



- LIST OF SYMBOLS**
- VALVE CHEST (STOP SCREW LIFT)
 - VALVE CHEST (S.O.N.R.)
 - GLOBE VALVE
 - GLOBE VALVE (LOCKED OPEN)
 - GLOBE VALVE (S.O.N.R.)
 - SWING CHECK VALVE
 - STOP AIR OPERATED VALVE
 - LEFT CHECK VALVE
 - SUCTION COCK
 - DOME & CAP TRANSFER FITTING
 - RELIEF VALVE
 - ANGLE VALVE
 - LEVER WEIGHTED COCK
 - PNEUMATIC OPERATED AND REMOTE CONTROLLED (LIFT PUMP)
 - AS ABOVE ALSO MANUAL DECK CONTROLLED
 - BUTTERFLY VALVE
 - FOOT VALVE (VERTICAL)
 - REMOTE CONTROLLED (ANY TYPE)
 - PRESSURE GAUGE
 - MOTOR DRIVEN PUMP (CENTRIFUGAL OR ROTARY)
 - AIR VENT TERMINAL WITH GAUGE SCREEN
 - THREE WAY COCK (3-PORTS)
 - IMPUITY INDICATOR
 - SIMPLEX STRAINER (BASKET TYPE)
 - ROSE BOX
 - PLATE STRAINER
 - FLOW METER
 - HAND PUMP
 - COMPOUND GAUGE

PUMP TABLE

NO.	SERVICE	TYPE	DISCH. HEAD	SIZE
ONE	BILGE	HORIZONTAL CENTRIFUGAL ELECT.	172	48
ONE	BILGE & BALLAST	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48
ONE	BILGE	DRIVEN, SELF PRIMING	172	48

BILGE SUCTION SIZE CALCULATIONS

COMPARTMENT	CALCULATION	SIZE
BILGE MAIN	$\sqrt[4]{\frac{25 \times 100 \times 1.5}{2500}}$	3.44"
ENGINE ROOM	$\sqrt[4]{\frac{25 \times 100 \times 1.5}{2500}}$	2.53"
PROPULSION MOTOR ROOM	$\sqrt[4]{\frac{25 \times 100 \times 1.5}{2500}}$	2.47"
SHAFT COMPARTMENT	$\sqrt[4]{\frac{25 \times 100 \times 1.5}{2500}}$	2.07"
CARDIO HOLD	$\sqrt[4]{\frac{25 \times 100 \times 1.5}{2500}}$	2.07"

- GENERAL NOTES**
1. PARTICULARS OF PIPE: LENGTH BETWEEN PERPENDICULARS 2'0"-4'0" BROADTH, MOUNTED 4'0"-4'0" DEPT. MOUNTED 2'0"-4'0"
 2. BALLAST PUMP SHOWN IN FULL LINE, BILGE PUMP IN DOTTED LINE.
 3. FITTINGS MARKED THUS "A" ARE SUPPLIED WITH MACHINERY.
 4. BRASS DRAIN PLUGS TO BE FITTED AT LOWEST POINT ON ALL PIPE LINES FOR DRAINING AT LATER TIME.
 5. ALL BILGE SUCTIONS IN MACHINERY SPACE TO BE LED FROM MUD BOWS WITH STRAIGHT TALLPIES.
 6. ALL VALVES FLANGED 150 STD. SPOUT, ALL PIPES SCH.40 SEAMLESS STEEL (HEAVY GALVANIZED AFTER FABRICATION).

REFERENCES

NO.	SYSTEM	DWG. NO.
1	FULLY FILLING TRANSFER & SERVICE	SEA 4200.2
2	SHIP & FRESH WATER CIRC. AND	SEA 4200.2
3	SERVICE PUMPING ARRANG.	SEA 4200.2
4	HOT & COLD PORTABLE WATER	SEA 4200.10
5	WATERING SYSTEM	SEA 4200.10
6	TRANSFER FITTING FOR PLUMB. STEEL	SEA 4200.3

ENGINEERS

BILGE AND BALLAST DIAGRAM

CEB-4200-1