

BARGE "STICKEEN" O.N. 961 863

Job: 100-021

---

## DISPLACEMENT TABLE

Dwg No: 100-021-00-01

Date: July 31, 2001



**FIKSKER-ANDERSEN & WHALEN, INC.**  
**NAVAL ARCHITECTS / MARINE ENGINEERS**

7911 Greenwood Ave. N • Seattle • WA • 98103 • Ph: (206) 783-5000



04/01/97 TUE 09:37 FAX9078745500 RITCHIE TRANSPORTATION

BARGE STICKEEN  
RITCHIE TRANSPORTATION COMPANY, INC.  
DISPLACEMENT TABLES

Table No. 1 Freeboards vs. Displacement - Saltwater  
Table No. 2 Drafts vs. Displacement - Saltwater  
Table No. 3 Freeboards vs. Displacement - Freshwater  
Table No. 4 Drafts vs. Displacement - Freshwater

**NOTES:**

1. Displacements in the tables include the shell plate and skegs.
2. Weight of the cargo discharged is obtained by subtracting the displacement after unloading from the loaded displacement.
3. Drafts are measured from the underside of the bottom plate.
4. Freeboards are measured from the top of the deck plate.
5. Drafts or freeboards should be read at four locations (forward and aft, port and starboard).
6. The average of the four readings is used to enter the tables.
7. The tabular displacements were determined for freshwater weighing 62.4738 lbs. per cubic foot and saltwater weighing 64.1935 lbs. per cubic foot. These values are corrected for a water temperature of 44 degrees F. and latitude 55 degrees.

TABLE NO. 1

BARGE STICKEEN  
TABLE OF FREEBOARDS VS. DISPLACEMENT - SALTWATER

FREEBOARD FT.-IN.	SHORT TONS SALTWATER	FREEBOARD FT.-IN.	SHORT TONS SALTWATER	FREEBOARD FT.-IN.	SHORT TONS SALTWATER
2-0	1744.6	3-0 1/2	1495.7	4-1	1249.1
2-0 1/2	1734.6	3-1	1485.8	4-1 1/2	1239.4
2-1	1724.6	3-1 1/2	1475.8	4-2	1229.5
2-1 1/2	1714.6	3-2	1465.9	4-2 1/2	1219.8
2-2	1704.6	3-2 1/2	1456.0	4-3	1210.0
2-2 1/2	1694.6	3-3	1446.1	4-3 1/2	1200.3
2-3	1684.7	3-3 1/2	1436.3	4-4	1190.5
2-3 1/2	1674.7	3-4	1426.4	4-4 1/2	1180.8
2-4	1664.7	3-4 1/2	1416.5	4-5	1171.1
2-4 1/2	1654.8	3-5	1406.6	4-5 1/2	1161.4
2-5	1644.8	3-5 1/2	1396.7	4-6	1151.7
2-5 1/2	1634.8	3-6	1386.9	4-6 1/2	1142.0
2-6	1624.9	3-6 1/2	1377.0	4-7	1132.3
2-6 1/2	1614.9	3-7	1367.2	4-7 1/2	1122.7
2-7	1605.0	3-7 1/2	1357.3	4-8	1113.1
2-7 1/2	1595.0	3-8	1347.4	4-8 1/2	1103.4
2-8	1585.1	3-8 1/2	1337.6	4-9	1093.8
2-8 1/2	1575.1	3-9	1327.8	4-9 1/2	1084.2
2-9	1565.2	3-9 1/2	1317.9	4-10	1074.7
2-9 1/2	1555.2	3-10	1308.1	4-10 1/2	1065.1
2-10	1545.3	3-10 1/2	1298.3	4-11	1055.5
2-10 1/2	1535.4	3-11	1288.4	4-11 1/2	1046.0
2-11	1525.4	3-11 1/2	1278.6	5-0	1036.4
2-11 1/2	1515.5	4-0	1268.8	5-0 1/2	1026.9
3-0	1505.6	4-0 1/2	1259.0	5-1	1017.4

TABLE NO. 1

BARGE STICKEEN  
TABLE OF FREEBOARDS VS. DISPLACEMENT - SALTWATER

FREEBOARD FT.-IN.	SHORT TONS SALTWATER	FREEBOARD FT.-IN.	SHORT TONS SALTWATER	FREEBOARD FT.-IN.	SHORT TONS SALTWATER
5-1 1/2	1007.9	6-2	774.9	7-2 1/2	551.1
5-2	998.4	6-2 1/2	765.8	7-3	542.3
5-2 1/2	989.0	6-3	756.7	7-3 1/2	533.5
5-3	979.5	6-3 1/2	747.5	7-4	524.8
5-3 1/2	970.0	6-4	738.5	7-4 1/2	516.1
5-4	960.6	6-4 1/2	729.3	7-5	507.4
5-4 1/2	951.2	6-5	720.3	7-5 1/2	498.7
5-5	941.8	6-5 1/2	711.2	7-6	490.0
5-5 1/2	932.4	6-6	702.2	7-6 1/2	481.3
5-6	923.0	6-6 1/2	693.2	7-7	472.7
5-6 1/2	913.7	6-7	684.2	7-7 1/2	464.0
5-7	904.3	6-7 1/2	675.2	7-8	455.4
5-7 1/2	895.0	6-8	666.2	7-8 1/2	446.8
5-8	885.6	6-8 1/2	657.3	7-9	438.2
5-8 1/2	876.3	6-9	648.3	7-9 1/2	429.6
5-9	867.1	6-9 1/2	639.4	7-10	421.1
5-9 1/2	857.8	6-10	630.5	7-10 1/2	412.5
5-10	848.5	6-10 1/2	621.6	7-11	404.0
5-10 1/2	839.3	6-11	612.7	7-11 1/2	395.5
5-11	830.0	6-11 1/2	603.9	8-0	387.0
5-11 1/2	820.8	7-0	595.0	8-0 1/2	378.5
6-0	811.6	7-0 1/2	586.2	8-1	370.0
6-0 1/2	802.4	7-1	577.4	8-1 1/2	361.6
6-1	793.2	7-1 1/2	568.6	8-2	353.1
6-1 1/2	784.0	7-2	559.8	8-2 1/2	344.7

TABLE NO. 2

BARGE STICKEEN  
TABLE OF DRAFT VS. DISPLACEMENT - SALTWATER

DRAFT FT.-IN.	SHORT TONS SALTWATER	DRAFT FT.-IN.	SHORT TONS SALTWATER	DRAFT FT.-IN.	SHORT TONS SALTWATER
1-9	321.7	2-9 1/2	535.7	3-10	758.9
1-9 1/2	330.0	2-10	544.5	3-10 1/2	768.0
1-10	338.4	2-10 1/2	553.2	3-11	777.2
1-10 1/2	346.8	2-11	562.0	3-11 1/2	786.3
1-11	355.2	2-11 1/2	570.8	4-0	795.5
1-11 1/2	363.7	3-0	579.6	4-0 1/2	804.7
2-0	372.1	3-0 1/2	588.4	4-1	813.9
2-0 1/2	380.6	3-1	597.3	4-1 1/2	823.1
2-1	389.1	3-1 1/2	606.1	4-2	832.3
2-1 1/2	397.6	3-2	615.0	4-2 1/2	841.6
2-2	406.1	3-2 1/2	623.8	4-3	850.8
2-2 1/2	414.7	3-3	632.8	4-3 1/2	860.1
2-3	423.2	3-3 1/2	641.6	4-4	869.4
2-3 1/2	431.8	3-4	650.5	4-4 1/2	878.6
2-4	440.4	3-4 1/2	659.5	4-5	888.0
2-4 1/2	448.9	3-5	668.4	4-5 1/2	897.3
2-5	457.6	3-5 1/2	677.4	4-6	906.6
2-5 1/2	466.2	3-6	686.4	4-6 1/2	916.0
2-6	474.9	3-6 1/2	695.4	4-7	925.4
2-6 1/2	483.5	3-7	704.5	4-7 1/2	934.7
2-7	492.2	3-7 1/2	713.5	4-8	944.1
2-7 1/2	500.9	3-8	722.6	4-8 1/2	953.5
2-8	509.5	3-8 1/2	731.6	4-9	963.0
2-8 1/2	518.3	3-9	740.7	4-9 1/2	972.4
2-9	527.0	3-9 1/2	749.8	4-10	981.8

TABLE NO. 2

BARGE STICKEEN  
TABLE OF DRAFT VS. DISPLACEMENT - SALTWATER

DRAFT FT.-IN.	SHORT TONS SALTWATER	DRAFT FT.-IN.	SHORT TONS SALTWATER	DRAFT FT.-IN.	SHORT TONS SALTWATER
4-10 1/2	991.3	5-10 1/2	1222.2	6-10 1/2	1458.5
4-11	1000.8	5-11	1232.0	6-11	1468.4
4-11 1/2	1010.3	5-11 1/2	1241.8	6-11 1/2	1478.3
5-0	1019.8	6-0	1251.6	7-0	1488.2
5-0 1/2	1029.3	6-0 1/2	1261.4	7-0 1/2	1498.1
5-1	1038.8	6-1	1271.2	7-1	1508.1
5-1 1/2	1048.3	6-1 1/2	1281.1	7-1 1/2	1518.0
5-2	1057.9	6-2	1290.9	7-2	1527.9
5-2 1/2	1067.5	6-2 1/2	1300.7	7-2 1/2	1537.8
5-3	1077.1	6-3	1310.5	7-3	1547.8
5-3 1/2	1086.6	6-3 1/2	1320.4	7-3 1/2	1557.7
5-4	1096.2	6-4	1330.2	7-4	1567.6
5-4 1/2	1105.8	6-4 1/2	1340.1	7-4 1/2	1577.6
5-5	1115.5	6-5	1349.9	7-5	1587.5
5-5 1/2	1125.1	6-5 1/2	1359.8	7-5 1/2	1597.5
5-6	1134.7	6-6	1369.6	7-6	1607.4
5-6 1/2	1144.4	6-6 1/2	1379.5	7-6 1/2	1617.4
5-7	1154.1	6-7	1389.3	7-7	1627.4
5-7 1/2	1163.8	6-7 1/2	1399.2	7-7 1/2	1637.3
5-8	1173.5	6-8	1409.1	7-8	1647.3
5-8 1/2	1183.2	6-8 1/2	1418.9	7-8 1/2	1657.3
5-9	1193.0	6-9	1428.8	7-9	1667.2
5-9 1/2	1202.7	6-9 1/2	1438.7	7-9 1/2	1677.2
5-10	1212.5	6-10	1448.6	7-10	1687.2

TABLE NO. 3

BARGE STICKEEN  
TABLE OF FREEBOARDS VS. DISPLACEMENT - FRESHWATER

FREEBOARD FT.-IN.	SHORT TONS FRESHWATER	FREEBOARD FT.-IN.	SHORT TONS FRESHWATER	FREEBOARD FT.-IN.	SHORT TONS FRESHWATER
5-1 1/2	980.9	6-2	754.1	7-2 1/2	536.3
5-2	971.7	6-2 1/2	745.3	7-3	527.7
5-2 1/2	962.5	6-3	736.4	7-3 1/2	519.2
5-3	953.3	6-3 1/2	727.5	7-4	510.7
5-3 1/2	944.0	6-4	718.7	7-4 1/2	502.2
5-4	934.8	6-4 1/2	709.8	7-5	493.8
5-4 1/2	925.7	6-5	701.0	7-5 1/2	485.3
5-5	916.6	6-5 1/2	692.2	7-6	476.9
5-5 1/2	907.4	6-6	683.4	7-6 1/2	468.4
5-6	898.3	6-6 1/2	674.6	7-7	460.0
5-6 1/2	889.2	6-7	665.8	7-7 1/2	451.6
5-7	880.1	6-7 1/2	657.1	7-8	443.2
5-7 1/2	871.0	6-8	648.4	7-8 1/2	434.8
5-8	861.9	6-8 1/2	639.7	7-9	426.5
5-8 1/2	852.8	6-9	631.0	7-9 1/2	418.1
5-9	843.8	6-9 1/2	622.3	7-10	409.8
5-9 1/2	834.8	6-10	613.6	7-10 1/2	401.5
5-10	825.8	6-10 1/2	605.0	7-11	393.2
5-10 1/2	816.8	6-11	596.3	7-11 1/2	384.9
5-11	807.8	6-11 1/2	587.7	8-0	376.6
5-11 1/2	798.8	7-0	579.1	8-0 1/2	368.4
6-0	789.8	7-0 1/2	570.5	8-1	360.1
6-0 1/2	780.9	7-1	561.9	8-1 1/2	351.9
6-1	772.0	7-1 1/2	553.4	8-2	343.7
6-1 1/2	763.0	7-2	544.8	8-2 1/2	335.5

TABLE NO. 3

BARGE STICKEEN  
TABLE OF FREEBOARDS VS. DISPLACEMENT - FRESHWATER

FREEBOARD FT.-IN.	SHORT TONS FRESHWATER	FREEBOARD FT.-IN.	SHORT TONS FRESHWATER	FREEBOARD FT.-IN.	SHORT TONS FRESHWATER
2-0	1697.9	3-0 1/2	1455.6	4-1	1215.7
2-0 1/2	1688.1	3-1	1446.0	4-1 1/2	1206.2
2-1	1678.4	3-1 1/2	1436.3	4-2	1196.6
2-1 1/2	1668.7	3-2	1426.7	4-2 1/2	1187.1
2-2	1659.0	3-2 1/2	1417.0	4-3	1177.6
2-2 1/2	1649.2	3-3	1407.4	4-3 1/2	1168.1
2-3	1639.5	3-3 1/2	1397.8	4-4	1158.6
2-3 1/2	1629.8	3-4	1388.2	4-4 1/2	1149.2
2-4	1620.1	3-4 1/2	1378.5	4-5	1139.7
2-4 1/2	1610.4	3-5	1368.9	4-5 1/2	1130.3
2-5	1600.7	3-5 1/2	1359.3	4-6	1120.8
2-5 1/2	1591.0	3-6	1349.7	4-6 1/2	1111.4
2-6	1581.3	3-6 1/2	1340.1	4-7	1102.0
2-6 1/2	1571.6	3-7	1330.5	4-7 1/2	1092.6
2-7	1562.0	3-7 1/2	1321.0	4-8	1083.2
2-7 1/2	1552.3	3-8	1311.4	4-8 1/2	1073.9
2-8	1542.6	3-8 1/2	1301.8	4-9	1064.5
2-8 1/2	1532.9	3-9	1292.2	4-9 1/2	1055.2
2-9	1523.2	3-9 1/2	1282.6	4-10	1045.9
2-9 1/2	1513.6	3-10	1273.1	4-10 1/2	1036.5
2-10	1503.9	3-10 1/2	1263.5	4-11	1027.2
2-10 1/2	1494.2	3-11	1253.9	4-11 1/2	1017.9
2-11	1484.6	3-11 1/2	1244.3	5-0	1008.7
2-11 1/2	1474.9	4-0	1234.8	5-0 1/2	999.4
3-0	1465.3	4-0 1/2	1225.3	5-1	990.1



TABLE NO. 4

BARGE STICKEEN  
TABLE OF DRAFT VS. DISPLACEMENT - FRESHWATER

DRAFT FT.-IN.	SHORT TONS FRESHWATER	DRAFT FT.-IN.	SHORT TONS FRESHWATER	DRAFT FT.-IN.	SHORT TONS FRESHWATER
4-10 1/2	964.7	5-10 1/2	1189.5	6-10 1/2	1419.4
4-11	974.0	5-11	1199.0	6-11	1429.1
4-11 1/2	983.2	5-11 1/2	1208.5	6-11 1/2	1438.7
5-0	992.5	6-0	1218.1	7-0	1448.4
5-0 1/2	1001.7	6-0 1/2	1227.6	7-0 1/2	1458.0
5-1	1011.0	6-1	1237.2	7-1	1467.7
5-1 1/2	1020.3	6-1 1/2	1246.7	7-1 1/2	1477.3
5-2	1029.6	6-2	1256.3	7-2	1487.0
5-2 1/2	1038.9	6-2 1/2	1265.9	7-2 1/2	1496.6
5-3	1048.2	6-3	1275.4	7-3	1506.3
5-3 1/2	1057.5	6-3 1/2	1285.0	7-3 1/2	1516.0
5-4	1066.9	6-4	1294.6	7-4	1525.6
5-4 1/2	1076.2	6-4 1/2	1304.2	7-4 1/2	1535.3
5-5	1085.6	6-5	1313.8	7-5	1545.0
5-5 1/2	1095.0	6-5 1/2	1323.3	7-5 1/2	1554.7
5-6	1104.4	6-6	1332.9	7-6	1564.4
5-6 1/2	1113.8	6-6 1/2	1342.5	7-6 1/2	1574.1
5-7	1123.2	6-7	1352.1	7-7	1583.8
5-7 1/2	1132.7	6-7 1/2	1361.7	7-7 1/2	1593.4
5-8	1142.1	6-8	1371.3	7-8	1603.1
5-8 1/2	1151.5	6-8 1/2	1380.9	7-8 1/2	1612.9
5-9	1161.0	6-9	1390.6	7-9	1622.6
5-9 1/2	1170.5	6-9 1/2	1400.2	7-9 1/2	1632.3
5-10	1180.0	6-10	1409.8	7-10	1642.0

TABLE NO. 4

BARGE STICKEEN  
TABLE OF DRAFT VS. DISPLACEMENT - FRESHWATER

DRAFT FT.-IN.	SHORT TONS FRESHWATER	DRAFT FT.-IN.	SHORT TONS FRESHWATER	DRAFT FT.-IN.	SHORT TONS FRESHWATER
1-9	313.1	2-9 1/2	521.4	3-10	738.6
1-9 1/2	321.2	2-10	529.9	3-10 1/2	747.4
1-10	329.4	2-10 1/2	538.4	3-11	756.4
1-10 1/2	337.5	2-11	547.0	3-11 1/2	765.3
1-11	345.7	2-11 1/2	555.5	4-0	774.2
1-11 1/2	353.9	3-0	564.1	4-0 1/2	783.1
2-0	362.2	3-0 1/2	572.7	4-1	792.1
2-0 1/2	370.4	3-1	581.3	4-1 1/2	801.1
2-1	378.7	3-1 1/2	589.9	4-2	810.0
2-1 1/2	386.9	3-2	598.5	4-2 1/2	819.0
2-2	392.5	3-2 1/2	607.1	4-3	828.0
2-2 1/2	403.6	3-3	615.8	4-3 1/2	837.1
2-3	411.9	3-3 1/2	624.4	4-4	846.1
2-3 1/2	420.0	3-4	633.1	4-4 1/2	855.1
2-4	428.6	3-4 1/2	641.8	4-5	864.2
2-4 1/2	436.9	3-5	650.5	4-5 1/2	873.3
2-5	445.3	3-5 1/2	659.3	4-6	882.3
2-5 1/2	453.7	3-6	668.0	4-6 1/2	891.5
2-6	462.1	3-6 1/2	676.8	4-7	900.6
2-6 1/2	470.5	3-7	685.6	4-7 1/2	909.7
2-7	479.0	3-7 1/2	694.4	4-8	918.8
2-7 1/2	487.4	3-8	703.2	4-8 1/2	928.0
2-8	495.9	3-8 1/2	712.0	4-9	937.2
2-8 1/2	504.4	3-9	720.9	4-9 1/2	946.3
2-9	512.9	3-9 1/2	729.7	4-10	955.5