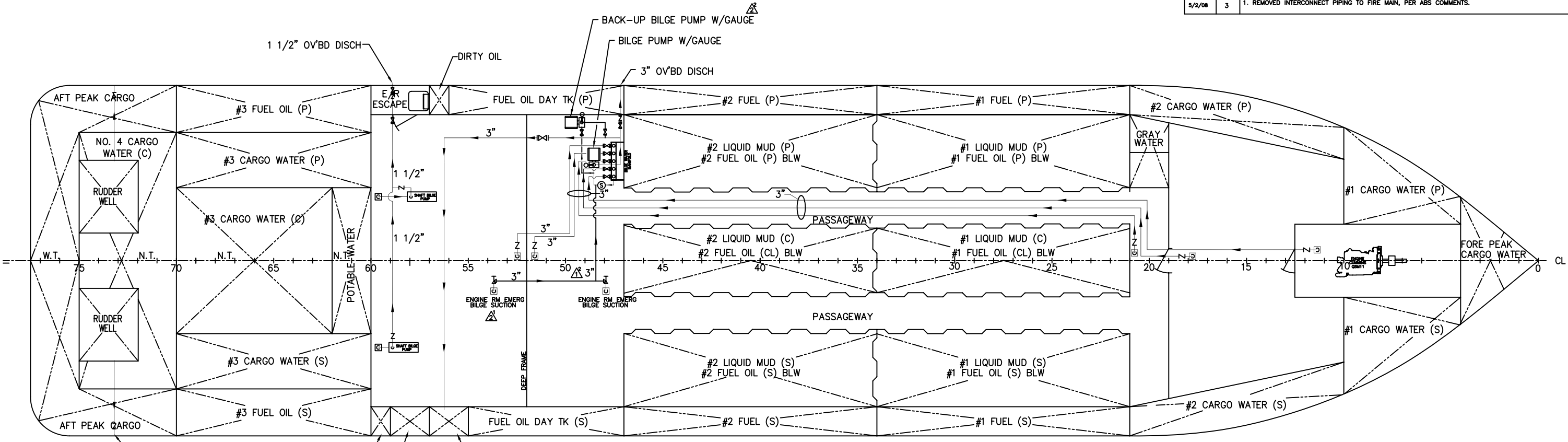


REVISIONS		
DATE	REV	DESCRIPTION
11-21-07	1	1. ADDED SHAFT BILGE PUMP CAPACITIES, PER ABS COMMENT. 2. ADDED INDEPENDENT BILGE SUCTION PIPE DIAMETER, PER ABS COMMENT P-018. 3. ADDED ASTM AND ANSI INFORMATION FOR THE ANGLE GLOBE STOP CHECK VALVE, PER ABS COMMENT, P-015.
2/28/08	2	1. ADDED AFT ENGINE RM SUCTION LINE PER ABS COMMENT P-012. 2. ADDED BACK-UP BILGE PUMP PER ABS COMMENT P-013.
5/2/08	3	1. REMOVED INTERCONNECT PIPING TO FIRE MAIN, PER ABS COMMENTS.



**GENERAL NOTES**

1. PIPING TO BE SCH 80, BLK STL. ASTM A53 GR B, ANSI B36.10, UNO.
2. ALL PIPE FITTINGS 2" & BELOW TO BE SCRD, 150#, MI BLK, ASTM A197, ANSI B16.3.
3. ALL PIPE FITTINGS 2 1/2" & ABOVE TO BE SCH 80, BUTT WELD, BLK STL, ASTM A234, ANSI B16.9.
4. ALL PIPING SHALL BE AS DIRECT AS POSSIBLE WITH A MINIMUM NUMBER OF BENDS.
5. NOT USED.
6. ALL PIPE FLANGES TO BE 150# SLIP ON, FORGED STL, ASTM A105, ANSI B16.5.
7. ALL BILGE SUCTIONS TO HAVE RISE BOX TYPE STRAINERS HAVING AN OPEN AREA OF NOT LESS THAN THREE TIMES THAT OF THE SUCTION PIPE.
8. PROVIDE A DRAIN WELL UNDER SHAFT STUFFING BOX FOR COLLECTION OF WATER SEEPAGE FROM SHAFT.
9. NOT USED.
10. NOT USED.
11. NOT USED.
12. ALL PIPING SHALL BE ARRANGED SO THAT IT WILL NOT NORMALLY BE SUBJECT TO MECHANICAL INJURY AND TO PRECLUDE ITS USE FOR OTHER PURPOSES SUCH AS GRAB RODS, STEPPING POINTS & HANDRAILS.
13. UNIONS AND/OR FLANGES ARE TO BE INSTALLED BY THE FIELD AS NECESSARY TO PERMIT DISMANTLING OF THE LINES AND EQUIPMENT.
14. PIPING TO BE THOROUGHLY CLEANED AFTER FABRICATION.
15. ALL PIPING TO HAVE SUFFICIENT FLEXIBILITY TO PREVENT OVERSTRESSING OF PIPING MATERIALS, LEAKAGE OF JOINTS OR DISTORTION OF CONNECTED EQUIPMENT.
16. THIS DRAWING IS DIAGRAMMATIC ONLY. ACTUAL PIPE LOCATIONS TO BE DETERMINED IN THE FIELD.

LEGEND	
SYMBOL	DESCRIPTION
	SWING CHECK VALVE, 3", 150#, FLG'D, BRONZE, ASTM B62, ANSI B16.34
	SWING CHECK VALVE, 1 1/2", 150#, WELDED, BRONZE, ASTM B62, ANSI B16.34
	GATE VALVE, 150#, 3", FLG'D, RISING STEM, BRONZE, ASTM B62, ANSI B16.34
	GATE VALVE, 150#, 1 1/2" WELDED, RISING STEM, BRONZE, ASTM B62, ANSI B16.34
	SUCTION RISER BOX
	PRESSURE GAUGE, 0-200 PSI, w/GAUGE COCK
	GLOBE ANGLE (OPTIONAL) STOP CHECK VALVE ASTM B62, ANSI B16.34
	STRAINER SIMPLEX, 150#, CAST STL, FLGD, W/SS BASKET, ASTM B62

PUMP DATA	
BILGE PUMP-(1) 3"x3", BRZ IMPELLER, DRIVEN BY 3500 RPM 15 HP ELECTRIC MOTOR, 200 GPM @ 150' HD.	
BILGE SHAFT PUMP (2), 1800 GPH, 110 V AC.	

NO.	DESCRIPTION	DRAWING NO.
5		
4		
3	LUBE OIL, DIRTY OIL, OILY BILGE, & FO STRIPPING PIPING DIAGRAM	036-262-01
2	SEA CHEST DETAILS	036-110-01
1	FIRE MAIN ONE LINE PIPING DIAGRAM	036-521-01
REF	DRAWING TITLE	DRAWING NO

PROJECT: 162'-0" x 36'-0" x 11'-6" OFFSHORE UTILITY VESSEL	
DRAWING TITLE: BILGE PIPING DIAGRAM	
DRAWN BY: K.T.S.	DATE: 9/07/07
CHECKED: [ ]	APPROVED: [ ]
SIZE: D	DRAWING NO: 036-529-01
HULL NO.:	SCALE: 3/16"=12"
DATE: 5/2/08	SHEET 1 OF 1

6 5 4 3 2 1

D

C

B

A

CL

0 15 20 25 30 35 40 45 50 55 60 65 70 75

W.T. N.T. N.T. N.T. N.T.

1 1/2" OVB'D DISCH

DIRTY OIL

BACK-UP BILGE PUMP W/GAUGE

BILGE PUMP W/GAUGE

3" OVB'D DISCH

FUEL OIL DAY TK (P)

#2 FUEL (P)

#1 FUEL (P)

#2 CARGO WATER (P)

#3 FUEL OIL (P)

#3 CARGO WATER (P)

#2 LIQUID MUD (P)

#2 FUEL OIL (P) BLW

#1 LIQUID MUD (P)

#1 FUEL OIL (P) BLW

GRAY WATER

#1 CARGO WATER (P)

FORE PEAK CARGO WATER

#3 CARGO WATER (C)

RUDDER WELL

POTABLE WATER

#3 CARGO WATER (S)

#3 FUEL OIL (S)

#2 LIQUID MUD (C)

#2 FUEL OIL (CL) BLW

#1 LIQUID MUD (C)

#1 FUEL OIL (CL) BLW

#1 CARGO WATER (S)

#2 LIQUID MUD (S)

#2 FUEL OIL (S) BLW

#1 LIQUID MUD (S)

#1 FUEL OIL (S) BLW

#2 FUEL (S)

#1 FUEL (S)

#2 CARGO WATER (S)

2" S.S. PIPE, SCH 40, (P/S) ASTM A312, GR F304L (STEERING COMPT DRAIN)

OILY BILGE

GEAR OIL (ABV) HYD OIL (BLW)

MN ENG LUBE OIL

ENGINE RM EMERG BILGE SUCTION

ENGINE RM EMERG BILGE SUCTION

DEEP FRAME

PASSAGEWAY

PASSAGEWAY

E/R ESCAPE