

# MODULUS OF SECTION

NAME:— EUROPE .

Particulars of Vessel 465.0 x 62.0 x 34.25

DRAUGHT = 25.41

Normal Deck Plating.

Height of Assumed Axis above Keel 16.0

BELOW ASSUMED AXIS.								ABOVE ASSUMED AXIS.							
ITEM.	SCANTLING.	AREA.	h.	Ah.	Ah <sup>2</sup> .	d.	Ad <sup>2</sup> .	ITEM.	SCANTLING.	AREA.	h.	Ah.	Ah <sup>2</sup> .	d.	Ad <sup>2</sup> .
FLAT KEEL ...	27.5 x 98	27.00	16.0	431.3	6900	✓	✓	TOP DECK STRINGER	81.0 x .71	57.52	18.3	1064.2	19620	✓	
" " ...								" " " ANGLE:	7 x 7 x .71	9.44	18.4	173.7	3196	✓	
CENTRE GIRDER PLATE	55 x .21	11.55	13.7	158.3	2168	4.6	245	" " PLATING...	59 x .51	30.09	18.2	568.7	10730	✓	
" " BOTTOM ANGLES	✓		✓					2ND DECK STRINGER	86 x .71	61.06	19.2	1172.6	22515	✓	
" " TOP ANGLES	✓							" " " ANGLE ...	30 x .41	12.30	6.25	76.8	480	✓	
CENTRE TANK TOP...	186 x .73	135.80	11.33	1538.5	17430	✓	✓	" " PLATING	240 x .39	93.59	9.6	898.6	8626	20.0	37436
WING TANK TOP...	177 x .45	79.65	7.73	617.3	4784	7.25	4200	3RD DECK STRINGER	1 x 5.96	5.96	18.8	112.0	2110	✓	
MARGIN PLATE	29.5 x .43	12.69	4.1	52.0	213	✓	✓	" " " ANGLE ...							
" " ANGLES	✓							" " PLATING							
BOTTOM PLATING (C2)	180 x .65	117.00	15.2	1849.0	29210	✓	✓	4TH DECK STRINGER							
BILGE PLATING	74 x .65	51.07	14.25	727.6	10370	3.75	716	" " " ANGLE ...							
SIDE PLATING	153 x .65	99.46	6.1	606.7	3702	12.75	16180	" " PLATING							
TANK TOP PLATING...	142 x .65	97.98	15.7	1538.4	24150	✓	✓	SHEERSTRAKE	52.0 x .89	52.51	16.4	861.2	14123	4.92	1270
No. 1 SIDE STRINGER PLATE	57 x .51	29.07	13.5	392.5	5298	4.75	655	" " " ANGLE ...							
" " " ANGLES	111 x .43	47.73	4.25	202.9	862	9.25	4080	" " PLATING							
BOTTOM LONGS	5 x 13.55	67.76	15.25	1033.3	15760	✓		STRAKE BELOW SHEERSTRAKE							
No. 2 " " PLATE	11 x 10.25	112.74	12.17	1372.0	16700	✓		SHELL PLATING	180 x .65	117.00	7.2	842.4	6065	15.0	26400
INNER BOTTOM LONGS								SIDE STRINGER PLATE							
No. 3 " " PLATE								" " " ANGLES							
" " " ANGLES															
SIDE KEELSON PLATE															
" " TOP ANGLES															
" " BOTTOM "															
TOTALS BELOW ASSUMED AXIS.		889.50		10519.8	137547		26076	TOTALS ABOVE ASSUMED AXIS.		439.47		5770.2	87555		65106
								" " BELOW ASSUMED AXIS.		889.50		10519.8	137547		26076
								SUM OR DIFFERENCE		1328.97	3.574	4749.6	225102		91182
								Ad <sup>2</sup> /12					7600		7600

$f = 17.4$  or  $11^2$  Adm.  
 $f = 17.4 \times 25.41 \times 62.0 = 27,415$

SUMMARY.	
MOMENT OF INERTIA ABOUT ASSUMED AXIS	232702
NEUTRAL AXIS ABOVE BELOW ASSUMED AXIS (x)	3.574
TOTAL AREA x x <sup>2</sup>	16977
CORRECTED INERTIA (ONE SIDE ONLY) = (1)-(3)	215725
CORRECTED INERTIA (BOTH SIDES)	431450
VALUE OF "Y" AT HEEL GUNWALE BAR	2.824
MODULUS OF SECTION AT GUNWALE	9770
VALUE OF "Y" AT KEEL	12.426
MODULUS OF SECTION AT KEEL	

Initials \_\_\_\_\_

Date \_\_\_\_\_

N.B.—The assumed axis is to be taken below lowest deck. The Top Deck is the uppermost strength deck, and other decks are to be numbered from that deck.



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