

NOTES:

BELOW WATERLINE THRU HULL LIST

- (A) PORT FORWARD HEAD HAS 1 1/2" DISCHARGE FOR SINK AND FORWARD BILGE.
- (B) STARBOARD FORWARD BILGE HAS 2" DISCHARGE FOR FORWARD HOLDING TANK.
- (C) GALLEY SINK HAS 1 1/2" DISCHARGE.
- (D) 1 1/2" INTAKE FOR GENSET #1 AND GENSET #2 AND SALT WATER PRESSURE SYSTEM.

MACHINE SPACE THRU HULL LIST

- (E) 2" DISCHARGE FOR AFT HOLDING TANK.
- (F) (G) (H) THRU HULLS ARE:
 - WELDED WITH DOUBLERS 1 1/2" OR 2" SCHEDULE 40 STEEL OR STAINLESS STEEL.
 - FITTED WITH SS 1 1/2" OR 2" BALL VALVES.
 - ALL DISCHARGES TO THRU HULLS ARE FITTED WITH CHECK VALVES:
 - BRONZE BELOW WATERLINE
 - + BRONZE OR OTHER ABOVE WATERLINE.

ABOVE WATERLINE THRU HULL LIST

STARBOARD - ACCESS IN STARBOARD/AFT HEAD - 1 1/2" SS WITH DOUBLER, 1 1/2" BALL VALVE AND CHECK VALVE.

- (1) DISCHARGE EXHAUST #2 GENSET; WATER COOLED, 1 1/2" WET EXHAUST MARINE HOSE.
 - (2) DISCHARGE WET EXHAUST #1 GENSET.
 - (3) SPARE 1 1/2" H.D. MARINE SANITARY HOSE LEADS TO MACHINERY SPACE.
- PORT - (SPARE)
- (4) WASHER DISCHARGE (WASHING MACHINE) 1" HOSE, CHECK VALVE, 1 1/2" SS BALL VALVE ALWAYS CLOSED AT SEA. 12" ABOVE LOW WATER LINE.
 - (5) BILGE DISCHARGE FOR MACHINERY SPACE x 1 1/2" BALL VALVE AND CHECK VALVE.
 - (6) SPARE 1 1/2" (CLOSED)

DETAIL OF SUCTION AND DISCHARGE PUMPS (ABOVE RIGHT)

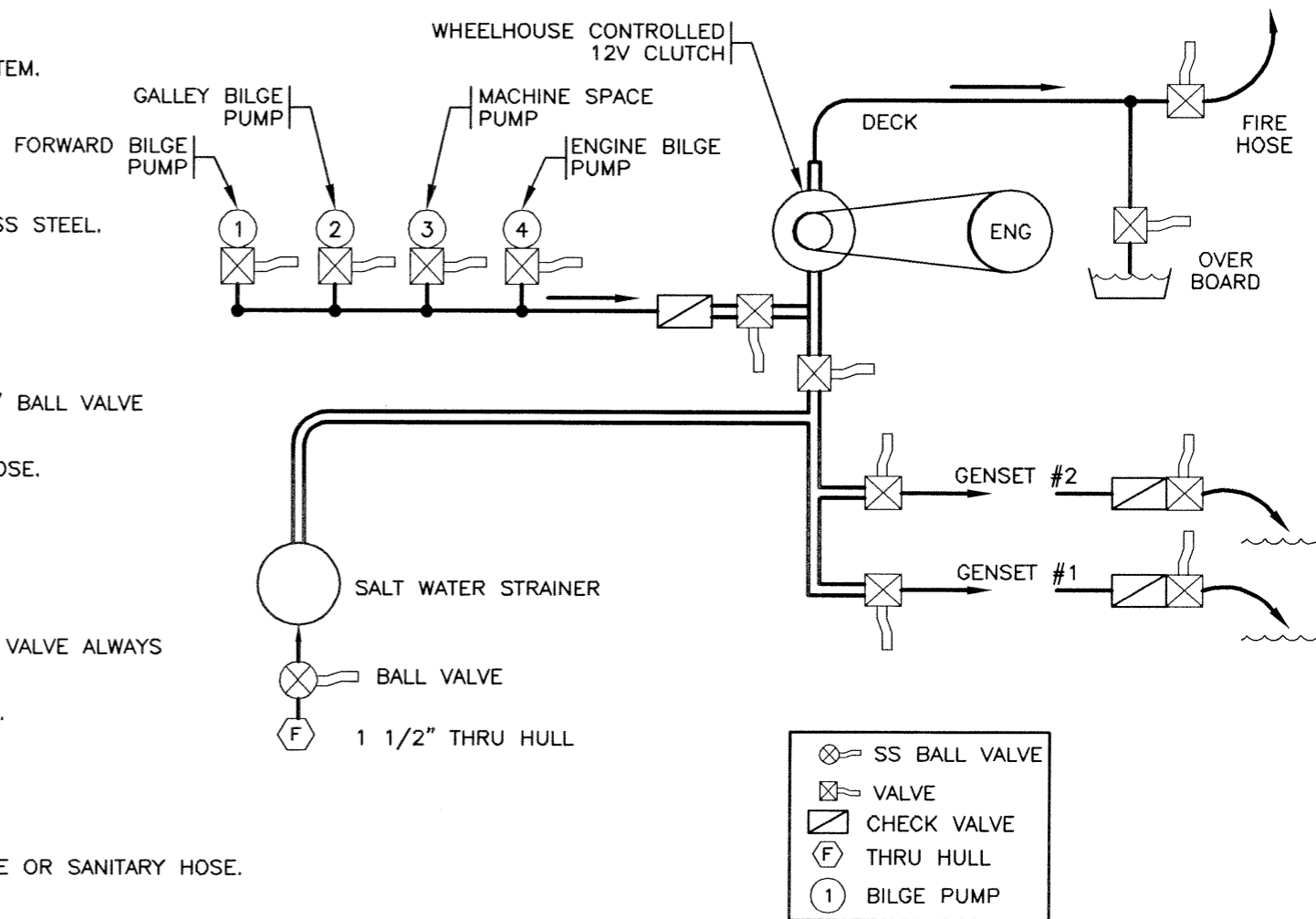
12V 3500 GPH PUMPS DISCHARGE THRU 1 1/2" WET EXHAUST HOSE OR MARINE BILGE OR SANITARY HOSE.

1. FORWARD DISCHARGES AT THRU HULL FITTED WITH 1 1/2" BRONZE CHECK VALVE.
2. GALLEY BILGE IS FITTED WITH A 120V SUBMERSIBLE AND PORTABLE PUMP AND DISCHARGES INTO SINK CONNECTED TO THRU HULL. GALLEY BILGE PORTABLE PUMP CAN ALSO BE DISCHARGED WITH ATTACHED 5/8" HOSE INTO HEADS, OVERBOARD VIA PORT LIGHT OR COCKPIT DRAIN. THIS BILGE IS NORMALLY DRY.
3. MACHINERY SPACE BILGE IS NORMALLY DRY.
4. ENGINE ROOM BILGE IS NORMALLY WET BECAUSE OF STUFFING BOX FOR COOLING SHAFT BEARING AND SEAL.

ENGINE DRIVE PUMP

1 1/2" JABSCO FIRE AND BILGE PUMP IS PULLEY DRIVEN FROM MAIN ENGINE WITH 12V CLUTCH - WHEEL HOUSE CONTROLLED.

**SUCTION AND DISCHARGE PUMPS
DETAIL**



LEGEND

NAN-C-NAV/CAD Services (604) 584-9115	
BILGE SYSTEM NOTES AND PUMP DETAIL	
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