

PRELIMINARY

For LONDON OFFICE ONLY

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received

Index No.

Govt. Copy

Owners C11

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
ASTILLEROS DE CADIZ				
Nº 47-48.				
Moulded Dimensions: Length Breadth Depth				
Freeboard Length 161.54				
Moulded displacement at moulded draught = 85 per cent. of moulded depth 28,820 metric tons				
(excluding bossing)				
Coefficient of fineness for use with Tables .794				

Port of Survey

Date of Survey 9.4.56

Surveyor's Signature

Particulars of Classification + 100 A1
C.R.I.B.

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	11.925	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	21.640 m.
Stringer plate	23	8.33 (11.948 - 10.770) 30 = + 294 mm.		Standard Round of Beam = $\frac{B \times 12}{50}$	433 mm.
Wood Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	435
$T \left(\frac{L-S}{L} \right) =$				Difference	+ 2 mm.
Depth for Freeboard (D) =	11.948	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S}{L} \right)$	$\frac{2}{4} \times 5760 = \text{NIL.}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV.	33.155	33.155	2360	-	33.155
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed EQUIV.	13.910	13.910	2360	-	13.910
" overhang aft					
" overhang forward					
F'cle enclosed	21.090	21.090	2360	-	21.090
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	68.155	68.155			68.155

Standard Height of Superstructure 2290 mm.

" " R.Q.D. ✓

Deduction for complete superstructure 1067 mm.

Percentage covered $\frac{S}{L} =$

" " $\frac{S_1}{L} =$ 42.20

" " $\frac{E}{L} =$

Percentage from Table, Line A. TANKER 33.20

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 1067 x .3320 = 354 mm.

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1600	1	1600	1603	1673	1	1673
$\frac{1}{2}$ L from A.P.	711	4	2844	200	202	4	808
$\frac{2}{5}$ L " "	178	2	356	0	0	2	0
Amidships	0	4	0	0	0	4	0
$\frac{2}{5}$ L from F.P.	356	2	712	0	0	2	0
$\frac{1}{2}$ L " "	1422	4	5688	545	545	4	2180
F.P.	3200	1	3200	2799	2799	1	2799
Total			14400				7460

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = } TANKER

" " aft of " = } DEFICIENT SHEERS.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{6940}{18} \left(.75 - \frac{2110}{539} \right) = + 208 \text{ mm.}$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 11.948

Summer freeboard = 2.746

Moulded draught (d) = 9.202

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.794 + .68}{1.36} = \frac{1.474}{1.36}$

Depth Correction ... 294

Deduction for superstructures ... 354

Sheer correction ... 208

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

502 354 + 148

Summer Freeboard = 2746

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	...	Tropical Fresh Water Freeboard	...
Fresh Water Line	"	Fresh Water	"
Tropical Line	"	Tropical	"
Winter Line	below	Winter	"
Winter North Atlantic Line	"	Winter North Atlantic	"

2746 mm.

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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Firecastle. 21090 to bhd.

Bridge. Length at side = 12.480 ✓
 $+ \left(\frac{2}{3} \times 2750 \right)$ = 1.833 ✓
 Equiv! = 14.313 $\times \frac{21.030}{21.640}$ = 13.910 ✓

Poop. Length at side = 31.855 ✓
 $+ \left(\frac{2}{3} \times 1950 \right)$ = 1.300 ✓
 Equiv! = 33.155 ✓

Sheers aft. Poop length at side = 31.855 ✓
 $\frac{4}{6} = \frac{161.54}{6}$ = $\frac{26.923}{4.932}$ ✓

Actual ht. of poop = 2360 ✓
 Stand? " " " = $\frac{2290}{70}$ ✓

Allowed sheer at AP = 1603 + 70 = 1673 mm.

Allowed sheer at $\frac{1}{6}L$ = $200 + \frac{70 \times 4.932^2}{31.855^2}$ = 200 + 2 = 202 mm.

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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