

Table 2.1: Validation of the Weight Module and comparison of the original and the new expressions for the lightship weight [9]

(a): Specifications of the ships used for the validation and comparison

Ships	Loa	B	D	T	Vk
1	204.12	27.43	16.15	8.84	22.50
2	263.09	32.23	20.12	9.02	23.75
3	249.94	30.48	18.29	10.06	21.50
4	219.61	28.96	16.47	9.75	23.00
5	213.51	25.91	15.39	8.38	22.25
6	247.88	27.43	16.15	8.84	21.00
7	185.93	23.77	16.61	9.14	19.50

(b): Validation of the weight module and comparison of the original and the new expressions for the lightship weight

Ships	Hull Steel Weight (Metric Tons)			Total Outfitting Weight (Metric Tons)			Propulsion Machinery Weight (Metric Tons)			Lightship Weight (Metric Tons)		
	Actual value	Original value	New value	Actual value	Original value	New value	Actual value	Original value	New value	Actual value	Original value (% Diff.)	New value (% Diff.)
1	6949	8780	7190	2631	3320	2402	1077	2600	1344	10657	15142 (42.1)	11264 (5.7)
2	13004	15940	13720	3139	5606	3803	1829	3518	1861	19891	25816 (22.9)	19966 (0.4)
3	10037	13445	11148	3637	4743	3285	1280	2567	1326	8666	10305 (18.9)	8380 (3.3)
4	6827	8699	6809	1747	3159	2299	965	2364	1213	11652	14650 (25.7)	10631 (8.8)
5	10057	11631	8859	3759	3897	2764	1057	2179	1111	14873	18239 (22.6)	13117 (11.8)
6	4500	7013	5825	1808	2795	2065	843	1684	842	10606	11838 (11.6)	8995 (15.2)
7	16031	18700	16159	4419	6403	4274	1697	2120	1079	23284	28040 (20.4)	22157 (4.8)