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APPROVED BY	REV	DATE	2	Fills, Vents & Sounds A&D	7.101
A.B.S.			1	Hold & Double Bottom Plans, Rev B	1.003
U.S.C.G.			No.	REFERENCES	BEI NO.

OWNER		



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HORNBECK OFFSHORE TRANSPORTATION



2245 Front Street  
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DRAWN BY:	<b>110,000 BBL OIL TANK BARGE</b>		
<b>RPN</b>			

DRAWING PREPARED BY:  
**Bay Engineering, Inc.**  
NAVAL ARCHITECTS AND MARINE ENGINEERS  
STURGEON BAY, WISCONSIN 54235

CHK'D BY:	<b>TANK CAPACITY TABLES</b>		
<b>RCO</b>			

APP'D. BY:	SCALE: <b>NONE</b>	DATE: <b>5Jul05</b>	REV. <b>C</b>
MMG PROJECT NO.	DRAWING # <b>14.502</b>	TSC HULL <b>0401</b>	
<b>7723</b>	SHEET <b>1 OF 37</b>		

BEI Job No.: 3750-00    BEI DWG No.    1.012



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## ASSUMPTIONS

- \* Cargo tank volumes include a permeability of 99%
- \* Ballast tank volumes include a permeability of 98.5%
- \* The percent increase of 12 API Oil from 60 deg F to 160 deg F is 3.5 percent  
(from Hydraulic Handbook, 1979, pg 136, Fig 42 published by the Hydraulic Institute)
- \* Cargo tank capacities given on page 5 for 1 foot ullage are measured from the mold line of the deck at the center of the tank's free surface
  - Cargo Tank 1 - 2'-3 1/2" aft frame 10, 14'-4 1/8" off CL
  - Cargo Tank 2 - 0'-1 1/2" aft frame 18, 16'-11" off CL
  - Cargo Tank 3 - 0'-0" aft frame 26, 17'-0" off CL
  - Cargo Tank 4 - 0'-0" aft frame 34, 17'-0" off CL
  - Cargo Tank 5 - 0'-0" aft frame 42, 17'-0" off CL
- \* Sounding readings are measured from the manual sounding tube  
(All sounding tubes have a 1/2" striker plate)
  - Cargo Tank 1 - 1'-0" fwd frame 14, 0'-9" off CL
  - Cargo Tank 2 - 1'-0" fwd frame 18, 0'-9" off CL
  - Cargo Tank 3 - 1'-0" fwd frame 30, 0'-9" off CL
  - Cargo Tank 4 - 1'-0" fwd frame 38, 0'-9" off CL
  - Cargo Tank 5 - 1'-0" aft frame 38, 0'-9" off CL
  - Ballast Tank 1 - 0'-6" fwd frame 14, 33'-8 1/2" off CL
  - Ballast Tank 2 - 0'-6" fwd frame 22, 34'-11" off CL
  - Ballast Tank 3 - 0'-6" fwd frame 30, 34'-11" off CL
  - Ballast Tank 4 - 0'-6" fwd frame 38, 34'-11" off CL
  - Ballast Tank 5 - 3'-7" fwd frame 45, 34'-11" off CL
- \* Specific Gravities of Liquids (1.000 SG = 35.882 LT/cu.ft.)

12 API Oil Cargo at 160F	0.9861
Fresh Water	1.000
Sea Water	1.025
Fuel Oil	0.876

## TANK SUMMARY

### Cargo Tank Volumes

		Volume (BBL)			CG @ 1' Ullage @ 60 F		
		100%	1 foot Ullage		Vert	Long'l	Trans
			@ 160F	@ 60F	(ft ABL)	(ft aft Fr. 0)	(ft off CL)
Cargo Tank # 1	Port	9,702	9,398	9,080	21.22	63.37	14.07p
	Stbd	9,678	9,375	9,058	21.22	63.38	14.11s
Cargo Tank # 2	Port	11,945	11,581	11,189	20.79	122.15	16.81p
	Stbd	11,921	11,558	11,167	20.79	122.15	16.84s
Cargo Tank # 3	Port	12,014	11,647	11,253	20.79	183.33	16.91p
	Stbd	11,990	11,623	11,230	20.79	183.33	16.94s
Cargo Tank # 4	Port	12,014	11,647	11,253	20.79	244.67	16.91p
	Stbd	11,990	11,623	11,230	20.79	244.67	16.94s
Cargo Tank # 5	Port	10,233	9,866	9,532	23.03	303.51	16.90p
	Stbd	10,212	9,846	9,513	23.03	303.50	16.93s
<b>TOTAL</b>		111,699	108,163	104,506	21.27	184.52	0.00p

### Ballast Tank Volumes (100%)

Tank		Volume (BBL)	Weight (LT)	Center of Gravity		
				Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
Ballast Tank 1	Port	3,779	606.1	12.52	61.87	23.24p
	Stbd	3,779	606.1	12.52	61.87	23.24s
Ballast Tank 2	Port	4,039	647.8	10.94	121.81	26.92p
	Stbd	4,039	647.8	10.94	121.81	26.92s
Ballast Tank 3	Port	4,009	643.0	10.77	183.33	26.91p
	Stbd	4,009	643.0	10.77	183.33	26.91s
Ballast Tank 4	Port	4,009	642.9	10.77	244.66	26.91p
	Stbd	4,009	642.9	10.77	244.66	26.91s
Ballast Tank 5	Port	4,058	650.8	13.06	305.85	26.76p
	Stbd	4,058	650.8	13.06	305.85	26.76s
<b>TOTAL</b>		39,787	6,381.1	11.60	185.12	0.00p

**SOUNDING TABLE for  
Cargo Tank #1 (Port)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	3	8	15	24	35	48	62	76	92	108	125	143
	1	162	181	201	222	243	264	286	307	329	350	372	393
	2	415	437	459	481	503	525	547	569	592	614	636	659
	3	681	704	726	749	772	795	818	840	863	886	910	933
	4	956	979	1003	1026	1050	1073	1097	1120	1144	1168	1192	1215
	5	1239	1263	1287	1311	1336	1360	1384	1408	1433	1457	1481	1506
	6	1530	1555	1580	1604	1629	1654	1678	1703	1728	1753	1778	1803
	7	1828	1853	1878	1903	1929	1954	1979	2004	2030	2055	2080	2106
	8	2131	2156	2182	2207	2233	2258	2283	2309	2334	2360	2385	2410
	9	2436	2461	2487	2512	2538	2563	2588	2614	2639	2665	2690	2716
	10	2741	2766	2792	2817	2843	2868	2893	2919	2944	2970	2995	3021
	11	3046	3071	3097	3122	3148	3173	3198	3224	3249	3275	3300	3326
	12	3351	3376	3402	3427	3453	3478	3504	3529	3554	3580	3605	3631
	13	3656	3681	3707	3732	3758	3783	3809	3834	3859	3885	3910	3936
	14	3961	3986	4012	4037	4063	4088	4114	4139	4164	4190	4215	4241
	15	4266	4292	4317	4342	4368	4393	4419	4444	4469	4495	4520	4546
	16	4571	4597	4622	4647	4673	4698	4724	4749	4774	4800	4825	4851
	17	4876	4902	4927	4952	4978	5003	5029	5054	5080	5105	5130	5156
	18	5181	5207	5232	5257	5283	5308	5334	5359	5385	5410	5435	5461
	19	5486	5512	5537	5562	5588	5613	5639	5664	5690	5715	5740	5766
	20	5791	5817	5842	5868	5893	5918	5944	5969	5995	6020	6045	6071
	21	6096	6122	6147	6173	6198	6223	6249	6274	6300	6325	6350	6376
	22	6401	6427	6452	6478	6503	6528	6554	6579	6605	6630	6655	6681
	23	6706	6732	6757	6783	6808	6833	6859	6884	6910	6935	6961	6986
	24	7011	7037	7062	7088	7113	7138	7164	7189	7215	7240	7266	7291
	25	7316	7342	7367	7393	7418	7443	7469	7494	7520	7545	7571	7596
	26	7621	7647	7672	7698	7723	7749	7774	7799	7825	7850	7876	7901
	27	7926	7952	7977	8003	8028	8054	8079	8104	8130	8155	8181	8206
	28	8231	8257	8282	8308	8333	8359	8384	8409	8435	8460	8486	8511
	29	8536	8562	8587	8613	8638	8664	8689	8714	8740	8765	8791	8816
	30	8841	8867	8892	8918	8943	8969	8994	9019	9045	9070	9096	9121
	31	9147	9172	9197	9223	9248	9274	9299	9324	9350	9375	9401	9426
	32	9452	9477	9502	9528	9553	9578	9602	9624	9643	9660	9674	9685
	33	9694	9700										

**SOUNDING TABLE for  
Cargo Tank #1 (Stbd)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	3	8	15	24	35	48	61	76	91	108	125	143
	1	162	181	201	222	242	264	285	306	328	349	371	392
	2	414	436	458	479	501	523	545	568	590	612	634	657
	3	679	702	724	747	770	792	815	838	861	884	907	930
	4	953	977	1000	1023	1047	1070	1094	1117	1141	1165	1188	1212
	5	1236	1260	1284	1308	1332	1356	1380	1404	1429	1453	1477	1502
	6	1526	1551	1575	1600	1624	1649	1674	1699	1724	1748	1773	1798
	7	1823	1848	1873	1898	1923	1949	1974	1999	2024	2049	2075	2100
	8	2125	2151	2176	2201	2227	2252	2277	2303	2328	2353	2379	2404
	9	2429	2455	2480	2506	2531	2556	2582	2607	2632	2658	2683	2708
	10	2734	2759	2784	2810	2835	2861	2886	2911	2937	2962	2987	3013
	11	3038	3063	3089	3114	3139	3165	3190	3216	3241	3266	3292	3317
	12	3342	3368	3393	3418	3444	3469	3494	3520	3545	3571	3596	3621
	13	3647	3672	3697	3723	3748	3773	3799	3824	3850	3875	3900	3926
	14	3951	3976	4002	4027	4052	4078	4103	4128	4154	4179	4205	4230
	15	4255	4281	4306	4331	4357	4382	4407	4433	4458	4483	4509	4534
	16	4560	4585	4610	4636	4661	4686	4712	4737	4762	4788	4813	4838
	17	4864	4889	4915	4940	4965	4991	5016	5041	5067	5092	5117	5143
	18	5168	5193	5219	5244	5270	5295	5320	5346	5371	5396	5422	5447
	19	5472	5498	5523	5548	5574	5599	5625	5650	5675	5701	5726	5751
	20	5777	5802	5827	5853	5878	5903	5929	5954	5980	6005	6030	6056
	21	6081	6106	6132	6157	6182	6208	6233	6258	6284	6309	6335	6360
	22	6385	6411	6436	6461	6487	6512	6537	6563	6588	6613	6639	6664
	23	6690	6715	6740	6766	6791	6816	6842	6867	6892	6918	6943	6968
	24	6994	7019	7045	7070	7095	7121	7146	7171	7197	7222	7247	7273
	25	7298	7323	7349	7374	7400	7425	7450	7476	7501	7526	7552	7577
	26	7602	7628	7653	7678	7704	7729	7755	7780	7805	7831	7856	7881
	27	7907	7932	7957	7983	8008	8033	8059	8084	8110	8135	8160	8186
	28	8211	8236	8262	8287	8312	8338	8363	8388	8414	8439	8465	8490
	29	8515	8541	8566	8591	8617	8642	8667	8693	8718	8743	8769	8794
	30	8820	8845	8870	8896	8921	8946	8972	8997	9022	9048	9073	9098
	31	9124	9149	9174	9200	9225	9251	9276	9301	9327	9352	9377	9403
	32	9428	9453	9479	9504	9529	9554	9578	9600	9619	9636	9650	9661
	33	9670	9675										

**SOUNDING TABLE for  
Cargo Tank #2 (Port)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	9	21	37	58	83	113	143	174	204	235	265	296
	1	326	357	387	418	448	479	509	540	570	601	631	662
	2	692	723	753	784	814	845	875	906	936	966	997	1027
	3	1058	1088	1119	1149	1180	1210	1241	1271	1302	1332	1363	1393
	4	1424	1454	1485	1515	1546	1576	1607	1637	1668	1698	1729	1759
	5	1790	1820	1851	1881	1912	1942	1973	2003	2034	2064	2095	2125
	6	2156	2186	2217	2247	2278	2308	2339	2369	2400	2430	2461	2491
	7	2522	2552	2583	2613	2644	2674	2705	2735	2766	2796	2827	2857
	8	2888	2918	2949	2979	3009	3040	3070	3101	3131	3162	3192	3223
	9	3253	3284	3314	3345	3375	3406	3436	3467	3497	3528	3558	3589
	10	3619	3650	3680	3711	3741	3772	3802	3833	3863	3894	3924	3955
	11	3985	4016	4046	4077	4107	4138	4168	4199	4229	4260	4290	4321
	12	4351	4382	4412	4443	4473	4504	4534	4565	4595	4626	4656	4687
	13	4717	4748	4778	4809	4839	4870	4900	4931	4961	4992	5022	5052
	14	5083	5113	5144	5174	5205	5235	5266	5296	5327	5357	5388	5418
	15	5449	5479	5510	5540	5571	5601	5632	5662	5693	5723	5754	5784
	16	5815	5845	5876	5906	5937	5967	5998	6028	6059	6089	6120	6150
	17	6181	6211	6242	6272	6303	6333	6364	6394	6425	6455	6486	6516
	18	6547	6577	6608	6638	6669	6699	6730	6760	6791	6821	6852	6882
	19	6913	6943	6974	7004	7035	7065	7095	7126	7156	7187	7217	7248
	20	7278	7309	7339	7370	7400	7431	7461	7492	7522	7553	7583	7614
	21	7644	7675	7705	7736	7766	7797	7827	7858	7888	7919	7949	7980
	22	8010	8041	8071	8102	8132	8163	8193	8224	8254	8285	8315	8346
	23	8376	8407	8437	8468	8498	8529	8559	8590	8620	8651	8681	8712
	24	8742	8773	8803	8834	8864	8895	8925	8956	8986	9016	9047	9077
	25	9108	9138	9169	9199	9230	9260	9291	9321	9352	9382	9413	9443
	26	9474	9504	9535	9565	9596	9626	9657	9687	9718	9748	9779	9809
	27	9840	9870	9901	9931	9962	9992	10023	10053	10084	10114	10145	10175
	28	10206	10236	10267	10297	10328	10358	10389	10419	10450	10480	10511	10541
	29	10572	10602	10633	10663	10694	10724	10755	10785	10816	10846	10877	10907
	30	10938	10968	10998	11029	11059	11090	11120	11151	11181	11212	11242	11273
	31	11303	11334	11364	11395	11425	11456	11486	11517	11547	11578	11608	11639
	32	11669	11700	11730	11761	11791	11819	11843	11866	11885	11902	11916	11927
	33	11936	11942										



**SOUNDING TABLE for  
Cargo Tank #2 (Stbd)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	9	21	37	58	83	112	143	173	204	234	264	295
	1	325	356	386	417	447	478	508	538	569	599	630	660
	2	691	721	751	782	812	843	873	904	934	964	995	1025
	3	1056	1086	1117	1147	1177	1208	1238	1269	1299	1330	1360	1390
	4	1421	1451	1482	1512	1543	1573	1604	1634	1664	1695	1725	1756
	5	1786	1817	1847	1877	1908	1938	1969	1999	2030	2060	2090	2121
	6	2151	2182	2212	2243	2273	2303	2334	2364	2395	2425	2456	2486
	7	2516	2547	2577	2608	2638	2669	2699	2729	2760	2790	2821	2851
	8	2882	2912	2943	2973	3003	3034	3064	3095	3125	3156	3186	3216
	9	3247	3277	3308	3338	3369	3399	3429	3460	3490	3521	3551	3582
	10	3612	3642	3673	3703	3734	3764	3795	3825	3855	3886	3916	3947
	11	3977	4008	4038	4069	4099	4129	4160	4190	4221	4251	4282	4312
	12	4342	4373	4403	4434	4464	4495	4525	4555	4586	4616	4647	4677
	13	4708	4738	4768	4799	4829	4860	4890	4921	4951	4981	5012	5042
	14	5073	5103	5134	5164	5194	5225	5255	5286	5316	5347	5377	5408
	15	5438	5468	5499	5529	5560	5590	5621	5651	5681	5712	5742	5773
	16	5803	5834	5864	5894	5925	5955	5986	6016	6047	6077	6107	6138
	17	6168	6199	6229	6260	6290	6320	6351	6381	6412	6442	6473	6503
	18	6534	6564	6594	6625	6655	6686	6716	6747	6777	6807	6838	6868
	19	6899	6929	6960	6990	7020	7051	7081	7112	7142	7173	7203	7233
	20	7264	7294	7325	7355	7386	7416	7446	7477	7507	7538	7568	7599
	21	7629	7659	7690	7720	7751	7781	7812	7842	7873	7903	7933	7964
	22	7994	8025	8055	8086	8116	8146	8177	8207	8238	8268	8299	8329
	23	8359	8390	8420	8451	8481	8512	8542	8572	8603	8633	8664	8694
	24	8725	8755	8785	8816	8846	8877	8907	8938	8968	8998	9029	9059
	25	9090	9120	9151	9181	9211	9242	9272	9303	9333	9364	9394	9425
	26	9455	9485	9516	9546	9577	9607	9638	9668	9698	9729	9759	9790
	27	9820	9851	9881	9911	9942	9972	10003	10033	10064	10094	10124	10155
	28	10185	10216	10246	10277	10307	10337	10368	10398	10429	10459	10490	10520
	29	10550	10581	10611	10642	10672	10703	10733	10764	10794	10824	10855	10885
	30	10916	10946	10977	11007	11037	11068	11098	11129	11159	11190	11220	11250
	31	11281	11311	11342	11372	11403	11433	11463	11494	11524	11555	11585	11616
	32	11646	11676	11707	11737	11767	11795	11820	11842	11861	11878	11892	11904
	33	11912	11918										

**SOUNDING TABLE for  
Cargo Tank #3 (Port)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	9	21	37	58	83	113	144	174	205	236	266	297
	1	328	358	389	420	450	481	512	542	573	604	634	665
	2	696	726	757	788	818	849	880	910	941	972	1002	1033
	3	1064	1094	1125	1156	1186	1217	1248	1278	1309	1340	1370	1401
	4	1432	1462	1493	1524	1555	1585	1616	1647	1677	1708	1739	1769
	5	1800	1831	1861	1892	1923	1953	1984	2015	2045	2076	2107	2137
	6	2168	2199	2229	2260	2291	2321	2352	2383	2413	2444	2475	2505
	7	2536	2567	2597	2628	2659	2689	2720	2751	2781	2812	2843	2873
	8	2904	2935	2965	2996	3027	3057	3088	3119	3149	3180	3211	3241
	9	3272	3303	3334	3364	3395	3426	3456	3487	3518	3548	3579	3610
	10	3640	3671	3702	3732	3763	3794	3824	3855	3886	3916	3947	3978
	11	4008	4039	4070	4100	4131	4162	4192	4223	4254	4284	4315	4346
	12	4376	4407	4438	4468	4499	4530	4560	4591	4622	4652	4683	4714
	13	4744	4775	4806	4836	4867	4898	4928	4959	4990	5020	5051	5082
	14	5112	5143	5174	5205	5235	5266	5297	5327	5358	5389	5419	5450
	15	5481	5511	5542	5573	5603	5634	5665	5695	5726	5757	5787	5818
	16	5849	5879	5910	5941	5971	6002	6033	6063	6094	6125	6155	6186
	17	6217	6247	6278	6309	6339	6370	6401	6431	6462	6493	6523	6554
	18	6585	6615	6646	6677	6707	6738	6769	6799	6830	6861	6891	6922
	19	6953	6983	7014	7045	7075	7106	7137	7168	7198	7229	7260	7290
	20	7321	7352	7382	7413	7444	7474	7505	7536	7566	7597	7628	7658
	21	7689	7720	7750	7781	7812	7842	7873	7904	7934	7965	7996	8026
	22	8057	8088	8118	8149	8180	8210	8241	8272	8302	8333	8364	8394
	23	8425	8456	8486	8517	8548	8578	8609	8640	8670	8701	8732	8762
	24	8793	8824	8854	8885	8916	8946	8977	9008	9038	9069	9100	9131
	25	9161	9192	9223	9253	9284	9315	9345	9376	9407	9437	9468	9499
	26	9529	9560	9591	9621	9652	9683	9713	9744	9775	9805	9836	9867
	27	9897	9928	9959	9989	10020	10051	10081	10112	10143	10173	10204	10235
	28	10265	10296	10327	10357	10388	10419	10449	10480	10511	10541	10572	10603
	29	10633	10664	10695	10725	10756	10787	10817	10848	10879	10909	10940	10971
	30	11001	11032	11063	11094	11124	11155	11186	11216	11247	11278	11308	11339
	31	11370	11400	11431	11462	11492	11523	11554	11584	11615	11646	11676	11707
	32	11738	11768	11799	11830	11860	11887	11912	11935	11954	11971	11985	11996
	33	12005	12011										

**SOUNDING TABLE for  
Cargo Tank #3 (Stbd)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	9	21	37	58	83	113	143	174	204	235	266	296
	1	327	357	388	419	449	480	510	541	572	602	633	664
	2	694	725	755	786	817	847	878	908	939	970	1000	1031
	3	1062	1092	1123	1153	1184	1215	1245	1276	1306	1337	1368	1398
	4	1429	1459	1490	1521	1551	1582	1613	1643	1674	1704	1735	1766
	5	1796	1827	1857	1888	1919	1949	1980	2010	2041	2072	2102	2133
	6	2164	2194	2225	2255	2286	2317	2347	2378	2408	2439	2470	2500
	7	2531	2561	2592	2623	2653	2684	2715	2745	2776	2806	2837	2868
	8	2898	2929	2959	2990	3021	3051	3082	3112	3143	3174	3204	3235
	9	3266	3296	3327	3357	3388	3419	3449	3480	3510	3541	3572	3602
	10	3633	3664	3694	3725	3755	3786	3817	3847	3878	3908	3939	3970
	11	4000	4031	4061	4092	4123	4153	4184	4215	4245	4276	4306	4337
	12	4368	4398	4429	4459	4490	4521	4551	4582	4612	4643	4674	4704
	13	4735	4766	4796	4827	4857	4888	4919	4949	4980	5010	5041	5072
	14	5102	5133	5163	5194	5225	5255	5286	5317	5347	5378	5408	5439
	15	5470	5500	5531	5561	5592	5623	5653	5684	5715	5745	5776	5806
	16	5837	5868	5898	5929	5959	5990	6021	6051	6082	6112	6143	6174
	17	6204	6235	6266	6296	6327	6357	6388	6419	6449	6480	6510	6541
	18	6572	6602	6633	6663	6694	6725	6755	6786	6817	6847	6878	6908
	19	6939	6970	7000	7031	7061	7092	7123	7153	7184	7214	7245	7276
	20	7306	7337	7368	7398	7429	7459	7490	7521	7551	7582	7612	7643
	21	7674	7704	7735	7765	7796	7827	7857	7888	7919	7949	7980	8010
	22	8041	8072	8102	8133	8163	8194	8225	8255	8286	8316	8347	8378
	23	8408	8439	8470	8500	8531	8561	8592	8623	8653	8684	8714	8745
	24	8776	8806	8837	8867	8898	8929	8959	8990	9021	9051	9082	9112
	25	9143	9174	9204	9235	9265	9296	9327	9357	9388	9418	9449	9480
	26	9510	9541	9572	9602	9633	9663	9694	9725	9755	9786	9816	9847
	27	9878	9908	9939	9969	10000	10031	10061	10092	10123	10153	10184	10214
	28	10245	10276	10306	10337	10367	10398	10429	10459	10490	10521	10551	10582
	29	10612	10643	10674	10704	10735	10765	10796	10827	10857	10888	10918	10949
	30	10980	11010	11041	11072	11102	11133	11163	11194	11225	11255	11286	11316
	31	11347	11378	11408	11439	11469	11500	11531	11561	11592	11623	11653	11684
	32	11714	11745	11776	11806	11836	11864	11889	11911	11930	11947	11961	11973
	33	11981	11987										

**SOUNDING TABLE for  
Cargo Tank #4 (Port)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	9	21	37	58	83	113	144	174	205	236	266	297
	1	328	358	389	420	450	481	512	542	573	604	634	665
	2	696	726	757	788	818	849	880	910	941	972	1002	1033
	3	1064	1094	1125	1156	1186	1217	1248	1278	1309	1340	1370	1401
	4	1432	1462	1493	1524	1555	1585	1616	1647	1677	1708	1739	1769
	5	1800	1831	1861	1892	1923	1953	1984	2015	2045	2076	2107	2137
	6	2168	2199	2229	2260	2291	2321	2352	2383	2413	2444	2475	2505
	7	2536	2567	2597	2628	2659	2689	2720	2751	2781	2812	2843	2873
	8	2904	2935	2965	2996	3027	3057	3088	3119	3149	3180	3211	3241
	9	3272	3303	3334	3364	3395	3426	3456	3487	3518	3548	3579	3610
	10	3640	3671	3702	3732	3763	3794	3824	3855	3886	3916	3947	3978
	11	4008	4039	4070	4100	4131	4162	4192	4223	4254	4284	4315	4346
	12	4376	4407	4438	4468	4499	4530	4560	4591	4622	4652	4683	4714
	13	4744	4775	4806	4836	4867	4898	4928	4959	4990	5020	5051	5082
	14	5112	5143	5174	5205	5235	5266	5297	5327	5358	5389	5419	5450
	15	5481	5511	5542	5573	5603	5634	5665	5695	5726	5757	5787	5818
	16	5849	5879	5910	5941	5971	6002	6033	6063	6094	6125	6155	6186
	17	6217	6247	6278	6309	6339	6370	6401	6431	6462	6493	6523	6554
	18	6585	6615	6646	6677	6707	6738	6769	6799	6830	6861	6891	6922
	19	6953	6983	7014	7045	7075	7106	7137	7168	7198	7229	7260	7290
	20	7321	7352	7382	7413	7444	7474	7505	7536	7566	7597	7628	7658
	21	7689	7720	7750	7781	7812	7842	7873	7904	7934	7965	7996	8026
	22	8057	8088	8118	8149	8180	8210	8241	8272	8302	8333	8364	8394
	23	8425	8456	8486	8517	8548	8578	8609	8640	8670	8701	8732	8762
	24	8793	8824	8854	8885	8916	8946	8977	9008	9038	9069	9100	9131
	25	9161	9192	9223	9253	9284	9315	9345	9376	9407	9437	9468	9499
	26	9529	9560	9591	9621	9652	9683	9713	9744	9775	9805	9836	9867
	27	9897	9928	9959	9989	10020	10051	10081	10112	10143	10173	10204	10235
	28	10265	10296	10327	10357	10388	10419	10449	10480	10511	10541	10572	10603
	29	10633	10664	10695	10725	10756	10787	10817	10848	10879	10909	10940	10971
	30	11001	11032	11063	11094	11124	11155	11186	11216	11247	11278	11308	11339
	31	11370	11400	11431	11462	11492	11523	11554	11584	11615	11646	11676	11707
	32	11738	11768	11799	11830	11860	11887	11912	11935	11954	11971	11985	11996
	33	12005	12011										

**SOUNDING TABLE for  
Cargo Tank #4 (Stbd)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	9	21	37	58	83	113	143	174	204	235	266	296
	1	327	357	388	419	449	480	510	541	572	602	633	664
	2	694	725	755	786	817	847	878	908	939	970	1000	1031
	3	1062	1092	1123	1153	1184	1215	1245	1276	1306	1337	1368	1398
	4	1429	1459	1490	1521	1551	1582	1613	1643	1674	1704	1735	1766
	5	1796	1827	1857	1888	1919	1949	1980	2010	2041	2072	2102	2133
	6	2164	2194	2225	2255	2286	2317	2347	2378	2408	2439	2470	2500
	7	2531	2561	2592	2623	2653	2684	2715	2745	2776	2806	2837	2868
	8	2898	2929	2959	2990	3021	3051	3082	3112	3143	3174	3204	3235
	9	3266	3296	3327	3357	3388	3419	3449	3480	3510	3541	3572	3602
	10	3633	3664	3694	3725	3755	3786	3817	3847	3878	3908	3939	3970
	11	4000	4031	4061	4092	4123	4153	4184	4215	4245	4276	4306	4337
	12	4368	4398	4429	4459	4490	4521	4551	4582	4612	4643	4674	4704
	13	4735	4766	4796	4827	4857	4888	4919	4949	4980	5010	5041	5072
	14	5102	5133	5163	5194	5225	5255	5286	5317	5347	5378	5408	5439
	15	5470	5500	5531	5561	5592	5623	5653	5684	5715	5745	5776	5806
	16	5837	5868	5898	5929	5959	5990	6021	6051	6082	6112	6143	6174
	17	6204	6235	6266	6296	6327	6357	6388	6419	6449	6480	6510	6541
	18	6572	6602	6633	6663	6694	6725	6755	6786	6817	6847	6878	6908
	19	6939	6970	7000	7031	7061	7092	7123	7153	7184	7214	7245	7276
	20	7306	7337	7368	7398	7429	7459	7490	7521	7551	7582	7612	7643
	21	7674	7704	7735	7765	7796	7827	7857	7888	7919	7949	7980	8010
	22	8041	8072	8102	8133	8163	8194	8225	8255	8286	8316	8347	8378
	23	8408	8439	8470	8500	8531	8561	8592	8623	8653	8684	8714	8745
	24	8776	8806	8837	8867	8898	8929	8959	8990	9021	9051	9082	9112
	25	9143	9174	9204	9235	9265	9296	9327	9357	9388	9418	9449	9480
	26	9510	9541	9572	9602	9633	9663	9694	9725	9755	9786	9816	9847
	27	9878	9908	9939	9969	10000	10031	10061	10092	10123	10153	10184	10214
	28	10245	10276	10306	10337	10367	10398	10429	10459	10490	10521	10551	10582
	29	10612	10643	10674	10704	10735	10765	10796	10827	10857	10888	10918	10949
	30	10980	11010	11041	11072	11102	11133	11163	11194	11225	11255	11286	11316
	31	11347	11378	11408	11439	11469	11500	11531	11561	11592	11623	11653	11684
	32	11714	11745	11776	11806	11836	11864	11889	11911	11930	11947	11961	11973
	33	11981	11987										

**SOUNDING TABLE for  
Cargo Tank #5 (Port)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	0	1	2	3	5	7	10	13	16	19	22	26
	1	31	37	42	49	55	62	68	75	82	90	98	107
	2	117	127	138	148	158	169	180	191	203	215	228	240
	3	254	267	280	294	307	321	335	349	364	378	393	408
	4	423	437	451	466	481	496	512	528	545	561	578	595
	5	611	629	646	663	681	699	717	735	753	771	790	809
	6	827	845	863	882	900	920	939	959	980	1000	1021	1041
	7	1062	1083	1104	1126	1147	1169	1191	1213	1235	1257	1279	1302
	8	1324	1346	1368	1390	1413	1436	1460	1484	1508	1532	1557	1581
	9	1606	1631	1656	1681	1707	1732	1758	1784	1810	1836	1863	1889
	10	1915	1940	1966	1993	2019	2047	2074	2102	2130	2158	2187	2215
	11	2244	2273	2302	2331	2360	2389	2419	2449	2479	2509	2539	2569
	12	2598	2628	2658	2688	2718	2749	2779	2810	2841	2871	2902	2933
	13	2963	2994	3025	3055	3086	3117	3147	3178	3209	3239	3270	3301
	14	3331	3362	3393	3423	3454	3485	3515	3546	3577	3607	3638	3669
	15	3699	3730	3761	3791	3822	3853	3884	3914	3945	3976	4006	4037
	16	4068	4098	4129	4160	4190	4221	4252	4282	4313	4344	4374	4405
	17	4436	4466	4497	4528	4558	4589	4620	4650	4681	4712	4742	4773
	18	4804	4834	4865	4896	4926	4957	4988	5018	5049	5080	5110	5141
	19	5172	5202	5233	5264	5294	5325	5356	5386	5417	5448	5478	5509
	20	5540	5571	5601	5632	5663	5693	5724	5755	5785	5816	5847	5877
	21	5908	5939	5969	6000	6031	6061	6092	6123	6153	6184	6215	6245
	22	6276	6307	6337	6368	6399	6429	6460	6491	6521	6552	6583	6613
	23	6644	6675	6705	6736	6767	6797	6828	6859	6889	6920	6951	6981
	24	7012	7043	7073	7104	7135	7165	7196	7227	7257	7288	7319	7350
	25	7380	7411	7442	7472	7503	7534	7564	7595	7626	7656	7687	7718
	26	7748	7779	7810	7840	7871	7902	7932	7963	7994	8024	8055	8086
	27	8116	8147	8178	8208	8239	8270	8300	8331	8362	8392	8423	8454
	28	8484	8515	8546	8576	8607	8638	8668	8699	8730	8760	8791	8822
	29	8852	8883	8914	8944	8975	9006	9037	9067	9098	9129	9159	9190
	30	9221	9251	9282	9313	9343	9374	9405	9435	9466	9497	9527	9558
	31	9589	9619	9650	9681	9711	9742	9773	9803	9834	9865	9895	9926
	32	9957	9987	10018	10049	10079	10107	10132	10154	10173	10190	10204	10216
	33	10224	10230										

**SOUNDING TABLE for  
Cargo Tank #5 (Stbd)  
Volume in Barrels**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	0	1	2	3	5	7	10	13	16	19	22	26
	1	31	36	42	49	55	62	68	75	82	90	98	107
	2	117	127	137	148	158	169	179	191	202	215	227	240
	3	253	266	280	293	307	321	335	349	363	378	392	407
	4	422	436	451	465	480	495	511	527	544	560	577	593
	5	610	627	645	662	680	697	715	733	751	770	788	807
	6	826	843	861	880	899	918	937	957	978	998	1018	1039
	7	1060	1081	1102	1123	1145	1166	1188	1210	1232	1254	1277	1299
	8	1321	1343	1365	1387	1410	1433	1457	1481	1505	1529	1554	1578
	9	1603	1628	1653	1678	1703	1729	1754	1780	1806	1832	1859	1885
	10	1911	1936	1962	1988	2015	2042	2070	2098	2126	2154	2182	2211
	11	2239	2268	2297	2326	2355	2385	2414	2444	2474	2504	2534	2564
	12	2593	2622	2652	2682	2712	2743	2774	2804	2835	2865	2896	2927
	13	2957	2988	3018	3049	3080	3110	3141	3172	3202	3233	3263	3294
	14	3325	3355	3386	3416	3447	3478	3508	3539	3569	3600	3631	3661
	15	3692	3723	3753	3784	3814	3845	3876	3906	3937	3967	3998	4029
	16	4059	4090	4120	4151	4182	4212	4243	4274	4304	4335	4365	4396
	17	4427	4457	4488	4518	4549	4580	4610	4641	4671	4702	4733	4763
	18	4794	4825	4855	4886	4916	4947	4978	5008	5039	5069	5100	5131
	19	5161	5192	5222	5253	5284	5314	5345	5376	5406	5437	5467	5498
	20	5529	5559	5590	5620	5651	5682	5712	5743	5773	5804	5835	5865
	21	5896	5927	5957	5988	6018	6049	6080	6110	6141	6171	6202	6233
	22	6263	6294	6324	6355	6386	6416	6447	6478	6508	6539	6569	6600
	23	6631	6661	6692	6722	6753	6784	6814	6845	6875	6906	6937	6967
	24	6998	7029	7059	7090	7120	7151	7182	7212	7243	7273	7304	7335
	25	7365	7396	7426	7457	7488	7518	7549	7580	7610	7641	7671	7702
	26	7733	7763	7794	7824	7855	7886	7916	7947	7977	8008	8039	8069
	27	8100	8131	8161	8192	8222	8253	8284	8314	8345	8375	8406	8437
	28	8467	8498	8528	8559	8590	8620	8651	8682	8712	8743	8773	8804
	29	8835	8865	8896	8926	8957	8988	9018	9049	9079	9110	9141	9171
	30	9202	9232	9263	9294	9324	9355	9386	9416	9447	9477	9508	9539
	31	9569	9600	9630	9661	9692	9722	9753	9783	9814	9845	9875	9906
	32	9937	9967	9998	10028	10058	10086	10111	10133	10153	10169	10183	10195
	33	10203	10209										

**SOUNDING TABLE for  
Ballast Tank #1  
Weight in L. Tons (Salt Water = 1.025 SG)**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	1.37	4.26	7.31	10.47	13.73	17.07	20.48	23.95	27.47	31.04	34.67	38.33
	1	42.03	45.77	49.55	53.36	57.20	61.08	64.98	68.91	72.86	76.84	80.84	84.87
	2	88.92	92.98	97.07	101.18	105.31	109.46	113.63	117.81	122.01	126.23	130.46	134.71
	3	138.97	143.25	147.54	151.84	156.16	160.49	164.83	169.18	173.55	177.92	182.31	186.72
	4	191.13	195.55	199.98	204.43	208.88	213.34	217.81	222.28	226.77	231.27	235.77	240.28
	5	244.80	249.33	253.86	258.26	262.29	265.99	269.32	272.32	275.00	277.48	279.83	282.06
	6	284.17	286.14	287.98	289.69	291.30	292.84	294.23	295.56	296.86	298.12	299.38	300.62
	7	301.87	303.10	304.33	305.55	306.77	307.98	309.18	310.37	311.56	312.74	313.91	315.08
	8	316.24	317.40	318.55	319.69	320.82	321.95	323.08	324.19	325.30	326.41	327.50	328.59
	9	329.67	330.74	331.81	332.87	333.92	334.97	336.01	337.04	338.06	339.07	340.08	341.09
	10	342.08	343.07	344.06	345.04	346.01	346.97	347.93	348.88	349.82	350.76	351.69	352.62
	11	353.54	354.45	355.35	356.25	357.14	358.02	358.90	359.77	360.63	361.49	362.35	363.20
	12	364.04	364.88	365.71	366.54	367.36	368.18	369.00	369.81	370.61	371.42	372.21	373.01
	13	373.80	374.59	375.37	376.16	376.94	377.72	378.49	379.27	380.05	380.82	381.60	382.38
	14	383.15	383.93	384.71	385.49	386.27	387.04	387.82	388.60	389.38	390.16	390.94	391.73
	15	392.51	393.29	394.07	394.85	395.63	396.42	397.20	397.98	398.76	399.55	400.33	401.11
	16	401.89	402.68	403.46	404.24	405.03	405.81	406.59	407.38	408.16	408.95	409.73	410.51
	17	411.30	412.08	412.86	413.65	414.43	415.22	416.00	416.78	417.57	418.35	419.14	419.92
	18	420.70	421.49	422.27	423.06	423.84	424.62	425.41	426.19	426.97	427.76	428.54	429.33
	19	430.11	430.89	431.68	432.46	433.25	434.03	434.81	435.60	436.38	437.17	437.95	438.73
	20	439.52	440.30	441.09	441.87	442.65	443.44	444.22	445.00	445.79	446.57	447.36	448.14
	21	448.92	449.71	450.49	451.28	452.06	452.84	453.63	454.41	455.20	455.98	456.76	457.55
	22	458.33	459.12	459.90	460.68	461.47	462.25	463.03	463.82	464.60	465.39	466.17	466.95
	23	467.74	468.52	469.31	470.09	470.87	471.66	472.44	473.23	474.01	474.79	475.58	476.36
	24	477.15	477.93	478.71	479.50	480.28	481.07	481.85	482.63	483.42	484.20	484.99	485.77
	25	486.55	487.34	488.12	488.90	489.69	490.47	491.26	492.04	492.82	493.61	494.39	495.18
	26	495.96	496.74	497.53	498.31	499.10	499.88	500.66	501.45	502.23	503.02	503.80	504.58
	27	505.37	506.15	506.94	507.72	508.50	509.29	510.07	510.86	511.64	512.42	513.21	513.99
	28	514.78	515.56	516.34	517.13	517.91	518.70	519.48	520.26	521.05	521.83	522.62	523.40
	29	524.18	524.97	525.75	526.54	527.32	528.10	528.89	529.67	530.46	531.24	532.02	532.81
	30	533.59	534.38	535.16	535.94	536.73	537.51	538.30	539.08	539.86	540.65	541.43	542.22
	31	543.00	543.78	544.57	545.35	546.14	546.92	547.70	548.49	549.27	550.06	550.84	551.62
	32	552.41	553.19	553.98	554.76	555.54	556.33	557.11	557.90	558.68	559.46	560.25	561.03
	33	561.82	562.60	563.38	564.17	564.95	565.74	566.52	567.30	568.09	568.87	569.66	570.44
	34	571.23	572.01	572.79	573.58	574.36	575.15	575.93	576.71	577.50	578.28	579.07	579.85
	35	580.64	581.42	582.21	582.99	583.78	584.56	585.35	586.13	586.92	587.71	588.49	589.28
	36	590.07	590.85	591.64	592.43	593.22	594.00	594.79	595.58	596.37	597.15	597.94	598.73
37	599.52	600.31	601.10	601.88	602.67	603.46	604.24	604.95	605.45	605.75			



**SOUNDING TABLE for  
Ballast Tank #2  
Weight in L. Tons (Salt Water = 1.025 SG)**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	2.65	7.97	13.33	18.73	24.14	29.57	35.01	40.48	45.96	51.45	56.95	62.45
	1	67.97	73.49	79.02	84.55	90.10	95.64	101.20	106.75	112.31	117.87	123.44	129.01
	2	134.58	140.15	145.72	151.30	156.88	162.46	168.04	173.62	179.20	184.79	190.38	195.96
	3	201.55	207.14	212.73	218.33	223.92	229.51	235.11	240.70	246.29	251.89	257.48	263.08
	4	268.67	274.27	279.87	285.47	291.06	296.66	302.26	307.86	313.46	319.05	324.65	330.25
	5	335.85	341.45	347.05	352.23	356.48	360.02	362.85	364.98	366.39	367.21	367.95	368.68
	6	369.42	370.16	370.90	371.64	372.38	373.11	373.85	374.59	375.33	376.07	376.81	377.54
	7	378.28	379.02	379.76	380.50	381.24	381.97	382.71	383.45	384.19	384.93	385.67	386.40
	8	387.14	387.88	388.62	389.36	390.10	390.83	391.57	392.31	393.05	393.79	394.52	395.26
	9	396.00	396.74	397.48	398.22	398.95	399.69	400.43	401.17	401.91	402.65	403.38	404.12
	10	404.86	405.60	406.34	407.08	407.81	408.55	409.29	410.03	410.77	411.51	412.24	412.98
	11	413.72	414.46	415.20	415.94	416.67	417.41	418.15	418.89	419.63	420.37	421.10	421.84
	12	422.58	423.32	424.06	424.80	425.53	426.27	427.01	427.75	428.49	429.23	429.96	430.70
	13	431.44	432.18	432.92	433.66	434.39	435.13	435.87	436.61	437.35	438.09	438.82	439.56
	14	440.30	441.04	441.78	442.52	443.25	443.99	444.73	445.47	446.21	446.95	447.68	448.42
	15	449.16	449.90	450.64	451.38	452.11	452.85	453.59	454.33	455.07	455.81	456.54	457.28
	16	458.02	458.76	459.50	460.23	460.97	461.71	462.45	463.19	463.93	464.66	465.40	466.14
	17	466.88	467.62	468.36	469.09	469.83	470.57	471.31	472.05	472.79	473.52	474.26	475.00
	18	475.74	476.48	477.22	477.95	478.69	479.43	480.17	480.91	481.65	482.38	483.12	483.86
	19	484.60	485.34	486.08	486.81	487.55	488.29	489.03	489.77	490.51	491.24	491.98	492.72
	20	493.46	494.20	494.94	495.67	496.41	497.15	497.89	498.63	499.37	500.10	500.84	501.58
	21	502.32	503.06	503.80	504.53	505.27	506.01	506.75	507.49	508.22	508.96	509.70	510.44
	22	511.18	511.92	512.65	513.39	514.13	514.87	515.61	516.35	517.08	517.82	518.56	519.30
	23	520.04	520.78	521.51	522.25	522.99	523.73	524.47	525.21	525.94	526.68	527.42	528.16
	24	528.90	529.64	530.37	531.11	531.85	532.59	533.33	534.07	534.80	535.54	536.28	537.02
	25	537.76	538.50	539.23	539.97	540.71	541.45	542.19	542.93	543.66	544.40	545.14	545.88
	26	546.62	547.36	548.09	548.83	549.57	550.31	551.05	551.79	552.52	553.26	554.00	554.74
	27	555.48	556.22	556.95	557.69	558.43	559.17	559.91	560.64	561.38	562.12	562.86	563.60
	28	564.34	565.07	565.81	566.55	567.29	568.03	568.77	569.50	570.24	570.98	571.72	572.46
	29	573.20	573.93	574.67	575.41	576.15	576.89	577.63	578.36	579.10	579.84	580.58	581.32
	30	582.06	582.79	583.53	584.27	585.01	585.75	586.49	587.22	587.96	588.70	589.44	590.18
	31	590.92	591.65	592.39	593.13	593.87	594.61	595.35	596.08	596.82	597.56	598.30	599.04
	32	599.77	600.51	601.25	601.99	602.73	603.47	604.20	604.94	605.68	606.42	607.16	607.90
	33	608.63	609.37	610.11	610.85	611.59	612.33	613.06	613.80	614.54	615.28	616.02	616.76
	34	617.49	618.23	618.97	619.71	620.45	621.19	621.92	622.66	623.40	624.14	624.88	625.62
	35	626.35	627.09	627.83	628.57	629.31	630.05	630.78	631.52	632.26	633.00	633.74	634.48
	36	635.21	635.95	636.69	637.42	638.15	638.88	639.60	640.32	641.04	641.76	642.47	643.17
37	643.85	644.53	645.19	645.85	646.49	647.08	647.64						

**SOUNDING TABLE for  
Ballast Tank #3  
Weight in L. Tons (Salt Water = 1.025 SG)**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	2.72	8.16	13.64	19.15	24.67	30.21	35.75	41.31	46.87	52.45	58.04	63.62
	1	69.21	74.80	80.40	86.00	91.60	97.21	102.82	108.43	114.03	119.64	125.25	130.86
	2	136.47	142.08	147.69	153.30	158.91	164.52	170.12	175.73	181.34	186.95	192.56	198.17
	3	203.78	209.39	215.00	220.60	226.21	231.82	237.43	243.04	248.65	254.26	259.87	265.48
	4	271.08	276.69	282.30	287.91	293.52	299.13	304.74	310.35	315.96	321.57	327.17	332.78
	5	338.39	344.00	349.61	354.81	359.06	362.61	365.45	367.59	369.01	369.82	370.54	371.26
	6	371.98	372.69	373.41	374.13	374.85	375.57	376.29	377.01	377.73	378.45	379.17	379.89
	7	380.61	381.33	382.05	382.77	383.48	384.20	384.92	385.64	386.36	387.08	387.80	388.52
	8	389.24	389.96	390.68	391.40	392.12	392.84	393.56	394.27	394.99	395.71	396.43	397.15
	9	397.87	398.59	399.31	400.03	400.75	401.47	402.19	402.91	403.63	404.35	405.06	405.78
	10	406.50	407.22	407.94	408.66	409.38	410.10	410.82	411.54	412.26	412.98	413.70	414.42
	11	415.14	415.86	416.57	417.29	418.01	418.73	419.45	420.17	420.89	421.61	422.33	423.05
	12	423.77	424.49	425.21	425.93	426.65	427.36	428.08	428.80	429.52	430.24	430.96	431.68
	13	432.40	433.12	433.84	434.56	435.28	436.00	436.72	437.44	438.15	438.87	439.59	440.31
	14	441.03	441.75	442.47	443.19	443.91	444.63	445.35	446.07	446.79	447.51	448.23	448.94
	15	449.66	450.38	451.10	451.82	452.54	453.26	453.98	454.70	455.42	456.14	456.86	457.58
	16	458.30	459.02	459.73	460.45	461.17	461.89	462.61	463.33	464.05	464.77	465.49	466.21
	17	466.93	467.65	468.37	469.09	469.81	470.52	471.24	471.96	472.68	473.40	474.12	474.84
	18	475.56	476.28	477.00	477.72	478.44	479.16	479.88	480.60	481.31	482.03	482.75	483.47
	19	484.19	484.91	485.63	486.35	487.07	487.79	488.51	489.23	489.95	490.67	491.39	492.10
	20	492.82	493.54	494.26	494.98	495.70	496.42	497.14	497.86	498.58	499.30	500.02	500.74
	21	501.46	502.18	502.89	503.61	504.33	505.05	505.77	506.49	507.21	507.93	508.65	509.37
	22	510.09	510.81	511.53	512.25	512.97	513.69	514.40	515.12	515.84	516.56	517.28	518.00
	23	518.72	519.44	520.16	520.88	521.60	522.32	523.04	523.76	524.47	525.19	525.91	526.63
	24	527.35	528.07	528.79	529.51	530.23	530.95	531.67	532.39	533.11	533.83	534.55	535.26
	25	535.98	536.70	537.42	538.14	538.86	539.58	540.30	541.02	541.74	542.46	543.18	543.90
	26	544.62	545.34	546.06	546.77	547.49	548.21	548.93	549.65	550.37	551.09	551.81	552.53
	27	553.25	553.97	554.69	555.41	556.13	556.85	557.56	558.28	559.00	559.72	560.44	561.16
	28	561.88	562.60	563.32	564.04	564.76	565.48	566.20	566.92	567.64	568.35	569.07	569.79
	29	570.51	571.23	571.95	572.67	573.39	574.11	574.83	575.55	576.27	576.99	577.71	578.43
	30	579.14	579.86	580.58	581.30	582.02	582.74	583.46	584.18	584.90	585.62	586.34	587.06
	31	587.78	588.50	589.22	589.93	590.65	591.37	592.09	592.81	593.53	594.25	594.97	595.69
	32	596.41	597.13	597.85	598.57	599.29	600.01	600.72	601.44	602.16	602.88	603.60	604.32
	33	605.04	605.76	606.48	607.20	607.92	608.64	609.36	610.08	610.80	611.51	612.23	612.95
	34	613.67	614.39	615.11	615.83	616.55	617.27	617.99	618.71	619.43	620.15	620.87	621.59
	35	622.30	623.02	623.74	624.46	625.18	625.90	626.62	627.34	628.06	628.78	629.50	630.22
	36	630.94	631.65	632.37	633.08	633.79	634.49	635.20	635.89	636.59	637.28	637.97	638.64
37	639.30	639.95	640.58	641.21	641.82	642.39	642.92						

**SOUNDING TABLE for  
Ballast Tank #4  
Weight in L. Tons (Salt Water = 1.025 SG)**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	2.66	8.10	13.58	19.09	24.61	30.14	35.69	41.25	46.81	52.39	57.98	63.56
	1	69.15	74.74	80.34	85.94	91.54	97.15	102.76	108.37	113.97	119.58	125.19	130.80
	2	136.41	142.02	147.63	153.24	158.85	164.45	170.06	175.67	181.28	186.89	192.50	198.11
	3	203.72	209.33	214.94	220.54	226.15	231.76	237.37	242.98	248.59	254.20	259.81	265.42
	4	271.02	276.63	282.24	287.85	293.46	299.07	304.68	310.29	315.90	321.51	327.11	332.72
	5	338.33	343.94	349.55	354.75	359.00	362.55	365.39	367.53	368.95	369.76	370.48	371.20
	6	371.92	372.63	373.35	374.07	374.79	375.51	376.23	376.95	377.67	378.39	379.11	379.83
	7	380.55	381.27	381.99	382.71	383.42	384.14	384.86	385.58	386.30	387.02	387.74	388.46
	8	389.18	389.90	390.62	391.34	392.06	392.78	393.50	394.22	394.93	395.65	396.37	397.09
	9	397.81	398.53	399.25	399.97	400.69	401.41	402.13	402.85	403.57	404.29	405.01	405.72
	10	406.44	407.16	407.88	408.60	409.32	410.04	410.76	411.48	412.20	412.92	413.64	414.36
	11	415.08	415.80	416.52	417.23	417.95	418.67	419.39	420.11	420.83	421.55	422.27	422.99
	12	423.71	424.43	425.15	425.87	426.59	427.31	428.02	428.74	429.46	430.18	430.90	431.62
	13	432.34	433.06	433.78	434.50	435.22	435.94	436.66	437.38	438.10	438.81	439.53	440.25
	14	440.97	441.69	442.41	443.13	443.85	444.57	445.29	446.01	446.73	447.45	448.17	448.89
	15	449.61	450.32	451.04	451.76	452.48	453.20	453.92	454.64	455.36	456.08	456.80	457.52
	16	458.24	458.96	459.68	460.40	461.12	461.83	462.55	463.27	463.99	464.71	465.43	466.15
	17	466.87	467.59	468.31	469.03	469.75	470.47	471.19	471.91	472.62	473.34	474.06	474.78
	18	475.50	476.22	476.94	477.66	478.38	479.10	479.82	480.54	481.26	481.98	482.70	483.41
	19	484.13	484.85	485.57	486.29	487.01	487.73	488.45	489.17	489.89	490.61	491.33	492.05
	20	492.77	493.49	494.21	494.92	495.64	496.36	497.08	497.80	498.52	499.24	499.96	500.68
	21	501.40	502.12	502.84	503.56	504.28	505.00	505.71	506.43	507.15	507.87	508.59	509.31
	22	510.03	510.75	511.47	512.19	512.91	513.63	514.35	515.07	515.79	516.51	517.22	517.94
	23	518.66	519.38	520.10	520.82	521.54	522.26	522.98	523.70	524.42	525.14	525.86	526.58
	24	527.30	528.01	528.73	529.45	530.17	530.89	531.61	532.33	533.05	533.77	534.49	535.21
	25	535.93	536.65	537.37	538.09	538.80	539.52	540.24	540.96	541.68	542.40	543.12	543.84
	26	544.56	545.28	546.00	546.72	547.44	548.16	548.88	549.60	550.31	551.03	551.75	552.47
	27	553.19	553.91	554.63	555.35	556.07	556.79	557.51	558.23	558.95	559.67	560.39	561.10
	28	561.82	562.54	563.26	563.98	564.70	565.42	566.14	566.86	567.58	568.30	569.02	569.74
	29	570.46	571.18	571.90	572.61	573.33	574.05	574.77	575.49	576.21	576.93	577.65	578.37
	30	579.09	579.81	580.53	581.25	581.97	582.69	583.40	584.12	584.84	585.56	586.28	587.00
	31	587.72	588.44	589.16	589.88	590.60	591.32	592.04	592.76	593.48	594.20	594.91	595.63
	32	596.35	597.07	597.79	598.51	599.23	599.95	600.67	601.39	602.11	602.83	603.55	604.27
	33	604.99	605.70	606.42	607.14	607.86	608.58	609.30	610.02	610.74	611.46	612.18	612.90
	34	613.62	614.34	615.06	615.78	616.49	617.21	617.93	618.65	619.37	620.09	620.81	621.53
	35	622.25	622.97	623.69	624.41	625.13	625.85	626.57	627.29	628.00	628.72	629.44	630.16
	36	630.88	631.60	632.31	633.03	633.73	634.44	635.14	635.84	636.54	637.23	637.91	638.58
37	639.24	639.89	640.53	641.16	641.76	642.33	642.86						

**SOUNDING TABLE for  
Ballast Tank #5  
Weight in L. Tons (Salt Water = 1.025 SG)**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	0.36	1.23	2.13	3.06	4.22	5.79	7.37	8.96	10.55	12.16	13.77	15.39
	1	17.01	18.84	21.08	23.32	25.57	27.81	30.06	32.31	34.56	36.80	39.05	41.30
	2	43.55	45.79	48.04	50.37	53.23	56.08	58.94	61.80	64.66	67.52	70.38	73.24
	3	76.10	78.95	81.81	84.67	87.53	90.39	93.25	96.11	98.96	101.82	104.68	107.94
	4	111.41	114.88	118.35	121.82	125.29	128.76	132.23	135.70	139.17	142.64	146.11	149.58
	5	153.05	156.52	159.99	163.45	166.87	170.24	173.56	176.81	179.97	183.04	186.05	189.37
	6	193.00	196.58	200.08	203.49	206.81	210.01	213.14	216.21	219.21	222.22	225.30	228.31
	7	231.23	234.06	236.77	239.37	241.90	244.36	246.76	249.15	251.62	254.03	256.38	258.81
	8	261.32	263.91	266.57	269.20	271.81	274.39	276.94	279.47	281.97	284.44	286.89	289.32
	9	291.72	294.09	296.43	298.75	301.05	303.49	305.89	308.24	310.54	312.77	314.95	317.19
	10	319.49	321.87	324.32	326.84	329.42	331.99	334.53	337.05	339.54	342.00	344.44	346.86
	11	349.25	351.61	353.95	356.26	358.62	361.09	363.51	365.86	368.15	370.36	372.52	374.68
	12	376.84	379.02	381.20	383.39	385.59	387.80	390.02	392.23	394.40	396.55	398.68	400.77
	13	402.85	404.89	406.92	408.91	411.05	413.19	415.28	417.30	419.25	421.13	422.95	424.74
	14	426.50	428.23	429.94	431.63	433.29	434.92	436.53	438.11	439.66	441.19	442.70	444.17
	15	445.63	447.05	448.45	449.85	451.42	452.93	454.38	455.77	457.08	458.32	459.52	460.68
	16	461.82	462.94	464.03	465.09	466.13	467.14	468.13	469.09	470.02	470.93	471.81	472.67
	17	473.50	474.30	475.08	475.95	476.89	477.79	478.64	479.45	480.21	480.93	481.65	482.37
	18	483.09	483.81	484.53	485.25	485.97	486.69	487.41	488.13	488.85	489.57	490.29	491.01
	19	491.72	492.44	493.16	493.88	494.60	495.32	496.04	496.76	497.48	498.20	498.92	499.64
	20	500.36	501.08	501.80	502.52	503.23	503.95	504.67	505.39	506.11	506.83	507.55	508.27
	21	508.99	509.71	510.43	511.15	511.87	512.59	513.31	514.03	514.74	515.46	516.18	516.90
	22	517.62	518.34	519.06	519.78	520.50	521.22	521.94	522.66	523.38	524.10	524.82	525.53
	23	526.25	526.97	527.69	528.41	529.13	529.85	530.57	531.29	532.01	532.73	533.45	534.17
	24	534.89	535.61	536.32	537.04	537.76	538.48	539.20	539.92	540.64	541.36	542.08	542.80
	25	543.52	544.24	544.96	545.68	546.40	547.12	547.84	548.55	549.27	549.99	550.71	551.43
	26	552.15	552.87	553.59	554.31	555.03	555.75	556.47	557.19	557.91	558.63	559.34	560.06
	27	560.78	561.50	562.22	562.94	563.66	564.38	565.10	565.82	566.54	567.26	567.98	568.70
	28	569.42	570.14	570.85	571.57	572.29	573.01	573.73	574.45	575.17	575.89	576.61	577.33
	29	578.05	578.77	579.49	580.21	580.93	581.64	582.36	583.08	583.80	584.52	585.24	585.96
	30	586.68	587.40	588.12	588.84	589.56	590.28	591.00	591.72	592.44	593.15	593.87	594.59
	31	595.31	596.03	596.75	597.47	598.19	598.91	599.63	600.35	601.07	601.79	602.51	603.23
	32	603.95	604.66	605.38	606.10	606.82	607.54	608.26	608.98	609.70	610.42	611.14	611.86
	33	612.58	613.30	614.02	614.74	615.46	616.17	616.89	617.61	618.33	619.05	619.77	620.49
	34	621.21	621.93	622.65	623.37	624.09	624.81	625.53	626.25	626.97	627.68	628.40	629.12
	35	629.84	630.56	631.28	632.00	632.72	633.44	634.16	634.88	635.60	636.32	637.04	637.76
	36	638.47	639.19	639.91	640.62	641.34	642.05	642.76	643.46	644.16	644.85	645.53	646.21
37	646.88	647.53	648.17	648.81	649.41	650.00	650.54						

**SOUNDING TABLE for  
Fuel Oil Tank  
Volume in Gallons**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	107	300	493	686	876	1,069	1,262	1,455	1,645	1,838	2,032	2,221
	1	2,415	2,608	2,801	2,991	3,184	3,377	3,570	3,760	3,953	4,146	4,339	4,529
	2	4,722	4,915	5,105	5,298	5,491	5,684	5,874	6,067	6,260	6,453	6,643	6,836
	3	7,029	7,222	7,412	7,605	7,798	7,988	8,181	8,374	8,567	8,757	8,950	9,143
	4	9,336	9,526	9,719	9,912	10,105	10,295	10,488	10,681	10,871	11,064	11,258	11,451
	5	11,641	11,834	12,027	12,220	12,410	12,603	12,796	12,989	13,179	13,372	13,565	13,755
	6	13,948	14,141	14,334	14,524	14,717	14,910	15,103	15,293	15,486	15,679	15,872	16,062
	7	16,255	16,448	16,638	16,831	17,024	17,217	17,407	17,600	17,793	17,986	18,176	18,369
	8	18,562	18,755	18,945	19,138	19,331	19,521	19,714	19,908	20,101	20,291	20,484	20,677
	9	20,870	21,060	21,253	21,446	21,639	21,829	22,022	22,215	22,405	22,598	22,791	22,984
	10	23,174	23,367	23,560	23,753	23,943	24,133	24,289	24,403	24,470	24,494		

**Weight in L. Tons (Fuel Oil = 0.876 SG)**

		Inches											
		0	1	2	3	4	5	6	7	8	9	10	11
Feet	0	0.35	0.98	1.61	2.24	2.86	3.49	4.12	4.75	5.37	6.00	6.63	7.25
	1	7.88	8.51	9.14	9.76	10.39	11.02	11.65	12.27	12.90	13.53	14.16	14.78
	2	15.41	16.04	16.66	17.29	17.92	18.55	19.17	19.80	20.43	21.06	21.68	22.31
	3	22.94	23.57	24.19	24.82	25.45	26.07	26.70	27.33	27.96	28.58	29.21	29.84
	4	30.47	31.09	31.72	32.35	32.98	33.60	34.23	34.86	35.48	36.11	36.74	37.37
	5	37.99	38.62	39.25	39.88	40.50	41.13	41.76	42.39	43.01	43.64	44.27	44.89
	6	45.52	46.15	46.78	47.40	48.03	48.66	49.29	49.91	50.54	51.17	51.80	52.42
	7	53.05	53.68	54.30	54.93	55.56	56.19	56.81	57.44	58.07	58.70	59.32	59.95
	8	60.58	61.21	61.83	62.46	63.09	63.71	64.34	64.97	65.60	66.22	66.85	67.48
	9	68.11	68.73	69.36	69.99	70.62	71.24	71.87	72.50	73.12	73.75	74.38	75.01
	10	75.63	76.26	76.89	77.52	78.14	78.76	79.27	79.64	79.86	79.94		

## Table of Centers for Cargo Tank #1 Port

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	3	5.31	79.64	3.78
0' - 6"	62	5.64	76.40	10.83
1' - 0"	162	5.94	73.04	12.13
1' - 6"	286	6.23	69.92	12.28
2' - 0"	415	6.50	68.36	12.37
2' - 6"	547	6.77	67.49	12.47
3' - 0"	681	7.03	66.93	12.56
3' - 6"	818	7.30	66.51	12.66
4' - 0"	956	7.56	66.20	12.75
4' - 6"	1097	7.82	65.93	12.84
5' - 0"	1239	8.09	65.71	12.93
5' - 6"	1384	8.35	65.52	13.01
6' - 0"	1530	8.61	65.34	13.09
6' - 6"	1679	8.88	65.18	13.18
7' - 0"	1828	9.14	65.03	13.25
7' - 6"	1979	9.41	64.89	13.32
8' - 0"	2131	9.67	64.76	13.39
8' - 6"	2283	9.93	64.64	13.45
9' - 0"	2436	10.19	64.53	13.50
9' - 6"	2588	10.45	64.44	13.55
10' - 0"	2741	10.71	64.36	13.59
10' - 6"	2893	10.97	64.28	13.63
11' - 0"	3046	11.23	64.22	13.66
11' - 6"	3198	11.49	64.15	13.69
12' - 0"	3351	11.74	64.10	13.72
12' - 6"	3504	12.00	64.05	13.74
13' - 0"	3656	12.25	64.00	13.76
13' - 6"	3809	12.51	63.96	13.78
14' - 0"	3961	12.76	63.92	13.80
14' - 6"	4114	13.01	63.89	13.82
15' - 0"	4266	13.27	63.85	13.84
15' - 6"	4419	13.52	63.82	13.85
16' - 0"	4571	13.77	63.79	13.87
16' - 6"	4724	14.03	63.76	13.88
17' - 0"	4876	14.28	63.74	13.89

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	5029	14.53	63.72	13.91
18' - 0"	5181	14.79	63.69	13.92
18' - 6"	5334	15.04	63.67	13.93
19' - 0"	5486	15.29	63.65	13.94
19' - 6"	5639	15.54	63.63	13.95
20' - 0"	5791	15.79	63.61	13.96
20' - 6"	5944	16.05	63.60	13.96
21' - 0"	6096	16.30	63.58	13.97
21' - 6"	6249	16.55	63.56	13.98
22' - 0"	6401	16.80	63.55	13.99
22' - 6"	6554	17.05	63.54	13.99
23' - 0"	6706	17.30	63.52	14.00
23' - 6"	6859	17.56	63.51	14.01
24' - 0"	7011	17.81	63.50	14.01
24' - 6"	7164	18.06	63.49	14.02
25' - 0"	7316	18.31	63.47	14.02
25' - 6"	7469	18.56	63.46	14.03
26' - 0"	7621	18.81	63.45	14.03
26' - 6"	7774	19.06	63.44	14.04
27' - 0"	7926	19.31	63.43	14.04
27' - 6"	8079	19.56	63.42	14.05
28' - 0"	8232	19.82	63.42	14.05
28' - 6"	8384	20.07	63.41	14.06
29' - 0"	8537	20.32	63.40	14.06
29' - 6"	8689	20.57	63.39	14.06
30' - 0"	8842	20.82	63.38	14.07
30' - 6"	8994	21.07	63.38	14.07
31' - 0"	9147	21.32	63.37	14.08
31' - 6"	9299	21.57	63.36	14.08
32' - 0"	9452	21.82	63.36	14.08
32' - 6"	9602	22.07	63.35	14.08
33' - 0"	9694	22.22	63.32	14.04
33' - 6"	9702	22.23	63.32	14.03

## Table of Centers for Cargo Tank #1 Stbd

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	3	5.31	79.65	3.82
0' - 6"	61	5.64	76.41	10.87
1' - 0"	162	5.94	73.04	12.17
1' - 6"	285	6.23	69.93	12.31
2' - 0"	414	6.50	68.37	12.41
2' - 6"	545	6.77	67.50	12.51
3' - 0"	679	7.03	66.94	12.60
3' - 6"	815	7.30	66.53	12.69
4' - 0"	953	7.56	66.21	12.78
4' - 6"	1094	7.82	65.95	12.88
5' - 0"	1236	8.09	65.72	12.96
5' - 6"	1380	8.35	65.53	13.05
6' - 0"	1526	8.61	65.35	13.13
6' - 6"	1674	8.88	65.19	13.21
7' - 0"	1823	9.14	65.04	13.29
7' - 6"	1974	9.41	64.90	13.36
8' - 0"	2125	9.67	64.77	13.43
8' - 6"	2277	9.93	64.65	13.49
9' - 0"	2429	10.20	64.54	13.54
9' - 6"	2582	10.46	64.45	13.58
10' - 0"	2734	10.71	64.37	13.62
10' - 6"	2886	10.97	64.29	13.66
11' - 0"	3038	11.23	64.22	13.69
11' - 6"	3190	11.49	64.16	13.72
12' - 0"	3342	11.74	64.11	13.75
12' - 6"	3495	12.00	64.06	13.78
13' - 0"	3647	12.25	64.01	13.80
13' - 6"	3799	12.51	63.97	13.82
14' - 0"	3951	12.76	63.93	13.84
14' - 6"	4103	13.02	63.89	13.86
15' - 0"	4255	13.27	63.86	13.87
15' - 6"	4407	13.52	63.83	13.89
16' - 0"	4560	13.78	63.80	13.90
16' - 6"	4712	14.03	63.77	13.92
17' - 0"	4864	14.28	63.75	13.93

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	5016	14.53	63.72	13.94
18' - 0"	5168	14.79	63.70	13.95
18' - 6"	5320	15.04	63.68	13.96
19' - 0"	5472	15.29	63.66	13.97
19' - 6"	5625	15.54	63.64	13.98
20' - 0"	5777	15.79	63.62	13.99
20' - 6"	5929	16.05	63.60	14.00
21' - 0"	6081	16.30	63.59	14.01
21' - 6"	6233	16.55	63.57	14.01
22' - 0"	6385	16.80	63.56	14.02
22' - 6"	6537	17.05	63.54	14.03
23' - 0"	6690	17.30	63.53	14.04
23' - 6"	6842	17.56	63.52	14.04
24' - 0"	6994	17.81	63.51	14.05
24' - 6"	7146	18.06	63.49	14.05
25' - 0"	7298	18.31	63.48	14.06
25' - 6"	7450	18.56	63.47	14.06
26' - 0"	7602	18.81	63.46	14.07
26' - 6"	7755	19.06	63.45	14.07
27' - 0"	7907	19.31	63.44	14.08
27' - 6"	8059	19.56	63.43	14.08
28' - 0"	8211	19.82	63.42	14.09
28' - 6"	8363	20.07	63.42	14.09
29' - 0"	8515	20.32	63.41	14.10
29' - 6"	8667	20.57	63.40	14.10
30' - 0"	8820	20.82	63.39	14.10
30' - 6"	8972	21.07	63.38	14.11
31' - 0"	9124	21.32	63.38	14.11
31' - 6"	9276	21.57	63.37	14.11
32' - 0"	9428	21.82	63.36	14.12
32' - 6"	9578	22.07	63.35	14.12
33' - 0"	9670	22.22	63.33	14.07
33' - 6"	9678	22.24	63.33	14.06

## Table of Centers for Cargo Tank #2 Port

Sounding	Volume	Center of Gravity		
		Vert	Long'l	Trans
	(BBL)	(ft ABL)	(ft aft Fr. 0)	(ft off CL)
0' - 0"	9	5.31	122.02	3.90
0' - 6"	143	5.63	122.07	12.91
1' - 0"	326	5.90	122.12	15.13
1' - 6"	509	6.15	122.13	15.75
2' - 0"	692	6.40	122.13	16.04
2' - 6"	875	6.66	122.14	16.21
3' - 0"	1058	6.91	122.14	16.33
3' - 6"	1241	7.16	122.14	16.40
4' - 0"	1424	7.41	122.14	16.46
4' - 6"	1607	7.66	122.14	16.51
5' - 0"	1790	7.91	122.14	16.54
5' - 6"	1973	8.16	122.14	16.57
6' - 0"	2156	8.41	122.14	16.60
6' - 6"	2339	8.66	122.14	16.62
7' - 0"	2522	8.91	122.14	16.64
7' - 6"	2705	9.16	122.14	16.65
8' - 0"	2888	9.41	122.14	16.66
8' - 6"	3070	9.66	122.15	16.68
9' - 0"	3253	9.91	122.15	16.69
9' - 6"	3436	10.16	122.15	16.70
10' - 0"	3619	10.41	122.15	16.70
10' - 6"	3802	10.66	122.15	16.71
11' - 0"	3985	10.91	122.15	16.72
11' - 6"	4168	11.16	122.15	16.73
12' - 0"	4351	11.41	122.15	16.73
12' - 6"	4534	11.66	122.15	16.74
13' - 0"	4717	11.91	122.15	16.74
13' - 6"	4900	12.16	122.15	16.75
14' - 0"	5083	12.41	122.15	16.75
14' - 6"	5266	12.66	122.15	16.75
15' - 0"	5449	12.91	122.15	16.76
15' - 6"	5632	13.16	122.15	16.76
16' - 0"	5815	13.41	122.15	16.76
16' - 6"	5998	13.66	122.15	16.77
17' - 0"	6181	13.91	122.15	16.77

Sounding	Volume	Center of Gravity		
		Vert	Long'l	Trans
	(BBL)	(ft ABL)	(ft aft Fr. 0)	(ft off CL)
17' - 6"	6364	14.16	122.15	16.77
18' - 0"	6547	14.41	122.15	16.77
18' - 6"	6730	14.66	122.15	16.78
19' - 0"	6913	14.91	122.15	16.78
19' - 6"	7096	15.16	122.15	16.78
20' - 0"	7278	15.41	122.15	16.78
20' - 6"	7461	15.66	122.15	16.79
21' - 0"	7644	15.91	122.15	16.79
21' - 6"	7827	16.16	122.15	16.79
22' - 0"	8010	16.41	122.15	16.79
22' - 6"	8193	16.66	122.15	16.79
23' - 0"	8376	16.91	122.15	16.79
23' - 6"	8559	17.16	122.15	16.79
24' - 0"	8742	17.41	122.15	16.80
24' - 6"	8925	17.66	122.15	16.80
25' - 0"	9108	17.91	122.15	16.80
25' - 6"	9291	18.16	122.15	16.80
26' - 0"	9474	18.41	122.15	16.80
26' - 6"	9657	18.66	122.15	16.80
27' - 0"	9840	18.91	122.15	16.80
27' - 6"	10023	19.16	122.15	16.80
28' - 0"	10206	19.41	122.15	16.81
28' - 6"	10389	19.66	122.15	16.81
29' - 0"	10572	19.91	122.15	16.81
29' - 6"	10755	20.16	122.15	16.81
30' - 0"	10938	20.41	122.15	16.81
30' - 6"	11121	20.66	122.15	16.81
31' - 0"	11304	20.91	122.15	16.81
31' - 6"	11486	21.16	122.15	16.81
32' - 0"	11669	21.41	122.15	16.81
32' - 6"	11844	21.65	122.15	16.80
33' - 0"	11936	21.78	122.15	16.74
33' - 6"	11945	21.79	122.15	16.73



## Table of Centers for Cargo Tank #2 Stbd

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	9	5.31	122.02	3.93
0' - 6"	143	5.63	122.07	12.95
1' - 0"	325	5.90	122.12	15.16
1' - 6"	508	6.15	122.13	15.79
2' - 0"	691	6.40	122.13	16.08
2' - 6"	873	6.66	122.14	16.25
3' - 0"	1056	6.91	122.14	16.36
3' - 6"	1238	7.16	122.14	16.44
4' - 0"	1421	7.41	122.14	16.50
4' - 6"	1604	7.66	122.14	16.54
5' - 0"	1786	7.91	122.14	16.58
5' - 6"	1969	8.16	122.14	16.61
6' - 0"	2151	8.41	122.14	16.63
6' - 6"	2334	8.66	122.14	16.65
7' - 0"	2516	8.91	122.14	16.67
7' - 6"	2699	9.16	122.14	16.69
8' - 0"	2882	9.41	122.15	16.70
8' - 6"	3064	9.66	122.15	16.71
9' - 0"	3247	9.91	122.15	16.72
9' - 6"	3429	10.16	122.15	16.73
10' - 0"	3612	10.41	122.15	16.74
10' - 6"	3795	10.66	122.15	16.75
11' - 0"	3977	10.91	122.15	16.75
11' - 6"	4160	11.16	122.15	16.76
12' - 0"	4342	11.41	122.15	16.76
12' - 6"	4525	11.66	122.15	16.77
13' - 0"	4708	11.91	122.15	16.77
13' - 6"	4890	12.16	122.15	16.78
14' - 0"	5073	12.41	122.15	16.78
14' - 6"	5255	12.66	122.15	16.79
15' - 0"	5438	12.91	122.15	16.79
15' - 6"	5621	13.16	122.15	16.79
16' - 0"	5803	13.41	122.15	16.80
16' - 6"	5986	13.66	122.15	16.80
17' - 0"	6168	13.91	122.15	16.80

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	6351	14.16	122.15	16.81
18' - 0"	6534	14.41	122.15	16.81
18' - 6"	6716	14.66	122.15	16.81
19' - 0"	6899	14.91	122.15	16.81
19' - 6"	7081	15.16	122.15	16.81
20' - 0"	7264	15.41	122.15	16.82
20' - 6"	7447	15.66	122.15	16.82
21' - 0"	7629	15.91	122.15	16.82
21' - 6"	7812	16.16	122.15	16.82
22' - 0"	7994	16.41	122.15	16.82
22' - 6"	8177	16.66	122.15	16.83
23' - 0"	8359	16.91	122.15	16.83
23' - 6"	8542	17.16	122.15	16.83
24' - 0"	8725	17.41	122.15	16.83
24' - 6"	8907	17.66	122.15	16.83
25' - 0"	9090	17.91	122.15	16.83
25' - 6"	9272	18.16	122.15	16.83
26' - 0"	9455	18.41	122.15	16.83
26' - 6"	9638	18.66	122.15	16.84
27' - 0"	9820	18.91	122.15	16.84
27' - 6"	10003	19.16	122.15	16.84
28' - 0"	10185	19.41	122.15	16.84
28' - 6"	10368	19.66	122.15	16.84
29' - 0"	10551	19.91	122.15	16.84
29' - 6"	10733	20.16	122.15	16.84
30' - 0"	10916	20.41	122.15	16.84
30' - 6"	11098	20.66	122.15	16.84
31' - 0"	11281	20.91	122.15	16.84
31' - 6"	11464	21.16	122.15	16.85
32' - 0"	11646	21.41	122.15	16.85
32' - 6"	11820	21.65	122.15	16.84
33' - 0"	11912	21.78	122.15	16.78
33' - 6"	11921	21.79	122.15	16.77

## Table of Centers for Cargo Tank #3 Port

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	9	5.31	183.33	3.90
0' - 6"	144	5.63	183.33	12.96
1' - 0"	328	5.90	183.33	15.20
1' - 6"	512	6.15	183.33	15.84
2' - 0"	696	6.41	183.33	16.13
2' - 6"	880	6.66	183.33	16.31
3' - 0"	1064	6.91	183.33	16.42
3' - 6"	1248	7.16	183.33	16.50
4' - 0"	1432	7.41	183.33	16.56
4' - 6"	1616	7.66	183.33	16.60
5' - 0"	1800	7.91	183.33	16.64
5' - 6"	1984	8.16	183.33	16.67
6' - 0"	2168	8.41	183.33	16.69
6' - 6"	2352	8.66	183.33	16.71
7' - 0"	2536	8.91	183.33	16.73
7' - 6"	2720	9.16	183.33	16.75
8' - 0"	2904	9.41	183.33	16.76
8' - 6"	3088	9.66	183.33	16.77
9' - 0"	3272	9.91	183.33	16.78
9' - 6"	3456	10.16	183.33	16.79
10' - 0"	3640	10.41	183.33	16.80
10' - 6"	3824	10.66	183.33	16.81
11' - 0"	4008	10.91	183.33	16.81
11' - 6"	4192	11.16	183.33	16.82
12' - 0"	4376	11.41	183.33	16.83
12' - 6"	4560	11.66	183.33	16.83
13' - 0"	4744	11.91	183.33	16.84
13' - 6"	4928	12.16	183.33	16.84
14' - 0"	5113	12.41	183.33	16.85
14' - 6"	5297	12.66	183.33	16.85
15' - 0"	5481	12.91	183.33	16.85
15' - 6"	5665	13.16	183.33	16.86
16' - 0"	5849	13.41	183.33	16.86
16' - 6"	6033	13.66	183.33	16.86
17' - 0"	6217	13.91	183.33	16.87

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	6401	14.16	183.33	16.87
18' - 0"	6585	14.41	183.33	16.87
18' - 6"	6769	14.66	183.33	16.87
19' - 0"	6953	14.91	183.33	16.88
19' - 6"	7137	15.16	183.33	16.88
20' - 0"	7321	15.41	183.33	16.88
20' - 6"	7505	15.66	183.33	16.88
21' - 0"	7689	15.91	183.33	16.88
21' - 6"	7873	16.16	183.33	16.89
22' - 0"	8057	16.41	183.33	16.89
22' - 6"	8241	16.66	183.33	16.89
23' - 0"	8425	16.91	183.33	16.89
23' - 6"	8609	17.16	183.33	16.89
24' - 0"	8793	17.41	183.33	16.89
24' - 6"	8977	17.66	183.33	16.89
25' - 0"	9161	17.91	183.33	16.90
25' - 6"	9345	18.16	183.33	16.90
26' - 0"	9529	18.41	183.33	16.90
26' - 6"	9713	18.66	183.33	16.90
27' - 0"	9897	18.91	183.33	16.90
27' - 6"	10081	19.16	183.33	16.90
28' - 0"	10265	19.41	183.33	16.90
28' - 6"	10449	19.66	183.33	16.90
29' - 0"	10634	19.91	183.33	16.90
29' - 6"	10818	20.16	183.33	16.91
30' - 0"	11002	20.41	183.33	16.91
30' - 6"	11186	20.66	183.33	16.91
31' - 0"	11370	20.91	183.33	16.91
31' - 6"	11554	21.16	183.33	16.91
32' - 0"	11738	21.41	183.33	16.91
32' - 6"	11912	21.65	183.33	16.90
33' - 0"	12005	21.78	183.33	16.84
33' - 6"	12014	21.79	183.33	16.83

## Table of Centers for Cargo Tank #3 Stbd

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	9	5.31	183.33	3.93
0' - 6"	143	5.63	183.33	12.99
1' - 0"	327	5.90	183.33	15.24
1' - 6"	510	6.15	183.33	15.87
2' - 0"	694	6.41	183.33	16.17
2' - 6"	878	6.66	183.33	16.34
3' - 0"	1062	6.91	183.33	16.45
3' - 6"	1245	7.16	183.33	16.53
4' - 0"	1429	7.41	183.33	16.59
4' - 6"	1613	7.66	183.33	16.64
5' - 0"	1796	7.91	183.33	16.67
5' - 6"	1980	8.16	183.33	16.70
6' - 0"	2164	8.41	183.33	16.73
6' - 6"	2347	8.66	183.33	16.75
7' - 0"	2531	8.91	183.33	16.77
7' - 6"	2715	9.16	183.33	16.78
8' - 0"	2898	9.41	183.33	16.79
8' - 6"	3082	9.66	183.33	16.81
9' - 0"	3266	9.91	183.33	16.82
9' - 6"	3449	10.16	183.33	16.83
10' - 0"	3633	10.41	183.33	16.83
10' - 6"	3817	10.66	183.33	16.84
11' - 0"	4000	10.91	183.33	16.85
11' - 6"	4184	11.16	183.33	16.86
12' - 0"	4368	11.41	183.33	16.86
12' - 6"	4551	11.66	183.33	16.87
13' - 0"	4735	11.91	183.33	16.87
13' - 6"	4919	12.16	183.33	16.88
14' - 0"	5102	12.41	183.33	16.88
14' - 6"	5286	12.66	183.33	16.88
15' - 0"	5470	12.91	183.33	16.89
15' - 6"	5653	13.16	183.33	16.89
16' - 0"	5837	13.41	183.33	16.89
16' - 6"	6021	13.66	183.33	16.90
17' - 0"	6204	13.91	183.33	16.90

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	6388	14.16	183.33	16.90
18' - 0"	6572	14.41	183.33	16.90
18' - 6"	6755	14.66	183.33	16.91
19' - 0"	6939	14.91	183.33	16.91
19' - 6"	7123	15.16	183.33	16.91
20' - 0"	7306	15.41	183.33	16.91
20' - 6"	7490	15.66	183.33	16.92
21' - 0"	7674	15.91	183.33	16.92
21' - 6"	7857	16.16	183.33	16.92
22' - 0"	8041	16.41	183.33	16.92
22' - 6"	8225	16.66	183.33	16.92
23' - 0"	8408	16.91	183.33	16.92
23' - 6"	8592	17.16	183.33	16.93
24' - 0"	8776	17.41	183.33	16.93
24' - 6"	8959	17.66	183.33	16.93
25' - 0"	9143	17.91	183.33	16.93
25' - 6"	9327	18.16	183.33	16.93
26' - 0"	9510	18.41	183.33	16.93
26' - 6"	9694	18.66	183.33	16.93
27' - 0"	9878	18.91	183.33	16.93
27' - 6"	10061	19.16	183.33	16.93
28' - 0"	10245	19.41	183.33	16.94
28' - 6"	10429	19.66	183.33	16.94
29' - 0"	10612	19.91	183.33	16.94
29' - 6"	10796	20.16	183.33	16.94
30' - 0"	10980	20.41	183.33	16.94
30' - 6"	11163	20.66	183.33	16.94
31' - 0"	11347	20.91	183.33	16.94
31' - 6"	11531	21.16	183.33	16.94
32' - 0"	11714	21.41	183.33	16.94
32' - 6"	11889	21.65	183.33	16.93
33' - 0"	11981	21.78	183.33	16.87
33' - 6"	11990	21.79	183.33	16.86

## Table of Centers for Cargo Tank #4 Port

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	9	5.31	244.67	3.90
0' - 6"	144	5.63	244.67	12.96
1' - 0"	328	5.90	244.67	15.20
1' - 6"	512	6.15	244.67	15.84
2' - 0"	696	6.41	244.67	16.13
2' - 6"	880	6.66	244.67	16.31
3' - 0"	1064	6.91	244.67	16.42
3' - 6"	1248	7.16	244.67	16.50
4' - 0"	1432	7.41	244.67	16.56
4' - 6"	1616	7.66	244.67	16.60
5' - 0"	1800	7.91	244.67	16.64
5' - 6"	1984	8.16	244.67	16.67
6' - 0"	2168	8.41	244.67	16.69
6' - 6"	2352	8.66	244.67	16.71
7' - 0"	2536	8.91	244.67	16.73
7' - 6"	2720	9.16	244.67	16.75
8' - 0"	2904	9.41	244.67	16.76
8' - 6"	3088	9.66	244.67	16.77
9' - 0"	3272	9.91	244.67	16.78
9' - 6"	3456	10.16	244.67	16.79
10' - 0"	3640	10.41	244.67	16.80
10' - 6"	3824	10.66	244.67	16.81
11' - 0"	4008	10.91	244.67	16.81
11' - 6"	4192	11.16	244.67	16.82
12' - 0"	4376	11.41	244.67	16.83
12' - 6"	4560	11.66	244.67	16.83
13' - 0"	4744	11.91	244.67	16.84
13' - 6"	4928	12.16	244.67	16.84
14' - 0"	5113	12.41	244.67	16.85
14' - 6"	5297	12.66	244.67	16.85
15' - 0"	5481	12.91	244.67	16.85
15' - 6"	5665	13.16	244.67	16.86
16' - 0"	5849	13.41	244.67	16.86
16' - 6"	6033	13.66	244.67	16.86
17' - 0"	6217	13.91	244.67	16.87

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	6401	14.16	244.67	16.87
18' - 0"	6585	14.41	244.67	16.87
18' - 6"	6769	14.66	244.67	16.87
19' - 0"	6953	14.91	244.67	16.88
19' - 6"	7137	15.16	244.67	16.88
20' - 0"	7321	15.41	244.67	16.88
20' - 6"	7505	15.66	244.67	16.88
21' - 0"	7689	15.91	244.67	16.88
21' - 6"	7873	16.16	244.67	16.89
22' - 0"	8057	16.41	244.67	16.89
22' - 6"	8241	16.66	244.67	16.89
23' - 0"	8425	16.91	244.67	16.89
23' - 6"	8609	17.16	244.67	16.89
24' - 0"	8793	17.41	244.67	16.89
24' - 6"	8977	17.66	244.67	16.89
25' - 0"	9161	17.91	244.67	16.90
25' - 6"	9345	18.16	244.67	16.90
26' - 0"	9529	18.41	244.67	16.90
26' - 6"	9713	18.66	244.67	16.90
27' - 0"	9897	18.91	244.67	16.90
27' - 6"	10081	19.16	244.67	16.90
28' - 0"	10265	19.41	244.67	16.90
28' - 6"	10449	19.66	244.67	16.90
29' - 0"	10634	19.91	244.67	16.90
29' - 6"	10818	20.16	244.67	16.91
30' - 0"	11002	20.41	244.67	16.91
30' - 6"	11186	20.66	244.67	16.91
31' - 0"	11370	20.91	244.67	16.91
31' - 6"	11554	21.16	244.67	16.91
32' - 0"	11738	21.41	244.67	16.91
32' - 6"	11912	21.65	244.67	16.90
33' - 0"	12005	21.78	244.67	16.84
33' - 6"	12014	21.79	244.67	16.83

## Table of Centers for Cargo Tank #4 Stbd

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	9	5.31	244.67	3.93
0' - 6"	143	5.63	244.67	12.99
1' - 0"	327	5.90	244.67	15.24
1' - 6"	510	6.15	244.67	15.87
2' - 0"	694	6.41	244.67	16.17
2' - 6"	878	6.66	244.67	16.34
3' - 0"	1062	6.91	244.67	16.45
3' - 6"	1245	7.16	244.67	16.53
4' - 0"	1429	7.41	244.67	16.59
4' - 6"	1613	7.66	244.67	16.64
5' - 0"	1796	7.91	244.67	16.67
5' - 6"	1980	8.16	244.67	16.70
6' - 0"	2164	8.41	244.67	16.73
6' - 6"	2347	8.66	244.67	16.75
7' - 0"	2531	8.91	244.67	16.77
7' - 6"	2715	9.16	244.67	16.78
8' - 0"	2898	9.41	244.67	16.79
8' - 6"	3082	9.66	244.67	16.81
9' - 0"	3266	9.91	244.67	16.82
9' - 6"	3449	10.16	244.67	16.83
10' - 0"	3633	10.41	244.67	16.83
10' - 6"	3817	10.66	244.67	16.84
11' - 0"	4000	10.91	244.67	16.85
11' - 6"	4184	11.16	244.67	16.86
12' - 0"	4368	11.41	244.67	16.86
12' - 6"	4551	11.66	244.67	16.87
13' - 0"	4735	11.91	244.67	16.87
13' - 6"	4919	12.16	244.67	16.88
14' - 0"	5102	12.41	244.67	16.88
14' - 6"	5286	12.66	244.67	16.88
15' - 0"	5470	12.91	244.67	16.89
15' - 6"	5653	13.16	244.67	16.89
16' - 0"	5837	13.41	244.67	16.89
16' - 6"	6021	13.66	244.67	16.90
17' - 0"	6204	13.91	244.67	16.90

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	6388	14.16	244.67	16.90
18' - 0"	6572	14.41	244.67	16.90
18' - 6"	6755	14.66	244.67	16.91
19' - 0"	6939	14.91	244.67	16.91
19' - 6"	7123	15.16	244.67	16.91
20' - 0"	7306	15.41	244.67	16.91
20' - 6"	7490	15.66	244.67	16.92
21' - 0"	7674	15.91	244.67	16.92
21' - 6"	7857	16.16	244.67	16.92
22' - 0"	8041	16.41	244.67	16.92
22' - 6"	8225	16.66	244.67	16.92
23' - 0"	8408	16.91	244.67	16.92
23' - 6"	8592	17.16	244.67	16.93
24' - 0"	8776	17.41	244.67	16.93
24' - 6"	8959	17.66	244.67	16.93
25' - 0"	9143	17.91	244.67	16.93
25' - 6"	9327	18.16	244.67	16.93
26' - 0"	9510	18.41	244.67	16.93
26' - 6"	9694	18.66	244.67	16.93
27' - 0"	9878	18.91	244.67	16.93
27' - 6"	10061	19.16	244.67	16.93
28' - 0"	10245	19.41	244.67	16.94
28' - 6"	10429	19.66	244.67	16.94
29' - 0"	10612	19.91	244.67	16.94
29' - 6"	10796	20.16	244.67	16.94
30' - 0"	10980	20.41	244.67	16.94
30' - 6"	11163	20.66	244.67	16.94
31' - 0"	11347	20.91	244.67	16.94
31' - 6"	11531	21.16	244.67	16.94
32' - 0"	11714	21.41	244.67	16.94
32' - 6"	11889	21.65	244.67	16.93
33' - 0"	11981	21.78	244.67	16.87
33' - 6"	11990	21.79	244.67	16.86

## Table of Centers for Cargo Tank #5 Port

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	0	5.31	275.90	3.98
0' - 6"	10	5.65	277.56	12.23
1' - 0"	31	6.00	278.73	13.57
1' - 6"	68	6.33	280.34	14.89
2' - 0"	117	6.67	281.77	15.33
2' - 6"	180	7.00	283.19	15.63
3' - 0"	254	7.33	284.50	15.96
3' - 6"	335	7.64	285.59	16.17
4' - 0"	423	7.94	286.49	16.24
4' - 6"	512	8.24	287.15	16.32
5' - 0"	611	8.54	287.92	16.43
5' - 6"	717	8.85	288.64	16.47
6' - 0"	827	9.14	289.33	16.48
6' - 6"	939	9.44	289.90	16.52
7' - 0"	1062	9.75	290.57	16.58
7' - 6"	1191	10.06	291.24	16.60
8' - 0"	1324	10.37	291.88	16.60
8' - 6"	1460	10.67	292.46	16.63
9' - 0"	1606	10.99	293.11	16.66
9' - 6"	1758	11.30	293.76	16.67
10' - 0"	1915	11.61	294.39	16.67
10' - 6"	2074	11.92	294.98	16.69
11' - 0"	2244	12.24	295.62	16.71
11' - 6"	2419	12.55	296.27	16.72
12' - 0"	2598	12.87	296.89	16.72
12' - 6"	2779	13.18	297.45	16.74
13' - 0"	2963	13.48	297.98	16.76
13' - 6"	3147	13.78	298.45	16.77
14' - 0"	3331	14.08	298.86	16.78
14' - 6"	3515	14.37	299.24	16.79
15' - 0"	3699	14.65	299.57	16.80
15' - 6"	3884	14.94	299.88	16.81
16' - 0"	4068	15.21	300.15	16.82
16' - 6"	4252	15.49	300.41	16.82
17' - 0"	4436	15.77	300.64	16.83

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	4620	16.04	300.85	16.83
18' - 0"	4804	16.31	301.05	16.84
18' - 6"	4988	16.58	301.23	16.84
19' - 0"	5172	16.85	301.40	16.85
19' - 6"	5356	17.11	301.56	16.85
20' - 0"	5540	17.38	301.70	16.85
20' - 6"	5724	17.64	301.84	16.86
21' - 0"	5908	17.91	301.97	16.86
21' - 6"	6092	18.17	302.09	16.86
22' - 0"	6276	18.43	302.21	16.87
22' - 6"	6460	18.69	302.31	16.87
23' - 0"	6644	18.95	302.42	16.87
23' - 6"	6828	19.21	302.51	16.87
24' - 0"	7012	19.47	302.60	16.88
24' - 6"	7196	19.73	302.69	16.88
25' - 0"	7380	19.99	302.77	16.88
25' - 6"	7564	20.25	302.85	16.88
26' - 0"	7748	20.51	302.92	16.88
26' - 6"	7932	20.77	303.00	16.89
27' - 0"	8116	21.02	303.06	16.89
27' - 6"	8300	21.28	303.13	16.89
28' - 0"	8484	21.54	303.19	16.89
28' - 6"	8669	21.79	303.25	16.89
29' - 0"	8853	22.05	303.31	16.89
29' - 6"	9037	22.30	303.36	16.89
30' - 0"	9221	22.56	303.41	16.90
30' - 6"	9405	22.81	303.46	16.90
31' - 0"	9589	23.07	303.51	16.90
31' - 6"	9773	23.32	303.56	16.90
32' - 0"	9957	23.58	303.60	16.90
32' - 6"	10132	23.82	303.64	16.89
33' - 0"	10224	23.95	303.67	16.82
33' - 6"	10233	23.96	303.67	16.81

## Table of Centers for Cargo Tank #5 Stbd

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	0	5.31	275.90	3.99
0' - 6"	10	5.65	277.56	12.25
1' - 0"	31	6.00	278.73	13.60
1' - 6"	68	6.33	280.34	14.92
2' - 0"	117	6.67	281.76	15.36
2' - 6"	179	7.00	283.19	15.66
3' - 0"	253	7.33	284.50	15.99
3' - 6"	335	7.64	285.58	16.20
4' - 0"	422	7.94	286.48	16.28
4' - 6"	511	8.24	287.15	16.35
5' - 0"	610	8.54	287.91	16.46
5' - 6"	715	8.85	288.64	16.51
6' - 0"	826	9.14	289.33	16.51
6' - 6"	937	9.44	289.89	16.55
7' - 0"	1060	9.75	290.57	16.61
7' - 6"	1188	10.06	291.24	16.63
8' - 0"	1321	10.37	291.88	16.64
8' - 6"	1457	10.67	292.45	16.66
9' - 0"	1603	10.99	293.11	16.69
9' - 6"	1754	11.30	293.76	16.71
10' - 0"	1911	11.61	294.39	16.71
10' - 6"	2070	11.92	294.97	16.72
11' - 0"	2239	12.24	295.62	16.75
11' - 6"	2414	12.55	296.27	16.75
12' - 0"	2593	12.87	296.89	16.75
12' - 6"	2774	13.18	297.45	16.77
13' - 0"	2957	13.48	297.98	16.79
13' - 6"	3141	13.78	298.45	16.81
14' - 0"	3325	14.08	298.86	16.82
14' - 6"	3508	14.37	299.24	16.83
15' - 0"	3692	14.65	299.57	16.84
15' - 6"	3876	14.94	299.87	16.84
16' - 0"	4059	15.21	300.15	16.85
16' - 6"	4243	15.49	300.40	16.86
17' - 0"	4427	15.77	300.64	16.86

Sounding	Volume (BBL)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
17' - 6"	4610	16.04	300.85	16.87
18' - 0"	4794	16.31	301.05	16.87
18' - 6"	4978	16.58	301.23	16.88
19' - 0"	5161	16.85	301.40	16.88
19' - 6"	5345	17.11	301.55	16.88
20' - 0"	5529	17.38	301.70	16.89
20' - 6"	5712	17.64	301.84	16.89
21' - 0"	5896	17.91	301.97	16.89
21' - 6"	6080	18.17	302.09	16.90
22' - 0"	6263	18.43	302.20	16.90
22' - 6"	6447	18.69	302.31	16.90
23' - 0"	6631	18.95	302.41	16.91
23' - 6"	6814	19.21	302.51	16.91
24' - 0"	6998	19.47	302.60	16.91
24' - 6"	7182	19.73	302.69	16.91
25' - 0"	7365	19.99	302.77	16.91
25' - 6"	7549	20.25	302.85	16.92
26' - 0"	7733	20.51	302.92	16.92
26' - 6"	7916	20.77	302.99	16.92
27' - 0"	8100	21.02	303.06	16.92
27' - 6"	8284	21.28	303.13	16.92
28' - 0"	8467	21.54	303.19	16.92
28' - 6"	8651	21.79	303.25	16.93
29' - 0"	8835	22.05	303.30	16.93
29' - 6"	9018	22.30	303.36	16.93
30' - 0"	9202	22.56	303.41	16.93
30' - 6"	9386	22.81	303.46	16.93
31' - 0"	9569	23.07	303.51	16.93
31' - 6"	9753	23.33	303.56	16.93
32' - 0"	9937	23.58	303.60	16.93
32' - 6"	10111	23.82	303.64	16.92
33' - 0"	10203	23.95	303.66	16.85
33' - 6"	10212	23.96	303.67	16.84

## Table of Centers for Ballast Tank #1 Port & Stbd

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	1.4	0.02	70.21	11.88
0' - 6"	20.5	0.28	67.57	12.68
1' - 0"	42.0	0.55	66.75	13.17
1' - 6"	65.0	0.81	66.24	13.55
2' - 0"	88.9	1.07	65.88	13.85
2' - 6"	113.6	1.34	65.59	14.11
3' - 0"	139.0	1.61	65.36	14.33
3' - 6"	164.8	1.87	65.16	14.52
4' - 0"	191.1	2.13	64.99	14.70
4' - 6"	217.8	2.40	64.84	14.85
5' - 0"	244.8	2.66	64.70	14.99
5' - 6"	269.3	2.90	64.44	15.19
6' - 0"	284.2	3.05	63.88	15.41
6' - 6"	294.2	3.16	63.54	15.66
7' - 0"	301.9	3.25	63.41	15.96
7' - 6"	309.2	3.35	63.29	16.23
8' - 0"	316.2	3.45	63.17	16.50
8' - 6"	323.1	3.55	63.07	16.74
9' - 0"	329.7	3.66	62.97	16.98
9' - 6"	336.0	3.76	62.89	17.20
10' - 0"	342.1	3.87	62.81	17.41
10' - 6"	347.9	3.98	62.73	17.61
11' - 0"	353.5	4.09	62.67	17.80
11' - 6"	358.9	4.19	62.62	17.98
12' - 0"	364.0	4.30	62.57	18.15
12' - 6"	369.0	4.41	62.54	18.32
13' - 0"	373.8	4.52	62.51	18.48
13' - 6"	378.5	4.62	62.49	18.63
14' - 0"	383.2	4.74	62.48	18.78
14' - 6"	387.8	4.85	62.46	18.93
15' - 0"	392.5	4.97	62.44	19.07
15' - 6"	397.2	5.09	62.42	19.21
16' - 0"	401.9	5.22	62.41	19.35
16' - 6"	406.6	5.34	62.39	19.48
17' - 0"	411.3	5.48	62.37	19.61
17' - 6"	416.0	5.61	62.36	19.74
18' - 0"	420.7	5.75	62.34	19.87
18' - 6"	425.4	5.88	62.33	19.99
19' - 0"	430.1	6.03	62.31	20.11

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
19' - 6"	434.8	6.17	62.30	20.22
20' - 0"	439.5	6.31	62.28	20.34
20' - 6"	444.2	6.46	62.27	20.45
21' - 0"	448.9	6.61	62.26	20.56
21' - 6"	453.6	6.77	62.24	20.67
22' - 0"	458.3	6.92	62.23	20.77
22' - 6"	463.0	7.08	62.22	20.88
23' - 0"	467.7	7.23	62.20	20.98
23' - 6"	472.4	7.39	62.19	21.08
24' - 0"	477.2	7.56	62.18	21.17
24' - 6"	481.9	7.72	62.17	21.27
25' - 0"	486.6	7.88	62.15	21.36
25' - 6"	491.3	8.05	62.14	21.45
26' - 0"	496.0	8.22	62.13	21.54
26' - 6"	500.7	8.39	62.12	21.63
27' - 0"	505.4	8.56	62.11	21.72
27' - 6"	510.1	8.73	62.10	21.80
28' - 0"	514.8	8.91	62.09	21.89
28' - 6"	519.5	9.08	62.08	21.97
29' - 0"	524.2	9.26	62.07	22.05
29' - 6"	528.9	9.44	62.06	22.13
30' - 0"	533.6	9.62	62.05	22.21
30' - 6"	538.3	9.80	62.04	22.28
31' - 0"	543.0	9.98	62.03	22.36
31' - 6"	547.7	10.16	62.02	22.43
32' - 0"	552.4	10.35	62.01	22.50
32' - 6"	557.1	10.53	62.00	22.57
33' - 0"	561.8	10.72	61.99	22.64
33' - 6"	566.5	10.91	61.98	22.71
34' - 0"	571.2	11.09	61.97	22.78
34' - 6"	575.9	11.28	61.97	22.85
35' - 0"	580.6	11.47	61.96	22.91
35' - 6"	585.4	11.67	61.95	22.98
36' - 0"	590.1	11.86	61.94	23.04
36' - 6"	594.8	12.05	61.93	23.10
37' - 0"	599.5	12.25	61.92	23.16
37' - 6"	604.2	12.44	61.91	23.22
38' - 0"	606.0	12.52	61.88	23.24



## Table of Centers for Ballast Tank #2 Port & Stbd

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	2.7	0.02	122.57	18.34
0' - 6"	35.0	0.27	122.46	18.74
1' - 0"	68.0	0.52	122.40	18.92
1' - 6"	101.2	0.78	122.35	19.03
2' - 0"	134.6	1.03	122.31	19.11
2' - 6"	168.0	1.28	122.28	19.16
3' - 0"	201.6	1.53	122.25	19.21
3' - 6"	235.1	1.78	122.23	19.24
4' - 0"	268.7	2.03	122.21	19.27
4' - 6"	302.3	2.28	122.19	19.29
5' - 0"	335.9	2.54	122.17	19.31
5' - 6"	362.9	2.74	122.17	19.54
6' - 0"	369.4	2.79	122.16	19.80
6' - 6"	373.9	2.83	122.15	19.99
7' - 0"	378.3	2.88	122.14	20.18
7' - 6"	382.7	2.93	122.13	20.37
8' - 0"	387.1	2.99	122.12	20.55
8' - 6"	391.6	3.05	122.11	20.73
9' - 0"	396.0	3.11	122.11	20.91
9' - 6"	400.4	3.18	122.10	21.08
10' - 0"	404.9	3.25	122.09	21.25
10' - 6"	409.3	3.33	122.08	21.41
11' - 0"	413.7	3.41	122.07	21.57
11' - 6"	418.2	3.49	122.07	21.73
12' - 0"	422.6	3.58	122.06	21.88
12' - 6"	427.0	3.67	122.05	22.03
13' - 0"	431.4	3.76	122.04	22.18
13' - 6"	435.9	3.86	122.04	22.32
14' - 0"	440.3	3.96	122.03	22.46
14' - 6"	444.7	4.06	122.02	22.60
15' - 0"	449.2	4.17	122.02	22.74
15' - 6"	453.6	4.28	122.01	22.87
16' - 0"	458.0	4.39	122.01	23.00
16' - 6"	462.5	4.50	122.00	23.13
17' - 0"	466.9	4.62	121.99	23.25
17' - 6"	471.3	4.74	121.99	23.38
18' - 0"	475.7	4.86	121.98	23.50
18' - 6"	480.2	4.98	121.98	23.62
19' - 0"	484.6	5.11	121.97	23.73

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
19' - 6"	489.0	5.24	121.96	23.85
20' - 0"	493.5	5.37	121.96	23.96
20' - 6"	497.9	5.50	121.95	24.07
21' - 0"	502.3	5.64	121.95	24.18
21' - 6"	506.8	5.77	121.94	24.28
22' - 0"	511.2	5.91	121.94	24.39
22' - 6"	515.6	6.05	121.93	24.49
23' - 0"	520.0	6.19	121.93	24.59
23' - 6"	524.5	6.34	121.92	24.69
24' - 0"	528.9	6.49	121.92	24.79
24' - 6"	533.3	6.63	121.91	24.89
25' - 0"	537.8	6.78	121.91	24.98
25' - 6"	542.2	6.93	121.90	25.07
26' - 0"	546.6	7.09	121.90	25.16
26' - 6"	551.1	7.24	121.90	25.25
27' - 0"	555.5	7.40	121.89	25.34
27' - 6"	559.9	7.55	121.89	25.43
28' - 0"	564.3	7.71	121.88	25.52
28' - 6"	568.8	7.87	121.88	25.60
29' - 0"	573.2	8.04	121.88	25.68
29' - 6"	577.6	8.20	121.87	25.77
30' - 0"	582.1	8.36	121.87	25.85
30' - 6"	586.5	8.53	121.86	25.93
31' - 0"	590.9	8.70	121.86	26.00
31' - 6"	595.4	8.86	121.86	26.08
32' - 0"	599.8	9.03	121.85	26.16
32' - 6"	604.2	9.20	121.85	26.23
33' - 0"	608.6	9.38	121.85	26.31
33' - 6"	613.1	9.55	121.84	26.38
34' - 0"	617.5	9.72	121.84	26.45
34' - 6"	621.9	9.90	121.84	26.52
35' - 0"	626.4	10.07	121.83	26.59
35' - 6"	630.8	10.25	121.83	26.66
36' - 0"	635.2	10.43	121.83	26.73
36' - 6"	639.6	10.61	121.82	26.79
37' - 0"	643.9	10.78	121.82	26.85
37' - 6"	647.6	10.93	121.81	26.91
38' - 0"				

Table of Centers for  
Ballast Tank #3 Port & Stbd

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	2.7	0.02	183.33	18.79
0' - 6"	35.8	0.27	183.33	19.11
1' - 0"	69.2	0.52	183.33	19.25
1' - 6"	102.8	0.77	183.33	19.32
2' - 0"	136.5	1.03	183.33	19.36
2' - 6"	170.1	1.28	183.33	19.39
3' - 0"	203.8	1.53	183.33	19.41
3' - 6"	237.4	1.78	183.33	19.42
4' - 0"	271.1	2.03	183.33	19.43
4' - 6"	304.7	2.28	183.33	19.44
5' - 0"	338.4	2.53	183.33	19.45
5' - 6"	365.5	2.73	183.33	19.67
6' - 0"	372.0	2.78	183.33	19.92
6' - 6"	376.3	2.82	183.33	20.11
7' - 0"	380.6	2.87	183.33	20.30
7' - 6"	384.9	2.92	183.33	20.48
8' - 0"	389.2	2.97	183.33	20.66
8' - 6"	393.6	3.03	183.33	20.83
9' - 0"	397.9	3.09	183.33	21.00
9' - 6"	402.2	3.16	183.33	21.17
10' - 0"	406.5	3.23	183.33	21.33
10' - 6"	410.8	3.30	183.33	21.49
11' - 0"	415.1	3.38	183.33	21.65
11' - 6"	419.5	3.46	183.33	21.80
12' - 0"	423.8	3.55	183.33	21.95
12' - 6"	428.1	3.64	183.33	22.10
13' - 0"	432.4	3.73	183.33	22.24
13' - 6"	436.7	3.82	183.33	22.38
14' - 0"	441.0	3.92	183.33	22.52
14' - 6"	445.4	4.02	183.33	22.65
15' - 0"	449.7	4.12	183.33	22.79
15' - 6"	454.0	4.23	183.33	22.92
16' - 0"	458.3	4.34	183.33	23.05
16' - 6"	462.6	4.45	183.33	23.17
17' - 0"	466.9	4.56	183.33	23.29
17' - 6"	471.3	4.68	183.33	23.42
18' - 0"	475.6	4.80	183.33	23.53
18' - 6"	479.9	4.92	183.33	23.65
19' - 0"	484.2	5.04	183.33	23.77

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
19' - 6"	488.5	5.17	183.33	23.88
20' - 0"	492.8	5.30	183.33	23.99
20' - 6"	497.1	5.43	183.33	24.10
21' - 0"	501.5	5.56	183.33	24.20
21' - 6"	505.8	5.69	183.33	24.31
22' - 0"	510.1	5.83	183.33	24.41
22' - 6"	514.4	5.97	183.33	24.51
23' - 0"	518.7	6.11	183.33	24.61
23' - 6"	523.0	6.25	183.33	24.71
24' - 0"	527.4	6.39	183.33	24.81
24' - 6"	531.7	6.54	183.33	24.90
25' - 0"	536.0	6.69	183.33	25.00
25' - 6"	540.3	6.84	183.33	25.09
26' - 0"	544.6	6.99	183.33	25.18
26' - 6"	548.9	7.14	183.33	25.27
27' - 0"	553.3	7.29	183.33	25.35
27' - 6"	557.6	7.45	183.33	25.44
28' - 0"	561.9	7.60	183.33	25.53
28' - 6"	566.2	7.76	183.33	25.61
29' - 0"	570.5	7.92	183.33	25.69
29' - 6"	574.8	8.08	183.33	25.77
30' - 0"	579.2	8.24	183.33	25.85
30' - 6"	583.5	8.40	183.33	25.93
31' - 0"	587.8	8.57	183.33	26.01
31' - 6"	592.1	8.73	183.33	26.09
32' - 0"	596.4	8.90	183.33	26.16
32' - 6"	600.7	9.07	183.33	26.24
33' - 0"	605.0	9.24	183.33	26.31
33' - 6"	609.4	9.41	183.33	26.38
34' - 0"	613.7	9.58	183.33	26.45
34' - 6"	618.0	9.75	183.33	26.52
35' - 0"	622.3	9.93	183.33	26.59
35' - 6"	626.6	10.10	183.33	26.66
36' - 0"	630.9	10.28	183.33	26.73
36' - 6"	635.2	10.45	183.33	26.79
37' - 0"	639.3	10.62	183.33	26.85
37' - 6"	642.9	10.77	183.33	26.91
38' - 0"				

Table of Centers for  
Ballast Tank #4 Port & Stbd

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	2.7	0.02	244.03	18.85
0' - 6"	35.7	0.27	244.62	19.12
1' - 0"	69.2	0.52	244.64	19.25
1' - 6"	102.8	0.78	244.65	19.32
2' - 0"	136.4	1.03	244.65	19.37
2' - 6"	170.1	1.28	244.66	19.39
3' - 0"	203.7	1.53	244.66	19.41
3' - 6"	237.4	1.78	244.66	19.42
4' - 0"	271.0	2.03	244.66	19.43
4' - 6"	304.7	2.28	244.66	19.44
5' - 0"	338.3	2.53	244.66	19.45
5' - 6"	365.4	2.73	244.66	19.67
6' - 0"	371.9	2.78	244.66	19.92
6' - 6"	376.2	2.82	244.66	20.11
7' - 0"	380.6	2.87	244.66	20.30
7' - 6"	384.9	2.92	244.66	20.48
8' - 0"	389.2	2.97	244.66	20.66
8' - 6"	393.5	3.03	244.66	20.83
9' - 0"	397.8	3.09	244.66	21.00
9' - 6"	402.1	3.16	244.66	21.17
10' - 0"	406.4	3.23	244.66	21.33
10' - 6"	410.8	3.30	244.66	21.49
11' - 0"	415.1	3.38	244.66	21.65
11' - 6"	419.4	3.46	244.66	21.80
12' - 0"	423.7	3.55	244.66	21.95
12' - 6"	428.0	3.64	244.66	22.10
13' - 0"	432.3	3.73	244.66	22.24
13' - 6"	436.7	3.82	244.66	22.38
14' - 0"	441.0	3.92	244.66	22.52
14' - 6"	445.3	4.02	244.66	22.66
15' - 0"	449.6	4.12	244.66	22.79
15' - 6"	453.9	4.23	244.66	22.92
16' - 0"	458.2	4.34	244.66	23.05
16' - 6"	462.6	4.45	244.66	23.17
17' - 0"	466.9	4.56	244.66	23.30
17' - 6"	471.2	4.68	244.66	23.42
18' - 0"	475.5	4.80	244.66	23.53
18' - 6"	479.8	4.92	244.66	23.65
19' - 0"	484.1	5.04	244.66	23.77

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
19' - 6"	488.5	5.17	244.66	23.88
20' - 0"	492.8	5.30	244.66	23.99
20' - 6"	497.1	5.43	244.66	24.10
21' - 0"	501.4	5.56	244.66	24.20
21' - 6"	505.7	5.70	244.66	24.31
22' - 0"	510.0	5.83	244.66	24.41
22' - 6"	514.4	5.97	244.66	24.51
23' - 0"	518.7	6.11	244.66	24.61
23' - 6"	523.0	6.25	244.66	24.71
24' - 0"	527.3	6.40	244.66	24.81
24' - 6"	531.6	6.54	244.66	24.90
25' - 0"	535.9	6.69	244.66	25.00
25' - 6"	540.3	6.84	244.66	25.09
26' - 0"	544.6	6.99	244.66	25.18
26' - 6"	548.9	7.14	244.66	25.27
27' - 0"	553.2	7.29	244.66	25.36
27' - 6"	557.5	7.45	244.66	25.44
28' - 0"	561.8	7.60	244.66	25.53
28' - 6"	566.1	7.76	244.66	25.61
29' - 0"	570.5	7.92	244.66	25.69
29' - 6"	574.8	8.08	244.66	25.77
30' - 0"	579.1	8.24	244.66	25.85
30' - 6"	583.4	8.40	244.66	25.93
31' - 0"	587.7	8.57	244.66	26.01
31' - 6"	592.0	8.73	244.66	26.09
32' - 0"	596.4	8.90	244.66	26.16
32' - 6"	600.7	9.07	244.66	26.24
33' - 0"	605.0	9.24	244.66	26.31
33' - 6"	609.3	9.41	244.66	26.38
34' - 0"	613.6	9.58	244.66	26.45
34' - 6"	617.9	9.75	244.66	26.52
35' - 0"	622.3	9.93	244.66	26.59
35' - 6"	626.6	10.10	244.66	26.66
36' - 0"	630.9	10.28	244.66	26.73
36' - 6"	635.1	10.45	244.66	26.79
37' - 0"	639.3	10.62	244.66	26.86
37' - 6"	642.9	10.77	244.66	26.91
38' - 0"				

## Table of Centers for Ballast Tank #5 Port & Stbd

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	0.4	0.02	298.65	31.88
0' - 6"	7.4	0.32	294.15	27.92
1' - 0"	17.0	0.58	292.88	26.80
1' - 6"	30.1	0.90	292.39	25.32
2' - 0"	43.6	1.17	292.19	24.81
2' - 6"	58.9	1.47	292.29	24.16
3' - 0"	76.1	1.77	292.49	23.69
3' - 6"	93.3	2.05	292.61	23.43
4' - 0"	111.4	2.33	292.82	23.14
4' - 6"	132.2	2.65	293.23	22.79
5' - 0"	153.1	2.93	293.53	22.58
5' - 6"	173.6	3.21	293.78	22.46
6' - 0"	193.0	3.47	294.24	22.37
6' - 6"	213.1	3.74	294.97	22.27
7' - 0"	231.2	3.98	295.66	22.27
7' - 6"	246.8	4.18	296.30	22.33
8' - 0"	261.3	4.38	296.91	22.37
8' - 6"	276.9	4.61	297.72	22.34
9' - 0"	291.7	4.82	298.43	22.38
9' - 6"	305.9	5.02	299.07	22.44
10' - 0"	319.5	5.22	299.67	22.47
10' - 6"	334.5	5.46	300.42	22.44
11' - 0"	349.3	5.68	301.13	22.47
11' - 6"	363.5	5.90	301.78	22.51
12' - 0"	376.8	6.11	302.35	22.54
12' - 6"	390.0	6.32	302.93	22.54
13' - 0"	402.9	6.53	303.49	22.57
13' - 6"	415.3	6.74	304.00	22.61
14' - 0"	426.5	6.92	304.43	22.65
14' - 6"	436.5	7.09	304.79	22.71
15' - 0"	445.6	7.25	305.08	22.79
15' - 6"	454.4	7.41	305.35	22.88
16' - 0"	461.8	7.54	305.55	22.96
16' - 6"	468.1	7.66	305.67	23.06
17' - 0"	473.5	7.76	305.74	23.18
17' - 6"	478.6	7.87	305.79	23.30
18' - 0"	483.1	7.96	305.80	23.41
18' - 6"	487.4	8.05	305.81	23.52
19' - 0"	491.7	8.14	305.81	23.63

Sounding	Weight (LT)	Center of Gravity		
		Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
19' - 6"	496.0	8.24	305.81	23.74
20' - 0"	500.4	8.34	305.81	23.85
20' - 6"	504.7	8.44	305.81	23.95
21' - 0"	509.0	8.55	305.81	24.06
21' - 6"	513.3	8.65	305.82	24.16
22' - 0"	517.6	8.76	305.82	24.27
22' - 6"	521.9	8.88	305.82	24.37
23' - 0"	526.3	8.99	305.82	24.47
23' - 6"	530.6	9.11	305.82	24.56
24' - 0"	534.9	9.23	305.82	24.66
24' - 6"	539.2	9.35	305.82	24.75
25' - 0"	543.5	9.47	305.83	24.85
25' - 6"	547.8	9.59	305.83	24.94
26' - 0"	552.2	9.72	305.83	25.03
26' - 6"	556.5	9.85	305.83	25.12
27' - 0"	560.8	9.98	305.83	25.20
27' - 6"	565.1	10.11	305.83	25.29
28' - 0"	569.4	10.25	305.83	25.37
28' - 6"	573.7	10.38	305.84	25.46
29' - 0"	578.1	10.52	305.84	25.54
29' - 6"	582.4	10.66	305.84	25.62
30' - 0"	586.7	10.80	305.84	25.70
30' - 6"	591.0	10.94	305.84	25.78
31' - 0"	595.3	11.09	305.84	25.86
31' - 6"	599.6	11.23	305.84	25.93
32' - 0"	604.0	11.38	305.84	26.01
32' - 6"	608.3	11.53	305.84	26.08
33' - 0"	612.6	11.68	305.85	26.16
33' - 6"	616.9	11.83	305.85	26.23
34' - 0"	621.2	11.98	305.85	26.30
34' - 6"	625.5	12.13	305.85	26.37
35' - 0"	629.9	12.29	305.85	26.44
35' - 6"	634.2	12.45	305.85	26.51
36' - 0"	638.5	12.60	305.85	26.58
36' - 6"	642.8	12.76	305.85	26.64
37' - 0"	646.9	12.92	305.85	26.70
37' - 6"	650.5	13.05	305.85	26.76
38' - 0"				

## Table of Centers for Fuel Oil Tank (Stbd)

Sounding	Volume (Gallons)	Weight (LT)	Center of Gravity		
			Vert (ft ABL)	Long'l (ft aft Fr. 0)	Trans (ft off CL)
0' - 0"	107	0.4	40.73	244.67	23.79
0' - 6"	1,262	4.1	40.98	244.67	23.79
1' - 0"	2,415	7.9	41.23	244.67	23.79
1' - 6"	3,570	11.7	41.48	244.67	23.79
2' - 0"	4,722	15.4	41.73	244.67	23.79
2' - 6"	5,874	19.2	41.98	244.67	23.79
3' - 0"	7,029	22.9	42.23	244.67	23.79
3' - 6"	8,181	26.7	42.48	244.67	23.79
4' - 0"	9,336	30.5	42.73	244.67	23.79
4' - 6"	10,488	34.2	42.98	244.67	23.79
5' - 0"	11,641	38.0	43.23	244.67	23.79
5' - 6"	12,796	41.8	43.48	244.67	23.79
6' - 0"	13,948	45.5	43.73	244.67	23.79
6' - 6"	15,103	49.3	43.98	244.67	23.79
7' - 0"	16,255	53.1	44.23	244.67	23.79
7' - 6"	17,407	56.8	44.48	244.67	23.79
8' - 0"	18,562	60.6	44.73	244.67	23.79
8' - 6"	19,714	64.3	44.98	244.67	23.79
9' - 0"	20,870	68.1	45.23	244.67	23.79
9' - 6"	22,022	71.9	45.48	244.67	23.79
10' - 0"	23,174	75.6	45.73	244.67	23.79
10' - 6"	24,289	79.3	45.97	244.67	23.78
11' - 0"	24,494	79.9	46.01	244.67	23.73