZ SN: 0693396-0599 |
| 10 | FIRE PUMP, BARNES, 25CCE, 15HP @ 3500RPM, W/BALDOR MOTOR, 208/230/460V 3PH 60HZ SN: 0693398-0599 |
| 11 | FUEL OIL METER, LIQUID CONTROLS CORP. MOD# M-15-1, SN: 364712 FLOW RATE 20-200GPM MAX PRESS: 150PSI |
| 12 | FUEL OIL MANIFOLD |
| 13 | BALLAST MANIFOLD |
| 14 | HYDRAULIC POWER UNIT, GULF COAST AIR & HYDRAULICS LEESON 40HP MOTOR, S/N G150083-60 208-230/460V VICKERS MOD#PVH57C-RF-15-10-C25-31 VANE PUMP S/N: 15899SCI-5098 |
| 15 | SALT WATER PRESSURE SET W/ AERMOTOR MOD# HJS-100 PUMP & A.O.SMITH MOD# C48B80C09 S/N 8F99 MOTOR 1HP/3450RPM 115/230, ON CHAMPION PRESSURE TANK, MOD# 05021759 |
| 16 | FRESH WATER PRESSURE SET W/ AERMOTOR MOD# HJS-100 PUMP & A.O.SMITH MOD# C48B80C09 S/N 8G99 MOTOR 1HP/3450RPM 115/230, ON CHAMPION PRESSURE TANK, MOD# 05021759 |
| 17 | HOT WATER HEATER - ENVIRO-TEMP MOD# E2F50RD045V 50GAL. 1PH 208/240 |
| 18 | SEWAGE PUMP - CROWN, MOD#P03LA-BD S/N# T629690-0999 W/ BALDOR CAT#M3311T 7.5HP ELECTRIC MOTOR 208-230/460 60HZ |
| 19 | BOW THRUSTER MOTOR - U.S. ELECTRIC MOTORS HIGH THRUST, 50HP, 3PH, 1185RPM, 60HZ TYPE-RV4 S/N: CO3-98043406-001R-01 |
| 20 | BOW THRUSTER MOTOR STARTER, CONTECH POWER SYSTEMS, INC. 480VAC/3PH CODE: MARINE P/N 28300 |
| 21 | BOW THRUSTER |
| 22 | TRASH COMPACTOR - GALLEY, CHICAGO TRASHPACKER MOD# MTA-3000/SS .5HP, 120/240V 60HZ S/N: 2870-N24 |
| 23 | VENT FAN - ENGINE ROOM/AUX.MACH.SPACE |
| 24 | VENT FAN-MACHINERY SPACE-MAIN DECK |
| 25 | GENERATOR, DETROIT DIESEL 6-71 W/75KW LIMA /MARATHON A/C GENERATOR 1200RPM, 440VOLTS, 3PH, 60HZ MOD#441SSL111 S/N: LM-333199-0499 |
| 26 | SHIPS SERVICE ELECTRICAL PANEL, CONTECH POWER CODE: MARINE P/N 26800 |
| 27 | TRANSFORMER #1, SORREL INSULATED TRANSFORMER SQUARE D, 75KVA, 60HZ, 3PH, TYPE: SO HV480/LV208Y/120 STYLE: 34349-17212-064 |
| 28 | TRANSFORMER #2, SORREL G.P. TRANSFORMER SQUARE D, 45KVA, 60HZ, 3PH, TYPE: SO HV480/LV208Y/120 STYLE: 33749-17212-082 |
| 29 | REEFER COMPRESSOR UNIT, COPELAND 208/230V, 1PH, 60HZ MOD# FJAF-A056-IAV-201 |
| 30 | FREEZER COMPRESSOR UNIT, COPELAND 208/230V, 1PH, 60HZ MOD# FJAM-A106-CAV-001 |
| 31 | BILGE MANIFOLD |



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|--|--------------|---------------|----------|
| DRAWN BY: | ROBERT PAYNE | DATE: | 12-6-99 |
| CHECKED BY: | | DATE: | |
| APPROVED BY: | | DATE: | |
| APPROVED BY: | | DATE: | |
| SCALE: | 1/4"=1'-0" | CONTRACT NO.: | S-185-32 |
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| DWG. NO.: | S-185-M1 | | |

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|--|--|---------|
| NO. | ALTERATIONS | BY/DATE |
| TITLE: | 160'-0" x 40'-0" x 13'-0" RESEARCH VESSEL | |
| MACHINERY ARRANGEMENT | | |
| PREPARED FOR: | CAMERON OFFSHORE BOATS, INC. CAMERON, LOUISIANA | |
| MARINE MANAGEMENT INC. | | SHF: 1 |
| MARINE DESIGNERS and SURVEYORS | | OF: 1 |
| P.O. Box: 1803 Ocean Springs, MS 39566-1803 | | ALT: 0 |
| Ph: 601-872-2848 Fax: 601-872-0606 Online: rpayne@bolatamc.com | | |

S-185-M1 REV.0