

Calculations of Displacement &c. of the Composite Tea Clipper "Cutty Sark", built at Dumbarton by Messrs Scott & Linton in 1869, under the Special Survey of the Surveyors to Lloyd's Register of Shipping, and Classed + 16 A1.

THESE CALCULATIONS HAVE BEEN MADE FROM THE LINES OF THE VESSEL CONSTRUCTED FROM MEASUREMENTS AND PARTICULARS OF THE VESSEL OBTAINED WHILE IN DRY DOCK AT THE "UNION DOCKS" OF MESSRS FLETCHER, HON & FARNELL, LIMITED, LIMEHOUSE, LONDON, JANUARY 1922.

This paper of calculations is the property of the Committee of Lloyd's Register of Shipping, London.

No. of Sections.	Keel.	Water Line 1.				Water Line 2.				Water Line 3.				Water Line 20 ft.				Vertical Sections.			
		1	4	2	4	1	4	2	4	1	4	2	4	1	4	2	4	Areas.	Functions	Mult.	Moments.
Item 1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	4	7	2.8	1.0	4.0	1.5	6.0	2.3	9.2	3.4	13.6							20.3	81.2	1	81.2
2	2	7	1.4	2.2	4.4	3.6	7.2	5.2	10.4	6.7	13.4							44.2	88.4	2	176.8
3	4	7	2.8	3.5	14.0	6.2	24.8	8.2	32.8	9.7	38.8							69.6	278.4	3	835.2
4	2	7	1.4	5.2	10.4	8.9	17.8	11.1	22.2	12.4	24.8							96.1	192.2	4	768.8
5	4	7	2.8	7.0	28.0	11.4	45.6	13.5	54.0	14.4	57.6							119.9	479.6	5	2398.0
6	2	7	1.4	8.7	17.4	13.7	27.4	15.4	30.8	16.0	32.0							140.5	281.0	6	1686.0
7	4	7	2.8	10.3	41.2	15.3	61.2	16.6	66.4	16.8	67.2							155.7	622.8	7	4359.6
8	2	7	1.4	11.4	22.8	16.4	32.8	17.3	34.6	17.3	34.6							165.6	331.2	8	2649.6
9	4	7	2.8	12.3	49.2	17.1	68.4	17.7	70.8	17.5	70.0							172.4	689.6	9	6206.4
10	2	7	1.4	12.7	25.4	17.4	34.8	18.0	36.0	17.7	35.4							176.0	352.0	10	3520.0
11	4	7	2.8	12.6	50.4	17.3	69.2	18.0	72.0	17.7	70.8							175.4	701.6	11	7717.6
12	2	7	1.4	11.8	23.6	16.8	33.6	17.8	35.6	17.6	35.2							170.3	340.6	12	4087.2
13	4	7	2.8	10.4	41.6	15.8	63.2	17.4	69.6	17.4	69.6							160.9	643.6	13	8366.8
14	2	7	1.4	8.7	17.4	14.8	28.6	16.6	33.2	17.0	34.0							147.5	295.0	14	4130.0
15	4	7	2.8	7.0	28.0	12.2	48.8	15.2	60.8	16.4	65.6							130.3	521.2	15	7818.0
16	2	7	1.4	5.1	10.2	9.7	19.4	13.2	26.4	15.2	30.4							108.5	217.0	16	3472.0
17	4	7	2.8	3.4	13.6	6.8	27.2	10.4	41.6	13.4	53.6							82.9	331.6	17	5637.2
18	2	7	1.4	2.0	4.0	4.1	8.2	6.9	13.8	10.5	21.0							55.0	110.0	18	1980.0
19	4	7	2.8	1.0	4.0	1.9	7.6	3.3	13.2	6.3	25.2							28.0	112.0	19	2128.0
20	2	7	1.4	4.0	8.0	3.8	7.6	13.2	26.4	6.3	12.6							6.0	6.0	20	120.0

6675.4/10550.4 = 1.58	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
1106	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
632	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
7.426 =	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
Gen. of Buoy. below L.W.L.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
203.6 = Length of Keel.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
176.0	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
4.7	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
123.20	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
7040	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
3/827.20	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
275.733	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
2	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
551.466	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
1.43 = Keel 1.3 x 1.1	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
552.896 =	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
Area of Mid. Sec.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
73498.03	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
212 x 36 x 20	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
W.L. D. D.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
552.896	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
36.20	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
Area of L.M.L.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
5555.9	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
212 x 354	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
740 Coeff. of L.W.L.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
73498.03	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
212 x 36 x 20	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
W.L. D. D.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
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Area of L.M.L.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
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740 Coeff. of L.W.L.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
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W.L. D. D.	41.1	410.1	632.3	733.9	793.7	6675.4	4.7	10.207	467278	247016	3/31374.38	10458.126	10.5	52290680	10458126	3/109810.3230	36603.441	2	73206.882	291.148 = Keel.	7/73498.030	5/10499.718	2099.9436 =	Disp. at 20 ft. W.L.
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CUTTY SARK

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