

GENERAL NOTES

1. ALL FIRE STATIONS TO BE EQUIPPED WITH 50FT OF LINED COMMERCIAL FIRE HOSE UL LISTED 1 1/2" DIA. COMB. NOZZLE.
2. FOR HYDRANTS IN MACHINERY SPACE PROVIDE NOZZLES SUITABLE FOR SPRAYING WATER ON OIL (SEE SECT. 29.5 FOR VESSELS UNDER 200FT)
3. ALL BILGE SUCTION LINES TO BE LOCATED 2" ABOVE LOW SPOT OF SPACE.
4. ALL BALLAST SUCTION LINES TO BE LOCATED 2 1/2" ABOVE LOW SPOT OF TANK.
5. FOREPEAK BALLAST TANK TO BE OPERATED BY REACH ROD LOCATED IN MAIN DECK HEAD/SHOWER.
6. ALL BUTTERFLY VALVES ON SHELL CONNECTIONS TO BE LUG BODY TYPE.

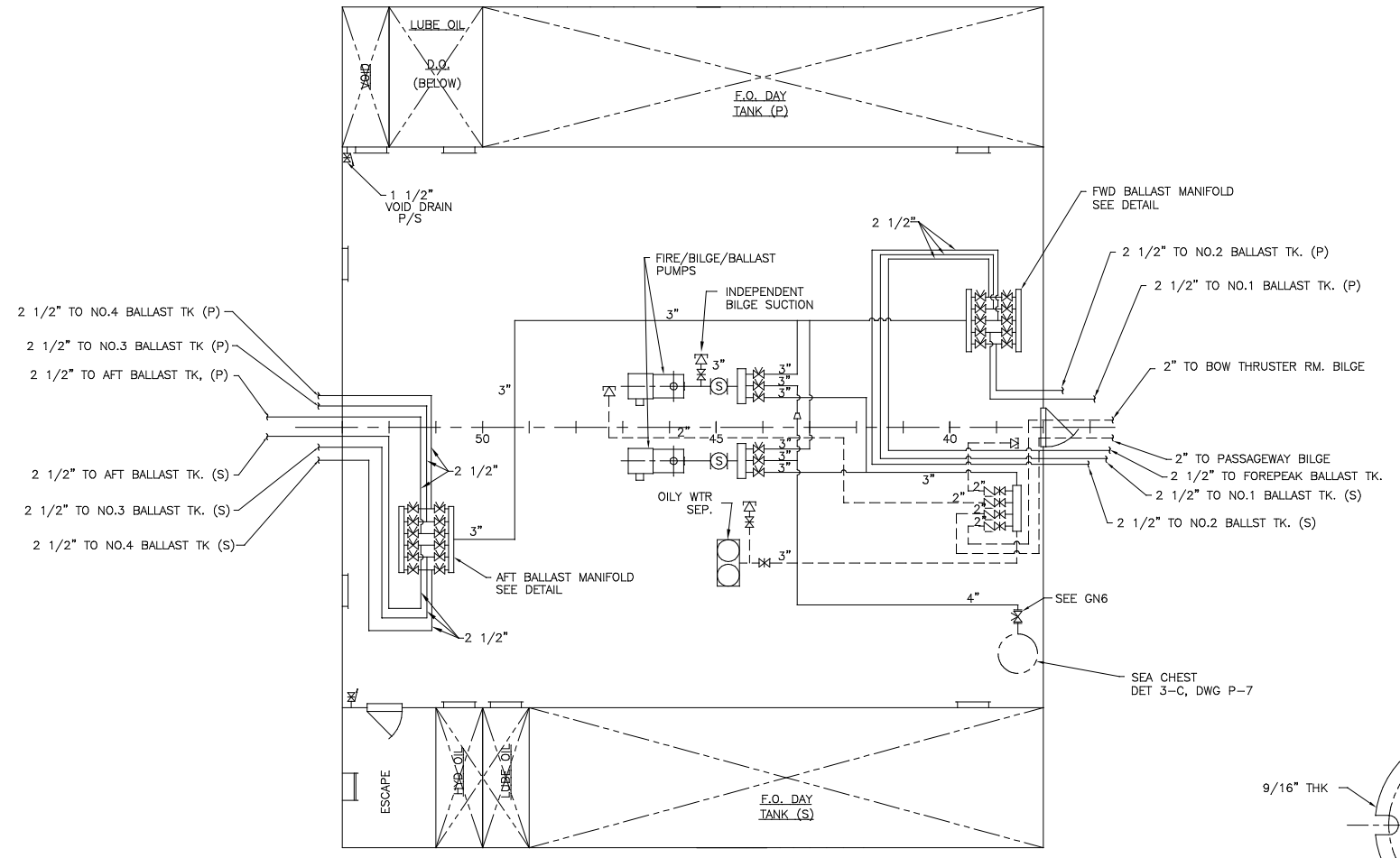
| SYSTEMS | | SIZES | PIPE | VALVES | | FITTINGS | TAKE-DOWN JOINTS | ASTM SPEC | | GASKETS |
|---------|--------------------------------------|------------------|----------------------------------|-------------------------------------|------|--|---------------------------------------|---------------|---------------|---------|
| NO. | SERVICE | | | BODIES | TRIM | | | BOLTS | NUTS | |
| 1 | BILGE/BALLAST/FIRE SUCTION/DISCHARGE | 2 1/2" & 3" & 4" | BLK STL ASTM A-53-B SCH 80 | BUTTERFLY WAFER, D.I. ASTM A-395 | | BW, STD WT ASTM A 234 ANSI B16.9 | FLG, 150# ASTM A-105 ANSI B16.5 | A 305 GR B | A 563 GR A | |
| | | | | FOOT, BRZ 125# THD ASTM B-62 | | | | | | |
| | | | | GATE, BRZ 125# THD ASTM B-62 | | | | | | |
| | | | | CHECK, BRZ 125# THD ASTM B-62 | | | | | | |

| SERVICE | QTY | TYPE | CAPACITY | DISCH PRESS PSIG | HP | REMARKS |
|------------------|-----|------|-----------------------|------------------|----|---|
| BILGE/BLST /FIRE | 2 | CFG | 160 GPM@ 157 FT HD | | 15 | BARNES 25CCE, 3 x 3, SHUT OFF AT 185 FT HD |
| FIRE PUMP | 1 | CFG | 1200GPM@ 150 PSI | | | ENG. DRIVEN, CRANE 6x4x12 FIG. 5062 |
| OILY WTR SEP. | 1 | | 2.5 GPM 15 PPM | | | NELSON BILGE BOY 96045A |

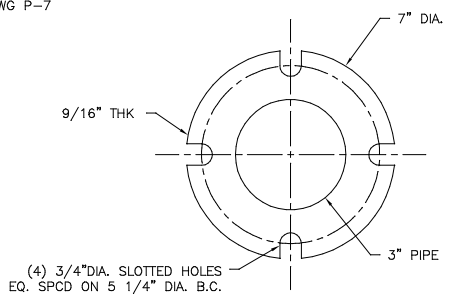
| EQUIPMENT | QTY | DESCRIPTION | MATERIAL | MFR | REMARKS |
|--------------|-----|--------------------------|----------------|-------------|--------------------------------|
| STRAINER | 2 | 3" SIMPLEX, 150# FLGD | W/BASKET | HAYWARD | MODEL 72 OR EQ |
| HOSE | | SUCTION HOSE | 200PSI 200F | WEATHERHEAD | H039 |
| FIRE MONITOR | 1 | | | ELKHART | 292-11, W/1 1/2" SHAPER TIP |

| MAIN BILGE SUCTION | BRANCH SUCTIONS |
|-------------------------------|-------------------------------|
| $d = 1 + \sqrt{L(B+D)/2500}$ | $d = 1 + \sqrt{C(B+D)/1500}$ |
| $d = 2.63 \sqrt{L(B+D)/2500}$ | $d = 2.01 \sqrt{C(B+D)/1500}$ |
| USE 3" | ENGINE RM = 1.98" USE 2" |
| | BOW THRUSTER = 2.024" USE 2" |

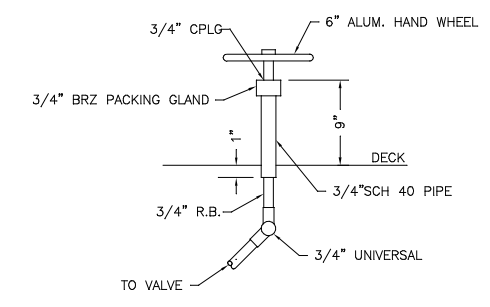
| SYMBOL | DESCRIPTION |
|--------|-------------------------------|
| | VALVE, GATE |
| | VALVE, BALL |
| | VALVE, CHECK |
| | VALVE, BUTTERFLY/WAFER |
| | VALVE, BUTTERFLY/LUG BODY |
| | VALVE, FOOT W/STRAINER |
| | STRAINER, SIMPLEX |
| | GAUGE, PRESSURE |
| | VALVE, GATE/Q.O. SELF CLOSING |
| | VALVE, GATE/REACH ROD TO MNDK |
| | BILGE LINE |
| | BALLAST LINE |



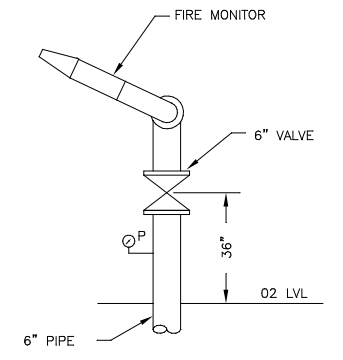
ENGINE ROOM DETAIL
SCALE: NONE



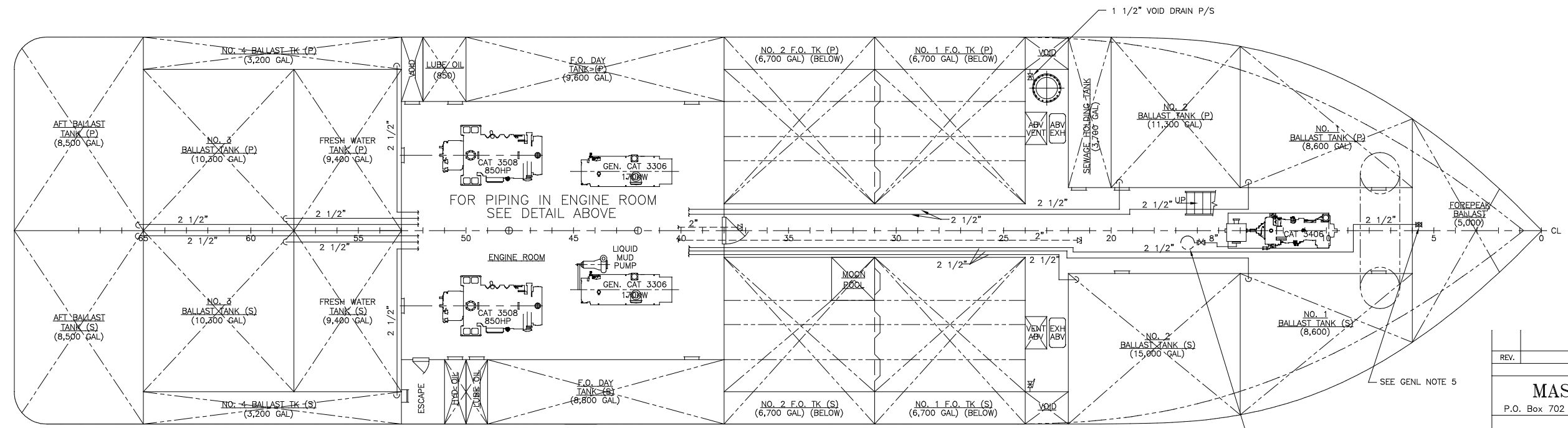
INTL SHORE CONNECTION
SCALE: NONE



TYP REACH ROD ARRGT
SCALE: NONE



FIRE MONITOR
SCALE: NONE



SUCTION DIAGRAM

| REV. | DESCRIPTION | DATE | BY |
|--|---------------|-------------------------|--------|
| REVISIONS | | | |
| MASTER BOAT BUILDERS, INC. | | | |
| P.O. Box 702 | | Bayou LaBatre, AL 36509 | |
| 150'-0" x 36'-0" x 12'-0" | | | |
| OSV | | | |
| Drawn By : C. BRAUN | Approved By : | Scale : 3/16" = 1'-0" | |
| Hull No. 354 | | Date : 7-2-02 | |
| BILGE, BALLAST & FIRE SYS DIAG | | | |
| Sheet : 1 of 2 | Contract No. | Drawing Number : | P-1 |
| computer detailing by ConCAD Computer Drafting Services, VANCELAKE, MS - (228)826-3516 | | | Rev. 0 |