

Lloyd's Register of British & Foreign Shipping.

TURRET VESSEL. CALCULATION OF RESERVE BUOYANCY.

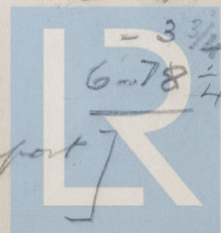
Name of Vessel *SS. "SHEAF BROOK"* Builder's Name *Burntisland S.B. Co. No. 123.*

REGISTERED DIMENSIONS				LENGTH <i>285.05'</i>				ASSUMED DRAUGHT IN CALCULATION (MOULDED) <i>18'-6 1/2"</i>							
				BREADTH <i>40.3'</i>				COMMON INTERVAL BETWEEN SECTIONS $\div 3 = 28.35 \div 3 = 9.45'$							
				DEPTH <i>23.0'</i>				MULTIPLIER FOR PLANIMETER READINGS $2 \times 16 = 32.0$							
LENGTH ON WATER LINE				<i>283'-6"</i>				DISPLACEMENT $9.45 \times \frac{2}{35} \times 32.0 = 17.28$							
BREADTH, MOULDED				<i>40'-2"</i>				TONS PER INCH $9.45 \times \frac{2}{1120} = .015$							
DEPTH, MOULDED				<i>19.5 + 6.0 Ards = 25.5'</i>				PERCENTAGE OF RESERVE BUOYANCY (AS PER TABLES) <i>29.27</i>							
<i>mod depth to use for frigid: 25.5 - 3 1/2 = 22'-1 1/2"</i>															
DISPLACEMENT BELOW ASSUMED W.L.				TONS PER INCH AT ASSUMED W.L.				DISPLACEMENT BETWEEN ASSUMED W.L. AND BASE OF TURRET.				DISPLACEMENT OF TURRET.			
No. of Section.	Planimeter Readings.	Multipliers.	Products.	No. of Section.	Ordinates.	Multipliers.	Products.	No. of Section.	Planimeter Readings.	Multipliers.	Products.	No. of Section.	Planimeter Readings.	Multipliers.	Products.
0	0	1/2	-	0	-	1/2	-	0	.75	1/2	.37				
1/2	1.77	2	3.54	1/2	4.9	2	15.8	1/2	2.20	2	4.40				
1	4.71	1	4.71	1	14.1	1	14.1	1	3.39	1	3.39				
1 1/2	7.58	2	15.16	1 1/2	14.7	2	35.4	1 1/2	4.05	2	8.10				
2	9.64	1 1/2	14.46	2	19.5	1 1/2	29.25	2	4.39	1 1/2	6.58				
3	11.25	4	45.00	3	20.08	4	80.32	3	4.54	4	18.16				
4	11.38	2	22.76	4	20.08	2	40.16	4	4.54	2	9.08				
5	11.38	4	45.52	5	20.08	4	80.32	5	4.54	4	18.16				
6	11.38	2	22.76	6	20.08	2	40.16	6	4.54	2	9.08				
7	11.33	4	45.32	7	20.08	4	80.32	7	4.54	4	18.16				
8	10.49	1 1/2	15.73	8	19.8	1 1/2	29.76	8	4.40	1 1/2	6.60				
8 1/2	8.76	2	17.52	8 1/2	18.0	2	36.00	8 1/2	4.16	2	8.32				
9	6.23	1	6.23	9	13.9	1	13.90	9	3.09	1	3.09				
9 1/2	2.86	2	5.72	9 1/2	4.5	2	15.0	9 1/2	1.55	2	3.10				
10	-	1/2	-	10	-	1/2	-	10	-	1/2	-				
Displacement Multiplier <i>264.43</i>				Tons per Inch Multiplier <i>510.43</i>				Displacement Multiplier <i>116.59</i>							
<i>17.238</i>				<i>10.45</i>				<i>17.238</i>							
<i>4633</i>				<i>32.97</i>				<i>20185</i>							
<i>4569</i>				<i>.16</i>				<i>14</i>							
Shell Plating Displacement <i>33</i>				Shell Plating <i>.16</i>				Shell Plating Displacement <i>14</i>							
Displacement below W.L. <i>4666</i>				TONS PER INCH <i>23.13</i>				Displacement between W.L. <i>20289</i>							
<i>4602</i>								and Base of Turret <i>20289</i>							
,, between W.L. <i>20289</i>								Percentage of Turret							
and Base of Turret								Total Displacement above W.L.							
Dispt. below Base of Turret <i>6691</i>								Reserve Buoyancy required <i>41</i>							
<i>6691</i>								by Tables <i>1958</i>							
Percentage of Turret <i>-</i>								DIFFERENCE <i>64</i>							
Total Displacement <i>6691</i>								Tons per Inch <i>23.13</i>							
Percentage Reserve Buoyancy <i>29.27</i>								Correction of W.L. <i>3.80 2.89 = -3" 3/4</i>							
RESERVE BUOYANCY <i>1958</i>															
REQUIRED BY TABLES <i>1941</i>															

DEPTH, MOULDED  
" " + THICKNESS OF IRON DECK  
DRAUGHT (MOULDED) ASSUMED IN CALCULATION  
FREEBOARD  
CORRECTION OF W.L., AS ABOVE

TABLE FREEBOARD

$$\Delta_c = \frac{4569 \times 35}{283.5 \times 40.17 \times 18.54} = .768$$



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[To be compared with Surveyor's report after checking lines]